

3R-1011

**Release Report/ General
Correspondence**

Enterprise SJ

Date: Jul-Sept 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

OIL CONS. DIV DIST. 3

JUL 06 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: Lateral 2C	Facility Type: Natural Gas Gathering Pipeline

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

Unit Letter D	Section 1	Township 25N	Range 8W	Feet from the 988	North/South Line	Feet from the 485	East/West Line	County San Juan
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Latitude 36.43331 Longitude 107.64040

NATURE OF RELEASE

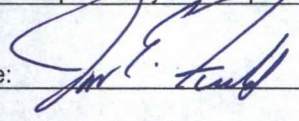
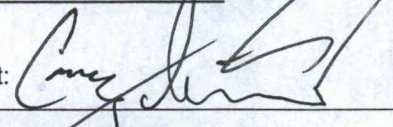
Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: Estimated 5-10 bbls Fluids	Volume Recovered: None
Source of Release: Suspected internal corrosion	Date and Hour of Occurrence: 6/16/2015 @ 4:00 p.m.	Date and Hour of Discovery: 6/16/2015 @ 5:45 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom? Thomas Long	Date and Hour 6/17/2015 @ 1:31 p.m.	
Was a Watercourse Reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.* Fluids released from the pipeline entered a small ephemeral wash and flowed for approximately 60 feet.

Describe Cause of Problem and Remedial Action: * On July 16, 2015, during routine operations a field technician identified a natural gas release on the Lateral 2C pipeline. The pipeline was isolated, depressurized, locked out and tagged out.

Describe Area Affected and Cleanup Action Taken:* Fluids released from the pipeline ran down hill approximately 75 feet and entered a small ephemeral wash and flowed for approximately 60 feet. Repairs/remediation began June 22, 2015 and will continue the week June 29, 2015. Subsurface impacts are unknown and will be assessed during the repair activities the week of June 29, 2015. 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: 7/8/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 6/26/2015	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#NCS 1518950799

①

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JUL 31 2015

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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 2A-4	Facility Type: Natural Gas Gathering Pipeline

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

Unit Letter C	Section 24	Township 27N	Range 10W	Feet from the 860'	North South Line	Feet from the 1450'	East West Line	County San Juan
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Latitude 36.565507 Longitude -107.851115

NATURE OF RELEASE

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: Unknown	Volume Recovered: None
Source of Release: Failed Repair	Date and Hour of Occurrence: 7/13/15 @ 1:30 p.m.	Date and Hour of Discovery: 7/13/15 @ 2:05 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 Notification – Cory Smith – NMOCD	
By Whom? Runell Seale	Date and Time 7/24/15 at :8:00 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 July 13, 2015, Enterprise technicians confirmed a minor gas leak on the Lateral 2B-4 pipeline. The pipeline was isolated, blown down, locked out and tagged out for safety and environmental concerns. During repairs to the pipeline, determination will be made as to cause of the failure and impacted soils will be removed.

Describe Area Affected and Cleanup Action: On July 23, 2015 during pipeline repairs subsurface contamination was encountered in the excavation. A third party environmental contractor is overseeing excavation activities and will collect samples for determination of impacted soils. 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, Field Environmental	Approval Date: 8/3/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 7/27/2015	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#NCS1521555302

①

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OIL CONS. DIV DIST. 3

JUL 06 2015

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

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: Maddox WN Federal #10	Facility Type: Natural Gas Gathering Pipeline	
Surface Owner: BLM	Mineral Owner: BLM	API No.

LOCATION OF RELEASE

Unit Letter M	Section 13	Township 30N	Range 13W	Feet from the 87	North/South Line	Feet from the 528	East/West Line	County San Juan
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Latitude 36.80630 Longitude 108.16404

NATURE OF RELEASE

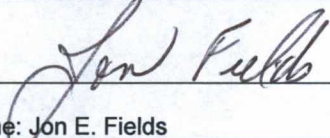
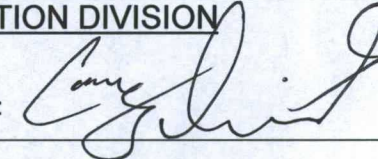
Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: 132.52 MCF Gas; 5-10 bbls. fluids	Volume Recovered: None
Source of Release: Internal corrosion	Date and Hour of Occurrence: 4/23/2015 @ 6:30 p.m.	Date and Hour of Discovery: 4/23/2015 @ 6:30 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy Notification to Cory Smith NMOCD; Shari Ketcham BLM	
By Whom? Thomas Long	Date and Hour 5/6/2015 @ 9:37 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 April 23, 2015, Enterprise was notified of a possible gas release on the Maddox WN Federal #10 pipeline by a third party. Technicians were dispatched and confirmed the release. The pipeline was isolated, depressurized, locked out and tagged out. Remediation was completed on May 7, 2015.

Describe Area Affected and Cleanup Action Taken.* The contaminant mass was removed by mechanical excavation. The final excavation measured approximately 16 feet long by 12 feet wide ranging from 10 to 17.5 feet deep. Approximately 274 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation 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 E. Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: 8/12/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 7-2-2015	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary #WCS 15 12650361

35



CORRECTIVE ACTION REPORT

Property:

**Maddox WN Federal #10 Pipeline Release
SW 1/4, S13 T30N R13W
San Juan County, New Mexico**

June 15, 2015
Apex Project No. 7250415007

Prepared for:

**Enterprise Field Services LLC
614 Reilly Avenue
Farmington, NM 87401
Attn: Mr. Thomas Long**

Prepared by:

Ranee Deechilly
Environmental Scientist

Kyle Summers, CPG
Branch Manager/Senior Geologist

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CORRECTIVE ACTION REPORT

Maddox WN Federal #10 Pipeline Release

SW 1/4, S13 T30N R13W
San Juan County, New Mexico

Apex Project No. 7250415007

1.0 INTRODUCTION

1.1 Site Description & Background

The Maddox WN Federal #10 pipeline release site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the southwest (SW) ¼ of Section 13 in Township 30 North and Range 13 West in rural San Juan County, New Mexico (36.80630N, 108.16404W), referred to hereinafter as the "Site" or "subject Site". The Site is located on land managed by United States Bureau of Land Management (BLM). The Site is surrounded by native vegetation rangeland periodically interrupted by oil and gas production and gathering facilities, including the Enterprise natural gas gathering pipeline which traverses the area from approximately northeast to southwest.

On April 23, 2015, a natural gas pipeline release was reported by a third party. On March 6, 2015, Enterprise initiated excavation activities to facilitate the repair of the pipeline, and to remediate potential hydrocarbon impact. The pipeline was subsequently repaired. Natural gas was released from the pipeline as a result of internal corrosion. The surface expression of the release was characterized by distressed vegetation in the immediate vicinity.

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* (RALs) using the EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.

2.0 SITE RANKING

In accordance with the EMNRD 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	0
	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			20

Based on Apex's evaluation of the scoring criteria, the Site would earn a maximum Total Ranking Score of "20". This ranking is based on the following:

- A cathodic well report for the Maddox D Federal Com #1, located approximately 2,800 feet to the southwest of the Site at a similar elevation, indicates groundwater is present at approximately 240 feet below grade surface (bgs). Three water wells were identified on the OSE website database within approximately one (1) mile of the Site with reported depths to water ranging from approximately 265 to 460 feet bgs. This information supports a ranking of "0" for depth to groundwater.
- 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. These proximities result in a wellhead protection area ranking of "0".
- The release point is located approximately 80 feet south of a small ephemeral wash that drains to the wash of Farmington Glade, resulting in a distance to surface water ranking of "20".

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

On May 6, 2015, Enterprise initiated excavation activities at the Site to repair the pipeline and remediate potential hydrocarbon impact. The pipeline was subsequently repaired. Natural gas was released from the pipeline as a result of internal corrosion. The surface expression of the release was characterized by distressed vegetation in the immediate vicinity. During the corrective action activities, West States Energy Contractors, Inc., provided heavy equipment and labor support, and Kyle Summers, an Apex environmental professional, provided environmental support.

Excavation activities were completed at the Site on May 7, 2015. Confirmation soil samples S-1 through S-11 were collected from the sidewalls and base of the excavation for laboratory analysis.

The final excavation was comprised of three (3) general areas – the north, central, and south portions. The north portion measured approximately 16 feet long by 12 feet wide, with a total depth of approximately 10 feet bgs. The central portion measured approximately 16 feet long by 12 feet wide, with a total depth of approximately 17.5 feet bgs. The south portion of the excavation measured approximately 13 feet long by 6 feet wide, with a total depth of approximately 5 feet bgs.

The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated, poorly sorted sand and silty sand.

A total of approximately 274 cubic yards of hydrocarbon affected soils and 10 barrels (bbls) of saturated soils removed by hydro-vacuum were transported to the JFJ/Industrial Ecosystems, Inc., landfarm near Aztec, 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 evaluate volatile organic compounds (VOCs) and aid in determining the excavation limits.

Advance notification of the sampling schedule was provided to the local BLM and OCD district offices. Ms. Shari Ketcham (BLM representative) was present at the onset of the sampling activity on May 7, 2015, however, no representative from the OCD was in attendance during the collection of samples.

Apex's soil sampling program included the collection of eleven (11) confirmation samples (S-1 through S-11) 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 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 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. The soil samples were also analyzed for 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 EMNRD OCD. To address activities related to condensate releases, the 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 *Release Notification*. 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 laboratory reporting limits associated with the final confirmation samples to the OCD RALs for sites having a total ranking score of "20".

- The laboratory analyses of confirmation samples collected from soils remaining in place did not indicate benzene concentrations above the laboratory reporting limits, which are below the OCD RAL of 10 milligram per kilogram (mg/kg).
- The laboratory analyses of the confirmation samples collected from soils remaining in place indicate total BTEX concentrations ranging from below the laboratory reporting limits to 0.56 mg/kg (S-9), which are below the OCD RAL.
- The laboratory analyses of the confirmation samples collected from soils remaining in place indicate combined TPH GRO/DRO concentrations ranging from below the laboratory limits to 17 mg/kg (S-9), which are below the OCD RAL of 100 mg/kg.

Confirmation sample results are provided in Table 1 in Appendix D.

5.0 FINDINGS AND RECOMMENDATIONS

The Maddox WN Federal #10 pipeline release site is located within the Enterprise ROW in the SW ¼ of Section 13 in Township 30 North and Range 13 West in rural San Juan County, New Mexico. The Site is located on land managed by the BLM. The Site is surrounded by native vegetation rangeland periodically interrupted by oil and gas production and gathering facilities, including the Enterprise natural gas gathering pipeline which traverses the area from approximately northeast to southwest.

On April 23, 2015, a natural gas pipeline release was reported by a third party. On March 6, 2015, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The pipeline was subsequently repaired. Natural gas was released from the pipeline as a result of internal corrosion. The surface expression of the release was characterized by distressed vegetation in the immediate vicinity.

- The primary objective of the corrective actions was to reduce the concentration of COCs in the on-Site soils to below the EMNRD OCD RALs using the 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, poorly sorted sand and silty sand.
- The final excavation was comprised of three (3) general areas – the north, central, and south portions. The north portion measured approximately 16 feet long by 12 feet wide, with a total depth of approximately 10 feet bgs. The central portion measured approximately 16 feet long by 12 feet wide, with a total depth of approximately 17.5 feet bgs. The south portion of the excavation measured approximately 13 feet long by 6 feet wide, with a total depth of approximately 5 feet bgs.
- Eleven (11) confirmation samples were collected from the resulting final excavation for laboratory analyses. Based on analytical results, soils remaining in place do not exhibit COC concentrations above the OCD RALs for a Site ranking of "20".



- A total of approximately 274 cubic yards of hydrocarbon affected soils and 10 bbls of saturated soils removed by hydro-vacuum were transported to the JFJ/Industrial Ecosystem, Inc., landfarm near Aztec, 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 with respect to soil impact appears warranted at this time.

6.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

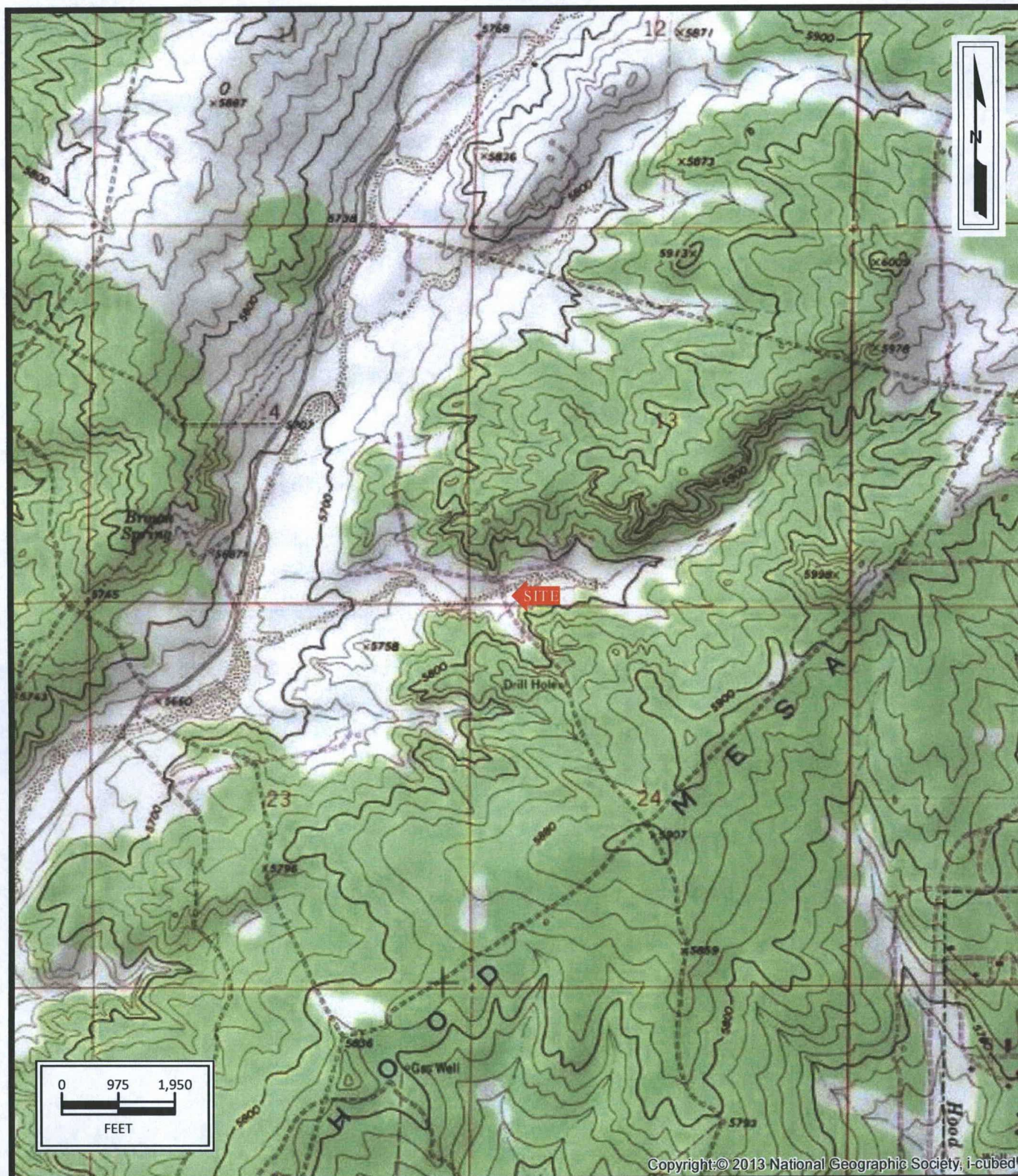
Apex's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, Apex does not warrant the work 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.

APPENDIX A

Figures



Copyright © 2013 National Geographic Society, i-cubed

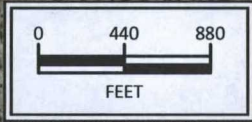
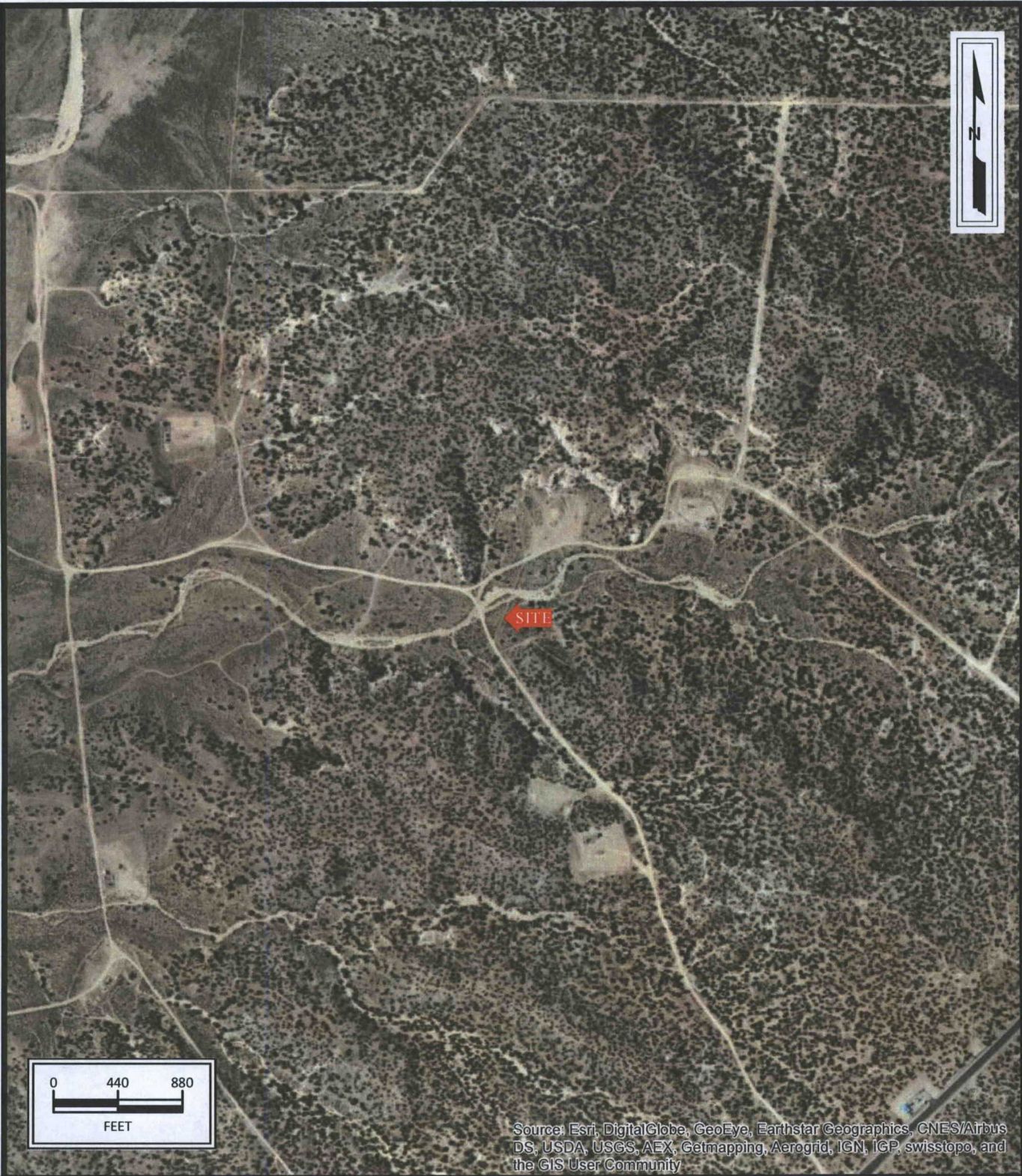
Maddox WN Federal #10
Pipeline Release
SW1/4 Sec13 T30N R13W
San Juan County, New Mexico
36.8063N, 108.16404W

Project No. 7250415007



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 North, NM Quadrangle
1963



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

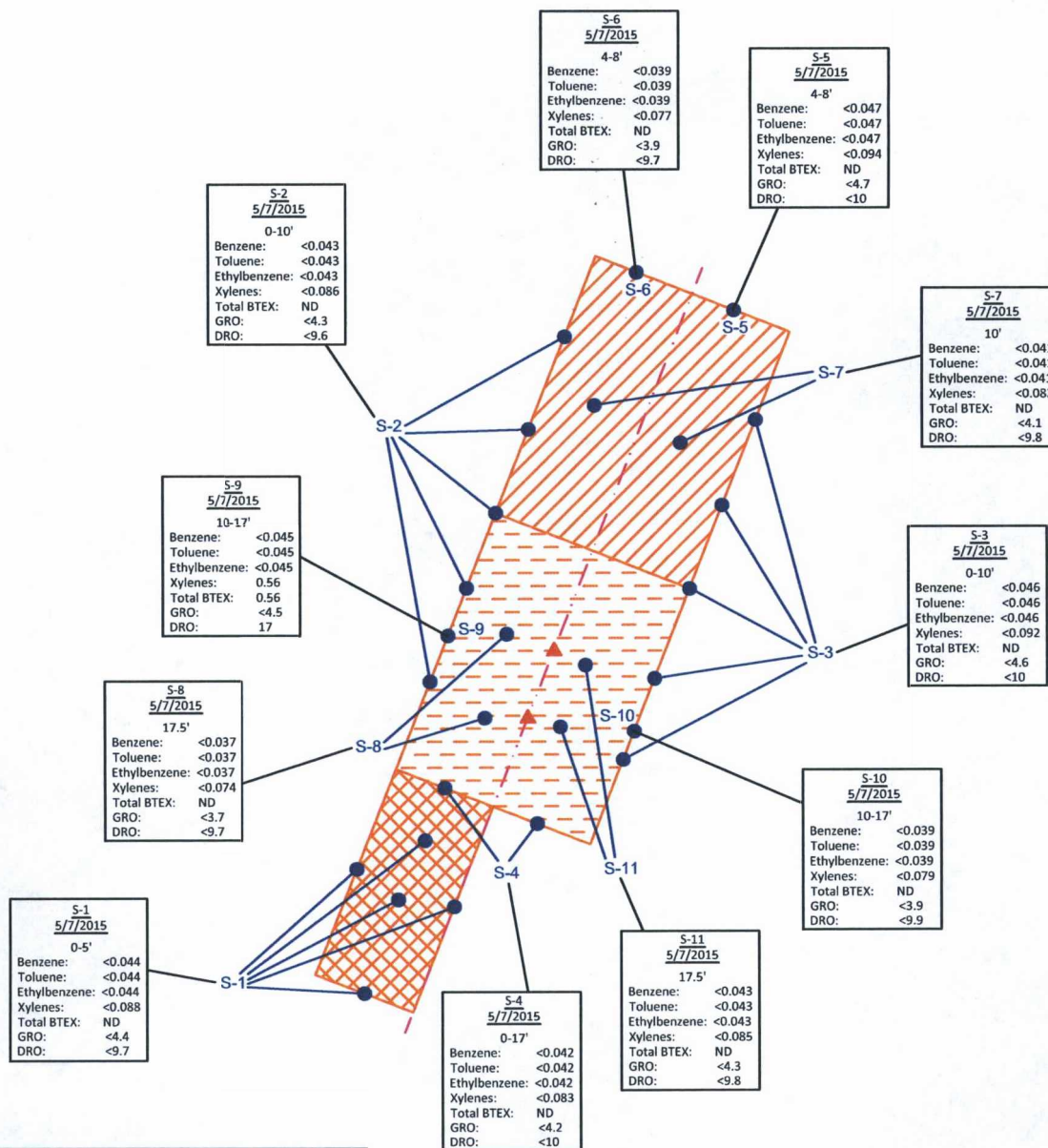
Maddox WN Federal #10
Pipeline Release
SW1/4 Sec13 T30N R13W
San Juan County, New Mexico
36.8063N, 108.16404W

Project No. 7250415007



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 2
Site Vicinity Map



Maddox WN Federal #10
Pipeline Release
SW1/4 S13 T30N R13W
San Juan County, New Mexico
36.80630N, 108.16404W

Project No. 7250415007



Apex TITAN, Inc.
606 S. Rio Grande, Suite A
Aztec, New Mexico 87410
Phone: (505) 334-5200
www.apexcos.com
A Subsidiary of Apex Companies, LLC

FIGURE 3
Soil Sample Location
and Results

APPENDIX B

Executed C-138 Solid Waste Acceptance Form

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: Maddox WN Federal #10 Pipeline	
3. Location of Material (Street Address, City, State or ULSTR): Unit Letter M Section 13 Township 30 North Range 13 West; 36.80630, -108.16404, San Juan County	
4. Source and Description of Waste: Source: A release from a Natural Gas Gathering Line Description: Hydrocarbon impacted soil associated with a pipeline release. Estimated Volume <u>50</u> yd ³ bbls Known Volume (to be entered by the operator at the end of the haul) <u>80</u> yd ³ bbls <i>5/11/15 - 19400 5/16/15 - 10000 bbls</i>	
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS I, Thomas Long <i>Thomas Long</i> , 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 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 as determined by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR 261.11, 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 checked="" type="checkbox"/> Process Knowledge <input type="checkbox"/> Other (Provide description in separate sheet) GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS I, Thomas Long <i>Thomas Long</i> 5-6-15, representative for Enterprise Products Operating authorize to complete Generator Signature the required testing/sign the Generator Waste Testing Certification. I, <i>Steve B</i> , representative for <u>IEI, 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.	
5. Transporter: TBD	

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: *H. Selph*
SIGNATURE: *H. Selph*
Surface Waste Management Facility Authorized Agent

TITLE: *Clerk*
Land Farm Administrator
TELEPHONE NO.: 505-632-1782

DATE: *5/16/15*

*CL-2124
PH-8*

5/16/15

APPENDIX C

Photographic Documentation

Photograph 1

View of vegetation affected by soil gas, facing northeast.



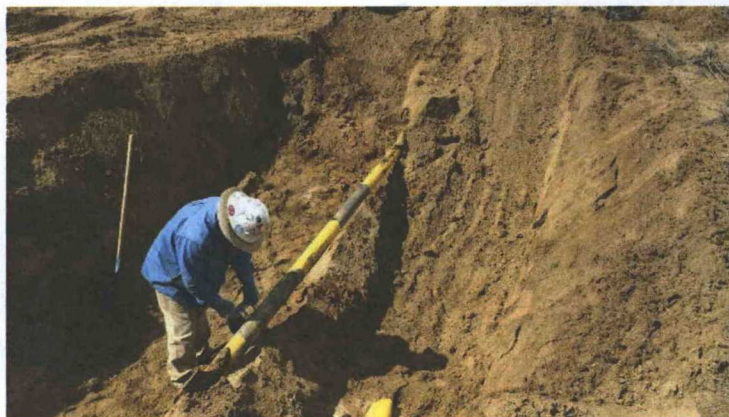
Photograph 2

View of damaged coating at point of release.



Photograph 3

View of line repair in process, facing north.



Photograph 4

View excavation in process, facing south.



Photograph 5

View of the final excavation showing vertical extent, facing south.



APPENDIX D

Table



TABLE 1
Maddox WN Federal #10 Pipeline Release
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Depth (feet)	Number of Aliquots in Composite Sample	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										
S-1	5/7/2015	0 to 5	5	<0.044	<0.044	<0.044	<0.088	ND	<4.4	<9.7
S-2	5/7/2015	0 to 10	5	<0.043	<0.043	<0.043	<0.086	ND	<4.3	<9.6
S-3	5/7/2015	0 to 10	5	<0.046	<0.046	<0.046	<0.092	ND	<4.6	<10
S-4	5/7/2015	0 to 17	4	<0.042	<0.042	<0.042	<0.083	ND	<4.2	<10
S-5	5/7/2015	4 to 8	2	<0.047	<0.047	<0.047	<0.094	ND	<4.7	<10
S-6	5/7/2015	4 to 8	2	<0.039	<0.039	<0.039	<0.077	ND	<3.9	<9.7
S-7	5/7/2015	10	2	<0.041	<0.041	<0.041	<0.082	ND	<4.1	<9.8
S-8	5/7/2015	17.5	2	<0.037	<0.037	<0.037	<0.074	ND	<3.7	<9.7
S-9	5/7/2015	10 to 17	2	<0.045	<0.045	<0.045	0.56	0.56	<4.5	17
S-10	5/7/2015	10 to 17	2	<0.039	<0.039	<0.039	<0.079	ND	<3.9	<9.9
S-11	5/7/2015	17.5	2	<0.043	<0.043	<0.043	<0.085	ND	<4.3	<9.8

Note: Concentrations in bold and yellow exceed the applicable OCD Remediation Action Level

ND = Not Detected above the Laboratory Reporting Limits

NE = Not established

APPENDIX E

Laboratory Analytical Reports & Chain of Custody Documentation



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

May 15, 2015

Kyle Summers

APEX TITAN

606 S. Rio Grande Unit A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Maddox WN Fed #10

OrderNo.: 1505355

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 11 sample(s) on 5/8/2015 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505355

Date Reported: 5/15/2015

CLIENT: APEX TITAN

Client Sample ID: S-1

Project: Maddox WN Fed #10

Collection Date: 5/7/2015 10:00:00 AM

Lab ID: 1505355-001

Matrix: MEOH (SOIL)

Received Date: 5/8/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/9/2015 12:49:12 AM	19137
Surr: DNOP	95.8	57.9-140		%REC	1	5/9/2015 12:49:12 AM	19137
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	5/14/2015 1:27:18 AM	R26157
Surr: BFB	97.2	80-120		%REC	1	5/14/2015 1:27:18 AM	R26157
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.044		mg/Kg	1	5/14/2015 1:27:18 AM	R26157
Toluene	ND	0.044		mg/Kg	1	5/14/2015 1:27:18 AM	R26157
Ethylbenzene	ND	0.044		mg/Kg	1	5/14/2015 1:27:18 AM	R26157
Xylenes, Total	ND	0.088		mg/Kg	1	5/14/2015 1:27:18 AM	R26157
Surr: 4-Bromofluorobenzene	111	80-120		%REC	1	5/14/2015 1:27:18 AM	R26157

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 Not In Range
	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 1505355

Date Reported: 5/15/2015

CLIENT: APEX TITAN

Client Sample ID: S-2

Project: Maddox WN Fed #10

Collection Date: 5/7/2015 10:15:00 AM

Lab ID: 1505355-002

Matrix: MEOH (SOIL)

Received Date: 5/8/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/9/2015 1:53:13 AM	19137
Surr: DNOP	102	57.9-140		%REC	1	5/9/2015 1:53:13 AM	19137
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	5/14/2015 1:55:57 AM	R26157
Surr: BFB	95.7	80-120		%REC	1	5/14/2015 1:55:57 AM	R26157
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.043		mg/Kg	1	5/14/2015 1:55:57 AM	R26157
Toluene	ND	0.043		mg/Kg	1	5/14/2015 1:55:57 AM	R26157
Ethylbenzene	ND	0.043		mg/Kg	1	5/14/2015 1:55:57 AM	R26157
Xylenes, Total	ND	0.086		mg/Kg	1	5/14/2015 1:55:57 AM	R26157
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	5/14/2015 1:55:57 AM	R26157

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 Not In Range
- RL Reporting Detection Limit

Analytical Report

Lab Order 1505355

Date Reported: 5/15/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** APEX TITAN**Client Sample ID:** S-3**Project:** Maddox WN Fed #10**Collection Date:** 5/7/2015 10:25:00 AM**Lab ID:** 1505355-003**Matrix:** MEOH (SOIL)**Received Date:** 5/8/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/9/2015 2:14:42 AM	19137
Surr: DNOP	102	57.9-140		%REC	1	5/9/2015 2:14:42 AM	19137
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/14/2015 10:39:26 AM	19184
Surr: BFB	89.7	80-120		%REC	1	5/14/2015 10:39:26 AM	19184
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	5/14/2015 10:39:26 AM	19184
Toluene	ND	0.046		mg/Kg	1	5/14/2015 10:39:26 AM	19184
Ethylbenzene	ND	0.046		mg/Kg	1	5/14/2015 10:39:26 AM	19184
Xylenes, Total	ND	0.092		mg/Kg	1	5/14/2015 10:39:26 AM	19184
Surr: 4-Bromofluorobenzene	99.8	80-120		%REC	1	5/14/2015 10:39:26 AM	19184

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 Not In Range
- RL Reporting Detection Limit

Analytical ReportLab Order **1505355**Date Reported: **5/15/2015****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** APEX TITAN**Client Sample ID:** S-4**Project:** Maddox WN Fed #10**Collection Date:** 5/7/2015 2:30:00 PM**Lab ID:** 1505355-004**Matrix:** MEOH (SOIL)**Received Date:** 5/8/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/9/2015 2:36:02 AM	19137
Surr: DNOP	90.8	57.9-140		%REC	1	5/9/2015 2:36:02 AM	19137
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	5/14/2015 11:08:08 AM	19184
Surr: BFB	92.4	80-120		%REC	1	5/14/2015 11:08:08 AM	19184
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.042		mg/Kg	1	5/14/2015 11:08:08 AM	19184
Toluene	ND	0.042		mg/Kg	1	5/14/2015 11:08:08 AM	19184
Ethylbenzene	ND	0.042		mg/Kg	1	5/14/2015 11:08:08 AM	19184
Xylenes, Total	ND	0.083		mg/Kg	1	5/14/2015 11:08:08 AM	19184
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	5/14/2015 11:08:08 AM	19184

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 Not In Range
- RL Reporting Detection Limit

Analytical Report

Lab Order 1505355

Date Reported: 5/15/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** APEX TITAN**Client Sample ID:** S-5**Project:** Maddox WN Fed #10**Collection Date:** 5/7/2015 10:35:00 AM**Lab ID:** 1505355-005**Matrix:** MEOH (SOIL)**Received Date:** 5/8/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/9/2015 3:18:46 AM	19137
Surr: DNOP	94.7	57.9-140		%REC	1	5/9/2015 3:18:46 AM	19137
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/14/2015 11:36:53 AM	19184
Surr: BFB	93.7	80-120		%REC	1	5/14/2015 11:36:53 AM	19184
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	5/14/2015 11:36:53 AM	19184
Toluene	ND	0.047		mg/Kg	1	5/14/2015 11:36:53 AM	19184
Ethylbenzene	ND	0.047		mg/Kg	1	5/14/2015 11:36:53 AM	19184
Xylenes, Total	ND	0.094		mg/Kg	1	5/14/2015 11:36:53 AM	19184
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	5/14/2015 11:36:53 AM	19184

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505355

Date Reported: 5/15/2015

CLIENT: APEX TITAN

Client Sample ID: S-6

Project: Maddox WN Fed #10

Collection Date: 5/7/2015 10:45:00 AM

Lab ID: 1505355-006

Matrix: MEOH (SOIL)

Received Date: 5/8/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/9/2015 3:40:08 AM	19137
Surr: DNOP	94.8	57.9-140		%REC	1	5/9/2015 3:40:08 AM	19137
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	5/14/2015 12:05:40 PM	19184
Surr: BFB	92.4	80-120		%REC	1	5/14/2015 12:05:40 PM	19184
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.039		mg/Kg	1	5/14/2015 12:05:40 PM	19184
Toluene	ND	0.039		mg/Kg	1	5/14/2015 12:05:40 PM	19184
Ethylbenzene	ND	0.039		mg/Kg	1	5/14/2015 12:05:40 PM	19184
Xylenes, Total	ND	0.077		mg/Kg	1	5/14/2015 12:05:40 PM	19184
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	5/14/2015 12:05:40 PM	19184

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 Not In Range
- RL Reporting Detection Limit

Analytical Report

Lab Order 1505355

Date Reported: 5/15/2015

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** APEX TITAN**Client Sample ID:** S-7**Project:** Maddox WN Fed #10**Collection Date:** 5/7/2015 11:20:00 AM**Lab ID:** 1505355-007**Matrix:** MEOH (SOIL)**Received Date:** 5/8/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/9/2015 4:01:24 AM	19137
Surr: DNOP	93.3	57.9-140		%REC	1	5/9/2015 4:01:24 AM	19137
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	5/14/2015 12:34:27 PM	19184
Surr: BFB	90.1	80-120		%REC	1	5/14/2015 12:34:27 PM	19184
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.041		mg/Kg	1	5/14/2015 12:34:27 PM	19184
Toluene	ND	0.041		mg/Kg	1	5/14/2015 12:34:27 PM	19184
Ethylbenzene	ND	0.041		mg/Kg	1	5/14/2015 12:34:27 PM	19184
Xylenes, Total	ND	0.082		mg/Kg	1	5/14/2015 12:34:27 PM	19184
Surr: 4-Bromofluorobenzene	99.3	80-120		%REC	1	5/14/2015 12:34:27 PM	19184

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505355

Date Reported: 5/15/2015

CLIENT: APEX TITAN

Client Sample ID: S-8

Project: Maddox WN Fed #10

Collection Date: 5/7/2015 12:00:00 PM

Lab ID: 1505355-008

Matrix: MEOH (SOIL)

Received Date: 5/8/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/9/2015 4:22:46 AM	19137
Surr: DNOP	93.6	57.9-140		%REC	1	5/9/2015 4:22:46 AM	19137
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	5/14/2015 1:03:13 PM	19184
Surr: BFB	95.5	80-120		%REC	1	5/14/2015 1:03:13 PM	19184
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.037		mg/Kg	1	5/14/2015 1:03:13 PM	19184
Toluene	ND	0.037		mg/Kg	1	5/14/2015 1:03:13 PM	19184
Ethylbenzene	ND	0.037		mg/Kg	1	5/14/2015 1:03:13 PM	19184
Xylenes, Total	ND	0.074		mg/Kg	1	5/14/2015 1:03:13 PM	19184
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	5/14/2015 1:03:13 PM	19184

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 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 Not In Range	
	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 1505355

Date Reported: 5/15/2015

CLIENT: APEX TITAN

Client Sample ID: S-9

Project: Maddox WN Fed #10

Collection Date: 5/7/2015 1:00:00 PM

Lab ID: 1505355-009

Matrix: MEOH (SOIL)

Received Date: 5/8/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	17	9.9		mg/Kg	1	5/9/2015 4:44:02 AM	19137
Surr: DNOP	98.0	57.9-140		%REC	1	5/9/2015 4:44:02 AM	19137
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	5/14/2015 1:31:57 PM	19184
Surr: BFB	110	80-120		%REC	1	5/14/2015 1:31:57 PM	19184
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.045		mg/Kg	1	5/14/2015 1:31:57 PM	19184
Toluene	ND	0.045		mg/Kg	1	5/14/2015 1:31:57 PM	19184
Ethylbenzene	ND	0.045		mg/Kg	1	5/14/2015 1:31:57 PM	19184
Xylenes, Total	0.56	0.091		mg/Kg	1	5/14/2015 1:31:57 PM	19184
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	5/14/2015 1:31:57 PM	19184

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505355

Date Reported: 5/15/2015

CLIENT: APEX TITAN

Client Sample ID: S-10

Project: Maddox WN Fed #10

Collection Date: 5/7/2015 1:20:00 PM

Lab ID: 1505355-010

Matrix: MEOH (SOIL)

Received Date: 5/8/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/9/2015 5:05:24 AM	19137
Surr: DNOP	93.2	57.9-140		%REC	1	5/9/2015 5:05:24 AM	19137
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	5/14/2015 2:00:38 PM	19184
Surr: BFB	94.8	80-120		%REC	1	5/14/2015 2:00:38 PM	19184
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.039		mg/Kg	1	5/14/2015 2:00:38 PM	19184
Toluene	ND	0.039		mg/Kg	1	5/14/2015 2:00:38 PM	19184
Ethylbenzene	ND	0.039		mg/Kg	1	5/14/2015 2:00:38 PM	19184
Xylenes, Total	ND	0.079		mg/Kg	1	5/14/2015 2:00:38 PM	19184
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	5/14/2015 2:00:38 PM	19184

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 Not In Range
- RL Reporting Detection Limit

Page 10 of 14

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**Lab Order **1505355**Date Reported: **5/15/2015****CLIENT:** APEX TITAN**Client Sample ID:** S-11**Project:** Maddox WN Fed #10**Collection Date:** 5/7/2015 1:45:00 PM**Lab ID:** 1505355-011**Matrix:** MEOH (SOIL)**Received Date:** 5/8/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/9/2015 5:26:36 AM	19137
Surr: DNOP	92.1	57.9-140		%REC	1	5/9/2015 5:26:36 AM	19137
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	5/14/2015 2:29:20 PM	19184
Surr: BFB	90.5	80-120		%REC	1	5/14/2015 2:29:20 PM	19184
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.043		mg/Kg	1	5/14/2015 2:29:20 PM	19184
Toluene	ND	0.043		mg/Kg	1	5/14/2015 2:29:20 PM	19184
Ethylbenzene	ND	0.043		mg/Kg	1	5/14/2015 2:29:20 PM	19184
Xylenes, Total	ND	0.085		mg/Kg	1	5/14/2015 2:29:20 PM	19184
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	5/14/2015 2:29:20 PM	19184

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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505355

15-May-15

Client: APEX TITAN
Project: Maddox WN Fed #10

Sample ID	MB-19116	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	19116	RunNo:	26059					
Prep Date:	5/7/2015	Analysis Date:	5/8/2015	SeqNo:	773936	Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		101	57.9	140			

Sample ID	LCS-19116	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	19116	RunNo:	26059					
Prep Date:	5/7/2015	Analysis Date:	5/8/2015	SeqNo:	773937	Units: %REC				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	6.1		5.000		123	57.9	140			

Sample ID	MB-19137	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	19137	RunNo:	26059					
Prep Date:	5/8/2015	Analysis Date:	5/9/2015	SeqNo:	773961	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	7.3		10.00		72.9	57.9	140			

Sample ID	LCS-19137	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	19137	RunNo:	26059					
Prep Date:	5/8/2015	Analysis Date:	5/9/2015	SeqNo:	773962	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	86.3	67.8	130			
Surr: DNOP	5.5		5.000		109	57.9	140			

Sample ID	1505355-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	S-1	Batch ID:	19137	RunNo:	26059					
Prep Date:	5/8/2015	Analysis Date:	5/9/2015	SeqNo:	773964	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	9.7	48.40	0	83.6	42.3	146			
Surr: DNOP	5.4		4.840		112	57.9	140			

Sample ID	1505355-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	S-1	Batch ID:	19137	RunNo:	26059					
Prep Date:	5/8/2015	Analysis Date:	5/9/2015	SeqNo:	773965	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.7	48.59	0	93.3	42.3	146	11.3	28.9	
Surr: DNOP	5.7		4.859		117	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 Not In Range |
| 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#: 1505355

15-May-15

Client: APEX TITAN

Project: Maddox WN Fed #10

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R26157	RunNo:	26157					
Prep Date:		Analysis Date:	5/13/2015	SeqNo:	776429	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		95.5	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R26157	RunNo:	26157					
Prep Date:		Analysis Date:	5/13/2015	SeqNo:	776430	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	92.5	64	130			
Surr: BFB	1000		1000		100	80	120			

Sample ID	MB-19184	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	19184	RunNo:	26208					
Prep Date:	5/12/2015	Analysis Date:	5/14/2015	SeqNo:	777553	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		92.7	80	120			

Sample ID	LCS-19184	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	19184	RunNo:	26208					
Prep Date:	5/12/2015	Analysis Date:	5/14/2015	SeqNo:	777554	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	96.0	64	130			
Surr: BFB	1000		1000		102	80	120			

Qualifiers:

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- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505355

15-May-15

Client: APEX TITAN
Project: Maddox WN Fed #10

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID: R26157			RunNo: 26157					
Prep Date:		Analysis Date: 5/13/2015			SeqNo: 776458		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:	R26157	RunNo:	26157					
Prep Date:		Analysis Date:	5/13/2015	SeqNo:	776459	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	76.6	128			
Toluene	1.0	0.050	1.000	0	101	75	124			
Ethylbenzene	1.0	0.050	1.000	0	103	79.5	126			
Xylenes, Total	3.1	0.10	3.000	0	102	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

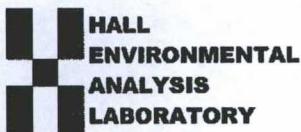
Sample ID	MB-19184	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS	Batch ID: 19184		RunNo: 26208						
Prep Date:	5/12/2015	Analysis Date: 5/14/2015		SeqNo: 777657		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID	LCS-19184		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 19184		RunNo: 26208					
Prep Date:	5/12/2015		Analysis Date: 5/14/2015		SeqNo: 777658		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	76.6	128			
Toluene	0.99	0.050	1.000	0	98.7	75	124			
Ethylbenzene	1.0	0.050	1.000	0	101	79.5	126			
Xylenes, Total	3.0	0.10	3.000	0	100	78.8	124			
Surr: 4-Bromofluorobenzene	1.2		1.000		115	80	120			

Qualifiers:

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- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- 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: APEX AZTEC

Work Order Number: 1505355

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

5/8/2015 7:00:00 AM

Completed By: Lindsay Mangin

5/8/2015 8:37:15 AM

Reviewed By:

CS

05/08/15

[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	1.6	Good	Yes			

CHAIN OF CUSTODY RECORD

 APEX Office Location <u>Aztec</u>		Laboratory: <u>Hall</u> Address: <u>ABQ</u>		ANALYSIS REQUESTED <div style="transform: rotate(-90deg); transform-origin: center;"> BTX 8021 TPH GRB/DRO 8015 </div>		Lab use only Due Date:	
		Contact: <u>Andy Freeman</u> Phone: <u>1219</u> PO/SO #: <u>7250415007</u> <u>507 Below</u>				Temp. of coolers when received (C°): <u>16</u> <div style="display: flex; justify-content: space-around;"> 12345 </div> Page <u>1</u> of <u>2</u>	
Project Manager <u>R. Summers</u> Sampler's Name <u>Kyle Summers</u>				Sampler's Signature <u>[Signature]</u>			
Proj. No. <u>7250415007</u>		Project Name <u>Maddox WN Fed#10</u>		No/Type of Containers			

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	5/7/15	1000	C		S-1								1505355-001
		1015			S-2								-002
		1025			S-3								-003
		1430			S-4								-004
		1035			S-5								-005
		1045			S-6								-006
		1120			S-7								-007
		1200			S-8								-008
		1300			S-9								-009
↓	↓	1320	↓		S-10								-010

Turn around time ☐ Normal ☐ 25% Rush ☒ 50% Rush ☐ 100% Rush

Relinquished by (Signature) <u>[Signature]</u>	Date: <u>5/7/15</u> Time: <u>1818</u>	Received by (Signature) <u>Heath M. Wood</u>	Date: <u>5/7/15</u> Time: <u>1818</u>	NOTES: <u>NO4-AFE# N21233</u> <u>2 day turn</u> <u>Direct Bill Tom Long (EFS)</u>
Relinquished by (Signature) <u>Heath M. Wood</u>	Date: <u>5/7/15</u> Time: <u>2035</u>	Received by (Signature) <u>Chris Wale</u>	Date: <u>5/7/15</u> Time: <u>2035</u>	
Relinquished by (Signature) <u>Chris Wale</u>	Date: <u>5/7/15</u> Time: <u>2100</u>	Received by (Signature) <u>[Signature]</u>	Date: <u>05/08/15</u> Time: <u>0700</u>	
Relinquished by (Signature)	Date:	Received by (Signature)	Date:	

Matrix Container WW - Wastewater W - Water S - Soil SD - Solid L - Liquid A - Air Bag C - Charcoal tube SL - sludge O - Oil
 VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other

CHAIN OF CUSTODY RECORD

 APEX Office Location <u>Apex</u>		Laboratory: <u>Hall</u> Address: <u>ABQ</u> Contact: _____ Phone: _____ PO/SO #: <u>Non-AFE N21233</u>		ANALYSIS REQUESTED <div style="transform: rotate(-45deg); transform-origin: center;"> BTEX 8021 TPH 600/PRS 8015 </div>		Lab use only Due Date: _____ Temp. of coolers when received (C°): <u>16</u> <div style="display: flex; justify-content: space-around;"> 12345 </div> Page <u>2</u> of <u>2</u>									
		Project Manager <u>R. Summers</u> Sampler's Name <u>Ryle Summers</u> Sampler's Signature <u>[Signature]</u>													
Proj. No. <u>7250415007</u> Project Name <u>Maddox W/N Fed#10</u> No/Type of Containers _____															
Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)		
<u>S</u>	<u>5/7/15</u>	<u>1345</u>	<u>X</u>		<u>S-11</u>						<u>1</u>				
<div style="position: relative;"> <div style="position: absolute; top: 0; right: 0; transform: rotate(45deg); font-size: 2em; font-weight: bold;"> NFS RS </div> </div>													<u>1505355-011</u>		
Turn around time <input type="checkbox"/> Normal <input type="checkbox"/> 25% Rush <input checked="" type="checkbox"/> 50% Rush <input type="checkbox"/> 100% Rush															
Relinquished by (Signature) <u>[Signature]</u>			Date: <u>5/7/15</u>		Time: <u>1010</u>		Received by (Signature) <u>Heather M. Wood</u>			Date: <u>5/7/15</u>		Time: <u>1010</u>		NOTES: <u>2 day</u> <u>Direct Bill EFS</u> <u>Tom Long / Brandon Sullins</u>	
Relinquished by (Signature) <u>Heather M. Wood</u>			Date: <u>5/7/15</u>		Time: <u>1010</u>		Received by (Signature) <u>[Signature]</u>			Date: <u>5/7/15</u>		Time: <u>2035</u>			
Relinquished by (Signature) <u>[Signature]</u>			Date: <u>5/7/15</u>		Time: <u>2100</u>		Received by (Signature) <u>[Signature]</u>			Date: <u>05/08/15</u>		Time: <u>0700</u>			
Relinquished by (Signature) _____			Date: _____		Time: _____		Received by (Signature) _____			Date: _____		Time: _____			

Matrix Container WW - Wastewater W - Water S - Soil SD - Solid L - Liquid A - Air Bag C - Charcoal tube SL - sludge O - Oil
 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

OIL CONS. DIV DIST. 3

JUL 06 2015

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

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 3B-33	Facility Type: Natural Gas Gathering Pipeline

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

LOCATION OF RELEASE

Unit Letter N	Section 2	Township 29N	Range 12W	Feet from the 903	North <u>South</u> Line	Feet from the 1397	East <u>West</u> Line	County San Juan
------------------	--------------	-----------------	--------------	-------------------------	----------------------------	--------------------------	--------------------------	--------------------

Latitude 36.750320 Longitude -108.072576

NATURE OF RELEASE

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release 23.15 MCF Gas; 5-10 bbls. fluids	Volume Recovered: None
Source of Release: Internal corrosion	Date and Hour of Occurrence: 4/24/15 @ 9:25 a.m.	Date and Hour of Discovery: 4/24/15 @ 12:30 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Cory Smith - NMOCD	
By Whom? Thomas Long	Date and Time 4/25/15 at 11:04 a.m.	
Was a Watercourse Reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.* The release is located in a small ephemeral wash. No surface impacts observed.

Describe Cause of Problem and Remedial Action: On April 25, 2105, at 9:25am Gas Control reported a possible pipeline leak on Lateral 3B-33. At 9:41am Enterprise employees were dispatched to leak site. The release was verified and the pipeline was isolated, depressurized, locked out and tagged out. Remediation was completed on May 8, 2015.

Describe Area Affected and Cleanup Action: The contaminant mass was removed by mechanical excavation. The final excavation measured approximately 22 feet long by 22.5 feet wide ranging from 8 to 17 feet deep. Approximately 660 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation 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:

Printed Name: Jon E. Fields

Title: Director, Environmental

E-mail Address: jefields@eprod.com

Date: 7-2-2015 Phone: (713)381-6684

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 8/12/15

Expiration Date:

Conditions of Approval:

Attached ☐

* Attach Additional Sheets If Necessary

#NCS 15132 37509

57



CORRECTIVE ACTION REPORT

Property:

**Lateral 3B-33 Pipeline Release
SW 1/4, S2 T29N R12W
San Juan County, New Mexico**

June 12, 2015
Apex Project No. 7250415006

Prepared for:

**Enterprise Field Services LLC
614 Reilly Avenue
Farmington, NM 87401
Attn: Mr. Thomas Long**

Prepared by:

A handwritten signature in blue ink, reading 'Rane Deechilly', written over a horizontal line.

**Ranee Deechilly
Environmental Scientist**

A handwritten signature in blue ink, reading 'Kyle Summers', written over a horizontal line.

**Kyle Summers, CPG
Branch Manager/Senior Geologist**

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Appendix B:	Executed C-138 Solid Waste Acceptance Form
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Appendix D:	Table
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CORRECTIVE ACTION REPORT

Lateral 3B-33 Pipeline Release
SW 1/4, S2 T29N R12W
San Juan County, New Mexico

Apex Project No. 7250415006

1.0 INTRODUCTION

1.1 Site Description & Background

The Lateral 3B-33 pipeline release site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the southwest (SW) ¼ of Section 2 in Township 29 North and Range 12 West in rural San Juan County, New Mexico (36.75032N, 108.07258W), referred to hereinafter as the "Site" or "subject Site". The Site is located on land managed by the United States Bureau of Land Management (BLM). The Site is surrounded by native vegetation rangeland periodically interrupted by oil and gas production and gathering facilities, including the Enterprise natural gas gathering pipeline which traverses the area from approximately east to west and an associated line drip extending from the pipeline to the north.

On April 25, 2015, a natural gas pipeline release was reported by a third party. On April 29, 2015, Enterprise initiated excavation activities to facilitate the repair of the pipeline, and to remediate potential hydrocarbon impact. The release was identified on the line drip which was subsequently removed, and the pipeline was repaired by replacing approximately 22 feet of the pipe. Natural gas was released from the pipeline as a result of internal corrosion. The surface expression of the release was characterized by an area of distressed vegetation in the vicinity of the release.

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* (RALs) 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 EMNRD 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	0
	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			20

Based on Apex's evaluation of the scoring criteria, the Site would earn a maximum Total Ranking Score of "20". This ranking is based on the following:

- Two water wells (SJ 03410 and SJ 01839) were identified on the Office of the State Engineer website database slightly over one mile from the Site. Well SJ 03410, located to the south with a total reported well depth of 75 feet below grade surface (bgs), is approximately 169 feet lower in elevation than the Site. Well SJ 01839, located to the southwest with a total reported depth to groundwater of 175 feet bgs, is approximately 127 feet lower in elevation than the Site. Based on this information, the anticipated depth to groundwater at the Site is in excess of 200 feet bgs. This information supports a ranking of "0" for depth to groundwater.
- 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. These proximities result in a wellhead protection area ranking of "0".
- The release point is located within the channel of a small ephemeral wash, resulting in a distance to surface water ranking of "20".

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

On April 29, 2015, Enterprise initiated excavation activities at the Site to repair the subsurface leak, and remediate potential hydrocarbon impact. The release was identified on the line drip which was subsequently removed, and the pipeline was repaired by replacing approximately 22 feet of the pipe. Natural gas was released from the pipeline as a result of internal corrosion. The surface expression of the release was identified by an area of distressed vegetation in the vicinity of the release. During the corrective action activities, West States Energy Contractors, Inc., provided heavy equipment and labor support, and Heather Woods, an Apex environmental professional, provided environmental support.

Corrective action activities resumed at the Site on May 6, 2015 and were completed on May 8, 2015. On May 7, 2015, confirmation soil samples C-1 through C-5 were collected from the sidewalls and base of the southern portion of the repair excavation. Subsequent to the expansion of the excavation on May 8, 2015, to accommodate the drip line removal (which included the removal of sample locations C-3 through C-5 by excavation), confirmation samples C-6 through C-17 were collected from the sidewalls and bases of the excavation for laboratory analysis. In addition, stockpile soil samples SP-1 through SP-3 were collected to determine the potential to reuse a portion of the soils as backfill material.

The main (south) portion of the final excavation measured approximately 22 feet long by 22.5 feet wide, with a total depth of approximately 17 feet bgs. The north portion of the final excavation measured approximately 22 feet long by 8.5 feet wide, with a total depth of approximately eight (8) feet bgs.

The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated, poorly sorted sand and silty sand.

A total of approximately 660 cubic yards of hydrocarbon affected soils were transported to the JFJ/Industrial Ecosystems, Inc., landfarm near 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 the sample-verified reusable portion of the stockpiled soils, then 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 evaluate volatile organic compounds (VOCs) and aid in determining the excavation limits.

Apex's soil sampling program included the collection of a three (3) stockpile soil samples (SP-1 through SP-3), and a total of seventeen (17) confirmation samples (C-1 through C-17) from the resulting excavation for laboratory analysis, however, the sample locations for C-3 through C-5 were removed by excavation and were not analyzed. 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 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 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. The soil samples were also analyzed for 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 *Release Notification*. 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 laboratory reporting limits associated with the final confirmation samples (C-1 through C-2 and C-6 through C-17) collected from the excavated area to the OCD RALs for sites having a total ranking score of "20". Confirmation soil samples C-3 through C-5 were removed by excavation and are not included in the following discussion.

- The laboratory analyses of confirmation samples collected from soils remaining in place did not indicate benzene concentrations above the laboratory reporting limits, which are below the OCD RAL of 10 milligram per kilogram (mg/kg).
- 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 RAL of 50 mg/kg.
- The laboratory analyses of the confirmation samples collected from soils remaining in place did not indicate combined TPH GRO/DRO concentrations above the laboratory reporting limits, which are below the OCD RAL of 100 mg/kg for a Site ranking of "20".

The laboratory analyses of stockpile samples SP-1 through SP-3 did not indicate benzene or total BTEX concentrations above the laboratory reporting limits. Additionally, laboratory analysis of stockpile samples SP-1 through SP-3 indicated combined TPH GRO/DRO concentrations ranging from below the laboratory limits to 14 mg/kg (SP-3), which are below the OCD RAL for a Site ranking of "20". The stockpiled soils resulting from the excavation that were not suitable for use as backfill were transported to the JFJ/Industrial Ecosystems, Inc., landfarm near Aztec, New Mexico for disposal/remediation.

Confirmation sample results are provided in Table 1 in Appendix D.

5.0 FINDINGS AND RECOMMENDATIONS

The Lateral 3B-33 pipeline release site is located within the Enterprise ROW in the SW ¼ of Section 2 in Township 29 North and Range 12 West in rural San Juan County, New Mexico. The Site is located on land managed by the BLM. The Site is surrounded by native vegetation rangeland periodically interrupted by oil and gas production and gathering facilities, including the Enterprise natural gas gathering pipeline which traverses the area from approximately east to west and an associated line drip extending from the pipeline to the north.

On April 25, 2015, a natural gas pipeline release was reported by a third party. On April 29, 2015, Enterprise initiated excavation activities to facilitate the repair of the pipeline, and to remediate potential hydrocarbon impact. The release was identified on the line drip which was subsequently removed, and the pipeline was repaired by replacing approximately 22 feet of the pipe. Natural gas was released from the pipeline as a result of internal corrosion. The surface expression of the release was characterized by an area of distressed vegetation in the vicinity of the release.

- 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, poorly sorted sand and silty sand.
- The main (south) portion of the final excavation measured approximately 22 feet long by 22.5 feet wide, with a total depth of approximately 17 feet bgs. The north portion of the final excavation measured approximately 22 feet long by 8.5 feet wide, with a total depth of approximately 8 feet bgs.
- Prior to backfilling, fourteen (14) confirmation samples and three (3) stockpile soil samples were collected from the resulting final excavation for laboratory analyses. Based on analytical results, soils remaining in place do not exhibit COC concentrations above the OCD RALs for a Site ranking of "20".
- A total of approximately 660 cubic yards of hydrocarbon affected soils were transported to the JFJ/Industrial Ecosystems, Inc., landfarm near Aztec, New Mexico for disposal/remediation. The excavation was backfilled with stockpiled soil (laboratory analyzed with COC concentrations below OCD RALs) and clean imported fill, then contoured to surrounding grade.

Based on field observations and laboratory analytical results, no additional investigation or corrective action with respect to soil impact appears warranted at this time.

6.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

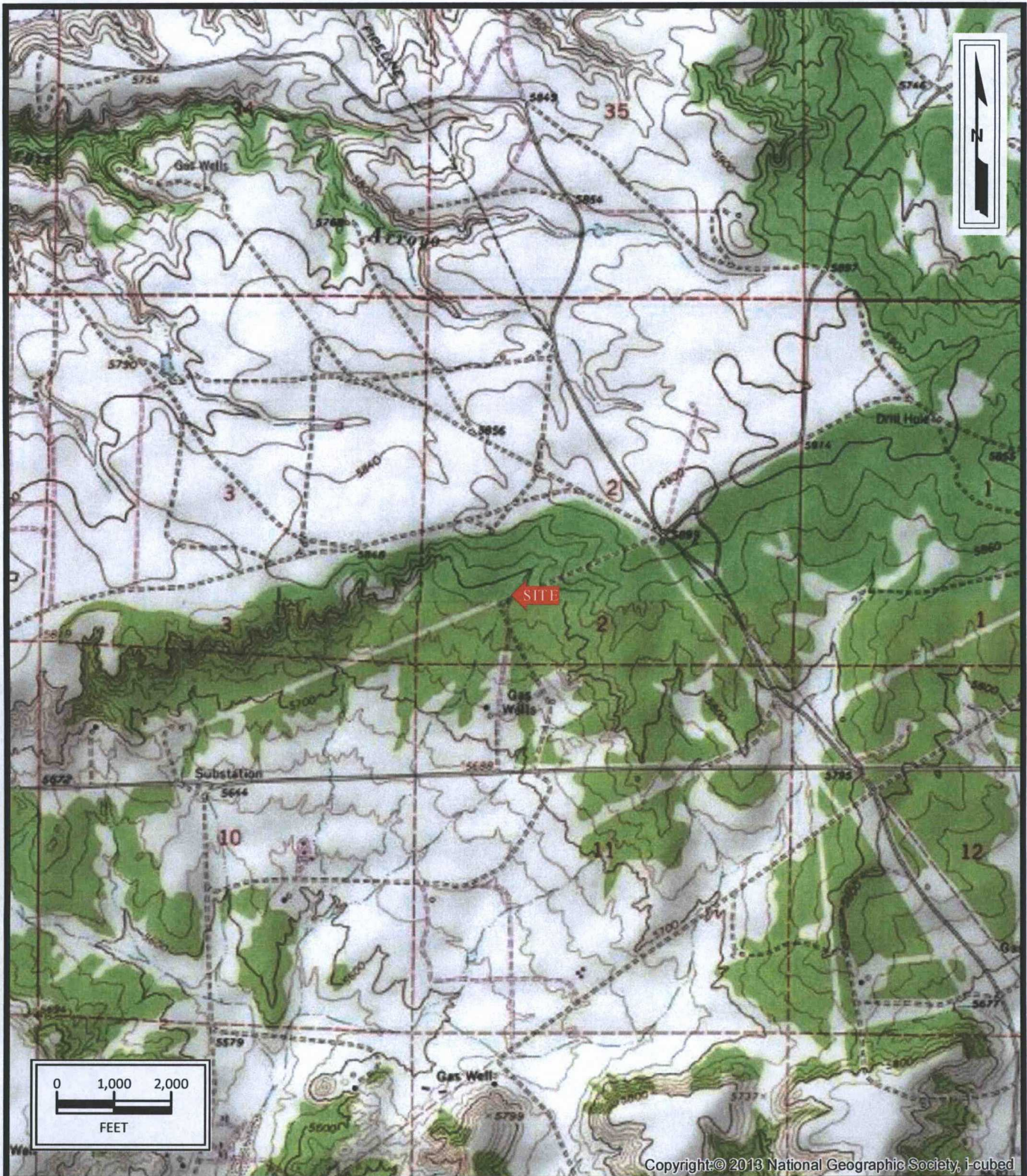
Apex's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, Apex does not warrant the work 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.

APPENDIX A

Figures



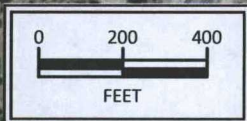
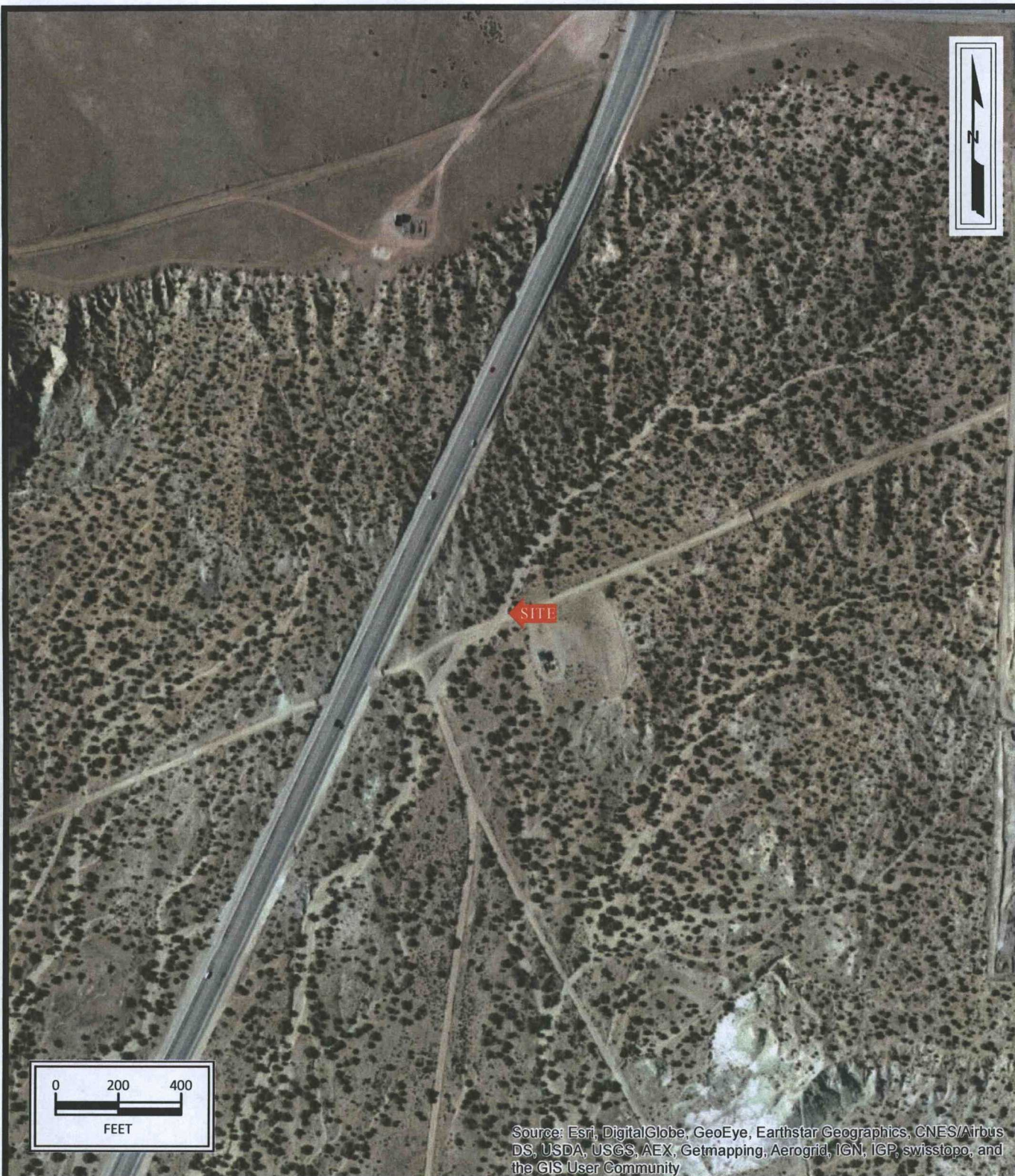
Lateral 3B-33 Pipeline Release
 SW1/4 Sec2 T29N R12W
 Rural San Juan County, New Mexico
 36.75032N, 108.07258W

Project No. 7250415006



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
 Flora Vista, NM Quadrangle
 1963



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

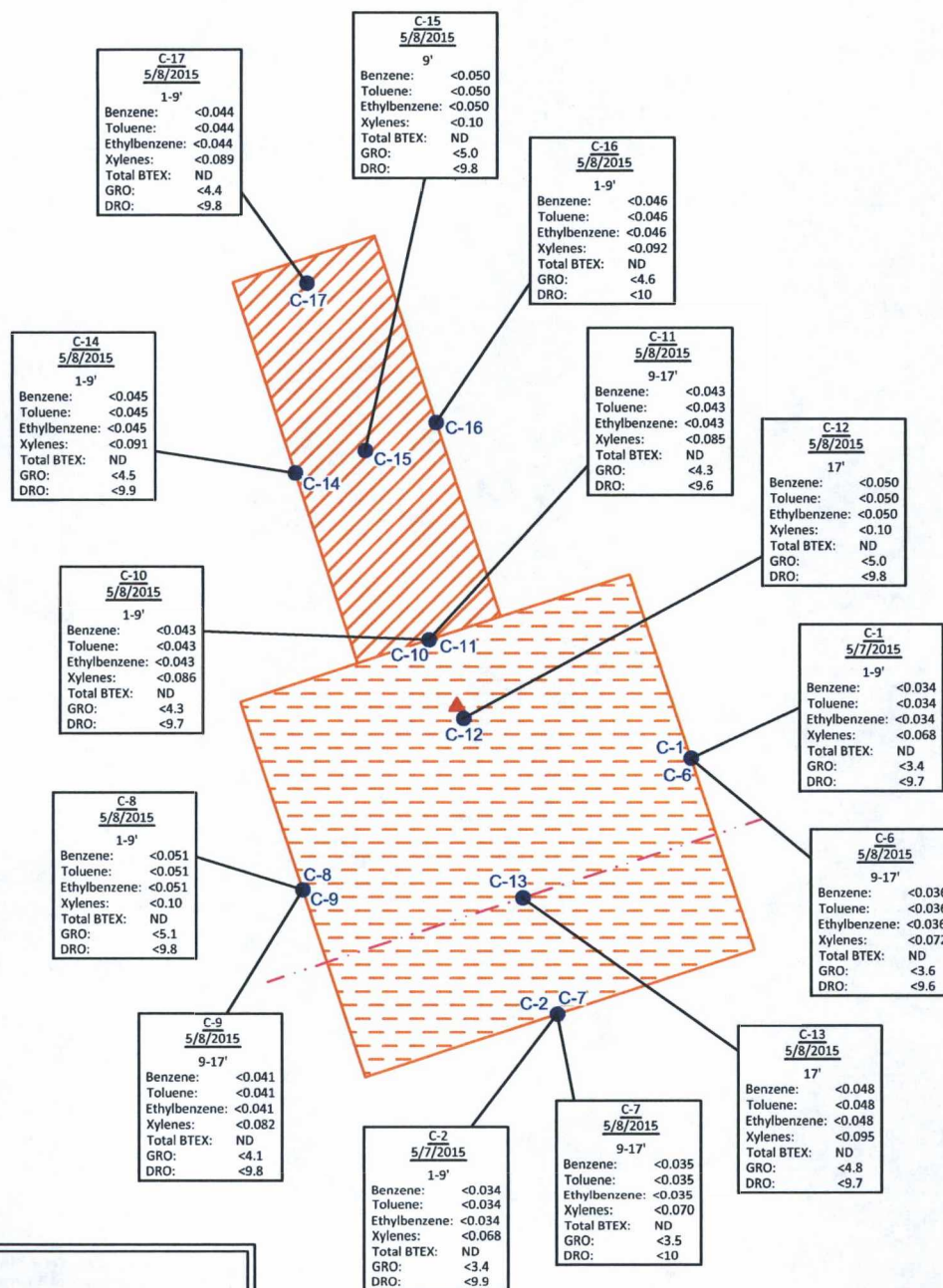
Lateral 3B-33 Pipeline Release
SW1/4 Sec2 T29N R12W
Rural San Juan County, New Mexico
36.75032N, 108.07258W

Project No. 7250415006



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FIGURE 2
Site Vicinity Map



Lateral 3B-33 Pipeline Release
SW1/4 Sec2 T29N R12W
Rural San Juan County, New Mexico
36.75032N, 108.07258W

Project No. 7250415006



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FIGURE 3
Site Map and Soil
Analytical Results

APPENDIX B

Executed C-138 Solid Waste Acceptance Forms

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
220 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:**
Lateral 3B-33 Pipeline

3. **Location of Material (Street Address, City, State or ULSTR):**
Unit Letter N Section 2 T29N R12W, San Juan County, NM; 36.750320, -108.072576

4. **Source and Description of Waste:**

Source: A release from a Natural Gas Gathering Line

Description: Hydrocarbon impacted soil associated with a pipeline release.

Estimated Volume 50 yd³/bbls Known Volume (to be entered by the operator at the end of the haul) 48 yd³/bbls

5/8/15 - 3960 yd
5/10/15 - 2110 yd

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 1980 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 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 hazard 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* 4-29-15, representative for Enterprise Products Operating authorize to complete

Generator Signature

the required testing/sign the Generator Waste Testing Certification.

I, *Kristle Selph*, 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 the results 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**

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: *Kristle Selph*
SIGNATURE: *Kristle Selph*
Surface Waste Management Facility Authorized Agent

TITLE: Land Farm Administrator
TELEPHONE NO.: 505-632-1782

DATE: 4/30/15

4/29/15

APPENDIX C

Photographic Documentation

Photograph 1

View of the fully exposed Lateral 3B-33 pipeline and associated line drip, facing northwest.



Photograph 2

View of the repaired pipeline, facing northeast.



Photograph 3

View of the former line drip location and repaired pipeline, facing south.



Photograph 4

View of the south portion of the final excavation and repaired pipeline, facing west.



Photograph 5

View of the north portion of the final excavation and repaired pipeline, facing northwest.



APPENDIX D

Table



TABLE 1
Lateral 3B-33 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	
Stockpile Samples									
SP-1	5/8/2015	Stockpile	<0.031	<0.031	<0.031	<0.061	ND	<3.1	<9.9
SP-2	5/8/2015	Stockpile	<0.035	<0.035	<0.035	<0.071	ND	<3.5	<9.6
SP-3	5/8/2015	Stockpile	<0.033	<0.033	<0.033	<0.066	ND	<3.3	14
Samples Removed By Excavation									
C-3	5/7/2015	1 to 9	NA	NA	NA	NA	NA	NA	NA
C-4	5/7/2015	1 to 9	NA	NA	NA	NA	NA	NA	NA
C-5	5/7/2015	9	NA	NA	NA	NA	NA	NA	NA
Excavation Confirmation Samples									
C-1	5/7/2015	1 to 9	<0.034	<0.034	<0.034	<0.068	ND	<3.4	<9.7
C-2	5/7/2015	1 to 9	<0.034	<0.034	<0.034	<0.068	ND	<3.4	<9.9
C-6	5/8/2015	9 to 17	<0.036	<0.036	<0.036	<0.072	ND	<3.6	<9.6
C-7	5/8/2015	9 to 17	<0.035	<0.035	<0.035	<0.070	ND	<3.5	<10
C-8	5/8/2015	1 to 9	<0.051	<0.051	<0.051	<0.10	ND	<5.1	<9.8
C-9	5/8/2015	9 to 17	<0.041	<0.041	<0.041	<0.082	ND	<4.1	<9.8
C-10	5/8/2015	1 to 9	<0.043	<0.043	<0.043	<0.086	ND	<4.3	<9.7
C-11	5/8/2015	9 to 17	<0.043	<0.043	<0.043	<0.085	ND	<4.3	<9.6
C-12	5/8/2015	17	<0.050	<0.050	<0.050	<0.10	ND	<5.0	<9.8
C-13	5/8/2015	17	<0.048	<0.048	<0.048	<0.095	ND	<4.8	<9.7
C-14	5/8/2015	1 to 9	<0.045	<0.045	<0.045	<0.091	ND	<4.5	<9.9
C-15	5/8/2015	9	<0.050	<0.050	<0.050	<0.10	ND	<5.0	<9.8
C-16	5/8/2015	1 to 9	<0.046	<0.046	<0.046	<0.092	ND	<4.6	<10
C-17	5/8/2015	1 to 9	<0.044	<0.044	<0.044	<0.089	ND	<4.4	<9.8

Note: Concentrations in bold and yellow exceed the applicable OCD Remediation Action Level

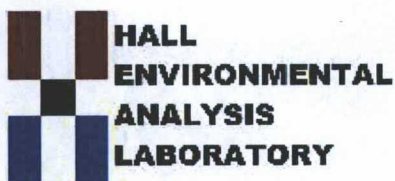
ND = Not Detected above the Laboratory Reporting Limits

NA = Not analyzed

NE = Not Established

APPENDIX E

Laboratory Analytical Reports & Chain of Custody Documentation



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

May 19, 2015

Heather Woods

APEX TITAN

606 S. Rio Grande Unit A

Aztec, NM 87410

TEL: (505) 716-2787

FAX

RE: 3B-33

OrderNo.: 1505354

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 5 sample(s) on 5/8/2015 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**Lab Order **1505354**Date Reported: **5/19/2015****CLIENT:** APEX TITAN**Client Sample ID:** C-1**Project:** 3B-33**Collection Date:** 5/7/2015 5:13:00 PM**Lab ID:** 1505354-001**Matrix:** MEOH (SOIL)**Received Date:** 5/8/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/8/2015 10:15:36 AM	19128
Surr: DNOP	126	57.9-140		%REC	1	5/8/2015 10:15:36 AM	19128
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	5/8/2015 9:54:47 AM	19119
Surr: BFB	94.0	80-120		%REC	1	5/8/2015 9:54:47 AM	19119
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	5/8/2015 9:54:47 AM	19119
Toluene	ND	0.034		mg/Kg	1	5/8/2015 9:54:47 AM	19119
Ethylbenzene	ND	0.034		mg/Kg	1	5/8/2015 9:54:47 AM	19119
Xylenes, Total	ND	0.068		mg/Kg	1	5/8/2015 9:54:47 AM	19119
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	5/8/2015 9:54:47 AM	19119

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 Not In Range
	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 1505354

Date Reported: 5/19/2015

CLIENT: APEX TITAN

Client Sample ID: C-2

Project: 3B-33

Collection Date: 5/7/2015 5:22:00 PM

Lab ID: 1505354-002

Matrix: MEOH (SOIL)

Received Date: 5/8/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/8/2015 10:36:54 AM	19128
Surr: DNOP	119	57.9-140		%REC	1	5/8/2015 10:36:54 AM	19128
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	5/8/2015 10:23:31 AM	19119
Surr: BFB	91.8	80-120		%REC	1	5/8/2015 10:23:31 AM	19119
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.034		mg/Kg	1	5/8/2015 10:23:31 AM	19119
Toluene	ND	0.034		mg/Kg	1	5/8/2015 10:23:31 AM	19119
Ethylbenzene	ND	0.034		mg/Kg	1	5/8/2015 10:23:31 AM	19119
Xylenes, Total	ND	0.068		mg/Kg	1	5/8/2015 10:23:31 AM	19119
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	5/8/2015 10:23:31 AM	19119

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 Not In Range
	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#: 1505354

19-May-15

Client: APEX TITAN

Project: 3B-33

Sample ID	MB-19128		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	19128		RunNo:	26027				
Prep Date:	5/8/2015		Analysis Date:	5/8/2015		SeqNo:	772490		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		101	57.9	140				

Sample ID	LCS-19128		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19128		RunNo: 26027					
Prep Date:	5/8/2015		Analysis Date: 5/8/2015		SeqNo: 772491		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	67.8	130			
Surr: DNOP	5.4		5.000		108	57.9	140			

Sample ID	MB-19116		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	19116		RunNo:	26059				
Prep Date:	5/7/2015		Analysis Date:	5/8/2015		SeqNo:	773936		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	10		10.00		101	57.9	140				

Sample ID	LCS-19116		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19116		RunNo: 26059					
Prep Date:	5/7/2015		Analysis Date: 5/8/2015		SeqNo: 773937		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	6.1		5.000		123	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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505354

19-May-15

Client: APEX TITAN

Project: 3B-33

Sample ID	MB-19119	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	19119	RunNo:	26061					
Prep Date:	5/7/2015	Analysis Date:	5/8/2015	SeqNo:	773617	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-19119	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	19119	RunNo:	26061					
Prep Date:	5/7/2015	Analysis Date:	5/8/2015	SeqNo:	773618	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	96.5	64	130			
Surr: BFB	990		1000		98.9	80	120			

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R26234	RunNo:	26234					
Prep Date:		Analysis Date:	5/15/2015	SeqNo:	778560	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		85.2	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R26234	RunNo:	26234					
Prep Date:		Analysis Date:	5/15/2015	SeqNo:	778561	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.4	64	130			
Surr: BFB	930		1000		93.2	80	120			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505354

19-May-15

Client: APEX TITAN

Project: 3B-33

Sample ID	MB-19119		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 19119		RunNo: 26061					
Prep Date:	5/7/2015		Analysis Date: 5/8/2015		SeqNo: 773623		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-19119		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 19119		RunNo: 26061					
Prep Date:	5/7/2015		Analysis Date: 5/8/2015		SeqNo: 773624		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	105	76.6	128			
Toluene	1.0	0.050	1.000	0	103	75	124			
Ethylbenzene	1.0	0.050	1.000	0	105	79.5	126			
Xylenes, Total	3.1	0.10	3.000	0	103	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID	LCSD-19119		SampType: LCSD		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS02		Batch ID: 19119		RunNo: 26061					
Prep Date:			Analysis Date: 5/8/2015		SeqNo: 773625		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	105	76.6	128	0.205	20	
Toluene	1.1	0.050	1.000	0	105	75	124	2.14	20	
Ethylbenzene	1.1	0.050	1.000	0	106	79.5	126	1.61	20	
Xylenes, Total	3.1	0.10	3.000	0	104	78.8	124	0.698	20	
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120	0		

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R26234	RunNo:	26234					
Prep Date:		Analysis Date:	5/15/2015	SeqNo:	779483	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	76.6	128			
Toluene	1.1	0.050	1.000	0	106	75	124			
Ethylbenzene	1.1	0.050	1.000	0	106	79.5	126			
Xylenes, Total	3.1	0.10	3.000	0	103	78.8	124			
Surr: 4-Bromofluorobenzene	0.94		1.000		94.3	80	120			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505354

19-May-15

Client: APEX TITAN

Project: 3B-33

Sample ID	5ML RB	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS	Batch ID:	R26234		RunNo:	26234				
Prep Date:		Analysis Date:	5/15/2015		SeqNo:	779486		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			

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 Not In Range
- 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: **APEX AZTEC**

Work Order Number: **1505354**

RcptNo: **1**

Received by/date:

Logged By: **Lindsay Mangin**

05/08/15
5/8/2015 7:00:00 AM

Completed By: **Lindsay Mangin**

5/8/2015 7:39:14 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?
(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	1.6	Good	Yes			

CHAIN OF CUSTODY RECORD

 APEX Office Location <u>Aztec, NM</u>		Laboratory: <u>Hall Environmental</u> Address: <u>Albuquerque, NM</u> Contact: <u>Andy Freeman</u> Phone: _____ PO/SO #: _____		ANALYSIS REQUESTED <div style="transform: rotate(-45deg); display: inline-block;"> 8021 BTEX 8015 TPH GAO/DEO </div>		Lab use only Due Date: _____ Temp. of coolers when received (C°): <u>1.6</u> <div style="display: flex; justify-content: space-around;"> 12345 </div> Page <u>1</u> of <u>1</u>										
		Project Manager <u>H. Woods</u> Sampler's Name <u>Heather Woods</u> Sampler's Signature <u>Heather M. Woods</u>														
Proj. No. <u>7250415006</u> Project Name <u>3B-33</u> No/Type of Containers _____																
Matrix	Date	Time	CO LD	GR AB	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)			
S	5/7/15	1713			C-1			FAIL			1	1	X	X	1505354-001	
S	5/7/15	1722			C-2			FAIL			1	1	X	X	-002	
S	5/7/15	1719			C-3						1	1	X	X	-003	
S	5/7/15	1716			C-4						1	1	X	X	-004	
S	5/7/15	1724			C-5						1	1	X	X	-005	
NES 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 Attn: Tom Long / Brandon Sullins Non-AFE: N21230								
<u>Heather M. Woods</u>		5/7/15	2035	<u>Christi Waale</u>		5/7/15	2038									
Relinquished by (Signature)		Date:	Time:	Received by (Signature)		Date:	Time:									
<u>Christi Waale</u>		5/7/15	2100			05/08/15	0700									
Relinquished by (Signature)		Date:	Time:	Received by (Signature)		Date:	Time:									
Relinquished by (Signature)		Date:	Time:	Received by (Signature)		Date:	Time:									

Matrix
ContainerWW - Wastewater
VOA - 40 ml vialW - Water
A/G - Amber / Or Glass 1 Liter

S - Soil

SD - Solid

L - Liquid
250 ml - Glass wide mouth

A - Air Bag

C - Charcoal tube
P/O - Plastic or other

SL - sludge

O - Oil

Kit



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

May 14, 2015

Heather Woods

APEX TITAN

606 S. Rio Grande Unit A

Aztec, NM 87410

TEL: (505) 716-2787

FAX

RE: 3B-33

OrderNo.: 1505413

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 12 sample(s) on 5/9/2015 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**Lab Order **1505413**Date Reported: **5/14/2015****CLIENT:** APEX TITAN**Client Sample ID:** C-6**Project:** 3B-33**Collection Date:** 5/8/2015 3:04:00 PM**Lab ID:** 1505413-001**Matrix:** MEOH (SOIL)**Received Date:** 5/9/2015 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/11/2015 10:54:43 AM	19155
Surr: DNOP	95.7	57.9-140		%REC	1	5/11/2015 10:54:43 AM	19155
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	5/13/2015 2:27:20 PM	R26157
Surr: BFB	95.8	80-120		%REC	1	5/13/2015 2:27:20 PM	R26157
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.036		mg/Kg	1	5/13/2015 2:27:20 PM	R26157
Toluene	ND	0.036		mg/Kg	1	5/13/2015 2:27:20 PM	R26157
Ethylbenzene	ND	0.036		mg/Kg	1	5/13/2015 2:27:20 PM	R26157
Xylenes, Total	ND	0.072		mg/Kg	1	5/13/2015 2:27:20 PM	R26157
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	5/13/2015 2:27:20 PM	R26157

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 Not In Range
	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 1505413

Date Reported: 5/14/2015

CLIENT: APEX TITAN

Client Sample ID: C-7

Project: 3B-33

Collection Date: 5/8/2015 2:17:00 PM

Lab ID: 1505413-002

Matrix: MEOH (SOIL)

Received Date: 5/9/2015 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/11/2015 11:21:15 AM	19155
Surr: DNOP	104	57.9-140		%REC	1	5/11/2015 11:21:15 AM	19155
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	5/13/2015 2:56:02 PM	R26157
Surr: BFB	96.8	80-120		%REC	1	5/13/2015 2:56:02 PM	R26157
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.035		mg/Kg	1	5/13/2015 2:56:02 PM	R26157
Toluene	ND	0.035		mg/Kg	1	5/13/2015 2:56:02 PM	R26157
Ethylbenzene	ND	0.035		mg/Kg	1	5/13/2015 2:56:02 PM	R26157
Xylenes, Total	ND	0.070		mg/Kg	1	5/13/2015 2:56:02 PM	R26157
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	5/13/2015 2:56:02 PM	R26157

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 15
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	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 **1505413**Date Reported: **5/14/2015****CLIENT:** APEX TITAN**Client Sample ID:** C-8**Project:** 3B-33**Collection Date:** 5/8/2015 3:49:00 PM**Lab ID:** 1505413-003**Matrix:** MEOH (SOIL)**Received Date:** 5/9/2015 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/11/2015 11:47:51 AM	19155
Surr: DNOP	104	57.9-140		%REC	1	5/11/2015 11:47:51 AM	19155
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.1		mg/Kg	1	5/13/2015 3:24:41 PM	R26157
Surr: BFB	95.3	80-120		%REC	1	5/13/2015 3:24:41 PM	R26157
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.051		mg/Kg	1	5/13/2015 3:24:41 PM	R26157
Toluene	ND	0.051		mg/Kg	1	5/13/2015 3:24:41 PM	R26157
Ethylbenzene	ND	0.051		mg/Kg	1	5/13/2015 3:24:41 PM	R26157
Xylenes, Total	ND	0.10		mg/Kg	1	5/13/2015 3:24:41 PM	R26157
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	5/13/2015 3:24:41 PM	R26157

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 15
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	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 **1505413**Date Reported: **5/14/2015****CLIENT:** APEX TITAN**Client Sample ID:** C-9**Project:** 3B-33**Collection Date:** 5/8/2015 3:21:00 PM**Lab ID:** 1505413-004**Matrix:** MEOH (SOIL)**Received Date:** 5/9/2015 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/11/2015 12:14:34 PM	19155
Surr: DNOP	99.7	57.9-140		%REC	1	5/11/2015 12:14:34 PM	19155
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	5/13/2015 3:53:29 PM	R26157
Surr: BFB	94.4	80-120		%REC	1	5/13/2015 3:53:29 PM	R26157
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.041		mg/Kg	1	5/13/2015 3:53:29 PM	R26157
Toluene	ND	0.041		mg/Kg	1	5/13/2015 3:53:29 PM	R26157
Ethylbenzene	ND	0.041		mg/Kg	1	5/13/2015 3:53:29 PM	R26157
Xylenes, Total	ND	0.082		mg/Kg	1	5/13/2015 3:53:29 PM	R26157
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	5/13/2015 3:53:29 PM	R26157

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505413

Date Reported: 5/14/2015

CLIENT: APEX TITAN

Client Sample ID: C-10

Project: 3B-33

Collection Date: 5/8/2015 12:00:00 PM

Lab ID: 1505413-005

Matrix: MEOH (SOIL)

Received Date: 5/9/2015 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/11/2015 12:41:10 PM	19155
Surr: DNOP	104	57.9-140		%REC	1	5/11/2015 12:41:10 PM	19155
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	5/13/2015 4:22:10 PM	R26157
Surr: BFB	94.8	80-120		%REC	1	5/13/2015 4:22:10 PM	R26157
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.043		mg/Kg	1	5/13/2015 4:22:10 PM	R26157
Toluene	ND	0.043		mg/Kg	1	5/13/2015 4:22:10 PM	R26157
Ethylbenzene	ND	0.043		mg/Kg	1	5/13/2015 4:22:10 PM	R26157
Xylenes, Total	ND	0.086		mg/Kg	1	5/13/2015 4:22:10 PM	R26157
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	5/13/2015 4:22:10 PM	R26157

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 15
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	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 **1505413**Date Reported: **5/14/2015****CLIENT:** APEX TITAN**Client Sample ID:** C-11**Project:** 3B-33**Collection Date:** 5/8/2015 12:02:00 PM**Lab ID:** 1505413-006**Matrix:** MEOH (SOIL)**Received Date:** 5/9/2015 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/11/2015 1:08:03 PM	19155
Surr: DNOP	105	57.9-140		%REC	1	5/11/2015 1:08:03 PM	19155
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	5/13/2015 9:37:47 PM	R26157
Surr: BFB	92.2	80-120		%REC	1	5/13/2015 9:37:47 PM	R26157
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.043		mg/Kg	1	5/13/2015 9:37:47 PM	R26157
Toluene	ND	0.043		mg/Kg	1	5/13/2015 9:37:47 PM	R26157
Ethylbenzene	ND	0.043		mg/Kg	1	5/13/2015 9:37:47 PM	R26157
Xylenes, Total	ND	0.085		mg/Kg	1	5/13/2015 9:37:47 PM	R26157
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	5/13/2015 9:37:47 PM	R26157

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505413

Date Reported: 5/14/2015

CLIENT: APEX TITAN

Client Sample ID: C-12

Project: 3B-33

Collection Date: 5/8/2015 12:27:00 PM

Lab ID: 1505413-007

Matrix: MEOH (SOIL)

Received Date: 5/9/2015 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/11/2015 11:05:27 AM	19155
Surr: DNOP	107	57.9-140		%REC	1	5/11/2015 11:05:27 AM	19155
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/13/2015 10:06:28 PM	R26157
Surr: BFB	91.1	80-120		%REC	1	5/13/2015 10:06:28 PM	R26157
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/13/2015 10:06:28 PM	R26157
Toluene	ND	0.050		mg/Kg	1	5/13/2015 10:06:28 PM	R26157
Ethylbenzene	ND	0.050		mg/Kg	1	5/13/2015 10:06:28 PM	R26157
Xylenes, Total	ND	0.10		mg/Kg	1	5/13/2015 10:06:28 PM	R26157
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	5/13/2015 10:06:28 PM	R26157

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1505413

Date Reported: 5/14/2015

CLIENT: APEX TITAN**Client Sample ID:** C-13**Project:** 3B-33**Collection Date:** 5/8/2015 2:22:00 PM**Lab ID:** 1505413-008**Matrix:** MEOH (SOIL)**Received Date:** 5/9/2015 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/11/2015 11:26:49 AM	19155
Surr: DNOP	112	57.9-140		%REC	1	5/11/2015 11:26:49 AM	19155
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/13/2015 10:35:08 PM	R26157
Surr: BFB	92.4	80-120		%REC	1	5/13/2015 10:35:08 PM	R26157
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	5/13/2015 10:35:08 PM	R26157
Toluene	ND	0.048		mg/Kg	1	5/13/2015 10:35:08 PM	R26157
Ethylbenzene	ND	0.048		mg/Kg	1	5/13/2015 10:35:08 PM	R26157
Xylenes, Total	ND	0.095		mg/Kg	1	5/13/2015 10:35:08 PM	R26157
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	5/13/2015 10:35:08 PM	R26157

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505413

Date Reported: 5/14/2015

CLIENT: APEX TITAN

Client Sample ID: C-14

Project: 3B-33

Collection Date: 5/8/2015 4:00:00 PM

Lab ID: 1505413-009

Matrix: MEOH (SOIL)

Received Date: 5/9/2015 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/11/2015 11:48:12 AM	19155
Surr: DNOP	113	57.9-140		%REC	1	5/11/2015 11:48:12 AM	19155
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	5/13/2015 11:03:51 PM	R26157
Surr: BFB	92.2	80-120		%REC	1	5/13/2015 11:03:51 PM	R26157
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.045		mg/Kg	1	5/13/2015 11:03:51 PM	R26157
Toluene	ND	0.045		mg/Kg	1	5/13/2015 11:03:51 PM	R26157
Ethylbenzene	ND	0.045		mg/Kg	1	5/13/2015 11:03:51 PM	R26157
Xylenes, Total	ND	0.091		mg/Kg	1	5/13/2015 11:03:51 PM	R26157
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	5/13/2015 11:03:51 PM	R26157

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 15
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Analytical ReportLab Order **1505413**Date Reported: **5/14/2015****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** APEX TITAN**Client Sample ID:** C-15**Project:** 3B-33**Collection Date:** 5/8/2015 4:05:00 PM**Lab ID:** 1505413-010**Matrix:** MEOH (SOIL)**Received Date:** 5/9/2015 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/11/2015 12:09:28 PM	19155
Surr: DNOP	113	57.9-140		%REC	1	5/11/2015 12:09:28 PM	19155
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/13/2015 11:32:35 PM	R26157
Surr: BFB	93.6	80-120		%REC	1	5/13/2015 11:32:35 PM	R26157
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/13/2015 11:32:35 PM	R26157
Toluene	ND	0.050		mg/Kg	1	5/13/2015 11:32:35 PM	R26157
Ethylbenzene	ND	0.050		mg/Kg	1	5/13/2015 11:32:35 PM	R26157
Xylenes, Total	ND	0.10		mg/Kg	1	5/13/2015 11:32:35 PM	R26157
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	5/13/2015 11:32:35 PM	R26157

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 Not In Range
	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 1505413

Date Reported: 5/14/2015

CLIENT: APEX TITAN

Client Sample ID: C-16

Project: 3B-33

Collection Date: 5/8/2015 4:03:00 PM

Lab ID: 1505413-011

Matrix: MEOH (SOIL)

Received Date: 5/9/2015 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/11/2015 12:30:49 PM	19155
Surr: DNOP	114	57.9-140		%REC	1	5/11/2015 12:30:49 PM	19155
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/14/2015 12:01:12 AM	R26157
Surr: BFB	96.3	80-120		%REC	1	5/14/2015 12:01:12 AM	R26157
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	5/14/2015 12:01:12 AM	R26157
Toluene	ND	0.046		mg/Kg	1	5/14/2015 12:01:12 AM	R26157
Ethylbenzene	ND	0.046		mg/Kg	1	5/14/2015 12:01:12 AM	R26157
Xylenes, Total	ND	0.092		mg/Kg	1	5/14/2015 12:01:12 AM	R26157
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	5/14/2015 12:01:12 AM	R26157

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505413

Date Reported: 5/14/2015

CLIENT: APEX TITAN

Client Sample ID: C-17

Project: 3B-33

Collection Date: 5/8/2015 4:09:00 PM

Lab ID: 1505413-012

Matrix: MEOH (SOIL)

Received Date: 5/9/2015 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/11/2015 12:52:04 PM	19155
Surr: DNOP	112	57.9-140		%REC	1	5/11/2015 12:52:04 PM	19155
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	5/14/2015 12:29:50 AM	R26157
Surr: BFB	95.6	80-120		%REC	1	5/14/2015 12:29:50 AM	R26157
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.044		mg/Kg	1	5/14/2015 12:29:50 AM	R26157
Toluene	ND	0.044		mg/Kg	1	5/14/2015 12:29:50 AM	R26157
Ethylbenzene	ND	0.044		mg/Kg	1	5/14/2015 12:29:50 AM	R26157
Xylenes, Total	ND	0.089		mg/Kg	1	5/14/2015 12:29:50 AM	R26157
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	5/14/2015 12:29:50 AM	R26157

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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505413

14-May-15

Client: APEX TITAN

Project: 3B-33

Sample ID	MB-19155		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	19155		RunNo:	26099				
Prep Date:	5/11/2015		Analysis Date:	5/11/2015		SeqNo:	774167		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-19155		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19155		RunNo: 26099					
Prep Date:	5/11/2015		Analysis Date: 5/11/2015		SeqNo: 774168		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	10	50.00	0	79.0	67.8	130			
Surr: DNOP	5.1		5.000		103	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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505413

14-May-15

Client: APEX TITAN

Project: 3B-33

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R26157	RunNo:	26157					
Prep Date:		Analysis Date:	5/13/2015	SeqNo:	776429	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		95.5	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R26157	RunNo:	26157					
Prep Date:		Analysis Date:	5/13/2015	SeqNo:	776430	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	92.5	64	130			
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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505413

14-May-15

Client: APEX TITAN

Project: 3B-33

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R26157	RunNo:	26157					
Prep Date:		Analysis Date:	5/13/2015	SeqNo:	776458	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:	R26157	RunNo:	26157					
Prep Date:		Analysis Date:	5/13/2015	SeqNo:	776459	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	76.6	128			
Toluene	1.0	0.050	1.000	0	101	75	124			
Ethylbenzene	1.0	0.050	1.000	0	103	79.5	126			
Xylenes, Total	3.1	0.10	3.000	0	102	78.8	124			
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 Not In Range
- 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: **APEX AZTEC**

Work Order Number: **1505413**

RcptNo: **1**

Received by/date:

Logged By: **Lindsay Mangin**

5/9/2015 7:50:00 AM

Completed By: **Lindsay Mangin**

5/9/2015 10:08:38 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			

 APEX Office Location <u>Aztec, NM</u>				Laboratory: <u>Hall Environmental</u>				ANALYSIS REQUESTED BOZ1 BTEX BOIS TPH GEO/DEO				Lab use only Due Date:					
				Address: <u>Albuquerque, NM</u>								Temp. of coolers when received (C°): <u>1.8</u>					
				Contact: <u>Andy Freeman</u>								Page <u>i</u> of <u>2</u>					
				Phone: _____													
Project Manager <u>H. Woods</u>				PO/SO #: <u>Direct Bill to Enterprise</u>													
Sampler's Name <u>Heather Woods</u>				Sampler's Signature <u>Heather M. Woods</u>													
Proj. No. <u>725041500W</u>		Project Name <u>3B-33</u>		No/Type of Containers													
Matrix	Date	Time	Cole P	Gra b	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	5/8/15	1504			C-6						I	X X	<u>15054113 -001</u>				
S	5/8/15	1417			C-7						I	X X	<u>-002</u>				
S	5/8/15	1549			C-8						I	X X	<u>-003</u>				
S	5/8/15	1521			C-9						I	X X	<u>-004</u>				
S	5/8/15	1200			C-10						I	X X	<u>-005</u>				
S	5/8/15	1202			C-11						I	X X	<u>-006</u>				
S	5/8/15	1227			C-12						I	X X	<u>-007</u>				
S	5/8/15	1422			C-13						I	X X	<u>-008</u>				
S	5/8/15	1600			C-14						I	X X	<u>-009</u>				
S	5/8/15	1605			C-15						I	X X	<u>-010</u>				
Turn around time <input type="checkbox"/> Normal <input checked="" type="checkbox"/> 25% Rush <input type="checkbox"/> 50% Rush <input checked="" type="checkbox"/> 100% Rush Same Day																	
Relinquished by (Signature) <u>Heather M. Woods</u>				Date: <u>5/8/15</u>		Time: <u>1815</u>		Received by (Signature) <u>[Signature]</u>				Date: <u>5/8/15</u>		Time: <u>1815</u>		NOTES: <u>Direct Bill to Enterprise</u> <u>Attn: Tom Long / Brandon Sullins</u> <u>Non-AFE: N21230</u>	
Relinquished by (Signature) <u>[Signature]</u>				Date: <u>5/8/15</u>		Time: <u>1935</u>		Received by (Signature) <u>[Signature]</u>				Date: <u>05/09/15</u>		Time: <u>0750</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		

CHAIN OF CUSTODY RECORD

 APEX Office Location <u>Aztec, NM</u>				Laboratory: <u>Hall Environmental</u> Address: <u>Albuquerque, NM</u> Contact: <u>Andy Freeman</u> Phone: _____ PO/ISO #: <u>Direct Bill to Enterprise</u>				ANALYSIS REQUESTED <div style="transform: rotate(-45deg); display: inline-block;"> <u>BO21 BTEX</u> <u>BO15 TPH GAO / DAB</u> </div>				Lab use only Due Date: _____ Temp. of coolers when received (C°): <u>1.8</u> <div style="display: flex; justify-content: space-around;"> 12345 </div> Page <u>2</u> of <u>2</u>			
												Project Manager <u>H. Woods</u> Sampler's Name <u>Heather Woods</u> Sampler's Signature <u>Heather M. Woods</u>			
Proj. No. <u>7250415006</u>		Project Name <u>3B-33</u>		No/Type of Containers											
Matrix	Date	Time	Coed	Gra b	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	5/8/15	1603			C-16						I		X	X	1505413 -011
S	5/8/15	1609			C-17						I		X	X	-012
<div style="transform: rotate(-45deg); display: inline-block;"> <u>NFS</u> <u>H6</u> </div>															
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) <u>Heather M. Woods</u>			Date: <u>5/8/15</u>		Time: <u>1815</u>		Received by (Signature) <u>Mustafa Walea</u>			Date: <u>5/8/15</u>		Time: <u>1815</u>		NOTES: <u>Direct Bill to Enterprise</u> <u>Attn: Tom Long / Brandon Sullins</u> <u>Non-AFE: N21230</u>	
Relinquished by (Signature) <u>Mustafa Walea</u>			Date: <u>5/8/15</u>		Time: <u>1935</u>		Received by (Signature) <u>[Signature]</u>			Date: <u>5/8/15</u>		Time: <u>0750</u>			
Relinquished by (Signature)			Date:		Time:		Received by (Signature)			Date:		Time:			
Relinquished by (Signature)			Date:		Time:		Received by (Signature)			Date:		Time:			

Matrix Container WW - Wastewater W - Water S - Soil SD - Solid L - Liquid A - Air Bag C - Charcoal tube SL - sludge O - Oil
 VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other



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

May 14, 2015

Heather Woods
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (505) 716-2787
FAX

RE: 3B-33

OrderNo.: 1505412

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 3 sample(s) on 5/9/2015 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505412

Date Reported: 5/14/2015

CLIENT: APEX TITAN

Client Sample ID: SP-1

Project: 3B-33

Collection Date: 5/8/2015 2:10:00 PM

Lab ID: 1505412-001

Matrix: MEOH (SOIL)

Received Date: 5/9/2015 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/11/2015 10:01:42 AM	19155
Surr: DNOP	95.6	57.9-140		%REC	1	5/11/2015 10:01:42 AM	19155
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	5/13/2015 1:01:14 PM	R26157
Surr: BFB	96.2	80-120		%REC	1	5/13/2015 1:01:14 PM	R26157
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.031		mg/Kg	1	5/13/2015 1:01:14 PM	R26157
Toluene	ND	0.031		mg/Kg	1	5/13/2015 1:01:14 PM	R26157
Ethylbenzene	ND	0.031		mg/Kg	1	5/13/2015 1:01:14 PM	R26157
Xylenes, Total	ND	0.061		mg/Kg	1	5/13/2015 1:01:14 PM	R26157
Surr: 4-Bromofluorobenzene	114	80-120		%REC	1	5/13/2015 1:01:14 PM	R26157

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1505412

Date Reported: 5/14/2015

CLIENT: APEX TITAN

Client Sample ID: SP-2

Project: 3B-33

Collection Date: 5/8/2015 2:34:00 PM

Lab ID: 1505412-002

Matrix: MEOH (SOIL)

Received Date: 5/9/2015 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/11/2015 10:23:02 AM	19155
Surr: DNOP	99.3	57.9-140		%REC	1	5/11/2015 10:23:02 AM	19155
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	5/13/2015 1:29:58 PM	R26157
Surr: BFB	96.7	80-120		%REC	1	5/13/2015 1:29:58 PM	R26157
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.035		mg/Kg	1	5/13/2015 1:29:58 PM	R26157
Toluene	ND	0.035		mg/Kg	1	5/13/2015 1:29:58 PM	R26157
Ethylbenzene	ND	0.035		mg/Kg	1	5/13/2015 1:29:58 PM	R26157
Xylenes, Total	ND	0.071		mg/Kg	1	5/13/2015 1:29:58 PM	R26157
Surr: 4-Bromofluorobenzene	111	80-120		%REC	1	5/13/2015 1:29:58 PM	R26157

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 Not In Range
	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 **1505412**Date Reported: **5/14/2015****CLIENT:** APEX TITAN**Client Sample ID:** SP-3**Project:** 3B-33**Collection Date:** 5/8/2015 2:42:00 PM**Lab ID:** 1505412-003**Matrix:** MEOH (SOIL)**Received Date:** 5/9/2015 7:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	14	9.8		mg/Kg	1	5/11/2015 10:44:12 AM	19155
Surr: DNOP	99.9	57.9-140		%REC	1	5/11/2015 10:44:12 AM	19155
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	5/13/2015 1:58:35 PM	R26157
Surr: BFB	101	80-120		%REC	1	5/13/2015 1:58:35 PM	R26157
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.033		mg/Kg	1	5/13/2015 1:58:35 PM	R26157
Toluene	ND	0.033		mg/Kg	1	5/13/2015 1:58:35 PM	R26157
Ethylbenzene	ND	0.033		mg/Kg	1	5/13/2015 1:58:35 PM	R26157
Xylenes, Total	ND	0.066		mg/Kg	1	5/13/2015 1:58:35 PM	R26157
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	5/13/2015 1:58:35 PM	R26157

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 Not In Range
	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#: 1505412

14-May-15

Client: APEX TITAN

Project: 3B-33

Sample ID	MB-19155	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	19155	RunNo:	26099					
Prep Date:	5/11/2015	Analysis Date:	5/11/2015	SeqNo:	774167	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-19155	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	19155	RunNo:	26099					
Prep Date:	5/11/2015	Analysis Date:	5/11/2015	SeqNo:	774168	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	10	50.00	0	79.0	67.8	130			
Surr: DNOP	5.1		5.000		103	57.9	140			

Sample ID	1505412-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	SP-1	Batch ID:	19155	RunNo:	26099					
Prep Date:	5/11/2015	Analysis Date:	5/11/2015	SeqNo:	774315	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.9	49.41	0	86.9	42.3	146			
Surr: DNOP	5.4		4.941		109	57.9	140			

Sample ID	1505412-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	SP-1	Batch ID:	19155	RunNo:	26099					
Prep Date:	5/11/2015	Analysis Date:	5/11/2015	SeqNo:	774316	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.9	49.46	0	88.9	42.3	146	2.34	28.9	
Surr: DNOP	5.5		4.946		112	57.9	140	0	0	

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505412

14-May-15

Client: APEX TITAN

Project: 3B-33

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R26157	RunNo:	26157					
Prep Date:		Analysis Date:	5/13/2015	SeqNo:	776429	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		95.5	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R26157	RunNo:	26157					
Prep Date:		Analysis Date:	5/13/2015	SeqNo:	776430	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	92.5	64	130			
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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505412

14-May-15

Client: APEX TITAN

Project: 3B-33

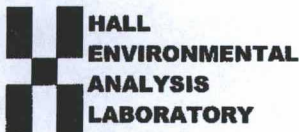
Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R26157	RunNo:	26157					
Prep Date:		Analysis Date:	5/13/2015	SeqNo:	776458	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
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:	R26157	RunNo:	26157					
Prep Date:		Analysis Date:	5/13/2015	SeqNo:	776459	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	76.6	128			
Toluene	1.0	0.050	1.000	0	101	75	124			
Ethylbenzene	1.0	0.050	1.000	0	103	79.5	126			
Xylenes, Total	3.1	0.10	3.000	0	102	78.8	124			
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 Not In Range
- 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: APEX AZTEC

Work Order Number: 1505412

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

5/9/2015 7:50:00 AM

Completed By: Lindsay Mangin

5/9/2015 10:03:36 AM

Reviewed By: *EL*

5/9/15

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	1.8	Good	Yes			

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 2A-4	Facility Type: Natural Gas Gathering Pipeline

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

LOCATION OF RELEASE

Unit Letter F/M	Section 24	Township 27N	Range 10W	Feet from the 1602/3943	North/South Line	Feet from the 1484/805	East/West Line	County San Juan
--------------------	---------------	-----------------	--------------	-------------------------------	---------------------	------------------------------	-------------------	--------------------

Latitude 36.563485 Longitude 107.850967
Latitude 36.557018 Longitude 107.853125

OIL CONS. DIV DIST. 3
JUL 27 2015

NATURE OF RELEASE

Type of Release: Natural Gas and Condensate	Volume of Release: 43.24 MCF Gas; Estimated 10-15 bbls. Condensate	Volume Recovered: None
Source of Release: Internal Corrosion	Date and Hour of Occurrence: 4/23/2015 @ 1:05 p.m.	Date and Hour of Discovery: 4/23/2015 @ 2:00 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 – Corry Smith, NMOCD and Shari Ketcham, BLM	
By Whom? Thomas Long	Date and Hour May 11, 2015 @ 7:19 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 April 23, 2015, during routine operations a field operation technician identified a two natural gas releases on Lateral 2A-4 pipeline. The pipeline was isolated, depressurized, locked out and tagged out. Repairs and remediation were completed by May 21, 2015.

Describe Area Affected and Cleanup Action Taken.* The contaminant masses were removed by mechanical excavation. The northern excavation measured approximately 23 feet long by 19 feet wide by 20 feet deep. Approximately 323 cubic yards of hydrocarbon impacted soil were excavated. The southern excavation measured approximately 25 feet long by 14 feet wide by 9 feet deep. Approximately 116 cubic yards of hydrocarbon impacted soil were excavated. All impacted soil was transported to a New Mexico Oil Conservation 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 E. Fields</i>		OIL CONSERVATION DIVISION	
Printed Name: Jon E. Fields		Approved by Environmental Specialist: <i>Cory Smith</i>	
Title: Director, Environmental		Approval Date: <u>8/12/15</u>	Expiration Date:
E-mail Address: jefields@eprod.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>7-22-2015</u> Phone: (713)381-6684			

* Attach Additional Sheets If Necessary

#NCS 1513237838

74

Enterprise Products
Lateral 2A-4 North Pipeline Release
Latitude North 36.563485°, Longitude West -107.850967°
SE/NW (Unit F), Section 24, T27N, R10W
San Juan County, New Mexico
June 10, 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

OIL CONS. DIV DIST. 3
JUL 27 2015



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1.0 Executive Summary

From May 13, through May 21, 2015, Souder, Miller & Associates (SMA) responded to oversee the excavation of a hydrocarbon release associated with the Lateral 2A-4 North natural gas pipeline. The release was initially reported to SMA on April 24, 2015 and is a result of internal corrosion of the six-inch natural gas pipeline. The table below summarizes information about the pipeline remediation activities.

TABLE 1: RELEASE INFORMATION

Name	Lateral 2A-4 North Pipeline Release				
Location	Latitude/Longitude		Section, Township, Range		
	36.563485°	-107.850967°	SE/NW (Unit F)	Section 24	T 27N, R 10W
Date Reported to SMA	April 24, 2015				
Reported by	Tom Long				
Land Owner	Bureau of Land Management (BLM)				
Reported To	NM Oil Conservation Division (NMOCD) and BLM				
Diameter of Pipeline	6 inches				
Source of Release	Internal Corrosion				
Release Contents	Natural Gas Liquids/Condensate				
Release Volume	Unknown				
Nearest Waterway	Located about 175' east of an unnamed wash in Armenta Canyon, a 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	May 13, 14, 15 and 21, of 2015				
Subcontractors	West States Energy Contractors				
Disposal Facility	Envirotech				
Yd ³ Contaminated Soil Excavated and Disposed	323 (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 Lateral 2A-4 North pipeline release site. The site is located in SE/NW (Unit F), Section 24, T27N, R10W, 36.563485°, -107.850967°, 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 located approximately 175 feet east of an unnamed ephemeral wash of the San Juan River, in an area owned by the BLM with an elevation of approximately 6,180 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 May 13, 2015, SMA responded to a hydrocarbon release associated with the Lateral 2A-4 pipeline. West States Energy Contractors (WSEC) was already on site with a rubber tired backhoe excavating the pipeline for inspection and repair. The release was determined to be a result of internal corrosion of the 6" diameter spiral weld pipe, and a clamp was installed. SMA guided the excavation activities by collecting composite soil samples for field screening with a calibrated photo-ionization detector (PID). The extent of the excavation was increased to approximately 18 feet long, 8' wide and 6' deep. Field screening determined that more excavation was required. The extent of the excavation was increased to approximately 23' x 16' x 12' deep, however the base and the west wall still showed elevated PID readings. It was determined that a larger excavator was necessary so all parties demobilized.

SMA returned to the site on May 14, 2015 to continue oversight and guidance of the remedial excavation. An extended-reach track mounted excavator was on site and SMA continued to guide the excavation activities by collecting composite soil samples for field screening with a calibrated PID. Field screening results indicated the extents of the contamination had been removed and sampling activities were scheduled with the BLM.

SMA returned to site on May 15, 2015 to collect final samples for laboratory analysis. Five point composite samples were collected with a track mounted excavator. No representatives were present to monitor the sampling activities. The final excavation measured approximately 23 feet long by 19 feet wide with a depth of 20 feet, covering an area of approximately 437 square feet. A detailed excavation map is enclosed as Figure 3. In total approximately 323 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.

At the request of the BLM, SMA returned to site on May 21, 2015 to collect a sample from the area beneath where the excavated material was stockpiled to verify no contamination from the stockpile leached in to the surface soils.

A total of six soil samples were submitted for 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 with the exception of SC-1 N Wall @ 0-20' and SC-3 E Wall @ 0-20'. These samples had results of 0.12 mg/kg and 0.18 mg/kg total xylenes respectively.

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 Lateral 2A-4 North pipeline release location.

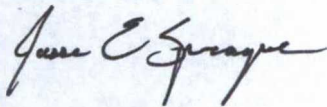
6.0 Closure and Limitations

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:

SOUDER, MILLER & ASSOCIATES



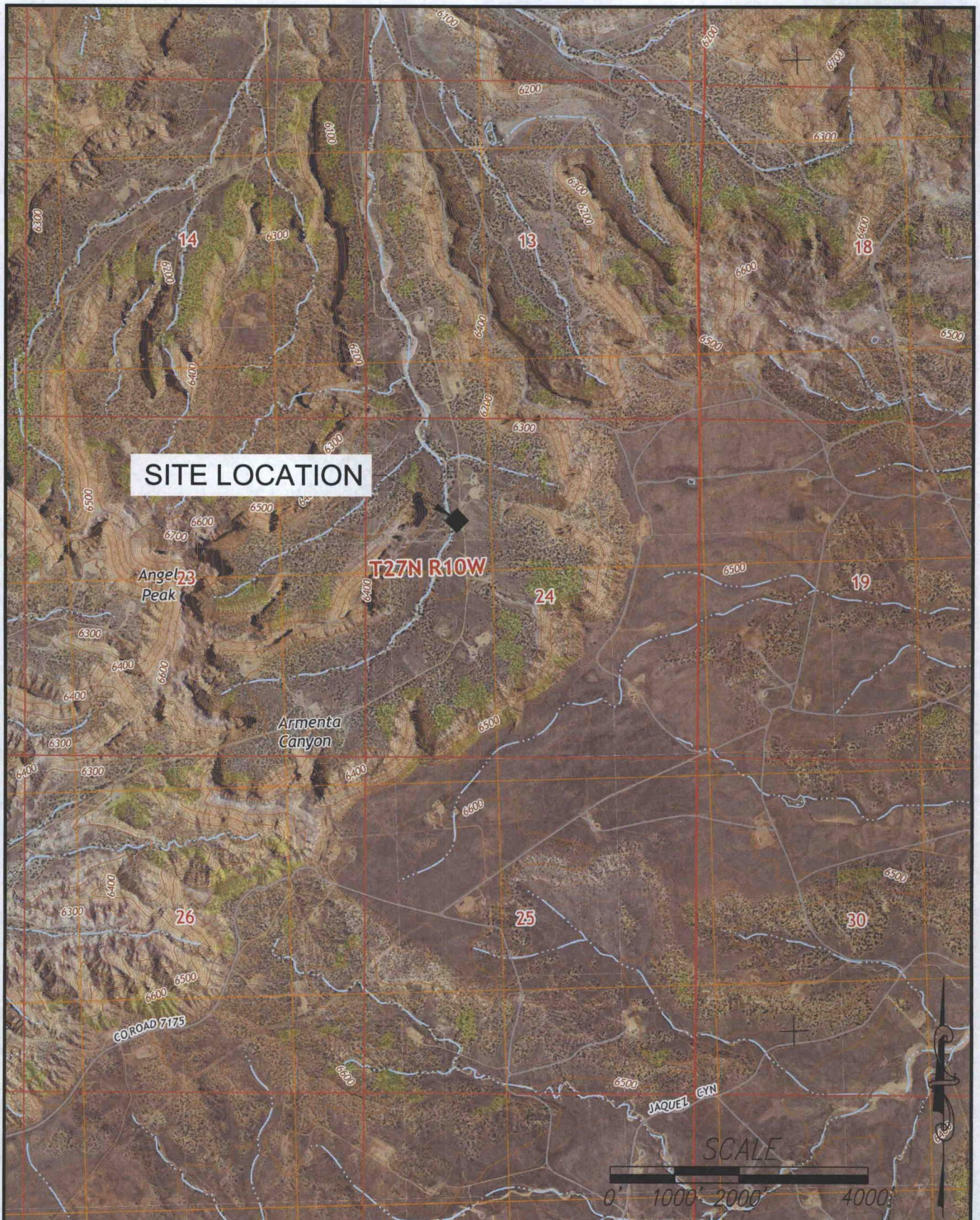
Jesse Sprague
Staff Scientist

Reviewed by:



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

Figures



Souder, Miller & Associates
 401 West Broadway Avenue
 Farmington, NM 87401-5907
 Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045
www.soudermiller.com
 Serving the Southwest & Rocky Mountains

ENTERPRISE FARMINGTON, NEW MEXICO

VICINITY MAP
 LATERAL 2A-4 NORTH
 SECTION 24, T27N, R10W
 SAN JUAN COUNTY

Designed JES	Drawn GJF	Checked RSA
Date: June 2015		
Scale: Horiz: 1" = 2000'		
Vert: NA		
Project No: 5123699		
Figure 1		



Souder, Miller & Associates

401 West Broadway Avenue
Farmington, NM 87401-5907

Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045

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ENTERPRISE

FARMINGTON, NEW MEXICO

SITE LOCATION MAP
LATERAL 2A-4 NORTH
SECTION 24, T27N, R10W

SAN JUAN COUNTY

Designed JES	Drawn GJF	Checked RSA
-----------------	--------------	----------------

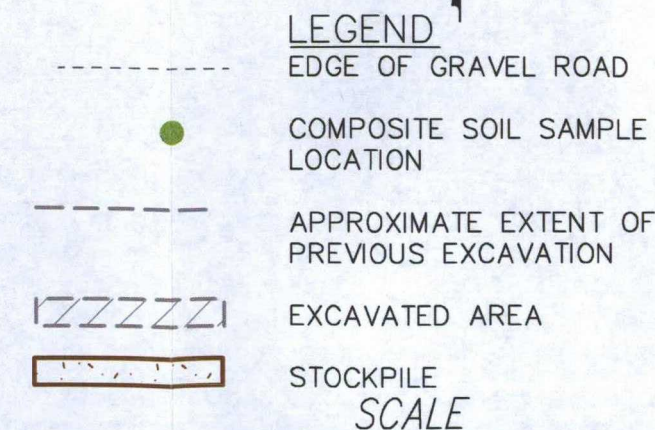
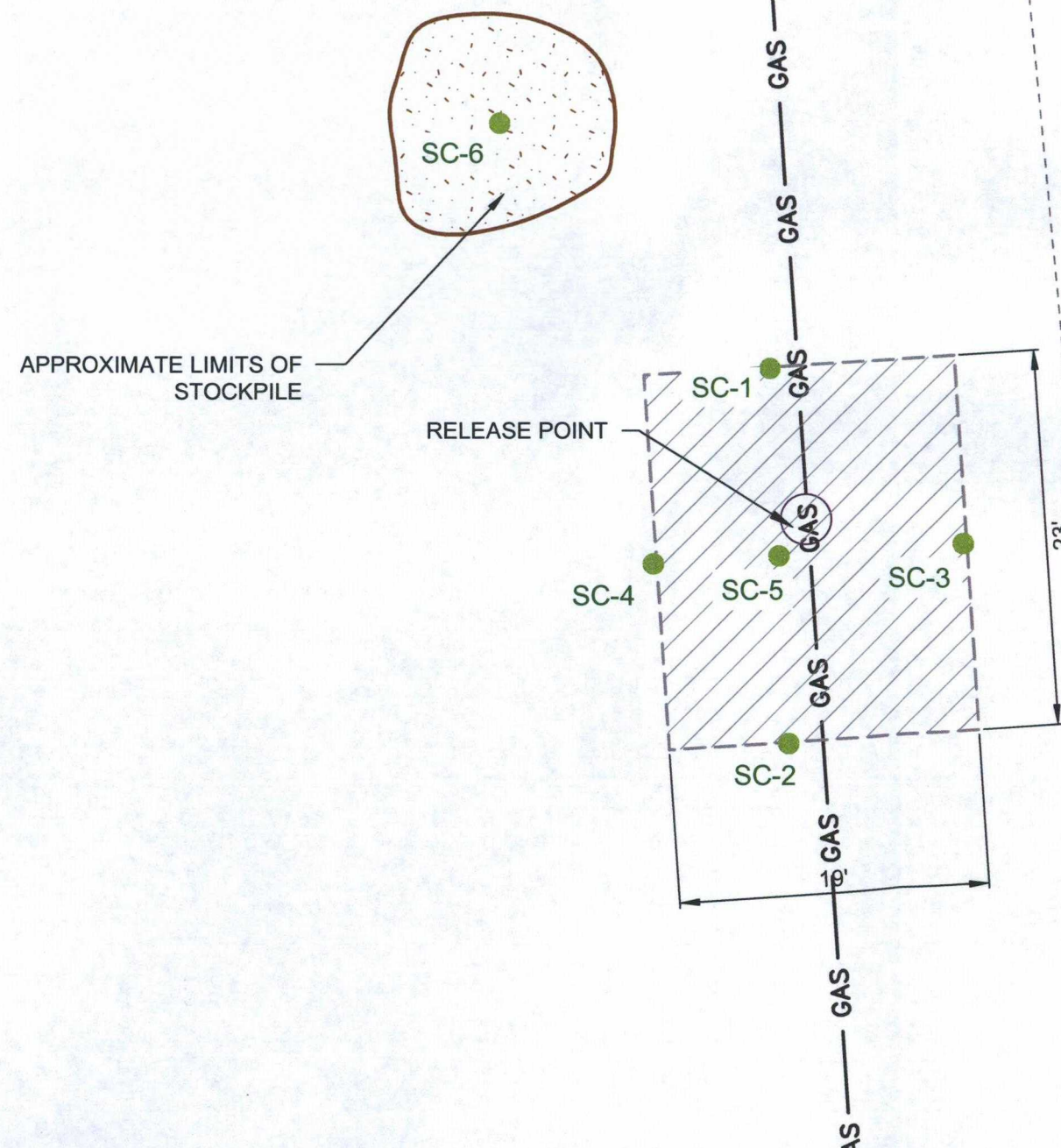
Date: June 2015


Scale: Horiz: 1" = 2000'
Vert: NA

Project No: 5123699

Figure 2

Date	Time	Sample ID	Depth (Feet BGS)	Method 8015 GRO	Method 8015 DRO	Method 8021 Benzene	Method 8021 BTEX
NMOCD Guidelines		NMOCD Site Ranking: 30		1000 ppm		10 ppm	50 ppm
5/15/2015	10:25	SC-1 N Wall 0-20'	0-20'	<3.1	<9.7	<0.031	0.12
5/15/2015	10:27	SC-2 S Wall 0-20'	0-20'	<3.2	<10	<0.032	<0.064
5/15/2015	10:29	SC-3 E Wall 0-20'	0-20'	<4.0	<9.7	<0.040	0.18
5/15/2015	10:32	SC-4 W Wall 0-20'	0-20'	<3.7	<9.8	<0.037	<0.074
5/15/2015	10:35	SC-5 Base 20'	20'	<3.9	<10	<0.039	<0.077
5/20/2015	9:30	SC-6 area below S.P.	0.5'	<5	<9.9	<0.050	<0.099



 <p>Souders, Miller & Associates 401 West Broadway Avenue Farmington, NM 87401-5907 Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045 www.soudermiller.com Serving the Southwest & Rocky Mountains</p>			ENTERPRISE		FARMINGTON, NEW MEXICO		Rev #	Date	Description
			SOIL CONTAMINANT CONCENTRATION						
			LATERAL 2A-4 NORTH						
			SECTION 24, T27N, R10W						
Designed JES	Drawn GJF	Checked RSA	Date: June 2015						
Scale: Horiz: 1" = 10'			Vert: NA						
Project No: 5123699									

Tables

Enterprise Products
Table 2: Site Ranking

2A-4 North
Pipeline Release
6/10/2015

Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20	20	USGS Topo Maps; Google Earth Elevation Difference from the site and the unnamed wash to the west	Sites located in southern Armenta Canyon near unnamed wash; Site elevation is approximately 10 feet above unnamed wash
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	USGS Topo Maps; Google Earth (An unnamed wash ~300' to the west); PRCC Mapping Tool	Unnamed wash is located approximately 300 feet to the east of western release
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	NM State Engineer Water Well Database	No Wells in Sections 11, 12, 14, 23 or 24 of 27N-10W and Sections 7, 18 and 19 of 27N-09W
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



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

Lateral 2A-4 North
Pipeline Release
6/10/2015

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		1000 ppm		10 ppm	50 ppm
5/15/2015	10:25	SC-1 N Wall 0-20'	0-20'	<3.1	<9.7	<0.031	0.12
5/15/2015	10:27	SC-2 S Wall 0-20'	0-20'	<3.2	<10	<0.032	<0.064
5/15/2015	10:29	SC-3 E Wall 0-20'	0-20'	<4.0	<9.7	<0.040	0.18
5/15/2015	10:32	SC-4 W Wall 0-20'	0-20'	<3.7	<9.8	<0.037	<0.074
5/15/2015	10:35	SC-5 Base 20'	20'	<3.9	<10	<0.039	<0.077
5/20/2015	9:30	SC-6 area below S.P.	0.5'	<5	<9.9	<0.050	<0.099



SMA Project # 5123699 BG 21

Appendix A
Photographic Documentation

Site Photographs
Enterprise Products Lateral 2A-4 North Pipeline

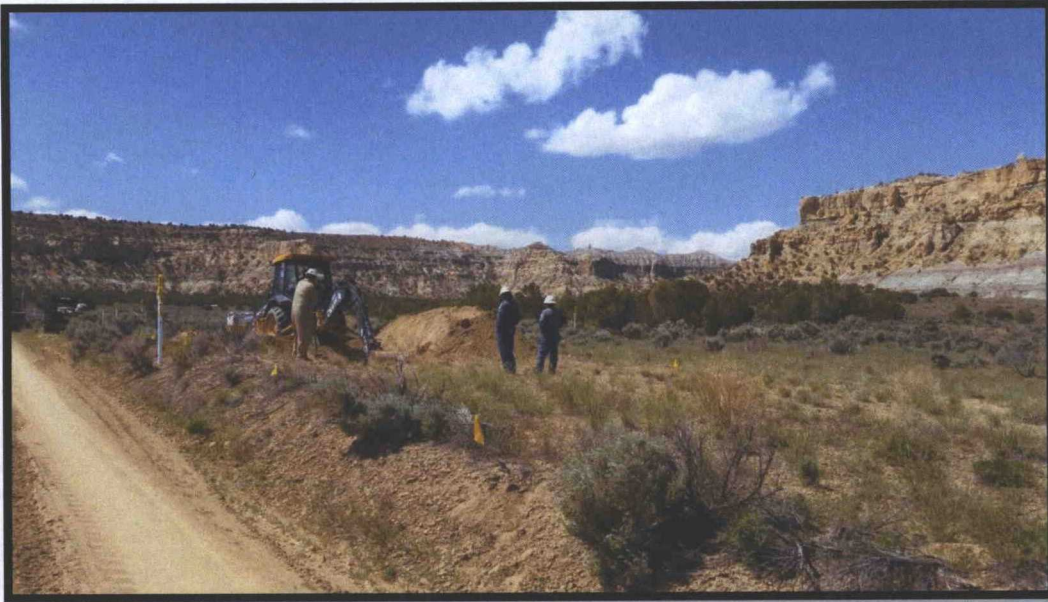


Photo 1: Lateral 2A-4 North site during initial excavation for pipeline inspection and repair, photo aspect to south west.



Photo 2: Excavation with rubber tire backhoe after clamp was installed. The excavation quickly became too large for the equipment on site and a track mounted excavator was scheduled for the following day.

Site Photographs
Enterprise Products Lateral 2A-4 North Pipeline



Photo 3: Lateral 2A-4 North excavation at largest extent, soil consisted of loose, fine to medium grained sands, with little to no coherence.



Photo 4: Excavation base at maximum depth of 20' BGS after sampling activities, loose material visible is result of collecting sidewall samples. Base sample was collected first.

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

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.

Form C-138
Revised August 1, 2011

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address: Enterprise Field Services, LLC, 614 Reilly Avenue, Farmington, NM 87401	
2. Originating Site: Lateral 2A-4 Pipeline	
3. Location of Material (Street Address, City, State or ULSTR): Unit Letter F, Section 24, T27N, R10W; 36.563504, -107.850989	
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>483</u> (yd ³) bbls	
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS	
I, <u>Thomas Long</u> <i>Thomas Long</i> representative or authorized agent for <u>Enterprise Field Services, LLC</u> do hereby <small>PRINT & SIGN NAME COMPANY NAME</small> 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. <i>Operator Use Only: Waste Acceptance Frequency</i> <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>5-13-15</u> <i>Thomas Long</i> , 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 Runding</u> <i>Kendra Runding</i> 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>ABC, Doug Fultz, Paul & sons</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 Runding

TITLE: Waste Coordinator DATE: 5-14-15

SIGNATURE: Kendra Runding
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

May 19, 2015

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

RE: Lateral 2A-4 North

OrderNo.: 1505763

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 5 sample(s) on 5/16/2015 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505763

Date Reported: 5/19/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-1 N Wall 0-20'

Project: Lateral 2A-4 North

Collection Date: 5/15/2015 10:25:00 AM

Lab ID: 1505763-001

Matrix: MEOH (SOIL)

Received Date: 5/16/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/18/2015 10:17:23 AM	19273
Surr: DNOP	92.0	57.9-140		%REC	1	5/18/2015 10:17:23 AM	19273
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	5/18/2015 10:07:43 AM	19255
Surr: BFB	91.7	80-120		%REC	1	5/18/2015 10:07:43 AM	19255
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.031		mg/Kg	1	5/18/2015 10:07:43 AM	19255
Toluene	ND	0.031		mg/Kg	1	5/18/2015 10:07:43 AM	19255
Ethylbenzene	ND	0.031		mg/Kg	1	5/18/2015 10:07:43 AM	19255
Xylenes, Total	0.12	0.062		mg/Kg	1	5/18/2015 10:07:43 AM	19255
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	5/18/2015 10:07:43 AM	19255

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1505763

Date Reported: 5/19/2015

CLIENT: Souder, Miller and Associates**Client Sample ID:** SC-2 S Wall 0-20'**Project:** Lateral 2A-4 North**Collection Date:** 5/15/2015 10:27:00 AM**Lab ID:** 1505763-002**Matrix:** MEOH (SOIL)**Received Date:** 5/16/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/18/2015 10:38:39 AM	19273
Surr: DNOP	94.0	57.9-140		%REC	1	5/18/2015 10:38:39 AM	19273
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	5/18/2015 10:36:30 AM	19255
Surr: BFB	90.9	80-120		%REC	1	5/18/2015 10:36:30 AM	19255
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.032		mg/Kg	1	5/18/2015 10:36:30 AM	19255
Toluene	ND	0.032		mg/Kg	1	5/18/2015 10:36:30 AM	19255
Ethylbenzene	ND	0.032		mg/Kg	1	5/18/2015 10:36:30 AM	19255
Xylenes, Total	ND	0.064		mg/Kg	1	5/18/2015 10:36:30 AM	19255
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	5/18/2015 10:36:30 AM	19255

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 Not In Range
	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 1505763

Date Reported: 5/19/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-3 E Wall 0-20'

Project: Lateral 2A-4 North

Collection Date: 5/15/2015 10:29:00 AM

Lab ID: 1505763-003

Matrix: MEOH (SOIL)

Received Date: 5/16/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/18/2015 11:00:10 AM	19273
Surr: DNOP	93.6	57.9-140		%REC	1	5/18/2015 11:00:10 AM	19273
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	5/18/2015 11:05:16 AM	19255
Surr: BFB	93.5	80-120		%REC	1	5/18/2015 11:05:16 AM	19255
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.040		mg/Kg	1	5/18/2015 11:05:16 AM	19255
Toluene	ND	0.040		mg/Kg	1	5/18/2015 11:05:16 AM	19255
Ethylbenzene	ND	0.040		mg/Kg	1	5/18/2015 11:05:16 AM	19255
Xylenes, Total	0.18	0.081		mg/Kg	1	5/18/2015 11:05:16 AM	19255
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	5/18/2015 11:05:16 AM	19255

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 Not In Range	
	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 1505763

Date Reported: 5/19/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-4 W Wall 0-20'

Project: Lateral 2A-4 North

Collection Date: 5/15/2015 10:32:00 AM

Lab ID: 1505763-004

Matrix: MEOH (SOIL)

Received Date: 5/16/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/18/2015 11:21:23 AM	19273
Surr: DNOP	97.0	57.9-140		%REC	1	5/18/2015 11:21:23 AM	19273
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	5/18/2015 11:34:00 AM	19255
Surr: BFB	90.8	80-120		%REC	1	5/18/2015 11:34:00 AM	19255
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.037		mg/Kg	1	5/18/2015 11:34:00 AM	19255
Toluene	ND	0.037		mg/Kg	1	5/18/2015 11:34:00 AM	19255
Ethylbenzene	ND	0.037		mg/Kg	1	5/18/2015 11:34:00 AM	19255
Xylenes, Total	ND	0.074		mg/Kg	1	5/18/2015 11:34:00 AM	19255
Surr: 4-Bromofluorobenzene	99.2	80-120		%REC	1	5/18/2015 11:34:00 AM	19255

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 Not In Range	
	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 1505763

Date Reported: 5/19/2015

CLIENT: Souder, Miller and Associates**Client Sample ID:** SC-5 Base @ 20'**Project:** Lateral 2A-4 North**Collection Date:** 5/15/2015 10:35:00 AM**Lab ID:** 1505763-005**Matrix:** MEOH (SOIL)**Received Date:** 5/16/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/18/2015 11:42:43 AM	19273
Surr: DNOP	98.6	57.9-140		%REC	1	5/18/2015 11:42:43 AM	19273
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	5/18/2015 12:02:39 PM	19255
Surr: BFB	90.9	80-120		%REC	1	5/18/2015 12:02:39 PM	19255
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.039		mg/Kg	1	5/18/2015 12:02:39 PM	19255
Toluene	ND	0.039		mg/Kg	1	5/18/2015 12:02:39 PM	19255
Ethylbenzene	ND	0.039		mg/Kg	1	5/18/2015 12:02:39 PM	19255
Xylenes, Total	ND	0.077		mg/Kg	1	5/18/2015 12:02:39 PM	19255
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	5/18/2015 12:02:39 PM	19255

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 Not In Range
- RL Reporting Detection Limit

Page 5 of 8

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505763

19-May-15

Client: Souder, Miller and Associates

Project: Lateral 2A-4 North

Sample ID	MB-19273		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	19273		RunNo:	26248				
Prep Date:	5/18/2015		Analysis Date:	5/18/2015		SeqNo:	779456		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		91.6	57.9	140				

Sample ID	LCS-19273		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19273		RunNo: 26248					
Prep Date:	5/18/2015		Analysis Date: 5/18/2015		SeqNo: 779482		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	82.4	67.8	130			
Surr: DNOP	4.2		5.000		83.2	57.9	140			

Sample ID	1505763-001AMS		SampType: MS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-1 N Wall 0-20'		Batch ID: 19273		RunNo: 26248					
Prep Date:	5/18/2015		Analysis Date: 5/18/2015		SeqNo: 779632		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.7	48.31	0	88.6	42.3	146			
Surr: DNOP	4.3		4.831		89.8	57.9	140			

Sample ID	1505763-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	SC-1 N Wall 0-20'		Batch ID:	19273		RunNo:	26248				
Prep Date:	5/18/2015		Analysis Date:	5/18/2015		SeqNo:	779633		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	42	9.7	48.36	0	87.3	42.3	146	1.45	28.9		
Surr: DNOP	4.4		4.836		90.8	57.9	140	0	0		

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505763

19-May-15

Client: Souder, Miller and Associates

Project: Lateral 2A-4 North

Sample ID	MB-19255		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 19255		RunNo: 26255					
Prep Date:	5/15/2015		Analysis Date: 5/18/2015		SeqNo: 779640		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		89.4	80	120			

Sample ID	LCS-19255		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 19255		RunNo: 26255					
Prep Date:	5/15/2015		Analysis Date: 5/18/2015		SeqNo: 779851		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	87.6	64	130			
Surr: BFB	980		1000		97.6	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 Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505763

19-May-15

Client: Souder, Miller and Associates

Project: Lateral 2A-4 North

Sample ID	MB-19255		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	19255		RunNo:	26255			
Prep Date:	5/15/2015		Analysis Date:	5/18/2015		SeqNo:	779647		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID	LCS-19255		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	19255		RunNo:	26255			
Prep Date:	5/15/2015		Analysis Date:	5/18/2015		SeqNo:	779908		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.050	1.000	0	115	76.6	128			
Toluene	1.1	0.050	1.000	0	110	75	124			
Ethylbenzene	1.1	0.050	1.000	0	113	79.5	126			
Xylenes, Total	3.4	0.10	3.000	0	113	78.8	124			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
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 Not In Range
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: 1505763

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

5/16/2015 10:00:00 AM

Completed By: Lindsay Mangin

5/16/2015 10:10:07 AM

Reviewed By:

DF 5/16/2015

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	3.3	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> <u>Farmington</u>		Project Name: <u>Lateral 2A - 4 North</u>	
Phone #: <u>505 325 7535</u>		Project #: <u>N21234</u>	
Email or Fax#: <u>stevan.moskal@saundersmillor.com</u>		Project Manager: <u>Stevan Moskal</u>	
QA/QC Package:			
<input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)			
Accreditation		Sampler: <u>Jesse Sprague</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>3.3</u>	

☐ Standard ☒ Rush Same Day

Lateral 2A-4 North

N2123 4

Steven Moskal

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.3

Date	Time	Matrix	Sample Request ID
------	------	--------	-------------------

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

HEAL No

155763

15-15	1025	Soil	Sc-1 11 wall 0-20
-------	------	------	-------------------

1402
moles

—
MCOH

1	1027			SL-2 S wall 0-20'
---	------	--	--	-------------------

~~1902~~

1	1
---	---

1029	SC-3 E Wall 0-20'
------	-------------------

~~1902~~
~~meall~~

--	--

1032	SC-4 W wall 0-20'
------	-------------------

~~1402~~
~~med H~~

[illegible]

1035	SC-5 Base @ 20
------	----------------


40c
NeOH

✓

Date:	Time:	Relinquished by:
7/15/13	1705	A. E. Smith

Received by: Christ Welch Date 5/15/15 Time 1705

Date:	Time:	Relinquished by:
15/15	1740	Christi Warden

Received by:  Date: 05/16/15 Time: 1000

Remarks: Invoice EPLC
As copy Jesse.Sprague@soodmiller.com

HALL ENVIRONMENTAL ANALYSIS LABORATORY

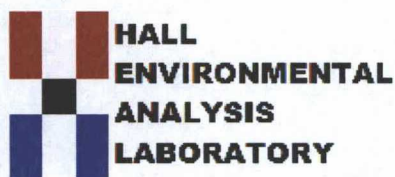
www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

X	X	X	X	X	(BTEX) + MTBE + TMS's (8021)
					BTEX + MTBE + TPH (Gas only)
X	X	X	X	X	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)



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

May 29, 2015

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

RE: Lateral 2A-4 North

OrderNo.: 1505A03

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 1 sample(s) on 5/22/2015 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505A03

Date Reported: 5/29/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-6 below S.P.

Project: Lateral 2A-4 North

Collection Date: 5/21/2015 9:30:00 AM

Lab ID: 1505A03-001

Matrix: SOIL

Received Date: 5/22/2015 6:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/27/2015 2:55:17 PM	19380
Surr: DNOP	97.9	57.9-140		%REC	1	5/27/2015 2:55:17 PM	19380
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/27/2015 1:47:51 AM	19360
Surr: BFB	90.1	75.4-113		%REC	1	5/27/2015 1:47:51 AM	19360
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/27/2015 1:47:51 AM	19360
Toluene	ND	0.050		mg/Kg	1	5/27/2015 1:47:51 AM	19360
Ethylbenzene	ND	0.050		mg/Kg	1	5/27/2015 1:47:51 AM	19360
Xylenes, Total	ND	0.099		mg/Kg	1	5/27/2015 1:47:51 AM	19360
Surr: 4-Bromofluorobenzene	95.8	80-120		%REC	1	5/27/2015 1:47:51 AM	19360

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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505A03

29-May-15

Client: Souder, Miller and Associates

Project: Lateral 2A-4 North

Sample ID	MB-19380	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	19380	RunNo:	26424					
Prep Date:	5/26/2015	Analysis Date:	5/27/2015	SeqNo:	785313	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	12		10.00		123	57.9	140			

Sample ID	LCS-19380	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	19380	RunNo:	26424					
Prep Date:	5/26/2015	Analysis Date:	5/27/2015	SeqNo:	785374	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	119	67.8	130			
Surr: DNOP	6.1		5.000		122	57.9	140			

Sample ID	MB-19416	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	19416	RunNo:	26455					
Prep Date:	5/27/2015	Analysis Date:	5/28/2015	SeqNo:	786402	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		108	57.9	140			

Sample ID	LCS-19416	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	19416	RunNo:	26455					
Prep Date:	5/27/2015	Analysis Date:	5/28/2015	SeqNo:	786403	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.5		5.000		110	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 Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505A03

29-May-15

Client: Souder, Miller and Associates

Project: Lateral 2A-4 North

Sample ID	MB-19360		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 19360		RunNo: 26397					
Prep Date:	5/22/2015		Analysis Date: 5/26/2015		SeqNo: 784808		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	75.4	113			

Sample ID	LCS-19360		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 19360		RunNo: 26397					
Prep Date:	5/22/2015		Analysis Date: 5/26/2015		SeqNo: 784809		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	64	130			
Surr: BFB	1000		1000		99.7	75.4	113			

Sample ID	MB-19388		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 19388		RunNo: 26441					
Prep Date:	5/26/2015		Analysis Date: 5/27/2015		SeqNo: 785675		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	900		1000		89.6	75.4	113			

Sample ID	LCS-19388		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 19388		RunNo: 26441					
Prep Date:	5/26/2015		Analysis Date: 5/27/2015		SeqNo: 785676		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		99.3	75.4	113			

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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505A03

29-May-15

Client: Souder, Miller and Associates

Project: Lateral 2A-4 North

Sample ID	MB-19360		SampType: MBLK			TestCode: EPA Method 8021B: Volatiles				
Client ID:	PBS		Batch ID: 19360			RunNo: 26397				
Prep Date:	5/22/2015		Analysis Date: 5/26/2015			SeqNo: 784841		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID	LCS-19360		SampType: LCS			TestCode: EPA Method 8021B: Volatiles				
Client ID:	LCSS		Batch ID: 19360			RunNo: 26397				
Prep Date:	5/22/2015		Analysis Date: 5/26/2015			SeqNo: 784842		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	76.6	128			
Toluene	0.98	0.050	1.000	0	97.9	75	124			
Ethylbenzene	0.99	0.050	1.000	0	98.7	79.5	126			
Xylenes, Total	3.0	0.10	3.000	0	98.4	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

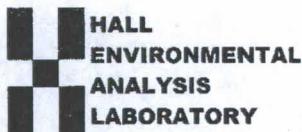
Sample ID	MB-19388		SampType: MBLK			TestCode: EPA Method 8021B: Volatiles				
Client ID:	PBS		Batch ID: 19388			RunNo: 26441				
Prep Date:	5/26/2015		Analysis Date: 5/27/2015			SeqNo: 785699		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.98		1.000		97.9	80	120			

Sample ID	LCS-19388		SampType: LCS			TestCode: EPA Method 8021B: Volatiles				
Client ID:	LCSS		Batch ID: 19388			RunNo: 26441				
Prep Date:	5/26/2015		Analysis Date: 5/27/2015			SeqNo: 785700		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- 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: 1505A03

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

5/22/2015 6:10:00 AM

Completed By: Lindsay Mangin

5/22/2015 9:19:02 AM

Reviewed By:

IO

05/22/15

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:

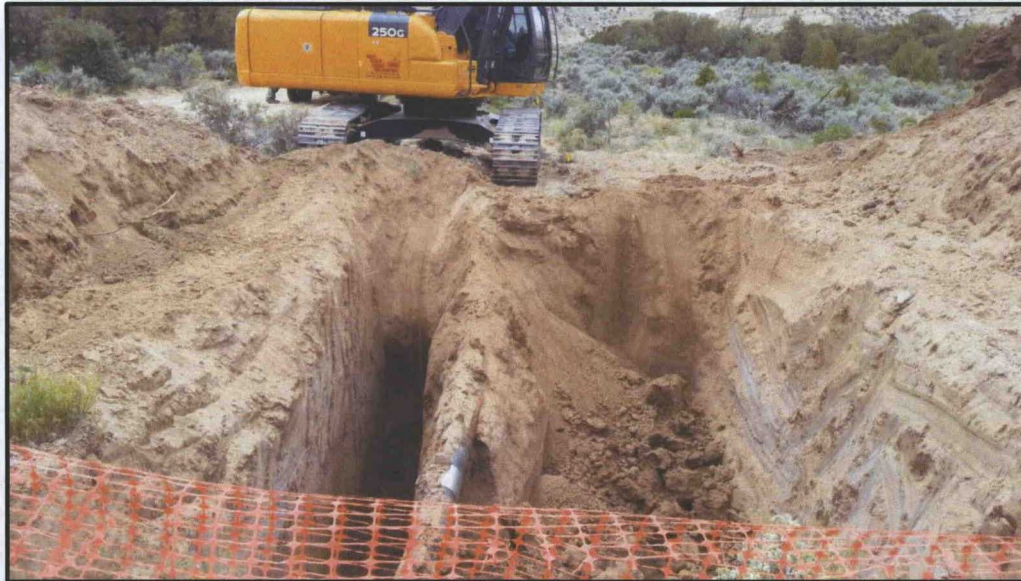
Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.8	Good	Yes			

Enterprise Products
Lateral 2A-4 South Pipeline Release
Latitude North 36.557018°, Longitude West -107.853125°
SW/SW (Unit M), Section 24, T27N, R10W
San Juan County, New Mexico
June 10, 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

OIL CONS. DIV DIST. 3
JUL 27 2015



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1.0 Executive Summary

From May 13, through May 21, 2015, Souder, Miller & Associates (SMA) responded to oversee the excavation of a hydrocarbon release associated with the Lateral 2A-4 South natural gas pipeline. The release was initially reported to SMA on April 24, 2015 and is a result of internal corrosion of the eight-inch natural gas pipeline. The table below summarizes information about the pipeline remediation activities.

TABLE 1: RELEASE INFORMATION

Name	Lateral 2A-4 South Pipeline Release				
Location	Latitude/Longitude		Section, Township, Range		
	36.557018°	-107.853125°	SW/SW (Unit M)	Section 24	T27N, R10W
Date Reported to SMA	April 24, 2015				
Reported by	Tom Long				
Land Owner	Bureau of Land Management (BLM)				
Reported To	NM Oil Conservation Division (NMOCD) and BLM				
Diameter of Pipeline	8 inches				
Source of Release	Internal Corrosion				
Release Contents	Natural Gas Liquids/Condensate				
Release Volume	Unknown				
Nearest Waterway	Located about 540' south of an unnamed wash in Armenta Canyon, a 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	May 13, 14, 15 and 21, of 2015				
Subcontractors	West States Energy Contractors				
Disposal Facility	Envirotech				
Yd ³ Contaminated Soil Excavated and Disposed	116 (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 Lateral 2A-4 South pipeline release site. The site is located in SW/SW (Unit M), Section 24, T27N, R10W, 36.557018°, -107.853125°, 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 located approximately 540' south of an unnamed ephemeral wash of the San Juan River, in an area owned by the BLM with an elevation of approximately 6,243 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 May 13, 2015, SMA responded to two hydrocarbon releases associated with the Lateral 2A-4 pipeline. West States Energy Contractors (WSEC) was on the north site with a rubber tired backhoe. After excavation on the north release, WSEC and SMA mobilized to the south release location to excavate the pipeline for inspection and repair. The release was determined to be a result of internal corrosion of the 8" diameter spiral weld pipe, and a clamp was installed. SMA guided the excavation activities by collecting composite soil samples for field screening with a calibrated photo-ionization detector (PID). The extent of the excavation was increased to approximately 18 ft long, 7 ft wide and 6 ft deep. Field screening determined that more excavating was required. It was determined that a larger excavator was necessary to handle the hard clay rich soils.

SMA returned to the site on May 14, 2015 to guide the continued excavation of the pipeline. An extended-reach track mounted excavator was on site and SMA continued to guide the excavation activities by collecting composite soil samples for field screening with a calibrated photo-ionization detector (PID). Field screening results indicated the extents of the contamination had been removed and sampling activities were scheduled with the BLM.

SMA returned to site on May 15, 2015 to collect final samples for laboratory analysis. Five point composite samples were collected with a track mounted excavator. A representative from BLM was present for sampling activities. The final excavation measured approximately 25 ft long by 14 ft wide with a depth of 9 ft, covering an area of approximately 350 square feet. A detailed excavation map is enclosed as Figure 3. In total approximately 116 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.

At the request of the BLM, SMA returned to site on May 21, 2015 to collect samples from the areas beneath where the excavated material was stockpiled to verify that no contamination from the stockpile had leached in to the surface soils.

A total of seven soil samples were submitted for 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 with the exception of SC-4 W Wall @ 0-9' and SC-5 Basel @ 9'. These samples had results of 63 mg/kg and 86 mg/kg DRO respectively.

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 2A-4 South pipeline release location.

6.0 Closure and Limitations

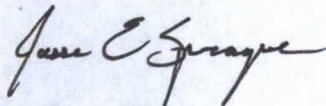
The scope of our services consisted of the performance of a preliminary spill assessment, verification of release stabilization, regulatory liaison, oversight and control of remediation operations, disposal arrangements and documentation, project management, and preparation of this summary report. All 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



Jesse Sprague
Staff Scientist



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

Figures



Souder, Miller & Associates

401 West Broadway Avenue
Farmington, NM 87401-5907

Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045
www.soudermiller.com

Serving the Southwest & Rocky Mountains

ENTERPRISE

FARMINGTON, NEW MEXICO

Designed JES	Drawn GJF	Checked RSA
-----------------	--------------	----------------

Date: June 2015

Scale: Horiz: 1" = 2000'

Vert: NA

Project No: 5123699

Figure 1

VICINITY MAP
LATERAL 2A-4 SOUTH
SECTION 24, T27N, R10W

SAN JUAN COUNTY



Souder, Miller & Associates

401 West Broadway Avenue
Farmington, NM 87401-5907

Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045

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SITE LOCATION MAP
LATERAL 2A-4 SOUTH
SECTION 24, T27N, R10W

SAN JUAN COUNTY

Designed JES	Drawn GJF	Checked RSA
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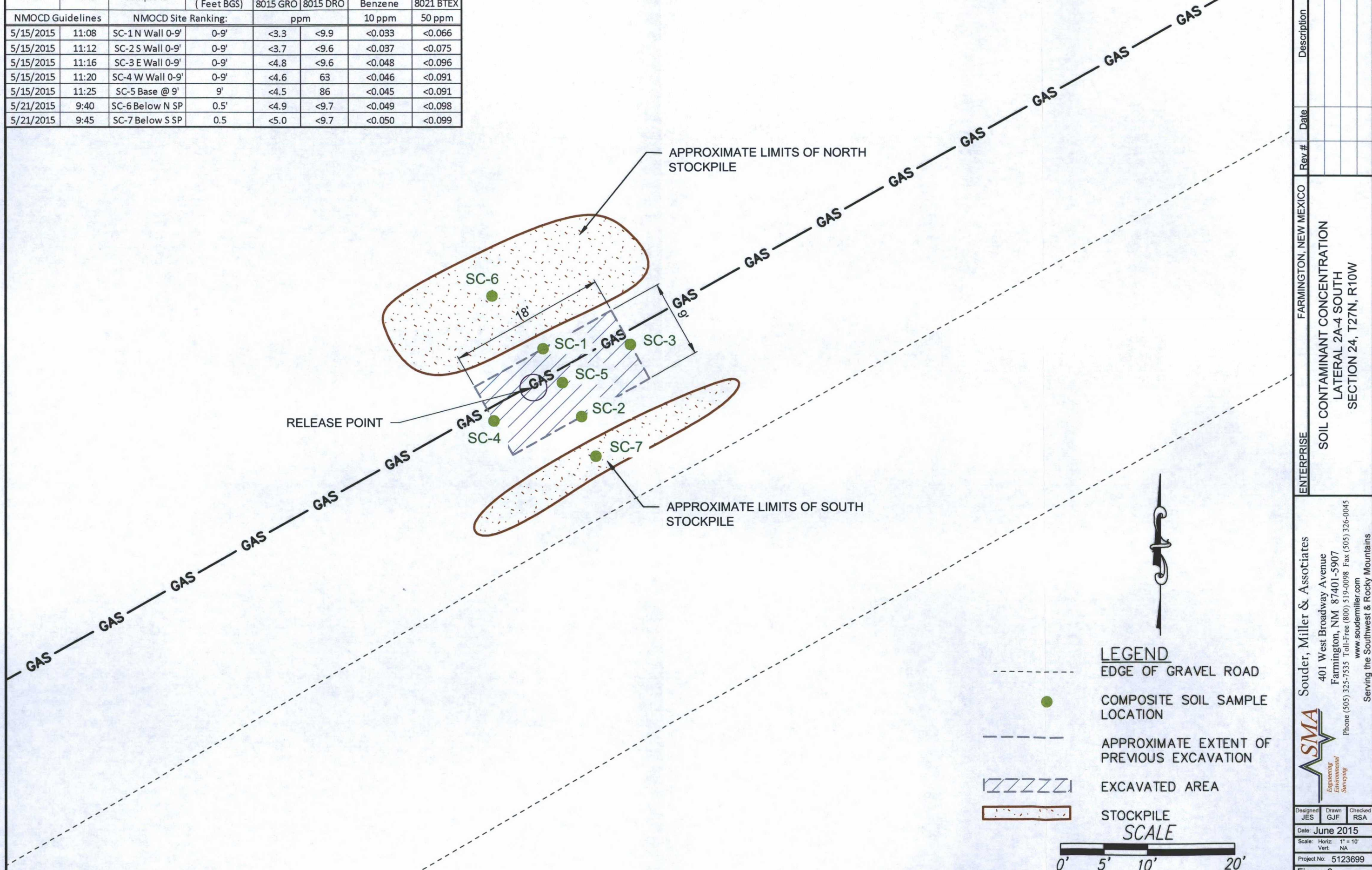
Date: June 2015

Scale: Horiz: 1" = 2000'
Vert: NA

Project No: 5123699

Figure 2

NMOCD Guidelines		(Feet BGS)		NMOCD Site Ranking:		8015 GRO	8015 DRO	Benzene	8021 BTEX
						ppm		10 ppm	50 ppm
5/15/2015	11:08	SC-1 N Wall 0-9'	0-9'			<3.3	<9.9	<0.033	<0.066
5/15/2015	11:12	SC-2 S Wall 0-9'	0-9'			<3.7	<9.6	<0.037	<0.075
5/15/2015	11:16	SC-3 E Wall 0-9'	0-9'			<4.8	<9.6	<0.048	<0.096
5/15/2015	11:20	SC-4 W Wall 0-9'	0-9'			<4.6	63	<0.046	<0.091
5/15/2015	11:25	SC-5 Base @ 9'	9'			<4.5	86	<0.045	<0.091
5/21/2015	9:40	SC-6 Below N SP	0.5'			<4.9	<9.7	<0.049	<0.098
5/21/2015	9:45	SC-7 Below S SP	0.5			<5.0	<9.7	<0.050	<0.099



Tables

Enterprise Products
Table 2: Site Ranking

Lateral 2A-4 South
Pipeline Release
6/10/2015

Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20	20	USGS Topo Maps; Google Earth Elevation Difference from the site and the unnamed wash to the west	Sites located in southern Armenta Canyon near unnamed wash; Site elevation is approximately 10 feet above unnamed wash
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		USGS Topo Maps; Google Earth (An unnamed wash ~300' to the west); PRCC Mapping Tool	Unnamed wash is located approximately 300 feet to the east of release
200' - 1000' = 10	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	NM State Engineer Water Well Database	No Wells in Sections 11, 12, 14, 23 or 24 of 27N-10W and Sections 7, 18 and 19 of 27N-09W
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



SMA Project #5123699 BG21

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

Lateral 2A-4 South
Pipeline Release
6/10/2015

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		ppm		10 ppm	50 ppm
5/15/2015	11:08	SC-1 N Wall 0-9'	0-9'	<3.3	<9.9	<0.033	<0.066
5/15/2015	11:12	SC-2 S Wall 0-9'	0-9'	<3.7	<9.6	<0.037	<0.075
5/15/2015	11:16	SC-3 E Wall 0-9'	0-9'	<4.8	<9.6	<0.048	<0.096
5/15/2015	11:20	SC-4 W Wall 0-9'	0-9'	<4.6	63	<0.046	<0.091
5/15/2015	11:25	SC-5 Base @ 9'	9'	<4.5	86	<0.045	<0.091
5/21/2015	9:40	SC-6 Below N SP	0.5'	<4.9	<9.7	<0.049	<0.098
5/21/2015	9:45	SC-7 Below S SP	0.5	<5.0	<9.7	<0.050	<0.099



SMA Project #5123699 BG21

Appendix A
Photographic Documentation

Site Photographs
Enterprise Products Lateral 2A-4 South Pipeline



Photo 1: Lateral 2A-4 South site, initial excavation for pipeline inspection and repair, photo aspect to south west. Soil material consists of tight dry sandy clay.

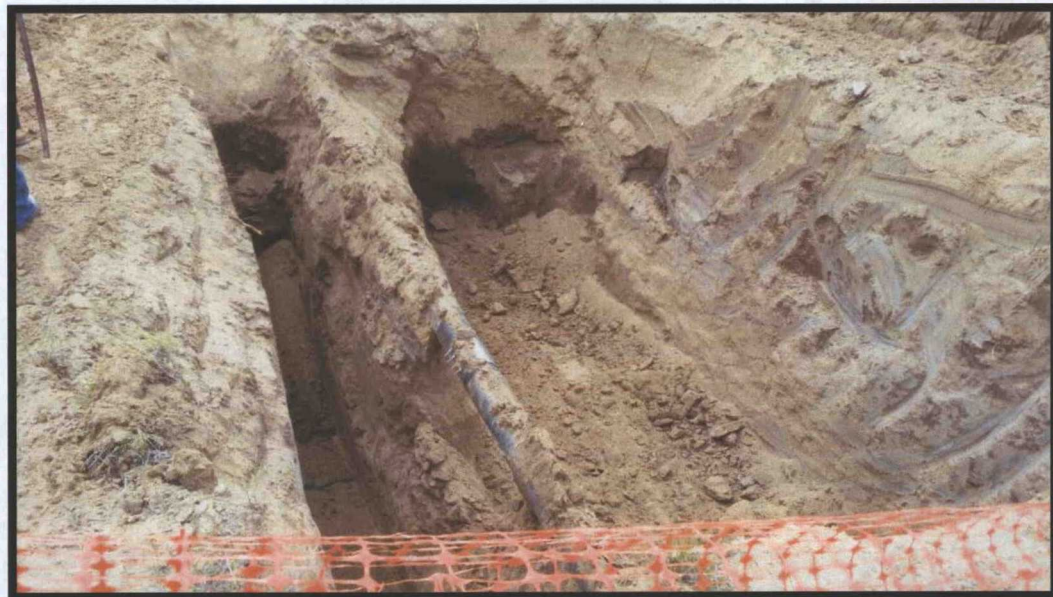


Photo 2: Excavation of Lateral 2A-4 South location after narrow bucket track mounted excavator was used.

Site Photographs
Enterprise Products Lateral 2A-4 South Pipeline



Photo 3: Lateral 2A-4 South excavation at largest extent, loose material on north side (right) of excavation was removed shortly after this photo.

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

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

97057-0707

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	
2. Originating Site: Lateral 2A-4 Pipeline	
3. Location of Material (Street Address, City, State or ULSTR): Unit Letter F, Section 24, T27N, R10W; 36.563504, -107.850989	
4. Source and Description of Waste: Hydrocarbon impacted soils associated with a release from a natural gas pipeline.	
5. Estimated Volume <u>50</u> <u>yd³</u> bbls Known Volume (to be entered by the operator at the end of the haul) <u>483</u> <u>yd³</u> bbls	
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS	
I, <u>Thomas Long</u> <u>Thomas Long</u> representative or authorized agent for <u>Enterprise Field Services, LLC</u> do hereby <small>PRINT & SIGN NAME COMPANY NAME</small>	
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> <u>5-13-15</u> , 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 Runcing</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>ABC, Doug Foutz, Paul & sons</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 Runcing

TITLE: Waste Coordinator

DATE: 5-14-15

SIGNATURE: Kendra Runcing
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

May 19, 2015

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

RE: Lateral 2A-4

OrderNo.: 1505764

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 5 sample(s) on 5/16/2015 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505764

Date Reported: 5/19/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-1 N Wall 0-9'

Project: Lateral 2A-4

Collection Date: 5/15/2015 11:08:00 AM

Lab ID: 1505764-001

Matrix: MEOH (SOIL)

Received Date: 5/16/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/18/2015 10:48:35 AM	19273
Surr: DNOP	111	57.9-140		%REC	1	5/18/2015 10:48:35 AM	19273
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	5/18/2015 12:31:27 PM	19255
Surr: BFB	87.8	80-120		%REC	1	5/18/2015 12:31:27 PM	19255
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.033		mg/Kg	1	5/18/2015 12:31:27 PM	19255
Toluene	ND	0.033		mg/Kg	1	5/18/2015 12:31:27 PM	19255
Ethylbenzene	ND	0.033		mg/Kg	1	5/18/2015 12:31:27 PM	19255
Xylenes, Total	ND	0.066		mg/Kg	1	5/18/2015 12:31:27 PM	19255
Surr: 4-Bromofluorobenzene	95.3	80-120		%REC	1	5/18/2015 12:31:27 PM	19255

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505764

Date Reported: 5/19/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-2 S Wall 0-9'

Project: Lateral 2A-4

Collection Date: 5/15/2015 11:12:00 AM

Lab ID: 1505764-002

Matrix: MEOH (SOIL)

Received Date: 5/16/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/18/2015 11:15:06 AM	19273
Surr: DNOP	107	57.9-140		%REC	1	5/18/2015 11:15:06 AM	19273
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	5/18/2015 1:00:16 PM	19255
Surr: BFB	89.0	80-120		%REC	1	5/18/2015 1:00:16 PM	19255
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.037		mg/Kg	1	5/18/2015 1:00:16 PM	19255
Toluene	ND	0.037		mg/Kg	1	5/18/2015 1:00:16 PM	19255
Ethylbenzene	ND	0.037		mg/Kg	1	5/18/2015 1:00:16 PM	19255
Xylenes, Total	ND	0.075		mg/Kg	1	5/18/2015 1:00:16 PM	19255
Surr: 4-Bromofluorobenzene	98.8	80-120		%REC	1	5/18/2015 1:00:16 PM	19255

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505764

Date Reported: 5/19/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-3 E Wall 0-9'

Project: Lateral 2A-4

Collection Date: 5/15/2015 11:16:00 AM

Lab ID: 1505764-003

Matrix: MEOH (SOIL)

Received Date: 5/16/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	5/18/2015 11:41:48 AM	19273
Surr: DNOP	108	57.9-140		%REC	1	5/18/2015 11:41:48 AM	19273
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/18/2015 1:28:59 PM	19255
Surr: BFB	91.1	80-120		%REC	1	5/18/2015 1:28:59 PM	19255
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.048		mg/Kg	1	5/18/2015 1:28:59 PM	19255
Toluene	ND	0.048		mg/Kg	1	5/18/2015 1:28:59 PM	19255
Ethylbenzene	ND	0.048		mg/Kg	1	5/18/2015 1:28:59 PM	19255
Xylenes, Total	ND	0.096		mg/Kg	1	5/18/2015 1:28:59 PM	19255
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	5/18/2015 1:28:59 PM	19255

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1505764

Date Reported: 5/19/2015

CLIENT: Souder, Miller and Associates**Client Sample ID:** SC-4 W Wall 0-9'**Project:** Lateral 2A-4**Collection Date:** 5/15/2015 11:20:00 AM**Lab ID:** 1505764-004**Matrix:** MEOH (SOIL)**Received Date:** 5/16/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	63	9.8		mg/Kg	1	5/18/2015 12:08:24 PM	19273
Surr: DNOP	120	57.9-140		%REC	1	5/18/2015 12:08:24 PM	19273
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	5/18/2015 1:57:43 PM	19255
Surr: BFB	102	80-120		%REC	1	5/18/2015 1:57:43 PM	19255
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.046		mg/Kg	1	5/18/2015 1:57:43 PM	19255
Toluene	ND	0.046		mg/Kg	1	5/18/2015 1:57:43 PM	19255
Ethylbenzene	ND	0.046		mg/Kg	1	5/18/2015 1:57:43 PM	19255
Xylenes, Total	ND	0.091		mg/Kg	1	5/18/2015 1:57:43 PM	19255
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	5/18/2015 1:57:43 PM	19255

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 Not In Range	
	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 1505764

Date Reported: 5/19/2015

CLIENT: Souder, Miller and Associates**Client Sample ID:** SC-5 Base @ 9'**Project:** Lateral 2A-4**Collection Date:** 5/15/2015 11:25:00 AM**Lab ID:** 1505764-005**Matrix:** MEOH (SOIL)**Received Date:** 5/16/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	86	9.9		mg/Kg	1	5/18/2015 12:35:12 PM	19273
Surr: DNOP	118	57.9-140		%REC	1	5/18/2015 12:35:12 PM	19273
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	5/18/2015 2:26:24 PM	19255
Surr: BFB	99.3	80-120		%REC	1	5/18/2015 2:26:24 PM	19255
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.045		mg/Kg	1	5/18/2015 2:26:24 PM	19255
Toluene	ND	0.045		mg/Kg	1	5/18/2015 2:26:24 PM	19255
Ethylbenzene	ND	0.045		mg/Kg	1	5/18/2015 2:26:24 PM	19255
Xylenes, Total	ND	0.091		mg/Kg	1	5/18/2015 2:26:24 PM	19255
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	5/18/2015 2:26:24 PM	19255

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 Not In Range
- RL Reporting Detection Limit

Page 5 of 8

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505764

19-May-15

Client: Souder, Miller and Associates

Project: Lateral 2A-4

Sample ID	MB-19273		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 19273		RunNo: 26248					
Prep Date:	5/18/2015		Analysis Date: 5/18/2015		SeqNo: 779456		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		91.6	57.9	140			

Sample ID	LCS-19273		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19273		RunNo: 26248					
Prep Date:	5/18/2015		Analysis Date: 5/18/2015		SeqNo: 779482		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	82.4	67.8	130			
Surr: DNOP	4.2		5.000		83.2	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 Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505764

19-May-15

Client: Souder, Miller and Associates

Project: Lateral 2A-4

Sample ID	MB-19255		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 19255		RunNo: 26255					
Prep Date:	5/15/2015		Analysis Date: 5/18/2015		SeqNo: 779640		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		89.4	80	120			

Sample ID	LCS-19255		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 19255		RunNo: 26255					
Prep Date:	5/15/2015		Analysis Date: 5/18/2015		SeqNo: 779851		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	87.6	64	130			
Surr: BFB	980		1000		97.6	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 Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505764

19-May-15

Client: Souder, Miller and Associates

Project: Lateral 2A-4

Sample ID	MB-19255		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 19255		RunNo: 26255					
Prep Date:	5/15/2015		Analysis Date: 5/18/2015		SeqNo: 779647		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID	LCS-19255		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 19255		RunNo: 26255					
Prep Date:	5/15/2015		Analysis Date: 5/18/2015		SeqNo: 779908		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.050	1.000	0	115	76.6	128			
Toluene	1.1	0.050	1.000	0	110	75	124			
Ethylbenzene	1.1	0.050	1.000	0	113	79.5	126			
Xylenes, Total	3.4	0.10	3.000	0	113	78.8	124			
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
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 Not In Range
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: 1505764

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

5/16/2015 10:00:00 AM

Completed By: Lindsay Mangin

5/16/2015 10:17:04 AM

Reviewed By:

DF 5/16/2015

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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.3	Good	Yes			

Client: SMA

Client:

SMA

Mailing Address: 401 W Broadview
Farmington, NM, 87401

Phone #: 505 325 7535

Email or Fax#: Steven.moskal@spclemmiller.com

2A/QC Package:

☐ Standard

☐ Level 4 (Full Validation)

Accreditation

NELAP

☐ Other

EDD (Type)

Turn-Around Time:

☐ Standard

☒ Rush Same Day

Project Name:

Latval 2A-4

Project #:

N21234

Project Manager:

Steven Moskal

Sampler:

JS

On Ice:

☒ Yes☐ No

Sample Temperature:

33

[illegible]

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

7/15/15 1705

Relinquished by:

4

Received by:

Phil Welt

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

15/45 1705

Remarks:	EPLO Invoice
----------	--------------

Pls copy Jesse.Sprague@southmillw.co

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

15/15	1740
-------	------

Relinquished by:

Amala

Received by:

4

Date _____ Time _____

July 15 1957

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

June 01, 2015

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

RE: Lateral 2A-4 South

OrderNo.: 1505A05

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/22/2015 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505A05

Date Reported: 6/1/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-6 Below North S.P.

Project: Lateral 2A-4 South

Collection Date: 5/21/2015 9:40:00 AM

Lab ID: 1505A05-001

Matrix: SOIL

Received Date: 5/22/2015 6:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/27/2015 3:16:25 PM	19380
Surr: DNOP	95.8	57.9-140		%REC	1	5/27/2015 3:16:25 PM	19380
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/27/2015 2:16:33 AM	19362
Surr: BFB	94.1	75.4-113		%REC	1	5/27/2015 2:16:33 AM	19362
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/27/2015 2:16:33 AM	19362
Toluene	ND	0.049		mg/Kg	1	5/27/2015 2:16:33 AM	19362
Ethylbenzene	ND	0.049		mg/Kg	1	5/27/2015 2:16:33 AM	19362
Xylenes, Total	ND	0.098		mg/Kg	1	5/27/2015 2:16:33 AM	19362
Surr: 4-Bromofluorobenzene	97.8	80-120		%REC	1	5/27/2015 2:16:33 AM	19362

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505A05

Date Reported: 6/1/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-7 Below South S.P.

Project: Lateral 2A-4 South

Collection Date: 5/21/2015 9:45:00 AM

Lab ID: 1505A05-002

Matrix: SOIL

Received Date: 5/22/2015 6:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/27/2015 3:37:39 PM	19380
Surr: DNOP	94.2	57.9-140		%REC	1	5/27/2015 3:37:39 PM	19380
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/27/2015 3:42:23 AM	19362
Surr: BFB	90.7	75.4-113		%REC	1	5/27/2015 3:42:23 AM	19362
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/27/2015 3:42:23 AM	19362
Toluene	ND	0.050		mg/Kg	1	5/27/2015 3:42:23 AM	19362
Ethylbenzene	ND	0.050		mg/Kg	1	5/27/2015 3:42:23 AM	19362
Xylenes, Total	ND	0.099		mg/Kg	1	5/27/2015 3:42:23 AM	19362
Surr: 4-Bromofluorobenzene	98.9	80-120		%REC	1	5/27/2015 3:42:23 AM	19362

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 6
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	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#: 1505A05

01-Jun-15

Client: Souder, Miller and Associates

Project: Lateral 2A-4 South

Sample ID	MB-19380		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	19380		RunNo:	26424				
Prep Date:	5/26/2015		Analysis Date:	5/27/2015		SeqNo:	785313		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Surr: DNOP	12		10.00		123	57.9	140				

Sample ID	LCS-19380		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19380		RunNo: 26424					
Prep Date:	5/26/2015		Analysis Date: 5/27/2015		SeqNo: 785374		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	119	67.8	130			
Surr: DNOP	6.1		5.000		122	57.9	140			

Sample ID	MB-19416		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	19416		RunNo:	26455				
Prep Date:	5/27/2015		Analysis Date:	5/28/2015		SeqNo:	786402		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	11		10.00		108	57.9	140				

Sample ID	LCS-19416		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19416		RunNo: 26455					
Prep Date:	5/27/2015		Analysis Date: 5/28/2015		SeqNo: 786403		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.5		5.000		110	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 Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505A05

01-Jun-15

Client: Souder, Miller and Associates

Project: Lateral 2A-4 South

Sample ID	MB-19360		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 19360		RunNo: 26397					
Prep Date:	5/22/2015		Analysis Date: 5/26/2015		SeqNo: 784808		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	900		1000		90.3	75.4	113			

Sample ID	LCS-19360		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 19360		RunNo: 26397					
Prep Date:	5/22/2015		Analysis Date: 5/26/2015		SeqNo: 784809		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		99.7	75.4	113			

Sample ID	MB-19362		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 19362		RunNo: 26397					
Prep Date:	5/22/2015		Analysis Date: 5/26/2015		SeqNo: 784832		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		88.9	75.4	113			

Sample ID	LCS-19362		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 19362		RunNo: 26397					
Prep Date:	5/22/2015		Analysis Date: 5/26/2015		SeqNo: 784833		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.4	64	130			
Surr: BFB	960		1000		96.2	75.4	113			

Sample ID	1505A05-002AMS		SampType: MS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	SC-7 Below South S		Batch ID: 19362		RunNo: 26397					
Prep Date:	5/22/2015		Analysis Date: 5/27/2015		SeqNo: 784836		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.9	24.51	0	92.9	47.9	144			
Surr: BFB	960		980.4		97.7	75.4	113			

Sample ID	1505A05-002AMSD		SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	SC-7 Below South S		Batch ID: 19362		RunNo: 26397					
Prep Date:	5/22/2015		Analysis Date: 5/27/2015		SeqNo: 784837		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	24.75	0	95.2	47.9	144	3.45	29.9	
Surr: BFB	970		990.1		98.3	75.4	113	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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505A05

01-Jun-15

Client: Souder, Miller and Associates

Project: Lateral 2A-4 South

Sample ID	MB-19360		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 19360		RunNo: 26397					
Prep Date:	5/22/2015		Analysis Date: 5/26/2015		SeqNo: 784841		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID	LCS-19360		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 19360		RunNo: 26397					
Prep Date:	5/22/2015		Analysis Date: 5/26/2015		SeqNo: 784842		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	MB-19362	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID: 19362			RunNo: 26397					
Prep Date:	5/22/2015	Analysis Date: 5/26/2015			SeqNo: 784860		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.95		1.000		94.8	80	120			

Sample ID	LCS-19362		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 19362		RunNo: 26397					
Prep Date:	5/22/2015		Analysis Date: 5/26/2015		SeqNo: 784861		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	76.6	128			
Toluene	0.96	0.050	1.000	0	95.7	75	124			
Ethylbenzene	0.98	0.050	1.000	0	98.1	79.5	126			
Xylenes, Total	2.9	0.10	3.000	0	96.4	78.8	124			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	1505A05-001AMS		SampType: MS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	SC-6 Below North S		Batch ID: 19362		RunNo: 26397					
Prep Date:	5/22/2015		Analysis Date: 5/27/2015		SeqNo: 784863		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.049	0.9843	0	92.9	69.2	126			
Toluene	0.88	0.049	0.9843	0.009371	88.5	65.6	128			
Ethylbenzene	0.92	0.049	0.9843	0	93.3	65.5	138			
Xylenes, Total	2.7	0.098	2.953	0	92.4	63	139			

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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505A05

01-Jun-15

Client: Souder, Miller and Associates

Project: Lateral 2A-4 South

Sample ID	1505A05-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	SC-6 Below North S		Batch ID:	19362		RunNo:	26397				
Prep Date:	5/22/2015		Analysis Date:	5/27/2015		SeqNo:	784863		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: 4-Bromofluorobenzene	1.0		0.9843		103	80	120				

Sample ID	1505A05-001AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles					
Client ID:	SC-6 Below North S		Batch ID: 19362		RunNo: 26397					
Prep Date:	5/22/2015		Analysis Date: 5/27/2015		SeqNo: 784864		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.049	0.9862	0	93.8	69.2	126	1.19	18.5	
Toluene	0.89	0.049	0.9862	0.009371	89.5	65.6	128	1.32	20.6	
Ethylbenzene	0.92	0.049	0.9862	0	93.4	65.5	138	0.262	20.1	
Xylenes, Total	2.8	0.099	2.959	0	93.8	63	139	1.71	21.1	
Surr: 4-Bromofluorobenzene	1.0		0.9862		104	80	120	0	0	

Qualifiers:

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

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH Not In Range
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: 1505A05

ReptNo: 1

Received by/date:

Logged By: Lindsay Mangin

5/22/2015 6:10:00 AM

Completed By: Lindsay Mangin

5/22/2015 9:25:25 AM

Reviewed By:

IO

05/22/15

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	3.8	Good	Yes			

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 10D-5	Facility Type: Natural Gas Gathering Pipeline	
Surface Owner: Navajo Tribe	Mineral Owner: Navajo Tribe	API No.

LOCATION OF RELEASE

Unit Letter L	Section 12	Township 26N	Range 12W	Feet from the 2452	North/South Line	Feet from the 195	East/West Line	County San Juan
OIL CONS. DIV DIST. 3								

Latitude 36.502164 Longitude 108.071308

JUL 27 2015

NATURE OF RELEASE

Type of Release: Natural Gas and Condensate	Volume of Release: 57 MCF Gas; 5-10 bbls. Condensate	Volume Recovered: None
Source of Release: Internal corrosion	Date and Hour of Occurrence: 5/28/2015 @ 5:00 p.m.	Date and Hour of Discovery: 5/28/2015 @ 5:30 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, NMOCD and Steve Austin, NNEPA	
By Whom? Thomas Long	Date and Hour 6/9/2015 @ 3:20 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 May 28, 2015, during routine operations a field operation technician identified a natural gas release on the Lateral 10D-5 pipeline. The pipeline was isolated, depressurized, locked out and tagged out. Repairs and remediation were completed on June 9, 2015.

Describe Area Affected and Cleanup Action Taken.* The contaminant mass was removed by mechanical excavation. The final excavation measured approximately 44 feet long by 26 feet wide ranging from 7 to 8 feet deep. Approximately 264 cubic yards of hydrocarbon impacted soil were excavated from the area of the identify release point and transported to a New Mexico Oil Conservation 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 E. Fields		Approved by Environmental Specialist: <i>Carly Smith</i>	
Title: Director, Environmental		Approval Date: 8/12/15	Expiration Date:
E-mail Address: jefields@eprod.com		Conditions of Approval:	
Date: 7-22-2015 Phone: (713)381-6684		Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

#NCS 1517350068

35

OIL CONS. DIV DIST. 3

JUL 27 2015

Lateral 10D-5
Pipeline Release Report
Section 12, Township 26N, Range 12W
N36.50216, W108.07131
San Juan County, New Mexico
July 2, 2015

OIL CONS. DIV DIST. 3

JUL 27 2015

Prepared for:

Enterprise Products Operating, LLC
614 Reilly Avenue
Farmington, New Mexico 87401

Prepared by:

Rule Engineering, LLC
501 Airport Drive, Suite 205
Farmington, New Mexico 87401

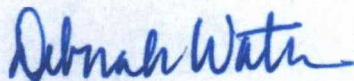
**Enterprise Products Operating, LLC
Lateral 10D-5
Pipeline Release Report**

Prepared for:

Enterprise Products Operating, LLC
614 Reilly Avenue
Farmington, New Mexico 87401

Prepared by:

Rule Engineering, LLC
501 Airport Drive, Suite 205
Farmington, New Mexico 87401



Deborah Watson, PG, Geologist

Reviewed by:



Russell Knight, PG, Principal Hydrogeologist

July 2, 2015

Table of Contents

1	Introduction	1
2	Release Summary.....	1
3	NMOCD Site Ranking	1
4	Field Activities	2
5	Soil Sampling	2
6	Conclusions.....	3
7	Closure and Limitations.....	3

Tables

Table 1	NMOCD Site Ranking Determination
Table 2	Soil Sampling Results-VOCs, Benzene, Total BTEX, and TPH

Figures

Figure 1	Topographic Map
Figure 2	Aerial Site Map
Figure 3	Soil Analytical Map

Appendices

Appendix A	Executed C-138 Solid Waste Acceptance Form
Appendix B	Photograph Log
Appendix C	Analytical Laboratory Report

1 Introduction

The Enterprise Products Operating, LLC (Enterprise) Lateral 10D-5 pipeline release site is located in Unit Letter L, Section 12, Township 26N, Range 12W in San Juan County, New Mexico. The pipeline release occurred at multiple corrosion holes along the 8-inch Lateral 10D-5 pipeline. The release was discovered on May 28, 2015.

On June 9, 2015, the points of release were identified and repaired. The release consisted of an unknown quantity of natural gas and condensate. Site work included repair of the leaking pipeline and excavation of hydrocarbon impacted soils on June 9, 2015.

A topographic map of the location is included as Figure 1 and an aerial site map is included as Figure 2.

2 Release Summary

Site Name – Lateral 10D-5 Pipeline Release

Location – Unit Letter L (NW/SW), Section 12, Township 26N, Range 12W

Release Latitude/Longitude – N36.50216 and W108.07131, respectively

Land Jurisdiction – Navajo Allotment

Date Release Discovered – May 28, 2015

Agency Notification – New Mexico Oil Conservation Division (NMOCD)

Diameter of pipeline – 8-inch

Source of Release – internal corrosion

Release Contents – natural gas and condensate

Release Volume – unknown

NMOCD Site Ranking – 30

Date of Rule Engineering, LLC (Rule) Field Work – June 9, 2015

Subcontractor(s) – West States Energy Contractors, Inc. (West States)

Disposal Facility – Envirotech Land Farm (Permit #NM-01-011)

Amount of Contaminated Soil Excavated/Disposed – 264 cubic yards

3 NMOCD Site Ranking

In accordance with NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993), this site was assigned a ranking score of 30 (Table 1). Based on the ranking score of 30, action levels for remediated soils at the site are as follows: 10 mg/kg benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX), and 100 mg/kg total petroleum hydrocarbons (TPH).

Depth to groundwater at the site was estimated to be 18 feet below ground surface (bgs) based on the elevation differential (18 feet) between the release location and the wash in Gallegos Canyon (approximately 530 feet to the northeast).

Lateral 10D-5 Pipeline Release Report

A review was completed of the New Mexico Office of the State Engineer online New Mexico Water Rights Reporting System and no water wells were identified within a 1,000 feet radius of the location.

Gallegos Wash is located approximately 530 feet northeast of the location and drains to the San Juan River.

4 Field Activities

On May 28, 2015, Enterprise personnel discovered a pipeline leak along the 8-inch Lateral 10D-5 pipeline. Enterprise, West States, and Rule personnel were onsite for remediation activities on June 9, 2015. West States provided heavy equipment operation and excavated the petroleum impacted materials from within the release area. Rule personnel provided excavation oversight and conducted field screening during remediation activities. On June 9, 2015, based on visual observation and field screening results, the excavation was halted, and Rule personnel collected eight confirmation samples (SC-1 through SC-8) from the sidewalls and base of the excavation. Repairs were made at the corrosion holes. Approximately 264 cubic yards of hydrocarbon impacted soils were removed from an area of excavation measuring approximately 44 feet x 26 feet x 7 (to 8) feet in depth. Figure 3 provides the locations and results of the soil samples collected.

A copy of the executed C-138 Solid Waste Acceptance Form is included in Appendix A. A photograph log is included in Appendix B.

5 Soil Sampling

Rule collected confirmation soil samples from the sidewalls and base of the excavation. Soil samples SC-1 through SC-8 were collected on June 9, 2015. Each confirmation soil sample (SC-1 through SC-8) is a representative composite of material collected from five separate locations within the sample area.

Soil samples collected for laboratory analysis were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico. All samples were analyzed for BTEX per U.S. Environmental Protection Agency (USEPA) Method 8021B and TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015D. Laboratory analytical results are summarized in Table 2, and the analytical laboratory report is included in Appendix C.

A portion of each composite soil sample was also field screened for volatile organic compounds (VOCs). Field screening for VOC vapors was conducted with a photo-ionization detector (PID). Before beginning field screening, the PID was calibrated with 100 parts per million (ppm) isobutylene gas. Field screening results are summarized in Table 2.

6 Conclusions

The release of unknown quantity of natural gas and condensate occurred at multiple corrosion holes along the 8-inch Lateral 10D-5 pipeline. Remedial activities included excavation of 264 cubic yards of hydrocarbon impacted soils along the pipeline. Eight confirmation soil samples were collected from the sidewalls and base of the excavation on June 9, 2015, for laboratory analysis of BTEX and TPH. The final excavation measured approximately 44 feet x 26 feet x 7 (to 8) feet in depth.

Laboratory analytical results for soil confirmation samples (SC-1 through SC-8) reported benzene and total BTEX concentrations below the NMOCD action levels of 10 mg/kg and 50 mg/kg, respectively. All soil confirmation samples reported TPH concentrations below the NMOCD action level of 100 mg/kg. Action levels are based on a NMOCD site ranking of 30.

Based on laboratory analytical results, no further work is recommended.

7 Closure and Limitations

This report has been prepared for the exclusive use of Enterprise and is subject to the terms, conditions and limitations stated in Rule's proposal, the report, and Rule's Service Agreement with Enterprise. All work has been performed in accordance with generally accepted professional environmental consulting practices. No other warranty is expressed or implied.

Tables

Table 1. NMOCD Site Ranking Determination
Lateral 10D-5 Pipeline Release
San Juan County, New Mexico
Enterprise Products Operating, LLC

Ranking Criteria	Ranking Score	Site-Based Ranking Score	Basis for Determination	Data Sources
Depth to Groundwater				
<50 feet	20	20	Elevation differential between location and wash in Gallegos Canyon east of the location is 18 feet. Location is at a higher elevation.	NMOCD Online database, Gallegos Trading Post Quadrangle, Google Earth, and Visual Inspection
50-99 feet	10			
>100 feet	0			
Wellhead Protection Area				
<1,000 feet from a water source, or <200 feet from private domestic water source	20 (Yes)	0	No water source or recorded water wells within 1,000 feet radius of location.	NMOSE NMWRRS, Gallegos Trading Post Quadrangle, Google Earth, and Visual Inspection
	0 (No)			
Distance to Surface Water Body				
<200 horizontal feet	20	10	Gallegos wash located approximately 530 feet northeast of location and drains to the San Juan River.	Gallegos Trading Post Quadrangle, Google Earth, and Visual Inspection
200 to 1,000 horizontal feet	10			
>1,000 horizontal feet	0			
Site Based Total Ranking Score		30		

Table 2. Soil Sampling Results-VOCs, Benzene, Total BTEX, and TPH
Lateral 10D-5 Pipeline Release
San Juan County, New Mexico
Enterprise Products Operating, LLC

Sample ID	Date	Location	Sample Depth (ft bgs)	VOCs (PID) (ppm)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO	TPH-DRO
							(mg/kg)	
NMOCD Action Levels**				100	10	50	100	
SC-1	Jun 09, 15	Southeast Wall	0 to 7	8.4	<0.049	<0.245	<4.9	<9.7
SC-2	Jun 09, 15	East Wall	0 to 7	10.7	<0.050	<0.249	<5.0	18
SC-3	Jun 09, 15	Northeast Wall	0 to 7	27.4	<0.050	<0.249	<5.0	14
SC-4	Jun 09, 15	Base (east)	7	10.5	<0.049	<0.245	<4.9	<9.6
SC-5	Jun 09, 15	Northwest Wall	0 to 8	13.9	<0.050	<0.250	<5.0	<9.7
SC-6	Jun 09, 15	West Wall	0 to 8	10.2	<0.049	<0.246	<4.9	<10
SC-7	Jun 09, 15	Southwest Wall	0 to 8	10.9	<0.049	<0.245	<4.9	<9.7
SC-8	Jun 09, 15	Base (west)	8	8.6	<0.050	<0.249	<5.0	<9.7

Notes: VOCs - volatile organic compounds
PID - photo-ionization detector
ft bgs - feet below ground surface
ppm - parts per million
mg/kg - milligrams/kilograms

BTEX - benzene, toluene, ethylbenzene, and xylenes
TPH-GRO - total petroleum hydrocarbons-gasoline range organics
TPH-DRO - total petroleum hydrocarbons-diesel range organics
**NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (1993)

Figures

Legend

★ Lateral 10D-5 Pipeline Release

Lateral 10D-5 Pipeline Release
N36.50216, W108.07131

Copyright © 2013 National Geographic Society, i-cubed

Rule Engineering, LLC
Solutions to Regulations for Industry

0 1,000 2,000 3,000 4,000 Feet



Location
L-12-26N-12W
N36.50216, W108.07131
San Juan County, New Mexico


Topographic Map
Enterprise Products
Lateral 10D-5
Pipeline Release

Date: 6/23/2015 File: 150609 Topo Map.pdf

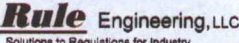
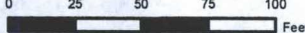

Figure: 1

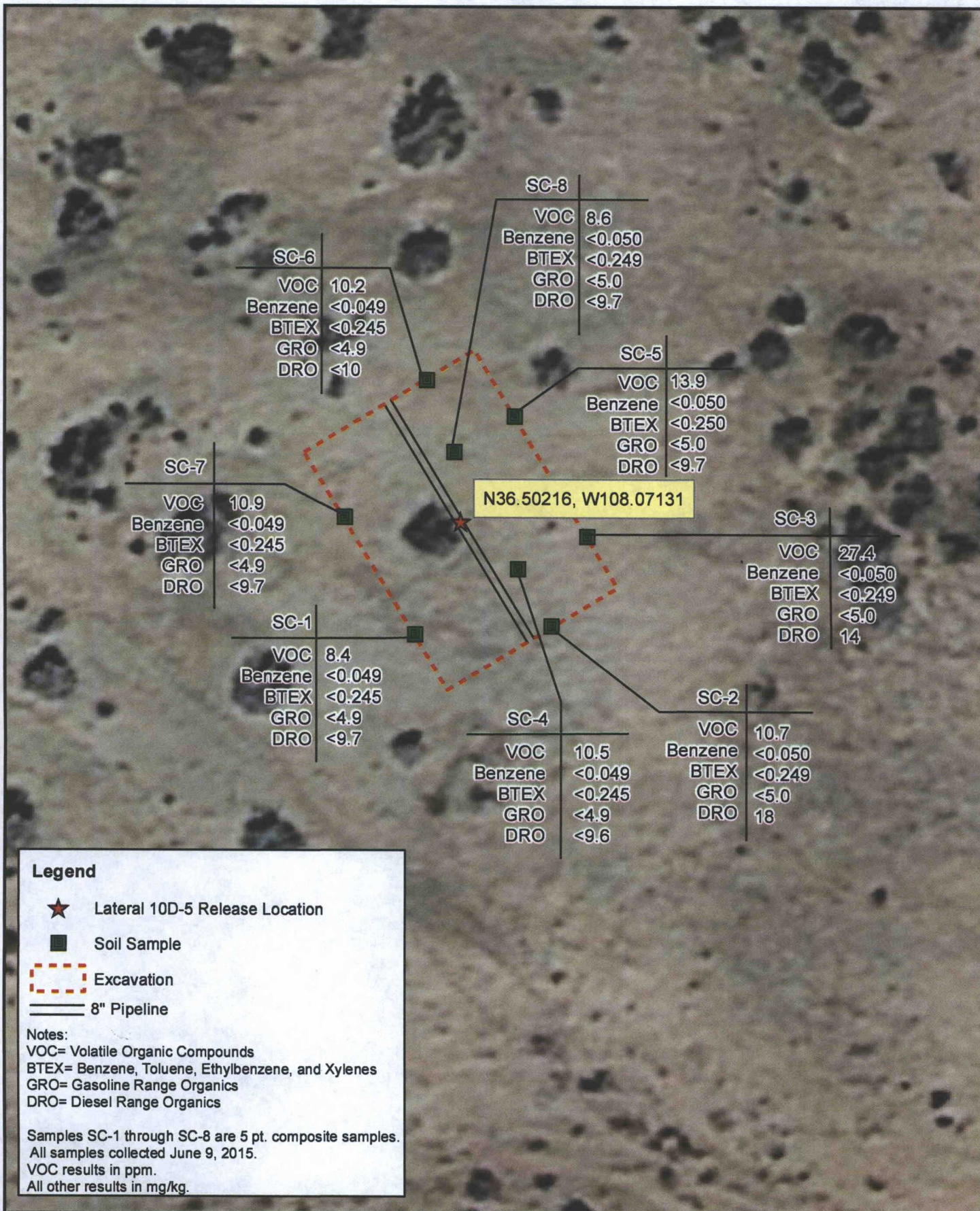


Legend

 Lateral 10D-5 Pipeline Release Location

Source: Esri, DigitalGlobe, GeoEye, I-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

 Solutions to Regulations for Industry	 0 25 50 75 100 Feet		Location L-12-26N-12W N36.50216, W108.07131 San Juan County, New Mexico	Aerial Site Map Enterprise Products Lateral 10D-5 Pipeline Release
			Date: 6/22/2015	File: 150609 Aerial Site Map.pdf



Appendix A
Executed C-138 Solid Waste
Acceptance Form

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
2. Originating Site: Lateral 10D-5 Pipeline
3. Location of Material (Street Address, City, State or ULSTR): Unit Letter L Section 12 Township 26 North Range 12 West; 36.502164, -108.071308
4. Source and Description of Waste: Hydro-excavated soil impacted with hydrocarbons associated with a pipeline release.
5. Estimated Volume 10 yd ³ bbl Known Volume (to be entered by the operator at the end of the haul) 264 yd ³ bbls
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS
I, Thomas Long representative or authorized agent for Enterprise Field Services, LLC 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, Thomas Long 6-9-15, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to Generator Signature complete the required testing/sign the Generator Waste Testing Certification. 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. 6. Transporter: West States Energy Contractor, HBL

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

TITLE:

Waste Coordinator

DATE:

6/10/15

SIGNATURE:

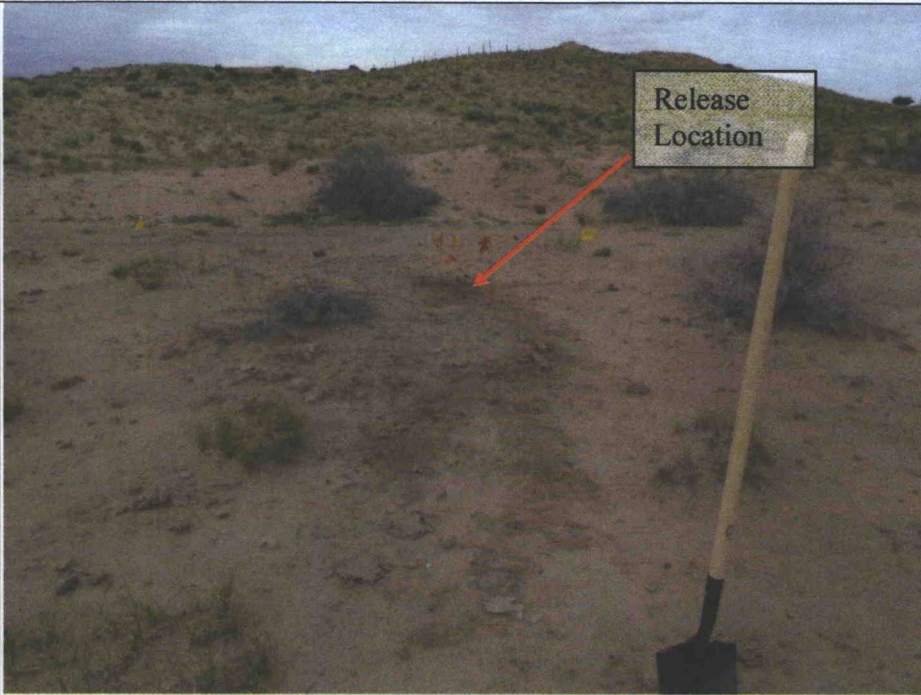
Kendra Running
Surface Waste Management Facility Authorized Agent

TELEPHONE NO.: 505-632-0615

Appendix B

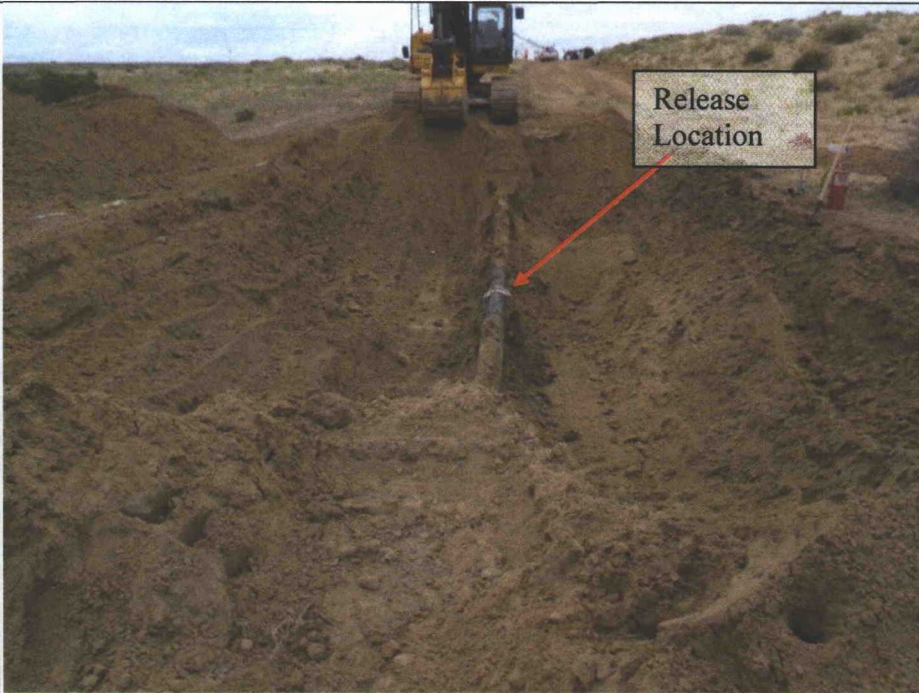
Photograph Log

Photograph Log
Lateral 10D-5 Pipeline Release
Enterprise Products

Photograph #1	
Client: Enterprise Products	
Site Name: Lateral 10D-5 Pipeline Release	
Date Photo Taken: June 9, 2015	
Location: N36.50216, W108.07131 L-12-26N-12W San Juan County, New Mexico	
Photo Taken by: Deborah Watson	Description: facing SW, looking at area of release prior to excavation.

Photograph #2	
Client: Enterprise Products	
Site Name: Lateral 10D-5 Pipeline Release	
Date Photo Taken: June 9, 2015	
Location: N36.50216, W108.07131 L-12-26N-12W San Juan County, New Mexico	
Photo Taken by: Deborah Watson	Description: facing N, looking at excavation following removal of hydrocarbon impacted soils. Final area of excavation measured 44 feet x 26 feet x 7 (to 8) feet in depth.

Photograph Log
Lateral 10D-5 Pipeline Release
Enterprise Products

Photograph #3	
Client: Enterprise Products	
Site Name: Lateral 10D-5 Pipeline Release	
Date Photo Taken: June 9, 2015	
Location: N36.50216, W108.07131 L-12-26N-12W San Juan County, New Mexico	
Photo Taken by: Deborah Watson	Description: facing SE, looking at excavation and exposed pipeline. Corrosion holes were repaired on June 9, 2015.

Appendix C

Analytical Laboratory Report



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

June 16, 2015

Deborah Watson
Rule Engineering LLC
501 Airport Dr., Ste 205
Farmington, NM 87401
TEL: (505) 860-2712
FAX

RE: Lateral 10D-5 Pipeline

OrderNo.: 1506444

Dear Deborah Watson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 6/10/2015 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**Lab Order **1506444**Date Reported: **6/16/2015****CLIENT:** Rule Engineering LLC**Client Sample ID:** SC-1**Project:** Lateral 10D-5 Pipeline**Collection Date:** 6/9/2015 12:20:00 PM**Lab ID:** 1506444-001**Matrix:** SOIL**Received Date:** 6/10/2015 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/12/2015 2:21:04 PM	19688
Surr: DNOP	109	57.9-140		%REC	1	6/12/2015 2:21:04 PM	19688
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/11/2015 10:53:08 PM	19654
Surr: BFB	83.8	75.4-113		%REC	1	6/11/2015 10:53:08 PM	19654
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/11/2015 10:53:08 PM	19654
Toluene	ND	0.049		mg/Kg	1	6/11/2015 10:53:08 PM	19654
Ethylbenzene	ND	0.049		mg/Kg	1	6/11/2015 10:53:08 PM	19654
Xylenes, Total	ND	0.098		mg/Kg	1	6/11/2015 10:53:08 PM	19654
Surr: 4-Bromofluorobenzene	94.1	80-120		%REC	1	6/11/2015 10:53:08 PM	19654

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506444

Date Reported: 6/16/2015

CLIENT: Rule Engineering LLC

Client Sample ID: SC-2

Project: Lateral 10D-5 Pipeline

Collection Date: 6/9/2015 12:25:00 PM

Lab ID: 1506444-002

Matrix: SOIL

Received Date: 6/10/2015 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	18	9.9		mg/Kg	1	6/12/2015 2:53:54 PM	19688
Surr: DNOP	116	57.9-140		%REC	1	6/12/2015 2:53:54 PM	19688
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/11/2015 11:18:34 PM	19654
Surr: BFB	85.3	75.4-113		%REC	1	6/11/2015 11:18:34 PM	19654
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/11/2015 11:18:34 PM	19654
Toluene	ND	0.050		mg/Kg	1	6/11/2015 11:18:34 PM	19654
Ethylbenzene	ND	0.050		mg/Kg	1	6/11/2015 11:18:34 PM	19654
Xylenes, Total	ND	0.099		mg/Kg	1	6/11/2015 11:18:34 PM	19654
Surr: 4-Bromofluorobenzene	93.4	80-120		%REC	1	6/11/2015 11:18:34 PM	19654

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 Not In Range
	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 1506444

Date Reported: 6/16/2015

CLIENT: Rule Engineering LLC**Client Sample ID:** SC-3**Project:** Lateral 10D-5 Pipeline**Collection Date:** 6/9/2015 12:30:00 PM**Lab ID:** 1506444-003**Matrix:** SOIL**Received Date:** 6/10/2015 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	14	10		mg/Kg	1	6/15/2015 10:38:04 AM	19688
Surr: DNOP	119	57.9-140		%REC	1	6/15/2015 10:38:04 AM	19688
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/11/2015 11:44:10 PM	19654
Surr: BFB	86.3	75.4-113		%REC	1	6/11/2015 11:44:10 PM	19654
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/11/2015 11:44:10 PM	19654
Toluene	ND	0.050		mg/Kg	1	6/11/2015 11:44:10 PM	19654
Ethylbenzene	ND	0.050		mg/Kg	1	6/11/2015 11:44:10 PM	19654
Xylenes, Total	ND	0.099		mg/Kg	1	6/11/2015 11:44:10 PM	19654
Surr: 4-Bromofluorobenzene	95.5	80-120		%REC	1	6/11/2015 11:44:10 PM	19654

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 Not In Range
	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 1506444

Date Reported: 6/16/2015

CLIENT: Rule Engineering LLC

Client Sample ID: SC-4

Project: Lateral 10D-5 Pipeline

Collection Date: 6/9/2015 2:30:00 PM

Lab ID: 1506444-004

Matrix: SOIL

Received Date: 6/10/2015 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/12/2015 5:08:56 PM	19688
Surr: DNOP	158	57.9-140	S	%REC	1	6/12/2015 5:08:56 PM	19688
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/12/2015 12:09:34 AM	19654
Surr: BFB	101	75.4-113		%REC	1	6/12/2015 12:09:34 AM	19654
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/12/2015 12:09:34 AM	19654
Toluene	ND	0.049		mg/Kg	1	6/12/2015 12:09:34 AM	19654
Ethylbenzene	ND	0.049		mg/Kg	1	6/12/2015 12:09:34 AM	19654
Xylenes, Total	ND	0.098		mg/Kg	1	6/12/2015 12:09:34 AM	19654
Surr: 4-Bromofluorobenzene	88.1	80-120		%REC	1	6/12/2015 12:09:34 AM	19654

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506444

Date Reported: 6/16/2015

CLIENT: Rule Engineering LLC

Client Sample ID: SC-5

Project: Lateral 10D-5 Pipeline

Collection Date: 6/9/2015 12:40:00 PM

Lab ID: 1506444-005

Matrix: SOIL

Received Date: 6/10/2015 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/12/2015 5:35:47 PM	19688
Surr: DNOP	112	57.9-140		%REC	1	6/12/2015 5:35:47 PM	19688
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/12/2015 12:34:34 AM	19654
Surr: BFB	86.2	75.4-113		%REC	1	6/12/2015 12:34:34 AM	19654
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/12/2015 12:34:34 AM	19654
Toluene	ND	0.050		mg/Kg	1	6/12/2015 12:34:34 AM	19654
Ethylbenzene	ND	0.050		mg/Kg	1	6/12/2015 12:34:34 AM	19654
Xylenes, Total	ND	0.10		mg/Kg	1	6/12/2015 12:34:34 AM	19654
Surr: 4-Bromofluorobenzene	97.4	80-120		%REC	1	6/12/2015 12:34:34 AM	19654

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 Not In Range
	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 1506444

Date Reported: 6/16/2015

CLIENT: Rule Engineering LLC

Client Sample ID: SC-6

Project: Lateral 10D-5 Pipeline

Collection Date: 6/9/2015 12:45:00 PM

Lab ID: 1506444-006

Matrix: SOIL

Received Date: 6/10/2015 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/12/2015 6:02:49 PM	19688
Surr: DNOP	151	57.9-140	S	%REC	1	6/12/2015 6:02:49 PM	19688
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/12/2015 12:59:42 AM	19654
Surr: BFB	83.7	75.4-113		%REC	1	6/12/2015 12:59:42 AM	19654
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/12/2015 12:59:42 AM	19654
Toluene	ND	0.049		mg/Kg	1	6/12/2015 12:59:42 AM	19654
Ethylbenzene	ND	0.049		mg/Kg	1	6/12/2015 12:59:42 AM	19654
Xylenes, Total	ND	0.099		mg/Kg	1	6/12/2015 12:59:42 AM	19654
Surr: 4-Bromofluorobenzene	87.0	80-120		%REC	1	6/12/2015 12:59:42 AM	19654

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 Not In Range
	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 1506444

Date Reported: 6/16/2015

CLIENT: Rule Engineering LLC

Client Sample ID: SC-7

Project: Lateral 10D-5 Pipeline

Collection Date: 6/9/2015 12:48:00 PM

Lab ID: 1506444-007

Matrix: SOIL

Received Date: 6/10/2015 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/12/2015 6:29:47 PM	19688
Surr: DNOP	113	57.9-140		%REC	1	6/12/2015 6:29:47 PM	19688
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/12/2015 1:25:00 AM	19654
Surr: BFB	86.6	75.4-113		%REC	1	6/12/2015 1:25:00 AM	19654
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	6/12/2015 1:25:00 AM	19654
Toluene	ND	0.049		mg/Kg	1	6/12/2015 1:25:00 AM	19654
Ethylbenzene	ND	0.049		mg/Kg	1	6/12/2015 1:25:00 AM	19654
Xylenes, Total	ND	0.098		mg/Kg	1	6/12/2015 1:25:00 AM	19654
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	6/12/2015 1:25:00 AM	19654

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 Not In Range	
	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 1506444

Date Reported: 6/16/2015

CLIENT: Rule Engineering LLC

Client Sample ID: SC-8

Project: Lateral 10D-5 Pipeline

Collection Date: 6/9/2015 2:45:00 PM

Lab ID: 1506444-008

Matrix: SOIL

Received Date: 6/10/2015 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/12/2015 6:56:23 PM	19688
Surr: DNOP	168	57.9-140	S	%REC	1	6/12/2015 6:56:23 PM	19688
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/12/2015 8:15:27 PM	19654
Surr: BFB	89.1	75.4-113		%REC	1	6/12/2015 8:15:27 PM	19654
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	6/12/2015 8:15:27 PM	19654
Toluene	ND	0.050		mg/Kg	1	6/12/2015 8:15:27 PM	19654
Ethylbenzene	ND	0.050		mg/Kg	1	6/12/2015 8:15:27 PM	19654
Xylenes, Total	ND	0.099		mg/Kg	1	6/12/2015 8:15:27 PM	19654
Surr: 4-Bromofluorobenzene	93.6	80-120		%REC	1	6/12/2015 8:15:27 PM	19654

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

Qualifiers:

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- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506444

16-Jun-15

Client: Rule Engineering LLC

Project: Lateral 10D-5 Pipeline

Sample ID	MB-19688	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	19688	RunNo:	26783					
Prep Date:	6/11/2015	Analysis Date:	6/12/2015	SeqNo:	798876	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	12		10.00		116	57.9	140			

Sample ID	LCS-19688	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	19688	RunNo:	26783					
Prep Date:	6/11/2015	Analysis Date:	6/12/2015	SeqNo:	798877	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	108	67.8	130			
Surr: DNOP	5.5		5.000		109	57.9	140			

Sample ID	1506427-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	19688	RunNo:	26783					
Prep Date:	6/11/2015	Analysis Date:	6/12/2015	SeqNo:	799223	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	64	9.7	48.36	16.37	97.8	42.3	146			
Surr: DNOP	4.9		4.836		102	57.9	140			

Sample ID	1506427-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	19688	RunNo:	26783					
Prep Date:	6/11/2015	Analysis Date:	6/12/2015	SeqNo:	799224	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	9.7	48.31	16.37	74.7	42.3	146	19.3	28.9	
Surr: DNOP	4.9		4.831		101	57.9	140	0	0	

Qualifiers:

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- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506444

16-Jun-15

Client: Rule Engineering LLC

Project: Lateral 10D-5 Pipeline

Sample ID	MB-19654	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	19654	RunNo:	26767					
Prep Date:	6/10/2015	Analysis Date:	6/11/2015	SeqNo:	798343	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		87.8	75.4	113			

Sample ID	LCS-19654	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	19654	RunNo:	26767					
Prep Date:	6/10/2015	Analysis Date:	6/11/2015	SeqNo:	798344	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	64	130			
Surr: BFB	980		1000		97.5	75.4	113			

Sample ID	1506438-002AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC	Batch ID:	19654	RunNo:	26767					
Prep Date:	6/10/2015	Analysis Date:	6/11/2015	SeqNo:	798347	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.9	24.53	0	121	47.9	144			
Surr: BFB	1000		981.4		106	75.4	113			

Sample ID	1506438-002AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC	Batch ID:	19654	RunNo:	26767					
Prep Date:	6/10/2015	Analysis Date:	6/11/2015	SeqNo:	798349	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	36	5.0	24.95	0	144	47.9	144	18.9	29.9	
Surr: BFB	1100		998.0		106	75.4	113	0	0	

Sample ID	MB-19635	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	19635	RunNo:	26776					
Prep Date:	6/9/2015	Analysis Date:	6/11/2015	SeqNo:	798386	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	810		1000		81.2	75.4	113			

Sample ID	LCS-19635	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	19635	RunNo:	26776					
Prep Date:	6/9/2015	Analysis Date:	6/11/2015	SeqNo:	798387	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970		1000		97.4	75.4	113			

Qualifiers:

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- S Spike Recovery outside accepted recovery limits

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506444

16-Jun-15

Client: Rule Engineering LLC

Project: Lateral 10D-5 Pipeline

Sample ID	1506366-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC	Batch ID:	19635	RunNo:	26776					
Prep Date:	6/9/2015	Analysis Date:	6/11/2015	SeqNo:	798389	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	960		979.4		97.6	75.4	113			

Sample ID	1506366-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	BatchQC	Batch ID:	19635	RunNo:	26776					
Prep Date:	6/9/2015	Analysis Date:	6/11/2015	SeqNo:	798390	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	900		970.9		92.5	75.4	113	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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506444

16-Jun-15

Client: Rule Engineering LLC

Project: Lateral 10D-5 Pipeline

Sample ID	MB-19654		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS		Batch ID:	19654		RunNo:	26767				
Prep Date:	6/10/2015		Analysis Date:	6/11/2015		SeqNo:	798364		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		92.5	80	120			

Sample ID	LCS-19654		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 19654		RunNo: 26767					
Prep Date:	6/10/2015		Analysis Date: 6/11/2015		SeqNo: 798365		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	76.6	128			
Toluene	0.97	0.050	1.000	0	97.2	75	124			
Ethylbenzene	1.0	0.050	1.000	0	101	79.5	126			
Xylenes, Total	3.0	0.10	3.000	0	102	78.8	124			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID	1506438-001AMS			SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	BatchQC			Batch ID:	19654		RunNo:	26767			
Prep Date:	6/10/2015			Analysis Date:	6/11/2015		SeqNo:	798366		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Benzene	1.2	0.050	0.9901	0	118	69.2	126			
Toluene	1.2	0.050	0.9901	0	117	65.6	128			
Ethylbenzene	1.2	0.050	0.9901	0	122	65.5	138			
Xylenes, Total	3.6	0.099	2.970	0	123	63	139			
Surr: 4-Bromofluorobenzene	1.0		0.9901		105	80	120			

Sample ID	1506438-001AMSD			SampType:	MSD			TestCode:	EPA Method 8021B: Volatiles		
Client ID:	BatchQC			Batch ID:	19654			RunNo:	26767		
Prep Date:	6/10/2015			Analysis Date:	6/11/2015			SeqNo:	798367		
								Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Benzene	1.1	0.050	0.9980	0	112	69.2	126	3.97	18.5	
Toluene	1.1	0.050	0.9980	0	113	65.6	128	2.70	20.6	
Ethylbenzene	1.2	0.050	0.9980	0	119	65.5	138	1.80	20.1	
Xylenes, Total	3.6	0.10	2.994	0	119	63	139	2.07	21.1	
Surr: 4-Bromofluorobenzene	1.1		0.9980		105	80	120	0	0	

Qualifiers:

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- P Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506444

16-Jun-15

Client: Rule Engineering LLC

Project: Lateral 10D-5 Pipeline

Sample ID	MB-19635		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 19635		RunNo: 26776					
Prep Date:	6/9/2015		Analysis Date: 6/11/2015		SeqNo: 798420		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.93		1.000		93.1	80	120			

Sample ID	LCS-19635		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 19635		RunNo: 26776					
Prep Date:	6/9/2015		Analysis Date: 6/11/2015		SeqNo: 798421		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

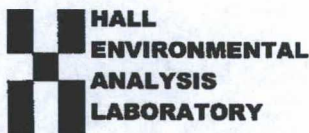
Sample ID	1506381-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	BatchQC		Batch ID:	19635		RunNo:	26776				
Prep Date:	6/9/2015		Analysis Date:	6/11/2015		SeqNo:	798424		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: 4-Bromofluorobenzene	1.1		0.9921		106	80	120				

Sample ID	1506381-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	BatchQC		Batch ID:	19635		RunNo:	26776				
Prep Date:	6/9/2015		Analysis Date:	6/11/2015		SeqNo:	798425		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: 4-Bromofluorobenzene	1.2		1.000		117	80	120	0	0		

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- 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: RULE ENGINEERING LL

Work Order Number: 1506444

RcptNo: 1

Received by/date:

[Signature]

06/10/15

Logged By: Lindsay Mangin

6/10/2015 6:45:00 AM

[Signature]

Completed By: Lindsay Mangin

6/10/2015 8:56:31 AM

[Signature]

Reviewed By: *AS 06/10/15*

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	3.0	Good	Yes			

Chain-of-Custody Record

Client: Rule Engineering

Mailing Address: 501 Airport Drive
Suite 205, Farmington NM 87401
 Phone #: 505 860 2712

email or Fax#: _____
 QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:
Lateral 100-5 Pipeline

Project #:

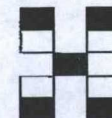
Project Manager:

D Watson

Sampler: D Watson

On Site: ☒ Yes ☐ No

Sample Temperature: 5.0



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TPH (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO/DRO/HMO)	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 Rubbles (Y or N)
6-9-15	1220	soil	SC-1	1-4oz	Cold	-001	X	X										
	1225		SC-2			-002	X	X										
	1230		SC-3			-003	X	X										
	1430		SC-4			-004	X	X										
	1240		SC-5			-005	X	X										
	1245		SC-6			-006	X	X										
	1248		SC-7			-007	X	X										
	1445		SC-8			-008	X	X										

Date: 6/9/15 Time: 1732 Relinquished by: Deborah Wattle

Received by: Carol Wattle Date: 6/9/15 Time: 1732

Remarks: Bill to Enterprise
Attention: Tom Long
WD:
paykey code: RBZ1200
Area: 200C

Date: 6/9/15 Time: 1850 Relinquished by: Carol Wattle

Received by: [Signature] Date: 6/10/15 Time: 0645

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

AUG 07 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: Lateral 2B-24	Facility Type: Natural Gas Gathering Pipeline

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

LOCATION OF RELEASE

Unit Letter E	Section 23	Township 28 N	Range 10W	Feet from the 1904	North South Line	Feet from the 195	East West Line	County San Juan
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Latitude 36.649603 Longitude -107.873435

NATURE OF RELEASE

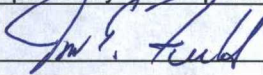
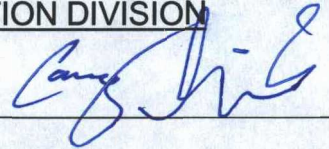
Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: Unknown	Volume Recovered: None
Source of Release: Suspected Internal Corrosion	Date and Hour of Occurrence: 7/16/15 @ 11:10 a.m.	Date and Hour of Discovery: 7/16/15 @ 12:10 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Courtesy Notification - Cory Smith - NMOCD, Shari Ketcham - BLM	
By Whom? Thomas Long	Date and Time 7/28/15 at 2:00 p.m.	
Was a Watercourse Reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.* Fluids were released to the ground surface and flowed down the hill into a small ephemeral wash.

Describe Cause of Problem and Remedial Action: On July 16, 2015, Enterprise technicians confirmed a minor gas leak on the Lateral 2B-24 pipeline. Fluids were released to the ground surface and flowed down the hill into a small ephemeral wash. The pipeline was isolated, blown down, locked out and tagged out for safety and environmental concerns. Repair and remediation began the week of July 27, 2015.

Describe Area Affected and Cleanup Action: Repair and remediation began the week of July 27, 2015. A third party environmental contractor is overseeing excavation activities and will collect samples for determination of impacted soils. 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: 8/18/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8/4/2015	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#NCS 1523031981

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

AUG 17 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 #2 Release Site	Facility Type: Natural Gas Gathering Line

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

LOCATION OF RELEASE

Unit Letter H	Section 26	Township 27N	Range 8W	Feet from the 2600	North South Line	Feet from the 93	East West Line	County San Juan
------------------	---------------	-----------------	-------------	--------------------------	---------------------	------------------------	-------------------	--------------------

Latitude 36.544667 Longitude -107.644105

NATURE OF RELEASE

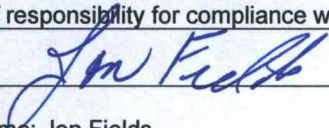
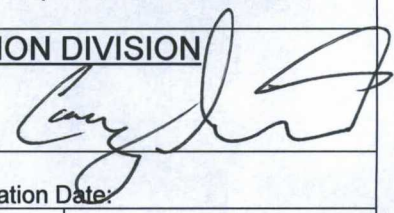
Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release 5-10 BBLs Condensate	Volume Recovered: None
Source of Release: Internal Corrosion/Failed Repair	Date and Hour of Occurrence: 2/18/2015 @ 2:00 p.m.	Date and Hour of Discovery: 2/18/2015 @ 4:00 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy Notification: Cory Smith - NMOCD 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 a release 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. Remediation was complete on March 30, 2015.

Describe Area Affected and Cleanup Action Taken.* The contaminant mass was removed by mechanical excavation. The final excavation measured approximately 42 feet long by 12 feet wide by 7.5 feet deep. Approximately 127 cubic yards of hydrocarbon impacted soil were excavated from the area of the identify release point and transported to a New Mexico Oil Conservation 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: 9/4/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8-18-2015	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#NCS 1507253264

36

AUG 17 2015

Enterprise Products
Trunk K #2 Pipeline Release
Latitude North 36.544667 °, Longitude West -107.644105°
SE/NE (Unit H), Section 26, T27N, R8W
San Juan County, New Mexico
July 31, 2015



Submitted To:

Enterprise Products Operating, LLC.
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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4.0	Summary of Field Activities	2
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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 March 5, through March 27, 2015, Souder, Miller & Associates (SMA) responded to oversee the excavation of a hydrocarbon release associated with the Trunk K natural gas pipeline. The release was initially reported to SMA on March 1, 2015 and is a result of a failed carbon fiber I-wrap repair installed in October of 2014. The table below summarizes information about the pipeline remediation activities.

TABLE 1: RELEASE INFORMATION

Name	Trunk K #2 Pipeline Release				
Location	Latitude/Longitude		Section, Township, Range		
	36.544667°	-107.644105°	SE/NE (Unit H)	Section 26	T 27N, R 8W
Date Reported to SMA	March 1, 2015				
Reported by	Tom Long				
Land Owner	Bureau of Land Management (BLM)				
Reported To	NM Oil Conservation Division (NMOCD) and BLM				
Diameter of Pipeline	16 inches				
Source of Release	Internal Corrosion and failed I-wrap repairs				
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	Estimated to be less than 50 feet				
Nearest Domestic Water Source	Greater than 1,000 feet				
NMOCD Ranking	40				
SMA Response Dates	March 5 through March 30, 2015				
Subcontractors	Crossfire				
Disposal Facility	Envirotech				
Yd ³ Contaminated Soil Excavated and Disposed	127 (Reported as portion of attached completed C-138 forms)				

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 Trunk K #2 pipeline release site. The site is located in SE/NE (Unit H), Section 26, T27N, R8W, 36.544667°, -107.644105°, San Juan County, New Mexico, on land owned by the Bureau of Land Management (BLM). Figure 1 illustrates the vicinity and location of the site.

3.0 Site Ranking and Land Jurisdiction

The release site is located approximately 165 feet west of Largo Canyon Wash, in an area owned by the BLM with an elevation of approximately 5,963 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 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 one well was 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 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

Excavation of the Trunk K #2 site began on March 5, 2015 and continued, periodically, through March 30, 2015. 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. When the soil at the vertical and horizontal extents of the excavation was suspected of having hydrocarbon contamination concentrations below regulatory standards, eight final samples were collected and submitted for confirmation laboratory analysis. Closure sample collection dates were scheduled for May 30, 2015 with the BLM and the NMOCD. Neither party was present to witness the sample collection. Samples were analyzed utilizing United States Environmental Protection Agency Methods: 8021 for benzene, toluene, ethylbenzene, and total xylenes (BTEX) and 8015 for diesel and gasoline range organics (DRO/GRO). All samples were analyzed by Hall Environmental Analysis Laboratory in Albuquerque, New Mexico.

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). Further, all sample analytes were below laboratory detection limits with the exception of SC-1 N Wall @ 0-7.5' and SC-7 W Base @ 7.5'. These samples had results of 18 mg/kg and 15 mg/kg DRO respectively.

The overall excavation measured approximately 42 feet long by 12 feet wide with a maximum depth of 7.5 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

July 31, 2015

with clean backfill. Soil disposal documentation is included in Appendix B. A site map labeled Soil Contaminant Concentration Map is included as Figure 3 detailing sample locations and laboratory results. A summary of laboratory analysis is included in Table 3. Copies of the laboratory reports are included in Appendix C.

SMA recommends no further action at the Trunk K #2 pipeline release location.

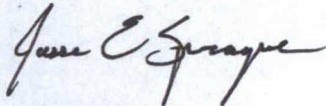
6.0 Closure and Limitations

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 Reid Allan at 505-325-7535.

Submitted by:

SOUDER, MILLER & ASSOCIATES



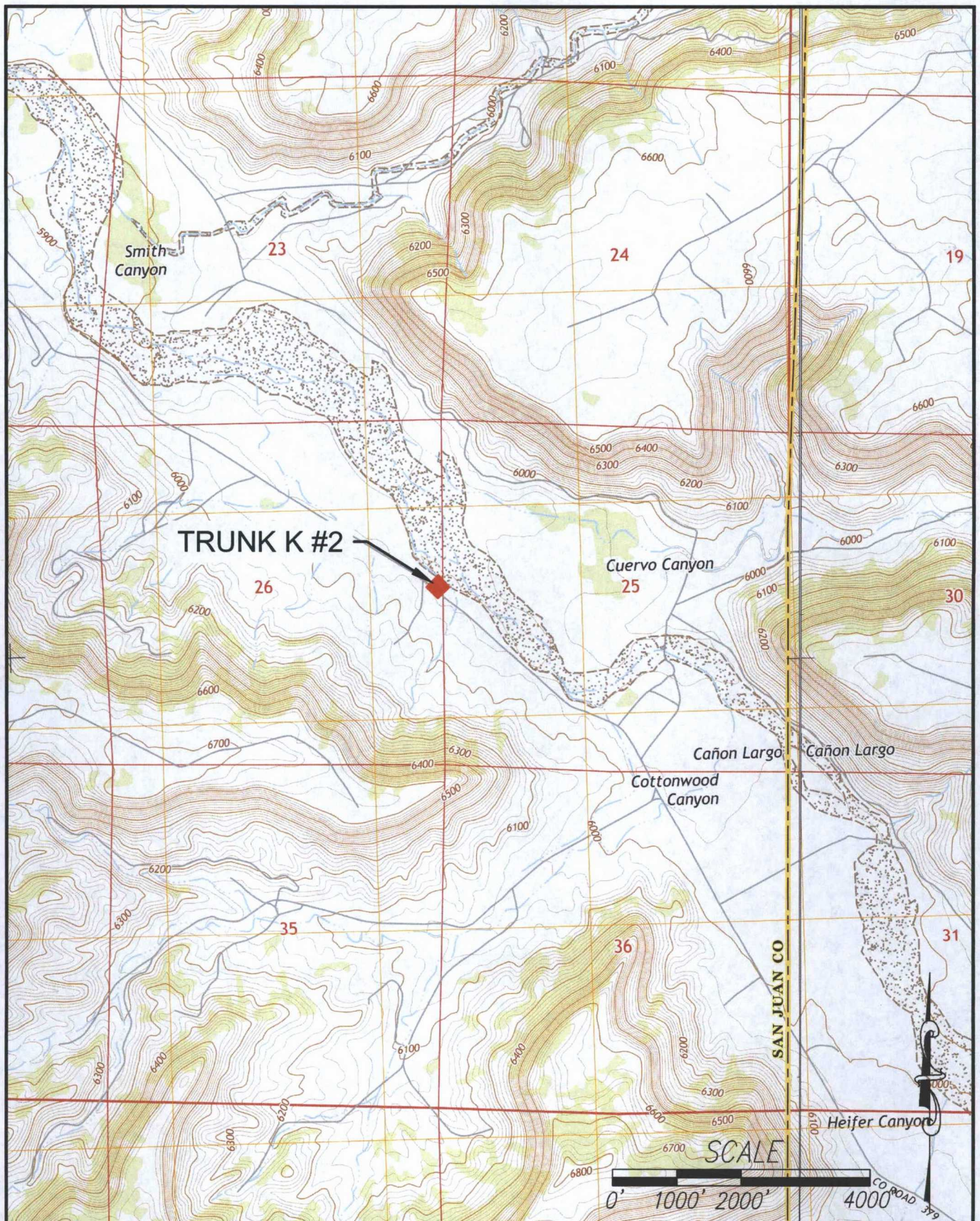
Jesse Sprague
Staff Scientist

Reviewed by:



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

Figures



Souder, Miller & Associates

401 West Broadway Avenue
Farmington, NM 87401-5907

Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045

www.soudermiller.com

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ENTERPRISE


FARMINGTON, NEW MEXICO

VICINITY MAP
TRUNK K-2
SECTION 26, T27N, R8W

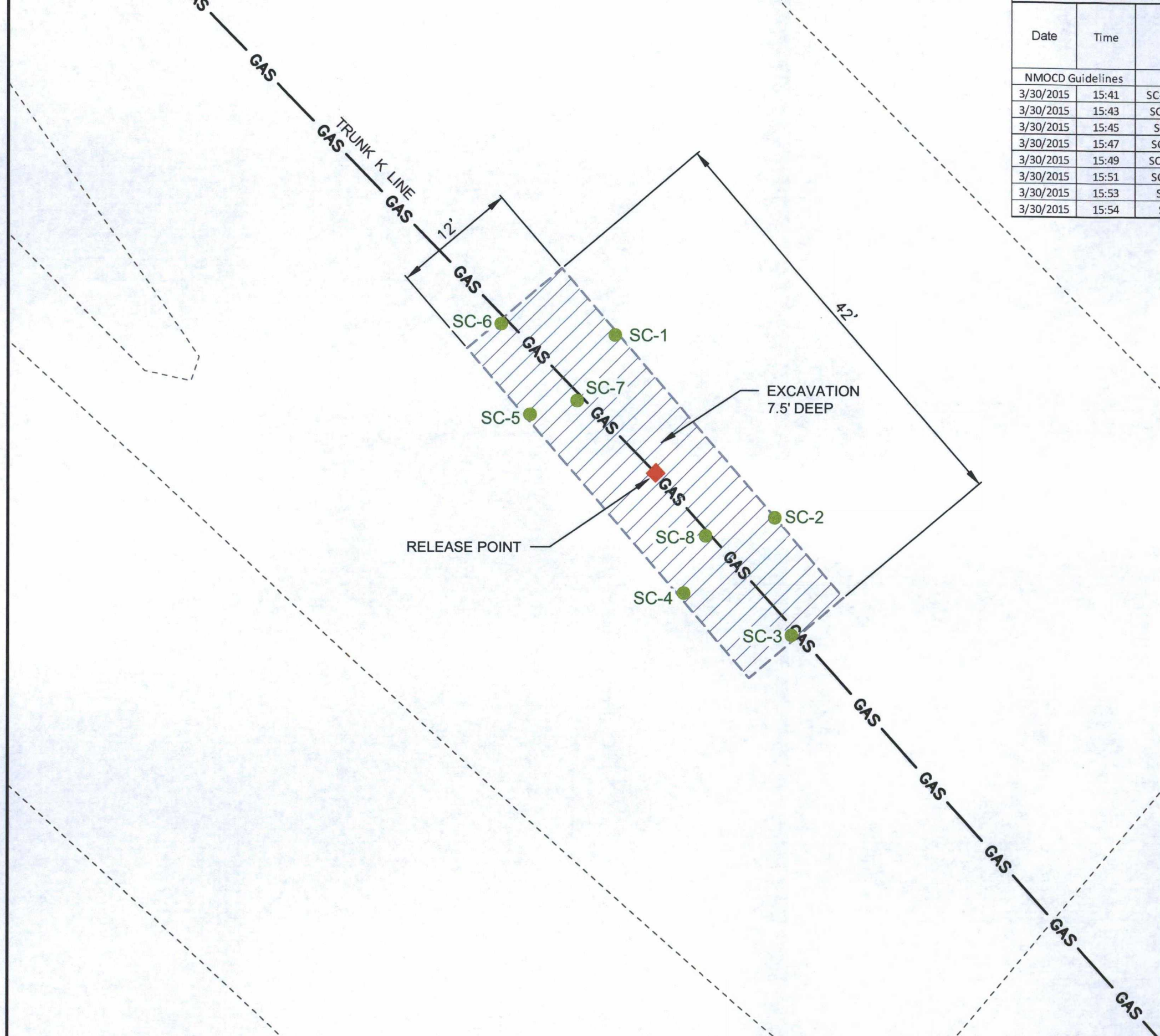
SAN JUAN COUNTY

Designed	Drawn	Checked
JES	DJB	RSA
Date: July 2015		
Scale: Horiz: 1" = 2000'		
Vert: NA		
Project No: 5123699		
Figure 1		



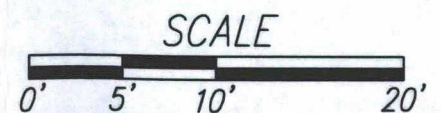
 <p>SMA Engineering Environmental Surveying</p>	<p>Souder, Miller & Associates 401 West Broadway Avenue Farmington, NM 87401-5907 Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045 www.soudermiller.com Serving the Southwest & Rocky Mountains</p>		<p>ENTERPRISE FARMINGTON, NEW MEXICO</p>		<p>Designed JES</p>	<p>Drawn DJB</p>	<p>Checked RSA</p>	
	<p>SITE LOCATION MAP TRUNK K #2 SECTION 26, T27N, R8W</p>		<p>SAN JUAN COUNTY</p>		<p>Date: July 2015</p>			
					<p>Scale: Horiz: 1" = 30' Vert: NA</p>			
					<p>Project No: 5123699</p>			
						<p>Figure 2</p>		

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	
3/30/2015	15:41	SC-1 NW Wall @ 0-7.5'	0-7.5'	<4.9	18	<0.049	<0.099
3/30/2015	15:43	SC-2 NE Wall @ 0-7.5'	0-7.5'	<4.8	<10	<0.018	<0.096
3/30/2015	15:45	SC-3 E Wall @ 0-7.5'	0-7.5'	<4.9	<10	<0.049	<0.098
3/30/2015	15:47	SC-4 SE Wall @ 0-7.5'	0-7.5'	<4.9	<10	<0.049	<0.099
3/30/2015	15:49	SC-5 SW Wall @ 0-7.5'	0-7.5'	<4.8	<9.8	<0.048	<0.095
3/30/2015	15:51	SC-6 W Wall @ 0-7.5'	0-7.5'	<4.9	<9.8	<0.049	<0.098
3/30/2015	15:53	SC-7 W Base @ 7.5'	7.5'	<4.8	15	<0.048	<0.097
3/30/2015	15:54	SC-8 E Base @ 7.5'	7.5'	<4.9	<9.9	<0.049	<0.098



LEGEND

- EDGE OF GRAVEL ROAD
- COMPOSITE SOIL SAMPLE LOCATION
- APPROXIMATE EXTENT OF PREVIOUS EXCAVATION
- ||||| EXCAVATED AREA
- ◆ RELEASE POINT



ENTERPRISE	FARMINGTON, NEW MEXICO	Rev #	Date	Description
SOIL CONTAMINANT CONCENTRATION				
TRUNK K #2				
SECTION 26, T27N, R8W				

Souder, Miller & Associates
 401 West Broadway Avenue
 Farmington, NM 87401-5907
 Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045
 www.soudermiller.com
 Serving the Southwest & Rocky Mountains

SMA
 Engineering
 Environmental
 Surveying

Designed JES	Drawn DJB	Checked RSA
-----------------	--------------	----------------

Date: July 2015
 Scale: Horiz: 1" = 10'
 Vert: NA
 Project No: 5123699

Tables

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

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

Trunk K #2 Pipeline Release
7/31/2015

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
3/30/2015	15:41	SC-1 NW Wall @ 0-7.5'	0-7.5'	<4.9	18	<0.049	<0.099
3/30/2015	15:43	SC-2 NE Wall @ 0-7.5'	0-7.5'	<4.8	<10	<0.018	<0.096
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3/30/2015	15:49	SC-5 SW Wall @ 0-7.5'	0-7.5'	<4.8	<9.8	<0.048	<0.095
3/30/2015	15:51	SC-6 W Wall @ 0-7.5'	0-7.5'	<4.9	<9.8	<0.049	<0.098
3/30/2015	15:53	SC-7 W Base @ 7.5'	7.5'	<4.8	15	<0.048	<0.097
3/30/2015	15:54	SC-8 E Base @ 7.5'	7.5'	<4.9	<9.9	<0.049	<0.098



SMA #5123699 BG10

Appendix A
Photographic Documentation

Site Photographs
Enterprise Products Trunk K #2 Pipeline Release

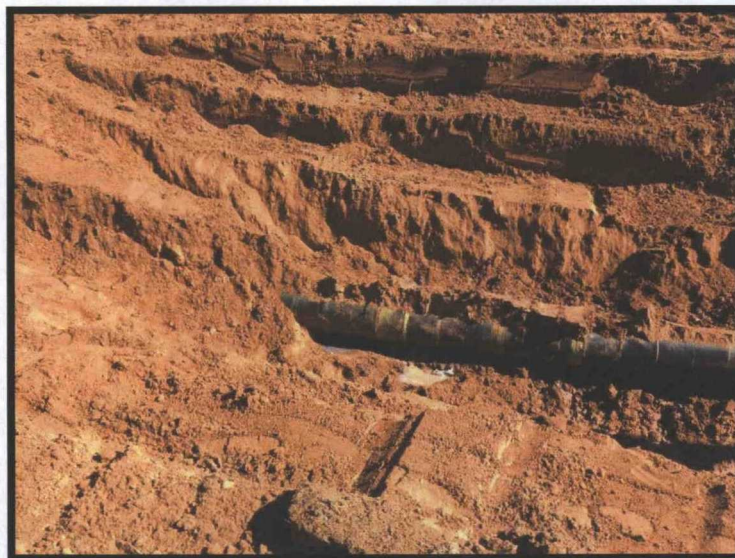


Photo 1: Trunk K #2 release point, result of failed I-Wrap repair, liquids visible in photo.



Photo 2: Trunk K #2 excavation extended along the pipeline removing contaminated soils.

Site Photographs
Enterprise Products Trunk K #2 Pipeline Release



Photo 3: Trunk K #2 release location after repairs were completed in the spring of 2015.



Photo 4: Trunk K #2 excavation at its final extent prior to sampling.

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

97057-0697
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
March 2015

2. Originating Site: Trunk K Release Sites

3. Location of Material (Street Address, City, State or ULSTR):
Unit Letter B and H of Section 26 and Unit Letter N of Section 25 Township 27 North Range 8 West: GPS 36.549537, -107.649872, 36.544737, -107.644162, 36.539889, -107.636994, 36.538368, -107.636994 and 36.538072, -107.636657; Rio Arriba, NM

4. Source and Description of Waste:
Source: Natural Gas Pipeline Release
Description: Hydrocarbon impacted soils associated with excavation activities for a natural gas pipeline release..
Estimated Volume 200 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 516 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, 3-26-15, 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: Crossfire

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: 3-26-15
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

*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 Sites

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

Unit Letter B and H of Section 26 and Unit Letter N of Section 25 Township 27 North Range 8 West: GPS 36.549537, -107.649872, 36.544737, -107.644162, 36.539889, -107.636994, 36.538368, -107.636994 and 36.538072, -107.636657; Rio Arriba, NM

4. Source and Description of Waste:

Source: Natural Gas Pipeline Release

Description: Hydrocarbon impacted soils associated with excavation activities for a natural gas pipeline release..

Estimated Volume 200 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 1212 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, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete

Generator Signature

the required testing/sign the Generator Waste Testing Certification.

I, Kendra Runney, 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: Crossfire, Rosenbaum, Ryvek, Bailey's Welding
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 Runney

SIGNATURE: Kendra Runney
Surface Waste Management Facility Authorized Agent

TITLE: Waste Coordinator

TELEPHONE NO.: 505-632-0615

DATE: 4/3/15

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
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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

97057-0697
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 Sites

3. **Location of Material (Street Address, City, State or ULSTR):**
Unit Letter B and H of Section 26 and Unit Letter N of Section 25 Township 27 North Range 8 West: GPS 36.549537, -107.649872, 36.544737, -107.644162, 36.539889, -107.636994, 36.538368, -107.636994 and 36.538072, -107.636657; Rio Arriba, NM

4. **Source and Description of Waste:**
Source: Natural Gas Pipeline Release
Description: Hydrocarbon impacted soils associated with excavation activities for a natural gas pipeline release..
Estimated Volume 200 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 304 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, 5-1-15, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, Renee Runy, 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:** Crossfire Barley's Rosenbaum

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 Runy
SIGNATURE: Kendra Runy
Surface Waste Management Facility Authorized Agent

TITLE: Waste Coordinator DATE: 5-1-15
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

97057-0697

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 Sites

3. Location of Material (Street Address, City, State or ULSTR):
Unit Letter B and H of Section 26 and Unit Letter N of Section 25 Township 27 North Range 8 West: GPS 36.549537, -107.649872, 36.544737, -107.644162, 36.539889, -107.636994, 36.538368, -107.636994 and 36.538072, -107.636657; Rio Arriba, NM

4. Source and Description of Waste:
Source: Natural Gas Pipeline Release
Description: Hydrocarbon impacted soils associated with excavation activities for a natural gas pipeline release.
Estimated Volume 200 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 72 yd³ bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Russell Seal, 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, Russell Seal, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, Kendra Runy, 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: Envirotech, J.P. Trucking, ABC, Cotuit Bros, Kelley Co, Tomco
OCD Permitted Surface Waste Management Facility Rich

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:

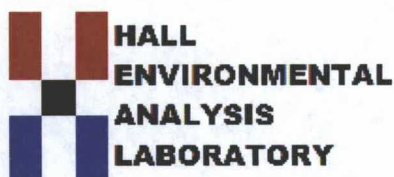
☒ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

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

TITLE: Waste Coordinator DATE: 6-15-15
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

April 03, 2015

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

RE: Trunk K #2

OrderNo.: 1503D67

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 8 sample(s) on 3/31/2015 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1503D67

Date Reported: 4/3/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-1 NW wall@0-7.5'

Project: Trunk K #2

Collection Date: 3/30/2015 3:41:00 PM

Lab ID: 1503D67-001

Matrix: SOIL

Received Date: 3/31/2015 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	18	9.9		mg/Kg	1	4/1/2015 4:35:45 PM	18415
Surr: DNOP	116	63.5-128		%REC	1	4/1/2015 4:35:45 PM	18415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/1/2015 10:27:31 AM	18438
Surr: BFB	89.9	80-120		%REC	1	4/1/2015 10:27:31 AM	18438
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.049		mg/Kg	1	4/1/2015 10:27:31 AM	18438
Toluene	ND	0.049		mg/Kg	1	4/1/2015 10:27:31 AM	18438
Ethylbenzene	ND	0.049		mg/Kg	1	4/1/2015 10:27:31 AM	18438
Xylenes, Total	ND	0.099		mg/Kg	1	4/1/2015 10:27:31 AM	18438
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	4/1/2015 10:27:31 AM	18438

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 11
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	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 1503D67

Date Reported: 4/3/2015

CLIENT: Souder, Miller and Associates**Client Sample ID:** SC-2 NE wall@0-7.5'**Project:** Trunk K #2**Collection Date:** 3/30/2015 3:43:00 PM**Lab ID:** 1503D67-002**Matrix:** SOIL**Received Date:** 3/31/2015 8:45:00 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	4/1/2015 4:57:05 PM	18415
Surr: DNOP	102	63.5-128		%REC	1	4/1/2015 4:57:05 PM	18415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/2/2015 10:50:54 AM	18438
Surr: BFB	89.9	80-120		%REC	1	4/2/2015 10:50:54 AM	18438
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.048		mg/Kg	1	4/1/2015 9:39:57 PM	18438
Toluene	ND	0.048		mg/Kg	1	4/1/2015 9:39:57 PM	18438
Ethylbenzene	ND	0.048		mg/Kg	1	4/1/2015 9:39:57 PM	18438
Xylenes, Total	ND	0.096		mg/Kg	1	4/1/2015 9:39:57 PM	18438
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	4/1/2015 9:39:57 PM	18438

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1503D67

Date Reported: 4/3/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-3 E wall@0-7.5'

Project: Trunk K #2

Collection Date: 3/30/2015 3:45:00 PM

Lab ID: 1503D67-003

Matrix: SOIL

Received Date: 3/31/2015 8:45:00 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	4/1/2015 5:18:19 PM	18415
Surr: DNOP	102	63.5-128		%REC	1	4/1/2015 5:18:19 PM	18415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/2/2015 11:20:04 AM	18438
Surr: BFB	88.6	80-120		%REC	1	4/2/2015 11:20:04 AM	18438
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.049		mg/Kg	1	4/1/2015 10:09:10 PM	18438
Toluene	ND	0.049		mg/Kg	1	4/1/2015 10:09:10 PM	18438
Ethylbenzene	ND	0.049		mg/Kg	1	4/1/2015 10:09:10 PM	18438
Xylenes, Total	ND	0.098		mg/Kg	1	4/1/2015 10:09:10 PM	18438
Surr: 4-Bromofluorobenzene	99.5	80-120		%REC	1	4/1/2015 10:09:10 PM	18438

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 11
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	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 1503D67

Date Reported: 4/3/2015

CLIENT: Souder, Miller and Associates**Client Sample ID:** SC-4 SE wall@0-7.5'**Project:** Trunk K #2**Collection Date:** 3/30/2015 3:47:00 PM**Lab ID:** 1503D67-004**Matrix:** SOIL**Received Date:** 3/31/2015 8:45:00 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	4/1/2015 5:39:36 PM	18415
Surr: DNOP	95.4	63.5-128		%REC	1	4/1/2015 5:39:36 PM	18415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/1/2015 1:52:22 PM	18438
Surr: BFB	82.8	80-120		%REC	1	4/1/2015 1:52:22 PM	18438
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.049		mg/Kg	1	4/1/2015 1:52:22 PM	18438
Toluene	ND	0.049		mg/Kg	1	4/1/2015 1:52:22 PM	18438
Ethylbenzene	ND	0.049		mg/Kg	1	4/1/2015 1:52:22 PM	18438
Xylenes, Total	ND	0.099		mg/Kg	1	4/1/2015 1:52:22 PM	18438
Surr: 4-Bromofluorobenzene	91.6	80-120		%REC	1	4/1/2015 1:52:22 PM	18438

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 11
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	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 1503D67

Date Reported: 4/3/2015

CLIENT: Souder, Miller and Associates**Client Sample ID:** SC-5 SW wall@0-7.5'**Project:** Trunk K #2**Collection Date:** 3/30/2015 3:49:00 PM**Lab ID:** 1503D67-005**Matrix:** SOIL**Received Date:** 3/31/2015 8:45:00 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	4/1/2015 6:00:50 PM	18415
Surr: DNOP	95.1	63.5-128		%REC	1	4/1/2015 6:00:50 PM	18415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/1/2015 2:50:49 PM	18438
Surr: BFB	86.5	80-120		%REC	1	4/1/2015 2:50:49 PM	18438
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.048		mg/Kg	1	4/1/2015 2:50:49 PM	18438
Toluene	ND	0.048		mg/Kg	1	4/1/2015 2:50:49 PM	18438
Ethylbenzene	ND	0.048		mg/Kg	1	4/1/2015 2:50:49 PM	18438
Xylenes, Total	ND	0.095		mg/Kg	1	4/1/2015 2:50:49 PM	18438
Surr: 4-Bromofluorobenzene	94.8	80-120		%REC	1	4/1/2015 2:50:49 PM	18438

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 11
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	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 1503D67

Date Reported: 4/3/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-6 W wall@0-7.5'

Project: Trunk K #2

Collection Date: 3/30/2015 3:51:00 PM

Lab ID: 1503D67-006

Matrix: SOIL

Received Date: 3/31/2015 8:45:00 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	4/1/2015 6:22:13 PM	18415
Surr: DNOP	96.8	63.5-128		%REC	1	4/1/2015 6:22:13 PM	18415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/2/2015 11:49:15 AM	18438
Surr: BFB	89.0	80-120		%REC	1	4/2/2015 11:49:15 AM	18438
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.049		mg/Kg	1	4/2/2015 11:49:15 AM	18438
Toluene	ND	0.049		mg/Kg	1	4/2/2015 11:49:15 AM	18438
Ethylbenzene	ND	0.049		mg/Kg	1	4/2/2015 11:49:15 AM	18438
Xylenes, Total	ND	0.098		mg/Kg	1	4/2/2015 11:49:15 AM	18438
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	4/2/2015 11:49:15 AM	18438

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 11
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	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 1503D67

Date Reported: 4/3/2015

CLIENT: Souder, Miller and Associates**Client Sample ID:** SC-7 W Base@7.5'**Project:** Trunk K #2**Collection Date:** 3/30/2015 3:53:00 PM**Lab ID:** 1503D67-007**Matrix:** SOIL**Received Date:** 3/31/2015 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	15	10		mg/Kg	1	4/1/2015 6:43:29 PM	18415
Surr: DNOP	105	63.5-128		%REC	1	4/1/2015 6:43:29 PM	18415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/1/2015 3:49:19 PM	18438
Surr: BFB	83.7	80-120		%REC	1	4/1/2015 3:49:19 PM	18438
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.048		mg/Kg	1	4/1/2015 3:49:19 PM	18438
Toluene	ND	0.048		mg/Kg	1	4/1/2015 3:49:19 PM	18438
Ethylbenzene	ND	0.048		mg/Kg	1	4/1/2015 3:49:19 PM	18438
Xylenes, Total	ND	0.097		mg/Kg	1	4/1/2015 3:49:19 PM	18438
Surr: 4-Bromofluorobenzene	88.0	80-120		%REC	1	4/1/2015 3:49:19 PM	18438

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 11
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	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 1503D67

Date Reported: 4/3/2015

CLIENT: Souder, Miller and Associates**Client Sample ID:** SC-8 E Base@7.5'**Project:** Trunk K #2**Collection Date:** 3/30/2015 3:54:00 PM**Lab ID:** 1503D67-008**Matrix:** SOIL**Received Date:** 3/31/2015 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/1/2015 7:04:46 PM	18415
Surr: DNOP	106	63.5-128		%REC	1	4/1/2015 7:04:46 PM	18415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/2/2015 6:38:55 PM	18438
Surr: BFB	87.0	80-120		%REC	1	4/2/2015 6:38:55 PM	18438
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.049		mg/Kg	1	4/2/2015 6:38:55 PM	18438
Toluene	ND	0.049		mg/Kg	1	4/2/2015 6:38:55 PM	18438
Ethylbenzene	ND	0.049		mg/Kg	1	4/2/2015 6:38:55 PM	18438
Xylenes, Total	ND	0.098		mg/Kg	1	4/2/2015 6:38:55 PM	18438
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	4/2/2015 6:38:55 PM	18438

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 11
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH Not In Range	
	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#: 1503D67

03-Apr-15

Client: Souder, Miller and Associates

Project: Trunk K #2

Sample ID	MB-18415		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 18415		RunNo: 25210					
Prep Date:	3/30/2015		Analysis Date: 4/1/2015		SeqNo: 745560		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		94.7	63.5	128			

Sample ID	LCS-18415		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 18415		RunNo: 25210					
Prep Date:	3/30/2015		Analysis Date: 4/1/2015		SeqNo: 745613		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.8	67.8	130			
Surr: DNOP	5.4		5.000		108	63.5	128			

Sample ID	LCS-18456		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 18456		RunNo: 25230					
Prep Date:	4/1/2015		Analysis Date: 4/2/2015		SeqNo: 746177		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.3		5.000		107	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 Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503D67

03-Apr-15

Client: Souder, Miller and Associates

Project: Trunk K #2

Sample ID	1503D67-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-1 NW wall@0-7.	Batch ID:	18438	RunNo:	25236					
Prep Date:	3/31/2015	Analysis Date:	4/1/2015	SeqNo:	746184	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.9	24.68	0	111	47.9	144			
Surr: BFB	960		987.2		97.2	80	120			

Sample ID	1503D67-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-1 NW wall@0-7.	Batch ID:	18438	RunNo:	25236					
Prep Date:	3/31/2015	Analysis Date:	4/1/2015	SeqNo:	746185	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.9	24.73	0	117	47.9	144	5.45	29.9	
Surr: BFB	1000		989.1		101	80	120	0	0	

Sample ID	LCS-18438	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	18438	RunNo:	25236					
Prep Date:	3/31/2015	Analysis Date:	4/1/2015	SeqNo:	746200	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	64	130			
Surr: BFB	1000		1000		99.6	80	120			

Sample ID	MB-18438	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	18438	RunNo:	25236					
Prep Date:	3/31/2015	Analysis Date:	4/1/2015	SeqNo:	746201	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		85.7	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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503D67

03-Apr-15

Client: Souder, Miller and Associates

Project: Trunk K #2

Sample ID	1503D67-002AMS		SampType: MS			TestCode: EPA Method 8021B: Volatiles				
Client ID:	SC-2 NE wall@0-7.5'		Batch ID: 18438			RunNo: 25236				
Prep Date:	3/31/2015		Analysis Date: 4/1/2015			SeqNo: 746208		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.048	0.9560	0.006220	106	69.2	126			
Toluene	0.99	0.048	0.9560	0.009665	102	65.6	128			
Ethylbenzene	0.91	0.048	0.9560	0.01531	94.0	65.5	138			
Xylenes, Total	2.8	0.096	2.868	0.04890	96.4	63	139			
Surr: 4-Bromofluorobenzene	0.93		0.9560		97.0	80	120			

Sample ID	1503D67-002AMSD		SampType: MSD			TestCode: EPA Method 8021B: Volatiles				
Client ID:	SC-2 NE wall@0-7.5'		Batch ID: 18438			RunNo: 25236				
Prep Date:	3/31/2015		Analysis Date: 4/1/2015			SeqNo: 746209		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.048	0.9569	0.006220	104	69.2	126	1.60	18.5	
Toluene	0.99	0.048	0.9569	0.009665	102	65.6	128	0.183	20.6	
Ethylbenzene	0.91	0.048	0.9569	0.01531	94.0	65.5	138	0.0538	20.1	
Xylenes, Total	2.8	0.096	2.871	0.04890	95.6	63	139	0.655	21.1	
Surr: 4-Bromofluorobenzene	0.76		0.9569		79.8	80	120	0	0	S

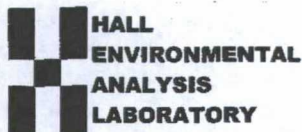
Sample ID	LCS-18438		SampType: LCS			TestCode: EPA Method 8021B: Volatiles				
Client ID:	LCSS		Batch ID: 18438			RunNo: 25236				
Prep Date:	3/31/2015		Analysis Date: 4/1/2015			SeqNo: 746222		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	109	76.6	128			
Toluene	1.0	0.050	1.000	0	105	75	124			
Ethylbenzene	0.99	0.050	1.000	0	99.5	79.5	126			
Xylenes, Total	3.0	0.10	3.000	0	99.5	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID	MB-18438		SampType: MBLK			TestCode: EPA Method 8021B: Volatiles				
Client ID:	PBS		Batch ID: 18438			RunNo: 25236				
Prep Date:	3/31/2015		Analysis Date: 4/1/2015			SeqNo: 746223		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			

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 Not In Range
- 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: 1503D67

RcptNo: 1

Received by/date:	AT	03/31/15	
Logged By:	Celina Sessa	3/31/2015 8:45:00 AM	<i>Celina Sessa</i>
Completed By:	Celina Sessa	3/31/2015 9:10:26 AM	<i>Celina Sessa</i>
Reviewed By:	IO	03/31/15	

Chain of Custody

- | | | | |
|--|---|-----------------------------|---|
| 1. Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 2. Is Chain of Custody complete? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| 3. How was the sample delivered? | Courier | | |

Log In

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

# 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 <input type="checkbox"/> | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
|---|------------------------------|-----------------------------|--|

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	1.0	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@soudermiller.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Trunk K #2

Project #:

Enterprise #N20589

Project Manager:

Steve Moskal

Sampler:

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

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 / TIRO)	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)
3/30/15	1541	Soil	SC-1 NW wall @ 0-7.5'	402 x 2	N/A	-001												
	1543		SC-2 NE wall @ 0-7.5'			-002												
	1545		SC-3 E wall @ 0-7.5'			-003												
	1547		SC-4 SE wall @ 0-7.5'			-004												
	1549		SC-5 SW wall @ 0-7.5'			-005												
	1551		SC-6 W wall @ 0-7.5'			-007												
	1553		SC-7 W Base @ 0-7.5'			-008												
	1554		SC-8 E Base @ 7.5'			-009												

Date: 3/31/15 Time: 1750 Relinquished by: [Signature]

Date: 3/31/15 Time: 1810 Received by: [Signature]

Date: 3/31/15 Time: 1855 Relinquished by: [Signature]

Date: 3/31/15 Time: 0845 Received by: [Signature]

Remarks:

Invoice Directly to EPR00

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

AUG 17 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 #5 Release Site	Facility Type: Natural Gas Gathering Line

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

LOCATION OF RELEASE

Unit Letter B	Section 26	Township 27N	Range 8W	Feet from the 753	North South Line	Feet from the 1853	East West Line	County San Juan
------------------	---------------	-----------------	-------------	-------------------------	---------------------	--------------------------	-------------------	--------------------

Latitude 36.549580 Longitude -107.650090

NATURE OF RELEASE

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release 5-10 BBLs Condensate	Volume Recovered: None
Source of Release: Internal Corrosion/Failed Repair	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 - NMOCD 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 a release 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. Remediation was complete on April 6, 2015.

Describe Area Affected and Cleanup Action Taken.* The contaminant mass was removed by mechanical excavation. The final excavation measured approximately 32 feet long by 23 feet wide by 13 feet deep. Approximately 200 cubic yards of hydrocarbon impacted soil were excavated from the area of the identify release point and transported to a New Mexico Oil Conservation 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>Angela</i>	
Title: Director, Environmental	Approval Date: 9/4/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8-12-2015	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#NCS 1507253264

43

OIL CONS. DIV DIST. 3

AUG 17 2015

Enterprise Products
Trunk K #5 Pipeline Release
Latitude North 36.549580 °, Longitude West -107.650090°
NW/NE (Unit B), Section 26, T27N, R8W
San Juan County, New Mexico
July 30, 2015



Submitted To:
Enterprise Products Operating, LLC.
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	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.....	2
6.0	Closure and Limitations.....	3

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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 March 4, through March 30, 2015, Souder, Miller & Associates (SMA) responded to oversee the excavation of a hydrocarbon release associated with the Trunk K natural gas pipeline. The release was initially reported to SMA on March 1, 2015 and is a result of a failed carbon fiber I-wrap repair installed in October of 2014. The table below summarizes information about the pipeline remediation activities.

TABLE 1: RELEASE INFORMATION					
Name	Trunk K #5 Pipeline Release				
Location	Latitude/Longitude		Section, Township, Range		
	36.549580°	-107.650090°	NW/NE (Unit B)	Section 26	T27N, R 8W
Date Reported to SMA	March 1, 2015				
Reported by	Tom Long				
Land Owner	Bureau of Land Management (BLM)				
Reported To	NM Oil Conservation Division (NMOCD) and BLM				
Diameter of Pipeline	16 inches				
Source of Release	Internal Corrosion and failed I-wrap repairs				
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	Estimated to be less than 50 feet				
Nearest Domestic Water Source	Greater than 1,000 feet				
NMOCD Ranking	30				
SMA Response Dates	March 4 through April 6, 2015				
Subcontractors	Crossfire				
Disposal Facility	Envirotech				
Yd ³ Contaminated Soil Excavated and Disposed	200 (Reported as portion of attached C-138 forms)				

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 Trunk K #5 pipeline release site. The site is located in NW/NE (Unit B), Section 26, T27N, R8W, 36.549580°, -107.650090°, 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 located approximately 370 feet west of Largo Canyon Wash, in an area owned by the BLM with an elevation of approximately 5,963 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 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 one well was found within a one mile radius of the site. There is no anticipated impact to this well. 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

Excavation of the Trunk K #5 site began on March 4, 2015 and continued, periodically, through April 6, 2015. 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 the calibrated PID. When the soil at the vertical and horizontal extents of the excavation was suspected of having hydrocarbon contamination concentrations below regulatory standards, five final samples were collected and submitted for confirmation laboratory analysis. Closure sample collection dates were scheduled with the BLM and the NMOCD for the observation of sampling activities on May 30, 2015. Neither party was present to witness the sample collection. On April 6, 2015, the base of the excavation was increased to 13' bgs and resampled. Samples were analyzed utilizing United States Environmental Protection Agency Methods: 8021 for benzene, toluene, ethylbenzene, and total xylenes (BTEX) and 8015 for diesel and gasoline range organics (DRO/GRO). All samples were analyzed by Hall Environmental Analysis Laboratory in Albuquerque, New Mexico.

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 four of the five samples collected on May 30, 2015 were below NMOCD Guideline standards and laboratory detection limits. Sample composite SC-5 Base @ 12' was above standards with 140 mg/Kg DRO. The depth of the excavation was increased to 13 feet bgs and a follow up sample collected on April 7, 2015. All final laboratory results for this sample were below NMOCD remediation guidelines.

July 30, 2015

The overall excavation measured 32 feet long and 15 feet wide with a depth of 13 feet bgs with no indication of impacts to groundwater. 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 3 detailing sample locations and laboratory results. A summary of laboratory analysis is included in Table 3. Copies of the laboratory reports are included in Appendix C.

SMA recommends no further action at the Trunk K #5 pipeline release location.

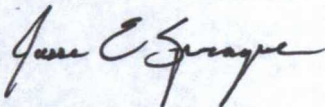
6.0 Closure and Limitations

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 Reid Allan at 505-325-7535.

Submitted by:

SOUDER, MILLER & ASSOCIATES



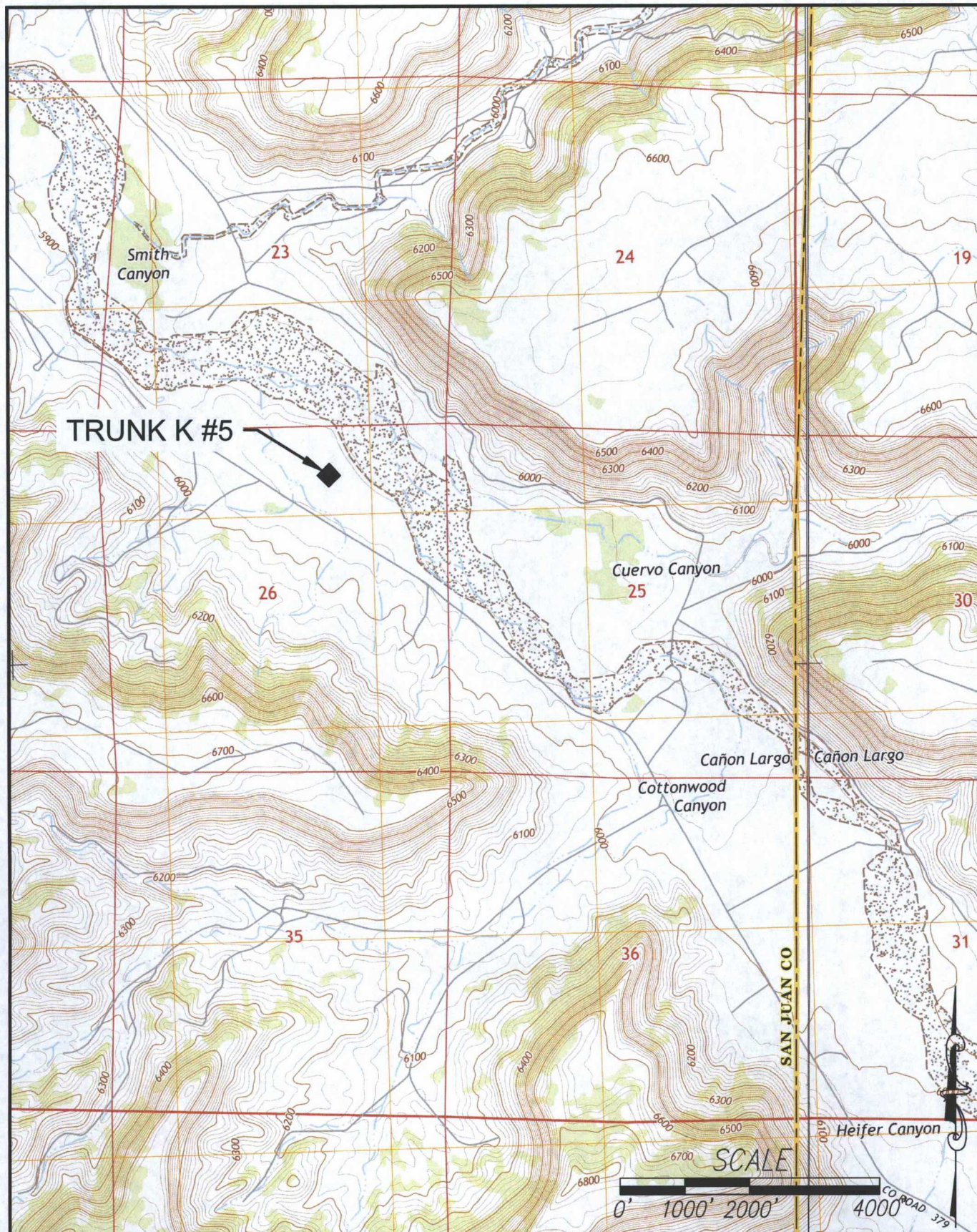
Jesse Sprague
Staff Scientist

Reviewed by:



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

Figures



Souder, Miller & Associates
 401 West Broadway Avenue
 Farmington, NM 87401-5907
 Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045
www.soudermiller.com
 Serving the Southwest & Rocky Mountains

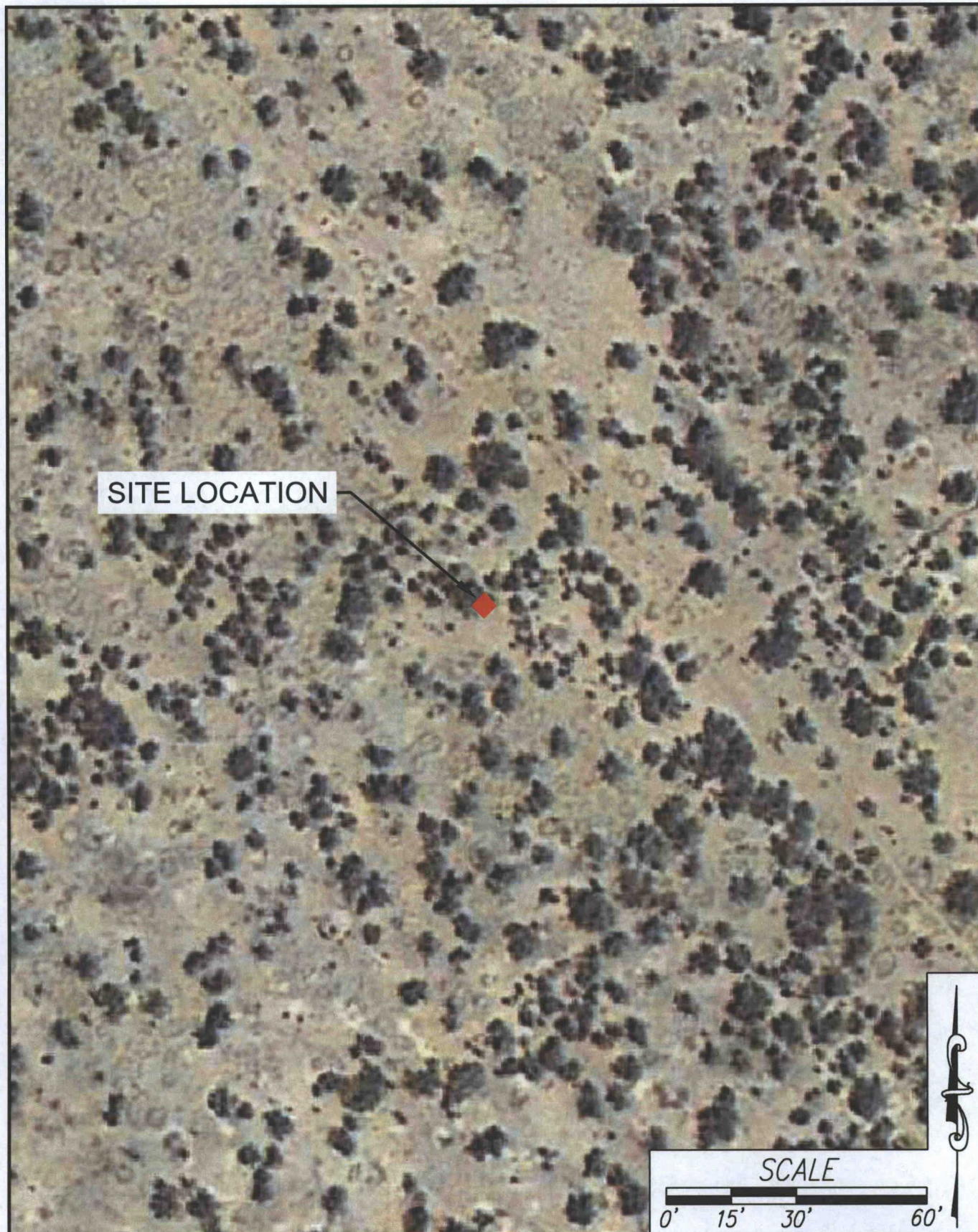
ENTERPRISE

FARMINGTON, NEW MEXICO

VICINITY MAP
 TRUNK K-5
 SECTION 26, T27N, R8W

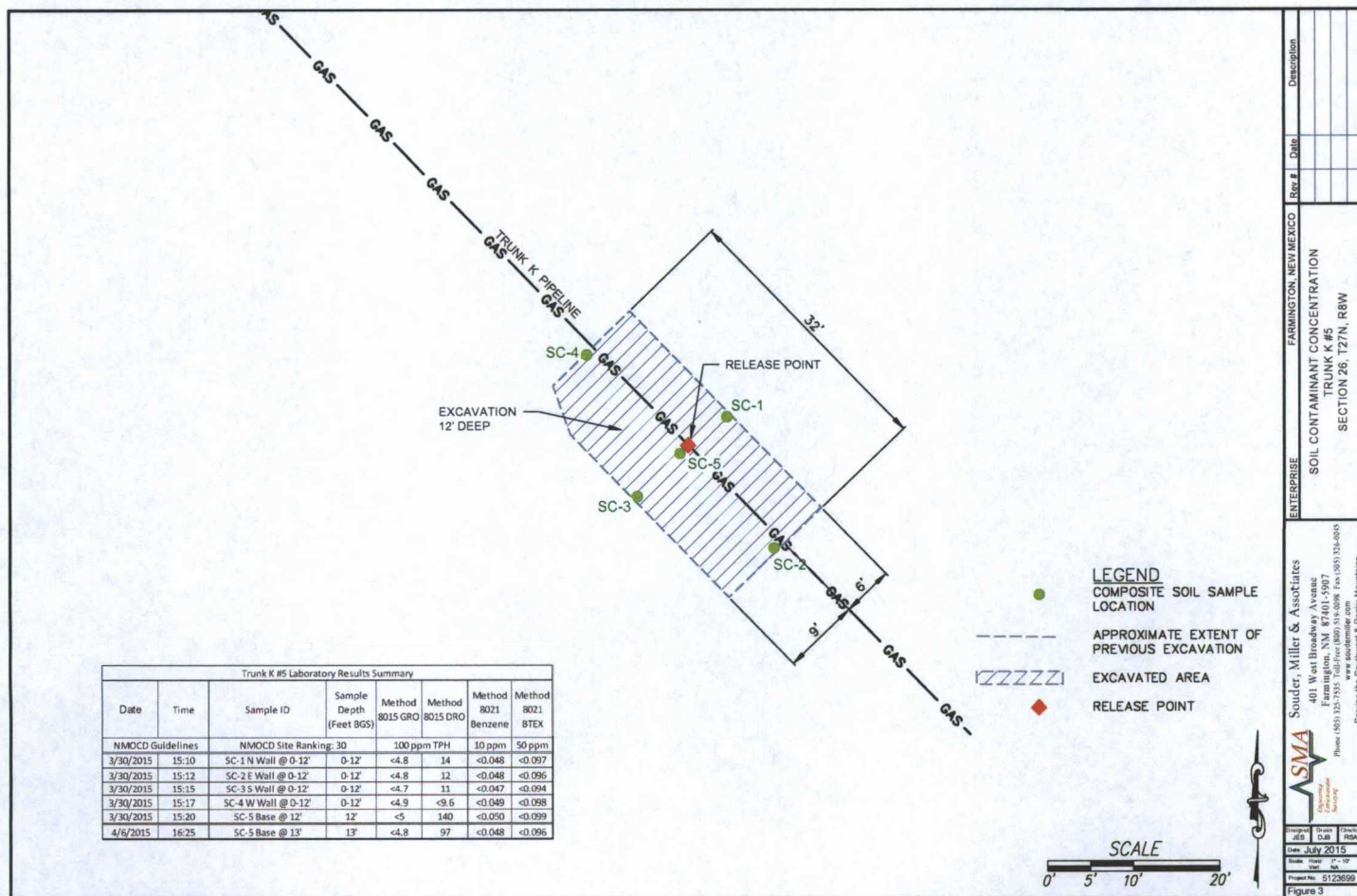
SAN JUAN COUNTY

Designed JES	Drawn DJB	Checked RSA
Date: July 2015		
Scale: Horiz: 1" = 2000'		
Vert: NA		
Project No: 5123699		
Figure 1		



Souder, Miller & Associates
 401 West Broadway Avenue
 Farmington, NM 87401-5907
 Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045
www.soudermiller.com
 Serving the Southwest & Rocky Mountains

ENTERPRISE		FARMINGTON, NEW MEXICO		Designed JES	Drawn DJB	Checked RSA
SITE LOCATION MAP TRUNK K #5 SECTION 26, T27N, R8W				Date: July 2015		
				Scale: Horiz: 1" = 30'		
				Vert: NA		
				Project No: 5123699		
				Figure 2		
SAN JUAN COUNTY						



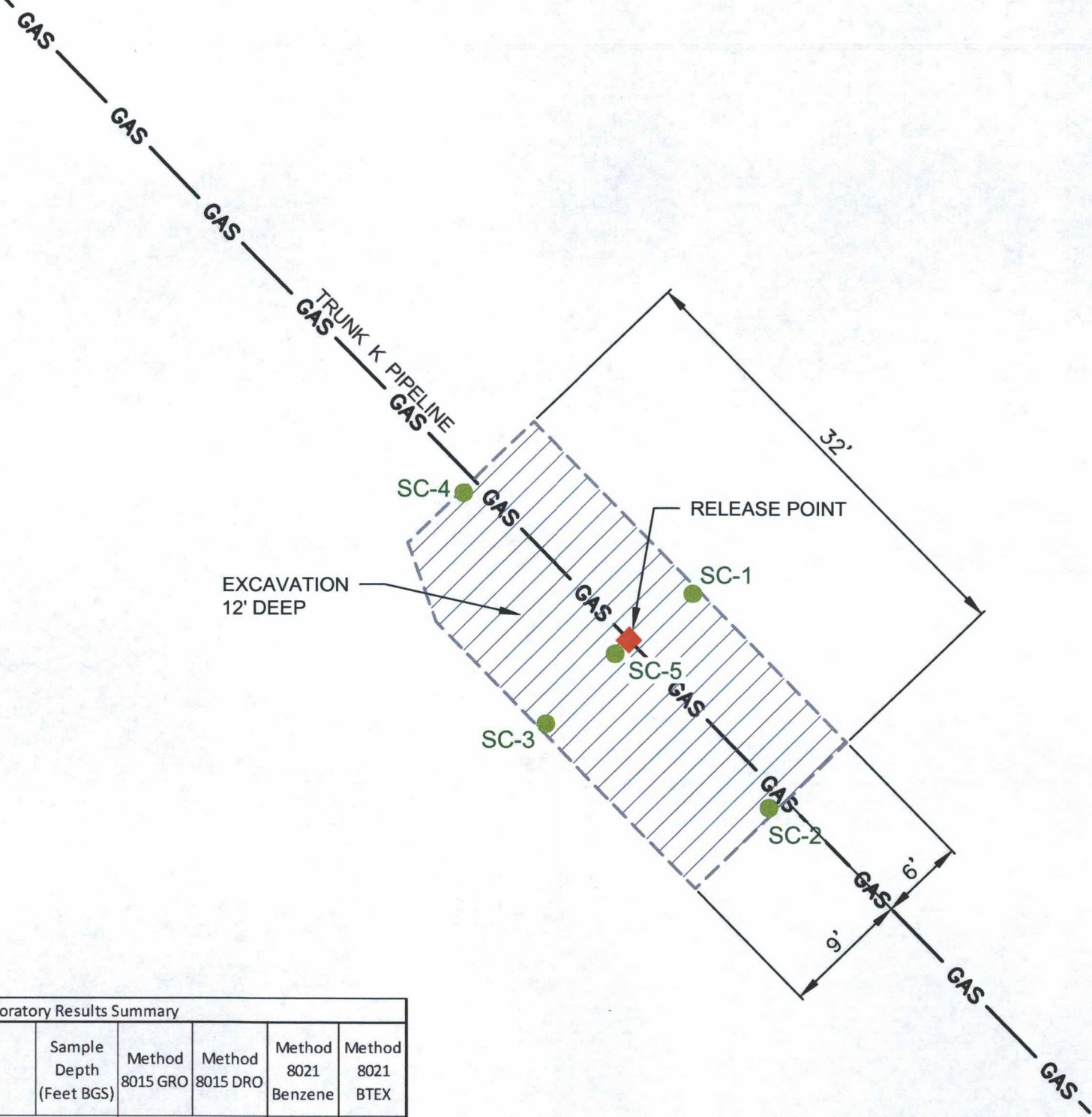
ENTERPRISE	Ref #	Date	Description
FARMINGTON, NEW MEXICO			
SOIL CONTAMINANT CONCENTRATION			
TRUNK K #5			
SECTION 26, T27N, R8W			

SMA
 Souder, Miller & Associates
 401 West Broadway Avenue
 Farmington, NM 87401-5907
 Phone: (505) 322-7333 Toll Free: (800) 516-0088 Fax: (505) 324-9049
 www.soudermiller.com
 Serving the Southwest & Rocky Mountains

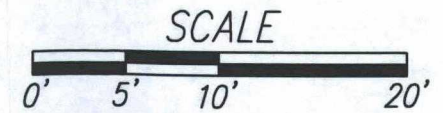
Drawn By	Checked By	Reviewed By
JTB	DJB	MSA

Date: July 2015
 Scale: 1" = 10'
 Project No: 5123699
 Figure 3

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: 30		100 ppm TPH		10 ppm	50 ppm
3/30/2015	15:10	SC-1 N Wall @ 0-12'	0-12'	<4.8	14	<0.048	<0.097
3/30/2015	15:12	SC-2 E Wall @ 0-12'	0-12'	<4.8	12	<0.048	<0.096
3/30/2015	15:15	SC-3 S Wall @ 0-12'	0-12'	<4.7	11	<0.047	<0.094
3/30/2015	15:17	SC-4 W Wall @ 0-12'	0-12'	<4.9	<9.6	<0.049	<0.098
3/30/2015	15:20	SC-5 Base @ 12'	12'	<5	140	<0.050	<0.099
4/6/2015	16:25	SC-5 Base @ 13'	13'	<4.8	97	<0.048	<0.096



LEGEND
 ● COMPOSITE SOIL SAMPLE LOCATION
 --- APPROXIMATE EXTENT OF PREVIOUS EXCAVATION
 EXCAVATED AREA
 ◆ RELEASE POINT



ENTERPRISE SOIL CONTAMINANT CONCENTRATION TRUNK K #5 SECTION 26, T27N, R8W	Rev #	Date	Description

SMA
 Engineering
 Environmental
 Surveying

Souder, Miller & Associates
 401 West Broadway Avenue
 Farmington, NM 87401-5907
 Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045
 www.soudermiller.com
 Serving the Southwest & Rocky Mountains

Designed JES	Drawn DJB	Checked RSA
Date: July 2015		
Scale: Horiz: 1" = 10' Vert: NA		
Project No: 5123699		

Tables

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



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

Trunk K #5 Pipeline Release
7/30/2015

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: 30		100 ppm TPH		10 ppm	50 ppm
3/30/2015	15:10	SC-1 N Wall @ 0-12'	0-12'	<4.8	14	<0.048	<0.097
3/30/2015	15:12	SC-2 E Wall @ 0-12'	0-12'	<4.8	12	<0.048	<0.096
3/30/2015	15:15	SC-3 S Wall @ 0-12'	0-12'	<4.7	11	<0.047	<0.094
3/30/2015	15:17	SC-4 W Wall @ 0-12'	0-12'	<4.9	<9.6	<0.049	<0.098
3/30/2015	15:20	SC-5 Base @ 12'	12'	<5	140	<0.050	<0.099
4/6/2015	16:25	SC-5 Base @ 13'	13'	<4.8	97	<0.048	<0.096



Appendix A
Photographic Documentation

Site Photographs
Enterprise Products Trunk K #5 Pipeline Release



Photo 1: Trunk K #5 Excavation showing failed I-wrap repairs, impacted soil being removed from beneath the pipeline.



Photo 2: Trunk K #5 final excavation extent prior to sampling.

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

97057-0697
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

March 2015

2. Originating Site: Trunk K Release Sites

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

Unit Letter B and H of Section 26 and Unit Letter N of Section 25 Township 27 North Range 8 West: GPS 36.549537, -107.649872, 36.544737, -107.644162, 36.539889, -107.636994, 36.538368, -107.636994 and 36.538072, -107.636657; Rio Arriba, NM

4. Source and Description of Waste:

Source: Natural Gas Pipeline Release

Description: Hydrocarbon impacted soils associated with excavation activities for a natural gas pipeline release..

Estimated Volume 200 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 516 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, 3-26-15, 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: Crossfire

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: 3-26-15

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

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 Sites

3. Location of Material (Street Address, City, State or ULSTR):
Unit Letter B and H of Section 26 and Unit Letter N of Section 25 Township 27 North Range 8 West: GPS 36.549537, -107.649872, 36.544737, -107.644162, 36.539889, -107.636994, 36.538368, -107.636994 and 36.538072, -107.636657; Rio Arriba, NM

4. Source and Description of Waste:
Source: Natural Gas Pipeline Release
Description: Hydrocarbon impacted soils associated with excavation activities for a natural gas pipeline release..
Estimated Volume 200 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 1212 yd³ bbls

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, 5-1-15, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, Ramon, 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: Crossfire, Rosenbaum, Ryvek, Bailey's Welding
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 Runyan TITLE: Waste Coordinator DATE: 4/3/15
SIGNATURE: Kendra Runyan TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

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

97057-0697
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 Sites

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

Unit Letter B and H of Section 26 and Unit Letter N of Section 25 Township 27 North Range 8 West: GPS 36.549537, -107.649872, 36.544737, -107.644162, 36.539889, -107.636994, 36.538368, -107.636994 and 36.538072, -107.636657; Rio Arriba, NM

4. Source and Description of Waste:

Source: Natural Gas Pipeline Release

Description: Hydrocarbon impacted soils associated with excavation activities for a natural gas pipeline release..

Estimated Volume 200 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 304 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, 5-1-15, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete

Generator Signature

the required testing/sign the Generator Waste Testing Certification.

I, Kendra Tuning, 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: Crossfire Bailey's Rosenbaum
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 Tuning
SIGNATURE: Kendra Tuning
Surface Waste Management Facility Authorized Agent

TITLE: Waste Coordinator DATE: 5-1-15
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

97057-0697
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 Sites

3. Location of Material (Street Address, City, State or ULSTR):
Unit Letter B and H of Section 26 and Unit Letter N of Section 25 Township 27 North Range 8 West: GPS 36.549537, -107.649872, 36.544737, -107.644162, 36.539889, -107.636994, 36.538368, -107.636994 and 36.538072, -107.636657; Rio Arriba, NM

4. Source and Description of Waste:

Source: Natural Gas Pipeline Release

Description: Hydrocarbon impacted soils associated with excavation activities for a natural gas pipeline release.
Estimated Volume 200 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 72 yd³ bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Renee Seab, 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, Renee Seab, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete the required testing/sign the Generator Waste Testing Certification.

I, Renee Seab, 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: Envirotech, JP Fracking, ABC, Cotant Bros, Kelley Oil, Tanco
OCD Permitted Surface Waste Management Facility Rich

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 Penning

SIGNATURE: Kendra Penning

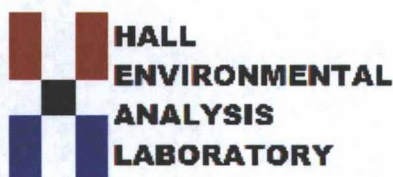
Surface Waste Management Facility Authorized Agent

TITLE: Waste Coordinator

TELEPHONE NO.: 505-632-0615

DATE: 6-15-15

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

April 06, 2015

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

RE: Trunk K #5

OrderNo.: 1503D68

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 5 sample(s) on 3/31/2015 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1503D68

Date Reported: 4/6/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-1 N wall@0-12'

Project: Trunk K #5

Collection Date: 3/30/2015 3:10:00 PM

Lab ID: 1503D68-001

Matrix: SOIL

Received Date: 3/31/2015 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	14	9.8		mg/Kg	1	4/3/2015 1:11:04 PM	18415
Surr: DNOP	90.5	63.5-128		%REC	1	4/3/2015 1:11:04 PM	18415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/2/2015 3:14:11 PM	18438
Surr: BFB	89.3	80-120		%REC	1	4/2/2015 3:14:11 PM	18438
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.048		mg/Kg	1	4/2/2015 3:14:11 PM	18438
Toluene	ND	0.048		mg/Kg	1	4/2/2015 3:14:11 PM	18438
Ethylbenzene	ND	0.048		mg/Kg	1	4/2/2015 3:14:11 PM	18438
Xylenes, Total	ND	0.097		mg/Kg	1	4/2/2015 3:14:11 PM	18438
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	4/2/2015 3:14:11 PM	18438

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 Not In Range	
	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 1503D68

Date Reported: 4/6/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-2 E wall@0-12'

Project: Trunk K #5

Collection Date: 3/30/2015 3:12:00 PM

Lab ID: 1503D68-002

Matrix: SOIL

Received Date: 3/31/2015 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	12	9.6		mg/Kg	1	4/3/2015 1:32:21 PM	18415
Surr: DNOP	88.0	63.5-128		%REC	1	4/3/2015 1:32:21 PM	18415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/1/2015 5:17:08 PM	18438
Surr: BFB	88.4	80-120		%REC	1	4/1/2015 5:17:08 PM	18438
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.048		mg/Kg	1	4/1/2015 5:17:08 PM	18438
Toluene	ND	0.048		mg/Kg	1	4/1/2015 5:17:08 PM	18438
Ethylbenzene	ND	0.048		mg/Kg	1	4/1/2015 5:17:08 PM	18438
Xylenes, Total	ND	0.096		mg/Kg	1	4/1/2015 5:17:08 PM	18438
Surr: 4-Bromofluorobenzene	95.0	80-120		%REC	1	4/1/2015 5:17:08 PM	18438

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 Not In Range	
	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 1503D68

Date Reported: 4/6/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-3 S wall@0-12'

Project: Trunk K #5

Collection Date: 3/30/2015 3:15:00 PM

Lab ID: 1503D68-003

Matrix: SOIL

Received Date: 3/31/2015 8:45:00 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	4/3/2015 1:53:42 PM	18415
Surr: DNOP	91.8	63.5-128		%REC	1	4/3/2015 1:53:42 PM	18415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/2/2015 3:43:25 PM	18438
Surr: BFB	94.8	80-120		%REC	1	4/2/2015 3:43:25 PM	18438
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.047		mg/Kg	1	4/1/2015 7:43:01 PM	18438
Toluene	ND	0.047		mg/Kg	1	4/1/2015 7:43:01 PM	18438
Ethylbenzene	ND	0.047		mg/Kg	1	4/1/2015 7:43:01 PM	18438
Xylenes, Total	ND	0.094		mg/Kg	1	4/1/2015 7:43:01 PM	18438
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	4/1/2015 7:43:01 PM	18438

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 Not In Range	
	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 1503D68

Date Reported: 4/6/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-4 W wall@0-12'

Project: Trunk K #5

Collection Date: 3/30/2015 3:17:00 PM

Lab ID: 1503D68-004

Matrix: SOIL

Received Date: 3/31/2015 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/2/2015 6:46:31 PM	18415
Surr: DNOP	148	63.5-128	S	%REC	1	4/2/2015 6:46:31 PM	18415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/2/2015 4:12:34 PM	18438
Surr: BFB	89.6	80-120		%REC	1	4/2/2015 4:12:34 PM	18438
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.049		mg/Kg	1	4/1/2015 8:12:17 PM	18438
Toluene	ND	0.049		mg/Kg	1	4/1/2015 8:12:17 PM	18438
Ethylbenzene	ND	0.049		mg/Kg	1	4/1/2015 8:12:17 PM	18438
Xylenes, Total	ND	0.098		mg/Kg	1	4/1/2015 8:12:17 PM	18438
Surr: 4-Bromofluorobenzene	96.0	80-120		%REC	1	4/1/2015 8:12:17 PM	18438

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 Not In Range	
	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 1503D68

Date Reported: 4/6/2015

CLIENT: Souder, Miller and Associates**Client Sample ID:** SC-5 Base@12'**Project:** Trunk K #5**Collection Date:** 3/30/2015 3:20:00 PM**Lab ID:** 1503D68-005**Matrix:** SOIL**Received Date:** 3/31/2015 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	140	10		mg/Kg	1	4/1/2015 9:12:59 PM	18415
Surr: DNOP	156	63.5-128	S	%REC	1	4/1/2015 9:12:59 PM	18415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/2/2015 4:41:55 PM	18438
Surr: BFB	128	80-120	S	%REC	1	4/2/2015 4:41:55 PM	18438
EPA METHOD 8021B: VOLATILES							Analyst: RAA
Benzene	ND	0.050		mg/Kg	1	4/1/2015 8:41:32 PM	18438
Toluene	ND	0.050		mg/Kg	1	4/1/2015 8:41:32 PM	18438
Ethylbenzene	ND	0.050		mg/Kg	1	4/1/2015 8:41:32 PM	18438
Xylenes, Total	ND	0.099		mg/Kg	1	4/1/2015 8:41:32 PM	18438
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	4/1/2015 8:41:32 PM	18438

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 Not In Range
	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#: 1503D68

06-Apr-15

Client: Souder, Miller and Associates

Project: Trunk K #5

Sample ID	MB-18415		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 18415		RunNo: 25210					
Prep Date:	3/30/2015		Analysis Date: 4/1/2015		SeqNo: 745560		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		94.7	63.5	128			

Sample ID	LCS-18415		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 18415		RunNo: 25210					
Prep Date:	3/30/2015		Analysis Date: 4/1/2015		SeqNo: 745613		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.8	67.8	130			
Surr: DNOP	5.4		5.000		108	63.5	128			

Sample ID	MB-18480		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	18480		RunNo:	25271				
Prep Date:	4/2/2015		Analysis Date:	4/3/2015		SeqNo:	747704		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	8.9		10.00		88.9	63.5	128				

Sample ID	LCS-18483		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 18483		RunNo: 25271					
Prep Date:	4/2/2015		Analysis Date: 4/3/2015		SeqNo: 748608		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.000		102	63.5	128			

Sample ID	LCS-18480		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 18480		RunNo: 25271					
Prep Date:	4/2/2015		Analysis Date: 4/3/2015		SeqNo: 748609		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.3		5.000		106	63.5	128			

Sample ID	MB-18483		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	18483		RunNo:	25271				
Prep Date:	4/2/2015		Analysis Date:	4/3/2015		SeqNo:	748610		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	10		10.00		100	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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503D68

06-Apr-15

Client: Souder, Miller and Associates

Project: Trunk K #5

Sample ID	LCS-18438		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 18438		RunNo: 25236					
Prep Date:	3/31/2015		Analysis Date: 4/1/2015		SeqNo: 746200		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	64	130			
Surr: BFB	1000		1000		99.6	80	120			

Sample ID	MB-18438		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 18438		RunNo: 25236					
Prep Date:	3/31/2015		Analysis Date: 4/1/2015		SeqNo: 746201		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		85.7	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 Not In Range
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1503D68

06-Apr-15

Client: Souder, Miller and Associates

Project: Trunk K #5

Sample ID	LCS-18438		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 18438		RunNo: 25236					
Prep Date:	3/31/2015		Analysis Date: 4/1/2015		SeqNo: 746222		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	76.6	128			
Toluene	1.0	0.050	1.000	0	105	75	124			
Ethylbenzene	0.99	0.050	1.000	0	99.5	79.5	126			
Xylenes, Total	3.0	0.10	3.000	0	99.5	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID	MB-18438	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS	Batch ID: 18438		RunNo: 25236						
Prep Date:	3/31/2015	Analysis Date: 4/1/2015		SeqNo: 746223			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			

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 Not In Range
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: 1503D68

RcptNo: 1

Received by/date:	AT	03/31/15	
Logged By:	Celina Sessa	3/31/2015 8:45:00 AM	<i>Celina Sessa</i>
Completed By:	Celina Sessa	3/31/2015 9:21:48 AM	<i>Celina Sessa</i>
Reviewed By:	EO	03/31/15	

Chain of Custody

- | | | | |
|--|---|-----------------------------|---|
| 1. Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 2. Is Chain of Custody complete? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| 3. How was the sample delivered? | Courier | | |

Log In

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

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	1.0	Good	Yes			



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

April 10, 2015

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

RE: Trunk K #5

OrderNo.: 1504281

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 1 sample(s) on 4/8/2015 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 qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1504281

Date Reported: 4/10/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-5 Base @ 13'

Project: Trunk K #5

Collection Date: 4/6/2015 4:25:00 PM

Lab ID: 1504281-001

Matrix: SOIL

Received Date: 4/8/2015 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)	97	9.9		mg/Kg	1	4/9/2015 6:49:33 PM	18546
Surr: DNOP	138	63.5-128	S	%REC	1	4/9/2015 6:49:33 PM	18546
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/9/2015 11:27:18 AM	18573
Surr: BFB	107	80-120		%REC	1	4/9/2015 11:27:18 AM	18573
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	4/9/2015 11:27:18 AM	18573
Toluene	ND	0.048		mg/Kg	1	4/9/2015 11:27:18 AM	18573
Ethylbenzene	ND	0.048		mg/Kg	1	4/9/2015 11:27:18 AM	18573
Xylenes, Total	ND	0.096		mg/Kg	1	4/9/2015 11:27:18 AM	18573
Surr: 4-Bromofluorobenzene	99.5	80-120		%REC	1	4/9/2015 11:27:18 AM	18573

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 Not In Range	
	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#: 1504281

10-Apr-15

Client: Souder, Miller and Associates

Project: Trunk K #5

Sample ID	MB-18546	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	18546	RunNo:	25386					
Prep Date:	4/7/2015	Analysis Date:	4/9/2015	SeqNo:	752140	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		100	63.5	128			

Sample ID	LCS-18546	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	18546	RunNo:	25386					
Prep Date:	4/7/2015	Analysis Date:	4/9/2015	SeqNo:	752142	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	66	10	50.00	0	132	67.8	130			S
Surr: DNOP	6.6		5.000		131	63.5	128			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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504281

10-Apr-15

Client: Souder, Miller and Associates

Project: Trunk K #5

Sample ID	MB-18573	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	18573	RunNo:	25395					
Prep Date:	4/8/2015	Analysis Date:	4/9/2015	SeqNo:	751932	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		85.2	80	120			

Sample ID	LCS-18573	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	18573	RunNo:	25395					
Prep Date:	4/8/2015	Analysis Date:	4/9/2015	SeqNo:	751933	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	102	64	130			
Surr: BFB	920		1000		91.9	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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504281

10-Apr-15

Client: Souder, Miller and Associates

Project: Trunk K #5

Sample ID	MB-18573		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: 18573		RunNo: 25395					
Prep Date:	4/8/2015		Analysis Date: 4/9/2015		SeqNo: 751943		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		95.1	80	120			

Sample ID	LCS-18573		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 18573		RunNo: 25395					
Prep Date:	4/8/2015		Analysis Date: 4/9/2015		SeqNo: 751944		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	76.6	128			
Toluene	1.1	0.050	1.000	0	106	75	124			
Ethylbenzene	1.1	0.050	1.000	0	111	79.5	126			
Xylenes, Total	3.3	0.10	3.000	0	110	78.8	124			
Surr: 4-Bromofluorobenzene	0.99		1.000		99.3	80	120			

Sample ID	1504281-001AMS			SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SC-5 Base @ 13'			Batch ID:	18573		RunNo:	25395			
Prep Date:	4/8/2015		Analysis Date:	4/9/2015		SeqNo:	751946		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.1	0.048	0.9542	0	120	69.2	126				
Toluene	1.1	0.048	0.9542	0.009847	114	65.6	128				
Ethylbenzene	1.2	0.048	0.9542	0.007837	120	65.5	138				
Xylenes, Total	3.4	0.095	2.863	0	120	63	139				
Surr: 4-Bromofluorobenzene	1.1		0.9542		111	80	120				

Sample ID	1504281-001AMSD			SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	SC-5 Base @ 13'		Batch ID:		18573		RunNo:	25395			
Prep Date:	4/8/2015		Analysis Date:		4/9/2015		SeqNo:	751947		Units:	mg/Kg
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.1	0.048	0.9542	0	116	69.2	126	4.10	18.5		
Toluene	1.1	0.048	0.9542	0.009847	110	65.6	128	4.04	20.6		
Ethylbenzene	1.1	0.048	0.9542	0.007837	117	65.5	138	2.77	20.1		
Xylenes, Total	3.4	0.095	2.863	0	118	63	139	1.89	21.1		
Surr: 4-Bromofluorobenzene	1.0		0.9542		107	80	120	0	0		

Qualifiers:

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

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

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1504281

RcptNo: 1

Received by/date:

Logged By Lindsay Mangin

4/8/2015 6:50:00 AM

Completed By: Lindsay Mangin

4/8/2015 7:30:33 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.2	Good	Yes			

Client: SMA

Client: SMA

Mailing Address: 401 W. Broad St. 1001

Farmington, NM 87401

Phone #: 505 325 7535

nail or Fax#: steven.muskale@oxlesmillie.com

A/QC Package:

Standard ☐ Level 4 (Full Validation)

accreditation

NELAP ☐ Other _____

EDD (Type)	

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

11-11-11

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

Non-AEE N130589

Project Manager:	
------------------	--

3 2 1

Steve Maskal

On Ice: ☒ Yes ☐ No


Sample Temperature: 1.2

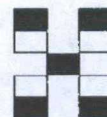
[illegible]

ite:	Time:	Relinquished by:	Received by:	Date	Time
------	-------	------------------	--------------	------	------

7/15	1545	Miss	1	Michael Wacht	7/7/15	1545
------	------	-----------------	---	---------------	--------	------

to:	Time:	Relinquished by:	Received by:	Date	Time
1	12	[Signature]	[Signature]	1	1

7/15/1816 / Mother Wilkes  24/08/15 26.50



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

X	BTEX + MTBE + TMB's (8021)
	BTEX + MTBE + TPH (Gas only)
X	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)

Remarks:

Invoice direct to Enterprise Products

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

Form C-141
Revised August 8, 2011

AUG 17 2015

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 #6 Release Site	Facility Type: Natural Gas Gathering Line
Surface Owner: BLM	Mineral Owner: BLM
API No.	

LOCATION OF RELEASE

Unit Letter N	Section 25	Township 27N	Range 8W	Feet from the 415	North/South Line	Feet from the 2015	East/West Line	County San Juan
------------------	---------------	-----------------	-------------	-------------------------	---------------------	--------------------------	-------------------	--------------------

Latitude 36.538300 Longitude -107.637030

NATURE OF RELEASE

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release 5-10 BBLs Condensate	Volume Recovered: None
Source of Release: Internal Corrosion/Failed Repair	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 - NMOCD 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 a release 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. Remediation was complete on May 12, 2015.

Describe Area Affected and Cleanup Action Taken.* The contaminant mass was removed by mechanical excavation. The final excavation measured approximately 30 feet long by 15 feet wide by 16 feet deep. Approximately 231 cubic yards of hydrocarbon impacted soil were excavated from the area of the identified release point and transported to a New Mexico Oil Conservation 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: 8/4/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8-12-2015	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#INCS 1507253244

(54)

AUG 17 2015

Enterprise Products
Trunk K #6 Pipeline Release
Latitude North 36.538300 °, Longitude West -107.637030°
SE/SW (Unit N), Section 25, T27N, R8W
San Juan County, New Mexico
July 30, 2015



Submitted To:

Enterprise Products Operating, LLC.
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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Appendix B: Soil Disposal Documentation

Appendix C: Laboratory Analytical Reports

Appendix D: Archaeological Survey Report

1.0 Executive Summary

From March 7, 2015 through May 12, 2015, Souder, Miller & Associates (SMA) responded to oversee the excavation of a hydrocarbon release associated with the Trunk K natural gas pipeline. The release was initially reported to SMA on March 1, 2015 and is a result of a failed carbon fiber I-wrap repair installed in October of 2014. The table below summarizes information about the pipeline remediation activities.

TABLE 1: RELEASE INFORMATION					
Name	Trunk K #6 Pipeline Release				
Location	Latitude/Longitude		Section, Township, Range		
	36.538300°	-107.637030°	SE/SW (Unit N)	Section 25	T27N, R8W
Date Reported to SMA	March 1, 2015				
Reported by	Tom Long				
Land Owner	Bureau of Land Management (BLM)				
Reported To	NM Oil Conservation Division (NMOCD) and BLM				
Diameter of Pipeline	16 inches				
Source of Release	Internal Corrosion and failed I-wrap repairs				
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	Estimated to be less than 50 feet				
Nearest Domestic Water Source	Greater than 1,000 feet				
NMOCD Ranking	40				
SMA Response Dates	March 7 through May 12, 2015				
Subcontractors	Crossfire				
Disposal Facility	Envirotech				
Yd ³ Contaminated Soil Excavated and Disposed	231 (Reported as part of the attached C-138 forms)				

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 Trunk K #6 pipeline release site. The site is located in SE/SW (Unit N), Section 25, T27N, R8W, 36.538300°, -107.637030°, 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 located in a small unnamed tributary to Largo Canyon Wash, in an area owned by the BLM with an elevation of approximately 6,009 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 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 one well was found within a one mile radius of the site. There is no anticipated impact to this well. 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.

The location of the Trunk K #6 site was determined by BLM to be within an archaeological and culturally 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. A representative from WCRM was on site during the repair and remediation activities at Trunk K #6. A copy of the WCRM survey report is enclosed in Appendix D.

4.0 Summary of Field Activities

Excavation of the Trunk K #6 site began on March 7, 2015 and continued, periodically, through May 12, 2015. 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 the calibrated PID. When the soil at the vertical and horizontal extents of the excavation were suspected of having hydrocarbon contamination concentrations below regulatory standards, five final samples were collected and submitted for confirmation laboratory analysis. Closure sample collection dates were scheduled with the BLM and the NMOCD for the observation of sampling activities on May 1, 2015. Neither party was present to witness the sample collection. Samples were analyzed utilizing United States Environmental Protection Agency Methods: 8021 for benzene, toluene, ethylbenzene, and total xylenes (BTEX) and 8015 for diesel and gasoline range organics (DRO/GRO). All samples were analyzed by Hall Environmental Analysis Laboratory in Albuquerque, New Mexico.

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.

Five composite samples were collected from the final excavation sidewalls and base using an excavator on May 1, 2015. Sample SC-2 S Wall @ 0-16 feet was above NMOCD Guideline standards with a DRO concentration of 200 mg/kg. All other samples were below NMOCD Guideline standards. On May 12, 2015 the location of sample SC-2 was further excavated approximately 4 feet to the south, with a total depth of 12 feet bgs. A composite sample was collected from this location and labeled SC-2 S Wall and submitted for laboratory analysis. All final laboratory results for this sample were below NMOCD Guideline standards and laboratory detection limits.

The overall excavation measured 30 feet long and 15 feet wide with a maximum depth of 16 feet bgs. The excavation was completed in the same location as the October, 2014 excavation. Neither groundwater nor wet soils were encountered during the excavation. All soil 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 3 detailing sample locations and laboratory results. A summary of laboratory analysis is included in Table 3. Copies of the laboratory reports are included in Appendix C.

SMA recommends no further action at the Trunk K #6 pipeline release location.

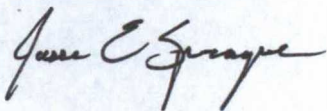
6.0 Closure and Limitations

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 Reid Allan at 505-325-7535.

Submitted by:

SOUDER, MILLER & ASSOCIATES



Jesse Sprague
Staff Scientist

Reviewed by:



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

Figures



Souder, Miller & Associates
 401 West Broadway Avenue
 Farmington, NM 87401-5907
 Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045
www.soudermiller.com
 Serving the Southwest & Rocky Mountains

ENTERPRISE

FARMINGTON, NEW MEXICO

VICINITY MAP
 TRUNK K #6
 SECTION 25, T27N, R8W

Designed JES	Drawn DJB	Checked RSA
-----------------	--------------	----------------

Date: July 2015


Scale: Horiz: 1" = 2000'

Vert: NA

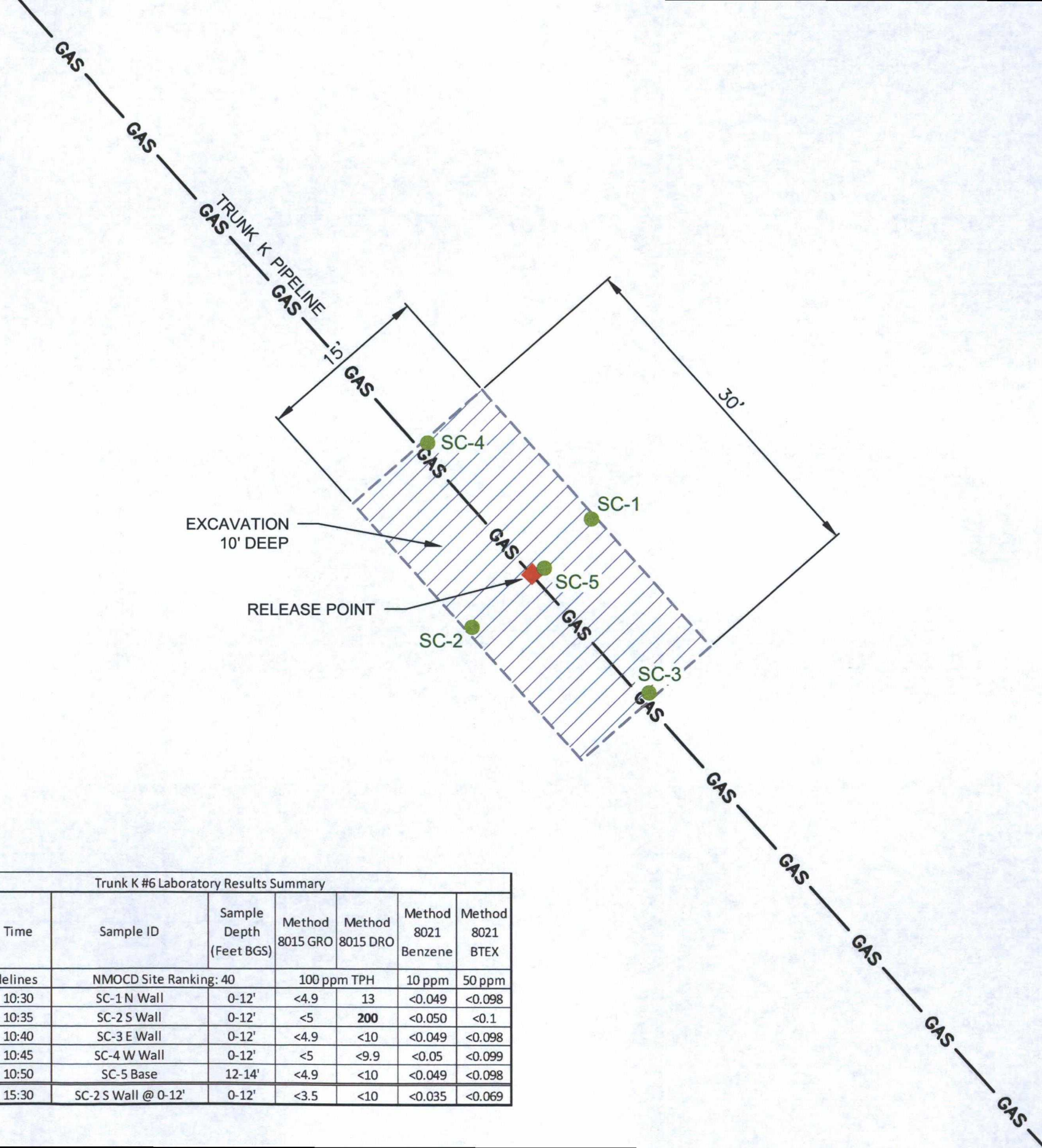
Project No: 5123699

Figure 1

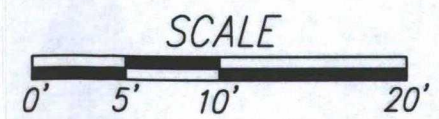


 <p>SMA Engineering Environmental Surveying</p>	<p>Souder, Miller & Associates 401 West Broadway Avenue Farmington, NM 87401-5907 Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045 www.soudermiller.com Serving the Southwest & Rocky Mountains</p>		<p>ENTERPRISE FARMINGTON, NEW MEXICO</p>		<p>Designed JES</p>	<p>Drawn DJB</p>	<p>Checked RSA</p>
	<p>SITE LOCATION MAP</p>		<p>Date: July 2015</p>		<p>Scale: Horiz: 1" = 30'</p>		
	<p>TRUNK K #6</p>		<p>Vert: NA</p>		<p>Project No: 5123699</p>		
	<p>SECTION 25, T27N, R8W</p>		<p>SAN JUAN COUNTY</p>		<p>Figure 2</p>		
	<p>© Copyright 2015 Souder, Miller & Associates - All Rights Reserved</p>		<p>P:\5-Enterprise MSA (2015) 5123699\Release Response\BG10 - Trunk K\CAD\SITE MAP Trunk K-6.dwg, GJF, 7/15/2015 9:09 AM</p>				

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
5/1/2015	10:30	SC-1 N Wall	0-12'	<4.9	13	<0.049	<0.098
5/1/2015	10:35	SC-2 S Wall	0-12'	<5	200	<0.050	<0.1
5/1/2015	10:40	SC-3 E Wall	0-12'	<4.9	<10	<0.049	<0.098
5/1/2015	10:45	SC-4 W Wall	0-12'	<5	<9.9	<0.05	<0.099
5/1/2015	10:50	SC-5 Base	12-14'	<4.9	<10	<0.049	<0.098
5/12/2015	15:30	SC-2 S Wall @ 0-12'	0-12'	<3.5	<10	<0.035	<0.069



- LEGEND**
- COMPOSITE SOIL SAMPLE LOCATION
 - APPROXIMATE EXTENT OF PREVIOUS EXCAVATION
 - ||||| EXCAVATED AREA
 - ◆ RELEASE POINT



ENTERPRISE		FARMINGTON, NEW MEXICO	Rev #	Date	Description
SOIL CONTAMINANT CONCENTRATION		TRUNK K #6			
SECTION 25, T27N, R8W					
Souders, Miller & Associates		401 West Broadway Avenue			
Farmington, NM 87401-5907		Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045			
www.soudersmiller.com		Serving the Southwest & Rocky Mountains			
Designed JES	Drawn DJB	Checked RSA	Date: July 2015		
Scale: Horiz 1" = 10'		Vert: NA	Project No: 5123699		

Tables

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	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 #6 Pipeline Release
7/30/2015

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
5/1/2015	10:30	SC-1 N Wall	0-12'	<4.9	13	<0.049	<0.098
5/1/2015	10:35	SC-2 S Wall	0-12'	<5	200	<0.050	<0.1
5/1/2015	10:40	SC-3 E Wall	0-12'	<4.9	<10	<0.049	<0.098
5/1/2015	10:45	SC-4 W Wall	0-12'	<5	<9.9	<0.05	<0.099
5/1/2015	10:50	SC-5 Base	12-14'	<4.9	<10	<0.049	<0.098
5/12/2015	15:30	SC-2 S Wall @ 0-12'	0-12'	<3.5	<10	<0.035	<0.069



SMA #5123699 BG10

Appendix A
Photographic Documentation

Site Photographs
Enterprise Products Trunk K #6 Pipeline Release



Photo 1: Trunk K #6 Excavation exposes the failed I-Wrap repair from October 2014.

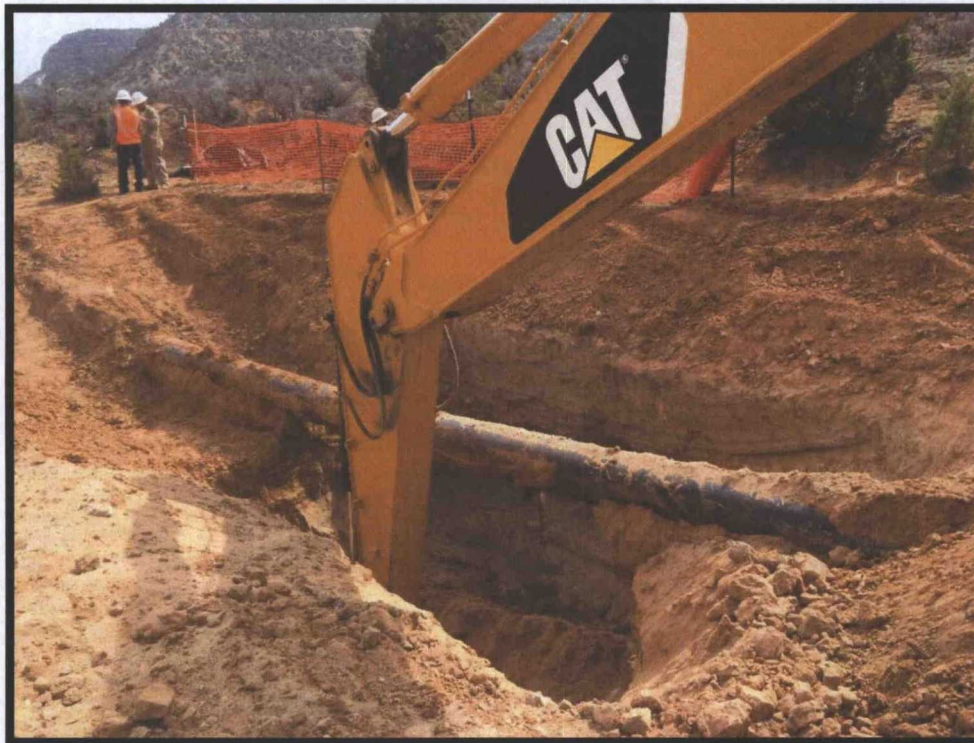


Photo 2: Trunk K #6 Excavation nearing maximum extent.

Site Photographs
Enterprise Products Trunk K #6 Pipeline Release



Photo 3: Trunk K #6 Excavation waiting for repair, plastic liner used to catch any liquids dripping from pipe before repairs took place.

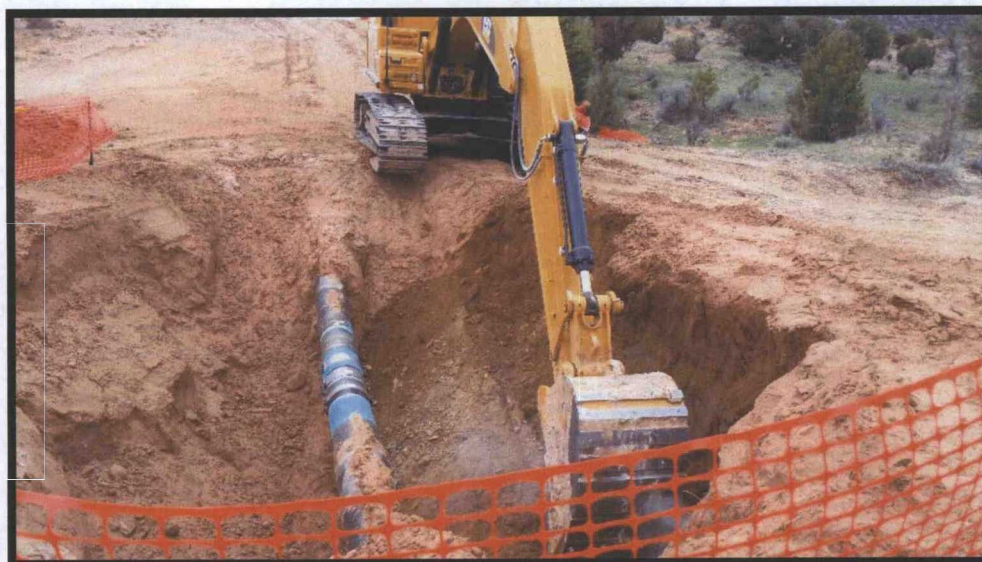


Photo 4: Trunk K #6 during excavation for resampling of the south wall.

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

97057-0697
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

March 2015

2. Originating Site: Trunk K Release Sites

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

Unit Letter B and H of Section 26 and Unit Letter N of Section 25 Township 27 North Range 8 West: GPS 36.549537, -107.649872, 36.544737, -107.644162, 36.539889, -107.636994, 36.538368, -107.636994 and 36.538072, -107.636657; Rio Arriba, NM

4. Source and Description of Waste:

Source: Natural Gas Pipeline Release

Description: Hydrocarbon impacted soils associated with excavation activities for a natural gas pipeline release..

Estimated Volume 200 yds³ / bbls Known Volume (to be entered by the operator at the end of the haul) 516 yds³ / 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, 3-26-15, 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: Crossfire

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: 3-26-15

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

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 Sites

3. Location of Material (Street Address, City, State or ULSTR):
Unit Letter B and H of Section 26 and Unit Letter N of Section 25 Township 27 North Range 8 West: GPS 36.549537, -107.649872, 36.544737, -107.644162, 36.539889, -107.636994, 36.538368, -107.636994 and 36.538072, -107.636657; Rio Arriba, NM

4. Source and Description of Waste:
Source: Natural Gas Pipeline Release
Description: Hydrocarbon impacted soils associated with excavation activities for a natural gas pipeline release..
Estimated Volume 200 yd³/bbls Known Volume (to be entered by the operator at the end of the haul) 1212 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, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete

Generator Signature

the required testing/sign the Generator Waste Testing Certification.

I, Ronda Runyon, 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: Crossfire, Rosenbaum, Ryvek, Bailey's Welding
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: Ronda Runyon
SIGNATURE: Ronda Runyon
Surface Waste Management Facility Authorized Agent

TITLE: Waste Coordinator
TELEPHONE NO.: 505-632-0615

DATE: 4/3/15

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

97057-0697
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 Sites

3. **Location of Material (Street Address, City, State or ULSTR):**
Unit Letter B and H of Section 26 and Unit Letter N of Section 25 Township 27 North Range 8 West: GPS 36.549537, -107.649872, 36.544737, -107.644162, 36.539889, -107.636994, 36.538368, -107.636994 and 36.538072, -107.636657; Rio Arriba, NM

4. **Source and Description of Waste:**
Source: Natural Gas Pipeline Release
Description: Hydrocarbon impacted soils associated with excavation activities for a natural gas pipeline release..
Estimated Volume 200 yd³/bbls Known Volume (to be entered by the operator at the end of the haul) 304 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, 5-1-15, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, Kendra Tuning, 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:** Crossfire Bailey's Rosenbaum
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 Tuning
SIGNATURE: Kendra Tuning
Surface Waste Management Facility Authorized Agent

TITLE: Waste Coordinator DATE: 5-1-15
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

97057-0697

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 Sites

3. Location of Material (Street Address, City, State or ULSTR):
Unit Letter B and H of Section 26 and Unit Letter N of Section 25 Township 27 North Range 8 West: GPS 36.549537, -107.649872, 36.544737, -107.644162, 36.539889, -107.636994, 36.538368, -107.636994 and 36.538072, -107.636657; Rio Arriba, NM

4. Source and Description of Waste:
Source: Natural Gas Pipeline Release
Description: Hydrocarbon impacted soils associated with excavation activities for a natural gas pipeline release. Estimated Volume 200 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 72 yd³ bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, James L. Rinehart, 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, James L. Rinehart, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, Kendra Rinehart, 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: Envirotech, Inc., JP Trucking, ABC, Cotant Bros, Kelley Cifuentes
OCD Permitted Surface Waste Management Facility Rich

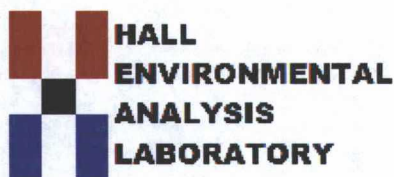
Name and Facility Permit #: Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011
Address of Facility: Hilltop, NM

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 Rinehart TITLE: Waste Coordinator DATE: 6-15-15
SIGNATURE: Kendra Rinehart 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

May 07, 2015

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

RE: Trunk K 2015

OrderNo.: 1505060

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 10 sample(s) on 5/2/2015 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 1505060

Date Reported: 5/7/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: #6 SC-1 N

Project: Trunk K 2015

Collection Date: 5/1/2015 10:30:00 AM

Lab ID: 1505060-006

Matrix: SOIL

Received Date: 5/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	13	9.9		mg/Kg	1	5/4/2015 5:28:19 PM	19021
Surr: DNOP	95.2	57.9-140		%REC	1	5/4/2015 5:28:19 PM	19021
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/5/2015 2:45:42 PM	19020
Surr: BFB	92.2	80-120		%REC	1	5/5/2015 2:45:42 PM	19020
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/5/2015 2:45:42 PM	19020
Toluene	ND	0.049		mg/Kg	1	5/5/2015 2:45:42 PM	19020
Ethylbenzene	ND	0.049		mg/Kg	1	5/5/2015 2:45:42 PM	19020
Xylenes, Total	ND	0.098		mg/Kg	1	5/5/2015 2:45:42 PM	19020
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	5/5/2015 2:45:42 PM	19020

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 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 Not In Range	
	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 1505060

Date Reported: 5/7/2015

CLIENT: Souder, Miller and Associates**Client Sample ID:** #6 SC-2 S**Project:** Trunk K 2015**Collection Date:** 5/1/2015 10:35:00 AM**Lab ID:** 1505060-007**Matrix:** SOIL**Received Date:** 5/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	200	9.9		mg/Kg	1	5/4/2015 5:55:03 PM	19021
Surr: DNOP	88.5	57.9-140		%REC	1	5/4/2015 5:55:03 PM	19021
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/6/2015 10:17:23 PM	19020
Surr: BFB	107	80-120		%REC	1	5/6/2015 10:17:23 PM	19020
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/6/2015 10:17:23 PM	19020
Toluene	ND	0.050		mg/Kg	1	5/6/2015 10:17:23 PM	19020
Ethylbenzene	ND	0.050		mg/Kg	1	5/6/2015 10:17:23 PM	19020
Xylenes, Total	ND	0.10		mg/Kg	1	5/6/2015 10:17:23 PM	19020
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	5/6/2015 10:17:23 PM	19020

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 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 Not In Range	
	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 1505060

Date Reported: 5/7/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: #6 SC-3 E

Project: Trunk K 2015

Collection Date: 5/1/2015 10:40:00 AM

Lab ID: 1505060-008

Matrix: SOIL

Received Date: 5/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/4/2015 6:22:07 PM	19021
Surr: DNOP	95.4	57.9-140		%REC	1	5/4/2015 6:22:07 PM	19021
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/6/2015 10:46:04 PM	19020
Surr: BFB	92.1	80-120		%REC	1	5/6/2015 10:46:04 PM	19020
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/6/2015 10:46:04 PM	19020
Toluene	ND	0.049		mg/Kg	1	5/6/2015 10:46:04 PM	19020
Ethylbenzene	ND	0.049		mg/Kg	1	5/6/2015 10:46:04 PM	19020
Xylenes, Total	ND	0.098		mg/Kg	1	5/6/2015 10:46:04 PM	19020
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	5/6/2015 10:46:04 PM	19020

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 Not In Range
	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 1505060

Date Reported: 5/7/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: #6 SC-4 W

Project: Trunk K 2015

Collection Date: 5/1/2015 10:45:00 AM

Lab ID: 1505060-009

Matrix: SOIL

Received Date: 5/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/4/2015 6:49:10 PM	19021
Surr: DNOP	92.1	57.9-140		%REC	1	5/4/2015 6:49:10 PM	19021
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/5/2015 4:11:51 PM	19020
Surr: BFB	91.7	80-120		%REC	1	5/5/2015 4:11:51 PM	19020
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/5/2015 4:11:51 PM	19020
Toluene	ND	0.050		mg/Kg	1	5/5/2015 4:11:51 PM	19020
Ethylbenzene	ND	0.050		mg/Kg	1	5/5/2015 4:11:51 PM	19020
Xylenes, Total	ND	0.099		mg/Kg	1	5/5/2015 4:11:51 PM	19020
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	5/5/2015 4:11:51 PM	19020

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 Not In Range	
	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 1505060

Date Reported: 5/7/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: #6 SC-5 Base

Project: Trunk K 2015

Collection Date: 5/1/2015 10:50:00 AM

Lab ID: 1505060-010

Matrix: SOIL

Received Date: 5/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/4/2015 7:16:15 PM	19021
Surr: DNOP	90.2	57.9-140		%REC	1	5/4/2015 7:16:15 PM	19021
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/6/2015 1:45:41 AM	19020
Surr: BFB	91.2	80-120		%REC	1	5/6/2015 1:45:41 AM	19020
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/6/2015 1:45:41 AM	19020
Toluene	ND	0.049		mg/Kg	1	5/6/2015 1:45:41 AM	19020
Ethylbenzene	ND	0.049		mg/Kg	1	5/6/2015 1:45:41 AM	19020
Xylenes, Total	ND	0.098		mg/Kg	1	5/6/2015 1:45:41 AM	19020
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	5/6/2015 1:45:41 AM	19020

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 Not In Range	
	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#: 1505060

07-May-15

Client: Souder, Miller and Associates

Project: Trunk K 2015

Sample ID	MB-19021		SampType:	MBLK		TestCode:	EPA Method 8015D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	19021		RunNo:	25918				
Prep Date:	5/4/2015		Analysis Date:	5/4/2015		SeqNo:	768279		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	9.8		10.00		98.1	57.9	140				

Sample ID	LCS-19021		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19021		RunNo: 25918					
Prep Date:	5/4/2015		Analysis Date: 5/4/2015		SeqNo: 768718		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	4.8		5.000		95.6	57.9	140			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505060

07-May-15

Client: Souder, Miller and Associates

Project: Trunk K 2015

Sample ID	MB-19020		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 19020		RunNo: 25957					
Prep Date:	5/4/2015		Analysis Date: 5/5/2015		SeqNo: 769854		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.1	80	120			

Sample ID	LCS-19020		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 19020		RunNo: 25957					
Prep Date:	5/4/2015		Analysis Date: 5/5/2015		SeqNo: 769855		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	64	130			
Surr: BFB	1000		1000		101	80	120			

Sample ID	5ML RB		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: R25957		RunNo: 25957					
Prep Date:			Analysis Date: 5/5/2015		SeqNo: 769884		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	920		1000		91.8	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R25957	RunNo:	25957					
Prep Date:		Analysis Date:	5/5/2015	SeqNo:	769885	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		98.9	80	120			

Sample ID	5ML RB		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: R25998		RunNo: 25998					
Prep Date:			Analysis Date: 5/6/2015		SeqNo: 771159		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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:	R25998	RunNo:	25998					
Prep Date:		Analysis Date:	5/6/2015	SeqNo:	771160	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		98.8	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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505060

07-May-15

Client: Souder, Miller and Associates

Project: Trunk K 2015

Sample ID	MB-19020		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	19020		RunNo:	25957			
Prep Date:	5/4/2015		Analysis Date:	5/5/2015		SeqNo:	769908		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		105	80	120			

Sample ID	LCS-19020		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	19020		RunNo:	25957			
Prep Date:	5/4/2015		Analysis Date:	5/5/2015		SeqNo:	769909		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	108	76.6	128			
Toluene	1.1	0.050	1.000	0	107	75	124			
Ethylbenzene	1.1	0.050	1.000	0	109	79.5	126			
Xylenes, Total	3.2	0.10	3.000	0	107	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID	1505060-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	#9 SC-1 N		Batch ID:	19020		RunNo:	25957			
Prep Date:	5/4/2015		Analysis Date:	5/5/2015		SeqNo:	769911		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.049	0.9747	0	118	69.2	126			
Toluene	1.1	0.049	0.9747	0	117	65.6	128			
Ethylbenzene	1.2	0.049	0.9747	0	120	65.5	138			
Xylenes, Total	3.4	0.097	2.924	0	117	63	139			
Surr: 4-Bromofluorobenzene	1.1		0.9747		110	80	120			

Sample ID	1505060-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	#9 SC-1 N		Batch ID:	19020		RunNo:	25957			
Prep Date:	5/4/2015		Analysis Date:	5/5/2015		SeqNo:	769912		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.049	0.9862	0	113	69.2	126	3.29	18.5	
Toluene	1.1	0.049	0.9862	0	111	65.6	128	4.00	20.6	
Ethylbenzene	1.1	0.049	0.9862	0	115	65.5	138	3.46	20.1	
Xylenes, Total	3.3	0.099	2.959	0	113	63	139	2.63	21.1	
Surr: 4-Bromofluorobenzene	1.1		0.9862		111	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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505060

07-May-15

Client: Souder, Miller and Associates

Project: Trunk K 2015

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R25998	RunNo:	25998					
Prep Date:		Analysis Date:	5/6/2015	SeqNo:	771207	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		99.8	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R25998	RunNo:	25998					
Prep Date:		Analysis Date:	5/6/2015	SeqNo:	771210	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- 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: 1505060

RcptNo: 1

Received by/date:

[Signature]

05/02/15

Logged By: Lindsay Mangin

5/2/2015 8:30:00 AM

[Signature]

Completed By: Lindsay Mangin

5/2/2015 10:14:59 AM

[Signature]

Reviewed By:

AT 05/04/15

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 ☐

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?

Yes ☒

No ☐

Checked by:

(If no, notify customer for authorization.)

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	3.6	Good	Yes			

Chain-of-Custody Record

Client: Souder Miller & Associates

Mailing Address: 401 W Broadway
Farmington, NM

Phone #: 505 325 7535

email or Fax#: Stewen.Maskal@soudermiller.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☐ Standard ☒ Rush 72 hr

Project Name:

Trunk k 2015

Project #:

N20589

Project Manager:

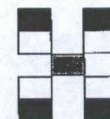
Stewen Maskal

Sampler:

J. Sprague

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.6



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 + 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 , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
5-1-15	1000	Soil	#9 SC-1 N	1402	—	-001	X	X									
	1005		#9 SC-2 S			-002	X	X									
	1000		#9 SC-3 E			-003	X	X									
	1015		#9 SC-4 W			-004	X	X									
	1020		#9 SC-5 Base			-005	X	X									
	1030		#6 SC-1 N			-006	X	X									
	1035		#6 SC-2 S			-007	X	X									
	1040		#6 SC-3 E			-008	X	X									
	1043		#6 SC-4 W			-009	X	X									
	1050		#6 SC-5 Base			-010	X	X									
						-011											

Date: 5/1/15 Time: 1835

Relinquished by: J. Sprague

Received by:

Christine Waelen

Date Time

5/1/15 1835

Date: 7/1/15 Time: 1944

Relinquished by: Christine Waelen

Received by:

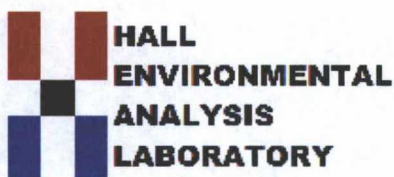
[Signature]

Date Time

05/02/15 0850

Remarks:

Invoice Entuprise
Please copy Jesse.Sprague@soudermiller.com



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

May 14, 2015

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

RE: Trunk K

OrderNo.: 1505542

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/13/2015 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505542

Date Reported: 5/14/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-2 S Wall @ 0-12'

Project: Trunk K

Collection Date: 5/12/2015 3:30:00 PM

Lab ID: 1505542-002

Matrix: MEOH (SOIL)

Received Date: 5/13/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/13/2015 1:19:13 PM	19199
Surr: DNOP	105	57.9-140		%REC	1	5/13/2015 1:19:13 PM	19199
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	5/13/2015 10:08:48 AM	R26157
Surr: BFB	95.4	80-120		%REC	1	5/13/2015 10:08:48 AM	R26157
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.035		mg/Kg	1	5/13/2015 10:08:48 AM	R26157
Toluene	ND	0.035		mg/Kg	1	5/13/2015 10:08:48 AM	R26157
Ethylbenzene	ND	0.035		mg/Kg	1	5/13/2015 10:08:48 AM	R26157
Xylenes, Total	ND	0.069		mg/Kg	1	5/13/2015 10:08:48 AM	R26157
Surr: 4-Bromofluorobenzene	111	80-120		%REC	1	5/13/2015 10:08:48 AM	R26157

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 Not In Range
	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#: 1505542

14-May-15

Client: Souder, Miller and Associates

Project: Trunk K

Sample ID	1505542-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-5 Base @ 37'	Batch ID:	19199	RunNo:	26152					
Prep Date:	5/13/2015	Analysis Date:	5/13/2015	SeqNo:	776062	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	280	9.7	48.26	251.4	59.1	42.3	146			
Surr: DNOP	4.8		4.826		99.5	57.9	140			

Sample ID	1505542-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	SC-5 Base @ 37'	Batch ID:	19199	RunNo:	26152					
Prep Date:	5/13/2015	Analysis Date:	5/13/2015	SeqNo:	776613	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	230	9.6	48.12	251.4	-51.9	42.3	146	21.1	28.9	S
Surr: DNOP	5.6		4.812		115	57.9	140	0	0	

Sample ID	MB-19199	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	19199	RunNo:	26152					
Prep Date:	5/13/2015	Analysis Date:	5/13/2015	SeqNo:	776614	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		107	57.9	140			

Sample ID	LCS-19199	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	19199	RunNo:	26152					
Prep Date:	5/13/2015	Analysis Date:	5/13/2015	SeqNo:	776615	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	96.4	67.8	130			
Surr: DNOP	5.1		5.000		101	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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505542

14-May-15

Client: Souder, Miller and Associates

Project: Trunk K

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	R26157	RunNo:	26157					
Prep Date:		Analysis Date:	5/13/2015	SeqNo:	776429	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		95.5	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	R26157	RunNo:	26157					
Prep Date:		Analysis Date:	5/13/2015	SeqNo:	776430	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	92.5	64	130			
Surr: BFB	1000		1000		100	80	120			

Sample ID	1505542-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-5 Base @ 37'	Batch ID:	R26157	RunNo:	26157					
Prep Date:		Analysis Date:	5/13/2015	SeqNo:	776431	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	700	66	328.1	364.6	101	47.9	144			
Surr: BFB	21000		13120		163	80	120			S

Sample ID	1505542-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-5 Base @ 37'	Batch ID:	R26157	RunNo:	26157					
Prep Date:		Analysis Date:	5/13/2015	SeqNo:	776432	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	720	66	328.1	364.6	107	47.9	144	2.62	29.9	
Surr: BFB	21000		13120		164	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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505542

14-May-15

Client: Souder, Miller and Associates

Project: Trunk K

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID: R26157			RunNo: 26157					
Prep Date:		Analysis Date: 5/13/2015			SeqNo: 776458		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: R26157			RunNo: 26157					
Prep Date:		Analysis Date: 5/13/2015			SeqNo: 776459		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	76.6	128			
Toluene	1.0	0.050	1.000	0	101	75	124			
Ethylbenzene	1.0	0.050	1.000	0	103	79.5	126			
Xylenes, Total	3.1	0.10	3.000	0	102	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		113	80	120			

Sample ID	1505542-002AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	SC-2 S Wall @ 0-12'	Batch ID:	R26157	RunNo:	26157					
Prep Date:		Analysis Date:	5/13/2015	SeqNo:	776460	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.72	0.035	0.6940	0	103	69.2	126			
Toluene	0.71	0.035	0.6940	0.007558	102	65.6	128			
Ethylbenzene	0.73	0.035	0.6940	0	105	65.5	138			
Xylenes, Total	2.2	0.069	2.082	0	104	63	139			
Surr: 4-Bromofluorobenzene	0.76		0.6940		110	80	120			

Sample ID	1505542-002AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles					
Client ID:	SC-2 S Wall @ 0-12'		Batch ID: R26157		RunNo: 26157					
Prep Date:			Analysis Date: 5/13/2015		SeqNo: 776461		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.73	0.035	0.6940	0	105	69.2	126	1.43	18.5	
Toluene	0.74	0.035	0.6940	0.007558	105	65.6	128	3.13	20.6	
Ethylbenzene	0.76	0.035	0.6940	0	110	65.5	138	4.14	20.1	
Xylenes, Total	2.2	0.069	2.082	0	107	63	139	2.10	21.1	
Surr: 4-Bromofluorobenzene	0.75		0.6940		109	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 Not In Range
- 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: 1505542

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

5/13/2015 7:00:00 AM

Completed By: Lindsay Mangin

5/13/2015 7:26:25 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	3.0	Good	Yes			

Client: SMA

Client:

5 mA

Mailing Address: 401 W Broadway

Farmington, NM 87401

Phone #: 505 325 7535

email or Fax#: Stacy.moskalew@soudernmiller.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

Project #:

N20589

Project Manager:

Steven Moskale

Sampler: J. Sorensen

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.0

[illegible]

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

5/12/15 1754

Relinquished by: Jesse E. Spry

Received by:

Arthur Wall

Date _____ Time _____

5/12/15 1754

Received by:

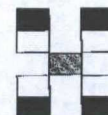
Date _____ Time _____

3/15 (700)

Remarks:	Tauvoice	EPLO
----------	----------	------

Please copy

Jesse.Sprague@soudermiller.com



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

	X	BTEX + MTBE + PAH's (8021)
		BTEX + MTBE + TPH (Gas only)
	X	TPH 8015B (GRO / DRO / HMO)
		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)

Appendix D
Archeological Survey Reports

WCRM

Western Cultural Resource Management, Inc.

July 16, 2015

Mr. Tom Long
Enterprise Products Company
614 Reilly Ave.
Farmington, NM 87401

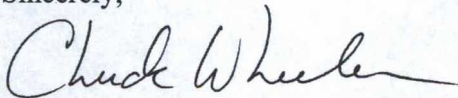
Dear Tom:

As requested, the client copy of our report on the archaeological monitor of the repair locations 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,



Charles W. Wheeler, Ph.D., RPA
Vice President

enc.

cc: Jim Copeland, BLM-FFO
Steve Moskal, Souder, Miller, and Associates (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.: 133832	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 Locations in San Juan County, New Mexico			5. Type of Report <input checked="" type="checkbox"/> Negative <input type="checkbox"/> Positive												
Author(s) Cindy J. Bunker															
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 repairs for failed repair of leaks 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, LA 180209, and 179210. Temporary barriers were constructed and an archaeological monitor was present.			8. Dates of Investigation: March 2-June 24, 2015												
			9. Report Date: July 16, 2015												
10. Performing Agency/Consultant: Western Cultural Resource Management, Inc. Principal Investigator: Thomas J. Lennon Field Supervisor: Michael J. Proper, Sarah M. Morgan, Cindy J. Bunker, and Virginia Foster Field Personnel Names: Michael J. Proper, Sarah M. Morgan, Cindy J. Bunker, and Virginia Foster			11. Performing Agency/Consultant Report No.: WCRM(F)1394 Project No.: 15F014												
13. Client/Customer (project proponent): Enterprise Products Company Contact: Thomas Long Address: 614 Reilly Ave, Farmington, New Mexico 87401 Phone: (505) 599-2286			12. Applicable Cultural Resource Permit No(s): 25-2920-14-PP (BLM-FFO)												
			14. Client/Customer Project No.:												
15. Land Ownership Status (Must be indicated on project map): <table border="1"> <thead> <tr> <th>Land Owner</th> <th>Acres Surveyed*</th> <th>Acres in APE</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>TOTALS</td> <td></td> <td></td> </tr> </tbody> </table> <p>*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 two of which required protective measures, LA 180207 and LA 180209. The initial monitoring of the leak repairs was conducted by WCRM (Bunker 2014). 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) Bunker, Cindy J. 2014 <i>Archaeological Monitoring of the Enterprise Products Company Trunk K Pipeline Repair Locations in San Juan County, New Mexico.</i> Report No. WCRM(F)1349. Western Cultural Resource Management, Inc., Farmington, New Mexico. (NMCRIS 132260)															
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		Name of Reviewer(s)													
		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:**

Township (N/S)	Range (E/W)	Section	¼	¼	¼
27N	8W	25*	SE1/4, SE1/4, SW1/4		

*template anchored on SE corner and southern section line

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:** ☐ 100% coverage ☐ <100% coverage**Configuration:** ☐ block survey units ☐ linear survey units (l x w): ☐ other survey units (specify):**Scope:** ☐ non-selective (all sites recorded) ☐ selective/thematic (selected sites recorded)**Coverage Method:** ☐ systematic pedestrian coverage ☐ other method (describe)**Survey Interval (m):** N/A **Crew Size:** 1 **Fieldwork Dates:** March 2, 7, 31, April 1, 2, 3, 6, 23, 24, 27, 28, 29, 30, May 1, 12, 13, 14, 15, and June 8, 9, 22, and 24, 2015.**Survey Person Hours:** **Recording Person Hours:** **Total Hours:** 217


Additional Narrative: On March 2, 2015, prior to any construction on the failed repair locations on the Trunk K pipeline, temporary barrier fences were constructed by Michael J. Proper as stipulated by the BLM-FFO. Activities related to the repairs conducted at the failed repair locations were monitored between March 2, and June 24, 2015 by Michael J. Proper, Sarah M. Morgan, Cindy J. Bunker, and Virginia Foster. 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 during any repair activities. To protect LA 180209 a temporary barrier fence was placed along the northern edge of the access road and the eastern edge of the Trunk K ROW along the site boundary. For the protection of LA 180210 a temporary fence was placed along the western edge of the ROW through the site area. As required by the BLM photographs were taken 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** ☐ Yes, ☒ No, **Discuss Why:** No cultural material was encountered during the monitor.**22. Required Attachments (check all appropriate boxes):**

- ☒ USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn
- ☐ Copy of NMCRIS Mapserver Map Check
- ☐ LA Site Forms - new sites (*with sketch map & topographic map*)
- ☐ LA Site Forms (update) - previously recorded & un-relocated sites (*first 2 pages minimum*)
- ☐ Historic Cultural Property Inventory Forms
- ☐ List and Description of isolates, if applicable (see p. 3)
- ☐ List and Description of Collections, if applicable

23. Other Attachments:
☐ Photographs and Log
☐ 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**Signature** **Date** 7/16/15 **Title (if not PI):****25. Reviewing Agency:**
Reviewer's Name/Date**Accepted () Rejected ()****Tribal Consultation (if applicable):** ☐ Yes ☐ 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.: 133832	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: 3

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):

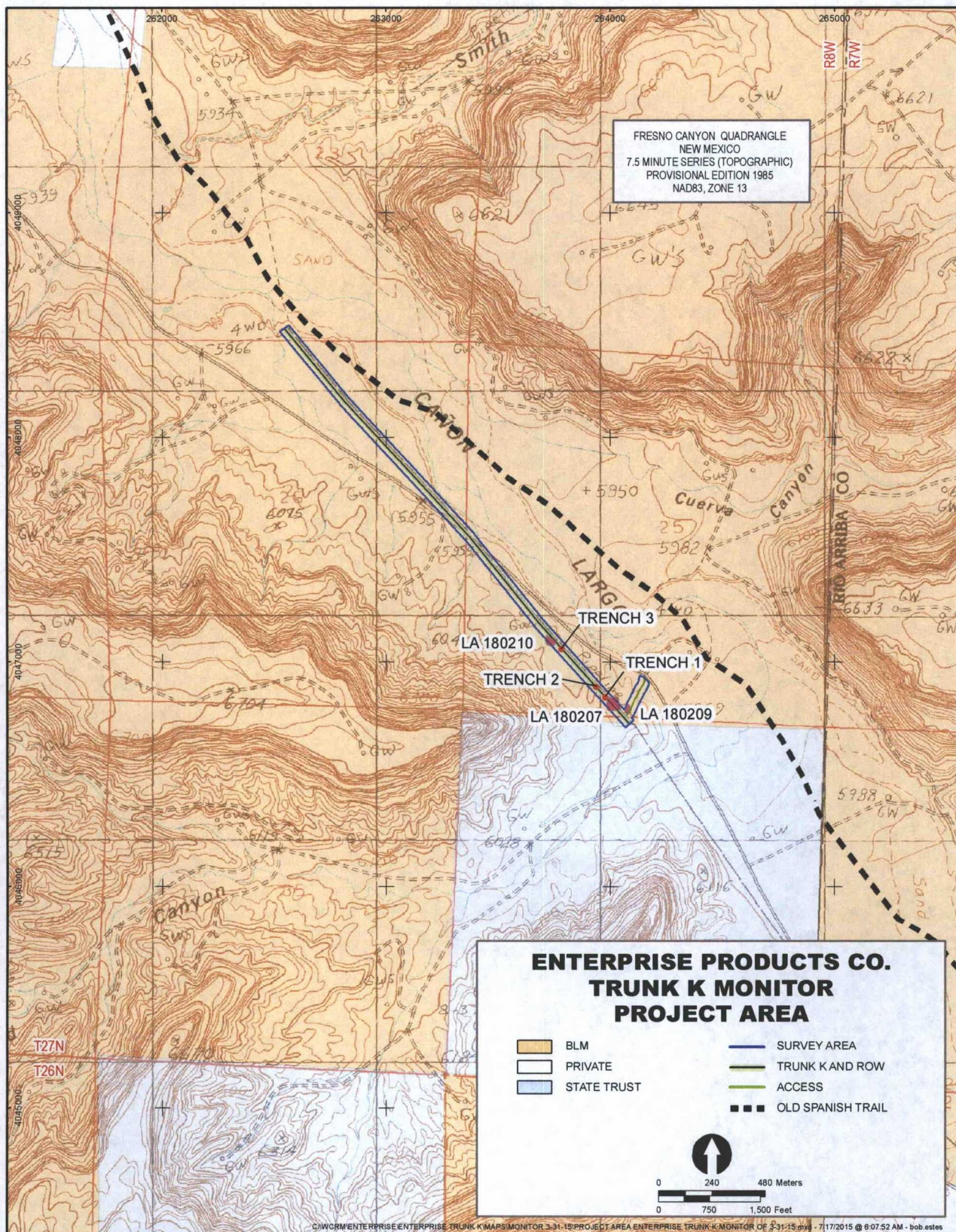
Previously recorded sites (Site update form required):

LA No.	Field/Agency No.	LA No.	Field/Agency No.
		LA 180207	14F111-S1
		LA 180209	14F111-S4
		LA 180210	14F115-S5

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



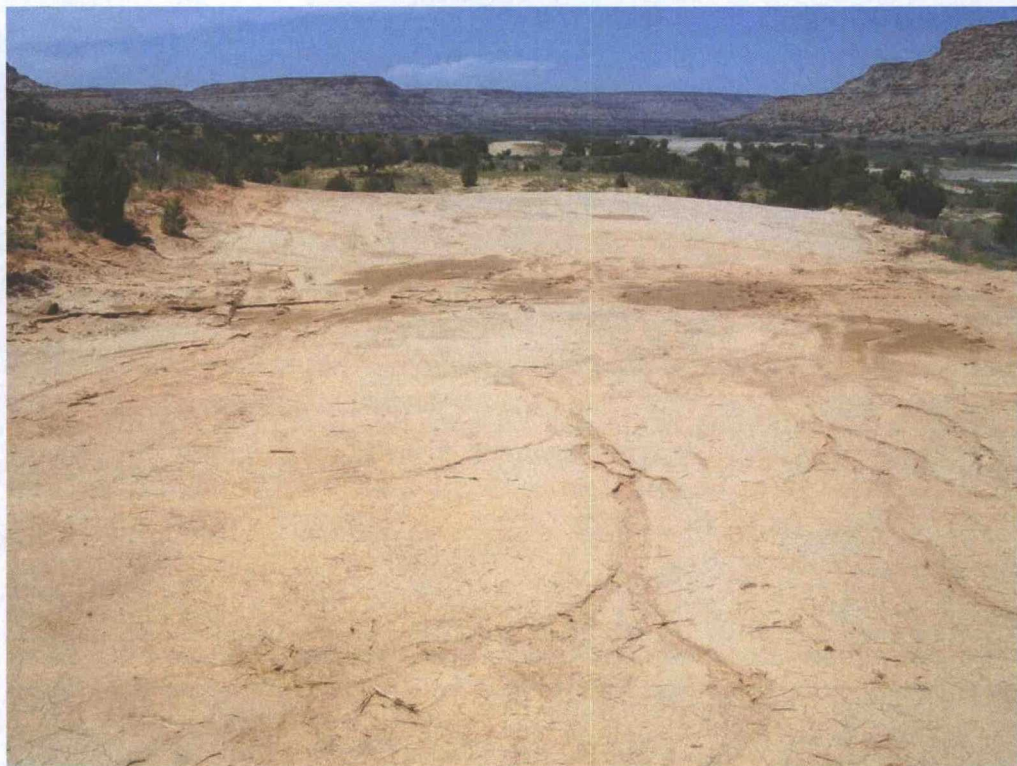
Trench 1 repair location from southern end of trench looking north.



Trench 1 repair location from northern end of trench looking south toward Site LA 179207.



Trench 1 excavation in progress.



Trench 1 area clean-up after repair completion facing north.



Trench 2 with repaired pipe.



Trench 2 area clean-up after repair completion facing north.



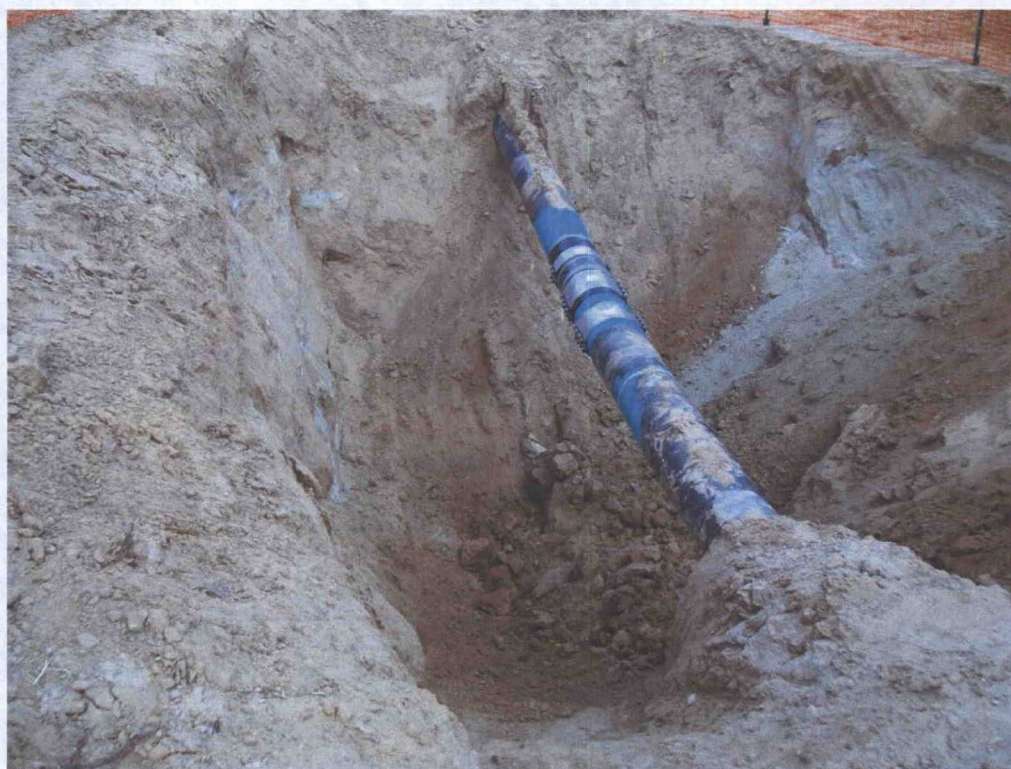
Trench 2 area clean-up after repair completion facing south.



Trench 3 repair location from northern end of trench looking south.



From the northern end of Trench 3 repair location looking towards site LA 180210.
The riser is located within the site.



Trench 3 excavation in progress.



Trench 3 excavation in progress.



Trench 3 area clean-up after repair completion facing south.

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

AUG 17 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 #9 Release Site	Facility Type: Natural Gas Gathering Line	
Surface Owner: BLM	Mineral Owner: BLM	API No.

LOCATION OF RELEASE

Unit Letter N	Section 25	Township 27N	Range 8W	Feet from the 201	North <u>South</u> Line	Feet from the 2298	East <u>West</u> Line	County San Juan
------------------	---------------	-----------------	-------------	-------------------------	----------------------------	--------------------------	--------------------------	--------------------

Latitude 36.537394 Longitude -107.635970

NATURE OF RELEASE


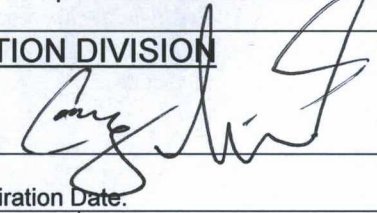
Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release 5-10 BBLs Condensate	Volume Recovered: None
Source of Release: Internal Corrosion/Failed Repair	Date and Hour of Occurrence: 2/18/2015 @ 2:00 p.m.	Date and Hour of Discovery: 2/18/2015 @ 4:00 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy Notification: Cory Smith - NMOCD 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 a release 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. Remediation was complete on May 1, 2015.

Describe Area Affected and Cleanup Action Taken.* The contaminant mass was removed by mechanical excavation. The final excavation measured approximately 33 feet long by 25 feet wide by 34 feet deep. Approximately 810 cubic yards of hydrocarbon impacted soil were excavated from the area of the identify release point and transported to a New Mexico Oil Conservation 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: 9/4/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8-12-2015	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#NCS 1507253264

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AUG 17 2015

Enterprise Products
Trunk K #9 Pipeline Release
Latitude North 36.537394°, Longitude West -107.635970°
SE/SW (Unit N), Section 25, T27N, R8W
San Juan County, New Mexico
July 30, 2015



Submitted To:

Enterprise Products Operating, LLC.
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	1
4.0	Summary of Field Activities	2
5.0	Conclusions and Recommendations.....	3
6.0	Closure and Limitations.....	3

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: Soil Disposal Documentation

Appendix C: Laboratory Analytical Reports

Appendix D: Archaeological Survey Report

1.0 Executive Summary

From March 7, 2015 through May 1, 2015, Souder, Miller & Associates (SMA) responded to oversee the excavation of a hydrocarbon release associated with the Trunk K natural gas pipeline. The release was initially reported to SMA on March 1, 2015 and is a result of internal pipeline corrosion. The table below summarizes information about the pipeline remediation activities.

TABLE 1: RELEASE INFORMATION					
Name	Trunk K #9 Pipeline Release				
Location	Latitude/Longitude		Section, Township, Range		
	36.537394°	-107.635970°	SE/SW (Unit N)	Section 25	T27N, R8W
Date Reported to SMA	March 1, 2015				
Reported by	Tom Long				
Land Owner	Bureau of Land Management (BLM)				
Reported To	NM Oil Conservation Division (NMOCD) and 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	Estimated to be less than 50 feet				
Nearest Domestic Water Source	Greater than 1,000 feet				
NMOCD Ranking	30				
SMA Response Dates	March 7 through May 1, 2015				
Subcontractors	Crossfire				
Disposal Facility	Envirotech				
Yd ³ Contaminated Soil Excavated and Disposed	810 (Reported as portion of attached C-138 forms)				

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 Trunk K #9 pipeline release site. The site is located in SE/SW (Unit N), Section 25, T27N, R8W, 36.537394°, -107.635870°, 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 located in a small unnamed tributary to Largo Canyon Wash, in an area owned by the BLM with an elevation of approximately 5,963 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 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 one well was found within a one mile radius of the site. There is no anticipated impact to this well. 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.

The location of the Trunk K #9 site was determined by BLM to be within an archaeological and culturally 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 #9 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. A representative from WCRM was on site during the repair and remediation activities at Trunk K #9. A copy of the WCRM survey report is enclosed in Appendix D.

4.0 Summary of Field Activities

Excavation of the Trunk K #9 site began on March 7, 2015 and continued, periodically, through May 1, 2015. 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 the calibrated PID. When the soil at the vertical and horizontal extents of the excavation were suspected of having hydrocarbon contamination concentrations below regulatory standards, five final samples were collected and submitted for confirmation laboratory analysis. Closure sample collection dates were scheduled with the BLM and the NMOCD for the observation of sampling activities on May 1, 2015. Neither party was present to witness the sample collection. Samples were analyzed utilizing United States Environmental Protection Agency Methods: 8021 for benzene, toluene, ethylbenzene, and total xylenes (BTEX) and 8015 for diesel and gasoline range organics (DRO/GRO). All samples were analyzed by Hall Environmental Analysis Laboratory in Albuquerque, New Mexico.

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.

Five composite samples were collected from the final excavation sidewalls and base using an excavator on May 1, 2015. All laboratory analytical results for all samples collected at the Trunk K #9 Excavation were below laboratory detection limits and NMOCD Guidelines for benzene (10 ppm), BTEX (50 ppm) and combined GRO/DRO (100 ppm).

The overall excavation measured 30 feet long and 25 feet wide with a maximum depth of 34 feet bgs. The excavation encountered competent sandstone bedrock from approximately 7 feet bgs to the total depth. No saturated soils were encountered during the excavation. All soil excavated from the Trunk K #9 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 3, detailing sample locations and laboratory results. A summary of laboratory analysis is included in Table 3. Copies of the laboratory reports are included in Appendix C.

SMA recommends no further action at the Trunk K #9 pipeline release location.

6.0 Closure and Limitations

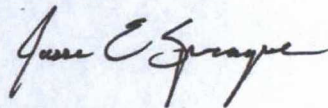
The scope of our services consisted of the performance of a preliminary spill assessment, verification of release stabilization, regulatory liaison, oversight and control of remediation operations, disposal arrangements and documentation, project management, and preparation of this summary report. All 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 Reid Allan at 505-325-7535.

Submitted by:

Reviewed by:

SOUDER, MILLER & ASSOCIATES

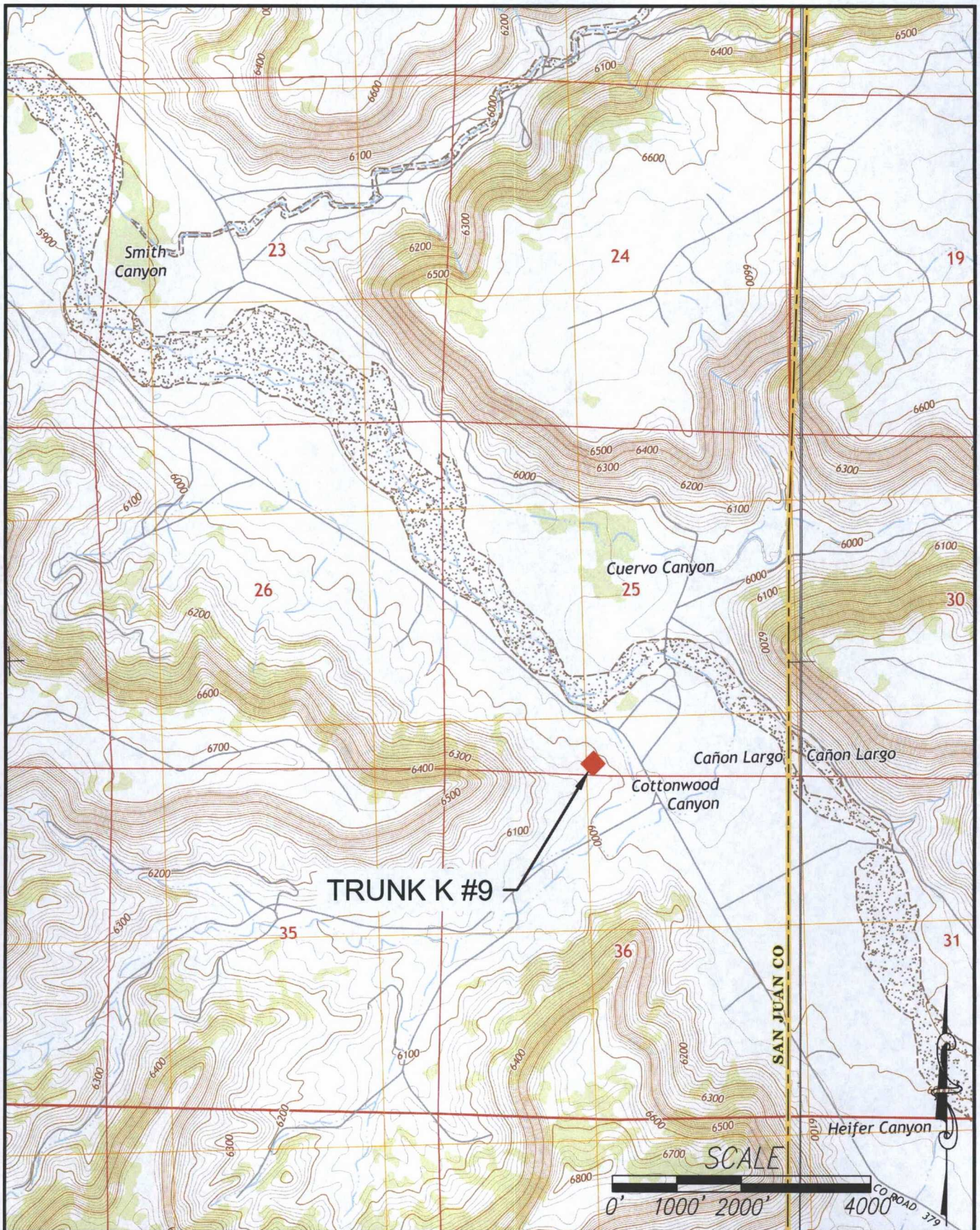


Jesse Sprague
Staff Scientist



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

Figures



Souder, Miller & Associates

401 West Broadway Avenue

Farmington, NM 87401-5907

Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045

www.soudermiller.com

Serving the Southwest & Rocky Mountains

ENTERPRISE

FARMINGTON, NEW MEXICO

Designed JES	Drawn DJB	Checked RSA
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Date: July 2015

Scale: Horiz: 1" = 2000'

Vert: NA

Project No: 5123699

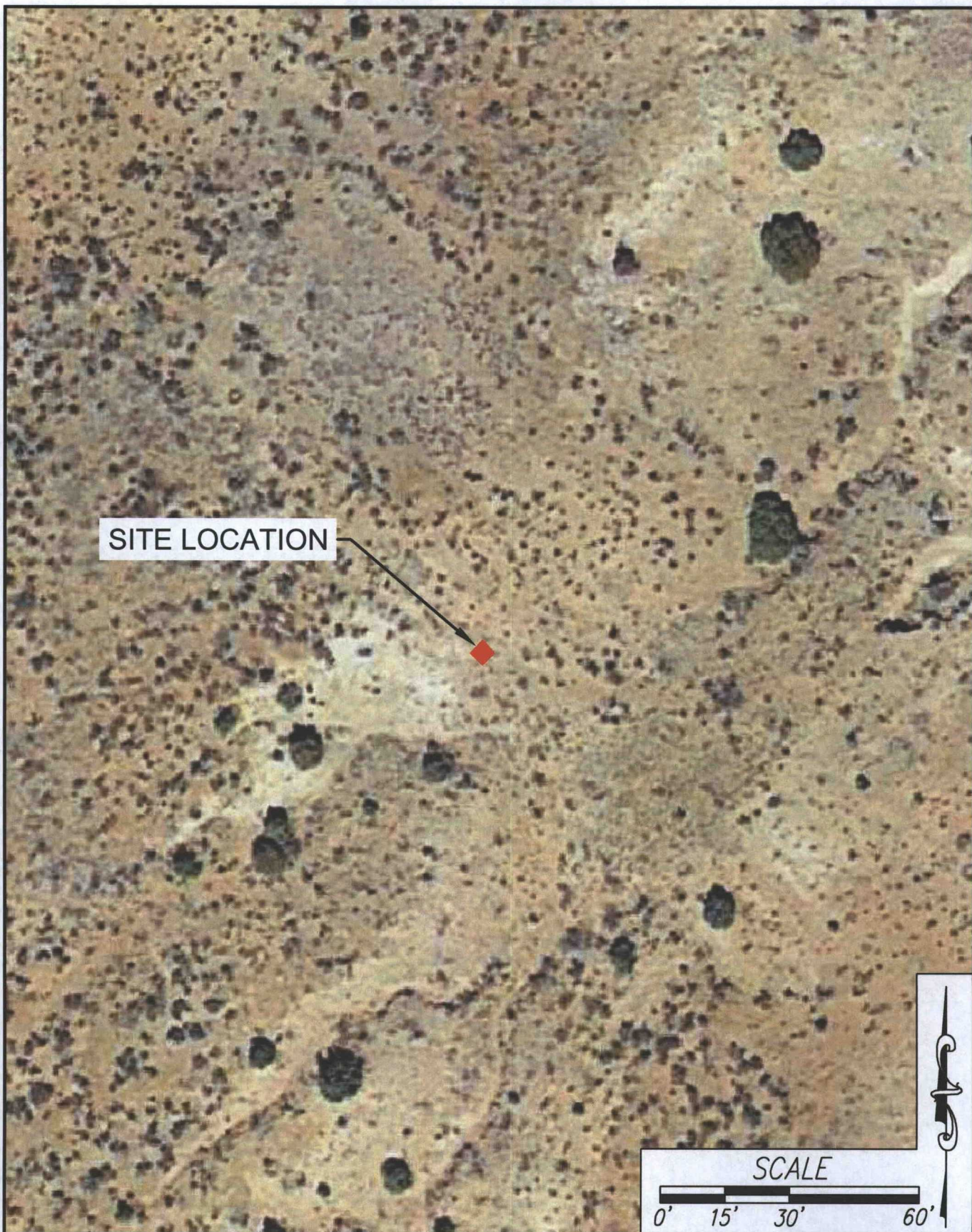
Figure 1

VICINITY MAP

TRUNK K #9

SECTION 25, T27N, R8W

SAN JUAN COUNTY



Souder, Miller & Associates

401 West Broadway Avenue

Farmington, NM 87401-5907

Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045

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FARMINGTON, NEW MEXICO

SITE LOCATION MAP

TRUNK K #9

SECTION 25, T27N, R8W

SAN JUAN COUNTY

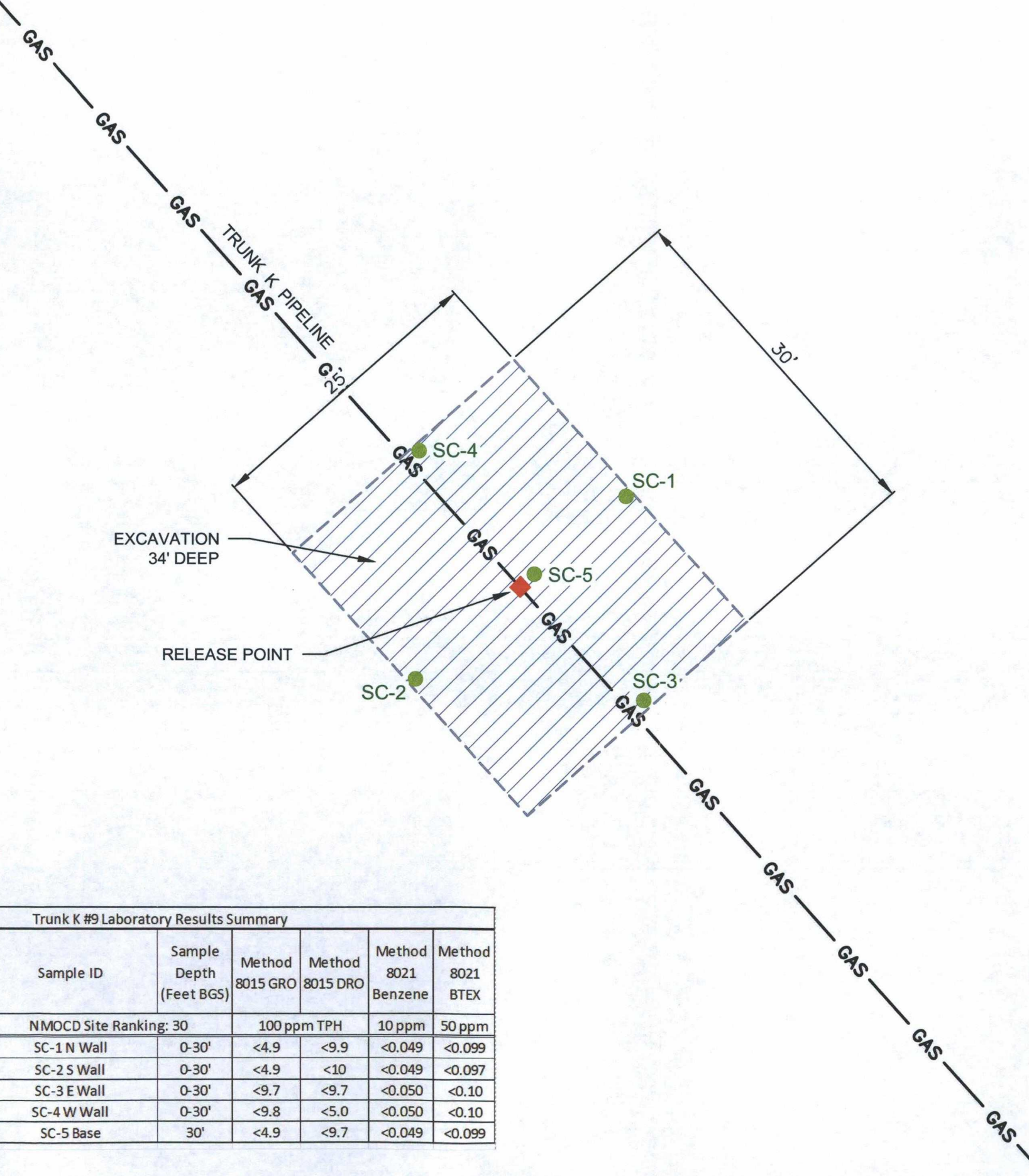
Designed JES	Drawn DJB	Checked RSA
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Date: July 2015

Scale: Horiz: 1" = 30'
Vert: NA

Project No: 5123699

Figure 2



Trunk K #9 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
5/1/2015	10:00	SC-1 N Wall	0-30'	<4.9	<9.9	<0.049	<0.099
5/1/2015	10:05	SC-2 S Wall	0-30'	<4.9	<10	<0.049	<0.097
5/1/2015	10:10	SC-3 E Wall	0-30'	<9.7	<9.7	<0.050	<0.10
5/1/2015	10:15	SC-4 W Wall	0-30'	<9.8	<5.0	<0.050	<0.10
5/1/2015	10:20	SC-5 Base	30'	<4.9	<9.7	<0.049	<0.099

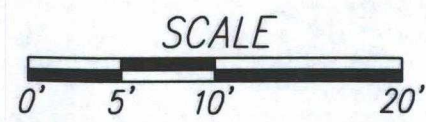
LEGEND

● COMPOSITE SOIL SAMPLE LOCATION

--- APPROXIMATE EXTENT OF PREVIOUS EXCAVATION

||||| EXCAVATED AREA

◆ RELEASE POINT



Tables

Site Ranking Information: Trunk K #9 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 <50' 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 850 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

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

Trunk K #9 Pipeline Release
7/30/2015

Trunk K #9 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
5/1/2015	10:00	SC-1 N Wall	0-30'	<4.9	<9.9	<0.049	<0.099
5/1/2015	10:05	SC-2 S Wall	0-30'	<4.9	<10	<0.049	<0.097
5/1/2015	10:10	SC-3 E Wall	0-30'	<9.7	<9.7	<0.050	<0.10
5/1/2015	10:15	SC-4 W Wall	0-30'	<9.8	<5.0	<0.050	<0.10
5/1/2015	10:20	SC-5 Base	30'	<4.9	<9.7	<0.049	<0.099



Appendix A
Photographic Documentation

Site Photographs
Enterprise Products Trunk K #9 Pipeline Release



Photo 1: Trunk K #9 Excavation exposes the release point.



Photo 2: Trunk K #9 Excavation increasing in depth through sandstone.

Site Photographs
Enterprise Products Trunk K #9 Pipeline Release



Photo 3: Trunk K #9 Excavation encountered Sandstone at about 7 feet BGS.

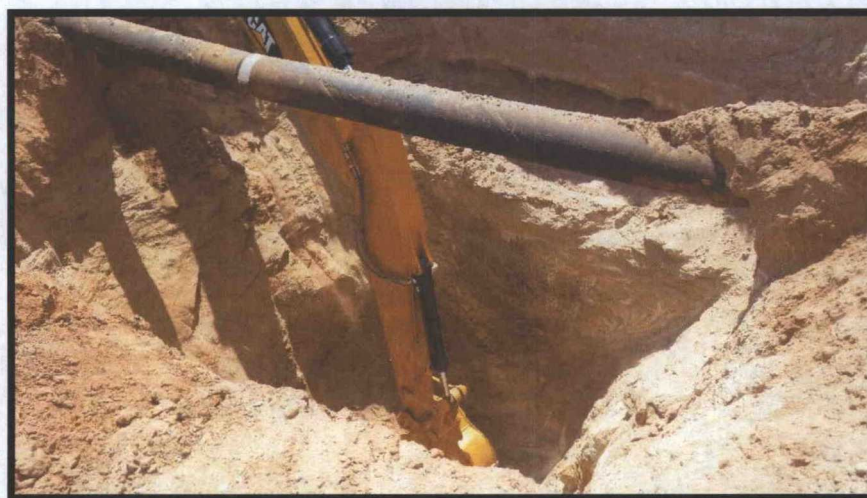


Photo 4: Trunk K #9 Excavation nearing maximum depth of 34 feet BGS.

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

97057-0697
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
March 2015

2. Originating Site: Trunk K Release Sites

3. Location of Material (Street Address, City, State or ULSTR):
Unit Letter B and H of Section 26 and Unit Letter N of Section 25 Township 27 North Range 8 West: GPS 36.549537, -107.649872, 36.544737, -107.644162, 36.539889, -107.636994, 36.538368, -107.636994 and 36.538072, -107.636657; Rio Arriba, NM

4. Source and Description of Waste:

Source: Natural Gas Pipeline Release

Description: Hydrocarbon impacted soils associated with excavation activities for a natural gas pipeline release..

Estimated Volume 200 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 516 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, 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: Crossfire

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: 3-26-15

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

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 Sites

3. Location of Material (Street Address, City, State or ULSTR):
Unit Letter B and H of Section 26 and Unit Letter N of Section 25 Township 27 North Range 8 West: GPS 36.549537, -107.649872, 36.544737, -107.644162, 36.539889, -107.636994, 36.538368, -107.636994 and 36.538072, -107.636657; Rio Arriba, NM

4. Source and Description of Waste:
Source: Natural Gas Pipeline Release
Description: Hydrocarbon impacted soils associated with excavation activities for a natural gas pipeline release..
Estimated Volume 200 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 1212 yd³ bbls

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, 5-1-15, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, Randa Runum, 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: Crossfire, Rosenbaum, Ryvek, Bailey's Welding
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: Randa Runum
SIGNATURE: Randa Runum
Surface Waste Management Facility Authorized Agent

TITLE: Waste Coordinator
TELEPHONE NO.: 505-632-0615

DATE: 4/3/15

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

97057-0697
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 Sites May 2015
3. **Location of Material (Street Address, City, State or ULSTR):**
Unit Letter B and H of Section 26 and Unit Letter N of Section 25 Township 27 North Range 8 West: GPS 36.549537, -107.649872, 36.544737, -107.644162, 36.539889, -107.636994, 36.538368, -107.636994 and 36.538072, -107.636657; Rio Arriba, NM
4. **Source and Description of Waste:**
Source: Natural Gas Pipeline Release
Description: Hydrocarbon impacted soils associated with excavation activities for a natural gas pipeline release..
Estimated Volume 200 yd³/bbls Known Volume (to be entered by the operator at the end of the haul) 304 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, 5-1-15, 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:** Crossfire Bailey's Rosenbaum
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 Tuning
SIGNATURE: Kendra Tuning
Surface Waste Management Facility Authorized Agent

TITLE: Waste Coordinator DATE: 5-1-15
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

97057-0697
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 Sites

3. Location of Material (Street Address, City, State or ULSTR):
Unit Letter B and H of Section 26 and Unit Letter N of Section 25 Township 27 North Range 8 West: GPS 36.549537, -107.649872, 36.544737, -107.644162, 36.539889, -107.636994, 36.538368, -107.636994 and 36.538072, -107.636657; Rio Arriba, NM

4. Source and Description of Waste:
Source: Natural Gas Pipeline Release
Description: Hydrocarbon impacted soils associated with excavation activities for a natural gas pipeline release.
Estimated Volume 200 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 72 yd³ bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, James 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, James 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, 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: Envirotech, JP Trucking, ABC, Cotant Bros, Kelley Cig, Tanco
OCD Permitted Surface Waste Management Facility Rich

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 Runy
SIGNATURE: Kendra Runy
Surface Waste Management Facility Authorized Agent

TITLE: Waste Coordinator DATE: 6-15-15
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

May 07, 2015

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

RE: Trunk K 2015

OrderNo.: 1505060

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 10 sample(s) on 5/2/2015 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1505060

Date Reported: 5/7/2015

CLIENT: Souder, Miller and Associates**Client Sample ID:** #9 SC-1 N**Project:** Trunk K 2015**Collection Date:** 5/1/2015 10:00:00 AM**Lab ID:** 1505060-001**Matrix:** SOIL**Received Date:** 5/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/4/2015 3:14:22 PM	19021
Surr: DNOP	96.5	57.9-140		%REC	1	5/4/2015 3:14:22 PM	19021
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/5/2015 12:22:08 PM	19020
Surr: BFB	91.6	80-120		%REC	1	5/5/2015 12:22:08 PM	19020
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/5/2015 12:22:08 PM	19020
Toluene	ND	0.049		mg/Kg	1	5/5/2015 12:22:08 PM	19020
Ethylbenzene	ND	0.049		mg/Kg	1	5/5/2015 12:22:08 PM	19020
Xylenes, Total	ND	0.099		mg/Kg	1	5/5/2015 12:22:08 PM	19020
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	5/5/2015 12:22:08 PM	19020

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1505060

Date Reported: 5/7/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: #9 SC-2 S

Project: Trunk K 2015

Collection Date: 5/1/2015 10:05:00 AM

Lab ID: 1505060-002

Matrix: SOIL

Received Date: 5/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/4/2015 3:41:05 PM	19021
Surr: DNOP	96.2	57.9-140		%REC	1	5/4/2015 3:41:05 PM	19021
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/5/2015 12:50:52 PM	19020
Surr: BFB	94.3	80-120		%REC	1	5/5/2015 12:50:52 PM	19020
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/5/2015 12:50:52 PM	19020
Toluene	ND	0.049		mg/Kg	1	5/5/2015 12:50:52 PM	19020
Ethylbenzene	ND	0.049		mg/Kg	1	5/5/2015 12:50:52 PM	19020
Xylenes, Total	ND	0.097		mg/Kg	1	5/5/2015 12:50:52 PM	19020
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	5/5/2015 12:50:52 PM	19020

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 Not In Range
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.**Analytical Report**

Lab Order 1505060

Date Reported: 5/7/2015

CLIENT: Souder, Miller and Associates**Client Sample ID:** #9 SC-3 E**Project:** Trunk K 2015**Collection Date:** 5/1/2015 10:10:00 AM**Lab ID:** 1505060-003**Matrix:** SOIL**Received Date:** 5/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/4/2015 4:07:43 PM	19021
Surr: DNOP	95.6	57.9-140		%REC	1	5/4/2015 4:07:43 PM	19021
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/5/2015 1:19:35 PM	19020
Surr: BFB	92.0	80-120		%REC	1	5/5/2015 1:19:35 PM	19020
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/5/2015 1:19:35 PM	19020
Toluene	ND	0.050		mg/Kg	1	5/5/2015 1:19:35 PM	19020
Ethylbenzene	ND	0.050		mg/Kg	1	5/5/2015 1:19:35 PM	19020
Xylenes, Total	ND	0.10		mg/Kg	1	5/5/2015 1:19:35 PM	19020
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	5/5/2015 1:19:35 PM	19020

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 Not In Range	
	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 1505060

Date Reported: 5/7/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: #9 SC-4 W

Project: Trunk K 2015

Collection Date: 5/1/2015 10:15:00 AM

Lab ID: 1505060-004

Matrix: SOIL

Received Date: 5/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/4/2015 4:34:26 PM	19021
Surr: DNOP	100	57.9-140		%REC	1	5/4/2015 4:34:26 PM	19021
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/5/2015 1:48:19 PM	19020
Surr: BFB	91.8	80-120		%REC	1	5/5/2015 1:48:19 PM	19020
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	5/5/2015 1:48:19 PM	19020
Toluene	ND	0.050		mg/Kg	1	5/5/2015 1:48:19 PM	19020
Ethylbenzene	ND	0.050		mg/Kg	1	5/5/2015 1:48:19 PM	19020
Xylenes, Total	ND	0.10		mg/Kg	1	5/5/2015 1:48:19 PM	19020
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	5/5/2015 1:48:19 PM	19020

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 Not In Range	
	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 1505060

Date Reported: 5/7/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: #9 SC-5 Base

Project: Trunk K 2015

Collection Date: 5/1/2015 10:20:00 AM

Lab ID: 1505060-005

Matrix: SOIL

Received Date: 5/2/2015 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/4/2015 5:01:28 PM	19021
Surr: DNOP	101	57.9-140		%REC	1	5/4/2015 5:01:28 PM	19021
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/5/2015 2:17:03 PM	19020
Surr: BFB	90.8	80-120		%REC	1	5/5/2015 2:17:03 PM	19020
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	5/5/2015 2:17:03 PM	19020
Toluene	ND	0.049		mg/Kg	1	5/5/2015 2:17:03 PM	19020
Ethylbenzene	ND	0.049		mg/Kg	1	5/5/2015 2:17:03 PM	19020
Xylenes, Total	ND	0.099		mg/Kg	1	5/5/2015 2:17:03 PM	19020
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	5/5/2015 2:17:03 PM	19020

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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505060

07-May-15

Client: Souder, Miller and Associates

Project: Trunk K 2015

Sample ID	MB-19021	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	19021	RunNo:	25918					
Prep Date:	5/4/2015	Analysis Date:	5/4/2015	SeqNo:	768279	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	9.8		10.00		98.1	57.9	140			

Sample ID	LCS-19021		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 19021		RunNo: 25918					
Prep Date:	5/4/2015		Analysis Date: 5/4/2015		SeqNo: 768718		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	4.8		5.000		95.6	57.9	140			

Qualifiers:

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505060

07-May-15

Client: Souder, Miller and Associates

Project: Trunk K 2015

Sample ID	MB-19020		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 19020		RunNo: 25957					
Prep Date:	5/4/2015		Analysis Date: 5/5/2015		SeqNo: 769854		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.1	80	120			

Sample ID	LCS-19020		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 19020		RunNo: 25957					
Prep Date:	5/4/2015		Analysis Date: 5/5/2015		SeqNo: 769855		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	64	130			
Surr: BFB	1000		1000		101	80	120			

Sample ID	5ML RB		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: R25957		RunNo: 25957					
Prep Date:			Analysis Date: 5/5/2015		SeqNo: 769884		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	920		1000		91.8	80	120			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: R25957		RunNo: 25957					
Prep Date:			Analysis Date: 5/5/2015		SeqNo: 769885		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		98.9	80	120			

Sample ID	5ML RB		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: R25998		RunNo: 25998					
Prep Date:			Analysis Date: 5/6/2015		SeqNo: 771159		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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: R25998		RunNo: 25998					
Prep Date:			Analysis Date: 5/6/2015		SeqNo: 771160		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	990		1000		98.8	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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505060

07-May-15

Client: Souder, Miller and Associates

Project: Trunk K 2015

Sample ID	MB-19020	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID: 19020			RunNo: 25957					
Prep Date:	5/4/2015	Analysis Date: 5/5/2015			SeqNo: 769908		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		105	80	120			

Sample ID	LCS-19020		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 19020		RunNo: 25957					
Prep Date:	5/4/2015		Analysis Date: 5/5/2015		SeqNo: 769909		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	108	76.6	128			
Toluene	1.1	0.050	1.000	0	107	75	124			
Ethylbenzene	1.1	0.050	1.000	0	109	79.5	126			
Xylenes, Total	3.2	0.10	3.000	0	107	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID	1505060-001AMS		SampType: MS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	#9 SC-1 N		Batch ID: 19020		RunNo: 25957					
Prep Date:	5/4/2015		Analysis Date: 5/5/2015		SeqNo: 769911		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.049	0.9747	0	118	69.2	126			
Toluene	1.1	0.049	0.9747	0	117	65.6	128			
Ethylbenzene	1.2	0.049	0.9747	0	120	65.5	138			
Xylenes, Total	3.4	0.097	2.924	0	117	63	139			
Surr: 4-Bromofluorobenzene	1.1		0.9747		110	80	120			

Sample ID	1505060-001AMSD		SampType: MSD		TestCode: EPA Method 8021B: Volatiles					
Client ID:	#9 SC-1 N		Batch ID: 19020		RunNo: 25957					
Prep Date:	5/4/2015		Analysis Date: 5/5/2015		SeqNo: 769912		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.049	0.9862	0	113	69.2	126	3.29	18.5	
Toluene	1.1	0.049	0.9862	0	111	65.6	128	4.00	20.6	
Ethylbenzene	1.1	0.049	0.9862	0	115	65.5	138	3.46	20.1	
Xylenes, Total	3.3	0.099	2.959	0	113	63	139	2.63	21.1	
Surr: 4-Bromofluorobenzene	1.1		0.9862		111	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 Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1505060

07-May-15

Client: Souder, Miller and Associates

Project: Trunk K 2015

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R25998	RunNo:	25998					
Prep Date:		Analysis Date:	5/6/2015	SeqNo:	771207	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		99.8	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R25998	RunNo:	25998					
Prep Date:		Analysis Date:	5/6/2015	SeqNo:	771210	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Qualifiers:

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

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- 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: 1505060

RcptNo: 1

Received by/date:

[Signature]

05/02/15

Logged By: Lindsay Mangin

5/2/2015 8:30:00 AM

[Signature]

Completed By: Lindsay Mangin

5/2/2015 10:14:59 AM

[Signature]

Reviewed By:

AT 05/04/15

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	3.6	Good	Yes			

Client: Souder Miller & Associates

Mailing Address: 401 W Broadway
Farmington, NM

Phone #: 505 325 7535

email or Fax#: Steven.moskal@saundersmiller.ca

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other☐ EDD (Type)

Turn-Around Time:

☐ Standard ☒ Rush 72 hr

Project Name:

Trunk k 2015

Project #: N20589

Project Manager:

Steve Moskal

Sampler: J. Sprague

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.10

[illegible]

Date:	Time:
5/1/15	1835

Relinquished by:

Received by:

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

Remarks:

Invoice Enterprise

Date:	Time:
2/1/15	1944

Relinquished by:

Received by:

Date Time

Please copy Jesse.Sprague@soudemiller.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.

Appendix D
Archeological Survey Reports

WCRM

Western Cultural Resource Management, Inc.

July 16, 2015

Mr. Tom Long
Enterprise Products Company
614 Reilly Ave.
Farmington, NM 87401

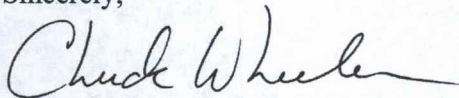
Dear Tom:

As requested, the client copy of our report on the archaeological monitor of the repair locations 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,



Charles W. Wheeler, Ph.D., RPA
Vice President

enc.

cc: Jim Copeland, BLM-FFO
Steve Moskal, Souder, Miller, and Associates (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.: 133832	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 Locations in San Juan County, New Mexico			5. Type of Report <input checked="" type="checkbox"/> Negative <input type="checkbox"/> Positive															
Author(s) Cindy J. Bunker																		
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 repairs for failed repair of leaks 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, LA 180209, and 179210. Temporary barriers were constructed and an archaeological monitor was present.			8. Dates of Investigation: March 2-June 24, 2015															
			9. Report Date: July 16, 2015															
10. Performing Agency/Consultant: Western Cultural Resource Management, Inc. Principal Investigator: Thomas J. Lennon Field Supervisor: Michael J. Proper, Sarah M. Morgan, Cindy J. Bunker, and Virginia Foster Field Personnel Names: Michael J. Proper, Sarah M. Morgan, Cindy J. Bunker, and Virginia Foster			11. Performing Agency/Consultant Report No.: WCRM(F)1394 Project No.: 15F014															
13. Client/Customer (project proponent): Enterprise Products Company Contact: Thomas Long Address: 614 Reilly Ave, Farmington, New Mexico 87401 Phone: (505) 599-2286			12. Applicable Cultural Resource Permit No(s): 25-2920-14-PP (BLM-FFO) 14. Client/Customer Project No.:															
15. Land Ownership Status (Must be indicated on project map): <table border="1" style="width:100%"> <thead> <tr> <th>Land Owner</th> <th>Acres Surveyed*</th> <th>Acres in APE</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr> <td style="text-align: right;">TOTALS</td> <td> </td> <td> </td> </tr> </tbody> </table> <p>*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 two of which required protective measures, LA 180207 and LA 180209. The initial monitoring of the leak repairs was conducted by WCRM (Bunker 2014). 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) Bunker, Cindy J. 2014 <i>Archaeological Monitoring of the Enterprise Products Company Trunk K Pipeline Repair Locations in San Juan County, New Mexico.</i> Report No. WCRM(F)1349. Western Cultural Resource Management, Inc., Farmington, New Mexico. (NMCRIS 132260)																		
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		Name of Reviewer(s)																
		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:**

Township (N/S)	Range (E/W)	Section	1/4	1/4	1/4
27N	8W	25*	SE1/4, SE1/4, SW1/4		

*template anchored on SE corner and southern section line

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:** ☐ 100% coverage ☐ <100% coverage**Configuration:** ☐ block survey units ☐ linear survey units (l x w): ☐ other survey units (specify):**Scope:** ☐ non-selective (all sites recorded) ☐ selective/thematic (selected sites recorded)**Coverage Method:** ☐ systematic pedestrian coverage ☐ other method (describe)**Survey Interval (m):** N/A **Crew Size:** 1 **Fieldwork Dates:** March 2, 7, 31, April 1, 2, 3, 6, 23, 24, 27, 28, 29, 30, May 1, 12, 13, 14, 15, and June 8, 9, 22, and 24, 2015.**Survey Person Hours:** **Recording Person Hours:** **Total Hours:** 217

Additional Narrative: On March 2, 2015, prior to any construction on the failed repair locations on the Trunk K pipeline, temporary barrier fences were constructed by Michael J. Proper as stipulated by the BLM-FFO. Activities related to the repairs conducted at the failed repair locations were monitored between March 2, and June 24, 2015 by Michael J. Proper, Sarah M. Morgan, Cindy J. Bunker, and Virginia Foster. 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 during any repair activities. To protect LA 180209 a temporary barrier fence was placed along the northern edge of the access road and the eastern edge of the Trunk K ROW along the site boundary. For the protection of LA 180210 a temporary fence was placed along the western edge of the ROW through the site area. As required by the BLM photographs were taken 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** ☐ Yes, ☒ No, Discuss Why: No cultural material was encountered during the monitor.**22. Required Attachments (check all appropriate boxes):**

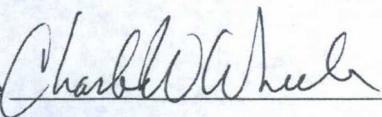
- ☒ USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn
- ☐ Copy of NMCRIS Mapserver Map Check
- ☐ LA Site Forms - new sites (*with sketch map & topographic map*)
- ☐ LA Site Forms (update) - previously recorded & un-relocated sites (*first 2 pages minimum*)
- ☐ Historic Cultural Property Inventory Forms
- ☐ List and Description of isolates, if applicable (see p. 3)
- ☐ List and Description of Collections, if applicable

23. Other Attachments:

- ☐ Photographs and Log
 - ☐ 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

Signature



Date

7/16/15

Title (if not PI):

25. Reviewing Agency:

Reviewer's Name/Date

Accepted () Rejected ()

Tribal Consultation (if applicable): ☐ Yes ☐ 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.: 133832	2. Lead (Sponsoring) Agency: Bureau of Land Management, Farmington Field Office	3. Lead Agency Report No.:
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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: 3

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)* :

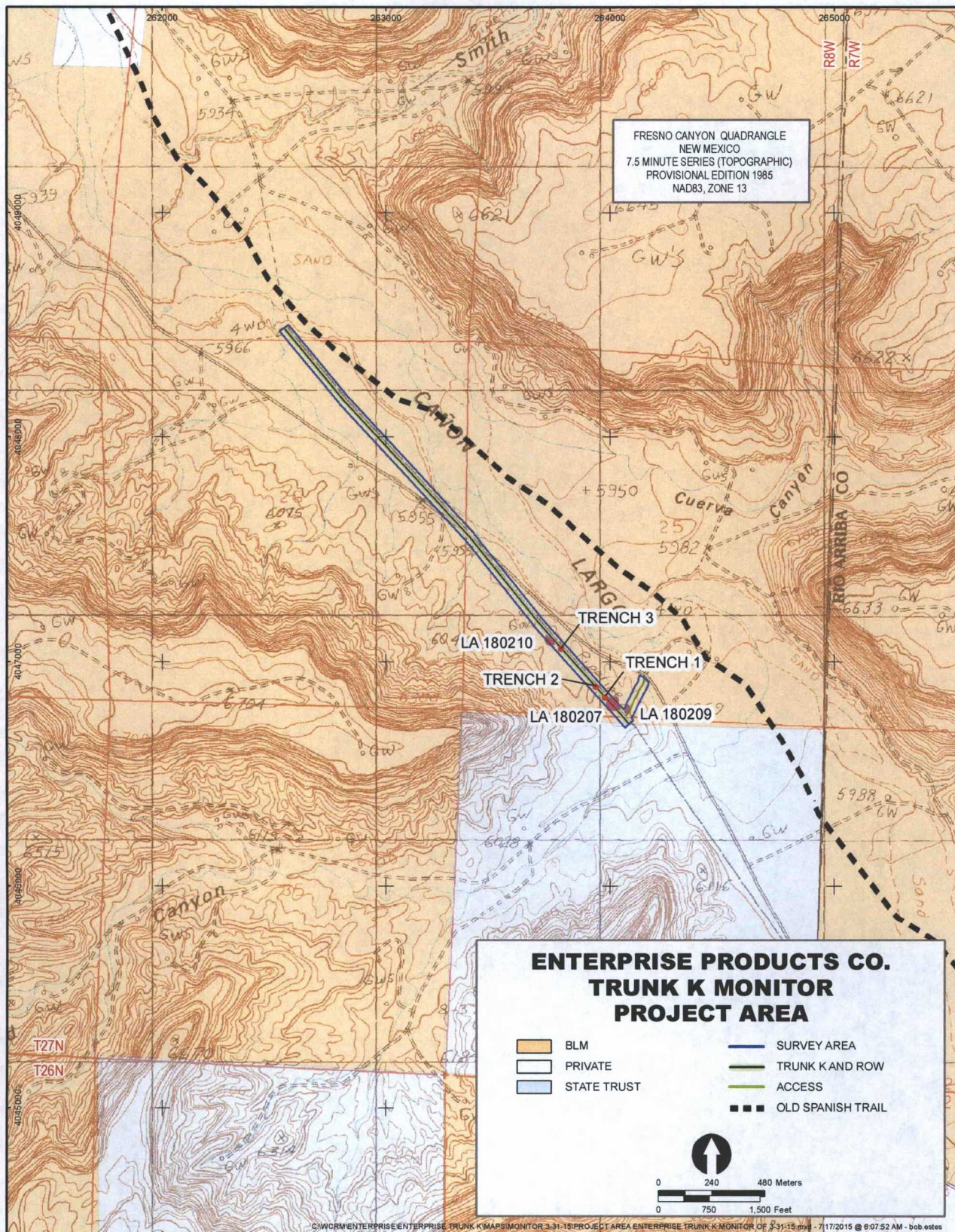
Previously recorded sites *(Site update form required)*:

LA No.	Field/Agency No.	LA No.	Field/Agency No.
		LA 180207	14F111-S1
		LA 180209	14F111-S4
		LA 180210	14F115-S5

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



Trench 1 repair location from southern end of trench looking north.



Trench 1 repair location from northern end of trench looking south toward Site LA 179207.



Trench 1 excavation in progress.



Trench 1 area clean-up after repair completion facing north.



Trench 2 with repaired pipe.



Trench 2 area clean-up after repair completion facing north.



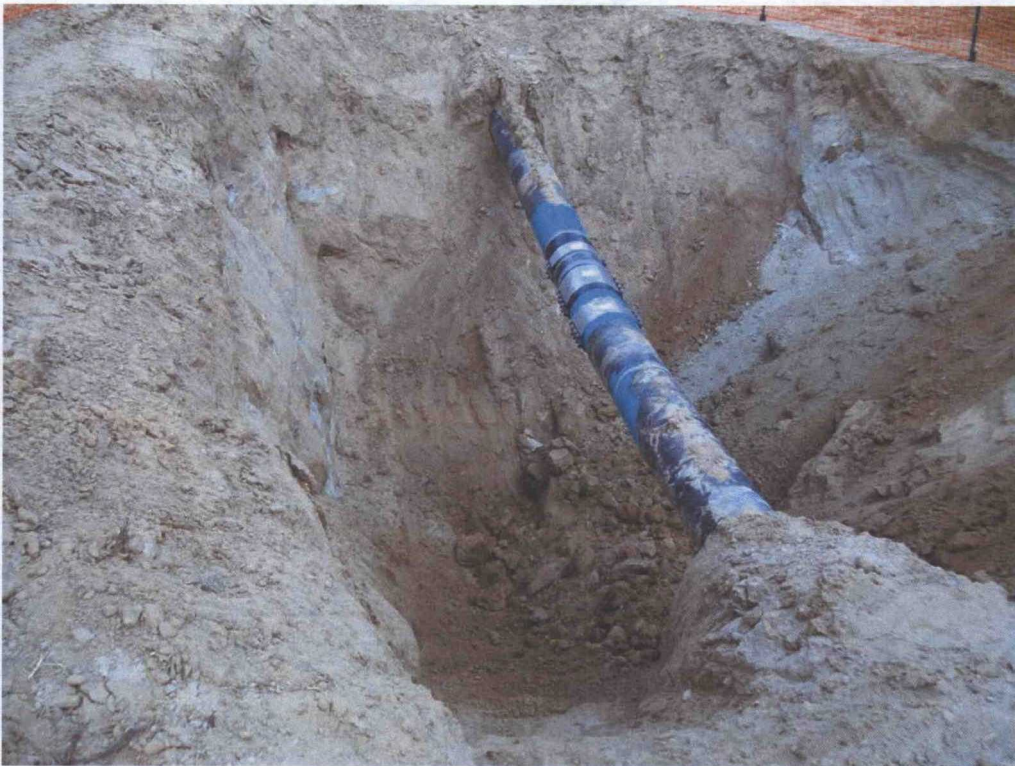
Trench 2 area clean-up after repair completion facing south.



Trench 3 repair location from northern end of trench looking south.



From the northern end of Trench 3 repair location looking towards site LA 180210.
The riser is located within the site.



Trench 3 excavation in progress.



Trench 3 excavation in progress.



Trench 3 area clean-up after repair completion facing south.