3R-1012

Release Report/ General Correspondence

Enterprise RA

Date: Apr-Jun 2015

196

OIL CONS. DIV DIST. 3

APR 17 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

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 K-7**	Facility Type: **Natural Gas Gathering Pipeline**

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

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	**22**	**26N**	**7W**	**1295**	(South)	**1120**	(West)	**Rio Arriba**

Latitude 36.468544 Longitude -107.568421

NATURE OF RELEASE

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release **Unknown**	Volume Recovered: **None**
Source of Release: Faulty Repair	Date and Hour of Occurrence: **3/23/15 @ 1:00 p.m.**	Date and Hour of Discovery: **3/23/15 @ 1:30 p.m.**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? Courtesy Notification – Cory Smith – NMOCD; Shari Ketcham - BLM	
By Whom? Thomas Long	Date and Time 3/23/15 at 3:23 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On March 23, 2015, Enterprise discovered a release on the Lateral K-7 pipeline during maintenance activities. The pipeline was previously isolated, blown down, locked out and tagged out for safety and environmental concerns. The release was a result of a faulty repair of the pipeline.

Describe Area Affected and Cleanup Action: Subsurface contamination was encountered in the excavation. Upon further investigation with a hand auger and a photo-ionization detector, the subsurface contaminants were determined to be at depths ranging from eight (8) feet below ground surface (bgs) and eighteen (18) feet bgs. A third party environmental contractor will oversee excavation activities and collected closure samples during the repairs. A "Final" C-141 will be submitted upon receipt of the third party environmental contractor corrective action report.

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

Signature: Jon Fields	OIL CONSERVATION DIVISION	
Printed Name: Jon E. Fields	Approved by Environmental Specialist:	
Title: Director, Environmental	Approval Date: 4/30/15	Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval:	Attached ☐
Date: 3-30-2015 Phone: (713)381-6684		

* Attach Additional Sheets If Necessary

#NCS 1512030409

OIL CONS. DIV DIST. 3

APR 13 2015

District I
1625 N. French Dr., Hobbs, NM 88240
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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 K-31 Release Site**	Facility Type: **Natural Gas Gathering Line**

Surface Owner: **State of NM**	Mineral Owner: **BLM**	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	**16**	**25N**	**6W**	**1293**		**1092**		**Rio Arriba**

Latitude 36.403565 **Longitude** -107.477592

NATURE OF RELEASE

Type of Release: Natural Gas	Volume of Release **44.09 MCF Gas**	Volume Recovered: **None**
Source of Release: Internal Corrosion	Date and Hour of Occurrence: **1/19/2014 @ 11:30 a.m.**	Date and Hour of Discovery: **1/19/2014 @ 12:30 p.m.**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? Courtesy Notification – Cory Smith, NMOCD	
By Whom? Thomas Long	Date and Hour **1/26/2015 @ 7:19 a.m.**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On January 19, 2015, Enterprise technicians confirmed a leak on Lateral K-31 pipeline. The pipeline was isolated, de-pressurized and lock out tag out was applied. Repairs were completed on January 27, 2015. The release was a result of internal corrosion.

Describe Area Affected and Cleanup Action: A third party environmental contractor conducted an investigation during the repair activities. The investigation indicated that the dry natural gas release caused no subsurface impacts. Excavated soils were sampled and laboratory analysis indicated no hydrocarbon impacts associated with the release. Soils excavated during the repair activities were used as backfill. A third party investigation report is included with this "Final." C-141.

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

Signature: Jon Fields	OIL CONSERVATION DIVISION	
Printed Name: Jon E. Fields	Approved by Environmental Specialist:	
Title: Director, Environmental	Approval Date: 5/12/15	Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval:	Attached ☐
Date: 4-8-2015 Phone: (713)381-6684		

* Attach Additional Sheets If Necessary

#NCS 1507248889

BG

APEX

CORRECTIVE ACTION REPORT

Property:

Lateral K-31 January 2015 Pipeline Release
NW 1/4, S16 T25N R6W
Rio Arriba County, New Mexico

February 26, 2015
Apex Project No. 7250415G002

Prepared for:

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

Prepared by:

Ranee Deechilly
Environmental Scientist

Elizabeth Scaggs, P.G.
Division Manager

TABLE OF CONTENTS

LIST OF APPENDICES

APEX

CORRECTIVE ACTION REPORT

Lateral K-31 January 2015 Pipeline Release
NW 1/4, S16 T25N R6W
Rio Arriba County, New Mexico

Apex Project No. 7250415G002

1.0 INTRODUCTION

1.1 Site Description & Background

The Lateral K-31 January 2015 Pipeline Release Site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the northwest (NW) ¼ of Section 16 in Township 25 North and Range 6 West in rural Rio Arriba County, New Mexico (36.40358N, 107.47759W), referred to hereinafter as the "Site" or "subject Site". The Site is located on State land managed by the New Mexico State Land Office. The Site is surrounded by native vegetation rangeland periodically interrupted with oil and gas production and gathering facilities, including the Enterprise natural gas gathering pipeline which traverses the area from approximately north to south.

Beginning on January 26, 2015, Enterprise initiated excavation activities at the Site in an effort to locate and repair a subsurface leak. The leak was subsequently identified and repaired. An unknown quantity of natural gas was released from the pipeline as a result of internal corrosion. The leak was identified by a gas vapor survey at the ground surface.

A topographic map depicting the location of the Site is included as Figure 1, and a Site Vicinity Map is included as Figure 2 in Appendix A.

1.2 Project Objective

The primary objective of the corrective actions was to reduce the concentration of constituents of concern (COCs) in the on-Site soils to below the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD), Oil Conservation Division (OCD) *Remediation Action Levels* using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.

2.0 SITE RANKING

In accordance with the New Mexico ENMRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases*, Apex TITAN, Inc. (Apex) utilized the general site characteristics obtained during the completion of corrective action activities and information available from the Office of the New Mexico Office of the State Engineer (OSE) to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the following table:

Ranking Criteria			Ranking Score
Depth to Groundwater	<50 feet	20	**20**
	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			**40**

Based on Apex's evaluation of the scoring criteria, the Site would have a maximum Total Ranking Score of "40". This ranking is based on the following:

- Depth to groundwater is anticipated to be approximately 15 feet below grade surface (bgs) as observed in nearby groundwater monitoring wells and elevation differential between the Site and Largo Wash, resulting in a depth to groundwater ranking of "20".
- No water source wells (municipal/community wells) were identified within 1,000 feet of the Site. No private domestic water sources were identified within 200 feet of the Site. The lack of water source proximities results in a wellhead protection area ranking of "0".
- The release point is located less than 200 west of an ephemeral wash that drains to Largo Wash, resulting in a distance to surface water ranking of "20".

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

Beginning on January 26, 2015, Enterprise initiated excavation activities at the Site in an effort to locate and repair a subsurface leak. The leak was subsequently identified and repaired. An unknown quantity of natural gas was released from the pipeline as a result of internal corrosion. The leak was identified by a gas vapor survey at the ground surface. During the corrective action activities, Crossfire, LLC provided heavy equipment and labor support, and Heather Woods and Ranee Deechilly, Apex environmental professionals, provided environmental support.

The surface expression of the excavation measured approximately 19 feet long by nine (9) feet wide, with a total depth of approximately five (5) feet bgs.

The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated sand with silt and clay.

The unaffected soil stockpiles were sampled to verify acceptable COC concentrations prior to use as backfill. The area was contoured to surrounding grade subsequent to backfilling activities.

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 B.

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.

Apex's soil sampling program included the collection of five (5) final confirmation samples (C-1 through C-5) from the resulting excavation for laboratory analysis. In addition, two (2) composite samples (SP-1 and SP-2) were collected from the unaffected stockpiled soils to determine the potential to reuse these soils as backfill material. Figure 3 depicts the approximate location of the excavated area and shows the final confirmation sample locations in relation to the final excavation dimensions (Appendix A).

The confirmation soil samples were collected and placed in laboratory prepared glassware, labeled/sealed using the laboratory supplied labels, and placed on ice in a cooler, which was secured with a custody seal. The sample cooler and completed chain-of-custody form were relinquished to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico, for rush analysis.

3.3 Laboratory Analytical Methods

The confirmation soil samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) utilizing Environmental Protection Agency (EPA) SW-846 Method #8021, and total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (DRO) utilizing EPA SW-846 Method #8015. Soil samples SP-1 and SP-2 were also analyzed for chlorides utilizing EPA Method 300.0.

Laboratory results are summarized in Table 1, included in Appendix C. The executed chain-of-custody form and laboratory data sheets are provided in Appendix D.

4.0 DATA EVALUATION

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. To address activities related to condensate releases, the New Mexico EMNRD OCD utilizes the *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the OCD rules, specifically New Mexico Administrative Code 19.15.29 *Remediation Plan*. These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action.

4.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or reporting limits associated with the final confirmation samples (C-1 through C-5) collected from the excavated area to the OCD *Remediation Action Levels* (RALs) for sites having a total ranking score of "40".

- The laboratory analyses of confirmation samples collected from soils remaining in place or reused as backfill do not indicate benzene concentrations above the laboratory reporting limits, which are below the OCD *Remediation Action Level.*

- The laboratory analyses of the confirmation samples collected from soils remaining in place or reused as backfill do not indicate total BTEX concentrations above the laboratory reporting limits, which are below the OCD *Remediation Action Level.*

- The laboratory analyses of the confirmation samples collected from soils remaining in place or reused as backfill did not indicate combined TPH GRO/DRO concentrations above the laboratory reporting limits, which are below the OCD *Remediation Action Level* for a Site ranking of "40".

- Stockpile samples (SP-1 and SP-2) were analyzed to determine the chloride concentration of the release area soils. SP-1 and SP-2 exhibited chloride concentrations of 90 mg/kg and 120 mg/kg, respectively.

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

5.0 FINDINGS AND RECOMMENDATIONS

The Lateral K-31 January 2015 Pipeline Release Site is located within the Enterprise ROW in the NW ¼ of Section 16 in Township 25 North and Range 6 West in rural Rio Arriba County, New Mexico. The Site is located on State Land managed by the New Mexico State Land Office. The Site is surrounded by native vegetation rangeland periodically interrupted with oil and gas production and gathering facilities, including the Enterprise natural gas gathering pipeline which traverses the area from approximately north to south.

Beginning on January 26, 2015, Enterprise initiated excavation activities at the Site in an effort to locate and repair a subsurface leak. The leak was subsequently identified and repaired. An unknown quantity of natural gas was released from the pipeline as a result of internal corrosion. The leak was identified by a gas vapor survey at the ground surface.

- The primary objective of the corrective actions was to reduce the concentration of COCs in the on-Site soils to below the New Mexico EMNRD OCD *RALs* using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.

- The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated sand with silt and clay.

- The surface expression of the excavation measured approximately 19 feet long by nine (9) feet wide, with a total depth of approximately five (5) feet bgs.

- Prior to backfilling, five (5) final confirmation samples and two (2) stockpile samples were collected from the resulting excavation for laboratory analyses. Based on analytical results, soils remaining in place or reused as backfill do not exhibit COC concentrations above the OCD *Remediation Action Levels* for a Site ranking of "40".

- The excavation was backfilled with the stockpiled soil analytically verified to be below applicable OCD *Remediation Action Levels* and contoured to surrounding grade.

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

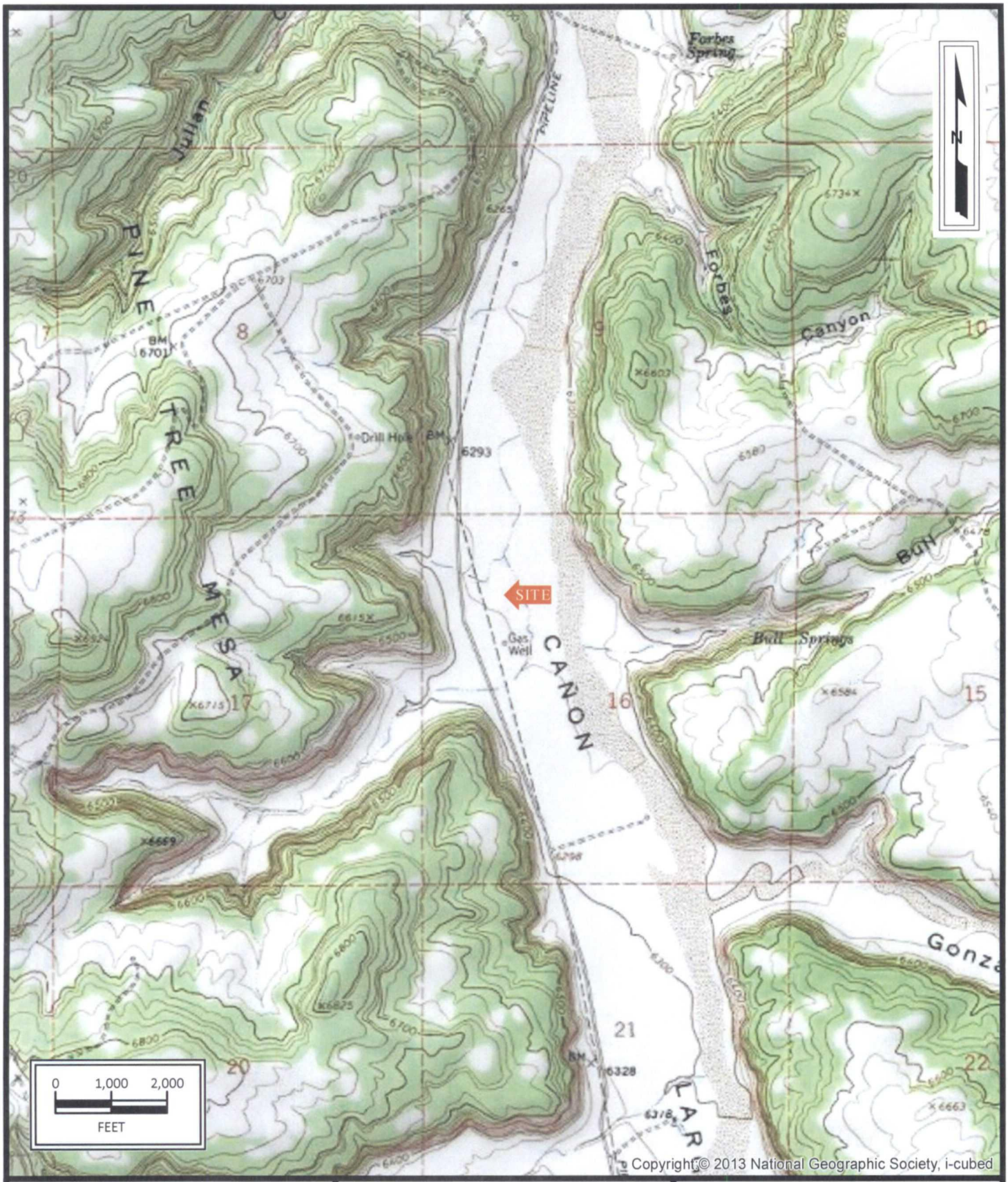
6.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

Apex's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, Apex does not warrant the work of third parties supplying information used in the report (e.g.

laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client.

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and Apex cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this scope of services. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. Apex's findings and recommendations are based solely upon data available to Apex at the time of these services.

This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the expressed written authorization of Enterprise and Apex. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, the report, and Apex's Agreement. The limitation of liability defined in the agreement is the aggregate limit of Apex's liability to the client.



Lateral K-31 (Jan 2015)
Pipeline Release
NW1/4 Sec16 T25N R6W
Rural Rio Arriba County, New Mexico
36.4035806N, 107.4775972W

Project No. 7250415G002

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
Gonzales Mesa, NM Quadrangle
1963

Lateral K-31 (Jan 2015)
Pipeline Release
NW1/4 Sec16 T25N R6W
Rural Rio Arriba County, New Mexico
36.4035806N, 107.4775972W

Project No. 7250415G002

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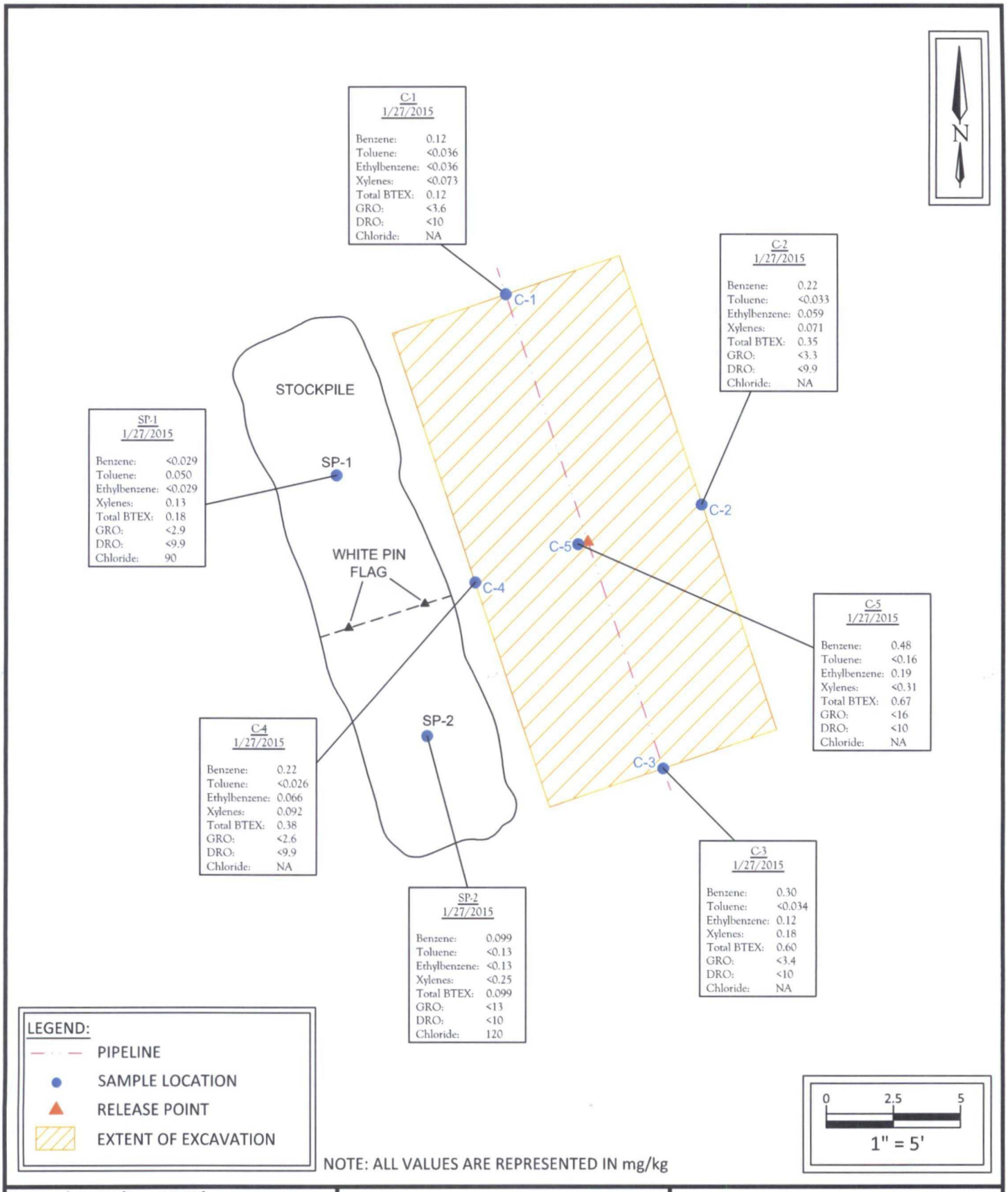
FIGURE 2
Site Vicinity Map



NOTE: ALL VALUES ARE REPRESENTED IN mg/kg

Lateral K-31 (Jan 2015)
Pipeline Release
NW1/4 Sec16 T25N R6W
Rural Rio Arriba County, New Mexico
36.4035806N, 107.4775972W

Project No. 7250415G002

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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
Site Map with Sample Locations

Z:\Houston South\Drafting\New Mexico 04\2015\7250415G002\Figure 3.dwg 02/09/15

Photograph 1 View of the final excavation, facing northwest	
Photograph 2 View of the final excavation, facing northwest.	
Photograph 3 View of the final excavation, facing north.	

Photograph 4 View of the final excavation, facing southeast.	
Photograph 5 View of the final excavation, facing southwest.	
Photograph 6 View of stockpile, facing north.	

Photograph 7 View of stockpile, facing southwest.	

TABLE 1
Lateral K-31 (Jan 2015) 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)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100		NE
Excavation Confirmation Samples										
C-1	1/27/2015	2 to 5	0.12	<0.036	<0.036	<0.073	0.12	<3.6	<10	NA
C-2	1/27/2015	2 to 5	0.22	<0.033	0.059	0.071	0.35	<3.3	<9.9	NA
C-3	1/27/2015	2 to 5	0.30	<0.034	0.12	0.18	0.60	<3.4	<10	NA
C-4	1/27/2015	2 to 5	0.22	<0.026	0.066	0.092	0.38	<2.6	<9.9	NA
C-5	1/27/2015	5	0.48	<0.16	0.19	<0.31	0.67	<16	<10	NA
Stockpile Samples										
SP-1	1/27/2015	Stockpile	<0.029	0.050	<0.029	0.13	0.18	<2.9	<9.9	90
SP-2	1/27/2015	Stockpile	0.099	<0.13	<0.13	<0.25	0.099	<13	<10	120

*Concentrations are preliminary laboratory results and are subject to change upon issuance of the final laboratory report.

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

January 29, 2015

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

RE: Lateral K-31 (2015) OrderNo.: 1501945

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 5 sample(s) on 1/28/2015 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 **1501945**
Date Reported: **1/29/2015**

CLIENT: APEX TITAN
Project: Lateral K-31 (2015)
Lab ID: 1501945-001
Client Sample ID: C-1
Collection Date: 1/27/2015 5:25:00 PM
Matrix: MEOH (SOIL)
Received Date: 1/28/2015 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **WL**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/28/2015 12:13:07 PM	17437
Surr: DNOP	81.8	63.5-128		%REC	1	1/28/2015 12:13:07 PM	17437
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	1/28/2015 4:07:31 PM	17419
Surr: BFB	95.1	80-120		%REC	1	1/28/2015 4:07:31 PM	17419
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.12	0.036		mg/Kg	1	1/28/2015 4:07:31 PM	17419
Toluene	ND	0.036		mg/Kg	1	1/28/2015 4:07:31 PM	17419
Ethylbenzene	ND	0.036		mg/Kg	1	1/28/2015 4:07:31 PM	17419
Xylenes, Total	ND	0.073		mg/Kg	1	1/28/2015 4:07:31 PM	17419
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	1/28/2015 4:07:31 PM	17419

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: C-2
Project: Lateral K-31 (2015)
Collection Date: 1/27/2015 5:30:00 PM
Lab ID: 1501945-002
Matrix: MEOH (SOIL)
Received Date: 1/28/2015 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **WL**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/28/2015 2:44:42 PM	17437
Surr: DNOP	79.2	63.5-128		%REC	1	1/28/2015 2:44:42 PM	17437
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	1/28/2015 11:48:37 AM	17419
Surr: BFB	101	80-120		%REC	1	1/28/2015 11:48:37 AM	17419
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.22	0.033		mg/Kg	1	1/28/2015 11:48:37 AM	17419
Toluene	ND	0.033		mg/Kg	1	1/28/2015 11:48:37 AM	17419
Ethylbenzene	0.059	0.033		mg/Kg	1	1/28/2015 11:48:37 AM	17419
Xylenes, Total	0.071	0.065		mg/Kg	1	1/28/2015 11:48:37 AM	17419
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	1/28/2015 11:48:37 AM	17419

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: C-3
Project: Lateral K-31 (2015)
Collection Date: 1/27/2015 5:35:00 PM
Lab ID: 1501945-003
Matrix: MEOH (SOIL)
Received Date: 1/28/2015 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **WL**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/28/2015 3:06:22 PM	17437
Surr: DNOP	79.4	63.5-128		%REC	1	1/28/2015 3:06:22 PM	17437
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	1/28/2015 12:17:25 PM	17419
Surr: BFB	108	80-120		%REC	1	1/28/2015 12:17:25 PM	17419
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.30	0.034		mg/Kg	1	1/28/2015 12:17:25 PM	17419
Toluene	ND	0.034		mg/Kg	1	1/28/2015 12:17:25 PM	17419
Ethylbenzene	0.12	0.034		mg/Kg	1	1/28/2015 12:17:25 PM	17419
Xylenes, Total	0.18	0.068		mg/Kg	1	1/28/2015 12:17:25 PM	17419
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	1/28/2015 12:17:25 PM	17419

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: C-4
Project: Lateral K-31 (2015)
Collection Date: 1/27/2015 5:40:00 PM
Lab ID: 1501945-004
Matrix: MEOH (SOIL)
Received Date: 1/28/2015 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **WL**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/28/2015 3:28:12 PM	17437
Surr: DNOP	79.2	63.5-128		%REC	1	1/28/2015 3:28:12 PM	17437
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	2.6		mg/Kg	1	1/28/2015 12:46:13 PM	17419
Surr: BFB	109	80-120		%REC	1	1/28/2015 12:46:13 PM	17419
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.22	0.026		mg/Kg	1	1/28/2015 12:46:13 PM	17419
Toluene	ND	0.026		mg/Kg	1	1/28/2015 12:46:13 PM	17419
Ethylbenzene	0.066	0.026		mg/Kg	1	1/28/2015 12:46:13 PM	17419
Xylenes, Total	0.092	0.053		mg/Kg	1	1/28/2015 12:46:13 PM	17419
Surr: 4-Bromofluorobenzene	111	80-120		%REC	1	1/28/2015 12:46:13 PM	17419

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: C-5
Project: Lateral K-31 (2015)
Collection Date: 1/27/2015 5:45:00 PM
Lab ID: 1501945-005
Matrix: MEOH (SOIL)
Received Date: 1/28/2015 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **WL**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/28/2015 3:49:52 PM	17437
Surr: DNOP	66.1	63.5-128		%REC	1	1/28/2015 3:49:52 PM	17437
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	16		mg/Kg	5	1/28/2015 10:51:12 AM	17419
Surr: BFB	103	80-120		%REC	5	1/28/2015 10:51:12 AM	17419
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.48	0.16		mg/Kg	5	1/28/2015 10:51:12 AM	17419
Toluene	ND	0.16		mg/Kg	5	1/28/2015 10:51:12 AM	17419
Ethylbenzene	0.19	0.16		mg/Kg	5	1/28/2015 10:51:12 AM	17419
Xylenes, Total	ND	0.31		mg/Kg	5	1/28/2015 10:51:12 AM	17419
Surr: 4-Bromofluorobenzene	110	80-120		%REC	5	1/28/2015 10:51:12 AM	17419

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501945**

29-Jan-15

Client: APEX TITAN

Project: Lateral K-31 (2015)

Sample ID **MB-17437**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **17437**	RunNo: **23939**
Prep Date: **1/28/2015**	Analysis Date: **1/28/2015**	SeqNo: **706379** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.1		10.00		80.8	63.5	128			

Sample ID **LCS-17437**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **17437**	RunNo: **23939**
Prep Date: **1/28/2015**	Analysis Date: **1/28/2015**	SeqNo: **706380** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.6	67.8	130			
Surr: DNOP	4.7		5.000		93.7	63.5	128			

Sample ID **1501945-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **C-1**	Batch ID: **17437**	RunNo: **23939**
Prep Date: **1/28/2015**	Analysis Date: **1/28/2015**	SeqNo: **706700** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	36	9.9	49.46	0	72.3	29.2	176			
Surr: DNOP	4.9		4.946		98.8	63.5	128			

Sample ID **1501945-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **C-1**	Batch ID: **17437**	RunNo: **23939**
Prep Date: **1/28/2015**	Analysis Date: **1/28/2015**	SeqNo: **706701** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	9.9	49.70	0	77.0	29.2	176	6.85	23	
Surr: DNOP	5.0		4.970		101	63.5	128	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501945**

29-Jan-15

Client: APEX TITAN

Project: Lateral K-31 (2015)

Sample ID	**MB-17419**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**17419**		RunNo:	**23952**				
Prep Date:	**1/27/2015**	Analysis Date:	**1/28/2015**		SeqNo:	**706468**	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	920		1000		92.3	80	120			

Sample ID	**LCS-17419**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**17419**		RunNo:	**23952**				
Prep Date:	**1/27/2015**	Analysis Date:	**1/28/2015**		SeqNo:	**706469**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	106	65.8	139			
Surr: BFB	1000		1000		101	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501945**

29-Jan-15

Client: APEX TITAN

Project: Lateral K-31 (2015)

Sample ID **MB-17419**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **17419**	RunNo: **23952**
Prep Date: **1/27/2015**	Analysis Date: **1/28/2015**	SeqNo: **706493** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
enzene	ND	0.050								
oluene	ND	0.050								
Ethylbenzene	ND	0.050								
ylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID **LCS-17419**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **17419**	RunNo: **23952**
Prep Date: **1/27/2015**	Analysis Date: **1/28/2015**	SeqNo: **706494** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
enzene	1.1	0.050	1.000	0	114	80	120			
oluene	1.1	0.050	1.000	0	108	80	120			
Ethylbenzene	1.1	0.050	1.000	0	112	80	120			
ylenes, Total	3.4	0.10	3.000	0	112	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1501945 RcptNo: 1

Received by/date: 01/28/15

Logged By: **Lindsay Mangin** 1/28/2015 7:30:00 AM

Completed By: **Lindsay Mangin** 1/28/2015 8:15:43 AM

Reviewed By: CS 01/28/15

Chain of Custody

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

Log In

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

Special Handling (if applicable)

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

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

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

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: H. Woods

Laboratory: Hall Environmental

Address: Albuquerque, NM

Contact: Andy Hall

Phone:

PO/SO #: 703041G028

Lab use only
Due Date:

Temp. of coolers when received (C°): 1,3

1	2	3	4	5

Page 1 of 1

Sampler's Name: Heather Woods / Ranee Deechilly

Sampler's Signature: Heather Woods / R Deechilly

Proj. No.: 703041G028

Project Name: Lateral K-31 (2015)

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No/Type of Containers: VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	8021 BTEX	8015 TPH (GRO/DRO)	Lab Sample ID (Lab Use Only)
S	1/27/15	1725			C-1						1		✓	✓	1501245-001
S	1/27/15	1730			C-2						1		✓	✓	-002
S	1/27/15	1735			C-3						1		✓	✓	-003
S	1/27/15	1740			C-4						1		✓	✓	-004
S	1/27/15	1745			C-5						1		✓	✓	-005

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☒ 100% Rush Same Day

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Heather M. Woods	1/27/15	2013	Mistie Walz	1/27/15	2013
Mistie Walz	1/27/15	2100		01/28/15	0730
	Date:	Time:	Received by: (Signature)	Date:	Time:
	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: Direct Bill to Enterprise Field Services
Attn: Tom Long

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

January 29, 2015

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

RE: Lateral K-31 (2015) OrderNo.: 1501946

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 2 sample(s) on 1/28/2015 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 **1501946**
Date Reported: **1/29/2015**

CLIENT: APEX TITAN
Project: Lateral K-31 (2015)
Lab ID: 1501946-001
Matrix: MEOH (SOIL)
Client Sample ID: SP-1
Collection Date: 1/27/2015 5:51:00 PM
Received Date: 1/28/2015 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **WL**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/28/2015 4:11:39 PM	17437
Surr: DNOP	80.7	63.5-128		%REC	1	1/28/2015 4:11:39 PM	17437
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	2.9		mg/Kg	1	1/28/2015 4:36:16 PM	17419
Surr: BFB	95.9	80-120		%REC	1	1/28/2015 4:36:16 PM	17419
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.029		mg/Kg	1	1/28/2015 4:36:16 PM	17419
Toluene	0.050	0.029		mg/Kg	1	1/28/2015 4:36:16 PM	17419
Ethylbenzene	ND	0.029		mg/Kg	1	1/28/2015 4:36:16 PM	17419
Xylenes, Total	0.13	0.057		mg/Kg	1	1/28/2015 4:36:16 PM	17419
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	1/28/2015 4:36:16 PM	17419
EPA METHOD 300.0: ANIONS						Analyst: **lgp**	
Chloride	90	30		mg/Kg	20	1/28/2015 10:52:44 AM	17443

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral K-31 (2015)
Lab ID: 1501946-002
Matrix: MEOH (SOIL)
Client Sample ID: SP-2
Collection Date: 1/27/2015 5:58:00 PM
Received Date: 1/28/2015 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **WL**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/28/2015 4:33:14 PM	17437
Surr: DNOP	84.6	63.5-128		%REC	1	1/28/2015 4:33:14 PM	17437
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	13		mg/Kg	5	1/28/2015 11:19:56 AM	17419
Surr: BFB	96.6	80-120		%REC	5	1/28/2015 11:19:56 AM	17419
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.099	0.063		mg/Kg	5	1/28/2015 11:19:56 AM	17419
Toluene	ND	0.13		mg/Kg	5	1/28/2015 11:19:56 AM	17419
Ethylbenzene	ND	0.13		mg/Kg	5	1/28/2015 11:19:56 AM	17419
Xylenes, Total	ND	0.25		mg/Kg	5	1/28/2015 11:19:56 AM	17419
Surr: 4-Bromofluorobenzene	106	80-120		%REC	5	1/28/2015 11:19:56 AM	17419
EPA METHOD 300.0: ANIONS						Analyst: **lgp**	
Chloride	120	30		mg/Kg	20	1/28/2015 11:05:09 AM	17443

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501946**

29-Jan-15

Client: APEX TITAN

Project: Lateral K-31 (2015)

Sample ID	**MB-17443**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**17443**	RunNo:	**23962**					
Prep Date:	**1/28/2015**	Analysis Date:	**1/28/2015**	SeqNo:	**706658**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-17443**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**17443**	RunNo:	**23962**					
Prep Date:	**1/28/2015**	Analysis Date:	**1/28/2015**	SeqNo:	**706659**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.7	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501946**

29-Jan-15

Client: APEX TITAN

Project: Lateral K-31 (2015)

Sample ID **MB-17437**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **17437**	RunNo: **23939**
Prep Date: **1/28/2015**	Analysis Date: **1/28/2015**	SeqNo: **706379** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.1		10.00		80.8	63.5	128			

Sample ID **LCS-17437**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **17437**	RunNo: **23939**
Prep Date: **1/28/2015**	Analysis Date: **1/28/2015**	SeqNo: **706380** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.6	67.8	130			
Surr: DNOP	4.7		5.000		93.7	63.5	128			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501946**

29-Jan-15

Client: APEX TITAN

Project: Lateral K-31 (2015)

Sample ID **MB-17419**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **17419**	RunNo: **23952**
Prep Date: **1/27/2015**	Analysis Date: **1/28/2015**	SeqNo: **706468** 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	920		1000		92.3	80	120			

Sample ID **LCS-17419**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **17419**	RunNo: **23952**
Prep Date: **1/27/2015**	Analysis Date: **1/28/2015**	SeqNo: **706469** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	106	65.8	139			
Surr: BFB	1000		1000		101	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501946**

29-Jan-15

Client: APEX TITAN

Project: Lateral K-31 (2015)

Sample ID	**MB-17419**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**17419**	RunNo:	**23952**					
Prep Date:	**1/27/2015**	Analysis Date:	**1/28/2015**	SeqNo:	**706493**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
enzene	ND	0.050								
oluene	ND	0.050								
Ethylbenzene	ND	0.050								
ylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	**LCS-17419**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**17419**	RunNo:	**23952**					
Prep Date:	**1/27/2015**	Analysis Date:	**1/28/2015**	SeqNo:	**706494**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
enzene	1.1	0.050	1.000	0	114	80	120			
oluene	1.1	0.050	1.000	0	108	80	120			
Ethylbenzene	1.1	0.050	1.000	0	112	80	120			
ylenes, Total	3.4	0.10	3.000	0	112	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1501946 | RcptNo: 1

Received by/date: 01/23/15

Logged By: **Lindsay Mangin** 1/28/2015 7:30:00 AM

Completed By: **Lindsay Mangin** 1/28/2015 8:21:00 AM

Reviewed By: 01/28/15

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

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

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: H. Woods

Laboratory: Hall Environmental

Address: Albuquerque, NM

Contact: Andy Hall

Phone:

PO/SO #: 703041460028

Lab use only
Due Date:

Temp. of coolers when received (C°): 1, 3

1	2	3	4	5

Page 1 of 1

Sampler's Name: Heather Woods / Ranee Deechilly

Sampler's Signature: Ranee Deechilly

Proj. No.: 703041460028

Project Name: Lateral K-31 (2015)

No/Type of Containers

ANALYSIS REQUESTED

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	8021 BTEX	8015 TPH (GRO/DRO)	Chloride	Lab Sample ID (Lab Use Only)
S	1/27/15	1751			SP-1						1		✓	✓	✓	1501946-001
S	1/27/15	1758			SP-2						1		✓	✓	✓	-002
	~~1/27/15~~															

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☒ 100% Rush Same Day

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Heather M. Woods	1/27/15	2013	[signature]	1/27/15	2013
[signature]	1/27/15	2100	[signature]	01/28/15	0730
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: Direct Bill to Enterprise Field Servcs
Attn: Tom Long

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

OIL CONS. DIV DIST. 3

APR 13 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

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: **Lybrook Station**	Facility Type: **NGL Pumping Station**

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

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	**14**	**23N**	**7W**	**123**		**2202**		**Rio Arriba**

Latitude 36.232608 **Longitude** -107.546006

NATURE OF RELEASE

Type of Release: Natural Gas Liquids	Volume of Release **23.74 BBLS**	Volume Recovered: **None**
Source of Release: Cracked weld on main suction header	Date and Hour of Occurrence: **1/19/2014 @ 11:30 a.m.**	Date and Hour of Discovery: **1/19/2014 @ 12:30 p.m.**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? Courtesy Notification – **Cory Smith, NMOCD, NRC Case # 1106616**	
By Whom? Thomas Long	Date and Hour **1/26/2015 @ 7:19 a.m.**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On January 19, 2015, technicians were completing a station check and discovered a gas odor in the control building. The technicians began monitoring the conduit raceways and conduit floor pits. High LEL readings were detected in the conduit. Hydro-excavating of potholes at the facility were initiated to determine the source of the high LELs. The hydro-excavating was directed to the area of highest LEL readings. Hydro- excavating and mechanical excavating determined the release was on the NGL piping to the main suction header. The piping was isolated, depressurized and lock out tag out was applied.

Describe Area Affected and Cleanup Action: Three areas of contamination were excavated during investigation and repair activities. Approximately 372 cubic yards of hydrocarbon impacted soil was mechanically excavated and approximately 520 barrels soils were hydro-excavated. All soils were disposed of at an approved New Mexico Oil Conservation Division land farm facility. A third party corrective action report is included with this "Final" C-141.

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

Signature: Jon Fields	OIL CONSERVATION DIVISION
Printed Name: Jon E. Fields	Approved by Environmental Specialist:
Title: Director, Environmental	Approval Date: 5/12/15 Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval: Attached ☐
Date: 4-8-2015 Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#NCS 1507248615

59

Lybrook Pump Station
Release Report

Section 14, Township 23N, Range 7W
N36.23255, W107.54605
Rio Arriba County, New Mexico
March 16, 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

Rule Engineering, LLC
Solutions to Regulations for Industry

Enterprise Products Operating, LLC
Lybrook Pump Station
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

Deborah Watson, PG, Geologist

Reviewed by:

Russell Knight, PG, Principal Hydrogeologist

March 16, 2015

Table of Contents

Tables

Figures

Appendices

1 Introduction

The Enterprise Products Operating, LLC (Enterprise) Lybrook Pump Station release site is located in Unit Letter C, Section 14, Township 23N, Range 7W in Rio Arriba County, New Mexico. The Lybrook Pump Station pumps natural gas liquids (NGL) and refined petroleum products to various distribution centers via the Mid-America Pipeline System. The facility is operated by Enterprise on behalf of the Mid-America Pipeline Company.

On January 19, 2015, technicians were completing a station check and discovered a gas odor in the control building. Search activities continued at the site until the release point was located on February 4, 2015. A release of 23.74 barrels (bbl) of natural gas liquids (NGL) occurred at a T-connection along the 18-inch NGL pipeline that feeds the main header. During search activities, three areas of hydrocarbon impacted soils were identified and remediated, resulting in three separate areas of excavation within the facility. Site work included repair of the leaking pipeline as well as maintenance work along exposed pipelines within the open excavations.

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 – Lybrook Pump Station
Location – Unit Letter C (NE/NW), Section 14, Township 23N, Range 7W
Location Latitude/Longitude – N36.23255 and W107.54605, respectively
Release Latitude/Longitude – N36.23270 and W107.54594, respectively
Land Jurisdiction – Private
Date Release Discovered – January 19, 2015
Agency Notification – New Mexico Oil Conservation Division (NMOCD) and National Response Center (NRC) Case #1106616 (January 26, 2015)
Agency Jurisdiction – NMOCD
Diameter of pipeline – 18-inch and 12-inch
Source of Release – NGL piping feeding main suction header, T-connection
Release Contents – NGL (Y-Grade)
Release Volume – 23.74 bbl
NMOCD Ranking – 10
Date(s) of Rule Engineering, LLC (Rule) Field Work – January 28 and February 4, 2015
Subcontractor(s) – Strike, LLC (mechanical excavation) and Nelson Revegetation Field Services (hydro-excavation)
Disposal Facility – Envirotech Land Farm (Permit #NM-01-011)
Amount of Contaminated Soil Excavated/Disposed – 372 cubic yards and 520 bbl

3 NMOCD Ranking

In accordance with NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993), this site was assigned a ranking score of 10 (Table 1). Based on the ranking score of 10, 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 1,000 mg/kg total petroleum hydrocarbons (TPH).

Depth to groundwater at the site was estimated to be greater than 100 feet below ground surface (bgs) based on the elevation differential (286 feet) between the release location and the wash in Escrito Canyon (approximately two miles to the east).

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. Water well SJ 01507, located approximately 3,500 feet west of the release location has a recorded depth to water of 900 feet bgs. Escrito Spring is located approximately one mile west of the release location.

Three unnamed washes, all of which ultimately drain to the wash in Escrito Canyon, are located approximately 673 feet northeast, 715 feet southeast, and 770 feet northwest of the release location.

4 Field Activities

On January 19, 2015, technicians were completing a station check and smelled gas in the control building. The technicians then began monitoring the conduit raceways and conduit floor pits to determine which conduit was leaking, the point of release was not identified. On January 19, 2015, a crew was dispatched to conduct a nitrogen purge of the conduits in an attempt to find the origin of the gas leak, which proved unsuccessful. During the weeks of January 19 and 26, 2015, the crew began hydro-excavating potholes in the facility and taking lower explosive limit (LEL) readings in an attempt to determine the location of the release. Crews systematically searched for the point of release from January 19 through February 4, 2015.

Based on LEL readings, excavation began below an 8-inch blue line containing refined products within the northern half of the facility. While excavating the pipeline, hydrocarbon impacted soils were discovered but no release point was identified within this area (Excavation A). During the weeks of January 19 and 26, 2015, hydrocarbon impacted soils were removed for disposal via hydro-excavation by Nelson Revegetation and mechanical excavation by Strike. The area of Excavation A measured approximately 19 feet x 12.5 feet x 6 (to 8) feet in depth.

Also during the week of January 19, 2015, hydro-excavation continued north of Excavation A in an area which also registered high LELs in an attempt to locate the gas release. While uncovering the pipeline, hydrocarbon impacted soils were again encountered. No release point was located within this area, Excavation B. Impacted

soils from Excavation B were also removed for disposal using hydro-excavation and mechanical excavation, resulting in an area of excavation measuring approximately 14 feet x 10 feet x 4 (to 5) feet in depth.

On January 24, 2015, it was determined that the leak was on the NGL pipeline feeding the main header. Excavation activities were then focused within this area (Excavation C) just east of Excavation A and south of Excavation B. Hydrocarbon impacted soils within the release area were removed via hydro-excavation and mechanical excavation. The release point, located on February 4, 2015, occurred along a T-connection between an 18-inch and 12-inch pipeline. The final extent of Excavation C measured approximately 21 feet x 14 feet x 8 feet in depth. Repairs were made to the leaking pipeline. Other maintenance was also performed along exposed lines within Excavation A. Approximately 372 cubic yards and 520 bbl of hydrocarbon impacted soils were removed from Excavations A, B, and C. Figures 3, 4, and 5 provide the locations and results of the soil samples collected. Copies of the executed C-138 Solid Waste Acceptance Forms are 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 each of the excavations. Soil samples SC-1 through SC-5 (Excavation A) and SC-6 through SC-10 (Excavation B) were collected on January 28, 2015. Soil samples SC-11 through SC-15 (Excavation C) were collected on February 4, 2015. Each soil sample was collected as a composite of five sub-samples from within the sample locations.

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 reports are 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 23.74 bbl of NGL occurred along an 18-inch NGL pipeline at the Lybrook Pump Station. During investigation activities, hydrocarbon impacted soils were encountered at the site within three areas, remediation included removal of impacted soils at the three areas; Excavations A, B, and C. Five confirmation soil samples were collected from the sidewalls and base of each excavation. Excavations A and B were

sampled on January 28, 2015, and Excavation C was sampled on February 4, 2015. The final excavation extent for Excavation A measured approximately 19 feet x 12.5 feet x 6 (to 8) feet in depth, Excavation B measured approximately 14 feet x 10 feet x 4 (to 5), and Excavation C measured approximately 21 feet x 14 feet x 8 feet in depth.

Laboratory analytical results for soil confirmation samples (SC-1 through SC-15) 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 1,000 mg/kg. Action levels are based on a NMOCD site ranking of 10.

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
Lybrook Pump Station
Rio Arriba County, New Mexico
Enterprise Products Operating, LLC

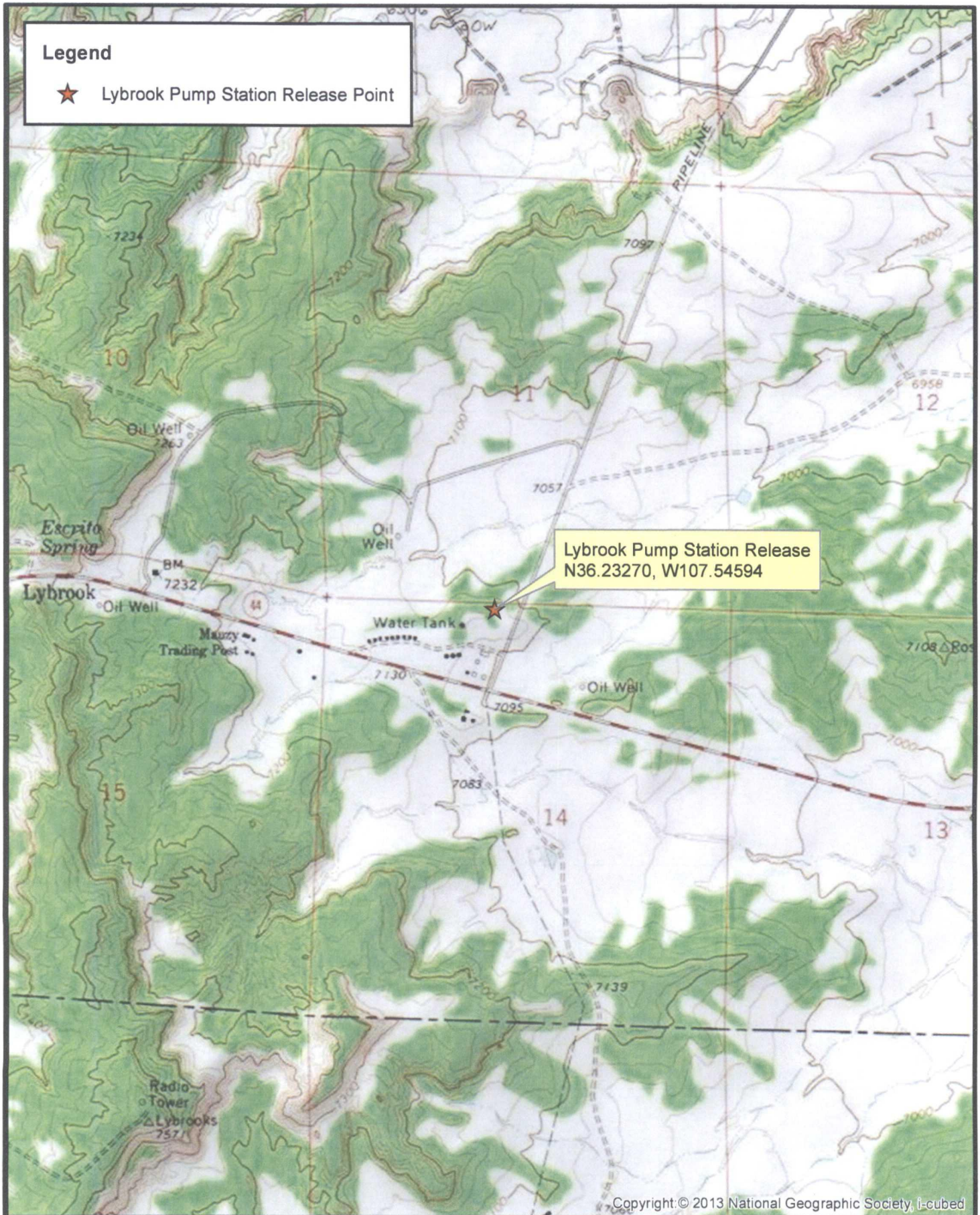
Ranking Criteria	Ranking Score	Site-Based Ranking Score	Basis for Determination	Data Sources
Depth to Groundwater				
<50 feet	20	0	Elevation differential between location and significant wash in Escrito Canyon east of the location is 286 feet. Location is at a higher elevation. Enterprise Permit GW-337 lists depth to water at greater than 600 feet. Williams Permit GW-047 lists depth to groundwater at greater than 100 feet.	NMOCD Online database, Lybrook 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. Escrito Spring is located 1 mile west of the location. Water well SJ 01507, located approximately 3,500 feet west of location, has a reported depth to water of 900 feet below ground surface.	NMOSE NMWRRS, Lybrook Quadrangle, Google Earth, and Visual Inspection
	0 (No)			
Distance to Surface Water Body				
<200 horizontal feet	20	10	Small drainages located at 673 feet NE, 715 feet SE, and 770 feet NW of the location.	Lybrook Quadrangle, Google Earth, and Visual Inspection
200 to 1,000 horizontal feet	10			
>1,000 horizontal feet	0			
Site Based Total Ranking Score		**10**		

Table 2. Soil Sampling Results-VOCs, Benzene, Total BTEX, and TPH
Lybrook Pump Station
Rio Arriba County, New Mexico
Enterprise Products Operating, LLC

Sample ID	Date	Excavation	Location	Sample Depth (ft bgs)	VOCs (PID) (ppm)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)
				NMOCD Action Levels*	100	10	50	1,000	
SC-1	Jan 28, 15	A	North Wall	0 to 6	2.8	<0.049	<0.246	<4.9	<9.9
SC-2	Jan 28, 15	A	South Wall	0 to 8	1.4	<0.049	<0.246	<4.9	<9.9
SC-3	Jan 28, 15	A	East Wall	0 to 8	17.5	<0.048	<0.240	<4.8	<9.8
SC-4	Jan 28, 15	A	West Wall	0 to 8	1.8	<0.047	<0.236	<4.7	<9.9
SC-5	Jan 28, 15	A	Base	6 to 8	3.0	<0.048	<0.240	<4.8	<10
SC-6	Jan 28, 15	B	North Wall	0 to 5	1.2	<0.050	<0.249	<5.0	<9.9
SC-7	Jan 28, 15	B	South Wall	0 to 5	5.1	<0.049	<0.245	<4.9	<9.9
SC-8	Jan 28, 15	B	East Wall	0 to 4	8.0	<0.048	0.066	<4.8	<9.9
SC-9	Jan 28, 15	B	West Wall	0 to 5	1.3	<0.047	<0.236	<4.7	<10
SC-10	Jan 28, 15	B	Base	4 to 5	33.5	<0.047	<0.235	<4.7	32
SC-11	Feb 04, 15	C	North Wall	0 to 8	23.4	<0.049	0.16	<4.9	<9.8
SC-12	Feb 04, 15	C	South Wall	0 to 8	**1,805**	0.13	10.8	150	<10
SC-13	Feb 04, 15	C	East Wall	0 to 8	8.6	<0.050	0.24	<5.0	<10
SC-14	Feb 04, 15	C	West Wall	0 to 8	**2,717**	0.61	20.1	230	<9.9
SC-15	Feb 04, 15	C	Base	8	**905**	0.76	13.9	220	15

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



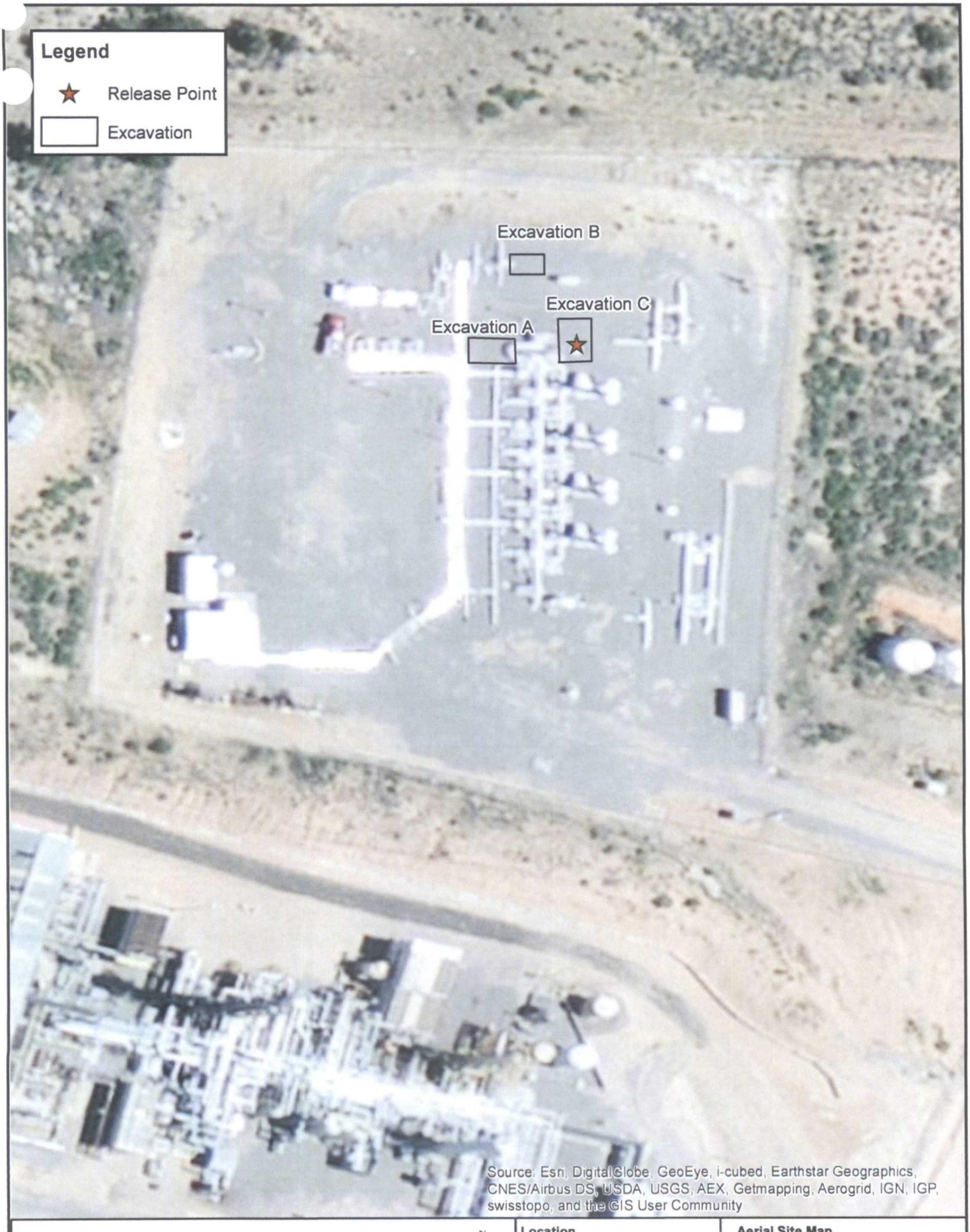
Rule Engineering, LLC
Solutions to Regulations for Industry

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

N

Location	Topographic Map
C-14-23N-7W N36.23255, W107.54605 Rio Arriba County, New Mexico	Enterprise Products Lybrook Pump Station

Date: 3/17/2015 | File: 150226 Topo Map | Figure: 1

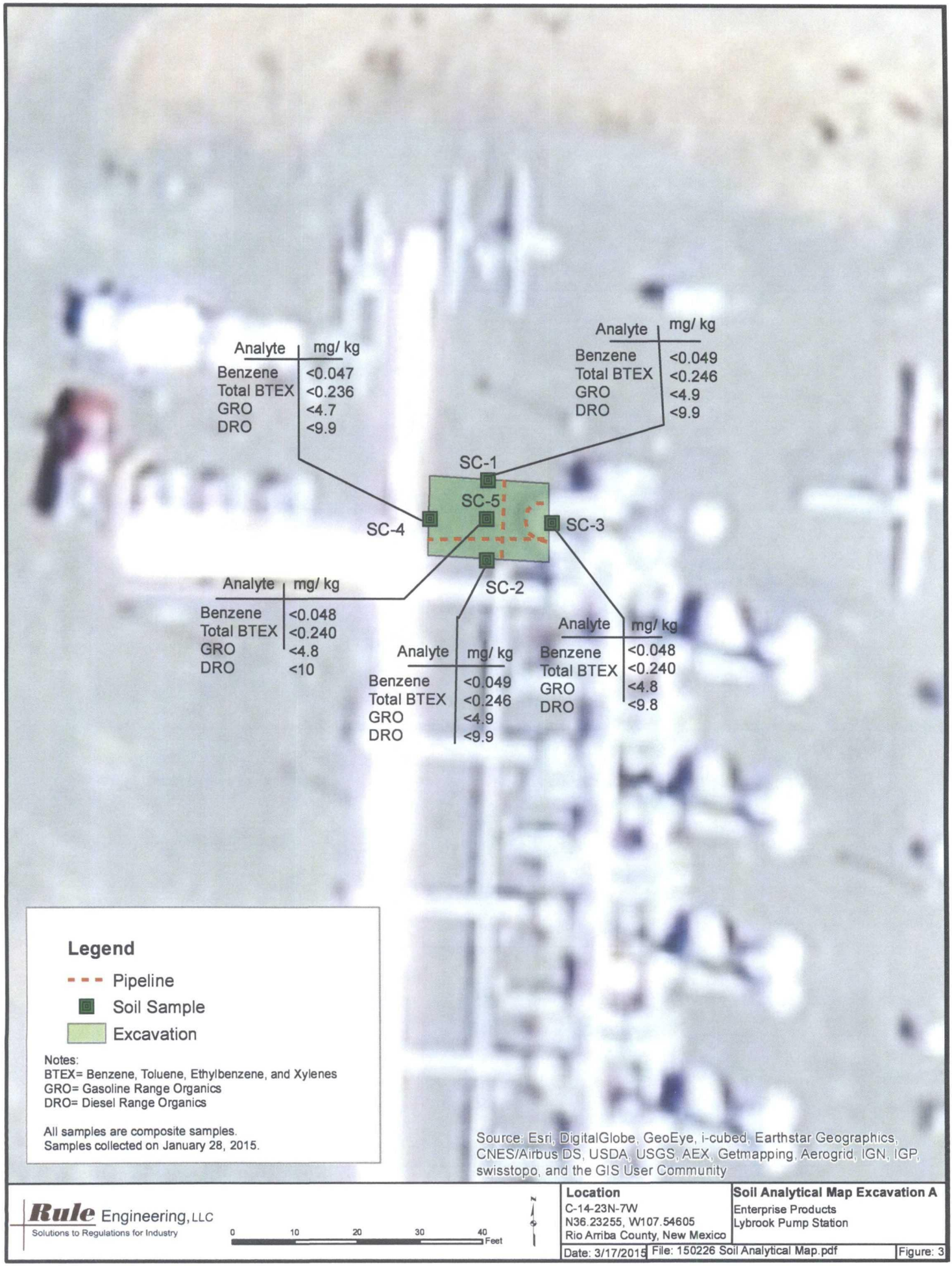


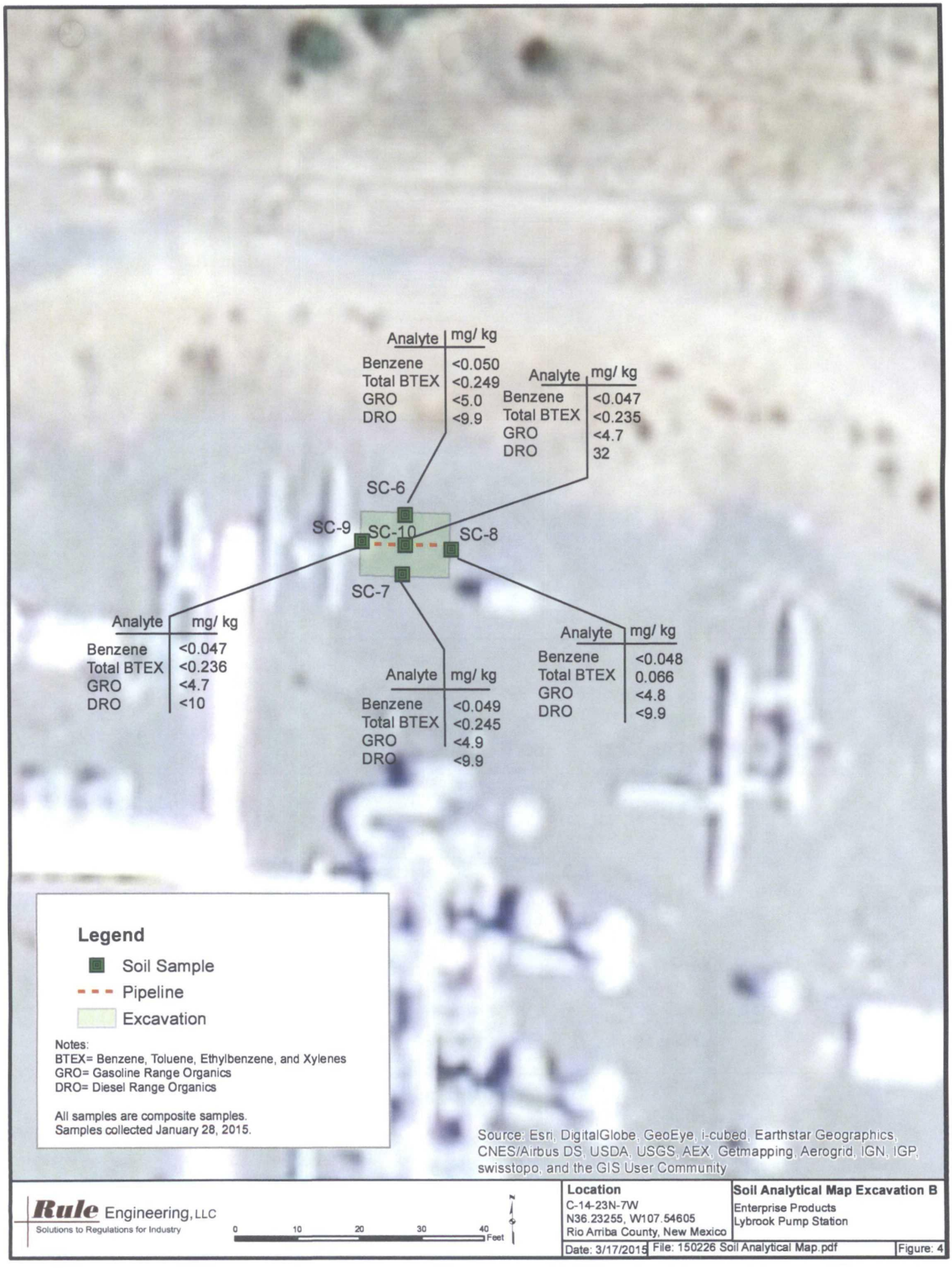
Rule Engineering, LLC
Solutions to Regulations for Industry

0 25 50 75 100 Feet

N

Location C-14-23N-7W N36.23255, W107.54605 Rio Arriba County, New Mexico		**Aerial Site Map** Enterprise Products Lybrook Pump Station
Date: 3/17/2015	File: 150226 Aerial Site Map.pdf	Figure: 2

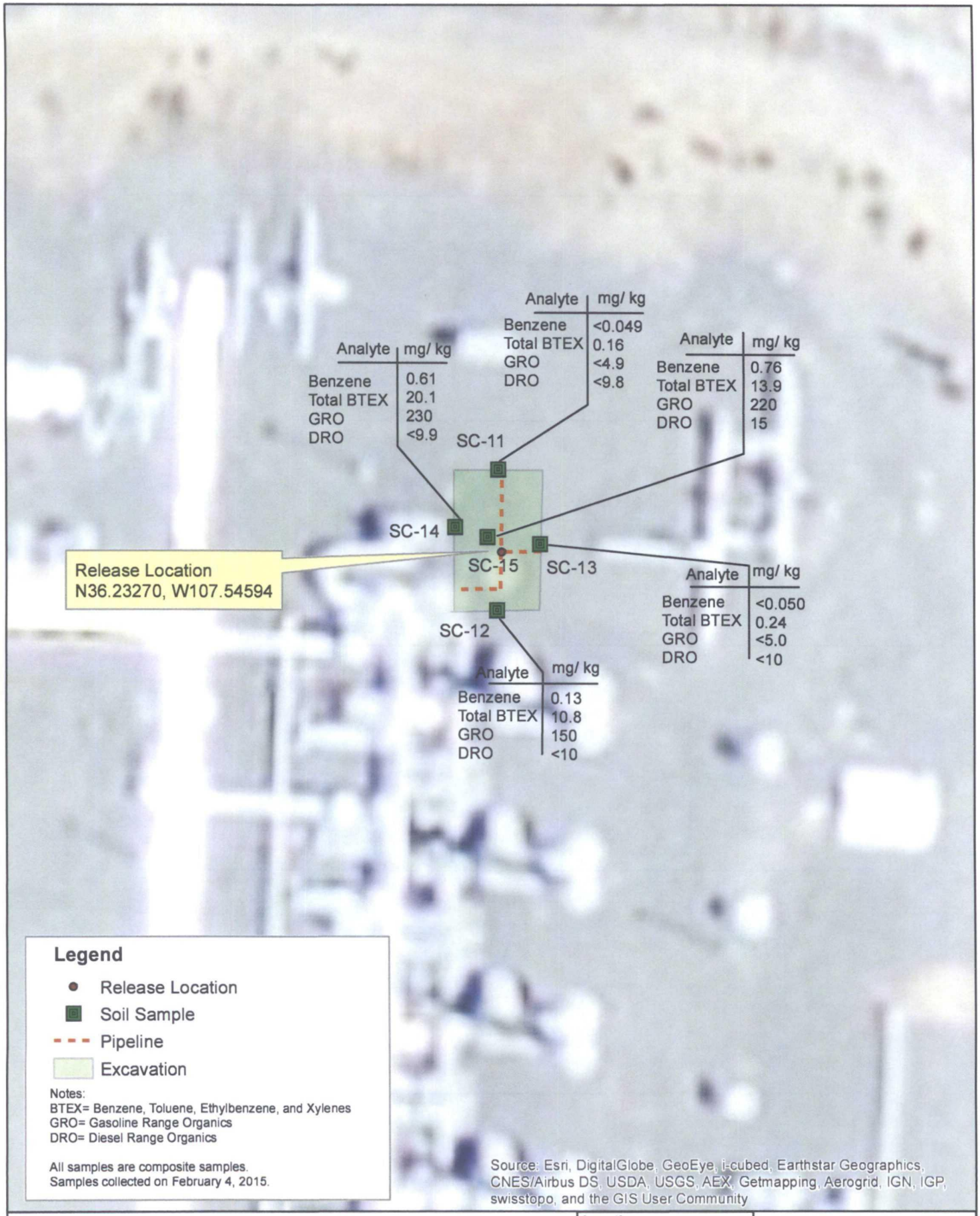

Analyte mg/ kg
Benzene <0.047
Total BTEX <0.236
GRO <4.7
DRO <9.9
Analyte mg/ kg
Benzene <0.049
Total BTEX <0.246
GRO <4.9
DRO <9.9
SC-1
SC-5
SC-4
SC-3
SC-2
Analyte mg/ kg
Benzene <0.048
Total BTEX <0.240
GRO <4.8
DRO <10
Analyte mg/ kg
Benzene <0.049
Total BTEX <0.246
GRO <4.9
DRO <9.9
Analyte mg/ kg
Benzene <0.048
Total BTEX <0.240
GRO <4.8
DRO <9.8
Legend
Pipeline
Soil Sample
Excavation
Notes:
BTEX= Benzene, Toluene, Ethylbenzene, and Xylenes
GRO= Gasoline Range Organics
DRO= Diesel Range Organics
All samples are composite samples.
Samples collected on January 28, 2015.
Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community
Rule Engineering, LLC
Solutions to Regulations for Industry
0 10 20 30 40 Feet
N
Location
C-14-23N-7W
N36.23255, W107.54605
Rio Arriba County, New Mexico
Soil Analytical Map Excavation A
Enterprise Products
Lybrook Pump Station
Date: 3/17/2015
File: 150226 Soil Analytical Map.pdf
Figure: 3



Rule Engineering, LLC
Solutions to Regulations for Industry

0 10 20 30 40 Feet

Location	Soil Analytical Map Excavation B
C-14-23N-7W N36.23255, W107.54605 Rio Arriba County, New Mexico	Enterprise Products Lybrook Pump Station
Date: 3/17/2015	File: 150226 Soil Analytical Map.pdf
	Figure: 4


Analyte | mg/ kg
Benzene | 0.61
Total BTEX | 20.1
GRO | 230
DRO | <9.9
SC-14
Analyte | mg/ kg
Benzene | <0.049
Total BTEX | 0.16
GRO | <4.9
DRO | <9.8
SC-11
Analyte | mg/ kg
Benzene | 0.76
Total BTEX | 13.9
GRO | 220
DRO | 15
Release Location
N36.23270, W107.54594
SC-15
SC-13
Analyte | mg/ kg
Benzene | <0.050
Total BTEX | 0.24
GRO | <5.0
DRO | <10
SC-12
Analyte | mg/ kg
Benzene | 0.13
Total BTEX | 10.8
GRO | 150
DRO | <10
Legend
Release Location
Soil Sample
Pipeline
Excavation
Notes:
BTEX= Benzene, Toluene, Ethylbenzene, and Xylenes
GRO= Gasoline Range Organics
DRO= Diesel Range Organics
All samples are composite samples.
Samples collected on February 4, 2015.
Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community
Rule Engineering, LLC
Solutions to Regulations for Industry
0 10 20 30 40 Feet
N
Location
C-14-23N-7W
N36.23255, W107.54605
Rio Arriba County, New Mexico
Soil Analytical Map Excavation C
Enterprise Products
Lybrook Pump Station
Date: 3/17/2015
File: 150226 Soil Analytical Map.pdf
Figure: 5

Appendix A

Executed C-138 Solid Waste Acceptance Form

V-317

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

97057-0684

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:**
Lybrook Station Jan 2015

3. **Location of Material (Street Address, City, State or ULSTR):**
Unit Letter C, Section 14, T23N, R7W; 36.232608, -107.546006

4. **Source and Description of Waste:** Hydrocarbon impacted soils associated with a release from a natural gas pipeline.

5. Estimated Volume 20 (yd³) / bbls Known Volume (to be entered by the operator at the end of the haul) 24/455 yd³ / bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, Thomas Long (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)

☒ 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) 1-21-15, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to
Generator Signature
complete the required testing/sign the Generator Waste Testing Certification.

I, Kendra Running, representative for Envirotech, Inc. do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

6. **Transporter:** ~~TBD~~ NRE, Paul & Sons

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: 1-21-15

SIGNATURE Kendra Running TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

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

97057-0684

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:**
Lybrook Station Feb 2015

3. **Location of Material (Street Address, City, State or ULSTR):**
Unit Letter C, Section 14, T23N, R7W; 36.232608, -107.546006

4. **Source and Description of Waste:** Hydrocarbon impacted soils associated with a release from a natural gas pipeline.

5. **Estimated Volume** 20 (yd³) / bbls **Known Volume (to be entered by the operator at the end of the haul)** 120/65 yd³ / bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, Thomas Long (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)

☒ 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) 1-21-15, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to
Generator Signature
complete the required testing/sign the Generator Waste Testing Certification.

I, Kendra Runung, 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:** ~~TBD~~, NRE, Cather, CNJ

OCD Permitted Surface Waste Management Facility
Name and Facility Permit #: **Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011**
Address of Facility: **Hilltop, NM**

Method of Treatment and/or Disposal:
☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:
☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: Kendra Runung TITLE: Waste Coordinator DATE: 2-2-15

SIGNATURE: Kendra Runung TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

Appendix B
Photograph Log

Photograph Log
Lybrook Pump Station
Enterprise Products

Photograph #1	
Client: Enterprise Products	
Site Name: Lybrook Pump Station	
Date Photo Taken: January 28, 2015	
Location: N36.23255, W107.54605 C-14-23N-07W Rio Arriba County, New Mexico	
Photo Taken by: Deborah Watson	Description: Excavation A, facing E, looking at excavation following removal of petroleum impacted soils discovered while searching for the release location. Excavation measured approximately 19 feet x 12.5 feet x 6 (to 8) feet in depth.

Photograph #2	
Client: Enterprise Products	
Site Name: Lybrook Pump Station	
Date Photo Taken: January 28, 2015	
Location: N36.23255, W107.54605 C-14-23N-07W Rio Arriba County, New Mexico	
Photo Taken by: Deborah Watson	Description: Excavation A, facing WNW, looking at excavation following remediation on January 28, 2015.

Photograph Log
Lybrook Pump Station
Enterprise Products

Photograph #3	
Client: Enterprise Products	
Site Name: Lybrook Pump Station	
Date Photo Taken: January 28, 2015	
Location: N36.23255, W107.54605 C-14-23N-07W Rio Arriba County, New Mexico	
Photo Taken by: Deborah Watson	Description: Excavation B, facing W, looking at excavation following removal of petroleum impacted soils discovered while searching for the release location. Final area of excavation measured 14 feet x 10 feet x 4 (to 5) feet in depth

Photograph #4	
Client: Enterprise Products	
Site Name: Lybrook Pump Station	
Date Photo Taken: January 28, 2015	
Location: N36.23255, W107.54605 C-14-23N-07W Rio Arriba County, New Mexico	
Photo Taken by: Deborah Watson	Description: Excavation B, facing NW, looking at excavation following remediation on January 28, 2015.

Photograph Log
Lybrook Pump Station
Enterprise Products

Photograph #5	
Client: Enterprise Products	
Site Name: Lybrook Pump Station	
Date Photo Taken: February 4, 2015	
Location: N36.23255, W107.54605 C-14-23N-07W Rio Arriba County, New Mexico	
Photo Taken by: Deborah Watson	Description: Excavation C, facing S, looking at release point along a T-connection between the 18-inch and 12-inch pipeline. Final area of excavation measured 21 feet x 14 feet x 8 feet in depth.

Photograph #6	
Client: Enterprise Products	
Site Name: Lybrook Pump Station	
Date Photo Taken: February 4, 2015	
Location: N36.23255, W107.54605 C-14-23N-07W Rio Arriba County, New Mexico	
Photo Taken by: Deborah Watson	Description: Excavation C, facing E, looking at excavation following remediation on February 4, 2015.

Appendix C
Analytical Laboratory Reports

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

February 02, 2015

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

RE: Enterprise Lybrook Pump Station OrderNo.: 1501A12

Dear Deborah Watson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 1/29/2015 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

Analytical Report
Lab Order **1501A12**
Date Reported: **2/2/2015**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-1
Project: Enterprise Lybrook Pump Station
Collection Date: 1/28/2015 11:55:00 AM
Lab ID: 1501A12-001 **Matrix:** SOIL
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/29/2015 9:24:25 PM	17457
Surr: DNOP	79.6	63.5-128		%REC	1	1/29/2015 9:24:25 PM	17457
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/30/2015 11:23:44 AM	17463
Surr: BFB	94.8	80-120		%REC	1	1/30/2015 11:23:44 AM	17463
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.049		mg/Kg	1	1/30/2015 11:23:44 AM	17463
Toluene	ND	0.049		mg/Kg	1	1/30/2015 11:23:44 AM	17463
Ethylbenzene	ND	0.049		mg/Kg	1	1/30/2015 11:23:44 AM	17463
Xylenes, Total	ND	0.099		mg/Kg	1	1/30/2015 11:23:44 AM	17463
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	1/30/2015 11:23:44 AM	17463

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-2
Project: Enterprise Lybrook Pump Station
Collection Date: 1/28/2015 11:45:00 AM
Lab ID: 1501A12-002 **Matrix:** SOIL
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/29/2015 10:29:05 PM	17457
Surr: DNOP	84.5	63.5-128		%REC	1	1/29/2015 10:29:05 PM	17457
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/30/2015 12:50:01 PM	17463
Surr: BFB	96.8	80-120		%REC	1	1/30/2015 12:50:01 PM	17463
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.049		mg/Kg	1	1/30/2015 12:50:01 PM	17463
Toluene	ND	0.049		mg/Kg	1	1/30/2015 12:50:01 PM	17463
Ethylbenzene	ND	0.049		mg/Kg	1	1/30/2015 12:50:01 PM	17463
Xylenes, Total	ND	0.099		mg/Kg	1	1/30/2015 12:50:01 PM	17463
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	1/30/2015 12:50:01 PM	17463

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-3
Project: Enterprise Lybrook Pump Station
Collection Date: 1/28/2015 11:50:00 AM
Lab ID: 1501A12-003 **Matrix:** SOIL
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/29/2015 10:50:43 PM	17457
Surr: DNOP	84.2	63.5-128		%REC	1	1/29/2015 10:50:43 PM	17457
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/30/2015 2:16:12 PM	17463
Surr: BFB	96.4	80-120		%REC	1	1/30/2015 2:16:12 PM	17463
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	1/30/2015 2:16:12 PM	17463
Toluene	ND	0.048		mg/Kg	1	1/30/2015 2:16:12 PM	17463
Ethylbenzene	ND	0.048		mg/Kg	1	1/30/2015 2:16:12 PM	17463
Xylenes, Total	ND	0.096		mg/Kg	1	1/30/2015 2:16:12 PM	17463
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	1/30/2015 2:16:12 PM	17463

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-4
Project: Enterprise Lybrook Pump Station
Collection Date: 1/28/2015 11:40:00 AM
Lab ID: 1501A12-004
Matrix: SOIL
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/29/2015 11:12:04 PM	17457
Surr: DNOP	83.6	63.5-128		%REC	1	1/29/2015 11:12:04 PM	17457
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/30/2015 2:44:56 PM	17463
Surr: BFB	95.7	80-120		%REC	1	1/30/2015 2:44:56 PM	17463
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.047		mg/Kg	1	1/30/2015 2:44:56 PM	17463
Toluene	ND	0.047		mg/Kg	1	1/30/2015 2:44:56 PM	17463
Ethylbenzene	ND	0.047		mg/Kg	1	1/30/2015 2:44:56 PM	17463
Xylenes, Total	ND	0.095		mg/Kg	1	1/30/2015 2:44:56 PM	17463
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	1/30/2015 2:44:56 PM	17463

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-5
Project: Enterprise Lybrook Pump Station
Collection Date: 1/28/2015 12:00:00 PM
Lab ID: 1501A12-005 **Matrix:** SOIL
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/29/2015 11:33:24 PM	17457
Surr: DNOP	84.7	63.5-128		%REC	1	1/29/2015 11:33:24 PM	17457
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/30/2015 10:24:17 PM	17463
Surr: BFB	96.1	80-120		%REC	1	1/30/2015 10:24:17 PM	17463
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	1/30/2015 10:24:17 PM	17463
Toluene	ND	0.048		mg/Kg	1	1/30/2015 10:24:17 PM	17463
Ethylbenzene	ND	0.048		mg/Kg	1	1/30/2015 10:24:17 PM	17463
Xylenes, Total	ND	0.096		mg/Kg	1	1/30/2015 10:24:17 PM	17463
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	1/30/2015 10:24:17 PM	17463

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501A12**

02-Feb-15

Client: Rule Engineering LLC

Project: Enterprise Lybrook Pump Station

Sample ID **MB-17457**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **17457**	RunNo: **23963**
Prep Date: **1/29/2015**	Analysis Date: **1/29/2015**	SeqNo: **707559** 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	7.7		10.00		76.5	63.5	128			

Sample ID **LCS-17457**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **17457**	RunNo: **23963**
Prep Date: **1/29/2015**	Analysis Date: **1/29/2015**	SeqNo: **707561** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	10	50.00	0	76.0	67.8	130			
Surr: DNOP	4.5		5.000		90.4	63.5	128			

Sample ID **1501A12-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **SC-1**	Batch ID: **17457**	RunNo: **23963**
Prep Date: **1/29/2015**	Analysis Date: **1/29/2015**	SeqNo: **707667** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.51	0	80.7	29.2	176			
Surr: DNOP	5.0		5.051		99.5	63.5	128			

Sample ID **1501A12-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **SC-1**	Batch ID: **17457**	RunNo: **23963**
Prep Date: **1/29/2015**	Analysis Date: **1/29/2015**	SeqNo: **707668** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	10	49.75	0	75.1	29.2	176	8.63	23	
Surr: DNOP	4.9		4.975		99.0	63.5	128	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501A12**

02-Feb-15

Client: Rule Engineering LLC

Project: Enterprise Lybrook Pump Station

Sample ID **MB-17463** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **17463** RunNo: **24020**

Prep Date: **1/29/2015** Analysis Date: **1/30/2015** SeqNo: **708315** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		94.9	80	120			

Sample ID **LCS-17463** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **17463** RunNo: **24020**

Prep Date: **1/29/2015** Analysis Date: **1/30/2015** SeqNo: **708316** 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	102	65.8	139			
Surr: BFB	1000		1000		102	80	120			

Sample ID **1501A12-002AMS** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **SC-2** Batch ID: **17463** RunNo: **24020**

Prep Date: **1/29/2015** Analysis Date: **1/30/2015** SeqNo: **708344** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.9	24.70	0	109	47.9	144			
Surr: BFB	1000		988.1		106	80	120			

Sample ID **1501A12-002AMSD** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **SC-2** Batch ID: **17463** RunNo. **24020**

Prep Date: **1/29/2015** Analysis Date: **1/30/2015** SeqNo: **708345** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.9	24.70	0	92.3	47.9	144	16.9	29.9	
Surr: BFB	1100		988.1		106	80	120	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501A12**

02-Feb-15

Client: Rule Engineering LLC

Project: Enterprise Lybrook Pump Station

Sample ID **MB-17463**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **17463**	RunNo: **24020**
Prep Date: **1/29/2015**	Analysis Date: **1/30/2015**	SeqNo: **708415** 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-17463**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **17463**	RunNo: **24020**
Prep Date: **1/29/2015**	Analysis Date: **1/30/2015**	SeqNo: **708416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	106	80	120			
Toluene	1.0	0.050	1.000	0	99.7	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		115	80	120			

Sample ID **1501A12-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SC-1**	Batch ID: **17463**	RunNo: **24020**
Prep Date: **1/29/2015**	Analysis Date: **1/30/2015**	SeqNo: **708421** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.049	0.9862	0	117	69.2	126			
Toluene	1.1	0.049	0.9862	0.01297	110	65.6	128			
Ethylbenzene	1.2	0.049	0.9862	0	117	65.5	138			
Xylenes, Total	3.5	0.099	2.959	0.03565	117	63	139			
Surr: 4-Bromofluorobenzene	1.1		0.9862		114	80	120			

Sample ID **1501A12-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **SC-1**	Batch ID: **17463**	RunNo: **24020**
Prep Date: **1/29/2015**	Analysis Date: **1/30/2015**	SeqNo: **708422** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.049	0.9872	0	117	69.2	126	0.143	18.5	
Toluene	1.1	0.049	0.9872	0.01297	111	65.6	128	0.936	20.6	
Ethylbenzene	1.2	0.049	0.9872	0	118	65.5	138	0.925	20.1	
Xylenes, Total	3.5	0.099	2.962	0.03565	118	63	139	0.710	21.1	
Surr: 4-Bromofluorobenzene	1.1		0.9872		115	80	120	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1501A12 RcptNo: 1

Received by/date: AG 01/29/15

Logged By: **Ashley Gallegos** 1/29/2015 8:00:00 AM AG

Completed By: **Ashley Gallegos** 1/29/2015 8:39:58 AM AG

Reviewed By: JA 01/29/15

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

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

Chain of Custody Record

Client: Rule Engineering, LLC	☐ Standard X Rush: 5 Day TAT
Mailing Address: 501 Airport Drive, Suite 205	Project Name: Enterprise Lybrook Pump Station
Farmington, New Mexico 87401	Project #:
Phone #: 505-860-2712	
email or Fax#:	Project Manager: Deborah Watson
QA/QC Package: X Standard ☐ Level 4 (Full Validation)	
Accreditation: ☐ NELAP ☐ Other ☐ EDD (Type)	Sampler: D. Watson 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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1501A12	8021 BTEX	TPH 8015 (DRO/GRO)	Air Bubbles (Y or N)
1/28/15	11:55	soil	SC-1	2-4 oz glass	cold	-001	X	X	
1/28/15	11:45	soil	SC-2	2-4 oz glass	cold	-002	X	X	
1/28/15	11:50	soil	SC-3	2-4 oz glass	cold	-003	X	X	
1/28/15	11:40	soil	SC-4	2-4 oz glass	cold	-004	X	X	
1/28/15	12:00	soil	SC-5	2-4 oz glass	cold	-005	X	X	

Date	Time	Relinquished by	Received by	Date	Time
1/28/15	1705	Deborah Watson	Christine Walters	1/28/15	1705
1/28/15	1810	Christine Walters	FN Gallegos	01/29/15	0800

Remarks: Bill to Enterprise, Attention: Tom Long
WO:
Area:
Paykey Code:

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

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

February 02, 2015

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

RE: Enterprise Lyrbrook Pump Station OrderNo.: 1501A13

Dear Deborah Watson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 1/29/2015 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

Analytical Report
Lab Order **1501A13**
Date Reported: **2/2/2015**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-6
Project: Enterprise Lyrbrook Pump Station
Collection Date: 1/28/2015 12:13:00 PM
Lab ID: 1501A13-001 **Matrix:** SOIL **Received Date:** 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/29/2015 11:54:38 PM	17457
Surr: DNOP	85.5	63.5-128		%REC	1	1/29/2015 11:54:38 PM	17457
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/30/2015 3:13:45 PM	17463
Surr: BFB	96.2	80-120		%REC	1	1/30/2015 3:13:45 PM	17463
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	1/30/2015 3:13:45 PM	17463
Toluene	ND	0.050		mg/Kg	1	1/30/2015 3:13:45 PM	17463
Ethylbenzene	ND	0.050		mg/Kg	1	1/30/2015 3:13:45 PM	17463
Xylenes, Total	ND	0.099		mg/Kg	1	1/30/2015 3:13:45 PM	17463
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	1/30/2015 3:13:45 PM	17463

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-7
Project: Enterprise Lyrbrook Pump Station
Collection Date: 1/28/2015 12:05:00 PM
Lab ID: 1501A13-002 **Matrix:** SOIL
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/30/2015 12:15:51 AM	17457
Surr: DNOP	88.8	63.5-128		%REC	1	1/30/2015 12:15:51 AM	17457
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/30/2015 3:42:30 PM	17463
Surr: BFB	96.3	80-120		%REC	1	1/30/2015 3:42:30 PM	17463
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.049		mg/Kg	1	1/30/2015 3:42:30 PM	17463
Toluene	ND	0.049		mg/Kg	1	1/30/2015 3:42:30 PM	17463
Ethylbenzene	ND	0.049		mg/Kg	1	1/30/2015 3:42:30 PM	17463
Xylenes, Total	ND	0.098		mg/Kg	1	1/30/2015 3:42:30 PM	17463
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	1/30/2015 3:42:30 PM	17463

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-8
Project: Enterprise Lyrbrook Pump Station
Collection Date: 1/28/2015 12:08:00 PM
Lab ID: 1501A13-003 **Matrix:** SOIL
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/30/2015 12:36:58 AM	17457
Surr: DNOP	88.6	63.5-128		%REC	1	1/30/2015 12:36:58 AM	17457
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/30/2015 4:11:14 PM	17463
Surr: BFB	96.7	80-120		%REC	1	1/30/2015 4:11:14 PM	17463
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	1/30/2015 4:11:14 PM	17463
Toluene	0.066	0.048		mg/Kg	1	1/30/2015 4:11:14 PM	17463
Ethylbenzene	ND	0.048		mg/Kg	1	1/30/2015 4:11:14 PM	17463
Xylenes, Total	ND	0.096		mg/Kg	1	1/30/2015 4:11:14 PM	17463
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	1/30/2015 4:11:14 PM	17463

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-9
Project: Enterprise Lyrbrook Pump Station
Collection Date: 1/28/2015 12:10:00 PM
Lab ID: 1501A13-004 **Matrix:** SOIL
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/30/2015 12:58:08 AM	17457
Surr: DNOP	82.3	63.5-128		%REC	1	1/30/2015 12:58:08 AM	17457
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/30/2015 7:32:11 PM	17463
Surr: BFB	96.8	80-120		%REC	1	1/30/2015 7:32:11 PM	17463
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.047		mg/Kg	1	1/30/2015 7:32:11 PM	17463
Toluene	ND	0.047		mg/Kg	1	1/30/2015 7:32:11 PM	17463
Ethylbenzene	ND	0.047		mg/Kg	1	1/30/2015 7:32:11 PM	17463
Xylenes, Total	ND	0.095		mg/Kg	1	1/30/2015 7:32:11 PM	17463
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	1/30/2015 7:32:11 PM	17463

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-10
Project: Enterprise Lyrbrook Pump Station
Collection Date: 1/28/2015 12:16:00 PM
Lab ID: 1501A13-005 **Matrix:** SOIL
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	32	10		mg/Kg	1	1/30/2015 1:19:08 AM	17457
Surr: DNOP	82.7	63.5-128		%REC	1	1/30/2015 1:19:08 AM	17457
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/30/2015 8:00:55 PM	17463
Surr: BFB	98.7	80-120		%REC	1	1/30/2015 8:00:55 PM	17463
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.047		mg/Kg	1	1/30/2015 8:00:55 PM	17463
Toluene	ND	0.047		mg/Kg	1	1/30/2015 8:00:55 PM	17463
Ethylbenzene	ND	0.047		mg/Kg	1	1/30/2015 8:00:55 PM	17463
Xylenes, Total	ND	0.094		mg/Kg	1	1/30/2015 8:00:55 PM	17463
Surr: 4-Bromofluorobenzene	109	80-120		%REC	1	1/30/2015 8:00:55 PM	17463

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501A13**

02-Feb-15

Client: Rule Engineering LLC

Project: Enterprise Lyrbrook Pump Station

Sample ID **MB-17457**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **17457**	RunNo: **23963**
Prep Date: **1/29/2015**	Analysis Date: **1/29/2015**	SeqNo: **707559** 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	7.7		10.00		76.5	63.5	128			

Sample ID **LCS-17457**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **17457**	RunNo: **23963**
Prep Date: **1/29/2015**	Analysis Date: **1/29/2015**	SeqNo: **707561** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	10	50.00	0	76.0	67.8	130			
Surr: DNOP	4.5		5.000		90.4	63.5	128			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501A13**

02-Feb-15

Client: Rule Engineering LLC

Project: Enterprise Lyrbrook Pump Station

Sample ID **MB-17463**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **17463**	RunNo: **24020**
Prep Date: **1/29/2015**	Analysis Date: **1/30/2015**	SeqNo: **708315** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		94.9	80	120			

Sample ID **LCS-17463**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **17463**	RunNo: **24020**
Prep Date: **1/29/2015**	Analysis Date: **1/30/2015**	SeqNo: **708316** 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	102	65.8	139			
Surr: BFB	1000		1000		102	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501A13**

02-Feb-15

Client: Rule Engineering LLC

Project: Enterprise Lyrbrook Pump Station

Sample ID **MB-17463**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **17463**	RunNo: **24020**
Prep Date: **1/29/2015**	Analysis Date: **1/30/2015**	SeqNo: **708415** 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-17463**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **17463**	RunNo: **24020**
Prep Date: **1/29/2015**	Analysis Date: **1/30/2015**	SeqNo: **708416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	106	80	120			
Toluene	1.0	0.050	1.000	0	99.7	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		115	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1501A13 RcptNo: 1

Received by/date: AG 01/29/15

Logged By: **Ashley Gallegos** 1/29/2015 8:00:00 AM AG

Completed By: **Ashley Gallegos** 1/29/2015 8:43:49 AM AG

Reviewed By: JA 01/29/15

Chain of Custody

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

Log In

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

Special Handling (if applicable)

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

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

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

Chain of Custody Record

Client: Rule Engineering, LLC	☐ Standard X Rush: 5 Day TAT
Mailing Address: 501 Airport Drive, Suite 205	Project Name: Enterprise Lybrook Pump Station
Farmington, New Mexico 87401	Project #:
Phone #: 505-860-2712	
email or Fax#:	Project Manager: Deborah Watson
QA/QC Package: X Standard ☐ Level 4 (Full Validation)	
Accreditation: ☐ NELAP ☐ Other	Sampler: D. Watson
☐ EDD (Type)	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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1501A17	Analysis Request: 8021 BTEX	TPH 8015 (DRO/GRO)	Air Bubbles (Y or N)
1/28/15	12:13	soil	SC-6	2-4 oz glass	cold	-001	X	X	
1/28/15	12:05	soil	SC-7	2-4 oz glass	cold	-002	X	X	
1/28/15	12:08	soil	SC-8	2-4 oz glass	cold	-003	X	X	
1/28/15	12:10	soil	SC-9	2-4 oz glass	cold	-004	X	X	
1/28/15	12:16	soil	SC-10	2-4 oz glass	cold	-005	X	X	

Date	Time	Relinquished by:	Received by:	Date	Time
1/28/15	1705	Deborah Watson	Chrystie Wade	1/28/15	1705
1/28/15	1810	Chrystie Wade	[illegible]	01/29/15	0800

Remarks: Bill to Enterprise, Attention: Tom Long

WO:

Area:

Paykey Code:

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

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

February 10, 2015

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

RE: Enterprise Lybrook Pump Station OrderNo.: 1502195

Dear Deborah Watson:

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

Analytical Report
Lab Order **1502195**
Date Reported: **2/10/2015**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-11
Project: Enterprise Lybrook Pump Station
Collection Date: 2/4/2015 10:05:00 AM
Lab ID: 1502195-001 **Matrix:** SOIL **Received Date:** 2/5/2015 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/5/2015 11:07:45 AM	17578
Surr: DNOP	65.9	63.5-128		%REC	1	2/5/2015 11:07:45 AM	17578
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/6/2015 2:10:23 PM	17580
Surr: BFB	93.2	80-120		%REC	1	2/6/2015 2:10:23 PM	17580
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.049		mg/Kg	1	2/6/2015 2:10:23 PM	17580
Toluene	0.050	0.049		mg/Kg	1	2/6/2015 2:10:23 PM	17580
Ethylbenzene	ND	0.049		mg/Kg	1	2/6/2015 2:10:23 PM	17580
Xylenes, Total	0.11	0.099		mg/Kg	1	2/6/2015 2:10:23 PM	17580
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	2/6/2015 2:10:23 PM	17580

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.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-12
Project: Enterprise Lybrook Pump Station
Collection Date: 2/4/2015 10:08:00 AM
Lab ID: 1502195-002 **Matrix:** SOIL **Received Date:** 2/5/2015 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/5/2015 11:34:47 AM	17578
Surr: DNOP	72.8	63.5-128		%REC	1	2/5/2015 11:34:47 AM	17578
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	150	25		mg/Kg	5	2/6/2015 3:36:32 PM	17580
Surr: BFB	120	80-120	S	%REC	5	2/6/2015 3:36:32 PM	17580
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.13	0.12		mg/Kg	5	2/6/2015 3:36:32 PM	17580
Toluene	1.8	0.25		mg/Kg	5	2/6/2015 3:36:32 PM	17580
Ethylbenzene	0.66	0.25		mg/Kg	5	2/6/2015 3:36:32 PM	17580
Xylenes, Total	8.2	0.49		mg/Kg	5	2/6/2015 3:36:32 PM	17580
Surr: 4-Bromofluorobenzene	113	80-120		%REC	5	2/6/2015 3:36:32 PM	17580

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.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-13
Project: Enterprise Lybrook Pump Station
Collection Date: 2/4/2015 10:10:00 AM
Lab ID: 1502195-003 **Matrix:** SOIL
Received Date: 2/5/2015 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/5/2015 12:02:04 PM	17578
Surr: DNOP	67.8	63.5-128		%REC	1	2/5/2015 12:02:04 PM	17578
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/6/2015 5:02:55 PM	17580
Surr: BFB	92.2	80-120		%REC	1	2/6/2015 5:02:55 PM	17580
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.050		mg/Kg	1	2/6/2015 5:02:55 PM	17580
Toluene	0.11	0.050		mg/Kg	1	2/6/2015 5:02:55 PM	17580
Ethylbenzene	ND	0.050		mg/Kg	1	2/6/2015 5:02:55 PM	17580
Xylenes, Total	0.13	0.10		mg/Kg	1	2/6/2015 5:02:55 PM	17580
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	2/6/2015 5:02:55 PM	17580

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.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-14
Project: Enterprise Lybrook Pump Station
Collection Date: 2/4/2015 10:12:00 AM
Lab ID: 1502195-004 **Matrix:** SOIL
Received Date: 2/5/2015 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/5/2015 12:02:06 PM	17578
Surr: DNOP	95.8	63.5-128		%REC	1	2/5/2015 12:02:06 PM	17578
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	230	25		mg/Kg	5	2/6/2015 5:31:38 PM	17580
Surr: BFB	112	80-120		%REC	5	2/6/2015 5:31:38 PM	17580
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.61	0.25		mg/Kg	5	2/6/2015 5:31:38 PM	17580
Toluene	9.1	0.25		mg/Kg	5	2/6/2015 5:31:38 PM	17580
Ethylbenzene	0.87	0.25		mg/Kg	5	2/6/2015 5:31:38 PM	17580
Xylenes, Total	9.5	0.50		mg/Kg	5	2/6/2015 5:31:38 PM	17580
Surr: 4-Bromofluorobenzene	111	80-120		%REC	5	2/6/2015 5:31:38 PM	17580

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.

CLIENT: Rule Engineering LLC
Client Sample ID: SC-15
Project: Enterprise Lybrook Pump Station
Collection Date: 2/4/2015 10:14:00 AM
Lab ID: 1502195-005 **Matrix:** SOIL
Received Date: 2/5/2015 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	15	10		mg/Kg	1	2/5/2015 12:23:36 PM	17578
Surr: DNOP	93.7	63.5-128		%REC	1	2/5/2015 12:23:36 PM	17578
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	220	4.7		mg/Kg	1	2/6/2015 9:21:14 PM	17580
Surr: BFB	219	80-120	S	%REC	1	2/6/2015 9:21:14 PM	17580
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.76	0.047		mg/Kg	1	2/6/2015 9:21:14 PM	17580
Toluene	7.0	0.24		mg/Kg	5	2/9/2015 2:42:26 PM	17580
Ethylbenzene	0.54	0.047		mg/Kg	1	2/6/2015 9:21:14 PM	17580
Xylenes, Total	5.6	0.094		mg/Kg	1	2/6/2015 9:21:14 PM	17580
Surr: 4-Bromofluorobenzene	121	80-120	S	%REC	1	2/6/2015 9:21:14 PM	17580

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#: **1502195**

10-Feb-15

Client: Rule Engineering LLC

Project: Enterprise Lybrook Pump Station

Sample ID **MB-17578**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **17578**	RunNo: **24112**
Prep Date: **2/5/2015**	Analysis Date: **2/5/2015**	SeqNo: **710887** Units: **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		109	63.5	128			

Sample ID **LCS-17578**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **17578**	RunNo: **24111**
Prep Date: **2/5/2015**	Analysis Date: **2/5/2015**	SeqNo: **710956** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	105	67.8	130			
Surr: DNOP	4.5		5.000		89.9	63.5	128			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1502195**

10-Feb-15

Client: Rule Engineering LLC

Project: Enterprise Lybrook Pump Station

Sample ID **MB-17580** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **17580** RunNo: **24152**
Prep Date: **2/5/2015** Analysis Date: **2/6/2015** SeqNo: **712397** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1000		94.0	80	120			

Sample ID **LCS-17580** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **17580** RunNo: **24152**
Prep Date: **2/5/2015** Analysis Date: **2/6/2015** SeqNo: **712398** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.8	64	130			
Surr: BFB	1000		1000		103	80	120			

Sample ID **1502195-001AMS** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SC-11** Batch ID: **17580** RunNo: **24152**
Prep Date: **2/5/2015** Analysis Date: **2/6/2015** SeqNo: **712409** 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	116	47.9	144			
Surr: BFB	1000		989.1		103	80	120			

Sample ID **1502195-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **SC-11** Batch ID: **17580** RunNo: **24152**
Prep Date: **2/5/2015** Analysis Date: **2/6/2015** SeqNo: **712410** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	4.9	24.65	0	128	47.9	144	9.01	29.9	
Surr: BFB	1000		986.2		106	80	120	0	0	

Sample ID **MB-17612** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **17612** RunNo: **24186**
Prep Date: **2/6/2015** Analysis Date: **2/9/2015** SeqNo: **713254** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	900		1000		89.7	80	120			

Sample ID **LCS-17612** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **17612** RunNo: **24186**
Prep Date: **2/6/2015** Analysis Date: **2/9/2015** SeqNo: **713255** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		99.6	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1502195**

10-Feb-15

Client: Rule Engineering LLC

Project: Enterprise Lybrook Pump Station

Sample ID **MB-17580** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **17580** RunNo: **24152**

Prep Date: **2/5/2015** Analysis Date: **2/6/2015** SeqNo: **712441** 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		104	80	120			

Sample ID **LCS-17580** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **17580** RunNo: **24152**

Prep Date: **2/5/2015** Analysis Date: **2/6/2015** SeqNo: **712442** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	102	80	120			
Toluene	0.96	0.050	1.000	0	95.7	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID **1502195-002AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **SC-12** Batch ID: **17580** RunNo: **24152**

Prep Date: **2/5/2015** Analysis Date: **2/6/2015** SeqNo: **712453** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.25	0.9804	0.1263	104	69.2	126			
Toluene	2.3	0.25	0.9804	1.818	51.9	65.6	128			S
Ethylbenzene	1.5	0.25	0.9804	0.6552	88.8	65.5	138			
Xylenes, Total	8.4	0.49	2.941	8.247	5.68	63	139			S
Surr: 4-Bromofluorobenzene	5.4		4.902		110	80	120			

Sample ID **1502195-002AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **SC-12** Batch ID: **17580** RunNo: **24152**

Prep Date: **2/5/2015** Analysis Date: **2/6/2015** SeqNo: **712454** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.25	0.9814	0.1263	96.5	69.2	126	6.91	18.5	
Toluene	1.9	0.25	0.9814	1.818	4.43	65.6	128	22.2	20.6	RS
Ethylbenzene	1.3	0.25	0.9814	0.6552	68.2	65.5	138	14.1	20.1	
Xylenes, Total	6.3	0.49	2.944	8.247	-64.6	63	139	28.0	21.1	RS
Surr: 4-Bromofluorobenzene	5.3		4.907		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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1502195**

10-Feb-15

Client: Rule Engineering LLC

Project: Enterprise Lybrook Pump Station

Sample ID **MB-17612**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **17612**	RunNo: **24186**
Prep Date: **2/6/2015**	Analysis Date: **2/9/2015**	SeqNo: **713265** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		99.9	80	120			

Sample ID **LCS-17612**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **17612**	RunNo: **24186**
Prep Date: **2/6/2015**	Analysis Date: **2/9/2015**	SeqNo: **713266** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		107	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

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: 1502195 RcptNo: 1

Received by/date: KM 02/05/15

Logged By: **Ashley Gallegos** 2/5/2015 7:45:00 AM AG

Completed By: **Ashley Gallegos** 2/5/2015 8:21:29 AM AG

Reviewed By: CS 02/05/15

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes			

Chain of Custody Record

Client: Rule Engineering, LLC	☐ Standard X Rush: 5 Day TAT
	Project Name: Enterprise Lybrook Pump Station
Mailing Address: 501 Airport Drive, Suite 205	Project #:
Farmington, New Mexico 87401	
Phone #: 505-860-2712	
email or Fax#:	Project Manager: Deborah Watson
QA/QC Package: X Standard ☐ Level 4 (Full Validation)	
Accreditation: ☐ NELAP ☐ Other ☐ EDD (Type)	Sampler: D. Watson On Ice: ☑ Yes ☐ No Sample Temperature: 1.1

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1502195	8021 BTEX	TPH 8015 (DRO/GRO)	Air Bubbles (Y or N)
2/4/15	10:05	soil	SC-11	1- 4 oz glass	cold	-001	X	X	
2/4/15	10:08	soil	SC-12	1- 4 oz glass	cold	-002	X	X	
2/4/15	10:10	soil	SC-13	1- 4 oz glass	cold	-003	X	X	
2/4/15	10:12	soil	SC-14	1- 4 oz glass	cold	-004	X	X	
2/4/15	10:14	soil	SC-15	1- 4 oz glass	cold	-005	X	X	

Date	Time	Relinquished by	Received by	Date	Time
2/4/15	1635	Deborah Watson	Christa Walta	2/4/15	1635
2/4/15	1735	Christa Walta		02/05/15	0745

Remarks: Bill to Enterprise, Attention: Tom Long

WO:

Area:

Paykey Code:

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.

OIL CONS. DIV DIST. 3

JUN 15 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

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-85**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **Jicarilla Apache Tribe**	Mineral Owner: **Jicarilla Apache Tribe**	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	4	23N	4W	1593		2450		Rio Arriba

Latitude 36.249718 Longitude 107.25614

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: **6/3/2015 @ 11:20 a.m.**	Date and Hour of Discovery: **6/3/2015 @ 12:00 p.m.**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On July 3, 2015, during routine operations a field operation technician identified a natural gas release on the Lateral 2C-85 pipeline. The pipeline was isolated, depressurized, locked out and tagged out. Repairs/remediation began June 4, 2015 and will continue on June 15, 2015. Subsurface impacts will be assessed during the repair activities.

Describe Area Affected and Cleanup Action Taken.* A small area of dead vegetation was observed on the ground surface. Subsurface will be assessed during the repair activities.

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

Signature: Jon Fields	OIL CONSERVATION DIVISION Approved by Environmental Specialist:	
Printed Name: Jon E. Fields		
Title: Director, Environmental	Approval Date: 6/22/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached ☐
Date: 6-12-2015 Phone: (713)381-6684		

* Attach Additional Sheets If Necessary

#NCS 1517349852

(1)

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

State of New Mexico
Energy Minerals and Natural Resources

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

OIL CONS. DIV DIST. 3

APR 30 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 K-31**	Facility Type: **Natural Gas Gathering Line**

Surface Owner: **State**	Mineral Owner: **BLM**	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	**16**	**25N**	**6W**	**849**	(North)	**942**	(West)	**Rio Arriba**

Latitude 36.40479 Longitude -107.47813

NATURE OF RELEASE

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: **Estimated 75 MCF Gas; Estimated 5-10 BBLS liquids**	Volume Recovered: **None**
Source of Release: Internal corrosion	Date and Hour of Occurrence: **7/26/2014 @ 8:00 p.m.**	Date and Hour of Discovery: **7/26/2014 @ 12:30 a.m.**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☐ No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*.

Describe Cause of Problem and Remedial Action: A third party reported a possible line leak along the Lateral K-31 pipeline right of way. The pipeline was isolated, blown down, locked out and tagged out and a release was confirmed. The release was a result of internal corrosion of the pipeline. Repairs to the pipeline were completed on January 27, 2015.

Describe Area Affected and Cleanup Action Taken.* The release site was remediated by excavation of the contaminant mass. Approximately 460 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation Division approved land farm facility. A groundwater investigation was completed at the site on January 27, 2015. All groundwater sample results were below the New Mexico Water Quality Control Commission standards. A third party corrective action report and groundwater investigation report is included with this "Final" C-141.

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

Signature: Jon Fields	OIL CONSERVATION DIVISION	
Printed Name: Jon Fields	Approved by Environmental Specialist:	
Title: Director, Environmental	Approval Date: 6/30/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached ☐
Date: 4-22-2015 Phone: (713)381-6684		

* Attach Additional Sheets If Necessary

#NDSK 1425151766 (94)

APEX

CORRECTIVE ACTION REPORT

Property:

Lateral K-31 (2014) Pipeline Release
NW 1/4, S16 T25N R6W
Rio Arriba County, New Mexico

February 18, 2015
Apex Project No. 7030414G028

Prepared for:

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

Prepared by:

Heather M. Woods, P.G.
Senior Project Manager

Elizabeth Scaggs, P.G.
Senior Program Manager

TABLE OF CONTENTS

LIST OF APPENDICES

APEX

CORRECTIVE ACTION REPORT

Lateral K-31 (2014) Pipeline Release
NW 1/4, S16 T25N R6W
Rio Arriba County, New Mexico

Apex Project No. 7030414G028

1.0 INTRODUCTION

1.1 Site Description & Background

The Lateral K-31 (2014) Pipeline Release Site is located within the Enterprise Field Services LLC (Enterprise) pipeline right-of-way (ROW) in the northwest (NW) ¼ of Section 16 in Township 25 North and Range 6 West in rural Rio Arriba County, New Mexico (36.40479N, 107.47813W), referred to hereinafter as the "Site" or "subject Site". The Site is located on land owned by the State of New Mexico, and consists of native vegetation rangeland periodically interrupted with oil and gas gathering facilities, including the Enterprise natural gas gathering pipeline which traverses the area from approximately north to south.

On July 31, 2014, Enterprise shut in the Lateral K-31 pipeline and initiated excavation activities at the Site in an effort to locate and repair a subsurface leak. The leak was subsequently identified and repaired. Natural gas and natural gas condensate were released from the pipeline as a result of internal corrosion. The leak was identified by a release of natural gas at the ground surface.

A topographic map depicting the location of the Site is included as Figure 1, and a Site Vicinity Map is included as Figure 2 in Appendix A.

1.2 Project Objective

The primary objective of the corrective actions was to reduce the concentration of constituents of concern (COCs) in the on-Site soils to below the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD), Oil Conservation Division (OCD) *Remediation Action Levels* using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.

2.0 SITE RANKING

In accordance with the New Mexico ENMRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases*, Apex TITAN, Inc. (Apex), utilized the general site characteristics obtained during the completion of corrective action activities and information available from the Office of the New Mexico Office of the State Engineer 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	20
	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			**40**

Based on Apex's evaluation of the scoring criteria, the Site would have a maximum Total Ranking Score of "40". This ranking is based on the following:

- Possible groundwater was encountered in the base of the excavation at approximately 12 feet below ground surface (bgs), resulting in a ranking of "20" for depth to groundwater. No water wells were identified on the Office of the State Engineer website database within one mile of the Site
- No water sources were identified within 1,000 feet of the Site, resulting in a ranking of "0" for proximity to a wellhead protection area.
- The Site is located within the channel of a small ephemeral wash draining to an unnamed tributary to the Largo Wash approximately 150 feet east of the release location. Also, the Site is located approximately 840 feet west of the Largo Wash ordinary high-water mark. Based on this proximity, a maximum ranking for distance to surface water was assigned at "20".

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

On July 31, 2014, Enterprise shut in the Lateral K-31 pipeline and initiated excavation activities at the Site in an effort to locate and repair a subsurface leak. The leak was subsequently identified and repaired. Natural gas and natural gas condensate were released from the pipeline as a result of internal corrosion. The leak was identified by a release of natural gas at the ground surface. During the corrective action activities, Energy Maintenance Services USA, Inc. (EMS) provided heavy equipment and labor support, and Kyle Summers and Heather Woods, Apex environmental professionals, provided environmental support.

Subsequent to the completion of pipeline repairs, confirmation samples C-1 through C-5 were collected from the floor and sidewalls of the 30 foot long by 10 foot wide by 8 foot deep excavation to evaluate soils remaining in place. Subsequent analytical results indicated that hydrocarbon impact above NMOCD Remediation Action Levels remained on the floor of the excavation (C-1) and three of the sidewalls (C-2 through C-4).

Over-excavation began on August 5, 2014, to remove material from the impacted sidewalls and excavation floor near the point of release. Possible groundwater was observed in the excavation at approximately 12 feet bgs. The observed water in the excavation may alternatively be the result of subgrade monsoonal rain runoff. Confirmation samples C-6 through C-16 were collected from the sidewalls and floor of the excavation on August 5, August 6, and August 8, 2014. Laboratory analytical results indicated remaining hydrocarbon impact at the east wall (C-7) and

north wall (C-10), which were re-sampled as confirmation samples C-14 and C-16, respectively, after further over-excavation. Analytical results from excavation floor samples C-8, C-11, and C-15 indicate remaining hydrocarbon impact at the apparent groundwater interface.

The total depth of the final excavation measured approximately 13 to 14 feet bgs in the release footprint. The overall average surface expression of the excavation measured approximately 34 feet long by 31 feet wide.

The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated silty- and clayey-sands, with lean clay at the base of the excavation.

Based on field photoionziation detector (PID) screening, approximately 460 cubic yards of hydrocarbon affected soils were transported to the Envirotech, Inc. (Envirotech) landfarm near Hilltop, NM 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 PID fitted with a 10.6 eV lamp to estimate excavation limits.

Apex's soil sampling program included the collection of sixteen (16) composite confirmation samples (C-1 through C-16), from the resulting excavation for laboratory analysis. Figure 3 depicts the approximate location of the excavated areas and shows the final confirmation sample locations in relation to the final excavation dimensions (Appendix A).

The confirmation soil samples were collected and placed in laboratory prepared glassware, labeled/sealed using the laboratory supplied labels, and placed on ice in a cooler, which was secured with a custody seal. The sample cooler and completed chain-of-custody form were relinquished to Envirotech Analytical Laboratory in Bloomfield, New Mexico or 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 EPA SW-846 Method #8021, and total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (DRO) utilizing EPA SW-846 Method #8015.

Laboratory results are summarized in Table 1, included in Appendix D. The executed chain-of-custody form and laboratory data sheets are provided in Appendix E.

4.0 DATA EVALUATION

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 NMAC 19.15.30 *Remediation*. These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action.

4.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or reporting limits associated with the final confirmation samples remaining in place to the OCD *Remediation Action Levels* (RALs) for sites having a total ranking score of "40". Soils associated with confirmation samples C-1 through C-4, C-7, and C-10 were removed by over-excavation and are not included in the following discussion.

- The laboratory analyses of confirmation samples collected from soils remaining in place indicate benzene concentrations ranging from below the laboratory reporting limits to 1.2 milligrams per kilogram (mg/kg), which are below the OCD *Remediation Action Level.*

- **Confirmation sample C-8, collected near the capillary fringe from the floor of the excavation, exhibited a total BTEX concentration of 72 mg/kg, which exceeds the OCD *Remediation Action Level.* The excavation was advanced a minimum of one (1) foot below the observed water level subsequent to the collection of this sample.** The laboratory analyses of the remaining confirmation samples collected from soils remaining in place indicate total BTEX concentrations ranging from below the laboratory reporting limits to 42 mg/kg, which are below the OCD *Remediation Action Level.*

- **Confirmation samples C-8, C-11, and C-15, collected near the capillary fringe from the floor of the excavation, exhibited TPH GRO/DRO concentrations ranging from 468 mg/kg to 2,020 mg/kg, which exceed the OCD *Remediation Action Level* of 100 mg/kg for a Site ranking of "40". The excavation was advanced a minimum of one (1) foot below the observed water level subsequent to the collection of these samples.** The laboratory analyses of the remaining confirmation samples collected from soils remaining in place do not indicate TPH GRO/DRO concentrations above the laboratory reporting limits, which are below the OCD *Remediation Action Level* of 100 mg/kg for a Site ranking of "40".

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

5.0 FINDINGS AND RECOMMENDATIONS

The Lateral K-31 (2014) Pipeline Release Site is located within the Enterprise pipeline ROW in the NW ¼ of Section 16 in Township 25 North and Range 6 West in rural Rio Arriba County, New Mexico (36.40479N, 107.47813W). The Site is located land owned by the State of New Mexico, and consists of native vegetation rangeland periodically interrupted with oil and gas gathering facilities, including the Enterprise natural gas gathering pipeline which traverses the area from approximately north to south.

On July 31, 2014, Enterprise shut in the Lateral K-31 pipeline and initiated excavation activities at the Site in an effort to locate and repair a subsurface leak. The leak was subsequently identified and repaired. Natural gas and natural gas condensate were released from the pipeline as a result of internal corrosion. An unknown quantity of dry natural gas and condensate/water mixture was released from the pipeline as a result of internal corrosion. The leak was identified by a release of natural gas at the ground surface.

- 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 total depth of the final excavation was approximately 12 to 14 feet bgs. The surface expression of the final excavation measured approximately 34 feet long by 31 feet wide. Possible groundwater was observed in the excavation at approximately 12 feet bgs.

- **Prior to backfilling, final confirmation samples were collected from the resulting excavation for laboratory analyses. Based on analytical results, confirmation samples collected near the capillary fringe of the northwest, northeast, and southwest portions of the floor of the excavation exceed the OCD *Remediation Action Levels* for total BTEX, and/or TPH GRO/DRO. The excavation was extended a minimum of one (1) foot below the observed water level subsequent to the collection of these samples.** Laboratory analytical results for the remainder of the soils remaining in place do not exhibit benzene or total BTEX concentrations above the OCD *Remediation Action Levels.* Laboratory analytical results for the remainder of the soils remaining in place do not exhibit concentrations of combined TPH GRO/DRO above the OCD *Remediation Action Level* of 100 mg/kg for a Site ranking of "40".

- A total of approximately 460 cubic yards of hydrocarbon affected soils were transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/remediation. The excavation was backfilled with clean imported fill and contoured to the surrounding grade.

Based on field observations and laboratory analytical results, Apex has the following recommendations:

- **Report the corrective action results presented herein to the OCD; and**

- **Perform Site Investigation activities to evaluate potential petroleum hydrocarbon impact to groundwater.**

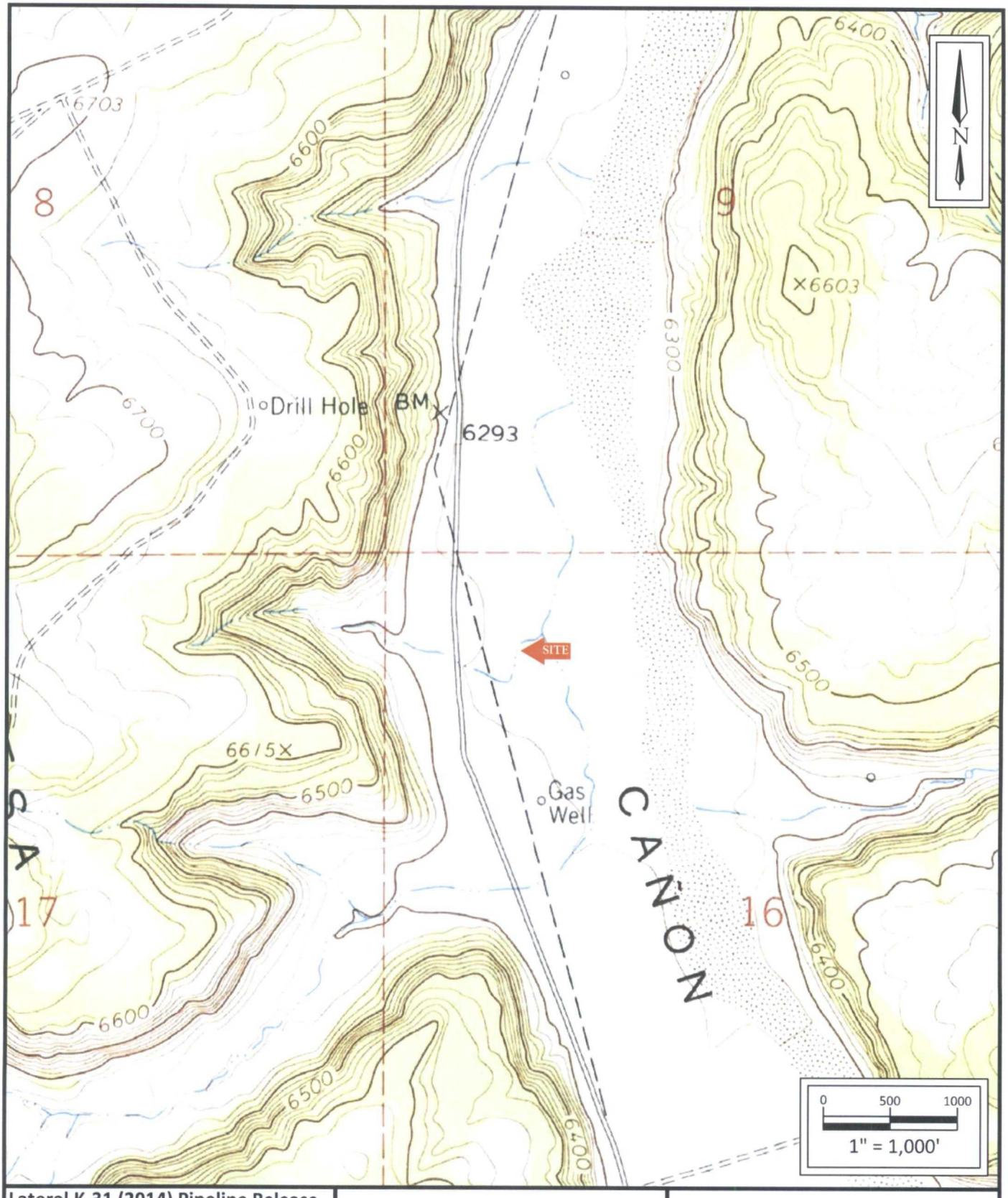
6.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

Apex's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, Apex does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client.

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and Apex cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this scope of services. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. Apex's findings and recommendations are based solely upon data available to Apex at the time of these services.

This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the expressed written authorization of Enterprise and Apex. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal,

the report, and Apex's Agreement. The limitation of liability defined in the agreement is the aggregate limit of Apex's liability to the client.



Lateral K-31 (2014) Pipeline Release
NW¼ S16 T25N R6W
Rural Rio Arriba County, NM
36.40479N, 107.47813W

Project No. 7030414G028

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 1
Topographic Map
Gonzales Mesa, NM Quadrangle
1963

Z:\Houston South\Drafting\New Mexico 04\2014\7030114G028\Figure 1.dwg 03/31/15

Lateral K-31 (2014) Pipeline Release
NW¼ S16 T25N R6W
Rural Rio Arriba County, NM
36.40479N, 107.47813W

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FIGURE 2
Site Vicinity Map
2013 Aerial Photograph

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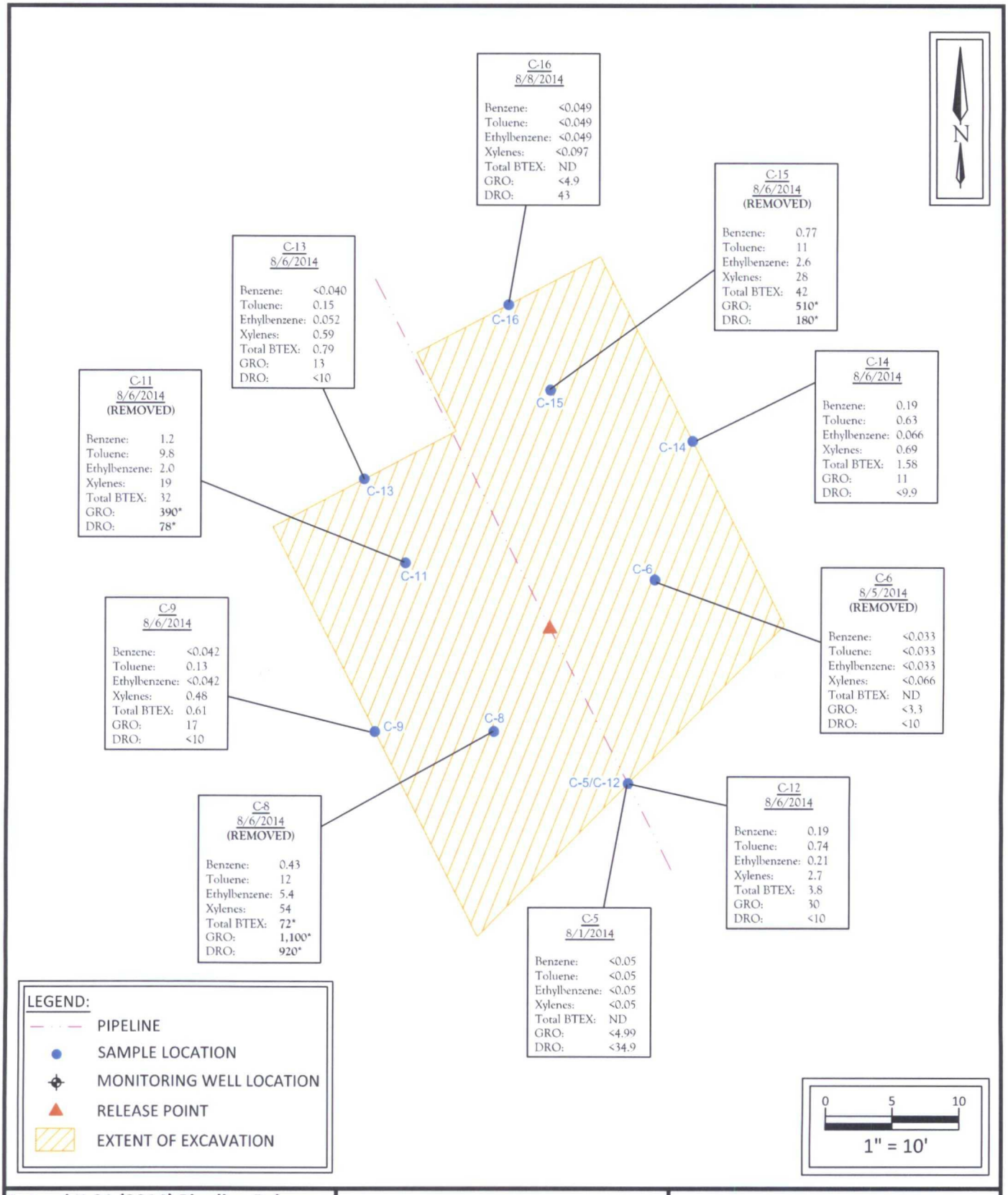

Lateral K-31 (2014) Pipeline Release
NW¼ S16 T25N R6W
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FIGURE 3
Site Map with Sample Locations

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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

97057-0649

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 Aug '14

2. Originating Site: Lateral K-31

3. Location of Material (Street Address, City, State or ULSTR):
Unit Letter D Section 16 T 25N R 6W, GPS 36.404829, -107.478125, San Juan County, NM

4. Source and Description of Waste:
Source: Natural Gas Pipeline Release
Description: Exempt petroleum affected soil from clean-up efforts at pipeline release.
Estimated Volume 50 (yd^3) /bbls Known Volume (to be entered by the operator at the end of the haul) 460 (yd^3) /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 7-30-14, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, _____, representative for _____ 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: ~~**West States Energy Contractors.**~~ Inland, Moss, Jucca, EMS, JP Trucking, TR Trucking, Ritchey

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)

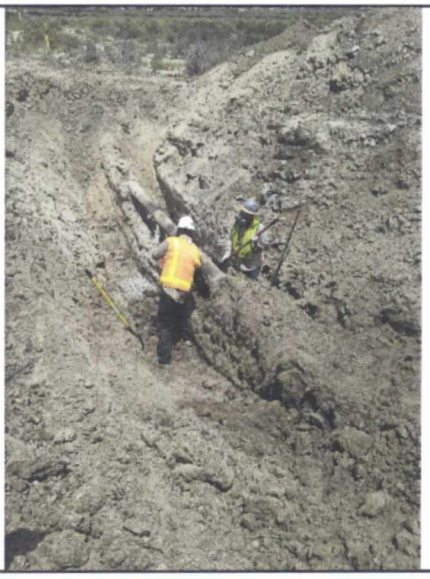
PRINT NAME: Greg Crabtree TITLE: Environmental Manager DATE: 8/6/14
SIGNATURE: _____ TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

Photograph 1

View of site prior to excavation activities, facing northwest.

Photograph 2

View of partially completed excavation during corrective action activities, facing northeast.



Photograph 3

View of partially completed excavation during corrective action activities, facing north.

Photograph 4 View of partially completed excavation during corrective action activities following extension of east wall, facing northeast.	
Photograph 5 View of the final excavation at the completion of corrective action activities, facing north.	

TABLE 1
Lateral K-31 (2014) 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 Entergy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100	
Samples Removed by Excavation									
C-1	8/1/2014	8	<0.10	1.74	<0.10	4.25	5.99	**68.3**	**571**
C-2	8/1/2014	5 to 7	<0.05	5.26	1.28	16.1	22.6	**102**	**7,870**
C-3	8/1/2014	5 to 7	0.61	12.3	1.95	20.5	35.4	**140**	**7,940**
C-4	8/1/2014	5 to 7	<0.05	0.49	0.11	3.61	4.21	**48.6**	**812**
C-7	8/5/2014	12 to 14	0.46	6.0	1.4	14	22	**310**	**190**
C-10	8/6/2014	12 to 14	0.88	36	9.7	91	**138**	**1,900**	**1,300**
Final Confirmation Samples									
C-5	8/1/2014	5 to 7	<0.05	<0.05	<0.05	<0.05	ND	<4.99	<34.9
C-6	8/5/2014	14	<0.033	<0.033	<0.033	<0.066	ND	<3.3	<10
C-8	8/6/2014	14	0.43	12	5.4	54	**72**	**1,100**	**920**
C-9	8/6/2014	12 to 14	<0.042	0.13	<0.042	0.48	0.61	17	<10
C-11	8/6/2014	14	1.2	9.8	2.0	19	32	**390**	**78**
C-12	8/6/2014	12 to 14	0.19	0.74	0.21	2.7	3.8	30	<10
C-13	8/6/2014	12 to 14	<0.040	0.15	0.052	0.59	0.79	13	<10
C-14	8/6/2014	12 to 14	0.19	0.63	0.066	0.69	1.58	11	<9.9
C-15	8/6/2014	14	0.77	11	2.6	28	42	**510**	**180**
C-16	8/8/2014	12 to 14	<0.049	<0.049	<0.049	<0.097	ND	<4.9	43

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

NE = Not Established

ND = Not Detected above Laboratory Reporting Limits

envirotech
Analytical Laboratory

Analytical Report

Report Summary

Client: Enterprise Products

Chain Of Custody Number: 17270

Samples Received: 8/1/2014 3:30:00PM

Job Number: 97057-0352

Work Order: P408003

Project Name/Location: Lat K-31

Entire Report Reviewed By: _____ Date: 8/5/14

Tim Cain, Laboratory Manager

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fx (505) 632-1865
Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301 Ph (970) 259-0615 Fr (800) 362-1879
envirotech-inc.com
laboratory@envirotech-inc.com

envirotech
Analytical Laboratory

Enterprise Products	Project Name:	Lat K-31	
614 Reilly Ave	Project Number:	97057-0352	**Reported:**
Farmington NM, 87401	Project Manager:	Kyle Summers-Apex TITAN	05-Aug-14 09:44

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
C-1	P408003-01A	Soil	08/01/14	08/01/14	Glass Jar, 4 oz.
C-2	P408003-02A	Soil	08/01/14	08/01/14	Glass Jar, 4 oz.
C-3	P408003-03A	Soil	08/01/14	08/01/14	Glass Jar, 4 oz.
C-4	P408003-04A	Soil	08/01/14	08/01/14	Glass Jar, 4 oz.
C-5	P408003-05A	Soil	08/01/14	08/01/14	Glass Jar, 4 oz.

envirotech
Analytical Laboratory

Enterprise Products	Project Name:	Lat K-31	
614 Reilly Ave	Project Number:	97057-0352	**Reported:**
Farmington NM, 87401	Project Manager:	Kyle Summers-Apex TITAN	05-Aug-14 09:44

C-1

P408003-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	2	1432001	08/04/14	08/04/14	EPA 8021B	
Toluene	**1.74**	0.10	mg/kg	2	1432001	08/04/14	08/04/14	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	2	1432001	08/04/14	08/04/14	EPA 8021B	
p,m-Xylene	**3.72**	0.10	mg/kg	2	1432001	08/04/14	08/04/14	EPA 8021B	
o-Xylene	**0.53**	0.10	mg/kg	2	1432001	08/04/14	08/04/14	EPA 8021B	
Total Xylenes	**4.25**	0.10	mg/kg	2	1432001	08/04/14	08/04/14	EPA 8021B	
Total BTEX	**5.99**	0.10	mg/kg	2	1432001	08/04/14	08/04/14	EPA 8021B	
Surrogate: Bromochlorobenzene		*117 %*		*80-120*	*1432001*	*08/04/14*	*08/04/14*	*EPA 8021B*	
Surrogate: 1,3-Dichlorobenzene		*110 %*		*80-120*	*1432001*	*08/04/14*	*08/04/14*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**68.3**	10.0	mg/kg	2	1432001	08/04/14	08/04/14	EPA 8015D	
Diesel Range Organics (C10-C28)	**571**	30.0	mg/kg	1	1432002	08/04/14	08/04/14	EPA 8015D	
Surrogate: Benzo[a]pyrene		*68.8 %*		*50-200*	*1432002*	*08/04/14*	*08/04/14*	*EPA 8015D*	

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Analytical Laboratory

Enterprise Products	Project Name:	Lat K-31	
614 Reilly Ave	Project Number:	97057-0352	**Reported:**
Farmington NM, 87401	Project Manager:	Kyle Summers-Apex TITAN	05-Aug-14 09:44

C-2

P408003-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Toluene	**5.26**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Ethylbenzene	**1.28**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
p,m-Xylene	**13.2**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
o-Xylene	**2.92**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Total Xylenes	**16.1**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Total BTEX	**22.6**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		*121 %*		*80-120*	*1432001*	*08/04/14*	*08/04/14*	*EPA 8021B*	*S-02*
Surrogate: Bromochlorobenzene		*149 %*		*80-120*	*1432001*	*08/04/14*	*08/04/14*	*EPA 8021B*	*S-02*
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**102**	4.99	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8015D	
Diesel Range Organics (C10-C28)	**7870**	69.9	mg/kg	3	1432002	08/04/14	08/04/14	EPA 8015D	E
Surrogate: Benzo[a]pyrene		*164 %*		*50-200*	*1432002*	*08/04/14*	*08/04/14*	*EPA 8015D*	

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Analytical Laboratory

Enterprise Products	Project Name:	Lat K-31	
614 Reilly Ave	Project Number:	97057-0352	**Reported:**
Farmington NM, 87401	Project Manager:	Kyle Summers-Apex TITAN	05-Aug-14 09:44

C-3

P408003-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	**0.61**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Toluene	**12.3**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Ethylbenzene	**1.95**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
p,m-Xylene	**16.9**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
o-Xylene	**3.60**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Total Xylenes	**20.5**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Total BTEX	**35.4**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Surrogate: Bromochlorobenzene		*168 %*		*80-120*	*1432001*	*08/04/14*	*08/04/14*	*EPA 8021B*	*S-02*
Surrogate: 1,3-Dichlorobenzene		*112 %*		*80-120*	*1432001*	*08/04/14*	*08/04/14*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**140**	5.00	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8015D	
Diesel Range Organics (C10-C28)	**7940**	69.9	mg/kg	3	1432002	08/04/14	08/04/14	EPA 8015D	E
Surrogate: Benzo[a]pyrene		*157 %*		*50-200*	*1432002*	*08/04/14*	*08/04/14*	*EPA 8015D*	

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Analytical Laboratory

Enterprise Products	Project Name:	Lat K-31	
614 Reilly Ave	Project Number:	97057-0352	**Reported:**
Farmington NM, 87401	Project Manager:	Kyle Summers-Apex TITAN	05-Aug-14 09:44

C-4

P408003-04 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Toluene	**0.49**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Ethylbenzene	**0.11**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
p,m-Xylene	**2.99**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
o-Xylene	**0.62**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Total Xylenes	**3.61**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Total BTEX	**4.21**	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		*139 %*		*80-120*	*1432001*	*08/04/14*	*08/04/14*	*EPA 8021B*	*S-02*
Surrogate: Bromochlorobenzene		*147 %*		*80-120*	*1432001*	*08/04/14*	*08/04/14*	*EPA 8021B*	*S-02*
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	**48.6**	4.99	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8015D	
Diesel Range Organics (C10-C28)	**812**	30.0	mg/kg	1	1432002	08/04/14	08/04/14	EPA 8015D	
Surrogate: Benzo[a]pyrene		*75.6 %*		*50-200*	*1432002*	*08/04/14*	*08/04/14*	*EPA 8015D*	

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Analytical Laboratory

Enterprise Products	Project Name:	Lat K-31	
614 Reilly Ave	Project Number:	97057-0352	**Reported:**
Farmington NM, 87401	Project Manager:	Kyle Summers-Apex TITAN	05-Aug-14 09:44

C-5

P408003-05 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Toluene	ND	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Ethylbenzene	ND	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
p,m-Xylene	ND	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
o-Xylene	ND	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Total Xylenes	ND	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Total BTEX	ND	0.05	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8021B	
Surrogate: 1,3-Dichlorobenzene		*101 %*		*80-120*	*1432001*	*08/04/14*	*08/04/14*	*EPA 8021B*	
Surrogate: Bromochlorobenzene		*106 %*		*80-120*	*1432001*	*08/04/14*	*08/04/14*	*EPA 8021B*	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg	1	1432001	08/04/14	08/04/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	34.9	mg/kg	1	1432002	08/04/14	08/04/14	EPA 8015D	
Surrogate: Benzo[a]pyrene		*84.8 %*		*50-200*	*1432002*	*08/04/14*	*08/04/14*	*EPA 8015D*	

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Analytical Laboratory

Enterprise Products	Project Name:	Lat K-31	
614 Reilly Ave	Project Number:	97057-0352	**Reported:**
Farmington NM, 87401	Project Manager:	Kyle Summers-Apex TITAN	05-Aug-14 09:44

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1432001 - Purge and Trap EPA 5030A										
Blank (1432001-BLK1)				Prepared & Analyzed: 04-Aug-14						
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	"							
Ethylbenzene	ND	0.05	"							
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	"							
Total BTEX	ND	0.05	"							
Surrogate: 1,3-Dichlorobenzene	*52.5*		*ug/L*	*50.0*		*105*	*80-120*			
Surrogate: Bromochlorobenzene	*54.0*		"	*50.0*		*108*	*80-120*			
Duplicate (1432001-DUP1)	**Source: P408003-01**			Prepared & Analyzed: 04-Aug-14						
Benzene	ND	0.05	mg/kg		ND				30	
Toluene	1.71	0.05	"		1.74			1.72	30	
Ethylbenzene	0.35	0.05	"		ND				30	
p,m-Xylene	4.95	0.05	"		3.72			28.6	30	
o-Xylene	1.02	0.05	"		0.53			62.8	30	D1
Surrogate: 1,3-Dichlorobenzene	*63.2*		*ug/L*	*50.0*		*126*	*80-120*			*S-02*
Surrogate: Bromochlorobenzene	*72.1*		"	*50.0*		*144*	*80-120*			*S-02*
Matrix Spike (1432001-MS1)	**Source: P408003-01**			Prepared & Analyzed: 04-Aug-14						
Benzene	49.4		ug/L	50.0	ND	98.8	39-150			
Toluene	75.5		"	50.0	34.8	81.4	46-148			
Ethylbenzene	53.5		"	50.0	0.66	106	32-160			
p,m-Xylene	174		"	100	74.3	99.4	46-148			
o-Xylene	66.3		"	50.0	10.7	111	46-148			
Surrogate: 1,3-Dichlorobenzene	*60.3*		"	*50.0*		*121*	*80-120*			*S-02*
Surrogate: Bromochlorobenzene	*70.0*		"	*50.0*		*140*	*80-120*			*S-02*

envirotech
Analytical Laboratory

Enterprise Products	Project Name:	Lat K-31	
614 Reilly Ave	Project Number:	97057-0352	**Reported:**
Farmington NM, 87401	Project Manager:	Kyle Summers-Apex TITAN	05-Aug-14 09:44

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1432001 - Purge and Trap EPA 5030A										
Blank (1432001-BLK1)				Prepared & Analyzed: 04-Aug-14						
Gasoline Range Organics (C6-C10)	ND	4.99	mg/kg							
Duplicate (1432001-DUP1)		**Source: P408003-01**		Prepared & Analyzed: 04-Aug-14						
Gasoline Range Organics (C6-C10)	68.6	4.99	mg/kg		68.3			0.417	30	
Matrix Spike (1432001-MS1)		**Source: P408003-01**		Prepared & Analyzed: 04-Aug-14						
Gasoline Range Organics (C6-C10)	1.60		mg/L	0.450	1.37	51.6	75-125			SPK1

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Analytical Laboratory

Enterprise Products	Project Name:	Lat K-31	
614 Reilly Ave	Project Number:	97057-0352	**Reported:**
Farmington NM, 87401	Project Manager:	Kyle Summers-Apex TITAN	05-Aug-14 09:44

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1432002 - DRO Extraction EPA 3550M										
Blank (1432002-BLK1)				Prepared & Analyzed: 04-Aug-14						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Surrogate: Benzo[a]pyrene	*13.6*		*mg/L*	*20.0*		*68.0*	*50-200*			
Matrix Spike (1432002-MS1)		**Source: P408001-01**		Prepared & Analyzed: 04-Aug-14						
Diesel Range Organics (C10-C28)	625	24.9	mg/kg	499	ND	125	38-132			
Surrogate: Benzo[a]pyrene	*21.3*		*mg/L*	*20.0*		*106*	*50-200*			
Matrix Spike Dup (1432002-MSD1)		**Source: P408001-01**		Prepared & Analyzed: 04-Aug-14						
Diesel Range Organics (C10-C28)	597	25.0	mg/kg	499	ND	120	38-132	4.56	20	
Surrogate: Benzo[a]pyrene	*18.6*		*mg/L*	*20.0*		*93.1*	*50-200*			

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Analytical Laboratory

Enterprise Products	Project Name:	Lat K-31	
614 Reilly Ave	Project Number:	97057-0352	**Reported:**
Farmington NM, 87401	Project Manager:	Kyle Summers-Apex TITAN	05-Aug-14 09:44

Notes and Definitions

SPK1	The spike recovery for this QC sample is outside of control limits.
S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
E	Analyte was present at a concentration greater than the calibration curve upper limit.
D1	Duplicates or Matrix Spike Duplicates Relative Percent Difference exceeds control limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CHAIN OF CUSTODY RECORD

17270

Client: Enterprise	Project Name / Location: Lat K-31
Email results to: KSummers@Apexcos.com	Sampler Name: Kyle Summers
Client Phone No.: 903-821-5603	Client No.: 97057-0352

ANALYSIS / PARAMETERS: GRO GRO

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative HNO_3	Preservative HCl	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
C-1	8/1/14	1250	P408003-01	1X40Z			X	X												X	X
C-2		1255	P408003-02																		
C-3		1300	P408003-03																		
C-4		1305	P408003-04																		
C-5		1310	P408003-05																		

NVE

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	8/1/14	1530		8/1/14	15.30
Relinquished by: (Signature)			Received by: (Signature)		
Sample Matrix: Soil ☒ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐ _____			Payment # GG 11580		

☐ Sample(s) dropped off after hours to secure drop off area.

RUSH

4.1 4.7 5.1

envirotech Analytical Laboratory

5795 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 • laboratory@envirotech-inc.com

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

August 07, 2014

Kyle Summers
Enterprise Field Services
614 Reilly Ave.
Farmington, NM 87401
TEL: (505) 599-2141
FAX

RE: Lateral K-31 (2014) Release OrderNo.: 1408233

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/6/2014 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1408233**
Date Reported: **8/7/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Enterprise Field Services
Client Sample ID: C-6
Project: Lateral K-31 (2014) Release
Collection Date: 8/5/2014 3:15:00 PM
Lab ID: 1408233-001 **Matrix:** SOIL **Received Date:** 8/6/2014 7:35:00 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	8/6/2014 12:24:19 PM	14626
Surr: DNOP	93.8	57.9-140		%REC	1	8/6/2014 12:24:19 PM	14626
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **KJH**	
Benzene	ND	0.033		mg/Kg	1	8/6/2014 12:18:14 PM	R20394
Toluene	ND	0.033		mg/Kg	1	8/6/2014 12:18:14 PM	R20394
Ethylbenzene	ND	0.033		mg/Kg	1	8/6/2014 12:18:14 PM	R20394
Xylenes, Total	ND	0.066		mg/Kg	1	8/6/2014 12:18:14 PM	R20394
Surr: 1,2-Dichloroethane-d4	89.4	70-130		%REC	1	8/6/2014 12:18:14 PM	R20394
Surr: 4-Bromofluorobenzene	83.8	70-130		%REC	1	8/6/2014 12:18:14 PM	R20394
Surr: Dibromofluoromethane	87.2	70-130		%REC	1	8/6/2014 12:18:14 PM	R20394
Surr: Toluene-d8	91.2	70-130		%REC	1	8/6/2014 12:18:14 PM	R20394
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **KJH**	
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	8/6/2014 12:18:14 PM	R20394
Surr: BFB	114	61.2-137		%REC	1	8/6/2014 12:18:14 PM	R20394

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Enterprise Field Services
Project: Lateral K-31 (2014) Release
Lab ID: 1408233-002 **Matrix:** SOIL

Client Sample ID: C-7
Collection Date: 8/5/2014 3:18:00 PM
Received Date: 8/6/2014 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	190	9.8		mg/Kg	1	8/6/2014 12:55:14 PM	14626
Surr: DNOP	101	57.9-140		%REC	1	8/6/2014 12:55:14 PM	14626
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **KJH**	
Benzene	0.46	0.16		mg/Kg	5	8/6/2014 12:46:16 PM	R20394
Toluene	6.0	0.16		mg/Kg	5	8/6/2014 12:46:16 PM	R20394
Ethylbenzene	1.4	0.16		mg/Kg	5	8/6/2014 12:46:16 PM	R20394
Xylenes, Total	14	0.31		mg/Kg	5	8/6/2014 12:46:16 PM	R20394
Surr: 1,2-Dichloroethane-d4	86.1	70-130		%REC	5	8/6/2014 12:46:16 PM	R20394
Surr: 4-Bromofluorobenzene	107	70-130		%REC	5	8/6/2014 12:46:16 PM	R20394
Surr: Dibromofluoromethane	84.2	70-130		%REC	5	8/6/2014 12:46:16 PM	R20394
Surr: Toluene-d8	90.1	70-130		%REC	5	8/6/2014 12:46:16 PM	R20394
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **KJH**	
Gasoline Range Organics (GRO)	310	16		mg/Kg	5	8/6/2014 12:46:16 PM	R20394
Surr: BFB	101	61.2-137		%REC	5	8/6/2014 12:46:16 PM	R20394

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408233**

07-Aug-14

Client: Enterprise Field Services

Project: Lateral K-31 (2014) Release

Sample ID **MB-14626**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **14626**	RunNo: **20396**
Prep Date: **8/6/2014**	Analysis Date: **8/6/2014**	SeqNo: **593213** 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	9.0		10.00		90.3	57.9	140			

Sample ID **LCS-14626**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **14626**	RunNo: **20396**
Prep Date: **8/6/2014**	Analysis Date: **8/6/2014**	SeqNo: **593214** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.5	68.6	130			
Surr: DNOP	4.5		5.000		89.9	57.9	140			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408233**

07-Aug-14

Client: Enterprise Field Services

Project: Lateral K-31 (2014) Release

Sample ID **MB-14615MK**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **R20394**	RunNo: **20394**
Prep Date:	Analysis Date: **8/6/2014**	SeqNo: **593945** 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								
mp-Xylenes	ND	0.050								
o-Xylene	ND	0.050								
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		90.5	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.5000		88.7	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		91.3	70	130			
Surr: Toluene-d8	0.45		0.5000		90.6	70	130			

Sample ID **LCS-14615MK**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **R20394**	RunNo: **20394**
Prep Date:	Analysis Date: **8/6/2014**	SeqNo: **593946** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.050	1.000	0	97.1	70	130			
Toluene	0.99	0.050	1.000	0	99.3	60.1	120			
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		87.9	70	130			
Surr: 4-Bromofluorobenzene	0.41		0.5000		82.9	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		90.0	70	130			
Surr: Toluene-d8	0.46		0.5000		91.5	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408233**

07-Aug-14

Client: Enterprise Field Services

Project: Lateral K-31 (2014) Release

Sample ID **MB-14615MK**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **R20394**	RunNo: **20394**
Prep Date:	Analysis Date: **8/6/2014**	SeqNo: **593947** 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	480		500.0		95.1	61.2	137			

Sample ID **LCS-14615MK**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R20394**	RunNo: **20394**
Prep Date:	Analysis Date: **8/6/2014**	SeqNo: **593948** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	5.0	25.00	0	118	80	120			
Surr: BFB	560		500.0		113	61.2	137			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: Enterprise | Work Order Number: 1408233 | RcptNo: 1

Received by/date: AT 8/06/14

Logged By: Anne Thorne 8/6/2014 7:35:00 AM Anne Thorne

Completed By: Anne Thorne 8/6/2014 Anne Thorne

Reviewed By: MJ 08/06/14

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.6	Good	Yes			

Chain-of-Custody Record

Client: Enterprise Field Services LLC

Mailing Address: 614 Reilly Avenue
Farmington, NM 87401

Phone #: 505-716-2787

email or Fax#: hwoods@apexcos.com

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☒ Rush Same Day

Project Name:
Lateral K-31 (2014) Release

Project #:

Project Manager:
K. Summers

Sampler: H. Woods
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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1409233	BTEX + MTBE + TPH (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
8/5/14	1515	Soil	C-6	MeOH Kit 1-4oz	MeOH/Cold	-001	X		X													
8/5/14	1518	Soil	C-7	MeOH Kit 1-4oz	MeOH/Cold	-002	X		X													

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/5/14	1900	Heather M. Woods	Mister Waste	8/5/14	1900
8/5/14	1910	Mister Waste		08/06/14	0735

Remarks:

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

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

August 12, 2014

Kyle Summers

Enterprise Field Services
614 Reilly Ave.
Farmington, NM 87401
TEL: (505) 599-2141
FAX

RE: Lateral K-31 (2014) Releases OrderNo.: 1408298

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 8 sample(s) on 8/7/2014 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1408298**
Date Reported: **8/12/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Enterprise Field Services
Project: Lateral K-31 (2014) Releases
Lab ID: 1408298-001 **Matrix:** MEOH (SOIL)

Client Sample ID: C-8
Collection Date: 8/6/2014 1:30:00 PM
Received Date: 8/7/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	920	10		mg/Kg	1	8/7/2014 10:16:11 AM	14641
Surr: DNOP	106	57.9-140		%REC	1	8/7/2014 10:16:11 AM	14641
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **KJH**	
Benzene	0.43	0.33		mg/Kg	10	8/7/2014 10:08:58 AM	R20435
Toluene	12	0.33		mg/Kg	10	8/7/2014 10:08:58 AM	R20435
Ethylbenzene	5.4	0.33		mg/Kg	10	8/7/2014 10:08:58 AM	R20435
Xylenes, Total	54	0.65		mg/Kg	10	8/7/2014 10:08:58 AM	R20435
Surr: 1,2-Dichloroethane-d4	89.8	70-130		%REC	10	8/7/2014 10:08:58 AM	R20435
Surr: 4-Bromofluorobenzene	111	70-130		%REC	10	8/7/2014 10:08:58 AM	R20435
Surr: Dibromofluoromethane	87.4	70-130		%REC	10	8/7/2014 10:08:58 AM	R20435
Surr: Toluene-d8	92.2	70-130		%REC	10	8/7/2014 10:08:58 AM	R20435
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **KJH**	
Gasoline Range Organics (GRO)	1100	33		mg/Kg	10	8/7/2014 10:08:58 AM	R20435
Surr: BFB	103	61.2-137		%REC	10	8/7/2014 10:08:58 AM	R20435

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Enterprise Field Services
Project: Lateral K-31 (2014) Releases
Lab ID: 1408298-002 **Matrix:** MEOH (SOIL)

Client Sample ID: C-9
Collection Date: 8/6/2014 1:27:00 PM
Received Date: 8/7/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/7/2014 10:37:38 AM	14641
Surr: DNOP	98.7	57.9-140		%REC	1	8/7/2014 10:37:38 AM	14641
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **KJH**	
Benzene	ND	0.042		mg/Kg	1	8/7/2014 11:05:01 AM	R20435
Toluene	0.13	0.042		mg/Kg	1	8/7/2014 11:05:01 AM	R20435
Ethylbenzene	ND	0.042		mg/Kg	1	8/7/2014 11:05:01 AM	R20435
Xylenes, Total	0.48	0.084		mg/Kg	1	8/7/2014 11:05:01 AM	R20435
Surr: 1,2-Dichloroethane-d4	87.2	70-130		%REC	1	8/7/2014 11:05:01 AM	R20435
Surr: 4-Bromofluorobenzene	84.8	70-130		%REC	1	8/7/2014 11:05:01 AM	R20435
Surr: Dibromofluoromethane	85.4	70-130		%REC	1	8/7/2014 11:05:01 AM	R20435
Surr: Toluene-d8	88.3	70-130		%REC	1	8/7/2014 11:05:01 AM	R20435
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **KJH**	
Gasoline Range Organics (GRO)	17	4.2		mg/Kg	1	8/7/2014 11:05:01 AM	R20435
Surr: BFB	113	61.2-137		%REC	1	8/7/2014 11:05:01 AM	R20435

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Enterprise Field Services
Client Sample ID: C-10
Project: Lateral K-31 (2014) Releases
Collection Date: 8/6/2014 2:00:00 PM
Lab ID: 1408298-003
Matrix: MEOH (SOIL)
Received Date: 8/7/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	1300	100		mg/Kg	10	8/7/2014 11:49:33 AM	14641
Surr: DNOP	0	57.9-140	S	%REC	10	8/7/2014 11:49:33 AM	14641
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **KJH**	
Benzene	0.88	0.71		mg/Kg	20	8/7/2014 10:37:01 AM	R20435
Toluene	36	0.71		mg/Kg	20	8/7/2014 10:37:01 AM	R20435
Ethylbenzene	9.7	0.71		mg/Kg	20	8/7/2014 10:37:01 AM	R20435
Xylenes, Total	91	1.4		mg/Kg	20	8/7/2014 10:37:01 AM	R20435
Surr: 1,2-Dichloroethane-d4	91.4	70-130		%REC	20	8/7/2014 10:37:01 AM	R20435
Surr: 4-Bromofluorobenzene	104	70-130		%REC	20	8/7/2014 10:37:01 AM	R20435
Surr: Dibromofluoromethane	85.6	70-130		%REC	20	8/7/2014 10:37:01 AM	R20435
Surr: Toluene-d8	92.2	70-130		%REC	20	8/7/2014 10:37:01 AM	R20435
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **KJH**	
Gasoline Range Organics (GRO)	1900	71		mg/Kg	20	8/7/2014 10:37:01 AM	R20435
Surr: BFB	103	61.2-137		%REC	20	8/7/2014 10:37:01 AM	R20435

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Enterprise Field Services
Project: Lateral K-31 (2014) Releases
Lab ID: 1408298-004 **Matrix:** MEOH (SOIL)

Client Sample ID: C-11
Collection Date: 8/6/2014 2:02:00 PM
Received Date: 8/7/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	78	9.9		mg/Kg	1	8/7/2014 11:20:29 AM	14641
Surr: DNOP	105	57.9-140		%REC	1	8/7/2014 11:20:29 AM	14641
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **KJH**	
Benzene	1.2	0.30		mg/Kg	10	8/7/2014 1:53:10 PM	R20435
Toluene	9.8	0.30		mg/Kg	10	8/7/2014 1:53:10 PM	R20435
Ethylbenzene	2.0	0.30		mg/Kg	10	8/7/2014 1:53:10 PM	R20435
Xylenes, Total	19	0.61		mg/Kg	10	8/7/2014 1:53:10 PM	R20435
Surr: 1,2-Dichloroethane-d4	89.3	70-130		%REC	10	8/7/2014 1:53:10 PM	R20435
Surr: 4-Bromofluorobenzene	89.6	70-130		%REC	10	8/7/2014 1:53:10 PM	R20435
Surr: Dibromofluoromethane	86.6	70-130		%REC	10	8/7/2014 1:53:10 PM	R20435
Surr: Toluene-d8	91.7	70-130		%REC	10	8/7/2014 1:53:10 PM	R20435
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **KJH**	
Gasoline Range Organics (GRO)	390	30		mg/Kg	10	8/7/2014 1:53:10 PM	R20435
Surr: BFB	97.6	61.2-137		%REC	10	8/7/2014 1:53:10 PM	R20435

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Enterprise Field Services
Client Sample ID: C-12
Project: Lateral K-31 (2014) Releases
Collection Date: 8/6/2014 2:25:00 PM
Lab ID: 1408298-005
Matrix: MEOH (SOIL)
Received Date: 8/7/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/7/2014 12:19:36 PM	14641
Surr: DNOP	93.0	57.9-140		%REC	1	8/7/2014 12:19:36 PM	14641
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **KJH**	
Benzene	0.19	0.036		mg/Kg	1	8/7/2014 2:21:05 PM	R20435
Toluene	0.74	0.036		mg/Kg	1	8/7/2014 2:21:05 PM	R20435
Ethylbenzene	0.21	0.036		mg/Kg	1	8/7/2014 2:21:05 PM	R20435
Xylenes, Total	2.7	0.072		mg/Kg	1	8/7/2014 2:21:05 PM	R20435
Surr: 1,2-Dichloroethane-d4	80.7	70-130		%REC	1	8/7/2014 2:21:05 PM	R20435
Surr: 4-Bromofluorobenzene	86.3	70-130		%REC	1	8/7/2014 2:21:05 PM	R20435
Surr: Dibromofluoromethane	80.8	70-130		%REC	1	8/7/2014 2:21:05 PM	R20435
Surr: Toluene-d8	92.6	70-130		%REC	1	8/7/2014 2:21:05 PM	R20435
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **KJH**	
Gasoline Range Organics (GRO)	30	3.6		mg/Kg	1	8/7/2014 2:21:05 PM	R20435
Surr: BFB	112	61.2-137		%REC	1	8/7/2014 2:21:05 PM	R20435

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Enterprise Field Services
Project: Lateral K-31 (2014) Releases
Lab ID: 1408298-006 **Matrix:** MEOH (SOIL)

Client Sample ID: C-13
Collection Date: 8/6/2014 3:14:00 PM
Received Date: 8/7/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/8/2014 10:05:33 AM	14641
Surr: DNOP	103	57.9-140		%REC	1	8/8/2014 10:05:33 AM	14641
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **KJH**	
Benzene	ND	0.040		mg/Kg	1	8/7/2014 12:29:05 PM	R20435
Toluene	0.15	0.040		mg/Kg	1	8/7/2014 12:29:05 PM	R20435
Ethylbenzene	0.052	0.040		mg/Kg	1	8/7/2014 12:29:05 PM	R20435
Xylenes, Total	0.59	0.081		mg/Kg	1	8/7/2014 12:29:05 PM	R20435
Surr: 1,2-Dichloroethane-d4	85.4	70-130		%REC	1	8/7/2014 12:29:05 PM	R20435
Surr: 4-Bromofluorobenzene	80.2	70-130		%REC	1	8/7/2014 12:29:05 PM	R20435
Surr: Dibromofluoromethane	86.6	70-130		%REC	1	8/7/2014 12:29:05 PM	R20435
Surr: Toluene-d8	89.8	70-130		%REC	1	8/7/2014 12:29:05 PM	R20435
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **KJH**	
Gasoline Range Organics (GRO)	13	4.0		mg/Kg	1	8/7/2014 12:29:05 PM	R20435
Surr: BFB	112	61.2-137		%REC	1	8/7/2014 12:29:05 PM	R20435

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Enterprise Field Services
Project: Lateral K-31 (2014) Releases
Lab ID: 1408298-007 **Matrix:** MEOH (SOIL)

Client Sample ID: C-14
Collection Date: 8/6/2014 4:10:00 PM
Received Date: 8/7/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/7/2014 10:16:55 AM	14641
Surr: DNOP	96.3	57.9-140		%REC	1	8/7/2014 10:16:55 AM	14641
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **KJH**	
Benzene	0.19	0.037		mg/Kg	1	8/7/2014 12:57:07 PM	R20435
Toluene	0.63	0.037		mg/Kg	1	8/7/2014 12:57:07 PM	R20435
Ethylbenzene	0.066	0.037		mg/Kg	1	8/7/2014 12:57:07 PM	R20435
Xylenes, Total	0.69	0.073		mg/Kg	1	8/7/2014 12:57:07 PM	R20435
Surr: 1,2-Dichloroethane-d4	81.7	70-130		%REC	1	8/7/2014 12:57:07 PM	R20435
Surr: 4-Bromofluorobenzene	84.7	70-130		%REC	1	8/7/2014 12:57:07 PM	R20435
Surr: Dibromofluoromethane	84.3	70-130		%REC	1	8/7/2014 12:57:07 PM	R20435
Surr: Toluene-d8	88.9	70-130		%REC	1	8/7/2014 12:57:07 PM	R20435
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **KJH**	
Gasoline Range Organics (GRO)	11	3.7		mg/Kg	1	8/7/2014 12:57:07 PM	R20435
Surr: BFB	109	61.2-137		%REC	1	8/7/2014 12:57:07 PM	R20435

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Enterprise Field Services
Project: Lateral K-31 (2014) Releases
Lab ID: 1408298-008

Client Sample ID: C-15
Collection Date: 8/6/2014 4:15:00 PM
Matrix: MEOH (SOIL)
Received Date: 8/7/2014 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	180	9.9		mg/Kg	1	8/7/2014 10:47:30 AM	14641
Surr: DNOP	105	57.9-140		%REC	1	8/7/2014 10:47:30 AM	14641
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **KJH**	
Benzene	0.77	0.35		mg/Kg	10	8/7/2014 2:49:03 PM	R20435
Toluene	11	0.35		mg/Kg	10	8/7/2014 2:49:03 PM	R20435
Ethylbenzene	2.6	0.35		mg/Kg	10	8/7/2014 2:49:03 PM	R20435
Xylenes, Total	28	0.69		mg/Kg	10	8/7/2014 2:49:03 PM	R20435
Surr: 1,2-Dichloroethane-d4	89.4	70-130		%REC	10	8/7/2014 2:49:03 PM	R20435
Surr: 4-Bromofluorobenzene	94.8	70-130		%REC	10	8/7/2014 2:49:03 PM	R20435
Surr: Dibromofluoromethane	87.4	70-130		%REC	10	8/7/2014 2:49:03 PM	R20435
Surr: Toluene-d8	92.2	70-130		%REC	10	8/7/2014 2:49:03 PM	R20435
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **KJH**	
Gasoline Range Organics (GRO)	510	35		mg/Kg	10	8/7/2014 2:49:03 PM	R20435
Surr: BFB	98.4	61.2-137		%REC	10	8/7/2014 2:49:03 PM	R20435

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408298**

12-Aug-14

Client: Enterprise Field Services

Project: Lateral K-31 (2014) Releases

Sample ID **MB-14641**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **14641**	RunNo: **20418**
Prep Date: **8/7/2014**	Analysis Date: **8/7/2014**	SeqNo: **594027** 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		95.4	57.9	140			

Sample ID **LCS-14641**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **14641**	RunNo: **20418**
Prep Date: **8/7/2014**	Analysis Date: **8/7/2014**	SeqNo: **594028** 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	102	68.6	130			
Surr: DNOP	4.6		5.000		91.8	57.9	140			

Sample ID **MB-14665**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **14665**	RunNo: **20455**
Prep Date: **8/8/2014**	Analysis Date: **8/8/2014**	SeqNo: **595005** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.4		10.00		94.1	57.9	140			

Sample ID **LCS-14665**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **14665**	RunNo: **20455**
Prep Date: **8/8/2014**	Analysis Date: **8/8/2014**	SeqNo: **595061** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		95.5	57.9	140			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408298**

12-Aug-14

Client: Enterprise Field Services

Project: Lateral K-31 (2014) Releases

Sample ID **100ng lcs**	SampType: **LCS**			TestCode: **EPA Method 8260B: Volatiles Short List**					
Client ID: **LCSS**	Batch ID: **R20435**			RunNo: **20435**					
Prep Date:	Analysis Date: **8/7/2014**			SeqNo: **594661**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	103	70	130			
Toluene	1.0	0.050	1.000	0	102	60.1	120			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.8	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.5000		87.7	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.7	70	130			
Surr: Toluene-d8	0.46		0.5000		92.0	70	130			

Sample ID **vcb**	SampType: **MBLK**			TestCode: **EPA Method 8260B: Volatiles Short List**					
Client ID: **PBS**	Batch ID: **R20435**			RunNo: **20435**					
Prep Date:	Analysis Date: **8/7/2014**			SeqNo: **594663**		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								
mp-Xylenes	ND	0.050								
o-Xylene	ND	0.050								
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		85.2	70	130			
Surr: 4-Bromofluorobenzene	0.43		0.5000		85.6	70	130			
Surr: Dibromofluoromethane	0.43		0.5000		85.4	70	130			
Surr: Toluene-d8	0.47		0.5000		93.2	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408298**

12-Aug-14

Client: Enterprise Field Services

Project: Lateral K-31 (2014) Releases

Sample ID **vcb**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **R20435**	RunNo: **20435**
Prep Date:	Analysis Date: **8/7/2014**	SeqNo: **594478** 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	540		500.0		108	61.2	137			

Sample ID **2.5ug lcs GRO**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R20435**	RunNo: **20435**
Prep Date:	Analysis Date: **8/7/2014**	SeqNo: **594655** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	112	80	120			
Surr: BFB	500		500.0		100	61.2	137			

Sample ID **1408298-002a ms**	SampType: **MS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **C-9**	Batch ID: **R20435**	RunNo: **20435**
Prep Date:	Analysis Date: **8/7/2014**	SeqNo: **594657** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	39	5.0	25.00	16.58	87.9	58	134			
Surr: BFB	530		500.0		106	61.2	137			

Sample ID **1408298-002a msd**	SampType: **MSD**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **C-9**	Batch ID: **R20435**	RunNo: **20435**
Prep Date:	Analysis Date: **8/7/2014**	SeqNo: **594658** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	41	5.0	25.00	16.58	96.0	58	134	5.13	20	
Surr: BFB	550		500.0		110	61.2	137	0	0	

Qualifiers:

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

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

Sample Log-In Check List

Client Name: **Enterprise** Work Order Number: **1408298** RcptNo: 1

Received by/date: 08/07/14

Logged By: **Ashley Gallegos** 8/7/2014 7:45:00 AM

Completed By: **Ashley Gallegos** 8/7/2014 7:52:42 AM

Reviewed By: 08/07/14

Chain of Custody

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

Log In

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

Special Handling (If applicable)

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

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

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

Chain-of-Custody Record

Client: Enterprise Field Services

Mailing Address: 614 Reilly Avenue
Farmington, NM 87401

Phone #: (505) 716-2787

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☒ Rush Same Day

Project Name:
Lateral K-31 (2014) Releases

Project #:

Project Manager:
K. Summers

Sampler: H. Woods
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. 1408298	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
8/6/14	1330	Soil	C-8	MeOH Kit T-402	MeOH / Cold	-001	X		X													
8/6/14	1327	Soil	C-9			-002	X		X													
8/6/14	1400	Soil	C-10			-003	X		X													
8/6/14	1402	Soil	C-11			-004	X		X													
8/6/14	1425	Soil	C-12			-005	X		X													
8/6/14	1514	Soil	C-13			-006	X		X													
8/6/14	1610	Soil	C-14			-007	X		X													
8/6/14	1615	Soil	C-15			-008	X		X													

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/6/14	1840	Heather M. Woods	Christin Walte	8/6/14	1848
8/6/14	1920	Christin Walter		08/07/14	0745

Remarks:

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

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

August 14, 2014

Kyle Summers

Enterprise Field Services
614 Reilly Ave.
Farmington, NM 87401
TEL: (505) 599-2141
FAX

RE: Lateral K-31 (2014) OrderNo.: 1408415

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/9/2014 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1408415**
Date Reported: **8/14/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Enterprise Field Services
Project: Lateral K-31 (2014)
Lab ID: 1408415-001 **Matrix:** SOIL

Client Sample ID: C-16
Collection Date: 8/8/2014 11:40:00 AM
Received Date: 8/9/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	43	9.8		mg/Kg	1	8/14/2014 2:13:57 AM	14691
Surr: DNOP	99.2	57.9-140		%REC	1	8/14/2014 2:13:57 AM	14691
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/12/2014 4:45:54 PM	14696
Surr: BFB	87.7	80-120		%REC	1	8/12/2014 4:45:54 PM	14696
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.049		mg/Kg	1	8/12/2014 4:45:54 PM	14696
Toluene	ND	0.049		mg/Kg	1	8/12/2014 4:45:54 PM	14696
Ethylbenzene	ND	0.049		mg/Kg	1	8/12/2014 4:45:54 PM	14696
Xylenes, Total	ND	0.097		mg/Kg	1	8/12/2014 4:45:54 PM	14696
Surr: 4-Bromofluorobenzene	92.3	80-120		%REC	1	8/12/2014 4:45:54 PM	14696

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408415**

14-Aug-14

Client: Enterprise Field Services

Project: Lateral K-31 (2014)

Sample ID **MB-14690**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **14690**	RunNo: **20514**
Prep Date: **8/11/2014**	Analysis Date: **8/12/2014**	SeqNo: **596471** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.4		10.00		94.2	57.9	140			

Sample ID **MB-14691**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **14691**	RunNo: **20514**
Prep Date: **8/11/2014**	Analysis Date: **8/12/2014**	SeqNo: **596472** 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	9.7		10.00		96.7	57.9	140			

Sample ID **LCS-14690**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **14690**	RunNo: **20514**
Prep Date: **8/11/2014**	Analysis Date: **8/12/2014**	SeqNo: **596474** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		96.4	57.9	140			

Sample ID **LCS-14691**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **14691**	RunNo: **20514**
Prep Date: **8/11/2014**	Analysis Date: **8/12/2014**	SeqNo: **596475** 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	68.6	130			
Surr: DNOP	4.8		5.000		96.7	57.9	140			

Sample ID **MB-14719**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **14719**	RunNo: **20529**
Prep Date: **8/12/2014**	Analysis Date: **8/13/2014**	SeqNo: **597002** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.7		10.00		96.9	57.9	140			

Sample ID **LCS-14719**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **14719**	RunNo: **20529**
Prep Date: **8/12/2014**	Analysis Date: **8/13/2014**	SeqNo: **597313** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		91.5	57.9	140			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408415**

14-Aug-14

Client: Enterprise Field Services

Project: Lateral K-31 (2014)

Sample ID **MB-14696**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **14696**	RunNo: **20533**
Prep Date: **8/11/2014**	Analysis Date: **8/12/2014**	SeqNo: **597262** 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	920		1000		91.5	80	120			

Sample ID **LCS-14696**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **14696**	RunNo: **20533**
Prep Date: **8/11/2014**	Analysis Date: **8/12/2014**	SeqNo: **597263** 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	65.8	139			
Surr: BFB	970		1000		97.2	80	120			

Sample ID **1408415-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **C-16**	Batch ID: **14696**	RunNo: **20533**
Prep Date: **8/11/2014**	Analysis Date: **8/12/2014**	SeqNo: **597274** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.8	24.22	0	107	71.8	132			
Surr: BFB	970		969.0		99.8	80	120			

Sample ID **1408415-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **C-16**	Batch ID: **14696**	RunNo: **20533**
Prep Date: **8/11/2014**	Analysis Date: **8/12/2014**	SeqNo: **597276** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.8	24.18	0	101	71.8	132	5.67	20	
Surr: BFB	1000		967.1		104	80	120	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408415**

14-Aug-14

Client: Enterprise Field Services

Project: Lateral K-31 (2014)

Sample ID **MB-14696**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **14696**	RunNo: **20533**
Prep Date: **8/11/2014**	Analysis Date: **8/12/2014**	SeqNo: **597291** 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 **LCS-14696**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **14696**	RunNo: **20533**
Prep Date: **8/11/2014**	Analysis Date: **8/12/2014**	SeqNo: **597292** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.050	1.000	0	87.4	80	120			
Toluene	0.86	0.050	1.000	0	85.6	80	120			
Ethylbenzene	0.88	0.050	1.000	0	88.2	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.4	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: **Enterprise** Work Order Number: **1408415** RcptNo: **1**

Received by/date: 08/09/14

Logged By: **Lindsay Mangin** 8/9/2014 9:00:00 AM

Completed By: **Lindsay Mangin** 8/9/2014 9:53:13 AM

Reviewed By: DO 08/11/2014

Chain of Custody

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

Log In

4. Was an attempt made to cool the samples?	Yes ✔	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ✔	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ✔	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ✔	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ✔	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ✔
11. Were any sample containers received broken?	Yes ☐	No ✔	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No ☐	Adjusted?
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 ☐	Checked by:

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good	Yes			

Chain-of-Custody Record

Client: Enterprise Field Services LLC

Mailing Address: 614 Reilly Avenue
Farmington, NM 87401

Phone #: 505-716-2787

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name:
Lateral K-31 (2014)

Project #:

Project Manager:
K. Summers

Sampler: H. Woods

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.4

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1408415	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
8/8/14	1140	Soil	C-16	1-4oz Jar	Cold	-001	X		X													

NFS
HW

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/8/14	1755	Heather M. Woods	Christine Walls	8/8/14	1755
8/8/14	1758	Christine Walls		08/09/14	0900

Remarks:
Direct bill to Enterprise

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.

SUPPLEMENTAL SITE INVESTIGATION REPORT

Property:

Lateral K-31 (7/26/2014) Pipeline Release
NW 1/4, S16 T25N R6W
Rio Arriba County, New Mexico

March 31, 2015
Apex Project No. 7030414G028

Prepared for:

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

Prepared by:

Heather M. Woods

Heather M. Woods, P.G.
Senior Project Manager

Liz Scaggs

Elizabeth Scaggs, P.G.
Division Director

TABLE OF CONTENTS

LIST OF APPENDICES

APEX

SUPPLEMENTAL SITE INVESTIGATION REPORT

Lateral K-31 (7/26/2014) Pipeline Release
NW 1/4, S16 T25N R6W
Rio Arriba County, New Mexico

Apex Project No. 7030414G028

1.0 INTRODUCTION

1.1 Site Description & Background

The Lateral K-31 pipeline release site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the northwest (NW) ¼ of Section 16 in Township 25 North, Range 6 West (36.40479N, 107.47813W), in Rio Arriba County, New Mexico, referred to hereinafter as the "Site" or "subject Site". The Site is located on land owned by the State of New Mexico, and consists of native vegetation range land periodically interrupted with oil and gas gathering facilities, including one (1) Enterprise natural gas gathering pipeline which traverses the area from approximately north to south.

On July 31, 2014, Enterprise shut in the Lateral K-31 pipeline and initiated excavation activities at the Site in an effort to locate and repair a subsurface release. The release was subsequently identified and repaired. Natural gas and natural gas condensate were released from the pipeline as a result of internal corrosion. The release was identified by a discharge of natural gas at the ground surface.

Corrective action activities began July 31, 2014, and were completed August 6, 2014. During hydrocarbon-affected soil removal, groundwater was encountered at the floor of the excavation prior to soils achieving acceptable New Mexico Energy, Minerals, and Natural Resources Department (EMNRD) Oil Conservation Division (OCD) *Remediation Action Level* concentrations. Therefore, additional site investigation of groundwater was warranted. Details of the corrective actions pertaining to hydrocarbon-affected soils are provided in the *Corrective Action Report – Lateral K-31 (2014) Pipeline Release* (Apex) dated September 18, 2014.

A topographic map depicting the location of the Site is included as Figure 1, a Site Vicinity Map is included as Figure 2, and a Site Plan is included as Figure 3 in Appendix A.

1.2 Project Objective

The primary objective of the supplemental site investigation was to evaluate the magnitude and extent of dissolved phase constituents of concern (COCs), if present, in the initial groundwater-bearing unit at the Site.

2.0 SITE RANKING

In accordance with the New Mexico ENMRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases*, Apex TITAN, Inc. (Apex) utilized the general site characteristics obtained during the completion of corrective action activities and information available from the Office of the New Mexico Office of the State Engineer 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	**20**
	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			**40**

Based on Apex's evaluation of the scoring criteria, the Site would have a maximum Total Ranking Score of "40". This ranking is based on the following:

- Depth to groundwater, as measured in on-Site monitoring wells, ranges from approximately 8 to 10 feet below grade surface (bgs), resulting in a depth to groundwater ranking of "20".
- No water source wells (municipal/community wells) were identified within 1,000 feet of the Site. No private domestic water sources were identified within 200 feet of the Site. The lack of water source proximities results in a well head protection area ranking of "0".
- The Site encompasses the channel of a small ephemeral wash draining to an unnamed tributary to the Largo Wash approximately 150 feet east of the release location. Also, the Site is located approximately 840 feet west of the Largo Wash ordinary high-water mark. Based on these proximities, a maximum ranking for distance to surface water was assigned at "20".

3.0 SITE INVESTIGATION

3.1 Soil Boring and Monitoring Well Installations

During January 2015, four (4) soil borings (MW-1 through MW-4) were advanced in the vicinity of the former pipeline release utilizing a truck-mounted, hollow stem auger drilling rig. Soil boring MW-1 was advanced topographically upgradient from the point of release, and soil boring MW-4 was advanced as near as practicable to the former point of release and topographically downgradient from the release. Soil borings MW-2 and MW-3 were advanced topographically downgradient from the point of release on the north and east sides of the former excavation.

Figure 3 of Appendix A is a Site Map which depicts the location of the soil boring locations and former extents of the excavation.

Soil samples were collected continuously, utilizing five-foot core barrel samplers to the termination depth of each soil boring. Soil samples were observed to document soil lithology, color, moisture content, and visual and olfactory evidence of petroleum hydrocarbons. Field headspace analysis was conducted by placing the portion of the soil sampled designated for field screening into a plastic Ziplock® bag. The plastic bag was sealed, and the sample allowed to volatilize. The air above the sample, the headspace, was then evaluated using a photoionization detector (PID) capable of detecting volatile organic compounds (VOCs). The PID was calibrated utilizing an isobutylene standard prior to use in the field.

During the completion of each soil boring, an on-Site geoscientist documented the lithology encountered and constructed a continuous profile of the soil column from the surface to the boring terminus. Soil samples from each boring location were visually inspected and classified in the field. The lithology observed during the advancement of soil borings generally consisted of interbedded silt with clay, clayey silt, and silty sand underlain by poorly graded sand with silt to silty sand. Detailed lithologic descriptions are presented on the soil boring logs included in Appendix C.

Overall, PID readings ranged from zero (0) parts per million (ppm) to 17 ppm (MW-4). Field screening results are presented on soil boring logs included in Appendix C.

Subsequent to advancement, the soil borings were completed as monitoring wells. The monitoring wells were completed using the following methodology:

- Installation of 15 feet of 2-inch inside diameter, 0.010-inch machine slotted PVC well screen with a threaded bottom cap;
- Installation of 2-inch inside diameter, threaded flush joint PVC riser pipe to the ground surface;
- Addition of pre-sieved 10/20 grade annular silica sand pack from the bottom of the soil boring to 2-feet above the top of the well screen;
- Placement of two feet of hydrated bentonite pellets above the sand;
- Addition of cement/bentonite slurry to the surface; and
- Installation of an above-grade steel riser with an integrated padlock hasp.

The monitoring wells were developed by surging and removing groundwater with a disposable bailer until the fluid appeared relatively free of fine-grained sediment. Purged groundwater was placed into a labeled drum for storage until appropriate disposal measures are determined. Monitoring well construction details are presented on the soil boring logs included in Appendix C.

3.2 Soil Sampling Program

One (1) soil sample was collected from each soil boring from one of the following locations:

- The depth interval exhibiting the highest concentration of VOCs based on PID evidence;
- An interval exhibiting visual/olfactory evidence of impairment;
- The capillary fringe zone;
- From a change in lithology; or
- From the bottom of the boring.

The soil samples were collected in laboratory supplied containers, sealed with custody tape and placed on ice in a cooler secured with a custody seal. The sample cooler and completed chain-of-custody forms were relinquished to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico.

3.3 Groundwater Sampling Program

Prior to sample collection, the monitoring wells were purged of approximately three (3) to five (5) casing volumes of groundwater or until effectively dry, utilizing a dedicated, disposable bailer for each well. Subsequent to the completion of the purging process and adequate groundwater recharge, one (1) groundwater sample was collected from each monitoring well utilizing a disposable bailer. The groundwater samples were collected in laboratory supplied containers, sealed with custody tape and placed on ice in a cooler secured with a custody seal. The sample cooler and completed chain-of-custody forms were relinquished to HEAL in Albuquerque, New Mexico.

3.4 Laboratory Analytical Program

Soil samples were analyzed for total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (DRO) utilizing Environmental Protection Agency (EPA) SW-846 Method 8015 and benzene, toluene, ethylbenzene, and xylenes (BTEX) utilizing EPA SW-846 Method 8021. Groundwater samples were analyzed for BTEX utilizing EPA SW-846 Method 8021. Sample containers for groundwater organic analyses were pre-preserved with $HgCl_2$.

A summary of the analysis, sample type, and EPA-approved methods is presented in the following table:

Analysis	Sample Type	No. of Samples	EPA Method
TPH GRO/DRO	Soil	4	SW-846 8015
BTEX	Soil/Groundwater	4/4	SW-846 8021

Soil and groundwater laboratory results are summarized in Tables 1 and 2 (Appendix A), respectively. The executed chain-of-custody form and laboratory data sheets are provided in Appendix D.

4.0 GROUNDWATER FLOW DIRECTION

Each of the monitoring wells was surveyed for top-of-casing (TOC) elevations. Apex gauged the depth to fluids in each monitoring well. The groundwater flow direction (gradient) at the Site is generally toward the north. The observed gradient during the monitoring event averaged 0.003 ft/ft across the north portion of the Site and 0.010 ft/ft across the south portion of the Site. Groundwater is present at depths ranging from approximately 8 to 10 feet bgs at the Site.

Groundwater measurements collected during the sampling event are presented with TOC elevations in Table 2 (Appendix B). A groundwater gradient map for the sampling event is included as Figure 4 (Appendix A).

5.0 DATA EVALUATION

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. To address activities related to crude oil/condensate releases, the New Mexico EMNRD OCD utilizes the *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the EMNRD/OCD rules, specifically New Mexico Administrative Code 19.15.29 *Remediation Plan*.

These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action. Additionally, the New Mexico EMNRD OCD utilizes the New Mexico WQCC *Groundwater Quality Standards* to determine baseline groundwater assessment.

5.1 Soil Samples

Apex compared the BTEX and TPH concentrations or reporting limits (RLs) associated with monitoring well soil boring samples to the OCD *Remediation Action Levels* for sites having a total ranking score of "40".

- The laboratory analysis of the soil samples collected from the monitoring well soil borings indicate benzene concentrations ranging from below the laboratory reporting limits to 0.12 milligrams per kilogram (mg/kg), which are below the OCD *Remediation Action Level.*

- The laboratory analysis of the soil samples collected from the monitoring well soil borings indicate total BTEX concentrations ranging from below laboratory reporting limits to 1.1 mg/kg, which are below the OCD *Remediation Action Level.*

- The laboratory analyses of the soil samples collected from the monitoring well soil borings indicate combined TPH GRO/DRO concentrations below the laboratory reporting limits, which are below the OCD *Remediation Action Level.*

No data qualifier flags were associated with the soil analytical results. Confirmation sample results are provided in Tables 1A and 1B in Appendix B.

5.2 Groundwater Samples

Apex compared BTEX concentrations or laboratory reporting limits (RLs) associated with the groundwater samples collected from the Site monitoring wells to the WQCC *Groundwater Quality Standards*.

- The groundwater samples collected from monitoring wells MW-1 through MW-4 did not exhibit benzene, toluene, ethylbenzene, or xylenes concentrations above the laboratory reporting limits, which are below the applicable WQCC *Groundwater Quality Standards.*

No data qualifier flags were associated with the groundwater analytical results. The results of the groundwater sample analyses are summarized in Table 2 of Appendix B. Laboratory data sheets and chain-of-custody documentation are provided as Appendix C.

6.0 FINDINGS AND RECOMMENDATIONS

The primary objective of the supplemental site investigation was to evaluate the magnitude and extent of dissolved phase COCs, if present, in the initial groundwater-bearing unit at the Site.

- Apex installed four (4) soil borings/monitoring wells at the Lateral K-31 (7/26/2014) release Site utilizing a hollow stem auger drilling rig.

- During the completion of the sampling event, one (1) groundwater sample was collected from each monitoring wells utilizing a dedicated disposable bailer.

- Based on field measurements, the groundwater flow direction at the Site is generally towards the north, with an approximate gradient of 0.003 ft/ft across the north portion of the Site and 0.010 ft/ft across the south portion of the Site.

- The soil samples collected from MW-1 through MW-4 did not exhibit benzene, total BTEX, or TPH GRO/DRO above the OCD applicable *Remediation Action Levels.*

- The groundwater samples collected from monitoring wells MW-1 through MW-4 did not exhibit benzene, toluene, ethylbenzene, or xylenes concentrations above the laboratory reporting limits, which are below the applicable WQCC *Groundwater Quality Standards.*

Based on the results of the supplemental site investigation, Apex has the following recommendations:

- **Report the supplemental site investigation results to the OCD; and**

- **Plug and abandon the monitoring wells;**

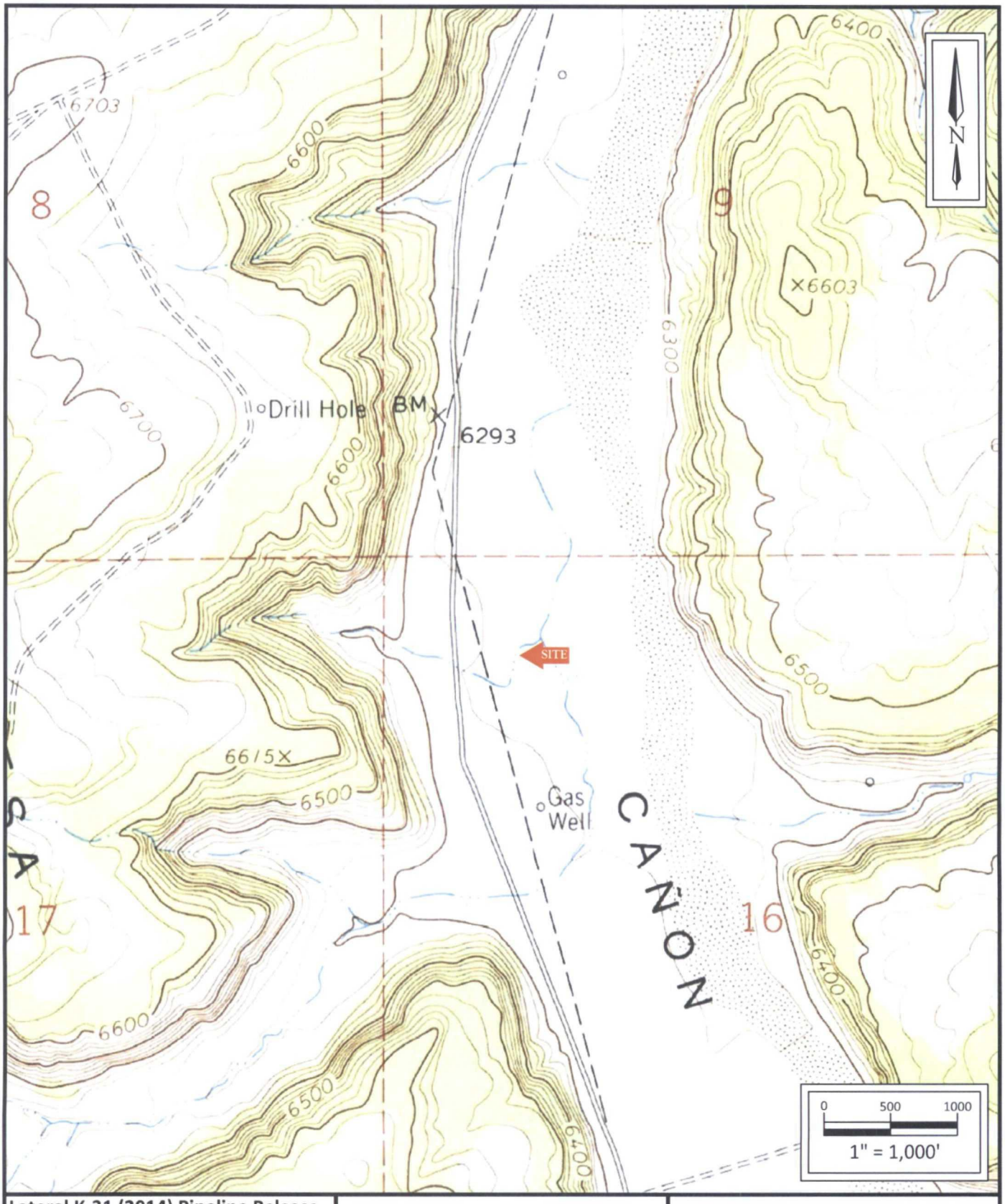
- **Request that no further action be required in relation to this release at this time.**

7.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

Apex's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, Apex does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client.

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and Apex cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this scope of services. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. Apex's findings and recommendations are based solely upon data available to Apex at the time of these services.

This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the expressed written authorization of Enterprise and Apex. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, the report, and Apex's Agreement. The limitation of liability defined in the agreement is the aggregate limit of Apex's liability to the client.



Lateral K-31 (2014) Pipeline Release
NW¼ S16 T25N R6W
Rural Rio Arriba County, NM
36.40479N, 107.47813W

Project No. 7030414G028

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 1
Topographic Map
Gonzales Mesa, NM Quadrangle
1963

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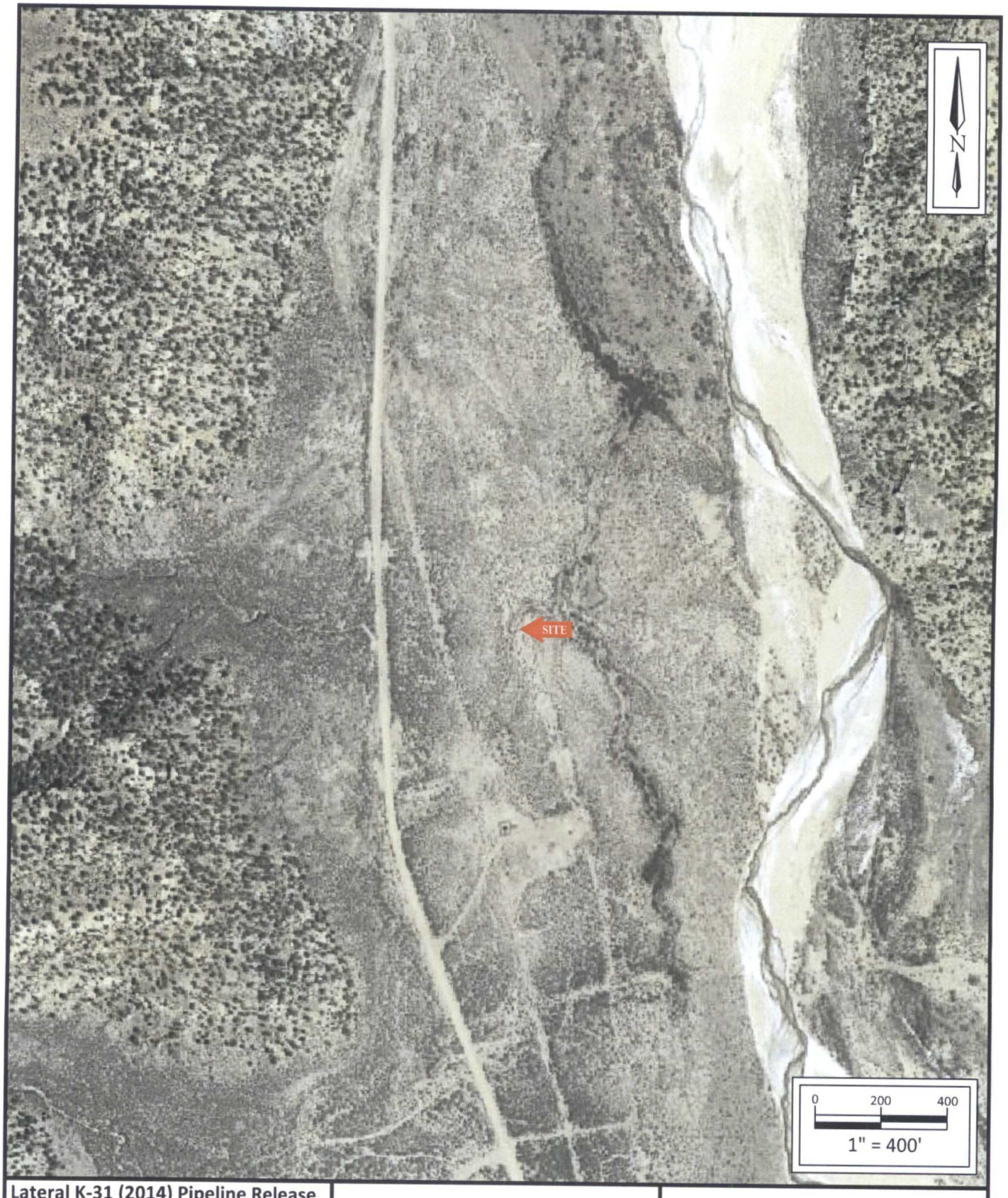

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FIGURE 2
Site Vicinity Map
2013 Aerial Photograph

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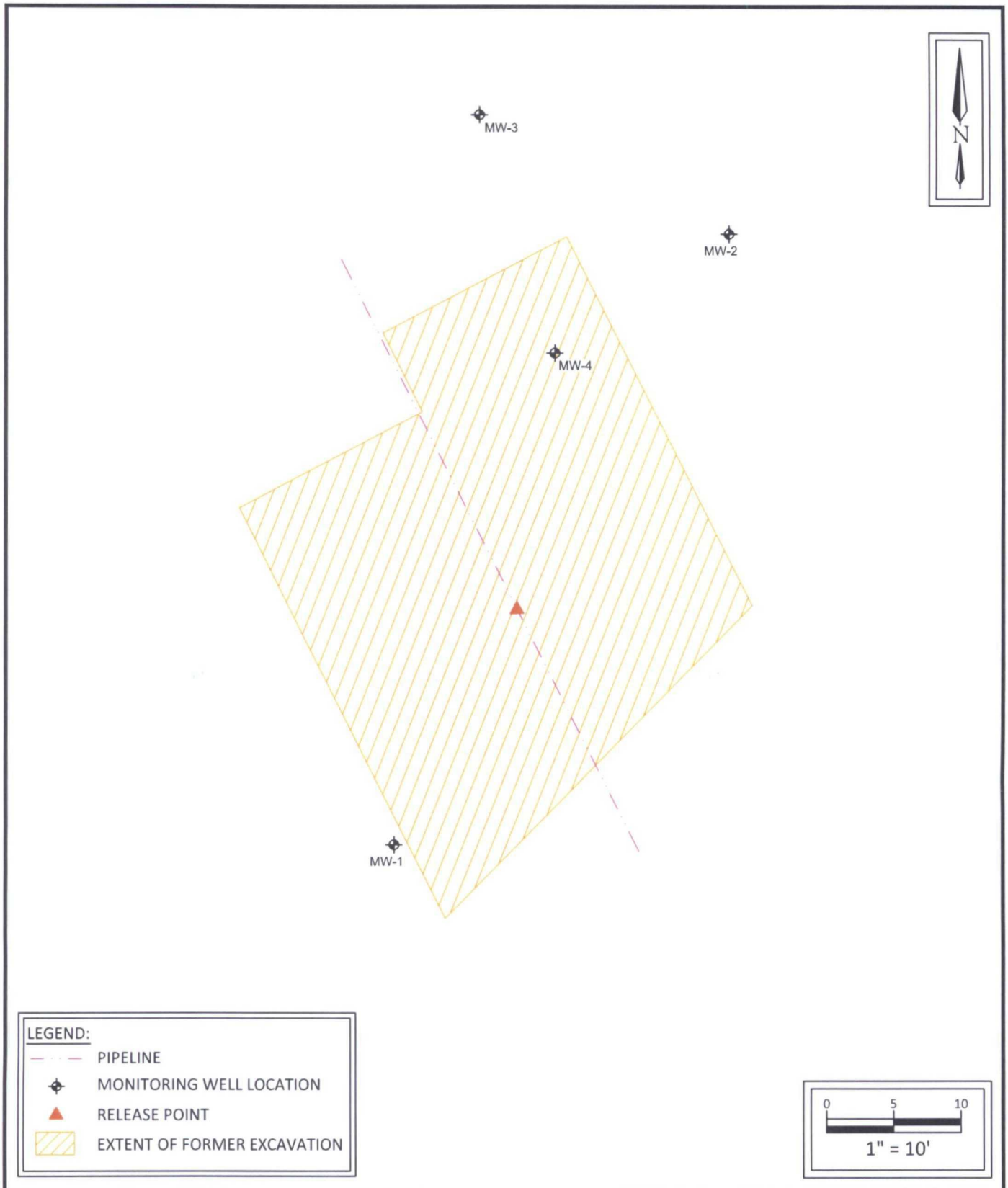

Lateral K-31 (2014) Pipeline Release
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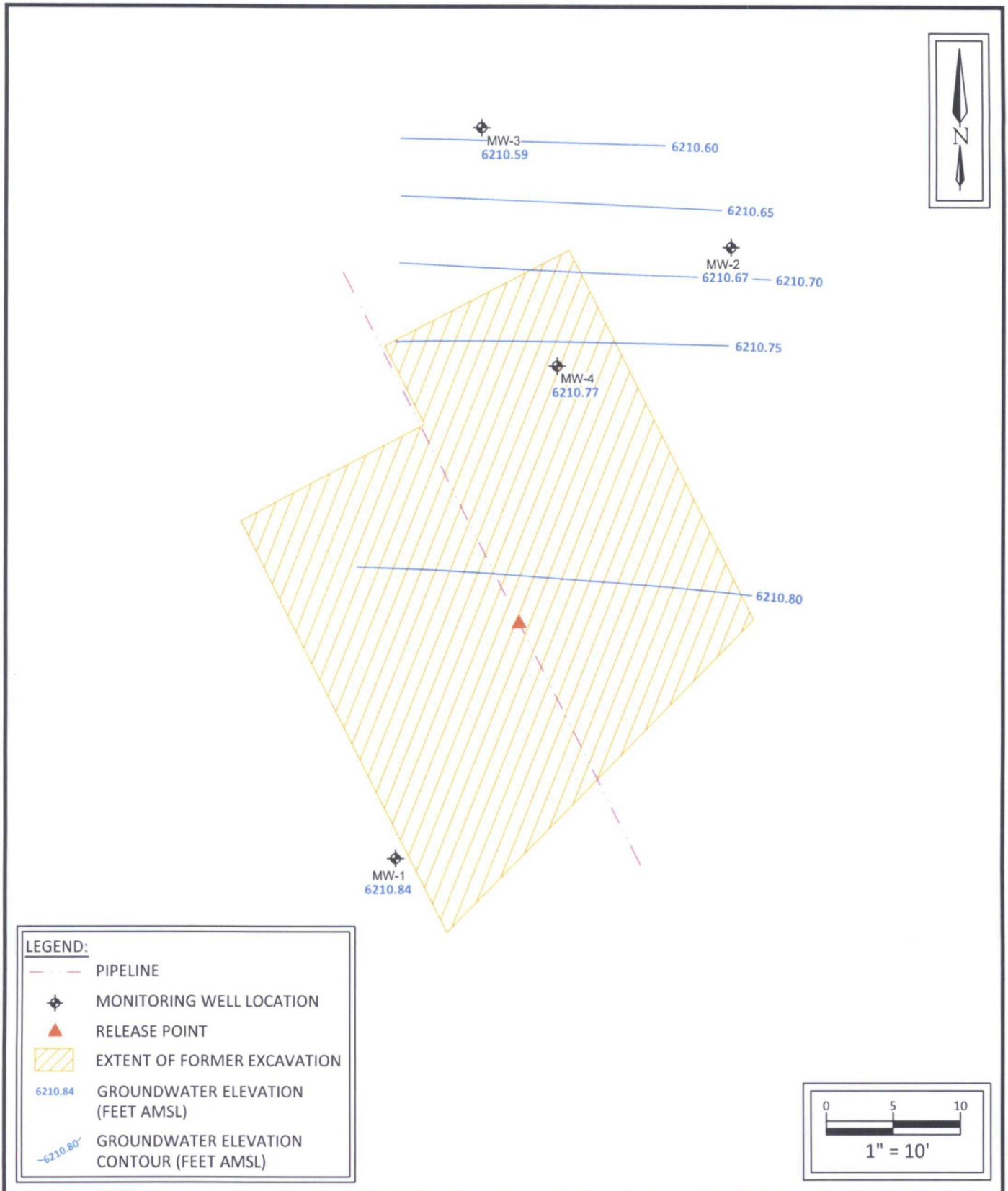
FIGURE 3
Site Map

Z:\Houston South\Drafting\New Mexico 04\2014\7030114G028\Figure 3.dwg 03/31/15



Lateral K-31 (2014) Pipeline Release
NW¼ S16 T25N R6W
Rural Rio Arriba County, NM
36.40479N, 107.47813W

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FIGURE 4
Groundwater Gradient Map
March 3, 2015

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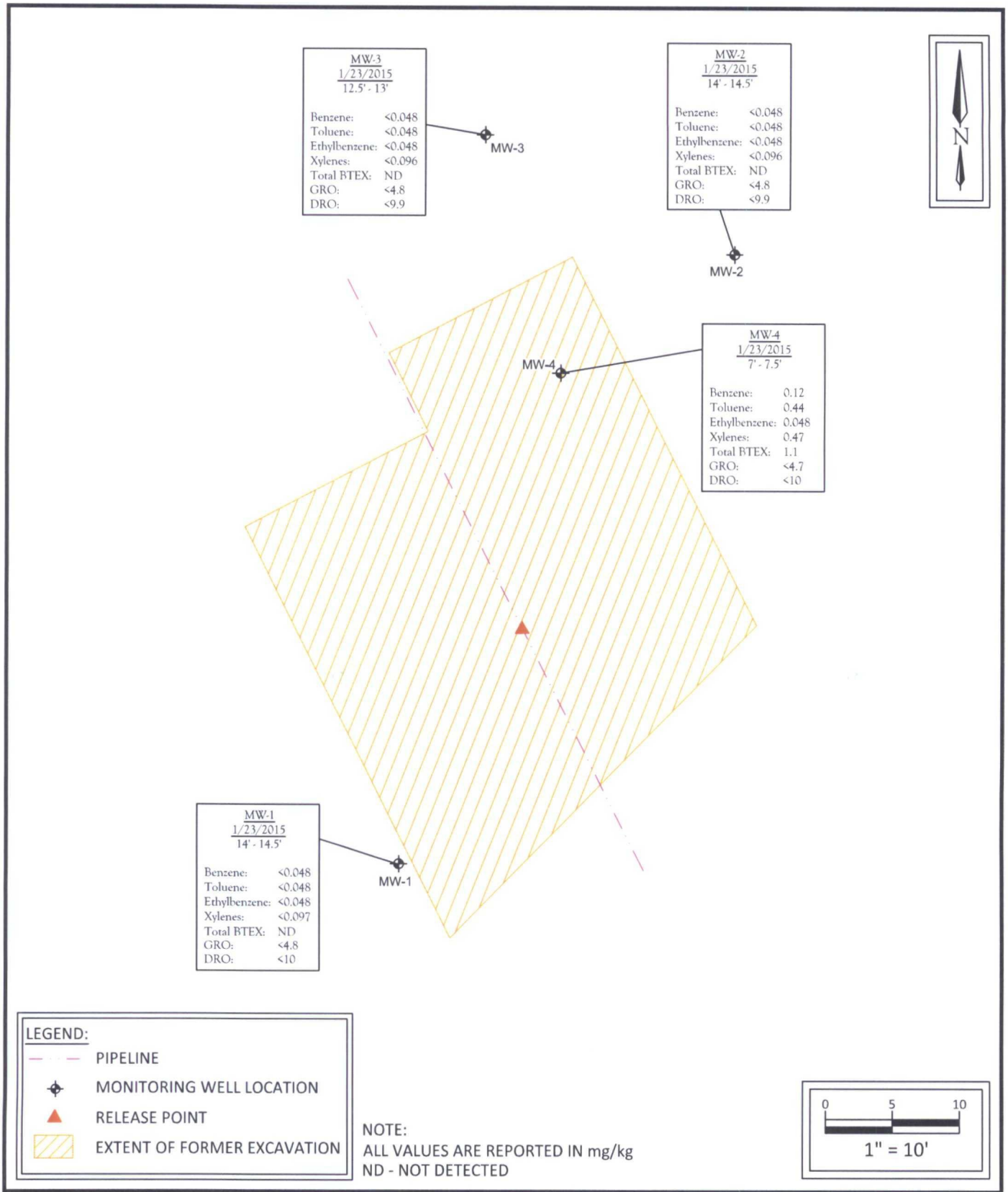

Lateral K-31 (2014) Pipeline Release
NW¼ S16 T25N R6W
Rural Rio Arriba County, NM
36.40479N, 107.47813W

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FIGURE 5
Site Map with
Soil Analytical Results

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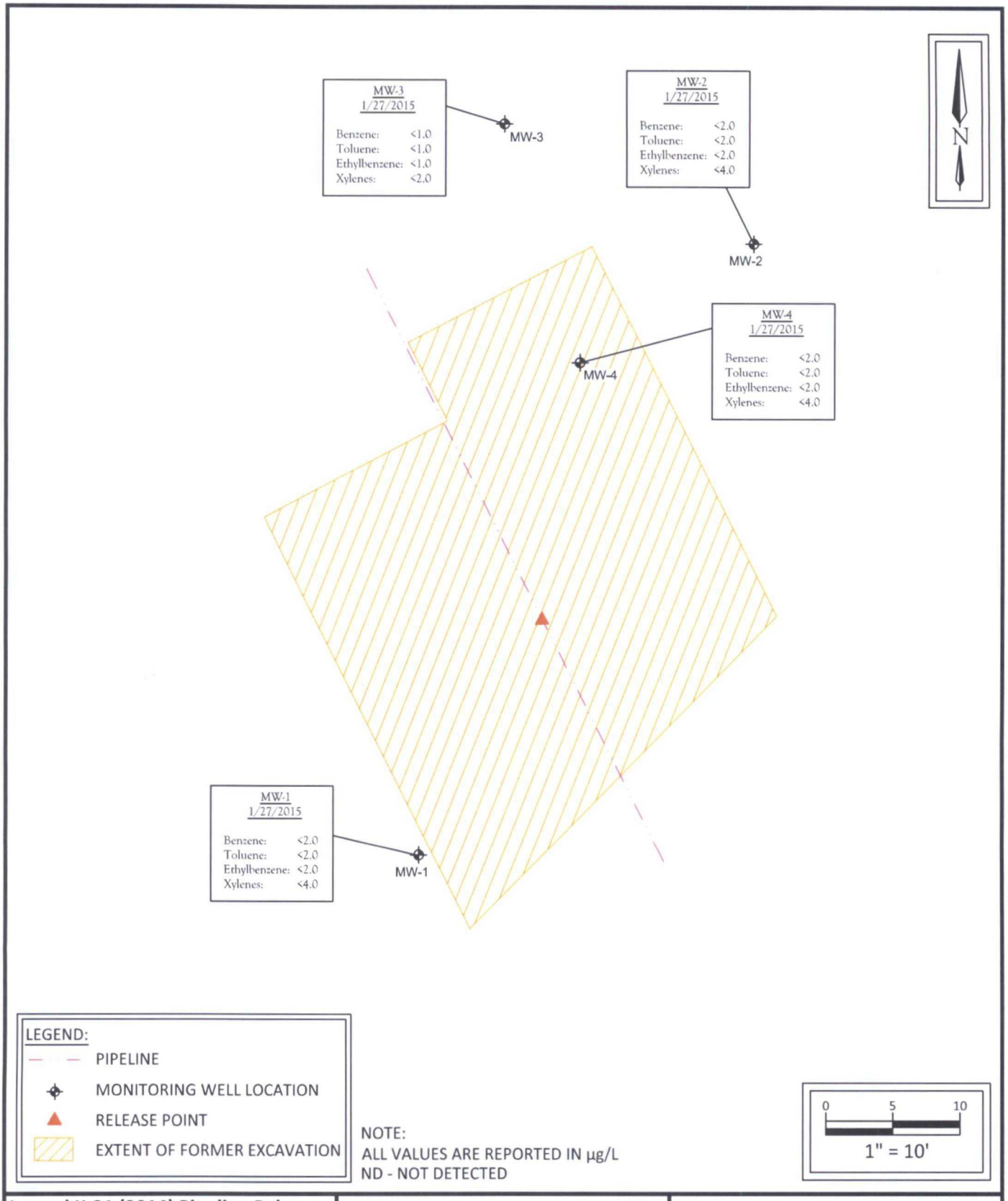

Lateral K-31 (2014) Pipeline Release
NW¼ S16 T25N R6W
Rural Rio Arriba County, NM
36.40479N, 107.47813W

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FIGURE 6
Site Map with
Groundwater Analytical Results

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APEX

TABLE 1
Lateral K-31 (2014) Pipeline Release
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Depth (feet bgs)	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 Rescources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100	
Soil Boring Samples by AES									
MW-1	1.23.15	14 to 14.5	<0.048	<0.048	<0.048	<0.097	ND	<4.8	<10
MW-2	1.23.15	14 to 14.5	<0.048	<0.048	<0.048	<0.096	ND	<4.8	<9.9
MW-3	1.23.15	12.5 to 13	<0.048	<0.048	<0.048	<0.096	ND	<4.8	<9.9
MW-4	1.23.15	7 to 7.5	0.12	0.44	0.048	0.47	1.1	<4.7	<10

Note: Concentrations in **bold** and yellow exceed the applicable WQCC GQS

NA = Not Analyzed

NE = Not Established

<1.0= the numeral (in this case "1.0") identifies the laboratory Reporting limit

TABLE 2
Lateral K-31 (2014) Pipeline Release
GROUNDWATER ANALYTICAL SUMMARY

Sample I.D.	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		**10**	**750**	**750**	**620**
MW-1	01.27.15	<2.0	<2.0	<2.0	<4.0
MW-2	01.27.15	<2.0	<2.0	<2.0	<4.0
MW-3	01.27.15	<1.0	<1.0	<1.0	<2.0
MW-4	01.27.15	<2.0	<2.0	<2.0	<4.0

Note: Concentrations in **bold** and yellow exceed the applicable WQCC GQS

NA = Not Analyzed

NE = Not Established

<1.0= the numeral (in this case "1.0") identifies the laboratory Reporting limit

TABLE 3
Lateral K-31 (2014) Pipeline Release
GROUNDWATER ELEVATIONS

Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations (feet AMSL)	Groundwater Elevation* (feet AMSL)
MW-1	03.03.15	ND	12.09	ND	6222.93	6210.84
MW-2	03.03.15	ND	12.46	ND	6223.13	6210.67
MW-3	03.03.15	ND	10.85	ND	6221.44	6210.59
MW-4	03.03.15	ND	11.35	ND	6222.12	6210.77

* - corrected for presence of phase-sepated hydrocarbon using a site-specific density correction factor of 0.729

BTOC - below top of casing

AMSL - above mean sea level

TOC - top of casing

ND - Not detected

NM - Not measured

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Client: EPROD
Project Name: Lateral K-31 (2014) Pipeline Release
Project Location: Rural Rio Arriba County, New Mexico
Project Manager: Kyle Summers

BORING LOG NUMBER
MW-1
Project # 7030414G028

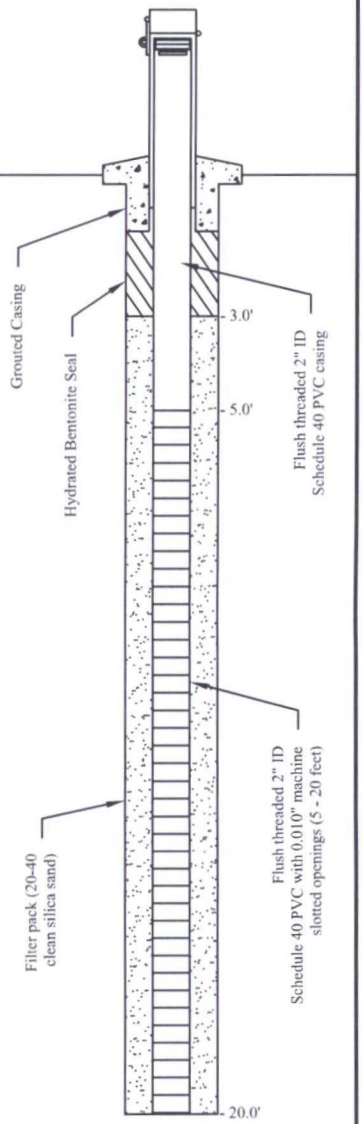
Date Sampled: January 23, 2015
Drilled by: Enviro-Drill, Inc.
Driller: J. Barraza
Logged by: H. Woods
Sampler: H. Woods

Ground Surface Elevation: 6220.241
Top of Casing Elevation: 6222.929
North Coordinate: 36.40469
West Coordinate: -107.47816
Bench Mark Elevation:
At Completion
At Well Stabilization

Borehole Diameter: 7.25"
Casing Diameter: 2"
Well Materials: PVC
Surface Completion: Above Grade
Boring Method: Hollow Stem Augers

DEPTH (ft)	SAMPLE INTERVAL	SAMPLE ID	RECOVERY (%)	FID/PID READING (ppm)	POTENTIOMETRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION
0							
			80	0.2 0.1			CLAYEY SAND: yellowish brown, very fine grained, moist, no hydrocarbon odor, no staining
5			100	1.5			SILTY CLAY: brown, moist, no hydrocarbon odor, no staining -heavily gypsiferous
10			100	0.2 0.2			
		14-14.5		0.2			SILTY SAND: brown, wet, no hydrocarbon odor, no staining
15			50	0.2			CLAYEY SILT: brown, moist, no hydrocarbon odor, no staining -transitioned to brown with greenish gray patches
				0.2 0.3			SILTY SAND: brown, wet, no hydrocarbon odor, no staining -grading to poorly graded sand with silt, grayish brown, possible staining -moist
20							TOTAL DEPTH OF BORING - 20.0 feet BGS
25							

BORING / WELL COMPLETION (GRAPHIC DEPICTION)



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Phone: (505) 334-5200
www.apexcos.com
A Subsidiary of Apex Companies, LLC

Client: EPROD
Project Name: Lateral K-31 (2014) Pipeline Release
Project Location: Rural Rio Arriba County, New Mexico
Project Manager: Kyle Summers

BORING LOG NUMBER
MW-2
Project # 7030414G028

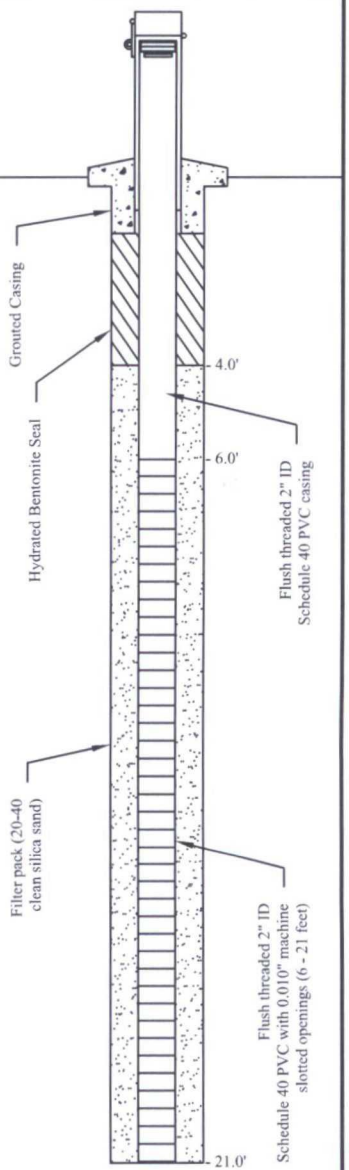
Date Sampled: January 23, 2015
Drilled by: Enviro-Drill, Inc.
Driller: J. Barraza
Logged by: H. Woods
Sampler: H. Woods

Ground Surface Elevation: 6220.493
Top of Casing Elevation: 6223.276
North Coordinate: 36.40488
West Coordinate: -107.47802
Bench Mark Elevation:
At Completion
At Well Stabilization

Borehole Diameter: 7.25"
Casing Diameter: 2"
Well Materials: PVC
Surface Completion: Above Grade
Boring Method: Hollow Stem Augers

DEPTH (ft)	SAMPLE INTERVAL	SAMPLE ID	RECOVERY (%)	FID/PID READING (ppm)	POTENTIOMETRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION
0			80	1.5			SILTY CLAY: brown, slightly moist, no hydrocarbon odor, no staining, some gypsum
				0.4			
5			85	3.6			
				1.2			
10			100	5.0			SILTY CLAY: brown, moist, no hydrocarbon odor, no staining, very few small greenish gray patches
							-increased moisture, small amounts of small grained gypsum
		14-14.5		4.4			
15			50	1.5			CLAYEY SILTY SAND: brown, very fine grained, wet, no hydrocarbon odor, no staining
				3.0			-transitioned to grayish brown, possible staining
20			NR				SILTY SAND: grayish brown, very fine grained, moist, no hydrocarbon odor, possible staining
							TOTAL DEPTH OF BORING - 21.0 feet BGS
25							

BORING / WELL COMPLETION (GRAPHIC DEPICTION)



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

Client: EPROD
Project Name: Lateral K-31 (2014) Pipeline Release
Project Location: Rural Rio Arriba County, New Mexico
Project Manager: Kyle Summers

BORING LOG NUMBER
MW-3
Project # 7030414G028

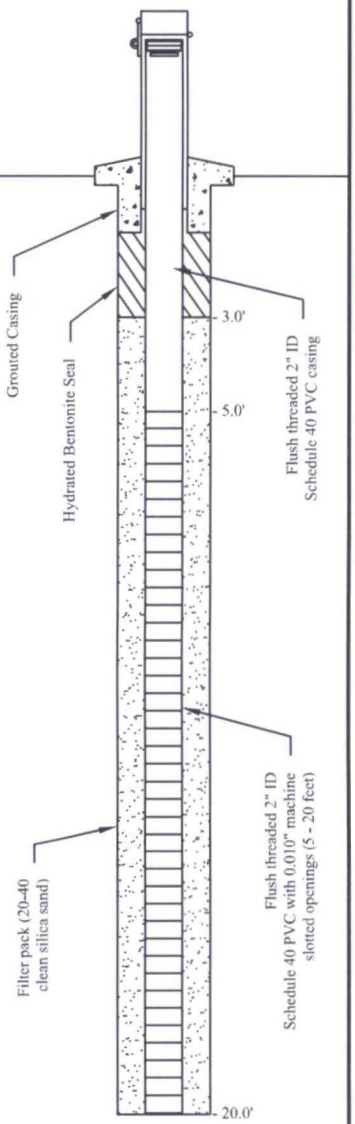
Date Sampled: January 23, 2015
Drilled by: Enviro-Drill, Inc.
Driller: J. Barraza
Logged by: H. Woods
Sampler: H. Woods

Ground Surface Elevation: 6218.626
Top of Casing Elevation: 6221.437
North Coordinate: 36.40494
West Coordinate: -107.47814
Bench Mark Elevation:
At Completion
At Well Stabilization

Borehole Diameter: 7.25"
Casing Diameter: 2"
Well Materials: PVC
Surface Completion: Above Grade
Boring Method: Hollow Stem Augers

DEPTH (ft)	SAMPLE INTERVAL	SAMPLE ID	RECOVERY (%)	FID/PID READING (ppm)	POTENTIOMETRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION
0							
			90	1.7			SILTY CLAY: brown, moist to slightly moist, no hydrocarbon odor, no staining
				1.8			
5							SANDY SILTY CLAY: brown, slightly moist, no hydrocarbon odor, no staining
			85	1.4			SILTY SAND: brown, very fine grained, slightly moist, no hydrocarbon odor, no staining
				3.8			SILTY CLAY: brown, moist, no hydrocarbon odor, no staining, very few greenish gray patches
10							-increasing greenish gray patches up to 50% of broken surface
		12.5-13	100	4.2			
				2.9			-with sand
15							SILTY SAND: grayish brown, moist to wet, no hydrocarbon odor, possible staining
			45				
20				1.9			TOTAL DEPTH OF BORING - 20.0 feet BGS
25							

BORING / WELL COMPLETION (GRAPHIC DEPICTION)



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

Client: EPROD
Project Name: Lateral K-31 (2014) Pipeline Release
Project Location: Rural Rio Arriba County, New Mexico
Project Manager: Kyle Summers

BORING LOG NUMBER
MW-4
Project # 7030414G028

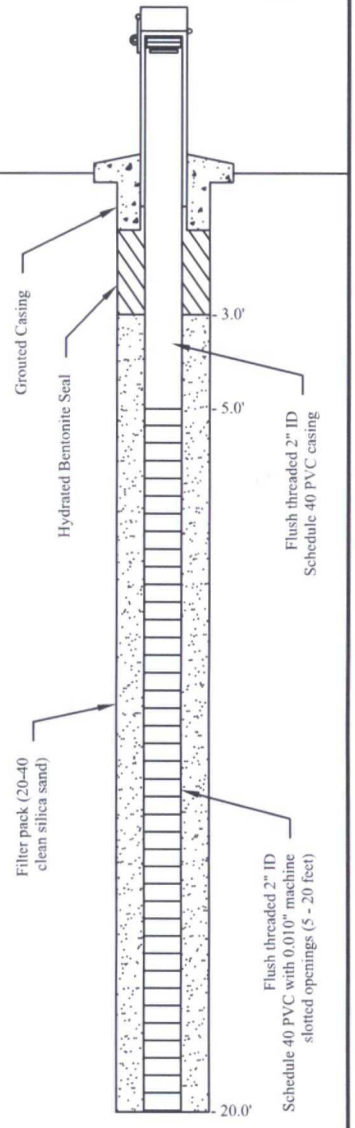
Date Sampled: January 23, 2015
Drilled by: Enviro-Drill, Inc.
Driller: J. Barraza
Logged by: H. Woods
Sampler: H. Woods

Ground Surface Elevation: 6219.128
Top of Casing Elevation: 62222.119
North Coordinate: 36.40481
West Coordinate: -107.47809
Bench Mark Elevation:
At Completion
At Well Stabilization

Borehole Diameter: 7.25"
Casing Diameter: 2"
Well Materials: PVC
Surface Completion: Above Grade
Boring Method: Hollow Stem Augers

DEPTH (ft)	SAMPLE INTERVAL	SAMPLE ID	RECOVERY (%)	FID/PID READING (ppm)	POTENTIOMETRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION
0							FILL:CLAYEY SAND: brown, very fine grained, moist, no hydrocarbon odor, no staining
			100	5.0			NATIVE SILTY CLAY: brown, moist, no hydrocarbon odor, no staining
5				13.6			-heavily gypsiferous from 5-7.5' -some greenish gray patches
		7-7.5	100	17.0			
				15.4			
10				12.4			SANDY CLAYEY SILT: brown, very fine grained, very moist, no hydrocarbon odor, no staining
							SILTY SAND: brown, very fine grained, wet, no hydrocarbon odor, no staining
			100				SILTY CLAY: brown, very moist to wet, no hydrocarbon odor, no staining, heavy greenish gray patches
				1.0			
15							SILTY SAND: brown, wet, no hydrocarbon odor, no staining
							POORLY GRADED SAND: light yellowish brown, very fine grained, wet, no hydrocarbon odor, no staining
				2.1			
20							TOTAL DEPTH OF BORING - 20.0 feet BGS
25							

BORING / WELL COMPLETION (GRAPHIC DEPICTION)



HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

February 02, 2015

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

RE: Lateral K-31 (2014) OrderNo.: 1501A35

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 4 sample(s) on 1/29/2015 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

Analytical Report
Lab Order **1501A35**
Date Reported: **2/2/2015**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral K-31 (2014)
Lab ID: 1501A35-001 **Matrix:** SOIL

Client Sample ID: MW-3 @ 12.5-13
Collection Date: 1/23/2015 2:15:00 PM
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/30/2015 2:19:21 PM	17469
Surr: DNOP	95.4	63.5-128		%REC	1	1/30/2015 2:19:21 PM	17469
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/30/2015 8:29:36 PM	17463
Surr: BFB	95.3	80-120		%REC	1	1/30/2015 8:29:36 PM	17463
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	1/30/2015 8:29:36 PM	17463
Toluene	ND	0.048		mg/Kg	1	1/30/2015 8:29:36 PM	17463
Ethylbenzene	ND	0.048		mg/Kg	1	1/30/2015 8:29:36 PM	17463
Xylenes, Total	ND	0.096		mg/Kg	1	1/30/2015 8:29:36 PM	17463
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	1/30/2015 8:29:36 PM	17463

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral K-31 (2014)
Lab ID: 1501A35-002 **Matrix:** SOIL

Client Sample ID: MW-4 @ 7-7.5
Collection Date: 1/23/2015 3:30:00 PM
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/30/2015 5:00:57 PM	17469
Surr: DNOP	96.8	63.5-128		%REC	1	1/30/2015 5:00:57 PM	17469
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/30/2015 8:58:21 PM	17463
Surr: BFB	100	80-120		%REC	1	1/30/2015 8:58:21 PM	17463
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.12	0.047		mg/Kg	1	1/30/2015 8:58:21 PM	17463
Toluene	0.44	0.047		mg/Kg	1	1/30/2015 8:58:21 PM	17463
Ethylbenzene	0.048	0.047		mg/Kg	1	1/30/2015 8:58:21 PM	17463
Xylenes, Total	0.47	0.095		mg/Kg	1	1/30/2015 8:58:21 PM	17463
Surr: 4-Bromofluorobenzene	110	80-120		%REC	1	1/30/2015 8:58:21 PM	17463

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral K-31 (2014)
Lab ID: 1501A35-003 **Matrix:** SOIL

Client Sample ID: MW-2 @ 14-14.5
Collection Date: 1/23/2015 12:00:00 PM
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/30/2015 5:22:20 PM	17469
Surr: DNOP	96.3	63.5-128		%REC	1	1/30/2015 5:22:20 PM	17469
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/30/2015 9:27:02 PM	17463
Surr: BFB	94.9	80-120		%REC	1	1/30/2015 9:27:02 PM	17463
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	1/30/2015 9:27:02 PM	17463
Toluene	ND	0.048		mg/Kg	1	1/30/2015 9:27:02 PM	17463
Ethylbenzene	ND	0.048		mg/Kg	1	1/30/2015 9:27:02 PM	17463
Xylenes, Total	ND	0.096		mg/Kg	1	1/30/2015 9:27:02 PM	17463
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	1/30/2015 9:27:02 PM	17463

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral K-31 (2014)
Lab ID: 1501A35-004 **Matrix:** SOIL

Client Sample ID: MW-1 @ 14-14.5
Collection Date: 1/23/2015 9:30:00 AM
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/30/2015 5:44:00 PM	17469
Surr: DNOP	99.4	63.5-128		%REC	1	1/30/2015 5:44:00 PM	17469
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	1/30/2015 9:55:43 PM	17463
Surr: BFB	95.0	80-120		%REC	1	1/30/2015 9:55:43 PM	17463
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	1/30/2015 9:55:43 PM	17463
Toluene	ND	0.048		mg/Kg	1	1/30/2015 9:55:43 PM	17463
Ethylbenzene	ND	0.048		mg/Kg	1	1/30/2015 9:55:43 PM	17463
Xylenes, Total	ND	0.097		mg/Kg	1	1/30/2015 9:55:43 PM	17463
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	1/30/2015 9:55:43 PM	17463

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501A35**

02-Feb-15

Client: APEX TITAN

Project: Lateral K-31 (2014)

Sample ID **MB-17473**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **17473**			RunNo: **23997**					
Prep Date: **1/30/2015**	Analysis Date: **1/30/2015**			SeqNo: **707649**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.0		10.00		79.9	63.5	128			

Sample ID **LCS-17473**	SampType: **LCS**			TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **17473**			RunNo: **23997**					
Prep Date: **1/30/2015**	Analysis Date: **1/30/2015**			SeqNo: **707738**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		5.000		97.1	63.5	128			

Sample ID **LCS-17469**	SampType: **LCS**			TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **17469**			RunNo: **23997**					
Prep Date: **1/29/2015**	Analysis Date: **1/30/2015**			SeqNo: **707987**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	50.00	0	80.3	67.8	130			
Surr: DNOP	4.7		5.000		94.9	63.5	128			

Sample ID **MB-17469**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **17469**			RunNo: **23997**					
Prep Date: **1/29/2015**	Analysis Date: **1/30/2015**			SeqNo: **707988**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.9		10.00		78.6	63.5	128			

Sample ID **1501A35-001AMS**	SampType: **MS**			TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID: **MW-3 @ 12.5-13**	Batch ID: **17469**			RunNo: **23997**					
Prep Date: **1/29/2015**	Analysis Date: **1/30/2015**			SeqNo: **708459**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.05	0	100	29.2	176			
Surr: DNOP	6.4		5.005		128	63.5	128			S

Sample ID **1501A35-001AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015D: Diesel Range Organics**					
Client ID: **MW-3 @ 12.5-13**	Batch ID: **17469**			RunNo: **23997**					
Prep Date: **1/29/2015**	Analysis Date: **1/30/2015**			SeqNo: **708460**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	49.90	0	92.8	29.2	176	8.04	23	
Surr: DNOP	6.1		4.990		122	63.5	128	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501A35**

02-Feb-15

Client: APEX TITAN

Project: Lateral K-31 (2014)

Sample ID **MB-17463**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **17463**	RunNo: **24020**
Prep Date: **1/29/2015**	Analysis Date: **1/30/2015**	SeqNo: **708315** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		94.9	80	120			

Sample ID **LCS-17463**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **17463**	RunNo: **24020**
Prep Date: **1/29/2015**	Analysis Date: **1/30/2015**	SeqNo: **708316** 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	102	65.8	139			
Surr: BFB	1000		1000		102	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501A35**

02-Feb-15

Client: APEX TITAN

Project: Lateral K-31 (2014)

Sample ID **MB-17463**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **17463**	RunNo: **24020**
Prep Date: **1/29/2015**	Analysis Date: **1/30/2015**	SeqNo: **708415** 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-17463**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **17463**	RunNo: **24020**
Prep Date: **1/29/2015**	Analysis Date: **1/30/2015**	SeqNo: **708416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	106	80	120			
Toluene	1.0	0.050	1.000	0	99.7	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		115	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1501A35 RcptNo: 1

Received by/date: 01/29/15

Logged By: **Ashley Gallegos** 1/29/2015 8:00:00 AM

Completed By: **Ashley Gallegos** 1/29/2015 11:08:08 AM

Reviewed By: 01/30/15

Chain of Custody

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

Log In

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

Special Handling (if applicable)

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

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

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

CHAIN OF CUSTODY RECORD

APEX

Office Location Aztec, NM

Project Manager H. Woods

Laboratory: Hall Environmental

Address: Albuquerque, NM

Contact: Andy Freeman

Phone:

PO/SO #: 703041 4G028

Lab use only
Due Date:

Temp. of coolers when received (C°): 1.0

1	2	3	4	5

Page 1 of 1

Sampler's Name: Heather Woods

Sampler's Signature: Heather M. Woods

Proj. No.: 703041 4G028

Project Name: Lateral K-31 (2014)

No/Type of Containers

ANALYSIS REQUESTED: 8021 BTEX; 8015 TPH (GRO/DRO)

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	8021 BTEX	8015 TPH (GRO/DRO)	Lab Sample ID (Lab Use Only)
S	1/23/15	1415			MW-3 @ 12.5-13						1		x	x	1501A35-001
S	1/23/15	1530			MW-4 @ 7-7.5						1		x	x	-002
S	1/23/15	1200			MW-2 @ 14-14.5						1		x	x	-003
S	1/23/15	930			MW-1 @ 14-14.5						1		x	x	-004

NFS HW

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Heather M. Woods	1/28/15	1515	Mustie Walters	1/28/15	1515
Mustie Walters	1/28/15	1810	A1 Gallegos	01/29/15	0800
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: Bill to Apex
Enterprise Corporate Rate

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

February 02, 2015

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

RE: Lateral K-31 (2014) OrderNo.: 1501A36

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 4 sample(s) on 1/29/2015 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.

CLIENT: APEX TITAN
Project: Lateral K-31 (2014)
Lab ID: 1501A36-001 **Matrix:** AQUEOUS

Client Sample ID: MW-1
Collection Date: 1/27/2015 4:06:00 PM
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	2.0		µg/L	2	1/30/2015 1:50:14 PM	R24022
Toluene	ND	2.0		µg/L	2	1/30/2015 1:50:14 PM	R24022
Ethylbenzene	ND	2.0		µg/L	2	1/30/2015 1:50:14 PM	R24022
Xylenes, Total	ND	4.0		µg/L	2	1/30/2015 1:50:14 PM	R24022
Surr: 4-Bromofluorobenzene	111	66.6-167		%REC	2	1/30/2015 1:50:14 PM	R24022

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral K-31 (2014)
Lab ID: 1501A36-002
Matrix: AQUEOUS
Client Sample ID: MW-2
Collection Date: 1/27/2015 4:46:00 PM
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	2.0		µg/L	2	1/30/2015 3:39:36 PM	R24022
Toluene	ND	2.0		µg/L	2	1/30/2015 3:39:36 PM	R24022
Ethylbenzene	ND	2.0		µg/L	2	1/30/2015 3:39:36 PM	R24022
Xylenes, Total	ND	4.0		µg/L	2	1/30/2015 3:39:36 PM	R24022
Surr: 4-Bromofluorobenzene	113	66.6-167		%REC	2	1/30/2015 3:39:36 PM	R24022

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral K-31 (2014)
Lab ID: 1501A36-003 **Matrix:** AQUEOUS

Client Sample ID: MW-3
Collection Date: 1/27/2015 5:11:00 PM
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	1.0		µg/L	1	1/30/2015 4:06:50 PM	R24022
Toluene	ND	1.0		µg/L	1	1/30/2015 4:06:50 PM	R24022
Ethylbenzene	ND	1.0		µg/L	1	1/30/2015 4:06:50 PM	R24022
Xylenes, Total	ND	2.0		µg/L	1	1/30/2015 4:06:50 PM	R24022
Surr: 4-Bromofluorobenzene	110	66.6-167		%REC	1	1/30/2015 4:06:50 PM	R24022

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral K-31 (2014)
Lab ID: 1501A36-004
Matrix: AQUEOUS
Client Sample ID: MW-4
Collection Date: 1/27/2015 4:20:00 PM
Received Date: 1/29/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	2.0		µg/L	2	1/30/2015 4:34:08 PM	R24022
Toluene	ND	2.0		µg/L	2	1/30/2015 4:34:08 PM	R24022
Ethylbenzene	ND	2.0		µg/L	2	1/30/2015 4:34:08 PM	R24022
Xylenes, Total	ND	4.0		µg/L	2	1/30/2015 4:34:08 PM	R24022
Surr: 4-Bromofluorobenzene	111	66.6-167		%REC	2	1/30/2015 4:34:08 PM	R24022

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501A36**

02-Feb-15

Client: APEX TITAN

Project: Lateral K-31 (2014)

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R24022**	RunNo: **24022**
Prep Date:	Analysis Date: **1/30/2015**	SeqNo: **708479** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	22		20.00		112	66.6	167			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R24022**	RunNo: **24022**
Prep Date:	Analysis Date: **1/30/2015**	SeqNo: **708480** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.5	80	120			
Toluene	20	1.0	20.00	0	98.7	80	120			
Ethylbenzene	20	1.0	20.00	0	99.6	80	120			
Xylenes, Total	63	2.0	60.00	0	106	80	120			
Surr: 4-Bromofluorobenzene	23		20.00		117	66.6	167			

Sample ID **1501A36-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **MW-1**	Batch ID: **R24022**	RunNo: **24022**
Prep Date:	Analysis Date: **1/30/2015**	SeqNo: **708482** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	39	2.0	40.00	0	96.8	77.5	121			
Toluene	39	2.0	40.00	0.5680	95.2	78.6	122			
Ethylbenzene	39	2.0	40.00	0.6080	96.6	78.1	128			
Xylenes, Total	130	4.0	120.0	1.512	103	80	120			
Surr: 4-Bromofluorobenzene	46		40.00		116	66.6	167			

Sample ID **1501A36-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **MW-1**	Batch ID: **R24022**	RunNo: **24022**
Prep Date:	Analysis Date: **1/30/2015**	SeqNo: **708483** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	40	2.0	40.00	0	100	77.5	121	3.38	20	
Toluene	40	2.0	40.00	0.5680	98.5	78.6	122	3.33	20	
Ethylbenzene	40	2.0	40.00	0.6080	99.5	78.1	128	2.94	20	
Xylenes, Total	130	4.0	120.0	1.512	105	80	120	1.32	20	
Surr: 4-Bromofluorobenzene	48		40.00		119	66.6	167	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1501A36 | RcptNo: 1

Received by/date: AG 01/29/15

Logged By: **Ashley Gallegos** 1/29/2015 8:00:00 AM AG

Completed By: **Ashley Gallegos** 1/29/2015 11:13:20 AM AG

Reviewed By: CS 01/29/15

Chain of Custody

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

Log In

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

Special Handling (if applicable)

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

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

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

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: H. Woods

Laboratory: Hall Environmental

Address: Albuquerque, NM

Contact: Andy Freeman

Phone:

PO/SO #: 703041460 28

Sampler's Name: Heather Woods / Ranee Deechilly

Sampler's Signature: Heather Woods / Randeechilly

Proj. No.: 703041460 28

Project Name: Lateral K-31 (2014 MW)

Lab use only
Due Date:

Temp. of coolers when received (C°): 1.0

1 | 2 | 3 | 4 | 5

Page 1 of 1

ANALYSIS REQUESTED: 8021 BTEX

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No/Type of Containers: VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
W	1/27/15	1606			MW-1			3					1501A36-001
W	1/27/15	1646			MW-2			3					-002
W	1/27/15	1711			MW-3			3					-003
W	1/27/15	1620			MW-4			3					-004

NES HW

Turn around time: [X] Normal [ ] 25% Rush [ ] 50% Rush [ ] 100% Rush

Relinquished by (Signature)	Date	Time	Received by: (Signature)	Date	Time
Heather Woods	1/28/15	1575	Kristen Walter	1/28/15	1515
Kristen Walters	1/28/15	1810	A.M. Gallegos	01/29/15	0800

NOTES: Bill to Apex
Enterprise corporate rate

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

Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: **Mobil Apache #10**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **Jicarilla Apache Tribe**	Mineral Owner: **Jicarilla Apache Tribe**	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	**13**	**23N**	**3W**		**919**		**50**	**Rio Arriba**

Latitude 36.218794 **Longitude** 107.099292

OIL CONS. DIV DIST. 3

MAY 11 2015

NATURE OF RELEASE

Type of Release: Natural Gas	Volume of Release: **1,249 MCF**	Volume Recovered: **None**
Source of Release: Severed Pipeline	Date and Hour of Occurrence: **4/23/2015 @ 4:22 p.m.**	Date and Hour of Discovery: **4/23/2015 @ 5:30 p.m.**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Cory Smith – NMOCD; Hobson Sandoval – JAEPO; Bryce Hammond - JAOGA	
By Whom? Thomas Long	Date and Hour: 4/23/2015 @ 6:45 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ 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, at 4:22pm Enterprise Gas Control reported that a plow stuck a pipeline and it venting gas on the Jicarilla Reservation off of Jicarilla Tribal Road J-20. No injuries or fire occurred as a result of line damage. Jicarilla Roads representative stated while crossing over the top of an Enterprise ROW the tires slid into a rut allowing the mow board to come into contact with the Enterprise pipeline severing the pipeline. A New Mexico one call was not in place for road maintenance activities. Enterprise employees were dispatched and verified the pipeline strike. The pipeline was isolated, blown down, locked out and tagged out.

Describe Area Affected and Cleanup Action Taken.* No fluids were released and no surface impacts were observed. No further action is necessary.

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

Signature: Jon E. Fields	OIL CONSERVATION DIVISION
Printed Name: Jon E. Fields	Approved by Environmental Specialist:
Title: Director, Environmental	Approval Date: 6/30/15 Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval: Attached ☐
Date: 5-5-15 Phone: (713) 381-6684	

* Attach Additional Sheets If Necessary

#NCS 1518142638

1

OIL CONS. DIV DIST. 3

JUN 29 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

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-143**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **Jicarilla Apache Tribe**	Mineral Owner: **Jicarilla Apache Tribe**	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	**31**	**24N**	**4W**					**Sandoval**

Latitude 36.266286 Longitude 107.292940

NATURE OF RELEASE

Type of Release: Natural Gas	Volume of Release: **Unknown**	Volume Recovered: **None**
Source of Release: Suspected internal corrosion	Date and Hour of Occurrence: **6/12/2015 @ 11:25 p.m.**	Date and Hour of Discovery: **6/12/2015 @ 5:00 p.m.**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? Courtesy notification to **Cory Smith – NMOCD; Hobson Sandoval - JAEPO**	
By Whom? Thomas Long	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On July 12, 2015, during routine pipeline patrols a contractor identified a natural gas release on the Lateral 2C-143 pipeline. The pipeline was isolated, depressurized, locked out and tagged out. Remediation and repairs are in the scheduling process.

Describe Area Affected and Cleanup Action Taken.* A small area of dead vegetation was observed on the ground surface. Subsurface impacts are unknown and will be assessed during the repair activities. A "final" C-141 will be submitted upon receipt of the third party corrective action report.

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

Signature: Jon Fields	OIL CONSERVATION DIVISION	
Printed Name: Jon E. Fields	Approved by Environmental Specialist:	
Title: Director, Field Environmental	Approval Date: 7/8/15	Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval:	Attached ☐
Date: 6/24/2015 Phone: (713)381-6684		

* Attach Additional Sheets If Necessary

#NCS 1518952081

OIL CONS. DIV DIST. 3

JUN 29 2015

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
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State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: **Apache Hills #2**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **Jicarilla Apache Tribe**	Mineral Owner: **Jicarilla Apache Tribe**	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	**8**	**23N**	**3W**					**Rio Arriba**

Latitude 36.23355 Longitude 107.18543

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: **6/9/2015 @ 3:20 p.m.**	Date and Hour of Discovery: **6/9/2015 @ 4:00 p.m.**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Cory Smith – NMOCD; Hobson Sandoval - JAEPO**	
By Whom? Thomas Long	Date and Hour **6/10/2014 @ 7:48 a.m.**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On July 9, 2015, during routine operations a field operation technician identified a natural gas release on the Apache Hills #2 well tie. The pipeline was isolated, depressurized, locked out and tagged out. Repairs/remediation are in the scheduling process.

Describe Area Affected and Cleanup Action Taken.* A small area of dead vegetation was observed on the ground surface. Subsurface impacts are unknown and will be assessed during the repair activities. A "final" C-141 will be submitted upon receipt of the third party corrective action report.

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

Signature: Jon E. Fields	OIL CONSERVATION DIVISION	
Printed Name: Jon E. Fields	Approved by Environmental Specialist:	
Title: Director, Field Environmental	Approval Date: 7/8/15	Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval:	Attached ☐
Date: 6/23/2015 Phone: (713)381-6684		

* Attach Additional Sheets If Necessary

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1