

3R-1011

**Release Report/ General
Correspondence**

Enterprise SJ

Date: Jan-Mar 2015

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

JAN 02 2015

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 K #7 Release Site	Facility Type: Natural Gas Gathering Line

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

Unit Letter H	Section 26	Township 27N	Range 8W	Feet from the 1805	North South Line	Feet from the 881	East West Line	County San Juan
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Latitude **36.54687**Longitude **-107.646825**

NATURE OF RELEASE

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release 225 MCF	Volume Recovered: None
Source of Release: Internal Corrosion	Date and Hour of Occurrence: 10/28/2014 @ 3:30 p.m.	Date and Hour of Discovery: 10/28/2014 @ 10:00 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy Notification to NMOCD – Cory Smith and BLM – Shari Ketchum	
By Whom? Thomas Long	Date and Hour 10/29/2014 @ 10:13 a.m.	
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: On October 28, 2014, a third party reported a leak on the Trunk K pipeline right of way. Technicians were dispatched to the location and the leak was confirmed. The line was isolated and de-pressurized and lock out tag out was applied. Repairs and remediation were completed on November 6, 2014. The final excavation dimensions measured approximately forty-four (44) feet long by fifteen (15) feet wide ranging from seven (7) to fourteen (14) feet deep. Approximately 215 cubic yards of hydrocarbon impacted soil was excavated and transported to a NMOCD approved land farm facility.

Describe Area Affected and Cleanup Action: On October 28, 2014, a third party reported a leak on the Trunk K pipeline right of way. Technicians were dispatched to the location and the leak was confirmed. The line was isolated and de-pressurized and lock out tag out was applied. Repairs and remediation were completed on November 6, 2014. The final excavation dimensions measured approximately forty-four (44) feet long by fifteen (15) feet wide ranging from seven (7) to fourteen (14) feet deep. Approximately 215 cubic yards of hydrocarbon impacted soil was excavated and transported to a 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 E Fields</i>	OIL CONSERVATION DIVISION	
Printed Name: Jon Fields	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Director, Environmental	Approval Date: 2/5/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 12-29-2014	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#NCS 1503648346

33



November 25, 2014

SMA #5122855

Mr. Tom Long
Enterprise Products
Field Environmental-San Juan Basin
614 Reilly Avenue
Farmington, NM 87401

OIL CONS. DIV DIST. 3

JAN 02 2015

**RE: LETTER REPORT SUMMARIZING REMEDIAL EXCAVATION ACTIVITIES AT THE
TRUNK K #7 PIPELINE RELEASE SITE, SAN JUAN COUNTY, NEW MEXICO**

Dear Mr. Long:

Souder, Miller & Associates (SMA) is pleased to submit this letter report summarizing sampling activities at the Trunk K #7 pipeline release site. The site is located in Unit H (SE ¼, NE ¼) Section 26, T27N, R8W, San Juan County, New Mexico located on land managed by the Bureau of Land Management (BLM).

1.0 SITE RANKING AND RELEASE HISTORY

The Trunk K #7 release was discovered on October 30, 2014 and was a result of internal corrosion of the sixteen inch natural gas pipeline. The Trunk K #7 release was one of seven releases along 7,000 linear feet of the Trunk K Pipeline, which are all documented in the Trunk K Pipeline Releases Report submitted to Enterprise on November 19, 2014. This letter report supplements the primary Trunk K Pipeline Release Report. A site vicinity map, illustrating the location of the seven releases is enclosed as Figure 1.

The release site is located on land owned by the Bureau of Land Management (BLM). After evaluation using aerial photography and topographic maps, depth to groundwater is estimated to be approximately 24 feet below ground surface (bgs). The release is located approximately 160 feet west of Largo Canyon Wash. A site map is enclosed as Figure 2.

SMA searched the New Mexico State Engineer's Office water well data base for water wells in the vicinity of the release. No wells were located within 1,000 feet and one well is located within a 1 mile radius of the site. The physical location of this site is within the jurisdiction of New Mexico Conservation Division (NMOCD). The release location has been assigned a NMOCD ranking of 40, which requires a soil remediation standard of 10 parts per million (ppm) benzene, 50 ppm benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and 100 ppm total petroleum hydrocarbons (TPH).

2.0 SUMMARY OF FIELD ACTIVITIES

SMA responded to the release on October 31, and November 4, 5, and 6, 2014 to conduct field screening using a properly calibrated photoionization detector (PID) and oversee excavation of contaminated soils conducted by Energy Maintenance Services (EMS). EMS repaired the pipeline using carbon fiber I-Wrap®. Field screening indicated that contaminated soils above applicable standards had been removed and that stockpiled soils from the central and eastern portions of the excavation were not suitable as backfill material.

The final excavation measured 44 feet long, 15 feet wide with depths ranging from 7 to 14 feet bgs. In total, approximately 215 cubic yards of contaminated soil was removed and replaced with clean backfill material. The contaminated soils were transported to Envirotech Landfarm, located near Bloomfield, NM. Soil disposal documentation is attached.

Closure sampling was scheduled with BLM and NMOCD on November 6, 2014 however, neither party was present to observe sampling event. Composite samples were collected from multiple sidewall sections and the base of the excavation. Samples were placed in laboratory provided glassware and submitted to Hall Environmental Analysis Laboratory in Albuquerque, NM for analysis via Method 8015 for gasoline and diesel range organics (GRO/DRO) and Method 8021 for benzene, toluene, ethylbenzene and xylene (BTEX). A contaminant concentration map is enclosed as Figure 3.

3.0 CONCLUSIONS AND RECOMMENDATIONS

NMOCD Guidelines for Remediation of Leaks, Spills, and Releases have established the following action levels for contaminants of concern with a site ranking of 40: 10 ppm benzene, 50 ppm total BTEX, and 100 ppm TPH. Laboratory results indicate that all samples were below NMOCD standards, and below laboratory detection limits, for all constituents of concern.

SMA recommends no additional action at the Trunk K #7 pipeline release site.

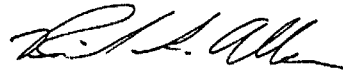
November 25, 2014

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

Sincerely,
Souder, Miller & Associates



Steve Moskal
Project Scientist



Reid S. Allan, P.G.
Principal Scientist

Attached:

Figure 1: Trunk K #1-#7 Release Site

Figure 2: Site Map


Figure 3: Contaminant Concentration Map

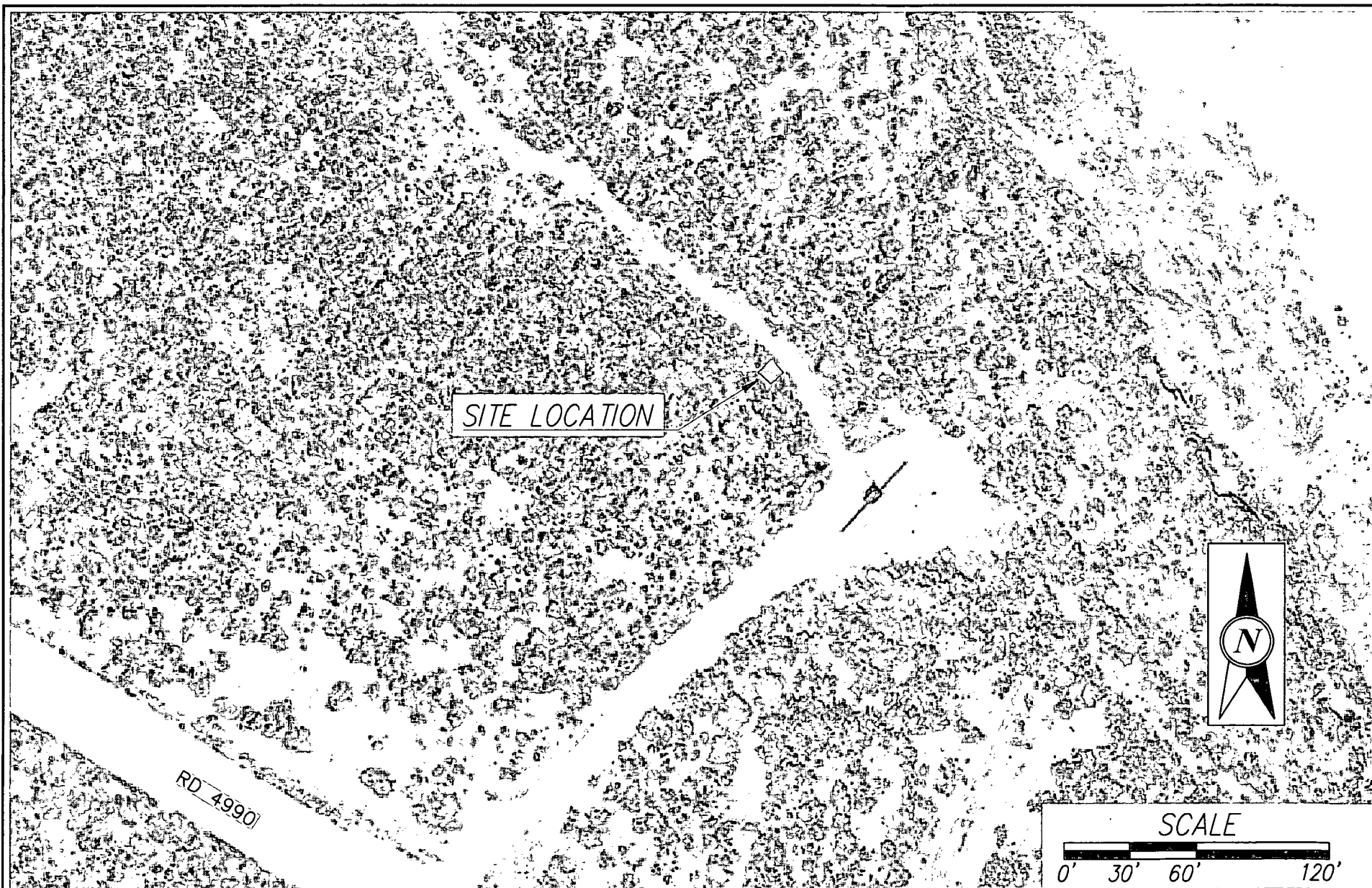
Appendix A: Soil Disposal Documentation: Completed C-138

Appendix B: Laboratory Report

FIGURES



 <p>SOUDER, MILLER & ASSOCIATES 401 West Broadway Avenue Farmington, NM 87401-5907 Phone (505) 325-7335 Toll-Free (800) 519-0098 Fax (505) 326-0045 www.soudermiller.com Serving the Southwest & Rocky Mountains Albuquerque, Carlsbad, Farmington, Las Cruces, Roswell, Santa Fe, NM • El Paso, TX Cortez • Grand Junction • Montrose, CO • Safford, AZ • Moab, UT</p>	ENTERPRISE FARMINGTON, NEW MEXICO		Designed SM	Drawn DJB	Checked RSA
	VICINITY MAP		Date: 11/24/2014		
	TRUNK K #1 THROUGH K #7		Scale: Horiz: 1"=2000'		
	SECTIONS 25 AND 26, T27N, R8W		Vert: N/A		
	SAN JUAN COUNTY, NEW MEXICO		Project No: 5122855		
			Sheet: 1		



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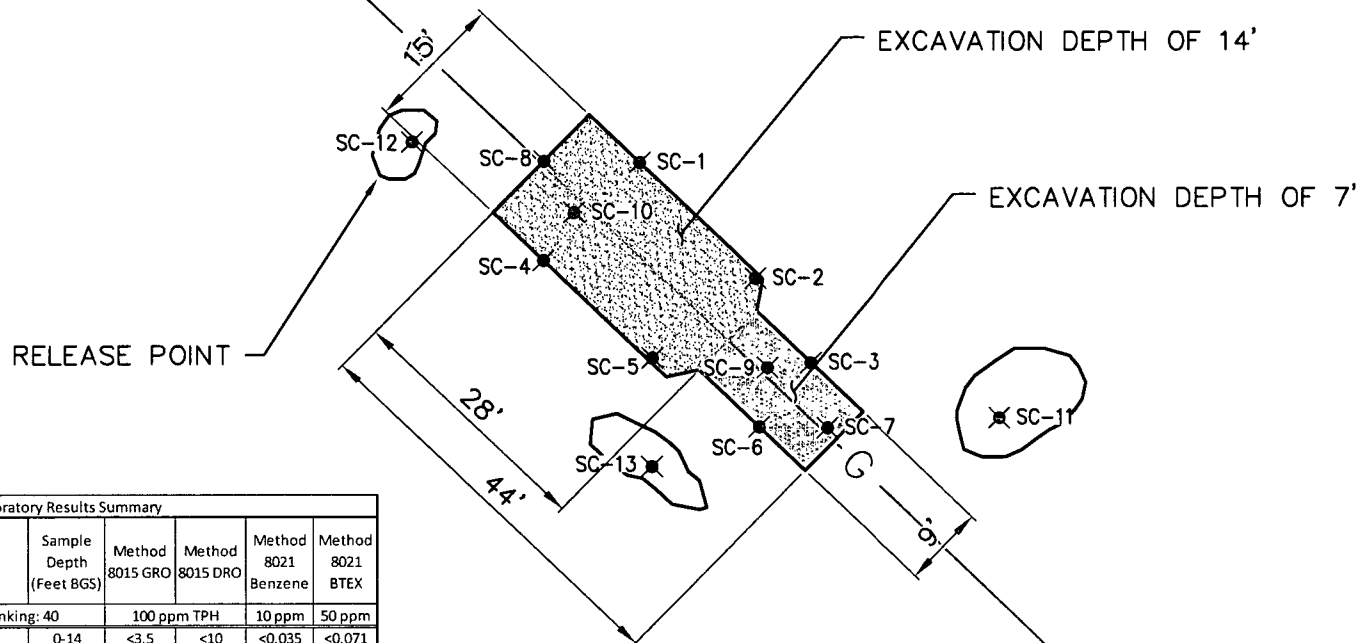
ENTERPRISE

FARMINGTON, NEW MEXICO

**SITE LOCATION MAP
TRUNK K #7
SECTION 26, T27N, R8W**

SAN JUAN COUNTY, NEW MEXICO

Designed SM	Drawn DJB	Checked RSA
Date: 11/21/14		
Scale: Horiz: 1"=80'		
Vert: N/A		
Project No: 5122855		
Figure: 2		



Trunk K #7 Laboratory Results Summary							
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: 40		100 ppm TPH		10 ppm	50 ppm
11/6/2014	10:01	SC-1 NW Wall	0-14	<3.5	<10	<0.035	<0.071
11/6/2014	10:03	SC-2 NC Wall	0-14	<3.6	<9.8	<0.036	<0.073
11/6/2014	10:05	SC-3 NE Wall	0-7	<3.2	<9.9	<0.032	<0.064
11/6/2014	10:09	SC-4 SW Wall	0-14	<3.4	<9.9	<0.034	<0.069
11/6/2014	10:11	SC-5 SC Wall	0-14	<3.5	<10	<0.035	<0.069
11/6/2014	10:15	SC-6 SE Wall	0-7	<3.4	<9.9	<0.034	<0.068
11/6/2014	10:18	SC-7 E Wall	0-7	<3.4	<10	<0.034	<0.068
11/6/2014	10:21	SC-8 W Wall	0-14	<3.5	<10	<0.035	<0.070
11/6/2014	10:23	SC-9 E Base	7	<3.4	<10	<0.034	<0.067
11/6/2014	10:26	SC-10 W Base	14	<3.4	<9.9	<0.034	<0.068
11/6/2014	10:29	SC-11 SP-1	-	<3.9	<10	<0.039	<0.078
11/6/2014	10:31	SC-12 SP-2	-	<3.9	<10	<0.039	<0.078
11/6/2014	10:35	SC-13 SP-3	-	<3.9	<9.9	<0.039	<0.077

LEGEND

✱ SOIL SAMPLE LOCATION

RESULTS IN mg/kg REPORTED 11-10-14



SOUDER, MILLER & ASSOCIATES
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ENTERPRISE

FARMINGTON, NEW MEXICO

SOIL CONTAMINANT CONCENTRATION MAP
TRUNK K #7
SECTION 26, T27N, R8W

SAN JUAN COUNTY, NEW MEXICO

Designed SM	Drawn DJB	Checked RSA
Date: 11/21/2014		
Scale: Horiz: 1"=10'		
Vert: N/A		
Project No: 5122855		
Figure: 3		

APPENDIX A
SOIL DISPOSAL DOCUMENTATION

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised 08/01/11
97057-0652
*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 Ave, Farmington NM 87401

Nov. 2014

2. Originating Site: Trunk K Pipeline #7 Release Site

3. Location of Material (Street Address, City, State or ULSTR):

Unit Letter G Section 26 Township 27 North Range 8 West, 36.54687, -107.646825, San Juan County

4. Source and Description of Waste:

Source: Natural Gas Pipeline Release

Description: Exempt petroleum affected soil from clean-up efforts at pipeline release.

Estimated Volume 100 yd³ Known Volume (to be entered by the operator at the end of the haul) 215 yd³

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Thomas Long, representative or authorized agent for Enterprise Field Services, LLC do hereby
Generator Signature

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)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency ☐ Monthly ☐ Weekly ☒ Per Load

☐ 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)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete
Generator Signature

the required testing/sign the Generator Waste Testing Certification.

I, Kendra Running, representative for Envirotech, Inc do hereby certify that
Representative/Agent Signature

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.

5. Transporter: BMS, B+B, Esparea, Envirotech, 3-D services

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011

Address of Facility: Hilltop, NM

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: Kendra Running
SIGNATURE: Kendra Running
Surface Waste Management Facility Authorized Agent

TITLE: Waste Coordinator DATE: 11/5/14
TELEPHONE NO.: 505-632-0615

APPENDIX B
LABORATORY REPORT



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

November 10, 2014

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

RE: Trunk K #7

OrderNo.: 1411263

Dear Shawna Chubbuck:

Hall Environmental Analysis Laboratory received 13 sample(s) on 11/7/2014 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 or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-1 NW Wall**Project:** Trunk K #7**Collection Date:** 11/6/2014 10:01:00 AM**Lab ID:** 1411263-001**Matrix:** MEOH (SOIL)**Received Date:** 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/7/2014 10:25:50 AM	16286
Surr: DNOP	115	63.5-128		%REC	1	11/7/2014 10:25:50 AM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	11/7/2014 10:42:21 AM	R22407
Surr: BFB	90.6	80-120		%REC	1	11/7/2014 10:42:21 AM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.035		mg/Kg	1	11/7/2014 10:42:21 AM	R22407
Toluene	ND	0.035		mg/Kg	1	11/7/2014 10:42:21 AM	R22407
Ethylbenzene	ND	0.035		mg/Kg	1	11/7/2014 10:42:21 AM	R22407
Xylenes, Total	ND	0.071		mg/Kg	1	11/7/2014 10:42:21 AM	R22407
Surr: 4-Bromofluorobenzene	95.5	80-120		%REC	1	11/7/2014 10:42:21 AM	R22407

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 1 of 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-2 NC Wall**Project:** Trunk K #7**Collection Date:** 11/6/2014 10:03:00 AM**Lab ID:** 1411263-002**Matrix:** MEOH (SOIL)**Received Date:** 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/7/2014 10:55:45 AM	16286
Surr: DNOP	119	63.5-128		%REC	1	11/7/2014 10:55:45 AM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	11/7/2014 11:10:59 AM	R22407
Surr: BFB	91.1	80-120		%REC	1	11/7/2014 11:10:59 AM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.036		mg/Kg	1	11/7/2014 11:10:59 AM	R22407
Toluene	ND	0.036		mg/Kg	1	11/7/2014 11:10:59 AM	R22407
Ethylbenzene	ND	0.036		mg/Kg	1	11/7/2014 11:10:59 AM	R22407
Xylenes, Total	ND	0.073		mg/Kg	1	11/7/2014 11:10:59 AM	R22407
Surr: 4-Bromofluorobenzene	95.9	80-120		%REC	1	11/7/2014 11:10:59 AM	R22407

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 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-3 NE Wall

Project: Trunk K #7

Collection Date: 11/6/2014 10:05:00 AM

Lab ID: 1411263-003

Matrix: MEOH (SOIL)

Received Date: 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/7/2014 1:16:34 PM	16286
Surr: DNOP	128	63.5-128	S	%REC	1	11/7/2014 1:16:34 PM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	11/7/2014 11:39:33 AM	R22407
Surr: BFB	91.4	80-120		%REC	1	11/7/2014 11:39:33 AM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.032		mg/Kg	1	11/7/2014 11:39:33 AM	R22407
Toluene	ND	0.032		mg/Kg	1	11/7/2014 11:39:33 AM	R22407
Ethylbenzene	ND	0.032		mg/Kg	1	11/7/2014 11:39:33 AM	R22407
Xylenes, Total	ND	0.064		mg/Kg	1	11/7/2014 11:39:33 AM	R22407
Surr: 4-Bromofluorobenzene	95.4	80-120		%REC	1	11/7/2014 11:39:33 AM	R22407

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 3 of 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-4 SW Wall

Project: Trunk K #7

Collection Date: 11/6/2014 10:09:00 AM

Lab ID: 1411263-004

Matrix: MEOH (SOIL)

Received Date: 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/7/2014 1:46:57 PM	16286
Surr: DNOP	119	63.5-128		%REC	1	11/7/2014 1:46:57 PM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	11/7/2014 12:08:13 PM	R22407
Surr: BFB	95.5	80-120		%REC	1	11/7/2014 12:08:13 PM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	11/7/2014 12:08:13 PM	R22407
Toluene	ND	0.034		mg/Kg	1	11/7/2014 12:08:13 PM	R22407
Ethylbenzene	ND	0.034		mg/Kg	1	11/7/2014 12:08:13 PM	R22407
Xylenes, Total	ND	0.069		mg/Kg	1	11/7/2014 12:08:13 PM	R22407
Surr: 4-Bromofluorobenzene	97.5	80-120		%REC	1	11/7/2014 12:08:13 PM	R22407

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-5 SC Wall

Project: Trunk K #7

Collection Date: 11/6/2014 10:11:00 AM

Lab ID: 1411263-005

Matrix: MEOH (SOIL)

Received Date: 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/7/2014 1:21:05 PM	16286
Surr: DNOP	92.0	63.5-128		%REC	1	11/7/2014 1:21:05 PM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	11/7/2014 12:36:57 PM	R22407
Surr: BFB	91.0	80-120		%REC	1	11/7/2014 12:36:57 PM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.035		mg/Kg	1	11/7/2014 12:36:57 PM	R22407
Toluene	ND	0.035		mg/Kg	1	11/7/2014 12:36:57 PM	R22407
Ethylbenzene	ND	0.035		mg/Kg	1	11/7/2014 12:36:57 PM	R22407
Xylenes, Total	ND	0.069		mg/Kg	1	11/7/2014 12:36:57 PM	R22407
Surr: 4-Bromofluorobenzene	93.4	80-120		%REC	1	11/7/2014 12:36:57 PM	R22407

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 5 of 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-6 SE Wall**Project:** Trunk K #7**Collection Date:** 11/6/2014 10:15:00 AM**Lab ID:** 1411263-006**Matrix:** MEOH (SOIL)**Received Date:** 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/7/2014 3:31:02 PM	16286
Surr: DNOP	88.3	63.5-128		%REC	1	11/7/2014 3:31:02 PM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	11/7/2014 1:05:36 PM	R22407
Surr: BFB	91.0	80-120		%REC	1	11/7/2014 1:05:36 PM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	11/7/2014 1:05:36 PM	R22407
Toluene	ND	0.034		mg/Kg	1	11/7/2014 1:05:36 PM	R22407
Ethylbenzene	ND	0.034		mg/Kg	1	11/7/2014 1:05:36 PM	R22407
Xylenes, Total	ND	0.068		mg/Kg	1	11/7/2014 1:05:36 PM	R22407
Surr: 4-Bromofluorobenzene	94.2	80-120		%REC	1	11/7/2014 1:05:36 PM	R22407

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 6 of 18
	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 1411263

Date Reported: 11/10/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-7 E Wall

Project: Trunk K #7

Collection Date: 11/6/2014 10:18:00 AM

Lab ID: 1411263-007

Matrix: MEOH (SOIL)

Received Date: 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/7/2014 2:04:32 PM	16286
Surr: DNOP	101	63.5-128		%REC	1	11/7/2014 2:04:32 PM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	11/7/2014 1:34:16 PM	R22407
Surr: BFB	91.4	80-120		%REC	1	11/7/2014 1:34:16 PM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	11/7/2014 1:34:16 PM	R22407
Toluene	ND	0.034		mg/Kg	1	11/7/2014 1:34:16 PM	R22407
Ethylbenzene	ND	0.034		mg/Kg	1	11/7/2014 1:34:16 PM	R22407
Xylenes, Total	ND	0.068		mg/Kg	1	11/7/2014 1:34:16 PM	R22407
Surr: 4-Bromofluorobenzene	93.6	80-120		%REC	1	11/7/2014 1:34:16 PM	R22407

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 7 of 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-8 W Wall**Project:** Trunk K #7**Collection Date:** 11/6/2014 10:21:00 AM**Lab ID:** 1411263-008**Matrix:** MEOH (SOIL)**Received Date:** 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/7/2014 10:49:22 AM	16286
Surr: DNOP	130	63.5-128	S	%REC	1	11/7/2014 10:49:22 AM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	11/7/2014 2:02:59 PM	R22407
Surr: BFB	90.9	80-120		%REC	1	11/7/2014 2:02:59 PM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.035		mg/Kg	1	11/7/2014 2:02:59 PM	R22407
Toluene	ND	0.035		mg/Kg	1	11/7/2014 2:02:59 PM	R22407
Ethylbenzene	ND	0.035		mg/Kg	1	11/7/2014 2:02:59 PM	R22407
Xylenes, Total	ND	0.070		mg/Kg	1	11/7/2014 2:02:59 PM	R22407
Surr: 4-Bromofluorobenzene	96.3	80-120		%REC	1	11/7/2014 2:02:59 PM	R22407

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 8 of 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-9 E Base

Project: Trunk K #7

Collection Date: 11/6/2014 10:23:00 AM

Lab ID: 1411263-009

Matrix: MEOH (SOIL)

Received Date: 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/7/2014 11:10:49 AM	16286
Surr: DNOP	123	63.5-128		%REC	1	11/7/2014 11:10:49 AM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	11/7/2014 2:31:35 PM	R22407
Surr: BFB	92.2	80-120		%REC	1	11/7/2014 2:31:35 PM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	11/7/2014 2:31:35 PM	R22407
Toluene	ND	0.034		mg/Kg	1	11/7/2014 2:31:35 PM	R22407
Ethylbenzene	ND	0.034		mg/Kg	1	11/7/2014 2:31:35 PM	R22407
Xylenes, Total	ND	0.067		mg/Kg	1	11/7/2014 2:31:35 PM	R22407
Surr: 4-Bromofluorobenzene	95.2	80-120		%REC	1	11/7/2014 2:31:35 PM	R22407

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 9 of 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-10 W Base**Project:** Trunk K #7**Collection Date:** 11/6/2014 10:26:00 AM**Lab ID:** 1411263-010**Matrix:** MEOH (SOIL)**Received Date:** 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/7/2014 11:33:07 AM	16286
Surr: DNOP	98.7	63.5-128		%REC	1	11/7/2014 11:33:07 AM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	11/7/2014 3:00:16 PM	R22407
Surr: BFB	92.0	80-120		%REC	1	11/7/2014 3:00:16 PM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	11/7/2014 3:00:16 PM	R22407
Toluene	ND	0.034		mg/Kg	1	11/7/2014 3:00:16 PM	R22407
Ethylbenzene	ND	0.034		mg/Kg	1	11/7/2014 3:00:16 PM	R22407
Xylenes, Total	ND	0.068		mg/Kg	1	11/7/2014 3:00:16 PM	R22407
Surr: 4-Bromofluorobenzene	94.7	80-120		%REC	1	11/7/2014 3:00:16 PM	R22407

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 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-11 SP-1**Project:** Trunk K #7**Collection Date:** 11/6/2014 10:29:00 AM**Lab ID:** 1411263-011**Matrix:** MEOH (SOIL)**Received Date:** 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/7/2014 11:54:42 AM	16286
Surr: DNOP	90.4	63.5-128		%REC	1	11/7/2014 11:54:42 AM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	11/7/2014 10:40:10 AM	R22405
Surr: BFB	99.1	80-120		%REC	1	11/7/2014 10:40:10 AM	R22405
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.039		mg/Kg	1	11/7/2014 10:40:10 AM	R22405
Toluene	ND	0.039		mg/Kg	1	11/7/2014 10:40:10 AM	R22405
Ethylbenzene	ND	0.039		mg/Kg	1	11/7/2014 10:40:10 AM	R22405
Xylenes, Total	ND	0.078		mg/Kg	1	11/7/2014 10:40:10 AM	R22405
Surr: 4-Bromofluorobenzene	127	80-120	S	%REC	1	11/7/2014 10:40:10 AM	R22405

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 11 of 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-12 SP-2**Project:** Trunk K #7**Collection Date:** 11/6/2014 10:31:00 AM**Lab ID:** 1411263-012**Matrix:** MEOH (SOIL)**Received Date:** 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/7/2014 12:16:08 PM	16286
Surr: DNOP	83.9	63.5-128		%REC	1	11/7/2014 12:16:08 PM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	11/7/2014 11:07:36 AM	R22405
Surr: BFB	97.6	80-120		%REC	1	11/7/2014 11:07:36 AM	R22405
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.039		mg/Kg	1	11/7/2014 11:07:36 AM	R22405
Toluene	ND	0.039		mg/Kg	1	11/7/2014 11:07:36 AM	R22405
Ethylbenzene	ND	0.039		mg/Kg	1	11/7/2014 11:07:36 AM	R22405
Xylenes, Total	ND	0.078		mg/Kg	1	11/7/2014 11:07:36 AM	R22405
Surr: 4-Bromofluorobenzene	124	80-120	S	%REC	1	11/7/2014 11:07:36 AM	R22405

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 12 of 18
	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 1411263

Date Reported: 11/10/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-13 SP-3

Project: Trunk K #7

Collection Date: 11/6/2014 10:35:00 AM

Lab ID: 1411263-013

Matrix: MEOH (SOIL)

Received Date: 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/7/2014 12:37:47 PM	16286
Surr: DNOP	88.1	63.5-128		%REC	1	11/7/2014 12:37:47 PM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	11/7/2014 11:35:02 AM	R22405
Surr: BFB	98.3	80-120		%REC	1	11/7/2014 11:35:02 AM	R22405
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.039		mg/Kg	1	11/7/2014 11:35:02 AM	R22405
Toluene	ND	0.039		mg/Kg	1	11/7/2014 11:35:02 AM	R22405
Ethylbenzene	ND	0.039		mg/Kg	1	11/7/2014 11:35:02 AM	R22405
Xylenes, Total	ND	0.077		mg/Kg	1	11/7/2014 11:35:02 AM	R22405
Surr: 4-Bromofluorobenzene	122	80-120	S	%REC	1	11/7/2014 11:35:02 AM	R22405

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 13 of 18
	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#: 1411263

10-Nov-14

Client: Souder, Miller and Associates

Project: Trunk K #7

Sample ID	MB-16286	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	16286	RunNo:	22398					
Prep Date:	11/7/2014	Analysis Date:	11/7/2014	SeqNo:	660175	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		104	63.5	128			

Sample ID	LCS-16286	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	16286	RunNo:	22398					
Prep Date:	11/7/2014	Analysis Date:	11/7/2014	SeqNo:	660176	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.5	68.6	130			
Surr: DNOP	4.6		5.000		92.5	63.5	128			

Sample ID	1411263-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-1 NW Wall	Batch ID:	16286	RunNo:	22401					
Prep Date:	11/7/2014	Analysis Date:	11/7/2014	SeqNo:	660245	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	9.8	49.21	0	96.2	29.2	176			
Surr: DNOP	4.3		4.921		87.5	63.5	128			

Sample ID	1411263-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-1 NW Wall	Batch ID:	16286	RunNo:	22401					
Prep Date:	11/7/2014	Analysis Date:	11/7/2014	SeqNo:	661003	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.8	49.07	0	97.0	29.2	176	0.519	23	
Surr: DNOP	4.3		4.907		87.6	63.5	128	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#: 1411263

10-Nov-14

Client: Souder, Miller and Associates

Project: Trunk K #7

Sample ID	MB-16279 MK		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	R22407		RunNo:	22407				
Prep Date:			Analysis Date:	11/7/2014		SeqNo:	660420		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	900		1000		90.3	80	120				

Sample ID	LCS-16279 MK		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: R22407		RunNo: 22407					
Prep Date:			Analysis Date: 11/7/2014		SeqNo: 660421		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	65.8	139			
Surr: BFB	980		1000		98.1	80	120			

Sample ID	5ML RB		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	R22405		RunNo:	22405				
Prep Date:			Analysis Date:	11/7/2014		SeqNo:	660539		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	ND	5.0									
Surr: BFB	880		1000		88.4	80	120				

Sample ID	2.5UG GRO LCS	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID: R22405			RunNo: 22405					
Prep Date:		Analysis Date: 11/7/2014			SeqNo: 660540		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	92.3	65.8	139			
Surr: BFB	920		1000		92.1	80	120			

Sample ID	1411263-011AMS		SampType:	MS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	SC-11 SP-1		Batch ID:	R22405		RunNo:	22405				
Prep Date:			Analysis Date:	11/7/2014		SeqNo:	660541		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	18	3.9	19.53	0	89.6	71.8	132				
Surr: BFB	800		781.3		102	80	120				

Sample ID	1411263-011AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	SC-11 SP-1		Batch ID: R22405		RunNo: 22405					
Prep Date:			Analysis Date: 11/7/2014		SeqNo: 660542		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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#: 1411263

10-Nov-14

Client: Souder, Miller and Associates

Project: Trunk K #7

Sample ID	1411263-011AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-11 SP-1	Batch ID:	R22405	RunNo:	22405					
Prep Date:		Analysis Date:	11/7/2014	SeqNo:	660542	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	3.9	19.53	0	89.4	71.8	132	0.268	20	
Surr: BFB	820		781.3		105	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#: 1411263

10-Nov-14

Client: Souder, Miller and Associates

Project: Trunk K #7

Sample ID	MB-16279 MK		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: R22407		RunNo: 22407					
Prep Date:			Analysis Date: 11/7/2014		SeqNo: 660504		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		94.5	80	120			

Sample ID	LCS-16279 MK		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: R22407		RunNo: 22407					
Prep Date:			Analysis Date: 11/7/2014		SeqNo: 660505		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.050	1.000	0	95.4	80	120			
Toluene	0.96	0.050	1.000	0	96.3	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.3	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.9	80	120			
Surr: 4-Bromofluorobenzene	0.99		1.000		99.5	80	120			

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID: R22405			RunNo: 22405					
Prep Date:		Analysis Date: 11/7/2014			SeqNo: 660558		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		109	80	120			

Sample ID	100NG BTEX LCS		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: R22405		RunNo: 22405					
Prep Date:			Analysis Date: 11/7/2014		SeqNo: 660559		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	112	80	120			
Toluene	1.2	0.050	1.000	0	115	80	120			
Ethylbenzene	1.2	0.050	1.000	0	116	80	120			
Xylenes, Total	3.5	0.10	3.000	0	117	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| 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#: 1411263

10-Nov-14

Client: Souder, Miller and Associates

Project: Trunk K #7

Sample ID	1411263-012AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	SC-12 SP-2		Batch ID:	R22405		RunNo:	22405				
Prep Date:			Analysis Date:	11/7/2014		SeqNo:	660560		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.82	0.039	0.7752	0	106	77.4	142				
Toluene	0.87	0.039	0.7752	0.007287	111	77	132				
Ethylbenzene	0.93	0.039	0.7752	0	120	77.6	134				
Xylenes, Total	2.8	0.078	2.326	0.01698	121	77.4	132				
Surr: 4-Bromofluorobenzene	1.0		0.7752		129	80	120			S	

Sample ID	1411263-012AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	SC-12 SP-2		Batch ID:	R22405		RunNo:	22405				
Prep Date:			Analysis Date:	11/7/2014		SeqNo:	660561		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.81	0.039	0.7752	0	104	77.4	142	2.04	20		
Toluene	0.84	0.039	0.7752	0.007287	108	77	132	2.93	20		
Ethylbenzene	0.91	0.039	0.7752	0	118	77.6	134	1.45	20		
Xylenes, Total	2.8	0.078	2.326	0.01698	120	77.4	132	1.18	20		
Surr: 4-Bromofluorobenzene	1.0		0.7752		130	80	120	0	0	S	

Qualifiers:

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

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



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

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1411263

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

11/7/2014 7:00:00 AM

Completed By: Lindsay Mangin

11/7/2014 7:27:47 AM

Reviewed By:

11/7/14

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐
- # of preserved bottles checked for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

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

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

17. Additional remarks:

18. Cooler Information

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

Chain-of-Custody Record

Client: SMA

Mailing Address: 401 W Broadway

Farmington, NM, 87401

Phone #: 505 325 7535

Email or Fax#: Steve.Moskal@soudonillr.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☐ Standard ☒ Rush Same Day

Project Name:

Trunk K #7

Project #:

5122855 3G

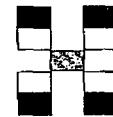
Project Manager:

Steve Moskal

Sampler: J. Sprague

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.3



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

HEAL NO	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO/DRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
1411263	X	X									
-001	X	X									
-002	X	X									
-003	X	X									
-004	X	X									
-005	X	X									
-006	X	X									
-007	X	X									
-008	X	X									
-009	X	X									
-010	X	X									
-011	X	X									
-012	X	X									

Date: 1/6/14 Time: 1515 Relinquished by: J. Sprague

Received by: Chris Waters Date: 1/6/14 Time: 1515

Remarks: Invoice Enterprise

Date: 1/6/14 Time: 1700 Relinquished by: Christina Waters

Received by: [Signature] Date: 1/07/14 Time: 0700

Please copy Jesse Sprague @ soudonillr.com

Alicia Patterson @ soudonillr.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.

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

OIL CONS. DIV DIST. 3

DEC 29 2014

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: Ludwick LS#18 Release Site	Facility Type: Natural Gas Gathering Line

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

Unit Letter E	Section 5	Township 29N	Range 12W	Feet from the 1584	North/South Line	Feet from the 823	East/West Line	County San Juan
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Latitude 36.756889 Longitude -107.913914

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: 12/9/2014 @ 2:00 a.m.	Date and Hour of Discovery: 12/9/2014 @ 4:05 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy to NMOCD - Cory Smith and BLM - Shari Ketchum	
By Whom? Thomas Long	Date and Hour 12/16/2014 @ 1:55 p.m.	
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: On December 9, 2014, Enterprise technicians confirmed a leak on the Ludwick LS #18 pipeline. The line was isolated and de-pressurized and lock out tag out was applied. Repairs and remediation were completed December 19, 2014. A third party environmental contractor oversaw excavation activities and collected closure samples during repair activities

Describe Area Affected and Cleanup Action: On October 29, 2014, On December 9, 2014, Enterprise technicians confirmed a leak on the Ludwick LS #18 pipeline. The line was isolated and de-pressurized and lock out tag out was applied. Repairs and remediation were completed December 19, 2014. A third party environmental contractor oversaw excavation activities and collected closure samples during repair activities. 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: <i>Jon Fields</i>	OIL CONSERVATION DIVISION	
Printed Name: Jon Fields	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Director, Environmental	Approval Date: 2/6/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 12-22-2014	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#1503738704
hcs

①

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

RECEIVED

MSD-0012015
Submitted in accordance

NMOC

DIST

Form C-141
Revised August 8, 2011

Submit Copy to appropriate District Office
by 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 K - Five Release Sites	Facility Type: Natural Gas Gathering Line	
Surface Owner: BLM	Mineral Owner: BLM	API No.

LOCATION OF RELEASE

Unit Letter B, H, N	Section 25/26	Township 27N	Range 8W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
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Latitude See Below Longitude See Below

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: 2/18/2015 @ 2:00 p.m.	Date and Hour of Discovery: 2/18/2015 @ 4:00 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy Notification: Cory Smith - NMOC and Shari Ketcham - BLM	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On February 18, 2015, during a routine leak survey, Enterprise discovered five (5) new releases on the Trunk K pipeline. The pipeline was isolated and de-pressurized and lock out tag out was applied. No surface impacts were observed at any of the release locations. The GPS location for each site is the following: 36.549537, -107.649872, 36.544737, -107.644162, 36.539889, -107.636994, 36.538368, -107.636994 and 36.538072, -107.636657,

Describe Area Affected and Cleanup Action Taken: On February 18, 2015, during a routine leak survey, Enterprise discovered five (5) new releases on the Trunk K pipeline. The pipeline was isolated and de-pressurized and lock out tag out was applied. No surface impacts were observed at any of the release locations. The GPS location for each site is the following: 36.549537, -107.649872, 36.544737, -107.644162, 36.539889, -107.636994, 36.538368, -107.636994 and 36.538072, -107.636657. A third party environmental contractor will oversee excavation activities and collect closure sample during repair activities. 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 NMOC 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 NMOC 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, NMOC 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 E. Fields	Approved by Environmental Specialist: <i>Carly Smith</i>	
Title: Director, Environmental	Approval Date: 3/13/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 2-3-2015	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#NCS 150 725 3264

①

District I
1625 N. French Dr., Hobbs, NM 88240
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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: Madsen Gas Com #1E	Facility Type: Natural Gas Gathering Pipeline	
Surface Owner: Private	Mineral Owner: BLM	API No.

LOCATION OF RELEASE

Unit Letter C	Section 28	Township 29N	Range 11W	Feet from the 1175	North South Line	Feet from the 1408	East West Line	County San Juan
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Latitude 36.70080 Longitude -108.00131

NATURE OF RELEASE

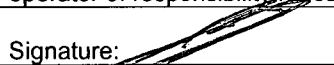
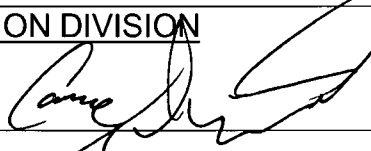
Type of Release: Natural Gas Liquids	Volume of Release Unknown	Volume Recovered: None
Source of Release: Internal Corrosion	Date and Hour of Occurrence: 2/5/2015 @ 10:35 a.m.	Date and Hour of Discovery: 2/5/2015 @ 11:20 a.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy Notification – Cory Smith - NMOCD	
By Whom? Thomas Long	Date and	
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: On February 5, 2015, a third party reported a leak on the Madsen Gas Com #1E pipeline. Enterprise Technicians were dispatched and confirmed the leak. The pipeline was isolated, de-pressurized and lock out tag out was applied. Repairs and remediation began on February 5, 2015. As remediation activities progressed, the county road was blocked by the excavation and the excavation was backfilled as a safety precaution. A third party environmental contractor oversaw excavation activities and collected soil and groundwater samples. Groundwater impacts were confirmed and additional remediation will be required.

Describe Area Affected and Cleanup Action: On February 5, 2015, a third party reported a leak on the Madsen Gas Com #1E pipeline. Enterprise Technicians were dispatched and confirmed the leak. The pipeline was isolated, de-pressurized and lock out tag out was applied. Repairs and remediation began on February 5, 2015. As remediation activities progressed, the county road was blocked by the excavation and the excavation was backfilled as a safety precaution. A third party environmental contractor oversaw excavation activities and collected soil and groundwater samples. Groundwater impacts were confirmed and additional remediation will be required. 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: 	OIL CONSERVATION DIVISION	
Printed Name: Ivan Zirbes	Approved by Environmental Specialist: 	
Title: Sr. Director, Environmental	Approval Date: <u>3/13/15</u>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>2-28-2015</u>	Phone: (713) 381-6595	

* Attach Additional Sheets If Necessary

#NCS 150 72 52 223

①

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
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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: Brookhaven A2 Release Site	Facility Type: Natural Gas Gathering Line

Surface Owner: Navajo	Mineral Owner: Navajo	API No.
-----------------------	-----------------------	---------

LOCATION OF RELEASE

Unit Letter K	Section 29	Township 29N	Range 10W	Feet from the 1668	North <u>South</u> Line	Feet from the 2211	East <u>West</u> Line	County San Juan
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Latitude 36.369369 Longitude -107.921338

NATURE OF RELEASE

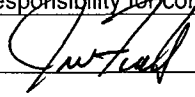
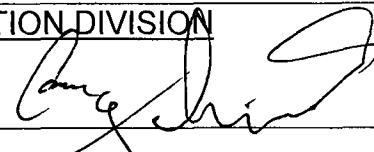
Type of Release: Natural Gas	Volume of Release: Unknown	Volume Recovered: Unknown
Source of Release: Internal Corrosion	Date and Hour of Occurrence: 1/18/2015 @ 9:34 a.m.	Date and Hour of Discovery: 1/18/2015 @ 9:34 a.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On January 18, 2015, Enterprise technicians confirmed a leak on Brookhaven A2 pipeline. The pipeline was isolated, de-pressurized and lock out tag out was applied. Repairs and remediation are scheduled for February 2, 2015. A third party environmental contractor will oversee excavation activities and collected closure samples.

Describe Area Affected and Cleanup Action: On January 18, 2015, Enterprise technicians confirmed a leak on Brookhaven A2 pipeline. The pipeline was isolated, de-pressurized and lock out tag out was applied. Repairs and remediation are scheduled for February 2, 2015. A third party environmental contractor will oversee excavation activities and collected closure samples. 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: 	OIL CONSERVATION DIVISION	
Printed Name: Jon Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: 3/13/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 1/28/2015	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#NCS 150 72 48 45 9

①

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

RECEIVED

JAN 16 2015

NMOCD

DISTRICT III

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: Santa Rosa 8#2 Release Site	Facility Type: Natural Gas Gathering Line

Surface Owner: BLM	Mineral Owner: BLM	API No.
--------------------	--------------------	---------

LOCATION OF RELEASE

Unit Letter N	Section 8	Township 29N	Range 9W	Feet from the 1169	North South Line	Feet from the 2123	East West Line	County San Juan
------------------	--------------	-----------------	-------------	--------------------------	--------------------------------	--------------------------	------------------------------	--------------------

Latitude 36.735596 Longitude -107.803623

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: 12/30/2014 @ 8:12 a.m.	Date and Hour of Discovery: 12/30/2014 @ 10:12 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy to NMOCD - Cory Smith and BLM - Shari Ketchum	
By Whom? Thomas Long	Date and Hour 1/5/2015 @ 3:15 p.m.	
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: On December 30, 2014, Enterprise technicians confirmed a leak on the Santa Rosa 8#2 pipeline. The line was isolated and de-pressurized and lock out tag out was applied. Area of soil staining or approximately four (4) feet by four (4) feet was observed on the ground surface.. A third party environmental contractor will oversee excavation activities and collected closure samples during repair activities.

Describe Area Affected and Cleanup Action On December 30, 2014, Enterprise technicians confirmed a leak on the Santa Rosa 8#2 pipeline. The line was isolated and de-pressurized and lock out tag out was applied. Area of soil staining or approximately four (4) feet by four (4) feet was observed on the ground surface.. A third party environmental contractor will oversee excavation activities and collected closure samples during repair activities. 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: <i>Jon Fields</i>	OIL CONSERVATION DIVISION	
Printed Name: Jon Fields	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Director, Environmental	Approval Date: 3/13/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 1-12-2015 Phone: (713)381-6684		

* Attach Additional Sheets If Necessary

#NCS 150 72413 14

①

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: Payne #221 Well Tie	Facility Type: Well Tie/Gathering Line

Surface Owner: Private	Mineral Owner: BLM	API No.
------------------------	--------------------	---------

LOCATION OF RELEASE

Unit Letter C	Section 22	Township 32N	Range 10W	Feet from the 77	North South Line	Feet from the 970	East West Line	County San Juan
-------------------------	----------------------	------------------------	---------------------	-------------------------------	--------------------------------	--------------------------------	------------------------------	---------------------------

Latitude **36.977664**

Longitude **-107.874914**

OIL CONS. DIV DIST. 3

NATURE OF RELEASE

DEC 08 2014

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: 14.36 MCF	Volume Recovered: None
Source of Release: Internal Corrosion	Date and Hour of Occurrence: 1/22/2014 @ 10:30 a.m.	Date and Hour of Discovery: 1/22/2014 @ 10:30 a.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy Notification to Jonathon Kelly - NMOCD	
By Whom? Thomas Long	Date and Hour: 1/24/2014 @ 11:37a.m.	
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.* A release was discovered on the well tie to the Payne #221 well site. The Enterprise technician initiated notification procedures. The pipeline was isolated, blown down, depressurized, locked out and tagged out. Approximately 35 gallons of produced water was released to the surface. Repairs and remediation were initiated the week January 27, 2014. Remediation was completed on September 15, 2014. Approximately thirty (30) cubic yards of hydrocarbon impacted soil was excavated and transported a NMOCD approve land farm facility.

Describe Area Affected and Cleanup Action Taken.* A release was discovered on the well tie to the Payne #221 well site. The Enterprise technician initiated notification procedures. The pipeline was isolated, blown down, depressurized, locked out and tagged out. Approximately 35 gallons of produced water was released to the surface. Repairs and remediation were initiated the week January 27, 2014. Remediation was completed on September 15, 2014. Approximately thirty (30) cubic yards of hydrocarbon impacted soil was excavated and transported a NMOCD approve 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: <i>Jon Fields</i>	OIL CONSERVATION DIVISION	
Printed Name: Jon Fields	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Director, Environmental	Approval Date: 3/23/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 11-5-2014	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#HGS 15080231006

44

**Enterprise Products
Payne #221 Well Tie Pipeline Release
Latitude North 36.977552°, Longitude West -107.874771°
Unit D Section 22 T32N R10W
San Juan County, New Mexico
October 9, 2014**



**OIL CONS. DIV DIST. 3
DEC 08 2014**

Submitted To:

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

Submitted By:

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



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2.0	Introduction	2
3.0	Site Ranking and Land Jurisdiction	2
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Figure 2: Site Map

Figure 3: Soil Contaminant Concentration Map

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Appendix B: Soil Disposal Documentation

Appendix C: Laboratory Analytical Reports

1.0 Executive Summary

On January 28, 2014 and September 15, 2014, Souder, Miller & Associates (SMA) responded to a hydrocarbon release associated with the Payne #221 pipeline release. The table below summarizes information about the release and remediation activities.

TABLE 1: RELEASE INFORMATION					
Name	Payne #221 Pipeline Release				
Location	Latitude/Longitude		Section, Township, Range		
	36.977552°	-107.874771°	Unit D	Section 22	T 32N, R 10W
Date Reported	January 22, 2014				
Reported By	Thomas Long				
Land Owner	County maintained road surrounded by private land				
Reported To	BLM, NM Oil Conservation Division (NMOCD)				
Diameter of Pipeline	8 inches				
Source of Release	Natural gas pipeline				
Release Contents	Natural Gas Liquids/Condensate				
Release Volume: Natural Gas	Unknown				
Release Volume: Liquids/Condensate	35 gallons of water				
Nearest Waterway	Animas River				
Depth to Groundwater	Assumed to be less than 50 feet				
Nearest Domestic Water Source	Less than 200 feet				
NMOCD Ranking	50				
SMA Response Dates	1/28/2014 and 9/15/2014				
Subcontractors	Energy Maintenance Services 1/28/2014 West States Energy Contractors (WSEC) 9/15/2014				
Disposal Facility	Industrial Ecosystems Inc. (IEI)				
Yd ³ Contaminated Soil Excavated and Disposed	30				

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 Payne #221 well tie pipeline. The Payne # 221 release was a result of internal corrosion of the pipeline which allowed the release of natural gas and condensate water. The release was reported on January 22, 2014. The amount of natural gas release is unknown and approximately 35 gallons of water was released. The pipeline is located in Unit D, Section 22, Township 32 North, Range 10 West, 36.977552°, -107.874771°, 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 approximately 500 feet west of the Animas River on a county maintained road, surrounded by private land at an elevation of approximately 5,940 feet above sea level. The Animas River elevation adjacent to the site is approximately 5,940 feet. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be less than 50 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. Three recorded wells were located within 1,000 feet of the site and 29 recorded wells were located within a 1 mile radius. No points of diversion were located within a 1 mile radius of the site. This release location has been assigned a NMOCD ranking of 50 which requires a soil remediation standard of 10 parts per million (ppm) benzene, 50 ppm combined benzene, toluene, ethylbenzene, and total xylenes (BTEX), and 100 ppm total petroleum hydrocarbons (TPH).

Table 2 illustrates site ranking rationale.

4.0 Summary of Field Activities

Upon discovery of the release, Enterprise personnel isolated and repaired the pipeline. On January 28, 2014, SMA mobilized to the release site to delineate the release area through field screening using a calibrated photoionization detector (PID). SMA provided oversight and guidance of the excavation and hydro-excavation activities of EMS. EMS used a rubber-tired backhoe for the excavation work. During the excavation, soil samples were collected for field screening to determine the extent of the release.

The initial excavation measured approximately 20 feet long by 12 feet wide with a maximum excavation depth of approximately 8 feet below ground surface. Field screening of the excavated material determined that the soils removed were suitable for use as backfill material. Point samples for laboratory analysis were collected and submitted for confirmation.

On September 15, 2014, SMA mobilized to the release site to further delineate site contamination. West States Energy Contractors (WSEC) completed excavation activities using a rubber-tired backhoe. The final excavation measured approximately 24 feet long by 10 feet wide with a maximum excavation depth of approximately 10.5 feet below ground surface. Approximately 30 cubic yards of hydrocarbon impacted soil was transported to Industrial Ecosystems Inc. (IEI) near Aztec, New Mexico for offsite disposal. Soil disposal documentation is included in Appendix B.

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, and 8015 diesel range organics (DRO) and gasoline range organics (GRO) and Method 300 chloride to Hall Environmental Analysis Laboratory of Albuquerque, New Mexico. Figure 3 illustrates the extent of the excavation and laboratory sample locations with analytical report 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 50: 10 ppm benzene, 50 ppm total BTEX, 100 ppm TPH. Laboratory analysis of the "bottom" sample collected from 8 feet below ground surface (bgs), from the initial excavation, detected DRO at a concentration of 11,000 mg/kg, which exceeded NMOCD guidelines. Therefore, as discussed above, the release site was further excavated to a depth of 10.5 feet bgs on September 15, 2014. Laboratory analytical results for the sample collected from 10.5 feet bgs in the final excavation for benzene, total BTEX, and TPH (GRO/DRO) concentrations were all below laboratory detection limits and below the NMOCD Guidelines. A summary of laboratory analysis is included in Table 4. Laboratory reports are included in Appendix D.

6.0 Closure and Limitations

The scope of SMA's services consisted of the performance of a preliminary spill assessment, verification of release 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.

SMA recommends no further action at the Payne #221 release site.

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

SOUDER, MILLER & ASSOCIATES

Submitted by:



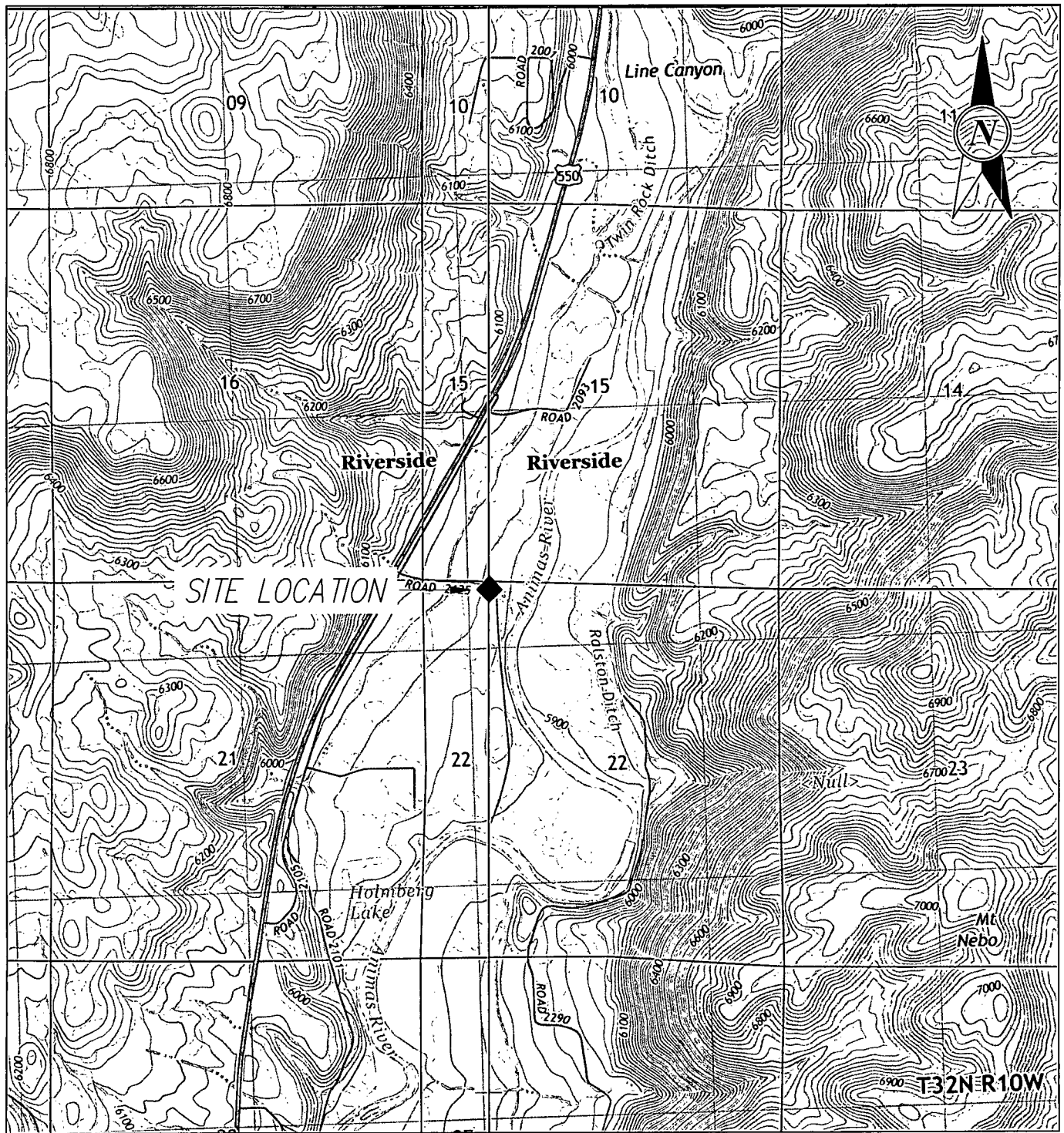
Steve Moskal
Project Scientist

Reviewed by:



Reid S. Allan, PG
Principal Scientist

Figures



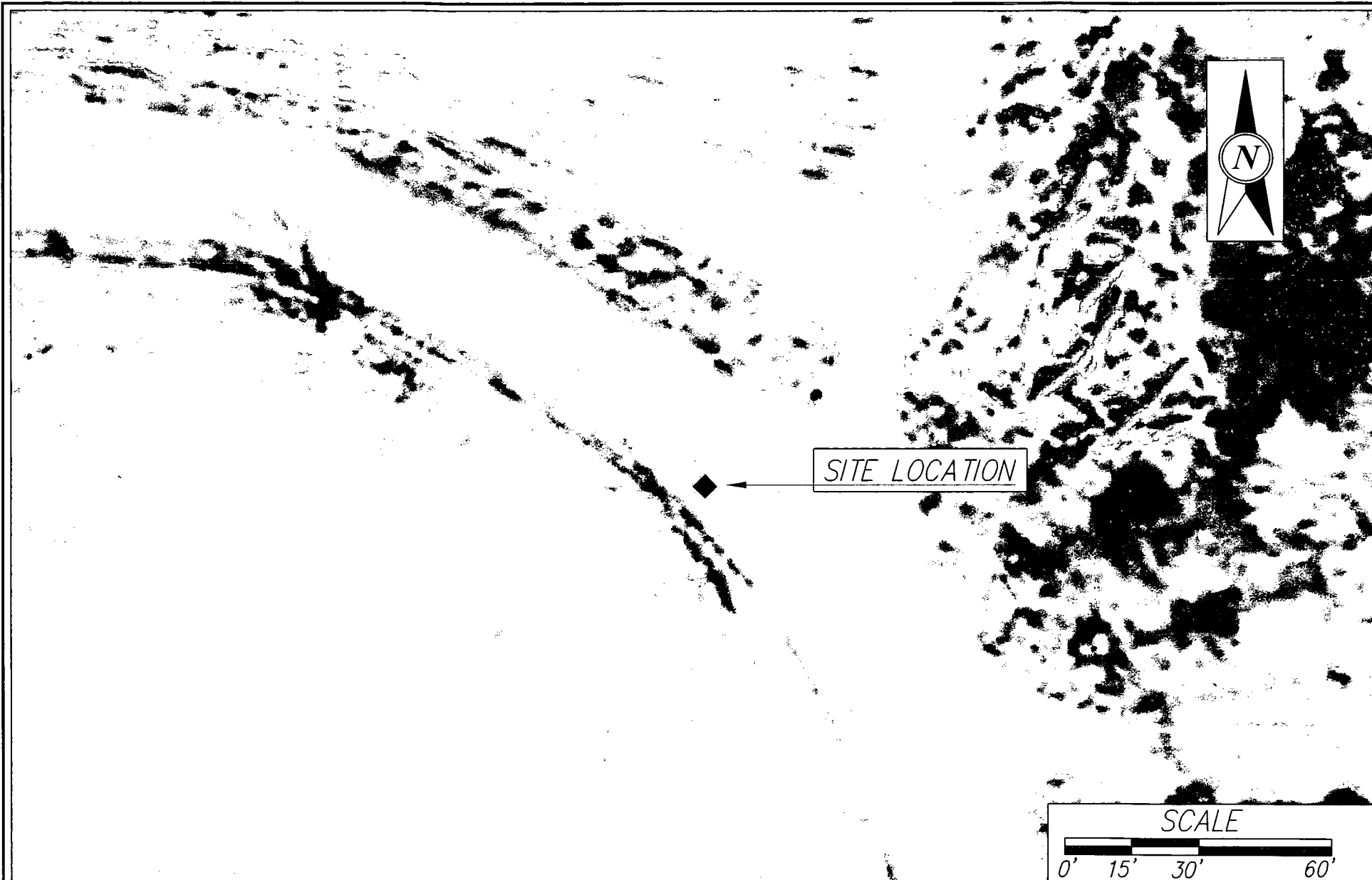
SOUDER, MILLER & ASSOCIATES
 401 W BROADWAY AVENUE
 FARMINGTON, NM 87401-5907
 Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 325-0045
 www.soudermiller.com
 Serving the Southwest & Rocky Mountains
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 Cortez • Grand Junction • Montrose, CO • Safford, AZ • Moab, UT

ENTERPRISE

FARMINGTON, NEW MEXICO

VICINITY MAP
 PAYNE #221
 SECTION 22, T32N, R10W
 SAN JUAN COUNTY, NEW MEXICO

Designed SM	Drawn DJB	Checked RSA
Date: 2/3/2014		
Scale: Horiz: 1"=2000'		
Vert: N/A		
Project No: 5122855		
Sheet: 1		

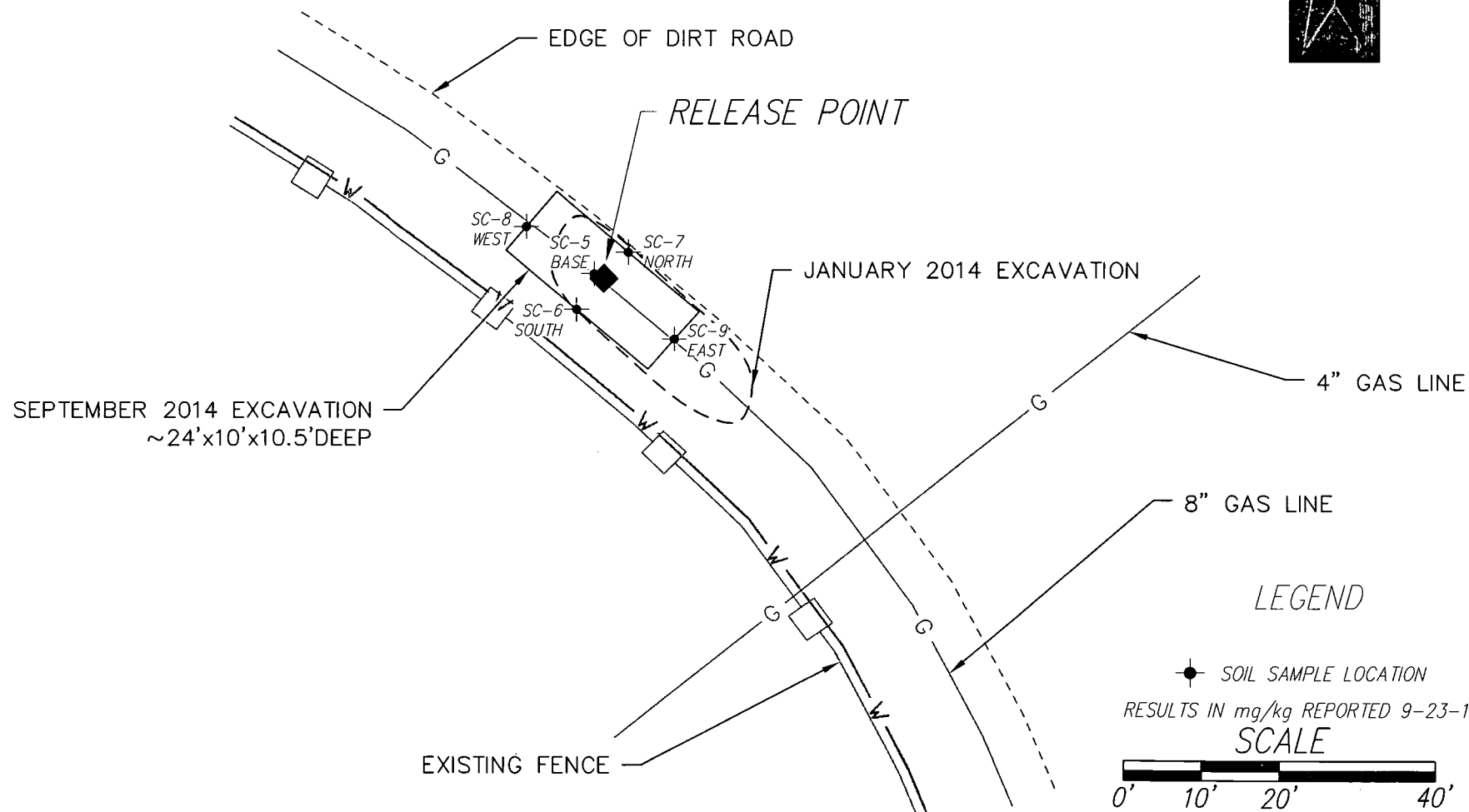
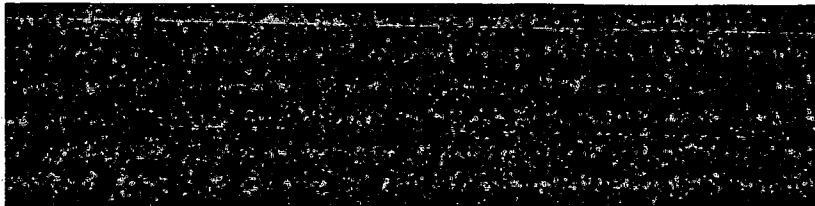


SITE LOCATION



SOUDER, MILLER & ASSOCIATES
 401 W BROADWAY AVENUE
 FARMINGTON, NM 87401-5907
 Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 325-0045
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 Cortez - Grand Junction - Montrose, CO - Stafford, AZ - Moab, UT

ENTERPRISE		FARMINGTON, NEW MEXICO		Designed SM	Drawn DJB	Checked RSA
SITE LOCATION MAP PAYNE #221 SECTION 22, T32N, R10W				Date: 2/3/2014		
				Scale: Horiz: 1"=30'		
				Vert: N/A		
				Project No: 5122855		
SAN JUAN COUNTY, NEW MEXICO		Sheet: 2				



SOUDER, MILLER & ASSOCIATES
401 W BROADWAY AVENUE
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ENTERPRISE

FARMINGTON, NEW MEXICO

SOIL CONTAMINANT CONCENTRATION MAP
PAYNE #221
SECTION 22, T32N, R10W

SAN JUAN COUNTY, NEW MEXICO

Designed	Drawn	Checked
SM	DJB	RSA
Date:	9/30/2014	
Scale:	Horiz:	1"=20'
	Vert:	N/A
Project No:	5122855	
Sheet:	3	

Tables

Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20	20	Verified using Google Earth and topo maps; Field verified	Groundwater is assumed to be less than 50 feet below ground surface.
50' to 99' = 10			
>100' = 0			
Ranking Criteria for Horizontal Distance to Nearest Surface Water	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 200' = 20	10	Verified using Google Earth and topo maps; Field verified	The Animas River is between 200 and 1,000 feet east 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' for a private domestic water source? YES OR NO to BOTH. YES = 20, NO = 0	20	New Mexico State Engineer's Office online water well data base	There are 3 recorded wells within 1,000 feet of the release.
Total Site Ranking	50		
Soil Remediation Standards	0 to 9	10 to 19	>19
Benzene	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
TPH	5000 PPM	1000 PPM	100 PPM



Enterprise Products
Table 3: Summary of Laboratory Analysis
Results in mg/Kg

Payne #221
Pipeline Release
10/9/2014

LABORATORY ANALYTICAL SUMMARY								
Date	Time	Sample ID	Sample Depth (Feet BGS)	Method 8015 GRO	Method 8015 DRO	Method 8021 Benzene	Method 8021 BTEX	Method 300 Anions: Chloride
NMOCD Guidelines		NMOCD Site Ranking: 50		100ppm		10ppm	50ppm	
1/28/2014	13:05	Bottom	8.0	<4.9	11,000	<0.049	<0.099	34
1/28/2014	13:05	North	7.0	<4.8	13	<0.048	<0.097	35
1/28/2014	13:05	South	7.0	<4.8	14	<0.048	<0.096	200
1/28/2014	13:05	East	7.0	<4.8	30.0	<0.048	<0.097	400
1/28/2014	13:05	West	7.0	<4.9	14.0	<0.049	<0.098	590
9/15/2014	10:12	SC-5 Base	10.0	<4.4	<9.9	<0.044	<0.088	92
9/15/2014	10:25	SC-6 South	8.0	<4.8	<10	<0.048	<0.095	66
9/15/2014	14:27	SC-7 North	8.0	<4.3	<9.9	<0.043	<0.085	150
9/15/2014	14:30	SC-8 West	8.0	<4.9	<9.9	<0.049	<0.098	210
9/15/2014	14:33	SC-9 East	8.0	<4.4	<10	<0.044	<0.087	130



Appendix A

Site Photography

Site Photographs
Enterprise Products Payne #221 Pipeline Release

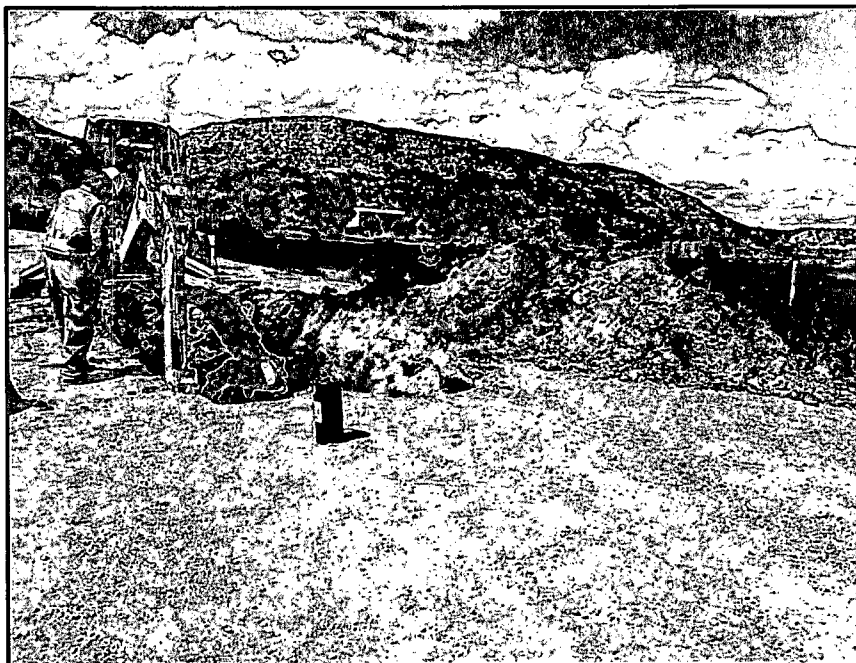


Photo 1: Photo of the Payne #221 Pipeline release facing northeast.



Photo 2: View of the Payne #221 pipeline uncovered.

Site Photographs
Enterprise Products Payne #221 Pipeline Release

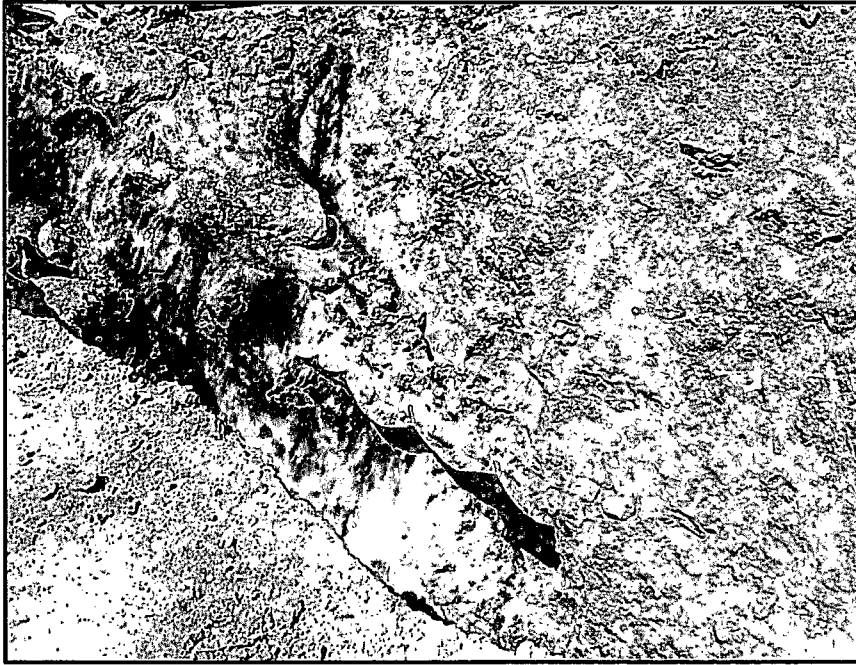


Photo 3: Excavation during the exposure of the Payne #221 Pipeline.



Photo 4: View of the vertical extent of the excavation.

Appendix B
Soil Disposal Documentation

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
20 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 08/01/11

*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 Ave, Farmington NM 87401

2. Originating Site:

Payne #221 Well Tie

3. Location of Material (Street Address, City, State or ULSTR):

Unit D Sec 22 T 32 N R 10 W, San Juan County, NM; 36.974646, -107.874562

4. Source and Description of Waste:

Source: Hydro excavation Spoils from a Leak from a Natural Gas Gathering Line

Description: Soil impacted with Natural Gas Liquids (Condensate and Water)

Estimated Volume 20 yd³ bbls Known Volume (to be entered by the operator at the end of the haul) 20 yd³ bbls

9/18/14 - 10cy
20 yd³ bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Thomas Long *Thomas Long*, representative or authorized agent for Enterprise Products Operating do hereby

Generator Signature

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)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed exempt waste. Operator Use Only: Waste Acceptance Frequency ☐ Monthly ☐ Weekly ☐ Per Load

☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous (check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in _____)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long *Thomas Long* 9-15-14, representative for Enterprise Products Operating authorize to complete

Generator Signature

the required testing/sign the Generator Waste Testing Certification.

I, *K. Delon* representative for IEI, Inc. 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 have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. 1 of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. Transporter: EMS

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:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: L. Machado

SIGNATURE: [Signature]

Surface Waste Management Facility Authorized Agent

TITLE: Land Farm Administrator

TELEPHONE NO.: 505-632-1782

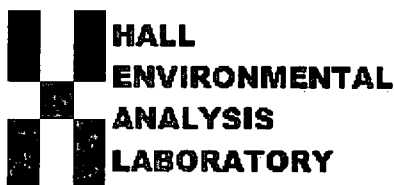
DATE: 9-15-14

CL-224
PH-8

9-15-14

Appendix C

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*

February 12, 2014

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

RE: Payne #221

OrderNo.: 1401B34

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 5 sample(s) on 1/29/2014 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 or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1401B34

Date Reported: 2/12/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** Bottom**Project:** Payne #221**Collection Date:** 1/28/2014 1:05:00 PM**Lab ID:** 1401B34-001**Matrix:** SOIL**Received Date:** 1/29/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	11000	100		mg/Kg	10	1/31/2014 1:25:35 PM	11455
Surr: DNOP	0	66-131	S	%REC	10	1/31/2014 1:25:35 PM	11455
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JMP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/1/2014 3:14:32 PM	11468
Surr: BFB	88.4	74.5-129		%REC	1	2/1/2014 3:14:32 PM	11468
EPA METHOD 8021B: VOLATILES							Analyst: JMP
Benzene	ND	0.049		mg/Kg	1	2/1/2014 3:14:32 PM	11468
Toluene	ND	0.049		mg/Kg	1	2/1/2014 3:14:32 PM	11468
Ethylbenzene	ND	0.049		mg/Kg	1	2/1/2014 3:14:32 PM	11468
Xylenes, Total	ND	0.099		mg/Kg	1	2/1/2014 3:14:32 PM	11468
Surr: 4-Bromofluorobenzene	92.9	80-120		%REC	1	2/1/2014 3:14:32 PM	11468
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	34	7.5		mg/Kg	5	2/4/2014 2:39:28 PM	11534

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 1401B34

Date Reported: 2/12/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** North**Project:** Payne #221**Collection Date:** 1/28/2014 1:05:00 PM**Lab ID:** 1401B34-002**Matrix:** SOIL**Received Date:** 1/29/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	13	10		mg/Kg	1	1/31/2014 4:04:20 PM	11455
Surr: DNOP	109	66-131		%REC	1	1/31/2014 4:04:20 PM	11455
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JMP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/3/2014 11:38:54 AM	11468
Surr: BFB	83.2	74.5-129		%REC	1	2/3/2014 11:38:54 AM	11468
EPA METHOD 8021B: VOLATILES							Analyst: JMP
Benzene	ND	0.048		mg/Kg	1	2/3/2014 11:38:54 AM	11468
Toluene	ND	0.048		mg/Kg	1	2/3/2014 11:38:54 AM	11468
Ethylbenzene	ND	0.048		mg/Kg	1	2/3/2014 11:38:54 AM	11468
Xylenes, Total	ND	0.097		mg/Kg	1	2/3/2014 11:38:54 AM	11468
Surr: 4-Bromofluorobenzene	91.0	80-120		%REC	1	2/3/2014 11:38:54 AM	11468
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	35	1.5		mg/Kg	1	2/3/2014 3:17:35 PM	11534

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 1401B34

Date Reported: 2/12/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: South

Project: Payne #221

Collection Date: 1/28/2014 1:05:00 PM

Lab ID: 1401B34-003

Matrix: SOIL

Received Date: 1/29/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	14	10		mg/Kg	1	1/31/2014 4:34:58 PM	11455
Surr: DNOP	119	66-131		%REC	1	1/31/2014 4:34:58 PM	11455
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JMP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/1/2014 5:08:50 PM	11468
Surr: BFB	83.4	74.5-129		%REC	1	2/1/2014 5:08:50 PM	11468
EPA METHOD 8021B: VOLATILES							Analyst: JMP
Benzene	ND	0.048		mg/Kg	1	2/1/2014 5:08:50 PM	11468
Toluene	ND	0.048		mg/Kg	1	2/1/2014 5:08:50 PM	11468
Ethylbenzene	ND	0.048		mg/Kg	1	2/1/2014 5:08:50 PM	11468
Xylenes, Total	ND	0.096		mg/Kg	1	2/1/2014 5:08:50 PM	11468
Surr: 4-Bromofluorobenzene	90.7	80-120		%REC	1	2/1/2014 5:08:50 PM	11468
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	200	30		mg/Kg	20	2/3/2014 4:19:40 PM	11534

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: East

Project: Payne #221

Collection Date: 1/28/2014 1:05:00 PM

Lab ID: 1401B34-004

Matrix: SOIL

Received Date: 1/29/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	30	9.9		mg/Kg	1	1/31/2014 5:05:42 PM	11455
Surr: DNOP	101	66-131		%REC	1	1/31/2014 5:05:42 PM	11455
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JMP
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/1/2014 5:37:29 PM	11468
Surr: BFB	85.4	74.5-129		%REC	1	2/1/2014 5:37:29 PM	11468
EPA METHOD 8021B: VOLATILES							Analyst: JMP
Benzene	ND	0.048		mg/Kg	1	2/1/2014 5:37:29 PM	11468
Toluene	ND	0.048		mg/Kg	1	2/1/2014 5:37:29 PM	11468
Ethylbenzene	ND	0.048		mg/Kg	1	2/1/2014 5:37:29 PM	11468
Xylenes, Total	ND	0.097		mg/Kg	1	2/1/2014 5:37:29 PM	11468
Surr: 4-Bromofluorobenzene	93.4	80-120		%REC	1	2/1/2014 5:37:29 PM	11468
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	400	30		mg/Kg	20	2/3/2014 4:44:29 PM	11534

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 9
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1401B34

Date Reported: 2/12/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: West

Project: Payne #221

Collection Date: 1/28/2014 1:05:00 PM

Lab ID: 1401B34-005

Matrix: SOIL

Received Date: 1/29/2014 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	14	9.9		mg/Kg	1	1/31/2014 5:36:16 PM	11455
Surr: DNOP	113	66-131		%REC	1	1/31/2014 5:36:16 PM	11455
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JMP
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/1/2014 6:06:04 PM	11468
Surr: BFB	86.8	74.5-129		%REC	1	2/1/2014 6:06:04 PM	11468
EPA METHOD 8021B: VOLATILES							Analyst: JMP
Benzene	ND	0.049		mg/Kg	1	2/1/2014 6:06:04 PM	11468
Toluene	ND	0.049		mg/Kg	1	2/1/2014 6:06:04 PM	11468
Ethylbenzene	ND	0.049		mg/Kg	1	2/1/2014 6:06:04 PM	11468
Xylenes, Total	ND	0.098		mg/Kg	1	2/1/2014 6:06:04 PM	11468
Surr: 4-Bromofluorobenzene	94.4	80-120		%REC	1	2/1/2014 6:06:04 PM	11468
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	590	30		mg/Kg	20	2/3/2014 5:09:20 PM	11534

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1401B34

12-Feb-14

Client: Souder, Miller and Associates

Project: Payne #221

Sample ID	MB-11534		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	11534		RunNo:	16499				
Prep Date:	2/3/2014		Analysis Date:	2/3/2014		SeqNo:	475170		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-11534		SampType:	LCS		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSS		Batch ID:	11534		RunNo:	16499				
Prep Date:	2/3/2014		Analysis Date:	2/3/2014		SeqNo:	475171		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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1401B34

12-Feb-14

Client: Souder, Miller and Associates

Project: Payne #221

Sample ID	LCS-11455		SampType:	LCS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	11455		RunNo:	16383				
Prep Date:	1/29/2014		Analysis Date:	1/30/2014		SeqNo:	473042		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	40	10	50.00	0	79.4	60.8	145				
Surr: DNOP	4.2		5.000		84.4	66	131				

Sample ID	MB-11455		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	11455		RunNo:	16383				
Prep Date:	1/29/2014		Analysis Date:	1/30/2014		SeqNo:	473541		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Surr: DNOP	8.0		10.00		80.3	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#: 1401B34

12-Feb-14

Client: Souder, Miller and Associates

Project: Payne #221

Sample ID	MB-11468		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range			
Client ID:	PBS		Batch ID:	11468		RunNo:	16396			
Prep Date:	1/29/2014		Analysis Date:	1/30/2014		SeqNo:	473264		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	900		1000		90.4	74.5	129			

Sample ID	LCS-11468		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range			
Client ID:	LCSS		Batch ID:	11468		RunNo:	16396			
Prep Date:	1/29/2014		Analysis Date:	1/30/2014		SeqNo:	473265		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	74.5	126			
Surr: BFB	970		1000		97.4	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#: 1401B34

12-Feb-14

Client: Souder, Miller and Associates

Project: Payne #221

Sample ID	MB-11468		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	11468		RunNo:	16396			
Prep Date:	1/29/2014		Analysis Date:	1/30/2014		SeqNo:	473291		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID	LCS-11468		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	11468		RunNo:	16396			
Prep Date:	1/29/2014		Analysis Date:	1/30/2014		SeqNo:	473292		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	104	80	120			
Toluene	1.1	0.050	1.000	0	105	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120			
Xylenes, Total	3.2	0.10	3.000	0	106	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID	1401B34-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	Bottom		Batch ID:	11468		RunNo:	16439			
Prep Date:	1/29/2014		Analysis Date:	2/1/2014		SeqNo:	474187		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.048	0.9597	0.01016	102	67.4	135			
Toluene	1.0	0.048	0.9597	0.03092	101	72.6	135			
Ethylbenzene	1.0	0.048	0.9597	0.01122	103	69.4	143			
Xylenes, Total	3.0	0.096	2.879	0.07913	103	70.8	144			
Surr: 4-Bromofluorobenzene	0.91		0.9597		94.5	80	120			

Sample ID	1401B34-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	Bottom		Batch ID:	11468		RunNo:	16439			
Prep Date:	1/29/2014		Analysis Date:	2/1/2014		SeqNo:	474188		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.048	0.9588	0.01016	101	67.4	135	1.47	20	
Toluene	0.96	0.048	0.9588	0.03092	97.2	72.6	135	3.91	20	
Ethylbenzene	0.98	0.048	0.9588	0.01122	101	69.4	143	1.87	20	
Xylenes, Total	3.0	0.096	2.876	0.07913	101	70.8	144	1.94	20	
Surr: 4-Bromofluorobenzene	0.94		0.9588		98.3	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	

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1401B34

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

1/29/2014 10:00:00 AM

Completed By: Lindsay Mangin

1/29/2014 10:35:48 AM

Reviewed By:

TO

01/29/2014

Chain of Custody

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

Log In

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

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No.	Temp. (°C)	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	1.7	Good	Yes			

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*

September 23, 2014

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

RE: Payne #221

OrderNo.: 1409707

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 5 sample(s) on 9/16/2014 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 or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical ReportLab Order **1409707**Date Reported: **9/23/2014****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-5 Base @ 10'**Project:** Payne #221**Collection Date:** 9/15/2014 2:12:00 PM**Lab ID:** 1409707-001**Matrix:** MEOH (SOIL)**Received Date:** 9/16/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/16/2014 11:24:31 AM	15310
Surr: DNOP	101	57.9-140		%REC	1	9/16/2014 11:24:31 AM	15310
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	9/16/2014 10:53:42 AM	R21235
Surr: BFB	90.3	80-120		%REC	1	9/16/2014 10:53:42 AM	R21235
EPA METHOD 8021B: VOLATILES							Analyst: DJF
Benzene	ND	0.044		mg/Kg	1	9/16/2014 10:53:42 AM	R21235
Toluene	ND	0.044		mg/Kg	1	9/16/2014 10:53:42 AM	R21235
Ethylbenzene	ND	0.044		mg/Kg	1	9/16/2014 10:53:42 AM	R21235
Xylenes, Total	ND	0.088		mg/Kg	1	9/16/2014 10:53:42 AM	R21235
Surr: 4-Bromofluorobenzene	96.4	80-120		%REC	1	9/16/2014 10:53:42 AM	R21235
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	92	30		mg/Kg	20	9/16/2014 10:11:44 AM	15317

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 1 of 9
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-6 South @ 8'

Project: Payne #221

Collection Date: 9/15/2014 2:25:00 PM

Lab ID: 1409707-002

Matrix: MEOH (SOIL)

Received Date: 9/16/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/16/2014 11:55:09 AM	15310
Surr: DNOP	98.7	57.9-140		%REC	1	9/16/2014 11:55:09 AM	15310
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/16/2014 12:19:36 PM	R21235
Surr: BFB	108	80-120		%REC	1	9/16/2014 12:19:36 PM	R21235
EPA METHOD 8021B: VOLATILES							Analyst: DJF
Benzene	ND	0.048		mg/Kg	1	9/16/2014 12:19:36 PM	R21235
Toluene	ND	0.048		mg/Kg	1	9/16/2014 12:19:36 PM	R21235
Ethylbenzene	ND	0.048		mg/Kg	1	9/16/2014 12:19:36 PM	R21235
Xylenes, Total	ND	0.095		mg/Kg	1	9/16/2014 12:19:36 PM	R21235
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	9/16/2014 12:19:36 PM	R21235
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	66	30		mg/Kg	20	9/16/2014 10:24:08 AM	15317

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 9
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1409707

Date Reported: 9/23/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-7 North @ 8'**Project:** Payne #221**Collection Date:** 9/15/2014 2:27:00 PM**Lab ID:** 1409707-003**Matrix:** MEOH (SOIL)**Received Date:** 9/16/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/16/2014 12:25:59 PM	15310
Surr: DNOP	102	57.9-140		%REC	1	9/16/2014 12:25:59 PM	15310
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	9/16/2014 12:48:18 PM	R21235
Surr: BFB	96.0	80-120		%REC	1	9/16/2014 12:48:18 PM	R21235
EPA METHOD 8021B: VOLATILES							Analyst: DJF
Benzene	ND	0.043		mg/Kg	1	9/16/2014 12:48:18 PM	R21235
Toluene	ND	0.043		mg/Kg	1	9/16/2014 12:48:18 PM	R21235
Ethylbenzene	ND	0.043		mg/Kg	1	9/16/2014 12:48:18 PM	R21235
Xylenes, Total	ND	0.085		mg/Kg	1	9/16/2014 12:48:18 PM	R21235
Surr: 4-Bromofluorobenzene	97.3	80-120		%REC	1	9/16/2014 12:48:18 PM	R21235
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	150	30		mg/Kg	20	9/16/2014 10:36:32 AM	15317

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 1409707

Date Reported: 9/23/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-8 West @ 8'

Project: Payne #221

Collection Date: 9/15/2014 2:30:00 PM

Lab ID: 1409707-004

Matrix: MEOH (SOIL)

Received Date: 9/16/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/16/2014 12:56:43 PM	15310
Surr: DNOP	105	57.9-140		%REC	1	9/16/2014 12:56:43 PM	15310
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/16/2014 1:17:02 PM	R21235
Surr: BFB	93.7	80-120		%REC	1	9/16/2014 1:17:02 PM	R21235
EPA METHOD 8021B: VOLATILES							Analyst: DJF
Benzene	ND	0.049		mg/Kg	1	9/16/2014 1:17:02 PM	R21235
Toluene	ND	0.049		mg/Kg	1	9/16/2014 1:17:02 PM	R21235
Ethylbenzene	ND	0.049		mg/Kg	1	9/16/2014 1:17:02 PM	R21235
Xylenes, Total	ND	0.098		mg/Kg	1	9/16/2014 1:17:02 PM	R21235
Surr: 4-Bromofluorobenzene	98.7	80-120		%REC	1	9/16/2014 1:17:02 PM	R21235
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	210	30		mg/Kg	20	9/16/2014 10:48:57 AM	15317

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 9
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409707

Date Reported: 9/23/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-9 East @ 8'

Project: Payne #221

Collection Date: 9/15/2014 2:33:00 PM

Lab ID: 1409707-005

Matrix: MEOH (SOIL)

Received Date: 9/16/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/16/2014 1:27:11 PM	15310
Surr: DNOP	103	57.9-140		%REC	1	9/16/2014 1:27:11 PM	15310
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	9/16/2014 1:45:43 PM	R21235
Surr: BFB	94.1	80-120		%REC	1	9/16/2014 1:45:43 PM	R21235
EPA METHOD 8021B: VOLATILES							Analyst: DJF
Benzene	ND	0.044		mg/Kg	1	9/16/2014 1:45:43 PM	R21235
Toluene	ND	0.044		mg/Kg	1	9/16/2014 1:45:43 PM	R21235
Ethylbenzene	ND	0.044		mg/Kg	1	9/16/2014 1:45:43 PM	R21235
Xylenes, Total	ND	0.087		mg/Kg	1	9/16/2014 1:45:43 PM	R21235
Surr: 4-Bromofluorobenzene	98.7	80-120		%REC	1	9/16/2014 1:45:43 PM	R21235
EPA METHOD 300.0: ANIONS							Analyst: JRR
Chloride	130	30		mg/Kg	20	9/16/2014 11:01:21 AM	15317

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409707

23-Sep-14

Client: Souder, Miller and Associates

Project: Payne #221

Sample ID	MB-15317		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions			
Client ID:	PBS		Batch ID:	15317		RunNo:	21247			
Prep Date:	9/16/2014		Analysis Date:	9/16/2014		SeqNo:	619288		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-15317		SampType:	LCS		TestCode:	EPA Method 300.0: Anions			
Client ID:	LCSS		Batch ID:	15317		RunNo:	21247			
Prep Date:	9/16/2014		Analysis Date:	9/16/2014		SeqNo:	619289		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.0	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#: 1409707

23-Sep-14

Client: Souder, Miller and Associates

Project: Payne #221

Sample ID	MB-15310		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	15310		RunNo:	21242				
Prep Date:	9/16/2014		Analysis Date:	9/16/2014		SeqNo:	619105		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	9.2		10.00		92.2	57.9	140				

Sample ID	LCS-15310		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 15310		RunNo: 21242					
Prep Date:	9/16/2014		Analysis Date: 9/16/2014		SeqNo: 619106		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	68.6	130			
Surr: DNOP	4.3		5.000		86.6	57.9	140			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409707

23-Sep-14

Client: Souder, Miller and Associates

Project: Payne #221

Sample ID	MB-15288 MK		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	R21235		RunNo:	21235				
Prep Date:			Analysis Date:	9/16/2014		SeqNo:	619069		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	ND	5.0									
Surr: BFB	930		1000		92.5	80	120				

Sample ID	LCS-15288 MK		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: R21235		RunNo: 21235					
Prep Date:			Analysis Date: 9/16/2014		SeqNo: 619070		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	5.0	25.00	0	125	65.8	139			
Surr: BFB	1100		1000		107	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2.
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#: 1409707

23-Sep-14

Client: Souder, Miller and Associates

Project: Payne #221

Sample ID	MB-15288 MK		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	R21235		RunNo:	21235			
Prep Date:			Analysis Date:	9/16/2014		SeqNo:	619117		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		98.0	80	120			

Sample ID	LCS-15288 MK		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	R21235		RunNo:	21235			
Prep Date:			Analysis Date:	9/16/2014		SeqNo:	619118		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	105	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.1	0.050	1.000	0	106	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Qualifiers:				
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	Page 9 of 9
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			

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1409707

RcptNo: 1

Received by/date:	<i>[Signature]</i>	09/16/14
Logged By:	Lindsay Mangin	9/16/2014 7:00:00 AM
Completed By:	Lindsay Mangin	9/16/2014 7:17:31 AM
Reviewed By:	<i>[Signature]</i>	09/16/14

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

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

17. Additional remarks:

18. Cooler Information

Cooler No.	Temp °C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	4.1	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:	
Client: <u>SMA</u>		<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush <u>Same Day</u>	
Mailing Address: <u>401 W. Broadway</u>		Project Name: <u>Payne # 221 BGG</u>	
<u>Farmington, NM 87401</u>		Project #: <u>5122855 BGG</u>	
Phone #: <u>505 325-7535</u>		Project Manager: <u>Steve Moskal</u>	
email or Fax#: <u>steven.moskal@saundersmiller.com</u>		Sampler: <u>SJM / JES</u>	
QA/QC Package:		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		Sample Temperature: <u>4.1</u>	
Accreditation			
<input type="checkbox"/> NELAP <input type="checkbox"/> Other _____			
<input type="checkbox"/> EDD (Type) _____			

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

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time
15/14	1600	Ann L. [Signature]	Christine Waite	9/15/14	1749
Date:	Time:	Relinquished by:	Received by:	Date	Time
15/14	1826	Christine Waite	[Signature]	09/16/14	0700

Remarks: Invoice Enterprise

Please copy Alicia.pattusone@southernmillw.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.

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

RECEIVED

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

Form C-141
Revised August 8, 2011

NMOCD
DISTRICT III

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: Ludwick LS#18 Release Site	Facility Type: Natural Gas Gathering Line

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

Unit Letter E	Section 5	Township 29N	Range 10W	Feet from the 1584	North/South Line	Feet from the 823	East/West Line	County San Juan
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Latitude 36.756889 Longitude -107.913914

NATURE OF RELEASE

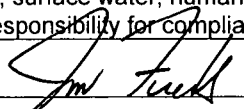
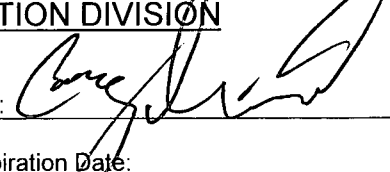
Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release 164.09 MCF Gas; 5-10 BBLs of Fluids	Volume Recovered: None
Source of Release: Internal Corrosion	Date and Hour of Occurrence: 12/9/2014 @ 2:00 a.m.	Date and Hour of Discovery: 12/9/2014 @ 4:05 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy to NMOCD - Cory Smith and BLM - Shari Ketcham	
By Whom? Thomas Long	Date and Hour 12/16/2014 @ 1:55 p.m.	
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: On December 9, 2014, Enterprise technicians confirmed a leak on the Ludwick LS #18 pipeline. The line was isolated and de-pressurized and lock out tag out was applied. Repairs and remediation were completed on December 18, 2014. The final excavation dimensions measured approximately forty-eight (48) feet long by ranging from twelve (12) to twenty (20) feet wide ranging from five (5) to twenty (20) feet deep. Approximately 342 cubic yards of hydrocarbon impacted soil was excavated and transported to a NMOCD approved land farm facility.

Describe Area Affected and Cleanup Action: On December 9, 2014, Enterprise technicians confirmed a leak on the Ludwick LS #18 pipeline. The line was isolated and de-pressurized and lock out tag out was applied. Repairs and remediation were completed on December 18, 2014. The final excavation dimensions measured approximately forty-eight (48) feet long by ranging from twelve (12) to twenty (20) feet wide ranging from five (5) to twenty (20) feet deep. Approximately 342 cubic yards of hydrocarbon 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: 	OIL CONSERVATION DIVISION	
Printed Name: Jon Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: 2/23/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	
Date: 1/21/2015	Phone: (713)381-6684	Attached <input type="checkbox"/>

* Attach Additional Sheets If Necessary

#NCS 1508252180

(47)

RECEIVED

JAN 26 2015

NMOCD
DISTRICT III

Enterprise Products
Ludwick LS #18 Pipeline Release
Latitude North 36.756938°, Longitude West -107.913877
Lot 9 (Unit E), Section 5, T29N, R10W
San Juan County, New Mexico
January 5, 2015



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

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



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1.0 Executive Summary

From December 15 through December 18, 2014, Souder, Miller & Associates (SMA) responded to oversee the excavation of the hydrocarbon release associated with the Ludwick LS #18 well tie natural gas pipeline. The release was initially reported on December 9, 2014 and is a result of internal and external corrosion of the four inch natural gas pipeline. The table below summarizes information about the pipeline remediation activities.

TABLE 1: RELEASE INFORMATION					
Name	Ludwick LS #18 Pipeline Release				
Location	Latitude/Longitude		Section, Township, Range		
	36.756938°	-107.913877°	Lot 9 (Unit E)	Section 5	T 29N, R 10W
Date Reported	December 9, 2014				
Reported to	Tom Long				
Land Owner	Bureau of Land Management (BLM)				
Reported To	NM Oil Conservation Division (NMOCD) and BLM				
Diameter of Pipeline	4 inches				
Source of Release	Internal/External Corrosion				
Release Contents	Natural Gas Liquids/Condensate				
Release Volume	Unknown				
Nearest Waterway	Located within 200' of an unnamed tributary associated with the Valdez Draw drainage basin.				
Depth to Groundwater	Estimated to be less than 50 feet				
Nearest Domestic Water Source	Greater than 1,000 feet				
NMOCD Ranking	40				
SMA Response Dates	12/F11/2014, 21/15-18/2014				
Subcontractors	Halo Services				
Disposal Facility	Envirotech				
Yd ³ Contaminated Soil Excavated and Disposed	342 (Reported on Completed C-138)				

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 Ludwick LS #18 pipeline release site. The site is located in Lot 9 (Unit E), Section 5, T29N, R10W, 36.756938°, -107.913877°, San Juan County, New Mexico, on land owned by the BLM. Figure 1 illustrates the vicinity and location of the site.

3.0 Site Ranking and Land Jurisdiction

The release site is in an unnamed tributary associated with the Valdez Draw drainage basin, in an area owned by the BLM with an elevation of approximately 5,840 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is

estimated to be less than 50 feet below ground surface (bgs). Figure 1 depicts the site vicinity and Figure 2 depicts the site location.

SMA searched the New Mexico State Engineer's Office online water well database for water wells in the vicinity of the release. No wells were located within 1,000 feet or within a mile radius of the site. The physical location of this release is within the jurisdiction of BLM and NMOCD.

This release location has been assigned a NMOCD ranking of 40 which requires a soil remediation standard of 10 parts per million (ppm) benzene, 50 ppm combined 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 December 11, 2014, SMA responded to a hydrocarbon release associated with the Ludwick LS #18 well tie pipeline for site reconnaissance. SMA returned to the site on December 15 through December 18, 2014 to oversee and guide excavation of the pipeline during repair and remediation activities. SMA guided the excavation activities by collecting composite soil samples for field screening with a calibrated photo-ionization detector (PID). A single release point was found and the approximate location of the release point is depicted on Figure 3.

The final excavation measured approximately 48 feet long by 12 to 20 feet wide with depths of 5 to 20 feet, covering an area of approximately 736 square feet. Field screening and laboratory results indicated that soils from the excavation were not suitable as backfill material. In total approximately 342 cubic yards of contaminated soil was removed and replaced with clean backfill material. The contaminated soil was transported to Envirotech Landfarm, near Bloomfield, NM. Soil disposal documentation is included in Appendix B.

Soil samples were submitted for confirmation laboratory analysis per United States Environmental Protection Agency Methods: 8021 for benzene, toluene, ethylbenzene, and xylenes (BTEX) and 8015 for diesel and gasoline range organics (DRO/GRO). All samples were analyzed by Hall Environmental Analytical Laboratory in Albuquerque, New Mexico. Figure 3 illustrates the release point, the extent of the excavation, laboratory soil sample locations, and laboratory results.

5.0 Conclusions and Recommendations

NMOCD Guidelines for Remediation of Leaks, Spills, and Releases have established the following action levels for contaminants of concern with a site ranking of 40: 10 ppm (mg/kg) benzene, 50 ppm total BTEX, and 100 ppm TPH.

Laboratory analytical results for all samples collected were below NMOCD Guidelines for benzene (10 ppm), BTEX (50 ppm) and combined GRO/DRO (100 ppm). TPH was detected in the northeast wall sample SC-8 @ 0-5' (21 ppm), the east base sample SC-7 @ 6' (55 ppm), the west wall sample SC-12 @ 0-5' (17 ppm), the northwest wall sample SC-13 @ 0-5' (33 ppm) and the central base sample SC-23 @ 20' (6.7 ppm). Total BTEX was detected, below NMOCD Guidelines, in all the samples excluding the northeast wall sample SC-8, the south

central wall sample SC-21 and the east central wall sample SC-25. All other sample analytes were below laboratory detection limits.

Soil contaminant concentrations are illustrated in Figure 3. A summary of laboratory analysis is included in Table 3. Laboratory reports are included in Appendix C.

SMA recommends no further action at the Ludwick LS #18 pipeline release location.

6.0 Closure and Limitations

The scope of our services consisted of the performance of a preliminary spill assessment, verification of release 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 for oil and gas pipeline releases in the San Juan Basin in New Mexico.

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 Allan, P.G.
Vice President/Principal Scientist

Figures

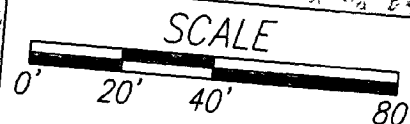


 <p>SMA Engineering Environmental Surveying</p>		<p>SOUDER, MILLER & ASSOCIATES 401 West Broadway Avenue Farmington, NM 87401-5907 Phone (505) 325-7533 Toll-Free (800) 519-0098 Fax (505) 326-0045 www.soudermiller.com Serving the Southwest & Rocky Mountains Albuquerque, Carlsbad, Farmington, Las Cruces, Roswell, Santa Fe, NM • El Paso, TX Cortez • Grand Junction • Montrose, CO • Safford, AZ • Moab, UT</p>		<p>ENTERPRISE FARMINGTON, NEW MEXICO</p>	Designed SM	Drawn DJB	Checked RSA
				<p>VICINITY MAP LUDWICK LS#18 SECTION 5, T29N, R10W</p>		<p>Date: JANUARY 5, 2015 Scale: Horiz: 1" = 2000' Vert: NA Project No: 5122855 Sheet: 1</p>	

THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS REPRODUCED AS SHOWN.



RELEASE SITE



SOUDER, MILLER & ASSOCIATES
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Farmington, NM 87401-5907

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SAN JUAN COUNTY, NEW MEXICO

SITE LOCATION MAP
LUDWICK LS#18
SECTION 5, T29N, R10W

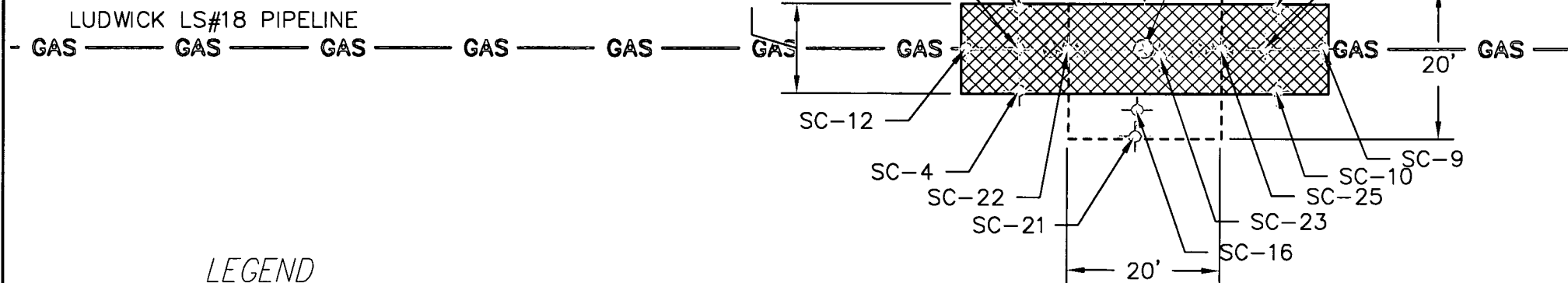
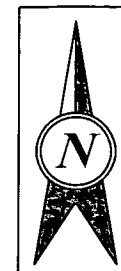
FARMINGTON, NEW MEXICO

Designed	Drawn	Checked
SM	DJB	RSA
Date: JANUARY 5, 2015		
Scale: Horiz: 1"=40'		
Vert: N/A		
Project No: 5122855		
Sheet: 2		

LABORATORY ANALYTICAL SUMMARY

Soil Samples

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: 40		100 ppm		10 ppm	50 ppm
12/17/2014	15:00	SC-16 S. Center Wall	0-12	<4.6	<9.9	<0.046	0.52
12/17/2014	15:02	SC-8 NE Wall	0-5	<5.2	21	<0.052	<0.10
12/17/2014	15:04	SC-9 E. Wall	0-5	<4.4	<9.8	<0.044	0.11
12/17/2014	15:05	SC-10 SE Wall	0-5	<5.1	<10	<0.051	0.12
12/17/2014	15:10	SC-7 E. Base	6	<5.0	55	<0.050	0.19
12/17/2014	15:12	SC-11 SW Wall	0-5	<6.0	<10	<0.060	0.12
12/17/2014	15:13	SC-12 W. Wall	0-5	<5.4	17	<0.054	0.23
12/17/2014	15:14	SC-13 NW Wall	0-5	11	20	<0.044	0.887
12/17/2014	15:15	SC-6 W. Base	6	<4.8	16	<0.048	0.332
12/18/2014	16:00	SC-21 S. Central Wall	0-20	<3.5	<9.9	<0.035	<0.069
12/18/2014	16:02	SC-22 W. Central Wall	0-20	<3.2	<11	<0.032	0.083
12/18/2014	16:05	SC-23 Central Base	20	6.7	<10	<0.037	0.23
12/18/2014	16:08	SC-24 N. Central Wall	0-20	<3.4	<9.9	<0.034	0.139
12/18/2014	16:10	SC-25 E. Central Wall	0-20	<3.4	<10	<0.034	<0.068

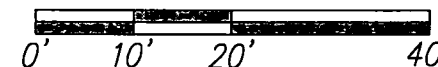


LEGEND

⊙ SOIL SAMPLE LOCATION

FINAL SOIL RESULTS IN mg/kg REPORTED 12/22/14

SCALE



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FARMINGTON, NEW MEXICO

SOIL CONTAMINANT CONCENTRATION MAP
LUDWICK LS#18
SECTION 5, T29N, R10W

SAN JUAN COUNTY, NEW MEXICO

Designed SM Drawn DJB Checked RSA

Date: JANUARY 5, 2015

Scale: Horiz: 1"=20'
Vert: N/A

Project No: 5122855

Sheet: 3

Tables

Enterprise Products
Table 2: Site Ranking Criteria

Ludwick LS #18
Pipeline Release
1/5/2015

Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20	20	Topographic Maps and Field Verification	Groundwater estimated to be less than 50 feet below ground surface.
50' to 99' = 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	Topographic Maps and Field Verification	Located within 200' of an unnamed tributary associated with the Valdez Draw drainage basin.
200'-1000' = 10			
>1000'			
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' for a private domestic water source? YES OR NO to BOTH. YES = 20, NO = 0	0	NM State Engineer Water Well Database	No recorded water wells located within 1,000 feet or within a 1 mile radius.
Total Site Ranking	40		
Soil Remedation Standards	0 to 9	10 to 19	>19
Benzene	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
TPH	5000 PPM	1000 PPM	100 PPM



Enterprise Products
Table 3: Laboratory Results Summary
(mg/kg)

Ludwick LS #18
Pipeline Release
1/5/2015

LABORATORY ANALYTICAL SUMMARY							
Soil Samples							
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: 40		100 ppm		10 ppm	50 ppm
12/17/2014	15:00	SC-16 S. Center Wall	0-12	<4.6	<9.9	<0.046	0.52
12/17/2014	15:02	SC-8 NE Wall	0-5	<5.2	21	<0.052	<0.10
12/17/2014	15:04	SC-9 E. Wall	0-5	<4.4	<9.8	<0.044	0.11
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12/17/2014	15:13	SC-12 W. Wall	0-5	<5.4	17	<0.054	0.23
12/17/2014	15:14	SC-13 NW Wall	0-5	11	20	<0.044	0.887
12/17/2014	15:15	SC-6 W. Base	6	<4.8	16	<0.048	0.332
12/18/2014	16:00	SC-21 S. Central Wall	0-20	<3.5	<9.9	<0.035	<0.069
12/18/2014	16:02	SC-22 W. Central Wall	0-20	<3.2	<11	<0.032	0.083
12/18/2014	16:05	SC-23 Central Base	20	6.7	<10	<0.037	0.23
12/18/2014	16:08	SC-24 N. Central Wall	0-20	<3.4	<9.9	<0.034	0.139
12/18/2014	16:10	SC-25 E. Central Wall	0-20	<3.4	<10	<0.034	<0.068



Appendix A

Photographic Documentation

Site Photographs
Enterprise Products Ludwick LS #18 Pipeline Release

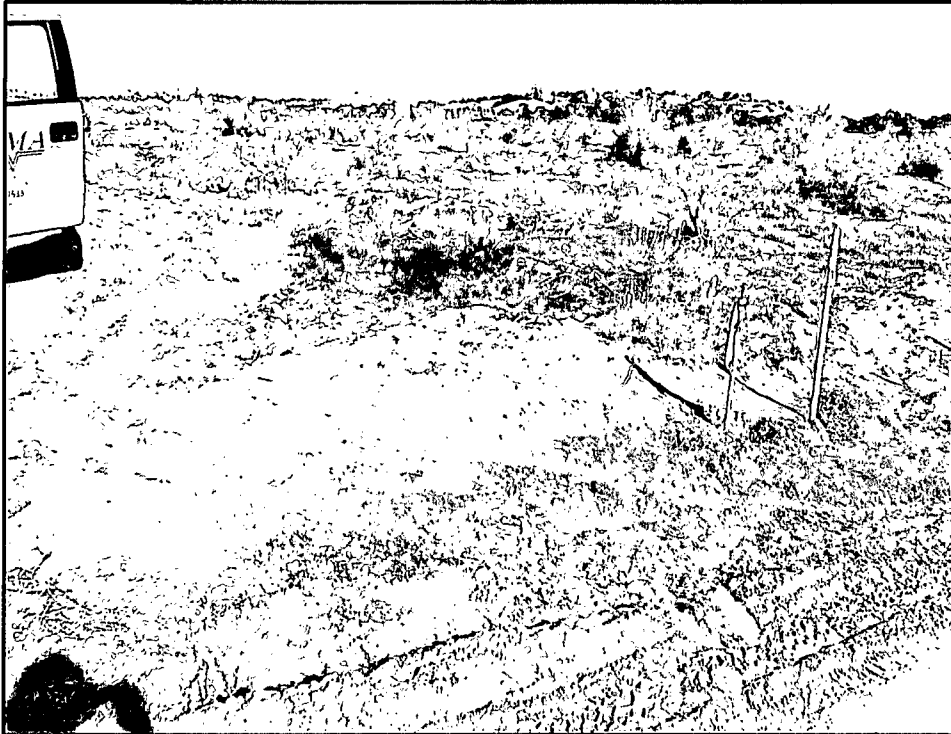


Photo 1: The Ludwick LS #18 site prior to excavation activities. The release point is marked with the white stakes.



Photo 2: Beginning of the Ludwick LS #18 pipeline excavation for repairs.

Site Photographs
Enterprise Products Ludwick LS #18 Pipeline Release



Photo 3: View of releas point found on the Ludwick LS #18 pipline.



Photo 4: Preliminary remediation excavation following completion of the repairs to the Ludwick LS #18 pipeline.

Site Photographs
Enterprise Products Ludwick LS #18 Pipeline Release



Photo 5: Continued excavation of the Ludwick LS #18 pipeline beyond the reach of 12 feet by a rubber-tired backhoe.

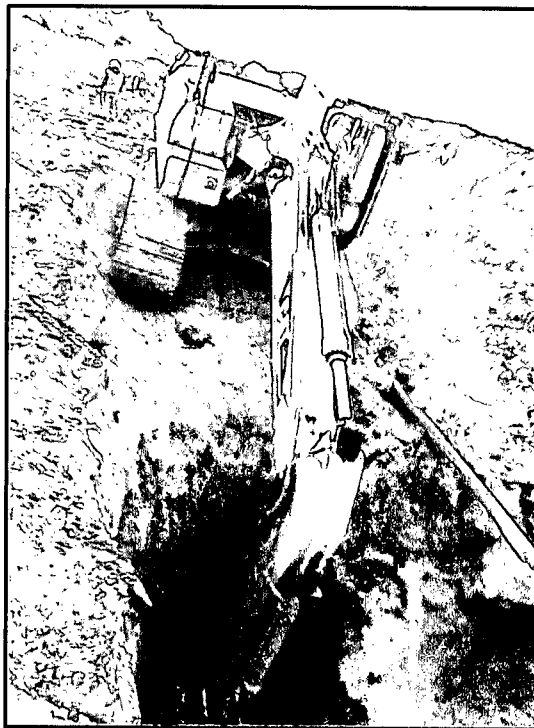


Photo 6: Photo of the Ludwick LS #18 pipeline excavation reaching 20' below ground surface.

Appendix B

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 97057-0679
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	Dec. 2014
2. Originating Site: Ludwick LS#18 Pipeline	
3. Location of Material (Street Address, City, State or ULSTR): Unit Letter E, Section 5, T29N, R12W; 36.67025, -108.15848	
4. Source and Description of Waste: Hydrocarbon impacted soils associated with a release from a natural gas pipeline.	
5. Estimated Volume <u>50</u> yd ³ bbls Known Volume (to be entered by the operator at the end of the haul) <u>342</u> yd ³ bbls	
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> 12-16-14, representative for <u>Enterprise Field Services, LLC</u> authorize Envirotech, Inc. to Generator Signature complete the required testing/sign the Generator Waste Testing Certification.	
I, <u>Kendra Rurung</u> , representative for <u>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 State Energy Contractors <u>Del Prado, Lobato Trucking, Richl Trucking, Halo</u>	

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011

Address of Facility: Hilltop, NM

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME:

Kendra Rurung

TITLE:

Waste Coordinator

DATE:

12/17/14

SIGNATURE:

Kendra Rurung

TELEPHONE NO.: 505-632-0615

Surface Waste Management Facility Authorized Agent

Appendix C

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*

December 19, 2014

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

RE: Ludwick LS #18

OrderNo.: 1412894

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 9 sample(s) on 12/18/2014 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 or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-16 S. Center Wall @ 0-12'

Project: Ludwick LS #18

Collection Date: 12/17/2014 3:00:00 PM

Lab ID: 1412894-001

Matrix: MEOH (SOIL)

Received Date: 12/18/2014 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/18/2014 11:12:53 AM	16898
Surr: DNOP	77.8	63.5-128		%REC	1	12/18/2014 11:12:53 AM	16898
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/18/2014 9:56:35 AM	R23228
Surr: BFB	107	80-120		%REC	1	12/18/2014 9:56:35 AM	R23228
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	12/18/2014 9:56:35 AM	R23228
Toluene	0.22	0.046		mg/Kg	1	12/18/2014 9:56:35 AM	R23228
Ethylbenzene	ND	0.046		mg/Kg	1	12/18/2014 9:56:35 AM	R23228
Xylenes, Total	0.30	0.091		mg/Kg	1	12/18/2014 9:56:35 AM	R23228
Surr: 4-Bromofluorobenzene	129	80-120	S	%REC	1	12/18/2014 9:56:35 AM	R23228

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 1412894

Date Reported: 12/19/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-8 NE Wall @ 0-5'

Project: Ludwick LS #18

Collection Date: 12/17/2014 3:02:00 PM

Lab ID: 1412894-002

Matrix: MEOH (SOIL)

Received Date: 12/18/2014 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	21	9.8		mg/Kg	1	12/18/2014 12:20:38 PM	16898
Surr: DNOP	80.2	63.5-128		%REC	1	12/18/2014 12:20:38 PM	16898
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.2		mg/Kg	1	12/18/2014 10:24:04 AM	R23228
Surr: BFB	107	80-120		%REC	1	12/18/2014 10:24:04 AM	R23228
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.052		mg/Kg	1	12/18/2014 10:24:04 AM	R23228
Toluene	ND	0.052		mg/Kg	1	12/18/2014 10:24:04 AM	R23228
Ethylbenzene	ND	0.052		mg/Kg	1	12/18/2014 10:24:04 AM	R23228
Xylenes, Total	ND	0.10		mg/Kg	1	12/18/2014 10:24:04 AM	R23228
Surr: 4-Bromofluorobenzene	125	80-120	S	%REC	1	12/18/2014 10:24:04 AM	R23228

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates Client Sample ID: SC-9 E Wall @ 0-5'
 Project: Ludwick LS #18 Collection Date: 12/17/2014 3:04:00 PM
 Lab ID: 1412894-003 Matrix: MEOH (SOIL) Received Date: 12/18/2014 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/18/2014 12:42:08 PM	16898
Surr: DNOP	79.2	63.5-128		%REC	1	12/18/2014 12:42:08 PM	16898
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	12/18/2014 11:18:35 AM	R23228
Surr: BFB	109	80-120		%REC	1	12/18/2014 11:18:35 AM	R23228
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.044		mg/Kg	1	12/18/2014 11:18:35 AM	R23228
Toluene	ND	0.044		mg/Kg	1	12/18/2014 11:18:35 AM	R23228
Ethylbenzene	ND	0.044		mg/Kg	1	12/18/2014 11:18:35 AM	R23228
Xylenes, Total	0.11	0.089		mg/Kg	1	12/18/2014 11:18:35 AM	R23228
Surr: 4-Bromofluorobenzene	135	80-120	S	%REC	1	12/18/2014 11:18:35 AM	R23228

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-10 SE Wall @ 0-5'

Project: Ludwick LS #18

Collection Date: 12/17/2014 3:05:00 PM

Lab ID: 1412894-004

Matrix: MEOH (SOIL)

Received Date: 12/18/2014 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/18/2014 1:03:42 PM	16898
Surr: DNOP	78.0	63.5-128		%REC	1	12/18/2014 1:03:42 PM	16898
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.1		mg/Kg	1	12/18/2014 11:58:50 AM	16880
Surr: BFB	95.0	80-120		%REC	1	12/18/2014 11:58:50 AM	16880
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.051		mg/Kg	1	12/18/2014 11:58:50 AM	16880
Toluene	ND	0.051		mg/Kg	1	12/18/2014 11:58:50 AM	16880
Ethylbenzene	ND	0.051		mg/Kg	1	12/18/2014 11:58:50 AM	16880
Xylenes, Total	0.12	0.10		mg/Kg	1	12/18/2014 11:58:50 AM	16880
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	12/18/2014 11:58:50 AM	16880

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 13
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-7 E Base @ 6'

Project: Ludwick LS #18

Collection Date: 12/17/2014 3:10:00 PM

Lab ID: 1412894-005

Matrix: MEOH (SOIL)

Received Date: 12/18/2014 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	22	10		mg/Kg	1	12/18/2014 1:25:09 PM	16898
Surr: DNOP	81.7	63.5-128		%REC	1	12/18/2014 1:25:09 PM	16898
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/18/2014 12:27:36 PM	16880
Surr: BFB	95.4	80-120		%REC	1	12/18/2014 12:27:36 PM	16880
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	12/18/2014 12:27:36 PM	16880
Toluene	ND	0.050		mg/Kg	1	12/18/2014 12:27:36 PM	16880
Ethylbenzene	ND	0.050		mg/Kg	1	12/18/2014 12:27:36 PM	16880
Xylenes, Total	0.19	0.10		mg/Kg	1	12/18/2014 12:27:36 PM	16880
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	12/18/2014 12:27:36 PM	16880

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-11 SW Wall @ 0-5'

Project: Ludwick LS #18

Collection Date: 12/17/2014 3:12:00 PM

Lab ID: 1412894-006

Matrix: MEOH (SOIL)

Received Date: 12/18/2014 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/18/2014 1:46:53 PM	16898
Surr: DNOP	75.9	63.5-128		%REC	1	12/18/2014 1:46:53 PM	16898
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	6.0		mg/Kg	1	12/18/2014 12:56:22 PM	16880
Surr: BFB	94.6	80-120		%REC	1	12/18/2014 12:56:22 PM	16880
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.060		mg/Kg	1	12/18/2014 12:56:22 PM	16880
Toluene	ND	0.060		mg/Kg	1	12/18/2014 12:56:22 PM	16880
Ethylbenzene	ND	0.060		mg/Kg	1	12/18/2014 12:56:22 PM	16880
Xylenes, Total	ND	0.12		mg/Kg	1	12/18/2014 12:56:22 PM	16880
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	12/18/2014 12:56:22 PM	16880

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 6 of 13
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1412894

Date Reported: 12/19/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-12 W Wall @ 0-5'

Project: Ludwick LS #18

Collection Date: 12/17/2014 3:13:00 PM

Lab ID: 1412894-007

Matrix: MEOH (SOIL)

Received Date: 12/18/2014 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	17	10		mg/Kg	1	12/18/2014 12:41:07 PM	16898
Surr: DNOP	83.1	63.5-128		%REC	1	12/18/2014 12:41:07 PM	16898
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.4		mg/Kg	1	12/18/2014 1:25:04 PM	16880
Surr: BFB	95.7	80-120		%REC	1	12/18/2014 1:25:04 PM	16880
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.054		mg/Kg	1	12/18/2014 1:25:04 PM	16880
Toluene	ND	0.054		mg/Kg	1	12/18/2014 1:25:04 PM	16880
Ethylbenzene	ND	0.054		mg/Kg	1	12/18/2014 1:25:04 PM	16880
Xylenes, Total	0.23	0.11		mg/Kg	1	12/18/2014 1:25:04 PM	16880
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	12/18/2014 1:25:04 PM	16880

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-13 NW Wall @ 0-5'

Project: Ludwick LS #18

Collection Date: 12/17/2014 3:14:00 PM

Lab ID: 1412894-008

Matrix: MEOH (SOIL)

Received Date: 12/18/2014 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	20	10		mg/Kg	1	12/18/2014 1:11:19 PM	16898
Surr: DNOP	82.8	63.5-128		%REC	1	12/18/2014 1:11:19 PM	16898
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	11	4.4		mg/Kg	1	12/18/2014 1:53:45 PM	16880
Surr: BFB	132	80-120	S	%REC	1	12/18/2014 1:53:45 PM	16880
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.044		mg/Kg	1	12/18/2014 1:53:45 PM	16880
Toluene	0.098	0.044		mg/Kg	1	12/18/2014 1:53:45 PM	16880
Ethylbenzene	0.049	0.044		mg/Kg	1	12/18/2014 1:53:45 PM	16880
Xylenes, Total	0.74	0.088		mg/Kg	1	12/18/2014 1:53:45 PM	16880
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	12/18/2014 1:53:45 PM	16880

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 1412894

Date Reported: 12/19/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-6 W Base @ 6'**Project:** Ludwick LS #18**Collection Date:** 12/17/2014 3:15:00 PM**Lab ID:** 1412894-009**Matrix:** MEOH (SOIL)**Received Date:** 12/18/2014 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	16	10		mg/Kg	1	12/18/2014 1:41:34 PM	16898
Surr: DNOP	83.7	63.5-128		%REC	1	12/18/2014 1:41:34 PM	16898
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/18/2014 2:22:25 PM	16880
Surr: BFB	97.2	80-120		%REC	1	12/18/2014 2:22:25 PM	16880
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	12/18/2014 2:22:25 PM	16880
Toluene	0.062	0.048		mg/Kg	1	12/18/2014 2:22:25 PM	16880
Ethylbenzene	ND	0.048		mg/Kg	1	12/18/2014 2:22:25 PM	16880
Xylenes, Total	0.27	0.095		mg/Kg	1	12/18/2014 2:22:25 PM	16880
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	12/18/2014 2:22:25 PM	16880

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 9 of 13
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1412894

19-Dec-14

Client: Souder, Miller and Associates

Project: Ludwick LS #18

Sample ID	MB-16898		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 16898		RunNo: 23210					
Prep Date:	12/18/2014		Analysis Date: 12/18/2014		SeqNo: 685651		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.5		10.00		75.5	63.5	128			

Sample ID	LCS-16898		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 16898		RunNo: 23210					
Prep Date:	12/18/2014		Analysis Date: 12/18/2014		SeqNo: 685652		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	62	10	50.00	0	124	68.6	130			
Surr: DNOP	4.5		5.000		89.4	63.5	128			

Sample ID	1412894-001AMS		SampType: MS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-16 S. Center Wal		Batch ID: 16898		RunNo: 23212					
Prep Date:	12/18/2014		Analysis Date: 12/18/2014		SeqNo: 686089		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	49.85	6.272	94.0	29.2	176			
Surr: DNOP	5.0		4.985		100	63.5	128			

Sample ID	1412894-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	SC-16 S. Center Wal		Batch ID:	16898		RunNo:	23212				
Prep Date:	12/18/2014		Analysis Date:	12/18/2014		SeqNo:	686090		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	54	10	49.85	6.272	95.0	29.2	176	0.945	23		
Surr: DNOP	5.0		4.985		101	63.5	128	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#: 1412894

19-Dec-14

Client: Souder, Miller and Associates

Project: Ludwick LS #18

Sample ID	MB-16880		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	16880		RunNo:	23233				
Prep Date:	12/17/2014		Analysis Date:	12/18/2014		SeqNo:	686706		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	ND	5.0									
Surr: BFB	880		1000		87.7	80	120				

Sample ID	LCS-16880		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 16880		RunNo: 23233					
Prep Date:	12/17/2014		Analysis Date: 12/18/2014		SeqNo: 686707		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.3	65.8	139			
Surr: BFB	1000		1000		102	80	120			

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID: R23228			RunNo: 23228					
Prep Date:		Analysis Date: 12/18/2014			SeqNo: 686751		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	940		1000		93.6	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R23228	RunNo:	23228					
Prep Date:		Analysis Date:	12/18/2014	SeqNo:	686752	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	92.4	65.8	139			
Surr: BFB	900		1000		90.0	80	120			

Sample ID	1412894-001AMS		SampType:	MS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	SC-16 S. Center Wal		Batch ID:	R23228		RunNo:	23228				
Prep Date:			Analysis Date:	12/18/2014		SeqNo:	686754		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	23	4.6	22.81	0	103	47.9	144				
Surr: BFB	1100		912.4		118	80	120				

Sample ID	1412894-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	SC-16 S. Center Wal		Batch ID: R23228		RunNo: 23228					
Prep Date:			Analysis Date: 12/18/2014		SeqNo: 686755		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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#: 1412894

19-Dec-14

Client: Souder, Miller and Associates

Project: Ludwick LS #18

Sample ID	1412894-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-16 S. Center Wal	Batch ID:	R23228	RunNo:	23228					
Prep Date:	Analysis Date: 12/18/2014			SeqNo:	686755	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.6	22.81	0	99.7	47.9	144	3.24	29.9	
Surr: BFB	1100		912.4		118	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#: 1412894

19-Dec-14

Client: Souder, Miller and Associates

Project: Ludwick LS #18

Sample ID	MB-16880		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	16880		RunNo:	23233			
Prep Date:	12/17/2014		Analysis Date:	12/18/2014		SeqNo:	686727		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		92.1	80	120			

Sample ID	LCS-16880		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	16880		RunNo:	23233			
Prep Date:	12/17/2014		Analysis Date:	12/18/2014		SeqNo:	686728		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.050	1.000	0	98.3	80	120			
Toluene	0.95	0.050	1.000	0	95.0	80	120			
Ethylbenzene	0.99	0.050	1.000	0	98.8	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.1	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID	5ML RB		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	R23228		RunNo:	23228			
Prep Date:			Analysis Date:	12/18/2014		SeqNo:	686791		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		111	80	120			

Sample ID	100NG BTEX LCS		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	R23228		RunNo:	23228			
Prep Date:			Analysis Date:	12/18/2014		SeqNo:	686792		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	102	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		118	80	120			

Qualifiers:

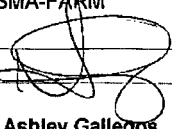
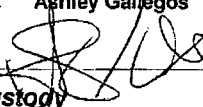
- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O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

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1412894

RcptNo: 1

Received by/date:		12/18/14
Logged By:	Ashley Gallegos	12/18/2014 8:00:00 AM
Completed By:	Ashley Gallegos	12/18/2014 8:49:21 AM
Reviewed By:		12/18/14

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

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

- Additional remarks:

18. Cooler Information

Cooler No.	Temp.°C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Turn-Around Time:

☐ Standard ☒ Rush Same Day

Project Name:

Ludwick LS #18

Project #:

5122855 BGC5

Project Manager:

Steve Maskal

Sampler: 11 11

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Client: SMA

Mailing Address: 401 W. Broadway

Farmington, NM 87401

Phone #: 505 325 7535

Email or Fax #: steve.maskal@psaenv.com

VQC Package:

☐ Standard ☐ Level 4 (Full Validation)

Creditation:

☒ NELAP ☐ Other

EDD (Type)

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	MTBE + MTBE's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MPO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
12/14	15:20	Soil/MSH	SC-16 S. center wall @ 0-12"	402 x 1/MSH	MSH	-001												
	1502		SC-8 NE wall @ 0-5'			-002												
	1504		SC-9 E wall @ 0-5'			-003												
	1505		SC-10 SE wall @ 0-5'			-004												
	1510		SC-7 E Base @ 6'			-005												
	1512		SC-11 SW wall @ 0-5'			-006												
	1513		SC-12 W wall @ 0-5'			-007												
	1514		SC-13 NW wall @ 0-5'			-008												
✓	1515	✓	SC-6 W. Base @ 6'	✓	✓	-009												

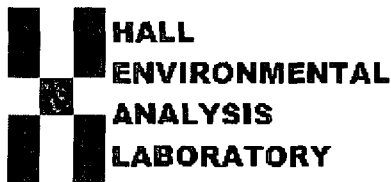
Date: 12/14 Time: 1615 Relinquished by: [Signature]

Received by: Ch. Walte Date: 12/17/14 Time: 1615

Date: 12/14 Time: 1921 Relinquished by: Christine Walte

Received by: [Signature] Date: 12/18/14 Time: 0800

Remarks: Invoice to Enterprise Products
Copy alicia.patterson@psaenv.com



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

December 22, 2014

Steve Moskal

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

RE: Ludwick LS #18

OrderNo.: 1412968

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 5 sample(s) on 12/19/2014 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 or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-21 S Central Wall @ 0-20'

Project: Ludwick LS #18

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

Lab ID: 1412968-001

Matrix: SOIL

Received Date: 12/19/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/19/2014 10:28:52 AM	16909
Surr: DNOP	89.9	63.5-128		%REC	1	12/19/2014 10:28:52 AM	16909
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	12/19/2014 9:46:57 AM	16905
Surr: BFB	92.4	80-120		%REC	1	12/19/2014 9:46:57 AM	16905
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.035		mg/Kg	1	12/19/2014 9:46:57 AM	16905
Toluene	ND	0.035		mg/Kg	1	12/19/2014 9:46:57 AM	16905
Ethylbenzene	ND	0.035		mg/Kg	1	12/19/2014 9:46:57 AM	16905
Xylenes, Total	ND	0.069		mg/Kg	1	12/19/2014 9:46:57 AM	16905
Surr: 4-Bromofluorobenzene	96.4	80-120		%REC	1	12/19/2014 9:46:57 AM	16905

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 1 of 8
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1412968

Date Reported: 12/22/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-22 W Central Wall @ 20'**Project:** Ludwick LS #18**Collection Date:** 12/18/2014 4:02:00 PM**Lab ID:** 1412968-002**Matrix:** SOIL**Received Date:** 12/19/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	11		mg/Kg	1	12/19/2014 10:59:47 AM	16909
Surr: DNOP	89.0	63.5-128		%REC	1	12/19/2014 10:59:47 AM	16909
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	12/19/2014 10:15:39 AM	16905
Surr: BFB	92.6	80-120		%REC	1	12/19/2014 10:15:39 AM	16905
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.032		mg/Kg	1	12/19/2014 10:15:39 AM	16905
Toluene	ND	0.032		mg/Kg	1	12/19/2014 10:15:39 AM	16905
Ethylbenzene	ND	0.032		mg/Kg	1	12/19/2014 10:15:39 AM	16905
Xylenes, Total	0.083	0.063		mg/Kg	1	12/19/2014 10:15:39 AM	16905
Surr: 4-Bromofluorobenzene	98.2	80-120		%REC	1	12/19/2014 10:15:39 AM	16905

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 8
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1412968

Date Reported: 12/22/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-23 Central Base @ 20'**Project:** Ludwick LS #18**Collection Date:** 12/18/2014 4:05:00 PM**Lab ID:** 1412968-003**Matrix:** SOIL**Received Date:** 12/19/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/19/2014 9:35:15 AM	16909
Surr: DNOP	81.3	63.5-128		%REC	1	12/19/2014 9:35:15 AM	16909
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	6.7	3.7		mg/Kg	1	12/19/2014 10:44:18 AM	16905
Surr: BFB	118	80-120		%REC	1	12/19/2014 10:44:18 AM	16905
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.037		mg/Kg	1	12/19/2014 10:44:18 AM	16905
Toluene	ND	0.037		mg/Kg	1	12/19/2014 10:44:18 AM	16905
Ethylbenzene	ND	0.037		mg/Kg	1	12/19/2014 10:44:18 AM	16905
Xylenes, Total	0.23	0.075		mg/Kg	1	12/19/2014 10:44:18 AM	16905
Surr: 4-Bromofluorobenzene	99.5	80-120		%REC	1	12/19/2014 10:44:18 AM	16905

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 3 of 8
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical ReportLab Order **1412968**Date Reported: **12/22/2014****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-24 N Central Wall @ 0-20'**Project:** Ludwick LS #18**Collection Date:** 12/18/2014 4:08:00 PM**Lab ID:** 1412968-004**Matrix:** SOIL**Received Date:** 12/19/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/19/2014 9:56:56 AM	16909
Surr: DNOP	77.6	63.5-128		%REC	1	12/19/2014 9:56:56 AM	16909
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	12/19/2014 11:12:57 AM	16905
Surr: BFB	93.8	80-120		%REC	1	12/19/2014 11:12:57 AM	16905
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	12/19/2014 11:12:57 AM	16905
Toluene	0.052	0.034		mg/Kg	1	12/19/2014 11:12:57 AM	16905
Ethylbenzene	ND	0.034		mg/Kg	1	12/19/2014 11:12:57 AM	16905
Xylenes, Total	0.087	0.067		mg/Kg	1	12/19/2014 11:12:57 AM	16905
Surr: 4-Bromofluorobenzene	97.8	80-120		%REC	1	12/19/2014 11:12:57 AM	16905

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 8
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-25 E Central Wall @ 0-20'

Project: Ludwick LS #18

Collection Date: 12/18/2014 4:10:00 PM

Lab ID: 1412968-005

Matrix: SOIL

Received Date: 12/19/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/19/2014 10:18:16 AM	16909
Surr: DNOP	74.8	63.5-128		%REC	1	12/19/2014 10:18:16 AM	16909
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	12/19/2014 11:41:33 AM	16905
Surr: BFB	91.3	80-120		%REC	1	12/19/2014 11:41:33 AM	16905
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	12/19/2014 11:41:33 AM	16905
Toluene	ND	0.034		mg/Kg	1	12/19/2014 11:41:33 AM	16905
Ethylbenzene	ND	0.034		mg/Kg	1	12/19/2014 11:41:33 AM	16905
Xylenes, Total	ND	0.068		mg/Kg	1	12/19/2014 11:41:33 AM	16905
Surr: 4-Bromofluorobenzene	95.2	80-120		%REC	1	12/19/2014 11:41:33 AM	16905

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 5 of 8
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1412968

22-Dec-14

Client: Souder, Miller and Associates

Project: Ludwick LS #18

Sample ID	MB-16909	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	16909	RunNo:	23253					
Prep Date:	12/18/2014	Analysis Date:	12/19/2014	SeqNo:	687155	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.1		10.00		70.6	63.5	128			

Sample ID	LCS-16909		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 16909		RunNo: 23253					
Prep Date:	12/18/2014		Analysis Date: 12/19/2014		SeqNo: 687156		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	60	10	50.00	0	121	68.6	130			
Surr: DNOP	4.6		5.000		92.9	63.5	128			

Sample ID	MB-16900		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 16900		RunNo: 23253					
Prep Date:	12/18/2014		Analysis Date: 12/19/2014		SeqNo: 687462		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.8		10.00		78.2	63.5	128			

Sample ID	LCS-16900	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	16900	RunNo:	23246					
Prep Date:	12/18/2014	Analysis Date:	12/19/2014	SeqNo:	688230	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1		5.000		82.6	63.5	128			

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#: 1412968

22-Dec-14

Client: Souder, Miller and Associates

Project: Ludwick LS #18

Sample ID	MB-16905		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	16905		RunNo:	23264				
Prep Date:	12/18/2014		Analysis Date:	12/19/2014		SeqNo:	687905		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	890		1000		88.7	80	120				

Sample ID	LCS-16905		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 16905		RunNo: 23264					
Prep Date:	12/18/2014		Analysis Date: 12/19/2014		SeqNo: 687906		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	90.6	65.8	139			
Surr: BFB	1000		1000		101	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| 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#: 1412968

22-Dec-14

Client: Souder, Miller and Associates

Project: Ludwick LS #18

Sample ID	MB-16905	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	16905	RunNo:	23264					
Prep Date:	12/18/2014	Analysis Date:	12/19/2014	SeqNo:	688012	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		91.8	80	120			

Sample ID	LCS-16905	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	16905	RunNo:	23264					
Prep Date:	12/18/2014	Analysis Date:	12/19/2014	SeqNo:	688013	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.050	1.000	0	98.0	80	120			
Toluene	0.95	0.050	1.000	0	95.1	80	120			
Ethylbenzene	0.99	0.050	1.000	0	98.8	80	120			
Xylenes, Total	2.9	0.10	3.000	0	98.0	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Qualifiers:

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

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1412968

RcptNo: 1

Received by/date:

AT 12/18/14

Logged By: Anne Thorne

12/19/2014 7:30:00 AM

Anne Thorne

Completed By: Anne Thorne

12/19/2014

Anne Thorne

Reviewed By:

mg

12/19/14

Chain of Custody

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

Log In

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

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

RLV Sm SC-22 W Central Wall 220' is sample 1D

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			<i>AT 12/19/14</i>

Chain-of-Custody Record

Client:

SMA

☐ Standard ☒ Rush Same Day

☐ ☐ ☐
**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

Mailing Address:

401 W. Broadway
Farmington, NM 87401

Phone #:

505 325 7535

Project Name: Ludwick Ls #18
Project #: 5122855

email or Fax#:

~~505 325 7535~~ Steve Moskal
@saulniker.com

Project Manager:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Steve Moskal

Accreditation

☐ NELAP ☐ Other

Sampler: Steve Moskal
On Ice: ☒ Yes ☐ No

☐ EDD (Type)

Sample Temperature: 1.6

Date

Time

Matrix

Sample Request ID

Container Type and #

Preservative Type

HEAL No.

Air Bubbles (Y or N)

1/18	1600	5001	SC-21 S. central wall @ 0-30'	1402	fresh	1412	918	-01	X	BTEX + MTBE + TMB + TMD's (8021)	X	BTEX + MTBE + TPH (Gas only)	X	TPH 8015B (GRO / DRO / MRO)	X	TPH (Method 418.1)	X	EDB (Method 504.1)	X	PAH's (8310 or 8270 SIMS)	X	RCRA 8 Metals	X	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	X	8081 Pesticides / 8082 PCB's	X	8260B (VOA)	X	8270 (Semi-VOA)	X
------	------	------	-------------------------------	------	-------	------	-----	-----	---	----------------------------------	---	------------------------------	---	-----------------------------	---	--------------------	---	--------------------	---	---------------------------	---	---------------	---	--	---	------------------------------	---	-------------	---	-----------------	---

	1602		SC-22 W. central wall @ 0-30'					-02	X																					
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	1605		SC-23 central Base @ 20'					-03	X																					
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	1608		SC-24 W. central wall @ 0-30'					-04	X																					
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	1610		SC-25 E. central wall @ 0-30'					-05	X																					
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Date:	Time:	Relinquished by:	Received by:	Date:	Time:	Remarks:
-------	-------	------------------	--------------	-------	-------	----------

2/18/14	1:30	<u>[Signature]</u>	<u>[Signature]</u>	2/18/14	1800	PLS copy Alice. phillips@scsdc.mill.s. ca
---------	------	--------------------	--------------------	---------	------	---

Date:	Time:	Relinquished by:	Received by:	Date:	Time:	Remarks:
-------	-------	------------------	--------------	-------	-------	----------

2/18/14	1834	<u>[Signature]</u>	<u>[Signature]</u>	2/18/14	0730	
---------	------	--------------------	--------------------	---------	------	--

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

RECEIVED

MAR 09 2015

NMOCD

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: Santa Rosa 8#2 Release Site	Facility Type: Natural Gas Gathering Line

Surface Owner: BLM	Mineral Owner: BLM	API No.
--------------------	--------------------	---------

LOCATION OF RELEASE

Unit Letter N	Section 8	Township 29N	Range 9W	Feet from the 1169	North South Line	Feet from the 2123	East West Line	County San Juan
------------------	--------------	-----------------	-------------	--------------------------	--------------------------------	--------------------------	------------------------------	--------------------

Latitude 36.735596 Longitude -107.803623

NATURE OF RELEASE

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release 35.78 MCF Gas; 5-10 BBLs Fluids	Volume Recovered: None
Source of Release: Internal Corrosion	Date and Hour of Occurrence: 12/30/2014 @ 8:12 a.m.	Date and Hour of Discovery: 12/30/2014 @ 10:12 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy to NMOCD - Cory Smith and BLM - Shari Ketcham	
By Whom? Thomas Long	Date and Hour 1/5/2015 @ 3:15 p.m.	
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: On December 30, 2014, Enterprise technicians confirmed a leak on the Santa Rosa 8#2 pipeline. The line was isolated and de-pressurized and lock out tag out was applied. An area of soil staining or approximately four (4) feet by four (4) feet was observed on the ground surface. A third party environmental contractor oversaw excavation activities and collected closure samples during repair activities.

Describe Area Affected and Cleanup Action On December 30, 2014, Enterprise technicians confirmed a leak on the Santa Rosa 8#2 pipeline. The line was isolated and de-pressurized and lock out tag out was applied. An area of soil staining or approximately four (4) feet by four (4) feet was observed on the ground surface. Repairs and remediation were completed on January 12, 2015. The final excavation dimensions measured approximately sixty-five (65) feet long by ranging from six (6) to forty-nine (49) feet wide ranging from six (6) to twelve (12) feet deep. Approximately 196 cubic yards of hydrocarbon 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.

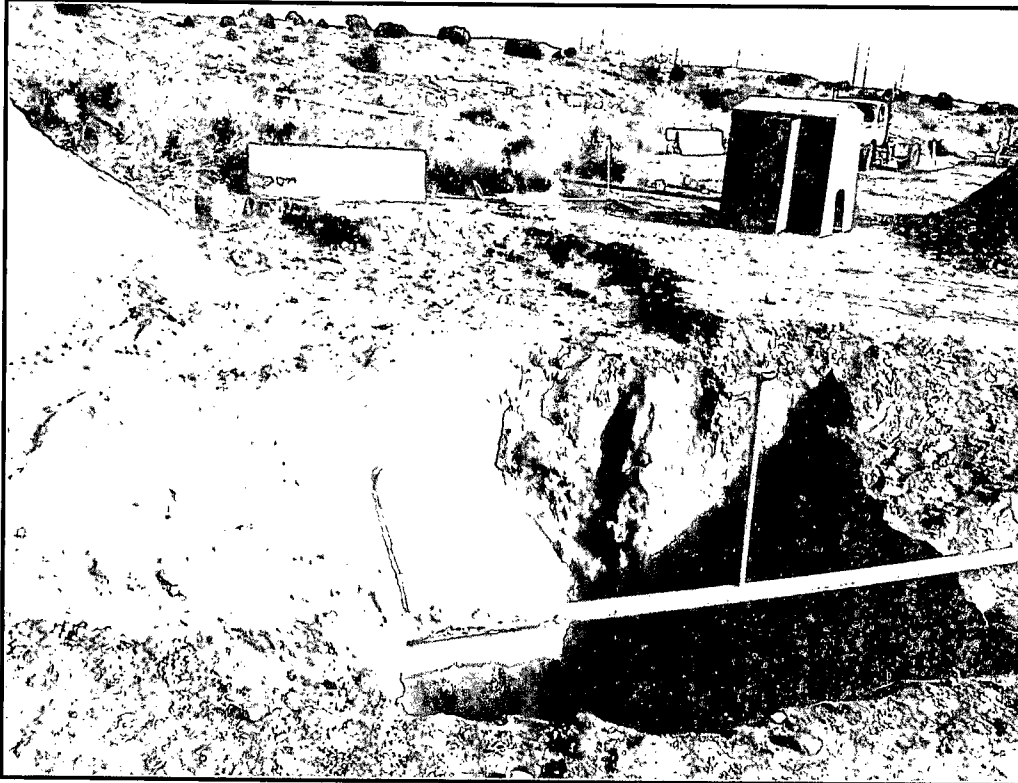
Signature: <i>Jon Fields</i>	OIL CONSERVATION DIVISION	
Printed Name: Jon Fields	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Director, Environmental	Approval Date: 4/30/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 2/26/2015	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#NCS 1512033866

35

Enterprise Products
Santa Rosa 8 #2 Pipeline Release
Latitude North 36.735596°, Longitude West -107.803633°
SE/SW (Unit N), Section 8, T29N, R9W
San Juan County, New Mexico
February 5, 2015



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

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



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2.0	Introduction.....	1
3.0	Site Ranking and Land Jurisdiction	1
4.0	Summary of Field Activities	2
5.0	Conclusions and Recommendations.....	3
6.0	Closure and Limitations.....	3

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Table 2: Site Ranking

Table 3: Summary of Laboratory Analysis

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Appendix A: Photographic Documentation

Appendix B: Soil Disposal Documentation

Appendix C: Laboratory Analytical Reports

1.0 Executive Summary

From January 8 through January 12, 2015, Souder, Miller & Associates (SMA) responded to oversee the excavation of the hydrocarbon release associated with the Santa Rosa 8 #2 natural gas well pipeline tie. The release was initially reported on December 30, 2014 and is a result of a freeze and internal corrosion of the four-inch natural gas pipeline. The table below summarizes information about the pipeline remediation activities.

TABLE 1: RELEASE INFORMATION					
Name	Santa Rosa 8 #2 Pipeline Release				
Location	Latitude/Longitude		Section, Township, Range		
	36.735596°	-107.803633°	SE/SW (Unit N)	Section 8	T 29N, R 9W
Date Reported	December 30, 2014				
Reported to	Tom Long				
Land Owner	Bureau of Land Management (BLM)				
Reported To	NM Oil Conservation Division (NMOCD) and BLM				
Diameter of Pipeline	4 inches				
Source of Release	Freeze/Internal Corrosion				
Release Contents	Natural Gas Liquids/Condensate				
Release Volume	Unknown				
Nearest Waterway	Located within 240' of an unnamed tributary associated with the San Juan River.				
Depth to Groundwater	Estimated to be less than 50 feet				
Nearest Domestic Water Source	Greater than 1,000 feet				
NMOCD Ranking	30				
SMA Response Dates	1/8-1/12/2015				
Subcontractors	Halo Services				
Disposal Facility	Envirotech				
Yd ³ Contaminated Soil Excavated and Disposed	196 (Reported on Completed C-138)				

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 Santa Rosa 8 #2 pipeline release site. The site is located in SE/SW (Unit N), Section 8, T29N, R9W, 36.735596°, -107.803633°, San Juan County, New Mexico, on land owned by the BLM. Figure 1 illustrates the vicinity and location of the site.

3.0 Site Ranking and Land Jurisdiction

The release site is in an unnamed tributary of the San Juan River, in an area owned by the BLM with an elevation of approximately 5,630 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be less than 50

feet below ground surface (bgs). Figure 1 depicts the site vicinity and Figure 2 depicts the site location.

SMA searched the New Mexico State Engineer's Office online water well database for water wells in the vicinity of the release. No wells were located within 1,000 feet and eighteen wells were found within a one mile radius of the site. The physical location of this release is within the jurisdiction of BLM and NMOCD.

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 combined 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 January 8, 2015, SMA responded to a hydrocarbon release associated with the Santa Rosa 8 #2 well tie, where excavation for pipeline repairs had already begun. Visual observation determined the pipeline release originated from the base of the meter house pipeline riser and surfaced at the end of the meter run. The liquids from the pipeline release then flowed across the ground surface to the north approximately 40 feet. The soil was frozen from the surface to approximately 2 feet bgs.

SMA returned to the site on January 9 and 12, 2015 to oversee and guide excavation of the pipeline during repair and remediation activities. SMA guided the excavation activities by collecting composite soil samples for field screening with a calibrated photo-ionization detector (PID). A single release point was found on the tee of the meter house riser. The approximate location of the release point is depicted on Figure 2.

The final excavation measured approximately 65 feet long by 6 to 49 feet wide with depths of 6 to 12 feet, covering an area of approximately 1,180 square feet. Included is a 45 foot by 6 foot section with a depth of approximately 6 feet that was advanced solely for pipeline repair purposes. A detailed excavation map is enclosed as Figure 3. Field screening and laboratory results indicated that soils from the main excavation and the northern excavation impacted by surface flows were not suitable as backfill material. In total approximately 196 cubic yards of contaminated soil was removed and replaced with clean backfill material. The contaminated soil was transported to Envirotech Landfarm, near Bloomfield, NM. Soil disposal documentation is included in Appendix B.

A total of nine soil samples were submitted for confirmation laboratory analysis per United States Environmental Protection Agency Methods: 8021 for benzene, toluene, ethylbenzene, and xylenes (BTEX) and 8015 for diesel and gasoline range organics (DRO/GRO). All samples were analyzed by Hall Environmental Analytical Laboratory in Albuquerque, New Mexico. Figure 3 illustrates the release point, the extent of the excavation, laboratory soil sample locations, and laboratory results.

5.0 Conclusions and Recommendations

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 (mg/kg) benzene, 50 ppm total BTEX, and 100 ppm TPH.

Laboratory analytical results for all samples collected were below NMOCD Guidelines for benzene (10 ppm), BTEX (50 ppm) and combined GRO/DRO (100 ppm). All sample analytes were below laboratory detection limits.

Soil contaminant concentrations are illustrated in Figure 3. A summary of laboratory analysis is included in Table 3. Laboratory reports are included in Appendix C.

SMA recommends no further action at the Santa Rosa 8 #2 pipeline release location.

6.0 Closure and Limitations

The scope of our services consisted of the performance of a preliminary spill assessment, verification of release 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 for oil and gas pipeline releases in the San Juan Basin in New Mexico.

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

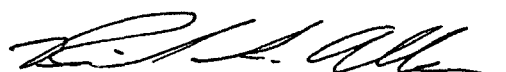
Submitted by:

Reviewed by:

SOUDER, MILLER & ASSOCIATES

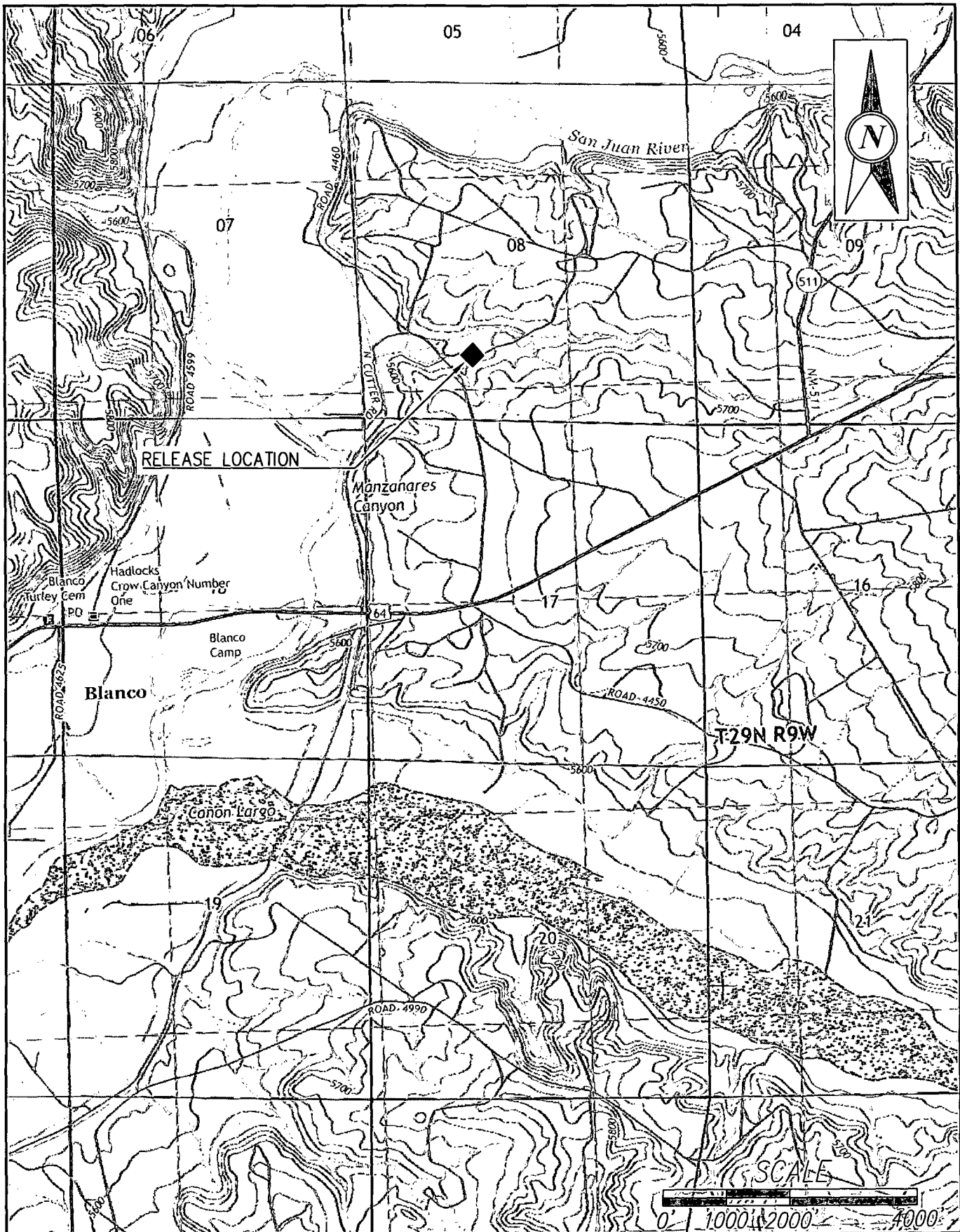


Steve Moskal
Project Scientist



Reid Allan, P.G.
Vice President/Principal Scientist

Figures



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 401 West Broadway Avenue
 Farmington, NM 87401-5907
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 www.soudermiller.com
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ENTERPRISE

FARMINGTON, NEW MEXICO

VICINITY MAP
SANTA ROSA 8 #2
SECTION 8, T29N, R9W

SAN JUAN COUNTY, NEW MEXICO

Designed	Drawn	Checked
SM	DJB	RSA
Date: FEBRUARY 5, 2015		
Scale: Horiz: 1" = 2000'		
Vert: NA		
Project No: 5123699		
Sheet: 1		

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION WITHOUT THE SIGNATURE OF THE DESIGNER



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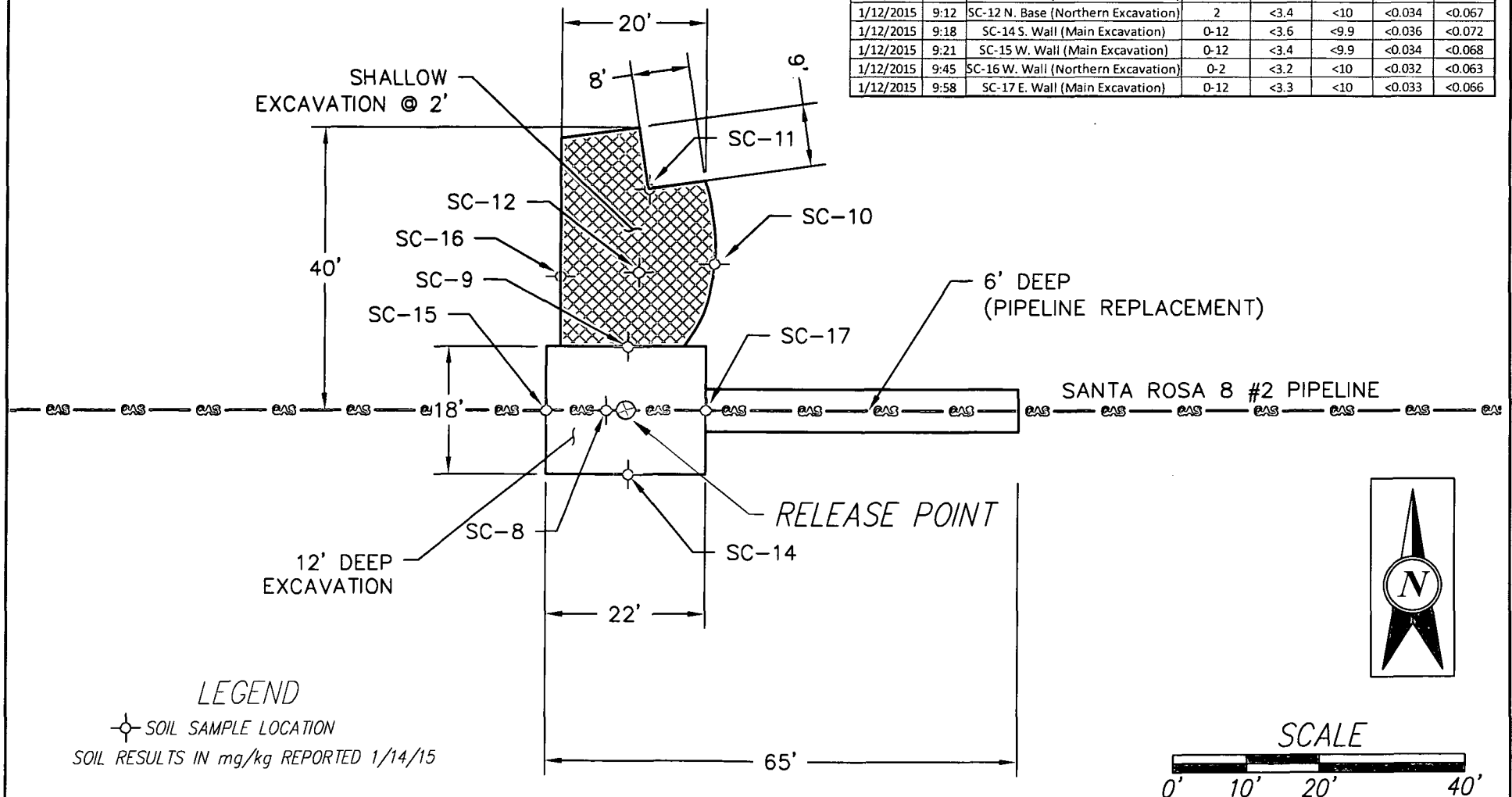
FARMINGTON, NEW MEXICO

SITE LOCATION MAP
SANTA ROSA #2
SECTION 8, T29N, R9W

SAN JUAN COUNTY, NEW MEXICO

Designed SM	Drawn DJB	Checked RSA
Date: FEBRUARY 5, 2015		
Scale: Horiz: 1"=40'		
Vert: N/A		
Project No: 5123699		
Sheet: 2		

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
1/12/2015	8:50	SC-8 S. Base (Main Excavation)	12	<3.5	<10	<0.035	<0.069
1/12/2015	8:54	SC-9 N. Wall (Main Excavation)	0-12	<3.4	<9.9	<0.034	<0.068
1/12/2015	9:08	SC-10 E. Wall (Main Excavation)	0-12	<2.9	<9.9	<0.029	<0.057
1/12/2015	9:10	SC-11 N. Wall (Northern Excavation)	0-2	<2.8	<10	<0.028	<0.056
1/12/2015	9:12	SC-12 N. Base (Northern Excavation)	2	<3.4	<10	<0.034	<0.067
1/12/2015	9:18	SC-14 S. Wall (Main Excavation)	0-12	<3.6	<9.9	<0.036	<0.072
1/12/2015	9:21	SC-15 W. Wall (Main Excavation)	0-12	<3.4	<9.9	<0.034	<0.068
1/12/2015	9:45	SC-16 W. Wall (Northern Excavation)	0-2	<3.2	<10	<0.032	<0.063
1/12/2015	9:58	SC-17 E. Wall (Main Excavation)	0-12	<3.3	<10	<0.033	<0.066



SOUDER, MILLER & ASSOCIATES
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 Farmington, NM 87401-5907
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ENTERPRISE

FARMINGTON, NEW MEXICO

SOIL CONTAMINANT CONCENTRATION MAP
SANTA ROSA 8 #2
SECTION 8, T29N, R9W

SAN JUAN COUNTY, NEW MEXICO

Designed SM	Drawn DJB	Checked RSA
Date: FEBRUARY 5, 2015		
Scale: Horiz: 1"=20'	Vert: N/A	
Project No: 5123699		
Sheet: 3		

Tables

Enterprise Products
Table 2: Site Ranking

Santa Rosa 8 #2
Pipeline Release
2/5/2015

Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20	20	Verified using Topographic Maps and Google Earth	Approximately 24 feet to groundwater reported in a well log located approximately 1900 feet NW of the release site (POD# SJ 03534)
50' to 99' = 10			
>100' = 0			
Ranking Criteria for Horizontal Distance to Nearest Surface Water	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 200' = 20	10	Verified using Topographic Maps and Google Earth	Approximately 240 feet south of an unnamed tributary wash of the San Juan River.
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	0	Accesse NMOSE WRRS database to find one well within 1,500 feet.	One well found in the NW 1/4 of SW 1/4 of S8, T29N, R9W
Total Site Ranking	30		
Soil Remedation Standards	0 to 9	10 to 19	>19
Benzene	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
TPH	5000 PPM	1000 PPM	100 PPM



Enterprise Products
Table 3: Summary of Laboratory Analysis
Results in mg/Kg

Santa Rosa 8 #2
Pipeline Release
2/5/2015

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
1/12/2015	8:50	SC-8 S. Base (Main Excavation)	12	<3.5	<10	<0.035	<0.069
1/12/2015	8:54	SC-9 N. Wall (Main Excavation)	0-12	<3.4	<9.9	<0.034	<0.068
1/12/2015	9:08	SC-10 E. Wall (Main Excavation)	0-12	<2.9	<9.9	<0.029	<0.057
1/12/2015	9:10	SC-11 N. Wall (Northern Excavation)	0-2	<2.8	<10	<0.028	<0.056
1/12/2015	9:12	SC-12 N. Base (Northern Excavation)	2	<3.4	<10	<0.034	<0.067
1/12/2015	9:18	SC-14 S. Wall (Main Excavation)	0-12	<3.6	<9.9	<0.036	<0.072
1/12/2015	9:21	SC-15 W. Wall (Main Excavation)	0-12	<3.4	<9.9	<0.034	<0.068
1/12/2015	9:45	SC-16 W. Wall (Northern Excavation)	0-2	<3.2	<10	<0.032	<0.063
1/12/2015	9:58	SC-17 E. Wall (Main Excavation)	0-12	<3.3	<10	<0.033	<0.066



Appendix A

Photographic Documentation

Site Photographs
Enterprise Products Santa Rosa 8 #2 Pipeline Release

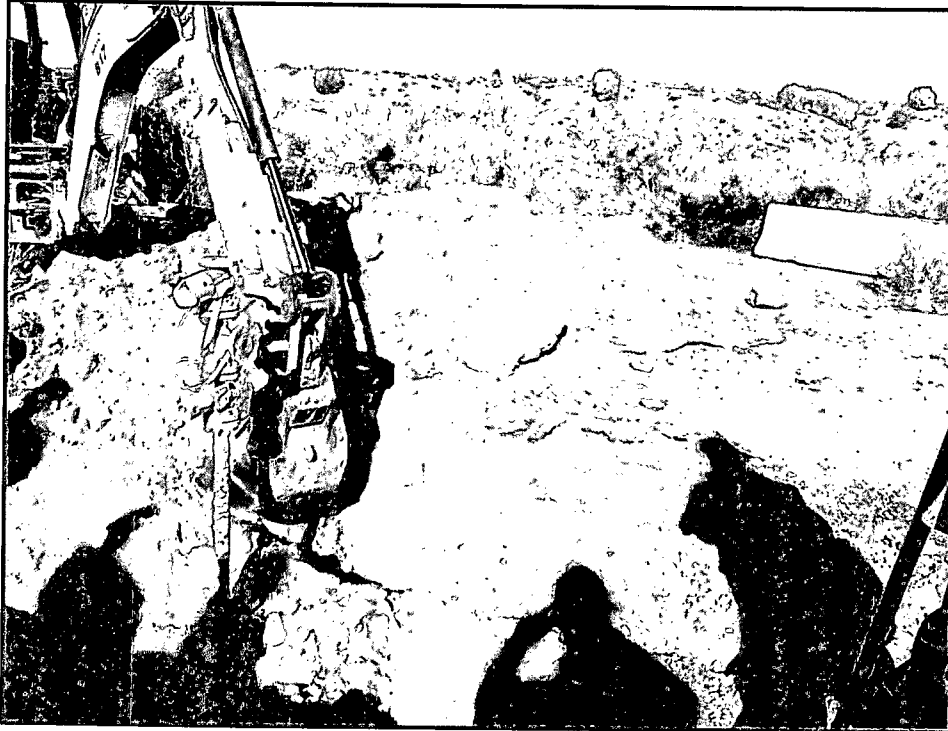


Photo 1: The initial excavation to expose the Santa Rosa 8 #2 release point.



Photo 2: The release point of the Santa rosa 8 #2 pipeline release was a broken weld associated with internal corrosion and likely failed due to freezing.

Site Photographs
Enterprise Products Santa Rosa 8 #2 Pipeline Release

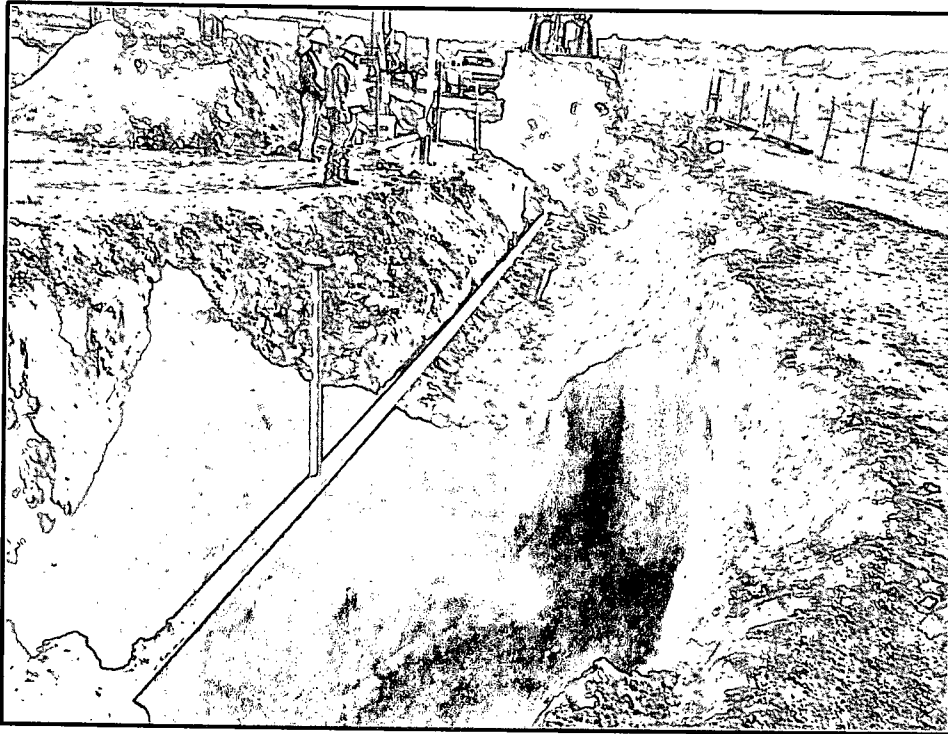


Photo 3: View of the additional excavation advanced solely for pipeline repairs. A 45' section of pipeline was replaced.



Photo 4: The vertical extent of the Santa Rosa 8 #2 main excavation.

Site Photographs
Enterprise Products Santa Rosa 8 #2 Pipeline Release

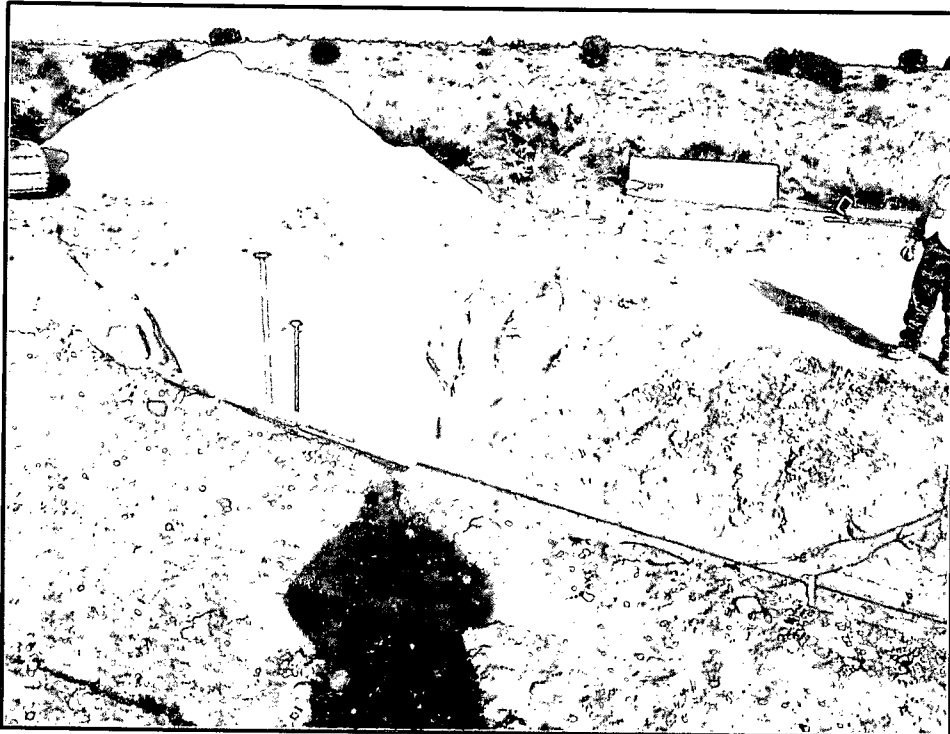


Photo 5: The extent of the northern excavation where the surface flows of pipeline liquids occurred.

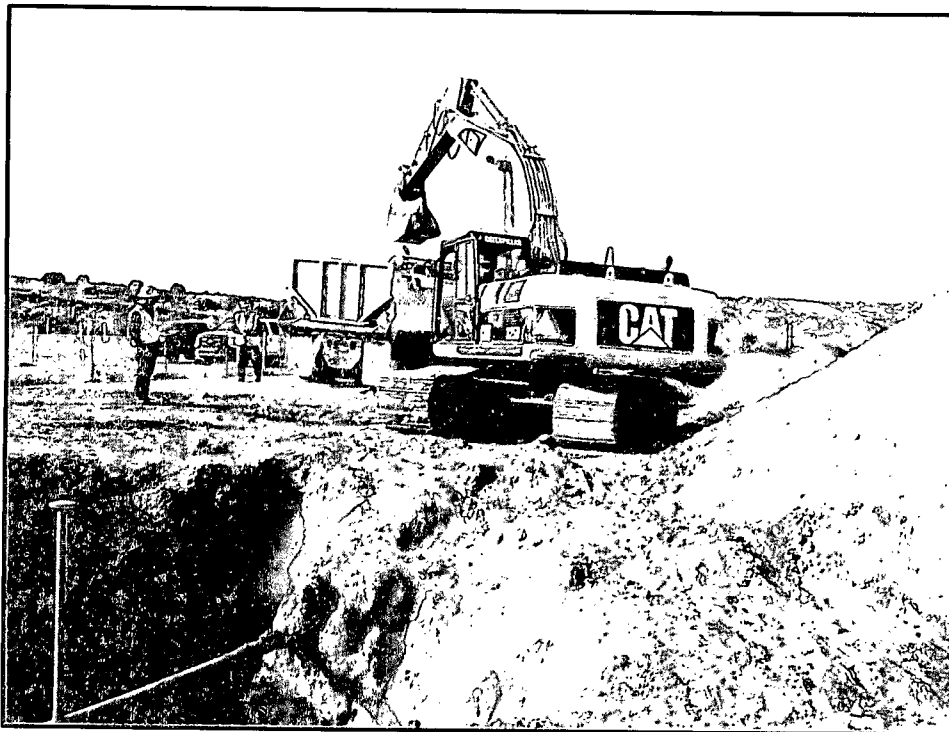


Photo 6: Photo of the excavated soils being exported from the Santa Rosa 8 #2 pipeline release site.

Appendix B

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

97057-0680

Form C-138
Revised August 1, 2011

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

*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	Jan 2015
2. Originating Site: Santa Rosa 8#2 Pipeline	
3. Location of Material (Street Address, City, State or ULSTR): Unit Letter N, Section 8, T29N, R9W; 36.735596, -107.803623	
4. Source and Description of Waste: Hydrocarbon impacted soils associated with a release from a natural gas pipeline.	
5. Estimated Volume <u>50</u> (yd ³) bbls Known Volume (to be entered by the operator at the end of the haul) <u>196</u> (yd ³) bbls	
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. Operator Use Only: <u>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> 1-8-15, representative for <u>Enterprise Field Services, LLC</u> authorize Envirotech, Inc. to Generator Signature complete the required testing/sign the Generator Waste Testing Certification.	
I, <u>Koch Runnung</u> , representative for <u>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 State Entergy Contractors <u>Richt Trucking, Lohato</u>	

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011

Address of Facility: Hilltop, NM

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: Kendra Runnung

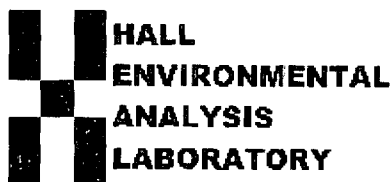
TITLE: Waste Coordinator DATE: 1/9/15

SIGNATURE: Kendra Runnung
Surface Waste Management Facility Authorized Agent

TELEPHONE NO.: 505-632-0615

Appendix C

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

January 14, 2015

Steve Moskal

Souder, Miller and Associates

401 W. Broadway

Farmington, NM 87401

TEL: (505) 325-5667

FAX (505) 327-1496

RE: Santa Rosa 8 #2

OrderNo.: 1501380

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 9 sample(s) on 1/13/2015 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-8 S. Base @ 12'

Project: Santa Rosa 8 #2

Collection Date: 1/12/2015 8:50:00 AM

Lab ID: 1501380-001

Matrix: MEOH (SOIL)

Received Date: 1/13/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/14/2015 7:28:02 AM	17189
Surr: DNOP	88.7	63.5-128		%REC	1	1/14/2015 7:28:02 AM	17189
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	1/13/2015 10:02:46 AM	17173
Surr: BFB	98.4	80-120		%REC	1	1/13/2015 10:02:46 AM	17173
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.035		mg/Kg	1	1/13/2015 10:02:46 AM	17173
Toluene	ND	0.035		mg/Kg	1	1/13/2015 10:02:46 AM	17173
Ethylbenzene	ND	0.035		mg/Kg	1	1/13/2015 10:02:46 AM	17173
Xylenes, Total	ND	0.069		mg/Kg	1	1/13/2015 10:02:46 AM	17173
Surr: 4-Bromofluorobenzene	111	80-120		%REC	1	1/13/2015 10:02:46 AM	17173

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 1 of 12
	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 1501380

Date Reported: 1/14/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-9 N. Wall @ 0-12'**Project:** Santa Rosa 8 #2**Collection Date:** 1/12/2015 8:54:00 AM**Lab ID:** 1501380-002**Matrix:** MEOH (SOIL)**Received Date:** 1/13/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/13/2015 11:40:50 AM	17189
Surr: DNOP	117	63.5-128		%REC	1	1/13/2015 11:40:50 AM	17189
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	1/13/2015 10:31:31 AM	17173
Surr: BFB	99.0	80-120		%REC	1	1/13/2015 10:31:31 AM	17173
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	1/13/2015 10:31:31 AM	17173
Toluene	ND	0.034		mg/Kg	1	1/13/2015 10:31:31 AM	17173
Ethylbenzene	ND	0.034		mg/Kg	1	1/13/2015 10:31:31 AM	17173
Xylenes, Total	ND	0.068		mg/Kg	1	1/13/2015 10:31:31 AM	17173
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	1/13/2015 10:31:31 AM	17173

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates Client Sample ID: SC-10 E. Wall @ 0-12'
 Project: Santa Rosa 8 #2 Collection Date: 1/12/2015 9:08:00 AM
 Lab ID: 1501380-003 Matrix: MEOH (SOIL) Received Date: 1/13/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/13/2015 12:02:27 PM	17189
Surr: DNOP	110	63.5-128		%REC	1	1/13/2015 12:02:27 PM	17189
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	2.9		mg/Kg	1	1/13/2015 11:00:17 AM	17173
Surr: BFB	103	80-120		%REC	1	1/13/2015 11:00:17 AM	17173
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.029		mg/Kg	1	1/13/2015 11:00:17 AM	17173
Toluene	ND	0.029		mg/Kg	1	1/13/2015 11:00:17 AM	17173
Ethylbenzene	ND	0.029		mg/Kg	1	1/13/2015 11:00:17 AM	17173
Xylenes, Total	ND	0.057		mg/Kg	1	1/13/2015 11:00:17 AM	17173
Surr: 4-Bromofluorobenzene	111	80-120		%REC	1	1/13/2015 11:00:17 AM	17173

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 3 of 12
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 1501380

Date Reported: 1/14/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-11 N. Wall @ 0-2'**Project:** Santa Rosa 8 #2**Collection Date:** 1/12/2015 9:10:00 AM**Lab ID:** 1501380-004**Matrix:** MEOH (SOIL)**Received Date:** 1/13/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/13/2015 12:23:50 PM	17189
Surr: DNOP	87.5	63.5-128		%REC	1	1/13/2015 12:23:50 PM	17189
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	2.8		mg/Kg	1	1/13/2015 11:29:00 AM	17173
Surr: BFB	99.2	80-120		%REC	1	1/13/2015 11:29:00 AM	17173
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.028		mg/Kg	1	1/13/2015 11:29:00 AM	17173
Toluene	ND	0.028		mg/Kg	1	1/13/2015 11:29:00 AM	17173
Ethylbenzene	ND	0.028		mg/Kg	1	1/13/2015 11:29:00 AM	17173
Xylenes, Total	ND	0.056		mg/Kg	1	1/13/2015 11:29:00 AM	17173
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	1/13/2015 11:29:00 AM	17173

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 1501380

Date Reported: 1/14/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-12 N. Base @ 2'

Project: Santa Rosa 8 #2

Collection Date: 1/12/2015 9:12:00 AM

Lab ID: 1501380-005

Matrix: MEOH (SOIL)

Received Date: 1/13/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/13/2015 12:45:30 PM	17189
Surr: DNOP	94.6	63.5-128		%REC	1	1/13/2015 12:45:30 PM	17189
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	1/13/2015 11:57:41 AM	17173
Surr: BFB	98.2	80-120		%REC	1	1/13/2015 11:57:41 AM	17173
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	1/13/2015 11:57:41 AM	17173
Toluene	ND	0.034		mg/Kg	1	1/13/2015 11:57:41 AM	17173
Ethylbenzene	ND	0.034		mg/Kg	1	1/13/2015 11:57:41 AM	17173
Xylenes, Total	ND	0.067		mg/Kg	1	1/13/2015 11:57:41 AM	17173
Surr: 4-Bromofluorobenzene	111	80-120		%REC	1	1/13/2015 11:57:41 AM	17173

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 5 of 12
	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-14 S. Wall @ 0-12'

Project: Santa Rosa 8 #2

Collection Date: 1/12/2015 9:18:00 AM

Lab ID: 1501380-006

Matrix: MEOH (SOIL)

Received Date: 1/13/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/13/2015 1:06:56 PM	17189
Surr: DNOP	96.9	63.5-128		%REC	1	1/13/2015 1:06:56 PM	17189
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	1/13/2015 12:26:29 PM	17173
Surr: BFB	97.5	80-120		%REC	1	1/13/2015 12:26:29 PM	17173
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.036		mg/Kg	1	1/13/2015 12:26:29 PM	17173
Toluene	ND	0.036		mg/Kg	1	1/13/2015 12:26:29 PM	17173
Ethylbenzene	ND	0.036		mg/Kg	1	1/13/2015 12:26:29 PM	17173
Xylenes, Total	ND	0.072		mg/Kg	1	1/13/2015 12:26:29 PM	17173
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	1/13/2015 12:26:29 PM	17173

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 6 of 12
	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 ReportLab Order **1501380**Date Reported: **1/14/2015****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-15 W. Wall @ 0-12'**Project:** Santa Rosa 8 #2**Collection Date:** 1/12/2015 9:21:00 AM**Lab ID:** 1501380-007**Matrix:** MEOH (SOIL)**Received Date:** 1/13/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/13/2015 1:35:24 PM	17189
Surr: DNOP	89.0	63.5-128		%REC	1	1/13/2015 1:35:24 PM	17189
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	1/13/2015 12:55:18 PM	17173
Surr: BFB	96.0	80-120		%REC	1	1/13/2015 12:55:18 PM	17173
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	1/13/2015 12:55:18 PM	17173
Toluene	ND	0.034		mg/Kg	1	1/13/2015 12:55:18 PM	17173
Ethylbenzene	ND	0.034		mg/Kg	1	1/13/2015 12:55:18 PM	17173
Xylenes, Total	ND	0.068		mg/Kg	1	1/13/2015 12:55:18 PM	17173
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	1/13/2015 12:55:18 PM	17173

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 7 of 12
	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 1501380

Date Reported: 1/14/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-16 W. Wall @ 0-2'**Project:** Santa Rosa 8 #2**Collection Date:** 1/12/2015 9:45:00 AM**Lab ID:** 1501380-008**Matrix:** MEOH (SOIL)**Received Date:** 1/13/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/13/2015 1:56:46 PM	17189
Surr: DNOP	94.2	63.5-128		%REC	1	1/13/2015 1:56:46 PM	17189
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	1/13/2015 1:24:03 PM	17173
Surr: BFB	98.3	80-120		%REC	1	1/13/2015 1:24:03 PM	17173
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.032		mg/Kg	1	1/13/2015 1:24:03 PM	17173
Toluene	ND	0.032		mg/Kg	1	1/13/2015 1:24:03 PM	17173
Ethylbenzene	ND	0.032		mg/Kg	1	1/13/2015 1:24:03 PM	17173
Xylenes, Total	ND	0.063		mg/Kg	1	1/13/2015 1:24:03 PM	17173
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	1/13/2015 1:24:03 PM	17173

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 8 of 12
	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 1501380

Date Reported: 1/14/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-17 E. Wall @ 0-12'

Project: Santa Rosa 8 #2

Collection Date: 1/12/2015 9:58:00 AM

Lab ID: 1501380-009

Matrix: MEOH (SOIL)

Received Date: 1/13/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/13/2015 2:18:28 PM	17189
Surr: DNOP	96.6	63.5-128		%REC	1	1/13/2015 2:18:28 PM	17189
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	1/13/2015 1:52:51 PM	17173
Surr: BFB	97.7	80-120		%REC	1	1/13/2015 1:52:51 PM	17173
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.033		mg/Kg	1	1/13/2015 1:52:51 PM	17173
Toluene	ND	0.033		mg/Kg	1	1/13/2015 1:52:51 PM	17173
Ethylbenzene	ND	0.033		mg/Kg	1	1/13/2015 1:52:51 PM	17173
Xylenes, Total	ND	0.066		mg/Kg	1	1/13/2015 1:52:51 PM	17173
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	1/13/2015 1:52:51 PM	17173

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1501380

14-Jan-15

Client: Souder, Miller and Associates

Project: Santa Rosa 8 #2

Sample ID	MB-17189	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	17189	RunNo:	23615					
Prep Date:	1/13/2015	Analysis Date:	1/13/2015	SeqNo:	697701	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		91.3	63.5	128			

Sample ID	LCS-17189	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	17189	RunNo:	23634					
Prep Date:	1/13/2015	Analysis Date:	1/14/2015	SeqNo:	697805	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	60	10	50.00	0	120	67.8	130			
Surr: DNOP	3.7		5.000		74.1	63.5	128			

Sample ID	1501380-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-8 S. Base @ 12'	Batch ID:	17189	RunNo:	23634					
Prep Date:	1/13/2015	Analysis Date:	1/14/2015	SeqNo:	697961	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	62	9.8	49.16	0	126	29.2	176			
Surr: DNOP	4.9		4.916		99.5	63.5	128			

Sample ID	1501380-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-8 S. Base @ 12'	Batch ID:	17189	RunNo:	23634					
Prep Date:	1/13/2015	Analysis Date:	1/14/2015	SeqNo:	697962	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.30	0	112	29.2	176	9.19	23	
Surr: DNOP	4.6		5.030		90.8	63.5	128	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#: 1501380

14-Jan-15

Client: Souder, Miller and Associates

Project: Santa Rosa 8 #2

Sample ID	MB-17173	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	17173	RunNo:	23618					
Prep Date:	1/12/2015	Analysis Date:	1/13/2015	SeqNo:	697851	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	950		1000		95.4	80	120			

Sample ID	LCS-17173	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	17173	RunNo:	23618					
Prep Date:	1/12/2015	Analysis Date:	1/13/2015	SeqNo:	697852	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	5.0	25.00	0	120	65.8	139			
Surr: BFB	1100		1000		108	80	120			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1501380

14-Jan-15

Client: Souder, Miller and Associates

Project: Santa Rosa 8 #2

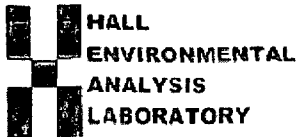
Sample ID	MB-17173	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS	Batch ID: 17173		RunNo: 23618						
Prep Date:	1/12/2015	Analysis Date: 1/13/2015		SeqNo: 697876			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	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-17173	SampType: LCS			TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID: 17173			RunNo: 23618					
Prep Date:	1/12/2015	Analysis Date: 1/13/2015			SeqNo: 697877		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	1.1	0.050	1.000	0	112	80	120			
Ethylbenzene	1.2	0.050	1.000	0	116	80	120			
Xylenes, Total	3.4	0.10	3.000	0	114	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		119	80	120			

Qualifiers:

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

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



Hall Environmental Analysis Laboratory
4901 Hawking NE
Albuquerque, NM 87106
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1501380

ReptNo: 1

Received by/date:

Logged By: Lindsay Mangin

1/13/2015 7:00:00 AM

Completed By: Lindsay Mangin

1/13/2015 7:17:28 AM

Reviewed By:

At 01/13/15

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

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

17. Additional remarks: Person use collection times on LOC 1/13/15

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.0	Good	Yes			

Chain-of-Custody Record

Client: SMA

Mailing Address: 401 W. Broadway

Phone #: 505 825 7535

email or Fax#: stevemuskal@southernmiller.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☐ Standard ☒ Rush Same Day

Project Name:

Santa Rosa #2

Project #:

5123699

Project Manager:

Steve Muskal

Sampler: " "

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.0



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTX ⁺ MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO/DRO/TMRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
1/15	0850	Soil/MFCH	SC-8 S. Base @ 12'	4oz X1/MFCH	Cooled MECH	1501380-001	↓	↓	↓									
	0854		SC-9 N wall @ 0-12'			-002	↓	↓	↓									
	0903		SC-10 E wall @ 0-12'			-003	↓	↓	↓									
	0910		SC-11 N wall @ 0-2'			-004	↓	↓	↓									
	0912		SC-14 S. wall @ 0-12'				↓	↓	↓									
	0918		SC-15 W wall @ 0-12'				↓	↓	↓									
	0920		SC-12 N. Base @ 2'			-005	↓	↓	↓									
	0925		SC-14 S. wall @ 0-12'			-006	↓	↓	↓									
	0927		SC-15 W wall @ 0-12'			-007	↓	↓	↓									
	0945		SC-16 W wall @ 0-2'			-008	↓	↓	↓									
	0958		SC-17 E wall @ 0-12'			-009	↓	↓	↓									

Date:	Time:	Relinquished by:	Received by:	Date:	Time:	Remarks:
1/15	1500	<u>Steve Muskal</u>	<u>Christine Waack</u>	1/15	1743	- Please Invoice to EPLC
Date:	Time:	Relinquished by:	Received by:	Date:	Time:	
1/15	1821	<u>Christine Waack</u>	<u>[Signature]</u>	1/15	0700	- copy alicia.patterson@southernmiller.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.

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

RECEIVED

MAR 05 2015

NMOCD

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

☒ Final Report

Name of Company	Enterprise Field Services, LLC	Contact	Thomas Long
Address	614 Reilly Avenue, Farmington NM 87401	Telephone No.	(505)599-2286
Facility Name:	Ballard Compressor Station	Facility Type	Natural Gas Compressor Station

Surface Owner	Private	Mineral Owner	BLM	API No.	
---------------	---------	---------------	-----	---------	--

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	26	26N	9W	2487		510		San Juan

Latitude 36.459520

Longitude -107.751642

NATURE OF RELEASE

Type of Release	Natural Gas Condensate	Volume of Release	4-5 Barrels	Volume Recovered	4 Barrels (estimated)
Source of Release	Condensate Tank Overtopping	Date and Hour of Occurrence	7.2.2013 @ 07:00 hours (estimated)	Date and Hour of Discovery	7.2.2013 @ 08:00 hours
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?			
By Whom?		Date and Hour			
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* At tank overtopping was discovered at the Ballard condensate tanks on July 2, 2013. An estimated 4-5 barrels of condensate was released into the lined secondary containment system. Approximately 10-20 gallons of condensate was carried over in mist form and fell onto the ground within a 30 foot semi-circle to the north west side of the tanks and containment system. The condensate from the secondary lined containment berm was removed within 2 hours of the discovery of the tank overtopping. A malfunction of the automated liquid level indicator system was discovered as evidenced by incorrect readings relayed to the monitoring system.

Describe Area Affected and Cleanup Action Taken.*

Third party environmental contractor assessed the release area and approximately 120 barrels of contaminated soil were hydro-excavated from within the containment area and transported to a NMOCD approved land farm facility. After assessment and excavation activities were completed, a bioremediation solution (Micro-Blaze) was applied to excavation side walls a base. From December 2014 to January 2015, the two condensate tanks were removed and repaired. Prior to resetting the tanks, approximately 368 cubic yards of hydrocarbon impacted soil were excavated and transported to a NMOCD approved land farm facility. An oxidizing solution (potassium permanganate) was also applied to the excavation prior to backfilling. 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.

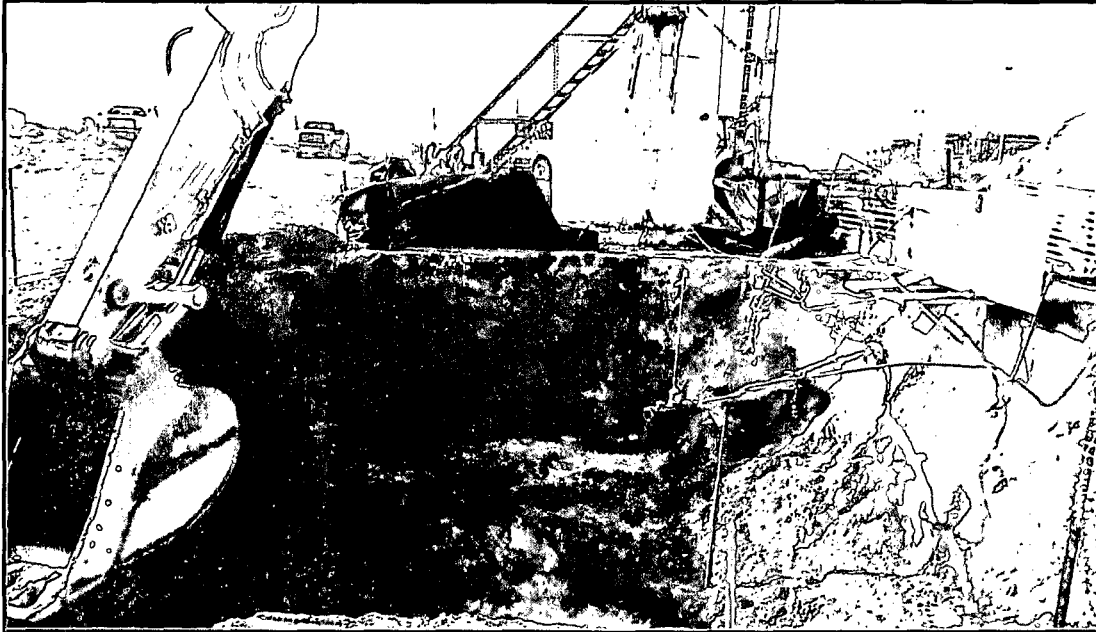
Signature: <i>Jon Fields</i>	OIL CONSERVATION DIVISION		
Printed Name: Jon Fields	Approved by Environmental Specialist: <i>[Signature]</i>		
Title: Director, Environmental	Approval Date: 4/30/15	Expiration Date: <i>[Signature]</i>	
E-mail Address: jefields@eprod.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 8-26-2015	Phone: (713)381-6684		

* Attach Additional Sheets If Necessary

#NCS 1430840639

70

Enterprise Products
Ballard Compressor Station Tank Battery
Latitude North 36.459520°, Longitude West -107.751642°
SE/NE (Unit H), Section 26, T26N, R9W
San Juan County, New Mexico
February 5, 2015



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

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



Table of Contents

1.0	Executive Summary	1
2.0	Introduction.....	1
3.0	Site Ranking and Land Jurisdiction	2
4.0	Summary of Field Activities	2
5.0	Conclusions and Recommendations.....	3
6.0	Closure and Limitations.....	4

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Figure 1: Vicinity Map

Figure 2: Site Map

Figure 3: Soil Contaminant Concentration Map

Tables:

Table 1: Release Information

Table 2: Site Ranking

Table 3: Summary of Laboratory Analysis

Appendices:

Appendix A: Photographic Documentation

Appendix B: Soil Disposal Documentation

Appendix C: Laboratory Analytical Reports

1.0 Executive Summary

From December 3, 2014 through January 19, 2015, Souder, Miller & Associates (SMA) responded to oversee the excavation of the hydrocarbon release associated with the Ballard Compressor Station Tank Battery. The release was initially reported on July 2, 2013 and was thought to be the result of overtopping of the western condensate tank associated with a malfunction of the automated liquid level indicator system. During excavation, a leaking collar of a hammer union was discovered to have caused contamination around the base of the below grade tank (BGT). The table below summarizes information about the location remediation activities.

TABLE 1: RELEASE INFORMATION

Name	Ballard Compressor Station Tank Battery				
Location	Latitude/Longitude		Section, Township, Range		
	36.459520°	-107.751642°	SE/NE (Unit H)	Section 26	T 26N, R 9W
Date Reported	July 2, 2013				
Reported to	Tom Long				
Land Owner	Private				
Reported To	NM Oil Conservation Division (NMOCD)				
Diameter of Pipeline	N/A				
Source of Release	Overfilling of Condensate Tanks				
Release Contents	Natural Gas Liquids/Condensate				
Release Volume	Estimated 4 to 5 barrels				
Nearest Waterway	Approximately 500 feet to an unnamed tributary of Blanco Wash				
Depth to Groundwater	Estimated to be greater than 100 feet				
Nearest Domestic Water Source	Greater than 1,000 feet				
NMOCD Ranking	10				
SMA Response Dates	12/3-4/2014, 12/8/2014, 1/7-9/2015, 1/13-14/2015, 1/16/2015, 1/19/2015				
Subcontractors	West States Energy Contractors (WSEC)				
Disposal Facility	Envirotech				
Yd ³ Contaminated Soil Excavated and Disposed	368 (Reported on Completed C-138)				

2.0 Introduction

On behalf of Enterprise Products Operating, LLC. (Enterprise), SMA has prepared this report that describes remediation of the pipeline liquids release associated with the Ballard Compressor Station Tank Battery release site. The site is located in SE/NE (Unit H), Section 26, T26N, R9W, 36.459520°, -107.751642°, San Juan County, New Mexico, on privately owned land. Figure 1 illustrates the vicinity and location of the site.

3.0 Site Ranking and Land Jurisdiction

The release site is located on a privately owned land, with an elevation of approximately 6,490 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be greater than 100 feet below ground surface (bgs). Figure 2 depicts the site location.

SMA searched the New Mexico State Engineer's Office online water well database for water wells in the vicinity of the release. Two wells (SJ0064 and SJ00214) were located within 1,000 feet and one additional (SJ0063) within a mile radius of the site. The physical location of this release is within the jurisdiction of NMOCD.

This release location has been assigned a NMOCD ranking of 10 which requires a soil remediation standard of 10 parts per million (ppm) benzene, 50 ppm combined benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and 1,000 ppm total petroleum hydrocarbons (TPH). Table 2 illustrates site ranking rationale.

4.0 Summary of Field Activities

4.1 Historical Field Activities

In July and August of 2013, Animas Environmental Services, LLC (Animas) completed an assessment of the Ballard Compressor Station Condensate Tank release which is documented in the Release Assessment Report: Ballard Compressor Station Condensate Tank Release report dated December 9, 2013. Approximately 38.3 cubic yards of hydrocarbon impacted soil was excavated from inside the steel wall containment and around the footers of the containment wall at depths of 0.25 to 6.0 feet bgs. Laboratory analytical results indicated that remaining contamination existed in the northwest, central, southcentral and southeast portions of the excavation. Animas reported further excavation was limited due to competent shale and sandstone. On August 14, 2013, 500 gallons of Micro-Blaze® was applied to the excavation. Further action was recommended.

4.2 Present Field Activities

On December 3 and 4, 2014, SMA was present on site to oversee and guide excavation of the tank battery during repair and remediation activities. SMA guided the excavation activities by collecting composite soil samples for field screening with a calibrated photo-ionization detector (PID). Initially the release was only thought to have originated as the result of overtopping of the western most condensate tank however several corrosion holes were discovered in the bottom of the western condensate tank when it was removed. Excavation activities were conducted by West States Energy Contractors in the vicinity of the western portion of the secondary containment area. Samples collected for laboratory analysis confirmed the extents of the west excavation were below NMOCD standards.

SMA returned to the site on December 8, 2014, to dig a test pit on the north side of the Below Grade Tank (BGT) and excavate the east and south sides of the battery containment, around the BGT. The test pit was completed to 3' bgs and no contamination was encountered. The areas around the south and east of the BGT were excavated to 6' bgs, no contamination was encountered, and the excavation was backfilled with clean soil. It was not until January 8, 2015,

that contamination was discovered to underlie these areas beginning at 7' bgs and continuing to bedrock at approximately 10' bgs.

On January 7, 8 and 9, 2015, the eastern above ground tank was removed, and the central portion of the secondary containment was excavated. Contaminated soil was evident from the surface down to bedrock however a significant increase in contamination was observed below 7' bgs to bedrock. As the excavation propagated northward, an unmarked pipe leading to the BGT was discovered and was observed to be leaking at a loose hammer union. This release point was considered to be the cause of the contamination underlying the excavations conducted on December 8, 2014, surrounding the BGT. Cory Smith from the NMOCD Aztec Office was present to witness sampling on January 9, 2015. Results from this sampling event showed contamination remained in the northeast and southeast walls of excavation, in proximity to the BGT. SMA and WSEC planned to return on January 13, 2015.

January 13 and 14, 2015, SMA returned to site to oversee and guide the excavation around the north side of the BGT, contaminated soil appeared to extend below the BGT. After consulting with Enterprise, it was decided that the BGT would be removed to ensure all contaminated soil was excavated. The BGT was removed on January 14, 2015 and the remaining contaminated soil was excavated and removed. On January 16, 2014, SMA collected samples for laboratory analysis from the final extents of the excavation. Some of the excavated extents overlapped previously backfilled areas as well as soil used to create the pad for the containment. This material was stockpiled, separately, sampled to confirm it was not impacted, and then used as backfill along with imported soil from the Envirotech landfarm.

The final excavation measured approximately 32 feet by 27 feet with depths of 9 to 10 feet, covering an area of approximately 1134 square feet. In total approximately 368 cubic yards of contaminated soil was removed and replaced with clean backfill material. The contaminated soil was transported to Envirotech Landfarm, near Bloomfield, NM. Soil disposal documentation is included in Appendix B.

Soil samples were submitted for confirmation laboratory analysis per United States Environmental Protection Agency Methods: 8021 for benzene, toluene, ethylbenzene, and xylenes (BTEX) and 8015 for diesel and gasoline range organics (DRO/GRO). All samples were analyzed by Hall Environmental Analytical Laboratory in Albuquerque, New Mexico. Figure 3 illustrates the extent of the excavation, laboratory soil sample locations, and laboratory results.

Due to lithologic competency of the excavation's base, the depth could not be increased. On January 19, 2015, SMA witnessed the application of approximately 350 gallons of potassium permanganate oxidizing solution from Envirotech to the base of the excavation.

5.0 Conclusions and Recommendations

NMOCD Guidelines for Remediation of Leaks, Spills, and Releases have established the following action levels for contaminants of concern with a site ranking of 10: 10 ppm (mg/kg) benzene, 50 ppm total BTEX, and 1,000 ppm TPH.

Laboratory analytical results for all samples collected were below NMOCD Guidelines for benzene (10 ppm), BTEX (50 ppm) and combined GRO/DRO (1,000 ppm) with the exception of SC-29 NE Wall, SC-30 SE Wall, and SC-36 Base (east). TPH was detected in the northeast

wall sample SC-29 @ 0-9' (1870 ppm), the northwest wall sample SC-30 @ 0-9' (1606 ppm), and the east base sample SC-36 @ 10' (1380 ppm). Potassium Permanganate was applied to the excavation to bring remaining contamination levels to below NMOCD remediation standards. The Samples SC-29 and SC-30 were subsequently excavated beyond and the contaminated material removed. Total BTEX was detected, below NMOCD Guidelines, in all the final extent samples.

Soil contaminant concentrations are illustrated in Figure 3. A summary of laboratory analysis is included in Table 3. Laboratory reports are included in Appendix C.

SMA recommends no further action at the Ballard Compressor Station Battery release location.

6.0 Closure and Limitations

The scope of our services consisted of the performance of a preliminary spill assessment, verification of release 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 for oil and gas pipeline releases in the San Juan Basin in New Mexico.

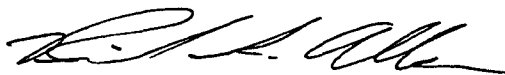
If there are any questions regarding this report, please contact either Steve Moskal or Reid Allan at 505-325-7535.

Submitted by:



Jesse Sprague
Staff Scientist

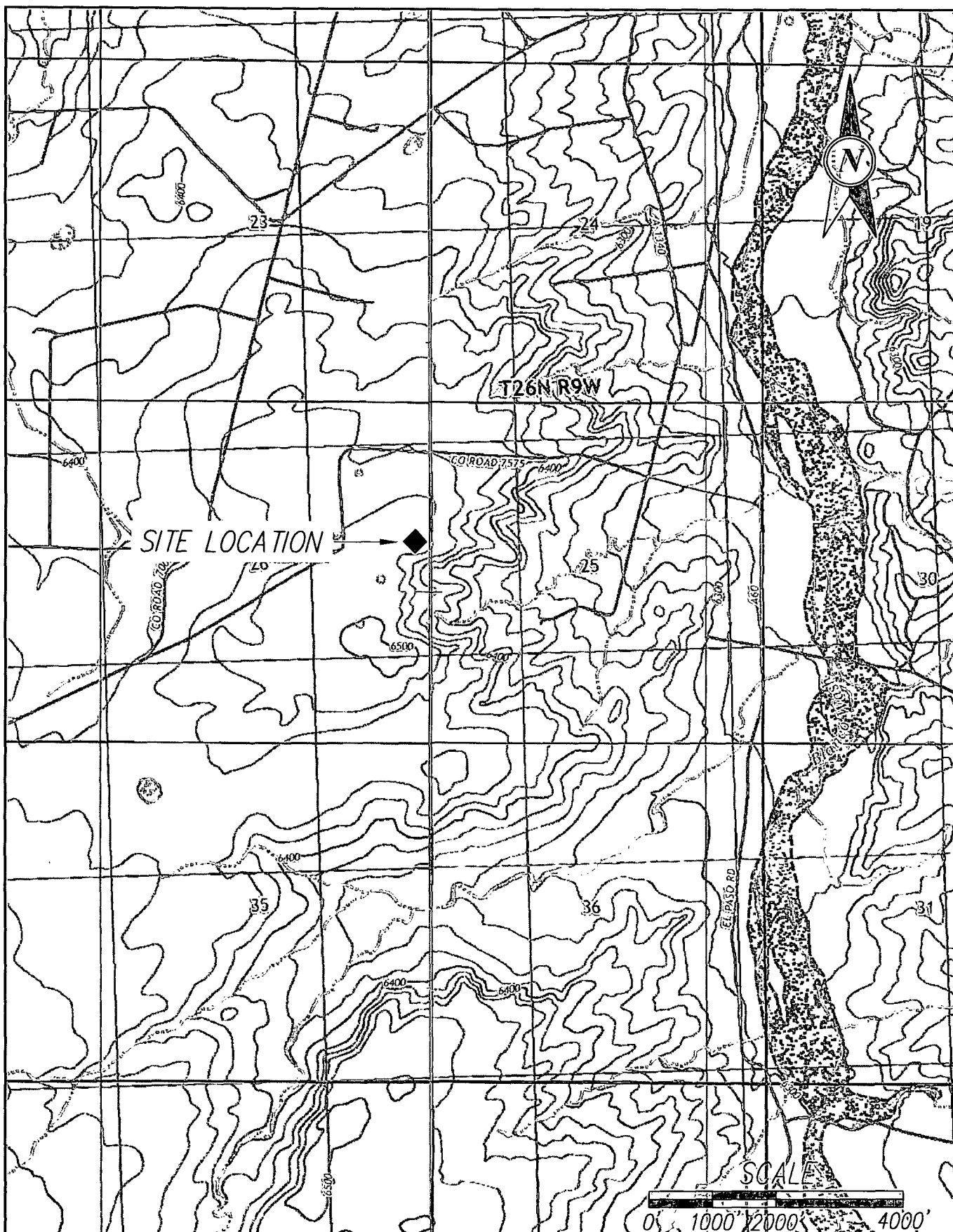
Reviewed by:



Reid Allan, P.G.
Vice President/Principal Scientist

SOUDER, MILLER & ASSOCIATES

Figures



SOUDER, MILLER & ASSOCIATES
401 West Broadway Avenue
Farmington, NM 87401-5907

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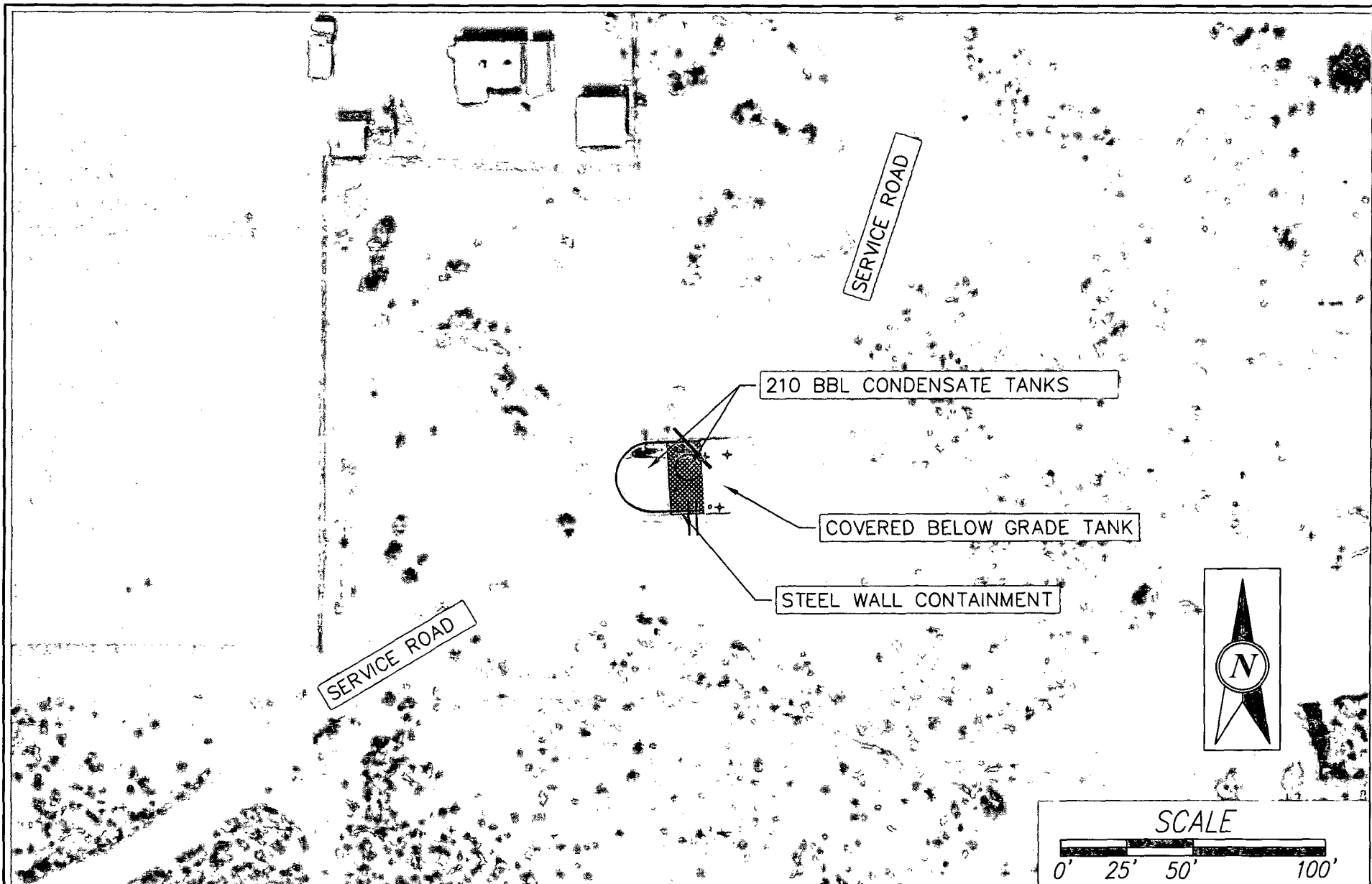
ENTERPRISE

FARMINGTON, NEW MEXICO

VICINITY MAP
BALLARD COMPRESSOR STATION
SECTION 26, T26N, R9W

SAN JUAN COUNTY, NEW MEXICO

Designed SM	Drawn DJB	Checked RSA
Date:	1/8/15	
Scale:	Horiz: 1"=2000'	Vert: N/A
Project No:	5122855	
Sheet:	1	



SOUDER, MILLER & ASSOCIATES
401 W. BROADWAY
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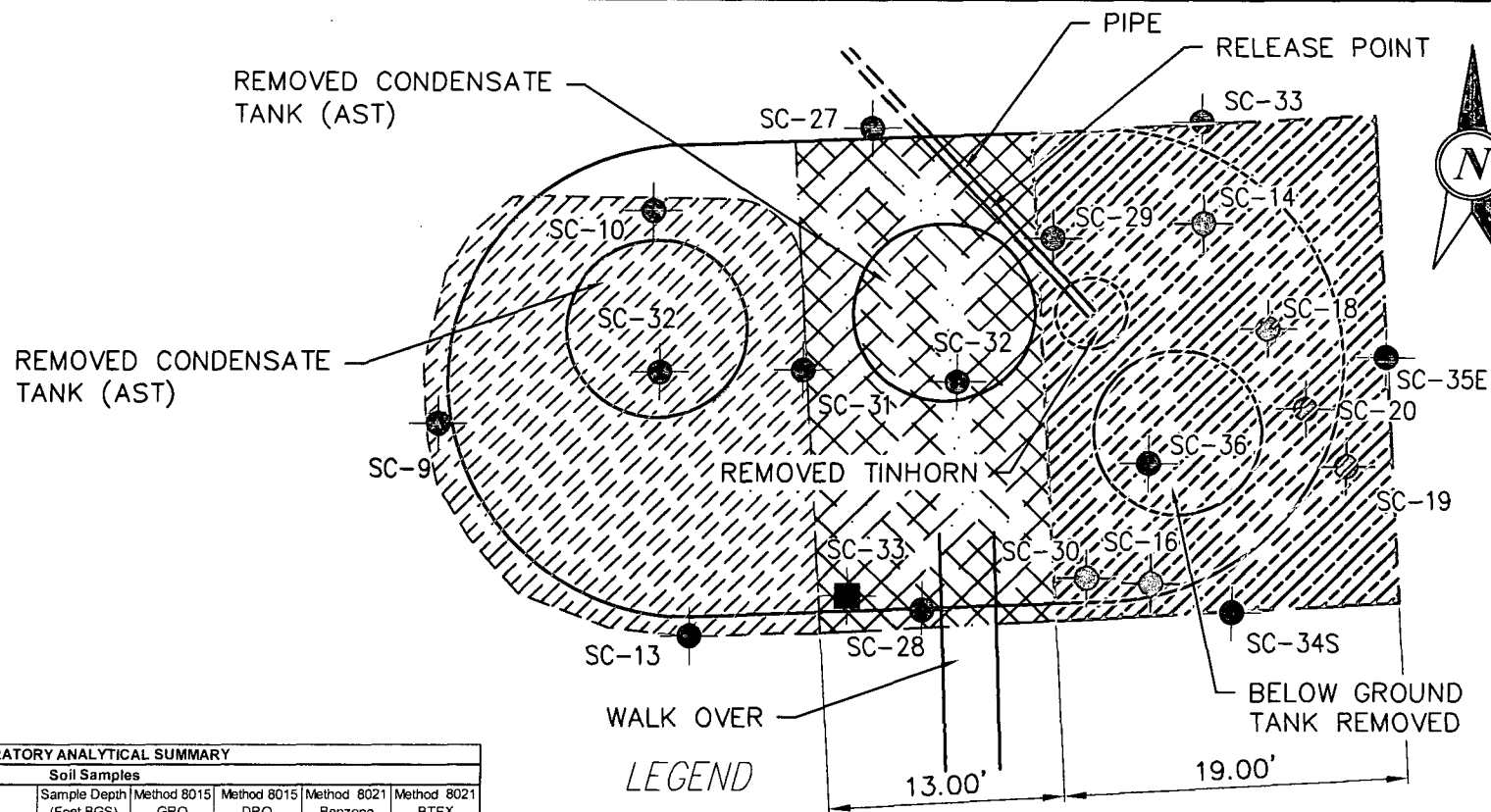
ENTERPRISE

FARMINGTON, NEW MEXICO




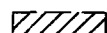

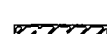
SITE LOCATION MAP
BALLARD COMPRESSOR STATION
SECTION 26, T26N, R9W

SAN JUAN COUNTY, NEW MEXICO

Designed SM	Drawn DJB	Cleeked RSA
Date: 1/8/14		
Scale: Horiz: 1"=50'		
Vert: N/A		
Project No: 5122855		
Sheet: 2		

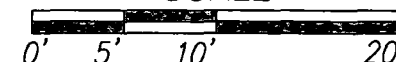


LEGEND

-  COMPOSITE SOIL SAMPLE LOCATION
-  COMPOSITE SOIL SAMPLE LOCATION TAKEN THEN EXCAVATED BEYOND
-  SOIL SAMPLE LOCATION
-  EXCAVATION 12/5/2014 (6FT DEPTH)
-  EXCAVATION 1/8/2018 (9' DEPTH)
-  EXCAVATION 1/16/2015 (10FT DEPTH)

RESULTS IN mg/kg REPORTED
12-08-14, 12-10-14, 1-14-15,
1-20-15

SCALE



LABORATORY ANALYTICAL SUMMARY						
Soil Samples						
Date	Time	Sample ID	Sample Depth (Feet BGS)	Method 8015 GRO	Method 8015 DRO	Method 8021 Benzene BTX
NMOCD Guidelines				100 ppm		
12/8/2014	10:00	SC-13 S. Wall @ 0-6'	0-6.0	<3.7	<10	<0.037
12/8/2014	11:20	SC-14 N. E. Corner @ 0-3'	0-3.0	<3.3	<10	<0.033
12/8/2014	12:01	SC-16 S. E. Wall @ 0-6.0'	0-6.0	<3.3	49	<0.033
12/8/2014	15:15	SC-18 N. Wall @ 0-6'	0-6.0	<3.1	<10	<0.031
12/8/2014	15:17	SC-19 W. Wall @ 0-5'	0-5.0	<3.1	<10	<0.031
12/8/2014	15:20	SC-20 E. Base @ 5-6	5-6.0	<3.2	<9.8	<0.032
1/9/2015	13:32	SC-27 N	0-7.0	<2.9	<10	<0.029
1/9/2015	13:35	SC-28 S	0-7.0	11	250	<0.028
1/9/2015	13:41	SC-31 W	0-7.0	<3.2	56	<0.032
1/9/2015	13:42	SC-32 Base	7	170	360	0.12
1/9/2015	13:45	Grab South Wall	6	16	<9.9	0.041
1/16/2015	13:00	SC-33 N	0-9'	<3.3	<9.9	<0.033
1/16/2015	13:05	SC-34 S	0-10'	6.2	36	<0.030
1/16/2015	13:10	SC-35 E	0-10'	<3.0	<9.9	<0.030
1/16/2015	13:15	SC-36 Base (east)	10'	740	640	0.44
1/16/2015	13:20	N Stockpile (Overburden)	--	<3.3	<10	<0.033
1/16/2015	13:25	S Stockpile (Pad)	--	<2.9	11	<0.029



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ENTERPRISE

FARMINGTON, NEW MEXICO

SOIL CONTAMINANT CONCENTRATION MAP BALLARD COMPRESSOR STATION SECTION 26, T26N, R9W

SAN JUAN COUNTY, NEW MEXICO

Designed	Drawn	Checked
SM	DJB	RSA
Date: 1/29/15		
Scale: Horiz: 1"=10'		
Vert: N/A		
Project No: 5122855		
Sheet: 3		

Tables

Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20	0	Topographic Maps and Field Verification	Groundwater estimated to be greater than 100 feet below ground surface.
50' to 99' = 10			
>100' = 0			
Ranking Criteria for Horizontal Distance to Nearest Surface Water	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 200' = 20		Topographic Maps and Field Verification	Located within 200' of an unnamed tributary associated with the Valdez Draw drainage basin.
200'-1000' = 10	10		
>1000'			
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' for a private domestic water source? YES OR NO to BOTH. YES = 20, NO = 0	0	NM State Engineer Water Well Database	Two recorded water wells are located within 1,000 feet and one is located within a 1 mile radius.
Total Site Ranking	10		
Soil Remedation Standards	0 to 9	10 to 19	>19
Benzene	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
TPH	5000 PPM	1000 PPM	100 PPM



LABORATORY ANALYTICAL SUMMARY							
Soil Samples							
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: 10		100 ppm		10 ppm	50 ppm
12/4/2014	10:50	SC-9 W Wall @ 0-5.5'	0-5.5	5.0	170	<0.033	<0.066
12/4/2014	10:52	SC-10 N Wall @ 0-5.5'	0-5.5	23	330	<0.029	0.092
12/4/2014	11:20	SC-12 W Tank Base @ 5.5'	5.5	<3.0	<10	<0.030	<0.060
12/8/2014	10:00	SC-13 S. Wall @ 0-6'	0-6.0	<3.7	<10	<0.037	<0.074
12/8/2014	11:20	SC-14 N. E. Corner @ 0-3'	0-3.0	<3.3	<10	<0.033	<0.066
12/8/2014	12:01	SC-16 S. E. Wall @ 0-6.0'	0-6.0	<3.3	49	<0.033	<0.066
12/8/2014	15:15	SC-18 N. Wall @ 0-6'	0-6.0	<3.1	<10	<0.031	<0.062
12/8/2014	15:17	SC-19 W. Wall @ 0-5'	0-5.0	<3.1	<10	<0.031	<0.062
12/8/2014	15:20	SC-20 E. Base @ 5-6	5-6.0	<3.2	<9.8	<0.032	<0.065
1/9/2015	13:32	SC-27 N	0-7.0	<2.9	<10	<0.029	<0.059
1/9/2015	13:35	SC-28 S	0-7.0	11	250	<0.028	0.12
1/9/2015	13:38	SC-29 NE	0-7.0	920	950	1.3	73.62
1/9/2015	13:40	SC-30 SE	0-7.0	6.2	1600	<0.029	<0.058
1/9/2015	13:41	SC-31 W	0-7.0	<3.2	56	<0.032	<0.063
1/9/2015	13:42	SC-32 Base	7	170	360	0.12	8.87
1/9/2015	13:45	Grab South Wall	6	16	<9.9	0.041	0.404
1/16/2015	13:00	SC-33 N	0-9'	<3.3	<9.9	<0.033	<0.067
1/16/2015	13:05	SC-34 S	0-10'	6.2	36	<0.030	0.342
1/16/2015	13:10	SC-35 E	0-10'	<3.0	<9.9	<0.030	<0.060
1/16/2015	13:15	SC-36 Base (east)	10'	740	640	0.44	44.14
1/16/2015	13:20	N Stockpile (Overburden)	--	<3.3	<10	<0.033	<0.065
1/16/2015	13:25	S Stockpile (Pad)	--	<2.9	11	<0.029	<0.058



Appendix A

Photographic Documentation

Site Photographs
Enterprise Products Ballard Compressor Station

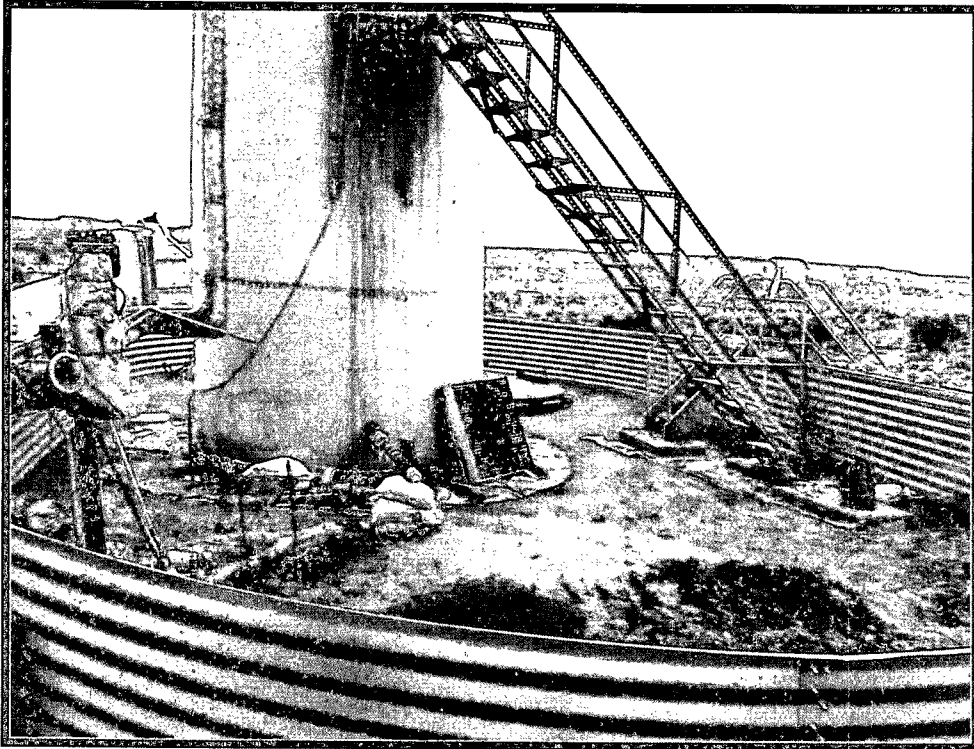


Photo 1: West Tank removed, central above grade tank (AST) still in place, below grade tank (BGT) located behind AST.

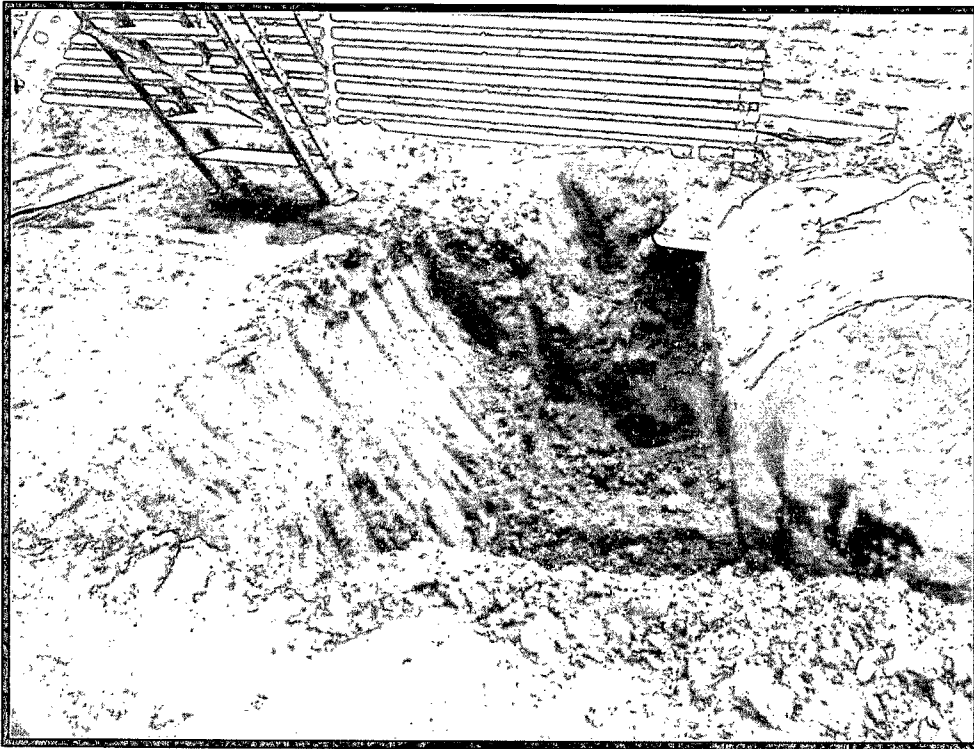


Photo 2: Excavation on west side of tank battery, west containment removed (visible in upper right corner).

Site Photographs
Enterprise Products Ballard Compressor Station

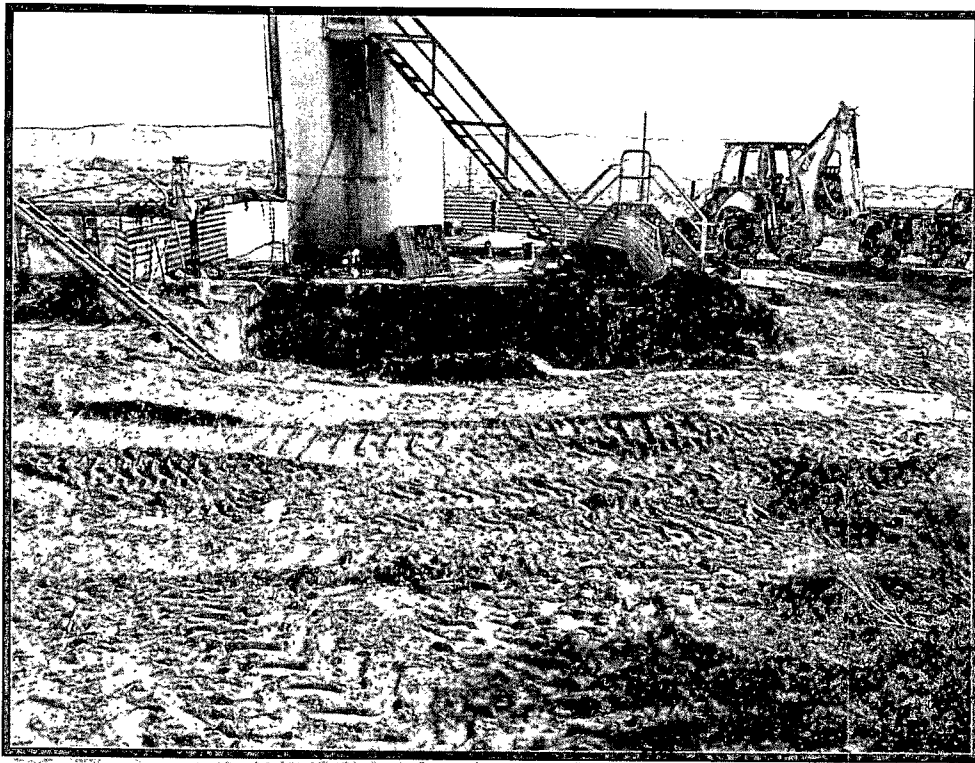


Photo 3: West excavation extents prior to backfilling.

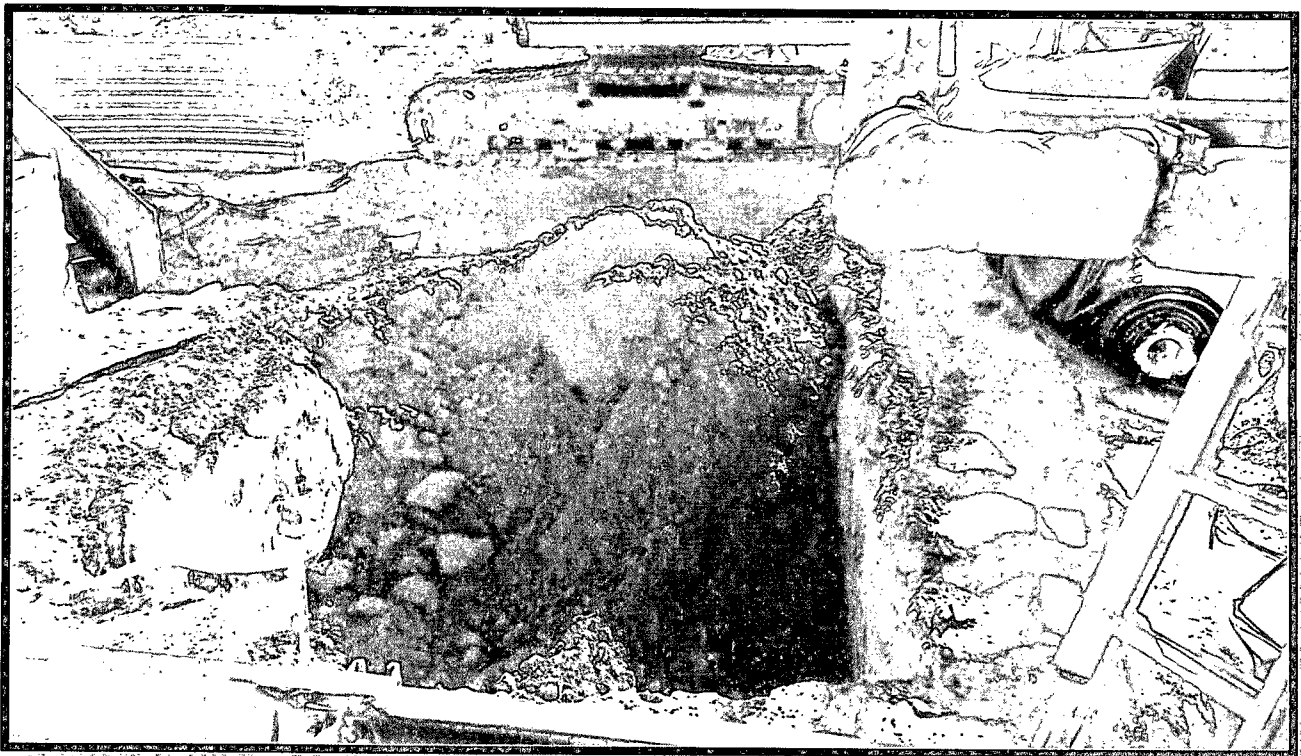


Photo 4: First stage of excavation in central portion of battery containment beneath eastern AST.

Site Photographs

Enterprise Products Ballard Compressor Station

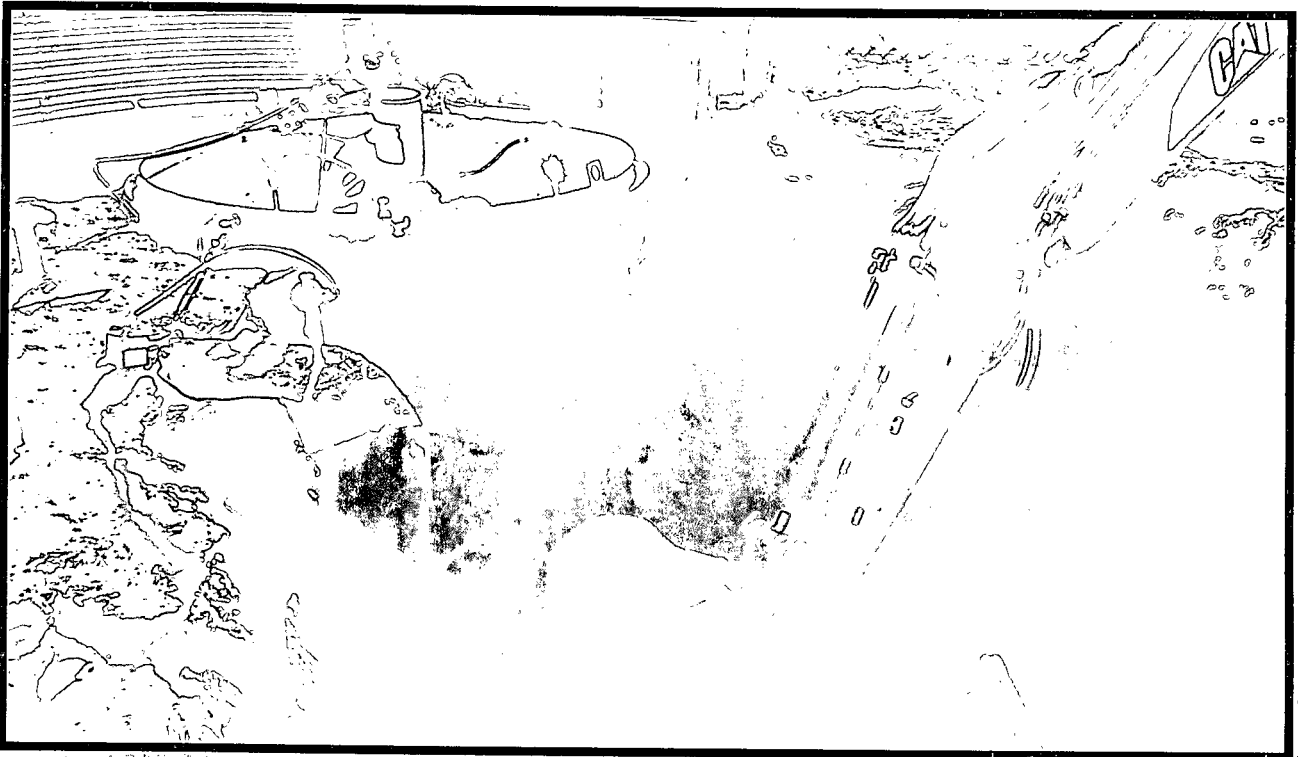


Photo 5: Central excavation uncovers contaminated soil around base of BGT. Tinhorn is removed exposing the valve and pipe in center-left of image.



Photo 6: Pipe fully exposed, leak located in pipe center right of image. Black and grey contaminated soil visible around base of BGT.

Site Photographs
Enterprise Products Ballard Compressor Station



Photo 7: Excavation extents after BGT removal. Hammer union on pipe in right of image was found to be leaking.

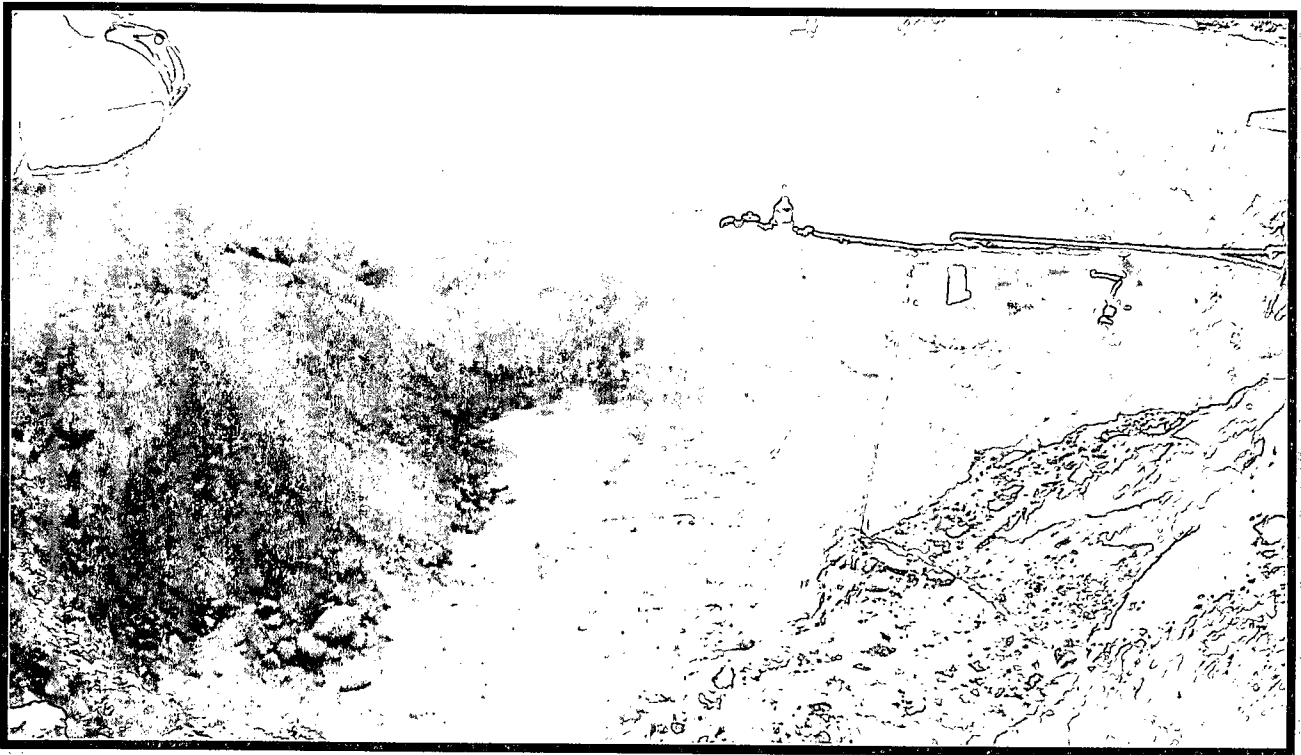


Photo 8: Base of excavation on competent sandstone. View is to the south-southwest.

Site Photographs
Enterprise Products Ballard Compressor Station



Photo 9: Final Excavation extents. One load of contaminated soil remaining to be removed.



Photo 10: Application of potassium permanganate to final extents of excavation, prior to backfill, January 19, 2015.

Appendix B

Soil Disposal Documentation

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

97057-0677

Form C-138
Revised 08/01/11

*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 Ave, Farmington NM 87401

Jan, 2015

2. Originating Site:

Ballard Compressor Station

3. Location of Material (Street Address, City, State or ULSTR):

UL H Section 26, T26N, R9W; 36.459530, -107.751634

4. Source and Description of Waste:

Source: Water and Sludge from Steaming Cleaning Vessels.

Description: Soil impacted with Natural Gas Liquids (Condensate and Water)

Estimated Volume 100 yd³ bbls Known Volume (to be entered by the operator at the end of the haul) 238 yd³ bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Thomas Long *Thomas Long*, representative or authorized agent for Enterprise Products Operating do hereby

Generator Signature

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)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency ☐ Monthly ☐ Weekly ☐ Per Load

☐ 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)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long *Thomas Long* 1-13-15, representative for Enterprise Products Operating authorizes Envirotech, Inc. to complete

Generator Signature

the required testing/sign the Generator Waste Testing Certification.

I, *Kendra Running*, representative for Envirotech, Inc. 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.

5. Transporter: West States Energy Contractors

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011**

Address of Facility: **Hilltop, NM**

Method of Treatment and/or Disposal:

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME:

Kendra Running

TITLE:

Waste Coordinator

DATE:

1/7/15

SIGNATURE:

Kendra Running
Surface Waste Management Facility Authorized Agent

TELEPHONE NO.:

505-632-0615

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

97057-0677 Form C-138
Revised 08/01/11
*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 Ave, Farmington NM 87401

2. Originating Site:

Ballard Compressor Station

3. Location of Material (Street Address, City, State or ULSTR):

UL H Section 26, T26N, R9W; 36.459530, -107.751634

4. Source and Description of Waste:

Source: Water and Sludge from Steaming Cleaning Vessels.

Description: Soil impacted with Natural Gas Liquids (Condensate and Water)

Estimated Volume 100 (yd) bbls Known Volume (to be entered by the operator at the end of the haul) 130 (yd) bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Thomas Long *Thomas Long*, representative or authorized agent for Enterprise Products Operating do hereby

Generator Signature

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)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency ☐ Monthly ☐ Weekly ☐ Per Load

☐ 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)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long *Thomas Long* 12-3-14, representative for Enterprise Products Operating authorizes Envirotech, Inc. to complete

Generator Signature

the required testing/sign the Generator Waste Testing Certification.

I, *Kendra Running* representative for Envirotech, Inc. 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.

5. Transporter: West States Energy Contractors

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011

Address of Facility: Hilltop, NM

Method of Treatment and/or Disposal:

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: *Kendra Running*

SIGNATURE: *Kendra Running*

Surface Waste Management Facility Authorized Agent

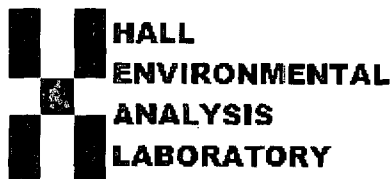
TITLE: *waste Coordinator*

TELEPHONE NO.:

505-632-0615

DATE: *12-3-14*

Appendix C
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

December 08, 2014

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

RE: Ballard Compressor Station

OrderNo.: 1412285

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 3 sample(s) on 12/5/2014 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 or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1412285

Date Reported: 12/8/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-9 W Wall @ 0-5.5'

Project: Ballard Compressor Station

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

Lab ID: 1412285-001

Matrix: SOIL

Received Date: 12/5/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	170	10		mg/Kg	1	12/5/2014 11:30:54 AM	16685
Surr: DNOP	88.2	63.5-128		%REC	1	12/5/2014 11:30:54 AM	16685
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	5.0	3.3		mg/Kg	1	12/5/2014 11:06:27 AM	R22974
Surr: BFB	134	80-120	S	%REC	1	12/5/2014 11:06:27 AM	R22974
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.033		mg/Kg	1	12/5/2014 11:06:27 AM	R22974
Toluene	ND	0.033		mg/Kg	1	12/5/2014 11:06:27 AM	R22974
Ethylbenzene	ND	0.033		mg/Kg	1	12/5/2014 11:06:27 AM	R22974
Xylenes, Total	ND	0.066		mg/Kg	1	12/5/2014 11:06:27 AM	R22974
Surr: 4-Bromofluorobenzene	99.0	80-120		%REC	1	12/5/2014 11:06:27 AM	R22974

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 1412285

Date Reported: 12/8/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-10 N Wall @ 0-5.5'

Project: Ballard Compressor Station

Collection Date: 12/4/2014 10:52:00 AM

Lab ID: 1412285-002

Matrix: SOIL

Received Date: 12/5/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	330	9.9		mg/Kg	1	12/5/2014 12:00:53 PM	16685
Surr: DNOP	94.4	63.5-128		%REC	1	12/5/2014 12:00:53 PM	16685
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	23	2.9		mg/Kg	1	12/5/2014 11:35:02 AM	R22974
Surr: BFB	353	80-120	S	%REC	1	12/5/2014 11:35:02 AM	R22974
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.029		mg/Kg	1	12/5/2014 11:35:02 AM	R22974
Toluene	ND	0.029		mg/Kg	1	12/5/2014 11:35:02 AM	R22974
Ethylbenzene	ND	0.029		mg/Kg	1	12/5/2014 11:35:02 AM	R22974
Xylenes, Total	0.092	0.058		mg/Kg	1	12/5/2014 11:35:02 AM	R22974
Surr: 4-Bromofluorobenzene	114	80-120		%REC	1	12/5/2014 11:35:02 AM	R22974

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 1412285

Date Reported: 12/8/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-12 W Tank Base @ 5.5'

Project: Ballard Compressor Station

Collection Date: 12/4/2014 11:20:00 AM

Lab ID: 1412285-003

Matrix: SOIL

Received Date: 12/5/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/5/2014 12:30:55 PM	16685
Surr: DNOP	85.4	63.5-128		%REC	1	12/5/2014 12:30:55 PM	16685
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.0		mg/Kg	1	12/5/2014 12:03:45 PM	R22974
Surr: BFB	93.7	80-120		%REC	1	12/5/2014 12:03:45 PM	R22974
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.030		mg/Kg	1	12/5/2014 12:03:45 PM	R22974
Toluene	ND	0.030		mg/Kg	1	12/5/2014 12:03:45 PM	R22974
Ethylbenzene	ND	0.030		mg/Kg	1	12/5/2014 12:03:45 PM	R22974
Xylenes, Total	ND	0.060		mg/Kg	1	12/5/2014 12:03:45 PM	R22974
Surr: 4-Bromofluorobenzene	92.0	80-120		%REC	1	12/5/2014 12:03:45 PM	R22974

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1412285

08-Dec-14

Client: Souder, Miller and Associates

Project: Ballard Compressor Station

Sample ID	MB-16685		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	16685		RunNo:	22954				
Prep Date:	12/5/2014		Analysis Date:	12/5/2014		SeqNo:	677912		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Surr: DNOP	7.1		10.00		71.0	63.5	128				

Sample ID	LCS-16685		SampType:	LCS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	16685		RunNo:	22954				
Prep Date:	12/5/2014		Analysis Date:	12/5/2014		SeqNo:	677913		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	47	10	50.00	0	93.3	68.6	130				
Surr: DNOP	4.6		5.000		91.7	63.5	128				

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- 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#: 1412285

08-Dec-14

Client: Souder, Miller and Associates

Project: Ballard Compressor Station

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R22974	RunNo:	22974					
Prep Date:		Analysis Date:	12/5/2014	SeqNo:	678542	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		87.5	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R22974	RunNo:	22974					
Prep Date:		Analysis Date:	12/5/2014	SeqNo:	678543	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.2	65.8	139			
Surr: BFB	1000		1000		99.6	80	120			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1412285

08-Dec-14

Client: Souder, Miller and Associates

Project: Ballard Compressor Station

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R22974	RunNo:	22974					
Prep Date:		Analysis Date:	12/5/2014	SeqNo:	678559	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.91		1.000		91.3	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R22974	RunNo:	22974					
Prep Date:		Analysis Date:	12/5/2014	SeqNo:	678560	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	100	80	120			
Toluene	0.99	0.050	1.000	0	98.5	80	120			
Ethylbenzene	1.0	0.050	1.000	0	99.9	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.5	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Qualifiers:

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

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



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

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1412285

RcptNo: 1

Received by/date:

LM 12/05/14

Logged By: Anne Thorne

12/5/2014 7:45:00 AM

Anne Thorne

Completed By: Anne Thorne

12/5/2014

Anne Thorne

Reviewed By:

[Signature]

12/05/14

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

Person Notified:

Date

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.7	Good	Yes			

Client: SMA

Mailing Address: 401 W. Broadway
Farmington, NM 87401

Phone #/ (505) 325-7535

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

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)



WALL ENVIRONMENTAL ANALYSIS LABORATORY

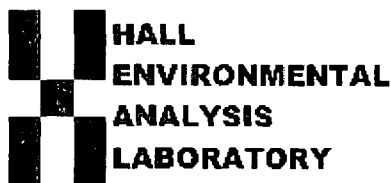
4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

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



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

December 10, 2014

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

RE: Ballard Compressor Station

OrderNo.: 1412387

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 6 sample(s) on 12/9/2014 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 or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1412387

Date Reported: 12/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-13 S. Wall @ 0-6'**Project:** Ballard Compressor Station**Collection Date:** 12/8/2014 10:00:00 AM**Lab ID:** 1412387-001**Matrix:** MEOH (SOIL)**Received Date:** 12/9/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/9/2014 11:27:13 AM	16735
Surr: DNOP	82.2	63.5-128		%REC	1	12/9/2014 11:27:13 AM	16735
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	12/9/2014 10:49:33 AM	R23008
Surr: BFB	90.6	80-120		%REC	1	12/9/2014 10:49:33 AM	R23008
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.037		mg/Kg	1	12/9/2014 10:49:33 AM	R23008
Toluene	ND	0.037		mg/Kg	1	12/9/2014 10:49:33 AM	R23008
Ethylbenzene	ND	0.037		mg/Kg	1	12/9/2014 10:49:33 AM	R23008
Xylenes, Total	ND	0.074		mg/Kg	1	12/9/2014 10:49:33 AM	R23008
Surr: 4-Bromofluorobenzene	94.7	80-120		%REC	1	12/9/2014 10:49:33 AM	R23008

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 1412387

Date Reported: 12/10/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-14 N.E. Corner @ 0-3'

Project: Ballard Compressor Station

Collection Date: 12/8/2014 11:20:00 AM

Lab ID: 1412387-002

Matrix: MEOH (SOIL)

Received Date: 12/9/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/9/2014 11:48:35 AM	16735
Surr: DNOP	81.6	63.5-128		%REC	1	12/9/2014 11:48:35 AM	16735
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	12/9/2014 12:44:18 PM	R23008
Surr: BFB	98.2	80-120		%REC	1	12/9/2014 12:44:18 PM	R23008
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.033		mg/Kg	1	12/9/2014 12:44:18 PM	R23008
Toluene	ND	0.033		mg/Kg	1	12/9/2014 12:44:18 PM	R23008
Ethylbenzene	ND	0.033		mg/Kg	1	12/9/2014 12:44:18 PM	R23008
Xylenes, Total	ND	0.066		mg/Kg	1	12/9/2014 12:44:18 PM	R23008
Surr: 4-Bromofluorobenzene	99.6	80-120		%REC	1	12/9/2014 12:44:18 PM	R23008

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 1412387

Date Reported: 12/10/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-16 S.E. Wall @ 0-6'

Project: Ballard Compressor Station

Collection Date: 12/8/2014 12:01:00 PM

Lab ID: 1412387-003

Matrix: MEOH (SOIL)

Received Date: 12/9/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	49	10		mg/Kg	1	12/9/2014 9:40:32 AM	16735
Surr: DNOP	89.7	63.5-128		%REC	1	12/9/2014 9:40:32 AM	16735
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	12/9/2014 1:13:02 PM	R23008
Surr: BFB	95.5	80-120		%REC	1	12/9/2014 1:13:02 PM	R23008
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.033		mg/Kg	1	12/9/2014 1:13:02 PM	R23008
Toluene	ND	0.033		mg/Kg	1	12/9/2014 1:13:02 PM	R23008
Ethylbenzene	ND	0.033		mg/Kg	1	12/9/2014 1:13:02 PM	R23008
Xylenes, Total	ND	0.066		mg/Kg	1	12/9/2014 1:13:02 PM	R23008
Surr: 4-Bromofluorobenzene	99.5	80-120		%REC	1	12/9/2014 1:13:02 PM	R23008

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 3 of 9
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1412387

Date Reported: 12/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-18 N. Wall @ 0-6'**Project:** Ballard Compressor Station**Collection Date:** 12/8/2014 3:15:00 PM**Lab ID:** 1412387-004**Matrix:** MEOH (SOIL)**Received Date:** 12/9/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/9/2014 10:10:21 AM	16735
Surr: DNOP	91.2	63.5-128		%REC	1	12/9/2014 10:10:21 AM	16735
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	12/9/2014 1:41:43 PM	R23008
Surr: BFB	93.5	80-120		%REC	1	12/9/2014 1:41:43 PM	R23008
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.031		mg/Kg	1	12/9/2014 1:41:43 PM	R23008
Toluene	ND	0.031		mg/Kg	1	12/9/2014 1:41:43 PM	R23008
Ethylbenzene	ND	0.031		mg/Kg	1	12/9/2014 1:41:43 PM	R23008
Xylenes, Total	ND	0.062		mg/Kg	1	12/9/2014 1:41:43 PM	R23008
Surr: 4-Bromofluorobenzene	98.3	80-120		%REC	1	12/9/2014 1:41:43 PM	R23008

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

Analytical Report

Lab Order 1412387

Date Reported: 12/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-19 E. Wall @ 0-5'**Project:** Ballard Compressor Station**Collection Date:** 12/8/2014 3:17:00 PM**Lab ID:** 1412387-005**Matrix:** MEOH (SOIL)**Received Date:** 12/9/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/9/2014 10:40:08 AM	16735
Surr: DNOP	86.4	63.5-128		%REC	1	12/9/2014 10:40:08 AM	16735
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	12/9/2014 2:10:26 PM	R23008
Surr: BFB	93.9	80-120		%REC	1	12/9/2014 2:10:26 PM	R23008
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.031		mg/Kg	1	12/9/2014 2:10:26 PM	R23008
Toluene	ND	0.031		mg/Kg	1	12/9/2014 2:10:26 PM	R23008
Ethylbenzene	ND	0.031		mg/Kg	1	12/9/2014 2:10:26 PM	R23008
Xylenes, Total	ND	0.062		mg/Kg	1	12/9/2014 2:10:26 PM	R23008
Surr: 4-Bromofluorobenzene	97.6	80-120		%REC	1	12/9/2014 2:10:26 PM	R23008

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 1412387

Date Reported: 12/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-20 E. Base @ 5-6'**Project:** Ballard Compressor Station**Collection Date:** 12/8/2014 3:20:00 PM**Lab ID:** 1412387-006**Matrix:** MEOH (SOIL)**Received Date:** 12/9/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/9/2014 11:10:17 AM	16735
Surr: DNOP	83.0	63.5-128		%REC	1	12/9/2014 11:10:17 AM	16735
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	12/9/2014 2:39:07 PM	R23008
Surr: BFB	93.3	80-120		%REC	1	12/9/2014 2:39:07 PM	R23008
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.032		mg/Kg	1	12/9/2014 2:39:07 PM	R23008
Toluene	ND	0.032		mg/Kg	1	12/9/2014 2:39:07 PM	R23008
Ethylbenzene	ND	0.032		mg/Kg	1	12/9/2014 2:39:07 PM	R23008
Xylenes, Total	ND	0.065		mg/Kg	1	12/9/2014 2:39:07 PM	R23008
Surr: 4-Bromofluorobenzene	98.0	80-120		%REC	1	12/9/2014 2:39:07 PM	R23008

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1412387

10-Dec-14

Client: Souder, Miller and Associates

Project: Ballard Compressor Station

Sample ID	MB-16735	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	16735	RunNo:	23006					
Prep Date:	12/9/2014	Analysis Date:	12/9/2014	SeqNo:	679678	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.0		10.00		70.1	63.5	128			

Sample ID	LCS-16735	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	16735	RunNo:	23006					
Prep Date:	12/9/2014	Analysis Date:	12/9/2014	SeqNo:	679679	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	43	10	50.00	0	86.5	68.6	130			
Surr: DNOP	4.0		5.000		80.4	63.5	128			

Sample ID	1412387-006AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-20 E. Base @ 5-	Batch ID:	16735	RunNo:	23006					
Prep Date:	12/9/2014	Analysis Date:	12/9/2014	SeqNo:	680727	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	45	9.8	49.16	0	92.0	29.2	176			
Surr: DNOP	4.4		4.916		88.6	63.5	128			

Sample ID	1412387-006AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-20 E. Base @ 5-	Batch ID:	16735	RunNo:	23006					
Prep Date:	12/9/2014	Analysis Date:	12/9/2014	SeqNo:	680728	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Diesel Range Organics (DRO)	49	10	49.80	0	98.0	29.2	176	7.61	23	
Surr: DNOP	4.5		4.980		90.4	63.5	128	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#: 1412387

10-Dec-14

Client: Souder, Miller and Associates

Project: Ballard Compressor Station

Sample ID	MB-16708 MK		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	R23008		RunNo:	23008				
Prep Date:			Analysis Date:	12/9/2014		SeqNo:	680452		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	ND	5.0									
Surr: BFB	880		1000		87.9	80	120				

Sample ID	LCS-16708 MK		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: R23008		RunNo: 23008					
Prep Date:			Analysis Date: 12/9/2014		SeqNo: 680453		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.4	65.8	139			
Surr: BFB	1000		1000		103	80	120			

Sample ID	MB-16720		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	16720		RunNo:	23008				
Prep Date:	12/8/2014		Analysis Date:	12/9/2014		SeqNo:	680463		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: BFB	920		1000		91.9	80	120				

Sample ID	LCS-16720		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS		Batch ID:	16720		RunNo:	23008				
Prep Date:	12/8/2014		Analysis Date:	12/9/2014		SeqNo:	680464		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: BFB	1000		1000		99.7	80	120				

Sample ID	LCSD-16720	SampType:	LCSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS02	Batch ID:	16720	RunNo:	23008					
Prep Date:	12/8/2014	Analysis Date:	12/9/2014	SeqNo:	680465	Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000							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#: 1412387

10-Dec-14

Client: Souder, Miller and Associates
Project: Ballard Compressor Station

Sample ID	MB-16708 MK	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles
Client ID:	PBS	Batch ID:	R23008	RunNo:	23008
Prep Date:		Analysis Date:	12/9/2014	SeqNo:	680483
				Units:	mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		93.3	80	120			

Sample ID	LCS-16708 MK	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles
Client ID:	LCSS	Batch ID:	R23008	RunNo:	23008
Prep Date:		Analysis Date:	12/9/2014	SeqNo:	680484
				Units:	mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.050	1.000	0	98.2	80	120			
Toluene	0.97	0.050	1.000	0	96.6	80	120			
Ethylbenzene	0.99	0.050	1.000	0	98.7	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.3	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	MB-16720	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles
Client ID:	PBS	Batch ID:	16720	RunNo:	23008
Prep Date:	12/8/2014	Analysis Date:	12/9/2014	SeqNo:	680494
				Units:	%REC

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		98.7	80	120			

Sample ID	LCS-16720	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles
Client ID:	LCSS	Batch ID:	16720	RunNo:	23008
Prep Date:	12/8/2014	Analysis Date:	12/9/2014	SeqNo:	680495
				Units:	%REC

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

Sample ID	LCSD-16720	SampType:	LCSD	TestCode:	EPA Method 8021B: Volatiles
Client ID:	LCSS02	Batch ID:	16720	RunNo:	23008
Prep Date:	12/8/2014	Analysis Date:	12/9/2014	SeqNo:	680496
				Units:	%REC

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120	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

Sample Log-In Check List

Client Name: **SMA-FARM**

Work Order Number: **1412387**

RcptNo: 1

Received by/date:

[Signature]

12/09/14

Logged By: **Ashley Gallegos**

12/9/2014 7:45:00 AM

[Signature]

Completed By: **Ashley Gallegos**

12/9/2014 8:10:59 AM

[Signature]

Reviewed By:

[Signature]

12/09/14

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH:
(<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ Adjusted?
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by:

Special Handling (if applicable)

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

Person Notified:

Date

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

Chain-of-Custody Record

Client: SMA

Mailing Address: 401 W. Broadway
Farmington, NM 87401

Phone #: 505 325 7535

email or Fax#: Steven.Mosk@sandermiller.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Project Name: Bellard Campground Station

Project #: 5122855

Project Manager: Steve Mosked

Sampler: ✓ ✓

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.60



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMS (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 ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
2/8/14	1000	Soil / MECH	SC-13 S. wall @ 0-6'	402 F. MECH	MECH	1412387	✓	✓	✓									
	1120		SC-14 NE corner @ 0-3'			-002												
	1215		SC-16 S. wall @ 0-6'			-003												
	1515		SC-18 N. wall @ 0-6'			-004												
	1517		SC-19 E. wall @ 0-5'			-005												
	1520		SC-20 E. Base @ 5-6'			-006												

Date: 2/8/14 Time: 1600 Relinquished by: [Signature]

Date: 2/8/14 Time: 1600 Received by: [Signature]

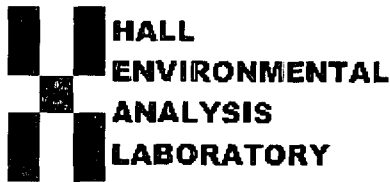
Date: 2/8/14 Time: 1647 Relinquished by: [Signature]

Date: 2/9/14 Time: 0745 Received by: [Signature]

Remarks: Invoice to EPCO

edwin.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 noted 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

January 14, 2015

Steve Moskal

Souder, Miller and Associates

401 W. Broadway

Farmington, NM 87401

TEL: (505) 325-5667

FAX

RE: Ballard C.S.

OrderNo.: 1501337

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 7 sample(s) on 1/10/2015 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', with a stylized flourish at the end.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1501337

Date Reported: 1/14/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-27 N**Project:** Ballard C.S.**Collection Date:** 1/9/2015 1:32:00 PM**Lab ID:** 1501337-001**Matrix:** SOIL**Received Date:** 1/10/2015 12:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/13/2015 6:22:02 PM	17169
Surr: DNOP	88.9	63.5-128		%REC	1	1/13/2015 6:22:02 PM	17169
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	2.9		mg/Kg	1	1/12/2015 12:52:49 PM	17155
Surr: BFB	98.7	80-120		%REC	1	1/12/2015 12:52:49 PM	17155
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.029		mg/Kg	1	1/12/2015 12:52:49 PM	17155
Toluene	ND	0.029		mg/Kg	1	1/12/2015 12:52:49 PM	17155
Ethylbenzene	ND	0.029		mg/Kg	1	1/12/2015 12:52:49 PM	17155
Xylenes, Total	ND	0.059		mg/Kg	1	1/12/2015 12:52:49 PM	17155
Surr: 4-Bromofluorobenzene	115	80-120		%REC	1	1/12/2015 12:52:49 PM	17155

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 1501337

Date Reported: 1/14/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-28 S**Project:** Ballard C.S.**Collection Date:** 1/9/2015 1:35:00 PM**Lab ID:** 1501337-002**Matrix:** SOIL**Received Date:** 1/10/2015 12:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	250	10		mg/Kg	1	1/13/2015 6:52:19 PM	17169
Surr: DNOP	79.9	63.5-128		%REC	1	1/13/2015 6:52:19 PM	17169
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	11	2.8		mg/Kg	1	1/12/2015 1:21:36 PM	17155
Surr: BFB	213	80-120	S	%REC	1	1/12/2015 1:21:36 PM	17155
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.028		mg/Kg	1	1/12/2015 1:21:36 PM	17155
Toluene	ND	0.028		mg/Kg	1	1/12/2015 1:21:36 PM	17155
Ethylbenzene	ND	0.028		mg/Kg	1	1/12/2015 1:21:36 PM	17155
Xylenes, Total	0.12	0.056		mg/Kg	1	1/12/2015 1:21:36 PM	17155
Surr: 4-Bromofluorobenzene	122	80-120	S	%REC	1	1/12/2015 1:21:36 PM	17155

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 1501337

Date Reported: 1/14/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-29 NE

Project: Ballard C.S.

Collection Date: 1/9/2015 1:38:00 PM

Lab ID: 1501337-003

Matrix: SOIL

Received Date: 1/10/2015 12:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	950	9.9		mg/Kg	1	1/13/2015 8:23:27 PM	17169
Surr: DNOP	105	63.5-128		%REC	1	1/13/2015 8:23:27 PM	17169
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	920	130		mg/Kg	50	1/12/2015 12:37:20 PM	R23589
Surr: BFB	154	80-120	S	%REC	50	1/12/2015 12:37:20 PM	R23589
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	1.3	0.13		mg/Kg	5	1/12/2015 10:57:41 AM	17155
Toluene	0.32	0.13		mg/Kg	5	1/12/2015 10:57:41 AM	17155
Ethylbenzene	7.0	0.13		mg/Kg	5	1/12/2015 10:57:41 AM	17155
Xylenes, Total	65	2.7		mg/Kg	50	1/12/2015 12:37:20 PM	R23589
Surr: 4-Bromofluorobenzene	240	80-120	S	%REC	5	1/12/2015 10:57:41 AM	17155

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 3 of 10
	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-30 SE

Project: Ballard C.S.

Collection Date: 1/9/2015 1:40:00 PM

Lab ID: 1501337-004

Matrix: SOIL

Received Date: 1/10/2015 12:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	1600	100		mg/Kg	10	1/13/2015 9:54:37 PM	17169
Surr: DNOP	0	63.5-128	S	%REC	10	1/13/2015 9:54:37 PM	17169
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	6.2	2.9		mg/Kg	1	1/12/2015 1:50:25 PM	17155
Surr: BFB	149	80-120	S	%REC	1	1/12/2015 1:50:25 PM	17155
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.029		mg/Kg	1	1/12/2015 1:50:25 PM	17155
Toluene	ND	0.029		mg/Kg	1	1/12/2015 1:50:25 PM	17155
Ethylbenzene	ND	0.029		mg/Kg	1	1/12/2015 1:50:25 PM	17155
Xylenes, Total	ND	0.058		mg/Kg	1	1/12/2015 1:50:25 PM	17155
Surr: 4-Bromofluorobenzene	115	80-120		%REC	1	1/12/2015 1:50:25 PM	17155

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-31 W

Project: Ballard C.S.

Collection Date: 1/9/2015 1:41:00 PM

Lab ID: 1501337-005

Matrix: SOIL

Received Date: 1/10/2015 12:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	56	9.8		mg/Kg	1	1/13/2015 11:25:00 PM	17169
Surr: DNOP	87.2	63.5-128		%REC	1	1/13/2015 11:25:00 PM	17169
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	1/12/2015 2:19:12 PM	17155
Surr: BFB	102	80-120		%REC	1	1/12/2015 2:19:12 PM	17155
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.032		mg/Kg	1	1/12/2015 2:19:12 PM	17155
Toluene	ND	0.032		mg/Kg	1	1/12/2015 2:19:12 PM	17155
Ethylbenzene	ND	0.032		mg/Kg	1	1/12/2015 2:19:12 PM	17155
Xylenes, Total	ND	0.063		mg/Kg	1	1/12/2015 2:19:12 PM	17155
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	1/12/2015 2:19:12 PM	17155

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 1501337

Date Reported: 1/14/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-32 Base**Project:** Ballard C.S.**Collection Date:** 1/9/2015 1:42:00 PM**Lab ID:** 1501337-006**Matrix:** SOIL**Received Date:** 1/10/2015 12:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	360	9.9		mg/Kg	1	1/14/2015 12:54:54 AM	17169
Surr: DNOP	99.6	63.5-128		%REC	1	1/14/2015 12:54:54 AM	17169
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	170	28		mg/Kg	10	1/12/2015 1:04:46 PM	R23589
Surr: BFB	187	80-120	S	%REC	10	1/12/2015 1:04:46 PM	R23589
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.12	0.11		mg/Kg	4	1/12/2015 11:26:23 AM	17155
Toluene	0.87	0.11		mg/Kg	4	1/12/2015 11:26:23 AM	17155
Ethylbenzene	0.88	0.11		mg/Kg	4	1/12/2015 11:26:23 AM	17155
Xylenes, Total	7.0	0.56		mg/Kg	10	1/12/2015 1:04:46 PM	R23589
Surr: 4-Bromofluorobenzene	142	80-120	S	%REC	4	1/12/2015 11:26:23 AM	17155

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-33 Grab

Project: Ballard C.S.

Collection Date: 1/9/2015 1:45:00 PM

Lab ID: 1501337-007

Matrix: SOIL

Received Date: 1/10/2015 12:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/14/2015 2:25:44 AM	17169
Surr: DNOP	90.5	63.5-128		%REC	1	1/14/2015 2:25:44 AM	17169
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	16	2.5		mg/Kg	1	1/12/2015 2:47:55 PM	17155
Surr: BFB	148	80-120	S	%REC	1	1/12/2015 2:47:55 PM	17155
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.041	0.025		mg/Kg	1	1/12/2015 2:47:55 PM	17155
Toluene	ND	0.025		mg/Kg	1	1/12/2015 2:47:55 PM	17155
Ethylbenzene	0.053	0.025		mg/Kg	1	1/12/2015 2:47:55 PM	17155
Xylenes, Total	0.31	0.051		mg/Kg	1	1/12/2015 2:47:55 PM	17155
Surr: 4-Bromofluorobenzene	120	80-120	S	%REC	1	1/12/2015 2:47:55 PM	17155

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 7 of 10
	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	RI	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1501337

14-Jan-15

Client: Souder, Miller and Associates

Project: Ballard C.S.

Sample ID	MB-17169	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	17169	RunNo:	23580					
Prep Date:	1/12/2015	Analysis Date:	1/12/2015	SeqNo:	696520	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.6		10.00		86.2	63.5	128			

Sample ID	LCS-17169	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	17169	RunNo:	23634					
Prep Date:	1/12/2015	Analysis Date:	1/13/2015	SeqNo:	697804	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	105	67.8	130			
Surr: DNOP	4.4		5.000		87.8	63.5	128			

Sample ID	LCS-17189	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	17189	RunNo:	23634					
Prep Date:	1/13/2015	Analysis Date:	1/14/2015	SeqNo:	697805	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.7		5.000		74.1	63.5	128			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- 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#: 1501337

14-Jan-15

Client: Souder, Miller and Associates

Project: Ballard C.S.

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R23589	RunNo:	23589					
Prep Date:		Analysis Date:	1/12/2015	SeqNo:	697022	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		88.1	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R23589	RunNo:	23589					
Prep Date:		Analysis Date:	1/12/2015	SeqNo:	697023	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	84.4	65.8	139			
Surr: BFB	910		1000		90.6	80	120			

Sample ID	MB-17155	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	17155	RunNo:	23591					
Prep Date:	1/9/2015	Analysis Date:	1/12/2015	SeqNo:	697041	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	940		1000		93.9	80	120			

Sample ID	LCS-17155	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	17155	RunNo:	23591					
Prep Date:	1/9/2015	Analysis Date:	1/12/2015	SeqNo:	697042	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	65.8	139			
Surr: BFB	1100		1000		108	80	120			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1501337

14-Jan-15

Client: Souder, Miller and Associates

Project: Ballard C.S.

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R23589	RunNo:	23589					
Prep Date:		Analysis Date:	1/12/2015	SeqNo:	697028	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R23589	RunNo:	23589					
Prep Date:		Analysis Date:	1/12/2015	SeqNo:	697029	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Sample ID	LCS-17131	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	17131	RunNo:	23589					
Prep Date:	1/8/2015	Analysis Date:	1/12/2015	SeqNo:	697032	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Surr: 4-Bromofluorobenzene	1.1		1.000		115	80	120			
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Sample ID	MB-17155	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	17155	RunNo:	23591					
Prep Date:	1/9/2015	Analysis Date:	1/12/2015	SeqNo:	697081	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		108	80	120			

Sample ID	LCS-17155	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	17155	RunNo:	23591					
Prep Date:	1/9/2015	Analysis Date:	1/12/2015	SeqNo:	697082	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene	1.1	0.050	1.000	0	105	80	120			
Toluene	1.1	0.050	1.000	0	112	80	120			
Ethylbenzene	1.1	0.050	1.000	0	114	80	120			
Xylenes, Total	3.4	0.10	3.000	0	112	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		118	80	120			

Qualifiers:

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

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

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1501337

RcptNo: 1

Received by/date: AT 01/10/15

Logged By: Anne Thorne 1/10/2015 12:40:00 PM *Anne Thorne*

Completed By: Anne Thorne 1/12/2015 *Anne Thorne*

Reviewed By: *[Signature]* 1/12/15

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

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

17. Additional remarks:

18. Cooler Information

Cooler No.	Temp °C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	1.4	Good	Yes			

Chain-of-Custody Record

Client: SMA

Mailing Address: 401 Broadway
Farmington, NM, 87401

Phone #: 505 325 7535

email or Fax#: Steve.moskal@Saudernillo.com

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☒ Rush Same Day

Project Name: Ballard C.S.

Project #: 5122 855

Project Manager: Steve Moskal

Sampler: J.S.

On Ice: ☒ Yes ☐ No

Sample Temperature: 4



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

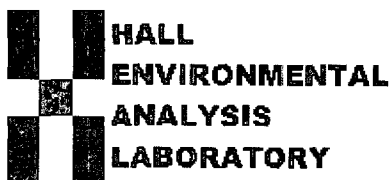
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO) (8021)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Ruthless (Y or N)
1/9/15	1332	Soil	SC-27 N	1 qt non kl	MeOH	1501337	X	X	X									
	1335		SC-28 S				X	X	X									
	1338		SC-29 NE				X	X	X									
	1340		SC-30 SE				X	X	X									
	1341		SC-31 W				X	X	X									
	1342		SC-32 Base				X	X	X									
	1345		SC-33 Grab				X	X	X									

Date: 1/9/15	Time: 1633	Relinquished by: <u>[Signature]</u>	Received by: <u>Christa Walt</u>	Date: 1/9/15	Time: 1633	Remarks: Invoice: Enterprise Pls copy Alicia.patterson@Saudernillo.com Jesse.sprague@Saudernillo.com
Date: 1/9/15	Time: 1740	Relinquished by: <u>[Signature]</u>	Received by: <u>[Signature]</u>	Date: 01/10/15	Time: 1240	

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

January 20, 2015

Steve Moskal

Souder, Miller and Associates

401 W. Broadway

Farmington, NM 87401

TEL: (505) 325-5667

FAX

RE: Ballard CS

OrderNo.: 1501572

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 6 sample(s) on 1/17/2015 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1501572

Date Reported: 1/20/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-33 N**Project:** Ballard CS**Collection Date:** 1/16/2015 1:00:00 PM**Lab ID:** 1501572-001**Matrix:** MEOH (SOIL)**Received Date:** 1/17/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: WL
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/19/2015 1:22:33 PM	17278
Surr: DNOP	84.9	63.5-128		%REC	1	1/19/2015 1:22:33 PM	17278
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	1/17/2015 3:40:35 PM	17258
Surr: BFB	93.8	80-120		%REC	1	1/17/2015 3:40:35 PM	17258
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.033		mg/Kg	1	1/17/2015 3:40:35 PM	17258
Toluene	ND	0.033		mg/Kg	1	1/17/2015 3:40:35 PM	17258
Ethylbenzene	ND	0.033		mg/Kg	1	1/17/2015 3:40:35 PM	17258
Xylenes, Total	ND	0.067		mg/Kg	1	1/17/2015 3:40:35 PM	17258
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	1/17/2015 3:40:35 PM	17258

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 1501572

Date Reported: 1/20/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-34 S

Project: Ballard CS

Collection Date: 1/16/2015 1:05:00 PM

Lab ID: 1501572-002

Matrix: MEOH (SOIL)

Received Date: 1/17/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: WL
Diesel Range Organics (DRO)	36	10		mg/Kg	1	1/19/2015 12:10:41 PM	17278
Surr: DNOP	91.7	63.5-128		%REC	1	1/19/2015 12:10:41 PM	17278
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	6.2	3.0		mg/Kg	1	1/17/2015 4:09:22 PM	17258
Surr: BFB	141	80-120	S	%REC	1	1/17/2015 4:09:22 PM	17258
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.030		mg/Kg	1	1/17/2015 4:09:22 PM	17258
Toluene	ND	0.030		mg/Kg	1	1/17/2015 4:09:22 PM	17258
Ethylbenzene	0.032	0.030		mg/Kg	1	1/17/2015 4:09:22 PM	17258
Xylenes, Total	0.31	0.061		mg/Kg	1	1/17/2015 4:09:22 PM	17258
Surr: 4-Bromofluorobenzene	116	80-120		%REC	1	1/17/2015 4:09:22 PM	17258

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 1501572

Date Reported: 1/20/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-35 E**Project:** Ballard CS**Collection Date:** 1/16/2015 1:10:00 PM**Lab ID:** 1501572-003**Matrix:** MEOH (SOIL)**Received Date:** 1/17/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: WL
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/19/2015 2:07:56 PM	17278
Surr: DNOP	92.4	63.5-128		%REC	1	1/19/2015 2:07:56 PM	17278
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.0		mg/Kg	1	1/17/2015 4:38:10 PM	17258
Surr: BFB	93.5	80-120		%REC	1	1/17/2015 4:38:10 PM	17258
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.030		mg/Kg	1	1/17/2015 4:38:10 PM	17258
Toluene	ND	0.030		mg/Kg	1	1/17/2015 4:38:10 PM	17258
Ethylbenzene	ND	0.030		mg/Kg	1	1/17/2015 4:38:10 PM	17258
Xylenes, Total	ND	0.060		mg/Kg	1	1/17/2015 4:38:10 PM	17258
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	1/17/2015 4:38:10 PM	17258

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-36 Base (East)

Project: Ballard CS

Collection Date: 1/16/2015 1:15:00 PM

Lab ID: 1501572-004

Matrix: MEOH (SOIL)

Received Date: 1/17/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: WL
Diesel Range Organics (DRO)	640	9.9		mg/Kg	1	1/19/2015 2:29:35 PM	17278
Surr: DNOP	86.2	63.5-128		%REC	1	1/19/2015 2:29:35 PM	17278
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	740	33		mg/Kg	10	1/17/2015 5:06:57 PM	17258
Surr: BFB	697	80-120	S	%REC	10	1/17/2015 5:06:57 PM	17258
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.44	0.33		mg/Kg	10	1/17/2015 5:06:57 PM	17258
Toluene	ND	0.33		mg/Kg	10	1/17/2015 5:06:57 PM	17258
Ethylbenzene	3.7	0.33		mg/Kg	10	1/17/2015 5:06:57 PM	17258
Xylenes, Total	40	0.66		mg/Kg	10	1/17/2015 5:06:57 PM	17258
Surr: 4-Bromofluorobenzene	158	80-120	S	%REC	10	1/17/2015 5:06:57 PM	17258

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 9
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1501572

Date Reported: 1/20/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-37 Overburden**Project:** Ballard CS**Collection Date:** 1/16/2015 1:20:00 PM**Lab ID:** 1501572-005**Matrix:** MEOH (SOIL)**Received Date:** 1/17/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: WL
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/19/2015 3:12:59 PM	17278
Surr: DNOP	85.9	63.5-128		%REC	1	1/19/2015 3:12:59 PM	17278
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	1/17/2015 5:35:40 PM	17258
Surr: BFB	96.7	80-120		%REC	1	1/17/2015 5:35:40 PM	17258
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.033		mg/Kg	1	1/17/2015 5:35:40 PM	17258
Toluene	ND	0.033		mg/Kg	1	1/17/2015 5:35:40 PM	17258
Ethylbenzene	ND	0.033		mg/Kg	1	1/17/2015 5:35:40 PM	17258
Xylenes, Total	ND	0.065		mg/Kg	1	1/17/2015 5:35:40 PM	17258
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	1/17/2015 5:35:40 PM	17258

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 5 of 9
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1501572

Date Reported: 1/20/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-38 Pad**Project:** Ballard CS**Collection Date:** 1/16/2015 1:25:00 PM**Lab ID:** 1501572-006**Matrix:** MEOH (SOIL)**Received Date:** 1/17/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: WL
Diesel Range Organics (DRO)	11	10		mg/Kg	1	1/19/2015 3:34:32 PM	17278
Surr: DNOP	90.1	63.5-128		%REC	1	1/19/2015 3:34:32 PM	17278
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	2.9		mg/Kg	1	1/17/2015 6:04:27 PM	17258
Surr: BFB	95.5	80-120		%REC	1	1/17/2015 6:04:27 PM	17258
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.029		mg/Kg	1	1/17/2015 6:04:27 PM	17258
Toluene	ND	0.029		mg/Kg	1	1/17/2015 6:04:27 PM	17258
Ethylbenzene	ND	0.029		mg/Kg	1	1/17/2015 6:04:27 PM	17258
Xylenes, Total	ND	0.058		mg/Kg	1	1/17/2015 6:04:27 PM	17258
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	1/17/2015 6:04:27 PM	17258

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1501572

20-Jan-15

Client: Souder, Miller and Associates

Project: Ballard CS

Sample ID	MB-17278		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	17278		RunNo:	23738				
Prep Date:	1/19/2015		Analysis Date:	1/19/2015		SeqNo:	700476		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Surr: DNOP	8.4		10.00		83.6	63.5	128				

Sample ID	LCS-17278		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 17278		RunNo: 23738					
Prep Date:	1/19/2015		Analysis Date: 1/19/2015		SeqNo: 700477		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.6	67.8	130			
Surr: DNOP	4.3		5.000		85.7	63.5	128			

Sample ID	1501572-001AMS		SampType:	MS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	SC-33 N		Batch ID:	17278		RunNo:	23738				
Prep Date:	1/19/2015		Analysis Date:	1/19/2015		SeqNo:	700677		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	35	9.9	49.50	7.019	55.8	29.2	176				
Surr: DNOP	4.5		4.950		91.8	63.5	128				

Sample ID	1501572-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-33 N		Batch ID: 17278		RunNo: 23738					
Prep Date:	1/19/2015		Analysis Date: 1/19/2015		SeqNo: 700822		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	9.8	49.07	7.019	60.3	29.2	176	5.63	23	
Surr: DNOP	4.9		4.907		99.3	63.5	128	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#: 1501572

20-Jan-15

Client: Souder, Miller and Associates

Project: Ballard CS

Sample ID	MB-17258		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	17258		RunNo:	23723				
Prep Date:	1/16/2015		Analysis Date:	1/17/2015		SeqNo:	700165		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	940		1000		93.8	80	120				

Sample ID	LCS-17258		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS		Batch ID:	17258		RunNo:	23723				
Prep Date:	1/16/2015		Analysis Date:	1/17/2015		SeqNo:	700175		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.8	65.8	139				
Surr: BFB	990		1000		98.9	80	120				

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1501572

20-Jan-15

Client: Souder, Miller and Associates

Project: Ballard CS

Sample ID	MB-17258		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	17258		RunNo:	23723			
Prep Date:	1/16/2015		Analysis Date:	1/17/2015		SeqNo:	700212		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		106	80	120			

Sample ID	LCS-17258		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	17258		RunNo:	23723			
Prep Date:	1/16/2015		Analysis Date:	1/17/2015		SeqNo:	700213		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	101	80	120			
Toluene	0.96	0.050	1.000	0	96.2	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| 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 87105
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1501572

RcptNo: 1

Received by/date:	<i>[Signature]</i>	01/17/15
Logged By:	Lindsay Mangin	1/17/2015 8:00:00 AM
Completed By:	Lindsay Mangin	1/17/2015 8:23:33 AM
Reviewed By:	Nick Bliss	1/17/15 2:10:50

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

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

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

Client: SMIA

5m A

Mailing Address: 401 1230 1

Farming, NM 87401

Phone #: 0 505 325 7535

email or Fax#: Steven Maskin@Sandmiller

2A/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP☐ Other☐ EDD (Type)

Turn-Around Time:

☐ Standard

☒ Rush Some day

Project Name:

Ballard CS

Project #:

5122055

Project Manager:

Steve Mosk-

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.6

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
1/16/15	1732	[Signature]	Christina Welch	1/16/15	1732	Bill Enterprise
Date:	Time:	Relinquished by:	Received by:	Date	Time	
1/16/15	1737	[Signature]	[Signature]	1/17/15	0800	Please Copy Jesse Sprague @ sandsmiller.ca

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

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

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: Brookhaven A2 Release Site	Facility Type: Natural Gas Gathering Line

Surface Owner: Navajo Nation	Mineral Owner: Navajo Nation	API No.
------------------------------	------------------------------	---------

LOCATION OF RELEASE

Unit Letter K	Section 29	Township 25N	Range 10W	Feet from the 1668	North South Line	Feet from the 2211	East West Line	County San Juan
------------------	---------------	-----------------	--------------	--------------------------	--------------------------------	--------------------------	------------------------------	--------------------

Latitude 36.369382 Longitude -107.921407

NATURE OF RELEASE

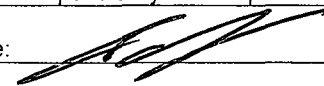
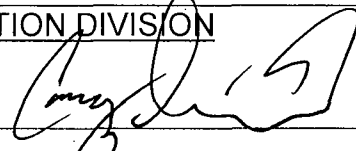
Type of Release: Natural Gas	Volume of Release 32.78 MCF Gas; No Liquids Released	Volume Recovered: None
Source of Release: Internal Corrosion	Date and Hour of Occurrence: 1/18/2015 @ 9:34 a.m.	Date and Hour of Discovery: 1/18/2015 @ 9:34 a.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy Notification to Cory Smith - NMOCD; Steve Austin - NNEPA	
By Whom? Thomas Long	Date and Hour 1/30/2015 @ 8:07 a.m.	
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: On January 18, 2015, Enterprise technicians confirmed a release on the Brookhaven A2 pipeline. The pipeline was isolated, de-pressurized and lock out tag out was applied. Repairs were completed on February 3, 2015.

Describe Area Affected and Cleanup Action: A third party environmental contractor conducted an investigation during the repair activities. The investigation indicated that the natural gas release caused no subsurface impacts. Soil excavated during repair activities was used as backfill. A third party investigation 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: 	OIL CONSERVATION DIVISION	
Printed Name: Ivan W. Zirbes	Approved by Environmental Specialist: 	
Title: Sr. Director, Environmental	Approval Date: 4/30/15	Expiration Date:
E-mail Address: snolan@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 3-12-2015 Phone: (713)381-6595		

* Attach Additional Sheets If Necessary

#NCS 1507248459

42
41

**Enterprise Products
Brookhaven A2 Well Tie Pipeline Release
Latitude North 36.369382°, Longitude West -107.921407°
NE/SW (Unit K) Section 29, T25N R10W
San Juan County, New Mexico
February 20, 2015**



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

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



Table of Contents

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2.0	Introduction	1
3.0	Site Ranking and Land Jurisdiction	1
4.0	Summary of Field Activities	2
5.0	Conclusions and Recommendations.....	2
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Figures:

Figure 1: Vicinity Map

Figure 2: Site Map

Figure 3: Soil Contaminant Concentration Map

Tables:

Table 1: Release Information

Table 2: Site Ranking

Table 3: Summary of Laboratory Analysis

Appendices:

Appendix A: Photographic Documentation

Appendix B: Laboratory Analytical Reports

1.0 Executive Summary

On February 2 and 3, 2015, Souder, Miller & Associates (SMA) responded to oversee the excavation of the hydrocarbon release associated with the Brookhaven A2 well tie pipeline. The release was initially reported on January 18, 2015 and is a result of corrosion of the six inch natural gas pipeline. The table below summarizes information about the pipeline remediation activities.

TABLE 1: RELEASE INFORMATION					
Name	Brookhaven A2 Well Tie Pipeline Release				
Location	Latitude/Longitude		Section, Township, Range		
	36.369382°	-107.921407°	Unit K	Section 29	T 25N, R 10W
Date Reported to SMA	January 18, 2015				
Reported to	Tom Long				
Land Owner	Navajo Nation				
Reported To	NM Oil Conservation Division (NMOCD) and NNEPA				
Diameter of Pipeline	6 inches				
Source of Release	Corrosion				
Release Contents	Natural Gas				
Release Volume	Unknown				
Nearest Waterway	Approximately 1,190 feet north of an unnamed surface water pond.				
Depth to Groundwater	Greater than 200 feet to groundwater reported in a well log located approximately 2.7 miles NE of the release site (POD# SJ 01715)				
Nearest Domestic Water Source	Nearest Well (SJ01715) approximately 2.7 miles NE with depth to water ~250'.				
NMOCD Ranking	0				
SMA Response Dates	2/2/2015 and 2/3/2015				
Subcontractors	West States Energy Contractors (WSEC)				
Disposal Facility	Envirotech Landfarm				
Yd ³ Contaminated Soil Excavated and Disposed	0				

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 Brookhaven A2 well tie pipeline release site. The site is located in the NE ¼ SW ¼ Section 29, T25N, R10W, San Juan County, 36.369382°, -107.921407°, San Juan County, New Mexico on land owned by Navajo Nation. Figure 1 illustrates the location of the site.

3.0 Site Ranking and Land Jurisdiction

The release site is located on the Navajo Nation with an elevation of approximately 6,743 feet above sea level. After evaluation of the site using aerial photography and topographic maps,

and searching the New Mexico Office of the State Engineer's database, depth to groundwater is estimated to be greater than 100 feet below ground surface (bgs). Figure 1 depicts the site vicinity and Figure 2 depicts the site location.

SMA searched the New Mexico State Engineer's Office online water well database for water wells in the vicinity of the release. No wells were located within 1,000 feet or 1 mile radius of the site. The nearest Well (SJ01715) is approximately 2.7 miles NE with depth to water of approximately 250'. The physical location of this release is within the jurisdiction of the NMOCD and the Navajo Nation.

This release location has been assigned a NMOCD ranking of 0 which requires a soil remediation standard of 10 parts per million (ppm) benzene, 50 ppm combined benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and 5,000 ppm total petroleum hydrocarbons (TPH). However, the Navajo Nation Environmental Protection Agency (NNEPA) defaults to the most stringent levels for contaminants of concern and requires soil remediation standards of 10 ppm benzene, 50 ppm combined BTEX, and 100 ppm TPH. Table 2 illustrates site ranking rationale.

4.0 Summary of Field Activities

On February 2 and 3, 2015, Souder, Miller & Associates (SMA) responded to a hydrocarbon release associated with the Brookhaven A2 well tie pipeline release. Excavation of the pipeline began on February 2, 2015 for pipeline repairs. SMA field screened the excavated soil stockpiles, the walls and base of the excavation with a calibrated photoionization detector (PID) equipped with a 10.6 electron volt bulb to determine the extent of the release.

The pipeline trends generally north-south in the area of the release and the excavation was elongated in that direction. Field screening indicated the excavation had exceeded the extent of the hydrocarbon contamination. The final excavation for repairs measured approximately 60 feet long by 9 feet wide by 5 feet deep, covering an area of approximately 540 square feet. Field screening and laboratory analysis indicated that the soils from the excavation were suitable for use as backfill material. Following laboratory confirmation, the excavation was completely backfilled on February 5, 2015.

Soil samples were initially field screened. Samples were submitted for confirmation laboratory analysis per United States Environmental Protection Agency Methods: 8021 for BTEX and 8015 for diesel and gasoline range organics (DRO/GRO) or combined as TPH. All samples were analyzed by Hall Environmental Analytical Laboratory in Albuquerque, New Mexico. Figure 3 illustrates the extent of the excavation and composite soil sample locations and laboratory results.

5.0 Conclusions and Recommendations

Navajo Nation Environmental Protection Agency (NNEPA) requires soil remediation standards of 10 ppm benzene, 50 ppm combined BTEX, and 100 ppm TPH. Laboratory analysis of SC-1 N and SC-9 N Base were below the NNEPA remediation standards with a detection of 22 mg/kg

DRO and 11 mg/kg DRO respectively. All other samples collected from the excavation were below laboratory detection limits.

Three samples, SC-11 SE Stockpile, SC-12 NE Stockpile, and SC-13 W Stockpile, were collected from the soil stockpiled from the excavation. All samples collected from the stockpiles were below laboratory detection limits. The stockpiles were used to backfill the excavation.

Soil contaminant concentrations are illustrated in Figure 3. A summary of laboratory analysis is included in Table 3. Laboratory reports are included in Appendix B

SMA suggests no further action at the Brookhaven A2 Well Tie pipeline release location.

6.0 Closure and Limitations

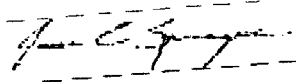
The scope of our services consisted of the performance of a preliminary spill assessment, verification of release stabilization, regulatory liaison, oversight and control of remediation operations, project management, and preparation of this summary report. All work has been performed in accordance with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

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

Submitted by:

Reviewed by:

SOUDER, MILLER & ASSOCIATES

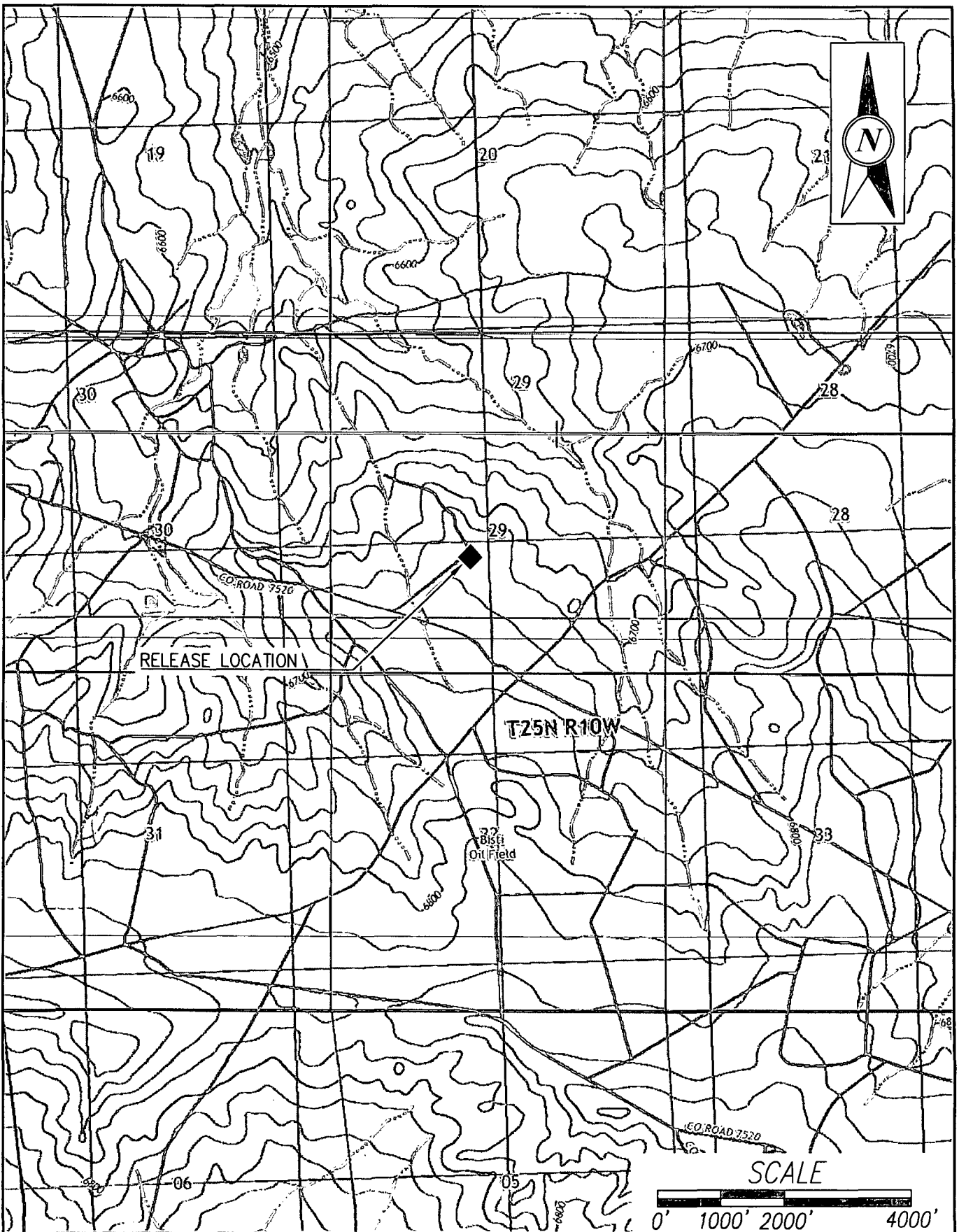



Jesse E. Sprague
Staff Scientist

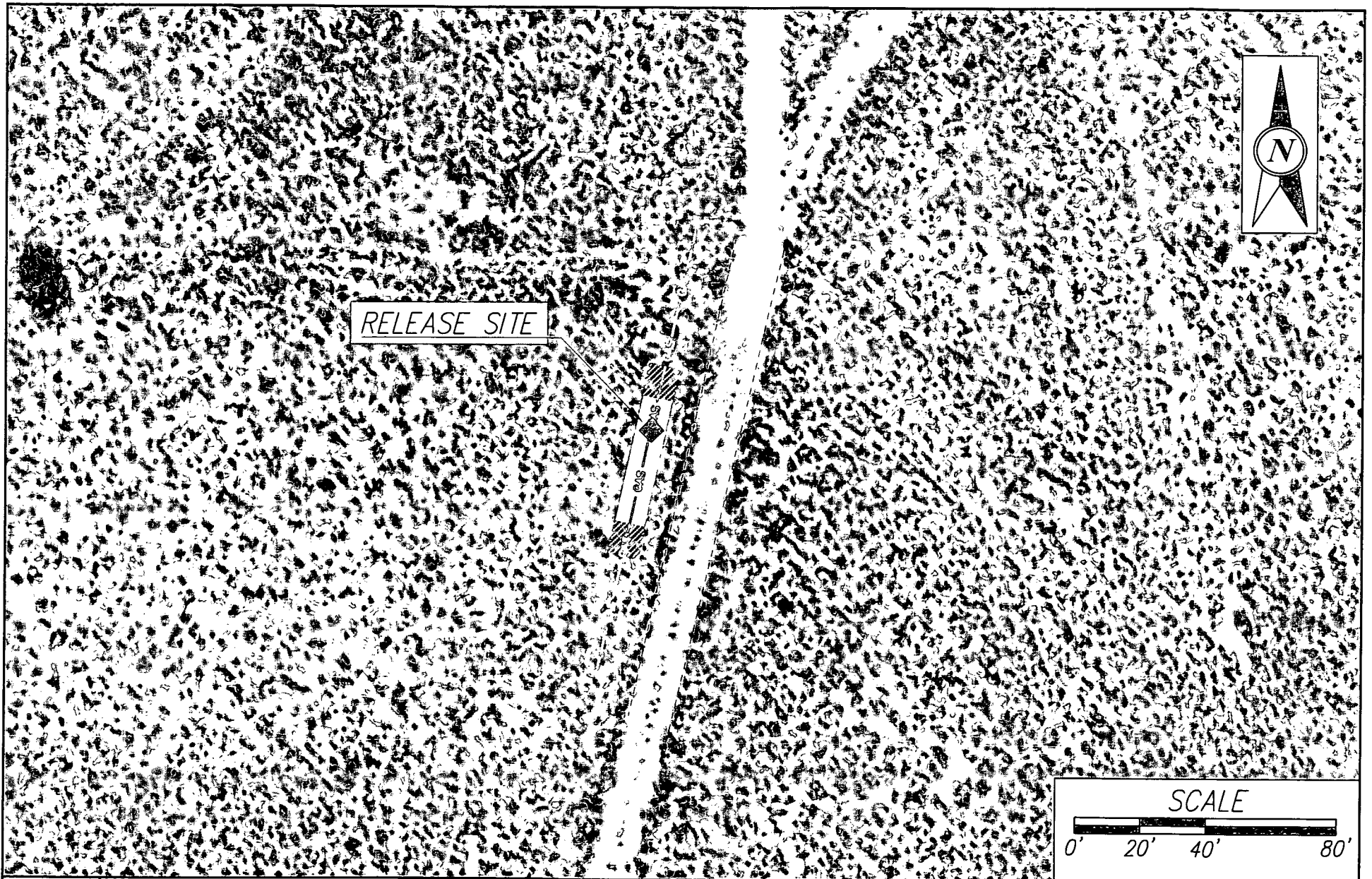


Reid S. Allen, P.G.
Principal Scientist

Figures



<div> Engineering Environmental Surveying</div> <div><small>THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION PURPOSES OR FOR FINANCIAL DECISIONS WITHOUT THE ADDITION OF THE FOLLOWING INFORMATION:</small></div>	<div>SOUDER, MILLER & ASSOCIATES 401 West Broadway Avenue Farmington, NM 87401-5907 Phone (505) 325-7330 Toll-Free (800) 219-0995 Fax (505) 326-0945 www.soudermiller.com Serving the Southwest & Rocky Mountains Albuquerque, Carlsbad, Farmington, Las Cruces, Roswell, Santa Fe, NM - El Paso, TX Cortez - Grand Junction - Montrose, CO - Salt Lake, AZ - Moab, UT</div>	<div><div>ENTERPRISE</div><div>FARMINGTON, NEW MEXICO</div><div><div>VICINITY MAP</div><div>BROOKHAVEN A2</div><div>SECTION 29, T25N, R10W</div><div>SAN JUAN COUNTY, NEW MEXICO</div></div></div>	<table><tr><td>Designed SM</td><td>Drawn DJB</td><td>Checked RSA</td></tr><tr><td colspan="3">Date: FEBRUARY 4, 2015</td></tr><tr><td colspan="3">Scale: Horiz: 1" = 2000'</td></tr><tr><td colspan="3">Vert: NA</td></tr><tr><td colspan="3">Project No: 5123699</td></tr><tr><td colspan="3">Sheet: 1</td></tr></table>	Designed SM	Drawn DJB	Checked RSA	Date: FEBRUARY 4, 2015			Scale: Horiz: 1" = 2000'			Vert: NA			Project No: 5123699			Sheet: 1		
	Designed SM	Drawn DJB	Checked RSA																		
	Date: FEBRUARY 4, 2015																				
	Scale: Horiz: 1" = 2000'																				
	Vert: NA																				
Project No: 5123699																					
Sheet: 1																					



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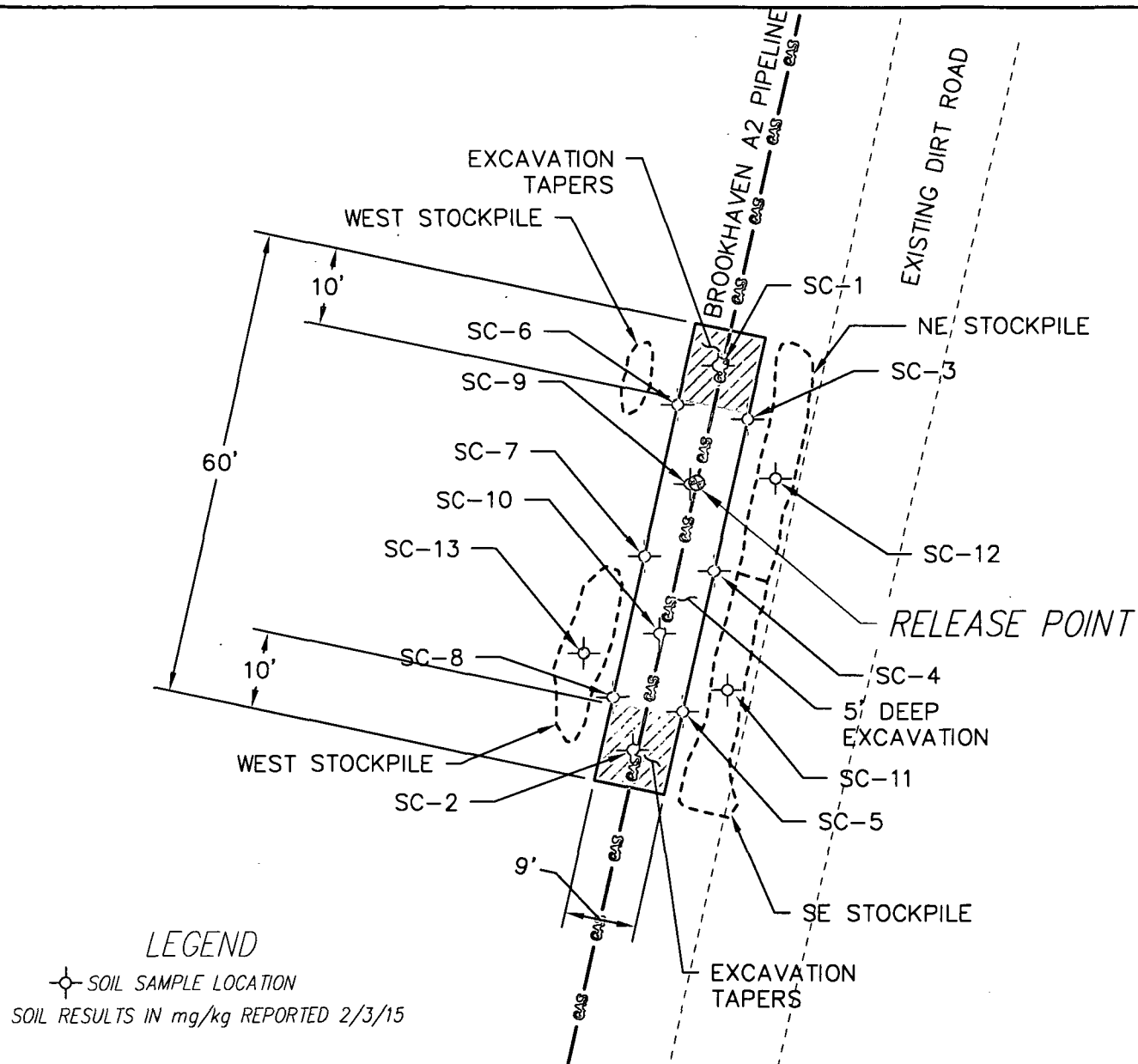
ENTERPRISE

FARMINGTON, NEW MEXICO

SITE LOCATION MAP
BROOKHAVEN A2
SECTION 29, T25N, R10W

SAN JUAN COUNTY, NEW MEXICO

Designed SM	Drawn DJB	Checked RSA
Date: FEBRUARY 4, 2015		
Scale: Horiz: 1"=40'		
Vert: N/A		
Project No: 5123699		
Sheet: 2		



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ENTERPRISE

FARMINGTON, NEW MEXICO

SOIL CONTAMINANT CONCENTRATION MAP
BROOKHAVEN A2
SECTION 29, T25N, R10W

SAN JUAN COUNTY, NEW MEXICO

Designed	Drawn	Checked
SM	DJB	RSA
Date: FEBRUARY 4, 2015		
Scale: Horiz: 1"=20'		
Vert: N/A		
Project No: 5123699		
Sheet: 3		

Tables

Enterprise Products
Table 2: Site Ranking

Brookhaven A2
Pipeline Release
2/20/2015

Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20		Verified using Topographic Maps and Google Earth	Approximately 200 feet to groundwater reported in a well log located approximately 2.7 miles NE of the release site (POD# SJ 01715)
50' to 99' = 10			
>100' = 0	0		
Ranking Criteria for Horizontal Distance to Nearest Surface Water	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 200' = 20		Verified using Topographic Maps and Google Earth	Approximately 1,190 feet north of an unnamed surface water pond.
200' - 1000' = 10			
>1000' = 0	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	0	Accessed NM Water Rights Reporting System	Nearest Well (SJ01715) approximately 2.7 miles NE with depth to water ~250'.
NNEPA DEFAULT RANKING	>19		
Total Site Ranking	0		
Soil Remediation Standards	0 to 9	10 to 19	>19
Benzene	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
TPH	5000 PPM	1000 PPM	100 PPM



Enterprise Products
Table 3: Summary of Laboratory Analysis
Results in mg/Kg

Brookhaven A2
Pipeline Release
2/20/2015

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: 0		100 ppm		10 ppm	50 ppm
2/3/2015	9:45	SC-1 N	0-5	<3.9	22	<0.039	<0.078
2/3/2015	9:48	SC-2 S	0-5	<4.1	<9.8	<0.041	<0.081
2/3/2015	9:51	SC-3 NE	0-5	<3.5	<9.8	<0.035	<0.071
2/3/2015	9:54	SC-4 CE	0-5	<9.9	<3.7	<0.037	<0.075
2/3/2015	9:57	SC-5 SE	0-5	<3.3	<9.9	<0.033	<0.066
2/3/2015	10:00	SC-6 NW	0-5	<3.2	<9.8	<0.032	<0.064
2/3/2015	10:03	SC-7 CW	0-5	<2.9	<9.9	<0.029	<0.057
2/3/2015	10:06	SC-8 SW	0-5	<3.1	<9.8	<0.031	<0.061
2/3/2015	10:09	SC-9 N BASE	5	<7.7	11	<0.038	<0.15
2/3/2015	10:12	SC-10 S BASE	5	<3.2	<10	<0.032	<0.065
2/3/2015	10:15	SC-11 SE STOCKPILE	--	<3.5	<9.9	<0.035	<0.070
2/3/2015	10:18	SC-12 NE STOCKPILE	--	<12	<10	<0.062	<0.25
2/3/2015	10:21	SC-13 W STOCKPILE	--	<3.1	<10	<0.031	<0.062



Appendix A

Photographic Documentation

Site Photographs
Enterprise Products Brookhaven A2 Well Tie Pipeline



Photo 1: Excavation commenced on February 2, 2015, using a rubber tire backhoe operated by West States Energy Contractors

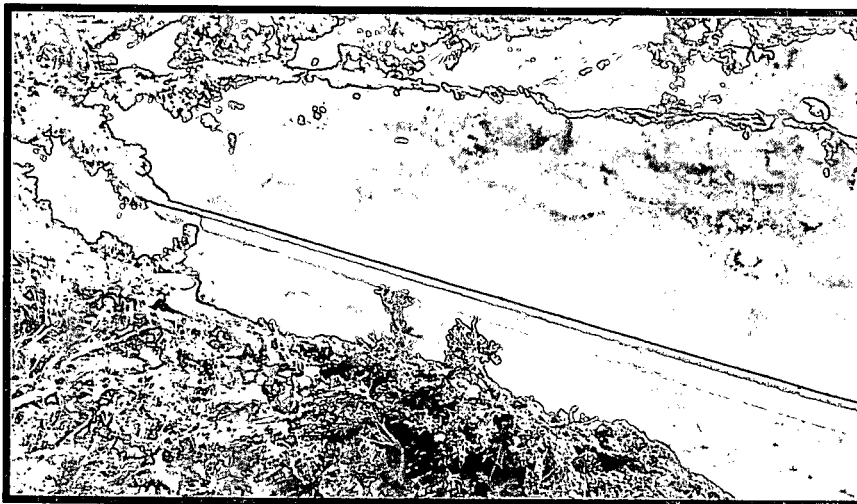


Photo 2: An entire 42' joint was pupped into the 6" spiral weld pipe, the release point was located roughly in the center of this photograph, about 10' south of the north (left) weld.

Site Photographs
Enterprise Products Brookhaven A2 Well Tie Pipeline

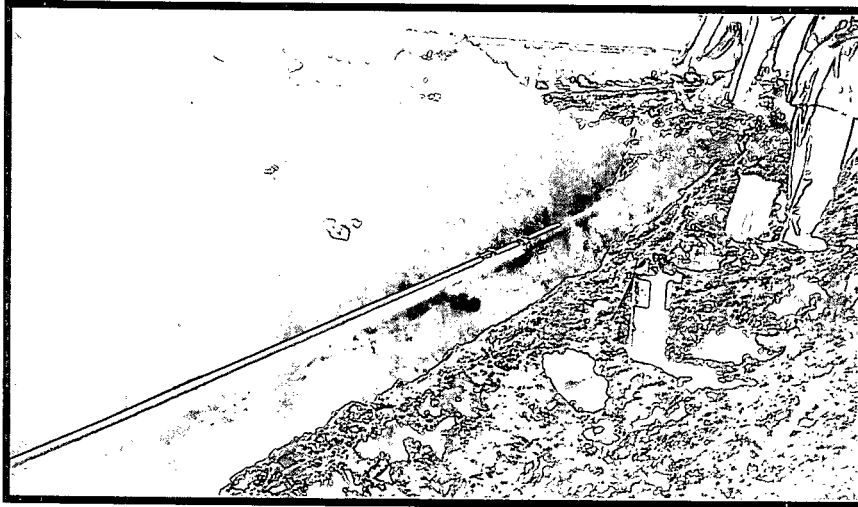


Photo 3: The southern half of the replaced section.

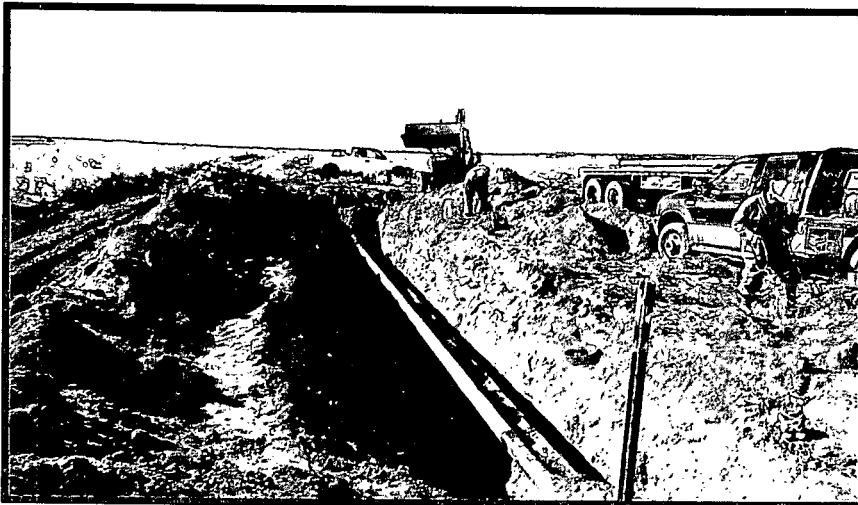


Photo 4: The entire excavation extents sampled on February 3, 2015. view is to the south.

Site Photographs
Enterprise Products Brookhaven A2 Well Tie Pipeline



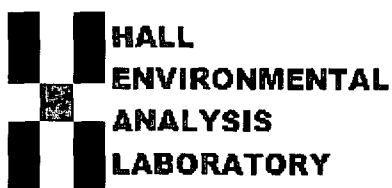
Photo 5: East stockpile in left of picture, view is to south, placing northeast stockpile in foreground, southeast stockpile in distance.



Photo 6: West stockpile sample composited both the pile in front of the welding truck (background) and adjacent to the rear tires, in the foreground.

Appendix B

Laboratory Analytical Report



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

February 05, 2015

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

RE: Brookhaven A2

OrderNo.: 1502113

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 13 sample(s) on 2/4/2015 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1502113

Date Reported: 2/5/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-1 N**Project:** Brookhaven A2**Collection Date:** 2/3/2015 9:45:00 AM**Lab ID:** 1502113-001**Matrix:** MEOH (SOIL)**Received Date:** 2/4/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	22	9.9		mg/Kg	1	2/4/2015 3:03:15 PM	17554
Surr: DNOP	67.3	63.5-128		%REC	1	2/4/2015 3:03:15 PM	17554
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	2/4/2015 8:53:01 PM	R24097
Surr: BFB	96.2	80-120		%REC	1	2/4/2015 8:53:01 PM	R24097
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.039		mg/Kg	1	2/4/2015 8:53:01 PM	R24097
Toluene	ND	0.039		mg/Kg	1	2/4/2015 8:53:01 PM	R24097
Ethylbenzene	ND	0.039		mg/Kg	1	2/4/2015 8:53:01 PM	R24097
Xylenes, Total	ND	0.078		mg/Kg	1	2/4/2015 8:53:01 PM	R24097
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	2/4/2015 8:53:01 PM	R24097

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 1 of 19
	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 1502113

Date Reported: 2/5/2015

CLIENT: Souder, Miller and Associates**Client Sample ID:** SC-2 S**Project:** Brookhaven A2**Collection Date:** 2/3/2015 9:48:00 AM**Lab ID:** 1502113-002**Matrix:** MEOH (SOIL)**Received Date:** 2/4/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/4/2015 3:30:27 PM	17554
Surr: DNOP	65.0	63.5-128		%REC	1	2/4/2015 3:30:27 PM	17554
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	2/4/2015 10:20:59 AM	R24097
Surr: BFB	102	80-120		%REC	1	2/4/2015 10:20:59 AM	R24097
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.041		mg/Kg	1	2/4/2015 10:20:59 AM	R24097
Toluene	ND	0.041		mg/Kg	1	2/4/2015 10:20:59 AM	R24097
Ethylbenzene	ND	0.041		mg/Kg	1	2/4/2015 10:20:59 AM	R24097
Xylenes, Total	ND	0.081		mg/Kg	1	2/4/2015 10:20:59 AM	R24097
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	2/4/2015 10:20:59 AM	R24097

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 19
	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-3 NE

Project: Brookhaven A2

Collection Date: 2/3/2015 9:51:00 AM

Lab ID: 1502113-003

Matrix: MEOH (SOIL)

Received Date: 2/4/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/5/2015 9:52:47 AM	17554
Surr: DNOP	87.8	63.5-128		%REC	1	2/5/2015 9:52:47 AM	17554
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	2/4/2015 9:21:44 PM	R24097
Surr: BFB	95.7	80-120		%REC	1	2/4/2015 9:21:44 PM	R24097
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.035		mg/Kg	1	2/4/2015 9:21:44 PM	R24097
Toluene	ND	0.035		mg/Kg	1	2/4/2015 9:21:44 PM	R24097
Ethylbenzene	ND	0.035		mg/Kg	1	2/4/2015 9:21:44 PM	R24097
Xylenes, Total	ND	0.071		mg/Kg	1	2/4/2015 9:21:44 PM	R24097
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	2/4/2015 9:21:44 PM	R24097

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 3 of 19
	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 1502113

Date Reported: 2/5/2015

CLIENT: Souder, Miller and Associates**Client Sample ID:** SC-4 CE**Project:** Brookhaven A2**Collection Date:** 2/3/2015 9:54:00 AM**Lab ID:** 1502113-004**Matrix:** MEOH (SOIL)**Received Date:** 2/4/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/4/2015 2:32:56 PM	17554
Surr: DNOP	103	63.5-128		%REC	1	2/4/2015 2:32:56 PM	17554
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	2/4/2015 12:16:02 PM	R24097
Surr: BFB	96.2	80-120		%REC	1	2/4/2015 12:16:02 PM	R24097
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.037		mg/Kg	1	2/4/2015 12:16:02 PM	R24097
Toluene	ND	0.037		mg/Kg	1	2/4/2015 12:16:02 PM	R24097
Ethylbenzene	ND	0.037		mg/Kg	1	2/4/2015 12:16:02 PM	R24097
Xylenes, Total	ND	0.075		mg/Kg	1	2/4/2015 12:16:02 PM	R24097
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	2/4/2015 12:16:02 PM	R24097

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 1502113

Date Reported: 2/5/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-5 SE

Project: Brookhaven A2

Collection Date: 2/3/2015 9:57:00 AM

Lab ID: 1502113-005

Matrix: MEOH (SOIL)

Received Date: 2/4/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/4/2015 2:54:29 PM	17554
Surr: DNOP	104	63.5-128		%REC	1	2/4/2015 2:54:29 PM	17554
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	2/4/2015 12:44:49 PM	R24097
Surr: BFB	95.1	80-120		%REC	1	2/4/2015 12:44:49 PM	R24097
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.033		mg/Kg	1	2/4/2015 12:44:49 PM	R24097
Toluene	ND	0.033		mg/Kg	1	2/4/2015 12:44:49 PM	R24097
Ethylbenzene	ND	0.033		mg/Kg	1	2/4/2015 12:44:49 PM	R24097
Xylenes, Total	ND	0.066		mg/Kg	1	2/4/2015 12:44:49 PM	R24097
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	2/4/2015 12:44:49 PM	R24097

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 1502113

Date Reported: 2/5/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-6 NW

Project: Brookhaven A2

Collection Date: 2/3/2015 10:00:00 AM

Lab ID: 1502113-006

Matrix: MEOH (SOIL)

Received Date: 2/4/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/4/2015 3:16:12 PM	17554
Surr: DNOP	99.9	63.5-128		%REC	1	2/4/2015 3:16:12 PM	17554
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	2/4/2015 1:13:35 PM	R24097
Surr: BFB	95.7	80-120		%REC	1	2/4/2015 1:13:35 PM	R24097
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.032		mg/Kg	1	2/4/2015 1:13:35 PM	R24097
Toluene	ND	0.032		mg/Kg	1	2/4/2015 1:13:35 PM	R24097
Ethylbenzene	ND	0.032		mg/Kg	1	2/4/2015 1:13:35 PM	R24097
Xylenes, Total	ND	0.064		mg/Kg	1	2/4/2015 1:13:35 PM	R24097
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	2/4/2015 1:13:35 PM	R24097

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 6 of 19
	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 1502113

Date Reported: 2/5/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-7 CW**Project:** Brookhaven A2**Collection Date:** 2/3/2015 10:03:00 AM**Lab ID:** 1502113-007**Matrix:** MEOH (SOIL)**Received Date:** 2/4/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/4/2015 3:37:50 PM	17554
Surr: DNOP	101	63.5-128		%REC	1	2/4/2015 3:37:50 PM	17554
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	2.9		mg/Kg	1	2/4/2015 9:50:27 PM	R24097
Surr: BFB	95.0	80-120		%REC	1	2/4/2015 9:50:27 PM	R24097
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.029		mg/Kg	1	2/4/2015 9:50:27 PM	R24097
Toluene	ND	0.029		mg/Kg	1	2/4/2015 9:50:27 PM	R24097
Ethylbenzene	ND	0.029		mg/Kg	1	2/4/2015 9:50:27 PM	R24097
Xylenes, Total	ND	0.057		mg/Kg	1	2/4/2015 9:50:27 PM	R24097
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	2/4/2015 9:50:27 PM	R24097

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 7 of 19
	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 1502113

Date Reported: 2/5/2015

CLIENT: Souder, Miller and Associates**Client Sample ID:** SC-8 SW**Project:** Brookhaven A2**Collection Date:** 2/3/2015 10:06:00 AM**Lab ID:** 1502113-008**Matrix:** MEOH (SOIL)**Received Date:** 2/4/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/4/2015 11:23:56 AM	17554
Surr: DNOP	80.4	63.5-128		%REC	1	2/4/2015 11:23:56 AM	17554
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	2/4/2015 10:19:09 PM	R24097
Surr: BFB	95.3	80-120		%REC	1	2/4/2015 10:19:09 PM	R24097
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.031		mg/Kg	1	2/4/2015 10:19:09 PM	R24097
Toluene	ND	0.031		mg/Kg	1	2/4/2015 10:19:09 PM	R24097
Ethylbenzene	ND	0.031		mg/Kg	1	2/4/2015 10:19:09 PM	R24097
Xylenes, Total	ND	0.061		mg/Kg	1	2/4/2015 10:19:09 PM	R24097
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	2/4/2015 10:19:09 PM	R24097

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.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-9 N Base

Project: Brookhaven A2

Collection Date: 2/3/2015 10:09:00 AM

Lab ID: 1502113-009

Matrix: MEOH (SOIL)

Received Date: 2/4/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	11	9.9		mg/Kg	1	2/4/2015 11:51:04 AM	17554
Surr: DNOP	73.8	63.5-128		%REC	1	2/4/2015 11:51:04 AM	17554
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	7.7		mg/Kg	2	2/4/2015 1:42:18 PM	R24097
Surr: BFB	95.9	80-120		%REC	2	2/4/2015 1:42:18 PM	R24097
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.038		mg/Kg	2	2/4/2015 1:42:18 PM	R24097
Toluene	ND	0.077		mg/Kg	2	2/4/2015 1:42:18 PM	R24097
Ethylbenzene	ND	0.077		mg/Kg	2	2/4/2015 1:42:18 PM	R24097
Xylenes, Total	ND	0.15		mg/Kg	2	2/4/2015 1:42:18 PM	R24097
Surr: 4-Bromofluorobenzene	104	80-120		%REC	2	2/4/2015 1:42:18 PM	R24097

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 1502113

Date Reported: 2/5/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-10 S Base

Project: Brookhaven A2

Collection Date: 2/3/2015 10:12:00 AM

Lab ID: 1502113-010

Matrix: MEOH (SOIL)

Received Date: 2/4/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/4/2015 12:45:41 PM	17554
Surr: DNOP	67.0	63.5-128		%REC	1	2/4/2015 12:45:41 PM	17554
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	2/4/2015 10:47:52 PM	R24097
Surr: BFB	94.8	80-120		%REC	1	2/4/2015 10:47:52 PM	R24097
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.032		mg/Kg	1	2/4/2015 10:47:52 PM	R24097
Toluene	ND	0.032		mg/Kg	1	2/4/2015 10:47:52 PM	R24097
Ethylbenzene	ND	0.032		mg/Kg	1	2/4/2015 10:47:52 PM	R24097
Xylenes, Total	ND	0.065		mg/Kg	1	2/4/2015 10:47:52 PM	R24097
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	2/4/2015 10:47:52 PM	R24097

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 19
	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-11 SE Stockpile

Project: Brookhaven A2

Collection Date: 2/3/2015 10:15:00 AM

Lab ID: 1502113-011

Matrix: MEOH (SOIL)

Received Date: 2/4/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/4/2015 1:12:55 PM	17554
Surr: DNOP	71.0	63.5-128		%REC	1	2/4/2015 1:12:55 PM	17554
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	2/4/2015 11:16:33 PM	R24097
Surr: BFB	95.4	80-120		%REC	1	2/4/2015 11:16:33 PM	R24097
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.035		mg/Kg	1	2/4/2015 11:16:33 PM	R24097
Toluene	ND	0.035		mg/Kg	1	2/4/2015 11:16:33 PM	R24097
Ethylbenzene	ND	0.035		mg/Kg	1	2/4/2015 11:16:33 PM	R24097
Xylenes, Total	ND	0.070		mg/Kg	1	2/4/2015 11:16:33 PM	R24097
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	2/4/2015 11:16:33 PM	R24097

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 11 of 19
	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 1502113

Date Reported: 2/5/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-12 SW Stockpile

Project: Brookhaven A2

Collection Date: 2/3/2015 10:18:00 AM

Lab ID: 1502113-012

Matrix: MEOH (SOIL)

Received Date: 2/4/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/4/2015 1:40:34 PM	17554
Surr: DNOP	66.5	63.5-128		%REC	1	2/4/2015 1:40:34 PM	17554
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	12		mg/Kg	4	2/4/2015 2:11:02 PM	R24097
Surr: BFB	94.9	80-120		%REC	4	2/4/2015 2:11:02 PM	R24097
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.062		mg/Kg	4	2/4/2015 2:11:02 PM	R24097
Toluene	ND	0.12		mg/Kg	4	2/4/2015 2:11:02 PM	R24097
Ethylbenzene	ND	0.12		mg/Kg	4	2/4/2015 2:11:02 PM	R24097
Xylenes, Total	ND	0.25		mg/Kg	4	2/4/2015 2:11:02 PM	R24097
Surr: 4-Bromofluorobenzene	104	80-120		%REC	4	2/4/2015 2:11:02 PM	R24097

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 12 of 19
	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 1502113

Date Reported: 2/5/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-13 W Stockpile

Project: Brookhaven A2

Collection Date: 2/3/2015 10:21:00 AM

Lab ID: 1502113-013

Matrix: MEOH (SOIL)

Received Date: 2/4/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/4/2015 2:08:03 PM	17554
Surr: DNOP	64.4	63.5-128		%REC	1	2/4/2015 2:08:03 PM	17554
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	2/4/2015 12:54:34 PM	R24096
Surr: BFB	92.8	80-120		%REC	1	2/4/2015 12:54:34 PM	R24096
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.031		mg/Kg	1	2/4/2015 12:54:34 PM	R24096
Toluene	ND	0.031		mg/Kg	1	2/4/2015 12:54:34 PM	R24096
Ethylbenzene	ND	0.031		mg/Kg	1	2/4/2015 12:54:34 PM	R24096
Xylenes, Total	ND	0.062		mg/Kg	1	2/4/2015 12:54:34 PM	R24096
Surr: 4-Bromofluorobenzene	127	80-120	S	%REC	1	2/4/2015 12:54:34 PM	R24096

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 13 of 19
	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#: 1502113

05-Feb-15

Client: Souder, Miller and Associates

Project: Brookhaven A2

Sample ID	MB-17553		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	17553		RunNo:	24074				
Prep Date:	2/4/2015		Analysis Date:	2/4/2015		SeqNo:	710059		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	12		10.00		116	63.5	128				

Sample ID	MB-17554	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	17554	RunNo:	24073					
Prep Date:	2/4/2015	Analysis Date:	2/4/2015	SeqNo:	710152	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.5		10.00		85.3	63.5	128			

Sample ID	LCS-17554		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 17554		RunNo: 24073					
Prep Date:	2/4/2015		Analysis Date: 2/4/2015		SeqNo: 710153		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.9	67.8	130			
Surr: DNOP	4.4		5.000		88.1	63.5	128			

Sample ID	LCS-17553		SampType:	LCS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	17553		RunNo:	24073				
Prep Date:	2/4/2015		Analysis Date:	2/4/2015		SeqNo:	710303		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.9		5.000		97.2	63.5	128				

Sample ID	1502113-001AMS		SampType:	MS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	SC-1 N		Batch ID:	17554		RunNo:	24073				
Prep Date:	2/4/2015		Analysis Date:	2/4/2015		SeqNo:	710652		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	120	10	50.10	22.48	193	29.2	176			S	
Surr: DNOP	4.8		5.010		96.4	63.5	128				

Sample ID	1502113-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	SC-1 N		Batch ID:	17554		RunNo:	24073				
Prep Date:	2/4/2015		Analysis Date:	2/4/2015		SeqNo:	710653		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	50	10	50.40	22.48	54.3	29.2	176	82.1	23	R	
Surr: DNOP	4.9		5.040		96.8	63.5	128	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#: 1502113

05-Feb-15

Client: Souder, Miller and Associates

Project: Brookhaven A2

Sample ID	MB-17578	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	17578	RunNo:	24112					
Prep Date:	2/5/2015	Analysis Date:	2/5/2015	SeqNo:	710887	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		109	63.5	128			

Sample ID	LCS-17578	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	17578	RunNo:	24111					
Prep Date:	2/5/2015	Analysis Date:	2/5/2015	SeqNo:	710956	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		89.9	63.5	128			

Qualifiers:

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

B Analyte detected in the associated Method Blank
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#: 1502113

05-Feb-15

Client: Souder, Miller and Associates

Project: Brookhaven A2

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R24097	RunNo:	24097					
Prep Date:		Analysis Date:	2/4/2015	SeqNo:	710491	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	940		1000		94.5	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R24097	RunNo:	24097					
Prep Date:		Analysis Date:	2/4/2015	SeqNo:	710492	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.4	64	130			
Surr: BFB	1000		1000		102	80	120			

Sample ID	1502113-002AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-2 S	Batch ID:	R24097	RunNo:	24097					
Prep Date:		Analysis Date:	2/4/2015	SeqNo:	710495	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.1	20.31	1.227	98.9	47.9	144			
Surr: BFB	850		812.3		104	80	120			

Sample ID	1502113-002AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-2 S	Batch ID:	R24097	RunNo:	24097					
Prep Date:		Analysis Date:	2/4/2015	SeqNo:	710496	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.1	20.31	1.227	97.2	47.9	144	1.69	29.9	
Surr: BFB	840		812.3		103	80	120	0	0	

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R24096	RunNo:	24096					
Prep Date:		Analysis Date:	2/4/2015	SeqNo:	710543	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	900		1000		90.5	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R24096	RunNo:	24096					
Prep Date:		Analysis Date:	2/4/2015	SeqNo:	710544	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	900		1000		90.5	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| 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#: 1502113

05-Feb-15

Client: Souder, Miller and Associates

Project: Brookhaven A2

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R24096	RunNo:	24096					
Prep Date:		Analysis Date:	2/4/2015	SeqNo:	710544	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.4	64	130			
Surr: BFB	960		1000		96.0	80	120			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1502113

05-Feb-15

Client: Souder, Miller and Associates

Project: Brookhaven A2

Sample ID	5ML RB	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS	Batch ID:	R24097		RunNo:	24097				
Prep Date:		Analysis Date:	2/4/2015		SeqNo:	710517		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R24097	RunNo:	24097					
Prep Date:		Analysis Date:	2/4/2015	SeqNo:	710518	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	107	80	120			
Toluene	1.1	0.050	1.000	0	106	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120			
Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R24096	RunNo:	24096					
Prep Date:		Analysis Date:	2/4/2015	SeqNo:	710552	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	106	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.1	0.050	1.000	0	108	80	120			
Xylenes, Total	3.3	0.10	3.000	0	109	80	120			
Surr: 4-Bromofluorobenzene	0.91		1.000		91.1	80	120			

Sample ID	1502113-013AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-13 W Stockpile	Batch ID:	R24096	RunNo:	24096					
Prep Date:		Analysis Date:	2/4/2015	SeqNo:	710554	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.63	0.031	0.6231	0	102	69.2	126			
Toluene	0.63	0.031	0.6231	0	102	65.6	128			
Ethylbenzene	0.66	0.031	0.6231	0	106	65.5	138			
Xylenes, Total	2.0	0.062	1.869	0	106	63	139			
Surr: 4-Bromofluorobenzene	0.83		0.6231		133	80	120			S

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1502113

05-Feb-15

Client: Souder, Miller and Associates

Project: Brookhaven A2

Sample ID	1502113-013AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SC-13 W Stockpile		Batch ID:	R24096		RunNo:	24096			
Prep Date:			Analysis Date:	2/4/2015		SeqNo:	710555		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.62	0.031	0.6231	0	100	69.2	126	1.43	18.5	
Toluene	0.62	0.031	0.6231	0	99.9	65.6	128	1.80	20.6	
Ethylbenzene	0.65	0.031	0.6231	0	104	65.5	138	1.68	20.1	
Xylenes, Total	2.0	0.062	1.869	0	105	63	139	1.18	21.1	
Surr: 4-Bromofluorobenzene	0.65		0.6231		104	80	120	0	0	

Sample ID	B20		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	R24096		RunNo:	24096			
Prep Date:			Analysis Date:	2/4/2015		SeqNo:	710556		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		97.7	80	120			

Qualifiers:

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

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



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

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1502113

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

2/4/2015 8:30:00 AM

Completed By: Lindsay Mangin

2/4/2015 8:41:07 AM

Reviewed By:

AT 02/04/15

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good	Yes			

Chain-of-Custody Record

Client: **SMA**

Mailing Address: **401 W Broadway
Farmington, NM 87401**

Phone #: **505 325 7535**

Email or Fax#: **Steve.Moskal@Saulsmiller.com**

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

Project Name: **Brookhaven A2**

Project #: **5123679 BGI 7**

Project Manager: **Steve Moskal**



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Sampler: **J. Sprague**

On Ice: ☒ Yes ☐ No

Sample Temperature: **2.4**

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TPH (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
4/3	0944	Soil	SC-1 N	1 4oz	mech	-001	X	X	X									
	0948		SC-2 S			-002	X	X	X									
	0951		SC-3 NE			-003	X	X	X									
	0954		SC-4 CE			-004	X	X	X									
	0957		SC-5 SE			-005	X	X	X									
	1000		SC-6 NW			-006	X	X	X									
	1003		SC-7 CW			-007	X	X	X									
	1006		SC-8 SW			-008	X	X	X									
	1009		SC-9 N Base			-009	X	X	X									
	1012		SC-10 S Base			-010	X	X	X									
	1015		SC-11 SE Stockpile			-011	X	X	X									
	1018		SC-12 SW Stockpile			-012	X	X	X									

Date: **4/3/15** Time: **1646** Relinquished by: **[Signature]**

Date: **4/3/15** Time: **1747** Relinquished by: **[Signature]**

Received by: **[Signature]** Date: **4/3/15** Time: **1648**

Received by: **[Signature]** Date: **02/04/15** Time: **0830**

Remarks: **Bill to Entprise Jesse.sprague@Saulsmiller.com**

copy Alicia.patterson@Saulsmiller.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.

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

OIL CONS. DIV DIST. 3

Submit 1 Copy to appropriate District Office
in accordance with 19.15.29 NMAC.
MAR 16 2015

Form C-141
Revised August 8, 2011

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 K - Seven Release Sites	Facility Type: Natural Gas Gathering Line

Surface Owner: BLM	Mineral Owner: BLM	API No.
--------------------	--------------------	---------

LOCATION OF RELEASE

Unit Letter L, N, B, H	Section 26/27	Township 27N	Range 8W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
---------------------------	------------------	-----------------	-------------	------------------	---------------------	------------------	-------------------	--------------------

Latitude See Below Longitude See Below

NATURE OF RELEASE


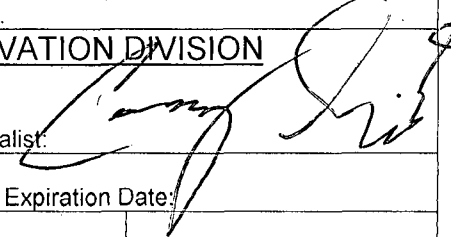
Type of Release: Natural Gas and Natural Gas Liquids (Condensate)	Volume of Release 225 MCF Gas; 5-10 BBLS per site	Volume Recovered: None
Source of Release: Internal Corrosion	Date and Hour of Occurrence: 8/18/2014 @ 10:00 a.m.	Date and Hour of Discovery: 8/18/2014 @ 4:00 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: A third party reported a pipeline leak on the Enterprise Trunk K right of way. Technicians were dispatched and seven (7) locations were confirmed. The GPS locations for each site are the following: 36.543552, -107.642895, -36.544667, -107.644105, 36.545372, -107.644913, 36.548300, -107.648630, 36.549580, -107.650090, 36.538300, -107.637030 and 36.546977, -107.646831. After the pipeline was isolated, de-pressurized, locked out and tagged out, repairs and remediation were implemented the seven (7) release sites.

Describe Area Affected and Cleanup Action Taken: Seven (7) release locations were remediated by excavation of the contaminant mass. Approximately 5,933 cubic yards of hydrocarbon impacted soil were excavated and transported a New Mexico Oil Conservation Division approved land farm facility. A groundwater investigation was completed on the third release site (36.545372, -107.644913) on January 23, 2015. All groundwater sample results were below the New Mexico Water Quality Control Commission standards. A third party corrective action report and groundwater investigation 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: 	OIL CONSERVATION DIVISION	
Printed Name: Ivan W. Zirbes	Approved by Environmental Specialist: 	
Title: Sr. Director, Environmental	Approval Date: 5/11/15	Expiration Date:
E-mail Address: snolan@eprod.com	Conditions of Approval:	
Date: 3-18-2015	Phone: (713)381-6595	Attached <input type="checkbox"/>

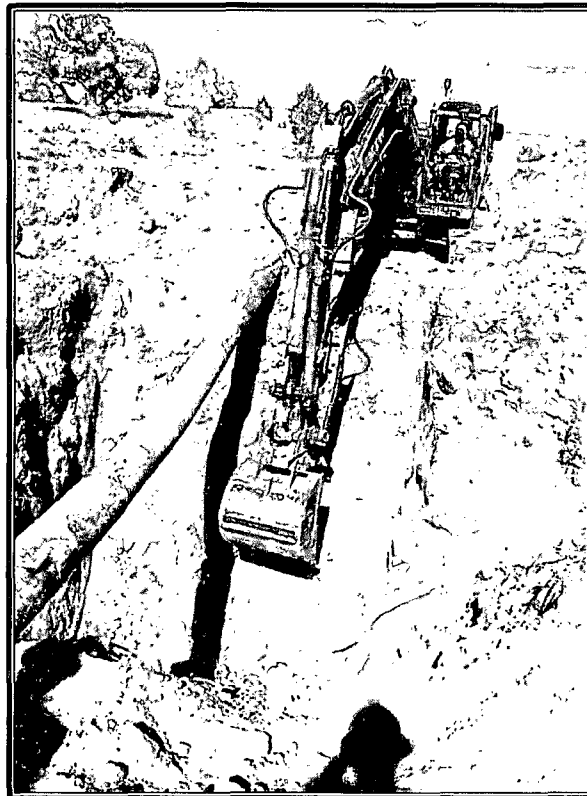
* Attach Additional Sheets If Necessary

#NCS 143214 7925

254

**Enterprise Products
Trunk K Pipeline Releases
San Juan County, New Mexico
November 19, 2014**

Location Name	Latitude (North)	Longitude (West)	Unit, Section, Township, Range
Trunk K #1	36.543552°	-107.642895°	Unit L, S25, T27N, R8W
Trunk K #2	36.544667°	-107.644105°	Unit H, S26, T27N, R8W
Trunk K #3	36.545372°	-107.644913°	Unit H, S26, T27N, R8W
Trunk K #4	36.548300°	-107.648630°	Unit B, S26, T27N, R8W
Trunk K #5	36.549580°	-107.650090°	Unit B, S26, T27N, R8W
Trunk K #6	36.538300°	-107.637030°	Unit N, S25, T27N, R8W
Trunk K #7	36.546977°	-107.646831°	Unit H, S26, T27N, R8W



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

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



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3.0	Site Ranking and Land Jurisdiction	2
4.0	Summary of Field Activities	2
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Figure 1: Vicinity Map

Figure 2 -8: Site Maps (Locations #1- #7)

Figure 9 -15: Soil Contaminant Concentration Maps (Locations #1- #7)

Tables:

Table 1: Release Information

Table 2: Site Ranking

Table 3: Summary of Laboratory Analysis

Appendices:

Appendix A: Photographic Documentation

Appendix B: Soil Disposal Documentation

Appendix C: Laboratory Analytical Reports

Appendix D: Groundwater Investigation Plan

Appendix E: Cultural Survey Study (WCRM)

1.0 Executive Summary

Between August 28 and November 6, 2014 Souder, Miller & Associates (SMA) responded to oversee a total of seven releases associated with the Trunk K Pipeline, initially reported on August 18, 2014. The releases were a result of internal corrosion of the pipeline and failed carbon fiber wrap repair dating back approximately 1.5 to 2 years ago. The table below summarizes information about the pipeline repair and remediation activities.

TABLE 1: RELEASE INFORMATION			
Location Name	Latitude (North)	Longitude (West)	Unit, Section, Township, Range
Trunk K #1	36.543552°	-107.642895°	Unit L, S25, T27N, R8W
Trunk K #2	36.544667°	-107.644105°	Unit H, S26, T27N, R8W
Trunk K #3	36.545372°	-107.644913°	Unit H, S26, T27N, R8W
Trunk K #4	36.548300°	-107.648630°	Unit B, S26, T27N, R8W
Trunk K #5	36.549580°	-107.650090°	Unit B, S26, T27N, R8W
Trunk K #6	36.538300°	-107.637030°	Unit N, S25, T27N, R8W
Trunk K #7	36.546977°	-107.646831°	Unit H, S26, T27N, R8W
Date Reported	August 18, 2014; September 1, 2014; October 30, 2014		
Reported to	Tom Long		
Land Owner	Bureau of Land Management (BLM)		
Reported To	NM Oil Conservation Division (NMOCD)/ BLM		
Diameter of Pipeline	16 inches		
Source of Release	Internal Corrosion		
Release Contents	Natural Gas Liquids/Condensate		
Release Volume	Unknown		
Nearest Waterway	Adjacent to Largo Canyon Wash and within an unnamed Tributary Wash to Largo Canyon Wash		
Depth to Groundwater	Assumed to be less than 50 feet		
Nearest Domestic Water Source	Greater than 1,000 feet		
NMOCD Ranking	30-40		
SMA Response Dates	8/28-11/6/2014		
Subcontractors	Energy Maintenance Services (EMS)		
Disposal Facility	Envirotech Landfarm		
Yd ³ Contaminated Soil Excavated and Disposed	5,933 (Reported on Completed Form C-138)		

2.0 Introduction

On behalf of Enterprise Products Operating, LLC. (Enterprise), SMA has prepared this report that describes remediation of a hydrocarbon releases associated with the Trunk K Pipeline. The Trunk

K Pipeline releases were a result of internal corrosion of the 16-inch steel pipeline. The first release was discovered on August 20, 2014. The second through sixth releases were discovered on September 2, 2014 and the seventh on October 30, 2014. The pipeline release locations are included in the above, Table 1: Release Information. Figure 1, Vicinity Map, illustrates the locations and spatial relationships of the releases.

3.0 Site Ranking and Land Jurisdiction

The release sites are located in Largo Canyon, between Cottonwood Canyon to the south and Smith Canyon to the north. The distances from release sites #1 through #5, to the nearest surface waterway, Largo Canyon Wash, range from approximately 105 feet to 425 feet. Release #6 is located on the surface of an unnamed tributary of Largo Canyon Wash. Release location #7 is approximately 160 feet west of Largo Canyon Wash. All seven releases are located on land managed by the BLM with elevations ranging from approximately 5,955 feet to 6,005 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater was estimated to be less than 50 feet below ground surface (bgs) at all of the sites. Figure 1 depicts the site vicinities and Figures 2-8 depict the individual site locations.

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 and one well is located within a 1 mile radius of the sites. The physical locations of the releases are within the jurisdiction of the NMOCD and BLM.

The release locations have been assigned NMOCD rankings of 30 or 40, depending on physical location, which require soil remediation standard of 10 parts per million (ppm) benzene, 50 ppm combined benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and 100 ppm total petroleum hydrocarbons (TPH). Table 2 illustrates individual site ranking criteria and rationale.

4.0 Summary of Field Activities

On August 28 through November 6, 2014, SMA mobilized to the release sites to oversee excavation activities during the repair of the pipeline and guide remedial excavations. SMA guided the excavation activities by collecting soil samples for field screening with a calibrated photo-ionization detector (PID). Representatives from Enterprise were present to oversee site health and safety and direct repair activities.

Soil samples were initially field screened with a calibrated PID. Samples suspected of having hydrocarbon contamination concentrations below regulatory standards were submitted for confirmation laboratory analysis per United States Environmental Protection Agency Methods: 8021 for benzene, toluene, ethylbenzene, and xylenes (BTEX) and 8015 for diesel and gasoline range organics (DRO/GRO). All samples were analyzed by Hall Environmental Analytical Laboratory in Albuquerque, New Mexico. Figures 9-15 illustrate the extent of the excavations, composite soil sample locations and laboratory results.

Trunk K #1: Excavation of the Trunk K #1 site began on August 28, 2014 and continued through September 4, 2014. The Trunk K #1 site has an NMOCD Guidelines for Remediation of Leaks,

Spills, and Releases site ranking of 40. NMOCD has established the following action levels for contaminants of concern for a site ranking of 40: 10 ppm benzene, 50 ppm total BTEX, and 100 ppm TPH.

The closure sample collection date was scheduled with BLM and NMOCD on September 3, 2014. Neither party was on site to witness the sample collection. Composite samples were collected, with an excavator, from the excavation sidewalls and multiple base locations. All samples were below NMOCD Guideline standards with the exception of sample SC-8, W Wall @ 0-7', was determined to have concentrations of 110 mg/kg DRO and 0.383 mg/kg combined BTEX, with benzene below laboratory detection limits, all other analytes were below detection limits.

The excavation continued on September 4, 2014 to focus on the west wall and the base of the excavation. The east portion of the excavation was advanced to a total depth of 9 feet bgs and the west portion was advanced to a maximum depth of 24 feet bgs where saturated soils were encountered, the approximate depth of the water table. Soil samples collected from the west wall, southwest wall and north-central base on September 4, 2014 were submitted for laboratory analysis. All laboratory results were below detection limits except for SC-8 W Wall @ 7-24' which had a GRO concentration of 5.6 mg/kg and a combined BTEX concentration of 0.385 mg/kg with benzene below detection limits.

The final excavation measured approximately 100 feet long by 27 feet wide with a maximum depth of 24 feet with no indication of impacts to groundwater. All soil excavated from the Trunk K #1 site was transported to Envirotech Landfarm, near Bloomfield, NM for disposal and replaced with clean backfill. Soil disposal documentation is included in Appendix B. A site map labeled Soil Contaminant Concentration Map is included as Figure 9, detailing sample locations and laboratory results. Copies of the laboratory reports are included in Appendix C.

Laboratory analytical results for samples collected across the majority of the excavation on September 3, 2014 were below NMOCD Guidelines with the exception of one location, SC-8 W Wall. On September 4, 2014 the west wall was further excavated and resampled and laboratory results determined concentrations to be below the standards. SMA recommends no further action at the Trunk K #1 Pipeline release site.

Trunk K #2: Excavation of the Trunk K #2 site began on September 5, 2014 and continued, periodically, through October 15, 2014. The Trunk K #2 site has an NMOCD Guidelines for Remediation of Leaks, Spills, and Releases site ranking of 40. NMOCD has established the following action levels for contaminants of concern for a site ranking of 40: 10 ppm benzene, 50 ppm total BTEX, and 100 ppm TPH. The excavation was spilt into two phases due to the necessity of supporting the spanned pipeline during excavation. Laboratory results for closure samples were separately submitted for each phase and approved by the regulatory agencies. Once approved, each phase of the excavation was backfilled separately in order to provide support for the pipeline.

Closure sample collection dates were scheduled with the BLM and the NMOCD to observe sampling activities on October 3, 2014 and subsequently on October 15, 2014. Corey Smith of NMOCD was present to witness the field screening of samples collected on October 3, 2014. Eleven composite samples were collected from the excavation sidewalls and multiple base locations using an excavator. Samples were collected from the majority of the north and east

sections as well as a segment of the south portion of the overall excavation at a maximum depth of 18 feet bgs where saturated soils were encountered, the approximate depth of the water table. Three soil samples were collected at the water table. Laboratory results for all eleven samples collected on October 3, 2014 were below NMOCD Guideline standards.

The excavation continued on October 4, 2014, but was delayed due to additional repair activities until October 13, 2014. The west portion of the excavation was advanced to a total depth of 18 feet bgs where saturated soils were encountered and assumed to be groundwater. Soil samples from the remaining south wall, west wall and base of the overall excavation were collected on October 15, 2014 and submitted for laboratory analysis. Neither the BLM nor the NMOCD were present to observe the scheduled sampling activities. All laboratory results were below NMOCD Guideline standards.

The overall excavation measured approximately 67 feet long by 30 feet wide with a maximum depth of 18 feet with no indication of impacts to groundwater. All soil excavated from the Trunk K #2 site was transported to Envirotech Landfarm, near Bloomfield, NM for disposal and replaced with clean backfill. Soil disposal documentation is included in Appendix B. A site map labeled Soil Contaminant Concentration Map is included as Figure 10 detailing sample locations and laboratory results. Copies of the laboratory reports are included in Appendix C.

Laboratory analytical results for samples collected during the excavation on September 3 and 4, 2014 were below NMOCD Guidelines for benzene (10 ppm), BTEX (50 ppm) and combined GRO/DRO (100 ppm). SMA recommends no further action at the Trunk K #2 Pipeline release site.

Trunk K #3: Excavation of the Trunk K #3 site began on September 10, 2014 and continued, periodically, through September 25, 2014 when scheduled closure samples were collected. The Trunk K #3 release site has a NMOCD Guidelines for Remediation of Leaks, Spills, and Releases ranking of 40. NMOCD has established the following action levels for contaminants of concern with a site ranking of 40: 10 ppm benzene, 50 ppm total BTEX, and 100 ppm TPH.

Closure sample collection dates were scheduled with BLM and NMOCD to observe sampling activities on September 25, 2014. Neither party was present to witness the sample collection. The overall excavation measured 72 feet long and 18 feet wide with depths ranging from 8 to 20 feet bgs. Saturated soils were encountered at approximately 19 feet bgs.

Nine composite samples were collected from the final excavation sidewalls using both an excavator and hand shovel. Soil sample SC-26 E Base was collected from the excavation at a depth of 8 feet bgs. As directed by Enterprise Products, no soil samples were collected from the 20 foot deep base of the main excavation due to the presence of groundwater in the excavation. Laboratory results for all eleven samples collected on September 25, 2014 were below NMOCD Guideline standards. Based on field screening data for samples collected at the capillary fringe of the excavation groundwater is assumed to be impacted at this site. Laboratory samples were not collected from the base of the excavation due to elevated PID readings as directed by Enterprise.

Backfilling of the Trunk K #3 excavation was completed on October 21, 2014. All soil excavated from the Trunk K #3 site was transported to Envirotech Landfarm, near Bloomfield, NM for disposal and replaced with clean backfill. Soil disposal documentation is included in Appendix B.

A site map labeled Soil Contaminant Concentration Map is included as Figure 11 detailing sample locations and laboratory results. A copy of the laboratory report is also included in Appendix C.

A groundwater contamination investigation is currently in process for implementation pending BLM and NMOCD approval of the attached *Groundwater Investigation Plan*, included in Appendix D. This work plan was dated and submitted to BLM and NMOCD on October 23, 2014. SMA recommends the installation of four groundwater monitoring wells to determine the extent and magnitude of impacts to groundwater within the fifty foot right of way.

Trunk K #4: Excavation of the Trunk K #4 site began on September 9, 2014 and continued, periodically, through September 25, 2014 when scheduled closure samples were collected. The Trunk K #4 pipeline release site has a NMOCD Guidelines for Remediation of Leaks, Spills, and Releases ranking of 30. NMOCD has established the following action levels for contaminants of concern for a site ranking of 30: 10 ppm benzene, 50 ppm total BTEX, and 100 ppm TPH.

Closure sample collection dates were scheduled with the BLM and the NMOCD to observe sampling activities on September 25, 2014. Neither party was present to witness the sample collection. The overall excavation measured 32 feet long and 21 feet wide with depths ranging from 18 to 19 feet bgs. No saturated soils were encountered during the excavation.

Five composite samples were collected on September 25, 2014 from the final excavation sidewalls and base using an excavator. Laboratory results for all five samples were below NMOCD Guideline standards and laboratory detection limits. All soil excavated from the Trunk K #4 site was transported to Envirotech Landfarm, near Bloomfield, NM for disposal and replaced with clean backfill. Soil disposal documentation is included in Appendix B. A site map labeled Soil Contaminant Concentration Map is included as Figure 12 detailing sample locations and laboratory results. A copy of the laboratory report is also included in Appendix C. SMA recommends no further action at the Trunk K #4 Pipeline release site.

Trunk K #5: Excavation of the Trunk K #5 site began on September 15, 2014 and continued, periodically, through September 24, 2014 when scheduled closure samples were collected. The Trunk K #5 pipeline release site has an NMOCD Guidelines for Remediation of Leaks, Spills, and Releases site ranking of 30. NMOCD has established the following action levels for contaminants of concern for a site ranking of 30: 10 ppm benzene, 50 ppm total BTEX, and 100 ppm TPH.

Closure sample collection dates were scheduled with the BLM and the NMOCD to observe sampling activities on September 24, 2014. Neither party was present to witness the sample collection. The overall excavation measured 32 feet long and 21 feet wide with depths ranging from 18 to 19 bgs. No saturated soils were encountered during the excavation.

Five composite samples were collected from the final excavation sidewalls and base using an excavator. Laboratory results for all five samples collected on September 24, 2014 were below NMOCD Guideline standards and laboratory detection limits. All soil excavated from the Trunk K #5 site was transported to Envirotech Landfarm, near Bloomfield, NM for disposal and replaced with clean backfill. Soil disposal documentation is included in Appendix B. A site map labeled Soil Contaminant Concentration Map is included as Figure 13 detailing sample locations and laboratory results. A copy of the laboratory report is also included in Appendix C. SMA recommends no further action at the Trunk K #5 Pipeline release site.

Trunk K #6: The location of the Trunk K #6 site was determined by BLM to be within an archaeological and cultural sensitive area. Enterprise contracted Western Cultural Resources Management (WCRM) of Farmington, NM to conduct a complete archaeological survey of the entire Trunk K pipeline right of way. The survey determined the majority of the right of way to be cleared of archaeological significant findings except for the area immediately surrounding the Trunk K #6 release location. Through coordination with the BLM, WCRM identified and delineated the area in order to protect and preserve the integrity of the archaeological site. Several site visits were conducted during the repair and remediation activities. A copy of WCRM survey report is enclosed in Appendix E.

Excavation of the Trunk K #6 site began on September 18, 2014 and continued, periodically, through October 2, 2014 when scheduled closure samples were collected. The Trunk K #6 pipeline release site has an NMOCD Guidelines for Remediation of Leaks, Spills, and Releases site ranking of 40. NMOCD has established the following action levels for contaminants of concern with a site ranking of 40: 10 ppm benzene, 50 ppm total BTEX, and 100 ppm TPH.

Closure sample collection dates were scheduled with the BLM and the NMOCD to observe sampling activities on October 1, 2014. Neither party was present to witness the sample collection. Corey Smith of the NMOCD was on site on September 25, 2014 to observe the open excavation at that time, with a total depth of 5.5 feet bgs.. The overall excavation measured 67 feet long and 24 feet wide. However, the area of greatest concern measured 32 feet long, 24 feet wide with a maximum depth of 21 feet bgs. The excavation encountered competent sandstone bedrock from approximately 5 feet bgs to the total depth. No saturated soils were encountered during the excavation.

Five composite samples were collected from the final excavation sidewalls and base using an excavator on October 1, 2014. Sample SC-15 E Wall @ 0-21 feet was above NMOCD Guideline standards with a GRO concentration of 140 mg/kg and a DRO concentration of 24 mg/kg. All other samples were below NMOCD Guideline standards. On October 2, 2014 the location of sample SC-15 was further excavated to the east, approximately 4 feet with a total depth of 21 feet bgs. A composite sample was taken from this location and labeled SC-17 and submitted for laboratory analysis with results below NMOCD Guideline standards and laboratory detection limits.

All soil and sandstone excavated from the Trunk K #6 site was transported to Envirotech Landfarm, near Bloomfield, NM for disposal and replaced with clean backfill. Soil disposal documentation is included in Appendix B. A site map labeled Soil Contaminant Concentration Map is included as Figure 14 detailing sample locations and laboratory results. A copy of the laboratory report is also included in Appendix C. SMA recommends no further action at the Trunk K #6 Pipeline release site.

Trunk K #7: Excavation of the Trunk K #7 site began on October 31, 2014 and continued through November 6, 2014 when scheduled closure samples were collected. The Trunk K #7 pipeline release site has an NMOCD Guidelines for Remediation of Leaks, Spills, and Releases site ranking of 40. NMOCD has established the following action levels for contaminants of concern with a site ranking of 40: 10 ppm benzene, 50 ppm total BTEX, and 100 ppm TPH.

Closure sample collection dates were scheduled with BLM and NMOCD to observe sampling activities on November 6, 2014. Neither party was present to witness the sample collection. The overall excavation measured 44 feet long and 15 feet wide with depths ranging from 7 to 14 bgs. No saturated soils were encountered during the excavation.

Ten composite samples were collected from the final excavation sidewalls and base using an excavator and three composite samples were collected by hand from the stockpiles generated from the excavation. Laboratory results for all ten samples collected on November 6, 2014 were below NMOCD Guideline standards and laboratory detection limits. Laboratory results for the samples collected from the three stockpiles were below laboratory detection limits and approved by BLM and NMOCD to be used as backfill material. Approximately seventy percent of the soil excavated from the Trunk K #7 site was transported to Envirotech Landfarm, near Bloomfield, NM for disposal. The disposed soil was replaced with clean backfill. Soil disposal documentation is included in Appendix B. A site map labeled Soil Contaminant Concentration Map is included as Figure 15 detailing sample locations and laboratory results. A copy of the laboratory report is also included in Appendix C. SMA recommends no further action at the Trunk K #7 Pipeline release site.

5.0 Conclusions and Recommendations

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 or 40: 10 ppm benzene, 50 ppm total BTEX, and 100 ppm TPH.

Laboratory analytical results for samples collected from all final excavations were below NMOCD Guidelines for benzene (10 ppm), BTEX (50 ppm) and combined GRO/DRO (100 ppm). SMA recommends no further excavation at the Trunk K release sites.

SMA recommends additional delineation of potential groundwater impacts at the Trunk K #3 release site as described in the enclosed Appendix D: Groundwater Investigation Plan. The work plan is currently pending land grant approval by the BLM.

6.0 Closure and Limitations

The scope of our services consisted of the performance of a preliminary spill assessment, verification of release 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

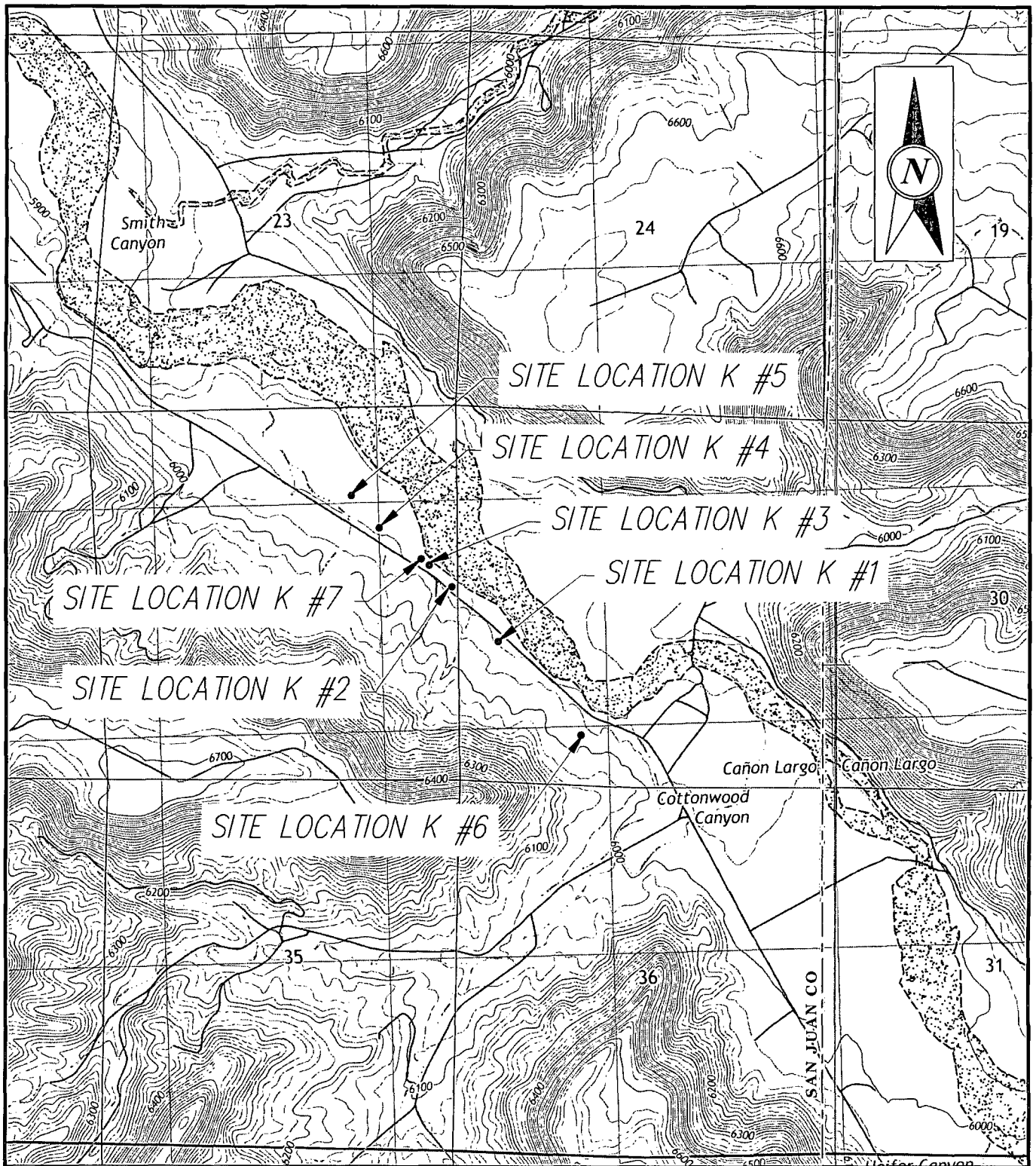



Steve Moskal
Project Scientist

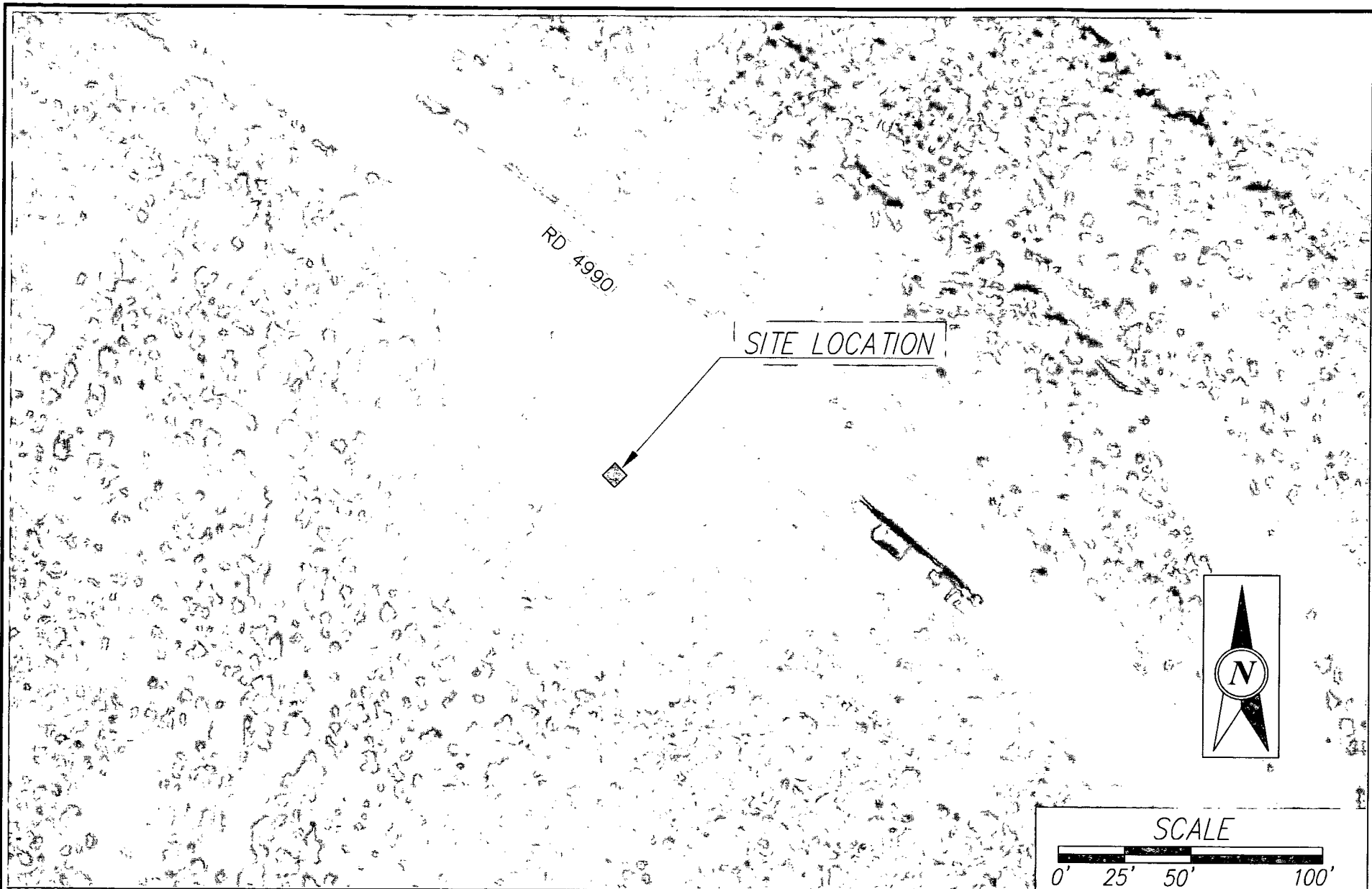


Reid S. Allan, PG
Principal Scientist

Figures



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		<p>VICINITY MAP TRUNK K #1 THROUGH K #7 SECTIONS 25 AND 26, T27N, R8W</p>			
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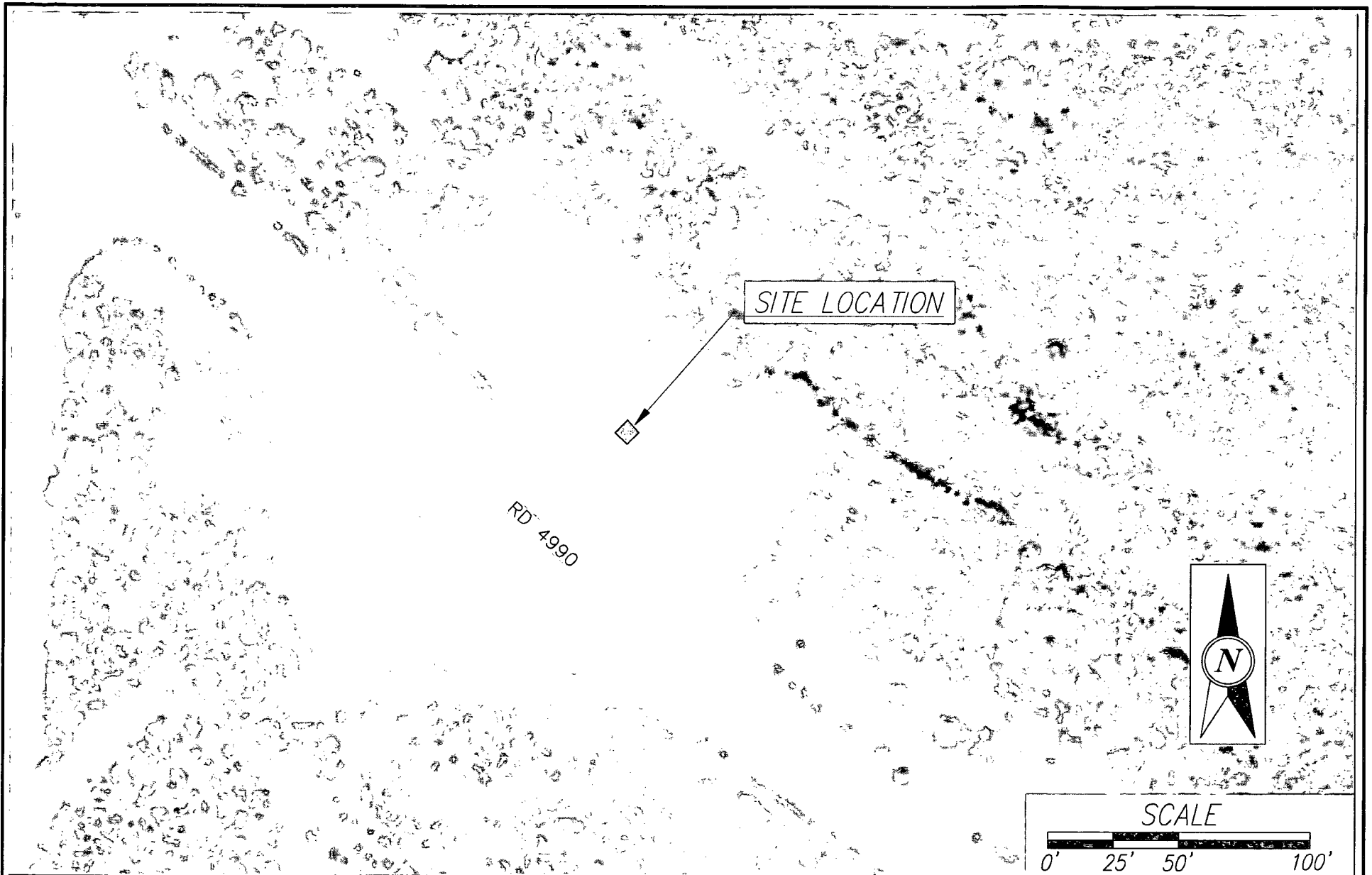
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SITE LOCATION MAP
TRUNK K-1
SECTION 25, T27N, R8W

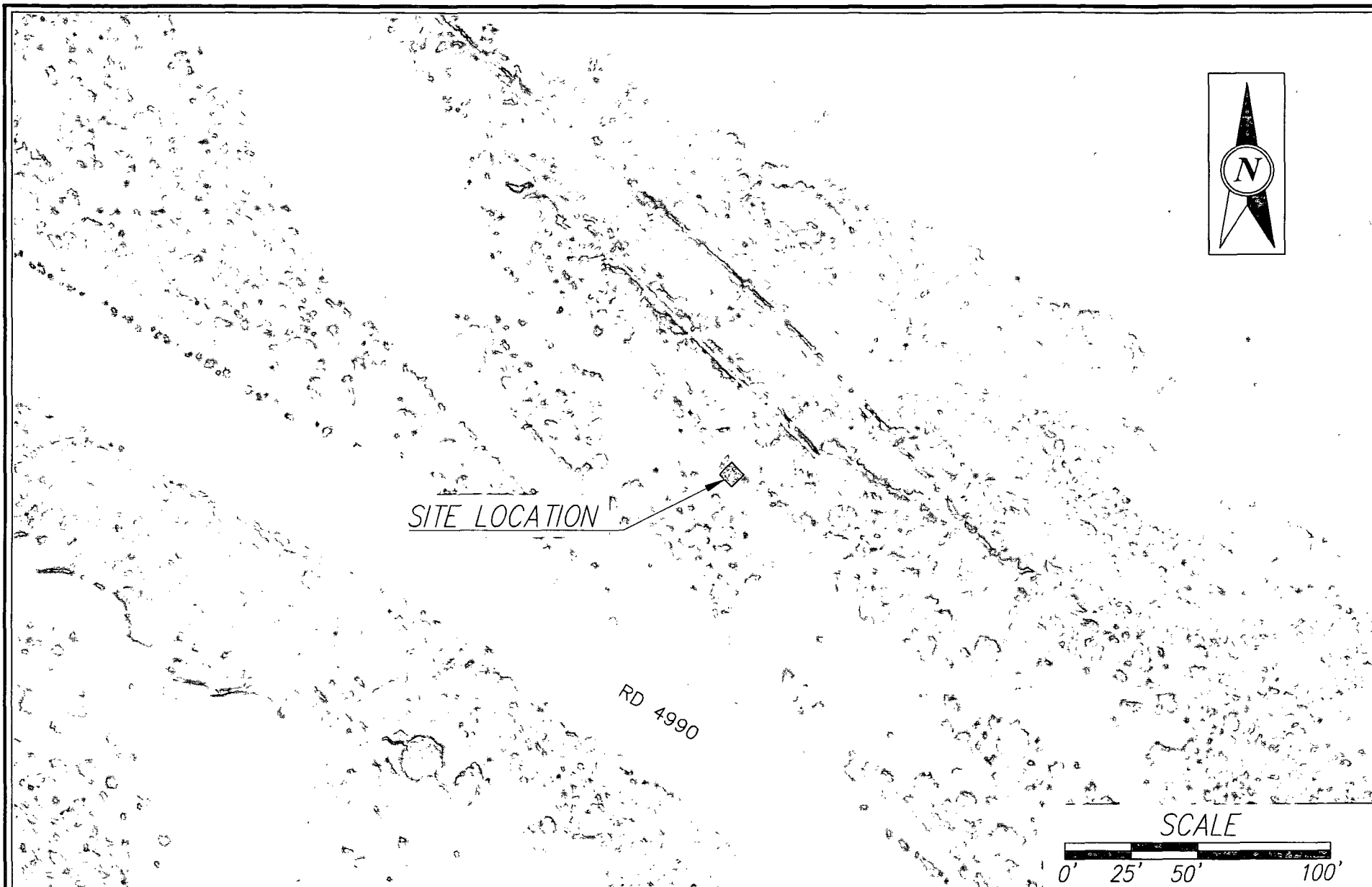
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		<p align="center">SITE LOCATION MAP TRUNK K-2 SECTION 26, T27N, R8W</p>						Date: 9/18/14		
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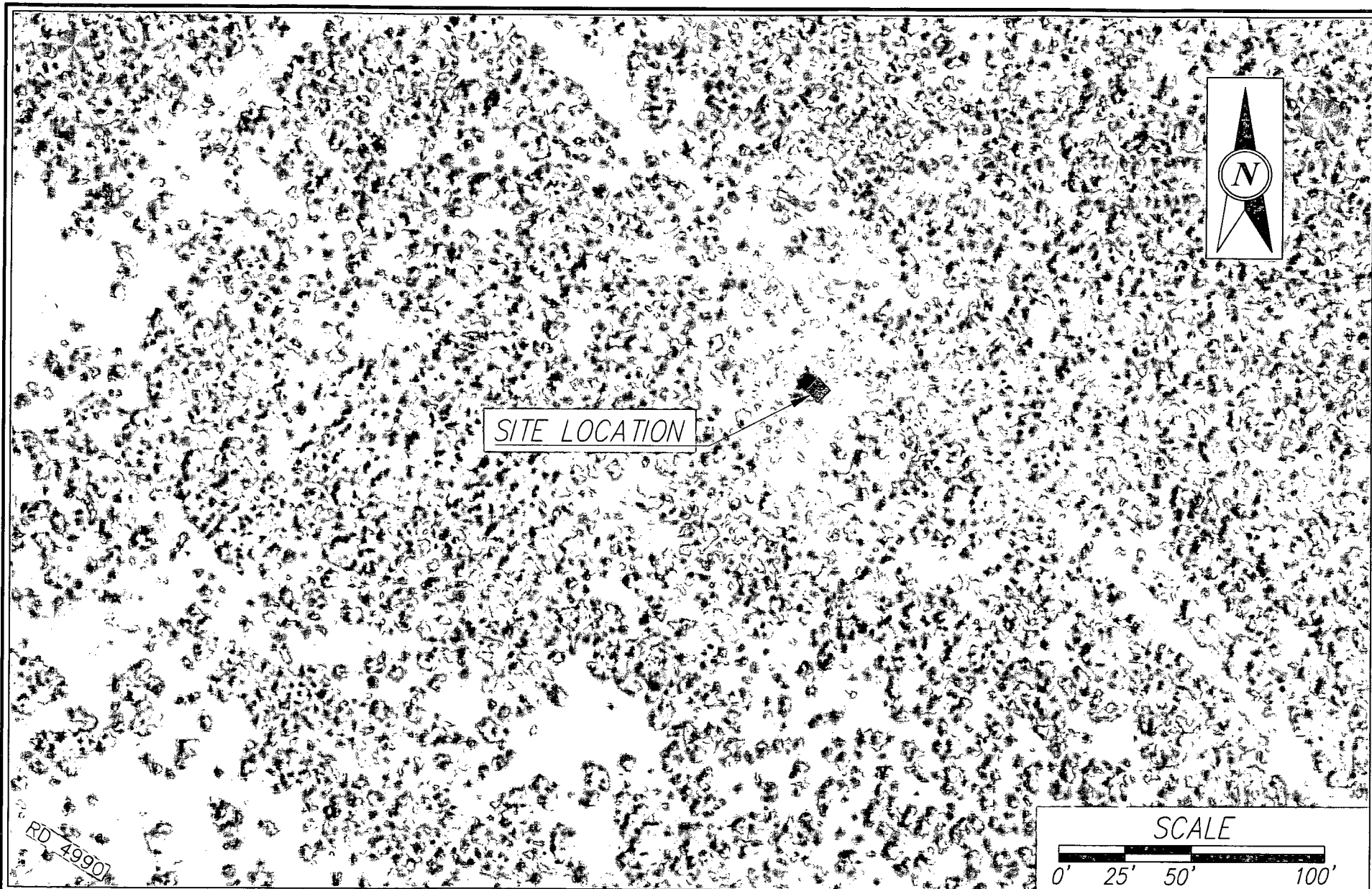
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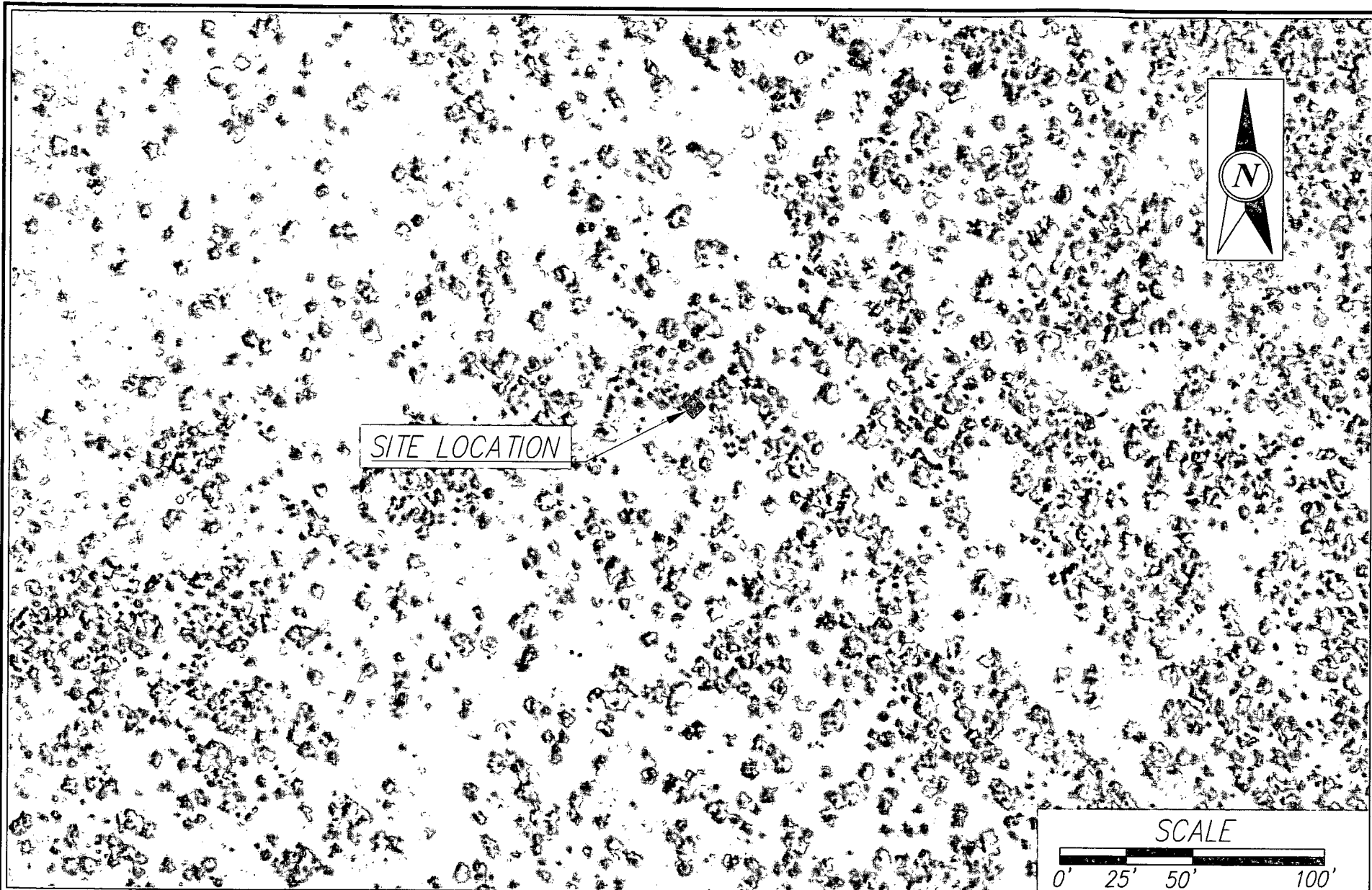
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SITE LOCATION MAP
TRUNK K-3
SECTION 26, T27N, R8W

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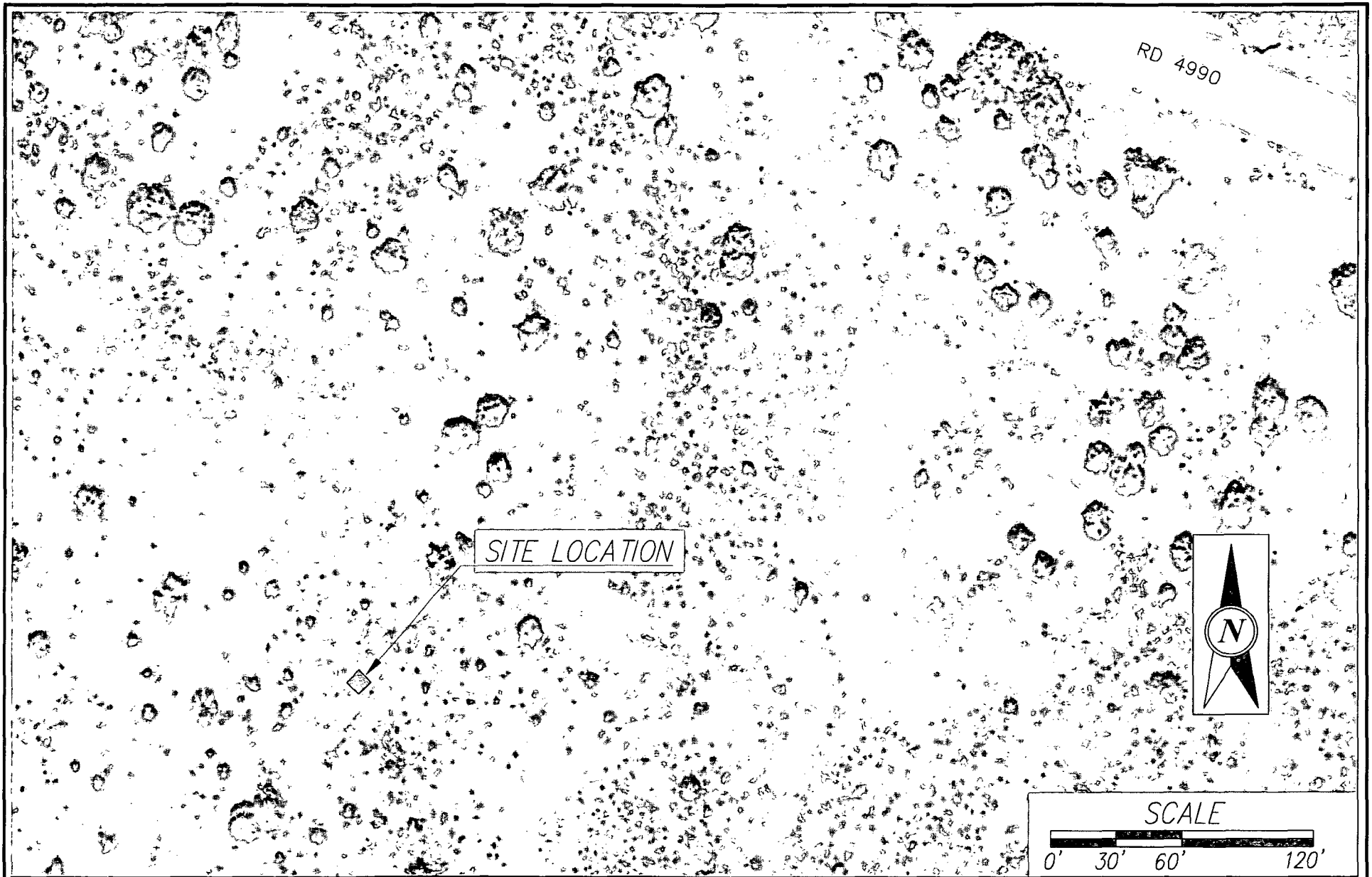
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SITE LOCATION MAP
TRUNK K-5
SECTION 26, T27N, R8W

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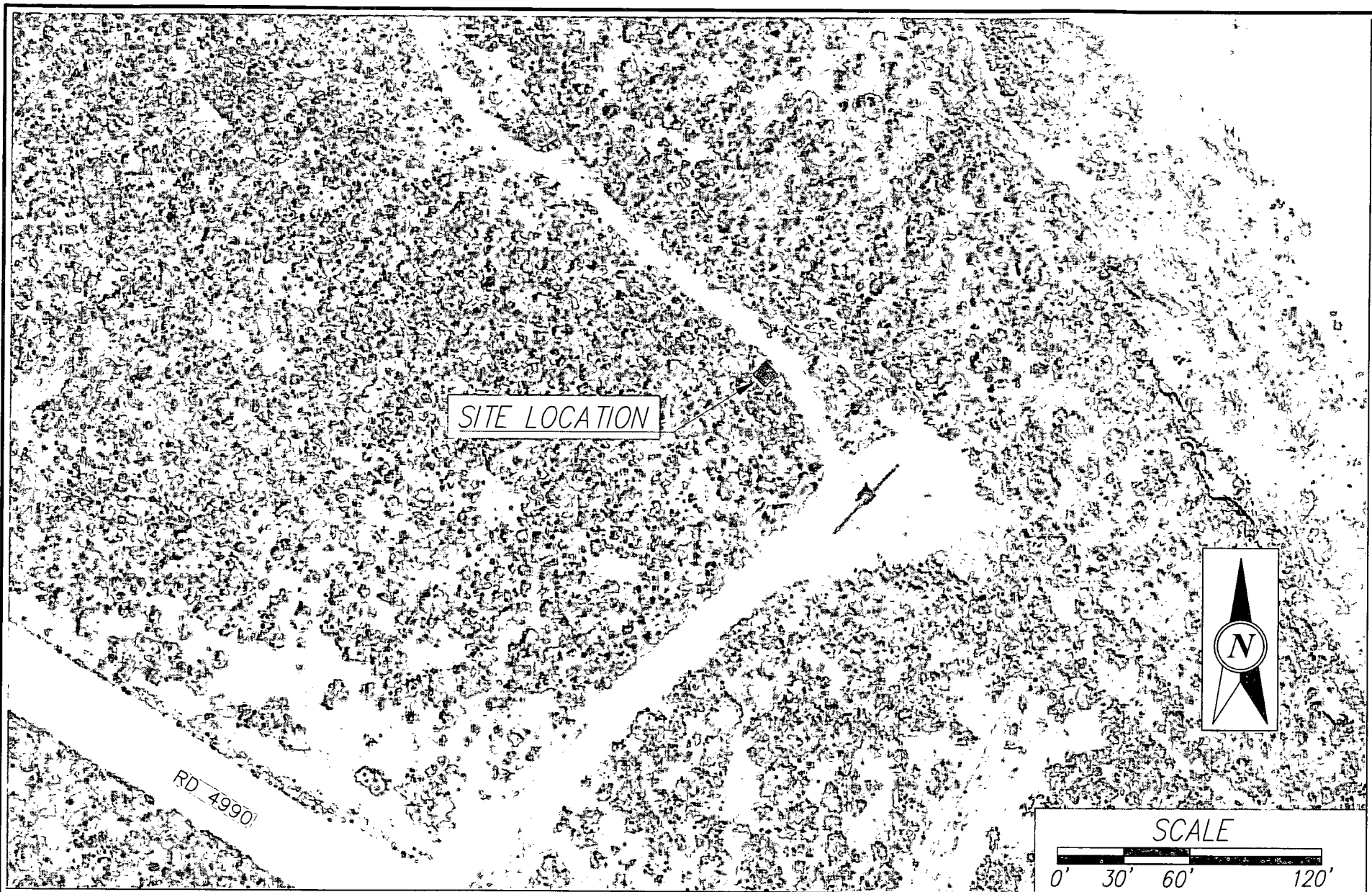
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SITE LOCATION MAP
 TRUNK K-6
 SECTION 25, T27N, R8W

SAN JUAN COUNTY, NEW MEXICO

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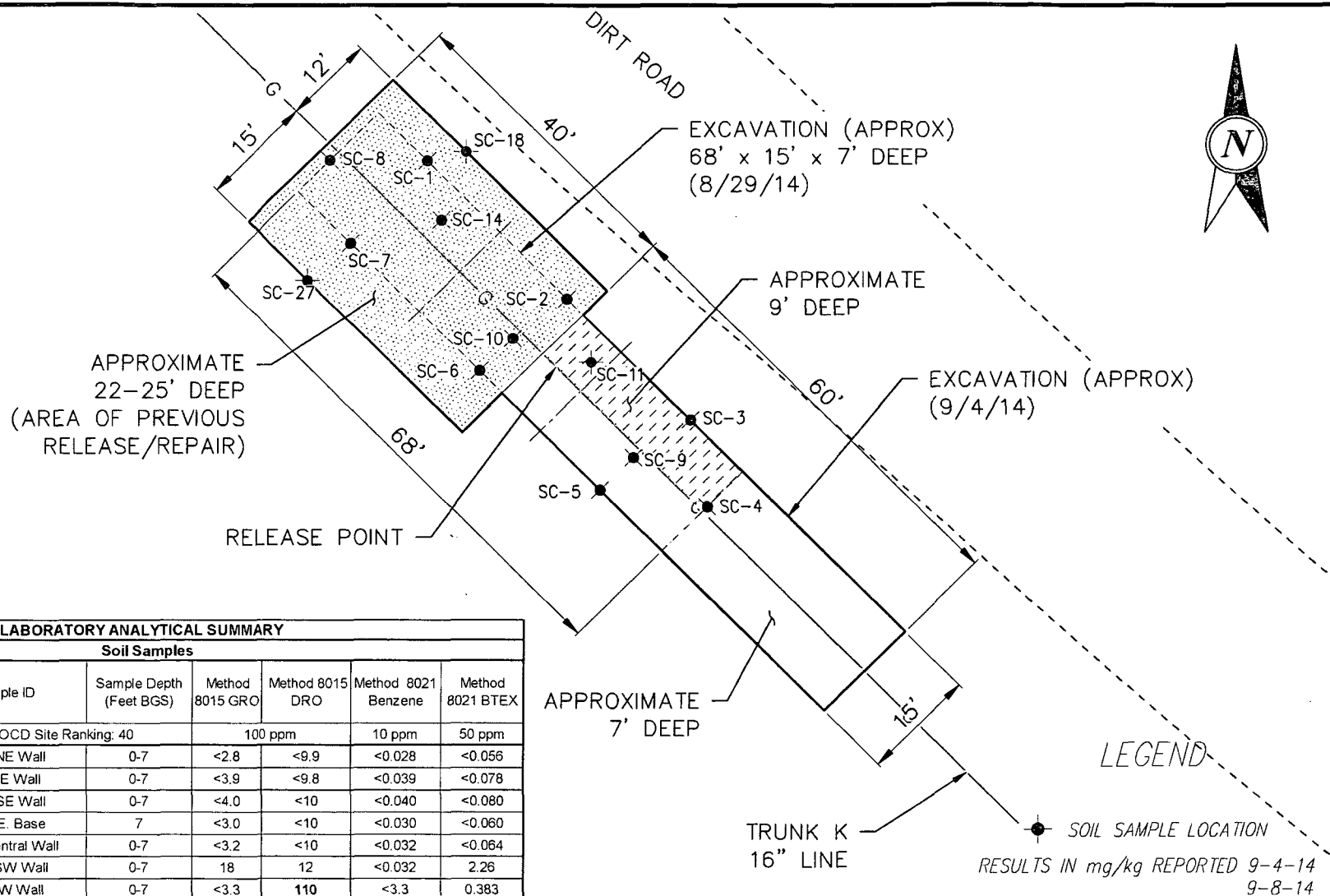
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SITE LOCATION MAP
TRUNK K #7
SECTION 26, T27N, R8W

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SAN JUAN COUNTY, NEW MEXICO



LABORATORY ANALYTICAL SUMMARY

Soil Samples

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: 40		100 ppm		10 ppm	50 ppm
9/2/2014	2:35	SC-3 NE Wall	0-7	<2.8	<9.9	<0.028	<0.056
9/2/2014	2:37	SC-4 E Wall	0-7	<3.9	<9.8	<0.039	<0.078
9/2/2014	2:38	SC-5 SE Wall	0-7	<4.0	<10	<0.040	<0.080
9/2/2014	2:40	SC-9 E. Base	7	<3.0	<10	<0.030	<0.060
9/2/2014	2:42	SC-6 Central Wall	0-7	<3.2	<10	<0.032	<0.064
9/2/2014	2:46	SC-7 SW Wall	0-7	18	12	<0.032	2.26
9/2/2014	2:49	SC-8 W Wall	0-7	<3.3	110	<3.3	0.383
9/2/2014	2:02	SC-14 N Central Base	23	<4.4	11	<0.044	<0.088
9/3/2014	11:45	SC-18 N Wall, West Corner	10	<4.5	<10	<0.045	<0.091
9/4/2014	2:37	SC-27 SW Wall		<4.7	<9.9	<0.047	<0.093
9/4/2014	3:12	SC-11 N Central Base	9	<4.3	<10	<0.043	0.18
9/4/2014	3:20	SC-8 W Wall	7-24	5.6	10	<0.037	0.385



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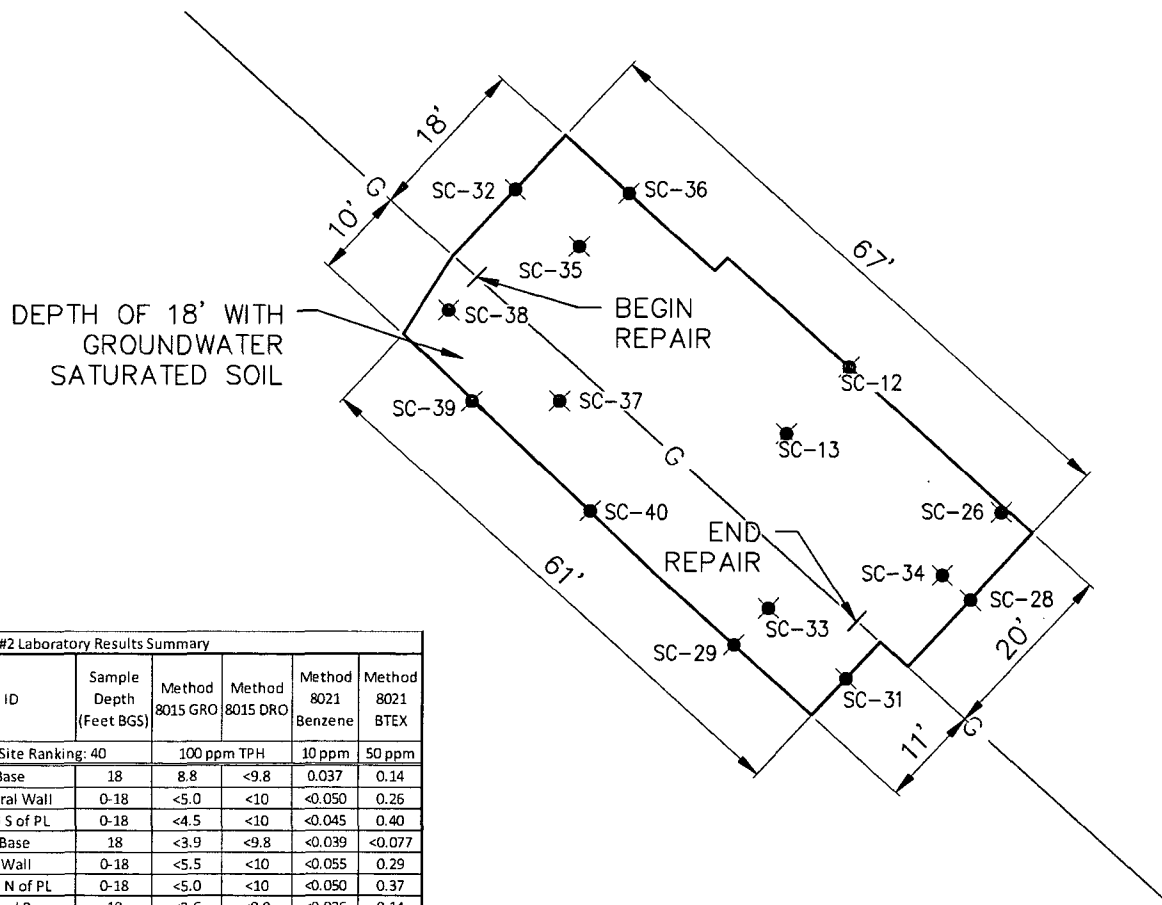
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SOIL CONTAMINANT CONCENTRATION MAP TRUNK K #1 SECTION 25, T27N, R8W

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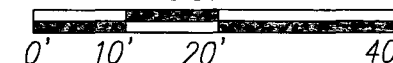
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LEGEND

SOIL SAMPLE LOCATION
RESULTS IN mg/kg REPORTED 10-17-14

SCALE



Trunk K #2 Laboratory Results Summary						
Date	Time	Sample ID	Sample Depth (Feet BGS)	Method 8015 GRO	Method 8015 DRO	Method 8021 Benzene BTEX
NMOCD Guidelines		NMOCD Site Ranking: 40		100 ppm TPH		10 ppm
10/3/2014	11:10	SC-33 S Base	18	8.8	<9.8	0.037
10/3/2014	11:12	SC-29 S Central Wall	0-18	<5.0	<10	<0.050
10/3/2014	11:14	SC-31 E Wall S of PL	0-18	<4.5	<10	<0.045
10/3/2014	11:20	SC-34 NE Base	18	<3.9	<9.8	<0.039
10/3/2014	11:22	SC-26 NE Wall	0-18	<5.5	<10	<0.055
10/3/2014	11:24	SC-28 E Wall N of PL	0-18	<5.0	<10	<0.050
10/3/2014	11:30	SC-13 N Central Base	18	<3.6	<9.9	<0.036
10/3/2014	11:32	SC-12 N Central Wall	0-18	<5.0	<10	<0.050
10/3/2014	11:38	SC-35 NW Base	18	<2.8	<9.9	<0.028
10/3/2014	11:41	SC-36 NW Wall	0-18	<5.0	<10	<0.050
10/3/2014	11:44	SC-32 W Wall N of PL	0-18	<5.0	<9.9	<0.050
10/15/2014	11:10	SC-37 SW Base	18	<3.4	<10	<0.034
10/15/2014	11:12	SC-38 W Wall	0-18	<4.3	<10	<0.043
10/15/2014	11:14	SC-39 S Wall (W)	0-18	<4.6	<9.9	<0.046
10/15/2014	11:20	SC-40 S Wall E	0-18	72	42	<0.092



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SOIL CONTAMINANT CONCENTRATION MAP
TRUNK K-2
SECTION 26, T27N, R8W

SAN JUAN COUNTY, NEW MEXICO

Date: 9/18/14
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TRUNK K 16" LINE

LARGO WASH

EXCAVATION (APPROX)
47' x 18' x 20' DEEP

EXCAVATION (APPROX)
25' x 14' x 8' DEEP



Trunk K #3 Laboratory Results Summary							
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: 40		100 ppm TPH		10 ppm	50 ppm
9/25/2014	15:21	SC-24 S Wall	6-20	<4.4	<10	<0.044	<0.088
9/25/2014	15:25	SC-25 NE Wall	0-8	<4.2	33	<0.042	<0.084
9/25/2014	15:27	SC-26 E Base	8	<4.0	13	<0.040	<0.080
9/25/2014	15:29	SC-27 SE Wall	0-8	<4.2	<10	<0.042	<0.084
9/25/2014	15:30	SC-28 E Wall	0-8	<4.3	19	<0.043	<0.085
9/25/2014	15:38	SC-29 N Central Wall	0-20	<4.2	<10	<0.042	<0.084
9/25/2014	15:40	SC-30 E Wall (Deep Exc)	8-20	<4.6	<10	<0.046	<0.092
9/25/2014	15:15	SC-22 N Wall, West Side	0-20	<4.3	<10	<0.043	<0.086
9/25/2014	15:17	SC-23 W Wall	6-20	<4.2	<9.8	<0.042	<0.083

LEGEND

✱ SOIL SAMPLE LOCATION
RESULTS IN mg/kg REPORTED 9-29-14

SCALE



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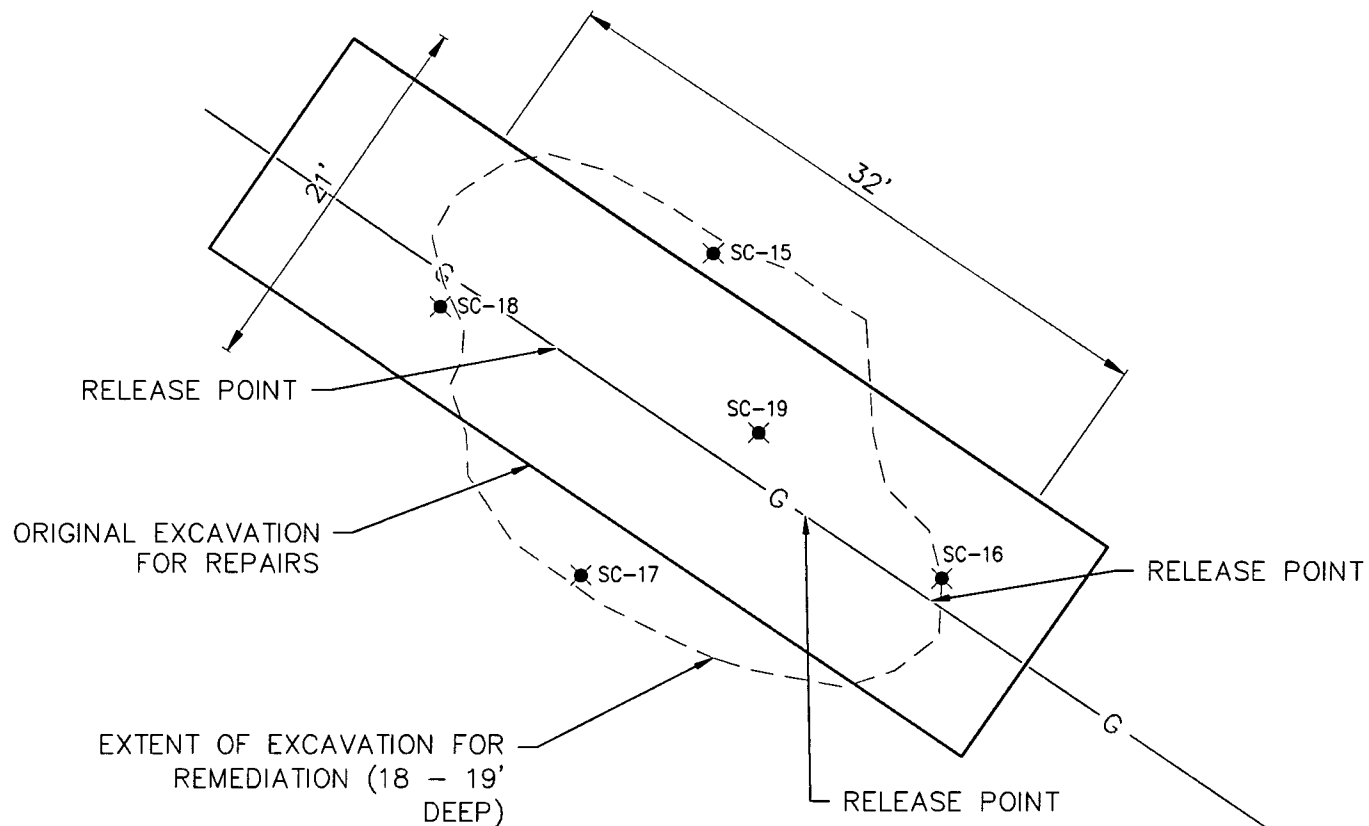
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SOIL CONTAMINANT CONCENTRATION MAP
TRUNK K-3
SECTION 26, T27N, R8W

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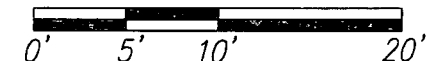
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● SOIL SAMPLE LOCATION
RESULTS IN mg/kg REPORTED 10-1-14

SCALE



Trunk K #4 Laboratory Results Summary							
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 TPH		10 ppm	50 ppm
9/25/2014	14:31	SC-14 Base	19	<4.3	<10	<0.043	<0.086
9/25/2014	14:35	SC-15 N Wall	0-19	<3.8	<10	<0.038	<0.076
9/25/2014	14:39	SC-16 E Wall	0-19	<4.1	<10	<0.041	<0.082
9/25/2014	14:46	SC-17 S Wall	0-18	<4.9	<10	<0.049	<0.099
9/25/2014	14:51	SC-18 W Wall	0-18	<4.0	<10	<0.040	<0.080



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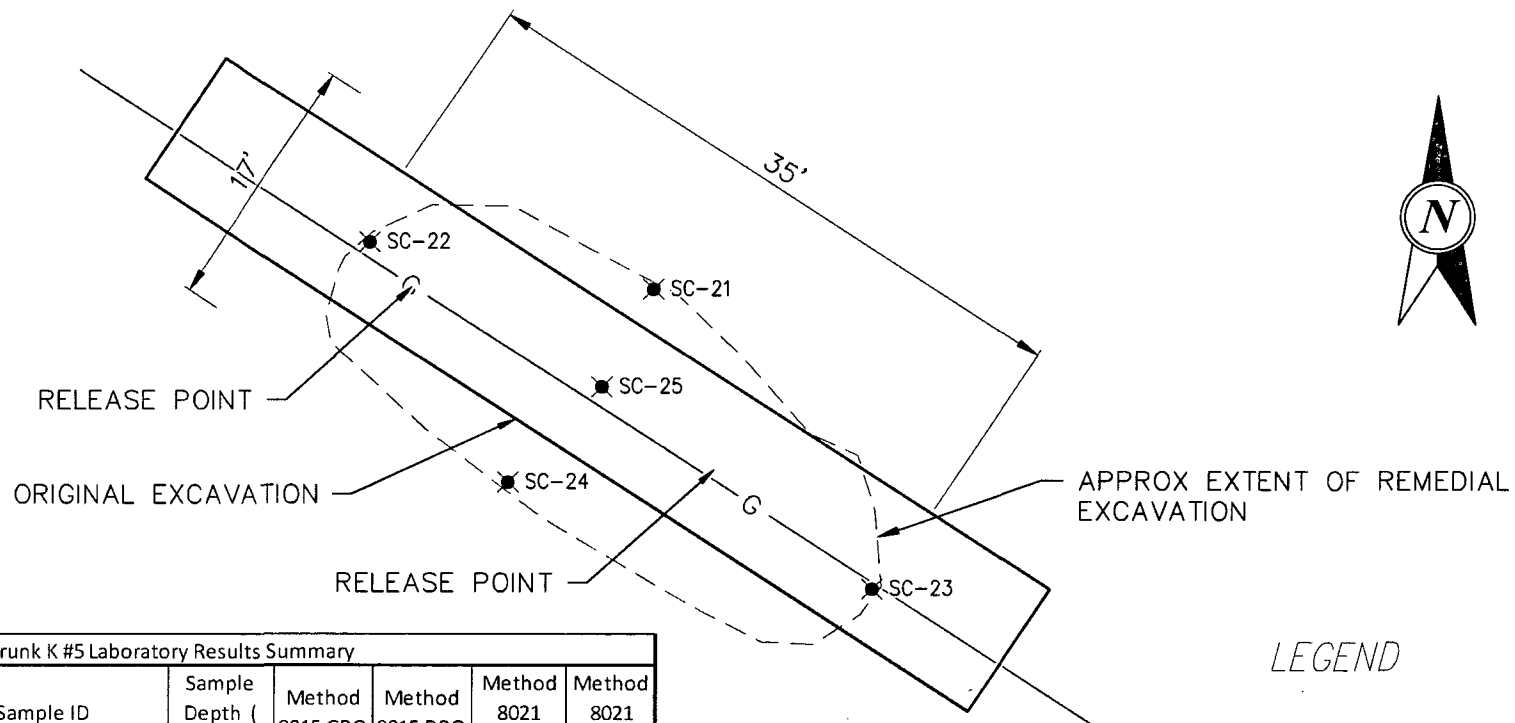
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FARMINGTON, NEW MEXICO


SOIL CONTAMINANT CONCENTRATION MAP
TRUNK K-4
SECTION 26, T27N, R8W

SAN JUAN COUNTY, NEW MEXICO

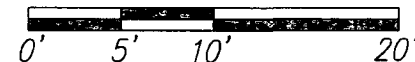
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SM	DJB	RSA
Date: 9/18/14		
Scale: Horiz: 1"=20'		
Vert: N/A		
Project No: 5122855		
Sheet: 12		



LEGEND

 SOIL SAMPLE LOCATION
 RESULTS IN mg/kg REPORTED 9-26-14

SCALE



Trunk K #5 Laboratory Results Summary							
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: 40		100 ppm TPH		10 ppm	50 ppm
9/24/2014	16:10	SC-21 N Wall	0-15	<4.2	<9.9	<0.042	<0.084
9/24/2014	16:17	SC-22 W Wall	0-15	<4.1	<10	<0.041	<0.083
9/24/2014	16:25	SC-23 E wall	0-15	<4.4	<10	<0.044	<0.089
9/24/2014	16:27	SC-24 S Wall	0-15	<3.6	<10	<0.036	<0.073
9/24/2014	16:30	SC-25 Base	15	<5.0	<10	<0.050	<0.099



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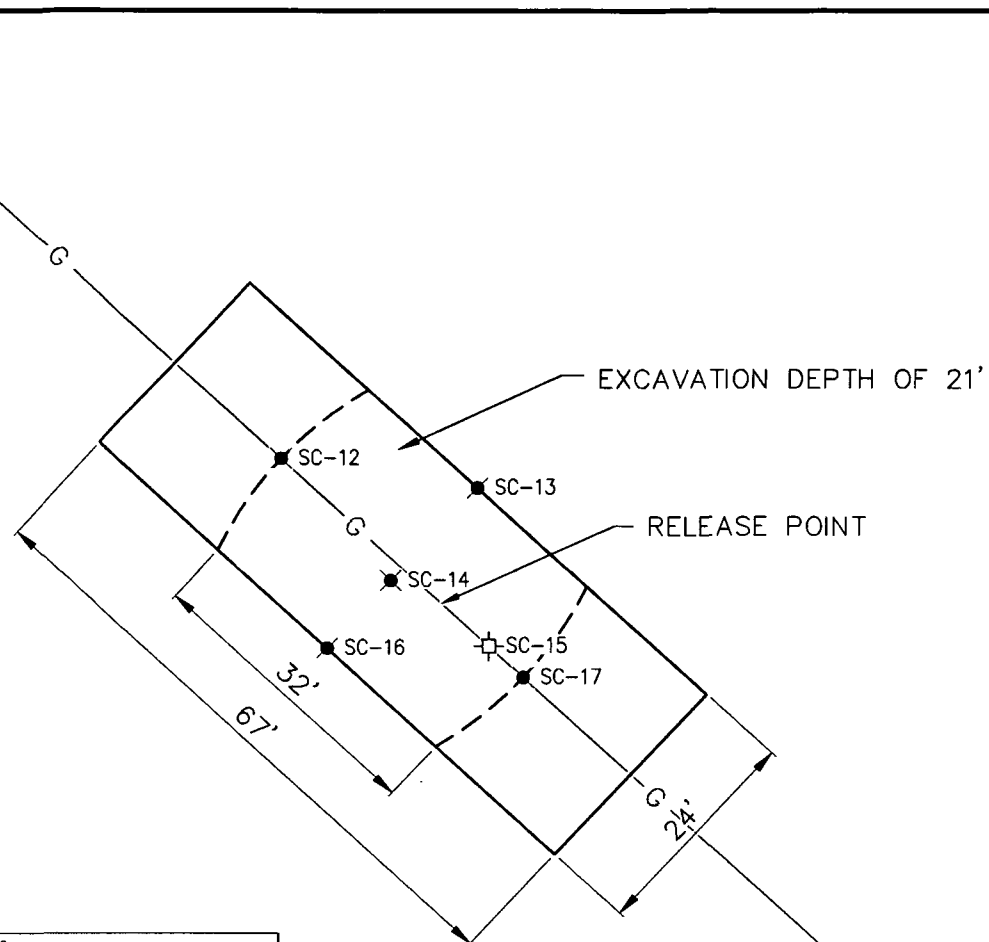
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SOIL CONTAMINANT CONCENTRATION MAP
 TRUNK K-5
 SECTION 26, T27N, R8W

SAN JUAN COUNTY, NEW MEXICO

Date: 9/18/14
Scale: Horiz: 1"=20'
Vert: N/A
Project No: 5122855
Sheet: 13

58

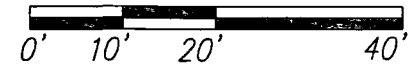


LEGEND

- ⊕ REMOVED DURING EXCAVATION
- SOIL SAMPLE LOCATION

RESULTS IN mg/kg REPORTED 10-6-14

SCALE



Trunk K #6 Laboratory Results Summary							
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: 40		100 ppm TPH		10 ppm	50 ppm
10/1/2014	11:05	SC-12 W Wall	0-21	<3.4	<10	<0.034	<0.068
10/1/2014	11:07	SC-13 N Wall	0-21	<4.1	<10	<0.041	<0.081
10/1/2014	11:11	SC-14 Base	21	<3.9	<9.9	<0.039	<0.078
10/1/2014	11:15	SC-15 E Wall	0-21	140	24	<0.088	4.37
10/1/2014	11:20	SC-16 S Wall	0-21	<19	<10	<0.097	<0.39
10/2/2014	16:20	SC-17 E Wall	0-21	<4.4	<10	<0.044	<0.088



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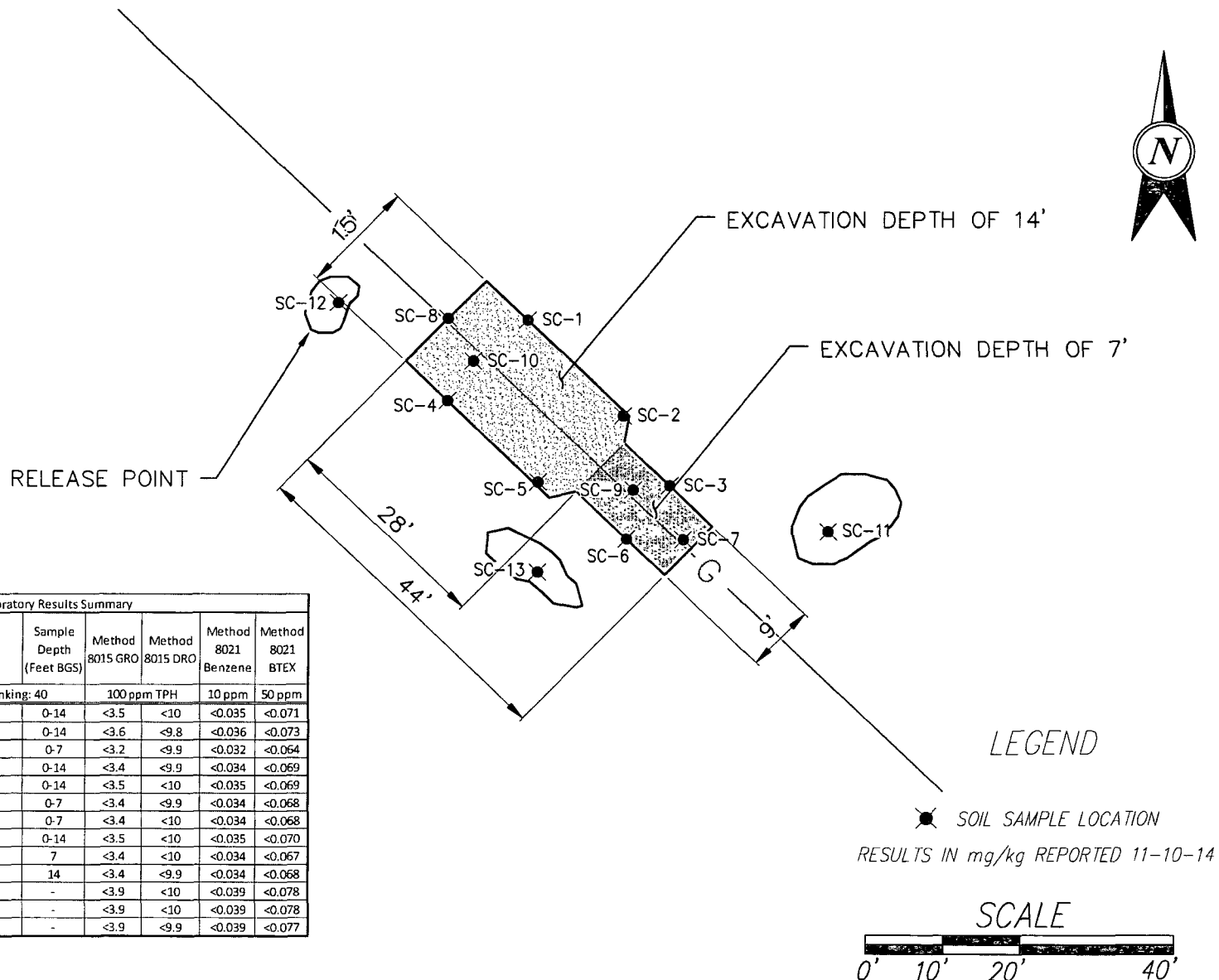
SOIL CONTAMINANT CONCENTRATION MAP

TRUNK K-6

SECTION 25, T27N, R8W

SAN JUAN COUNTY, NEW MEXICO

Designed	Drawn	Checked
SM	DJB	RSA
Date: 9/18/14		
Scale: Horiz: 1"=20'		
Vert: N/A		
Project No: 5122855		
Sheet: 14		



Trunk K #7 Laboratory Results Summary							
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: 40		100 ppm TPH		10 ppm	50 ppm
11/6/2014	10:01	SC-1 NW Wall	0-14	<3.5	<10	<0.035	<0.071
11/6/2014	10:03	SC-2 NC Wall	0-14	<3.6	<9.8	<0.036	<0.073
11/6/2014	10:05	SC-3 NE Wall	0-7	<3.2	<9.9	<0.032	<0.064
11/6/2014	10:09	SC-4 SW Wall	0-14	<3.4	<9.9	<0.034	<0.069
11/6/2014	10:11	SC-5 SC Wall	0-14	<3.5	<10	<0.035	<0.069
11/6/2014	10:15	SC-6 SE Wall	0-7	<3.4	<9.9	<0.034	<0.068
11/6/2014	10:18	SC-7 E Wall	0-7	<3.4	<10	<0.034	<0.068
11/6/2014	10:21	SC-8 W Wall	0-14	<3.5	<10	<0.035	<0.070
11/6/2014	10:23	SC-9 E Base	7	<3.4	<10	<0.034	<0.067
11/6/2014	10:26	SC-10 W Base	14	<3.4	<9.9	<0.034	<0.068
11/6/2014	10:29	SC-11 SP-1	-	<3.9	<10	<0.039	<0.078
11/6/2014	10:31	SC-12 SP-2	-	<3.9	<10	<0.039	<0.078
11/6/2014	10:35	SC-13 SP-3	-	<3.9	<9.9	<0.039	<0.077



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FARMINGTON, NEW MEXICO

SOIL CONTAMINANT CONCENTRATION MAP
TRUNK K #7
SECTION 26, T27N, R8W

SAN JUAN COUNTY, NEW MEXICO

Designed	Drawn	Checked
SM	DJB	RSA
Date: 9/18/14		
Scale: Horiz: 1"=10'		
Vert: N/A		
Project No: 5122855		
Sheet: 15		

Tables

Site Ranking Information: Trunk K #1 Pipeline Release Site			
Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20	20	Field verification that release is located 190 feet west of Largo Canyon Wash	Groundwater was encountered at 24 feet below ground surface.
50' to 99' = 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	Field verification that release is located 190 feet west of Largo Canyon Wash	Release is located less than 200 feet from Largo Canyon Wash
200'-1000' = 10			
>1000'			
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' for a private domestic water source? YES OR NO to BOTH. YES = 20, NO = 0	0	NM State Engineer Water Well Database	No recorded water wells located within 1,000 feet and 1 located within a 1 mile radius
Total Site Ranking	40		
Soil Remediation Standards	0 to 9	10 to 19	>19
Benzene	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
TPH	5000 PPM	1000 PPM	100 PPM

Site Ranking Information: Trunk K #2 Pipeline Release Site			
Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20	20	Field verification that release is located 165 feet west of Largo Canyon Wash	Groundwater was encountered at 18 feet below ground surface.
50' to 99' = 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	Field verification that release is located 165 feet west of Largo Canyon Wash	Release is located less than 200 feet from Largo Canyon Wash
200'-1000' = 10			
>1000'			
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' for a private domestic water source? YES OR NO to BOTH. YES = 20, NO = 0	0	NM State Engineer Water Well Database	No recorded water wells located within 1,000 feet and 1 located within a 1 mile radius
Total Site Ranking	40		
Soil Remediation Standards	0 to 9	10 to 19	>19
Benzene	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
TPH	5000 PPM	1000 PPM	100 PPM



Site Ranking Information: Trunk K #3 Pipeline Release Site			
Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20	20	Field verification that release is located 105 feet west of Largo Canyon Wash	Groundwater was encountered at approximately 20 feet below ground surface.
50' to 99' = 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	Field verification that release is located 105 feet west of Largo Canyon Wash	Release is located less than 200 feet from Largo Canyon Wash
200'-1000' = 10			
>1000'			
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' for a private domestic water source? YES OR NO to BOTH. YES = 20, NO = 0	0	NM State Engineer Water Well Database	No recorded water wells located within 1,000 feet and 1 located within a 1 mile radius
Total Site Ranking		40	
Soil Remediation Standards	0 to 9	10 to 19	>19
Benzene	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
TPH	5000 PPM	1000 PPM	100 PPM

Site Ranking Information: Trunk K #4 Pipeline Release Site			
Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20	20	Field verification that release is located 425 feet west of Largo Canyon Wash	Groundwater not encountered during excavation; assumed that groundwater is < 25' below ground surface.
50' to 99' = 10			
>100' = 0			
Ranking Criteria for Horizontal Distance to Nearest Surface Water	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 200' = 20	10	Field verification that release is located 425 feet west of Largo Canyon Wash	Release is located between 200' -1,000' from Largo Canyon Wash
200'-1000' = 10			
>1000'			
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' for a private domestic water source? YES OR NO to BOTH. YES = 20, NO = 0	0	NM State Engineer Water Well Database	No recorded water wells located within 1,000 feet and 1 located within a 1 mile radius
Total Site Ranking		30	
Soil Remediation Standards	0 to 9	10 to 19	>19
Benzene	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
TPH	5000 PPM	1000 PPM	100 PPM



Site Ranking Information: Trunk K #5 Pipeline Release Site			
Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20	20	Field verification that release is located 370 feet west of Largo Canyon Wash	Groundwater not encountered during excavation; assumed that groundwater is < 25' below ground surface.
50' to 99' = 10			
>100' = 0			
Ranking Criteria for Horizontal Distance to Nearest Surface Water	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 200' = 20		Field verification that release is located 370 feet west of Largo Canyon Wash	Release is located between 200' -1,000' from Largo Canyon Wash
200'-1000' = 10	10		
>1000'			
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' for a private domestic water source? YES OR NO to BOTH. YES = 20, NO = 0	0	NM State Engineer Water Well Database	No recorded water wells located within 1,000 feet and 1 located within a 1 mile radius
Total Site Ranking		30	
Soil Remediation Standards	0 to 9	10 to 19	>19
Benzene	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
TPH	5000 PPM	1000 PPM	100 PPM

Site Ranking Information: Trunk K #6 Pipeline Release Site			
Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20	20	Field verification that release is located in a small tributary of Largo Canyon Wash	Groundwater not encountered during excavation; assumed to be approximately 40' below ground surface.
50' to 99' = 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	Field verification that release is located in a small tributary of Largo Canyon Wash	Release is located in a small tributary of Largo Canyon Wash
200'-1000' = 10			
>1000'			
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' for a private domestic water source? YES OR NO to BOTH. YES = 20, NO = 0	0	NM State Engineer Water Well Database	No recorded water wells located within 1,000 feet and 1 located within a 1 mile radius
Total Site Ranking		40	
Soil Remediation Standards	0 to 9	10 to 19	>19
Benzene	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
TPH	5000 PPM	1000 PPM	100 PPM



Site Ranking Information: Trunk K #7 Pipeline Release Site			
Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20	20	Field verification that release is located 160 feet west of Largo Canyon Wash	Groundwater is assumed to be approximately 25 feet below ground surface.
50' to 99' = 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	Field verification that release is located 160 feet west of Largo Canyon Wash	Release is located less than 200 feet from Largo Canyon Wash
200'-1000' = 10			
>1000'			
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' for a private domestic water source? YES OR NO to BOTH. YES = 20, NO = 0	0	NM State Engineer Water Well Database	No recorded water wells located within 1,000 feet and 1 located within a 1 mile radius
Total Site Ranking	40		
Soil Remediation Standards	0 to 9	10 to 19	>19
Benzene	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
TPH	5000 PPM	1000 PPM	100 PPM



Enterprise Products
Table 3: Summary of Laboratory Analysis (mg/kg)

Trunk K Pipeline Release
11/19/2014

Trunk K #1 Laboratory Results Summary							
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: 40		100 ppm TPH		10 ppm	50 ppm
9/2/2014	14:35	SC-3 NE Wall	0-7	<2.8	<9.9	<0.028	<0.056
9/2/2014	14:37	SC-4 E Wall	0-7	<3.9	<9.8	<0.039	<0.078
9/2/2014	14:38	SC-5 SE Wall	0-7	<4.0	<10	<0.040	<0.080
9/2/2014	14:40	E Base	7	<3.0	<10	<0.030	<0.060
9/2/2014	14:42	SC-6 S Central Wall	0-7	<3.2	<10	<0.032	<0.064
9/2/2014	14:46	SC-7 SW Wall	0-7	18	12	<0.032	2.26
9/2/2014	14:49	SC-8 W Wall	0-7	<3.3	110	<0.033	0.383
9/2/2014	14:02	SC-14 N Central Base	23	<4.4	11	<0.044	<0.088
9/3/2014	11:45	SC-18 N Wall, West Corner	10	<4.5	<10	<0.045	<0.091
9/4/2014	14:37	SC-27 SW Wall	0-24	<4.7	<9.9	<0.047	<0.093
9/4/2014	15:12	SC-11 N Central Base	9	<4.3	<10	<0.043	<0.087
9/4/2014	15:20	SC-8 W Wall	0-24	5.6	<10	<0.037	0.385

Trunk K #2 Laboratory Results Summary							
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: 40		100 ppm TPH		10 ppm	50 ppm
10/3/2014	11:10	SC-33 S Base	18	8.8	<9.8	0.037	0.14
10/3/2014	11:12	SC-29 S Central Wall	0-18	<5.0	<10	<0.050	0.26
10/3/2014	11:14	SC-31 E Wall S of PL	0-18	<4.5	<10	<0.045	0.40
10/3/2014	11:20	SC-34 NE Base	18	<3.9	<9.8	<0.039	<0.077
10/3/2014	11:22	SC-26 NE Wall	0-18	<5.5	<10	<0.055	0.29
10/3/2014	11:24	SC-28 E Wall N of PL	0-18	<5.0	<10	<0.050	0.37
10/3/2014	11:30	SC-13 N Central Base	18	<3.6	<9.9	<0.036	0.14
10/3/2014	11:32	SC-12 N Central Wall	0-18	<5.0	<10	<0.050	0.22
10/3/2014	11:38	SC-35 NW Base	18	<2.8	<9.9	<0.028	0.097
10/3/2014	11:41	SC-36 NW Wall	0-18	<5.0	<10	<0.050	0.29
10/3/2014	11:44	SC-32 W Wall N of PL	0-18	<5.0	<9.9	<0.050	0.48
10/15/2014	11:10	SC-37 SW Base	18	<3.4	<10	<0.034	<0.068
10/15/2014	11:12	SC-38 W Wall	0-18	<4.3	<10	<0.043	0.13
10/15/2014	11:14	SC-39 S Wall (W)	0-18	<4.6	<9.9	<0.046	<0.092
10/15/2014	11:20	SC-40 S Wall E	0-18	72	42	<0.092	4.31



SMA #5122855 BG45

Enterprise Products
Table 3: Summary of Laboratory Analysis (mg/kg)

Trunk K Pipeline Release
11/19/2014

Trunk K #3 Laboratory Results Summary							
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: 40		100 ppm TPH		10 ppm	50 ppm
9/25/2014	15:21	SC-24 S Wall	6-20	<4.4	<10	<0.044	<0.088
9/25/2014	15:25	SC-25 NE Wall	0-8	<4.2	33	<0.042	<0.084
9/25/2014	15:27	SC-26 E Base	8	<4.0	13	<0.040	<0.080
9/25/2014	15:29	SC-27 SE Wall	0-8	<4.2	<10	<0.042	<0.084
9/25/2014	15:30	SC-28 E Wall	0-8	<4.3	19	<0.043	<0.085
9/25/2014	15:38	SC-29 N Central Wall	0-20	<4.2	<10	<0.042	<0.084
9/25/2014	15:40	SC-30 E Wall (Deep Exc)	8-20	<4.6	<10	<0.046	<0.092
9/25/2014	15:15	SC-22 N Wall, West Side	0-20	<4.3	<10	<0.043	<0.086
9/25/2014	15:17	SC-23 W Wall	6-20	<4.2	<9.8	<0.042	<0.083

Trunk K #4 Laboratory Results Summary							
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 TPH		10 ppm	50 ppm
9/25/2014	14:31	SC-14 Base	19	<4.3	<10	<0.043	<0.086
9/25/2014	14:35	SC-15 N Wall	0-19	<3.8	<10	<0.038	<0.076
9/25/2014	14:39	SC-16 E Wall	0-19	<4.1	<10	<0.041	<0.082
9/25/2014	14:46	SC-17 S Wall	0-18	<4.9	<10	<0.049	<0.099
9/25/2014	14:51	SC-18 W Wall	0-18	<4.0	<10	<0.040	<0.080

Trunk K #5 Laboratory Results Summary							
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: 40		100 ppm TPH		10 ppm	50 ppm
9/24/2014	16:10	SC-21 N Wall	0-15	<4.2	<9.9	<0.042	<0.084
9/24/2014	16:17	SC-22 W Wall	0-15	<4.1	<10	<0.041	<0.083
9/24/2014	16:25	SC-23 E wall	0-15	<4.4	<10	<0.044	<0.089
9/24/2014	16:27	SC-24 S Wall	0-15	<3.6	<10	<0.036	<0.073
9/24/2014	16:30	SC-25 Base	15	<5.0	<10	<0.050	<0.099



SMA #5122855 BG45

Enterprise Products
Table 3: Summary of Laboratory Analysis (mg/kg)

Trunk K Pipeline Release
11/19/2014

Trunk K #6 Laboratory Results Summary							
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: 40		100 ppm TPH		10 ppm	50 ppm
10/1/2014	11:05	SC-12 W Wall	0-21	<3.4	<10	<0.034	<0.068
10/1/2014	11:07	SC-13 N Wall	0-21	<4.1	<10	<0.041	<0.081
10/1/2014	11:11	SC-14 Base	21	<3.9	<9.9	<0.039	<0.078
10/1/2014	11:15	SC-15 E Wall	0-21	140	24	<0.088	4.37
10/1/2014	11:20	SC-16 S Wall	0-21	<19	<10	<0.097	<0.39
10/2/2014	16:20	SC-17 E Wall	0-21	<4.4	<10	<0.044	<0.088

Trunk K #7 Laboratory Results Summary							
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: 40		100 ppm TPH		10 ppm	50 ppm
11/6/2014	10:01	SC-1 NW Wall	0-14	<3.5	<10	<0.035	<0.071
11/6/2014	10:03	SC-2 NC Wall	0-14	<3.6	<9.8	<0.036	<0.073
11/6/2014	10:05	SC-3 NE Wall	0-7	<3.2	<9.9	<0.032	<0.064
11/6/2014	10:09	SC-4 SW Wall	0-14	<3.4	<9.9	<0.034	<0.069
11/6/2014	10:11	SC-5 SC Wall	0-14	<3.5	<10	<0.035	<0.069
11/6/2014	10:15	SC-6 SE Wall	0-7	<3.4	<9.9	<0.034	<0.068
11/6/2014	10:18	SC-7 E Wall	0-7	<3.4	<10	<0.034	<0.068
11/6/2014	10:21	SC-8 W Wall	0-14	<3.5	<10	<0.035	<0.070
11/6/2014	10:23	SC-9 E Base	7	<3.4	<10	<0.034	<0.067
11/6/2014	10:26	SC-10 W Base	14	<3.4	<9.9	<0.034	<0.068
11/6/2014	10:29	SC-11 SP-1	-	<3.9	<10	<0.039	<0.078
11/6/2014	10:31	SC-12 SP-2	-	<3.9	<10	<0.039	<0.078
11/6/2014	10:35	SC-13 SP-3	-	<3.9	<9.9	<0.039	<0.077



Appendix A

Photographic Documentation

Enterprise Products
Photographic Documentation
Trunk K Pipeline Release Sites

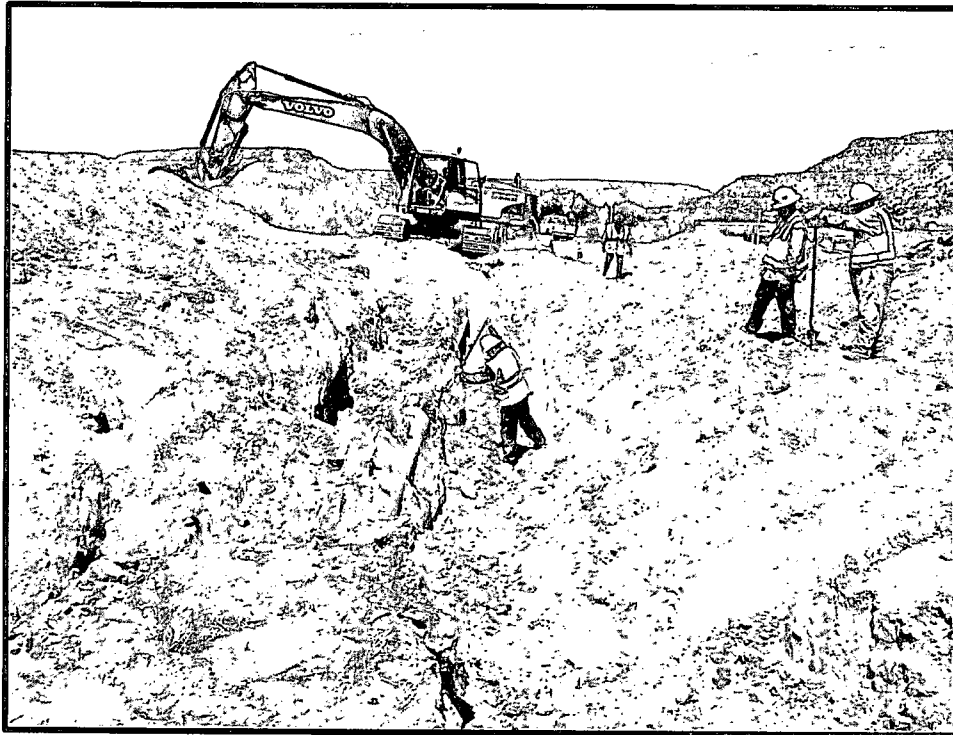


Photo 1: Initial excavation of the Trunk K #1 pipeline release.

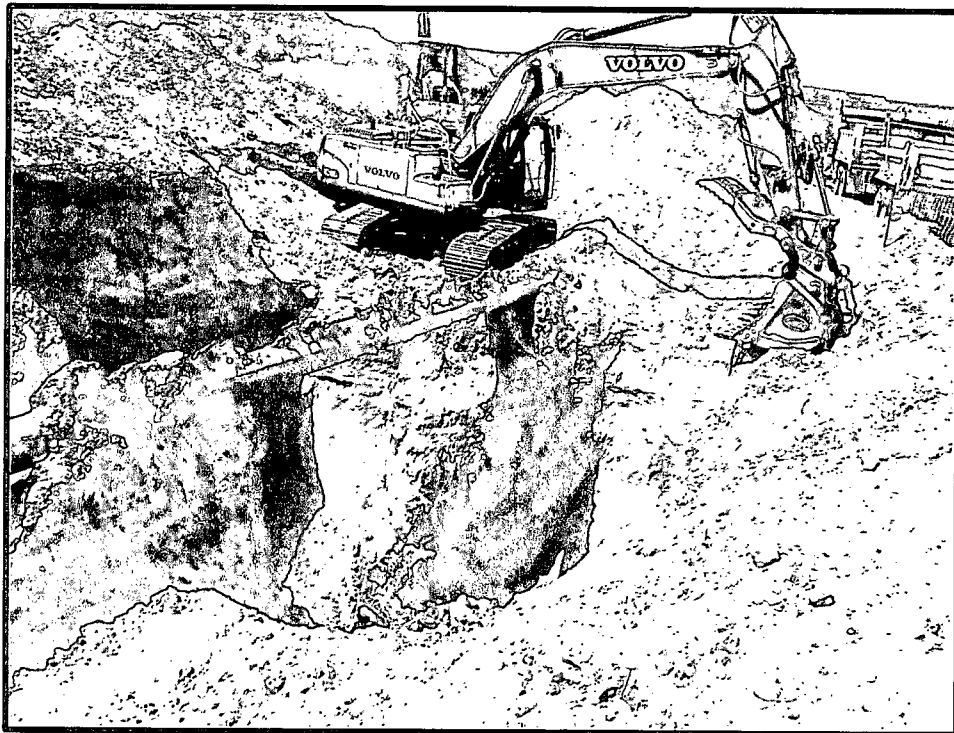


Photo 2: Near complete excavation of the Trunk K #1 pipeline release with a maximum depth of 24'.



Enterprise Products
Photographic Documentation
Trunk K Pipeline Release Sites

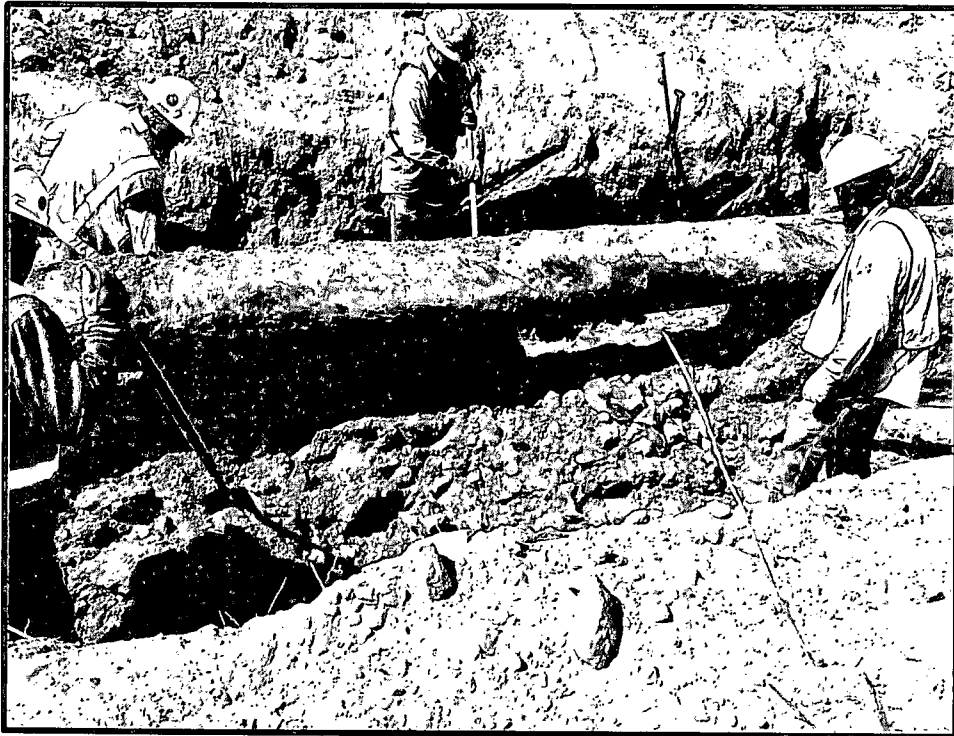


Photo 3: First stage of the Trunk K #2 pipeline excavation. Note extensive staining.

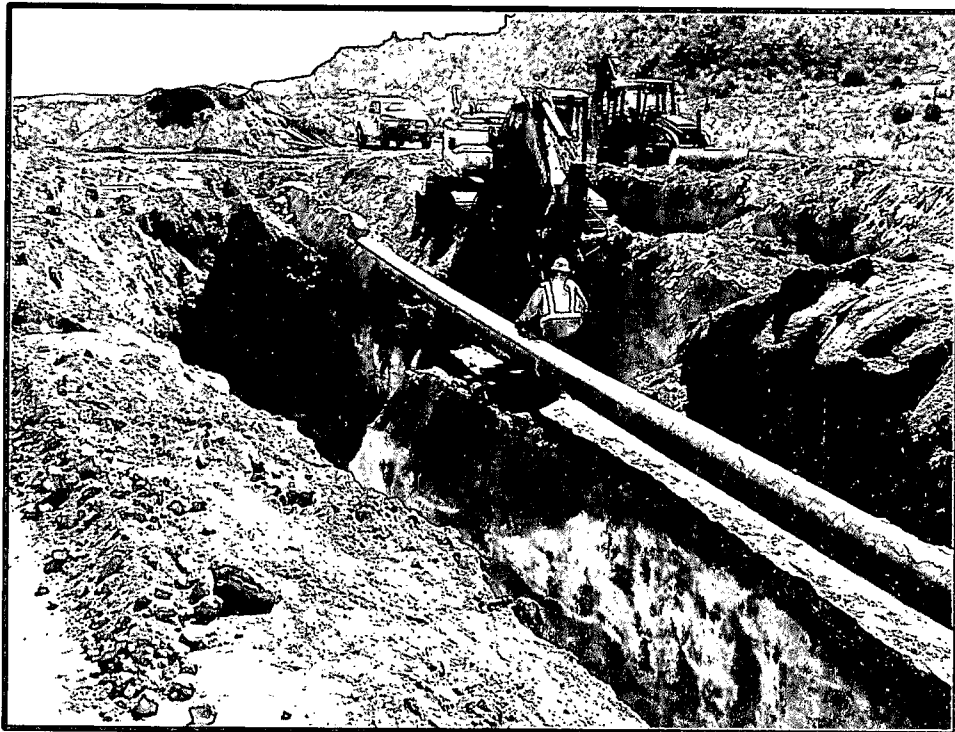


Photo 4: Phase 2 of the overall excavation of the Trunk K #2 pipeline release.



Enterprise Products
Photographic Documentation
Trunk K Pipeline Release Sites

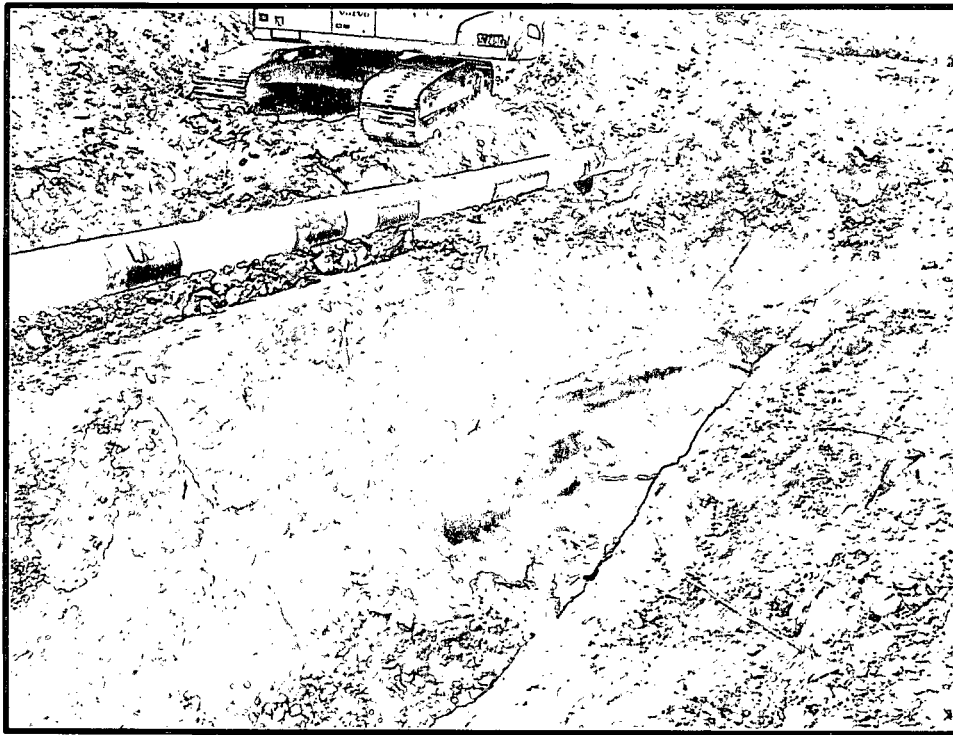


Photo 5: Groundwater found at approximately 21' during the Trunk K #3 excavation.



Photo 6: Complete excavation of the Trunk K #3 pipeline release.



Enterprise Products
Photographic Documentation
Trunk K Pipeline Release Sites



Photo 7: The Trunk K #4 release prior to excavation activities.



Photo 8: Near complete excavation of the Trunk K #4 pipeline release.



Enterprise Products
Photographic Documentation
Trunk K Pipeline Release Sites

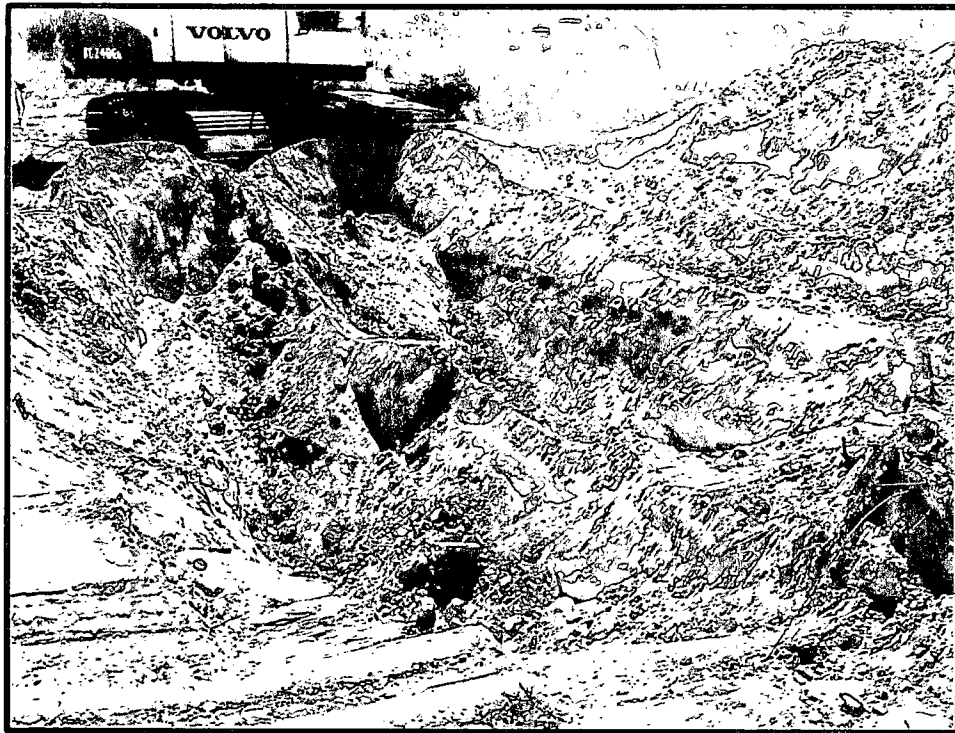


Photo 9: The beginning excavation of the Trunk K #5 release site.

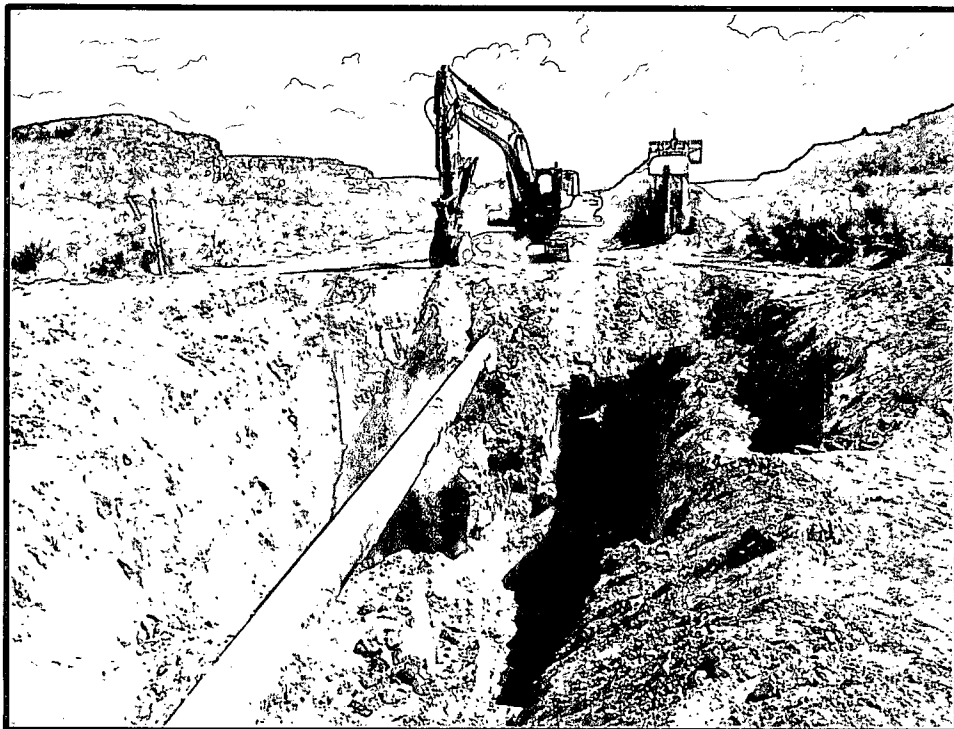


Photo 10: Near complete excavation of the Trunk K #5 pipeline release site.



Enterprise Products
Photographic Documentation
Trunk K Pipeline Release Sites

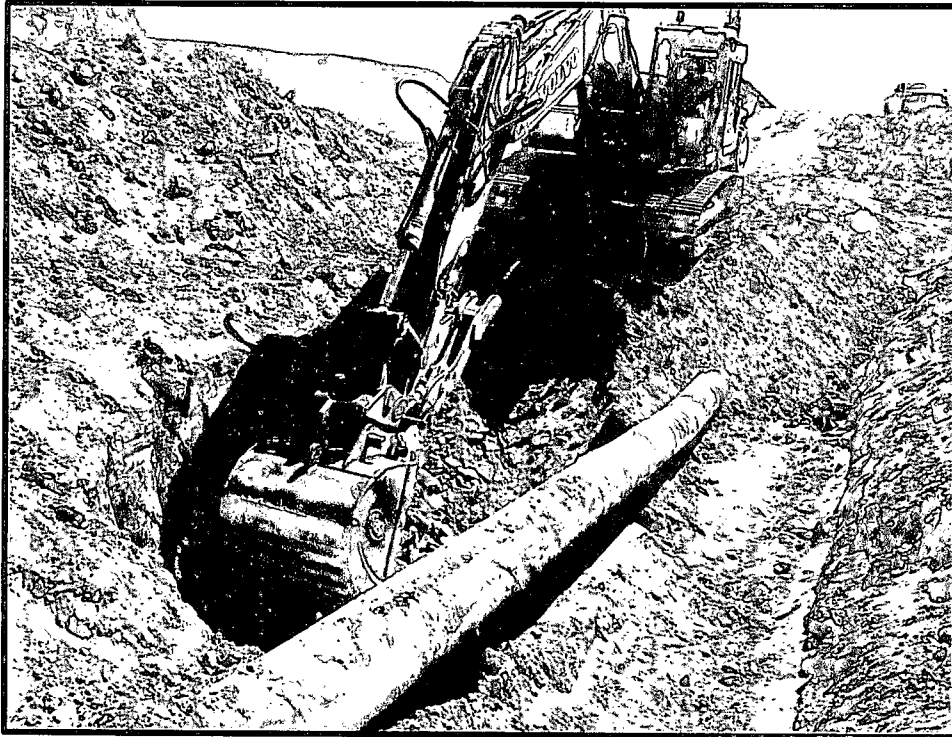


Photo 11: Early stages of the Trunk K #6 pipeline release site with a depth of 7' in sandstone.

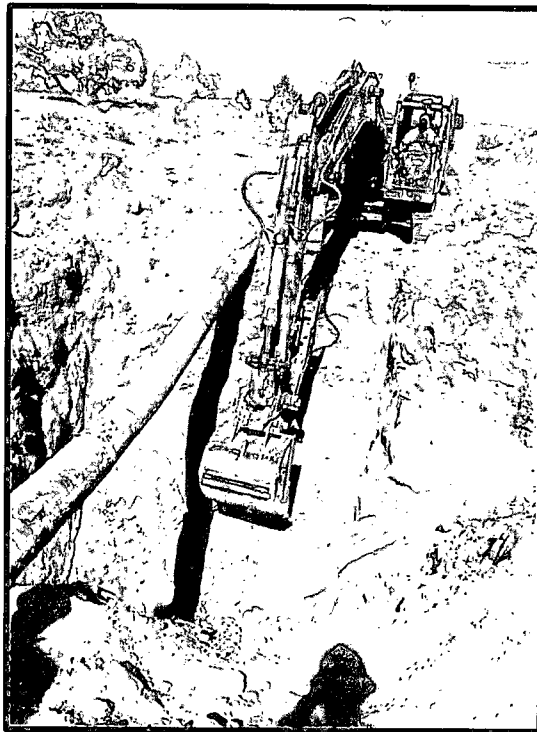


Photo 12: Near complete excavation of the Trunk K #6 pipeline release; approaching a depth of 21'.



Enterprise Products
Photographic Documentation
Trunk K Pipeline Release Sites

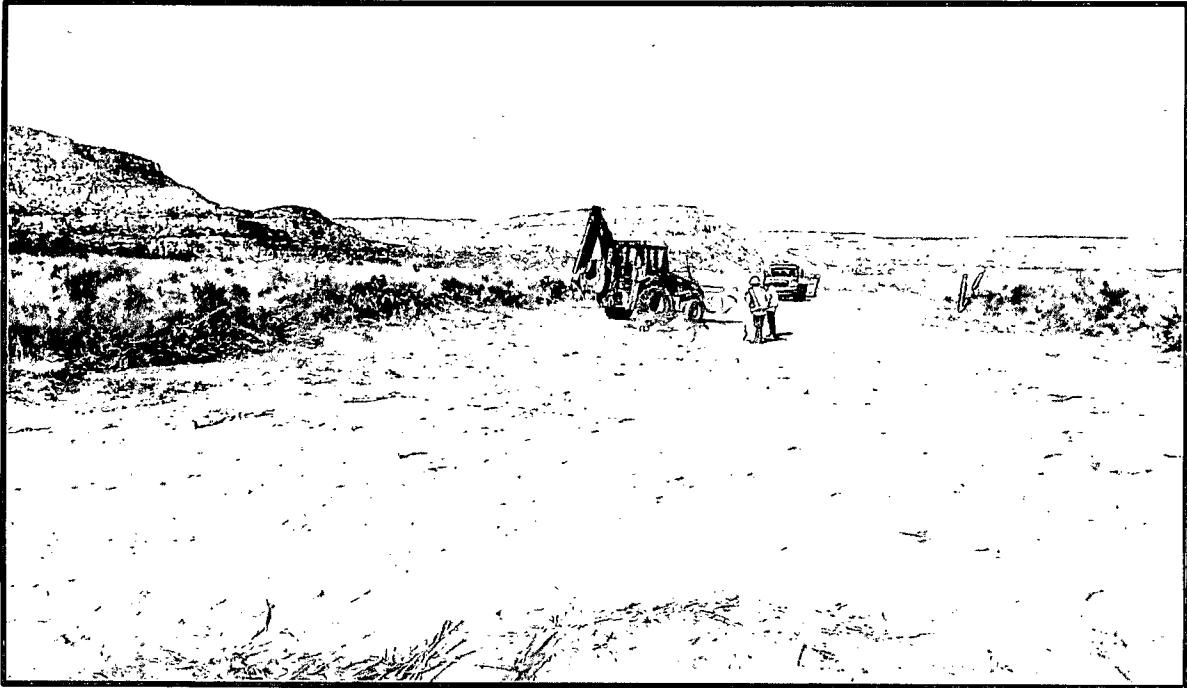


Photo 13: The Trunk K #7 release site being prepared for excavation activities.

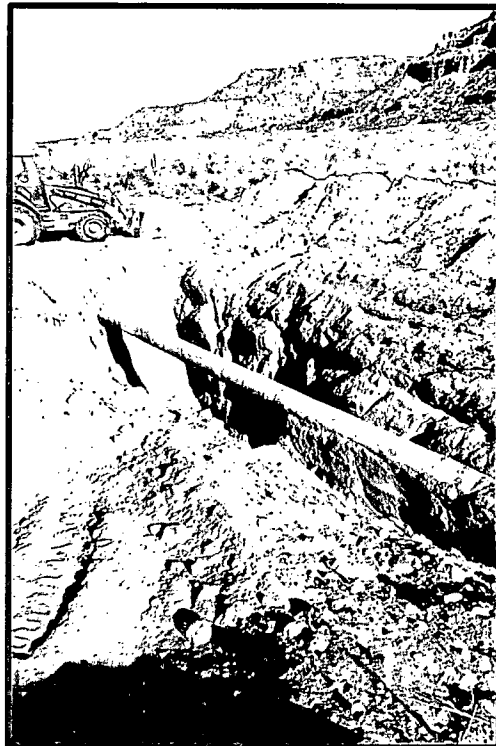


Photo 14: Near complete excavation of the Trunk K #7 pipeline release site.



Appendix B

Soil Disposal Documentation

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources 97057-0652
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised 08/01/11

*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 Ave, Farmington NM 87401

2. Originating Site: Trunk K Pipeline

Aug. 2014

3. Location of Material (Street Address, City, State or ULSTR):

Unit Letter B & K Sec 26 T 27 N R 8W, GPS: Site 1: 36.54473, -107.64408, Site 2: 36.54540, -107.64504, Site 3: 36.54730, -107.64737, Site 4: 36.54958, -107.65009, San Juan County, NM

4. Source and Description of Waste:

Source: Natural Gas Pipeline Release

Description: Exempt petroleum affected soil from clean-up efforts at pipeline release.

Estimated Volume 200 yd³ bbls Known Volume (to be entered by the operator at the end of the haul) 94 yd³ bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Thomas Long, representative or authorized agent for Enterprise Field Services, LLC do hereby

Generator Signature

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)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency ☐ Monthly ☐ Weekly ☒ Per Load

☐ 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)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long, 8-21-14, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete

Generator Signature

the required testing/sign the Generator Waste Testing Certification.

I, Kendra Running, representative for Envirotech, Inc. do hereby certify that

Representative Agent Signature

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.

5. Transporter: ~~IML, West States Energy~~ Contractors or unknown trucking company on OCD approved haulers list.

OCD Permitted Surface Waste Management Facility Paul & Sons, EMS, Ritchey

Name and Facility Permit #: Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011

Address of Facility: Hilltop, NM

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: Kendra Running
SIGNATURE: Kendra Running
Surface Waste Management Facility Authorized Agent

TITLE: Waste Coordinator DATE: 8/21/14
TELEPHONE NO.: 505-632-0615

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources 97057-0652
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised 08/01/11

*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 Ave, Farmington NM 87401

2. Originating Site: Trunk K Pipeline
Sep. 2014

3. Location of Material (Street Address, City, State or ULSTR):
Unit Letter B & K Sec 26 T 27 N R 8W, GPS: Site 1: 36.54473, -107.64408, Site 2: 36.54540, -107.64504, Site 3: 36.54730, -107.64737, Site 4: 36.54958, -107.65009, San Juan County, NM

4. Source and Description of Waste:
Source: Natural Gas Pipeline Release
Description: Exempt petroleum affected soil from clean-up efforts at pipeline release.
Estimated Volume 200 yd³ Known Volume (to be entered by the operator at the end of the haul) 3240 yd³ bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Thomas Long, representative or authorized agent for Enterprise Field Services, LLC do hereby
Generator Signature
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)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency ☐ Monthly ☐ Weekly ☒ Per Load

☐ 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)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long, 8-21-14, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, Renee, representative for Envirotech, Inc. do hereby certify that
Representative/Agent Signature
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.

5. Transporter: ~~IMI, West States Energy Contractors~~ or unknown trucking company on OCD approved haulers list.
OCD Permitted Surface Waste Management Facility Ritchey, Del Prado, Paul & Son, Inland, Prado Farms, Richl,
Name and Facility Permit #: Envirotech, Inc. Soil Remediation Facility Permit #: NM 01-0011
Address of Facility: Hilltop, NM

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: Kendra Runnung
SIGNATURE: Kendra Runnung
Surface Waste Management Facility Authorized Agent

TITLE: Waste Coordinator DATE: 9/2/14
TELEPHONE NO.: 505-632-0615

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources 97057-0652
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised 08/01/11

*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 Ave, Farmington NM 87401

2. Originating Site: Trunk K Pipeline
October 2014

3. Location of Material (Street Address, City, State or ULSTR):
Unit Letter B & K Sec 26 T 27 N R 8W, GPS: Site 1: 36.54473, -107.64408, Site 2: 36.54540, -107.64504, Site 3: 36.54730, -107.64737, Site 4: 36.54958, -107.65009, and 36.53830, -107.63703 San Juan County, NM

4. Source and Description of Waste:
Source: Natural Gas Pipeline Release
Description: Exempt petroleum affected soil from clean-up efforts at pipeline release.
Estimated Volume 200 yd³ Known Volume (to be entered by the operator at the end of the haul) 2384 yd³

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Thomas Long, representative or authorized agent for Enterprise Field Services, LLC do hereby
Generator Signature
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)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency ☐ Monthly ☐ Weekly ☒ Per Load

☐ 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)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long, 10-6-14, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, Kendra Running, representative for Envirotech, Inc. do hereby certify that
Representative/Agent Signature
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.

5. Transporter: ~~MM, West States Energy Contractors~~ or unknown trucking company on OCD approved haulers list. Ritchey, EMS,
OCD Permitted Surface Waste Management Facility Envirotech, Prado Farms, Paul & Sons, Inland

Name and Facility Permit #: Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011
Address of Facility: Hilltop, NM

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: Kendra Running
SIGNATURE: Kendra Running
Surface Waste Management Facility Authorized Agent

TITLE: Waste Coordinator DATE: 10/1/14
TELEPHONE NO.: 505-632-0615

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised 08/01/11

97057-0652
*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 Ave, Farmington NM 87401 *Nov. 2014*

2. Originating Site: Trunk K Pipeline #7 Release Site

3. Location of Material (Street Address, City, State or ULSTR):
Unit Letter G Section 26 Township 27 North Range 8 West, 36.54687,-107.646825, San Juan County

4. Source and Description of Waste:
Source: Natural Gas Pipeline Release
Description: Exempt petroleum affected soil from clean-up efforts at pipeline release.
Estimated Volume 100 yd³ Known Volume (to be entered by the operator at the end of the haul) 215 yd³/bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, *Thom Long*, representative or authorized agent for Enterprise Field Services, LLC do hereby
Generator Signature
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)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency ☐ Monthly ☐ Weekly ☒ Per Load

☐ 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)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, *Thom Long*, 11-4-14, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, *Kendra Runung*, representative for Envirotech, Inc do hereby certify that
Representative/Agent Signature
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.

5. Transporter: ~~EMS~~ *B + B, Esparea, Envirotech, 3-D services*

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011**
Address of Facility: **Hilltop, NM**

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: *Kendra Runung*
SIGNATURE: *Kendra Runung*
Surface Waste Management Facility Authorized Agent

TITLE: *Waste Coordinator* DATE: *11/5/14*
TELEPHONE NO.: 505-632-0615

Appendix C

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

September 04, 2014

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

RE: Trunk K #1

OrderNo.: 1409047

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 8 sample(s) on 9/3/2014 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1409047

Date Reported: 9/4/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-3 NE Wall @ 0-7'**Project:** Trunk K #1**Collection Date:** 9/2/2014 2:35:00 PM**Lab ID:** 1409047-001**Matrix:** MEOH (SOIL)**Received Date:** 9/3/2014 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/3/2014 11:28:34 AM	15081
Surr: DNOP	88.3	57.9-140		%REC	1	9/3/2014 11:28:34 AM	15081
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	2.8		mg/Kg	1	9/3/2014 10:24:00 AM	R20966
Surr: BFB	96.1	80-120		%REC	1	9/3/2014 10:24:00 AM	R20966
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.028		mg/Kg	1	9/3/2014 10:24:00 AM	R20966
Toluene	ND	0.028		mg/Kg	1	9/3/2014 10:24:00 AM	R20966
Ethylbenzene	ND	0.028		mg/Kg	1	9/3/2014 10:24:00 AM	R20966
Xylenes, Total	ND	0.056		mg/Kg	1	9/3/2014 10:24:00 AM	R20966
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	9/3/2014 10:24:00 AM	R20966

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 1409047

Date Reported: 9/4/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-4 E. Wall @ 0-7'

Project: Trunk K #1

Collection Date: 9/2/2014 2:37:00 PM

Lab ID: 1409047-002

Matrix: MEOH (SOIL)

Received Date: 9/3/2014 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/3/2014 12:32:25 PM	15081
Surr: DNOP	88.4	57.9-140		%REC	1	9/3/2014 12:32:25 PM	15081
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	9/3/2014 10:52:41 AM	R20966
Surr: BFB	95.0	80-120		%REC	1	9/3/2014 10:52:41 AM	R20966
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.039		mg/Kg	1	9/3/2014 10:52:41 AM	R20966
Toluene	ND	0.039		mg/Kg	1	9/3/2014 10:52:41 AM	R20966
Ethylbenzene	ND	0.039		mg/Kg	1	9/3/2014 10:52:41 AM	R20966
Xylenes, Total	ND	0.078		mg/Kg	1	9/3/2014 10:52:41 AM	R20966
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	9/3/2014 10:52:41 AM	R20966

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-5 SE Wall @ 0-7'

Project: Trunk K #1

Collection Date: 9/2/2014 2:38:00 PM

Lab ID: 1409047-003

Matrix: MEOH (SOIL)

Received Date: 9/3/2014 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/3/2014 12:53:53 PM	15081
Surr: DNOP	84.8	57.9-140		%REC	1	9/3/2014 12:53:53 PM	15081
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	9/3/2014 11:21:18 AM	R20966
Surr: BFB	94.8	80-120		%REC	1	9/3/2014 11:21:18 AM	R20966
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.040		mg/Kg	1	9/3/2014 11:21:18 AM	R20966
Toluene	ND	0.040		mg/Kg	1	9/3/2014 11:21:18 AM	R20966
Ethylbenzene	ND	0.040		mg/Kg	1	9/3/2014 11:21:18 AM	R20966
Xylenes, Total	ND	0.080		mg/Kg	1	9/3/2014 11:21:18 AM	R20966
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	9/3/2014 11:21:18 AM	R20966

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 1409047

Date Reported: 9/4/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-9 E. Base @ 7'**Project:** Trunk K #1**Collection Date:** 9/2/2014 2:40:00 PM**Lab ID:** 1409047-004**Matrix:** MEOH (SOIL)**Received Date:** 9/3/2014 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/3/2014 1:15:12 PM	15081
Surr: DNOP	91.9	57.9-140		%REC	1	9/3/2014 1:15:12 PM	15081
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.0		mg/Kg	1	9/3/2014 11:49:57 AM	R20966
Surr: BFB	95.4	80-120		%REC	1	9/3/2014 11:49:57 AM	R20966
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.030		mg/Kg	1	9/3/2014 11:49:57 AM	R20966
Toluene	ND	0.030		mg/Kg	1	9/3/2014 11:49:57 AM	R20966
Ethylbenzene	ND	0.030		mg/Kg	1	9/3/2014 11:49:57 AM	R20966
Xylenes, Total	ND	0.060		mg/Kg	1	9/3/2014 11:49:57 AM	R20966
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	9/3/2014 11:49:57 AM	R20966

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 1409047

Date Reported: 9/4/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-6 S. Central Wall @ 0-7'**Project:** Trunk K #1**Collection Date:** 9/2/2014 2:42:00 PM**Lab ID:** 1409047-005**Matrix:** MEOH (SOIL)**Received Date:** 9/3/2014 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/3/2014 1:36:40 PM	15081
Surr: DNOP	90.7	57.9-140		%REC	1	9/3/2014 1:36:40 PM	15081
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	9/3/2014 12:18:33 PM	R20966
Surr: BFB	97.5	80-120		%REC	1	9/3/2014 12:18:33 PM	R20966
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.032		mg/Kg	1	9/3/2014 12:18:33 PM	R20966
Toluene	ND	0.032		mg/Kg	1	9/3/2014 12:18:33 PM	R20966
Ethylbenzene	ND	0.032		mg/Kg	1	9/3/2014 12:18:33 PM	R20966
Xylenes, Total	ND	0.064		mg/Kg	1	9/3/2014 12:18:33 PM	R20966
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	9/3/2014 12:18:33 PM	R20966

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 5 of 12
	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 1409047

Date Reported: 9/4/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-7 SW Wall @ 0-7'**Project:** Trunk K #1**Collection Date:** 9/2/2014 2:46:00 PM**Lab ID:** 1409047-006**Matrix:** MEOH (SOIL)**Received Date:** 9/3/2014 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	12	9.9		mg/Kg	1	9/3/2014 11:28:42 AM	15081
Surr: DNOP	85.8	57.9-140		%REC	1	9/3/2014 11:28:42 AM	15081
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	18	3.2		mg/Kg	1	9/3/2014 12:47:18 PM	R20966
Surr: BFB	152	80-120	S	%REC	1	9/3/2014 12:47:18 PM	R20966
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.032		mg/Kg	1	9/3/2014 12:47:18 PM	R20966
Toluene	0.30	0.032		mg/Kg	1	9/3/2014 12:47:18 PM	R20966
Ethylbenzene	0.16	0.032		mg/Kg	1	9/3/2014 12:47:18 PM	R20966
Xylenes, Total	1.8	0.063		mg/Kg	1	9/3/2014 12:47:18 PM	R20966
Surr: 4-Bromofluorobenzene	117	80-120		%REC	1	9/3/2014 12:47:18 PM	R20966

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 1409047

Date Reported: 9/4/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-8 W. Wall @ 0-7'

Project: Trunk K #1

Collection Date: 9/2/2014 2:49:00 PM

Lab ID: 1409047-007

Matrix: MEOH (SOIL)

Received Date: 9/3/2014 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	110	9.9		mg/Kg	1	9/3/2014 11:58:39 AM	15081
Surr: DNOP	84.5	57.9-140		%REC	1	9/3/2014 11:58:39 AM	15081
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	9/3/2014 1:44:42 PM	R20966
Surr: BFB	102	80-120		%REC	1	9/3/2014 1:44:42 PM	R20966
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.033		mg/Kg	1	9/3/2014 1:44:42 PM	R20966
Toluene	0.073	0.033		mg/Kg	1	9/3/2014 1:44:42 PM	R20966
Ethylbenzene	ND	0.033		mg/Kg	1	9/3/2014 1:44:42 PM	R20966
Xylenes, Total	0.31	0.066		mg/Kg	1	9/3/2014 1:44:42 PM	R20966
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	9/3/2014 1:44:42 PM	R20966

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 1409047

Date Reported: 9/4/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-14 N. Central Base @ 23'

Project: Trunk K #1

Collection Date: 9/2/2014 2:02:00 PM

Lab ID: 1409047-008

Matrix: MEOH (SOIL)

Received Date: 9/3/2014 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	11	10		mg/Kg	1	9/3/2014 12:30:13 PM	15081
Surr: DNOP	100	57.9-140		%REC	1	9/3/2014 12:30:13 PM	15081
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	9/3/2014 2:13:18 PM	R20966
Surr: BFB	102	80-120		%REC	1	9/3/2014 2:13:18 PM	R20966
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.044		mg/Kg	1	9/3/2014 2:13:18 PM	R20966
Toluene	ND	0.044		mg/Kg	1	9/3/2014 2:13:18 PM	R20966
Ethylbenzene	ND	0.044		mg/Kg	1	9/3/2014 2:13:18 PM	R20966
Xylenes, Total	ND	0.088		mg/Kg	1	9/3/2014 2:13:18 PM	R20966
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	9/3/2014 2:13:18 PM	R20966

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409047

04-Sep-14

Client: Souder, Miller and Associates

Project: Trunk K #1

Sample ID	1409047-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-3 NE Wall @ 0-7'	Batch ID:	15081	RunNo:	20948					
Prep Date:	9/3/2014	Analysis Date:	9/3/2014	SeqNo:	610139	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.9	49.60	0	86.3	40.1	152			
Surr: DNOP	4.3		4.960		87.5	57.9	140			

Sample ID	1409047-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-3 NE Wall @ 0-7'	Batch ID:	15081	RunNo:	20948					
Prep Date:	9/3/2014	Analysis Date:	9/3/2014	SeqNo:	610140	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.51	0	88.2	40.1	152	4.01	32.1	
Surr: DNOP	4.4		5.051		86.8	57.9	140	0	0	

Sample ID	MB-15081	SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	15081		RunNo:	20948				
Prep Date:	9/3/2014	Analysis Date:	9/3/2014		SeqNo:	610141	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.6		10.00		86.0	57.9	140			

Sample ID	LCS-15081		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 15081		RunNo: 20948					
Prep Date:	9/3/2014		Analysis Date: 9/3/2014		SeqNo: 610142		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.8	68.6	130			
Surr: DNOP	3.8		5.000		76.2	57.9	140			

Sample ID	MB-15053	SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	15053		RunNo:	20950				
Prep Date:	9/2/2014	Analysis Date:	9/3/2014		SeqNo:	610293		Units:	%REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.2		10.00		71.9	57.9	140			

Sample ID	LCS-15053		SampType:	LCS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	15053		RunNo:	20950				
Prep Date:	9/2/2014		Analysis Date:	9/3/2014		SeqNo:	610294		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	3.9		5.000		78.6	57.9	140				

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409047

04-Sep-14

Client: Souder, Miller and Associates

Project: Trunk K #1

Sample ID	MB-15080	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	15080	RunNo:	20948					
Prep Date:	9/3/2014	Analysis Date:	9/3/2014	SeqNo:	610470	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.1		10.00		81.2	57.9	140			

Sample ID	LCS-15080	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	15080	RunNo:	20948					
Prep Date:	9/3/2014	Analysis Date:	9/3/2014	SeqNo:	610471	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		86.9	57.9	140			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409047

04-Sep-14

Client: Souder, Miller and Associates

Project: Trunk K #1

Sample ID	MB-15063 MK	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R20966	RunNo:	20966					
Prep Date:		Analysis Date:	9/3/2014	SeqNo:	610346	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

940

1000

94.1

80

120

Sample ID	LCS-15063 MK	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R20966	RunNo:	20966					
Prep Date:		Analysis Date:	9/3/2014	SeqNo:	610347	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Gasoline Range Organics (GRO)

29

5.0

25.00

0

115

65.8

139

Surr: BFB

1000

1000

105

80

120

Sample ID	MB-15063	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	15063	RunNo:	20966					
Prep Date:	9/2/2014	Analysis Date:	9/3/2014	SeqNo:	610364	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Surr: BFB

940

1000

94.1

80

120

Sample ID	LCS-15063	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	15063	RunNo:	20966					
Prep Date:	9/2/2014	Analysis Date:	9/3/2014	SeqNo:	610365	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Surr: BFB

1000

1000

105

80

120

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409047

04-Sep-14

Client: Souder, Miller and Associates

Project: Trunk K #1

Sample ID	MB-15063 MK		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	R20966		RunNo:	20966			
Prep Date:			Analysis Date:	9/3/2014		SeqNo:	610383		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

Sample ID	LCS-15063 MK		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	R20966		RunNo:	20966			
Prep Date:			Analysis Date:	9/3/2014		SeqNo:	610384		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.050	1.000	0	97.2	80	120			
Toluene	0.97	0.050	1.000	0	96.9	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID	MB-15063		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	15063		RunNo:	20966			
Prep Date:	9/2/2014		Analysis Date:	9/3/2014		SeqNo:	610405		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

Sample ID	LCS-15063		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	15063		RunNo:	20966			
Prep Date:	9/2/2014		Analysis Date:	9/3/2014		SeqNo:	610406		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Qualifiers:

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

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



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

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1409047

RcptNo: 1

Received by/date: [Signature] 09/03/14

Logged By: Lindsay Mangin 9/3/2014 8:05:00 AM [Signature]

Completed By: Lindsay Mangin 9/3/2014 8:15:13 AM [Signature]

Reviewed By: ms 09/03/14

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp. $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good	Yes			

Chain-of-Custody Record

Client: SMA

Mailing Address: 401 W. Broadway
Farmington, NM 87401

Phone #: 505 325 9535

email or Fax#: sean.mostal@sandmill.com

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☐ Standard

☒ Rush SAME Day

Project Name:

Trunk K #1

Project #:

5122855

Project Manager:

Seu Mostal

Sampler:

Sm

On Ice ☒ Yes ☐ No

Sample Temperature 7.1Y



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No	BTEX + MTBE + 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 ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
12/14	1435	Soil	SC-3 NE wall @ 0-7'	402 X 1	Cooled	-001												
	1437		SC-4 E wall @ 0-7'	402 X 1	Cooled	-002												
	1438		SC-5 SE wall @ 0-7'			-003												
	1440		SC-9 E Box @ 7'			-004												
	1442		SC-6 S. central wall @ 0-7'			-005												
	1446		SC-7 SW wall @ 0-7'			-006												
	1449		SC-8 W. wall @ 0-7'			-007												
	1402		SC-14 N central Base @ 23'			-008												

Date: 12/14 Time: 1700 Relinquished by: [Signature]

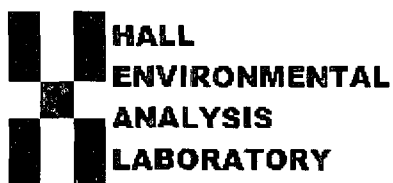
Date: 7/2/14 Time: 1745 Relinquished by: [Signature]

Received by: [Signature] Date: 9/2/14 Time: 1710

Received by: [Signature] Date: 09/03/14 Time: 0805

Remarks: Invoice to Enterprise Products

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*

September 08, 2014

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

RE: Trunk K #1

OrderNo.: 1409230

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 4 sample(s) on 9/5/2014 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 or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1409230

Date Reported: 9/8/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-18 N Wall, West Corner@10**Project:** Trunk K #1**Collection Date:** 9/3/2014 11:45:00 AM**Lab ID:** 1409230-001**Matrix:** MEOH (SOIL)**Received Date:** 9/5/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/5/2014 11:49:39 AM	15134
Surr: DNOP	86.4	57.9-140		%REC	1	9/5/2014 11:49:39 AM	15134
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	9/5/2014 10:51:47 AM	R21019
Surr: BFB	91.8	80-120		%REC	1	9/5/2014 10:51:47 AM	R21019
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.045		mg/Kg	1	9/5/2014 10:51:47 AM	R21019
Toluene	ND	0.045		mg/Kg	1	9/5/2014 10:51:47 AM	R21019
Ethylbenzene	ND	0.045		mg/Kg	1	9/5/2014 10:51:47 AM	R21019
Xylenes, Total	ND	0.091		mg/Kg	1	9/5/2014 10:51:47 AM	R21019
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	9/5/2014 10:51:47 AM	R21019

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 1409230

Date Reported: 9/8/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-27 SW Wall @ 0-24'**Project:** Trunk K #1**Collection Date:** 9/4/2014 2:37:00 PM**Lab ID:** 1409230-002**Matrix:** MEOH (SOIL)**Received Date:** 9/5/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/5/2014 12:11:10 PM	15134
Surr: DNOP	91.5	57.9-140		%REC	1	9/5/2014 12:11:10 PM	15134
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/5/2014 11:21:54 AM	R21019
Surr: BFB	88.4	80-120		%REC	1	9/5/2014 11:21:54 AM	R21019
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	9/5/2014 11:21:54 AM	R21019
Toluene	ND	0.047		mg/Kg	1	9/5/2014 11:21:54 AM	R21019
Ethylbenzene	ND	0.047		mg/Kg	1	9/5/2014 11:21:54 AM	R21019
Xylenes, Total	ND	0.093		mg/Kg	1	9/5/2014 11:21:54 AM	R21019
Surr: 4-Bromofluorobenzene	98.4	80-120		%REC	1	9/5/2014 11:21:54 AM	R21019

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 1409230

Date Reported: 9/8/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-11 N Central Base @9'

Project: Trunk K #1

Collection Date: 9/4/2014 3:12:00 PM

Lab ID: 1409230-003

Matrix: MEOH (SOIL)

Received Date: 9/5/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/5/2014 12:32:38 PM	15134
Surr: DNOP	81.9	57.9-140		%REC	1	9/5/2014 12:32:38 PM	15134
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	9/5/2014 11:52:06 AM	R21019
Surr: BFB	105	80-120		%REC	1	9/5/2014 11:52:06 AM	R21019
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.043		mg/Kg	1	9/5/2014 11:52:06 AM	R21019
Toluene	ND	0.043		mg/Kg	1	9/5/2014 11:52:06 AM	R21019
Ethylbenzene	ND	0.043		mg/Kg	1	9/5/2014 11:52:06 AM	R21019
Xylenes, Total	0.18	0.087		mg/Kg	1	9/5/2014 11:52:06 AM	R21019
Surr: 4-Bromofluorobenzene	118	80-120		%REC	1	9/5/2014 11:52:06 AM	R21019

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 1409230

Date Reported: 9/8/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-8 W Wall @ 7-24'**Project:** Trunk K #1**Collection Date:** 9/4/2014 3:20:00 PM**Lab ID:** 1409230-004**Matrix:** MEOH (SOIL)**Received Date:** 9/5/2014 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/5/2014 12:53:54 PM	15134
Surr: DNOP	86.0	57.9-140		%REC	1	9/5/2014 12:53:54 PM	15134
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	5.6	3.7		mg/Kg	1	9/5/2014 12:22:12 PM	R21019
Surr: BFB	103	80-120		%REC	1	9/5/2014 12:22:12 PM	R21019
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.037		mg/Kg	1	9/5/2014 12:22:12 PM	R21019
Toluene	0.045	0.037		mg/Kg	1	9/5/2014 12:22:12 PM	R21019
Ethylbenzene	ND	0.037		mg/Kg	1	9/5/2014 12:22:12 PM	R21019
Xylenes, Total	0.34	0.073		mg/Kg	1	9/5/2014 12:22:12 PM	R21019
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	9/5/2014 12:22:12 PM	R21019

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409230

08-Sep-14

Client: Souder, Miller and Associates

Project: Trunk K #1

Sample ID	MB-15134	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	15134	RunNo:	21011					
Prep Date:	9/5/2014	Analysis Date:	9/5/2014	SeqNo:	611900	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.2		10.00		81.6	57.9	140			

Sample ID	LCS-15134		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 15134		RunNo: 21011					
Prep Date:	9/5/2014		Analysis Date: 9/5/2014		SeqNo: 611901		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.3	68.6	130			
Surr: DNOP	3.9		5.000		79.0	57.9	140			

Sample ID	MB-15139	SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	15139		RunNo:	21040				
Prep Date:	9/5/2014	Analysis Date:	9/6/2014		SeqNo:	612324		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.1		10.00		81.1	57.9	140			

Sample ID	LCS-15139		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 15139		RunNo: 21040					
Prep Date:	9/5/2014		Analysis Date: 9/6/2014		SeqNo: 612325		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1		5.000		81.1	57.9	140			

Sample ID	MB-15157	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	15157	RunNo:	21040					
Prep Date:	9/6/2014	Analysis Date:	9/6/2014	SeqNo:	612637	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.8		10.00		88.3	57.9	140			

Sample ID	LCS-15157		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 15157		RunNo: 21040					
Prep Date:	9/6/2014		Analysis Date: 9/6/2014		SeqNo: 612639		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1		5.000		81.7	57.9	140			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409230

08-Sep-14

Client: Souder, Miller and Associates

Project: Trunk K #1

Sample ID	MB-15122 MK	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R21019	RunNo:	21019					
Prep Date:		Analysis Date:	9/5/2014	SeqNo:	612337	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	950		1000		94.8	80	120			

Sample ID	LCS-15122 MK	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R21019	RunNo:	21019					
Prep Date:		Analysis Date:	9/5/2014	SeqNo:	612338	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.7	65.8	139			
Surr: BFB	1000		1000		102	80	120			

Sample ID	MB-15122	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	15122	RunNo:	21019					
Prep Date:	9/4/2014	Analysis Date:	9/5/2014	SeqNo:	612342	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	950		1000		94.8	80	120			

Sample ID	LCS-15122	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	15122	RunNo:	21019					
Prep Date:	9/4/2014	Analysis Date:	9/5/2014	SeqNo:	612343	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		102	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| 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#: 1409230

08-Sep-14

Client: Souder, Miller and Associates

Project: Trunk K #1

Sample ID	MB-15122 MK		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	R21019		RunNo:	21019			
Prep Date:			Analysis Date:	9/5/2014		SeqNo:	612373		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			

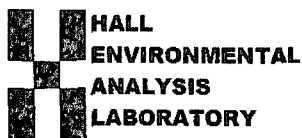
Sample ID	LCS-15122 MK		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	R21019		RunNo:	21019			
Prep Date:			Analysis Date:	9/5/2014		SeqNo:	612374		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.050	1.000	0	85.0	80	120			
Toluene	0.86	0.050	1.000	0	85.9	80	120			
Ethylbenzene	0.91	0.050	1.000	0	90.5	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.8	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID	MB-15122		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	15122		RunNo:	21019			
Prep Date:	9/4/2014		Analysis Date:	9/5/2014		SeqNo:	612375		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Sample ID	LCS-15122		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	15122		RunNo:	21019			
Prep Date:	9/4/2014		Analysis Date:	9/5/2014		SeqNo:	612376		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | 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 87105
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1409230

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

9/5/2014 7:30:00 AM

Completed By: Lindsay Mangin

9/5/2014 7:43:00 AM

Reviewed By:

AK 09/05/14

[Signature]
[Signature]

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? 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°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	1.3	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:	
Client: <u>SMAA</u>		<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush <u>Same Day</u>	
Mailing Address: <u>401 W Broadway</u>		Project Name: <u>Trunk K #1</u>	
<u>Farmington, NM 87401</u>		Project #: <u>S122855 BG 4G-1</u>	
Phone #: <u>505 325-7535</u>		Project Manager: <u>Steve Mustak</u>	
email or Fax#: <u>steven.mustak@sarlemill.com</u>			
QA/QC Package:			
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)			
Accreditation		Sampler: <u>Randy Watson / Steve Mustak</u>	
<input type="checkbox"/> NELAP <input type="checkbox"/> Other _____		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> EDD (Type) _____		Sample Temperature: <u>1.3</u>	

☐ Standard

☒ Rush Same Day

Project Name:

Truck #1

Project #:

5122855 BG 46-1

Project Manager:

Steve Mustard

Sampler: Randy Watson / Steve Miska

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.3

[illegible]

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

14/13	17/5	<i>Handwritten signature</i>
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Received by:

Christa Waelz

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

1/4/14 1830


Remarks:

Invoice to Enterprise Products

Date: _____ Time: _____ Relinquished by: _____

14/3	1906	Ch. Valet
------	------	-----------

Received by:



Date _____ Time _____

25/14 0730

If necessary, samples submitted to Half 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*

October 07, 2014

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

RE: Trunk K #2

OrderNo.: 1410216

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 11 sample(s) on 10/4/2014 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 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', with a stylized flourish at the end.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical ReportLab Order **1410216**Date Reported: **10/7/2014****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-33 s. Base @ 18'**Project:** Trunk K #2**Collection Date:** 10/3/2014 11:10:00 AM**Lab ID:** 1410216-001**Matrix:** MEOH (SOIL)**Received Date:** 10/4/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/6/2014 9:51:10 AM	15713
Surr: DNOP	81.6	57.9-140		%REC	1	10/6/2014 9:51:10 AM	15713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	8.8	3.7		mg/Kg	1	10/6/2014 10:42:50 AM	R21690
Surr: BFB	154	80-120	S	%REC	1	10/6/2014 10:42:50 AM	R21690
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.037		mg/Kg	1	10/6/2014 10:42:50 AM	R21690
Toluene	ND	0.037		mg/Kg	1	10/6/2014 10:42:50 AM	R21690
Ethylbenzene	ND	0.037		mg/Kg	1	10/6/2014 10:42:50 AM	R21690
Xylenes, Total	0.14	0.075		mg/Kg	1	10/6/2014 10:42:50 AM	R21690
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	10/6/2014 10:42:50 AM	R21690

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 1410216

Date Reported: 10/7/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-29 S. Central Wall @0-18'**Project:** Trunk K #2**Collection Date:** 10/3/2014 11:12:00 AM**Lab ID:** 1410216-002**Matrix:** MEOH (SOIL)**Received Date:** 10/4/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/6/2014 10:12:35 AM	15713
Surr: DNOP	73.1	57.9-140		%REC	1	10/6/2014 10:12:35 AM	15713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2014 11:11:25 AM	R21690
Surr: BFB	99.2	80-120		%REC	1	10/6/2014 11:11:25 AM	R21690
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/6/2014 11:11:25 AM	R21690
Toluene	ND	0.050		mg/Kg	1	10/6/2014 11:11:25 AM	R21690
Ethylbenzene	ND	0.050		mg/Kg	1	10/6/2014 11:11:25 AM	R21690
Xylenes, Total	0.26	0.099		mg/Kg	1	10/6/2014 11:11:25 AM	R21690
Surr: 4-Bromofluorobenzene	99.1	80-120		%REC	1	10/6/2014 11:11:25 AM	R21690

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 1410216

Date Reported: 10/7/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-31 E Wall S. Pl @ 0-18'**Project:** Trunk K #2**Collection Date:** 10/3/2014 11:20:00 AM**Lab ID:** 1410216-003**Matrix:** MEOH (SOIL)**Received Date:** 10/4/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/6/2014 10:33:50 AM	15713
Surr: DNOP	78.7	57.9-140		%REC	1	10/6/2014 10:33:50 AM	15713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	10/6/2014 11:39:57 AM	R21690
Surr: BFB	99.1	80-120		%REC	1	10/6/2014 11:39:57 AM	R21690
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.045		mg/Kg	1	10/6/2014 11:39:57 AM	R21690
Toluene	ND	0.045		mg/Kg	1	10/6/2014 11:39:57 AM	R21690
Ethylbenzene	ND	0.045		mg/Kg	1	10/6/2014 11:39:57 AM	R21690
Xylenes, Total	0.40	0.091		mg/Kg	1	10/6/2014 11:39:57 AM	R21690
Surr: 4-Bromofluorobenzene	99.1	80-120		%REC	1	10/6/2014 11:39:57 AM	R21690

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 3 of 14
	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 1410216

Date Reported: 10/7/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-34 NE Base @ 18'**Project:** Trunk K #2**Collection Date:** 10/3/2014 11:20:00 AM**Lab ID:** 1410216-004**Matrix:** MEOH (SOIL)**Received Date:** 10/4/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/6/2014 10:55:09 AM	15713
Surr: DNOP	83.1	57.9-140		%REC	1	10/6/2014 10:55:09 AM	15713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	10/6/2014 12:08:30 PM	R21690
Surr: BFB	92.7	80-120		%REC	1	10/6/2014 12:08:30 PM	R21690
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.039		mg/Kg	1	10/6/2014 12:08:30 PM	R21690
Toluene	ND	0.039		mg/Kg	1	10/6/2014 12:08:30 PM	R21690
Ethylbenzene	ND	0.039		mg/Kg	1	10/6/2014 12:08:30 PM	R21690
Xylenes, Total	ND	0.077		mg/Kg	1	10/6/2014 12:08:30 PM	R21690
Surr: 4-Bromofluorobenzene	97.5	80-120		%REC	1	10/6/2014 12:08:30 PM	R21690

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 14
	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 1410216

Date Reported: 10/7/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-26 NE Wall @ 0-18'**Project:** Trunk K #2**Collection Date:** 10/3/2014 11:22:00 AM**Lab ID:** 1410216-005**Matrix:** MEOH (SOIL)**Received Date:** 10/4/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/6/2014 11:16:29 AM	15713
Surr: DNOP	117	57.9-140		%REC	1	10/6/2014 11:16:29 AM	15713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.5		mg/Kg	1	10/6/2014 12:37:14 PM	R21690
Surr: BFB	97.4	80-120		%REC	1	10/6/2014 12:37:14 PM	R21690
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.055		mg/Kg	1	10/6/2014 12:37:14 PM	R21690
Toluene	ND	0.055		mg/Kg	1	10/6/2014 12:37:14 PM	R21690
Ethylbenzene	ND	0.055		mg/Kg	1	10/6/2014 12:37:14 PM	R21690
Xylenes, Total	0.29	0.11		mg/Kg	1	10/6/2014 12:37:14 PM	R21690
Surr: 4-Bromofluorobenzene	98.7	80-120		%REC	1	10/6/2014 12:37:14 PM	R21690

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 5 of 14
	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 ReportLab Order **1410216**Date Reported: **10/7/2014****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-28 E Wall N PL @ 0-18'**Project:** Trunk K #2**Collection Date:** 10/3/2014 11:24:00 AM**Lab ID:** 1410216-006**Matrix:** MEOH (SOIL)**Received Date:** 10/4/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/6/2014 11:37:54 AM	15713
Surr: DNOP	84.9	57.9-140		%REC	1	10/6/2014 11:37:54 AM	15713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2014 1:05:51 PM	R21690
Surr: BFB	97.5	80-120		%REC	1	10/6/2014 1:05:51 PM	R21690
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/6/2014 1:05:51 PM	R21690
Toluene	ND	0.050		mg/Kg	1	10/6/2014 1:05:51 PM	R21690
Ethylbenzene	ND	0.050		mg/Kg	1	10/6/2014 1:05:51 PM	R21690
Xylenes, Total	0.37	0.10		mg/Kg	1	10/6/2014 1:05:51 PM	R21690
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	10/6/2014 1:05:51 PM	R21690

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 1410216

Date Reported: 10/7/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-13 N Central Base @ 18'**Project:** Trunk K #2**Collection Date:** 10/3/2014 11:30:00 AM**Lab ID:** 1410216-007**Matrix:** MEOH (SOIL)**Received Date:** 10/4/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/6/2014 11:59:12 AM	15713
Surr: DNOP	83.4	57.9-140		%REC	1	10/6/2014 11:59:12 AM	15713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	10/6/2014 1:34:33 PM	R21690
Surr: BFB	103	80-120		%REC	1	10/6/2014 1:34:33 PM	R21690
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.036		mg/Kg	1	10/6/2014 1:34:33 PM	R21690
Toluene	ND	0.036		mg/Kg	1	10/6/2014 1:34:33 PM	R21690
Ethylbenzene	ND	0.036		mg/Kg	1	10/6/2014 1:34:33 PM	R21690
Xylenes, Total	0.14	0.072		mg/Kg	1	10/6/2014 1:34:33 PM	R21690
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	10/6/2014 1:34:33 PM	R21690

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 1410216

Date Reported: 10/7/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-12 N Central Wall @ 0-18'**Project:** Trunk K #2**Collection Date:** 10/3/2014 11:32:00 AM**Lab ID:** 1410216-008**Matrix:** MEOH (SOIL)**Received Date:** 10/4/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/6/2014 12:20:38 PM	15713
Surr: DNOP	92.3	57.9-140		%REC	1	10/6/2014 12:20:38 PM	15713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2014 2:03:11 PM	R21690
Surr: BFB	98.1	80-120		%REC	1	10/6/2014 2:03:11 PM	R21690
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/6/2014 2:03:11 PM	R21690
Toluene	ND	0.050		mg/Kg	1	10/6/2014 2:03:11 PM	R21690
Ethylbenzene	ND	0.050		mg/Kg	1	10/6/2014 2:03:11 PM	R21690
Xylenes, Total	0.22	0.099		mg/Kg	1	10/6/2014 2:03:11 PM	R21690
Surr: 4-Bromofluorobenzene	99.6	80-120		%REC	1	10/6/2014 2:03:11 PM	R21690

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 1410216

Date Reported: 10/7/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-35 NW Base @ 18'

Project: Trunk K #2

Collection Date: 10/3/2014 11:38:00 AM

Lab ID: 1410216-009

Matrix: MEOH (SOIL)

Received Date: 10/4/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/6/2014 12:42:03 PM	15713
Surr: DNOP	85.1	57.9-140		%REC	1	10/6/2014 12:42:03 PM	15713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	2.8		mg/Kg	1	10/6/2014 2:31:49 PM	R21690
Surr: BFB	112	80-120		%REC	1	10/6/2014 2:31:49 PM	R21690
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.028		mg/Kg	1	10/6/2014 2:31:49 PM	R21690
Toluene	ND	0.028		mg/Kg	1	10/6/2014 2:31:49 PM	R21690
Ethylbenzene	ND	0.028		mg/Kg	1	10/6/2014 2:31:49 PM	R21690
Xylenes, Total	0.097	0.057		mg/Kg	1	10/6/2014 2:31:49 PM	R21690
Surr: 4-Bromofluorobenzene	99.9	80-120		%REC	1	10/6/2014 2:31:49 PM	R21690

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 9 of 14
	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 1410216

Date Reported: 10/7/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-36 NW Wall @ 0-18'

Project: Trunk K #2

Collection Date: 10/3/2014 11:41:00 AM

Lab ID: 1410216-010

Matrix: MEOH (SOIL)

Received Date: 10/4/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/6/2014 10:03:51 AM	15713
Surr: DNOP	88.9	57.9-140		%REC	1	10/6/2014 10:03:51 AM	15713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2014 1:21:53 PM	R21689
Surr: BFB	93.9	80-120		%REC	1	10/6/2014 1:21:53 PM	R21689
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/6/2014 1:21:53 PM	R21689
Toluene	ND	0.050		mg/Kg	1	10/6/2014 1:21:53 PM	R21689
Ethylbenzene	ND	0.050		mg/Kg	1	10/6/2014 1:21:53 PM	R21689
Xylenes, Total	0.29	0.10		mg/Kg	1	10/6/2014 1:21:53 PM	R21689
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	10/6/2014 1:21:53 PM	R21689

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 14
	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 1410216

Date Reported: 10/7/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-32 W Wall N PL @ 0-18'**Project:** Trunk K #2**Collection Date:** 10/3/2014 11:44:00 AM**Lab ID:** 1410216-011**Matrix:** MEOH (SOIL)**Received Date:** 10/4/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/6/2014 10:33:51 AM	15713
Surr: DNOP	60.5	57.9-140		%REC	1	10/6/2014 10:33:51 AM	15713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2014 1:52:16 PM	R21689
Surr: BFB	98.9	80-120		%REC	1	10/6/2014 1:52:16 PM	R21689
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/6/2014 1:52:16 PM	R21689
Toluene	ND	0.050		mg/Kg	1	10/6/2014 1:52:16 PM	R21689
Ethylbenzene	ND	0.050		mg/Kg	1	10/6/2014 1:52:16 PM	R21689
Xylenes, Total	0.48	0.10		mg/Kg	1	10/6/2014 1:52:16 PM	R21689
Surr: 4-Bromofluorobenzene	111	80-120		%REC	1	10/6/2014 1:52:16 PM	R21689

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 11 of 14
	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#: 1410216

07-Oct-14

Client: Souder, Miller and Associates

Project: Trunk K #2

Sample ID	MB-15713		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	15713		RunNo:	21668				
Prep Date:	10/4/2014		Analysis Date:	10/6/2014		SeqNo:	635830		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Surr: DNOP	6.8		10.00		67.5	57.9	140				

Sample ID	MB-15711		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	15711		RunNo:	21668				
Prep Date:	10/4/2014		Analysis Date:	10/6/2014		SeqNo:	636214		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	7.9		10.00		79.2	57.9	140				

Sample ID	LCS-15711		SampType:	LCS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	15711		RunNo:	21668				
Prep Date:	10/4/2014		Analysis Date:	10/6/2014		SeqNo:	636215		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.1		5.000		81.1	57.9	140				

Sample ID	LCS-15713		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 15713		RunNo: 21668					
Prep Date:	10/4/2014		Analysis Date: 10/6/2014		SeqNo: 636216		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.6	68.6	130			
Surr: DNOP	3.2		5.000		64.2	57.9	140			

Sample ID	MB-15755		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	15755		RunNo:	21712				
Prep Date:	10/7/2014		Analysis Date:	10/7/2014		SeqNo:	637426		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	7.5		10.00		75.4	57.9	140				

Sample ID	LCS-15755		SampType:	LCS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	15755		RunNo:	21712				
Prep Date:	10/7/2014		Analysis Date:	10/7/2014		SeqNo:	637427		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.2		5.000		84.2	57.9	140				

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1410216

07-Oct-14

Client: Souder, Miller and Associates

Project: Trunk K #2

Sample ID	MB-15706 MK		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: R21690		RunNo: 21690					
Prep Date:			Analysis Date: 10/6/2014		SeqNo: 636818		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	890		1000		89.1	80	120			

Sample ID	LCS-15706 MK		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: R21690		RunNo: 21690					
Prep Date:			Analysis Date: 10/6/2014		SeqNo: 636819		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	109	65.8	139			
Surr: BFB	1000		1000		101	80	120			

Sample ID	5ML RB		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: R21689		RunNo: 21689					
Prep Date:			Analysis Date: 10/6/2014		SeqNo: 636886		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	840		1000		83.6	80	120			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: R21689		RunNo: 21689					
Prep Date:			Analysis Date: 10/6/2014		SeqNo: 636887		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.2	65.8	139			
Surr: BFB	990		1000		98.8	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| 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#: 1410216

07-Oct-14

Client: Souder, Miller and Associates

Project: Trunk K #2

Sample ID	MB-15706 MK		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	R21690		RunNo:	21690			
Prep Date:			Analysis Date:	10/6/2014		SeqNo:	636855		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.95		1.000		94.7	80	120			

Sample ID	LCS-15706 MK		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	R21690		RunNo:	21690			
Prep Date:			Analysis Date:	10/6/2014		SeqNo:	636857		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.050	1.000	0	98.9	80	120			
Toluene	0.99	0.050	1.000	0	99.3	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	5ML RB		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	R21689		RunNo:	21689			
Prep Date:			Analysis Date:	10/6/2014		SeqNo:	636911		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		92.1	80	120			

Sample ID	100NG BTEX LCS		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	R21689		RunNo:	21689			
Prep Date:			Analysis Date:	10/6/2014		SeqNo:	636912		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	105	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.2	0.10	3.000	0	106	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| 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: 1410216

RcptNo: 1

Received by/date:	<i>[Signature]</i>	10/04/14
Logged By:	Lindsay Mangin	10/4/2014 7:00:00 AM
Completed By:	Lindsay Mangin	10/4/2014 8:43:20 AM
Reviewed By:	<i>[Signature]</i>	10/06/14

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

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

17. Additional remarks:

18. Cooler Information

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

Chain-of-Custody Record

Client: SMA

Mailing Address: 401 W. Broadway
Farmington, NM 87401

Phone #: 505-325-7535

email or Fax#: steve.muskal@zander-miller.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☐ Standard ☒ Rush Same Day

Project Name: Trunk K #2

Project #: 5122855 B646-2

Project Manager: Steve Muskal

Sampler: 1 1 1

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.3



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + THMs (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / WRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
10/3/14	1116	Soil	SC-33 S. Base @ 18'	402 x 1	carb	-001												
	1112		SC-27 S. Central wall @ 18'			-002												
	1114		SC-31 E. wall, S. PL @ 18'			-003												
	1120		SC-34 NE Base @ 18'			-004												
	1122		SC-26 NE wall @ 0-18'			-005												
	1124		SC-28 E wall, N. PL @ 18'			-006												
	1130		SC-13 N. Central Base @ 18'			-007												
	1132		SC-12 N. Central wall @ 0-18'			-008												
	1138		SC-35 NW Base @ 18'			-009												
	1141		SC-36 NW wall @ 0-18'			-010												
	1144		SC-32 W wall, N. PL @ 18'			-011												

Date: 10/3/14 Time: 1130 Relinquished by: [Signature]

Received by: Chet Hart Date: 10/3/14 Time: 1130

Remarks: Invoice to Enterprise Products

Date: 10/3/14 Time: 1745 Relinquished by: Steve Muskal

Received by: [Signature] Date: 10/04/14 Time: 0700

copy Alicia.patterson@zander-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.



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

October 17, 2014

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

RE: Trunk K #2

OrderNo.: 1410757

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 4 sample(s) on 10/16/2014 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 or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1410757

Date Reported: 10/17/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-37 SW Base @ 18'**Project:** Trunk K #2**Collection Date:** 10/15/2014 11:10:00 AM**Lab ID:** 1410757-001**Matrix:** SOIL**Received Date:** 10/16/2014 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/16/2014 9:35:51 AM	15935
Surr: DNOP	102	57.9-140		%REC	1	10/16/2014 9:35:51 AM	15935
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	10/16/2014 11:09:40 AM	R21955
Surr: BFB	88.7	80-120		%REC	1	10/16/2014 11:09:40 AM	R21955
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	10/16/2014 11:09:40 AM	R21955
Toluene	ND	0.034		mg/Kg	1	10/16/2014 11:09:40 AM	R21955
Ethylbenzene	ND	0.034		mg/Kg	1	10/16/2014 11:09:40 AM	R21955
Xylenes, Total	ND	0.068		mg/Kg	1	10/16/2014 11:09:40 AM	R21955
Surr: 4-Bromofluorobenzene	91.0	80-120		%REC	1	10/16/2014 11:09:40 AM	R21955

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 1410757

Date Reported: 10/17/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-38 W Wall @ 0-18'

Project: Trunk K #2

Collection Date: 10/15/2014 11:12:00 AM

Lab ID: 1410757-002

Matrix: SOIL

Received Date: 10/16/2014 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/16/2014 10:40:34 AM	15935
Surr: DNOP	85.3	57.9-140		%REC	1	10/16/2014 10:40:34 AM	15935
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	10/16/2014 11:38:11 AM	R21955
Surr: BFB	95.0	80-120		%REC	1	10/16/2014 11:38:11 AM	R21955
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.043		mg/Kg	1	10/16/2014 11:38:11 AM	R21955
Toluene	ND	0.043		mg/Kg	1	10/16/2014 11:38:11 AM	R21955
Ethylbenzene	ND	0.043		mg/Kg	1	10/16/2014 11:38:11 AM	R21955
Xylenes, Total	0.13	0.087		mg/Kg	1	10/16/2014 11:38:11 AM	R21955
Surr: 4-Bromofluorobenzene	95.6	80-120		%REC	1	10/16/2014 11:38:11 AM	R21955

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 1410757

Date Reported: 10/17/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-39 S Wall W @ 0-18'

Project: Trunk K #2

Collection Date: 10/15/2014 11:14:00 AM

Lab ID: 1410757-003

Matrix: SOIL

Received Date: 10/16/2014 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/16/2014 11:56:22 AM	15935
Surr: DNOP	85.3	57.9-140		%REC	1	10/16/2014 11:56:22 AM	15935
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/16/2014 12:06:42 PM	R21955
Surr: BFB	94.5	80-120		%REC	1	10/16/2014 12:06:42 PM	R21955
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	10/16/2014 12:06:42 PM	R21955
Toluene	ND	0.046		mg/Kg	1	10/16/2014 12:06:42 PM	R21955
Ethylbenzene	ND	0.046		mg/Kg	1	10/16/2014 12:06:42 PM	R21955
Xylenes, Total	ND	0.092		mg/Kg	1	10/16/2014 12:06:42 PM	R21955
Surr: 4-Bromofluorobenzene	95.6	80-120		%REC	1	10/16/2014 12:06:42 PM	R21955

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 1410757

Date Reported: 10/17/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-40 S Wall (E) @ 0-18'**Project:** Trunk K #2**Collection Date:** 10/15/2014 11:20:00 AM**Lab ID:** 1410757-004**Matrix:** SOIL**Received Date:** 10/16/2014 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	42	9.8		mg/Kg	1	10/16/2014 11:34:43 AM	15935
Surr: DNOP	85.4	57.9-140		%REC	1	10/16/2014 11:34:43 AM	15935
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	72	18		mg/Kg	4	10/16/2014 12:35:21 PM	R21955
Surr: BFB	156	80-120	S	%REC	4	10/16/2014 12:35:21 PM	R21955
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.092		mg/Kg	4	10/16/2014 12:35:21 PM	R21955
Toluene	0.28	0.18		mg/Kg	4	10/16/2014 12:35:21 PM	R21955
Ethylbenzene	0.23	0.18		mg/Kg	4	10/16/2014 12:35:21 PM	R21955
Xylenes, Total	3.8	0.37		mg/Kg	4	10/16/2014 12:35:21 PM	R21955
Surr: 4-Bromofluorobenzene	101	80-120		%REC	4	10/16/2014 12:35:21 PM	R21955

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 7
	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#: 1410757

17-Oct-14

Client: Souder, Miller and Associates

Project: Trunk K #2

Sample ID	MB-15935		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 15935		RunNo: 21944					
Prep Date:	10/16/2014		Analysis Date: 10/16/2014		SeqNo: 644626		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	9.4		10.00		94.3	57.9	140			

Sample ID	LCS-15935		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 15935		RunNo: 21944					
Prep Date:	10/16/2014		Analysis Date: 10/16/2014		SeqNo: 644804		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	85.2	68.6	130			
Surr: DNOP	4.2		5.000		83.7	57.9	140			

Sample ID	1410757-001AMS		SampType:	MS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	SC-37 SW Base @ 1		Batch ID:	15935		RunNo:	21944				
Prep Date:	10/16/2014		Analysis Date:	10/16/2014		SeqNo:	644813		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	44	9.9	49.36	0	89.7	40.1	152				
Surr: DNOP	5.0		4.936		102	57.9	140				

Sample ID	1410757-001AMSD			SampType:	MSD		TestCode:	EPA Method 8015D: Diesel Range Organics			
Client ID:	SC-37 SW Base @ 1			Batch ID:	15935		RunNo:	21944			
Prep Date:	10/16/2014		Analysis Date:	10/16/2014		SeqNo:	644814		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	45	9.9	49.46	0	90.5	40.1	152	1.07	32.1		
Surr: DNOP	5.0		4.946		102	57.9	140	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#: 1410757

17-Oct-14

Client: Souder, Miller and Associates

Project: Trunk K #2

Sample ID	MB-15913 MK	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R21955	RunNo:	21955					
Prep Date:		Analysis Date:	10/16/2014	SeqNo:	645486	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	900		1000		89.8	80	120			

Sample ID	LCS-15913 MK	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R21955	RunNo:	21955					
Prep Date:		Analysis Date:	10/16/2014	SeqNo:	645487	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.6	65.8	139			
Surr: BFB	1000		1000		99.9	80	120			

Sample ID	MB-15913	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	15913	RunNo:	21955					
Prep Date:	10/15/2014	Analysis Date:	10/16/2014	SeqNo:	645490	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	900		1000		89.8	80	120			

Sample ID	LCS-15913	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	15913	RunNo:	21955					
Prep Date:	10/15/2014	Analysis Date:	10/16/2014	SeqNo:	645491	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		99.9	80	120			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1410757

17-Oct-14

Client: Souder, Miller and Associates

Project: Trunk K #2

Sample ID	MB-15913 MK		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	R21955		RunNo:	21955			
Prep Date:			Analysis Date:	10/16/2014		SeqNo:	645525		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		92.6	80	120			

Sample ID	LCS-15913 MK		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	R21955		RunNo:	21955			
Prep Date:			Analysis Date:	10/16/2014		SeqNo:	645526		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.050	1.000	0	96.7	80	120			
Toluene	0.96	0.050	1.000	0	96.3	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.0	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.8	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		99.7	80	120			

Sample ID	MB-15913		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	15913		RunNo:	21955			
Prep Date:	10/15/2014		Analysis Date:	10/16/2014		SeqNo:	645532		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.93		1.000		92.6	80	120			

Sample ID	LCS-15913		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	15913		RunNo:	21955			
Prep Date:	10/15/2014		Analysis Date:	10/16/2014		SeqNo:	645533		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		99.7	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| 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: 1410757

RcptNo: 1

Received by/date: LA 10/16/14

Logged By: Anne Thorne 10/16/2014 7:15:00 AM *Anne Thorne*

Completed By: Anne Thorne 10/16/2014 *Anne Thorne*

Reviewed By: *[Signature]* 10/16/14

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

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

17. Additional remarks:

18. Cooler Information

Cooler No.	Temp. °C	Condition	Seal Intact	Seal No.	Seal Date	Signed By
1	2.6	Good				

Client: SMA

Mailing Address: 401 W. Broadway
Farmington, NM 87401

Phone #: 505-325-7535

email or Fax#: steven.mastel@smadrmillbc.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

☐ Standard ☒ Rush Same Day

Project Name: _____

Project #:

Project Manager:

Sampler: " "

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.6p

10/18/19		
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Container	Preservative	Expiry Date
1	1	1
2	2	2
3	3	3
4	4	4
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8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
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100	100	100

Type and #	Type	HEAL NO
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Next Kit 1410757

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702x1	Cell	W1

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204		
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Received by: _____ Date: _____ Time: _____

Y. Hout. 100 L 10/15/14 13/5

Received by: _____ Date _____ Time _____

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contracted to other accredited laboratories. This serves as notice of the

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HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

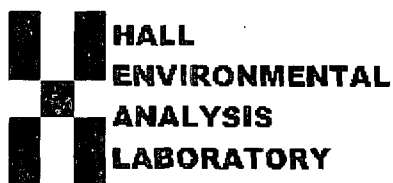
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

	X	X	X	BTEX MTBE + TMB's (8021)
				BTEX + MTBE + TPH (Gas only)
	X	X	X	TPH Method 8015B (Gas/Diesel)
				TPH (Method 418.1)
				EDB (Method 504.1)
				8310 (PNA or PAH)
				RCRA 8 Metals
				Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)
				8081 Pesticides / 8082 PCB's
				8260B (VOA)
				8270 (Semi-VOA)
				Air Bubbles (Y or N)

Remarks: Invoice to Enterprise Products
alicia.patterson@saundersmiller.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.



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

September 29, 2014

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

RE: Trunk K #3

OrderNo.: 1409D19

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 9 sample(s) on 9/26/2014 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 or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1409D19

Date Reported: 9/29/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-24 S Wall @ 6-20'**Project:** Trunk K #3**Collection Date:** 9/25/2014 3:21:00 PM**Lab ID:** 1409D19-001**Matrix:** MEOH (SOIL)**Received Date:** 9/26/2014 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/26/2014 11:45:01 AM	15528
Surr: DNOP	79.5	57.9-140		%REC	1	9/26/2014 11:45:01 AM	15528
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	9/26/2014 1:26:29 PM	R21487
Surr: BFB	82.6	80-120		%REC	1	9/26/2014 1:26:29 PM	R21487
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.044		mg/Kg	1	9/26/2014 1:26:29 PM	R21487
Toluene	ND	0.044		mg/Kg	1	9/26/2014 1:26:29 PM	R21487
Ethylbenzene	ND	0.044		mg/Kg	1	9/26/2014 1:26:29 PM	R21487
Xylenes, Total	ND	0.088		mg/Kg	1	9/26/2014 1:26:29 PM	R21487
Surr: 4-Bromofluorobenzene	96.2	80-120		%REC	1	9/26/2014 1:26:29 PM	R21487

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 1409D19

Date Reported: 9/29/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-25 NE Wall @ 0-8'**Project:** Trunk K #3**Collection Date:** 9/25/2014 3:25:00 PM**Lab ID:** 1409D19-002**Matrix:** MEOH (SOIL)**Received Date:** 9/26/2014 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	33	9.9		mg/Kg	1	9/26/2014 12:06:25 PM	15528
Surr: DNOP	88.4	57.9-140		%REC	1	9/26/2014 12:06:25 PM	15528
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	9/26/2014 1:56:38 PM	R21487
Surr: BFB	82.2	80-120		%REC	1	9/26/2014 1:56:38 PM	R21487
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.042		mg/Kg	1	9/26/2014 1:56:38 PM	R21487
Toluene	ND	0.042		mg/Kg	1	9/26/2014 1:56:38 PM	R21487
Ethylbenzene	ND	0.042		mg/Kg	1	9/26/2014 1:56:38 PM	R21487
Xylenes, Total	ND	0.084		mg/Kg	1	9/26/2014 1:56:38 PM	R21487
Surr: 4-Bromofluorobenzene	95.7	80-120		%REC	1	9/26/2014 1:56:38 PM	R21487

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 1409D19

Date Reported: 9/29/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-26 E Base @ 8'**Project:** Trunk K #3**Collection Date:** 9/25/2014 3:27:00 PM**Lab ID:** 1409D19-003**Matrix:** MEOH (SOIL)**Received Date:** 9/26/2014 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	13	10		mg/Kg	1	9/26/2014 12:27:37 PM	15528
Surr: DNOP	104	57.9-140		%REC	1	9/26/2014 12:27:37 PM	15528
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	9/26/2014 2:26:47 PM	R21487
Surr: BFB	88.6	80-120		%REC	1	9/26/2014 2:26:47 PM	R21487
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.040		mg/Kg	1	9/26/2014 2:26:47 PM	R21487
Toluene	ND	0.040		mg/Kg	1	9/26/2014 2:26:47 PM	R21487
Ethylbenzene	ND	0.040		mg/Kg	1	9/26/2014 2:26:47 PM	R21487
Xylenes, Total	ND	0.080		mg/Kg	1	9/26/2014 2:26:47 PM	R21487
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	9/26/2014 2:26:47 PM	R21487

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 1409D19

Date Reported: 9/29/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-27 SE Wall @ 0-8'

Project: Trunk K #3

Collection Date: 9/25/2014 3:29:00 PM

Lab ID: 1409D19-004

Matrix: MEOH (SOIL)

Received Date: 9/26/2014 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/26/2014 12:48:57 PM	15528
Surr: DNOP	99.9	57.9-140		%REC	1	9/26/2014 12:48:57 PM	15528
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	9/27/2014 2:30:13 AM	R21487
Surr: BFB	81.3	80-120		%REC	1	9/27/2014 2:30:13 AM	R21487
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.042		mg/Kg	1	9/27/2014 2:30:13 AM	R21487
Toluene	ND	0.042		mg/Kg	1	9/27/2014 2:30:13 AM	R21487
Ethylbenzene	ND	0.042		mg/Kg	1	9/27/2014 2:30:13 AM	R21487
Xylenes, Total	ND	0.084		mg/Kg	1	9/27/2014 2:30:13 AM	R21487
Surr: 4-Bromofluorobenzene	86.2	80-120		%REC	1	9/27/2014 2:30:13 AM	R21487

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 13
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1409D19

Date Reported: 9/29/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-28 E Wall @ 0-8'**Project:** Trunk K #3**Collection Date:** 9/25/2014 3:30:00 PM**Lab ID:** 1409D19-005**Matrix:** MEOH (SOIL)**Received Date:** 9/26/2014 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	19	9.9		mg/Kg	1	9/26/2014 1:10:07 PM	15528
Surr: DNOP	96.9	57.9-140		%REC	1	9/26/2014 1:10:07 PM	15528
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	9/27/2014 3:00:17 AM	R21487
Surr: BFB	83.8	80-120		%REC	1	9/27/2014 3:00:17 AM	R21487
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.043		mg/Kg	1	9/27/2014 3:00:17 AM	R21487
Toluene	ND	0.043		mg/Kg	1	9/27/2014 3:00:17 AM	R21487
Ethylbenzene	ND	0.043		mg/Kg	1	9/27/2014 3:00:17 AM	R21487
Xylenes, Total	ND	0.085		mg/Kg	1	9/27/2014 3:00:17 AM	R21487
Surr: 4-Bromofluorobenzene	90.5	80-120		%REC	1	9/27/2014 3:00:17 AM	R21487

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 5 of 13
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D19

Date Reported: 9/29/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-29 N Central Wall @ 0-20'

Project: Trunk K #3

Collection Date: 9/25/2014 3:38:00 PM

Lab ID: 1409D19-006

Matrix: MEOH (SOIL)

Received Date: 9/26/2014 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/26/2014 1:31:32 PM	15528
Surr: DNOP	94.6	57.9-140		%REC	1	9/26/2014 1:31:32 PM	15528
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	9/26/2014 2:04:35 PM	R21485
Surr: BFB	89.2	80-120		%REC	1	9/26/2014 2:04:35 PM	R21485
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.042		mg/Kg	1	9/26/2014 2:04:35 PM	R21485
Toluene	ND	0.042		mg/Kg	1	9/26/2014 2:04:35 PM	R21485
Ethylbenzene	ND	0.042		mg/Kg	1	9/26/2014 2:04:35 PM	R21485
Xylenes, Total	ND	0.084		mg/Kg	1	9/26/2014 2:04:35 PM	R21485
Surr: 4-Bromofluorobenzene	92.1	80-120		%REC	1	9/26/2014 2:04:35 PM	R21485

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

Analytical Report

Lab Order 1409D19

Date Reported: 9/29/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-30 E Wall (Deep Exc) @ 8-2**Project:** Trunk K #3**Collection Date:** 9/25/2014 3:40:00 PM**Lab ID:** 1409D19-007**Matrix:** MEOH (SOIL)**Received Date:** 9/26/2014 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/26/2014 1:52:55 PM	15528
Surr: DNOP	96.4	57.9-140		%REC	1	9/26/2014 1:52:55 PM	15528
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/27/2014 1:58:58 AM	R21485
Surr: BFB	88.9	80-120		%REC	1	9/27/2014 1:58:58 AM	R21485
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	9/27/2014 1:58:58 AM	R21485
Toluene	ND	0.046		mg/Kg	1	9/27/2014 1:58:58 AM	R21485
Ethylbenzene	ND	0.046		mg/Kg	1	9/27/2014 1:58:58 AM	R21485
Xylenes, Total	ND	0.092		mg/Kg	1	9/27/2014 1:58:58 AM	R21485
Surr: 4-Bromofluorobenzene	91.6	80-120		%REC	1	9/27/2014 1:58:58 AM	R21485

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 7 of 13
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1409D19

Date Reported: 9/29/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-22 N Wall West Side @ 0-20**Project:** Trunk K #3**Collection Date:** 9/25/2014 3:15:00 PM**Lab ID:** 1409D19-008**Matrix:** MEOH (SOIL)**Received Date:** 9/26/2014 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/26/2014 2:14:24 PM	15528
Surr: DNOP	66.0	57.9-140		%REC	1	9/26/2014 2:14:24 PM	15528
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	9/27/2014 2:27:26 AM	R21485
Surr: BFB	89.7	80-120		%REC	1	9/27/2014 2:27:26 AM	R21485
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.043		mg/Kg	1	9/27/2014 2:27:26 AM	R21485
Toluene	ND	0.043		mg/Kg	1	9/27/2014 2:27:26 AM	R21485
Ethylbenzene	ND	0.043		mg/Kg	1	9/27/2014 2:27:26 AM	R21485
Xylenes, Total	ND	0.086		mg/Kg	1	9/27/2014 2:27:26 AM	R21485
Surr: 4-Bromofluorobenzene	91.5	80-120		%REC	1	9/27/2014 2:27:26 AM	R21485

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 8 of 13
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates **Client Sample ID:** SC-23 W Wall @ 6-20'
Project: Trunk K #3 **Collection Date:** 9/25/2014 3:17:00 PM
Lab ID: 1409D19-009 **Matrix:** MEOH (SOIL) **Received Date:** 9/26/2014 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/26/2014 2:35:53 PM	15528
Surr: DNOP	94.9	57.9-140		%REC	1	9/26/2014 2:35:53 PM	15528
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	9/27/2014 2:55:52 AM	R21485
Surr: BFB	90.0	80-120		%REC	1	9/27/2014 2:55:52 AM	R21485
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.042		mg/Kg	1	9/27/2014 2:55:52 AM	R21485
Toluene	ND	0.042		mg/Kg	1	9/27/2014 2:55:52 AM	R21485
Ethylbenzene	ND	0.042		mg/Kg	1	9/27/2014 2:55:52 AM	R21485
Xylenes, Total	ND	0.083		mg/Kg	1	9/27/2014 2:55:52 AM	R21485
Surr: 4-Bromofluorobenzene	92.5	80-120		%REC	1	9/27/2014 2:55:52 AM	R21485

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 9 of 13
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D19

29-Sep-14

Client: Souder, Miller and Associates

Project: Trunk K #3

Sample ID	MB-15528	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics						
Client ID:	PBS	Batch ID:	15528	RunNo:	21477						
Prep Date:	9/26/2014	Analysis Date:	9/26/2014	SeqNo:	628039	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Surr: DNOP	9.5		10.00		94.6	57.9	140				

Sample ID	LCS-15528	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics						
Client ID:	LCSS	Batch ID:	15528	RunNo:	21477						
Prep Date:	9/26/2014	Analysis Date:	9/26/2014	SeqNo:	628040	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	51	10	50.00	0	101	68.6	130				
Surr: DNOP	5.0		5.000		99.0	57.9	140				

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D19

29-Sep-14

Client: Souder, Miller and Associates

Project: Trunk K #3

Sample ID	MB-15512 MK	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R21485	RunNo:	21485					
Prep Date:		Analysis Date:	9/26/2014	SeqNo:	628724	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		87.5	80	120			

Sample ID	LCS-15512 MK	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R21485	RunNo:	21485					
Prep Date:		Analysis Date:	9/26/2014	SeqNo:	628725	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	106	65.8	139			
Surr: BFB	970		1000		96.6	80	120			

Sample ID	MB-15512	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	15512	RunNo:	21485					
Prep Date:	9/25/2014	Analysis Date:	9/26/2014	SeqNo:	628732	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	880		1000		87.5	80	120			

Sample ID	LCS-15512	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	15512	RunNo:	21485					
Prep Date:	9/25/2014	Analysis Date:	9/26/2014	SeqNo:	628733	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970		1000		96.6	80	120			

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R21487	RunNo:	21487					
Prep Date:		Analysis Date:	9/26/2014	SeqNo:	628754	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	820		1000		82.2	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R21487	RunNo:	21487					
Prep Date:		Analysis Date:	9/26/2014	SeqNo:	628755	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	90.8	65.8	139			
Surr: BFB	900		1000		90.4	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| 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#: 1409D19

29-Sep-14

Client: Souder, Miller and Associates

Project: Trunk K #3

Sample ID	MB-15512 MK		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: R21485		RunNo: 21485					
Prep Date:			Analysis Date: 9/26/2014		SeqNo: 628743		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		92.0	80	120			

Sample ID	LCS-15512 MK		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: R21485		RunNo: 21485					
Prep Date:			Analysis Date: 9/26/2014		SeqNo: 628744		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	101	80	120			
Toluene	1.0	0.050	1.000	0	99.6	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobenzene	0.99		1.000		98.9	80	120			

Sample ID	MB-15512		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 15512		RunNo: 21485					
Prep Date:	9/25/2014		Analysis Date: 9/26/2014		SeqNo: 628749		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.92		1.000		92.0	80	120			

Sample ID	LCS-15512		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 15512		RunNo: 21485					
Prep Date:	9/25/2014		Analysis Date: 9/26/2014		SeqNo: 628750		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		98.9	80	120			

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID: R21487			RunNo: 21487					
Prep Date:		Analysis Date: 9/26/2014			SeqNo: 628788		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								

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#: 1409D19

29-Sep-14

Client: Souder, Miller and Associates

Project: Trunk K #3

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R21487	RunNo:	21487					
Prep Date:		Analysis Date:	9/26/2014	SeqNo:	628788	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.96		1.000		95.9	80	120			

Sample ID	100NG BTEX LCS	SampType: LCS		TestCode: EPA Method 8021B: Volatiles						
Client ID:	LCSS	Batch ID: R21487		RunNo: 21487						
Prep Date:		Analysis Date: 9/26/2014		SeqNo: 628791		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	103	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	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| 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 87106
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1409D19

RcptNo: 1

Received by/date:	<i>[Signature]</i>	<i>09/26/14</i>
Logged By:	Lindsay Mangin	9/26/2014 8:20:00 AM
Completed By:	Lindsay Mangin	9/26/2014 8:38:55 AM
Reviewed By:	<i>CS</i>	<i>09/26/14</i>

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

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

Special Handling (if applicable)

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

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

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	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@saundersmiller.com

QA/QC Package:

☒ Standard

☐ Level 4 (Full Validation)

Accreditation

☐ NELAP

☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard

☒ Rush Same Day

Project Name:

Trunk K #3

Project #:

5122 835

Project Manager:

Steve Muskal

Sampler:

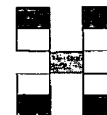
On Ice:

☒ Yes

☐ No

Sample Temperature:

1.6



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMBs (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 ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
12/5/14	1521	Soil	SC-24 S. Wall @ 6-20'	402x1	Cooled	-001												
	1525		SC-25 NE Wall @ 0-8'			-002												
	1527		SC-26 E. Bn @ 8'			-003												
	1529		SC-27 SE Wall @ 0-8'			-004												
	1530		SC-28 E Wall @ 0-8'			-005												
	1538		SC-29 N Central Wall @ 6-20'			-006												
	1540		SC-30 E Wall (Deep Exc) @ 8-20'			-007												
	1515		SC-22 NW Wall West side @ 0-20'			-008												
	1517		SC-23 W Wall @ 6-20'			-009												

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
12/5/14	1740	<u>[Signature]</u>	<u>[Signature]</u>	12/5/14	1716	Invoice to Enterprise Products
1/5/14	2015	<u>[Signature]</u>	<u>[Signature]</u>	10/9/2014	0820	Copy alicia.patterson@saundersmiller.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.



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

October 01, 2014

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

RE: Trunk K #4

OrderNo.: 1409D18

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 5 sample(s) on 9/26/2014 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 or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1409D18

Date Reported: 10/1/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-14 Base @ 19'**Project:** Trunk K #4**Collection Date:** 9/25/2014 2:31:00 PM**Lab ID:** 1409D18-001**Matrix:** MEOH (SOIL)**Received Date:** 9/26/2014 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/26/2014 12:24:41 PM	15528
Surr: DNOP	91.0	57.9-140		%REC	1	9/26/2014 12:24:41 PM	15528
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	9/26/2014 9:55:30 AM	R21487
Surr: BFB	80.6	80-120		%REC	1	9/26/2014 9:55:30 AM	R21487
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.043		mg/Kg	1	9/26/2014 9:55:30 AM	R21487
Toluene	ND	0.043		mg/Kg	1	9/26/2014 9:55:30 AM	R21487
Ethylbenzene	ND	0.043		mg/Kg	1	9/26/2014 9:55:30 AM	R21487
Xylenes, Total	ND	0.086		mg/Kg	1	9/26/2014 9:55:30 AM	R21487
Surr: 4-Bromofluorobenzene	93.0	80-120		%REC	1	9/26/2014 9:55:30 AM	R21487

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 1409D18

Date Reported: 10/1/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-15 N Wall @ 0-19'

Project: Trunk K #4

Collection Date: 9/25/2014 2:35:00 PM

Lab ID: 1409D18-002

Matrix: MEOH (SOIL)

Received Date: 9/26/2014 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/26/2014 12:54:44 PM	15528
Surr: DNOP	81.3	57.9-140		%REC	1	9/26/2014 12:54:44 PM	15528
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	9/30/2014 7:27:07 PM	R21557
Surr: BFB	82.0	80-120		%REC	1	9/30/2014 7:27:07 PM	R21557
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.038		mg/Kg	1	9/26/2014 10:25:31 AM	R21487
Toluene	ND	0.038		mg/Kg	1	9/26/2014 10:25:31 AM	R21487
Ethylbenzene	ND	0.038		mg/Kg	1	9/26/2014 10:25:31 AM	R21487
Xylenes, Total	ND	0.076		mg/Kg	1	9/26/2014 10:25:31 AM	R21487
Surr: 4-Bromofluorobenzene	82.0	80-120		%REC	1	9/26/2014 10:25:31 AM	R21487

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-16 E Wall @ 0-19'

Project: Trunk K #4

Collection Date: 9/25/2014 2:39:00 PM

Lab ID: 1409D18-003

Matrix: MEOH (SOIL)

Received Date: 9/26/2014 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/26/2014 1:24:30 PM	15528
Surr: DNOP	86.0	57.9-140		%REC	1	9/26/2014 1:24:30 PM	15528
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	9/26/2014 10:55:40 AM	R21487
Surr: BFB	82.4	80-120		%REC	1	9/26/2014 10:55:40 AM	R21487
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.041		mg/Kg	1	9/26/2014 10:55:40 AM	R21487
Toluene	ND	0.041		mg/Kg	1	9/26/2014 10:55:40 AM	R21487
Ethylbenzene	ND	0.041		mg/Kg	1	9/26/2014 10:55:40 AM	R21487
Xylenes, Total	ND	0.082		mg/Kg	1	9/26/2014 10:55:40 AM	R21487
Surr: 4-Bromofluorobenzene	91.9	80-120		%REC	1	9/26/2014 10:55:40 AM	R21487

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 3 of 9
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1409D18

Date Reported: 10/1/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-17 S Wall @ 0-18'

Project: Trunk K #4

Collection Date: 9/25/2014 2:46:00 PM

Lab ID: 1409D18-004

Matrix: MEOH (SOIL)

Received Date: 9/26/2014 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/26/2014 1:54:47 PM	15528
Surr: DNOP	93.1	57.9-140		%REC	1	9/26/2014 1:54:47 PM	15528
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/30/2014 7:57:08 PM	R21557
Surr: BFB	88.1	80-120		%REC	1	9/30/2014 7:57:08 PM	R21557
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	9/26/2014 11:25:48 AM	R21487
Toluene	ND	0.049		mg/Kg	1	9/26/2014 11:25:48 AM	R21487
Ethylbenzene	ND	0.049		mg/Kg	1	9/26/2014 11:25:48 AM	R21487
Xylenes, Total	ND	0.099		mg/Kg	1	9/26/2014 11:25:48 AM	R21487
Surr: 4-Bromofluorobenzene	86.4	80-120		%REC	1	9/26/2014 11:25:48 AM	R21487

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 9
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D18

Date Reported: 10/1/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-18 W Wall @ 0-18'

Project: Trunk K #4

Collection Date: 9/25/2014 2:51:00 PM

Lab ID: 1409D18-005

Matrix: MEOH (SOIL)

Received Date: 9/26/2014 8:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/26/2014 2:25:17 PM	15528
Surr: DNOP	88.2	57.9-140		%REC	1	9/26/2014 2:25:17 PM	15528
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	9/26/2014 11:55:58 AM	R21487
Surr: BFB	75.9	80-120	S	%REC	1	9/26/2014 11:55:58 AM	R21487
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.040		mg/Kg	1	9/26/2014 11:55:58 AM	R21487
Toluene	ND	0.040		mg/Kg	1	9/26/2014 11:55:58 AM	R21487
Ethylbenzene	ND	0.040		mg/Kg	1	9/26/2014 11:55:58 AM	R21487
Xylenes, Total	ND	0.080		mg/Kg	1	9/26/2014 11:55:58 AM	R21487
Surr: 4-Bromofluorobenzene	84.8	80-120		%REC	1	9/26/2014 11:55:58 AM	R21487

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D18

01-Oct-14

Client: Souder, Miller and Associates

Project: Trunk K #4

Sample ID	MB-15528		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	15528		RunNo:	21477				
Prep Date:	9/26/2014		Analysis Date:	9/26/2014		SeqNo:	628039		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Surr: DNOP	9.5		10.00		94.6	57.9	140				

Sample ID	LCS-15528		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 15528		RunNo: 21477					
Prep Date:	9/26/2014		Analysis Date: 9/26/2014		SeqNo: 628040		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	101	68.6	130			
Surr: DNOP	5.0		5.000		99.0	57.9	140			

Sample ID	MB-15513		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	15513		RunNo:	21477				
Prep Date:	9/25/2014		Analysis Date:	9/26/2014		SeqNo:	629285		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	10		10.00		105	57.9	140				

Sample ID	LCS-15513		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 15513		RunNo: 21477					
Prep Date:	9/25/2014		Analysis Date: 9/26/2014		SeqNo: 629286		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.000		102	57.9	140			

Sample ID	1409D18-001AMS		SampType:	MS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	SC-14 Base @ 19'		Batch ID:	15528		RunNo:	21478				
Prep Date:	9/26/2014		Analysis Date:	9/26/2014		SeqNo:	629488		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	45	9.8	49.21	0	91.3	40.1	152				
Surr: DNOP	4.3		4.921		87.7	57.9	140				

Sample ID	1409D18-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-14 Base @ 19'		Batch ID: 15528		RunNo: 21478					
Prep Date:	9/26/2014		Analysis Date: 9/26/2014		SeqNo: 629490		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.9	49.46	0	98.2	40.1	152	7.74	32.1	
Surr: DNOP	4.6		4.946		93.7	57.9	140	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#: 1409D18

01-Oct-14

Client: Souder, Miller and Associates

Project: Trunk K #4

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R21487	RunNo:	21487					
Prep Date:		Analysis Date:	9/26/2014	SeqNo:	628754	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	820		1000		82.2	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R21487	RunNo:	21487					
Prep Date:		Analysis Date:	9/26/2014	SeqNo:	628755	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	90.8	65.8	139			
Surr: BFB	900		1000		90.4	80	120			

Sample ID	1409D18-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-14 Base @ 19'	Batch ID:	R21487	RunNo:	21487					
Prep Date:		Analysis Date:	9/26/2014	SeqNo:	628756	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	4.3	21.61	0	85.1	71.8	132			
Surr: BFB	810		864.3		93.9	80	120			

Sample ID	1409D18-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-14 Base @ 19'	Batch ID:	R21487	RunNo:	21487					
Prep Date:		Analysis Date:	9/26/2014	SeqNo:	628757	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	4.3	21.61	0	82.8	71.8	132	2.76	20	
Surr: BFB	810		864.3		93.2	80	120	0	0	

Sample ID	B26	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R21557	RunNo:	21557					
Prep Date:		Analysis Date:	9/30/2014	SeqNo:	631187	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	900		1000		89.6	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R21557	RunNo:	21557					
Prep Date:		Analysis Date:	9/30/2014	SeqNo:	631188	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	900		1000		89.6	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| 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#: 1409D18

01-Oct-14

Client: Souder, Miller and Associates

Project: Trunk K #4

Sample ID: 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: R21557		RunNo: 21557							
Prep Date:	Analysis Date: 9/30/2014		SeqNo: 631188		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	91.8	65.8	139			
Surr: BFB	980		1000		97.6	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| 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#: 1409D18

01-Oct-14

Client: Souder, Miller and Associates

Project: Trunk K #4

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R21487	RunNo:	21487					
Prep Date:		Analysis Date:	9/26/2014	SeqNo:	628788	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.96		1.000		95.9	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R21487	RunNo:	21487					
Prep Date:		Analysis Date:	9/26/2014	SeqNo:	628791	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	103	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	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID	1409D18-002AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-15 N Wall @ 0-1	Batch ID:	R21487	RunNo:	21487					
Prep Date:		Analysis Date:	9/26/2014	SeqNo:	628794	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.77	0.038	0.7622	0	101	77.4	142			
Toluene	0.75	0.038	0.7622	0.01715	96.1	77	132			
Ethylbenzene	0.76	0.038	0.7622	0	99.7	77.6	134			
Xylenes, Total	2.4	0.076	2.287	0	103	77.4	132			
Surr: 4-Bromofluorobenzene	0.81		0.7622		106	80	120			

Sample ID	1409D18-002AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-15 N Wall @ 0-1	Batch ID:	R21487	RunNo:	21487					
Prep Date:		Analysis Date:	9/26/2014	SeqNo:	628795	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.74	0.038	0.7622	0	97.1	77.4	142	4.43	20	
Toluene	0.72	0.038	0.7622	0.01715	92.4	77	132	3.89	20	
Ethylbenzene	0.74	0.038	0.7622	0	96.8	77.6	134	3.00	20	
Xylenes, Total	2.3	0.076	2.287	0	101	77.4	132	2.34	20	
Surr: 4-Bromofluorobenzene	0.73		0.7622		96.0	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 | |

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1409D18

RcptNo: 1

Received by/date:	<i>[Signature]</i>	09/26/14
Logged By:	Lindsay Mangin	9/26/2014 8:20:00 AM <i>[Signature]</i>
Completed By:	Lindsay Mangin	9/26/2014 8:34:57 AM <i>[Signature]</i>
Reviewed By:	<i>mg</i>	09/26/14

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

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

- Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

Client: SWMA

Mailing Address: 401 W. Broadway
Farmington, NM 87401

Phone #: 505 325 7535

email or Fax#: greenmask@swma.nm.us

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

☐ Standard ☒ Rush *Same Day*

Project Name:

Trunk K #4

Project #:

5122855

Project Manager:

Free Market

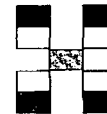
Sampler: 2

On Ice: ☒ Yes ☐ No

Sample Temperature:	10
---------------------	----

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
12/5/14	1710	<i>[Signature]</i>	<i>ChH Waite</i>	9/25/14	1710	
Date:	Time:	Relinquished by:	Received by:	Date	Time	
1/7/15	2015	<i>ChH Waite</i>	<i>[Signature]</i>	09/26/14	0820	Invoice to Enterprise Products Copy alicia, paterson@andemiller.com



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

	BTEX + MTBE + 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 ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	
	8081 Pesticides / 8082 PCB's	
	8260B (VOA)	
	8270 (Semi-VOA)	
	Air Bubbles (Y or N)	

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.



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

September 26, 2014

Steve Moskal

Souder, Miller and Associates

401 W. Broadway

Farmington, NM 87401

TEL: (505) 325-5667

FAX

RE: Trunk K #5

OrderNo.: 1409C37

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 5 sample(s) on 9/25/2014 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 or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1409C37

Date Reported: 9/26/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-21 N Wall @ 0-15'**Project:** Trunk K #5**Collection Date:** 9/24/2014 4:10:00 PM**Lab ID:** 1409C37-001**Matrix:** MEOH (SOIL)**Received Date:** 9/25/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/25/2014 11:39:20 AM	15500
Surr: DNOP	96.6	57.9-140		%REC	1	9/25/2014 11:39:20 AM	15500
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	9/25/2014 11:13:02 AM	R21449
Surr: BFB	87.9	80-120		%REC	1	9/25/2014 11:13:02 AM	R21449
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.042		mg/Kg	1	9/25/2014 11:13:02 AM	R21449
Toluene	ND	0.042		mg/Kg	1	9/25/2014 11:13:02 AM	R21449
Ethylbenzene	ND	0.042		mg/Kg	1	9/25/2014 11:13:02 AM	R21449
Xylenes, Total	ND	0.084		mg/Kg	1	9/25/2014 11:13:02 AM	R21449
Surr: 4-Bromofluorobenzene	92.0	80-120		%REC	1	9/25/2014 11:13:02 AM	R21449

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 1 of 8
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH 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 1409C37

Date Reported: 9/26/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-22 W. Wall @ 0-15'

Project: Trunk K #5

Collection Date: 9/24/2014 4:17:00 PM

Lab ID: 1409C37-002

Matrix: MEOH (SOIL)

Received Date: 9/25/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/25/2014 12:00:42 PM	15500
Surr: DNOP	95.5	57.9-140		%REC	1	9/25/2014 12:00:42 PM	15500
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	9/25/2014 11:41:37 AM	R21449
Surr: BFB	88.7	80-120		%REC	1	9/25/2014 11:41:37 AM	R21449
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.041		mg/Kg	1	9/25/2014 11:41:37 AM	R21449
Toluene	ND	0.041		mg/Kg	1	9/25/2014 11:41:37 AM	R21449
Ethylbenzene	ND	0.041		mg/Kg	1	9/25/2014 11:41:37 AM	R21449
Xylenes, Total	ND	0.083		mg/Kg	1	9/25/2014 11:41:37 AM	R21449
Surr: 4-Bromofluorobenzene	93.8	80-120		%REC	1	9/25/2014 11:41:37 AM	R21449

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 8
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1409C37

Date Reported: 9/26/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-23 E. Wall @ 0-15'

Project: Trunk K #5

Collection Date: 9/24/2014 4:25:00 PM

Lab ID: 1409C37-003

Matrix: MEOH (SOIL)

Received Date: 9/25/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/25/2014 12:22:05 PM	15500
Surr: DNOP	91.2	57.9-140		%REC	1	9/25/2014 12:22:05 PM	15500
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	9/25/2014 12:10:08 PM	R21449
Surr: BFB	88.7	80-120		%REC	1	9/25/2014 12:10:08 PM	R21449
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.044		mg/Kg	1	9/25/2014 12:10:08 PM	R21449
Toluene	ND	0.044		mg/Kg	1	9/25/2014 12:10:08 PM	R21449
Ethylbenzene	ND	0.044		mg/Kg	1	9/25/2014 12:10:08 PM	R21449
Xylenes, Total	ND	0.089		mg/Kg	1	9/25/2014 12:10:08 PM	R21449
Surr: 4-Bromofluorobenzene	92.7	80-120		%REC	1	9/25/2014 12:10:08 PM	R21449

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 3 of 8
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1409C37

Date Reported: 9/26/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-24 S. Wall @ 0-15'**Project:** Trunk K #5**Collection Date:** 9/24/2014 4:27:00 PM**Lab ID:** 1409C37-004**Matrix:** MEOH (SOIL)**Received Date:** 9/25/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/25/2014 12:43:32 PM	15500
Surr: DNOP	93.3	57.9-140		%REC	1	9/25/2014 12:43:32 PM	15500
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	9/25/2014 12:38:47 PM	R21449
Surr: BFB	89.3	80-120		%REC	1	9/25/2014 12:38:47 PM	R21449
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.036		mg/Kg	1	9/25/2014 12:38:47 PM	R21449
Toluene	ND	0.036		mg/Kg	1	9/25/2014 12:38:47 PM	R21449
Ethylbenzene	ND	0.036		mg/Kg	1	9/25/2014 12:38:47 PM	R21449
Xylenes, Total	ND	0.073		mg/Kg	1	9/25/2014 12:38:47 PM	R21449
Surr: 4-Bromofluorobenzene	93.4	80-120		%REC	1	9/25/2014 12:38:47 PM	R21449

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-25 Base @ 15'

Project: Trunk K #5

Collection Date: 9/24/2014 4:30:00 PM

Lab ID: 1409C37-005

Matrix: MEOH (SOIL)

Received Date: 9/25/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/25/2014 11:18:10 AM	15500
Surr: DNOP	96.4	57.9-140		%REC	1	9/25/2014 11:18:10 AM	15500
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/25/2014 1:07:28 PM	R21449
Surr: BFB	90.8	80-120		%REC	1	9/25/2014 1:07:28 PM	R21449
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	9/25/2014 1:07:28 PM	R21449
Toluene	ND	0.050		mg/Kg	1	9/25/2014 1:07:28 PM	R21449
Ethylbenzene	ND	0.050		mg/Kg	1	9/25/2014 1:07:28 PM	R21449
Xylenes, Total	ND	0.099		mg/Kg	1	9/25/2014 1:07:28 PM	R21449
Surr: 4-Bromofluorobenzene	94.3	80-120		%REC	1	9/25/2014 1:07:28 PM	R21449

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 5 of 8
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409C37

26-Sep-14

Client: Souder, Miller and Associates

Project: Trunk K #5

Sample ID	MB-15500	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	15500	RunNo:	21436					
Prep Date:	9/25/2014	Analysis Date:	9/25/2014	SeqNo:	626728	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		99.2	57.9	140			

Sample ID	LCS-15500	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	15500	RunNo:	21436					
Prep Date:	9/25/2014	Analysis Date:	9/25/2014	SeqNo:	626795	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	113	68.6	130			
Surr: DNOP	4.8		5.000		96.5	57.9	140			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409C37

26-Sep-14

Client: Souder, Miller and Associates

Project: Trunk K #5

Sample ID	MB-15490 MK	SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS	Batch ID:	R21449		RunNo:	21449				
Prep Date:		Analysis Date:	9/25/2014		SeqNo:	627596		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		87.7	80	120			

Sample ID	LCS-15490 MK		SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS		Batch ID:	R21449		RunNo:	21449				
Prep Date:			Analysis Date:	9/25/2014		SeqNo:	627597		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	29	5.0	25.00	0	116	65.8	139				
Surr: BFB	980		1000		98.0	80	120				

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409C37

26-Sep-14

Client: Souder, Miller and Associates

Project: Trunk K #5

Sample ID	MB-15490 MK	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS	Batch ID:	R21449		RunNo:	21449				
Prep Date:		Analysis Date:	9/25/2014		SeqNo:	627632		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.91		1.000		91.4	80	120			

Sample ID	LCS-15490 MK		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: R21449		RunNo: 21449					
Prep Date:			Analysis Date: 9/25/2014		SeqNo: 627633		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	102	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| 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: 1409C37

RcptNo: 1

Received by/date:	<i>[Signature]</i>	09/25/14
Logged By:	Lindsay Mangin	9/25/2014 7:00:00 AM
Completed By:	Lindsay Mangin	9/25/2014 7:48:19 AM
Reviewed By:	MS	09/25/14

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

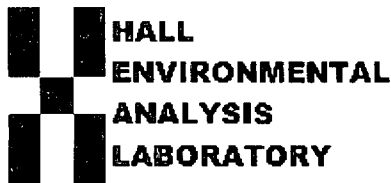
16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

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

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good	Yes			



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

October 03, 2014

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

RE: Trunk K #6

OrderNo.: 1410073

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 5 sample(s) on 10/2/2014 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 or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1410073

Date Reported: 10/3/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-12 W Wall @ 0-21'

Project: Trunk K #6

Collection Date: 10/1/2014 11:05:00 AM

Lab ID: 1410073-001

Matrix: SOIL

Received Date: 10/2/2014 6:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/2/2014 10:57:22 AM	15671
Surr: DNOP	82.4	57.9-140		%REC	1	10/2/2014 10:57:22 AM	15671
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	10/2/2014 11:27:07 AM	R21609
Surr: BFB	92.1	80-120		%REC	1	10/2/2014 11:27:07 AM	R21609
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	10/2/2014 11:27:07 AM	R21609
Toluene	ND	0.034		mg/Kg	1	10/2/2014 11:27:07 AM	R21609
Ethylbenzene	ND	0.034		mg/Kg	1	10/2/2014 11:27:07 AM	R21609
Xylenes, Total	ND	0.068		mg/Kg	1	10/2/2014 11:27:07 AM	R21609
Surr: 4-Bromofluorobenzene	95.2	80-120		%REC	1	10/2/2014 11:27:07 AM	R21609

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 1 of 8
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical Report

Lab Order 1410073

Date Reported: 10/3/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-13 N Wall @ 0-21'

Project: Trunk K #6

Collection Date: 10/1/2014 11:07:00 AM

Lab ID: 1410073-002

Matrix: SOIL

Received Date: 10/2/2014 6:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/2/2014 11:56:22 AM	15671
Surr: DNOP	82.0	57.9-140		%REC	1	10/2/2014 11:56:22 AM	15671
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	10/2/2014 11:55:45 AM	R21609
Surr: BFB	94.8	80-120		%REC	1	10/2/2014 11:55:45 AM	R21609
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.041		mg/Kg	1	10/2/2014 11:55:45 AM	R21609
Toluene	ND	0.041		mg/Kg	1	10/2/2014 11:55:45 AM	R21609
Ethylbenzene	ND	0.041		mg/Kg	1	10/2/2014 11:55:45 AM	R21609
Xylenes, Total	ND	0.081		mg/Kg	1	10/2/2014 11:55:45 AM	R21609
Surr: 4-Bromofluorobenzene	94.1	80-120		%REC	1	10/2/2014 11:55:45 AM	R21609

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 8
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1410073

Date Reported: 10/3/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-14 Base @ 21'

Project: Trunk K #6

Collection Date: 10/1/2014 11:11:00 AM

Lab ID: 1410073-003

Matrix: SOIL

Received Date: 10/2/2014 6:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/2/2014 12:18:01 PM	15671
Surr: DNOP	81.5	57.9-140		%REC	1	10/2/2014 12:18:01 PM	15671
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	10/2/2014 12:24:23 PM	R21609
Surr: BFB	99.7	80-120		%REC	1	10/2/2014 12:24:23 PM	R21609
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.039		mg/Kg	1	10/2/2014 12:24:23 PM	R21609
Toluene	ND	0.039		mg/Kg	1	10/2/2014 12:24:23 PM	R21609
Ethylbenzene	ND	0.039		mg/Kg	1	10/2/2014 12:24:23 PM	R21609
Xylenes, Total	ND	0.078		mg/Kg	1	10/2/2014 12:24:23 PM	R21609
Surr: 4-Bromofluorobenzene	96.9	80-120		%REC	1	10/2/2014 12:24:23 PM	R21609

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 3 of 8
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1410073

Date Reported: 10/3/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-15 E Wall @ 21'

Project: Trunk K #6

Collection Date: 10/1/2014 11:15:00 AM

Lab ID: 1410073-004

Matrix: SOIL

Received Date: 10/2/2014 6:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	24	10		mg/Kg	1	10/2/2014 11:31:00 AM	15671
Surr: DNOP	94.7	57.9-140		%REC	1	10/2/2014 11:31:00 AM	15671
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	140	18		mg/Kg	5	10/2/2014 12:53:00 PM	R21609
Surr: BFB	162	80-120	S	%REC	5	10/2/2014 12:53:00 PM	R21609
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.088		mg/Kg	5	10/2/2014 12:53:00 PM	R21609
Toluene	1.1	0.18		mg/Kg	5	10/2/2014 12:53:00 PM	R21609
Ethylbenzene	0.27	0.18		mg/Kg	5	10/2/2014 12:53:00 PM	R21609
Xylenes, Total	3.0	0.35		mg/Kg	5	10/2/2014 12:53:00 PM	R21609
Surr: 4-Bromofluorobenzene	104	80-120		%REC	5	10/2/2014 12:53:00 PM	R21609

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 1410073

Date Reported: 10/3/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-16 S Wall @ 21'

Project: Trunk K #6

Collection Date: 10/1/2014 11:20:00 AM

Lab ID: 1410073-005

Matrix: SOIL

Received Date: 10/2/2014 6:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/2/2014 12:01:30 PM	15671
Surr: DNOP	95.0	57.9-140		%REC	1	10/2/2014 12:01:30 PM	15671
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	19		mg/Kg	5	10/2/2014 1:21:40 PM	R21609
Surr: BFB	94.0	80-120		%REC	5	10/2/2014 1:21:40 PM	R21609
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.097		mg/Kg	5	10/2/2014 1:21:40 PM	R21609
Toluene	ND	0.19		mg/Kg	5	10/2/2014 1:21:40 PM	R21609
Ethylbenzene	ND	0.19		mg/Kg	5	10/2/2014 1:21:40 PM	R21609
Xylenes, Total	ND	0.39		mg/Kg	5	10/2/2014 1:21:40 PM	R21609
Surr: 4-Bromofluorobenzene	94.8	80-120		%REC	5	10/2/2014 1:21:40 PM	R21609

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 5 of 8
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1410073

03-Oct-14

Client: Souder, Miller and Associates

Project: Trunk K #6

Sample ID	MB-15671	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	15671	RunNo:	21605					
Prep Date:	10/2/2014	Analysis Date:	10/2/2014	SeqNo:	633783	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.7		10.00		87.2	57.9	140			

Sample ID	LCS-15671	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	15671	RunNo:	21605					
Prep Date:	10/2/2014	Analysis Date:	10/2/2014	SeqNo:	633858	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.7	68.6	130			
Surr: DNOP	4.3		5.000		85.5	57.9	140			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1410073

03-Oct-14

Client: Souder, Miller and Associates

Project: Trunk K #6

Sample ID	MB-15650 MK	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R21609	RunNo:	21609					
Prep Date:		Analysis Date:	10/2/2014	SeqNo:	634279	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	900		1000		90.0	80	120			

Sample ID	LCS-15650 MK	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R21609	RunNo:	21609					
Prep Date:		Analysis Date:	10/2/2014	SeqNo:	634280	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	104	65.8	139			
Surr: BFB	980		1000		98.2	80	120			

Sample ID	B26	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R21609	RunNo:	21609					
Prep Date:		Analysis Date:	10/2/2014	SeqNo:	634288	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	900		1000		89.8	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R21609	RunNo:	21609					
Prep Date:		Analysis Date:	10/2/2014	SeqNo:	634289	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	65.8	139			
Surr: BFB	970		1000		97.2	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| 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#: 1410073

03-Oct-14

Client: Souder, Miller and Associates

Project: Trunk K #6

Sample ID	MB-15650 MK		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: R21609		RunNo: 21609					
Prep Date:			Analysis Date: 10/2/2014		SeqNo: 634339		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.95		1.000		94.6	80	120			

Sample ID	LCS-15650 MK		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: R21609		RunNo: 21609					
Prep Date:			Analysis Date: 10/2/2014		SeqNo: 634350		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.050	1.000	0	99.0	80	120			
Toluene	0.97	0.050	1.000	0	97.1	80	120			
Ethylbenzene	0.99	0.050	1.000	0	99.2	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.9	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| 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: 1410073

RcptNo: 1

Received by/date: LM 10/02/14

Logged By: Anne Thorne 10/2/2014 6:50:00 AM

Completed By: Anne Thorne 10/2/2014

Reviewed By: [Signature] 10/02/14

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

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

17. Additional remarks:

18. Cooler Information

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

Chain-of-Custody Record

Client: GMA

Mailing Address: 401 W. Broadway
Farmington, NM 87401

Phone #: 505 325 7585

email or Fax#: stevem.mosk@scuderamillo.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard ☒ Rush Same Day

Project Name:

Trunk & #6

Project #:

8122855 BG-6

Project Manager:

Steve Mosk

Sampler: " "

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.3



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

BTEX + MTBE + IMB'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 ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)										
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
10/1/14	1105	soil	SC-12 W wall @ 0-21'	402x1	cooled	-001
	1107		SC-13 W wall @ 0-21'			-002
	1111		SC-14 Base @ 21'			-003
	1116		SC-15 E wall @ 21'			-004
	1120		SC-16 S wall @ 21'			-005

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

10/1/14 1735 [Signature] Master Wheeler 10/1/14 1735

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

10/1/14 1815 [Signature] Master Wheeler 10/02/14 0650

Remarks:

Invoice to Enterprise Products

Copy Alicia.patterson@scuderamillo.com



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

October 06, 2014

Steve Moskal

Souder, Miller and Associates

401 W. Broadway

Farmington, NM 87401

TEL: (505) 325-5667

FAX:

RE: Trunk K #6

OrderNo.: 1410135

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/3/2014 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1410135

Date Reported: 10/6/2014

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-17 E Wall @ 0-21'

Project: Trunk K #6

Collection Date: 10/2/2014 4:20:00 PM

Lab ID: 1410135-001

Matrix: SOIL

Received Date: 10/3/2014 7:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/3/2014 3:07:32 PM	15696
Surr: DNOP	93.7	57.9-140		%REC	1	10/3/2014 3:07:32 PM	15696
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	10/3/2014 11:37:38 AM	R21650
Surr: BFB	91.1	80-120		%REC	1	10/3/2014 11:37:38 AM	R21650
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.044		mg/Kg	1	10/3/2014 11:37:38 AM	R21650
Toluene	ND	0.044		mg/Kg	1	10/3/2014 11:37:38 AM	R21650
Ethylbenzene	ND	0.044		mg/Kg	1	10/3/2014 11:37:38 AM	R21650
Xylenes, Total	ND	0.088		mg/Kg	1	10/3/2014 11:37:38 AM	R21650
Surr: 4-Bromofluorobenzene	95.7	80-120		%REC	1	10/3/2014 11:37:38 AM	R21650

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 1 of 4
	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#: 1410135

06-Oct-14

Client: Souder, Miller and Associates

Project: Trunk K #6

Sample ID: MB-15696	SampType: MBLK	TestCode: EPA Method 8015D: Diesel Range Organics								
Client ID: PBS	Batch ID: 15696	RunNo: 21649								
Prep Date: 10/3/2014	Analysis Date: 10/3/2014	SeqNo: 635349	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.9		10.00		79.3	57.9	140			

Sample ID: LCS-15696	SampType: LCS	TestCode: EPA Method 8015D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 15696	RunNo: 21649								
Prep Date: 10/3/2014	Analysis Date: 10/3/2014	SeqNo: 635354	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	107	68.6	130			
Surr: DNOP	4.5		5.000		90.3	57.9	140			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1410135

06-Oct-14

Client: Souder, Miller and Associates

Project: Trunk K #6

Sample ID: MB-15674 MK	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: R21650	RunNo: 21650								
Prep Date:	Analysis Date: 10/3/2014	SeqNo: 635786		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	900		1000		90.0	80	120			

Sample ID: LCS-15674 MK	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: R21650	RunNo: 21650								
Prep Date:	Analysis Date: 10/3/2014	SeqNo: 635787		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	105	65.8	139			
Surr: BFB	1000		1000		100	80	120			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1410135

06-Oct-14

Client: Souder, Miller and Associates

Project: Trunk K #6

Sample ID: MB-15674 MK	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: R21650	RunNo: 21650								
Prep Date:	Analysis Date: 10/3/2014	SeqNo: 635822	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.96		1.000		95.8	80	120			

Sample ID: LCS-15674 MK	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: R21650	RunNo: 21650								
Prep Date:	Analysis Date: 10/3/2014	SeqNo: 635823	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	103	80	120			
Toluene	1.0	0.050	1.000	0	101	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Qualifiers:

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

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1410135

RcptNo: 1

Received by/date:

LM 10/3/14

Logged By: Anne Thorne

10/3/2014 7:40:00 AM

Anne Thorne

Completed By: Anne Thorne

10/3/2014

Anne Thorne

Reviewed By:

CS

10/3/14

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

Person Notified:

Date:

By Whom:

Via:

☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

[illegible]

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*

November 10, 2014

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

RE: Trunk K #7

OrderNo.: 1411263

Dear Shawna Chubbuck:

Hall Environmental Analysis Laboratory received 13 sample(s) on 11/7/2014 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 or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-1 NW Wall**Project:** Trunk K #7**Collection Date:** 11/6/2014 10:01:00 AM**Lab ID:** 1411263-001**Matrix:** MEOH (SOIL)**Received Date:** 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/7/2014 10:25:50 AM	16286
Surr: DNOP	115	63.5-128		%REC	1	11/7/2014 10:25:50 AM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	11/7/2014 10:42:21 AM	R22407
Surr: BFB	90.6	80-120		%REC	1	11/7/2014 10:42:21 AM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.035		mg/Kg	1	11/7/2014 10:42:21 AM	R22407
Toluene	ND	0.035		mg/Kg	1	11/7/2014 10:42:21 AM	R22407
Ethylbenzene	ND	0.035		mg/Kg	1	11/7/2014 10:42:21 AM	R22407
Xylenes, Total	ND	0.071		mg/Kg	1	11/7/2014 10:42:21 AM	R22407
Surr: 4-Bromofluorobenzene	95.5	80-120		%REC	1	11/7/2014 10:42:21 AM	R22407

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 1 of 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-2 NC Wall

Project: Trunk K #7

Collection Date: 11/6/2014 10:03:00 AM

Lab ID: 1411263-002

Matrix: MEOH (SOIL)

Received Date: 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/7/2014 10:55:45 AM	16286
Surr: DNOP	119	63.5-128		%REC	1	11/7/2014 10:55:45 AM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	11/7/2014 11:10:59 AM	R22407
Surr: BFB	91.1	80-120		%REC	1	11/7/2014 11:10:59 AM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.036		mg/Kg	1	11/7/2014 11:10:59 AM	R22407
Toluene	ND	0.036		mg/Kg	1	11/7/2014 11:10:59 AM	R22407
Ethylbenzene	ND	0.036		mg/Kg	1	11/7/2014 11:10:59 AM	R22407
Xylenes, Total	ND	0.073		mg/Kg	1	11/7/2014 11:10:59 AM	R22407
Surr: 4-Bromofluorobenzene	95.9	80-120		%REC	1	11/7/2014 11:10:59 AM	R22407

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 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-3 NE Wall**Project:** Trunk K #7**Collection Date:** 11/6/2014 10:05:00 AM**Lab ID:** 1411263-003**Matrix:** MEOH (SOIL)**Received Date:** 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/7/2014 1:16:34 PM	16286
Surr: DNOP	128	63.5-128	S	%REC	1	11/7/2014 1:16:34 PM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	11/7/2014 11:39:33 AM	R22407
Surr: BFB	91.4	80-120		%REC	1	11/7/2014 11:39:33 AM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.032		mg/Kg	1	11/7/2014 11:39:33 AM	R22407
Toluene	ND	0.032		mg/Kg	1	11/7/2014 11:39:33 AM	R22407
Ethylbenzene	ND	0.032		mg/Kg	1	11/7/2014 11:39:33 AM	R22407
Xylenes, Total	ND	0.064		mg/Kg	1	11/7/2014 11:39:33 AM	R22407
Surr: 4-Bromofluorobenzene	95.4	80-120		%REC	1	11/7/2014 11:39:33 AM	R22407

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 3 of 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-4 SW Wall**Project:** Trunk K #7**Collection Date:** 11/6/2014 10:09:00 AM**Lab ID:** 1411263-004**Matrix:** MEOH (SOIL)**Received Date:** 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/7/2014 1:46:57 PM	16286
Surr: DNOP	119	63.5-128		%REC	1	11/7/2014 1:46:57 PM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	11/7/2014 12:08:13 PM	R22407
Surr: BFB	95.5	80-120		%REC	1	11/7/2014 12:08:13 PM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	11/7/2014 12:08:13 PM	R22407
Toluene	ND	0.034		mg/Kg	1	11/7/2014 12:08:13 PM	R22407
Ethylbenzene	ND	0.034		mg/Kg	1	11/7/2014 12:08:13 PM	R22407
Xylenes, Total	ND	0.069		mg/Kg	1	11/7/2014 12:08:13 PM	R22407
Surr: 4-Bromofluorobenzene	97.5	80-120		%REC	1	11/7/2014 12:08:13 PM	R22407

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-5 SC Wall**Project:** Trunk K #7**Collection Date:** 11/6/2014 10:11:00 AM**Lab ID:** 1411263-005**Matrix:** MEOH (SOIL)**Received Date:** 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/7/2014 1:21:05 PM	16286
Surr: DNOP	92.0	63.5-128		%REC	1	11/7/2014 1:21:05 PM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	11/7/2014 12:36:57 PM	R22407
Surr: BFB	91.0	80-120		%REC	1	11/7/2014 12:36:57 PM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.035		mg/Kg	1	11/7/2014 12:36:57 PM	R22407
Toluene	ND	0.035		mg/Kg	1	11/7/2014 12:36:57 PM	R22407
Ethylbenzene	ND	0.035		mg/Kg	1	11/7/2014 12:36:57 PM	R22407
Xylenes, Total	ND	0.069		mg/Kg	1	11/7/2014 12:36:57 PM	R22407
Surr: 4-Bromofluorobenzene	93.4	80-120		%REC	1	11/7/2014 12:36:57 PM	R22407

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 5 of 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-6 SE Wall

Project: Trunk K #7

Collection Date: 11/6/2014 10:15:00 AM

Lab ID: 1411263-006

Matrix: MEOH (SOIL)

Received Date: 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/7/2014 3:31:02 PM	16286
Surr: DNOP	88.3	63.5-128		%REC	1	11/7/2014 3:31:02 PM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	11/7/2014 1:05:36 PM	R22407
Surr: BFB	91.0	80-120		%REC	1	11/7/2014 1:05:36 PM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	11/7/2014 1:05:36 PM	R22407
Toluene	ND	0.034		mg/Kg	1	11/7/2014 1:05:36 PM	R22407
Ethylbenzene	ND	0.034		mg/Kg	1	11/7/2014 1:05:36 PM	R22407
Xylenes, Total	ND	0.068		mg/Kg	1	11/7/2014 1:05:36 PM	R22407
Surr: 4-Bromofluorobenzene	94.2	80-120		%REC	1	11/7/2014 1:05:36 PM	R22407

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 6 of 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-7 E Wall

Project: Trunk K #7

Collection Date: 11/6/2014 10:18:00 AM

Lab ID: 1411263-007

Matrix: MEOH (SOIL)

Received Date: 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/7/2014 2:04:32 PM	16286
Surr: DNOP	101	63.5-128		%REC	1	11/7/2014 2:04:32 PM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	11/7/2014 1:34:16 PM	R22407
Surr: BFB	91.4	80-120		%REC	1	11/7/2014 1:34:16 PM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	11/7/2014 1:34:16 PM	R22407
Toluene	ND	0.034		mg/Kg	1	11/7/2014 1:34:16 PM	R22407
Ethylbenzene	ND	0.034		mg/Kg	1	11/7/2014 1:34:16 PM	R22407
Xylenes, Total	ND	0.068		mg/Kg	1	11/7/2014 1:34:16 PM	R22407
Surr: 4-Bromofluorobenzene	93.6	80-120		%REC	1	11/7/2014 1:34:16 PM	R22407

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 7 of 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-8 W Wall**Project:** Trunk K #7**Collection Date:** 11/6/2014 10:21:00 AM**Lab ID:** 1411263-008**Matrix:** MEOH (SOIL)**Received Date:** 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/7/2014 10:49:22 AM	16286
Surr: DNOP	130	63.5-128	S	%REC	1	11/7/2014 10:49:22 AM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	11/7/2014 2:02:59 PM	R22407
Surr: BFB	90.9	80-120		%REC	1	11/7/2014 2:02:59 PM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.035		mg/Kg	1	11/7/2014 2:02:59 PM	R22407
Toluene	ND	0.035		mg/Kg	1	11/7/2014 2:02:59 PM	R22407
Ethylbenzene	ND	0.035		mg/Kg	1	11/7/2014 2:02:59 PM	R22407
Xylenes, Total	ND	0.070		mg/Kg	1	11/7/2014 2:02:59 PM	R22407
Surr: 4-Bromofluorobenzene	96.3	80-120		%REC	1	11/7/2014 2:02:59 PM	R22407

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 8 of 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-9 E Base

Project: Trunk K #7

Collection Date: 11/6/2014 10:23:00 AM

Lab ID: 1411263-009

Matrix: MEOH (SOIL)

Received Date: 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/7/2014 11:10:49 AM	16286
Surr: DNOP	123	63.5-128		%REC	1	11/7/2014 11:10:49 AM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	11/7/2014 2:31:35 PM	R22407
Surr: BFB	92.2	80-120		%REC	1	11/7/2014 2:31:35 PM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	11/7/2014 2:31:35 PM	R22407
Toluene	ND	0.034		mg/Kg	1	11/7/2014 2:31:35 PM	R22407
Ethylbenzene	ND	0.034		mg/Kg	1	11/7/2014 2:31:35 PM	R22407
Xylenes, Total	ND	0.067		mg/Kg	1	11/7/2014 2:31:35 PM	R22407
Surr: 4-Bromofluorobenzene	95.2	80-120		%REC	1	11/7/2014 2:31:35 PM	R22407

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 9 of 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-10 W Base

Project: Trunk K #7

Collection Date: 11/6/2014 10:26:00 AM

Lab ID: 1411263-010

Matrix: MEOH (SOIL)

Received Date: 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/7/2014 11:33:07 AM	16286
Surr: DNOP	98.7	63.5-128		%REC	1	11/7/2014 11:33:07 AM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	11/7/2014 3:00:16 PM	R22407
Surr: BFB	92.0	80-120		%REC	1	11/7/2014 3:00:16 PM	R22407
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	11/7/2014 3:00:16 PM	R22407
Toluene	ND	0.034		mg/Kg	1	11/7/2014 3:00:16 PM	R22407
Ethylbenzene	ND	0.034		mg/Kg	1	11/7/2014 3:00:16 PM	R22407
Xylenes, Total	ND	0.068		mg/Kg	1	11/7/2014 3:00:16 PM	R22407
Surr: 4-Bromofluorobenzene	94.7	80-120		%REC	1	11/7/2014 3:00:16 PM	R22407

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 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-11 SP-1**Project:** Trunk K #7**Collection Date:** 11/6/2014 10:29:00 AM**Lab ID:** 1411263-011**Matrix:** MEOH (SOIL)**Received Date:** 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/7/2014 11:54:42 AM	16286
Surr: DNOP	90.4	63.5-128		%REC	1	11/7/2014 11:54:42 AM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	11/7/2014 10:40:10 AM	R22405
Surr: BFB	99.1	80-120		%REC	1	11/7/2014 10:40:10 AM	R22405
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.039		mg/Kg	1	11/7/2014 10:40:10 AM	R22405
Toluene	ND	0.039		mg/Kg	1	11/7/2014 10:40:10 AM	R22405
Ethylbenzene	ND	0.039		mg/Kg	1	11/7/2014 10:40:10 AM	R22405
Xylenes, Total	ND	0.078		mg/Kg	1	11/7/2014 10:40:10 AM	R22405
Surr: 4-Bromofluorobenzene	127	80-120	S	%REC	1	11/7/2014 10:40:10 AM	R22405

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 11 of 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-12 SP-2**Project:** Trunk K #7**Collection Date:** 11/6/2014 10:31:00 AM**Lab ID:** 1411263-012**Matrix:** MEOH (SOIL)**Received Date:** 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/7/2014 12:16:08 PM	16286
Surr: DNOP	83.9	63.5-128		%REC	1	11/7/2014 12:16:08 PM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	11/7/2014 11:07:36 AM	R22405
Surr: BFB	97.6	80-120		%REC	1	11/7/2014 11:07:36 AM	R22405
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.039		mg/Kg	1	11/7/2014 11:07:36 AM	R22405
Toluene	ND	0.039		mg/Kg	1	11/7/2014 11:07:36 AM	R22405
Ethylbenzene	ND	0.039		mg/Kg	1	11/7/2014 11:07:36 AM	R22405
Xylenes, Total	ND	0.078		mg/Kg	1	11/7/2014 11:07:36 AM	R22405
Surr: 4-Bromofluorobenzene	124	80-120	S	%REC	1	11/7/2014 11:07:36 AM	R22405

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 12 of 18
	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 1411263

Date Reported: 11/10/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** SC-13 SP-3**Project:** Trunk K #7**Collection Date:** 11/6/2014 10:35:00 AM**Lab ID:** 1411263-013**Matrix:** MEOH (SOIL)**Received Date:** 11/7/2014 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/7/2014 12:37:47 PM	16286
Surr: DNOP	88.1	63.5-128		%REC	1	11/7/2014 12:37:47 PM	16286
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	11/7/2014 11:35:02 AM	R22405
Surr: BFB	98.3	80-120		%REC	1	11/7/2014 11:35:02 AM	R22405
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.039		mg/Kg	1	11/7/2014 11:35:02 AM	R22405
Toluene	ND	0.039		mg/Kg	1	11/7/2014 11:35:02 AM	R22405
Ethylbenzene	ND	0.039		mg/Kg	1	11/7/2014 11:35:02 AM	R22405
Xylenes, Total	ND	0.077		mg/Kg	1	11/7/2014 11:35:02 AM	R22405
Surr: 4-Bromofluorobenzene	122	80-120	S	%REC	1	11/7/2014 11:35:02 AM	R22405

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 13 of 18
	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#: 1411263

10-Nov-14

Client: Souder, Miller and Associates

Project: Trunk K #7

Sample ID	MB-16286	SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	16286		RunNo:	22398				
Prep Date:	11/7/2014	Analysis Date:	11/7/2014		SeqNo:	660175	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		104	63.5	128			

Sample ID	LCS-16286		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 16286		RunNo: 22398					
Prep Date:	11/7/2014		Analysis Date: 11/7/2014		SeqNo: 660176		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.5	68.6	130			
Surr: DNOP	4.6		5.000		92.5	63.5	128			

Sample ID	1411263-001AMS		SampType:	MS		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	SC-1 NW Wall		Batch ID:	16286		RunNo:	22401				
Prep Date:	11/7/2014		Analysis Date:	11/7/2014		SeqNo:	660245		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	47	9.8	49.21	0	96.2	29.2	176				
Surr: DNOP	4.3		4.921		87.5	63.5	128				

Sample ID	1411263-001AMSD		SampType: MSD		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-1 NW Wall		Batch ID: 16286		RunNo: 22401					
Prep Date:	11/7/2014		Analysis Date: 11/7/2014		SeqNo: 661003		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.8	49.07	0	97.0	29.2	176	0.519	23	
Surr: DNOP	4.3		4.907		87.6	63.5	128	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#: 1411263

10-Nov-14

Client: Souder, Miller and Associates

Project: Trunk K #7

Sample ID	MB-16279 MK		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	R22407		RunNo:	22407				
Prep Date:			Analysis Date:	11/7/2014		SeqNo:	660420		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	900		1000		90.3	80	120				

Sample ID	LCS-16279 MK		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: R22407		RunNo: 22407					
Prep Date:			Analysis Date: 11/7/2014		SeqNo: 660421		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	65.8	139			
Surr: BFB	980		1000		98.1	80	120			

Sample ID	5ML RB		SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS		Batch ID:	R22405		RunNo:	22405				
Prep Date:			Analysis Date:	11/7/2014		SeqNo:	660539		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	ND	5.0									
Surr: BFB	880		1000		88.4	80	120				

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R22405	RunNo:	22405					
Prep Date:		Analysis Date:	11/7/2014	SeqNo:	660540	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	92.3	65.8	139			
Surr: BFB	920		1000		92.1	80	120			

Sample ID	1411263-011AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	SC-11 SP-1		Batch ID: R22405		RunNo: 22405					
Prep Date:			Analysis Date: 11/7/2014		SeqNo: 660541		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.9	19.53	0	89.6	71.8	132			
Surr: BFB	800		781.3		102	80	120			

Sample ID	1411263-011AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	SC-11 SP-1		Batch ID:	R22405		RunNo:	22405				
Prep Date:			Analysis Date:	11/7/2014		SeqNo:	660542		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

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#: 1411263

10-Nov-14

Client: Souder, Miller and Associates

Project: Trunk K #7

Sample ID	1411263-011AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-11 SP-1	Batch ID:	R22405	RunNo:	22405					
Prep Date:		Analysis Date:	11/7/2014	SeqNo:	660542	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	3.9	19.53	0	89.4	71.8	132	0.268	20	
Surr: BFB	820		781.3		105	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#: 1411263

10-Nov-14

Client: Souder, Miller and Associates

Project: Trunk K #7

Sample ID	MB-16279 MK		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	R22407		RunNo:	22407			
Prep Date:			Analysis Date:	11/7/2014		SeqNo:	660504		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		94.5	80	120			

Sample ID	LCS-16279 MK		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	R22407		RunNo:	22407			
Prep Date:			Analysis Date:	11/7/2014		SeqNo:	660505		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.050	1.000	0	95.4	80	120			
Toluene	0.96	0.050	1.000	0	96.3	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.3	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.9	80	120			
Surr: 4-Bromofluorobenzene	0.99		1.000		99.5	80	120			

Sample ID	5ML RB		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	R22405		RunNo:	22405			
Prep Date:			Analysis Date:	11/7/2014		SeqNo:	660558		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		109	80	120			

Sample ID	100NG BTEX LCS		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	R22405		RunNo:	22405			
Prep Date:			Analysis Date:	11/7/2014		SeqNo:	660559		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	112	80	120			
Toluene	1.2	0.050	1.000	0	115	80	120			
Ethylbenzene	1.2	0.050	1.000	0	116	80	120			
Xylenes, Total	3.5	0.10	3.000	0	117	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411263

10-Nov-14

Client: Souder, Miller and Associates

Project: Trunk K #7

Sample ID	1411263-012AMS		SampType: MS	TestCode: EPA Method 8021B: Volatiles						
Client ID:	SC-12 SP-2		Batch ID: R22405	RunNo: 22405						
Prep Date:			Analysis Date: 11/7/2014	SeqNo: 660560		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.039	0.7752	0	106	77.4	142			
Toluene	0.87	0.039	0.7752	0.007287	111	77	132			
Ethylbenzene	0.93	0.039	0.7752	0	120	77.6	134			
Xylenes, Total	2.8	0.078	2.326	0.01698	121	77.4	132			
Surr: 4-Bromofluorobenzene	1.0		0.7752		129	80	120			S

Sample ID	1411263-012AMSD		SampType: MSD	TestCode: EPA Method 8021B: Volatiles						
Client ID:	SC-12 SP-2		Batch ID: R22405	RunNo: 22405						
Prep Date:			Analysis Date: 11/7/2014	SeqNo: 660561		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.81	0.039	0.7752	0	104	77.4	142	2.04	20	
Toluene	0.84	0.039	0.7752	0.007287	108	77	132	2.93	20	
Ethylbenzene	0.91	0.039	0.7752	0	118	77.6	134	1.45	20	
Xylenes, Total	2.8	0.078	2.326	0.01698	120	77.4	132	1.18	20	
Surr: 4-Bromofluorobenzene	1.0		0.7752		130	80	120	0	0	S

Qualifiers:

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

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



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

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1411263

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

11/7/2014 7:00:00 AM

Completed By: Lindsay Mangin

11/7/2014 7:27:47 AM

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°C

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☐

No ☐

No VOA Vials ☒

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☐

No ☐

NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

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

Chain-of-Custody Record

Client: SMA

Mailing Address: A01 W Broadway

Farmington, NM, 87401

Phone #: 505 325 7535

Email or Fax#: Steve.Moskal@soudonville.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☐ Standard ☒ Rush Same Day

Project Name: Trunk K #7

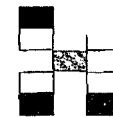
Project #: 6122855 BG

Project Manager: Steve Moskal

Sampler: J. Sprague

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.3



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No	BTEX (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO/DRO/MTBE)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
6/14	1001	Soil	SC-1 NW wall	1 4oz kil	MCH	-001	X		X									
	1003		SC-2 NC wall			-002	X		X									
	1005		SC-3 NE wall			-003	X		X									
	1009		SC-4 SW wall			-004	X		X									
	1011		SC-5 SC wall			-005	X		X									
	1015		SC-6 SE wall			-006	X		X									
	1018		SC-7 E wall			-007	X		X									
	1021		SC-8 W wall			-008	X		X									
	1023		SC-9 E base			-009	X		X									
	1026		SC-10 W base			-010	X		X									
	1029		SC-11 SP-1			-011	X		X									
	1031		SC-12 SP-2			-012	X		X									

Date: 6/14 Time: 1515 Relinquished by: J. Sprague

Received by: Chris Wadsworth Date: 11/6/14 Time: 1515

Date: 11/6/14 Time: 1700 Relinquished by: Christine Wadsworth

Received by: [Signature] Date: 11/07/14 Time: 0700

Remarks: Invoice Enterprise

Please copy Jesse Sprague @ soudonville.com

Alicia Patterson @ soudonville.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.

Chain-of-Custody Record		Turn-Around Time:	
Client: <u>SMA</u>		<input type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush <u>Same Day</u>	
Mailing Address: <u>401 W Broadway</u>		Project Name: <u>Trunk K # 7</u>	
<u>Farmington, NM. 87401</u>		Project #: <u>5122855 BG</u>	
Phone # <u>505 325-7535</u>		Project Manager: <u>Steve Moskal</u>	
email or Fax#: <u>Steve.Moskal@SanderMiller.com</u>		Sampler: <u>J. Sprague</u>	
QA/QC Package:		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		Sample Temperature: <u>3</u>	
Accreditation			
<input type="checkbox"/> NELAP <input type="checkbox"/> Other _____			
<input type="checkbox"/> EDD (Type) _____			

☐ Standard ☒ Rush Save Day

Trunk K # 7

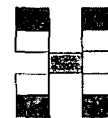
Project #:

5122855 BG

Stave Moskal	
Sampler:	J. Sprague
On Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Temperature:	13

On Ice: ☒ Yes ☐ No

Sample Temperature: 123



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

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.

Appendix D

Groundwater Investigation Plan



October 23, 2014

#5122855

Mr. Tom Long
Senior Environmental Scientist
Enterprise Products
614 Reilly Ave
Farmington, NM 87401

**RE: WORK PLAN FOR THE INVESTIGATION OF GROUNDWATER CONTAMINATION AT THE
TRUNK K #3 PIPELINE RELEASE SITE, SAN JUAN COUNTY, NEW MEXICO**

Dear Mr. Long:

Souder, Miller & Associates (SMA) is pleased to submit this work plan for initial investigation of groundwater contamination at the Trunk K #3 pipeline release site. The site is located in Unit H (SE ¼ NE ¼ Section 26 Township 27 North, Range 8 West, 36.545423°, -107.645017° San Juan County, New Mexico land managed by the US Bureau of Land Management. The release was discovered on September 1, 2014 and is a result of internal corrosion of the sixteen inch natural gas pipeline.

The enclosed work plan provides a scope of work for the drilling, installation and monitoring of potentially four monitoring wells at the subject site. The proposed wells are to be installed within accordance of the request by the New Mexico Oil Conservation Division to determine if groundwater impacts exist at the release site. This work plan also serves to provide information on the project location, duration and terms of access to the site during the implementation and potential continued monitoring program.

If you have any additional questions, please do not hesitate to call our office at 505-325-7535.

Sincerely,

SOUDER, MILLER & ASSOCIATES

Steve Moskal
Project Scientist

Reid S. Allan, P.G.
Vice President/Principal Scientist



**GROUNDWATER INVESTIGATION PLAN
TRUNK K 16" NATURAL GAS PIPELINE RELEASE**

**UNIT H, SECTION 26, TOWNSHIP 27 NORTH, RANGE 8 WEST,
36.545423°, -107.645017°
SAN JUAN COUNTY, NEW MEXICO**

October 23, 2014

On behalf of Enterprise Products Operating, LLC. (Enterprise), SMA has prepared this groundwater investigation work plan to describe the drilling of groundwater monitoring wells for a hydrocarbon release associated with the 16-inch pipeline release located at the Trunk K #3 natural gas pipeline excavation site. The wells are intended to complete the groundwater impact investigation requested by the New Mexico Oil Conservation Division (OCD). OCD has required that this investigation be completed within 30 days of the completion of excavation and backfill activities. These activities were completed on October 21, 2014. Expected completion of the monitoring well drilling is November 21, 2014.

The Trunk K #3 release was discovered simultaneously with 5 other leaks locations on the Trunk K Pipeline, all associated with internal pipeline corrosion. An unknown amount of natural gas and liquids/condensate was released. The release was confirmed during a pipeline patrol using a gas detector on September 1, 2014. The Trunk K #3 Pipeline release is located in (SE ¼ / NE ¼) Unit H, Section 26, Township 27 North, Range 8 West, 36.545423°, -107.645017°, San Juan County, New Mexico. Figure 1, Vicinity Map, illustrates the general location of the release.

New Mexico Oil Conservation Division Site Ranking

The release site is located along the south bank of Largo Canyon Wash on land managed by the Bureau of Land Management (BLM) with an elevation of approximately 5,955 feet above sea level. During the excavation for pipeline repairs and remedial activities, it was determined that depth to groundwater is approximately 20 feet below ground surface (bgs).

SMA searched the New Mexico Office of the State Engineer's (OSE) online water well data base for water wells in the vicinity of the release. No recorded wells were located within 1,000 feet of the site. One well was located within a 1 mile radius of the site. There is no anticipated impact to this well.

The physical location of this release is within the jurisdiction of the BLM and OCD. This release location has been assigned a NMOCD ranking of 40, which requires soil remediation standards 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 1 illustrates site ranking rationale.

Executed Remediation Activities

On August 20, 2014, a leak on the Trunk K Pipeline was reported to the BLM by a private party. In an effort to identify the leak location, Enterprise contracted a third party to patrol the pipeline right-of-way (ROW) to determine the locations of other suspected leaks. Using an application specific gas detector the third party identified 5 additional leak locations. During this time, the BLM identified the location of the six pipeline releases to be potential cultural and riparian sensitive areas. A riparian clearance was granted by the BLM and an archeological study was performed by a third party consultant, Western Cultural Resource Management.

SMA began oversight of the excavations on August 28, 2014. During the excavation, soil samples were collected for field screening to determine the extent of the releases. Under the supervision and direction of SMA, Energy Maintenance Services (EMS) excavated and transported the hydrocarbon impacted soil for offsite disposal. The contaminated soil was transported to Envirotech Landfarm near Bloomfield, NM.

Samples were not collected from the base of the excavation, at approximately 20 feet below ground surface (bgs), due to elevated readings during field screening. Field screening was conducted using a properly calibrated photoionization detector (PID). Saturated soils were encountered at 20 feet bgs during the excavation, indicating hydrocarbon contamination in contact with the upper portion of the groundwater table.

Proposed Monitor Well Installations

In order to determine groundwater impacts, OCD has requested Enterprise Products to execute an investigation to be completed within 30 days upon the completion of excavation and backfilling activities. Backfilling of the Trunk K #3 leak location was completed on October 21, 2014.

Proposed Monitoring Well Locations: Drilling access is constricted to the 50 foot ROW. Therefore, SMA has determined that the installation of four monitoring wells is necessary in order to establish an accurate groundwater gradient and to better identify the extent of possible groundwater contamination at the Trunk K #3 site. All wells will be installed within the ROW; one well in the suspected upgradient direction, one near the source of the release and two in the suspected downgradient direction. A site map depicting the proposed well locations is included as Figure 2.

Well Permits: SMA will obtain monitoring well permits on behalf of Enterprise Products from the OSE. OSE will issue the well permits once land owner approval has been demonstrated.

Directions to Site and Vehicle Access: The Trunk K #3 site will be accessed by traveling south on San Juan County Road (CR) 4450 off of US Highway 64 for approximately 6.6 miles to merge with CR 4490. Remain on CR 4450/4990 for approximately 22.8 miles until CR 4990 intersects the Trunk K Pipeline. At the Trunk K Pipeline and CR 4990 intersection, vehicular traffic will travel northwest within the Trunk

K ROW for approximately 450 feet. All vehicular and operated machinery traffic will remain within the ROW. To prevent traffic outside the ROW, SMA will install visible markers delineating the ROW prior to the commencement of work. SMA estimates the working area of the monitoring well installation to be confined to approximately 200 feet within the Trunk K ROW, in the area of excavation disturbances. A site access map is attached as Figure 3.

SMA anticipates a total of four vehicles on site during the drilling activities. These vehicles will include a truck mounted drilling rig, a support truck and trailer, an Enterprise Products representative's vehicle and a SMA representative's vehicle. All other unanticipated vehicles will remain on the roadway. Personnel required for the drilling activities will include up to a three man drilling crew, one enterprise representative and one SMA representative.

Drilling Approach and Well Completion: Drilling and well installations will be performed by a New Mexico licensed driller with and appropriate sized drilling rig, tentatively a CME 75 or similar. No soil samples will be collected during drilling activities as the majority of the impacted soil has been excavated, transported off site for disposal and replaced with clean backfill material.

The wells will be constructed with 2-inch diameter PVC threaded pipe, specifically manufactured for monitoring well construction. Well screens will be factory slotted with a 0.010 inch slot width. A well completion diagram is included as Figure 4. The wells will be installed to a maximum depth of 32 feet bgs and will be constructed as follows:

Proposed Monitor Well Completion Table

Interval (feet bgs)	2" PVC Well Casing Description	Annulus Completion Description
32-30	2' Sediment Sump (Blank w/cap)	10/20 Coarse Grain Silica Sand
30-15	0.010" Slotted Screen Interval	
15-13	Blank (solid pipe)	20/40 Fine Grained Silica Sand
13-1		Cement/Bentonite/Grout Slurry
1-0		Cement/Concrete Well Pad

The wells will be completed with an aboveground steel well shroud cemented into a 4 feet square pad with a minimum thickness of 4-inches. Each well will also be fitted with 3 protective bollards to prevent damage from vehicle collisions, livestock or wildlife. Once approved by all agencies, SMA estimates that the well installation, development and sampling will be completed within 3 full working days. Upon completion of field activities, the disturbed area will be reseeded with a BLM approved seed mixture during the next favorable growing season.

Well Development and Sampling: Once installed, the monitoring wells will be developed by purging a minimum of three well columns of water and field screening for pH, conductivity and temperature become relatively stable and turbidity is reduced as much as possible. All purge water will be collected and containerized for offsite disposal at an approved facility. Once development is complete, SMA will collect samples for laboratory analysis via EPA Method 8021 for benzene, toluene,

ethylbenzene and xylenes (BTEX), as required by OCD following New Mexico Water Quality Control Commission (WQCC) standards below:

WQCC/OCD Groundwater Quality Standards	
Benzene	0.01 mg/l
Toluene	0.75 mg/l
Ethylbenzene	0.75 mg/l
Total Xylenes	0.62 mg/l

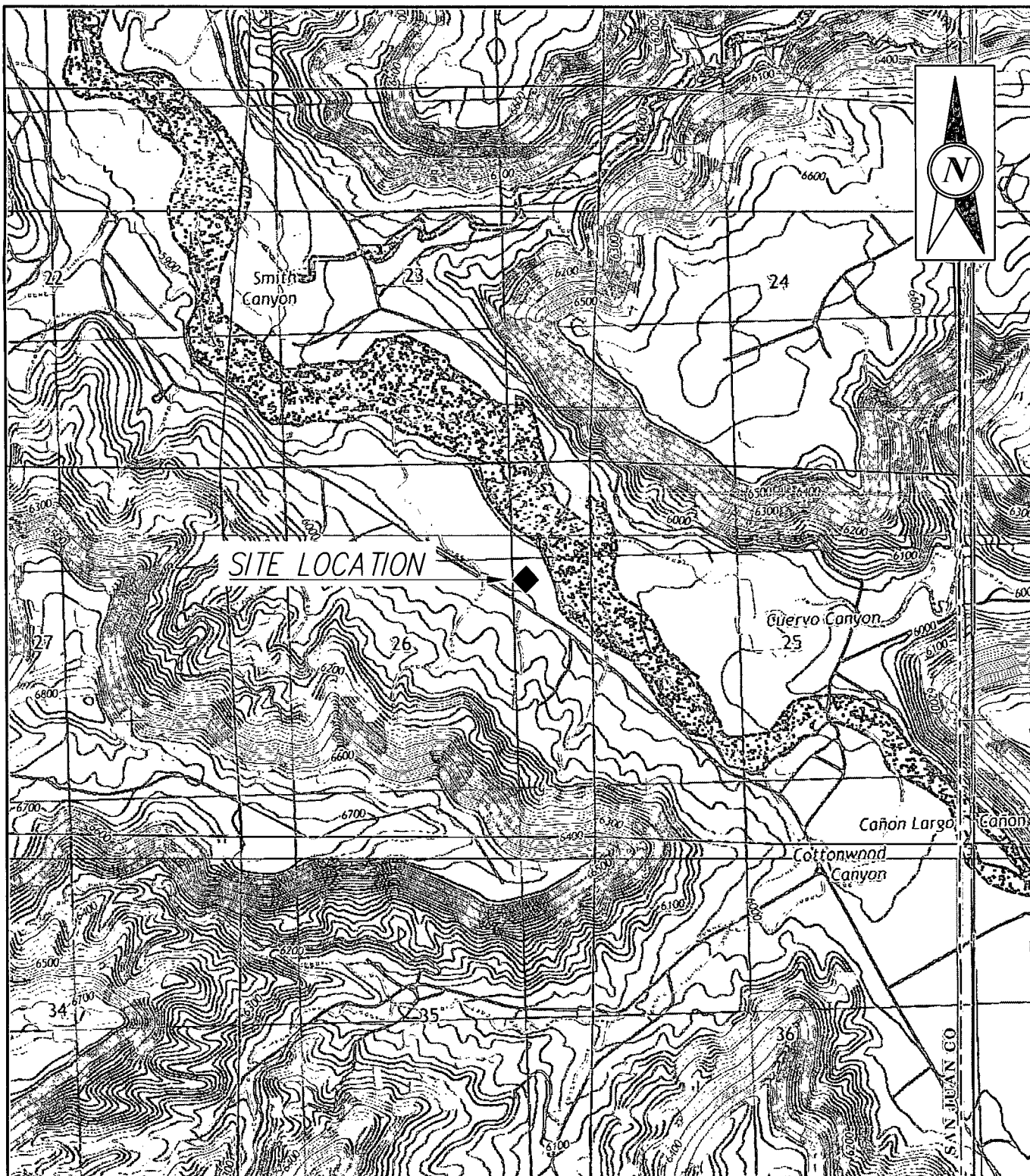
It is anticipated that well development and sampling activities will require up to two SMA representatives using one vehicle, and one Enterprise representative in a separate vehicle. Transportation of the collected purge water will be conducted by a contracted party who will pick up the labeled containers from the work site upon receipt of the laboratory results of the water samples.

In the event that groundwater contaminant concentrations exceed the OCD/WQCC standards, quarterly sampling will be conducted in the same manner every three months for a minimum of 2 years, or longer if necessary to meet the requirements of the OCD.

At the end of the potential two years of quarterly groundwater monitoring, if sample analysis indicates contaminant concentrations exceed the OCD/WQCC standards, additional remediation techniques will be developed and proposed for approval by the OCD and BLM prior to implementation.

Plugging and Abandonment Activities: During the initial sampling event, if groundwater contaminant concentrations are below the OCD/WQCC standards, the wells will be plugged and abandoned. Otherwise, the wells will remain in place until contaminant concentrations are below OCD/WQCC standards until site closure is approved by the OCD. In any scenario, the wells will be abandoned in accordance to the approved Plugging and Abandonment Plan submitted to the OSE within the monitoring well permit package. If necessary, any disturbed area will be reseeded with a BLM approved seed mixture during the next favorable growing season.

It is anticipated that plugging and abandonment activities will require the same number of vehicles and personnel as mentioned in the "Drilling Approach and Well Completion" section.



SCALE

0' 1000' 2000' 4000'



SOUDER, MILLER & ASSOCIATES
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ENTERPRISE

FARMINGTON, NEW MEXICO

VICINITY MAP
TRUNK K #3
SECTION 26, T27N, R8W

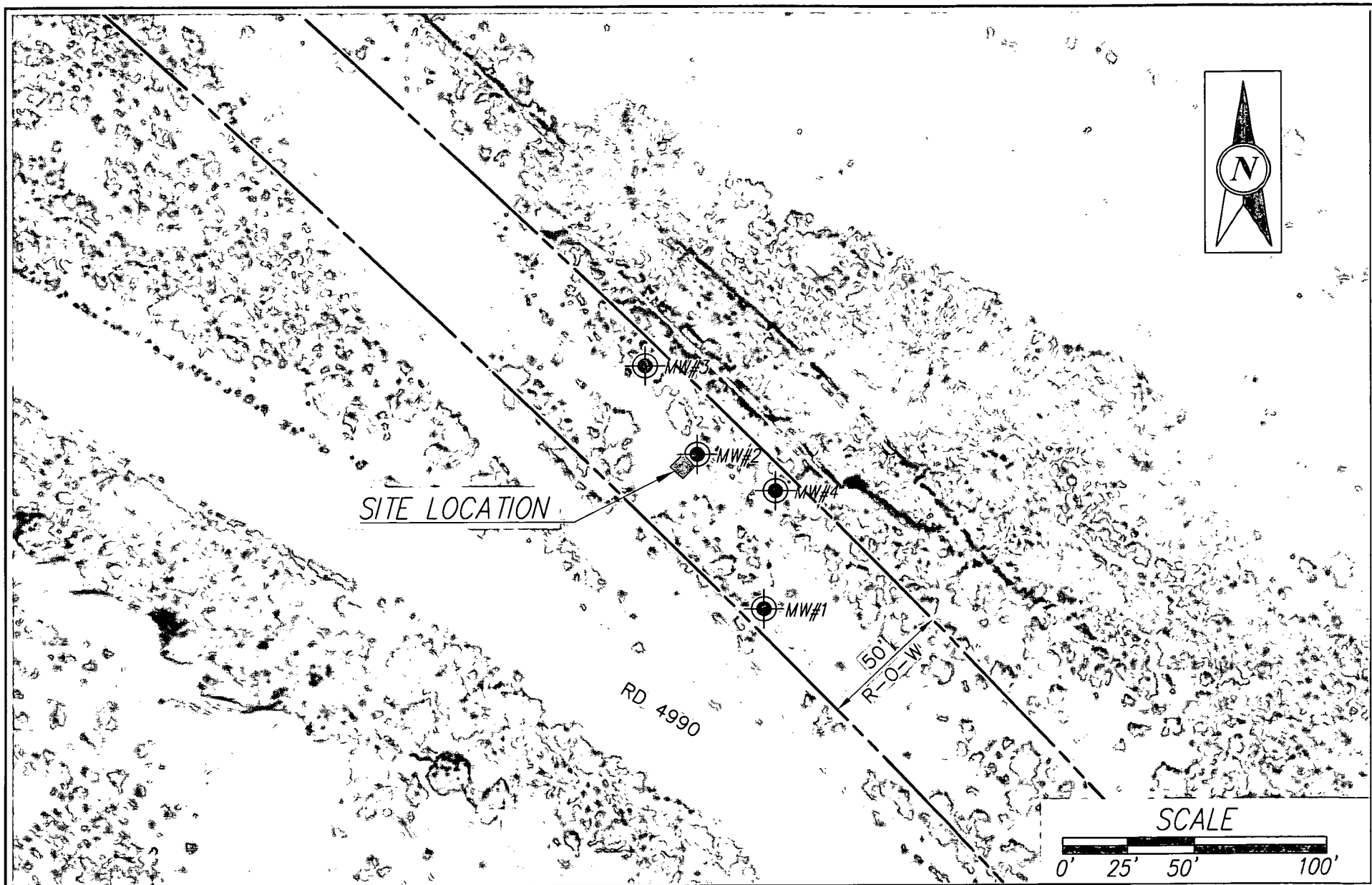
SAN JUAN COUNTY, NEW MEXICO


Designed	Drawn	Checked
SM	DJB	RSA
Date: 10/22/14		
Scale: Horiz: 1"=2000'		
Vert: N/A		
Project No: 5122855		
Sheet: 1		

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P:\S-Enterprise_MSA (2014) 5122855\SPILL RESPONSE\BG45 - Trunk K1\Trunk K-3\CAD\Drawgs\Trunk K-3 Monitor Wells Location Map.dwg, SJM, 10/22/2014 11:25 AM

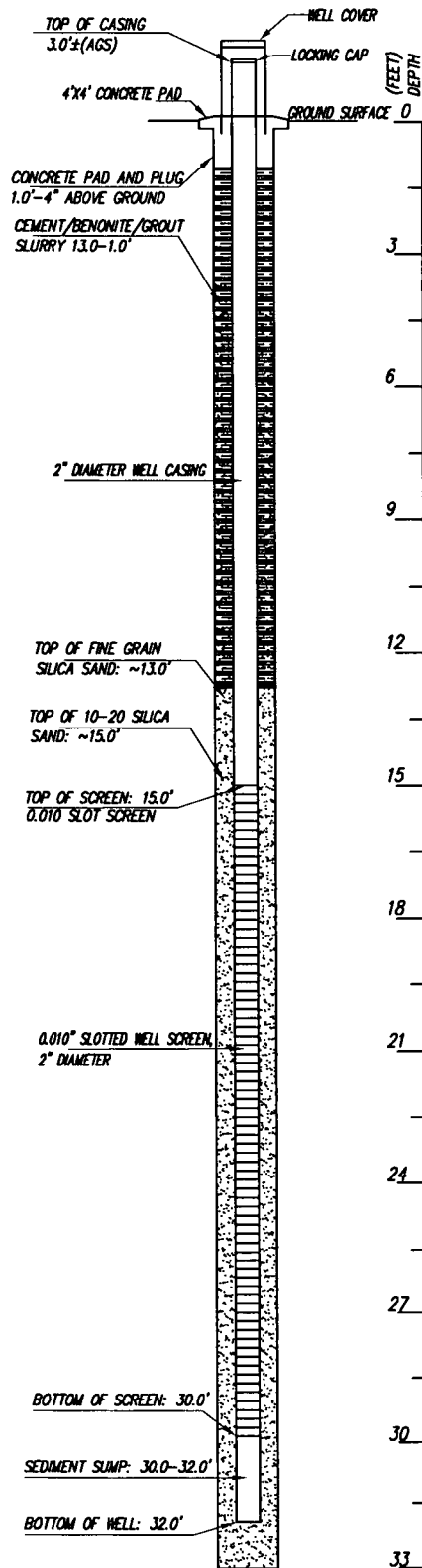


<div><p>SMA Engineering Environmental Surveying</p></div> <div><p>THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS SIGNED, SEALED AND DATED</p></div>	<div><p>SOUDER, MILLER & ASSOCIATES 401 W. BROADWAY FARMINGTON, NM 87401</p><p>Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 325-0045 www.soudermiller.com</p><p>Serving the Southwest & Rocky Mountains Albuquerque, Farmington, Las Cruces, Roswell, Santa Fe, NM - El Paso, TX Corral - Grand Junction - Montrose, CO - Salt Lake City, UT</p></div>	<div><p>ENTERPRISE</p><p>PROPOSED MONITORING WELL LOCATION MAP TRUNK K #3 SECTION 26, T27N, R8W</p><p>SAN JUAN COUNTY, NEW MEXICO</p></div>	<div><p>FARMINGTON, NEW MEXICO</p><table><tr><td>Designed SM</td><td>Drawn DJB</td><td>Checked RSA</td></tr><tr><td colspan="3">Date: 10/22/14</td></tr><tr><td colspan="3">Scale: Horiz: 1"=50' Vert: N/A</td></tr><tr><td colspan="3">Project No: 5122855</td></tr><tr><td colspan="3">Sheet: 2</td></tr></table></div>	Designed SM	Drawn DJB	Checked RSA	Date: 10/22/14			Scale: Horiz: 1"=50' Vert: N/A			Project No: 5122855			Sheet: 2		
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<div><p>Engineering Environmental Surveying</p></div> <div><p>THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION PURPOSES & STAMPED, SIGNED AND DATED</p></div>	<div><p>SOUDER, MILLER & ASSOCIATES 401 W. BROADWAY FARMINGTON, NM 87401</p><p>Phone (505) 325-7535 Toll-Free (800) 519-4098 Fax (505) 325-0045 www.soudermiller.com</p><p>Serving the Southwest & Rocky Mountains Albuquerque, Farmington, Las Cruces, Roswell, Santa Fe, NM • Ft Pecos, TX Cortez • Grand Junction • Montrose, CO • Safford, AZ • Moab, UT</p></div>	<div><p>ENTERPRISE</p><p>PROPOSED ACCESS ROUTE MAP TRUNK K #3 SECTION 26, T27N, R8W</p><p>SAN JUAN COUNTY, NEW MEXICO</p></div>	<div><p>FARMINGTON, NEW MEXICO</p></div>	<table><tr><td>Designed SM</td><td>Drawn DJB</td><td>Checked RSA</td></tr><tr><td>Date:</td><td colspan="2">10/22/14</td></tr><tr><td>Scale:</td><td>Horiz:</td><td>1"=80'</td></tr><tr><td></td><td>Vert:</td><td>N/A</td></tr><tr><td>Project No:</td><td colspan="2">5122855</td></tr><tr><td>Sheet:</td><td colspan="2">3</td></tr></table>	Designed SM	Drawn DJB	Checked RSA	Date:	10/22/14		Scale:	Horiz:	1"=80'		Vert:	N/A	Project No:	5122855		Sheet:	3	
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	Date:	10/22/14																				
	Scale:	Horiz:	1"=80'																			
		Vert:	N/A																			
Project No:	5122855																					
Sheet:	3																					

PROPOSED WELL COMPLETION DIAGRAM



DRILLER: T.B.D.
 DATE COMPLETED: N/A
 BOREHOLE DIAMETER: 6-8" O.D.
 DRILLING METHOD: HOLLOW STEM AUGER
 TOTAL BORING DEPTH: ~33 FT.
 LOGGED BY: T.B.D.



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ENTERPRISE FARMINGTON, NEW MEXICO

PROPOSED MONITORING WELL COMPLETION DIAGRAM TRUNK K #3

SAN JUAN COUNTY

Designed SM	Drawn GJF	Checked RSA
Date:	10/22/2014	
Scale:	Horiz: NA Vert: NA	
Project No:	5122855	
Sheet:	4	

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Appendix E
Cultural Survey Study (WCRM)



Western Cultural Resource Management, Inc.

October 3, 2014

Mr. Steve Moskal
Souder, Miller, and Associates
2101 San Juan Blvd.
Farmington, NM 87401

Dear Steve:

As requested, the client copy of our report on the archaeological survey of the proposed Enterprise Products Company Trunk K pipeline repair locations 1-6 and access road has been submitted electronically to you. During the survey, six newly discovered archaeological sites and four isolated occurrences were encountered. These are discussed in the Results and Conclusions and Recommendations sections of the report.

Cultural resource approval for this undertaking to proceed is recommended with stipulations. The agency copies of the report have been submitted to the New Mexico State Land Office and the Bureau of Land Management-Farmington Field Office, who will review this report and make the final decision on archaeological approval for your project.

Please contact us if you have any questions concerning the report.

Sincerely,

A handwritten signature in black ink, appearing to read "Charles W. Wheeler", with a long horizontal flourish extending to the right.

Charles W. Wheeler, Ph.D., RPA
Vice President

enc.

cc: Jim Copeland, BLM-FFO
David Eck, NMSLO
Tom Long, Enterprise Products Company (electronic)
Tom Lennon, WCRM

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NEW MEXICO
NEVADA
ARIZONA

P.O. Box 2326, Boulder, CO 80306 · Phone 303-449-1151 Fax 303-530-7716
2603 W. Main St., Suite B, Farmington, NM 87401 · Phone 505-326-7420 Fax 505-324-1107
50 Freeport Blvd., Suite 15, Sparks, NV 89431 · Phone 775-358-9003 Fax 775-358-1387
3014 N. Hayden Rd., Suite 118, Scottsdale, AZ 85251 · Phone 480-423-6837 Fax 480-874-4719

Project No. 14F111
NMCRIS No. 131697
Report No. WCRM(F)1339

BLM Cultural Resource Use Permit No.
25-2920-12-NN

Cultural Resource Inventory of Enterprise Products Company
Trunk K Pipeline Repair Locations 1-6 and Access Road,
San Juan County, New Mexico

for

Souder, Miller, and Associates

by

Michael J. Proper and Cindy J. Bunker

submitted by

Western Cultural Resource Management, Inc.
2603 W. Main St., Ste. B
Farmington, New Mexico 87401

Thomas J. Lennon, Principal Investigator

submitted to

Bureau of Land Management
Farmington Field Office
6251 College Blvd., Ste. A
Farmington, New Mexico 87402

October 3, 2014

ABSTRACT

Between August 28 and September 15, 2014, Western Cultural Resource Management, Inc., conducted a Class III inventory of the proposed Trunk K Pipeline Repair Locations 1-6 and an access road for Enterprise Products Company, LLC. The project area is located in San Juan County, New Mexico on land under the jurisdiction of the Bureau of Land Management, Farmington Field Office (BLM-FFO) and the New Mexico State Land Office (NMSLO). An area of 30.35 acres was intensively inventoried (30.28 acres, BLM; 0.07 acres, NMSLO).

Six newly recorded sites (LA 180207, LA 180208, LA 180209, LA 180210, LA 180211, and LA 180212) and four isolated occurrences (IOs) were documented. The IOs represent nonsignificant resources, and no further work is recommended for them. All six sites are recommended eligible for the National Register of Historic Places. Of the six sites two require protective measures, LA 180207 and LA 180209. As stipulated by BLM-FFO (personal communication with James M. Copeland) to protect site LA 180207, all vehicular travel must be restricted to the existing right-of-way and no excavation will be conducted within the site boundary. A fence and monitoring is required for the protection of LA 180209. With these stipulations, cultural resource approval for the undertaking to proceed is recommended.

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INTRODUCTION

At the request of Steve Moskal of Souder, Miller, and Associates, LP (SMA), Western Cultural Resource Management, Inc. (WCRM), performed a Class III inventory of the Enterprise Products Company, LLC (Enterprise), Trunk K Pipeline Repair Locations 1-6 and associated access road. Charles W. Wheeler administered the project for WCRM. Eighty-two person-hours were expended on fieldwork conducted between August 28 and September 15, 2014. The project area is located on land administered by the Bureau of Land Management, Farmington Field Office (BLM-FFO) and the New Mexico State Land Office (NMSLO) in San Juan County, New Mexico (Figures 1 and 2). An area of 30.35 acres were examined (30.28 acres, BLM; 0.07 acres, NMSLO).

The cultural resource inventory was performed in light of the mandates for protection of archaeological resources on public land and for publicly funded or permitted projects. These mandates are put forth in the Antiquities Act of 1906, the National Historic Preservation Act of 1966 (as amended), the National Environmental Policy Act of 1969, the Archaeological and Historic Preservation Act of 1974, the Archaeological Resources Protection Act of 1979, the National Trails System Act (NTSA) of 1968, PL 90-543, and BLM Manual 6280. This project is under the jurisdiction of both federal and state agencies. The project was conducted under BLM Cultural Resource Use Permit No. 25-2920-12-NN, and New Mexico General Archaeological Permit No. NM-14-062-S.

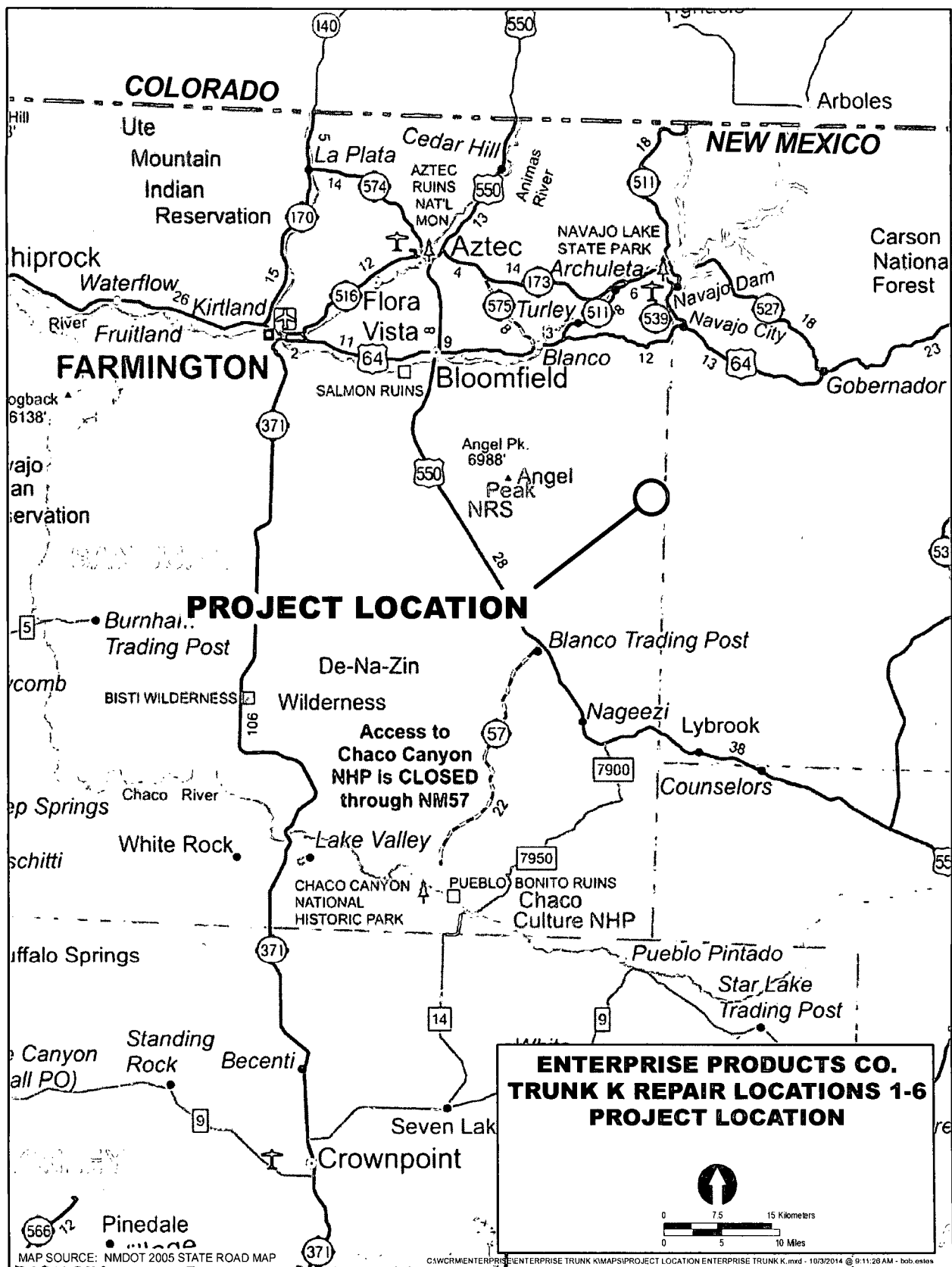
PROJECT DESCRIPTION

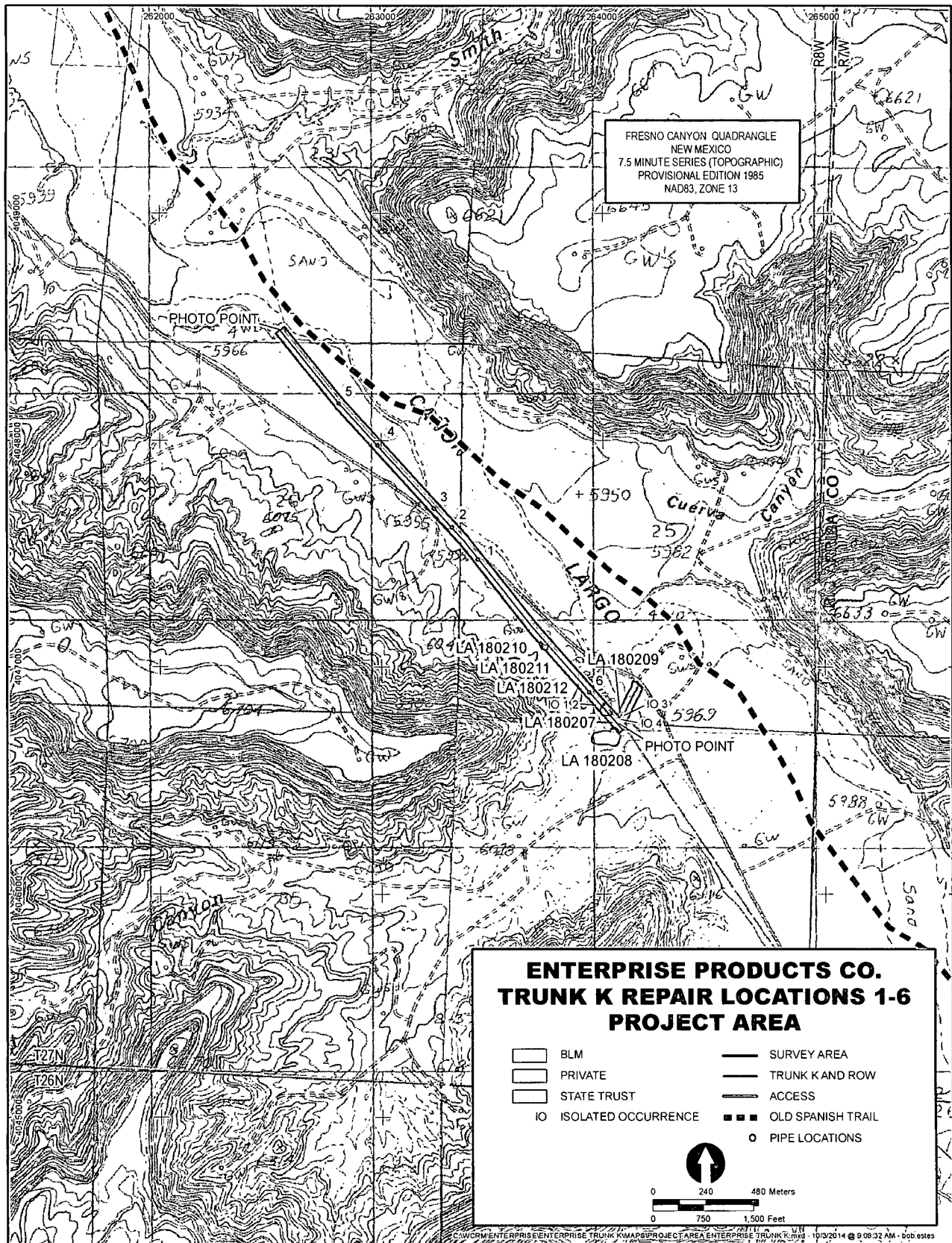
Enterprise is in the process of repairing five locations along the Trunk K pipeline, all of which fall within the 7,683 ft long survey area. Each repair location will require the use of a 100 ft by 60 ft wide area.

Existing service roads will be used to access the pipeline right-of-way (ROW). The construction will consist of blading, trenching, and backfilling. Mechanical equipment will be used during all phases of construction.

Additional information for the project is presented below and in Appendix A. The project area reflects the 7,683 ft portion of the pipeline with a 60 ft ROW. A 50 ft cultural buffer zone was surveyed on each side of the ROW. The total area surveyed is 30.35 acres.

Legal Location:	NMPM, T27N, R8W Section 23 (template anchored on SE corner and southern section line) SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 25 (template anchored on SE corner and southern section line) S $\frac{1}{2}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 26 (template anchored on SE corner and southern section line) NE $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$, S $\frac{1}{2}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$, NW $\frac{1}{2}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 36 (template anchored to NE corner and north line) NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ San Juan County, New Mexico
Map Source:	USGS 7.5' Fresno Canyon, NM 1985 (provisional edition) Code: 36107-E1
Project Area:	500 x 60 ft (pipeline ROW) 0.69 acre
Surveyed Area:	30.35 acres (as calculated in AutoCAD)





ENVIRONMENTAL SETTING

This segment of the Trunk K pipeline is situated on the west side of Largo Canyon, between Cottonwood and Onofre Jaquez canyons. Elevation in the survey area ranges from 5940 to 6000 ft. The project area is located on a dissected terrace above the flood plain. Vegetation includes an overstory of cottonwood, tamarisk, and willows in the flood plain with a pinyon and juniper overstory on the terrace. The understory includes sagebrush, greasewood, snakeweed, blue grama grass, Indian ricegrass, Little blue stem grass, Russian thistle, wolfberry, four-wing saltbush, rabbitbrush, prickly pear cactus, and cholla. Sediment ranges from silt loam to sandy loam with gravel and rock inclusions. Energy development, woodcutting, and livestock grazing are activities currently taking place in the project area.

Native flora and fauna provided food, clothing, and raw materials for prehistoric inhabitants in the area. Nonfood resources included sandstone and quartzite cobbles and trees for construction material; quartzite, silicified wood, and chert for lithic tools; and clay for ceramic manufacture.

PREVIOUS RESEARCH

Prior to field inspection, the archaeologists conducted an online search of the Archaeological Records Management Section (ARMS), and requested and received a records search at the BLM-FFO to determine in any sites had been recorded within 0.25 mi of the survey area. A search of the National Register of Historic Places (NRHP) and State Register of Cultural Properties was also conducted, and Van Valkenburgh (1974) was consulted. Results are expounded in Appendix B (for agency use only).

METHODS

Pedestrian survey of the pipeline corridor was performed on August 28, 2014, by archaeologists Michael J. Proper and Virginia Foster who walked parallel transects spaced 50 ft apart. Weather was clear and hot. Ground visibility ranged from 30 to 50 percent. A cultural buffer zone of 50 ft was surveyed on both sides of the 7,683 x 60 ft pipeline ROW. Relevant waypoints were recorded in the field using a handheld global positioning system (GPS) unit accurate from 1 to 10 m.

When cultural material was encountered, it was pin flagged and the archaeologists began an intensive search of the area to locate other material. The archaeologists recorded all cultural remains potentially older than 50 years. Those that satisfied current BLM-FFO site standards were assigned site status. Other cultural remains were documented as isolated occurrences (IOs).

Michael J. Proper, Virginia Foster, and Cindy J. Bunker recorded sites LA 180207, LA 180208, LA 180209, LA 180210, LA 180211, and LA 180212 between September 2 and 4, 2014. A permanent datum consisting of a spike and tag was placed. The sites were documented on Laboratory of Anthropology Site Record forms, site boundaries were established, site maps were drawn, photographs were taken, and in-field artifact analysis was conducted. No artifacts were collected. The crew chief maintained field notes. Once the sites were recorded, all flagging was removed. On September 12, 2014, Michael J. Proper was present at the on-site that was held with Jim Copeland (BLM archaeologist) and representatives of Souder Miller & Associates and Enterprise Products. On September 15, 2014, Michael J. Proper returned to the project area to complete the tasks identified during the onsite.

RESULTS

Survey resulted in the identification of six newly discovered sites (LA 180207, LA 180208, LA 180209, LA 180210, LA 180211, and LA 180212) and four IOs.

Sites

Site Number: LA 180207 (Figure 3)

Temporary Number: 14F111-S1

Cultural/Temporal Affiliation: Anasazi/A.D. 700-900

Site Type: Habitation

Site Size:

Dimensions: 68 x 60 m

How Determined: GPS

Area: 3,078 m² (as calculated in AutoCAD)

Site Description: Site LA 180207 is an Anasazi habitation that was encountered during the cultural resource inventory of the Trunk K pipeline project. The site is situated on a bench above the Largo Canyon drainage, approximately 0.2 mi northwest of Cottonwood Canyon. Vegetation consists of a sparse overstory of juniper with an understory of sagebrush, blue grama grass, Russian thistle, greasewood, snakeweed, galleta grass, Indian ricegrass, wolfberry, prickly pear cactus, and cholla. Sediment is silt loam with gravel and rock inclusions.

LA 180207 is situated on a dissected bench on the west side of the canyon providing the site with an eastern exposure and excellent view of Largo Canyon. A major pipeline ROW has impacted the site.







Condition: Site LA 180207 is in fair condition. Energy development and livestock grazing are modern activities that take place in the site area.

Expected Project Impacts: Site LA 180207 has been impacted by the construction of three pipelines, although an undisturbed portion of the site is located west of the pipeline corridor. If management recommendations are followed, no project-related impact to the site is expected.

Significance and National Register Eligibility: Site LA 180207 is recommended eligible for the NRHP under criterion (d). The site retains integrity of location, setting, association, and materials. Integrity of design, feeling, and workmanship may be present but are not immediately apparent. The site contains potentially datable material, and the potential for buried cultural deposits. It retains the potential to provide additional information about Anasazi land use, settlement, and subsistence in the area.

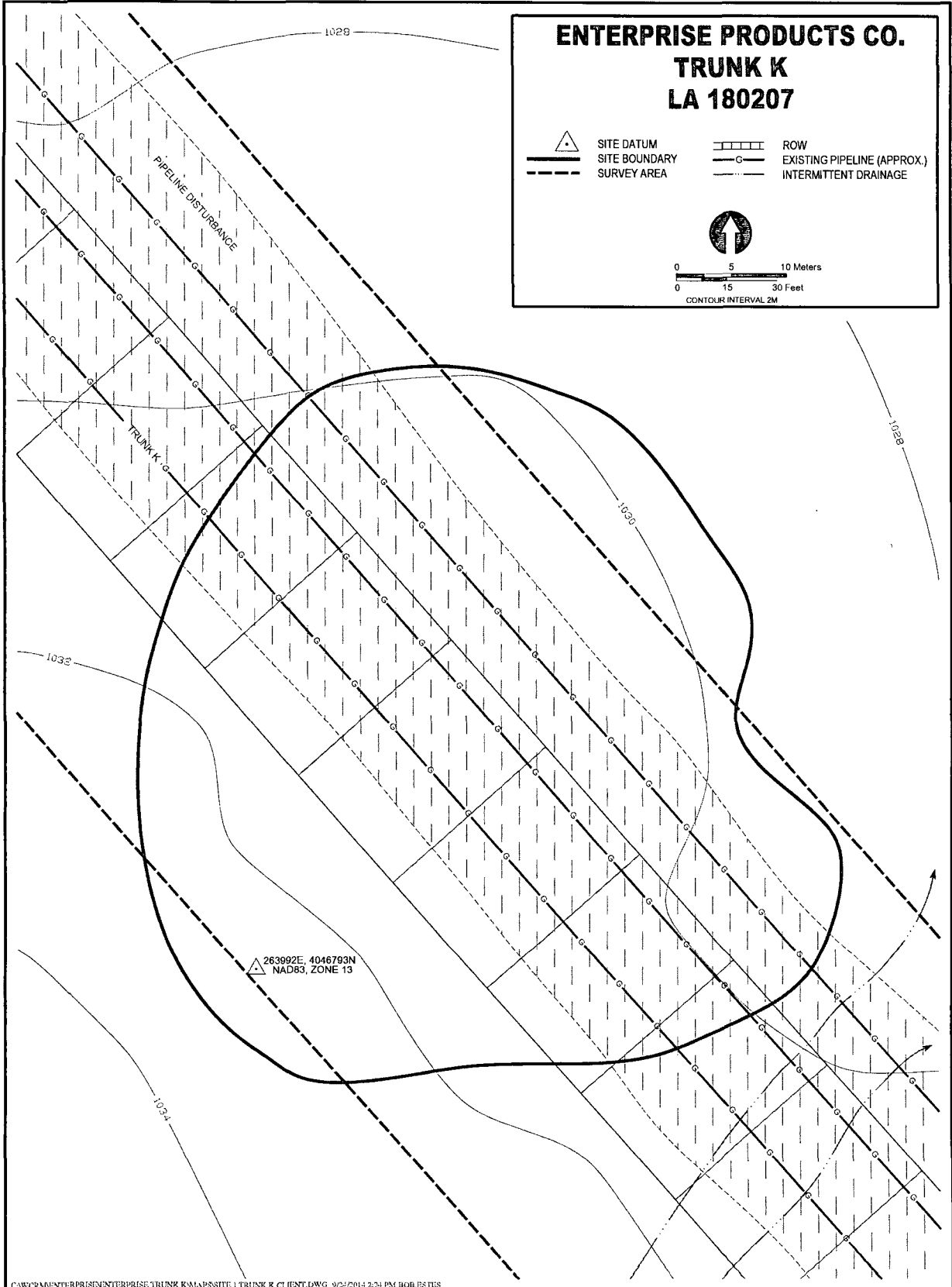
Management Recommendations: To protect LA 180207, BLM-FFO stipulated that all vehicular traffic be restricted to the existing ROW and no excavation conducted within the site boundary. An archaeological monitor will be present the first day of repairs and photos will be taken before, during, and after completion of the repairs.

ENTERPRISE PRODUCTS CO. TRUNK K LA 180207

	SITE DATUM		ROW
	SITE BOUNDARY		EXISTING PIPELINE (APPROX.)
	SURVEY AREA		INTERMITTENT DRAINAGE



0 5 10 Meters
0 15 30 Feet
CONTOUR INTERVAL 2M



C:\WORK\ENTERPRISE\ENTERPRISE\TRUNK K\LA180207.DWG 9/2/2014 2:54 PM BOB DYES

254

Site Number: LA 180208 (Figure 4)

Temporary Number: 14F111-S2

Cultural/Temporal Affiliation: Anasazi/A.D. 700-900

Site Type: Habitation

Site Size:

Dimensions: 140 x 90 m

How Determined: GPS

Area: 9,251 m² (as calculated in AutoCAD)

Site Description: Site LA 180208 is an Anasazi habitation that was encountered during the cultural resource inventory of the Trunk K pipeline project. The site is situated on a bench above Largo Canyon drainage, approximately 0.1 mi northwest of Cottonwood Canyon. Vegetation consists of a sparse overstory of juniper with an understory of sagebrush, blue grama grass, Russian thistle, greasewood, snakeweed, galleta grass, Indian ricegrass, unidentified native grasses, wolfberry, prickly pear cactus, and cholla. Sediment is silt loam with gravel and rock inclusions.

LA 180208 is on a dissected bench on the west side of the canyon providing the site with an eastern exposure and excellent view of Largo Canyon. The bench has a gentle northeast slope with gullies and rills exposing a dark brown, silt clay loam layer with orthoquartzite and fragments of coarse-grained sandstone (red to rust color) eroding from the layer and accumulating in the shallow drainages. A major pipeline ROW is adjacent to the eastern site boundary.

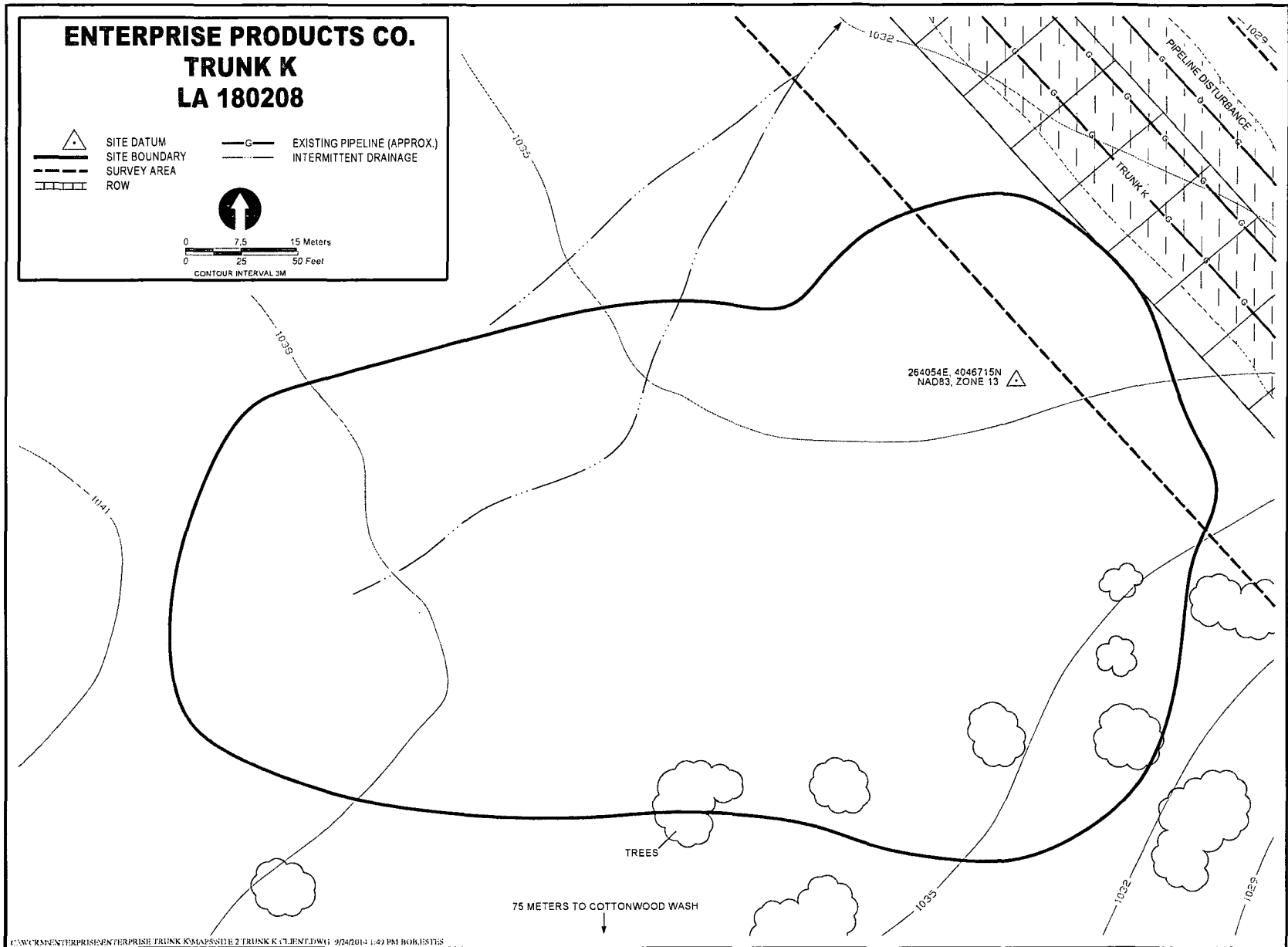
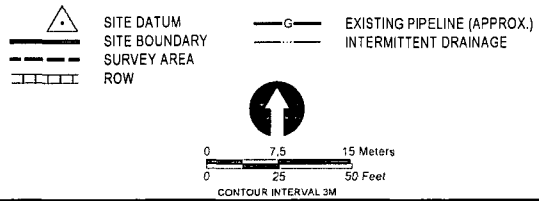
Condition: Site LA 180208 is in fair condition. Energy development and livestock grazing are modern activities that take place in the site area.

Expected Project Impacts: Site LA 180208 is located in the cultural buffer zone southwest of the proposed construction. If management recommendations are followed, no project-related impact to the site is expected.

Significance and National Register Eligibility: Site LA 180208 is recommended eligible for the NRHP under criterion (d). The site retains integrity of location, setting, association, and materials. Integrity of design, feeling, and workmanship may be present but not immediately apparent. The site contains potentially datable material, and the potential for buried cultural deposits. It retains the potential to provide additional information about Anasazi land use, settlement, and subsistence in the area.

Management Recommendations: No further work is recommended for this site.

ENTERPRISE PRODUCTS CO. TRUNK K LA 180208



Site Number: LA 180209 (Figure 5)

Temporary Number: 14F111-S4

Cultural/Temporal Affiliation: Anasazi/A.D. 700-900

Site Type: Artifact scatter

Site Size:

Dimensions: 35 x 18 m

How Determined: GPS

Area: 592 m² (as calculated in AutoCAD)

Site Description: Site LA 180209 is an Anasazi artifact scatter that was encountered during the cultural resource inventory of the Trunk K pipeline project. The site is situated on a bench above the Largo Canyon drainage, approximately 0.1 mi north of Cottonwood Canyon. Vegetation consists of an understory of sagebrush, galleta grass, blue grama grass, Indian ricegrass, alkali sacaton, snakeweed, prickly pear cactus, rabbitbrush, and greasewood. Sediment is silt loam with gravel and rock inclusions.

LA 180209 is located on a gentle sloping bench on the west side of the Largo Canyon drainage with an eastern exposure and excellent view of the canyon. A major pipeline ROW is adjacent to the southern site boundary.

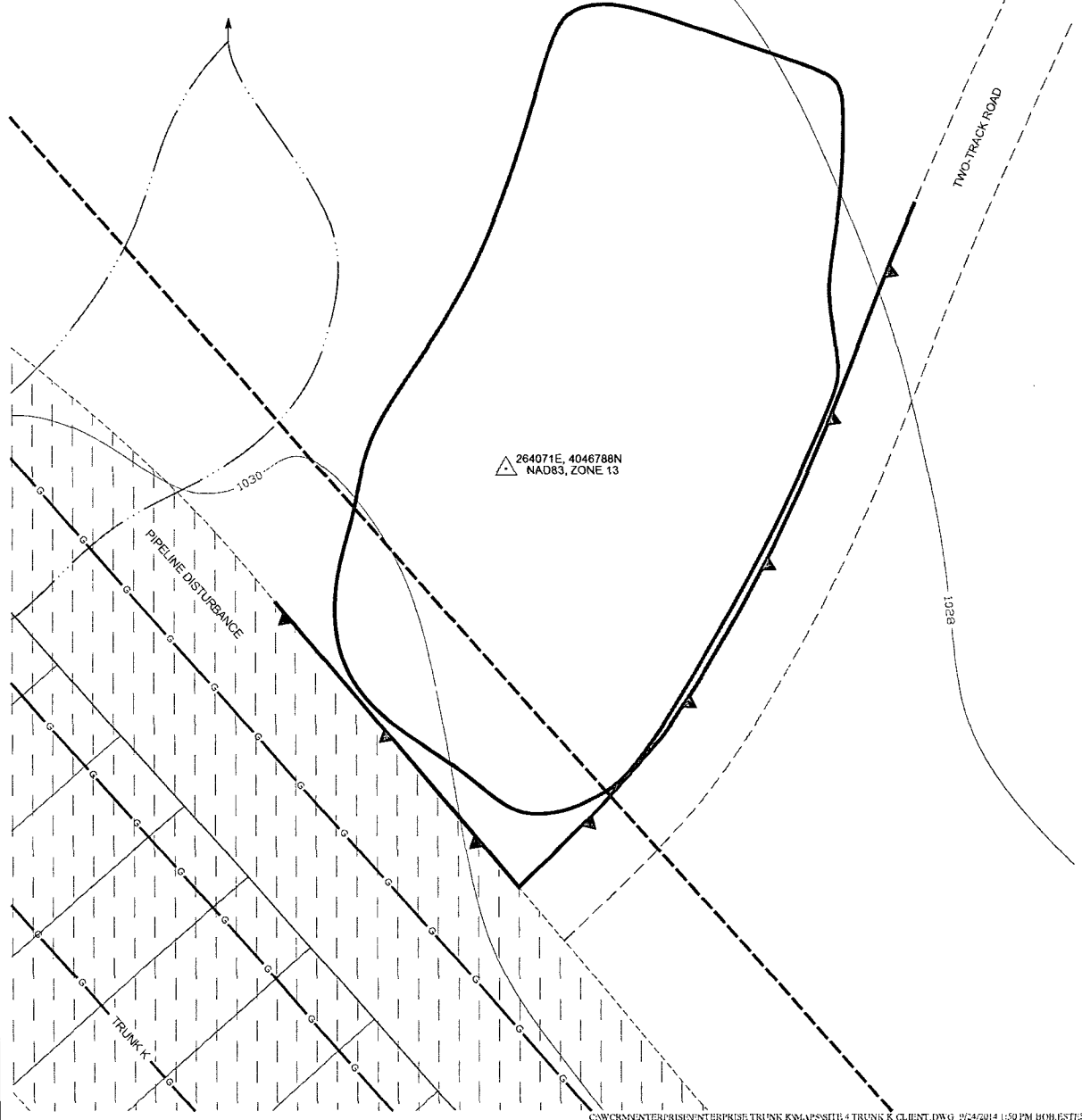
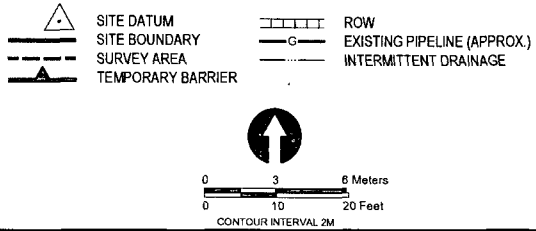
Condition: Site LA 180209 is in fair condition. Energy development and livestock grazing are modern activities that take place in the site area.

Expected Project Impacts: Site LA 180209 is located in the northern edge of the cultural buffer zone, northeast of the proposed construction. If management recommendations are followed, no project-related impact to the site is expected.

Significance and National Register Eligibility: Site LA 180209 is recommended eligible for the NRHP under criterion (d). The site retains integrity of location, setting, association, and materials. Integrity of design, feeling, and workmanship may be present but not immediately apparent. The site contains potentially datable material, and the potential for buried cultural deposits. It retains the potential to provide additional information about Anasazi land use, settlement, and subsistence in the area.

Management Recommendations: To protect LA 180209, BLM-FFO stipulated that a barrier fence be placed along the eastern edge of the existing disturbance and the northwestern edge of the access road. The fence should begin at the intersection of the access road and the disturbance and extend to the northeast approximately 120 ft and 50 ft to the northwest. Archaeological monitoring of all ground-disturbing activity within 100 ft of the site is also recommended.

**ENTERPRISE PRODUCTS CO.
TRUNK K
LA 180209**



Site Number: LA 180210 (Figure 6)

Temporary Number: 14F111-S5

Cultural/Temporal Affiliation: Anasazi/A.D. 700-900

Site Type: Habitation

Site Size:

Dimensions: 56 x 47 m

How Determined: GPS

Area: 1,541 m² (as calculated in AutoCAD)

Site Description: Site LA 180210 is an Anasazi habitation that was encountered during the cultural resource inventory of the Trunk K pipeline project. The site is situated on a bench west of Largo Canyon drainage, approximately 0.4 mi northwest of Cottonwood Canyon. Vegetation consists of an overstory of juniper with an understory of galleta grass, blue grama grass, sagebrush, snakeweed, Indian ricegrass, prickly pear cactus, and cholla. Sediment is silt loam with gravel and rock inclusions.

Condition: Site LA 180210 is in fair condition. Energy development and livestock grazing are modern activities that take place in the site area.

Expected Project Impacts: Site LA 180210 is located in the southwestern cultural buffer zone and extends into the existing pipeline ROW. However, the nearest repair location is located approximately 850 ft to the southeast and no impact to the site is expected.

Significance and National Register Eligibility: Site LA 180210 is recommended eligible for the NRHP under criterion (d). The site retains integrity of location, setting, association, and materials. Integrity of design, feeling, and workmanship may be present but not immediately apparent. The site contains potentially datable material, and the potential for buried cultural deposits. It retains the potential to provide additional information about Anasazi land use, settlement, and subsistence in the area.

Management Recommendations: No further work is recommended for this site.

Site Number: LA 180211 (Figure 7)

Temporary Number: 14F111-S6

Cultural/Temporal Affiliation: Unknown prehistoric/A.D. 1-1500

Site Type: Limited activity site

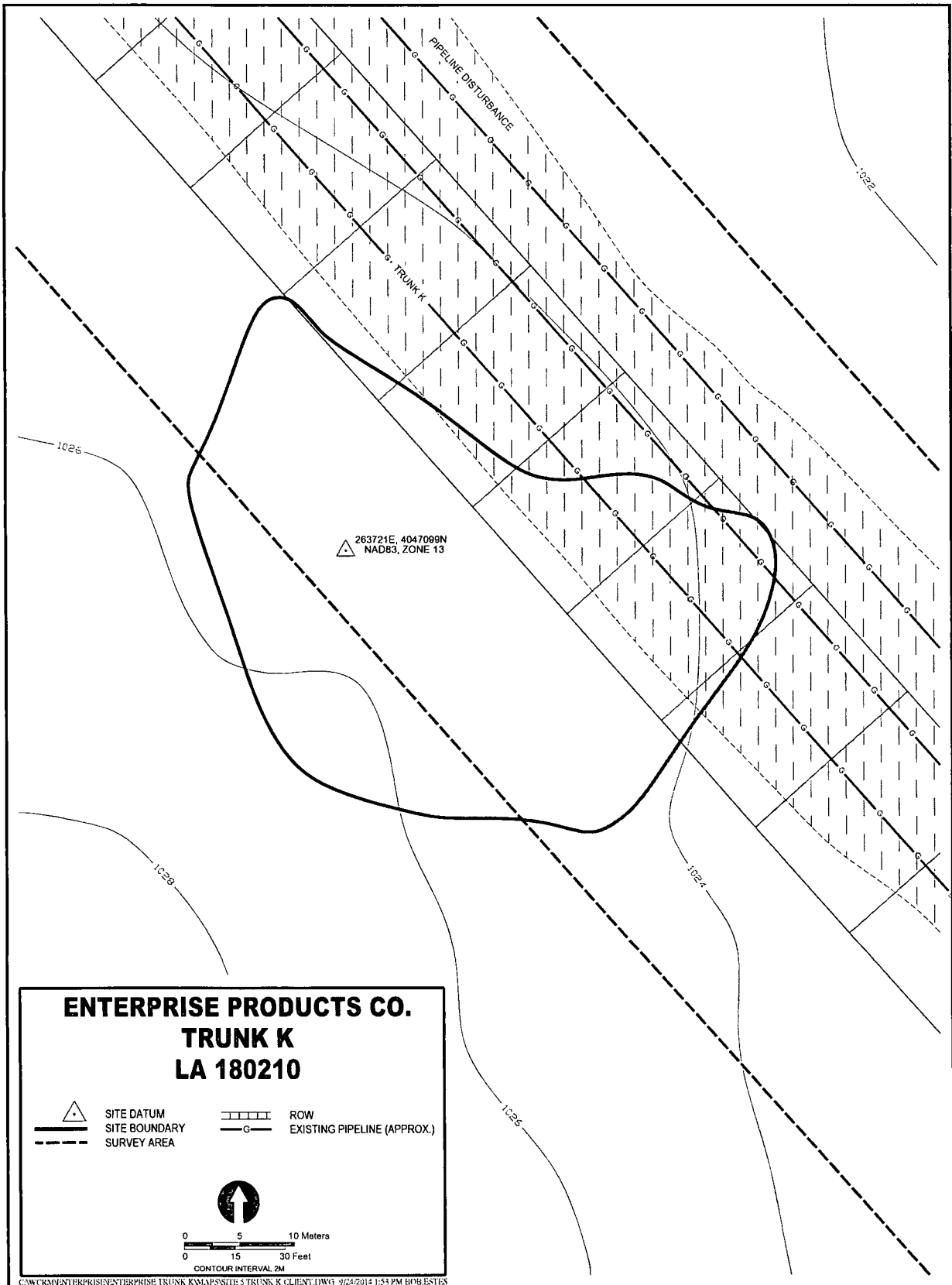
Site Size:

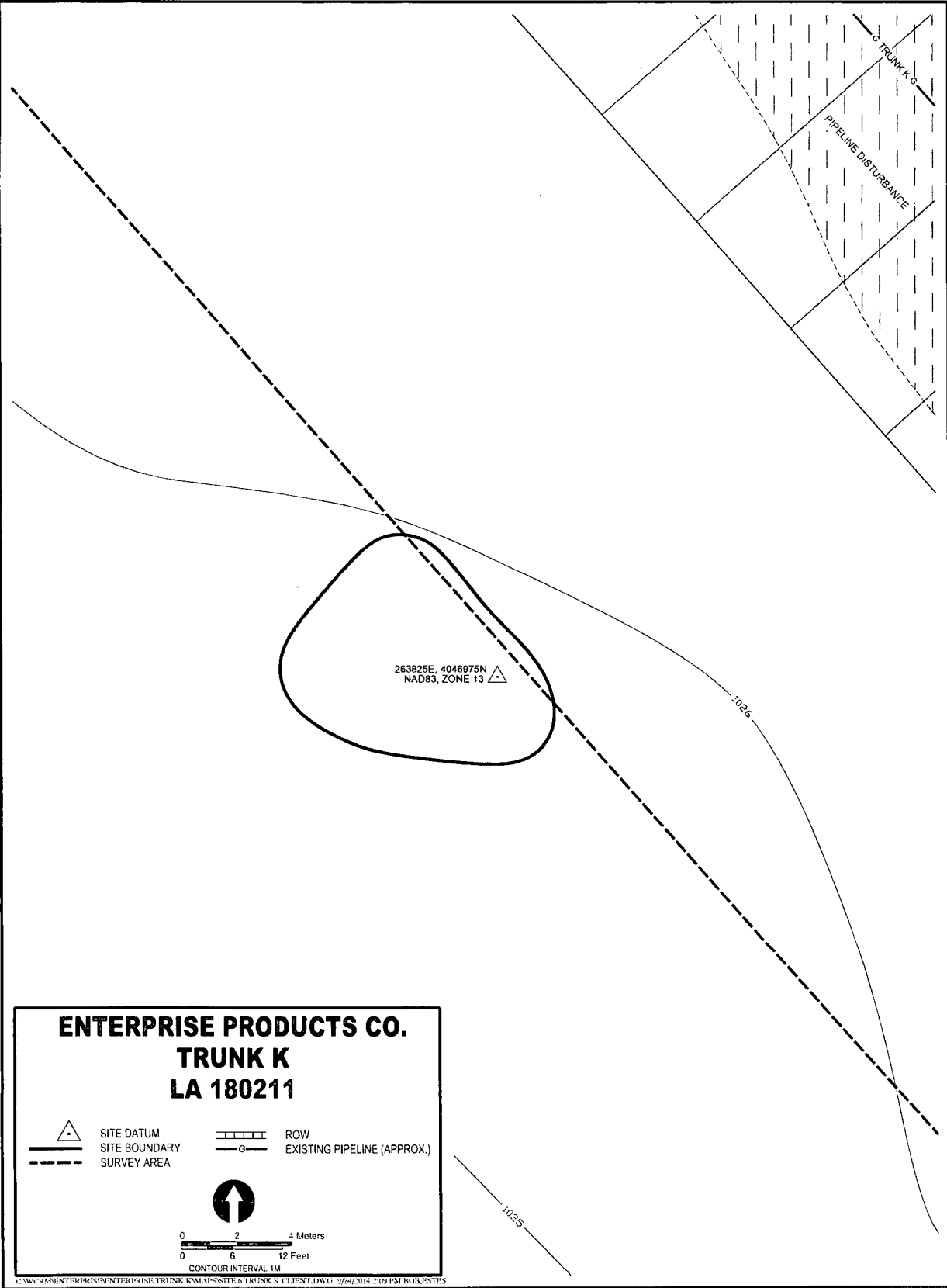
Dimensions: 10 x 8 m

How Determined: GPS

Area: 55 m² (as calculated in AutoCAD)

Site Description: Site LA 180211 is a limited activity site of unknown cultural and temporal affiliation that was encountered during the cultural resource inventory of the Trunk K pipeline project. The site is situated on a north-facing slope of a ridge west of Largo Canyon drainage, approximately 0.45 mi northwest of Cottonwood Canyon. The ridge provides shelter from southwest prevailing winds. A major pipeline ROW is adjacent to the eastern site boundary. Vegetation consists of a sparse overstory of





juniper with an understory of blue grama grass, sagebrush, snakeweed, rabbitbrush, and prickly pear cactus. Sediment is silt loam with gravel and rock inclusions.

Condition: Site LA 180211 is in fair condition. Energy development and livestock grazing are modern activities that take place in the site area.

Expected Project Impacts: Site LA 180211 is located along the southwestern edge of the cultural buffer zone. The nearest repair location is approximately 500 ft to the southeast and no project-related impact to the site is expected.

Significance and National Register Eligibility: Site LA 180211 is recommended eligible for the NRHP under criterion (d). The site retains integrity of location, setting, association, and materials. Integrity of design, feeling, and workmanship may be present but not immediately apparent. The site contains potentially datable material, and the potential for buried cultural deposits. It retains the potential to provide additional information about Anasazi land use, settlement, and subsistence in the area.

Management Recommendations: No further work is recommended for this site.

Site Number: LA 180212 (Figure 8)

Temporary Number: 14F111-S7

Cultural/Temporal Affiliation: Unknown prehistoric/A.D. 1-1500

Site Type: Limited activity site

Site Size:

Dimensions: 14 x 13 m

How Determined: GPS

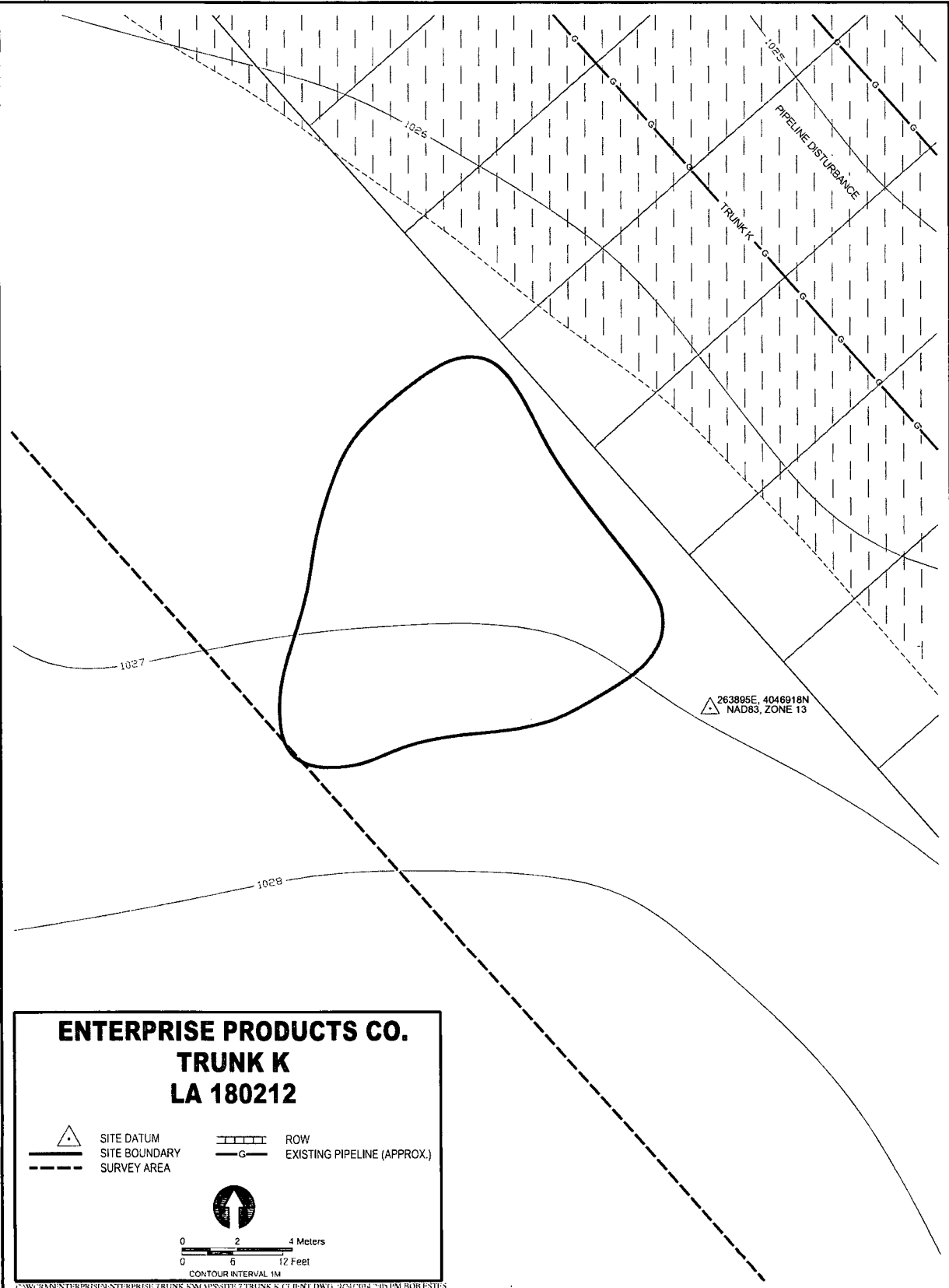
Area: 130 m² (as calculated in AutoCAD)

Site Description: Site LA 180212 is a limited activity site of unknown cultural and temporal affiliation that was encountered during the cultural resource inventory of the Trunk K pipeline project. The site is situated on a hill slope west of Largo Canyon drainage, approximately 0.35 mi northwest of Cottonwood Canyon. The ridge provides shelter from southwest prevailing winds. A major pipeline ROW is adjacent to the eastern site boundary. Vegetation consists of a sparse overstory of juniper with an understory of galleta grass, Texas Timothy grass, blue grama grass, sagebrush, alkali sacaton, snakeweed, rabbitbrush, and antelopebrush. Sediment is silt loam with gravel and rock inclusions.

Condition: Site LA 180212 is in fair condition. Energy development and livestock grazing are modern activities that take place in the site area.

Expected Project Impacts: Site LA 180212 is located in the southwestern cultural buffer zone. The nearest repair location is located approximately 200 ft to the southeast and no project-related impact to the site is expected.

Significance and National Register Eligibility: Site LA 180212 is recommended eligible for the NRHP under criterion (d). The site retains integrity of location, setting, association, and materials. Integrity of design, feeling, and workmanship may be present but not immediately apparent. The site contains potentially datable material, and the potential for buried cultural deposits. It retains the potential to provide additional information about Anasazi land use, settlement, and subsistence in the area.



Management Recommendations: No further work is recommended for this site.

Isolated Occurrences

Inspection of the pipeline right-of-way resulted in the discovery of four IOs.

CONCLUSIONS AND RECOMMENDATIONS

Inspection of the six repair locations and access road resulted in the recording of six newly discovered archaeological sites (LA 180207, LA 180208, LA 180209, LA 180210, LA 180211, and LA 180212) and four IOs. The IOs are considered nonsignificant resources, and no further work is recommended for them. All six sites are recommended eligible for the NRHP, but only two require protective measures. To protect LA 180207, BLM-FFO stipulated that all vehicular traffic be restricted to the existing ROW and no excavation be conducted within the site boundary. An archaeologist needs to be present to take photos prior to beginning the repairs, during, and after completion. To protect LA 180209 a temporary barrier fence was to be placed as shown in Figure 5. If management recommendations are followed, no impact to the site is expected from construction activities. With these stipulations, cultural resource approval for this undertaking to proceed is recommended.

REFERENCE CITED

Van Valkenburgh, Richard F.

1974 *Navajo Sacred Places and A Short History of the Navajo People*. Garland American Indian Ethnohistory Series, Navajo Indians, 3 Vols. Garland Publishing, Inc., New York and London.

Appendix A

Nearby Sites
(for agency use only)



Western Cultural Resource Management, Inc.

December 11, 2014

Mr. Steve Moskal
Souder, Miller, and Associates
2101 San Juan Blvd.
Farmington, NM 87401

Dear Steve:

As requested, the client copy of our report on the archaeological monitor of the repair Location No. 6 on the Trunk K pipeline has been submitted electronically to you. During the monitor, no cultural material was encountered.

With completion of the monitor, all stipulations and conditions of cultural resource compliance have been met.

Please contact us if you have any questions concerning the report.

Sincerely,

A handwritten signature in black ink that reads "Chuck Wheeler". The signature is fluid and cursive, with a long horizontal stroke at the end.

Charles W. Wheeler, Ph.D., RPA
Vice President

enc.

cc: Jim Copeland, BLM-FFO
Tom Long, Enterprise Products Company (electronic)
Tom Lennon, WCRM

COLORADO
NEW MEXICO
NEVADA
ARIZONA

P.O. Box 2326, Boulder, CO 80306 · Phone 303-449-1151 Fax 303-530-7716
2603 W. Main St., Suite B, Farmington, NM 87401 · Phone 505-326-7420 Fax 505-324-1107
50 Freeport Blvd., Suite 15, Sparks, NV 89431 · Phone 775-358-9003 Fax 775-358-1387
3014 N. Hayden Rd., Suite 118, Scottsdale, AZ 85251 · Phone 480-423-6837 Fax 480-874-4719

NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)

1. NMCRIS Activity No.: 132260	2a. Lead (Sponsoring) Agency: Bureau of Land Management, Farmington Field Office	2b. Other Permitting Agency(ies):	3. Lead Agency Report No.:												
4. Title of Report: Archaeological Monitoring of the Enterprise Products Company Trunk K Pipeline Repair Location No. 6 in San Juan County, New Mexico Author(s) Cindy J. Bunker			5. Type of Report <input checked="" type="checkbox"/> Negative <input type="checkbox"/> Positive												
6. Investigation Type <input type="checkbox"/> Research Design <input type="checkbox"/> Survey/Inventory <input type="checkbox"/> Test Excavation <input type="checkbox"/> Excavation <input type="checkbox"/> Collections/Non-Field Study <input type="checkbox"/> Overview/Lit Review <input checked="" type="checkbox"/> Monitoring <input type="checkbox"/> Ethnographic study <input type="checkbox"/> Site specific visit <input type="checkbox"/> Other															
7. Description of Undertaking (what does the project entail?): At the request of Tom Long of Enterprise Products Company, personnel from Western Cultural Resource Management, Inc. (WCRM), monitored activities associated with the repair of the leak at Location No. 6 on the Trunk K pipeline. Bureau of Land Management, Farmington Field Office (BLM-FFO) stipulations required that protective measures be taken to protect sites LA 180207 and LA 180209. Temporary barriers were to be constructed and an archaeologist was to be present to take photos prior to beginning the repairs, during, and after completion (personal communication with James M. Copeland).		8. Dates of Investigation: September 15-October 17, 2014													
10. Performing Agency/Consultant: Western Cultural Resource Management, Inc. Principal Investigator: Thomas J. Lennon Field Supervisor: Michael J. Proper and Cindy J. Bunker Field Personnel Names: Michael J. Proper and Cindy J. Bunker		11. Performing Agency/Consultant Report No.: WCRM(F)1349 Project No.: 14F111													
13. Client/Customer (project proponent): Souder, Miller, and Associates on behalf of Enterprise Products Company Contact: Steve Moskal Address: 2101 San Juan Blvd, Farmington NM, 87401 Phone: (505) 325-7535		12. Applicable Cultural Resource Permit No(s): 25-2920-12-NN (BLM-FFO)													
14. Client/Customer Project No.:															
15. Land Ownership Status (Must be indicated on project map): <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Land Owner</th> <th style="text-align: center;">Acres Surveyed*</th> <th style="text-align: center;">Acres in APE</th> </tr> </thead> <tbody> <tr> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black; width: 15%;"></td> <td style="border: 1px solid black; width: 15%;"></td> </tr> <tr> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black;"></td> <td style="border: 1px solid black;"></td> </tr> <tr> <td style="text-align: right; border: 1px solid black;">TOTALS</td> <td style="border: 1px solid black;"></td> <td style="border: 1px solid black;"></td> </tr> </tbody> </table> <p style="font-size: small;">*as calculated in AutoCAD</p>				Land Owner	Acres Surveyed*	Acres in APE							TOTALS		
Land Owner	Acres Surveyed*	Acres in APE													
TOTALS															
16. Records Search(es): Cultural resource inventory of the proposed Repair Locations for the Trunk K pipeline, was completed by WCRM (Proper and Bunker 2014). The survey resulted in the documentation of six newly recorded sites (LA 180207, LA 180208, LA 180209, LA 180210, LA 180211, and LA 180212). All six sites are recommended eligible for the National Register of Historic Places. Of the six sites two require protective measures, LA 180207 and LA 180209. Proper, Michael J., and Cindy J. Bunker 2014 <i>Cultural Resource Inventory of Enterprise Products Company Trunk K Pipeline Repair Locations 1-6 and Access Road, San Juan County, New Mexico</i> . Report No. WCRM(F)1339. Western Cultural Resource Management, Inc., Farmington, New Mexico. (NMCRIS 131697)															
Date(s) of ARMS File Review		Name of Reviewer(s)													
Date(s) of NR/SR File Review		Name of Reviewer(s)													
Date(s) of Other Agency File Review		Agency													
17. Survey Data: a. Source Graphics <input type="checkbox"/> NAD 27 <input checked="" type="checkbox"/> NAD 83 <input checked="" type="checkbox"/> USGS 7.5' (1:24,000) topo map <input type="checkbox"/> Other topo map, Scale: <input checked="" type="checkbox"/> GPS Unit Accuracy <input type="checkbox"/> <1.0m <input checked="" type="checkbox"/> 1-10m <input type="checkbox"/> 10-100m <input type="checkbox"/> >100m															
b. USGS 7.5' Topographic Map Name		USGS Quad Code													
Fresno Canyon, NM 1985 (Provisional Edition)		36107-E6													
c. County(ies): San Juan															

17. Survey Data (continued):															
d. Nearest City or Town: Blanco, New Mexico															
e. Legal Description:															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: center;">Township (N/S)</th> <th style="text-align: center;">Range (E/W)</th> <th style="text-align: center;">Section</th> <th style="text-align: center;">1/4 1/4 1/4</th> </tr> <tr> <td style="text-align: center;">27N</td> <td style="text-align: center;">8W</td> <td style="text-align: center;">25*</td> <td style="text-align: center;">S 1/2 SE 1/4 SW 1/4</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	Township (N/S)	Range (E/W)	Section	1/4 1/4 1/4	27N	8W	25*	S 1/2 SE 1/4 SW 1/4					<p style="margin-top: 0;">*template anchored on SE corner and southern section line</p>		
Township (N/S)	Range (E/W)	Section	1/4 1/4 1/4												
27N	8W	25*	S 1/2 SE 1/4 SW 1/4												
Projected legal description? Yes [] , No [X] Unplatted []															
f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.):															
18. Survey Field Methods: Intensity: <input type="checkbox"/> 100% coverage <input type="checkbox"/> <100% coverage Configuration: <input type="checkbox"/> block survey units <input type="checkbox"/> linear survey units (l x w): <input type="checkbox"/> other survey units (specify): Scope: <input type="checkbox"/> non-selective (all sites recorded) <input type="checkbox"/> selective/thematic (selected sites recorded) Coverage Method: <input type="checkbox"/> systematic pedestrian coverage <input type="checkbox"/> other method (describe) Survey Interval (m): N/A Crew Size: 1 Fieldwork Dates: September 15, 17, October 1, and 17, 2014 Survey Person Hours: Recording Person Hours: Total Hours: Additional Narrative: : On September 15, 2014, prior to any construction on repair Location No. 6, temporary barrier fences were constructed by Michael J. Proper as stipulated by the BLM-FFO. Activities related to the repairs conducted at repair Location No. 6 were monitored by Michael J. Proper on September 17 and Cindy J. Bunker on October 1 and 17, 2014. To protect LA 180207, BLM-FFO stipulated that all vehicular traffic be restricted to the existing ROW and no excavation be conducted within the site boundary. An archaeologist was to be present to take photos prior to beginning the repairs, during, and after completion. To protect LA 180209 a temporary barrier fence was to be placed along the northern edge of the access road and the eastern edge of the Trunk K ROW along the site boundary. As required by the BLM photographs were taken before, during and after the repairs were completed. Photos are included in Appendix A.															
19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.): The segment of the Trunk K pipeline needing repairs is located on a dissected terrace above the flood plain, on the west side of Largo Canyon, between Cottonwood and Onofre Jaquez canyons. See original survey report for more information (Proper and Bunker 2014).															
20. a. Percent Ground Visibility: b. Condition of Survey Area (grazed, bladed, undisturbed, etc															
21. CULTURAL RESOURCE FINDINGS <input type="checkbox"/> Yes, <input checked="" type="checkbox"/> No, Discuss Why: No cultural material was encountered during the monitor.															
22. Required Attachments (check all appropriate boxes): <input checked="" type="checkbox"/> USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn <input type="checkbox"/> Copy of NMCRIS Mapserver Map Check <input type="checkbox"/> LA Site Forms - new sites (<i>with sketch map & topographic map</i>) <input type="checkbox"/> LA Site Forms (update) - previously recorded & un-relocated sites (<i>first 2 pages minimum</i>) <input type="checkbox"/> Historic Cultural Property Inventory Forms <input type="checkbox"/> List and Description of isolates, if applicable (see p. 3) <input type="checkbox"/> List and Description of Collections, if applicable			23. Other Attachments: <input type="checkbox"/> Photographs and Log <input type="checkbox"/> Other Attachments (Describe):												
24. I certify the information provided above is correct and accurate and meets all applicable agency standards. Principal Investigator/Responsible Archaeologist: Charles W. Wheeler, Ph.D., RPA <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="text-align: center;"> Signature _____ </div> <div style="text-align: center;"> Date <u>12/11/2014</u> </div> <div style="text-align: center;"> Title (if not PI): _____ </div> </div>															
25. Reviewing Agency: Reviewer's Name/Date Accepted () Rejected () Tribal Consultation (if applicable): <input type="checkbox"/> Yes <input type="checkbox"/> No		26. SHPO Reviewer's Name/Date: HPD Log #: SHPO File Location: Date sent to ARMS:													

CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

1. NMCRIS Activity No.: 132260	2. Lead (Sponsoring) Agency: Bureau of Land Management, Farmington Field Office	3. Lead Agency Report No.:
--	---	-----------------------------------

SURVEY RESULTS: No new cultural materials were encountered during the monitor.

Sites discovered and registered: 0
 Sites discovered and NOT registered: 0
 Previously recorded sites revisited *(site update form required)*: 0
 Previously recorded sites not relocated *(site update form required)*: 0
 TOTAL SITES VISITED: 2
 Total isolates recorded: 0 Non-selective isolate recording? ☐
 Total structures recorded *(new and previously recorded, including acequias)*: 0

MANAGEMENT SUMMARY: With completion of the monitor, all stipulations and conditions for cultural resource compliance have been met.

IF REPORT IS NEGATIVE YOU ARE DONE AT THIS POINT.

SURVEY LA NUMBER LOG

Sites Discovered:

LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)

Previously recorded revisited sites:

LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)

MONITORING LA NUMBER LOG *(site form required)*

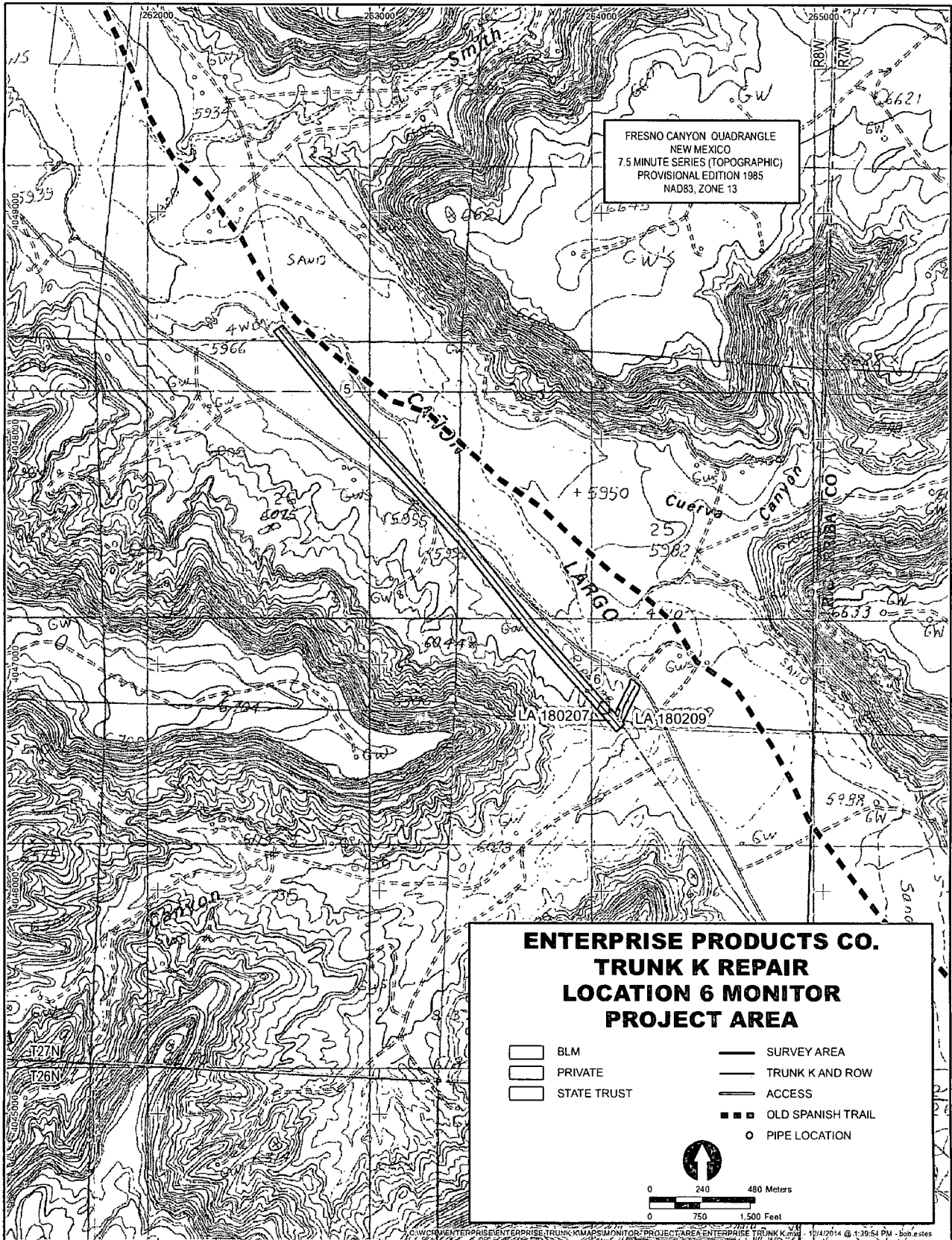
Sites Discovered *(site form required)* : Previously recorded sites *(Site update form required)*:

LA No.	Field/Agency No.	LA No.	Field/Agency No.
		LA 180207	14F111-S1
		LA 180209	14F111-S4

Areas outside known nearby site boundaries monitored? Yes ☐, No ☐ If no explain why:

TESTING & EXCAVATION LA NUMBER LOG *(site form required)*

Tested LA number(s)	Excavated LA number(s)



Appendix A

Photographs



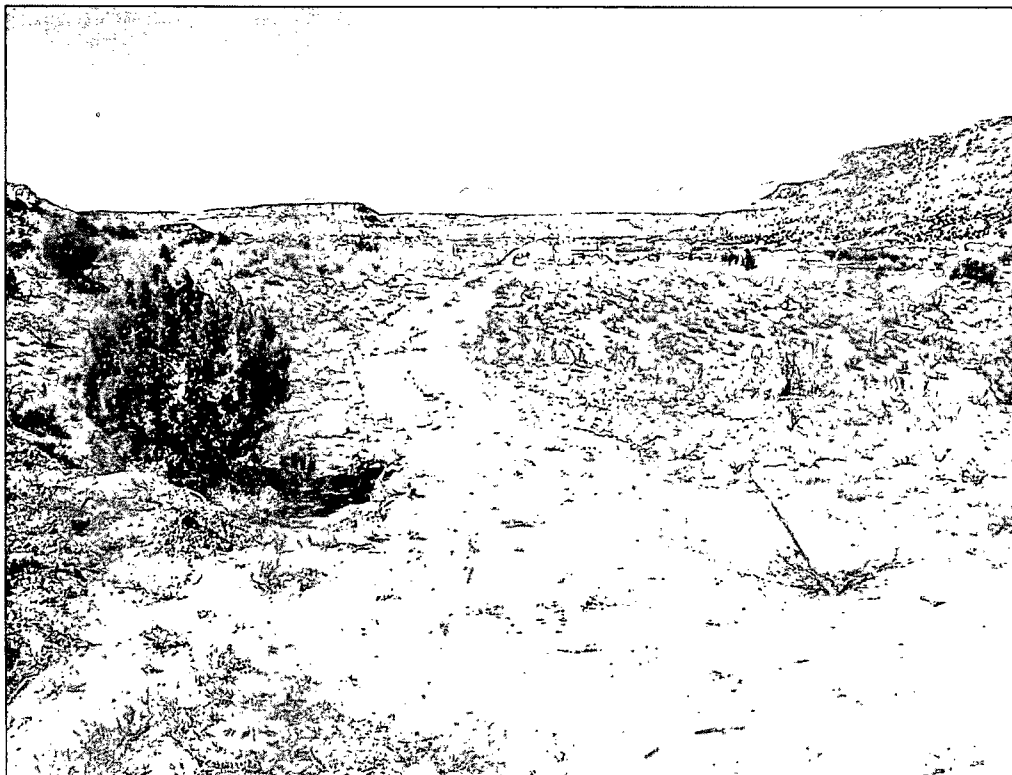
Overview of the access road paralleling the temporary protective fence around site LA 180209, looking northeast.



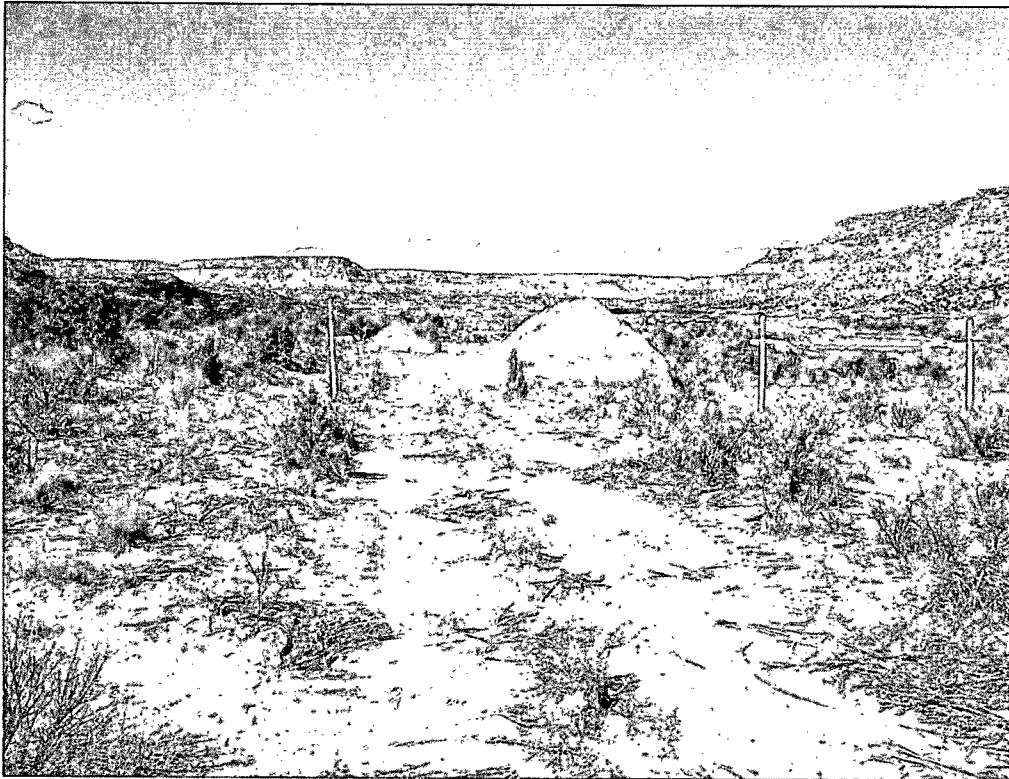
Overview of two-track within the Trunk K ROW, looking northwest towards site LA 180207.



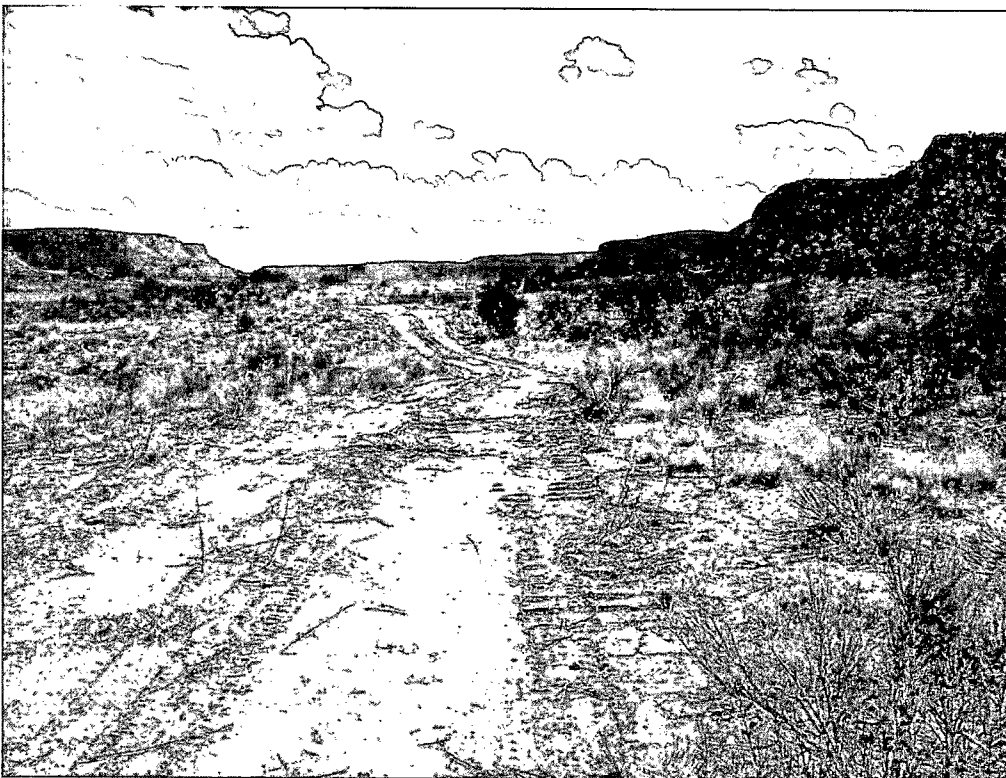
The excavation of repair Location No. 6, looking south towards Site LA 180207.



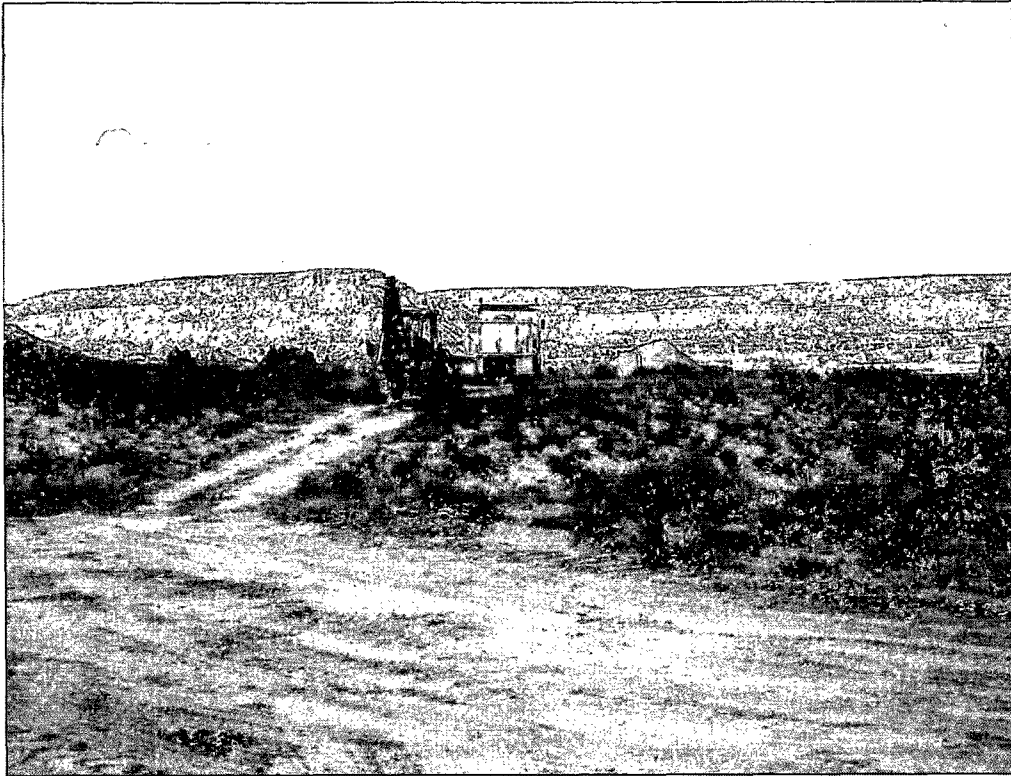
Overview of access road within the Trunk K ROW after the excavation of the repair location, view to northwest towards site LA 180207.



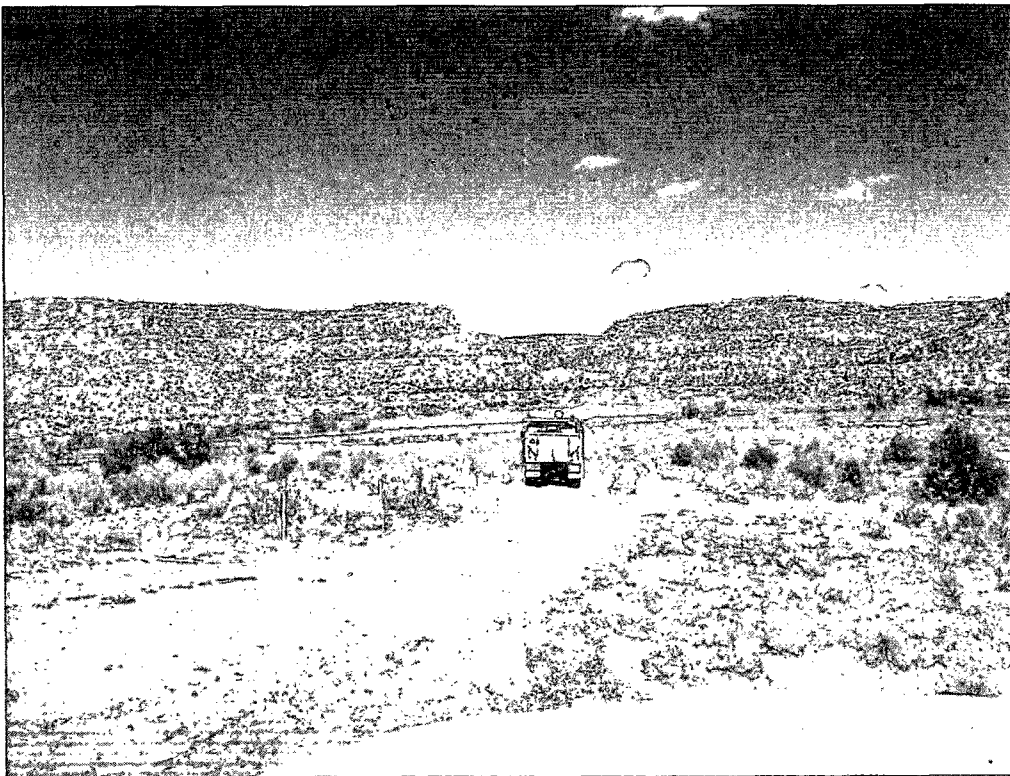
View of access road looking towards Location No. 6 from the northern edge of site LA 180207. Note the red pile of clean soil on the left of the road and the tan pile of contaminated soil on the right.



Overview of access road from just south of the repair Location No. 6 looking south across site LA 180207.



Truck loaded with clean soil along with a backhoe,
using the access road headed northwest toward site LA 180207.

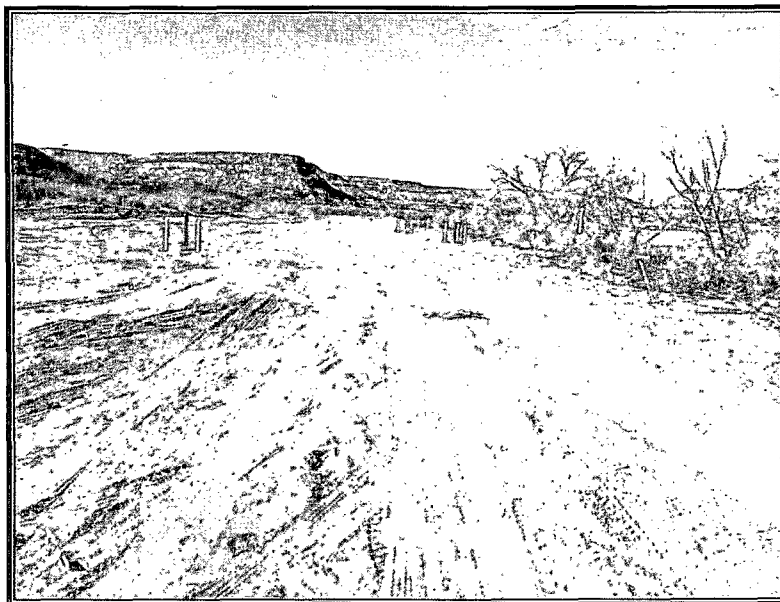


Overview of truck loaded with contaminated soil leaving the project area.



**GROUNDWATER INVESTIGATION REPORT
TRUNK K #3 16 INCH NATURAL GAS PIPELINE RELEASE
UNIT H, SECTION 26, TOWNSHIP 27 NORTH, RANGE 8 WEST,
36.545423°, -107.645017°
SAN JUAN COUNTY, NEW MEXICO**

January 30, 2015



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

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

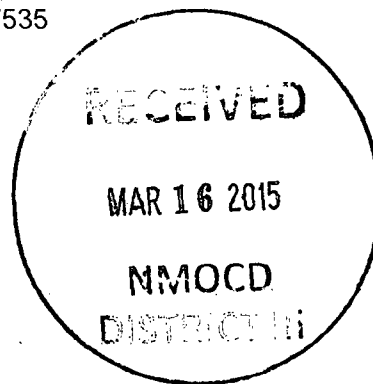




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3.0 Summary of Field Activities	1
4.0 Conclusions and Recommendations	3
5.0 Closure and Limitations	4

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- Figure 1: Vicinity Map
- Figure 2: Site Map
- Figure 3: Monitor Well Construction Log
- Figure 4: Groundwater Sampling Map

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- Table 1: Summary of Laboratory Analysis

Appendices:

- Appendix A: Photographic Documentation
- Appendix B: Soil Disposal Documentation
- Appendix C: Laboratory Analytical Report

1.0 Executive Summary

On behalf of Enterprise Products Operating, LLC. (Enterprise), SMA has prepared this groundwater investigation report to describe the installation and sampling of groundwater monitoring wells for a hydrocarbon release associated with the 16-inch Trunk K pipeline release #3 excavation site. The well installation and sampling is intended to complete the groundwater impact investigation requested by the New Mexico Oil Conservation Division (OCD). The excavation and backfill soil remediation activities were completed on October 21, 2014.

2.0 Introduction

The Trunk K #3 release was discovered simultaneously with 5 other leak locations on the Trunk K Pipeline, all associated with internal pipeline corrosion. An unknown amount of natural gas and pipeline liquids were released. The release was confirmed during a pipeline patrol using a gas detector on September 1, 2014. The Trunk K #3 pipeline release is located in (SE ¼ / NE ¼) Unit H, Section 26, Township 27 North, Range 8 West, 36.545423°, -107.645017°, San Juan County, New Mexico. Figure 1, Vicinity Map, illustrates the general location of the release.

New Mexico Oil Conservation Division Site Ranking

The release site is located along the south bank of Largo Canyon Wash on land managed by the Bureau of Land Management (BLM) with an elevation of approximately 5,955 feet above sea level. During the excavation for pipeline repairs and remedial activities, it was determined that depth to groundwater is approximately 20 feet below ground surface (bgs).

SMA searched the New Mexico Office of the State Engineer's (OSE) online water well data base for water wells in the vicinity of the release. No recorded wells were located within 1,000 feet of the site. One well was located within a 1 mile radius of the site. There is no anticipated impact to this well.

The physical location of this release is within the jurisdiction of the BLM and OCD. This release location has been assigned a OCD ranking of 40, which requires soil remediation standards 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).

3.0 Summary of Field Activities

On August 20, 2014, a leak on the Trunk K Pipeline was reported to the BLM by a private party. In an effort to identify the leak location, Enterprise contracted a third party to patrol the pipeline right-of-way (ROW) to determine the locations of the reported leak and other suspected leaks. Using an application specific gas detector, the third party identified 5 additional leak locations. During this time, the BLM identified the location of

the six pipeline releases to be potential cultural and riparian sensitive areas. A riparian clearance was granted by the BLM and an archeological study was performed by a third party consultant, Western Cultural Resource Management.

SMA began oversight of the excavations on August 28, 2014. During the excavation, soil samples were collected for field screening to determine the extent of the releases. Under the supervision and direction of SMA, Energy Maintenance Services (EMS) excavated and transported the hydrocarbon impacted soil for offsite disposal. The contaminated soil was transported to Envirotech Landfarm near Bloomfield, NM. Soil and purge water disposal documentation is included in Appendix B.

Samples were not collected from the base of the Trunk K #3 excavation, at approximately 20 feet below ground surface (bgs), due to elevated volatile hydrocarbon readings during field screening. Field screening was conducted using a properly calibrated photoionization detector (PID). Saturated soils were encountered at approximately 20 feet bgs, indicating that hydrocarbon contamination was in contact with the groundwater table.

Monitor Well Installations

In order to determine groundwater impacts, OCD requested that Enterprise Products complete a groundwater investigation.

Monitoring Well Locations: Drilling access was restricted to the 50 foot ROW allotted by the BLM Land Access Grant. SMA determined that the installation of four monitoring wells was necessary in order to establish a groundwater gradient and to better identify the extent of possible groundwater contamination at the Trunk K #3 site. All wells were installed within the ROW. The Trunk K pipeline was exposed in three locations using a hydro excavator on January 19, 2015 to ensure drilling clearance. The soil from the hydro excavation was transported and disposed of at the Envirotech Landfarm near Hilltop, NM. A site map depicting the well locations is included as Figure 2.

Well Permits: SMA obtained monitoring well permits on behalf of Enterprise Products from the OSE. OSE issued the well permits on December 30, 2014.

Site Access and Control: The Trunk K #3 site was delineated with colored lath to identify the 50 foot right of way. All site personnel were instructed to stay within the marked boundary with both vehicular and foot traffic.

Drilling and Monitoring Well Completions: Beginning on January 20, 2015 through January 22, 2015 the drilling and well installations were performed by Enviro-Drill, Inc. of Albuquerque, NM utilizing a CME 75 Hollow Stem Auger rig. Split spoon samples were taken at 5 foot intervals for field screening using a calibrated PID. No laboratory soil samples will be collected during drilling activities. All field screening indicated that soil samples were below action levels (<100 ppm). The site remains staked and flagged to ensure site access and control.

All four soil borings were advanced to 32 feet bgs. Each of the monitoring wells were constructed identically using a total of 35 feet of threaded 2" PVC well pipe. A well completion diagram is included as Figure 3.

The wells were completed with aboveground steel well shrouds cemented into a 2 feet round pads with a minimum thickness of 4-inches. Each well was fitted with 3 protective bollards to prevent damage from vehicle collisions, livestock or wildlife.

Well Development and Sampling: On January 22, 2015 the monitoring wells were developed by rapidly inserting a solid slug into the well and allowing the well to sit and reach equilibrium for approximately five minutes. The slug was then rapidly removed and allowed to reach equilibrium for approximately five minutes. The process was repeated in each well approximately 8 times per well. The wells were then purged of approximately three well volumes of water using an electric, submersible pump. The purge water was field screened for pH, conductivity, and temperature until successive readings stabilized within 10% of prior values. Turbidity was reduced as much as possible. All purged water was collected and containerized for offsite disposal at the Envirotech Landfarm.

Once development was complete, the wells were allowed to recover and stabilize for approximately 24 hours. On January 23, 2015, SMA, with oversight from Cory Smith of the OCD, purged an additional three well volumes and collected groundwater samples from each of the four wells. The samples were collected in laboratory provided 40 ml VOAs, labeled with necessary information and stored on ice. The samples were then couriered under chain of custody procedures to Hall Environmental Analytical Laboratory in Albuquerque, NM for laboratory analysis via EPA Method 8021 for benzene, toluene, ethylbenzene and xylenes (BTEX).

4.0 Conclusions and Recommendations

Groundwater Sampling Results: Laboratory analytical results of the groundwater samples collected from the four monitoring wells were below laboratory detection limits for all contaminants of concern. A summary of laboratory results is included as Table 1. A copy of the laboratory report is included in Appendix C. SMA recommends no further remedial action at the Trunk K #3 pipeline release site.

Plugging and Abandonment Request: Because all groundwater contaminant concentrations are below OCD and New Mexico Water Quality Control Commission standards, Enterprise Products requests approval from OCD to plug and abandon the four groundwater monitoring wells. The wells will be abandoned in accordance to the approved Plugging and Abandonment Plan submitted to the OSE within the monitoring well permit package. If necessary, any disturbed area will be reseeded with a BLM approved seed mixture during the next favorable growing season.

5.0 Closure and Limitations

The scope of our services consisted of the performance of a preliminary spill assessment, verification of release 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

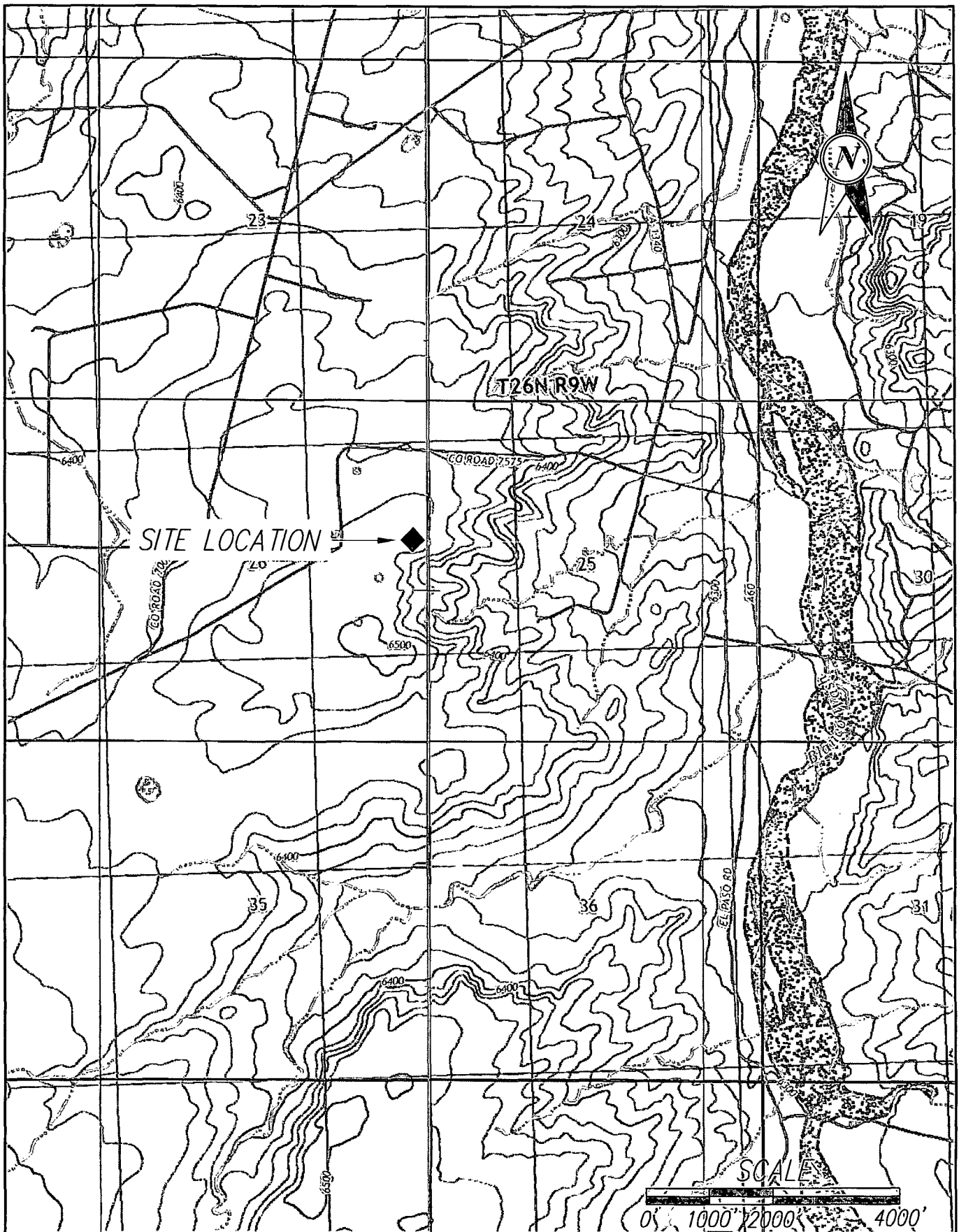


Steve Moskal
Project Scientist



Reid S. Allan, PG
Principal Scientist

Figures



SOUDER, MILLER & ASSOCIATES
401 West Broadway Avenue
Farmington, NM 87401-5907

Phone (505) 325-7533 Toll-free (800) 519-0098 Fax (505) 326-0043
www.soudermiller.com

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ENTERPRISE

FARMINGTON, NEW MEXICO

VICINITY MAP
BALLARD COMPRESSOR STATION
SECTION 26, T26N, R9W

SAN JUAN COUNTY, NEW MEXICO

Designed	Drawn	Checked
SM	DJB	RSA
Date: 1/8/15		
Scale: Horiz: 1"=2000'		
Vert: N/A		
Project No: 5122855		
Sheet: 1		



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

Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 325-0045
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ENTERPRISE

FARMINGTON, NEW MEXICO

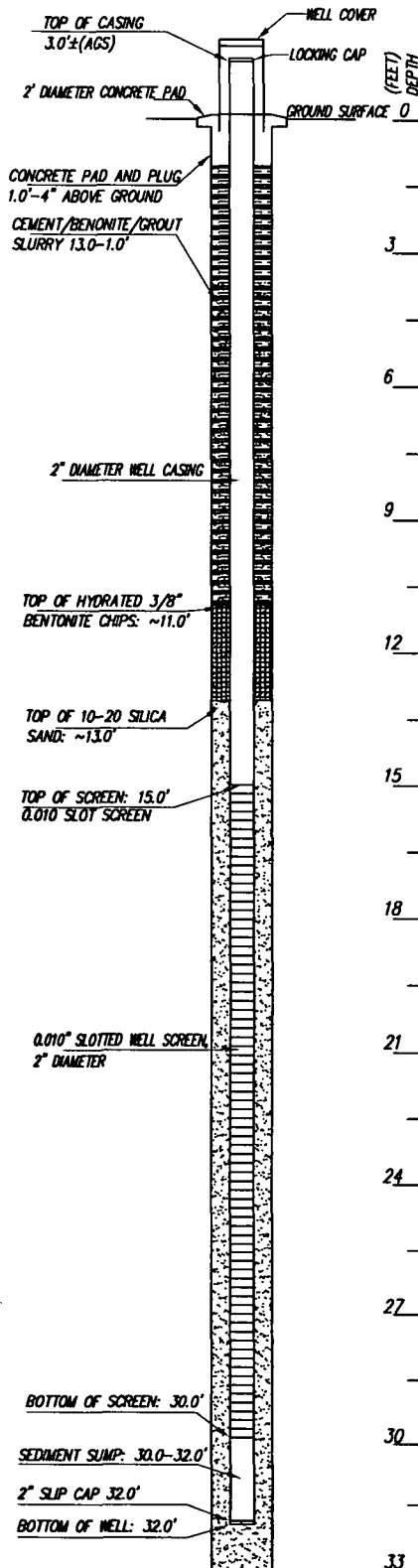
**SITE LOCATION MAP
TRUNK K #3
SECTION 26, T27N, R8W**

SAN JUAN COUNTY, NEW MEXICO

Designed SM	Drawn DJB	Checked RSA
Date:	10/22/14	
Scale:	Horiz: 1"=80'	Vert: N/A
Project No:	5122855	
Sheet:	2	

THIS DRAWING IS YOUR PROPERTY AND NOT TO BE USED FOR CONSTRUCTION UNLESS BY THE ORIGINAL OWNER AND NOT TO BE REPRODUCED OR COPIED

SJ-4124: POD1-POD4



(0-32') FINE TO COARSE GRAINED SUB ANGULAR TO WELL ROUNDED QUARTZ DOMINANT SAND WITH MEDIUM CLAY FILMS. 51R 4/3 TO 101R 5/4. OCCASIONAL CLAY LENSES THROUGHOUT BOREHOLE DEPTH. NO MORE THAN A FEW INCHES THICK EACH. WATER ENCOUNTERED AT ~21' BGS IN EACH WELL. MW-2 LOCATED IN BACKFILL MATERIAL TO ~20' BGS.

DRILLER: ENVIRO-DRILL, INC.
 DATE COMPLETED: JANUARY 20-22
 BOREHOLE DIAMETER: 7 7/8" O.D.
 DRILLING METHOD: HOLLOW STEM AUGER
 TOTAL BORING DEPTH: ~32 FT.
 LOGGED BY: J. SPRAGUE

MW-1, MW-2, MW-3, MW-4



SOUDER, MILLER & ASSOCIATES
 401 West Broadway Avenue
 Farmington, NM 87401-5907

Phone (505) 325-7535 Toll-Free (800) 519-0099 Fax (505) 326-0845

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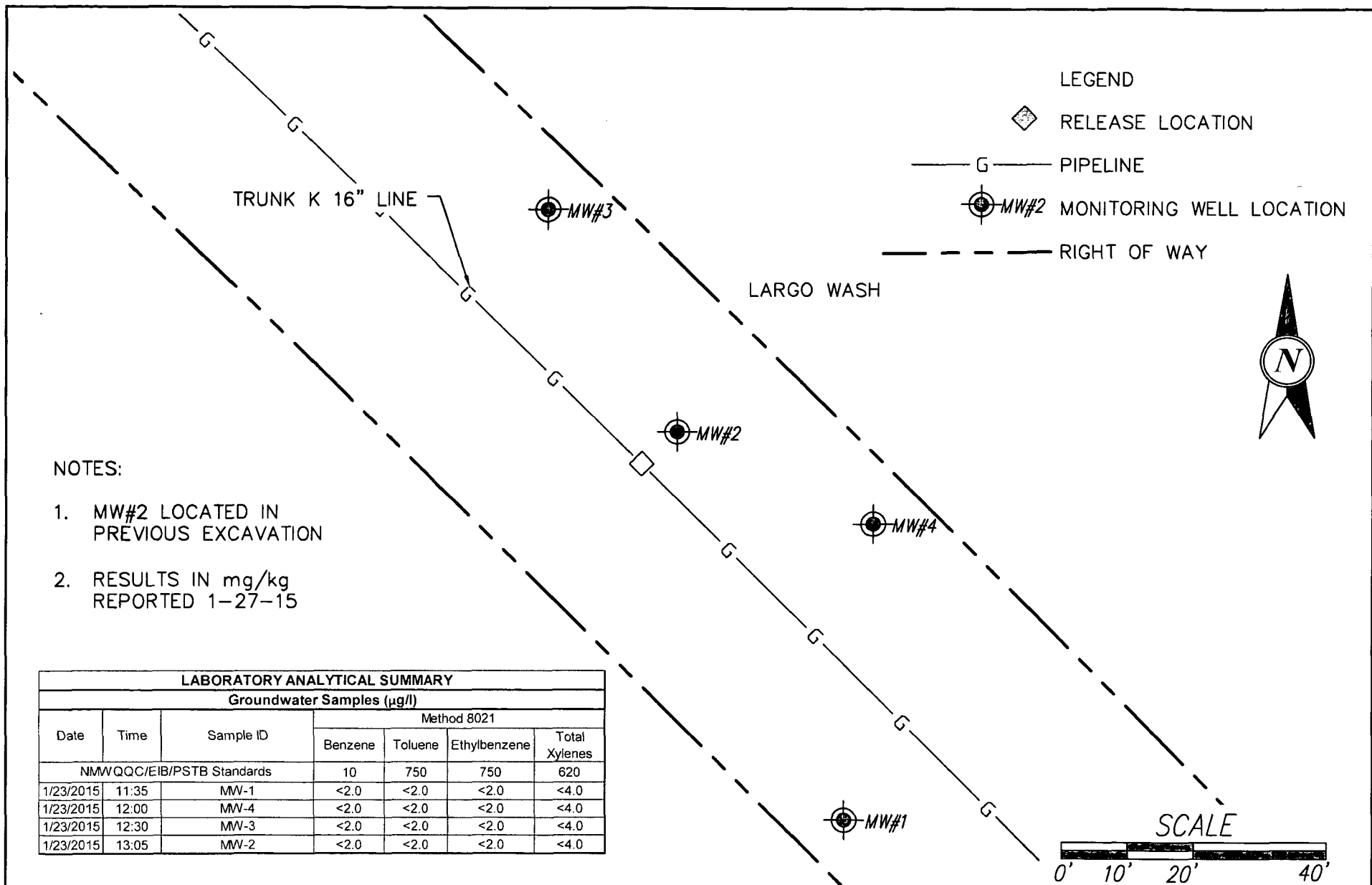
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ENTERPRISE FARMINGTON, NEW MEXICO

MONITORING WELLS 1-4
AS-BUILT WELL COMPLETION DIAGRAM
TRUNK K #3

SAN JUAN COUNTY

Designed	Drawn	Checked
SM	GJF	RSA
Date:	1/29/2015	
Scale:	Horiz:	NA
	Vert:	NA
Project No:	5122855	
Sheet:	3	



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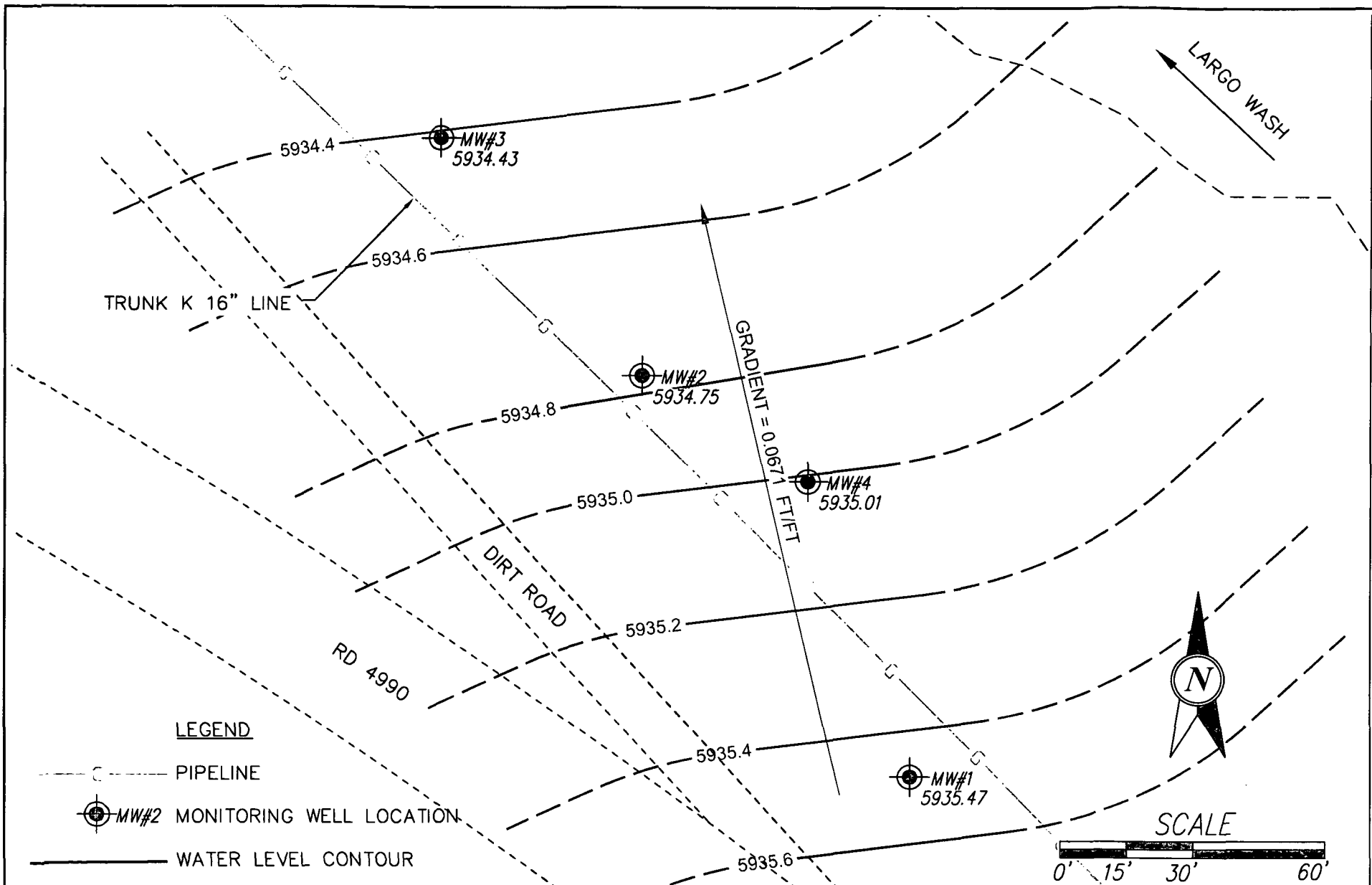
FARMINGTON, NEW MEXICO

GROUNDWATER SAMPLING MAP
TRUNK K-3
SECTION 26, T27N, R8W

SAN JUAN COUNTY, NEW MEXICO

Designed SM	Drawn DJB	Checked RSA
Date:	2/5/2015	
Scale:	Horiz:	1"=20'
	Vert:	N/A
Project No:	5122855	
Sheet:	4	

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FARMINGTON, NEW MEXICO

POTENTIOMETRIC SURFACE MAP
TRUNK K-3
SECTION 26, T27N, R8W

SAN JUAN COUNTY, NEW MEXICO

Designed SM	Drawn DJB	Checked RSA
Date: 2/5/2015		
Scale: Horiz: 1"=30'		
Ver: N/A		
Project No: 5122855		
Sheet: 5		

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Tables

Enterprise Products
Table 1: Groundwater Laboratory Results Summary
(µg/L)

Trunk K #3
Pipeline Release
2/5/2015

LABORATORY ANALYTICAL SUMMARY						
Groundwater Samples (µg/l)						
Date	Time	Sample ID	Method 8021			
			Benzene	Toluene	Ethylbenzene	Total Xylenes
NMWQQC/EIB/PSTB Standards			10	750	750	620
1/23/2015	11:35	MW-1	<2.0	<2.0	<2.0	<4.0
1/23/2015	12:00	MW-4	<2.0	<2.0	<2.0	<4.0
1/23/2015	12:30	MW-3	<2.0	<2.0	<2.0	<4.0
1/23/2015	13:05	MW-2	<2.0	<2.0	<2.0	<4.0

Appendix A

Photographic Documentation

Site Photographs
Enterprise Products Trunk K #3 Monitor Well Installation

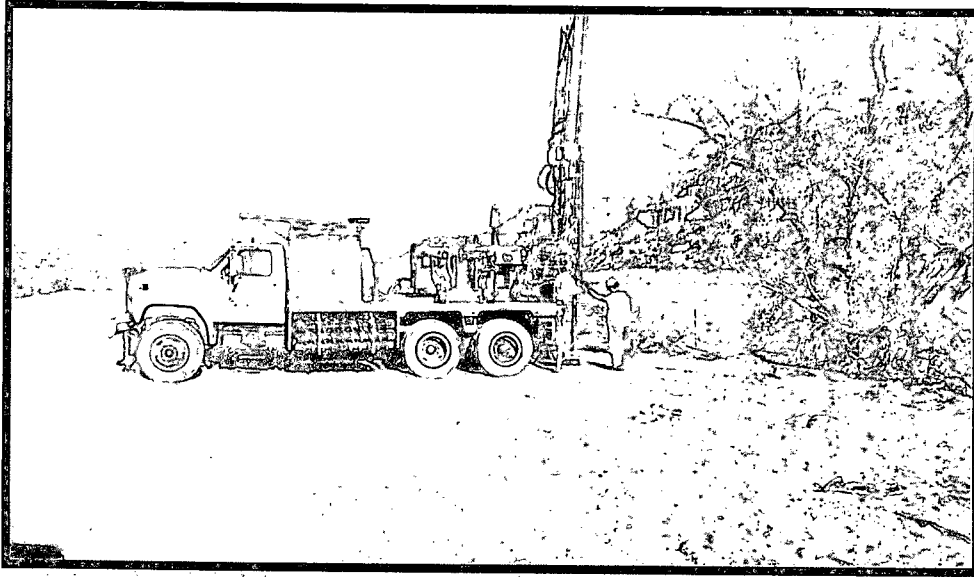


Photo 1: Enviro-Drill Inc. out of Albuquerque in position to drill Monitor Well.

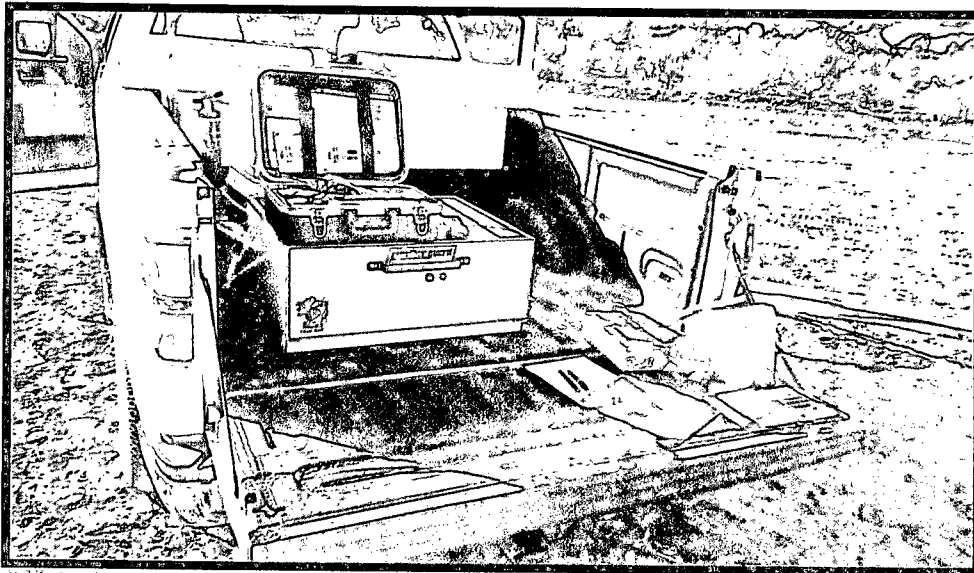


Photo 2: Soil Sampling, field screening and characterization equipment and materials.

Site Photographs

Enterprise Products Trunk K #3 Monitor Well Installation

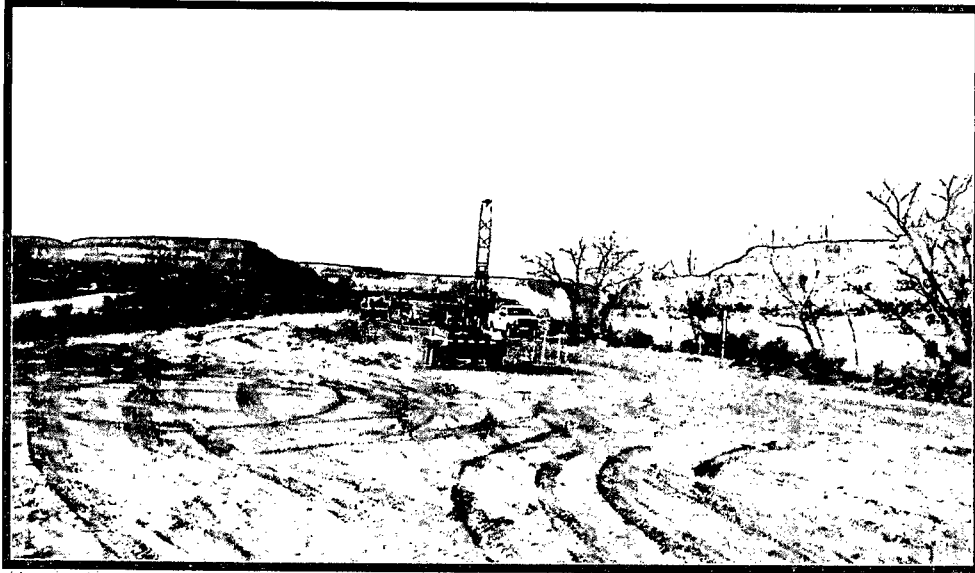


Photo 3: Decontamination trailer in foreground, pothole locations staked, boundaries staked and flagged.

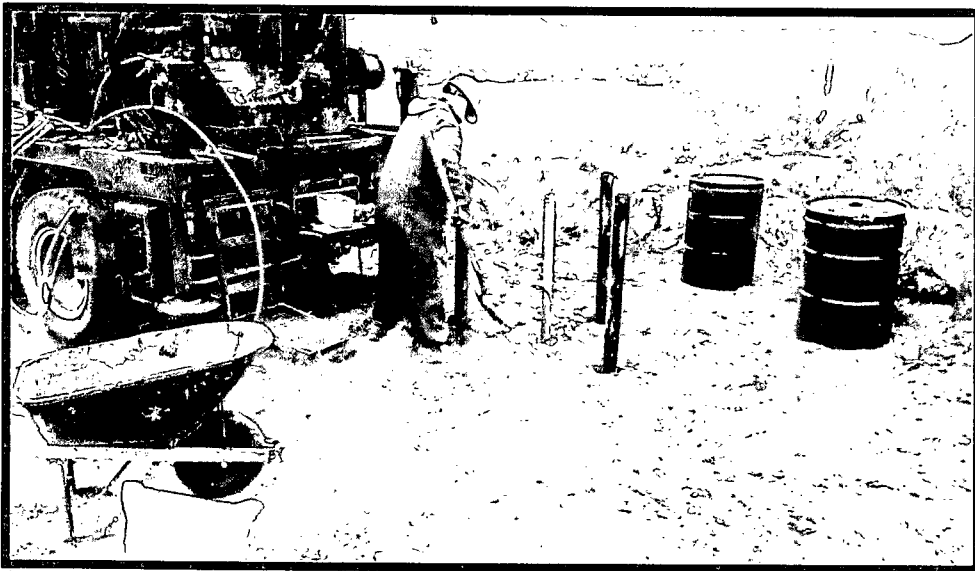


Photo 4: Installation of bollards around completed Monitor Well, cuttings and decontamination water barreled for removal.

Site Photographs

Enterprise Products Trunk K #3 Monitor Well Installation

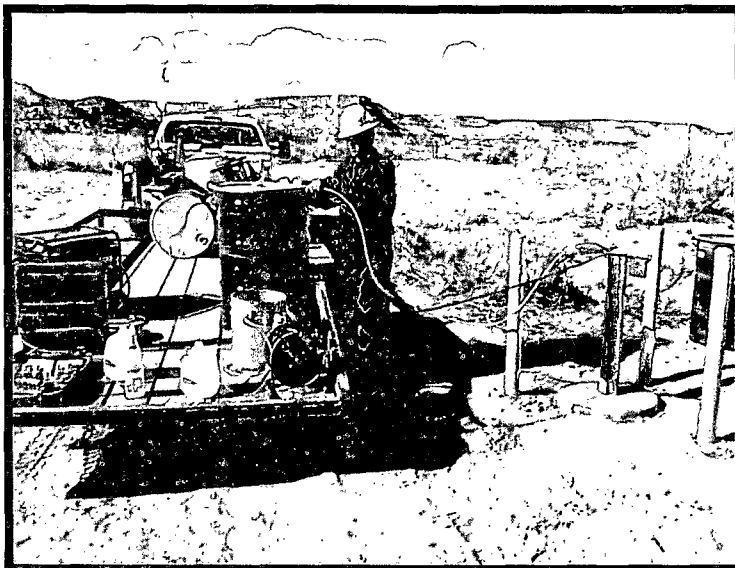


Photo 5: Purging well water after surging with slug. Grunfos submersible electric pump used to remove 3 borehole volumes.

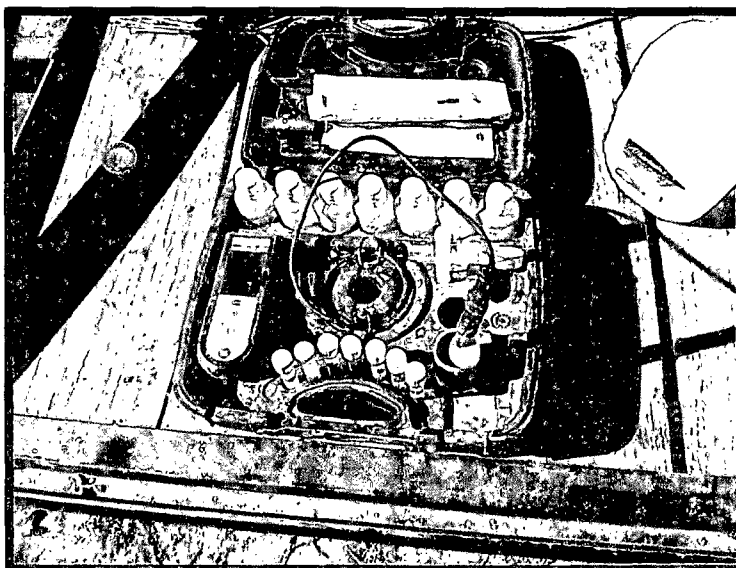


Photo 6: Hach water quality meter used to monitor stabilization of field parameters Temperature, Conductivity, pH and TDS.

Site Photographs
Enterprise Products Trunk K #3 Monitor Well Installation

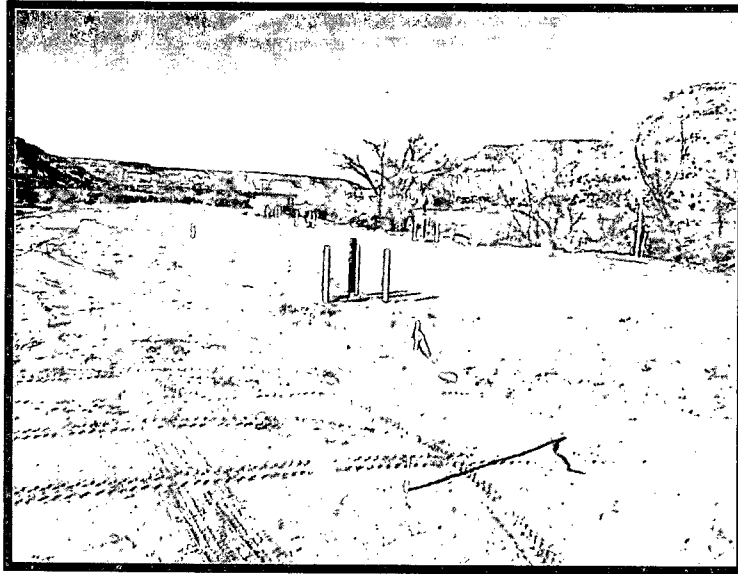


Photo 7: Trunk K #3 Site after installation of 4 monitor wells, boundary delineations with flagged stakes visible in foreground.

Appendix B
Soil Disposal Documentation

97057-0685

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised 08/01/11

*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 Ave, Farmington NM 87401

2. Originating Site: Trunk K Release Site #3

Jan. 2015

3. Location of Material (Street Address, City, State or ULSTR):

Unit Letter H Section 26 T 27 N R 8W, GPS: 36.545372, -107.644913, San Juan County, NM

4. Source and Description of Waste:

Source: Purged groundwater associated with a groundwater investigation for a natural gas pipeline release.

Description: Exempt petroleum affected soil from groundwater investigation efforts at pipeline release.

Estimated Volume 5 yd³ (bbls) Known Volume (to be entered by the operator at the end of the haul) 4 yd³ (bbls)

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Thom Long, representative or authorized agent for Enterprise Field Services, LLC do hereby
Generator Signature

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)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency ☐ Monthly ☐ Weekly ☒ Per Load

☐ 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)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thom Long, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, Renee Running, representative for Envirotech, Inc do hereby certify that
Representative/Agent Signature

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.

5. Transporter: TBD Sander Miller

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011**

Address of Facility: **Hilltop, NM**

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ **APPROVED**

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

PRINT NAME: Kendra Running

SIGNATURE: Kendra Running

Surface Waste Management Facility Authorized Agent

TITLE: Waste Coordinator

TELEPHONE NO.:

505-632-0615

DATE: 1/08/15

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

97057-0685

Form C-138
Revised 08/01/11

*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 Ave, Farmington NM 87401

2. Originating Site: Trunk K Release Site #3

Jan. 2015

3. Location of Material (Street Address, City, State or ULSTR):

Unit Letter H Section 26 T 27 N R 8W, GPS: 36.545372, -107.644913, San Juan County, NM

4. Source and Description of Waste:

Source: Natural Gas Pipeline Release

Description: Exempt petroleum affected soil from groundwater investigation efforts at pipeline release.

Estimated Volume 5 yd³ bbls Known Volume (to be entered by the operator at the end of the haul) 21 yd³ bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Thomas Long, representative or authorized agent for Enterprise Field Services, LLC do hereby

Generator Signature

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)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency ☐ Monthly ☐ Weekly ☒ Per Load

☐ 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)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☒ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long, 19-15, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete the required testing/sign the Generator Waste Testing Certification.

I, Kendra Running, representative for Envirotech, Inc. do hereby certify that

Representative/Agent Signature

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.

5. Transporter: Nelson Re-Vegetation & Souder Miller

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011

Address of Facility: Hilltop, NM

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ **APPROVED**

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

PRINT NAME: Kendra Running

SIGNATURE: Kendra Running

Surface Waste Management Facility Authorized Agent

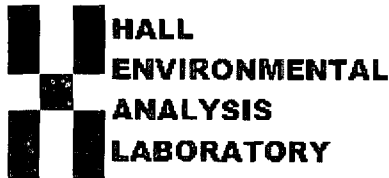
TITLE: Waste Coordinator

TELEPHONE NO.:

505-632-0615

DATE: 1/19/15

Appendix C
Laboratory Analytical Report



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

January 27, 2015

Steve Moskal

Souder, Miller and Associates

401 W. Broadway

Farmington, NM 87401

TEL: (505) 325-5667

FAX (505) 327-1496

RE: Trunk K #3

OrderNo.: 1501871

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 4 sample(s) on 1/24/2015 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1501871

Date Reported: 1/27/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: MW-1

Project: Trunk K #3

Collection Date: 1/23/2015 11:35:00 AM

Lab ID: 1501871-001

Matrix: AQUEOUS

Received Date: 1/24/2015 11:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	2.0		µg/L	2	1/26/2015 12:35:59 PM	R23891
Toluene	ND	2.0		µg/L	2	1/26/2015 12:35:59 PM	R23891
Ethylbenzene	ND	2.0		µg/L	2	1/26/2015 12:35:59 PM	R23891
Xylenes, Total	ND	4.0		µg/L	2	1/26/2015 12:35:59 PM	R23891
Surr: 4-Bromofluorobenzene	121	66.6-167		%REC	2	1/26/2015 12:35:59 PM	R23891

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 1 of 5
	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 1501871

Date Reported: 1/27/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** MW-4**Project:** Trunk K #3**Collection Date:** 1/23/2015 12:00:00 PM**Lab ID:** 1501871-002**Matrix:** AQUEOUS**Received Date:** 1/24/2015 11:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	2.0		µg/L	2	1/26/2015 1:57:27 PM	R23891
Toluene	ND	2.0		µg/L	2	1/26/2015 1:57:27 PM	R23891
Ethylbenzene	ND	2.0		µg/L	2	1/26/2015 1:57:27 PM	R23891
Xylenes, Total	ND	4.0		µg/L	2	1/26/2015 1:57:27 PM	R23891
Surr: 4-Bromofluorobenzene	122	66.6-167		%REC	2	1/26/2015 1:57:27 PM	R23891

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 1501871

Date Reported: 1/27/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** MW-3**Project:** Trunk K #3**Collection Date:** 1/23/2015 12:30:00 PM**Lab ID:** 1501871-003**Matrix:** AQUEOUS**Received Date:** 1/24/2015 11:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	2.0		µg/L	2	1/26/2015 2:51:27 PM	R23891
Toluene	ND	2.0		µg/L	2	1/26/2015 2:51:27 PM	R23891
Ethylbenzene	ND	2.0		µg/L	2	1/26/2015 2:51:27 PM	R23891
Xylenes, Total	ND	4.0		µg/L	2	1/26/2015 2:51:27 PM	R23891
Surr: 4-Bromofluorobenzene	120	66.6-167		%REC	2	1/26/2015 2:51:27 PM	R23891

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 1501871

Date Reported: 1/27/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Souder, Miller and Associates**Client Sample ID:** MW-2**Project:** Trunk K #3**Collection Date:** 1/23/2015 1:05:00 PM**Lab ID:** 1501871-004**Matrix:** AQUEOUS**Received Date:** 1/24/2015 11:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	2.0		µg/L	2	1/26/2015 3:18:34 PM	R23891
Toluene	ND	2.0		µg/L	2	1/26/2015 3:18:34 PM	R23891
Ethylbenzene	ND	2.0		µg/L	2	1/26/2015 3:18:34 PM	R23891
Xylenes, Total	ND	4.0		µg/L	2	1/26/2015 3:18:34 PM	R23891
Surr: 4-Bromofluorobenzene	120	66.6-167		%REC	2	1/26/2015 3:18:34 PM	R23891

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

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

Page 4 of 5

250

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1501871

27-Jan-15

Client: Souder, Miller and Associates

Project: Trunk K #3

Sample ID	5ML RB	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBW	Batch ID:	R23891		RunNo:	23891				
Prep Date:		Analysis Date:	1/26/2015		SeqNo:	704777	Units:	µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	24		20.00		119	66.6	167			

Sample ID	100NG BTEX LCS			SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSW			Batch ID:	R23891		RunNo:	23891			
Prep Date:				Analysis Date:	1/26/2015		SeqNo:	704778		Units:	µg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	20	1.0	20.00	0	102	80	120				
Toluene	20	1.0	20.00	0	101	80	120				
Ethylbenzene	21	1.0	20.00	0	103	80	120				
Xylenes, Total	62	2.0	60.00	0	104	80	120				
Surr: 4-Bromofluorobenzene	24		20.00		119	66.6	167				

Sample ID	1501871-001AMS			SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	MW-1			Batch ID:	R23891		RunNo:	23891			
Prep Date:				Analysis Date:	1/26/2015		SeqNo:	704780		Units:	µg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	41	2.0	40.00	0	103	77.5	121				
Toluene	40	2.0	40.00	0	101	78.6	122				
Ethylbenzene	42	2.0	40.00	0	105	78.1	128				
Xylenes, Total	130	4.0	120.0	0	106	80	120				
Surr: 4-Bromofluorobenzene	47		40.00		119	66.6	167				

Sample ID	1501871-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	MW-1		Batch ID:	R23891		RunNo:	23891				
Prep Date:			Analysis Date:	1/26/2015		SeqNo:	704781		Units: µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	41	2.0	40.00	0	104	77.5	121	0.970	20		
Toluene	42	2.0	40.00	0	104	78.6	122	3.11	20		
Ethylbenzene	43	2.0	40.00	0	107	78.1	128	1.82	20		
Xylenes, Total	130	4.0	120.0	0	107	80	120	0.971	20		
Surr: 4-Bromofluorobenzene	49		40.00		122	66.6	167	0	0		

Qualifiers:

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

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



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87106
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1501871

Rep#No: 1

Received by/date:

AT

01/24/15

Logged By: Lindsay Mangin

1/24/2015 11:30:00 AM

[Signature]

Completed By: Lindsay Mangin

1/26/2015 8:55:38 AM

[Signature]

Reviewed By:

[Signature]

01/26/15

Chain of Custody

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

Log In

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

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.2	Good	Yes			

Client: <u>Shirley</u>	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush _____
Mailing Address: <u>401 W. Broadway</u>	Project Name: <u>Trunk K #3</u>
<u>Farmington, NM 87401</u>	Project #: <u>5122855</u>
Phone #: <u>505-325-7535</u>	Project Manager: <u>Steve Markel</u>
Email or Fax #: <u>Steven.Markel@SouthMiller.com</u>	
VQC Package: <input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)	
Creditation: <input checked="" type="checkbox"/> NELAP <input type="checkbox"/> Other _____	Sampler: <u>1 1 1 1</u>
EDD (Type) _____	On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	Sample Temperature: <u>12</u>

☒ Standard ☐ Rush

Project Name:

Trunk K #3

Project #:

5122855

Project Manager:



Steve Mord

Sampler: 1111

On Ice: ☒ Yes ☐ No

Sample Temperature: 12

[illegible]

ite:	Time:	Relinquished by:	Received by:	Date	Time
23/15	1450		Christ Walt	2/23/15	1725
ite:	Time:	Relinquished by:	Received by:	Date	Time
3/15	1815	Christ Walt		2/11/24/15	1130

Remarks:
Invoice to Enterprise Products
copy Jesse Sprague @ sandermiller.com
under witness - COS



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted date 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 H-8	Facility Type: Natural Gas Gathering Line	
Surface Owner: BLM	Mineral Owner: BLM	API No.

LOCATION OF RELEASE

Unit Letter D	Section 33	Township 31N	Range 11W	Feet from the 580	North South Line	Feet from the 798	East West Line	County San Juan
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Latitude 36.861145

Longitude -108.002369

NATURE OF RELEASE

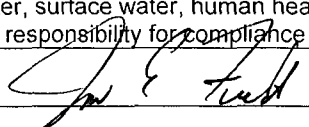
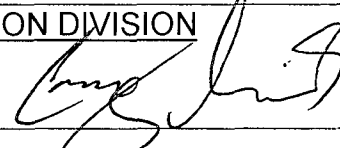
Type of Release: Natural Gas	Volume of Release 369.67 MCF	Volume Recovered: None
Source of Release: Vandalism (Pipeline was Shot)	Date and Hour of Occurrence: 3/2/2015 @ 9:45 a.m.	Date and Hour of Discovery: 3/2/2015 @ 9:55 a.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On March 2, 2105, a natural gas pipeline was discovered damaged due to vandalism from an unknown party resulting in a natural gas pipeline leak. Pipeline was isolated, depressurized, and lock out and tag out was implemented. There were no environmental impacts.

Describe Area Affected and Cleanup Action: There were no impacts to the ground surface.

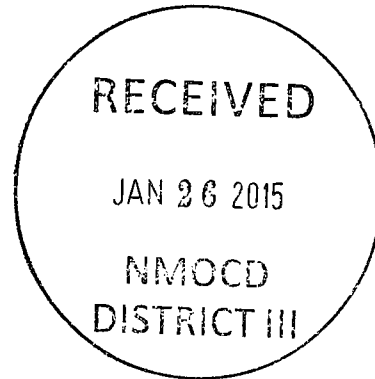
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger 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: 	OIL CONSERVATION DIVISION	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: 5/1/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 3-11-15	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#NCS 1512150108

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CORRECTIVE ACTION REPORT

Property:

**Lateral 3C-2 Pipeline Release
SW 1/4, S7 T28N R12W
San Juan County, New Mexico**

December 31, 2014
Apex Project No. 7030414G036

Prepared for:

**Enterprise Field Services LLC
614 Reilly Avenue
Farmington, NM 87401
Attn: Mr. Thomas Long**

Prepared by:

A handwritten signature in cursive script that reads 'Heather M. Woods'.

Heather M. Woods, P.G.
Senior Project Manager

A handwritten signature in cursive script that reads 'Elizabeth Scaggs'.

Elizabeth Scaggs, P.G.
Senior Program Manager

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CORRECTIVE ACTION REPORT

Lateral 3C-2 Pipeline Release
SW 1/4, S7 T28N R12W
San Juan County, New Mexico

Apex Project No. 7030414G036

1.0 INTRODUCTION

1.1 Site Description & Background

The Lateral 3C-2 Pipeline Release Site is located within the Enterprise Field Services LLC (Enterprise) pipeline right-of-way (ROW) in the southwest (SW) ¼ of Section 7 in Township 28 North and Range 12 West in rural San Juan County, New Mexico (36.67025N, 108.15848W), referred to hereinafter as the "Site" or "subject Site". The Site is located adjacent to an unpaved road on private land. The Site is surrounded by native vegetation rangeland periodically interrupted with oil and gas production and gathering facilities, including the Enterprise natural gas gathering pipeline which traverses the area from approximately north to south.

On October 29, 2014, Enterprise initiated excavation activities at the Site in an effort to locate and repair a subsurface leak. The leak was subsequently identified and repaired. An unknown quantity of dry natural gas and pipeline liquids were released from the pipeline as a result of internal corrosion. The leak was identified by a gas vapor survey at the ground surface.

A topographic map depicting the location of the Site is included as Figure 1, and a Site Vicinity Map is included as Figure 2 in Appendix A.

1.2 Project Objective

The primary objective of the corrective actions was to reduce the concentration of constituents of concern (COCs) in the on-Site soils to below the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD), Oil Conservation Division (OCD) *Remediation Action Levels* using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.

2.0 SITE RANKING

In accordance with the New Mexico ENMRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases*, Apex TITAN, Inc. (Apex) utilized the general site characteristics obtained during the completion of corrective action activities and information available from the Office of the New Mexico Office of the State Engineer (OSE) to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the following table:

Ranking Criteria			Ranking Score
Depth to Groundwater	<50 feet	20	10
	50 to 99 feet	10	
	>100 feet	0	
Wellhead Protection Area • <1,000 feet from a water source, or; <200 feet from private domestic water source.	Yes	20	0
	No	0	
Distance to Surface Water Body	<200 feet	20	20
	200 to 1,000 feet	10	
	>1,000 feet	0	
Total Ranking Score			30

Based on Apex's evaluation of the scoring criteria, the Site would have a maximum Total Ranking Score of "30". This ranking is based on the following:

- Depth to groundwater is anticipated to be approximately 75 feet below grade surface based on a cathodic protection deepwell groundbed report for the Gallegos Canyon Unit #222 located approximately 930 feet to the northeast of the Site. The cathodic report indicates that groundwater was observed in the borehole at a depth of about 110 feet bgs. The elevation of the Gallegos Canyon Unit #222 location is approximately 35 feet higher in elevation than the Site. No nearby water wells were identified on the Office of the State Engineer (OSE) website database.
- No water source wells (municipal/community wells) were identified within 1,000 feet of the Site. No private domestic water sources were identified within 200 feet of the Site.
- The Site is approximately 90 feet west of an ephemeral wash of Stewart Canyon. Based on this proximity, a ranking for distance to surface water was assigned at "20".

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

On October 29, 2014, Enterprise initiated excavation activities at the Site in an effort to locate and repair a subsurface leak. The leak was subsequently identified and repaired. An unknown quantity of dry natural gas and pipeline liquids were released from the pipeline as a result of internal corrosion. The leak was identified by a gas vapor survey at the ground surface. During the corrective action activities, West States Energy Contractors provided heavy equipment and labor support, and Heather Woods and Kyle Summers, Apex environmental professionals, provided environmental support.

The surface expression of the excavation measured approximately 14 feet long by 12 feet wide, with a total depth of approximately 8 feet bgs.

The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated sand with trace silt and clay.

A total of approximately 52 cubic yards of hydrocarbon affected soils were transported to the Envirotech Landfarm in Hilltop, New Mexico for disposal/remediation. The executed C-138 form is provided in Appendix B. The excavation was backfilled with clean imported fill and contoured to surrounding grade.

Figure 3 is a site map that indicates the approximate location of the excavated area in relation to pertinent land features (Appendix A). Photographic documentation of the field activities is included in Appendix C.

3.2 Soil Sampling Program

Apex screened head-space samples of Site soils with a photoionization detector (PID) fitted with a 10.6 eV lamp to aid in determining the excavation limits.

Apex's soil sampling program included the collection of six (6) final confirmation samples (C-1 through C-6), from the resulting excavation for laboratory analysis. Figure 3 depicts the approximate location of the excavated area and shows the final confirmation sample locations in relation to the final excavation dimensions (Appendix A).

The confirmation soil samples were collected and placed in laboratory prepared glassware, labeled/sealed using the laboratory supplied labels, and placed on ice in a cooler, which was secured with a custody seal. The sample cooler and completed chain-of-custody form were relinquished to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico, for rush analysis.

3.3 Laboratory Analytical Methods

The confirmation soil samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) utilizing Environmental Protection Agency (EPA) SW-846 Method #8021, and total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (DRO) utilizing EPA SW-846 Method #8015.

Laboratory results are summarized in Table 1, included in Appendix D. The executed chain-of-custody form and laboratory data sheets are provided in Appendix E.

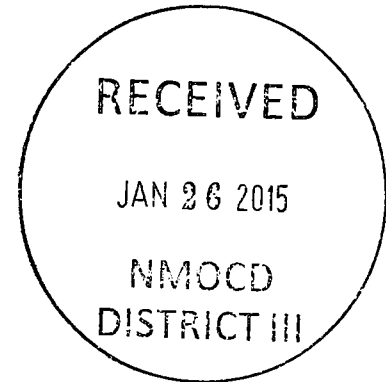
4.0 DATA EVALUATION

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. To address activities related to condensate releases, the New Mexico EMNRD OCD utilizes the *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the OCD rules, specifically New Mexico Administrative Code 19.15.29 *Remediation Plan*. These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action.

4.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or reporting limits associated with the final confirmation samples (C-1 through C-6) collected from the excavated area to the OCD *Remediation Action Levels* (RALs) for sites having a total ranking score of "30".

- The laboratory analyses of confirmation samples collected from soils remaining in place do not indicate benzene concentrations above the laboratory reporting limits, which are below the OCD *Remediation Action Level*.
- The laboratory analyses of the confirmation samples collected from soils remaining in place do not indicate total BTEX concentrations above the laboratory reporting limits, which are below the OCD *Remediation Action Level*.



CORRECTIVE ACTION REPORT

Property:

**Lateral 3C-2 Pipeline Release
SW 1/4, S7 T28N R12W
San Juan County, New Mexico**

December 31, 2014
Apex Project No. 7030414G036

Prepared for:

**Enterprise Field Services LLC
614 Reilly Avenue
Farmington, NM 87401
Attn: Mr. Thomas Long**

Prepared by:

A handwritten signature in cursive script that reads 'Heather M. Woods'.

Heather M. Woods, P.G.
Senior Project Manager

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Elizabeth Scaggs, P.G.
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CORRECTIVE ACTION REPORT

Lateral 3C-2 Pipeline Release

SW 1/4, S7 T28N R12W
San Juan County, New Mexico

Apex Project No. 7030414G036

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- The Site is approximately 90 feet west of an ephemeral wash of Stewart Canyon. Based on this proximity, a ranking for distance to surface water was assigned at "20".

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3.1 Soil Excavation Activities

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A total of approximately 52 cubic yards of hydrocarbon affected soils were transported to the Envirotech Landfarm in Hilltop, New Mexico for disposal/remediation. The executed C-138 form is provided in Appendix B. The excavation was backfilled with clean imported fill and contoured to surrounding grade.

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The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. To address activities related to condensate releases, the New Mexico EMNRD OCD utilizes the *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the OCD rules, specifically New Mexico Administrative Code 19.15.29 *Remediation Plan*. These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action.

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Apex compared the BTEX and TPH concentrations or reporting limits associated with the final confirmation samples (C-1 through C-6) collected from the excavated area to the OCD *Remediation Action Levels* (RALs) for sites having a total ranking score of "30".

- The laboratory analyses of confirmation samples collected from soils remaining in place do not indicate benzene concentrations above the laboratory reporting limits, which are below the OCD *Remediation Action Level*.
- The laboratory analyses of the confirmation samples collected from soils remaining in place do not indicate total BTEX concentrations above the laboratory reporting limits, which are below the OCD *Remediation Action Level*.

- The laboratory analyses of the confirmation samples collected from soils remaining in place indicate combined TPH GRO/DRO concentrations ranging from below the laboratory reporting limits to 21 milligrams/Kilogram (mg/Kg), which are below the OCD *Remediation Action Level* for a Site ranking of "30".

Confirmation sample results are provided in Table 1 in Appendix C.

5.0 FINDINGS AND RECOMMENDATIONS

The Lateral 3C-2 Pipeline Release Site is located within the Enterprise ROW in the SW ¼ of Section 7 in Township 28 North and Range 12 West in rural San Juan County, New Mexico (36.67025N, 108.15848W). The Site is located adjacent to an unpaved road on private land. The Site is surrounded by native vegetation rangeland periodically interrupted with oil and gas production and gathering facilities, including the Enterprise natural gas gathering pipeline which traverses the area from approximately north to south.

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- The primary objective of the corrective actions was to reduce the concentration of COCs in the on-Site soils to below the New Mexico EMNRD OCD *RALs* using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.
- The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated sand with trace silt and clay.
- The surface expression of the excavation measured approximately 14 feet long by 12 feet wide, with a total depth of approximately 8 feet bgs.
- Prior to backfilling, six (6) final confirmation samples were collected from the resulting excavation for laboratory analyses. Based on analytical results, soils remaining in place do not exhibit COC concentrations above the OCD *Remediation Action Levels* for a Site ranking of "30".
- A total of approximately 52 cubic yards of hydrocarbon affected soils were transported to the Envirotech Landfarm in Hilltop, New Mexico for disposal/remediation. The excavation was backfilled with clean imported fill and contoured to surrounding grade.

Based on field observations and laboratory analytical results, no additional investigation or corrective action appears warranted at this time.

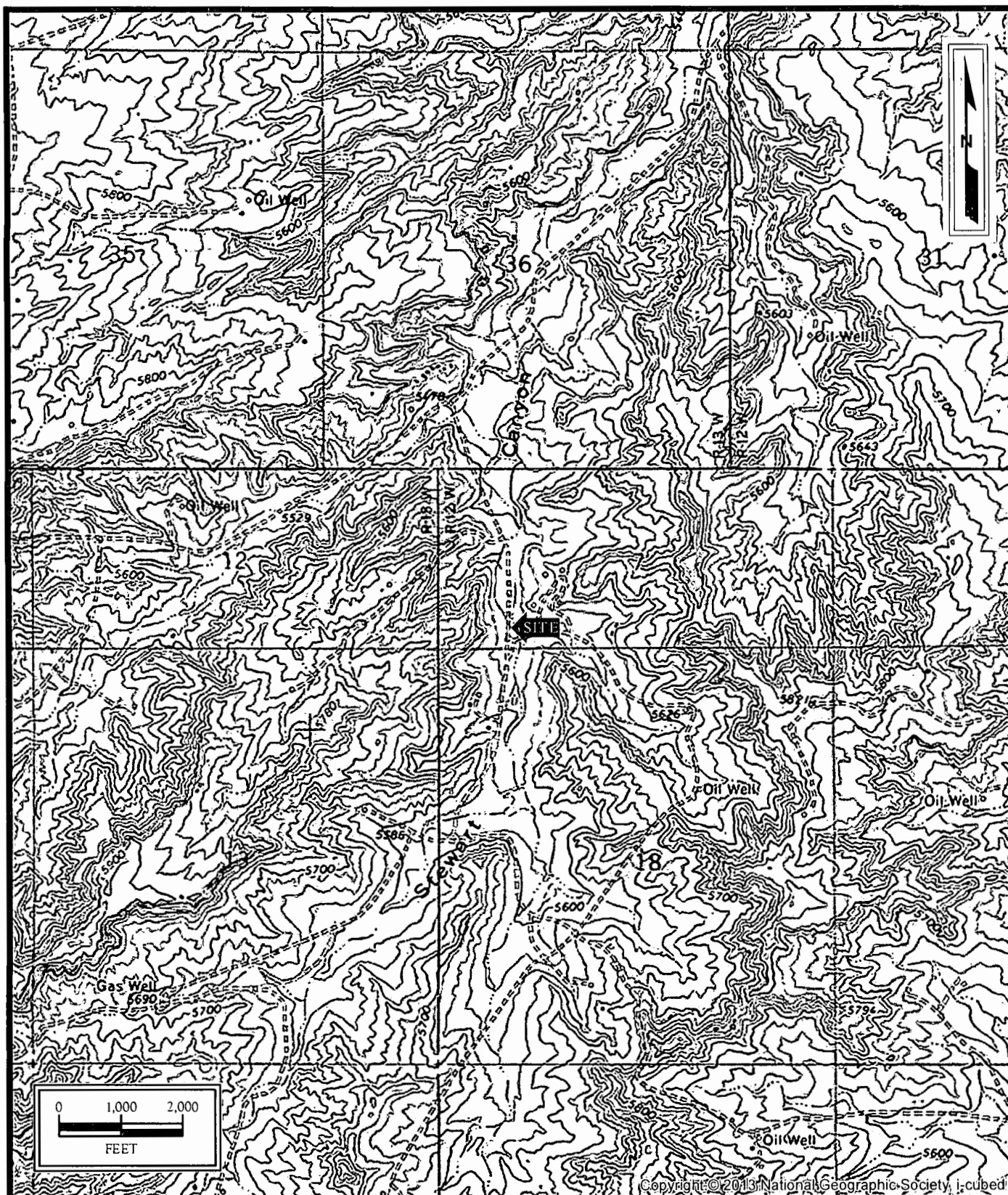
6.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

Apex's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, Apex does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client.



Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and Apex cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this scope of services. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. Apex's findings and recommendations are based solely upon data available to Apex at the time of these services.

This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the expressed written authorization of Enterprise and Apex. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, the report, and Apex's Agreement. The limitation of liability defined in the agreement is the aggregate limit of Apex's liability to the client.



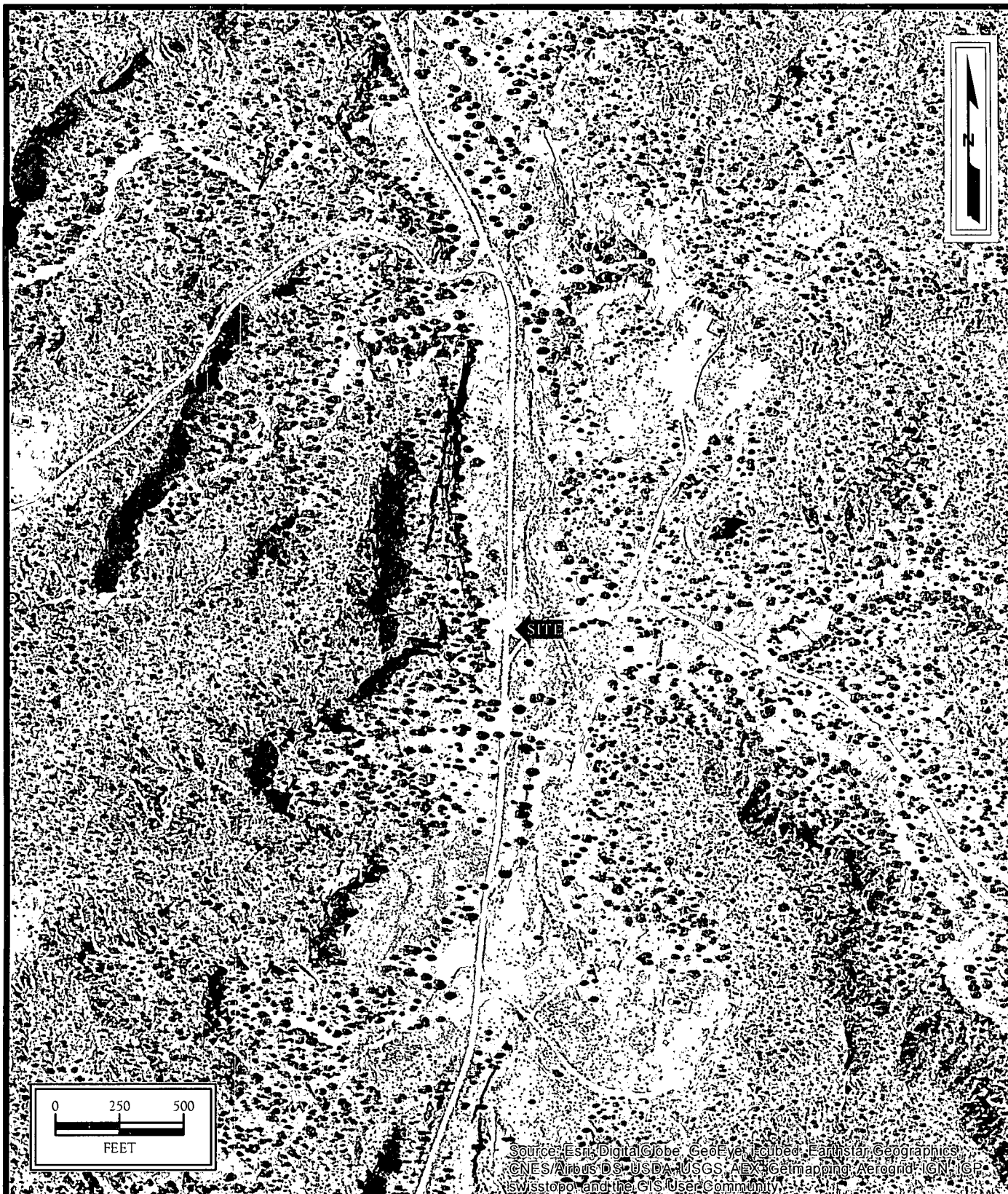
Lateral 3C-2 Pipeline Release
 SW1/4 Sec7 T28N R12W
 Rural San Juan County, New Mexico
 36.67025N, 108.15848W

Project No. 7030414G036.001



Apex TITAN, Inc.
 606 South Rio Grande, Suite A
 Aztec, NM 87410
 Phone: (505) 334-5200
www.apexcos.com
 A Subsidiary of Apex Companies, LLC

FIGURE 1
Topographic Map
 Farmington South, NM Quadrangle
 1965



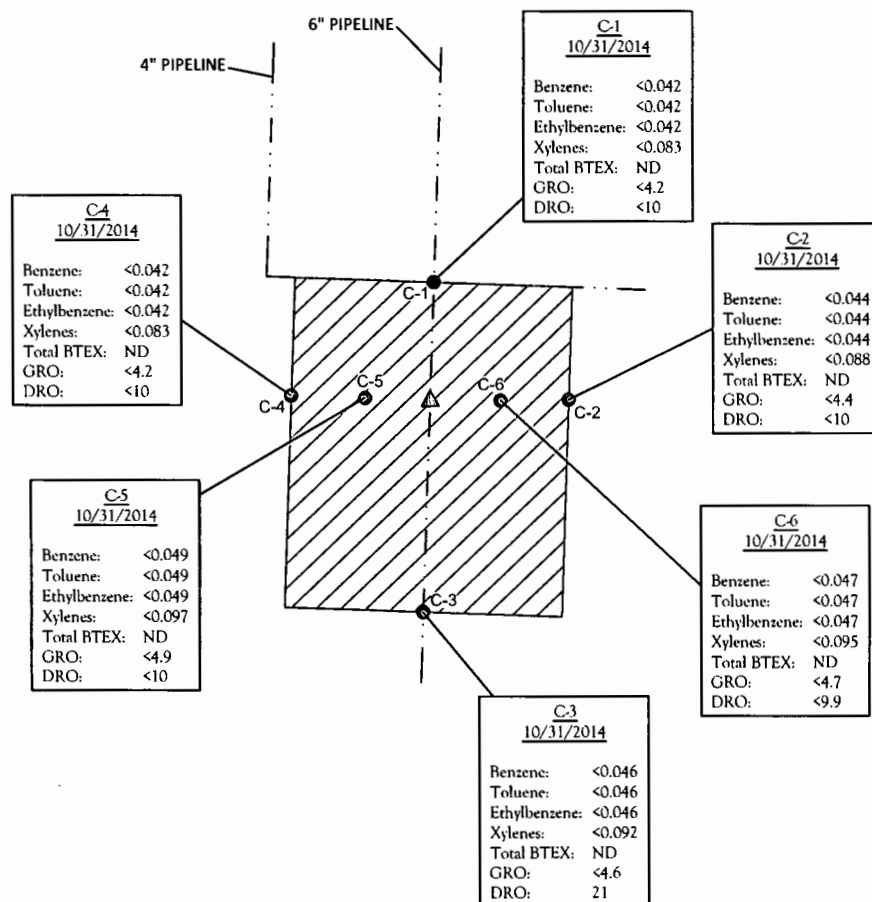
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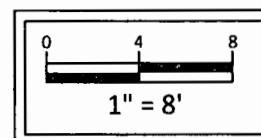
FIGURE 2
Site Vicinity Map



LEGEND:

- PIPELINE
- SAMPLE LOCATION
- ▲ RELEASE POINT
- ▨ EXTENT OF EXCAVATION

NOTE: ALL VALUES ARE REPRESENTED IN mg/kg



Lateral 3C-2 Pipeline Release
SW1/4 Sec7 T28N R12W
Rural San Juan County, New Mexico
36.67025N, 108.15848W

Project No. 7030414G036.001



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FIGURE 3
Site Map with
Sample Locations

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	Oct. 2014
2. Originating Site: Lateral 3C-2 Pipeline	
3. Location of Material (Street Address, City, State or ULSTR): Unit Letter N, Section 7, T28N, R12W; 36.67025, -108.15848	
4. Source and Description of Waste: Hydrocarbon impacted soils associated with a release from a natural gas pipeline.	
5. Estimated Volume 50 yd ³ bbls Known Volume (to be entered by the operator at the end of the haul) 52 yd ³ bbls	
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. Operator Use Only: Waste Acceptance Frequency <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> 10-29-14, representative for <u>Enterprise Field Services, LLC</u> authorize Envirotech, Inc. to Generator Signature complete the required testing/sign the Generator Waste Testing Certification.	
I, <u>Kendra Runung</u> representative for <u>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 State Entergy Contractors <u>Foutz + Bursum</u>	

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011

Address of Facility: Hilltop, NM

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: Kendra Runung

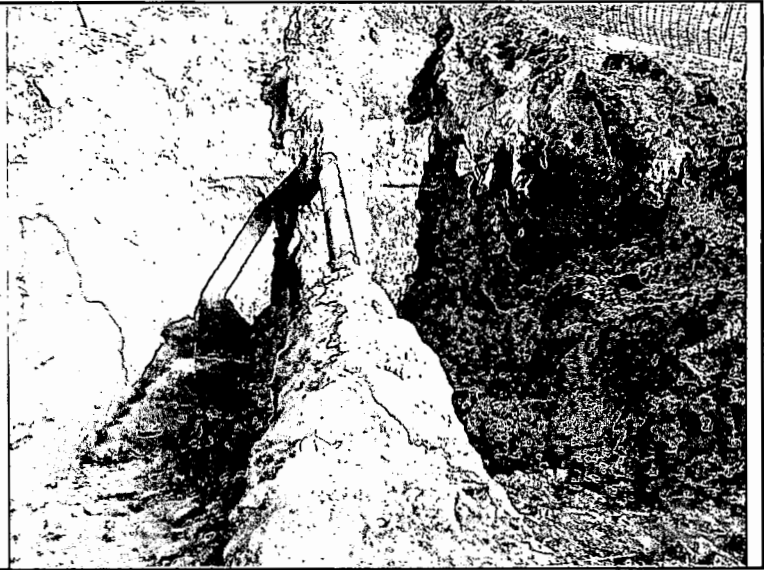
TITLE: Waste Coordinator DATE: 10/30/14

SIGNATURE: Kendra Runung
Surface Waste Management Facility Authorized Agent

TELEPHONE NO.: 505-632-0615

Photograph 1

View of the final excavation at the completion of corrective action activities, facing north.

**Photograph 2**

View of the final excavation at the completion of corrective action activities, facing west.

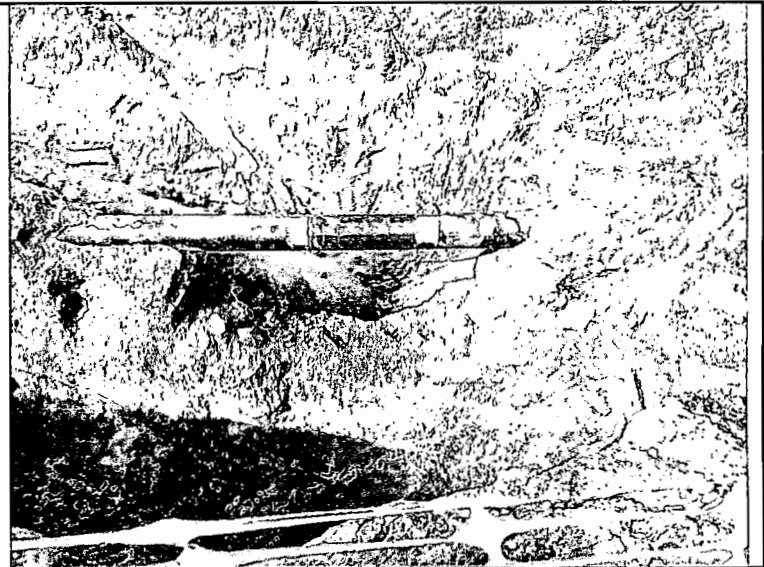




TABLE 1
Lateral 3C-2 Pipeline Release
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100	
Excavation Confirmation Samples									
C-1	10/31/2014	3 to 8	<0.042	<0.042	<0.042	<0.083	ND	<4.2	<10
C-2	10/31/2014	3 to 8	<0.044	<0.044	<0.044	<0.088	ND	<4.4	<10
C-3	10/31/2014	3 to 8	<0.046	<0.046	<0.046	<0.092	ND	<4.6	21
C-4	10/31/2014	3 to 8	<0.042	<0.042	<0.042	<0.083	ND	<4.2	<10
C-5	10/31/2014	8	<0.049	<0.049	<0.049	<0.097	ND	<4.9	<10
C-6	10/31/2014	8	<0.047	<0.047	<0.047	<0.095	ND	<4.7	<9.9

Note: Concentrations in bold and yellow exceed the applicable OCD Remediation Action Level

ND = Not Detected above the Laboratory Reporting Limits



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

November 03, 2014

Heather Woods
APEX AZTEC
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (505) 716-2787
FAX (505) 334-5204

RE: Enterprise Lateral 3C-2

OrderNo.: 1411001

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 6 sample(s) on 11/1/2014 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 or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1411001

Date Reported: 11/3/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** APEX AZTEC**Client Sample ID:** C-1**Project:** Enterprise Lateral 3C-2**Collection Date:** 10/31/2014 10:20:00 AM**Lab ID:** 1411001-001**Matrix:** SOIL**Received Date:** 11/1/2014 11:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/3/2014 1:16:10 PM	16187
Surr: DNOP	86.9	63.5-128		%REC	1	11/3/2014 1:16:10 PM	16187
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	11/1/2014 2:26:13 PM	R22281
Surr: BFB	99.5	80-120		%REC	1	11/1/2014 2:26:13 PM	R22281
EPA METHOD 8021B: VOLATILES							Analyst: DJF
Benzene	ND	0.042		mg/Kg	1	11/1/2014 2:26:13 PM	R22281
Toluene	ND	0.042		mg/Kg	1	11/1/2014 2:26:13 PM	R22281
Ethylbenzene	ND	0.042		mg/Kg	1	11/1/2014 2:26:13 PM	R22281
Xylenes, Total	ND	0.083		mg/Kg	1	11/1/2014 2:26:13 PM	R22281
Surr: 4-Bromofluorobenzene	98.1	80-120		%REC	1	11/1/2014 2:26:13 PM	R22281

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 1411001

Date Reported: 11/3/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** APEX AZTEC**Client Sample ID:** C-2**Project:** Enterprise Lateral 3C-2**Collection Date:** 10/31/2014 10:11:00 AM**Lab ID:** 1411001-002**Matrix:** SOIL**Received Date:** 11/1/2014 11:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/3/2014 11:06:57 AM	16187
Surr: DNOP	87.5	63.5-128		%REC	1	11/3/2014 11:06:57 AM	16187
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	11/1/2014 2:54:45 PM	R22281
Surr: BFB	93.5	80-120		%REC	1	11/1/2014 2:54:45 PM	R22281
EPA METHOD 8021B: VOLATILES							Analyst: DJF
Benzene	ND	0.044		mg/Kg	1	11/1/2014 2:54:45 PM	R22281
Toluene	ND	0.044		mg/Kg	1	11/1/2014 2:54:45 PM	R22281
Ethylbenzene	ND	0.044		mg/Kg	1	11/1/2014 2:54:45 PM	R22281
Xylenes, Total	ND	0.088		mg/Kg	1	11/1/2014 2:54:45 PM	R22281
Surr: 4-Bromofluorobenzene	95.3	80-120		%REC	1	11/1/2014 2:54:45 PM	R22281

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 1411001

Date Reported: 11/3/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX AZTEC

Client Sample ID: C-3

Project: Enterprise Lateral 3C-2

Collection Date: 10/31/2014 10:16:00 AM

Lab ID: 1411001-003

Matrix: SOIL

Received Date: 11/1/2014 11:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	21	10		mg/Kg	1	11/3/2014 1:37:47 PM	16187
Surr: DNOP	101	63.5-128		%REC	1	11/3/2014 1:37:47 PM	16187
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	11/1/2014 3:23:24 PM	R22281
Surr: BFB	95.4	80-120		%REC	1	11/1/2014 3:23:24 PM	R22281
EPA METHOD 8021B: VOLATILES							Analyst: DJF
Benzene	ND	0.046		mg/Kg	1	11/1/2014 3:23:24 PM	R22281
Toluene	ND	0.046		mg/Kg	1	11/1/2014 3:23:24 PM	R22281
Ethylbenzene	ND	0.046		mg/Kg	1	11/1/2014 3:23:24 PM	R22281
Xylenes, Total	ND	0.092		mg/Kg	1	11/1/2014 3:23:24 PM	R22281
Surr: 4-Bromofluorobenzene	96.5	80-120		%REC	1	11/1/2014 3:23:24 PM	R22281

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

Page 3 of 9

Analytical Report

Lab Order 1411001

Date Reported: 11/3/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX AZTEC

Client Sample ID: C-4

Project: Enterprise Lateral 3C-2

Collection Date: 10/31/2014 10:09:00 AM

Lab ID: 1411001-004

Matrix: SOIL

Received Date: 11/1/2014 11:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/3/2014 9:41:13 AM	16187
Surr: DNOP	89.1	63.5-128		%REC	1	11/3/2014 9:41:13 AM	16187
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	11/1/2014 3:52:00 PM	R22281
Surr: BFB	94.7	80-120		%REC	1	11/1/2014 3:52:00 PM	R22281
EPA METHOD 8021B: VOLATILES							Analyst: DJF
Benzene	ND	0.042		mg/Kg	1	11/1/2014 3:52:00 PM	R22281
Toluene	ND	0.042		mg/Kg	1	11/1/2014 3:52:00 PM	R22281
Ethylbenzene	ND	0.042		mg/Kg	1	11/1/2014 3:52:00 PM	R22281
Xylenes, Total	ND	0.083		mg/Kg	1	11/1/2014 3:52:00 PM	R22281
Surr: 4-Bromofluorobenzene	96.2	80-120		%REC	1	11/1/2014 3:52:00 PM	R22281

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 1411001

Date Reported: 11/3/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** APEX AZTEC**Client Sample ID:** C-5**Project:** Enterprise Lateral 3C-2**Collection Date:** 10/31/2014 10:06:00 AM**Lab ID:** 1411001-005**Matrix:** SOIL**Received Date:** 11/1/2014 11:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/3/2014 10:02:41 AM	16187
Surr: DNOP	91.9	63.5-128		%REC	1	11/3/2014 10:02:41 AM	16187
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/1/2014 4:20:37 PM	R22281
Surr: BFB	91.8	80-120		%REC	1	11/1/2014 4:20:37 PM	R22281
EPA METHOD 8021B: VOLATILES							Analyst: DJF
Benzene	ND	0.049		mg/Kg	1	11/1/2014 4:20:37 PM	R22281
Toluene	ND	0.049		mg/Kg	1	11/1/2014 4:20:37 PM	R22281
Ethylbenzene	ND	0.049		mg/Kg	1	11/1/2014 4:20:37 PM	R22281
Xylenes, Total	ND	0.097		mg/Kg	1	11/1/2014 4:20:37 PM	R22281
Surr: 4-Bromofluorobenzene	93.8	80-120		%REC	1	11/1/2014 4:20:37 PM	R22281

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

Analytical Report

Lab Order 1411001

Date Reported: 11/3/2014

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** APEX AZTEC**Client Sample ID:** C-6**Project:** Enterprise Lateral 3C-2**Collection Date:** 10/31/2014 10:03:00 AM**Lab ID:** 1411001-006**Matrix:** SOIL**Received Date:** 11/1/2014 11:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	11/3/2014 1:59:15 PM	16187
Surr: DNOP	95.1	63.5-128		%REC	1	11/3/2014 1:59:15 PM	16187
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/1/2014 4:49:11 PM	R22281
Surr: BFB	92.4	80-120		%REC	1	11/1/2014 4:49:11 PM	R22281
EPA METHOD 8021B: VOLATILES							Analyst: DJF
Benzene	ND	0.047		mg/Kg	1	11/1/2014 4:49:11 PM	R22281
Toluene	ND	0.047		mg/Kg	1	11/1/2014 4:49:11 PM	R22281
Ethylbenzene	ND	0.047		mg/Kg	1	11/1/2014 4:49:11 PM	R22281
Xylenes, Total	ND	0.095		mg/Kg	1	11/1/2014 4:49:11 PM	R22281
Surr: 4-Bromofluorobenzene	94.4	80-120		%REC	1	11/1/2014 4:49:11 PM	R22281

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411001

03-Nov-14

Client: APEX AZTEC

Project: Enterprise Lateral 3C-2

Sample ID	MB-16187		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	16187		RunNo:	22285				
Prep Date:	10/31/2014		Analysis Date:	11/3/2014		SeqNo:	656934		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Surr: DNOP	8.5		10.00		84.7	63.5	128				

Sample ID	LCS-16187		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 16187		RunNo: 22285					
Prep Date:	10/31/2014		Analysis Date: 11/3/2014		SeqNo: 657003		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.1	68.6	130			
Surr: DNOP	3.9		5.000		78.6	63.5	128			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- 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#: 1411001

03-Nov-14

Client: APEX AZTEC

Project: Enterprise Lateral 3C-2

Sample ID	MB-16188 MK	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R22281	RunNo:	22281					
Prep Date:		Analysis Date:	11/1/2014	SeqNo:	656346	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	930		1000		93.4	80	120			

Sample ID	LCS-16188 MK	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R22281	RunNo:	22281					
Prep Date:		Analysis Date:	11/1/2014	SeqNo:	656347	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	115	65.8	139			
Surr: BFB	1000		1000		99.8	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| 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#: 1411001

03-Nov-14

Client: APEX AZTEC

Project: Enterprise Lateral 3C-2

Sample ID	MB-16188 MK	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R22281	RunNo:	22281					
Prep Date:		Analysis Date:	11/1/2014	SeqNo:	656408	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.96		1.000		96.3	80	120			

Sample ID	LCS-16188 MK	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R22281	RunNo:	22281					
Prep Date:		Analysis Date:	11/1/2014	SeqNo:	656409	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.050	1.000	0	89.5	80	120			
Toluene	0.89	0.050	1.000	0	89.2	80	120			
Ethylbenzene	0.95	0.050	1.000	0	94.5	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.9	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Qualifiers:

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

Sample Log-In Check List

Client Name: APEX AZTEC

Work Order Number: 1411001

RcptNo: 1

Received by/date: At 11/01/14

Logged By: Anne Thorne 11/1/2014 11:30:00 AM

Anne Thorne

Completed By: Anne Thorne 11/1/2014

Anne Thorne

Reviewed By: At 11/01/14

Chain of Custody

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

Log In

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

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

Special Handling (If applicable)

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


Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

17. Additional remarks:

18. Cooler Information

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

CHAIN OF CUSTODY RECORD

 APEX Office Location <u>Aztec, NM</u>				Laboratory: <u>Hall Environmental</u> Address: <u>Albuquerque, NM</u>				ANALYSIS REQUESTED				Lab use only Due Date: <u>1-8</u>					
				Contact: <u>Andy Freeman</u> Phone: _____								Temp. of coolers when received (C°): <table border="1" style="width:100%; text-align: center;"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr> </table>				1	2
1	2	3	4	5													
Project Manager <u>Kyle Summers</u>				PO/SO #: <u>Direct Bill to Enterprise</u>				<div style="writing-mode: vertical-rl; transform: rotate(180deg);"> 8021 BTEX 8015 TPH (GRO/DRO) </div>				Page _____ of _____					
Sampler's Name <u>Heather Woods</u>				Sampler's Signature <u>Heather M. Woods</u>													
Proj. No. <u>70304146036.001</u>		Project Name <u>Enterprise Lateral 3C-2</u>				No/Type of Containers <u>4 oz</u>											
Matrix	Date	Time	COEP	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	AG 1L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)				
S	10/31/14	1020			C-1						1		x	x	1711001 -001		
S	10/31/14	1011			C-2						1		x	x	-002		
S	10/31/14	1016			C-3						1		x	x	-003		
S	10/31/14	1009			C-4						1		x	x	-004		
S	10/31/14	1006			C-5						1		x	x	-005		
S	10/31/14	1003			C-6						1		x	x	-006		
NFS HWS																	
Turn around time <input type="checkbox"/> Normal <input type="checkbox"/> 25% Rush <input type="checkbox"/> 50% Rush <input checked="" type="checkbox"/> 100% Rush <u>Same Day</u>																	
Relinquished by (Signature)			Date:		Time:		Received by (Signature)			Date:		Time:		NOTES: Direct Bill to Enterprise Field Services Attn: Tom Long			
<u>Heather M. Woods</u>			<u>10/31/14</u>		<u>1347</u>		<u>[Signature]</u>			<u>10/31/14</u>		<u>1347</u>					
<u>[Signature]</u>			<u>10/31/14</u>		<u>1400</u>		<u>Charlotte Weger</u>			<u>10/31/14</u>		<u>1406</u>					
<u>[Signature]</u>			<u>10/31/14</u>		<u>1745</u>		<u>[Signature]</u>			<u>11/04/14</u>		<u>1130</u>					
Relinquished by (Signature)			Date:		Time:		Received by (Signature)			Date:		Time:					
Relinquished by (Signature)			Date:		Time:		Received by (Signature)			Date:		Time:					

Matrix WW - Wastewater W - Water S - Soil SD - Solid L - Liquid A - Air Bag C - Charcoal tube SL - sludge O - Oil
 Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other

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 C-7	Facility Type: Natural Gas Gathering Line

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

Unit Letter C	Section 1	Township 27N	Range 9W	Feet from the 417	North/South Line	Feet from the 2370	East/West Line	County San Juan
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Latitude 36.610148

Longitude 107.740565

NATURE OF RELEASE

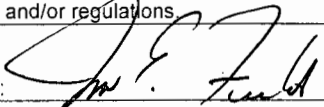
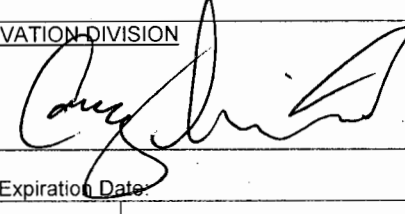
Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: Unknown Amount of Gas; 25-50 BBLS fluids	Volume Recovered: Unknown
Source of Release: Cracked weld on the pipeline	Date and Hour of Occurrence: 3/3/2015 @ 12:10 p.m.	Date and Hour of Discovery: 3/3/2015 @ 3:30 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMOCD - Cory Smith; BLM - Shari Ketcham; San Juan County Sheriff's Department; LEPC	
By Whom? Thomas Long	Date and Hour: 3/3/2015 @ 2:15 p.m.	
Was a Watercourse Reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse Estimated 1-2 BBLs	

If a Watercourse was Impacted, Describe Fully. *Fluids released from the pipeline entered a small unclassified ephemeral wash.

Describe Cause of Problem and Remedial Action: On March 3, 2015, a third party reported pipeline release on the Lateral C-7. Enterprise technicians confirmed the release. The pipeline was isolated, depressurized, locked out and tagged out to mitigate any safety and environmental hazards. The release was a result of cracked weld on the pipeline.

Describe Area Affected and Cleanup Action Taken. * An area of approximately fifty (50) feet long by fifty (50) feet wide within in the pipeline right-of-way was impacted by the released fluids. The fluids migrated along the bar ditches on both sides of the county road for approximately seventy-five (75) feet. Fluids migrated into a small unclassified ephemeral wash approximately thirty (30) feet and along the ground surface adjacent to the unclassified ephemeral wash for approximately seventy-five (75) feet. Enterprise implemented emergency response actions that included removal of standing liquids and sludge from the ground surface by utilizing a hydro excavator and construction of earthen berms to prevent lateral surficial migration of contaminants. All hydrocarbon impacted fluids and sludge was transported to a New Mexico Oil Conservation approved land farm facility. Subsurface impacts are unknown and will be assessed during the remediation phase of the repair activities. A third party corrective action report will be submitted with the "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: 	OIL CONSERVATION DIVISION	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: 4/7/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 3-11-15	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#1000000

NCS 1509730925

①

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

RECEIVED

Submitted to appropriate District Office
in accordance with 19.15.29 NMAC.

NMOCD
DISTRICT III

Form C-141
Revised August 8, 2011

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 3C-2 Release Site	Facility Type: Natural Gas Gathering Line

Surface Owner: Private with a BLM Managed ROW	Mineral Owner: BLM	API No.
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LOCATION OF RELEASE

Unit Letter P	Section 7	Township 28N	Range 12W	Feet from the 272	North/South Line	Feet from the 261	East/West Line	County San Juan
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Latitude 36.67025 Longitude -108.15848

NATURE OF RELEASE

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release 3.60 MCF Gas; 3-5 BBLs fluids	Volume Recovered: None
Source of Release: Internal Corrosion	Date and Hour of Occurrence: 10/29/2014 @ 9:00 a.m.	Date and Hour of Discovery: 10/29/2014 @ 9:50 a.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy to NMOCD - Cory Smith and BLM - Shari Ketcham	
By Whom? Thomas Long	Date and Hour 10/29/2014 @ 5:43 p.m.	
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: On October 29, 2014, Enterprise technicians confirmed a leak on the Lateral 3C-2 pipeline. The line was isolated and de-pressurized and lock out tag out was applied. The repairs and remediation were completed on October 31, 2014. The final excavation dimensions measured approximately fourteen (14) feet long by twelve (12) by eight (8) feet deep. Approximately 52 cubic yards of hydrocarbon impacted soil was excavated and transported to a NMOCD approved land farm facility.

Describe Area Affected and Cleanup Action: On October 29, 2014, On October 29, 2014, Enterprise technicians confirmed a leak on the Lateral 3C-2 pipeline. The line was isolated and de-pressurized and lock out tag out was applied. The repairs and remediation were completed on October 31, 2014. The final excavation dimensions measured approximately fourteen (14) feet long by twelve (12) by eight (8) feet deep. Approximately 52 cubic yards of hydrocarbon 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: *Jon Fields*
Printed Name: Jon Fields
Title: Director, Environmental
E-mail Address: jefields@eprod.com
Date: 1/21/2015 Phone: (713)381-6684

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: *Cory Smith*

Approval Date: 3/23/15

Expiration Date:

Conditions of Approval:

Attached ☐

* Attach Additional Sheets If Necessary

#NCS 1508252724

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