AE Order Number Banner

Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.

App Number: pJK1424832159

3RP - 1011

ENTERPRISE PRODUCTS OPERATING, LLC

1/19/2017

3R-1011

Release Report/ General Correspondence

Enterprise SJ

Date: Jan-Mar 2017

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: **San Juan 28-6 #84**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **BLM**	Mineral Owner: **BLM**	**Serial Number: NM 0045298**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from	North/South Line	Feet from	East/West Line	County
P	**15**	**27N**	**6W**	the **808**	North (South)	the **715**	(East)/West	**Rio Arriba**

Latitude 36.56931 Longitude -107.44803

OIL CONS. DIV DIST. 3
OCT 14 2016

NATURE OF RELEASE

Type of Release: Natural Gas and Condensate	Volume of Release **11.4 MCF Gas; 5-10 BBLs Condensate**	Volume Recovered: **None**
Source of Release: Internal Corrosion	Date and Hour of Occurrence: **8/2/2016 @ 1:15 p.m.**	Date and Hour of Discovery: **8/2/2016 @ 1:30 p.m.**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Hobson Sandoval – Vanessa Fields – NMOCD; Katherina Diemer - BLM	
By Whom?	Date and Time August 2, 2016 @ 3:08 p.m.	
Was a Watercourse Reached? ☒ Yes ☐ No	If YES, Volume	

If a Watercourse was Impacted, Describe Fully.* The gas release site is located in a small ephemeral wash.

Describe Cause of Problem and Remedial Action: On August 2, 2016, Enterprise technicians discovered a gas leak on the San Juan 28-6 #84 pipeline. No fluids were observed on the ground surface. The pipeline was isolated, blown down, locked out and tagged out. Repairs and remediation was complete on August 24, 2016.

Describe Area Affected and Cleanup Action: The contaminant mass was removed by mechanical excavation. The final excavation measured approximately 55 feet long by 15 feet wide ranging from six (6) to (12) twelve feet deep. Approximately 180 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation Division approved land farm facility. A third party corrective action report is included with this "Final" C-141.

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

Signature: Jon E. Fields	OIL CONSERVATION DIVISION
Printed Name: Jon E. Fields	Approved by Environmental Specialist:
Title: Director, Environmental	Approval Date: 3/8/17 Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval: NVF1621627797 Attached ☐
Date: 10/10/2016 Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

52

CORRECTIVE ACTION REPORT

Property:

SJ 28-6 #84 Pipeline Release
SE 1/4, S15 T27N R6W
Rio Arriba County, New Mexico

September 13, 2016
Apex Project No. 725040112188

Prepared for:

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

Prepared by:

Chad D'Aponti
Project Scientist

Kyle Summers, CPG
Branch Manager/Senior Project Manager

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Figure 2 – Site Vicinity Map
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CORRECTIVE ACTION REPORT

SJ 28-6 #84 Pipeline Release
SE 1/4, S15 T27N R6W
Rio Arriba County, New Mexico

Apex Project No. 725040112188

1.0 INTRODUCTION

1.1 Site Description & Background

The SJ 28-6 #84 pipeline release site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the southeast (SE) ¼ of Section 15, Township 27 North, Range 6 West, in Rio Arriba County, New Mexico (36.56931N, 107.44803W), referred to hereinafter as the "Site". The Site is located on land managed by the United States Bureau of Land Management (BLM). The Site is surrounded by native-vegetation rangeland periodically interrupted by oil and gas gathering facilities, including the Enterprise natural gas well tie which traverses the area from north to south.

On August 2, 2016, Enterprise personnel identified a release on the SJ 28-6 #84 pipeline. On August 23, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The corrosion related leak was subsequently repaired by replacing 40 feet of pipe.

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

2.0 SITE RANKING

In accordance with the New Mexico 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 to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the following table:

Ranking Criteria			Ranking Score
Depth to Groundwater	<50 feet	20	10
	50 to 99 feet	10	
	>100 feet	0	
Wellhead Protection Area • <1,000 feet from a water source, or; <200 feet from private domestic water source.	Yes	20	0
	No	0	
Distance to Surface Water Body	<200 feet	20	20
	200 to 1,000 feet	10	
	>1,000 feet	0	
Total Ranking Score			**30**

Based on Apex's evaluation of the scoring criteria, the Site would have a Total Ranking Score of 30. This ranking is based on the following:

- No water wells were identified within a mile of the Site on the Office of the State Engineer (OSE) website. However, based on the Site's proximity to an unnamed ephemeral wash and the Martinez Canyon arroyo/wash, the depth to groundwater at the Site is anticipated to be between 50 feet and 100 feet below grade surface (bgs), resulting in a ranking of "10" for depth to groundwater.

- No water source wells (municipal/community wells) were identified within 1,000 feet of the Site. No private domestic water sources were identified within 200 feet of the Site. These proximities result in a wellhead protection area ranking of "0".

- The release point is located approximately 51 feet south of an unnamed ephemeral wash that is identified as a "blue line" on the United States Geological Society topographic map. This information supports a distance to surface water ranking of "20".

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

On August 2, 2016, Enterprise personnel identified a release on the SJ 28-6 #84 pipeline. On August 23, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The corrosion related leak was subsequently repaired by replacing 40 feet of pipe. During the corrective action activities, West States Energy Contractors provided heavy equipment and labor support, and Chad D'Aponti, an Apex environmental professional, provided environmental support.

Subsequent to the initial excavation to expose the pipeline, two (2) composite stockpile soil samples (SP-1 and SP-2) were collected for laboratory analysis to determine the potential to reuse a portion of the soils as backfill material. On August 24, 2016, eight (8) composite soil samples (S-1 through S-8) were collected from the repair excavation. Subsequent analytical results indicated that soils associated with samples S-1 and S-8 in the northern section of the excavation still exhibited evidence of hydrocarbon impact. On August 26, 2016, the base and east wall of the northern section of the repair excavation were over-excavated. Composite soil

samples S-9 and S-10 were collected from the over-excavated areas of the excavation to complete the analytical profile of the corrective actions.

The main excavation measured approximately 55 feet long by 15 feet wide. The depth of the excavation ranged from six (6) feet bgs (south end) to 12 feet bgs (north end).

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

A total of approximately 180 cubic yards of hydrocarbon affected soils were transported to the Envirotech Inc. (Envirotech) landfarm for disposal/remediation. The executed C-138 form is provided in Appendix B. The excavation was backfilled with clean imported fill and laboratory–confirmed stockpiled soils, and then contoured to surrounding grade.

Figure 3 is a site map that indicates the approximate location of the excavated area in relation to the pipeline (Appendix A). Photographic documentation of the field activities is included in Appendix C.

3.2 Soil Sampling Program

Apex screened head-space samples of the impacted soils with a photoionization detector (PID) fitted with a 10.6 eV lamp to estimate excavation limits.

Apex's soil sampling program included the collection of ten (10) composite soil samples (S-1 through S-10) from the repair excavation and two (2) composite stockpiled soil samples (SP-1 and SP-2) for laboratory analysis.

Figure 3 depicts the excavated area and soil stockpiles and shows the final confirmation sample locations in relation to the final excavation dimensions (Appendix A).

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

3.3 Laboratory Analytical Methods

The confirmation soil samples and stockpiled soil samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA SW-846 Method #8021, and total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (DRO) using EPA SW-846 Method #8015.

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

4.0 DATA EVALUATION

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

specifically NMAC 19.15.29 *Release Notification*. These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action.

4.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or practical quantitation limits (PQLs) associated with the final soil samples (S-1 through S-10) and stockpiled soil samples (SP-1 and SP-2) to the OCD *RALs* for sites having a total ranking score of "30". Soil samples S-1 and S-8 were removed by over-excavation and transported to the Envirotech landfarm near Hilltop, NM, and are not included in the following discussion.

- The laboratory analyses of the confirmation samples from soils remaining in place and the reused stockpiled soils do not indicate benzene concentrations above the PQLs, which are below the OCD *RAL* of 10 milligrams per kilogram (mg/kg).

- The laboratory analyses of the confirmation samples from soils remaining in place and the reused stockpiled soils do not indicate total BTEX concentrations above the PQLs, which are below the OCD *RAL* of 50 mg/kg.

- The laboratory analyses of the confirmation samples from soils remaining in place and the reused stockpile soils indicate combined TPH GRO/DRO concentrations ranging from below PQLs to 9.9 mg/kg (S-3), which are below the OCD *RAL* of 100 mg/kg.

Confirmation sample and stockpiled soil sample laboratory analytical results are provided in Table 1 in Appendix D.

5.0 FINDINGS AND RECOMMENDATIONS

The SJ 28-6 #84 pipeline release Site is located within the Enterprise pipeline ROW in the SE ¼ of Section 15, Township 27 North, Range 6 West, in Rio Arriba County, New Mexico. The Site is located on land managed by the BLM. The Site is surrounded by native-vegetation rangeland periodically interrupted by oil and gas gathering facilities, including the Enterprise natural gas well tie which traverses the area from north to south.

On August 2, 2016, Enterprise personnel identified a release on the SJ 28-6 #84 pipeline. On August 23, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The corrosion related leak was subsequently repaired by replacing 40 feet of pipe.

- The primary objective of the environmental 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 silty sand.

- The main excavation measured approximately 55 feet long by 15 feet wide. The depth of the excavation ranged from six (6) feet bgs (south end) to 12 feet bgs (north end).

- Prior to backfilling, ten (10) composite soil samples and two (2) stockpiled soil composite samples were collected for laboratory analyses. Based on analytical results, soils remaining in place and the reused stockpiled soils do not exhibit BTEX or TPH GRO/DRO concentrations above the OCD *RALs* for a site ranking of "30".

- A total of approximately 180 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 laboratory-confirmed stockpiled soils, and then contoured to the approximate surrounding grade.

Based on the laboratory analytical results and NMOCD input, no additional investigation or corrective action appears warranted at this time.

6.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

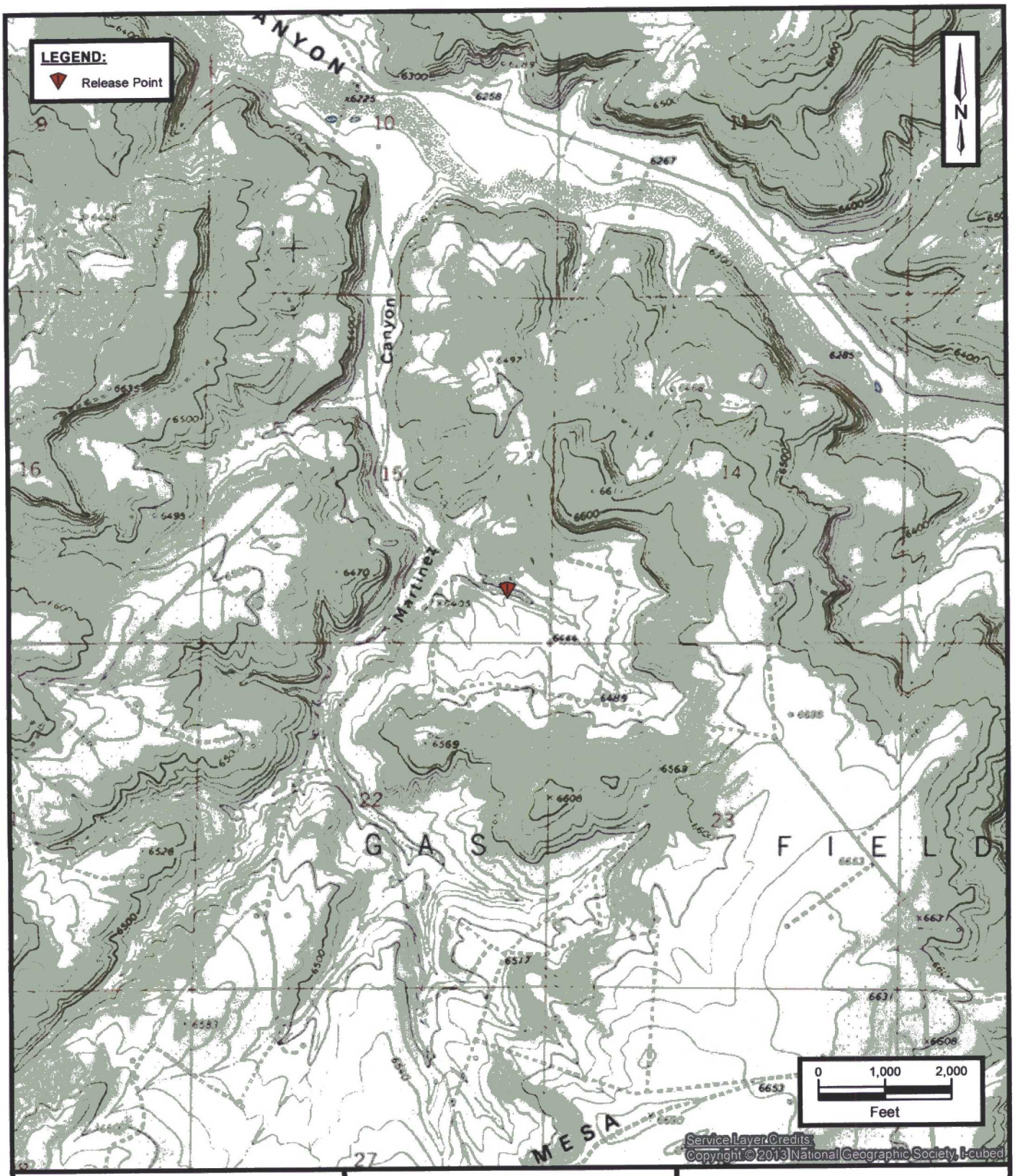
Apex's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed or described herein. Additionally, Apex does not warrant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

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

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

APPENDIX A

Figures



SJ28-6 #84
SE 1/4 Sec15 T27N R6W
Rio Arriba County, New Mexico
36.569310 N, 107.448030 W

Project No. 725040112188

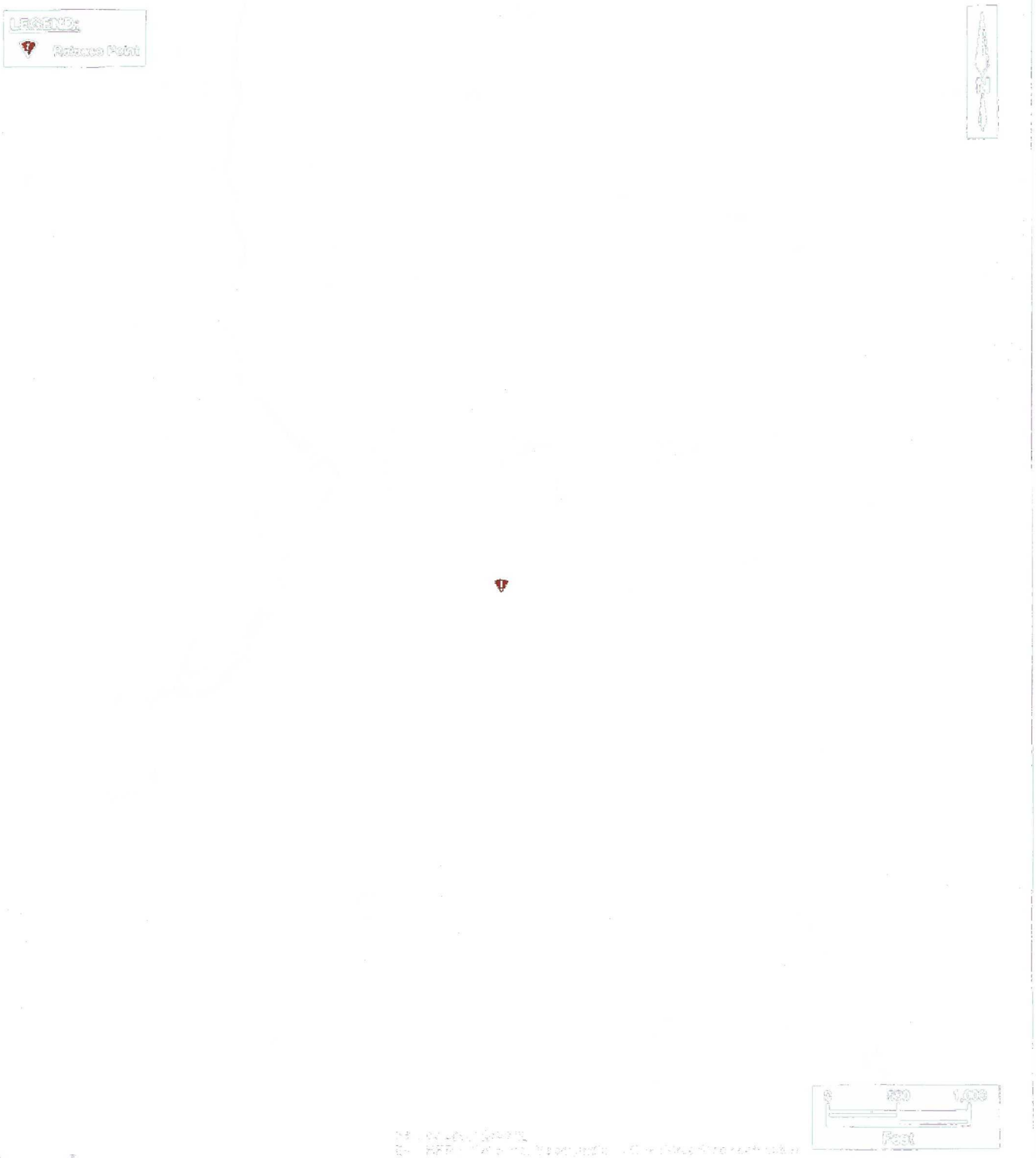
Apex TITAN, Inc.
606 South Rio Grande, Suite A
Aztec, New Mexico 87410
Phone: (505) 334-5200
www.apexcos.com
A Subsidiary of Apex Companies, LLC

FIGURE 1

Topographic Map

Santos Peak New Mexico Quadrangle
1981

P:\Drafting\2016\725040112188\Figure 1.mxd Modified 9/7/2016 by JSimpson NAD 1983 2011 StatePlane New Mexico Central FIPS 3002 Ft US Coordinate System



6303-3 TH
SE 1/4 Sec. 5 T27N R8W
Rio Arriba County, New Mexico
36.590810 N, 107.448636 W

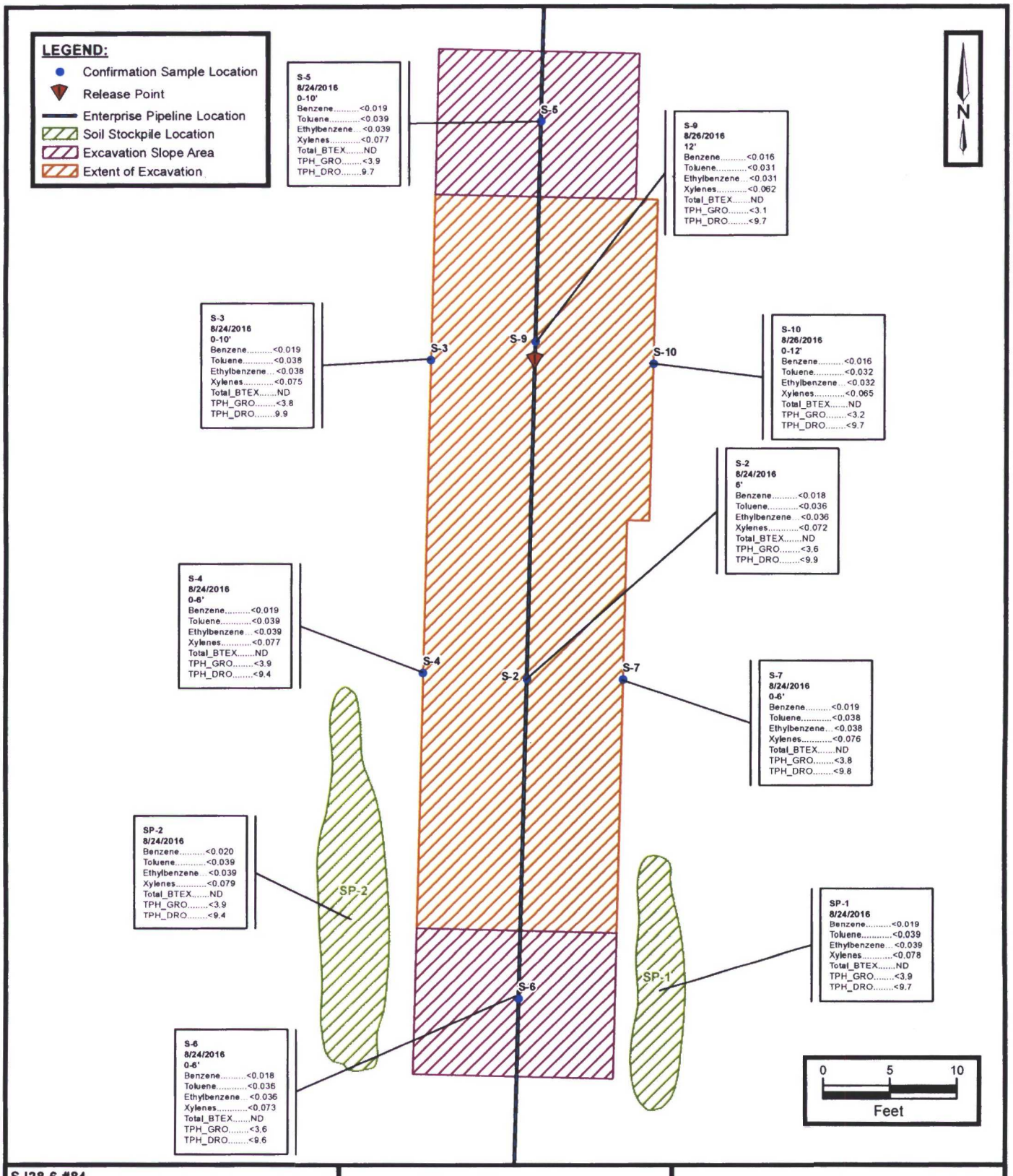
Apex TITAN, Inc.
Aztec, New Mexico 87410
Phone: (505) 334-9119
www.apexcos.com
A Subsidiary of Apex Companies, LLC

FIGURE 2

Site Vicinity Map

Aerial Photograph: March 2016

Project No. 726040112166



SJ28-6 #84
SE 1/4 Sec15 T27N R6W
Rio Arriba County, New Mexico
36.569310 N, 107.448030 W

Project No. 725040112188

Apex TITAN, Inc.
606 South 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 Soil Analytical Results

Z:\Dallas South\Drafting\2016\725040112188\Figure 3.mxd Modified 9/7/2016 by JSimpson NAD 1983 2011 StatePlane New Mexico Central FIPS 3002 Ft US Coordinate System

APPENDIX B

Executed C-138 Solid Waste Acceptance form

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

State of New Mexico
Energy Minerals and Natural Resources 97057-0799
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised 08/01/11

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

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator Name and Address:**
Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401

2. **Originating Site:**
San Juan 28-6#84 Aug. 2016

3. **Location of Material (Street Address, City, State or ULSTR):**
Unit Letter P Section 15 Township 27 North Range 6 West; 36.56931, -107.44803, San Juan County, NM

4. **Source and Description of Waste:**
Source: Hydrocarbon impacted soil associated with hydro-excavation and excavation activities at a pipeline release site.
Description: Hydrocarbon Impacted soil from a valve release
Estimated Volume 50 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 180 (yd³) bbls

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

I, Thomas Long Thomas Long , representative or authorized agent for Enterprise Products Operating do hereby
Generator Signature
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

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

☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

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

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long Thomas Long 8-23-16, representative for Enterprise Products Operating authorizes Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

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

5. **Transporter: West States Energy Contractors, HBL**

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

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

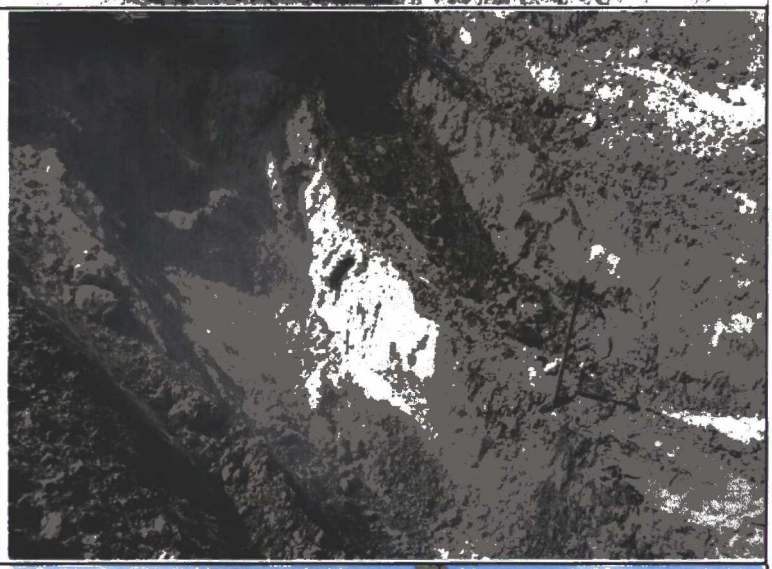
Waste Acceptance Status:
☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

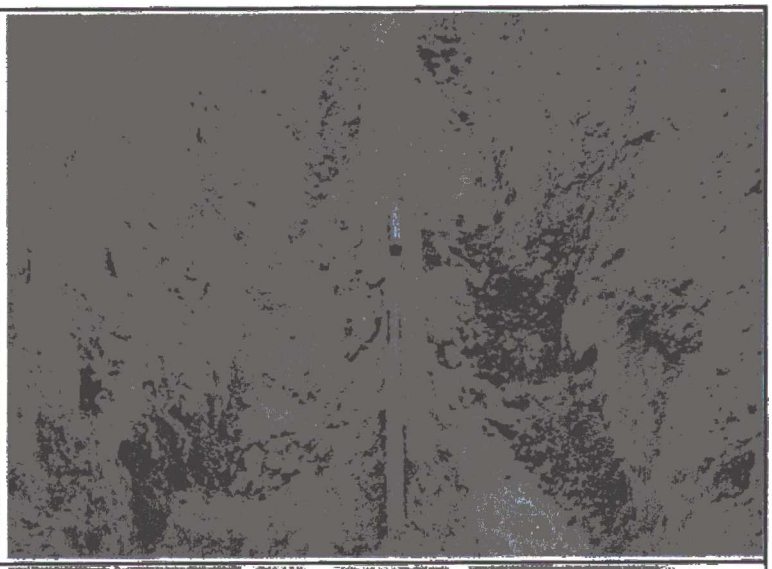
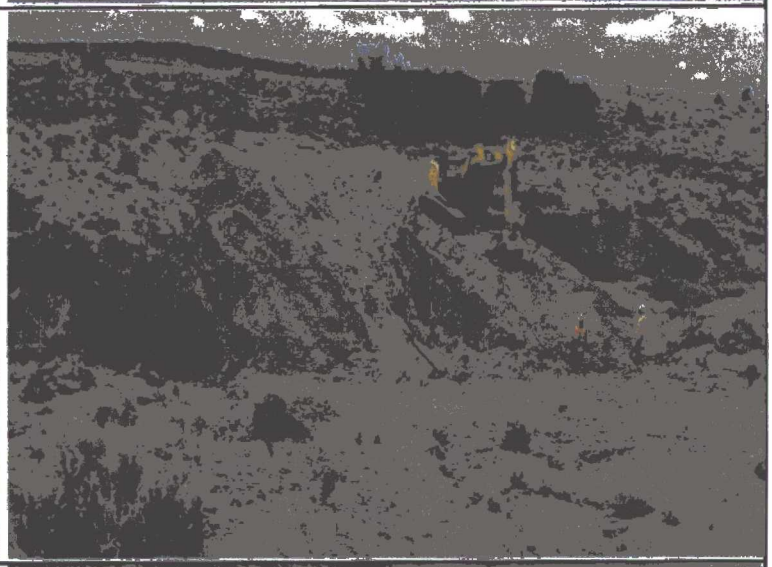
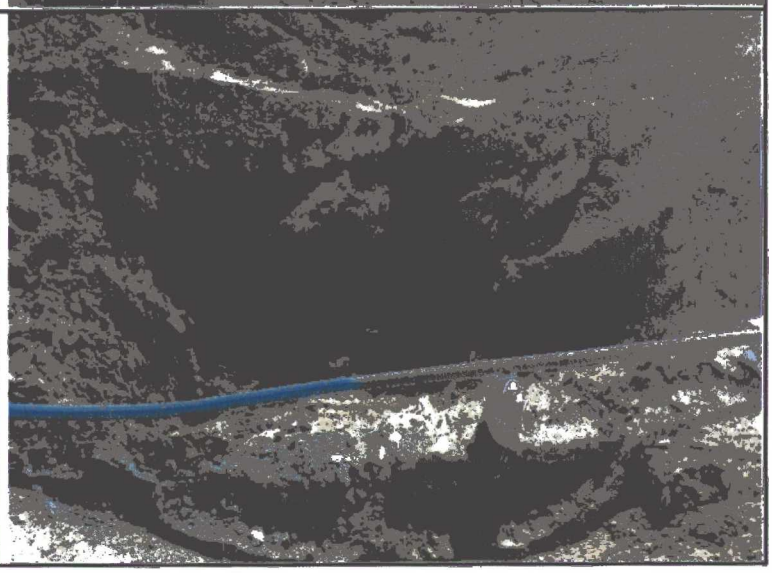
PRINT NAME: Greg Crabtree TITLE: Environmental Manager DATE: 8/26/16

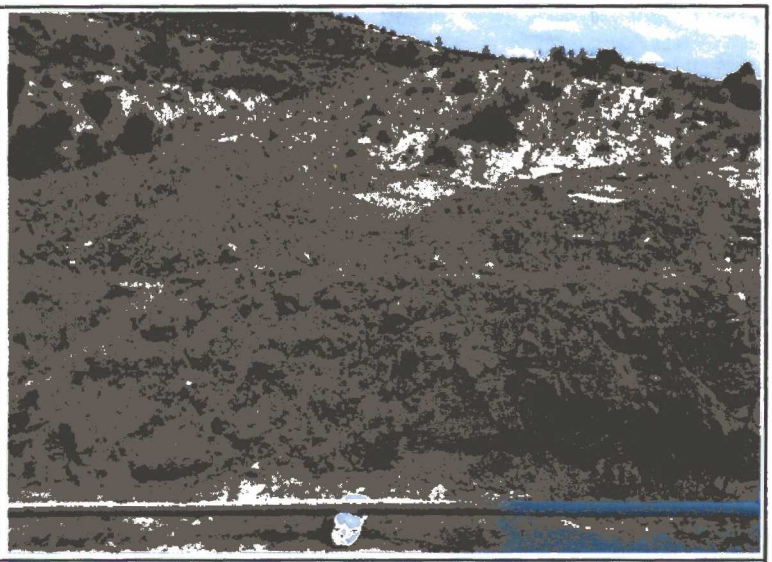
SIGNATURE: _____ TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

APPENDIX C

Photographic Documentation

Photograph 1 Initial excavation.	
Photograph 2 Initial excavation.	
Photograph 3 Initial excavation looking southwest.	

Photograph 4 View of the point of release, leaking section removed.	
Photograph 5 View of excavation looking southwest.	
Photograph 6 View of the deepest part of the excavation and repaired pipeline.	

Photograph 7 View of stockpiles looking east.	
Photograph 8 View of west side stockpiles looking south.	

APPENDIX D

Table

TABLE 1

SJ28-6 #84 Pipeline Release Release-Draft

SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100	
Stockpile Samples									
SP-1	8.24.16	Stockpile	<0.019	<0.039	<0.039	<0.078	ND	<3.9	<9.7
SP-2	8.24.16	Stockpile	<0.020	<0.039	<0.039	<0.079	ND	<3.9	<9.4
Confirmation Samples Removed by Excavation									
S-1	8.24.16	10	<0.098	0.47	0.74	4.2	5.41	**250**	**150**
S-8	8.24.16	0 to10	<0.10	<0.20	<0.20	0.49	0.49	<20	**140**
Excavation Confirmation Samples									
S-2	8.24.16	6	<0.018	<0.036	<0.036	<0.072	ND	<3.6	<9.9
S-3	8.24.16	0 to10	<0.019	<0.038	<0.038	<0.075	ND	<3.8	9.9
S-4	8.24.16	0 to 6	<0.019	<0.039	<0.039	<0.077	ND	<3.9	<9.4
S-5	8.24.16	0 to10	<0.019	<0.039	<0.039	<0.077	ND	<3.9	9.7
S-6	8.24.16	0 to 6	<0.018	<0.036	<0.036	<0.073	ND	<3.6	<9.6
S-7	8.24.16	0 to 6	<0.019	<0.038	<0.038	<0.076	ND	<3.8	<9.8
S-9	8.26.16	12	<0.016	<0.031	<0.031	<0.062	ND	<3.1	<9.7
S-10	8.26.16	0 to 12	<0.016	<0.032	<0.032	<0.065	ND	<3.2	<9.7

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

ND = Not Detected above the Laboratory Reporting Limits

NE = Not established

Appendix E:

Laboratory Analytical Reports & Chain of Custody Documentation

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

August 26, 2016

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: SJ 28-6 #84 OrderNo.: 1608E30

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 8 sample(s) on 8/25/2016 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 **1608E30**
Date Reported: **8/26/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: SJ 28-6 #84
Lab ID: 1608E30-001

Client Sample ID: S-1
Collection Date: 8/24/2016 1:00:00 PM
Matrix: MEOH (SOIL)
Received Date: 8/25/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	150	9.6		mg/Kg	1	8/25/2016 1:04:38 PM	27162
Surr: DNOP	98.8	70-130		%Rec	1	8/25/2016 1:04:38 PM	27162
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	250	20		mg/Kg	5	8/25/2016 12:22:51 PM	27147
Surr: BFB	304	68.3-144	S	%Rec	5	8/25/2016 12:22:51 PM	27147
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.098		mg/Kg	5	8/25/2016 12:22:51 PM	27147
Toluene	0.47	0.20		mg/Kg	5	8/25/2016 12:22:51 PM	27147
Ethylbenzene	0.74	0.20		mg/Kg	5	8/25/2016 12:22:51 PM	27147
Xylenes, Total	4.2	0.39		mg/Kg	5	8/25/2016 12:22:51 PM	27147
Surr: 4-Bromofluorobenzene	118	80-120		%Rec	5	8/25/2016 12:22:51 PM	27147

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: S-2
Project: SJ 28-6 #84
Collection Date: 8/24/2016 1:05:00 PM
Lab ID: 1608E30-002
Matrix: MEOH (SOIL)
Received Date: 8/25/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/25/2016 1:26:25 PM	27162
Surr: DNOP	99.7	70-130		%Rec	1	8/25/2016 1:26:25 PM	27162
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	8/25/2016 12:46:21 PM	27147
Surr: BFB	87.9	68.3-144		%Rec	1	8/25/2016 12:46:21 PM	27147
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.018		mg/Kg	1	8/25/2016 12:46:21 PM	27147
Toluene	ND	0.036		mg/Kg	1	8/25/2016 12:46:21 PM	27147
Ethylbenzene	ND	0.036		mg/Kg	1	8/25/2016 12:46:21 PM	27147
Xylenes, Total	ND	0.072		mg/Kg	1	8/25/2016 12:46:21 PM	27147
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	8/25/2016 12:46:21 PM	27147

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: S-3
Project: SJ 28-6 #84
Collection Date: 8/24/2016 1:10:00 PM
Lab ID: 1608E30-003
Matrix: MEOH (SOIL)
Received Date: 8/25/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	9.9	9.8		mg/Kg	1	8/25/2016 11:39:27 AM	27162
Surr: DNOP	91.7	70-130		%Rec	1	8/25/2016 11:39:27 AM	27162
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	8/25/2016 1:09:52 PM	27147
Surr: BFB	84.6	68.3-144		%Rec	1	8/25/2016 1:09:52 PM	27147
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	8/25/2016 1:09:52 PM	27147
Toluene	ND	0.038		mg/Kg	1	8/25/2016 1:09:52 PM	27147
Ethylbenzene	ND	0.038		mg/Kg	1	8/25/2016 1:09:52 PM	27147
Xylenes, Total	ND	0.075		mg/Kg	1	8/25/2016 1:09:52 PM	27147
Surr: 4-Bromofluorobenzene	99.2	80-120		%Rec	1	8/25/2016 1:09:52 PM	27147

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: S-4
Project: SJ 28-6 #84
Collection Date: 8/24/2016 1:15:00 PM
Lab ID: 1608E30-004
Matrix: MEOH (SOIL)
Received Date: 8/25/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	8/25/2016 12:07:12 PM	27163
Surr: DNOP	90.6	70-130		%Rec	1	8/25/2016 12:07:12 PM	27163
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	8/25/2016 1:33:20 PM	27147
Surr: BFB	81.1	68.3-144		%Rec	1	8/25/2016 1:33:20 PM	27147
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	8/25/2016 1:33:20 PM	27147
Toluene	ND	0.039		mg/Kg	1	8/25/2016 1:33:20 PM	27147
Ethylbenzene	ND	0.039		mg/Kg	1	8/25/2016 1:33:20 PM	27147
Xylenes, Total	ND	0.077		mg/Kg	1	8/25/2016 1:33:20 PM	27147
Surr: 4-Bromofluorobenzene	97.3	80-120		%Rec	1	8/25/2016 1:33:20 PM	27147

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: SJ 28-6 #84
Lab ID: 1608E30-005

Client Sample ID: S-5
Collection Date: 8/24/2016 1:20:00 PM
Matrix: MEOH (SOIL) **Received Date:** 8/25/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	9.7	9.6		mg/Kg	1	8/25/2016 12:35:04 PM	27163
Surr: DNOP	90.2	70-130		%Rec	1	8/25/2016 12:35:04 PM	27163
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	8/25/2016 1:56:50 PM	27147
Surr: BFB	84.5	68.3-144		%Rec	1	8/25/2016 1:56:50 PM	27147
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	8/25/2016 1:56:50 PM	27147
Toluene	ND	0.039		mg/Kg	1	8/25/2016 1:56:50 PM	27147
Ethylbenzene	ND	0.039		mg/Kg	1	8/25/2016 1:56:50 PM	27147
Xylenes, Total	ND	0.077		mg/Kg	1	8/25/2016 1:56:50 PM	27147
Surr: 4-Bromofluorobenzene	97.4	80-120		%Rec	1	8/25/2016 1:56:50 PM	27147

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: SJ 28-6 #84
Lab ID: 1608E30-006

Client Sample ID: S-6
Collection Date: 8/24/2016 1:25:00 PM
Matrix: MEOH (SOIL) **Received Date:** 8/25/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	8/25/2016 1:02:35 PM	27163
Surr: DNOP	92.9	70-130		%Rec	1	8/25/2016 1:02:35 PM	27163
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	8/25/2016 2:20:18 PM	27147
Surr: BFB	82.3	68.3-144		%Rec	1	8/25/2016 2:20:18 PM	27147
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.018		mg/Kg	1	8/25/2016 2:20:18 PM	27147
Toluene	ND	0.036		mg/Kg	1	8/25/2016 2:20:18 PM	27147
Ethylbenzene	ND	0.036		mg/Kg	1	8/25/2016 2:20:18 PM	27147
Xylenes, Total	ND	0.073		mg/Kg	1	8/25/2016 2:20:18 PM	27147
Surr: 4-Bromofluorobenzene	95.3	80-120		%Rec	1	8/25/2016 2:20:18 PM	27147

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: S-7
Project: SJ 28-6 #84
Collection Date: 8/24/2016 1:30:00 PM
Lab ID: 1608E30-007
Matrix: MEOH (SOIL)
Received Date: 8/25/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/25/2016 1:04:23 PM	27163
Surr: DNOP	81.6	70-130		%Rec	1	8/25/2016 1:04:23 PM	27163
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	8/25/2016 2:43:46 PM	27147
Surr: BFB	85.0	68.3-144		%Rec	1	8/25/2016 2:43:46 PM	27147
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	8/25/2016 2:43:46 PM	27147
Toluene	ND	0.038		mg/Kg	1	8/25/2016 2:43:46 PM	27147
Ethylbenzene	ND	0.038		mg/Kg	1	8/25/2016 2:43:46 PM	27147
Xylenes, Total	ND	0.076		mg/Kg	1	8/25/2016 2:43:46 PM	27147
Surr: 4-Bromofluorobenzene	99.4	80-120		%Rec	1	8/25/2016 2:43:46 PM	27147

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: SJ 28-6 #84
Lab ID: 1608E30-008

Client Sample ID: S-8
Collection Date: 8/24/2016 1:35:00 PM
Matrix: MEOH (SOIL) **Received Date:** 8/25/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	140	9.9		mg/Kg	1	8/25/2016 1:26:22 PM	27163
Surr: DNOP	82.2	70-130		%Rec	1	8/25/2016 1:26:22 PM	27163
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	20		mg/Kg	5	8/25/2016 11:12:26 AM	27147
Surr: BFB	86.2	68.3-144		%Rec	5	8/25/2016 11:12:26 AM	27147
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.10		mg/Kg	5	8/25/2016 11:12:26 AM	27147
Toluene	ND	0.20		mg/Kg	5	8/25/2016 11:12:26 AM	27147
Ethylbenzene	ND	0.20		mg/Kg	5	8/25/2016 11:12:26 AM	27147
Xylenes, Total	0.49	0.40		mg/Kg	5	8/25/2016 11:12:26 AM	27147
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	5	8/25/2016 11:12:26 AM	27147

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608E30**

26-Aug-16

Client: APEX TITAN

Project: SJ 28-6 #84

Sample ID **LCS-27162**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **27162**			RunNo: **36745**					
Prep Date: **8/25/2016**	Analysis Date: **8/25/2016**			SeqNo: **1138933**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.7	62.6	124			
Surr: DNOP	4.2		5.000		83.5	70	130			

Sample ID **MB-27162**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **27162**			RunNo: **36745**					
Prep Date: **8/25/2016**	Analysis Date: **8/25/2016**			SeqNo: **1138934**		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	8.9		10.00		89.3	70	130			

Sample ID **LCS-27163**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **27163**			RunNo: **36746**					
Prep Date: **8/25/2016**	Analysis Date: **8/25/2016**			SeqNo: **1138953**		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	84.9	62.6	124			
Surr: DNOP	4.4		5.000		88.4	70	130			

Sample ID **MB-27163**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **27163**			RunNo: **36746**					
Prep Date: **8/25/2016**	Analysis Date: **8/25/2016**			SeqNo: **1138954**		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	9.6		10.00		96.0	70	130			

Sample ID **1608E30-004AMS**	SampType: **MS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **S-4**	Batch ID: **27163**			RunNo: **36747**					
Prep Date: **8/25/2016**	Analysis Date: **8/25/2016**			SeqNo: **1139341**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	9.6	47.80	5.733	98.8	33.9	141			
Surr: DNOP	4.6		4.780		96.0	70	130			

Sample ID **1608E30-004AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **S-4**	Batch ID: **27163**			RunNo: **36747**					
Prep Date: **8/25/2016**	Analysis Date: **8/25/2016**			SeqNo: **1139343**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608E30**

26-Aug-16

Client: APEX TITAN

Project: SJ 28-6 #84

Sample ID **1608E30-004AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-4**	Batch ID: **27163**	RunNo: **36747**
Prep Date: **8/25/2016**	Analysis Date: **8/25/2016**	SeqNo: **1139343** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	9.5	47.57	5.733	101	33.9	141	1.80	20	
Surr: DNOP	4.6		4.757		96.1	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608E30**

26-Aug-16

Client: APEX TITAN

Project: SJ 28-6 #84

Sample ID **MB-27147**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **27147**	RunNo: **36760**
Prep Date: **8/24/2016**	Analysis Date: **8/25/2016**	SeqNo: **1139619** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	840		1000		84.4	68.3	144			

Sample ID **LCS-27147**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **27147**	RunNo: **36760**
Prep Date: **8/24/2016**	Analysis Date: **8/25/2016**	SeqNo: **1139620** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	80	120			
Surr: BFB	920		1000		92.2	68.3	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608E30**

26-Aug-16

Client: APEX TITAN

Project: SJ 28-6 #84

Sample ID **MB-27147**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **27147**	RunNo: **36760**
Prep Date: **8/24/2016**	Analysis Date: **8/25/2016**	SeqNo: **1139732** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		99.9	80	120			

Sample ID **LCS-27147**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **27147**	RunNo: **36760**
Prep Date: **8/24/2016**	Analysis Date: **8/25/2016**	SeqNo: **1139733** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	88.1	75.3	123			
Toluene	0.92	0.050	1.000	0	92.3	80	124			
Ethylbenzene	0.96	0.050	1.000	0	95.9	82.8	121			
Xylenes, Total	2.9	0.10	3.000	0	96.4	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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: 1608E30 | RcptNo: 1

Received by/date: 08/25/16
Logged By: Lindsay Mangin 8/25/2016 8:00:00 AM
Completed By: Lindsay Mangin 8/25/2016 8:53:42 AM
Reviewed By: 08/25/16

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 ☐	
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	3.5	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: K. Summers

Laboratory: Hall

Address: ABQ, NM

Contact: A. Freeman

Phone:

PO/SO #:

Sampler's Name: Chad D'Aponti

Sampler's Signature:

Proj. No.: 725040 112 188

Project Name: SJ 28-6 #84

No/Type of Containers

ANALYSIS REQUESTED: 8021 BTEX; 8015 TPH GRO/DRO

Lab use only
Due Date:

Temp. of coolers when received (C°): 3.5

1 2 3 4 5

Page 1 of 1

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	Lab Sample ID (Lab Use Only)
S	8/24/16	1300			S-1						1		1608E30-001
		1305			S-2						1		-002
		1310			S-3						1		-003
		1315			S-4						1		-004
		1320			S-5						1		-005
		1325			S-6						1		-006
		1330			S-7						1		-007
		1335			S-8						1		-008
					NES								

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	8/24/16	1556		8/24/16	1558
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	8/24/16	2031		08/25/16	0800
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

Bill to Tom Long (EPROD)

AFE N26208

Rush

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 _____

Apex TITAN, Inc. • 606 S. Rio Grande, Suite A, Downstairs • Aztec, New Mexico 87410 • Office: 505-334-5200 • Fax: 505-334-5204

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 26, 2016

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: SJ 28-6 #84 OrderNo.: 1608E31

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/25/2016 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 **1608E31**
Date Reported: **8/26/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: SP-1
Project: SJ 28-6 #84
Collection Date: 8/24/2016 1:40:00 PM
Lab ID: 1608E31-001
Matrix: MEOH (SOIL)
Received Date: 8/25/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/25/2016 11:12:14 AM	27163
Surr: DNOP	85.5	70-130		%Rec	1	8/25/2016 11:12:14 AM	27163
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	8/25/2016 11:35:59 AM	27147
Surr: BFB	85.6	68.3-144		%Rec	1	8/25/2016 11:35:59 AM	27147
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	8/25/2016 11:35:59 AM	27147
Toluene	ND	0.039		mg/Kg	1	8/25/2016 11:35:59 AM	27147
Ethylbenzene	ND	0.039		mg/Kg	1	8/25/2016 11:35:59 AM	27147
Xylenes, Total	ND	0.078		mg/Kg	1	8/25/2016 11:35:59 AM	27147
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	8/25/2016 11:35:59 AM	27147

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: SJ 28-6 #84
Lab ID: 1608E31-002

Client Sample ID: SP-2
Collection Date: 8/24/2016 1:45:00 PM
Matrix: MEOH (SOIL)
Received Date: 8/25/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	8/25/2016 11:37:18 AM	27163
Surr: DNOP	84.2	70-130		%Rec	1	8/25/2016 11:37:18 AM	27163
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	8/25/2016 11:59:22 AM	27147
Surr: BFB	83.8	68.3-144		%Rec	1	8/25/2016 11:59:22 AM	27147
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	8/25/2016 11:59:22 AM	27147
Toluene	ND	0.039		mg/Kg	1	8/25/2016 11:59:22 AM	27147
Ethylbenzene	ND	0.039		mg/Kg	1	8/25/2016 11:59:22 AM	27147
Xylenes, Total	ND	0.079		mg/Kg	1	8/25/2016 11:59:22 AM	27147
Surr: 4-Bromofluorobenzene	97.9	80-120		%Rec	1	8/25/2016 11:59:22 AM	27147

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608E31**

26-Aug-16

Client: APEX TITAN

Project: SJ 28-6 #84

Sample ID **LCS-27162**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **27162**	RunNo: **36745**
Prep Date: **8/25/2016**	Analysis Date: **8/25/2016**	SeqNo: **1138933** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.2		5.000		83.5	70	130			

Sample ID **MB-27162**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **27162**	RunNo: **36745**
Prep Date: **8/25/2016**	Analysis Date: **8/25/2016**	SeqNo: **1138934** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.9		10.00		89.3	70	130			

Sample ID **LCS-27163**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **27163**	RunNo: **36746**
Prep Date: **8/25/2016**	Analysis Date: **8/25/2016**	SeqNo: **1138953** 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	84.9	62.6	124			
Surr: DNOP	4.4		5.000		88.4	70	130			

Sample ID **MB-27163**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **27163**	RunNo: **36746**
Prep Date: **8/25/2016**	Analysis Date: **8/25/2016**	SeqNo: **1138954** 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	9.6		10.00		96.0	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608E31**

26-Aug-16

Client: APEX TITAN

Project: SJ 28-6 #84

Sample ID **MB-27147**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **27147**	RunNo: **36760**
Prep Date: **8/24/2016**	Analysis Date: **8/25/2016**	SeqNo: **1139619** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	840		1000		84.4	68.3	144			

Sample ID **LCS-27147**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **27147**	RunNo: **36760**
Prep Date: **8/24/2016**	Analysis Date: **8/25/2016**	SeqNo: **1139620** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	80	120			
Surr: BFB	920		1000		92.2	68.3	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608E31**

26-Aug-16

Client: APEX TITAN

Project: SJ 28-6 #84

Sample ID **MB-27147**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **27147**	RunNo: **36760**
Prep Date: **8/24/2016**	Analysis Date: **8/25/2016**	SeqNo: **1139732** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		99.9	80	120			

Sample ID **LCS-27147**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **27147**	RunNo: **36760**
Prep Date: **8/24/2016**	Analysis Date: **8/25/2016**	SeqNo: **1139733** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	88.1	75.3	123			
Toluene	0.92	0.050	1.000	0	92.3	80	124			
Ethylbenzene	0.96	0.050	1.000	0	95.9	82.8	121			
Xylenes, Total	2.9	0.10	3.000	0	96.4	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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: **1608E31** RcptNo: **1**

Received by/date: 08/25/16

Logged By: **Lindsay Mangin** **8/25/2016 8:00:00 AM**

Completed By: **Lindsay Mangin** **8/25/2016 8:57:51 AM**

Reviewed By: 08/25/16

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	3.5	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: K. Summers

Laboratory: Hall

Address: ABQ, NM

Contact: A. Freeman

Phone:

PO/SO #:

Sampler's Name: Chad D'Aponti

Sampler's Signature:

Lab use only
Due Date:

Temp. of coolers when received (C°): 3.0

1	2	3	4	5

Page 1 of 1

Proj. No.: 703240 112 188

Project Name: SJ 28-6 #84

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No/Type of Containers: VOA	A/G 1 L	250 ml	Glass Jar	P/O	ANALYSIS REQUESTED: 8021 BTEX	8015 TPH GRO/DRO	Lab Sample ID (Lab Use Only)
S	8/24/16	1340			SP-1						1		X	X	1608E31-001
S	8/24/16	1345			SP-2						1		X	X	-002

NPS

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☑ 100% Rush — Same DAY

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	8/24/16	1550		8/24/16	1550
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	8/24/16	2031		08/25/16	0800
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

Bill to Tom Long (EPROD)

APE # 26228

RUSH

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

August 30, 2016

Kyle Summers
APEX TITAN
606 S. Rio Grande Suite A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: SJ 28-6 #84 OrderNo.: 1608F90

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/27/2016 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 **1608F90**
Date Reported: **8/30/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: S-9
Project: SJ 28-6 #84
Collection Date: 8/26/2016 12:10:00 PM
Lab ID: 1608F90-001
Matrix: MEOH (SOIL)
Received Date: 8/27/2016 11:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/29/2016 10:05:17 AM	27204
Surr: DNOP	70.6	70-130		%Rec	1	8/29/2016 10:05:17 AM	27204
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	8/29/2016 9:47:42 AM	27186
Surr: BFB	84.7	68.3-144		%Rec	1	8/29/2016 9:47:42 AM	27186
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.016		mg/Kg	1	8/29/2016 9:47:42 AM	27186
Toluene	ND	0.031		mg/Kg	1	8/29/2016 9:47:42 AM	27186
Ethylbenzene	ND	0.031		mg/Kg	1	8/29/2016 9:47:42 AM	27186
Xylenes, Total	ND	0.062		mg/Kg	1	8/29/2016 9:47:42 AM	27186
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	8/29/2016 9:47:42 AM	27186

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: SJ 28-6 #84
Lab ID: 1608F90-002

Client Sample ID: S-10
Collection Date: 8/26/2016 12:15:00 PM
Matrix: MEOH (SOIL) **Received Date:** 8/27/2016 11:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/29/2016 10:27:10 AM	27204
Surr: DNOP	74.2	70-130		%Rec	1	8/29/2016 10:27:10 AM	27204
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	8/29/2016 10:11:09 AM	27186
Surr: BFB	85.4	68.3-144		%Rec	1	8/29/2016 10:11:09 AM	27186
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.016		mg/Kg	1	8/29/2016 10:11:09 AM	27186
Toluene	ND	0.032		mg/Kg	1	8/29/2016 10:11:09 AM	27186
Ethylbenzene	ND	0.032		mg/Kg	1	8/29/2016 10:11:09 AM	27186
Xylenes, Total	ND	0.065		mg/Kg	1	8/29/2016 10:11:09 AM	27186
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	8/29/2016 10:11:09 AM	27186

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608F90**

30-Aug-16

Client: APEX TITAN

Project: SJ 28-6 #84

Sample ID **LCS-27204**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **27204**	RunNo: **36820**
Prep Date: **8/29/2016**	Analysis Date: **8/29/2016**	SeqNo: **1141302** 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	96.0	62.6	124			
Surr: DNOP	3.7		5.000		74.5	70	130			

Sample ID **MB-27204**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **27204**	RunNo: **36820**
Prep Date: **8/29/2016**	Analysis Date: **8/29/2016**	SeqNo: **1141303** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.5		10.00		74.7	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608F90**

30-Aug-16

Client: APEX TITAN

Project: SJ 28-6 #84

Sample ID **MB-27186**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **27186**	RunNo: **36828**
Prep Date: **8/26/2016**	Analysis Date: **8/29/2016**	SeqNo: **1141862** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		84.6	68.3	144			

Sample ID **LCS-27186**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **27186**	RunNo: **36828**
Prep Date: **8/26/2016**	Analysis Date: **8/29/2016**	SeqNo: **1141863** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.4	80	120			
Surr: BFB	910		1000		90.7	68.3	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608F90**

30-Aug-16

Client: APEX TITAN

Project: SJ 28-6 #84

Sample ID **MB-27186**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **27186**	RunNo: **36828**
Prep Date: **8/26/2016**	Analysis Date: **8/29/2016**	SeqNo: **1141891** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID **LCS-27186**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **27186**	RunNo: **36828**
Prep Date: **8/26/2016**	Analysis Date: **8/29/2016**	SeqNo: **1141892** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.0	75.3	123			
Toluene	0.90	0.050	1.000	0	90.0	80	124			
Ethylbenzene	0.92	0.050	1.000	0	92.2	82.8	121			
Xylenes, Total	2.8	0.10	3.000	0	92.5	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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: 1608F90 RcptNo: 1

Received by/date: KM 08/27/16

Logged By: Ashley Gallegos 8/27/2016 11:25:00 AM AG

Completed By: Ashley Gallegos 8/27/2016 5:43:10 PM AG

Reviewed By: AG 08/27/16

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	2.8	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec NM

Project Manager: K. Summers

Laboratory: Hall Env

Address: ABQ N.M

Contact: A. Fireman

Phone:

PO/SO #:

Sampler's Name: Chad DAppolonia

Sampler's Signature:

Proj. No.: 72504011 2188

Project Name: SJ28-6 #84

ANALYSIS REQUESTED: BTEX 8021, TPH GRO / DRO 8015

Lab use only
Due Date:

Temp. of coolers when received (C°): 2,8

1 | 2 | 3 | 4 | 5

Page 1 of 1

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No/Type of Containers: VOA	A/G 1 L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	8/26/16	12:10			SJ-9						1		1608F90-001
S	8/26/16	12:15			SJ-10						1		-002

NFS

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☑ 100% Rush same day

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	8/26/16	15:15		08/27/16	1125
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

Bill to Tom long

N26228

sameday

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: **Quinn 340S**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **Private**	Mineral Owner: **BLM**	**Serial Number: N/A**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from	North/South Line	Feet from	East/West Line	County
K	**20**	**31N**	**8W**	the **1516**	North (South)	the **1693**	East (West)	**San Juan**

OIL CONS. DIV DIST. 3
FEB 27 2017

Latitude 36.880355 Longitude -107.701975

NATURE OF RELEASE

Type of Release: Natural Gas	Volume of Release **47.3 MCF Gas**	Volume Recovered: **None**
Source of Release: Internal Corrosion	Date and Hour of Occurrence: **12/20/2016 @ 12:10 p.m.**	Date and Hour of Discovery: **12/20/2016 @ 12:30 p.m.**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Vanessa Fields - NMOCD	
By Whom? Thomas Long	Date and Time December 21, 2016 @ 1:46 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume	

If a Watercourse was Impacted, Describe Fully.* The release was located in a small ephemeral wash. No Fluids were observed on the ground surface.

Describe Cause of Problem and Remedial Action: On December 20, 2016, Enterprise technicians discovered a gas leak on the Quinn 320S pipeline. The release was located in a small ephemeral wash. No Fluids were observed on the ground surface. The pipeline was isolated, blown down, locked out and tagged out. Repairs were completed on December 30, 2016.

Describe Area Affected and Cleanup Action: The pipeline was repaired and no subsurface impacts were observed. All soil sample results indicate that concentrations of BTEX and TPH (DRO/GRO) did not exceed NMOCD remediation action levels. 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 E. Fields	OIL CONSERVATION DIVISION	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: Vanessa	
Title: Director, Environmental	Approval Date: 3/3/2017	Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval: NVF1636440386	Attached ☐
Date: 2/21/2017 Phone: (713)381-6684		

* Attach Additional Sheets If Necessary

4

CORRECTIVE ACTION REPORT

Property:

Quinn 340 S Pipeline Release
SW 1/4, S20 T31N R8W
San Juan County, New Mexico

January 27, 2017
Apex Project No. 725040112234

Prepared for:

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

Prepared by:

Chad D'Aponti
Project Scientist

Kyle Summers, CPG
Branch Manager/Senior Project Manager

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Figure 2 – Site Vicinity Map
Figure 3 – Site Map with Soil Analytical Results

Appendix B: Executed C-138 Solid Waste Acceptance Form

Appendix C: Photographic Documentation

Appendix D: Table

Appendix E: Laboratory Analytical Reports &
Chain of Custody Documentation

APEX

CORRECTIVE ACTION REPORT

Quinn 340 S Pipeline Release
SW 1/4, S20 T31N R8W
San Juan County, New Mexico

Apex Project No. 725040112234

1.0 INTRODUCTION

1.1 Site Description & Background

The Quinn 340 S pipeline release site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the southwest (SW) ¼ of Section 20, Township 31 North, Range 8 West, in San Juan County, New Mexico (36.88035N, 107.702015W), referred to hereinafter as the "Site". The Site is located on land managed by the United States Bureau of Land Management (BLM). The Site is surrounded by native vegetation rangeland periodically interrupted by oil and gas gathering facilities, including the Enterprise natural gas well tie which traverses the area from approximately east to west.

On December 21, 2016, Enterprise personnel identified a release on the Quin 340 S pipeline. On December 28, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The leak was subsequently repaired by replacing 40 feet of pipe.

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

2.0 SITE RANKING

In accordance with the New Mexico 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 to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the following table:

Ranking Criteria			Ranking Score
Depth to Groundwater	<50 feet	20	0
	50 to 99 feet	10	
	>100 feet	0	
Wellhead Protection Area • <1,000 feet from a water source, or; <200 feet from private domestic water source.	Yes	20	0
	No	0	
Distance to Surface Water Body	<200 feet	20	20
	200 to 1,000 feet	10	
	>1,000 feet	0	
Total Ranking Score			**20**

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

- One (1) water well (SJ 00012) was identified less than a mile of the Site on the Office of the State Engineer (OSE) website with a depth to water of 475 feet below grade surface (bgs). Based on this information, the depth to groundwater at the Site is anticipated to be greater than 100 feet bgs, resulting in a ranking score of "0" for depth to groundwater.
- No water source wells (municipal/community wells) were identified within 1,000 feet of the Site. No private domestic water sources were identified within 200 feet of the Site. These proximities result in a wellhead protection area ranking score of "0".
- The release point is located adjacent to an unnamed ephemeral wash that is identified as a "blue line" on the United States Geological Society topographic map. This information supports a distance to surface water ranking score of "20".

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

On December 21, 2016, Enterprise personnel identified a release on the Quinn 340 S pipeline. On December 28, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The leak was subsequently repaired by replacing 40 feet of pipe. During the corrective action activities, West States Energy contractors provided heavy equipment and labor support; and Apex provided environmental support.

On December 30, 2016, five (5) composite soil samples (S-1 through S-5) were collected from the repair excavation and five (5) composite stockpile soil samples (SP-1 through SP-5) were collected for laboratory analysis to determine the potential to reuse a portion of the soils as backfill material. An OCD representative was on-Site during the sampling activities.

The main excavation measured approximately 13 feet long by 12 feet wide and 12 feet deep. The excavation length was extended to approximately 40 feet to allow the replacement of a full joint of pipe. The extended portion of the excavation was approximately nine (9) feet deep (just below the depth of the pipeline).

The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated silty clay.

A total of approximately 24 cubic yards of hydrocarbon affected soils were transported to the Envirotech Inc. (Envirotech) landfarm for disposal/remediation. The executed C-138 form is provided in Appendix B. The excavation was backfilled with clean imported fill and laboratory–confirmed stockpiled soils, and then contoured to surrounding grade.

Figure 3 is a site map that indicates the approximate location of the excavated area in relation to the pipeline (Appendix A). Photographic documentation of the field activities is included in Appendix C.

3.2 Soil Sampling Program

Apex screened head-space samples of the impacted soils with a photoionization detector (PID) fitted with a 10.6 eV lamp, and a PetroFlag hydrocarbon analyzer to estimate excavation limits.

Apex's soil sampling program included the collection of five (5) composite soil samples (S-1 through S-5) from the repair excavation and five (5) composite stockpiled soil samples (SP-1 and SP-5) for laboratory analysis. An OCD representative was on-Site during the sampling activities.

Figure 3 depicts the excavated area and soil stockpiles and shows the final confirmation sample locations in relation to the final excavation dimensions (Appendix A).

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

3.3 Laboratory Analytical Methods

The confirmation soil samples and stockpiled soil samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA SW-846 Method #8021, and total petroleum hydrocarbons (TPH) gasoline range organics (GRO), diesel range organics (DRO) and motor oil/lube oil range organics (MRO) using EPA SW-846 Method #8015.

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

4.0 DATA EVALUATION

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

4.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or practical quantitation limits (PQLs) associated with the final soil samples (S-1 through S-5) and stockpiled soil samples (SP-1 and SP-5) to the OCD *RALs* for sites having a total ranking score of "20".

- The laboratory analyses of the confirmation samples from soils remaining in place and the reused stockpiled soils do not indicate benzene concentrations above the PQLs, which are below the OCD *RAL* of 10 milligrams per kilogram (mg/kg).

- The laboratory analyses of the confirmation samples from soils remaining in place and the reused stockpiled soils do not indicate total BTEX concentrations above the PQLs, which are below the OCD *RAL* of 50 mg/kg.

- The laboratory analyses of the confirmation samples from soils remaining in place and the reused stockpiled soils do not indicate combined TPH GRO/DRO/MRO concentrations above the PQLs which are below the OCD *RAL* of 100 mg/kg.

Confirmation sample and stockpiled soil sample laboratory analytical results are provided in Table 1 in Appendix D.

5.0 FINDINGS AND RECOMMENDATIONS

The Quinn 340 S pipeline release Site is located within the Enterprise pipeline ROW in the SW ¼ of Section 20, Township 31 North, Range 8 West, in San Juan County, New Mexico. The Site is located on land managed by the BLM. The Site is surrounded by native-vegetation rangeland periodically interrupted by oil and gas gathering facilities, including the Enterprise natural gas well tie which traverses the area from approximately east to west.

On December 21, 2016, Enterprise personnel identified a release on the Quinn 340 S pipeline. On December 28, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The corrosion related leak was subsequently repaired by replacing 40 feet of pipe.

- The primary objective of the environmental corrective actions was to reduce the concentrations 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 silty clay.

- The main excavation measured approximately 13 feet long by 12 feet wide and 12 feet deep. The excavation length was extended to approximately 40 feet to allow the replacement of a full joint of pipe. The extended portion of the excavation was approximately nine (9) feet deep (just below the depth of the pipeline).

- Prior to backfilling, five (5) composite soil samples and five (5) stockpiled soil composite samples were collected for laboratory analyses. Based on analytical results, soils

remaining in place and the reused stockpiled soils do not exhibit BTEX or TPH GRO/DRO/MRO concentrations above the OCD *RALs* for a site ranking of "20".

- A total of approximately 24 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 laboratory-confirmed stockpiled soils, and then contoured to the approximate surrounding grade.

Based on the laboratory analytical results and NMOCD input, no additional investigation or corrective action appears warranted at this time.

6.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

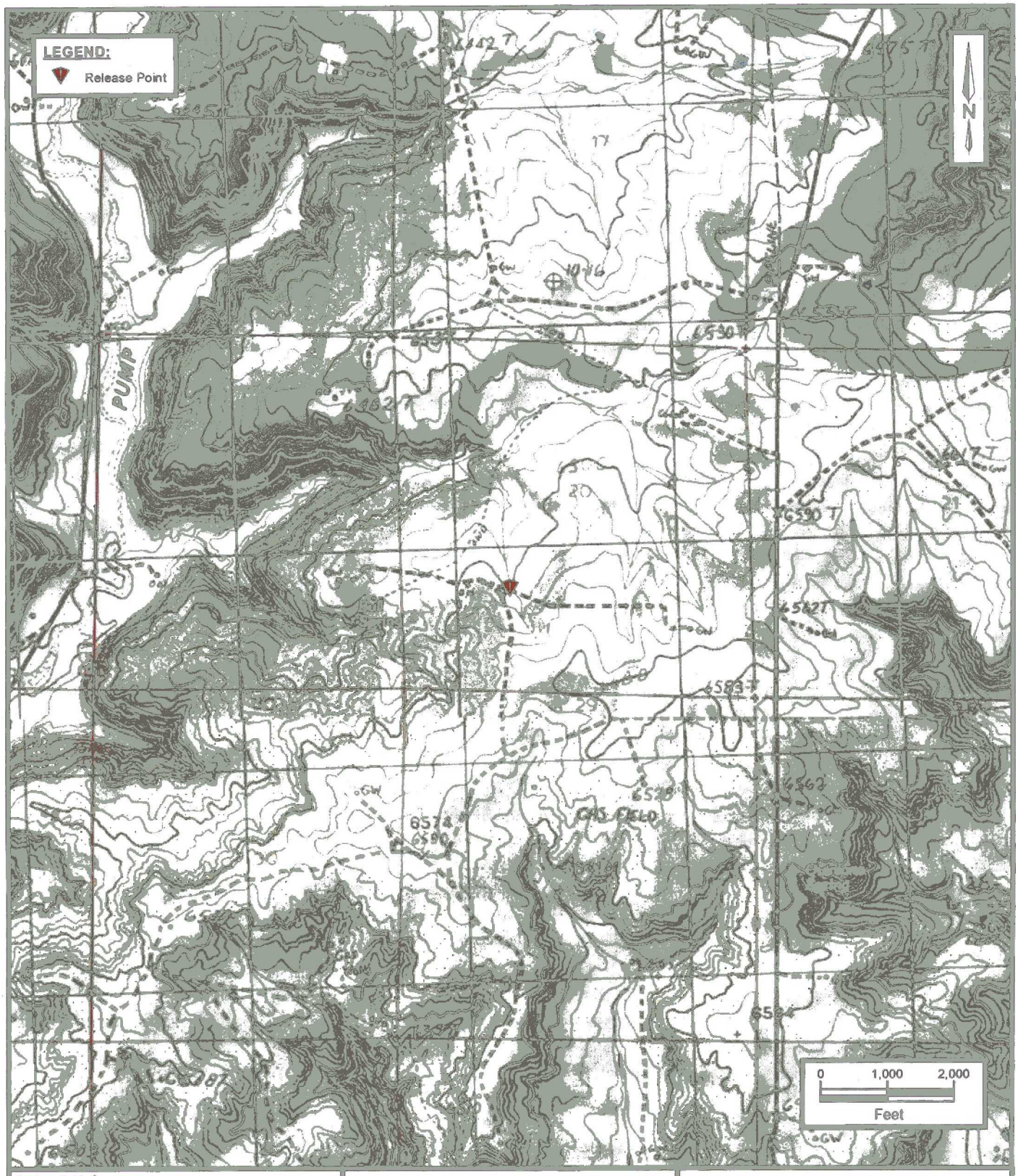
Apex's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed or described herein. Additionally, Apex does not warrant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

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

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

APPENDIX A

Figures



Quinn 340 S
SW 1/4, S20, T31N R8W
San Juan County, New Mexico
36.88035 N, 107.702015 W

Project No. 725040112234

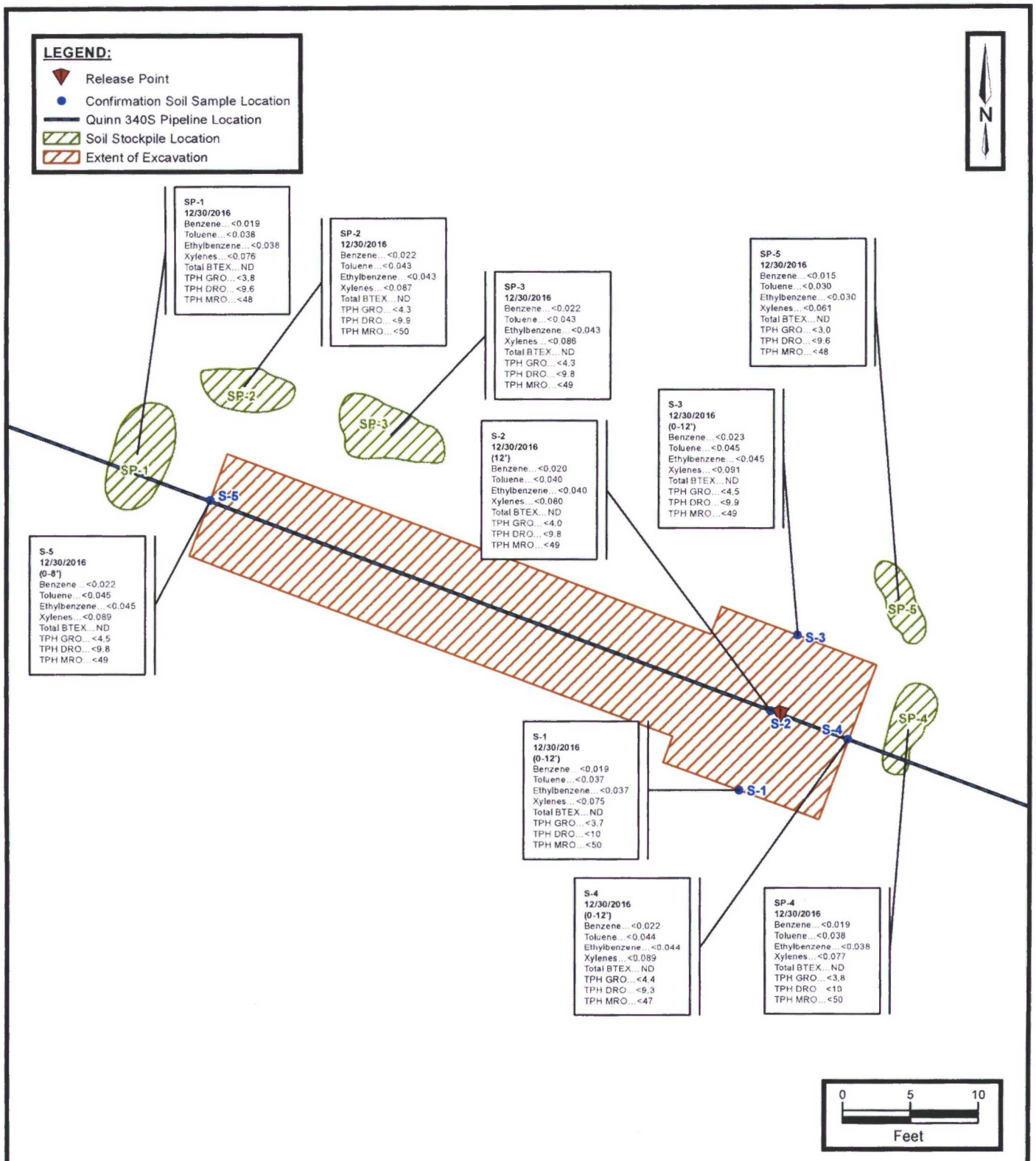
Apex TITAN, Inc.
606 South Rio Grande, Suite A
Aztec, New Mexico 87410
Phone: (505) 334-5200
www.apexcos.com
A Subsidiary of Apex Companies, LLC

FIGURE 1

Topographic Map

Service Layer Credits:
Copyright:© 2013 National Geographic Society, i-cubed, Anastacio Spring and Archuleta New Mexico 7.5-Minute Quadrangles 1985

Z:\Dallas South\Drafting\2016\725040112234\Figure 1.mxd Modified 1/23/2017 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System



Quinn 340 S
SW 1/4, S20, T31N R8W
San Juan County, New Mexico
36.88035 N, 107.702015 W

Project No. 725040112234

Apex TITAN, Inc.
606 South Rio Grande, Suite A
Aztec, New Mexico 87410
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A Subsidiary of Apex Companies, LLC

FIGURE 3

Site Map with Soil Analytical Results

Z:\Dallas South\Drafting\2016\725040112234\Figure 3.mxd Modified 1/23/2017 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System

APEX

APPENDIX B

Executed C-138 Solid Waste Acceptance Form

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

97057-0817

Form C-138
Revised 08/01/11

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

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator Name and Address:**
Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401

2. **Originating Site:**
Quinn 340S Pipeline

3. **Location of Material (Street Address, City, State or ULSTR):**
Unit Letter K Section 20 T31N 8W; 36.880355, -107.701975 December 2016

4. **Source and Description of Waste:** Hydrocarbon Impacted Soil associated with a natural gas pipeline release.
Estimated Volume 20 yd^3 / bbls Known Volume (to be entered by the operator at the end of the haul) 24 (yd^3) bbls

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

I, Thomas Long Thomas Long , representative or authorized agent for Enterprise Products Operating do hereby
Generator Signature
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

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

☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

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

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long Thomas Long 12-29-16, representative for Enterprise Products Operating authorize Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

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

5. **Transporter: TBD** HBL, West States

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **Envirotech, Inc. Soil Remediation Facility * Permit #: NM01-0011**
Address of Facility: **Hill Top, NM**
Method of Treatment and/or Disposal:
☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

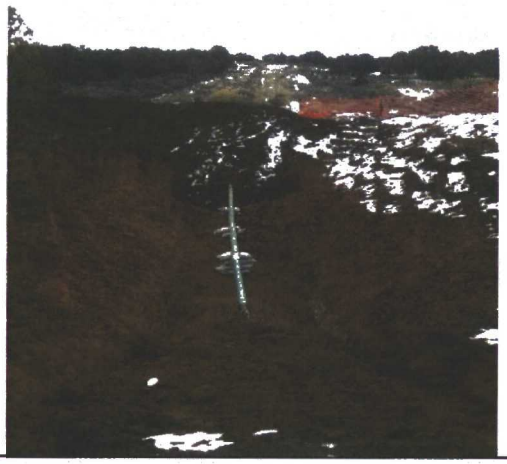
☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: Greg Crabtree TITLE: Environmental Manager DATE: 12/30/16

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

APPENDIX C

Photographic Documentation

Photograph 1 View of the excavation.	
Photograph 2 View of the excavation, facing east.	
Photograph 3 View of the excavation, facing west.	

Photograph 4 View of the stockpiles.	
Photograph 5 View of the stockpiles.	

APPENDIX D

Tables

TABLE 1

Quinn 340 S 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)	TPH MRO (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100		
Stockpiled Soil Samples										
SP-1	12.30.16	Stock pile	<0.019	<0.038	<0.038	<0.076	ND	<3.8	<9.6	<48
SP-2	12.30.16	Stock pile	<0.022	<0.043	<0.043	<0.087	ND	<4.3	<9.9	<50
SP-3	12.30.16	Stock pile	<0.022	<0.043	<0.043	<0.086	ND	<4.3	<9.8	<49
SP-4	12.30.16	Stock pile	<0.019	<0.038	<0.038	<0.077	ND	<3.8	<10	<50
SP-5	12.30.16	Stock pile	<0.015	<0.030	<0.030	<0.061	ND	<3.0	<9.6	<48
Excavation Soil Samples										
S-1	12.30.16	0-12	<0.019	<0.037	<0.037	<0.075	ND	<3.7	<10	<50
S-2	12.30.16	12	<0.020	<0.040	<0.040	<0.080	ND	<4.0	<9.8	<49
S-3	12.30.16	0-12	<0.023	<0.045	<0.045	<0.091	ND	<4.5	<9.9	<49
S-4	12.30.16	0-12	<0.022	<0.044	<0.044	<0.089	ND	<4.4	<9.3	<47
S-5	12.30.16	0-8	<0.022	<0.045	<0.045	<0.089	ND	<4.5	<9.8	<49

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

mg/kg = milligrams per kilogram

ND = Not Detected above the PQLs

NE = Not established

APEX

Appendix E

Laboratory Analytical Reports & Chain of Custody Documentation

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 04, 2017

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Quinn 340 S OrderNo.: 1701002

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 5 sample(s) on 12/31/2016 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 **1701002**
Date Reported: **1/4/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: S-1
Project: Quinn 340 S
Collection Date: 12/30/2016 10:00:00 AM
Lab ID: 1701002-001
Matrix: MEOH (SOIL)
Received Date: 12/31/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/3/2017 11:26:04 AM	29490
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/3/2017 11:26:04 AM	29490
Surr: DNOP	110	70-130		%Rec	1	1/3/2017 11:26:04 AM	29490
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	1/3/2017 9:51:09 AM	29481
Surr: BFB	81.6	68.3-144		%Rec	1	1/3/2017 9:51:09 AM	29481
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	1/3/2017 9:51:09 AM	29481
Toluene	ND	0.037		mg/Kg	1	1/3/2017 9:51:09 AM	29481
Ethylbenzene	ND	0.037		mg/Kg	1	1/3/2017 9:51:09 AM	29481
Xylenes, Total	ND	0.075		mg/Kg	1	1/3/2017 9:51:09 AM	29481
Surr: 4-Bromofluorobenzene	87.3	80-120		%Rec	1	1/3/2017 9:51:09 AM	29481

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: S-2
Project: Quinn 340 S
Collection Date: 12/30/2016 10:05:00 AM
Lab ID: 1701002-002
Matrix: MEOH (SOIL)
Received Date: 12/31/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/3/2017 11:47:41 AM	29490
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/3/2017 11:47:41 AM	29490
Surr: DNOP	103	70-130		%Rec	1	1/3/2017 11:47:41 AM	29490
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	1/3/2017 10:14:41 AM	29481
Surr: BFB	83.4	68.3-144		%Rec	1	1/3/2017 10:14:41 AM	29481
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.020		mg/Kg	1	1/3/2017 10:14:41 AM	29481
Toluene	ND	0.040		mg/Kg	1	1/3/2017 10:14:41 AM	29481
Ethylbenzene	ND	0.040		mg/Kg	1	1/3/2017 10:14:41 AM	29481
Xylenes, Total	ND	0.080		mg/Kg	1	1/3/2017 10:14:41 AM	29481
Surr: 4-Bromofluorobenzene	89.1	80-120		%Rec	1	1/3/2017 10:14:41 AM	29481

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: S-3
Project: Quinn 340 S
Collection Date: 12/30/2016 10:10:00 AM
Lab ID: 1701002-003
Matrix: MEOH (SOIL)
Received Date: 12/31/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/3/2017 12:09:16 PM	29490
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/3/2017 12:09:16 PM	29490
Surr: DNOP	104	70-130		%Rec	1	1/3/2017 12:09:16 PM	29490
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	1/3/2017 10:38:17 AM	29481
Surr: BFB	83.9	68.3-144		%Rec	1	1/3/2017 10:38:17 AM	29481
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	1/3/2017 10:38:17 AM	29481
Toluene	ND	0.045		mg/Kg	1	1/3/2017 10:38:17 AM	29481
Ethylbenzene	ND	0.045		mg/Kg	1	1/3/2017 10:38:17 AM	29481
Xylenes, Total	ND	0.091		mg/Kg	1	1/3/2017 10:38:17 AM	29481
Surr: 4-Bromofluorobenzene	89.6	80-120		%Rec	1	1/3/2017 10:38:17 AM	29481

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Quinn 340 S
Lab ID: 1701002-004

Client Sample ID: S-4
Collection Date: 12/30/2016 10:16:00 AM
Matrix: MEOH (SOIL)
Received Date: 12/31/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	1/3/2017 12:30:53 PM	29490
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/3/2017 12:30:53 PM	29490
Surr: DNOP	104	70-130		%Rec	1	1/3/2017 12:30:53 PM	29490
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	1/3/2017 11:01:49 AM	29481
Surr: BFB	83.4	68.3-144		%Rec	1	1/3/2017 11:01:49 AM	29481
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.022		mg/Kg	1	1/3/2017 11:01:49 AM	29481
Toluene	ND	0.044		mg/Kg	1	1/3/2017 11:01:49 AM	29481
Ethylbenzene	ND	0.044		mg/Kg	1	1/3/2017 11:01:49 AM	29481
Xylenes, Total	ND	0.089		mg/Kg	1	1/3/2017 11:01:49 AM	29481
Surr: 4-Bromofluorobenzene	88.5	80-120		%Rec	1	1/3/2017 11:01:49 AM	29481

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: S-5
Project: Quinn 340 S
Collection Date: 12/30/2016 10:20:00 AM
Lab ID: 1701002-005
Matrix: MEOH (SOIL)
Received Date: 12/31/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/3/2017 12:52:28 PM	29490
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/3/2017 12:52:28 PM	29490
Surr: DNOP	102	70-130		%Rec	1	1/3/2017 12:52:28 PM	29490
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	1/3/2017 11:25:26 AM	29481
Surr: BFB	83.2	68.3-144		%Rec	1	1/3/2017 11:25:26 AM	29481
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.022		mg/Kg	1	1/3/2017 11:25:26 AM	29481
Toluene	ND	0.045		mg/Kg	1	1/3/2017 11:25:26 AM	29481
Ethylbenzene	ND	0.045		mg/Kg	1	1/3/2017 11:25:26 AM	29481
Xylenes, Total	ND	0.089		mg/Kg	1	1/3/2017 11:25:26 AM	29481
Surr: 4-Bromofluorobenzene	87.3	80-120		%Rec	1	1/3/2017 11:25:26 AM	29481

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701002**

04-Jan-17

Client: APEX TITAN

Project: Quinn 340 S

Sample ID **LCS-29490**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **29490**	RunNo: **39783**
Prep Date: **1/3/2017**	Analysis Date: **1/3/2017**	SeqNo: **1246865** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.5	63.8	116			
Surr: DNOP	5.0		5.000		101	70	130			

Sample ID **MB-29490**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **29490**	RunNo: **39783**
Prep Date: **1/3/2017**	Analysis Date: **1/3/2017**	SeqNo: **1246866** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		106	70	130			

Sample ID **1701002-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-1**	Batch ID: **29490**	RunNo: **39783**
Prep Date: **1/3/2017**	Analysis Date: **1/3/2017**	SeqNo: **1247004** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.10	2.467	87.7	51.6	130			
Surr: DNOP	4.9		5.010		98.0	70	130			

Sample ID **1701002-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-1**	Batch ID: **29490**	RunNo: **39783**
Prep Date: **1/3/2017**	Analysis Date: **1/3/2017**	SeqNo: **1247006** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.51	2.467	88.7	51.6	130	1.92	20	
Surr: DNOP	5.2		5.051		103	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701002**

04-Jan-17

Client: APEX TITAN
Project: Quinn 340 S

Sample ID **MB-29481**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **29481**	RunNo: **39786**
Prep Date: **12/30/2016**	Analysis Date: **1/3/2017**	SeqNo: **1247192** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	820		1000		82.0	68.3	144			

Sample ID **LCS-29481**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **29481**	RunNo: **39786**
Prep Date: **12/30/2016**	Analysis Date: **1/3/2017**	SeqNo: **1247193** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	74.6	123			
Surr: BFB	890		1000		88.9	68.3	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701002**

04-Jan-17

Client: APEX TITAN
Project: Quinn 340 S

Sample ID **MB-29481**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **29481**	RunNo: **39786**
Prep Date: **12/30/2016**	Analysis Date: **1/3/2017**	SeqNo: **1247212** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		89.4	80	120			

Sample ID **LCS-29481**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **29481**	RunNo: **39786**
Prep Date: **12/30/2016**	Analysis Date: **1/3/2017**	SeqNo: **1247214** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	75.2	115			
Toluene	0.96	0.050	1.000	0	95.5	80.7	112			
Ethylbenzene	0.93	0.050	1.000	0	93.4	78.9	117			
Xylenes, Total	2.8	0.10	3.000	0	94.8	79.2	115			
Surr: 4-Bromofluorobenzene	0.94		1.000		93.9	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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: 1701002 RcptNo: 1

Received by/date: 12/31/16

Logged By: Lindsay Mangin 12/31/2016 8:00:00 AM

Completed By: Lindsay Mangin 1/3/2017 7:59:31 AM

Reviewed By: 01/03/17

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	2.1	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec N.M

Project Manager: K Summers

Laboratory: Hall Env

Address: ABQ N.M

Contact: A. Fireman

Phone:

PO/SO #:

Sampler's Name: Chad D'Hoatt

Sampler's Signature:

Lab use only
Due Date:

Temp. of coolers when received (C°): 2.1

1	2	3	4	5

Page 1 of 1

Proj. No.: 225040112234

Project Name: Quinn 340 S

No/Type of Containers

ANALYSIS REQUESTED: BTEX 8021; TPH GRO/DRO/MRO 8015; 1 PAH

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	Lab Sample ID (Lab Use Only)
S	12/30/16	1000			S-1						1		1701002-001
		1005			S-2						1		-002
		1010			S-3						1		-003
		1015			S-4						1		-004
		1020			S-5						1		-005

YES

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	12-30-16	1345		12/30/16	1345
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	12/30/16	1810		12/31/16	0800
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

Bill to Tom Long

Same Day

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 04, 2017

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Quinn 340 S OrderNo.: 1701003

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 5 sample(s) on 12/31/2016 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 **1701003**
Date Reported: **1/4/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Quinn 340 S
Lab ID: 1701003-001
Matrix: MEOH (SOIL)
Client Sample ID: SP-1
Collection Date: 12/30/2016 10:30:00 AM
Received Date: 12/31/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	1/3/2017 1:14:00 PM	29490
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/3/2017 1:14:00 PM	29490
Surr: DNOP	102	70-130		%Rec	1	1/3/2017 1:14:00 PM	29490
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	1/3/2017 11:49:07 AM	29481
Surr: BFB	85.5	68.3-144		%Rec	1	1/3/2017 11:49:07 AM	29481
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	1/3/2017 11:49:07 AM	29481
Toluene	ND	0.038		mg/Kg	1	1/3/2017 11:49:07 AM	29481
Ethylbenzene	ND	0.038		mg/Kg	1	1/3/2017 11:49:07 AM	29481
Xylenes, Total	ND	0.076		mg/Kg	1	1/3/2017 11:49:07 AM	29481
Surr: 4-Bromofluorobenzene	89.8	80-120		%Rec	1	1/3/2017 11:49:07 AM	29481

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Quinn 340 S
Lab ID: 1701003-002
Matrix: MEOH (SOIL)
Client Sample ID: SP-2
Collection Date: 12/30/2016 10:35:00 AM
Received Date: 12/31/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/3/2017 1:35:33 PM	29490
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/3/2017 1:35:33 PM	29490
Surr: DNOP	103	70-130		%Rec	1	1/3/2017 1:35:33 PM	29490
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	1/3/2017 12:12:45 PM	29481
Surr: BFB	83.8	68.3-144		%Rec	1	1/3/2017 12:12:45 PM	29481
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.022		mg/Kg	1	1/3/2017 12:12:45 PM	29481
Toluene	ND	0.043		mg/Kg	1	1/3/2017 12:12:45 PM	29481
Ethylbenzene	ND	0.043		mg/Kg	1	1/3/2017 12:12:45 PM	29481
Xylenes, Total	ND	0.087		mg/Kg	1	1/3/2017 12:12:45 PM	29481
Surr: 4-Bromofluorobenzene	88.7	80-120		%Rec	1	1/3/2017 12:12:45 PM	29481

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: SP-3
Project: Quinn 340 S
Collection Date: 12/30/2016 10:40:00 AM
Lab ID: 1701003-003
Matrix: MEOH (SOIL)
Received Date: 12/31/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	1/3/2017 1:57:00 PM	29490
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/3/2017 1:57:00 PM	29490
Surr: DNOP	105	70-130		%Rec	1	1/3/2017 1:57:00 PM	29490
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	1/3/2017 12:36:13 PM	29481
Surr: BFB	84.9	68.3-144		%Rec	1	1/3/2017 12:36:13 PM	29481
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.022		mg/Kg	1	1/3/2017 12:36:13 PM	29481
Toluene	ND	0.043		mg/Kg	1	1/3/2017 12:36:13 PM	29481
Ethylbenzene	ND	0.043		mg/Kg	1	1/3/2017 12:36:13 PM	29481
Xylenes, Total	ND	0.086		mg/Kg	1	1/3/2017 12:36:13 PM	29481
Surr: 4-Bromofluorobenzene	89.2	80-120		%Rec	1	1/3/2017 12:36:13 PM	29481

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: SP-4
Project: Quinn 340 S
Collection Date: 12/30/2016 10:45:00 AM
Lab ID: 1701003-004
Matrix: MEOH (SOIL)
Received Date: 12/31/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/3/2017 2:18:40 PM	29490
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/3/2017 2:18:40 PM	29490
Surr: DNOP	101	70-130		%Rec	1	1/3/2017 2:18:40 PM	29490
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	1/3/2017 12:59:48 PM	29481
Surr: BFB	85.3	68.3-144		%Rec	1	1/3/2017 12:59:48 PM	29481
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	1/3/2017 12:59:48 PM	29481
Toluene	ND	0.038		mg/Kg	1	1/3/2017 12:59:48 PM	29481
Ethylbenzene	ND	0.038		mg/Kg	1	1/3/2017 12:59:48 PM	29481
Xylenes, Total	ND	0.077		mg/Kg	1	1/3/2017 12:59:48 PM	29481
Surr: 4-Bromofluorobenzene	88.5	80-120		%Rec	1	1/3/2017 12:59:48 PM	29481

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Quinn 340 S
Lab ID: 1701003-005
Matrix: MEOH (SOIL)
Client Sample ID: SP-5
Collection Date: 12/30/2016 10:50:00 AM
Received Date: 12/31/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	1/3/2017 2:40:11 PM	29490
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/3/2017 2:40:11 PM	29490
Surr: DNOP	104	70-130		%Rec	1	1/3/2017 2:40:11 PM	29490
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.0		mg/Kg	1	1/3/2017 1:23:21 PM	29481
Surr: BFB	83.4	68.3-144		%Rec	1	1/3/2017 1:23:21 PM	29481
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.015		mg/Kg	1	1/3/2017 1:23:21 PM	29481
Toluene	ND	0.030		mg/Kg	1	1/3/2017 1:23:21 PM	29481
Ethylbenzene	ND	0.030		mg/Kg	1	1/3/2017 1:23:21 PM	29481
Xylenes, Total	ND	0.061		mg/Kg	1	1/3/2017 1:23:21 PM	29481
Surr: 4-Bromofluorobenzene	87.1	80-120		%Rec	1	1/3/2017 1:23:21 PM	29481

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701003**

04-Jan-17

Client: APEX TITAN
Project: Quinn 340 S

Sample ID **LCS-29490**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **29490**	RunNo: **39783**
Prep Date: **1/3/2017**	Analysis Date: **1/3/2017**	SeqNo: **1246865** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.5	63.8	116			
Surr: DNOP	5.0		5.000		101	70	130			

Sample ID **MB-29490**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **29490**	RunNo: **39783**
Prep Date: **1/3/2017**	Analysis Date: **1/3/2017**	SeqNo: **1246866** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		106	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701003**

04-Jan-17

Client: APEX TITAN

Project: Quinn 340 S

Sample ID **MB-29481**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **29481**	RunNo: **39786**
Prep Date: **12/30/2016**	Analysis Date: **1/3/2017**	SeqNo: **1247192** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	820		1000		82.0	68.3	144			

Sample ID **LCS-29481**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **29481**	RunNo: **39786**
Prep Date: **12/30/2016**	Analysis Date: **1/3/2017**	SeqNo: **1247193** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	74.6	123			
Surr: BFB	890		1000		88.9	68.3	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701003**

04-Jan-17

Client: APEX TITAN

Project: Quinn 340 S

Sample ID **MB-29481**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **29481**	RunNo: **39786**
Prep Date: **12/30/2016**	Analysis Date: **1/3/2017**	SeqNo: **1247212** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		89.4	80	120			

Sample ID **LCS-29481**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **29481**	RunNo: **39786**
Prep Date: **12/30/2016**	Analysis Date: **1/3/2017**	SeqNo: **1247214** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	75.2	115			
Toluene	0.96	0.050	1.000	0	95.5	80.7	112			
Ethylbenzene	0.93	0.050	1.000	0	93.4	78.9	117			
Xylenes, Total	2.8	0.10	3.000	0	94.8	79.2	115			
Surr: 4-Bromofluorobenzene	0.94		1.000		93.9	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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: 1701003 | RcptNo: 1

Received by/date: 12/31/16

Logged By: Lindsay Mangin 12/31/2016 8:00:00 AM

Completed By: Lindsay Mangin 1/3/2017 8:05:44 AM

Reviewed By: 01/03/17

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	2.1	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec N.m

Project Manager: K. Summers

Laboratory: Hall Env

Address: ABQ N.m

Contact: A. Fuerman

Phone:

PO/SO #:

Sampler's Name: Chad D'Agant

Sampler's Signature:

Lab use only
Due Date:

Temp. of coolers when received (C°): 2.1

1	2	3	4	5

Page 1 of 1

Proj. No.: 725010 1122341

Project Name: Quinn 340 S

No/Type of Containers

ANALYSIS REQUESTED: BTEX 8021, TPH GRO DRO LMW SVOC

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	Lab Sample ID (Lab Use Only)
S	12/30/16	1030			SP-1						1		1701003-001
		1035			SP-2						1		-002
		1040			SP-3						1		-003
		1045			SP-4						1		-004
		1050			SP-5						1		-005

NPS

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	12-30-16	1345		12/30/16	1345
	12/30/16	1810		12/31/16	0800

NOTES:

Bill to Ton Long

(Same Day)

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

Apex TITAN, Inc. • 606 S. Rio Grande, Suite A, Downstairs • Aztec, New Mexico 87410 • Office: 505-334-5200 • Fax: 505-334-5204

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: **Florance #21A**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **State of New Mexico**	Mineral Owner: **State of New Mexico**	**Serial Number: N/A**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from	North/South Line	Feet from	East/West Line	County
M	**36**	**30N**	**9W**	the **957**	North (South)	the **829**	East (West)	**San Juan**

Latitude 36.76328 **Longitude** -107.73779

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: **1/10/2017 @ 11:30 a.m.**	Date and Hour of Discovery: **1/10/2017 @ 11:30 a.m**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? Vanessa Fields – NMOCD; Brandon Foley -SLO	
By Whom?	Date and Time.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume	

OIL CONS. DIV DIST. 3
JAN 24 2017

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On December 20, 2016, Enterprise technicians discovered a gas leak on the Florance #21A pipeline. No Fluids were observed on the ground surface. The pipeline was isolated, blown down, locked out and tagged out.

Describe Area Affected and Cleanup Action: Repairs and remediation began on January 13, 2017. Enterprise will remove the contaminant mass by mechanical excavation. A third party corrective action report will be included with the "Final." C-141.

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

Signature: Jon E. Fields	OIL CONSERVATION DIVISION
Printed Name: Jon E. Fields	Approved by Environmental Specialist:
Title: Director, Environmental	Approval Date: 1/24/2017 Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval: NVF1702449270 Attached ☒
Date: 1/19/2017 Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

3

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 1/24/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number NVF1702449220 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District NM office in 30 on or before 2/24/2017. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, If any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

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 MA-5**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **BLM**	Mineral Owner: **BLM**	**Serial Number: NM080782**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from	North/South Line	Feet from	East/West Line	County
K	**35**	**30N**	**8W**	the **2213**	(South)	the **2248**	(West)	**San Juan**

OIL CONS. DIV DIST. 3

JAN 23 2017

Latitude 36.76677 Longitude -107.64616

NATURE OF RELEASE

Type of Release: Natural Gas	Volume of Release **3,174 MCF Gas**	Volume Recovered: **None**
Source of Release: Stress Crack in Weld	Date and Hour of Occurrence: **10/6/2016 @ 10:00 a.m.**	Date and Hour of Discovery: **10/6/2016 @ 10:00 a.m.**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Cory Smith – NMOCD; Whitney Thomas - BLM	
By Whom? Thomas Long	Date and Time October 7, 2016 @ 10:51 a.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On October 6, 2016, Enterprise technicians discovered a gas leak on the Lateral MA-5 pipeline. No fluids were observed on the ground surface. The pipeline was isolated, blown down, locked out and tagged out. Repairs and remediation were completed on October 13, 2016.

Describe Area Affected and Cleanup Action: The contaminant mass was removed by mechanical excavation. The final excavation measured approximately 75 feet long by 20 feet wide ranging from nine (6) to fourteen (14) feet deep. Approximately 108 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation Division approved land farm facility. A third party corrective action report is included with this "Final" C-141.

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

Signature: Jon E. Fields	OIL CONSERVATION DIVISION
Printed Name: Jon E. Fields	Approved by Environmental Specialist:
Title: Director, Environmental	Approval Date: 1/24/2017 Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval: NCS1628138433 Attached ☐
Date: 1/16/2017 Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

CORRECTIVE ACTION REPORT

Property:

Lateral MA-5 Pipeline Release (October 2016)
SW 1/4, S35 T30N R8W
San Juan County, New Mexico

December 8, 2016
Apex Project No. 725040112210

Prepared for:

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

Prepared by:

Chad D'Aponti
Project Scientist

Kyle Summers, CPG
Branch Manager/Senior Project Manager

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- **3.3 Laboratory Analytical Methods** 3

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LIST OF APPENDICES

Appendix A: Figure 1 – Topographic Map
Figure 2 – Site Vicinity Map
Figure 3 – Site Map with Soil Analytical Results

Appendix B: Executed C-138 Solid Waste Acceptance Form

Appendix C: Photographic Documentation

Appendix D: Table

Appendix E: Laboratory Analytical Reports &
Chain of Custody Documentation

APEX

CORRECTIVE ACTION REPORT

Lateral MA-5 Pipeline Release
SW 1/4, S35 T30N R8W
San Juan County, New Mexico

Apex Project No. 725040112210

1.0 INTRODUCTION

1.1 Site Description & Background

The Lateral MA-5 pipeline release site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the southwest (SW) ¼ of Section 35, Township 30 North, Range 8 West, in San Juan County, New Mexico (36.7668N, 107.6459W), referred to hereinafter as the "Site". The Site is located on land managed by the United States Bureau of Land Management (BLM). The Site is surrounded by native vegetation rangeland periodically interrupted by oil and gas gathering facilities, including the Enterprise Lateral MA-5 natural gas pipeline which traverses the area from approximately east to west.

On October 6, 2016, Enterprise personnel identified a release on the Lateral MA-5 pipeline. On October 11, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The leak was subsequently repaired by replacing 23 feet of pipe.

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

2.0 SITE RANKING

In accordance with the New Mexico 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 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 Total Ranking Score of 40. This ranking is based on the following:

- No water wells were identified near the Site on the Office of the State Engineer (OSE) website. However, based on the Sites proximity to the Escarbada Canyon Wash, the depth to groundwater at the Site is anticipated to be less than 50 feet below grade surface (bgs), resulting in a ranking score of "20" for depth to groundwater.
- No water source wells (municipal/community wells) were identified within 1,000 feet of the Site. No private domestic water sources were identified within 200 feet of the Site. These proximities result in a wellhead protection area ranking of "0".
- The Site is located adjacent to Escarbada Canyon Wash. This information supports a distance to surface water ranking score of "20".

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

On October 6, 2016, Enterprise personnel identified a release on the Lateral MA-5 pipeline. On October 11, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The leak was subsequently repaired by replacing 23 feet of pipe. During the corrective action activities, HALO Services Inc. provided heavy equipment and labor support, and an Apex environmental professional, provided environmental support.

On October 13, 2016, eight (8) composite soil samples (S-1 through S-8) were collected from the initial repair excavation. Additionally, five (5) composite stockpile soil samples (SP-1a, SP-1b, SP-2a, SP-2b and SP-3) were collected for laboratory analysis to determine the potential to reuse a portion of the soils as backfill material. Subsequent analytical results indicated that soils associated with samples S-5 and S-7 in the eastern portion of the excavation exhibited COC concentrations above OCD guidelines. Additionally, soils associated with stockpiled soil sample SP-2b exhibited COC concentrations in excess of OCD guidelines.

On October 18, 2016, the eastern base and a portion of the southern wall of the repair excavation were over-excavated to remove soils associated with samples S-5 and S-7. Over-excavation

samples S-9 and S-10 were subsequently collected for laboratory analysis. A New Mexico OCD representative was present during sampling activities.

The final excavation measured approximately 75 feet long by 20 feet wide. The depth of the excavation ranged from nine (9) feet bgs (west end) to 14 feet bgs (east end).

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

A total of approximately 108 cubic yards of hydrocarbon affected soils associated with stockpiled soil sample SP-2b and excavation samples S-5 and S-7 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 laboratory–confirmed stockpiled soils, and then contoured to surrounding grade.

Figure 3 is a Site Map with Soil Analytical Results that indicates the approximate location of the excavated area in relation to the pipeline (Appendix A). Photographic documentation of the field activities is included in Appendix C.

3.2 Soil Sampling Program

Apex screened head-space samples of the impacted soils with a photoionization detector (PID) fitted with a 10.6 eV lamp to estimate excavation limits.

Apex's soil sampling program included the collection of ten (10) composite soil samples (S-1 through S-10) from the repair excavation and five (5) composite stockpile soil samples (SP-1a, SP-1b, SP-2a, SP-2b and SP-3) for laboratory analysis.

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

3.3 Laboratory Analytical Methods

The confirmation soil samples and stockpiled soil samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA SW-846 Method #8021, and total petroleum hydrocarbons (TPH) gasoline range organics (GRO), diesel range organics (DRO), and motor oil/lube oil range organics (MRO) using EPA SW-846 Method #8015.

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

4.0 DATA EVALUATION

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. To address activities related to condensate releases, the New Mexico EMNRD OCD utilizes the *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the OCD rules, specifically NMAC 19.15.29 *Release Notification*. These guidance documents establish

investigation and abatement action requirements for sites subject to reporting and/or corrective action.

4.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or practical quantitation limits (PQLs) associated with the confirmation soil samples (S-1 through S-4, S-6, and S-8 through S-10) and stockpiled soil samples (SP-1a, SP-1b, SP-2a, and SP-3) to the OCD *RALs* for sites having a total ranking score of "40". Soils associated with confirmation samples S-5 and S-7, and stockpiled soil sample SP-2b were removed from the Site and transported to the Envirotech landfarm near Hilltop, NM for disposal/treatment, and are not included in the following discussion.

- The laboratory analyses of the confirmation samples from soils remaining in place and the reused stockpiled soils do not indicate benzene concentrations above the PQLs, which are below the OCD *RAL* of 10 milligrams per kilogram (mg/kg).

- The laboratory analyses of the confirmation samples from soils remaining in place and the reused stockpiled soils indicate total BTEX concentrations ranging from below the PQLs to 0.43 mg/kg (S-1), which are below the OCD *RAL* of 50 mg/kg.

- The laboratory analyses of the confirmation samples from soils remaining in place and the reused stockpiled soils indicate combined TPH GRO/DRO concentrations ranging from below PQLs to 41 mg/kg (S-1), which are below the OCD *RAL* of 100 mg/kg. TPH MRO analysis was requested by the OCD. The laboratory analyses of the confirmation samples from soils remaining in place and the reused stockpiled soils do not indicate TPH MRO concentrations above the laboratory PQLs.

Confirmation sample and stockpiled soil sample laboratory analytical results are provided in Table 1 in Appendix D.

5.0 FINDINGS AND RECOMMENDATIONS

The Lateral MA-5 pipeline release Site is located within the Enterprise pipeline ROW in the SW ¼ of Section 35, Township 30 North, Range 8 West, in San Juan County, New Mexico. The Site is located on land managed by the BLM. The Site is surrounded by native vegetation rangeland periodically interrupted by oil and gas gathering facilities, including the Enterprise Lateral MA-5 natural gas pipeline which traverses the area from approximately east to west.

On October 6, 2016, Enterprise personnel identified a release on the Lateral MA-5 pipeline. On October 11, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. The leak was subsequently repaired by replacing 23 feet of pipe.

- The primary objective of the environmental 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 silty sand.

- The final excavation measured approximately 75 feet long by 20 feet wide. The depth of the excavation ranged from nine (9) feet bgs (west end) to 14 feet bgs (east end).

- Prior to backfilling, ten (10) composite soil samples and five (5) stockpiled soil composite samples were collected for laboratory analyses. Based on analytical results, soils remaining in place and the reused stockpiled soils do not exhibit BTEX or TPH GRO/DRO concentrations above the OCD *RALs* for a site ranking of "40". TPH MRO was not detected above the laboratory PQLs for soils remaining at the Site.

- A total of approximately 108 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 laboratory-confirmed stockpiled soils, and then contoured to the approximate surrounding grade.

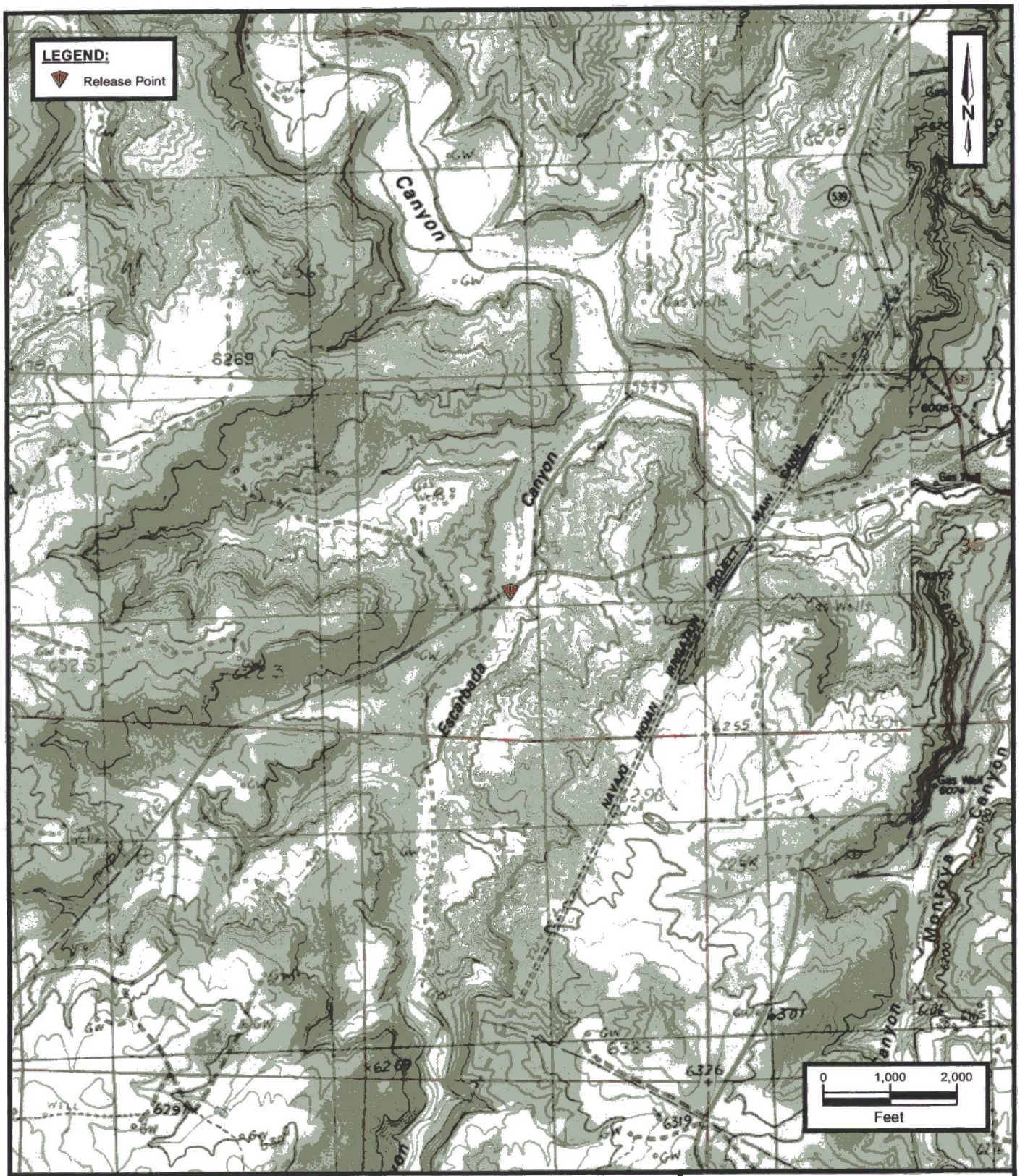
Based on the laboratory analytical results, no additional investigation or corrective action appears warranted at this time.

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 or described herein. 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 MA-5
SW 1/4 Sec35 T30N R8W
San Juan County, New Mexico
36.7668 N, 107.6459 W

Project No. 725040112210

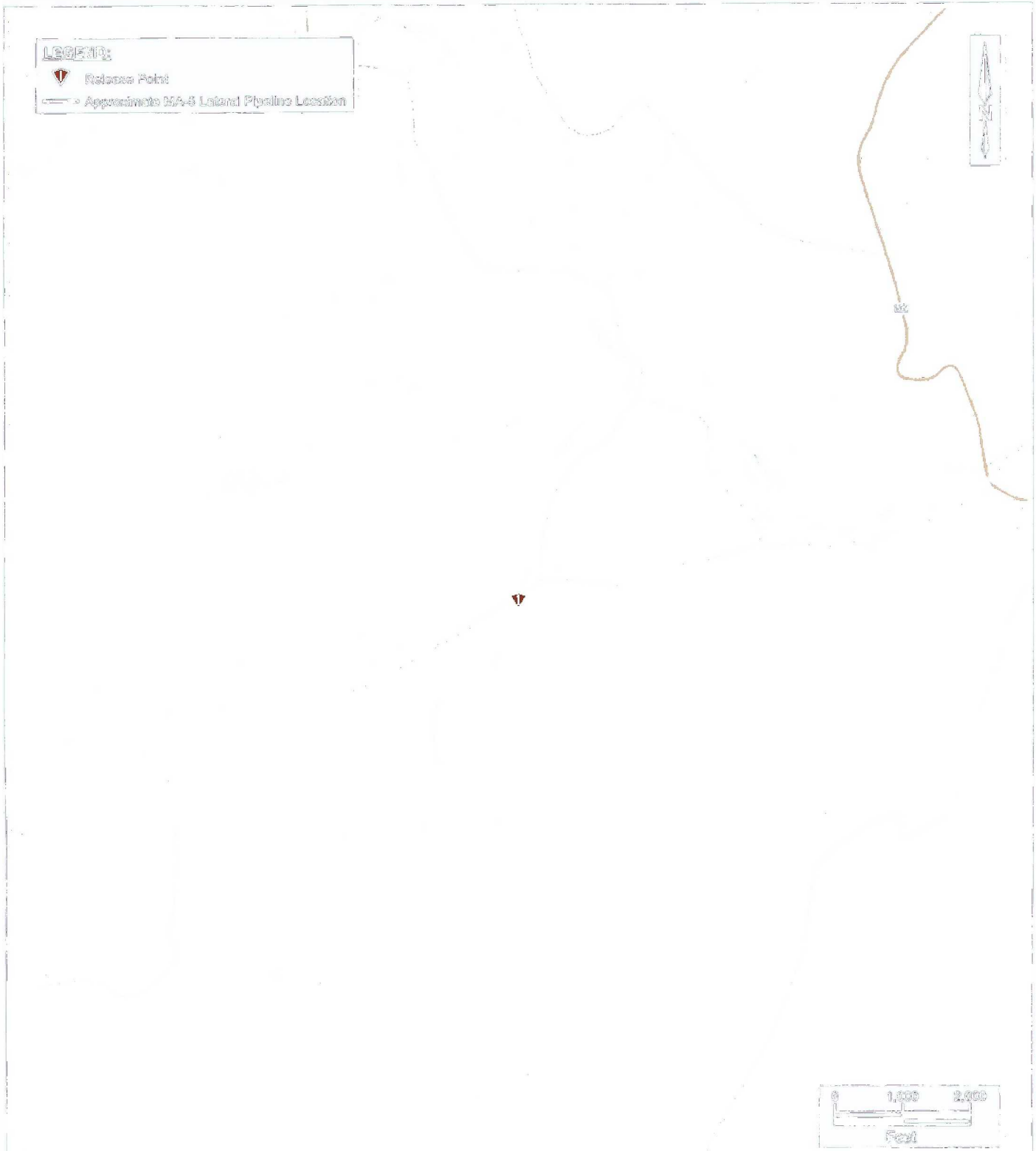
Apex TITAN, Inc.
606 South Rio Grande, Suite A
Aztec, New Mexico 87410
Phone: (505) 334-5200
www.apexcos.com
A Subsidiary of Apex Companies, LLC

FIGURE 1

Topographic Map

Service Layer Credits:
Copyright:© 2013 National Geographic Society, i-cubed, Archuleta New Mexico 7.5-Minute Quadrangle 1985

Z:\Dallas South\Drafting\2016\725040112210\Figure 1.mxd Modified 11/4/2016 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System



Leland MA-8
SW 1/4 Sec33 T30N R9W
San Juan County, New Mexico
36.7668 N, 107.6459 W

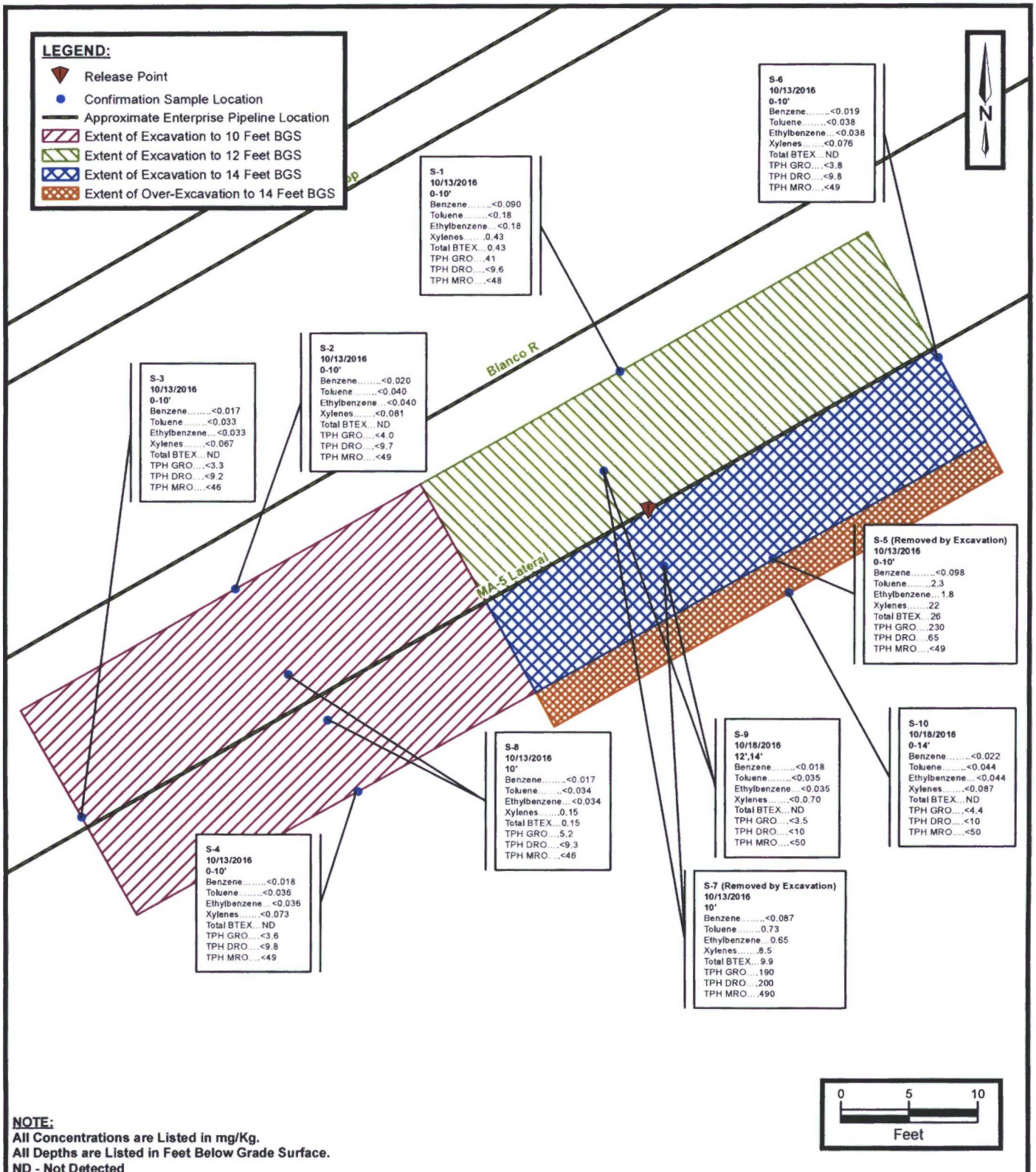
Project No. 725040112210

Apex TITAN, Inc.
609 South Rio Grande, Suite A
Aztec, New Mexico 87410
Phone: (505) 334-3339
www.apexcos.com
A Subsidiary of Apex Companies, LLC

FIGURE 2

Site Vicinity Map

Basins Layer Credits:
Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



NOTE:
All Concentrations are Listed in mg/Kg.
All Depths are Listed in Feet Below Grade Surface.
ND - Not Detected

Lateral MA-5
SW 1/4 Sec35 T30N R8W
San Juan County, New Mexico
36.7668 N, 107.6459 W

Project No. 725040112210

Apex TITAN, Inc.
606 South 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 Soil Analytical Results

Z:\Dallas South\Drafting\2016\725040112210\Figure 3.mxd Modified 12/6/2016 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System

APPENDIX B

Executed C-138 Solid Waste Acceptance form

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

State of New Mexico
Energy Minerals and Natural Resources 97057-0807
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised 08/01/11

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

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address:
Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401

2. Originating Site:
Lateral MA-5

3. Location of Material (Street Address, City, State or ULSTR):
UL K Section 35 Township 30N Range 8 West; 36.76677, -107.64616 October 2016

4. Source and Description of Waste:
Source: Hydrocarbon impacted soil from remediation activities associated with a pipeline release.
Description: Hydrocarbon impacted soil
Estimated Volume 50 (yd^3) / bbls Known Volume (to be entered by the operator at the end of the haul) 108 (yd^3) / bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Thomas Long, representative or authorized agent for Enterprise Products Operating do hereby
Generator Signature
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

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

☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

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

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long 10-12-16, representative for Enterprise Products Operating authorizes Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

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

5. Transporter: ~~**Envirotech, Inc.**~~ Riehl, Ternco, Lobato Trucking

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

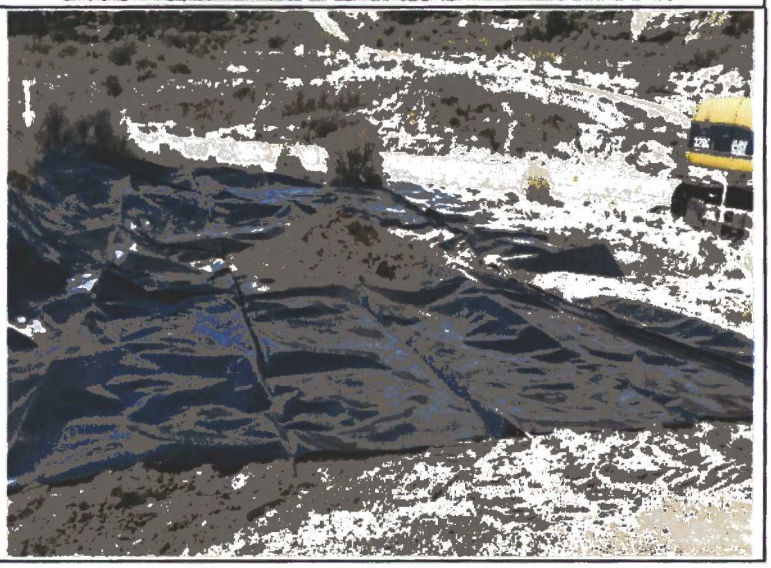
Waste Acceptance Status:

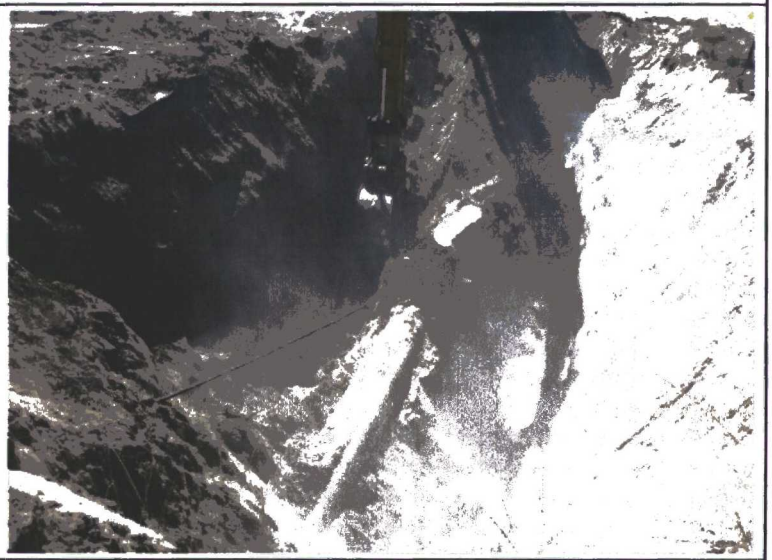
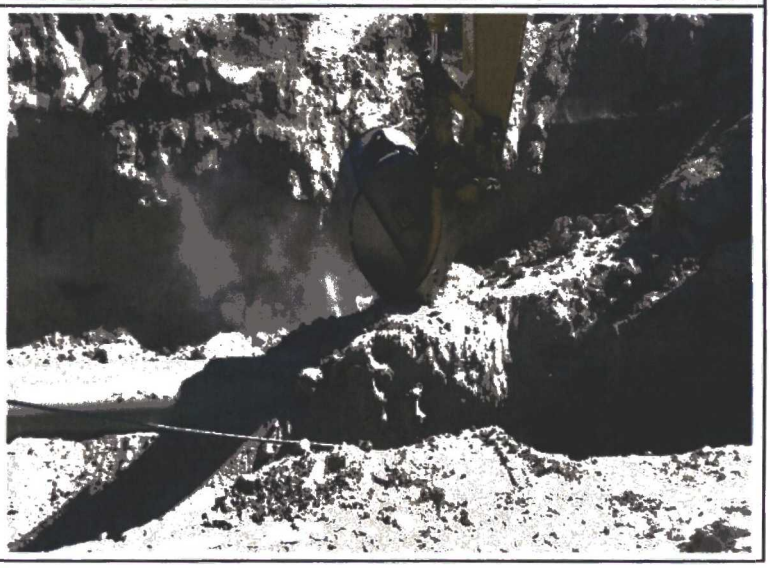
☒ **APPROVED** ☐ **DENIED (Must Be Maintained As Permanent Record)**

PRINT NAME: Greg Crabtree TITLE: Environmental Manager DATE: 10/19/16
SIGNATURE: _____ TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

APPENDIX C

Photographic Documentation

Photograph 1 View of the source area.	
Photograph 2 Beginning of corrective action activities.	
Photograph 3 Placement of excavated soil on plastic.	

Photograph 4 In-process corrective action activities.	
Photograph 5 Excavation, facing south.	
Photograph 6 Point of release.	

Photograph 7 View of excavation facing south.	
Photograph 8 View of stockpiles.	
Photograph 9 View of excavation.	

APPENDIX D

Table

APEX

TABLE 1

Lateral MA-5 Pipeline Release

SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample (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)	TPH MRO (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100		NE
Stockpile Sample - Stockpile Removed for Disposal/Treatment										
SP-2b	10.13.16	Stockpile	<0.035	0.067	0.17	2.7	2.9	**140**	**110**	<48
Samples Removed by Excavation										
S-5	10.13.16	0-10	<0.098	2.3	1.8	22	26	**230**	**65**	<49
S-7	10.13.16	10	<0.087	0.73	0.65	8.5	9.9	**190**	**200**	490
Stockpile Samples										
SP-1a	10.13.16	Stockpile	<0.018	<0.037	<0.037	<0.073	ND	<3.7	<9.8	<49
SP-1b	10.13.16	Stockpile	<0.019	<0.038	<0.038	<0.077	ND	<3.8	<9.8	<49
SP-2a	10.13.16	Stockpile	<0.018	0.11	<0.036	0.077	0.19	10	<9.6	<48
SP-3	10.13.16	Stockpile	<0.017	<0.034	<0.034	<0.067	ND	<3.4	<9.8	<49
Excavation Confirmation Samples										
S-1	10.13.16	0-10	<0.090	<0.18	<0.18	0.43	0.43	41	<9.6	<48
S-2	10.13.16	0-10	<0.020	<0.040	<0.040	<0.081	ND	<4.0	<9.7	<49
S-3	10.13.16	0-10	<0.017	<0.033	<0.033	<0.067	ND	<3.3	<9.2	<46
S-4	10.13.16	0-10	<0.018	<0.036	<0.036	<0.073	ND	<3.6	<9.8	<49
S-6	10.13.16	0-10	<0.019	<0.038	<0.038	<0.076	ND	<3.8	<9.8	<49
S-8	10.13.16	10	<0.017	<0.034	<0.034	0.15	0.15	5.2	<9.3	<46
S-9	10.18.16	12	<0.018	<0.035	<0.035	<0.0.70	ND	<3.5	<10	<50
S-10	10.18.16	14	<0.022	<0.044	<0.044	<0.087	ND	<4.4	<10	<50

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

ND = Not Detected above the Laboratory Reporting Limits

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

October 18, 2016

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Lateral MA 5 OrderNo.: 1610733

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 8 sample(s) on 10/15/2016 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 MA 5
Lab ID: 1610733-001
Client Sample ID: S-1
Collection Date: 10/13/2016 2:00:00 PM
Matrix: MEOH (SOIL)
Received Date: 10/15/2016 1:15:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	41	18		mg/Kg	5	10/17/2016 12:02:52 PM	G37987
Surr: BFB	92.7	70-130		%Rec	5	10/17/2016 12:02:52 PM	G37987
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/17/2016 11:30:13 AM	28084
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/17/2016 11:30:13 AM	28084
Surr: DNOP	95.3	70-130		%Rec	1	10/17/2016 11:30:13 AM	28084
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	ND	0.090		mg/Kg	5	10/17/2016 12:02:52 PM	S37987
Toluene	ND	0.18		mg/Kg	5	10/17/2016 12:02:52 PM	S37987
Ethylbenzene	ND	0.18		mg/Kg	5	10/17/2016 12:02:52 PM	S37987
Xylenes, Total	0.43	0.36		mg/Kg	5	10/17/2016 12:02:52 PM	S37987
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	5	10/17/2016 12:02:52 PM	S37987
Surr: 4-Bromofluorobenzene	98.8	70-130		%Rec	5	10/17/2016 12:02:52 PM	S37987
Surr: Dibromofluoromethane	103	70-130		%Rec	5	10/17/2016 12:02:52 PM	S37987
Surr: Toluene-d8	102	70-130		%Rec	5	10/17/2016 12:02:52 PM	S37987

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral MA 5
Lab ID: 1610733-002

Client Sample ID: S-2
Collection Date: 10/13/2016 3:45:00 PM
Matrix: MEOH (SOIL) **Received Date:** 10/15/2016 1:15:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	10/17/2016 1:29:12 PM	G37987
Surr: BFB	99.7	70-130		%Rec	1	10/17/2016 1:29:12 PM	G37987
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/17/2016 11:51:50 AM	28084
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/17/2016 11:51:50 AM	28084
Surr: DNOP	89.6	70-130		%Rec	1	10/17/2016 11:51:50 AM	28084
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	ND	0.020		mg/Kg	1	10/17/2016 1:29:12 PM	S37987
Toluene	ND	0.040		mg/Kg	1	10/17/2016 1:29:12 PM	S37987
Ethylbenzene	ND	0.040		mg/Kg	1	10/17/2016 1:29:12 PM	S37987
Xylenes, Total	ND	0.081		mg/Kg	1	10/17/2016 1:29:12 PM	S37987
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	10/17/2016 1:29:12 PM	S37987
Surr: 4-Bromofluorobenzene	96.3	70-130		%Rec	1	10/17/2016 1:29:12 PM	S37987
Surr: Dibromofluoromethane	107	70-130		%Rec	1	10/17/2016 1:29:12 PM	S37987
Surr: Toluene-d8	99.4	70-130		%Rec	1	10/17/2016 1:29:12 PM	S37987

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral MA 5
Lab ID: 1610733-003

Client Sample ID: S-3
Collection Date: 10/13/2016 3:50:00 PM
Matrix: MEOH (SOIL)
Received Date: 10/15/2016 1:15:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	10/17/2016 1:58:08 PM	G37987
Surr: BFB	96.5	70-130		%Rec	1	10/17/2016 1:58:08 PM	G37987
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	10/17/2016 12:13:28 PM	28084
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	10/17/2016 12:13:28 PM	28084
Surr: DNOP	89.7	70-130		%Rec	1	10/17/2016 12:13:28 PM	28084
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	ND	0.017		mg/Kg	1	10/17/2016 1:58:08 PM	S37987
Toluene	ND	0.033		mg/Kg	1	10/17/2016 1:58:08 PM	S37987
Ethylbenzene	ND	0.033		mg/Kg	1	10/17/2016 1:58:08 PM	S37987
Xylenes, Total	ND	0.067		mg/Kg	1	10/17/2016 1:58:08 PM	S37987
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	10/17/2016 1:58:08 PM	S37987
Surr: 4-Bromofluorobenzene	95.5	70-130		%Rec	1	10/17/2016 1:58:08 PM	S37987
Surr: Dibromofluoromethane	110	70-130		%Rec	1	10/17/2016 1:58:08 PM	S37987
Surr: Toluene-d8	97.7	70-130		%Rec	1	10/17/2016 1:58:08 PM	S37987

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral MA 5
Lab ID: 1610733-004

Client Sample ID: S-4
Collection Date: 10/13/2016 3:55:00 PM
Matrix: MEOH (SOIL) **Received Date:** 10/15/2016 1:15:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	10/17/2016 2:26:54 PM	G37987
Surr: BFB	102	70-130		%Rec	1	10/17/2016 2:26:54 PM	G37987
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/17/2016 12:34:59 PM	28084
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/17/2016 12:34:59 PM	28084
Surr: DNOP	92.7	70-130		%Rec	1	10/17/2016 12:34:59 PM	28084
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	ND	0.018		mg/Kg	1	10/17/2016 2:26:54 PM	S37987
Toluene	ND	0.036		mg/Kg	1	10/17/2016 2:26:54 PM	S37987
Ethylbenzene	ND	0.036		mg/Kg	1	10/17/2016 2:26:54 PM	S37987
Xylenes, Total	ND	0.073		mg/Kg	1	10/17/2016 2:26:54 PM	S37987
Surr: 1,2-Dichloroethane-d4	96.8	70-130		%Rec	1	10/17/2016 2:26:54 PM	S37987
Surr: 4-Bromofluorobenzene	97.5	70-130		%Rec	1	10/17/2016 2:26:54 PM	S37987
Surr: Dibromofluoromethane	108	70-130		%Rec	1	10/17/2016 2:26:54 PM	S37987
Surr: Toluene-d8	100	70-130		%Rec	1	10/17/2016 2:26:54 PM	S37987

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: S-5
Project: Lateral MA 5
Collection Date: 10/14/2016 2:05:00 PM
Lab ID: 1610733-005
Matrix: MEOH (SOIL)
Received Date: 10/15/2016 1:15:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	230	20		mg/Kg	5	10/17/2016 12:31:45 PM	G37987
Surr: BFB	94.5	70-130		%Rec	5	10/17/2016 12:31:45 PM	G37987
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	65	9.7		mg/Kg	1	10/17/2016 12:56:39 PM	28084
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/17/2016 12:56:39 PM	28084
Surr: DNOP	85.7	70-130		%Rec	1	10/17/2016 12:56:39 PM	28084
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	ND	0.098		mg/Kg	5	10/17/2016 12:31:45 PM	S37987
Toluene	2.3	0.20		mg/Kg	5	10/17/2016 12:31:45 PM	S37987
Ethylbenzene	1.8	0.20		mg/Kg	5	10/17/2016 12:31:45 PM	S37987
Xylenes, Total	22	0.39		mg/Kg	5	10/17/2016 12:31:45 PM	S37987
Surr: 1,2-Dichloroethane-d4	93.1	70-130		%Rec	5	10/17/2016 12:31:45 PM	S37987
Surr: 4-Bromofluorobenzene	81.7	70-130		%Rec	5	10/17/2016 12:31:45 PM	S37987
Surr: Dibromofluoromethane	95.8	70-130		%Rec	5	10/17/2016 12:31:45 PM	S37987
Surr: Toluene-d8	96.1	70-130		%Rec	5	10/17/2016 12:31:45 PM	S37987

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral MA 5
Lab ID: 1610733-006

Client Sample ID: S-6
Collection Date: 10/13/2016 2:10:00 PM
Matrix: MEOH (SOIL) **Received Date:** 10/15/2016 1:15:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	10/17/2016 2:55:45 PM	G37987
Surr: BFB	101	70-130		%Rec	1	10/17/2016 2:55:45 PM	G37987
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/17/2016 1:18:26 PM	28084
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/17/2016 1:18:26 PM	28084
Surr: DNOP	90.6	70-130		%Rec	1	10/17/2016 1:18:26 PM	28084
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	ND	0.019		mg/Kg	1	10/17/2016 2:55:45 PM	S37987
Toluene	ND	0.038		mg/Kg	1	10/17/2016 2:55:45 PM	S37987
Ethylbenzene	ND	0.038		mg/Kg	1	10/17/2016 2:55:45 PM	S37987
Xylenes, Total	ND	0.076		mg/Kg	1	10/17/2016 2:55:45 PM	S37987
Surr: 1,2-Dichloroethane-d4	98.3	70-130		%Rec	1	10/17/2016 2:55:45 PM	S37987
Surr: 4-Bromofluorobenzene	92.1	70-130		%Rec	1	10/17/2016 2:55:45 PM	S37987
Surr: Dibromofluoromethane	103	70-130		%Rec	1	10/17/2016 2:55:45 PM	S37987
Surr: Toluene-d8	102	70-130		%Rec	1	10/17/2016 2:55:45 PM	S37987

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral MA 5
Lab ID: 1610733-007

Client Sample ID: S-7
Collection Date: 10/13/2016 2:15:00 PM
Matrix: MEOH (SOIL) **Received Date:** 10/15/2016 1:15:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	190	17		mg/Kg	5	10/17/2016 3:26:57 PM	G37993
Surr: BFB	111	70-130		%Rec	5	10/17/2016 3:26:57 PM	G37993
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	200	9.1		mg/Kg	1	10/17/2016 1:40:08 PM	28084
Motor Oil Range Organics (MRO)	490	46		mg/Kg	1	10/17/2016 1:40:08 PM	28084
Surr: DNOP	106	70-130		%Rec	1	10/17/2016 1:40:08 PM	28084
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.087		mg/Kg	5	10/17/2016 3:26:57 PM	SL37993
Toluene	0.73	0.17		mg/Kg	5	10/17/2016 3:26:57 PM	SL37993
Ethylbenzene	0.65	0.17		mg/Kg	5	10/17/2016 3:26:57 PM	SL37993
Xylenes, Total	8.5	0.35		mg/Kg	5	10/17/2016 3:26:57 PM	SL37993
Surr: 1,2-Dichloroethane-d4	99.7	70-130		%Rec	5	10/17/2016 3:26:57 PM	SL37993
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	5	10/17/2016 3:26:57 PM	SL37993
Surr: Dibromofluoromethane	103	70-130		%Rec	5	10/17/2016 3:26:57 PM	SL37993
Surr: Toluene-d8	92.6	70-130		%Rec	5	10/17/2016 3:26:57 PM	SL37993

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral MA 5
Lab ID: 1610733-008

Client Sample ID: S-8
Collection Date: 10/13/2016 4:00:00 PM
Matrix: MEOH (SOIL) **Received Date:** 10/15/2016 1:15:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	5.2	3.4		mg/Kg	1	10/17/2016 3:24:35 PM	G37987
Surr: BFB	98.4	70-130		%Rec	1	10/17/2016 3:24:35 PM	G37987
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	10/17/2016 2:23:27 PM	28084
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	10/17/2016 2:23:27 PM	28084
Surr: DNOP	84.6	70-130		%Rec	1	10/17/2016 2:23:27 PM	28084
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	ND	0.017		mg/Kg	1	10/17/2016 3:24:35 PM	S37987
Toluene	ND	0.034		mg/Kg	1	10/17/2016 3:24:35 PM	S37987
Ethylbenzene	ND	0.034		mg/Kg	1	10/17/2016 3:24:35 PM	S37987
Xylenes, Total	0.15	0.068		mg/Kg	1	10/17/2016 3:24:35 PM	S37987
Surr: 1,2-Dichloroethane-d4	97.3	70-130		%Rec	1	10/17/2016 3:24:35 PM	S37987
Surr: 4-Bromofluorobenzene	88.5	70-130		%Rec	1	10/17/2016 3:24:35 PM	S37987
Surr: Dibromofluoromethane	108	70-130		%Rec	1	10/17/2016 3:24:35 PM	S37987
Surr: Toluene-d8	98.6	70-130		%Rec	1	10/17/2016 3:24:35 PM	S37987

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610733**

18-Oct-16

Client: APEX TITAN
Project: Lateral MA 5

Sample ID **LCS-28084**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **28084**			RunNo: **37981**					
Prep Date: **10/17/2016**	Analysis Date: **10/17/2016**			SeqNo: **1183848**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	62.6	124			
Surr: DNOP	4.6		5.000		91.8	70	130			

Sample ID **MB-28084**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **28084**			RunNo: **37981**					
Prep Date: **10/17/2016**	Analysis Date: **10/17/2016**			SeqNo: **1183849**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.9		10.00		98.8	70	130			

Sample ID **1610733-001AMS**	SampType: **MS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **S-1**	Batch ID: **28084**			RunNo: **37981**					
Prep Date: **10/17/2016**	Analysis Date: **10/17/2016**			SeqNo: **1184100**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.40	1.995	90.7	33.9	141			
Surr: DNOP	3.1		5.040		61.5	70	130			S

Sample ID **1610733-001AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **S-1**	Batch ID: **28084**			RunNo: **37981**					
Prep Date: **10/17/2016**	Analysis Date: **10/17/2016**			SeqNo: **1184101**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.76	1.995	90.1	33.9	141	0.121	20	
Surr: DNOP	3.1		5.076		62.0	70	130	0	0	S

Sample ID **MB-28076**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **28076**			RunNo: **37981**					
Prep Date: **10/14/2016**	Analysis Date: **10/17/2016**			SeqNo: **1184449**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.6		10.00		85.7	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610733**

18-Oct-16

Client: APEX TITAN
Project: Lateral MA 5

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **S37987**	RunNo: **37987**
Prep Date:	Analysis Date: **10/17/2016**	SeqNo: **1184091** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	96.3	70	130			
Toluene	0.97	0.050	1.000	0	97.1	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.0	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.5	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		95.7	70	130			
Surr: Toluene-d8	0.52		0.5000		104	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **S37987**	RunNo: **37987**
Prep Date:	Analysis Date: **10/17/2016**	SeqNo: **1184092** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.3	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.4	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		98.0	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Sample ID **1610733-002ams**	SampType: **MS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S-2**	Batch ID: **S37987**	RunNo: **37987**
Prep Date:	Analysis Date: **10/17/2016**	SeqNo: **1184546** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.76	0.020	0.8058	0	94.5	49.2	155			
Toluene	0.71	0.040	0.8058	0	88.0	52	154			
Surr: 1,2-Dichloroethane-d4	0.42		0.4029		104	70	130			
Surr: 4-Bromofluorobenzene	0.37		0.4029		92.7	70	130			
Surr: Dibromofluoromethane	0.43		0.4029		106	70	130			
Surr: Toluene-d8	0.40		0.4029		99.9	70	130			

Sample ID **1610733-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S-2**	Batch ID: **S37987**	RunNo: **37987**
Prep Date:	Analysis Date: **10/17/2016**	SeqNo: **1184547** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.71	0.020	0.8058	0	87.7	49.2	155	7.39	20	
Toluene	0.68	0.040	0.8058	0	84.8	52	154	3.77	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610733**

18-Oct-16

Client: APEX TITAN
Project: Lateral MA 5

Sample ID **1610733-002amsd** SampType: **MSD** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S-2** Batch ID: **S37987** RunNo: **37987**
Prep Date: Analysis Date: **10/17/2016** SeqNo: **1184547** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.38		0.4029		95.2	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.36		0.4029		90.2	70	130	0	0	
Surr: Dibromofluoromethane	0.42		0.4029		103	70	130	0	0	
Surr: Toluene-d8	0.40		0.4029		98.3	70	130	0	0	

Sample ID **rb** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **SL37993** RunNo: **37993**
Prep Date: Analysis Date: **10/17/2016** SeqNo: **1184609** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.3	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.7	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		96.3	70	130			
Surr: Toluene-d8	0.47		0.5000		94.7	70	130			

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS** Batch ID: **SL37993** RunNo: **37993**
Prep Date: Analysis Date: **10/17/2016** SeqNo: **1184610** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	1.000	0	98.9	70	130			
Toluene	1.0	0.050	1.000	0	101	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.5	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.6	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.1	70	130			
Surr: Toluene-d8	0.48		0.5000		95.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610733**

18-Oct-16

Client: APEX TITAN
Project: Lateral MA 5

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G37987**	RunNo: **37987**
Prep Date:	Analysis Date: **10/17/2016**	SeqNo: **1184027** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	62.9	123			
Surr: BFB	480		500.0		95.9	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **G37987**	RunNo: **37987**
Prep Date:	Analysis Date: **10/17/2016**	SeqNo: **1184028** 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	460		500.0		91.2	70	130			

Sample ID **1610733-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **S-2**	Batch ID: **G37987**	RunNo: **37987**
Prep Date:	Analysis Date: **10/17/2016**	SeqNo: **1184566** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	4.0	20.14	0.9106	85.1	52.3	132	3.42	20	
Surr: BFB	390		402.9		97.5	70	130	0	0	

Sample ID **1610733-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **S-2**	Batch ID: **G37987**	RunNo: **37987**
Prep Date:	Analysis Date: **10/17/2016**	SeqNo: **1184567** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	4.0	20.14	0.9106	88.2	52.3	132			
Surr: BFB	410		402.9		102	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **G37993**	RunNo: **37993**
Prep Date:	Analysis Date: **10/17/2016**	SeqNo: **1184612** 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	510		500.0		102	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G37993**	RunNo: **37993**
Prep Date:	Analysis Date: **10/17/2016**	SeqNo: **1184613** Units: **mg/Kg**

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610733**

18-Oct-16

Client: APEX TITAN
Project: Lateral MA 5

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G37993**	RunNo: **37993**
Prep Date:	Analysis Date: **10/17/2016**	SeqNo: **1184613** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	62.9	123			
Surr: BFB	510		500.0		101	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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:** 1610733 **RcptNo:** 1

Received by/date: 10/15/16

Logged By: Lindsay Mangin 10/15/2016 1:15:00 PM

Completed By: Lindsay Mangin 10/15/2016 1:57:17 PM

Reviewed By: AT 10/17/16

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	4.4	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, N.M.

Project Manager: K. Summers

Laboratory: Hall Env

Address: Aztec N.M

Contact: A. Fleeman

Phone:

PO/SO#:

Sampler's Name: Chad D'Apont

Sampler's Signature:

Proj. No.: 725040 112216

Project Name: Lateral MA-5

No/Type of Containers

ANALYSIS REQUESTED: BTEX 8021 · TPH DRO/GRO 8015 · MRO · NES

Lab use only
Due Date:

Temp. of coolers when received (C°): 4.4

1 | 2 | 3 | 4 | 5

Page 1 of 1

Matrix	Date Time	Time Date	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	~~1400 tues~~ 13:00	10/13/16			S-1						1		1610733-001
	15:45				S-2						1		-002
	15:50				S-3						1		-003
	15:55				S-4						1		-004
	14:05				S-5						1		-005
	14:10				S-6						1		-006
	14:15				S-7						1		-007
	16:00				S-8						1		-008

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☑ 100% Rush Same day

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10-14-16	1100		10/14/16	1100
	10/14/16	2014		10/15/16	1335

NOTES:

Bill to Tom Long

AFE# N26698

Same Day

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

October 20, 2016

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Lateral MA-5 OrderNo.: 1610911

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/19/2016 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 MA-5
Lab ID: 1610911-001 **Matrix:** SOIL

Client Sample ID: S-9
Collection Date: 10/18/2016 2:00:00 PM
Received Date: 10/19/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/19/2016 9:52:30 AM	28156
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/19/2016 9:52:30 AM	28156
Surr: DNOP	88.8	70-130		%Rec	1	10/19/2016 9:52:30 AM	28156
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	10/19/2016 9:59:07 AM	28140
Surr: BFB	83.3	68.3-144		%Rec	1	10/19/2016 9:59:07 AM	28140
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.018		mg/Kg	1	10/19/2016 9:59:07 AM	28140
Toluene	ND	0.035		mg/Kg	1	10/19/2016 9:59:07 AM	28140
Ethylbenzene	ND	0.035		mg/Kg	1	10/19/2016 9:59:07 AM	28140
Xylenes, Total	ND	0.070		mg/Kg	1	10/19/2016 9:59:07 AM	28140
Surr: 4-Bromofluorobenzene	94.7	80-120		%Rec	1	10/19/2016 9:59:07 AM	28140

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral MA-5
Lab ID: 1610911-002 **Matrix:** SOIL

Client Sample ID: S-10
Collection Date: 10/18/2016 2:10:00 PM
Received Date: 10/19/2016 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/19/2016 10:14:16 AM	28156
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/19/2016 10:14:16 AM	28156
Surr: DNOP	92.0	70-130		%Rec	1	10/19/2016 10:14:16 AM	28156
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	10/19/2016 10:22:34 AM	28140
Surr: BFB	85.0	68.3-144		%Rec	1	10/19/2016 10:22:34 AM	28140
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.022		mg/Kg	1	10/19/2016 10:22:34 AM	28140
Toluene	ND	0.044		mg/Kg	1	10/19/2016 10:22:34 AM	28140
Ethylbenzene	ND	0.044		mg/Kg	1	10/19/2016 10:22:34 AM	28140
Xylenes, Total	ND	0.087		mg/Kg	1	10/19/2016 10:22:34 AM	28140
Surr: 4-Bromofluorobenzene	96.9	80-120		%Rec	1	10/19/2016 10:22:34 AM	28140

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610911**

20-Oct-16

Client: APEX TITAN

Project: Lateral MA-5

Sample ID **LCS-28156**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **28156**	RunNo: **38040**
Prep Date: **10/19/2016**	Analysis Date: **10/19/2016**	SeqNo: **1186143** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.3	62.6	124			
Surr: DNOP	3.7		5.000		73.5	70	130			

Sample ID **MB-28156**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **28156**	RunNo: **38040**
Prep Date: **10/19/2016**	Analysis Date: **10/19/2016**	SeqNo: **1186144** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.9		10.00		88.7	70	130			

Sample ID **1610911-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-9**	Batch ID: **28156**	RunNo: **38040**
Prep Date: **10/19/2016**	Analysis Date: **10/19/2016**	SeqNo: **1186426** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.8	48.83	0	100	33.9	141			
Surr: DNOP	3.6		4.883		72.9	70	130			

Sample ID **1610911-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-9**	Batch ID: **28156**	RunNo: **38040**
Prep Date: **10/19/2016**	Analysis Date: **10/19/2016**	SeqNo: **1186442** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	49.75	0	107	33.9	141	8.37	20	
Surr: DNOP	3.9		4.975		78.0	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610911**

20-Oct-16

Client: APEX TITAN

Project: Lateral MA-5

Sample ID **MB-28140**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **28140**	RunNo: **38051**
Prep Date: **10/18/2016**	Analysis Date: **10/19/2016**	SeqNo: **1186883** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		84.9	68.3	144			

Sample ID **LCS-28140**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **28140**	RunNo: **38051**
Prep Date: **10/18/2016**	Analysis Date: **10/19/2016**	SeqNo: **1186884** 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	74.6	123			
Surr: BFB	920		1000		92.2	68.3	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610911**

20-Oct-16

Client: APEX TITAN

Project: Lateral MA-5

Sample ID **MB-28140**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **28140**	RunNo: **38051**
Prep Date: **10/18/2016**	Analysis Date: **10/19/2016**	SeqNo: **1186908** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		99.2	80	120			

Sample ID **LCS-28140**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **28140**	RunNo: **38051**
Prep Date: **10/18/2016**	Analysis Date: **10/19/2016**	SeqNo: **1186909** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	95.9	75.2	115			
Toluene	0.94	0.050	1.000	0	93.6	80.7	112			
Ethylbenzene	0.94	0.050	1.000	0	93.7	78.9	117			
Xylenes, Total	2.8	0.10	3.000	0	92.8	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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: 1610911 | RcptNo: 1

Received by/date: LC 10/19/16

Logged By: Anne Thorne 10/19/2016 8:00:00 AM

Completed By: Anne Thorne 10/19/2016

Reviewed By: aJ 10/19/16

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

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

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec NM

Project Manager: R Summers

Laboratory: Hall Env

Address: ABQ NM

Contact: A. Fireman

Phone:

PO/SO #:

Sampler's Name: Chad D'Antri

Sampler's Signature:

Proj. No.: 03A-10-1220

Project Name: Lateral MA-5

ANALYSIS REQUESTED: BTEX 8021 / TPH DRO / GRO 8015 / NRO

Lab use only
Due Date:

Temp. of coolers when received (C°): 2.6 - CF -1.0 = 1.6

1 | 2 | 3 | 4 | 5

Page ____ of ____

Matrix	Date	Time	Composite	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No/Type of Containers: VOA	A/G 1 L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	10/18/16	1400			S-5			1	1	1			1610911-001
S	10/18/16	1410			S-10			1	1	1			-002

MA-5

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10-18-16	1530	Christine Walls	10/18/16	1530
Christine Walls	10/18/16	1920	Lindsay Concha	10/19/16	0820

NOTES:

Bill to Long

AFE # NDLG98

Sunday

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 ____

Apex TITAN, Inc. • 606 S. Rio Grande, Suite A, Downstairs • Aztec, New Mexico 87410 • Office: 505-334-5200 • Fax: 505-334-5204

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

October 18, 2016

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Lateral MA 5 OrderNo.: 1610734

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 5 sample(s) on 10/15/2016 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 MA 5
Lab ID: 1610734-002
Client Sample ID: SP-1b
Collection Date: 10/13/2016 3:00:00 PM
Matrix: MEOH (SOIL)
Received Date: 10/15/2016 1:15:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	10/17/2016 1:31:35 PM	G37993
Surr: BFB	98.8	70-130		%Rec	1	10/17/2016 1:31:35 PM	G37993
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/17/2016 2:15:31 PM	28084
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/17/2016 2:15:31 PM	28084
Surr: DNOP	97.6	70-130		%Rec	1	10/17/2016 2:15:31 PM	28084
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.019		mg/Kg	1	10/17/2016 1:31:35 PM	SL37993
Toluene	ND	0.038		mg/Kg	1	10/17/2016 1:31:35 PM	SL37993
Ethylbenzene	ND	0.038		mg/Kg	1	10/17/2016 1:31:35 PM	SL37993
Xylenes, Total	ND	0.077		mg/Kg	1	10/17/2016 1:31:35 PM	SL37993
Surr: 1,2-Dichloroethane-d4	96.5	70-130		%Rec	1	10/17/2016 1:31:35 PM	SL37993
Surr: 4-Bromofluorobenzene	97.6	70-130		%Rec	1	10/17/2016 1:31:35 PM	SL37993
Surr: Dibromofluoromethane	98.5	70-130		%Rec	1	10/17/2016 1:31:35 PM	SL37993
Surr: Toluene-d8	92.0	70-130		%Rec	1	10/17/2016 1:31:35 PM	SL37993

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral MA 5
Lab ID: 1610734-003

Client Sample ID: SP-2a
Collection Date: 10/13/2016 3:05:00 PM
Matrix: MEOH (SOIL) **Received Date:** 10/15/2016 1:15:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	10	3.6		mg/Kg	1	10/17/2016 2:29:16 PM	G37993
Surr: BFB	102	70-130		%Rec	1	10/17/2016 2:29:16 PM	G37993
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/17/2016 2:38:42 PM	28084
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/17/2016 2:38:42 PM	28084
Surr: DNOP	90.8	70-130		%Rec	1	10/17/2016 2:38:42 PM	28084
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.018		mg/Kg	1	10/17/2016 2:29:16 PM	SL37993
Toluene	0.11	0.036		mg/Kg	1	10/17/2016 2:29:16 PM	SL37993
Ethylbenzene	ND	0.036		mg/Kg	1	10/17/2016 2:29:16 PM	SL37993
Xylenes, Total	0.077	0.072		mg/Kg	1	10/17/2016 2:29:16 PM	SL37993
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	10/17/2016 2:29:16 PM	SL37993
Surr: 4-Bromofluorobenzene	96.1	70-130		%Rec	1	10/17/2016 2:29:16 PM	SL37993
Surr: Dibromofluoromethane	95.9	70-130		%Rec	1	10/17/2016 2:29:16 PM	SL37993
Surr: Toluene-d8	93.6	70-130		%Rec	1	10/17/2016 2:29:16 PM	SL37993

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral MA 5
Lab ID: 1610734-004

Client Sample ID: SP-2b
Collection Date: 10/13/2016 3:10:00 PM
Matrix: MEOH (SOIL) **Received Date:** 10/15/2016 1:15:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	140	7.0		mg/Kg	2	10/17/2016 2:58:06 PM	G37993
Surr: BFB	99.1	70-130		%Rec	2	10/17/2016 2:58:06 PM	G37993
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	110	9.7		mg/Kg	1	10/17/2016 3:01:49 PM	28084
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/17/2016 3:01:49 PM	28084
Surr: DNOP	95.7	70-130		%Rec	1	10/17/2016 3:01:49 PM	28084
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.035		mg/Kg	2	10/17/2016 2:58:06 PM	SL37993
Toluene	0.067	0.035		mg/Kg	2	10/17/2016 2:58:06 PM	SL37993
Ethylbenzene	0.17	0.035		mg/Kg	2	10/17/2016 2:58:06 PM	SL37993
Xylenes, Total	2.7	0.70		mg/Kg	2	10/17/2016 2:58:06 PM	SL37993
Surr: 1,2-Dichloroethane-d4	99.9	70-130		%Rec	2	10/17/2016 2:58:06 PM	SL37993
Surr: 4-Bromofluorobenzene	95.2	70-130		%Rec	2	10/17/2016 2:58:06 PM	SL37993
Surr: Dibromofluoromethane	101	70-130		%Rec	2	10/17/2016 2:58:06 PM	SL37993
Surr: Toluene-d8	88.7	70-130		%Rec	2	10/17/2016 2:58:06 PM	SL37993

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: SP-3
Project: Lateral MA 5
Collection Date: 10/13/2016 3:15:00 PM
Lab ID: 1610734-005
Matrix: MEOH (SOIL)
Received Date: 10/15/2016 1:15:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	10/17/2016 2:00:33 PM	G37993
Surr: BFB	98.3	70-130		%Rec	1	10/17/2016 2:00:33 PM	G37993
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/17/2016 3:24:58 PM	28084
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/17/2016 3:24:58 PM	28084
Surr: DNOP	94.4	70-130		%Rec	1	10/17/2016 3:24:58 PM	28084
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.017		mg/Kg	1	10/17/2016 2:00:33 PM	SL37993
Toluene	ND	0.034		mg/Kg	1	10/17/2016 2:00:33 PM	SL37993
Ethylbenzene	ND	0.034		mg/Kg	1	10/17/2016 2:00:33 PM	SL37993
Xylenes, Total	ND	0.067		mg/Kg	1	10/17/2016 2:00:33 PM	SL37993
Surr: 1,2-Dichloroethane-d4	98.9	70-130		%Rec	1	10/17/2016 2:00:33 PM	SL37993
Surr: 4-Bromofluorobenzene	94.7	70-130		%Rec	1	10/17/2016 2:00:33 PM	SL37993
Surr: Dibromofluoromethane	99.8	70-130		%Rec	1	10/17/2016 2:00:33 PM	SL37993
Surr: Toluene-d8	91.7	70-130		%Rec	1	10/17/2016 2:00:33 PM	SL37993

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610734**

18-Oct-16

Client: APEX TITAN
Project: Lateral MA 5

Sample ID **LCS-28084**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **28084**	RunNo: **37981**
Prep Date: **10/17/2016**	Analysis Date: **10/17/2016**	SeqNo: **1183848** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	62.6	124			
Surr: DNOP	4.6		5.000		91.8	70	130			

Sample ID **MB-28084**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **28084**	RunNo: **37981**
Prep Date: **10/17/2016**	Analysis Date: **10/17/2016**	SeqNo: **1183849** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.9		10.00		98.8	70	130			

Sample ID **LCS-28085**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **28085**	RunNo: **37982**
Prep Date: **10/17/2016**	Analysis Date: **10/17/2016**	SeqNo: **1183862** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.000		94.5	70	130			

Sample ID **MB-28085**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **28085**	RunNo: **37982**
Prep Date: **10/17/2016**	Analysis Date: **10/17/2016**	SeqNo: **1183863** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.9		10.00		89.5	70	130			

Sample ID **MB-28076**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **28076**	RunNo: **37981**
Prep Date: **10/14/2016**	Analysis Date: **10/17/2016**	SeqNo: **1184449** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.6		10.00		85.7	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610734**

18-Oct-16

Client: APEX TITAN

Project: Lateral MA 5

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **SL37993**	RunNo: **37993**
Prep Date:	Analysis Date: **10/17/2016**	SeqNo: **1184609** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.3	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.7	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		96.3	70	130			
Surr: Toluene-d8	0.47		0.5000		94.7	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **SL37993**	RunNo: **37993**
Prep Date:	Analysis Date: **10/17/2016**	SeqNo: **1184610** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	1.000	0	98.9	70	130			
Toluene	1.0	0.050	1.000	0	101	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.5	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.6	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.1	70	130			
Surr: Toluene-d8	0.48		0.5000		95.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1610734**

18-Oct-16

Client: APEX TITAN

Project: Lateral MA 5

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **G37993**	RunNo: **37993**
Prep Date:	Analysis Date: **10/17/2016**	SeqNo: **1184612** 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	510		500.0		102	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G37993**	RunNo: **37993**
Prep Date:	Analysis Date: **10/17/2016**	SeqNo: **1184613** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	62.9	123			
Surr: BFB	510		500.0		101	70	130			

Sample ID **1610734-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **SP-1a**	Batch ID: **G37993**	RunNo: **37993**
Prep Date:	Analysis Date: **10/17/2016**	SeqNo: **1184614** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	3.7	18.30	0	105	52.3	132			
Surr: BFB	370		366.0		101	70	130			

Sample ID **1610734-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **SP-1a**	Batch ID: **G37993**	RunNo: **37993**
Prep Date:	Analysis Date: **10/17/2016**	SeqNo: **1184615** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	3.7	18.30	0	106	52.3	132	1.10	20	
Surr: BFB	370		366.0		100	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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: 1610734 | RcptNo: 1

Received by/date: 10/15/16

Logged By: Lindsay Mangin 10/15/2016 1:15:00 PM

Completed By: Lindsay Mangin 10/15/2016 2:04:18 PM

Reviewed By: AT 10/17/16

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	4.4	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, N.M.

Project Manager: K. Summers

Laboratory: Hall Env

Address: ABQ N.M

Contact: A. Freeman

Phone:

PO/SO #:

Sampler's Name: Chad D'Apont

Sampler's Signature:

Proj. No.: 72504012210

Project Name: Lateral MA-5

ANALYSIS REQUESTED: BTEX 8021B; TPH DRO/GRO 8015; MRO

Lab use only
Due Date:

Temp. of coolers when received (C°): 4.2

1 | 2 | 3 | 4 | 5

Page 1 of 1

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No/Type of Containers: VOA	A/G 1 L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	10/13/16	14:55			SP-1a						1		1610734-001
		15:00			SP-1b						1		-002
		15:05			SP-2a						1		-003
		15:10			SP-2b						1		-004
		15:15			SP-3						1		-005

NFS

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10/14/16	1100	Mustafa Walter	10/14/16	1100
Mustafa Walter	10/14/16	2014		10/17/16	1315
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

Bill to Tom Long

AFE # N26698

Same Day

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: **Tafoya #1R**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **BLM**	Mineral Owner: **BLM**	**Serial Number: NM113711**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from	North/South Line	Feet from	East/West Line	County
K	**35**	**32N**	**13W**	the **1465**		the **2538**		**San Juan**

Latitude 36.93999 Longitude -108.173155

NATURE OF RELEASE

Type of Release: Natural Gas and Condensate	Volume of Release **2.13 MCF Gas; 5-7 BBLs condensate**	Volume Recovered: **None**
Source of Release: Internal Corrosion	Date and Hour of Occurrence: **1/10/2016 @ 5:45 a.m.**	Date and Hour of Discovery: **1/10/2016 @ 11:45 a.m.**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? OIL CONS. DIV DIST. 3	
By Whom?	Date and Time JAN 23 2017	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On January 10, 2016, Enterprise technicians discovered a gas leak on the Tafoya #1R pipeline. A small amount of fluids were observed on the ground surface. The pipeline was isolated, blown down, locked out and tagged out. On January 25, 2016, Enterprise made temporary repairs to the pipeline.

Describe Area Affected and Cleanup Action: On January 25, 2016, Enterprise made temporary repairs to the pipeline. Due to the inclement weather conditions, permanent repairs and remediation could not be complete. Enterprise returned to the site in December 2016 to complete the permanent repairs and remediation. The contaminant mass was removed by mechanical excavation. The final excavation measured approximately 41 feet long by 9 feet by 5.5 feet deep. Approximately 144 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation Division approved land farm facility. A third party corrective action report is included with this "Final" C-141.

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

Signature: Jon E. Fields	OIL CONSERVATION DIVISION	
Printed Name: Jon E. Fields	Approved by Environmental Specialist:	
Title: Director, Environmental	Approval Date: 1/24/2017	Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval:	Attached ☐
Date: 1/16/2017 Phone: (713)381-6684	NVF1603955604	

* Attach Additional Sheets If Necessary

CORRECTIVE ACTION REPORT

Property:

Tafoya 1R Well Tie Release
SW 1/4, S35 T32N R13W
San Juan County, New Mexico

January 4, 2017
Apex Project No. 725040112102

Prepared for:

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

Prepared by:

Ranee Deechilly
Project Scientist

Kyle Summers, CPG
Branch Manager/Senior Geologist

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APEX

CORRECTIVE ACTION REPORT

Tafoya 1R Well Tie Release
SW 1/4, S35 T32N R13W
San Juan County, New Mexico

Apex Project No. 725040112102

1.0 INTRODUCTION

1.1 Site Description & Background

The Tafoya 1R well tie release site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the southwest (SW) ¼ of Section 35, Township 32 North, Range 13 West, in San Juan County, New Mexico (36.93999N, 108.173155W), referred to hereinafter as the "Site". The Site is located on land managed by the United States Bureau of Land Management (BLM). The Site is surrounded by native vegetation rangeland periodically interrupted by oil and gas production and gathering facilities, including the Enterprise natural gas gathering well tie which traverses the area from approximately north to south.

During January 2016, Enterprise personnel identified a release on the Tafoya 1R well tie. The line was temporarily repaired by cleaning and clamping the pipe. Due to access limitations related to snow/snowmelt and road conditions, the repair excavation was subsequently backfilled with stockpiled soils pending permanent pipeline repairs and remediation at a later date. On November 28, 2016, Enterprise resumed corrective action activities to facilitate the replacement of 35 feet of pipe, and to remediate hydrocarbon impact.

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

2.0 SITE RANKING

In accordance with the New Mexico 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 to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the following table:

Ranking Criteria			Ranking Score
Depth to Groundwater	<50 feet	20	10
	50 to 99 feet	10	
	>100 feet	0	
Wellhead Protection Area • <1,000 feet from a water source, or; <200 feet from private domestic water source.	Yes	20	0
	No	0	
Distance to Surface Water Body	<200 feet	20	10
	200 to 1,000 feet	10	
	>1,000 feet	0	
Total Ranking Score			**20**

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

- The nearest water well, as identified on the Office of the State Engineer (OSE) website, is located approximately 500 meters (>4,900 feet) from the Site at a lower elevation and near a drainage feature. The private water well exhibits a reported depth to water of 35 feet below grade surface (bgs). Based on the proximity to the Site, depth to groundwater is anticipated to be between 50 feet and 100 feet bgs, resulting in a ranking score of "10" for depth to groundwater.

- No water source wells (municipal/community wells) were identified within 1,000 feet of the Site. No private domestic water sources were identified within 200 feet of the Site. These proximities result in a wellhead protection area ranking score of "0".

- The release point is located approximately 657 feet from Greenhorn Ditch, which is identified as a "blue line" on the United States Geological Society topographic map. This information supports a distance to surface water ranking score of "10".

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

During January 2016, Enterprise personnel identified a release on the Tafoya 1R well tie and initiated repair activities. During the pipeline repair and corrective action activities, HALO Services, Inc., provided heavy equipment and labor support, and Apex provided environmental support.

On January 25, 2016, Apex field screened five (5) soil samples from the initial repair excavation: one (1) soil sample from near the ground surface; and one (1) stockpile soil sample. The soil samples were screened for volatile organic compounds utilizing a photoionization detector (PID). Field screening results indicated soil impact remained in soils around the point of release. Due to access limitations related to snow/snowmelt and road conditions, the repair excavation was subsequently backfilled with stockpiled soils pending permanent pipeline repairs and remediation at a later date.

On November 28, 2016, corrective action activities resumed at the Site and a 35-foot section of pipe was replaced. Confirmation soil samples S-1 through S-8 were collected from the base and sidewalls of the expanded excavation for laboratory analysis.

The final excavation measured approximately 41 feet long by nine (9) feet wide with a depth of approximately 5.5 feet bgs.

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

A total of approximately 144 cubic yards of hydrocarbon affected soils were transported to the Industrial Ecosystems, Inc. (IEI) landfarm near Aztec, 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 the Enterprise pipeline (Appendix A). Photographic documentation of the field activities is included in Appendix C.

3.2 Soil Sampling Program

Apex screened head-space samples of the impacted soils utilizing a PID fitted with a 10.6 eV lamp to estimate excavation limits.

Apex's soil sampling program included the collection of eight (8) confirmation samples (S-1 through S-8) from the sidewalls and base of the expanded repair excavation for laboratory analysis.

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

3.3 Laboratory Analytical Methods

The confirmation soil samples were analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX) using EPA SW-846 Method #8021, and total petroleum hydrocarbons (TPH) gasoline range organics (GRO), diesel range organics (GRO), and motor oil range organics (MRO) using EPA SW-846 Method #8015.

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

4.0 DATA EVALUATION

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

4.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or practical quantitation limits (PQLs) associated with the final confirmation samples (S-1 through S-8) collected from the excavated area to the OCD *RALs* for sites having a total ranking score of "20".

- The laboratory analyses of the confirmation samples from soils remaining in place did not indicate benzene concentrations above the PQLs, which are below the OCD *RAL* of 10 milligrams per kilogram (mg/kg).
- The laboratory analyses of the confirmation samples from soils remaining in place indicate total BTEX concentrations ranging from below the PQLs to 2.3 mg/kg (S-4), which are below the OCD *RAL* of 50 mg/kg.
- The laboratory analyses of the confirmation samples collected from soils remaining in place indicate combined TPH GRO/DRO concentrations ranging from below the PQLs to 90 mg/kg (S-4), which are below the OCD *RAL* of 100 mg/kg for a Site ranking of "20".
- The laboratory analyses of the confirmation samples from soils remaining in place did not indicate TPH MRO concentrations above the PQLs.

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

5.0 FINDINGS AND RECOMMENDATIONS

The Tafoya 1R well tie pipeline release site is located within the Enterprise ROW in the SW ¼ of Section 35, Township 32 North, Range 13 West, in San Juan County, New Mexico. The Site is located on land managed by the BLM. The Site is surrounded by native vegetation rangeland periodically interrupted by oil and gas production and gathering facilities, including the Enterprise natural gas gathering well tie which traverses the area from approximately north to south.

During January 2016, Enterprise personnel identified a release on the Tafoya 1R well tie. The line was temporarily repaired by cleaning and clamping the pipe. Due to access limitations related to snow/snowmelt and road conditions, the repair excavation was subsequently backfilled with stockpiled soils pending permanent pipeline repairs and remediation at a later date. On November 28, 2016, Enterprise resumed corrective action activities to facilitate the replacement of 35 feet of pipe, and to remediate hydrocarbon impact.

- 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 silty sand and clay.
- The final excavation measured approximately 41 feet long by 9 feet wide, with a total depth of approximately 5.5 feet bgs.
- Prior to backfilling, eight (8) confirmation soil samples were collected from the resulting extended repair excavation for laboratory analyses. Based on analytical results, soils remaining in place do not exhibit BTEX or TPH GRO/DRO concentrations above the OCD *RALs* for a site ranking of "20".

- A total of approximately 144 cubic yards of hydrocarbon affected soils were transported to the IEI landfarm on near Aztec, NM for disposal/remediation. The excavation was backfilled with clean imported fill and contoured to the approximate surrounding grade.

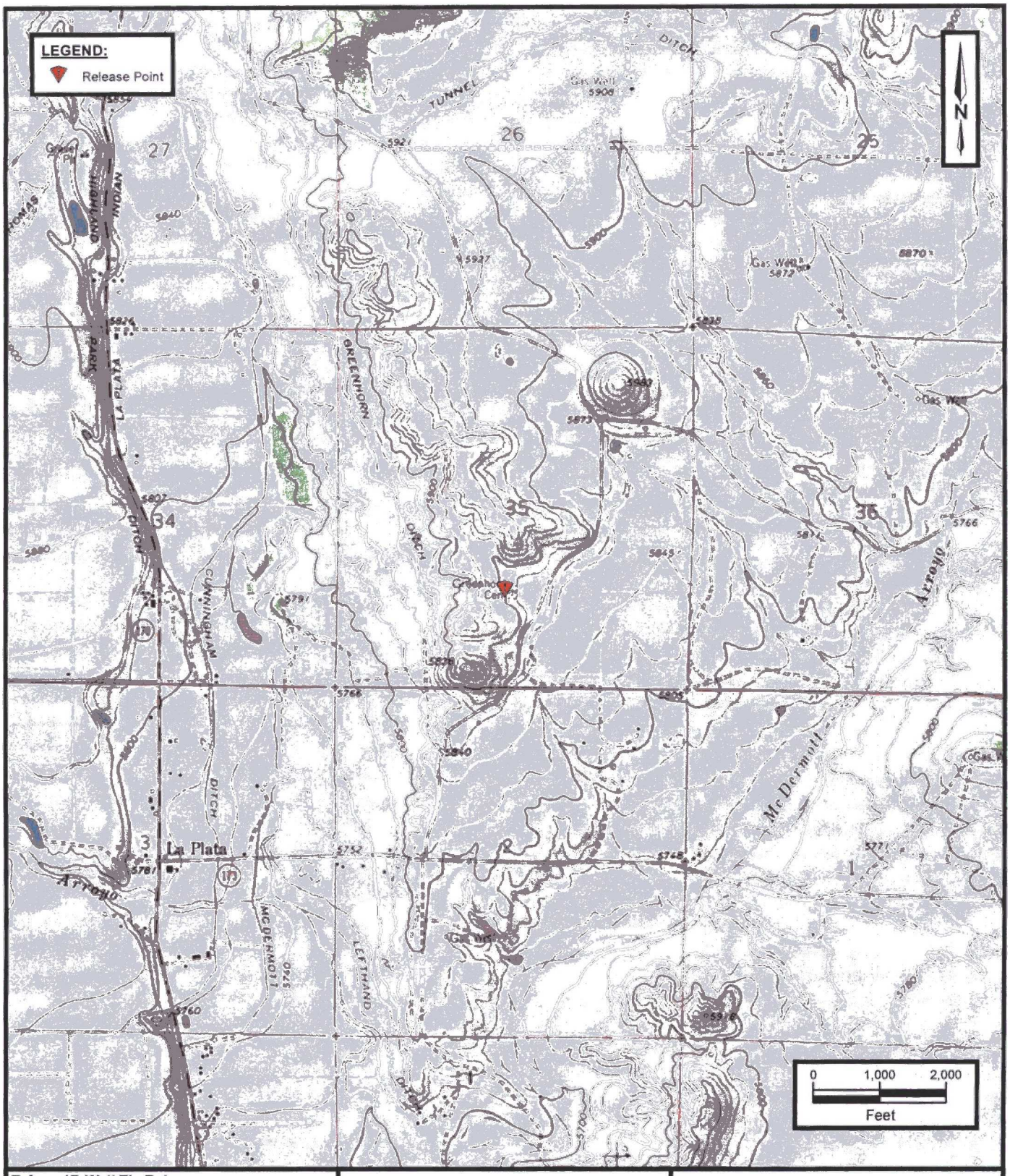
Based on the laboratory analytical results, no additional investigation or corrective action appears warranted at this time.

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 or described herein. 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.



Tafoya 1R Well Tie Release
SW 1/4 S35 T32N R13W
San Juan County, New Mexico
36.93999 N, 108.173155 W

Project No. 725040112102

Apex TITAN, Inc.
606 South 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

Service Layer Credits:
Copyright:© 2013 National Geographic Society, i-cubed, La Plata New Mexico 7.5-Minute Quadrangle 1978

Z:\Dallas South\Drafting\2016\725040112102\Figure 1.mxd Modified 12/8/2016 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System

Tafoya 1R Well Tie Release
SW 1/4 S36 T32N R13W
San Juan County, New Mexico
36.69858 N, 108.173156 W

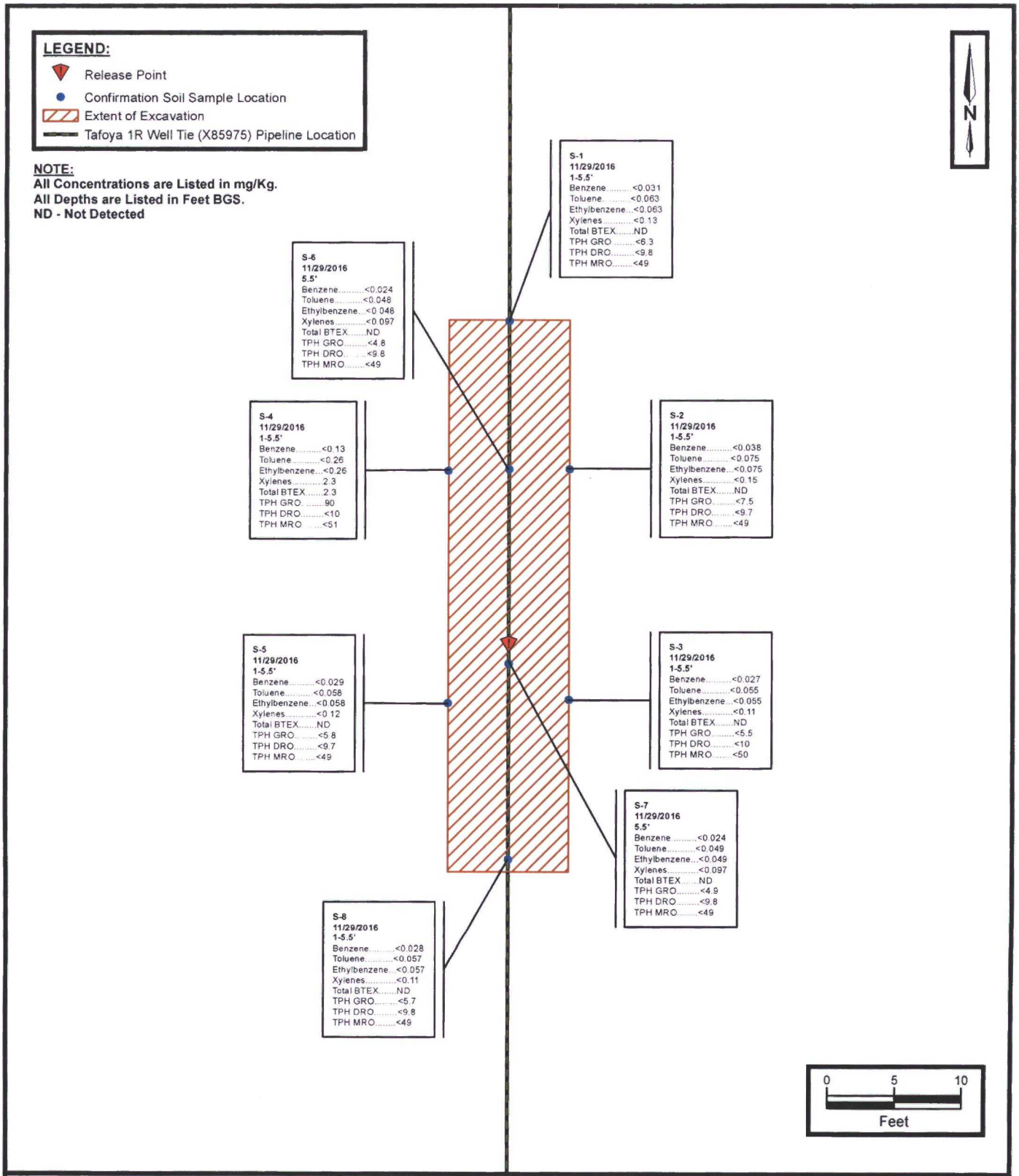
Project No. 726040112102

Apex TITAN, Inc.
606 South Rio Grande, Suite A
Aztec, New Mexico 87410
Phone: (505) 334-6200
www.apexcos.com
A Subsidiary of Apex Companies, LLC

FIGURE 2

Site Vicinity Map

Service Layer Credits:
Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, Aerial Photograph: March 2015



Tafoya 1R Well Tie Release
SW 1/4 S35 T32N R13W
San Juan County, New Mexico
36.93999 N, 108.173155 W

Project No. 725040112102

Apex TITAN, Inc.
606 South Rio Grande, Suite A
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FIGURE 3

Site Map with Soil Analytical Results

Z:\Dallas South\Drafting\2016\725040112102\Figure 3.mxd Modified 12/8/2016 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-138
Revised August 1, 2011

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

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator Name and Address:**
Enterprise Field Services, LLC, 614 Reilly Avenue, Farmington, NM 87401

2. **Originating Site:**
Tafoya #1R

3. **Location of Material (Street Address, City, State or ULSTR):**
Unit Letter P Section 35 T32N R13W; 36.93922, -108.17248, San Juan County, NM

4. **Source and Description of Waste:** Excavated soil impacted with hydrocarbons associated with a pipeline release.

5. Estimated Volume 50 (yd³) bbls Known Volume (to be entered by the operator at the end of the haul) 144 (yd³) bbls

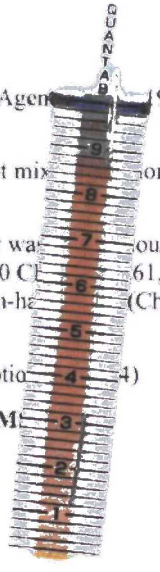
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

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 Agen 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 mix on-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 wa ous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 C 61, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-ha (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide descriptio 4)



GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARM

I, (Thomas Long) 11-30-16, representative for Enterprise Field Services, LLC authorize IEI, Inc. to
Generator Signature
complete the required testing/sign the Generator Waste Testing Certification.

I, Krystle Selph, representative for IEI, Inc. do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the 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: To Be Determined**

P#=7
CC=2120

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: JFJ Landfarm/Industrial Ecosystems, Inc. * **Permit #: NM 01-0010B**
Address of Facility: **#49 CR 2150 Aztec, New Mexico**

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

Waste Acceptance Status:

☐ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: Krystle Selph TITLE: Land Farm Administrator DATE: 12/1/16
SIGNATURE: Krystle Selph TELEPHONE NO.: 505-632-1782
Surface Waste Management Facility Authorized Agent

11/30/16

Photograph 1

View of the clamped pipeline.

Photograph 2

View of the new pipe and final excavation, facing southwest.

Photograph 3

View of the final excavation, facing south.

Photograph 4 View of the final excavation, facing northwest.	

TABLE 1
Tafoya 1R 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)	TPH MRO (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100		NE
Excavation Soil Samples										
S-1	11.29.16	1 to 5.5	<0.031	<0.063	<0.063	<0.13	ND	<6.3	<9.8	<49
S-2	11.29.16	1 to 5.5	<0.038	<0.075	<0.075	<0.15	ND	<7.5	<9.7	<49
S-3	11.29.16	1 to 5.5	<0.027	<0.055	<0.055	<0.11	ND	<5.5	<10	<50
S-4	11.29.16	1 to 5.5	<0.13	<0.26	<0.26	2.3	2.3	90	<10	<51
S-5	11.29.16	1 to 5.5	<0.029	<0.058	<0.058	<0.12	ND	<5.8	<9.7	<49
S-6	11.29.16	5.5	<0.024	<0.048	<0.048	<0.097	ND	<4.8	<9.8	<49
S-7	11.29.16	5.5	<0.024	<0.049	<0.049	<0.097	ND	<4.9	<9.8	<49
S-8	11.29.16	1 to 5.5	<0.028	<0.057	<0.057	<0.11	ND	<5.7	<9.8	<49

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

mg/kg = milligram per kilogram

ND = Not Detected above the Practical Quantitation Limits

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

December 01, 2016

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Tafoya 1R

OrderNo.: 1611D82

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 8 sample(s) on 11/30/2016 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
Client Sample ID: S-1
Project: Tafoya 1R
Collection Date: 11/29/2016 12:00:00 PM
Lab ID: 1611D82-001
Matrix: MEOH (SOIL)
Received Date: 11/30/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/30/2016 10:29:16 AM	28917
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/30/2016 10:29:16 AM	28917
Surr: DNOP	89.3	70-130		%Rec	1	11/30/2016 10:29:16 AM	28917
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	6.3		mg/Kg	1	11/30/2016 9:54:29 AM	G39049
Surr: BFB	79.7	68.3-144		%Rec	1	11/30/2016 9:54:29 AM	G39049
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.031		mg/Kg	1	11/30/2016 9:54:29 AM	B39049
Toluene	ND	0.063		mg/Kg	1	11/30/2016 9:54:29 AM	B39049
Ethylbenzene	ND	0.063		mg/Kg	1	11/30/2016 9:54:29 AM	B39049
Xylenes, Total	ND	0.13		mg/Kg	1	11/30/2016 9:54:29 AM	B39049
Surr: 4-Bromofluorobenzene	92.6	80-120		%Rec	1	11/30/2016 9:54:29 AM	B39049

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: S-2
Project: Tafoya 1R
Collection Date: 11/29/2016 12:10:00 PM
Lab ID: 1611D82-002
Matrix: MEOH (SOIL)
Received Date: 11/30/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/30/2016 10:52:12 AM	28917
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/30/2016 10:52:12 AM	28917
Surr: DNOP	85.8	70-130		%Rec	1	11/30/2016 10:52:12 AM	28917
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	7.5		mg/Kg	1	11/30/2016 10:18:04 AM	G39049
Surr: BFB	79.2	68.3-144		%Rec	1	11/30/2016 10:18:04 AM	G39049
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.038		mg/Kg	1	11/30/2016 10:18:04 AM	B39049
Toluene	ND	0.075		mg/Kg	1	11/30/2016 10:18:04 AM	B39049
Ethylbenzene	ND	0.075		mg/Kg	1	11/30/2016 10:18:04 AM	B39049
Xylenes, Total	ND	0.15		mg/Kg	1	11/30/2016 10:18:04 AM	B39049
Surr: 4-Bromofluorobenzene	89.9	80-120		%Rec	1	11/30/2016 10:18:04 AM	B39049

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Tafoya 1R
Lab ID: 1611D82-003
Client Sample ID: S-3
Collection Date: 11/29/2016 12:20:00 PM
Matrix: MEOH (SOIL)
Received Date: 11/30/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/30/2016 11:06:36 AM	28917
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/30/2016 11:06:36 AM	28917
Surr: DNOP	90.9	70-130		%Rec	1	11/30/2016 11:06:36 AM	28917
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.5		mg/Kg	1	11/30/2016 10:41:39 AM	G39049
Surr: BFB	78.5	68.3-144		%Rec	1	11/30/2016 10:41:39 AM	G39049
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.027		mg/Kg	1	11/30/2016 10:41:39 AM	B39049
Toluene	ND	0.055		mg/Kg	1	11/30/2016 10:41:39 AM	B39049
Ethylbenzene	ND	0.055		mg/Kg	1	11/30/2016 10:41:39 AM	B39049
Xylenes, Total	ND	0.11		mg/Kg	1	11/30/2016 10:41:39 AM	B39049
Surr: 4-Bromofluorobenzene	88.6	80-120		%Rec	1	11/30/2016 10:41:39 AM	B39049

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: S-4
Project: Tafoya 1R
Collection Date: 11/29/2016 12:30:00 PM
Lab ID: 1611D82-004
Matrix: MEOH (SOIL)
Received Date: 11/30/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/30/2016 11:24:00 AM	28917
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	11/30/2016 11:24:00 AM	28917
Surr: DNOP	97.2	70-130		%Rec	1	11/30/2016 11:24:00 AM	28917
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	90	26		mg/Kg	5	11/30/2016 11:08:33 AM	G39049
Surr: BFB	146	68.3-144	S	%Rec	5	11/30/2016 11:08:33 AM	G39049
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.13		mg/Kg	5	11/30/2016 11:08:33 AM	B39049
Toluene	ND	0.26		mg/Kg	5	11/30/2016 11:08:33 AM	B39049
Ethylbenzene	ND	0.26		mg/Kg	5	11/30/2016 11:08:33 AM	B39049
Xylenes, Total	2.3	0.52		mg/Kg	5	11/30/2016 11:08:33 AM	B39049
Surr: 4-Bromofluorobenzene	99.2	80-120		%Rec	5	11/30/2016 11:08:33 AM	B39049

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Tafoya 1R
Lab ID: 1611D82-005
Matrix: MEOH (SOIL)
Client Sample ID: S-5
Collection Date: 11/29/2016 12:40:00 PM
Received Date: 11/30/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/30/2016 11:02:35 AM	28917
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/30/2016 11:02:35 AM	28917
Surr: DNOP	97.9	70-130		%Rec	1	11/30/2016 11:02:35 AM	28917
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.8		mg/Kg	1	11/30/2016 11:32:06 AM	G39049
Surr: BFB	85.2	68.3-144		%Rec	1	11/30/2016 11:32:06 AM	G39049
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.029		mg/Kg	1	11/30/2016 11:32:06 AM	B39049
Toluene	ND	0.058		mg/Kg	1	11/30/2016 11:32:06 AM	B39049
Ethylbenzene	ND	0.058		mg/Kg	1	11/30/2016 11:32:06 AM	B39049
Xylenes, Total	ND	0.12		mg/Kg	1	11/30/2016 11:32:06 AM	B39049
Surr: 4-Bromofluorobenzene	94.1	80-120		%Rec	1	11/30/2016 11:32:06 AM	B39049

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: S-6
Project: Tafoya 1R
Collection Date: 11/29/2016 12:50:00 PM
Lab ID: 1611D82-006
Matrix: MEOH (SOIL)
Received Date: 11/30/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/30/2016 10:41:06 AM	28917
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/30/2016 10:41:06 AM	28917
Surr: DNOP	97.5	70-130		%Rec	1	11/30/2016 10:41:06 AM	28917
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/30/2016 11:55:39 AM	G39049
Surr: BFB	83.3	68.3-144		%Rec	1	11/30/2016 11:55:39 AM	G39049
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/30/2016 11:55:39 AM	B39049
Toluene	ND	0.048		mg/Kg	1	11/30/2016 11:55:39 AM	B39049
Ethylbenzene	ND	0.048		mg/Kg	1	11/30/2016 11:55:39 AM	B39049
Xylenes, Total	ND	0.097		mg/Kg	1	11/30/2016 11:55:39 AM	B39049
Surr: 4-Bromofluorobenzene	95.0	80-120		%Rec	1	11/30/2016 11:55:39 AM	B39049

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: S-7
Project: Tafoya 1R
Collection Date: 11/29/2016 1:00:00 PM
Lab ID: 1611D82-007
Matrix: MEOH (SOIL)
Received Date: 11/30/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/30/2016 10:19:37 AM	28917
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/30/2016 10:19:37 AM	28917
Surr: DNOP	99.3	70-130		%Rec	1	11/30/2016 10:19:37 AM	28917
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/30/2016 12:19:17 PM	G39049
Surr: BFB	83.3	68.3-144		%Rec	1	11/30/2016 12:19:17 PM	G39049
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	11/30/2016 12:19:17 PM	B39049
Toluene	ND	0.049		mg/Kg	1	11/30/2016 12:19:17 PM	B39049
Ethylbenzene	ND	0.049		mg/Kg	1	11/30/2016 12:19:17 PM	B39049
Xylenes, Total	ND	0.097		mg/Kg	1	11/30/2016 12:19:17 PM	B39049
Surr: 4-Bromofluorobenzene	94.5	80-120		%Rec	1	11/30/2016 12:19:17 PM	B39049

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: S-8
Project: Tafoya 1R
Collection Date: 11/29/2016 1:10:00 PM
Lab ID: 1611D82-008
Matrix: MEOH (SOIL)
Received Date: 11/30/2016 7:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/30/2016 9:58:00 AM	28917
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/30/2016 9:58:00 AM	28917
Surr: DNOP	98.2	70-130		%Rec	1	11/30/2016 9:58:00 AM	28917
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.7		mg/Kg	1	11/30/2016 12:42:50 PM	G39049
Surr: BFB	83.6	68.3-144		%Rec	1	11/30/2016 12:42:50 PM	G39049
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.028		mg/Kg	1	11/30/2016 12:42:50 PM	B39049
Toluene	ND	0.057		mg/Kg	1	11/30/2016 12:42:50 PM	B39049
Ethylbenzene	ND	0.057		mg/Kg	1	11/30/2016 12:42:50 PM	B39049
Xylenes, Total	ND	0.11		mg/Kg	1	11/30/2016 12:42:50 PM	B39049
Surr: 4-Bromofluorobenzene	96.9	80-120		%Rec	1	11/30/2016 12:42:50 PM	B39049

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611D82**

01-Dec-16

Client: APEX TITAN
Project: Tafoya 1R

Sample ID **LCS-28917**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **28917**	RunNo: **39041**
Prep Date: **11/30/2016**	Analysis Date: **11/30/2016**	SeqNo: **1221240** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.4	62.6	124			
Surr: DNOP	4.3		5.000		86.9	70	130			

Sample ID **MB-28917**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **28917**	RunNo: **39041**
Prep Date: **11/30/2016**	Analysis Date: **11/30/2016**	SeqNo: **1221241** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.5		10.00		84.8	70	130			

Sample ID **1611D82-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-1**	Batch ID: **28917**	RunNo: **39041**
Prep Date: **11/30/2016**	Analysis Date: **11/30/2016**	SeqNo: **1221275** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.5	47.71	5.448	85.7	51.6	130			
Surr: DNOP	4.3		4.771		89.9	70	130			

Sample ID **1611D82-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-1**	Batch ID: **28917**	RunNo: **39041**
Prep Date: **11/30/2016**	Analysis Date: **11/30/2016**	SeqNo: **1221276** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.8	48.78	5.448	83.4	51.6	130	0.489	20	
Surr: DNOP	4.4		4.878		90.3	70	130	0	0	

Sample ID **LCS-28883**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **28883**	RunNo: **39041**
Prep Date: **11/29/2016**	Analysis Date: **11/30/2016**	SeqNo: **1221613** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.2		5.000		84.0	70	130			

Sample ID **MB-28883**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **28883**	RunNo: **39041**
Prep Date: **11/29/2016**	Analysis Date: **11/30/2016**	SeqNo: **1221614** Units: **%Rec**

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611D82**

01-Dec-16

Client: APEX TITAN
Project: Tafoya 1R

Sample ID	MB-28883	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	28883		RunNo:	39041				
Prep Date:	11/29/2016	Analysis Date:	11/30/2016		SeqNo:	1221614	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.7		10.00		86.6	70	130			

Sample ID	LCS-28884	SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	28884		RunNo:	39042				
Prep Date:	11/29/2016	Analysis Date:	11/30/2016		SeqNo:	1221620	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.8		5.000		95.3	70	130			

Sample ID	MB-28884	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	28884		RunNo:	39042				
Prep Date:	11/29/2016	Analysis Date:	11/30/2016		SeqNo:	1221621	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.9		10.00		88.9	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611D82**

01-Dec-16

Client: APEX TITAN
Project: Tafoya 1R

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **G39049**	RunNo: **39049**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1221778** 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	810		1000		80.7	68.3	144			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G39049**	RunNo: **39049**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1221780** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.7	74.6	123			
Surr: BFB	870		1000		86.9	68.3	144			

Sample ID **1611D82-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-1**	Batch ID: **G39049**	RunNo: **39049**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1221781** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	6.3	31.33	0	87.0	61.3	150			
Surr: BFB	1100		1253		88.7	68.3	144			

Sample ID **1611D82-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-1**	Batch ID: **G39049**	RunNo: **39049**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1221782** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	6.3	31.33	0	84.8	61.3	150	2.52	20	
Surr: BFB	1100		1253		91.6	68.3	144	0	0	

Sample ID **MB-28881**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **28881**	RunNo: **39049**
Prep Date: **11/29/2016**	Analysis Date: **11/30/2016**	SeqNo: **1221783** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	820		1000		81.6	68.3	144			

Sample ID **LCS-28881**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **28881**	RunNo: **39049**
Prep Date: **11/29/2016**	Analysis Date: **11/30/2016**	SeqNo: **1221784** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	900		1000		90.2	68.3	144			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611D82**

01-Dec-16

Client: APEX TITAN
Project: Tafoya 1R

Sample ID **RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B39049**	RunNo: **39049**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1221806** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.91		1.000		91.0	80	120			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B39049**	RunNo: **39049**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1221808** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.025	1.000	0	116	75.2	115			S
Toluene	1.0	0.050	1.000	0	101	80.7	112			
Ethylbenzene	0.96	0.050	1.000	0	95.6	78.9	117			
Xylenes, Total	2.8	0.10	3.000	0	93.7	79.2	115			
Surr: 4-Bromofluorobenzene	0.97		1.000		97.0	80	120			

Sample ID **1611D82-002AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S-2**	Batch ID: **B39049**	RunNo: **39049**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1221809** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.4	0.038	1.502	0	93.0	61.5	138			
Toluene	1.3	0.075	1.502	0.02183	84.2	71.4	127			
Ethylbenzene	1.2	0.075	1.502	0	82.5	70.9	132			
Xylenes, Total	3.7	0.15	4.504	0.06508	81.3	76.2	123			
Surr: 4-Bromofluorobenzene	1.5		1.502		102	80	120			

Sample ID **1611D82-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S-2**	Batch ID: **B39049**	RunNo: **39049**
Prep Date:	Analysis Date: **11/30/2016**	SeqNo: **1221810** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.4	0.038	1.502	0	95.7	61.5	138	2.86	20	
Toluene	1.3	0.075	1.502	0.02183	85.3	71.4	127	1.33	20	
Ethylbenzene	1.2	0.075	1.502	0	81.9	70.9	132	0.693	20	
Xylenes, Total	3.7	0.15	4.504	0.06508	80.9	76.2	123	0.500	20	
Surr: 4-Bromofluorobenzene	1.5		1.502		101	80	120	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1611D82**

01-Dec-16

Client: APEX TITAN

Project: Tafoya 1R

Sample ID **MB-28881**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **28881**	RunNo: **39049**
Prep Date: **11/29/2016**	Analysis Date: **11/30/2016**	SeqNo: **1221811** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.95		1.000		95.0	80	120			

Sample ID **LCS-28881**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **28881**	RunNo: **39049**
Prep Date: **11/29/2016**	Analysis Date: **11/30/2016**	SeqNo: **1221812** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		99.3	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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: 1611D87 RcptNo: 1

Received by/date: LC 11/30/16

Logged By: Lindsey Cowdrey 11/30/2016 7:45:00 AM

Completed By: Lindsey Cowdrey 11/30/16

Reviewed By: [illegible] 11/30/16

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: K. Summers

Laboratory: Hall

Address: ABQ, NM

Contact:

Phone:

PO/SO #:

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: Ranee Deechilly

Sampler's Signature: Ranee Deechilly

Proj. No.

Project Name: Tafoya 1R

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)
S	11/29/16	1200	X		S-1						1		1611D82-001
		1210			S-2								-002
		1220			S-3								-003
		1230			S-4								-004
		1240			S-5								-005
		1250			S-6								-006
		1300			S-7								-007
		1310			S-8								-008

ANALYSIS REQUESTED: BTEX (8021B) / TPH (8015) DRO/MRO

NFS

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Ranee Deechilly	11/29/16	1616	Brent Wacaster	11/29/16	1616
Brent Wacaster	11/29/16	1746	Lindsey Cordova	11/30/16	0745
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

Bill to Tom Long (EPROD)
Non AFE [redacted] PD
N 23913

SAME DAY RUSH

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

Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: **Lateral 10D-1**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **Navajo Nation/NAPI**	Mineral Owner: **Navajo Nation/NAPI**	Serial Number: **N/A**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from	North/South Line	Feet from	East/West Line	County
H	**12**	**26N**	**12W**	the **2421**		the **1183**		**San Juan**

OIL CONS. DIV DIST. 3

OCT 2 0 2016

Latitude 36.503232 Longitude -108.058097

NATURE OF RELEASE

Type of Release: Natural Gas/Dry Gas Release	Volume of Release **9.75 MCF Gas**	Volume Recovered: **None**
Source of Release: Internal Corrosion of the Pipeline	Date and Hour of Occurrence: **7/29/2016 @ 10:30 a.m.**	Date and Hour of Discovery: **7/29/2016 @ 10:30 a.m.**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Cory Smith – NMOCD, Steve Austin – NNEPA and Mike Freeman - NAPI	
By Whom? Thomas Long	Date and Time 7/29/2016 @ 11:21 a.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On July 29, 2016, Enterprise technician discovered gas leaks from on the Lateral 10D-1 pipeline. The pipeline was isolated, blown down, locked out and tagged out. No fluids were observed on the ground surface. Repairs were completed on August 10, 2016.

Describe Area Affected and Cleanup Action: No subsurface environmental impact was observed. All excavated soil was used as backfill material. 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 E. Fields	OIL CONSERVATION DIVISION
Printed Name: Jon E. Fields	Approved by Environmental Specialist:
Title: Director, Field Environmental	Approval Date: 1/25/17 Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval: — Attached ☐
Date: 10/10/2016 Phone: (713)381-6684	

* Attach Additional Sheets If Necessary #nvf1622552004

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CORRECTIVE ACTION REPORT

Property:

Lateral 10D-1 (July 2016) Pipeline Release
NE 1/4, S12 T26N R12W
San Juan County, New Mexico

September 7, 2016
Apex Project No. 725040112190

Prepared for:

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

Prepared by:

Ranee Deechilly
Project Scientist

Kyle Summers, CPG
Branch Manager/Senior Project Manager

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Figure 3 Site Map
Figure 3A Soil Analytical Results (Excavation 1)
Figure 3B Soil Analytical Results (Excavation 2)
Figure 3C Soil Analytical Results (Excavation 3)
Figure 3D Soil Analytical Results (Excavation 4)
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Appendix B: Photographic Documentation

Appendix C: Table

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APEX

CORRECTIVE ACTION REPORT

Lateral 10D-1 (July 2016) Pipeline Release
NE 1/4, S12 T26N R12W
San Juan County, New Mexico

Apex Project No. 725040112190

1.0 INTRODUCTION

1.1 Site Description & Background

The Lateral 10D-1 (July 2016) pipeline release is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the northeast (NE) ¼ of Section 12, Township 26 North, Range 12 West, in San Juan County, New Mexico, referred to hereinafter as the "Site".

Geospatial Positioning Coordinates (GPS)

- Release 1: 36.50394N, 108.05952W
- Release 2: 36.50393N, 108.05951W
- Release 3: 36.50387N, 108.05942W
- Release 4: 36.50386N, 108.05938W
- Release 5: 36.50386N, 108.05937W
- Release 6: 36.50354N, 108.05871W
- Release 7: 36.50328N, 108.05808W
- Release 8: 36.50310N, 108.05772W

The Site is located in a cultivated Navajo Agriculture Products Industry (NAPI) field within the Navajo Nation. An Enterprise natural gas pipeline transects the NAPI field from the southeast to northwest.

On July 29, 2016, Enterprise personnel identified suspected leaks on the Lateral 10D-1 pipeline during a line patrol. The surface expression of the leaks were characterized by distressed vegetation at three locations in close proximity to each other along a 700-foot section of the pipeline. Beginning on August 9, 2016, Enterprise initiated excavation activities to identify the suspected leaks, facilitate pipeline repairs, and remediate potential hydrocarbon impact. Eight (8) leaks were identified and subsequently repaired.

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

2.0 SITE RANKING

The Site is subject to regulatory oversight by the Navajo Nation Environmental Protection Agency (NNEPA) and the New Mexico OCD. In the absence of published NNEPA regulatory guidance, Apex TITAN, Inc. (Apex) references the New Mexico ENMRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases.* 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	**0**
	200 to 1,000 feet	10	
	>1,000 feet	0	
Total Ranking Score			**20**

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

- No water wells were identified on the OSE website. However based on the Site location in an irrigated NAPI field, and information from previous Enterprise remediation work in the area, the depth to groundwater at the Site is anticipated to be less than 50 feet below grade surface (bgs), resulting in a ranking of "20" for depth to groundwater.
- No water source wells (municipal/community wells) were identified within 1,000 feet of the Site. No private domestic water sources were identified within 200 feet of the Site. These proximities result in a wellhead protection area ranking of "0".
- The Site is located approximately 1,530 feet southeast of a small ephemeral wash that is identified as a "blue line" on the United States Geological Society topographic map. This information supports a distance to surface water ranking of "0".

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

On July 29, 2016, Enterprise personnel identified suspected leaks on the Lateral 10D-1 pipeline during a line patrol. The surface expression of the leaks were characterized by distressed vegetation at three locations in close proximity to each other along a 700-foot section of the pipeline. Beginning on August 9, 2016, Enterprise initiated excavation activities to identify the suspected leaks, facilitate pipeline repairs, and remediate potential hydrocarbon impact. Eight (8) leaks were identified and subsequently repaired. During the corrective action activities, West States Energy Contractors provided heavy equipment and labor support, and Ranee Deechilly and Chad D'Aponti, Apex environmental professionals, provided environmental support.

Field data and observations from the excavation activities indicate that the environmental impact from the pipeline releases consisted predominantly of dry gas trapped in the silty sands. On August 10, 2016, a total of 31 confirmation soil samples were collected from the repair excavations (Excavations 1 through 5). Additionally, a total of eleven (11) soil samples were collected from the stockpiled soils to evaluate its potential for reuse as backfill.

The first excavation measured approximately 42 feet long by 12 feet wide, with a total depth of approximately eight (8) feet bgs.

The second excavation measured approximately 30 feet long by 12 feet wide, with a total depth of approximately eight (8) feet bgs.

The third excavation measured approximately 25 feet long by 12 feet wide, with a total depth of approximately 11 feet bgs.

The fourth excavation measured approximately 22 feet long by 12 feet wide, with a total depth of approximately 12.5 feet bgs.

The fifth excavation measured approximately 25 feet long by 12 feet wide, with a total depth of approximately eight (8) feet bgs.

The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated sand and silty sand, with cemented silty sand at the points of release.

The excavation was backfilled with laboratory–confirmed stockpiled soils and then contoured to surrounding grade.

Figure 3A through Figure 3E are site maps that indicate the approximate location of the excavated areas and associated stockpiles in relation to the Enterprise pipeline (Appendix A). Photographic documentation of the field activities is included in Appendix B.

3.2 Soil Sampling Program

Apex screened head-space samples of the impacted soils with a photoionization detector (PID) fitted with a 10.6 eV lamp to estimate excavation limits.

Apex's soil sampling program included the collection of 31 confirmation soil samples from the five (5) repair excavations and 11 soil samples from the associated stockpiles for laboratory analysis. The following table identifies the confirmation and stockpile sample associations by excavation number:

Excavation #	Associated Samples
1	EX1-1 through EX1-8, EX1-SP1 and EX1-SP2
2	EX2-1 through EX2-8, EX2-SP1 through EX2-SP3
3	EX3-1 through EX3-5, EX3-SP1 and EX3-SP2
4	EX4-1 through EX4-5, EX4-SP1 and EX4-SP2
5	EX5-1 through EX5-5, EX5-SP1 and EX5-SP2

Figure 3 depicts the approximate relative locations of the excavated areas, and Figures 3A through 3E provide the final confirmation sample locations in relation to the final excavation dimensions (Appendix A).

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

3.3 Laboratory Analytical Methods

The confirmation soil samples and stockpiled soil samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA SW-846 Method #8021, and total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (GRO) using EPA SW-846 Method #8015.

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 NNEPA and the New Mexico OCD. In the absence of published NNEPA regulatory guidance, Apex referenced the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the OCD rules, specifically New Mexico Administrative Code 19.15.29 *Release Notification*. These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action.

4.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or practical quantitation limits (PQLs) associated with the final confirmation soil samples and stockpiled soil samples to the OCD *RALs* for sites having a total ranking score of "20".

- The laboratory analyses of the confirmation samples from soils remaining in place and the reused stockpiled soils indicate benzene concentrations below the PQLs, which are below the OCD *RAL* of 10 mg/kg.
- The laboratory analyses of the confirmation samples from soils remaining in place and the reused stockpiled soils indicate total BTEX concentrations ranging from below the PQLs to 0.27 mg/kg (EX1-2), which are below the OCD *RAL* of 50 mg/kg.
- The laboratory analyses of confirmation samples collected from soils remaining in place and the reused stockpiled soils indicate combined TPH GRO/DRO concentrations ranging from below PQLs to 35 mg/kg (EX5-2), which are below the OCD *RAL* of 100 mg/kg for a Site ranking of "20".

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

5.0 FINDINGS AND RECOMMENDATIONS

The Lateral 10D-1 pipeline release Site is located within the Enterprise pipeline ROW in the NE ¼ of Section 12, Township 26 North, Range 12 West, in San Juan County, New Mexico. The Site is located in a cultivated NAPI field within the Navajo Nation. An Enterprise natural gas pipeline transects the NAPI field from the southeast to northwest.

On July 29, 2016, Enterprise personnel identified suspected leaks on the Lateral 10D-1 pipeline during a line patrol. The surface expression of the leaks were characterized by distressed vegetation at three locations in close proximity to each other along a 700-foot section of the pipeline. Beginning on August 9, 2016, Enterprise initiated excavation activities to identify the suspected leaks, facilitate pipeline repairs, and remediate potential hydrocarbon impact. Eight (8) leaks were identified and subsequently repaired.

- The primary objective of the environmental 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 and silty sand, and cemented silty sand at the points of release.
- The first excavation measured approximately 42 feet long by 12 feet wide, with a total depth of approximately eight (8) feet bgs.
- The second excavation measured approximately 30 feet long by 12 feet wide, with a total depth of approximately eight (8) feet bgs.
- The third excavation measured approximately 25 feet long by 12 feet wide, with a total depth of approximately 11 feet bgs.
- The fourth excavation measured approximately 22 feet long by 12 feet wide, with a total depth of approximately 12.5 feet bgs.
- The fifth excavation measured approximately 25 feet long by 12 feet wide, with a total depth of approximately eight (8) feet bgs.
- Prior to backfilling, 31 excavation soil samples and 11 stockpiled soil samples were collected for laboratory analyses. Based on analytical results, soils remaining in place and the reused stockpiled soils do not exhibit BTEX or TPH GRO/DRO concentrations above the OCD *RALs* for a site ranking of "20".
- The excavation was backfilled with laboratory-confirmed stockpiled soils and contoured to the approximate surrounding grade.

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

6.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

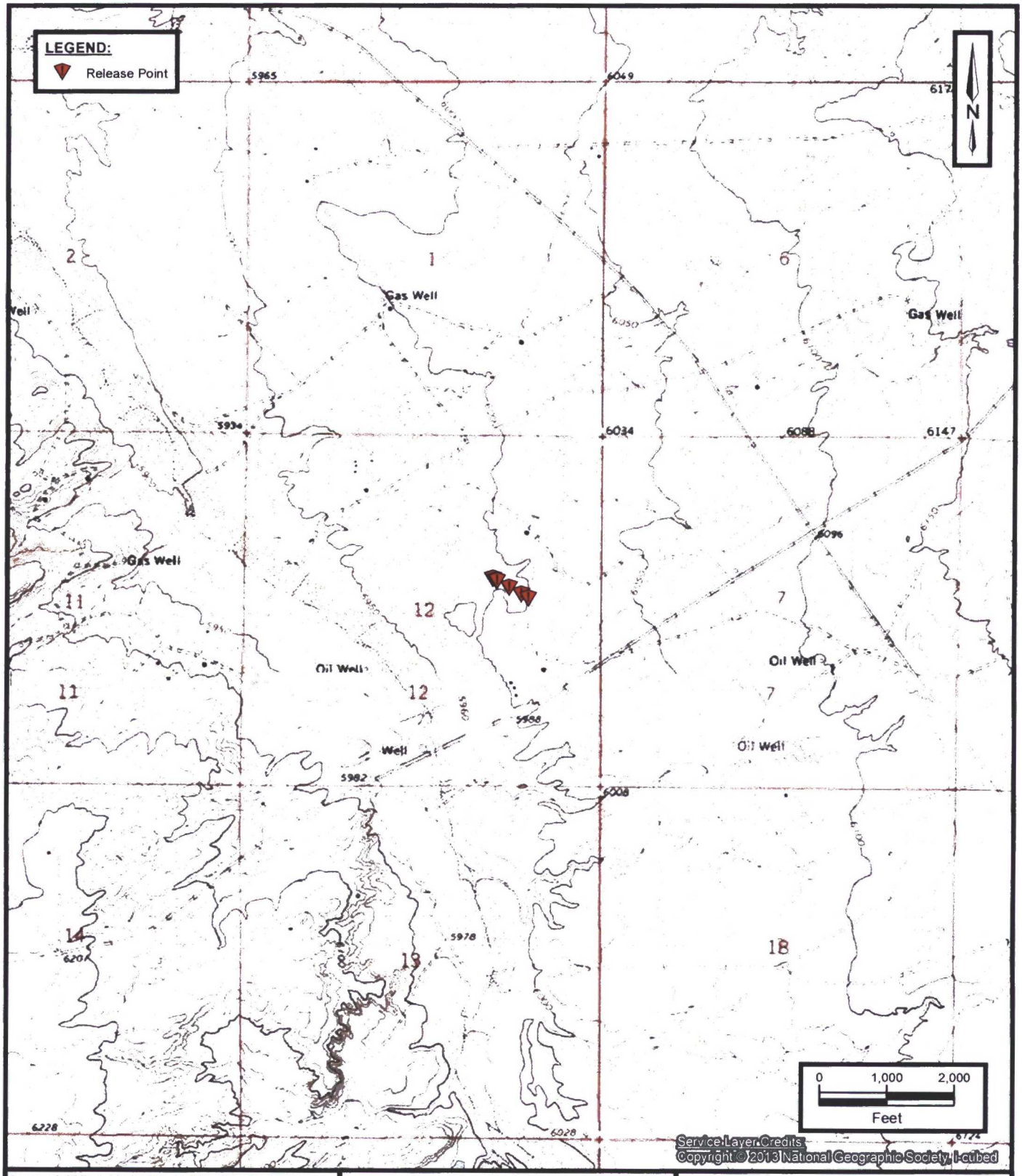
Apex's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed or described herein. Additionally, Apex does not warrant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

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

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

APPENDIX A

Figures



Lateral 10D-1 (July 2016) Pipeline Release
NE 1/4 Sec12 T26N R12W
San Juan County, New Mexico

Project No. 725040112190

Apex TITAN, Inc.
606 South 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

Gallegos Trading Post and Carson Trading Post New Mexico Quadrangles 1978

Z:\Dallas South\Drafting\2016\725040112190\Figure 1.mxd Modified 8/25/2016 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System

Lateral 10D-1 (July 2016) Pipeline Release
NE 1/4 Sec12 T26N R12W
San Juan County, New Mexico

Project No. 725040112190

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

FIGURE 2

Site Vicinity Map

Aerial Photograph March 2015

Z:\Dallas South\Drafting\2016\725040112190\Figure 2.mxd Modified 8/25/2016 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System

Lateral 10D-1 (July 2015) Pipeline Release
NE 1/4 Sec12 T26N R12W
San Juan County, New Mexico

Project No. 72500112190

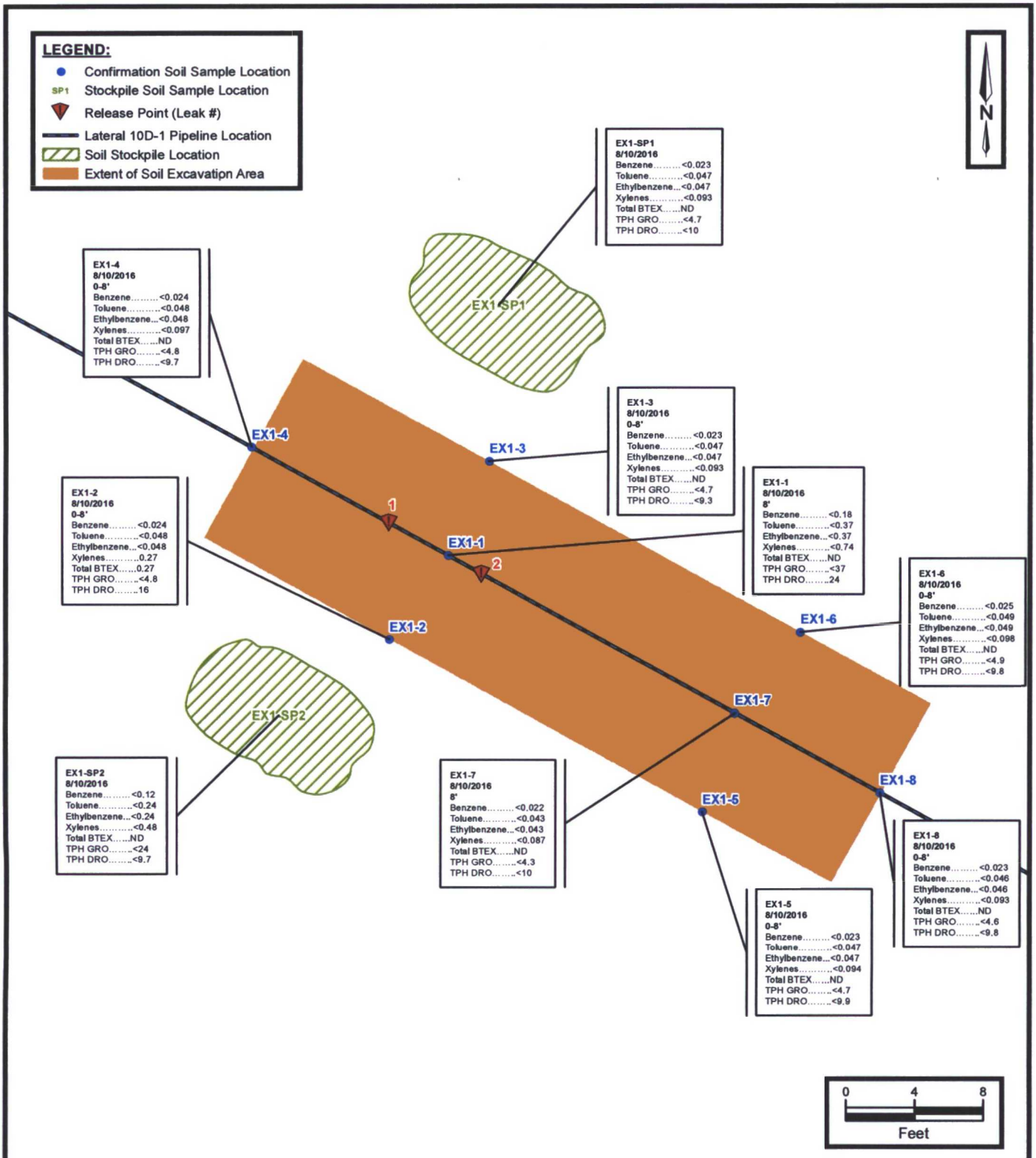
Apex TITAN, Inc.
606 South Rio Grande, Suite A
Aztec, New Mexico 87410
Phone: (505) 334-5200
www.apexcos.com
A Subsidiary of Apex Companies, LLC

FIGURE 3

Site Map

Aerial Photograph March 2015

P:\Dallas South\Drafting\2015\72500112190\Figure 3.mxd Modified 9/23/2015 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System



Lateral 10D-1 (July 2016) Pipeline Release
NE 1/4 Sec12 T26N R12W
San Juan County, New Mexico
Leak 1: 36.50394 N, 108.05952 W
Leak 2: 36.50393 N, 108.05951 W

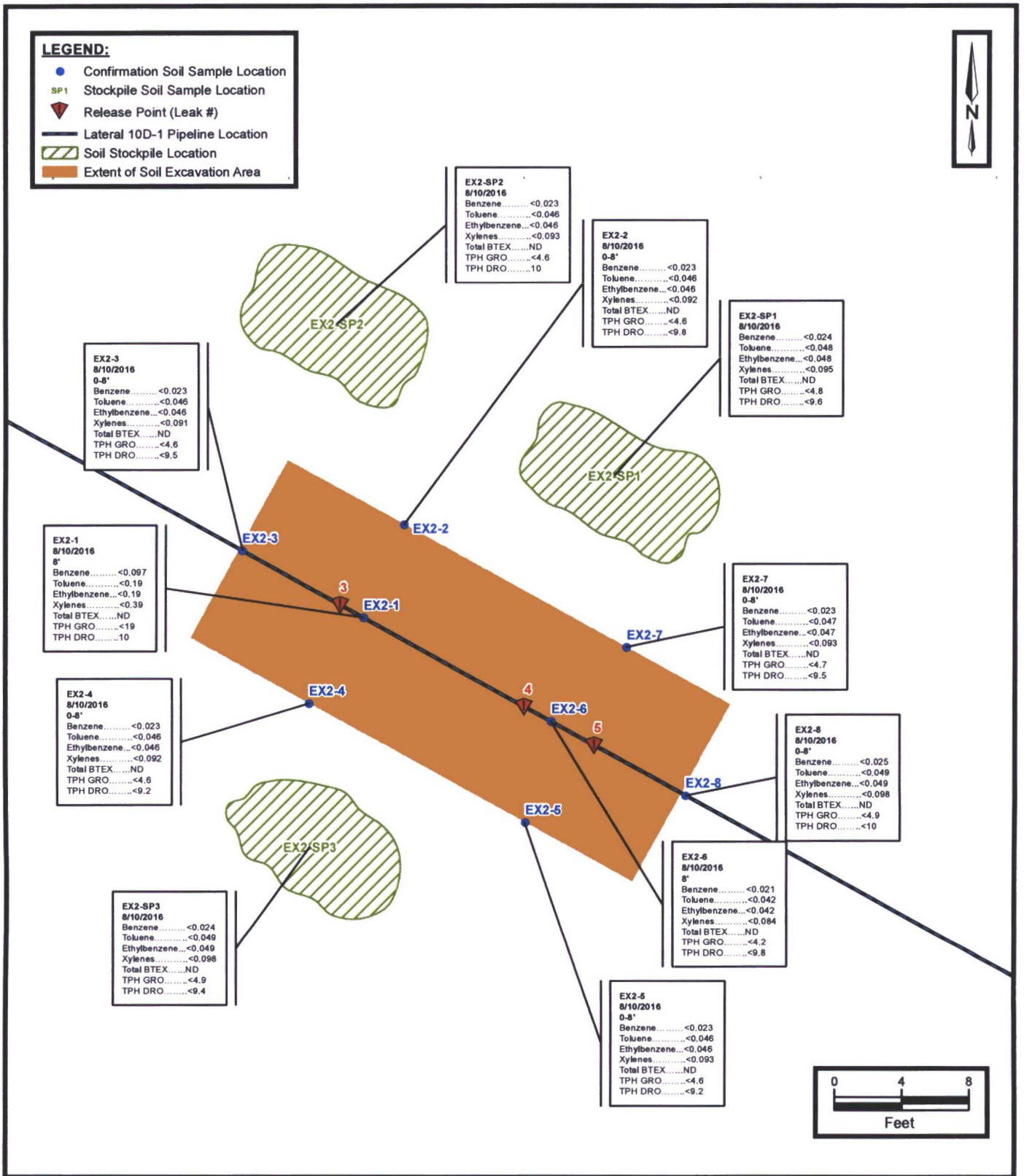
Project No. 725040112190

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

FIGURE 3A

Soil Analytical Results
Excavation 1

Z:\Dallas South\Drafting\2016\725040112190\Figure 3A.mxd Modified 8/25/2016 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System



Lateral 10D-1 (July 2016) Pipeline Release
NE 1/4 Sec12 T26N R12W
San Juan County, New Mexico
Leak 3: 36.50387 N, 108.05942 W
Leak 4: 36.50386 N, 108.05938 W
Leak 5: 36.50386 N, 108.05937 W

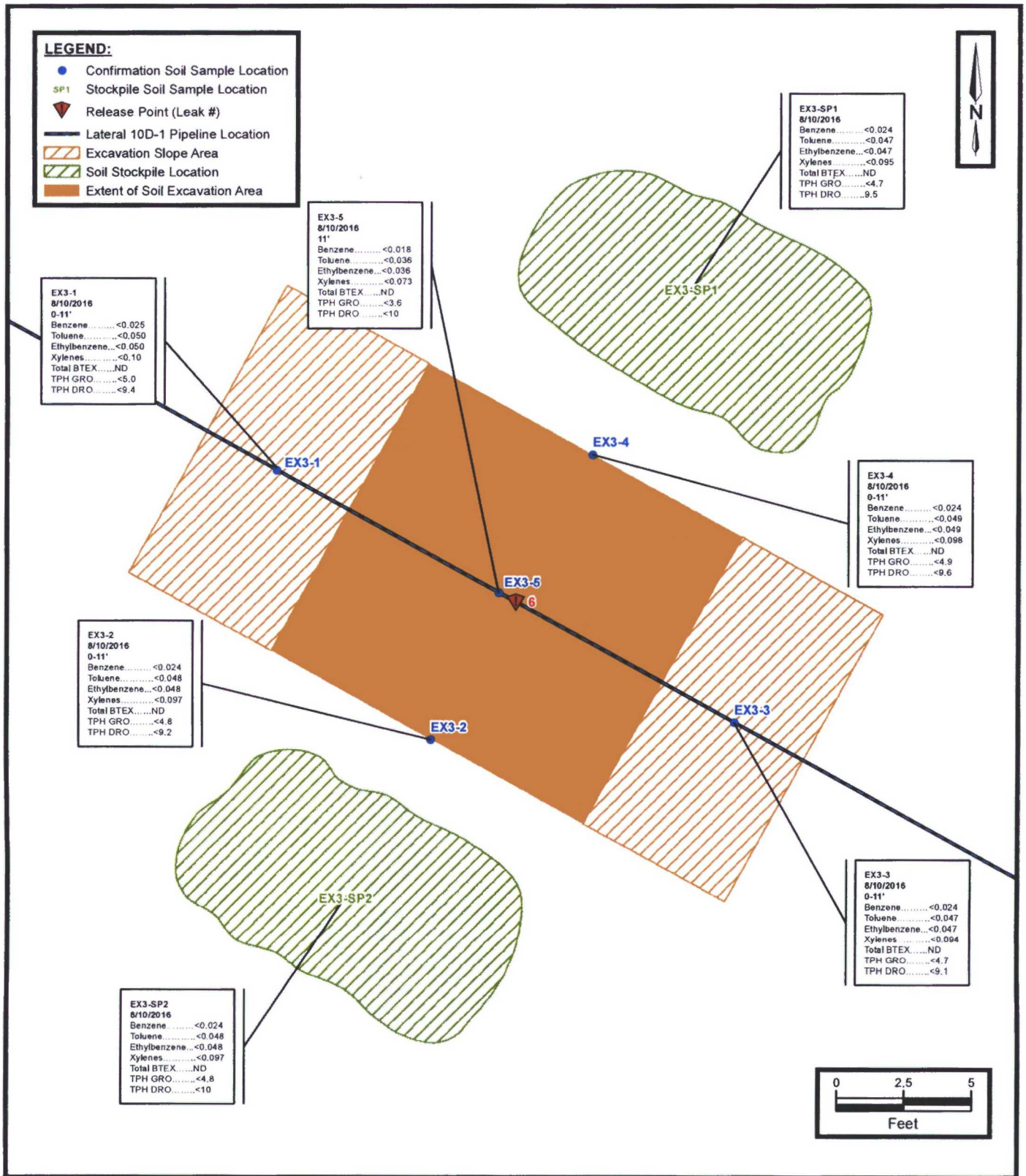
Project No. 725040112190

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

FIGURE 3B

Soil Analytical Results
Excavation 2

Z:\Dallas South\Drafting\2016\725040112190\Figure 3B.mxd Modified 8/25/2016 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System



Lateral 10D-1 (July 2016) Pipeline Release
NE 1/4 Sec12 T26N R12W
San Juan County, New Mexico
Leak 6: 36.50354 N, 108.05871 W

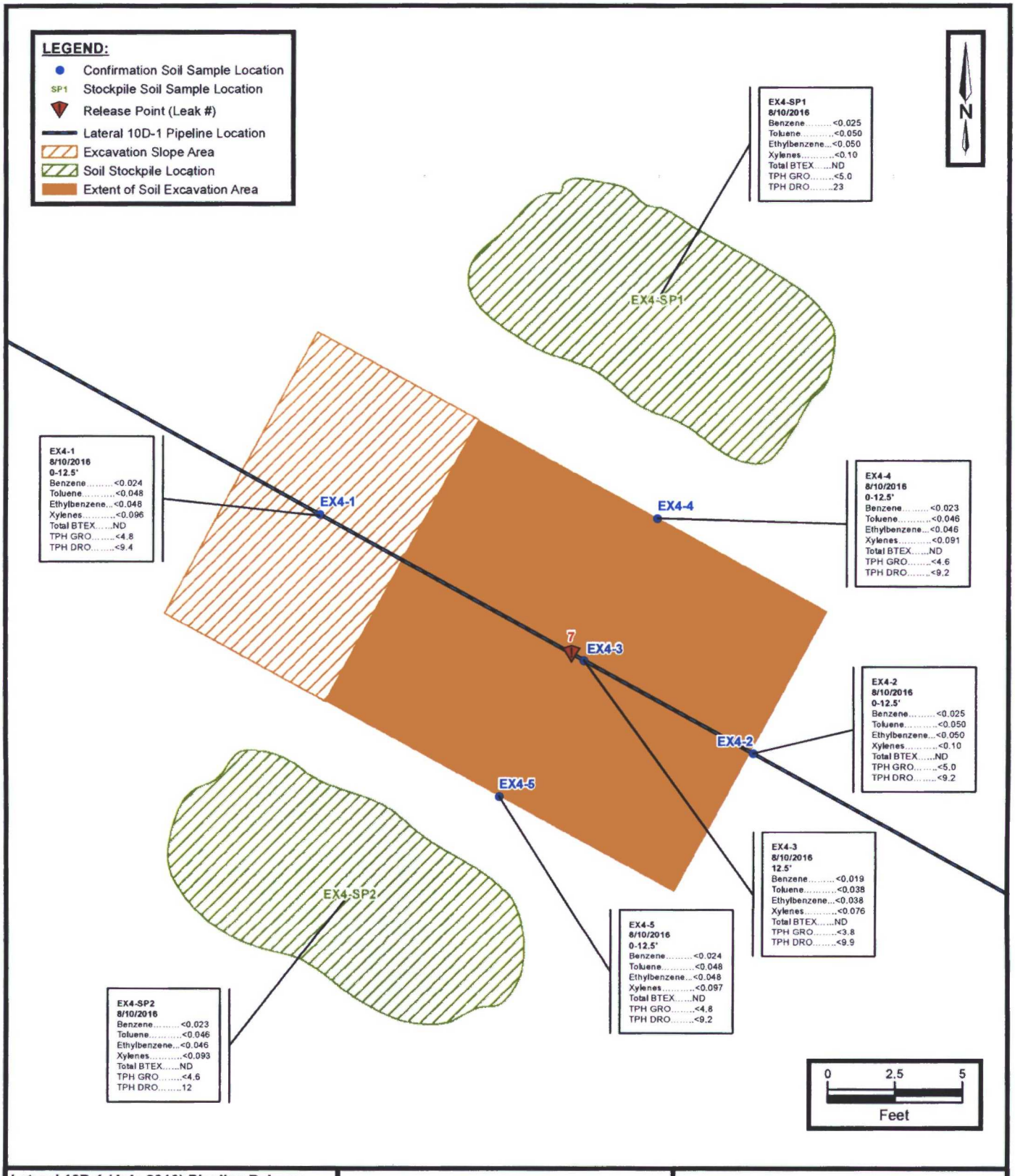
Project No. 725040112190

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

FIGURE 3C

Soil Analytical Results
Excavation 3

Z:\Dallas South\Drafting\2016\725040112190\Figure 3C.mxd Modified 8/25/2016 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System



Lateral 10D-1 (July 2016) Pipeline Release
NE 1/4 Sec12 T26N R12W
San Juan County, New Mexico
Leak 7: 36.50328 N, 108.05808 W

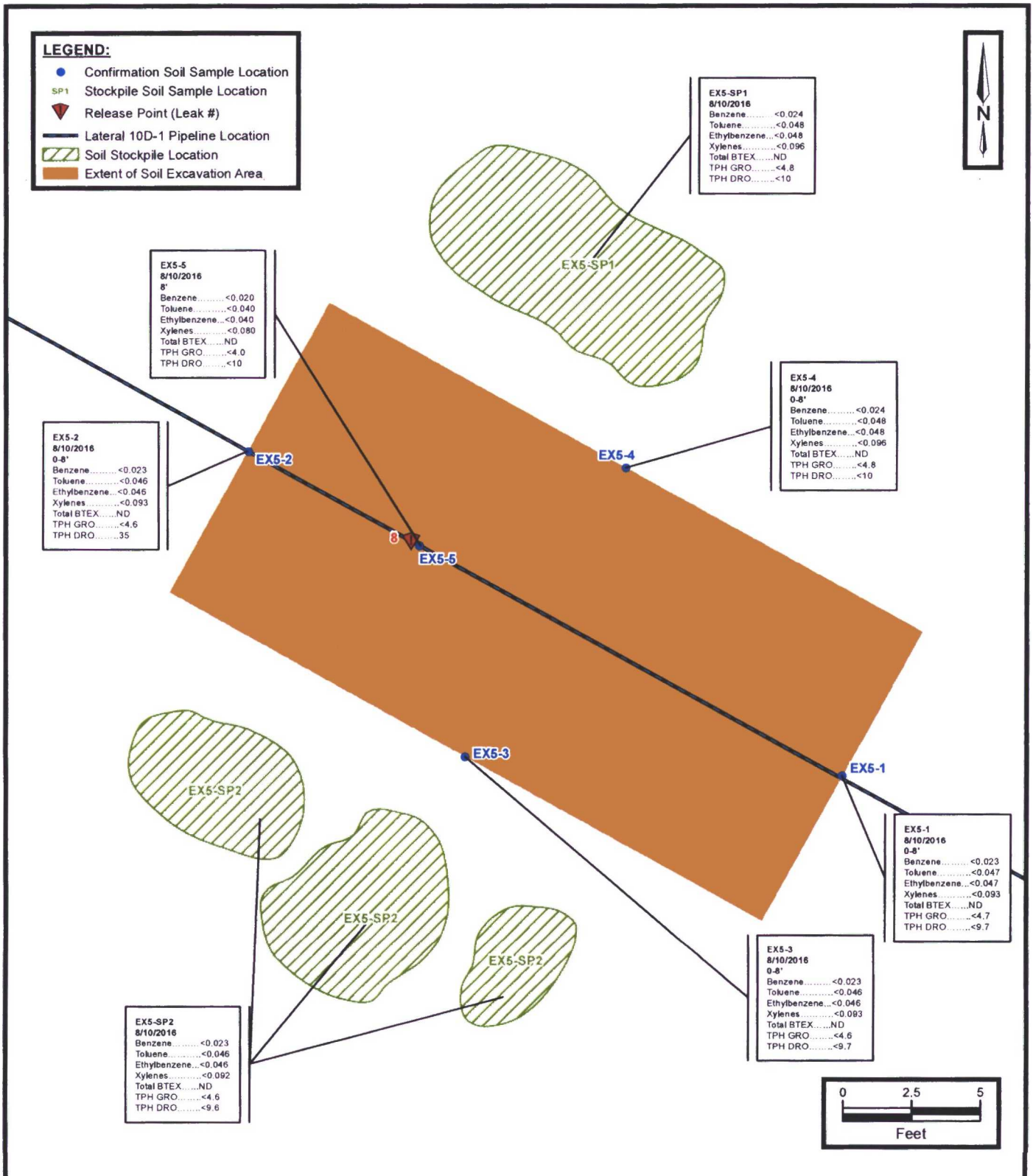
Project No. 725040112190

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

FIGURE 3D

Soil Analytical Results
Excavation 4

Z:\Dallas South\Drafting\2016\725040112190\Figure 3D.mxd Modified 8/25/2016 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System



Lateral 10D-1 (July 2016) Pipeline Release
NE 1/4 Sec12 T26N R12W
San Juan County, New Mexico
Leak 8: 36.50310 N, 108.05772 W

Project No. 725040112190

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

FIGURE 3E

Soil Analytical Results
Excavation 5

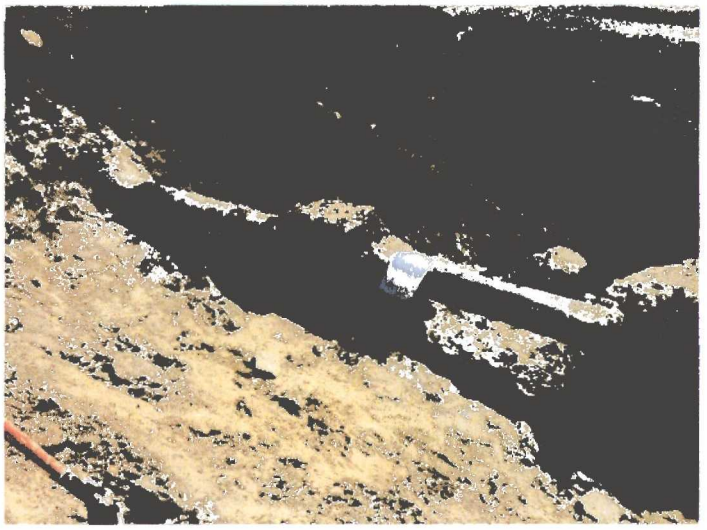
Z:\Dallas South\Drafting\2016\725040112190\Figure 3E.mxd Modified 8/26/2016 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System

APPENDIX B

Photographic Documentation

Photograph 1

View of the in-process corrective action activities (Excavation 1), facing southeast.

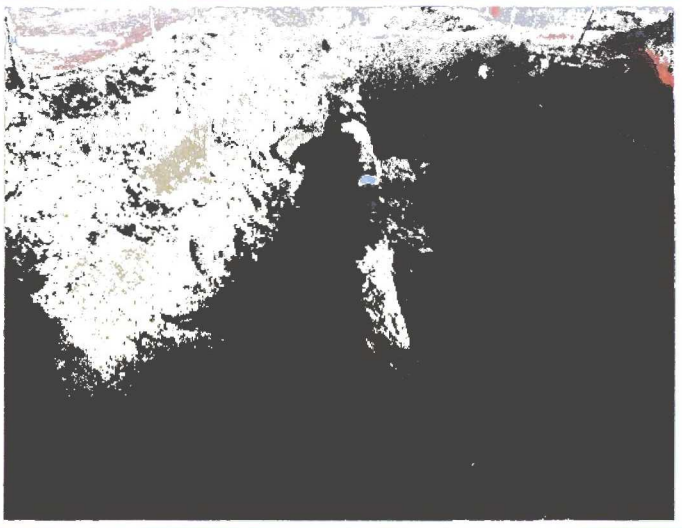


Photograph 2

View of Excavation 1, facing northwest.

Photograph 3

View of Excavation 2, facing northwest.



Photograph 4 View of Excavation 3, facing northwest.	
Photograph 5 View of Excavation 4, facing northwest.	
Photograph 6 View of Excavation 5 release point, facing southeast.	

APPENDIX C

Table

APEX

TABLE 1

Lateral 10D-1 (July 2016) Pipeline Release

SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100	
Excavation 1 Stockpile Soil Samples									
EX1-SP1	8.10.16	Stockpile	<0.023	<0.047	<0.047	<0.093	ND	<4.7	<10
EX1-SP2	8.10.16	Stockpile	<0.12	<0.24	<0.24	<0.48	ND	<24	<9.7
Excavation 2 Stockpile Soil Samples									
EX2-SP1	8.10.16	Stockpile	<0.024	<0.048	<0.048	<0.095	ND	<4.8	<9.6
EX2-SP2	8.10.16	Stockpile	<0.023	<0.046	<0.046	<0.093	ND	<4.6	10
EX2-SP3	8.10.16	Stockpile	<0.024	<0.049	<0.049	<0.098	ND	<4.9	<9.4
Excavation 3 Stockpile Soil Samples									
EX3-SP1	8.10.16	Stockpile	<0.024	<0.047	<0.047	<0.095	ND	<4.7	9.5
EX3-SP2	8.10.16	Stockpile	<0.024	<0.048	<0.048	<0.097	ND	<4.8	<10
Excavation 4 Stockpile Soil Samples									
EX4-SP1	8.10.16	Stockpile	<0.025	<0.050	<0.050	<0.10	ND	<5.0	23
EX4-SP2	8.10.16	Stockpile	<0.023	<0.046	<0.046	<0.093	ND	<4.6	12
Excavation 5 Stockpile Soil Samples									
EX5-SP1	8.10.16	Stockpile	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<10
EX5-SP2	8.10.16	Stockpile	<0.023	<0.046	<0.046	<0.092	ND	<4.6	<9.6
Excavation 1 Confirmation Samples									
EX1-1	8.10.16	8	<0.18	<0.37	<0.37	<0.74	ND	<37	24
EX1-2	8.10.16	0 to 8	<0.024	<0.048	<0.048	0.27	0.27	<4.8	16
EX1-3	8.10.16	0 to 8	<0.023	<0.047	<0.047	<0.093	ND	<4.7	<9.3
EX1-4	8.10.16	0 to 8	<0.024	<0.048	<0.048	<0.097	ND	<4.8	<9.7
EX1-5	8.10.16	0 to 8	<0.023	<0.047	<0.047	<0.094	ND	<4.7	<9.9
EX1-6	8.10.16	0 to 8	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<9.8
EX1-7	8.10.16	8	<0.022	<0.043	<0.043	<0.087	ND	<4.3	<10
EX1-8	8.10.16	0 to 8	<0.023	<0.046	<0.046	<0.093	ND	<4.6	<9.8

APEX

TABLE 1

Lateral 10D-1 (July 2016) Pipeline Release

SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100	
Excavation 2 Confirmation Samples									
EX2-1	8.10.16	8	<0.097	<0.19	<0.19	<0.39	ND	<19	10
EX2-2	8.10.16	0 to 8	<0.023	<0.046	<0.046	<0.092	ND	<4.6	<9.8
EX2-3	8.10.16	0 to 8	<0.023	<0.046	<0.046	<0.091	ND	<4.6	<9.5
EX2-4	8.10.16	0 to 8	<0.023	<0.046	<0.046	<0.092	ND	<4.6	<9.2
EX2-5	8.10.16	0 to 8	<0.023	<0.046	<0.046	<0.093	ND	<4.6	<9.2
EX2-6	8.10.16	8	<0.021	<0.042	<0.042	<0.084	ND	<4.2	<9.8
EX2-7	8.10.16	0 to 8	<0.023	<0.047	<0.047	<0.093	ND	<4.7	<9.5
EX2-8	8.10.16	0 to 8	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<10
Excavation 3 Confirmation Samples									
EX3-1	8.10.16	0 to 11	<0.025	<0.050	<0.050	<0.10	ND	<5.0	<9.4
EX3-2	8.10.16	0 to 11	<0.024	<0.048	<0.048	<0.097	ND	<4.8	<9.2
EX3-3	8.10.16	0 to 11	<0.024	<0.047	<0.047	<0.094	ND	<4.7	<9.1
EX3-4	8.10.16	0 to 11	<0.024	<0.049	<0.049	<0.098	ND	<4.9	<9.6
EX3-5	8.10.16	11	<0.018	<0.036	<0.036	<0.073	ND	<3.6	<10
Excavation 4 Confirmation Samples									
EX4-1	8.10.16	0 to 12.5	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<9.4
EX4-2	8.10.16	0 to 12.5	<0.025	<0.050	<0.050	<0.10	ND	<5.0	<9.2
EX4-3	8.10.16	12.5	<0.019	<0.038	<0.038	<0.076	ND	<3.8	<9.9
EX4-4	8.10.16	0 to 12.5	<0.023	<0.046	<0.046	<0.091	ND	<4.6	<9.2
EX4-5	8.10.16	0 to 12.5	<0.024	<0.048	<0.048	<0.097	ND	<4.8	<9.2
Excavation 5 Confirmation Samples									
EX5-1	8.10.16	0 to 8	<0.023	<0.047	<0.047	<0.093	ND	<4.7	<9.7
EX5-2	8.10.16	0 to 8	<0.023	<0.046	<0.046	<0.093	ND	<4.6	35
EX5-3	8.10.16	0 to 8	<0.023	<0.046	<0.046	<0.093	ND	<4.6	<9.7
EX5-4	8.10.16	0 to 8	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<10
EX5-5	8.10.16	8	<0.020	<0.040	<0.040	<0.080	ND	<4.0	<10

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

ND = Not Detected above the Laboratory Reporting Limits

NE = Not established

APEX

APPENDIX D

Laboratory Data Sheets & Chain of Custody Documentation

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, 2016

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Lateral 10D-1 OrderNo.: 1608646

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 7 sample(s) on 8/11/2016 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 **1608646**
Date Reported: **8/12/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608646-001 **Matrix:** SOIL

Client Sample ID: Ex 1-1
Collection Date: 8/10/2016 1:00:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	37		mg/Kg	10	8/11/2016 11:05:48 AM	G36398
Surr: BFB	88.5	70-130		%Rec	10	8/11/2016 11:05:48 AM	G36398
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	24	9.9		mg/Kg	1	8/11/2016 11:01:23 AM	26911
Surr: DNOP	104	70-130		%Rec	1	8/11/2016 11:01:23 AM	26911
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	0.18		mg/Kg	10	8/11/2016 11:05:48 AM	S36398
Toluene	ND	0.37		mg/Kg	10	8/11/2016 11:05:48 AM	S36398
Ethylbenzene	ND	0.37		mg/Kg	10	8/11/2016 11:05:48 AM	S36398
Xylenes, Total	ND	0.74		mg/Kg	10	8/11/2016 11:05:48 AM	S36398
Surr: 1,2-Dichloroethane-d4	109	70-130		%Rec	10	8/11/2016 11:05:48 AM	S36398
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	10	8/11/2016 11:05:48 AM	S36398
Surr: Dibromofluoromethane	108	70-130		%Rec	10	8/11/2016 11:05:48 AM	S36398
Surr: Toluene-d8	99.6	70-130		%Rec	10	8/11/2016 11:05:48 AM	S36398

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608646-002 **Matrix:** SOIL

Client Sample ID: Ex 1-7
Collection Date: 8/10/2016 1:30:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	8/11/2016 11:34:20 AM	G36398
Surr: BFB	82.5	70-130		%Rec	1	8/11/2016 11:34:20 AM	G36398
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/11/2016 11:23:15 AM	26911
Surr: DNOP	104	70-130		%Rec	1	8/11/2016 11:23:15 AM	26911
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	0.022		mg/Kg	1	8/11/2016 11:34:20 AM	S36398
Toluene	ND	0.043		mg/Kg	1	8/11/2016 11:34:20 AM	S36398
Ethylbenzene	ND	0.043		mg/Kg	1	8/11/2016 11:34:20 AM	S36398
Xylenes, Total	ND	0.087		mg/Kg	1	8/11/2016 11:34:20 AM	S36398
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	8/11/2016 11:34:20 AM	S36398
Surr: 4-Bromofluorobenzene	97.5	70-130		%Rec	1	8/11/2016 11:34:20 AM	S36398
Surr: Dibromofluoromethane	112	70-130		%Rec	1	8/11/2016 11:34:20 AM	S36398
Surr: Toluene-d8	99.8	70-130		%Rec	1	8/11/2016 11:34:20 AM	S36398

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608646-003 **Matrix:** SOIL

Client Sample ID: Ex 2-1
Collection Date: 8/10/2016 1:40:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	19		mg/Kg	5	8/11/2016 12:02:57 PM	G36398
Surr: BFB	84.3	70-130		%Rec	5	8/11/2016 12:02:57 PM	G36398
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	10	10		mg/Kg	1	8/11/2016 11:45:11 AM	26911
Surr: DNOP	101	70-130		%Rec	1	8/11/2016 11:45:11 AM	26911
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	0.097		mg/Kg	5	8/11/2016 12:02:57 PM	S36398
Toluene	ND	0.19		mg/Kg	5	8/11/2016 12:02:57 PM	S36398
Ethylbenzene	ND	0.19		mg/Kg	5	8/11/2016 12:02:57 PM	S36398
Xylenes, Total	ND	0.39		mg/Kg	5	8/11/2016 12:02:57 PM	S36398
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	5	8/11/2016 12:02:57 PM	S36398
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	5	8/11/2016 12:02:57 PM	S36398
Surr: Dibromofluoromethane	106	70-130		%Rec	5	8/11/2016 12:02:57 PM	S36398
Surr: Toluene-d8	97.2	70-130		%Rec	5	8/11/2016 12:02:57 PM	S36398

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608646-004 **Matrix:** SOIL

Client Sample ID: Ex 2-6
Collection Date: 8/10/2016 2:05:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	8/11/2016 12:31:35 PM	G36398
Surr: BFB	85.3	70-130		%Rec	1	8/11/2016 12:31:35 PM	G36398
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/11/2016 11:04:50 AM	26911
Surr: DNOP	85.9	70-130		%Rec	1	8/11/2016 11:04:50 AM	26911
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	0.021		mg/Kg	1	8/11/2016 12:31:35 PM	S36398
Toluene	ND	0.042		mg/Kg	1	8/11/2016 12:31:35 PM	S36398
Ethylbenzene	ND	0.042		mg/Kg	1	8/11/2016 12:31:35 PM	S36398
Xylenes, Total	ND	0.084		mg/Kg	1	8/11/2016 12:31:35 PM	S36398
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	8/11/2016 12:31:35 PM	S36398
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	8/11/2016 12:31:35 PM	S36398
Surr: Dibromofluoromethane	106	70-130		%Rec	1	8/11/2016 12:31:35 PM	S36398
Surr: Toluene-d8	102	70-130		%Rec	1	8/11/2016 12:31:35 PM	S36398

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608646-005
Matrix: SOIL
Client Sample ID: Ex 3-5
Collection Date: 8/10/2016 2:40:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	8/11/2016 1:00:13 PM	G36398
Surr: BFB	83.2	70-130		%Rec	1	8/11/2016 1:00:13 PM	G36398
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/11/2016 11:26:25 AM	26911
Surr: DNOP	86.2	70-130		%Rec	1	8/11/2016 11:26:25 AM	26911
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	0.018		mg/Kg	1	8/11/2016 1:00:13 PM	S36398
Toluene	ND	0.036		mg/Kg	1	8/11/2016 1:00:13 PM	S36398
Ethylbenzene	ND	0.036		mg/Kg	1	8/11/2016 1:00:13 PM	S36398
Xylenes, Total	ND	0.073		mg/Kg	1	8/11/2016 1:00:13 PM	S36398
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	1	8/11/2016 1:00:13 PM	S36398
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	8/11/2016 1:00:13 PM	S36398
Surr: Dibromofluoromethane	107	70-130		%Rec	1	8/11/2016 1:00:13 PM	S36398
Surr: Toluene-d8	102	70-130		%Rec	1	8/11/2016 1:00:13 PM	S36398

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608646-006 **Matrix:** SOIL

Client Sample ID: Ex 4-3
Collection Date: 8/10/2016 2:55:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	8/11/2016 1:28:48 PM	G36398
Surr: BFB	85.7	70-130		%Rec	1	8/11/2016 1:28:48 PM	G36398
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/11/2016 11:48:10 AM	26911
Surr: DNOP	85.5	70-130		%Rec	1	8/11/2016 11:48:10 AM	26911
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	0.019		mg/Kg	1	8/11/2016 1:28:48 PM	S36398
Toluene	ND	0.038		mg/Kg	1	8/11/2016 1:28:48 PM	S36398
Ethylbenzene	ND	0.038		mg/Kg	1	8/11/2016 1:28:48 PM	S36398
Xylenes, Total	ND	0.076		mg/Kg	1	8/11/2016 1:28:48 PM	S36398
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	8/11/2016 1:28:48 PM	S36398
Surr: 4-Bromofluorobenzene	99.4	70-130		%Rec	1	8/11/2016 1:28:48 PM	S36398
Surr: Dibromofluoromethane	108	70-130		%Rec	1	8/11/2016 1:28:48 PM	S36398
Surr: Toluene-d8	100	70-130		%Rec	1	8/11/2016 1:28:48 PM	S36398

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608646-007 **Matrix:** SOIL

Client Sample ID: Ex 5-5
Collection Date: 8/10/2016 3:30:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	8/11/2016 1:57:34 PM	G36398
Surr: BFB	85.8	70-130		%Rec	1	8/11/2016 1:57:34 PM	G36398
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/11/2016 12:09:53 PM	26911
Surr: DNOP	83.8	70-130		%Rec	1	8/11/2016 12:09:53 PM	26911
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	0.020		mg/Kg	1	8/11/2016 1:57:34 PM	S36398
Toluene	ND	0.040		mg/Kg	1	8/11/2016 1:57:34 PM	S36398
Ethylbenzene	ND	0.040		mg/Kg	1	8/11/2016 1:57:34 PM	S36398
Xylenes, Total	ND	0.080		mg/Kg	1	8/11/2016 1:57:34 PM	S36398
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	8/11/2016 1:57:34 PM	S36398
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	8/11/2016 1:57:34 PM	S36398
Surr: Dibromofluoromethane	106	70-130		%Rec	1	8/11/2016 1:57:34 PM	S36398
Surr: Toluene-d8	102	70-130		%Rec	1	8/11/2016 1:57:34 PM	S36398

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608646**

12-Aug-16

Client: APEX TITAN
Project: Lateral 10D-1

Sample ID	LCS-26909	SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	26909		RunNo:	36387				
Prep Date:	8/11/2016	Analysis Date:	8/11/2016		SeqNo:	1127400	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		91.1	70	130			

Sample ID	LCS-26911	SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	26911		RunNo:	36387				
Prep Date:	8/11/2016	Analysis Date:	8/11/2016		SeqNo:	1127401	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	62.6	124			
Surr: DNOP	4.6		5.000		91.3	70	130			

Sample ID	MB-26909	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	26909		RunNo:	36387				
Prep Date:	8/11/2016	Analysis Date:	8/11/2016		SeqNo:	1127402	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.8		10.00		87.9	70	130			

Sample ID	MB-26911	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	26911		RunNo:	36387				
Prep Date:	8/11/2016	Analysis Date:	8/11/2016		SeqNo:	1127403	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	8.9		10.00		88.8	70	130			

Sample ID	LCS-26908	SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	26908		RunNo:	36386				
Prep Date:	8/11/2016	Analysis Date:	8/11/2016		SeqNo:	1127409	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		91.6	70	130			

Sample ID	MB-26908	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	26908		RunNo:	36386				
Prep Date:	8/11/2016	Analysis Date:	8/11/2016		SeqNo:	1127410	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.9		10.00		98.6	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608646**

12-Aug-16

Client: APEX TITAN

Project: Lateral 10D-1

Sample ID	**LCS-26910**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**26910**		RunNo:	**36385**				
Prep Date:	**8/11/2016**	Analysis Date:	**8/11/2016**		SeqNo:	**1127414**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.2		5.000		83.4	70	130			

Sample ID	**MB-26910**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**26910**		RunNo:	**36385**				
Prep Date:	**8/11/2016**	Analysis Date:	**8/11/2016**		SeqNo:	**1127415**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.8		10.00		88.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608646**

12-Aug-16

Client: APEX TITAN
Project: Lateral 10D-1

Sample ID **100ng lcs**	SampType: **LCS**			TestCode: **EPA Method 8260B: Volatiles Short List**					
Client ID: **LCSS**	Batch ID: **S36398**			RunNo: **36398**					
Prep Date:	Analysis Date: **8/11/2016**			SeqNo: **1127815**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	107	70	130			
Toluene	0.99	0.050	1.000	0	99.4	70	130			
Surr: 1,2-Dichloroethane-d4	0.55		0.5000		111	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.56		0.5000		112	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID **rb**	SampType: **MBLK**			TestCode: **EPA Method 8260B: Volatiles Short List**					
Client ID: **PBS**	Batch ID: **S36398**			RunNo: **36398**					
Prep Date:	Analysis Date: **8/11/2016**			SeqNo: **1127825**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.4	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		109	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID **mb-26903**	SampType: **MBLK**			TestCode: **EPA Method 8260B: Volatiles Short List**					
Client ID: **PBS**	Batch ID: **26903**			RunNo: **36398**					
Prep Date: **8/10/2016**	Analysis Date: **8/12/2016**			SeqNo: **1129264**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		105	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		108	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID **1608646-004a ms**	SampType: **MS**			TestCode: **EPA Method 8260B: Volatiles Short List**					
Client ID: **Ex 2-6**	Batch ID: **S36398**			RunNo: **36398**					
Prep Date:	Analysis Date: **8/11/2016**			SeqNo: **1129288**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	49.2	155			
Toluene	0.98	0.050	1.000	0	97.6	52	154			
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		98.6	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		100	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608646**

12-Aug-16

Client: APEX TITAN

Project: Lateral 10D-1

Sample ID **1608646-004a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **Ex 2-6**	Batch ID: **S36398**	RunNo: **36398**
Prep Date:	Analysis Date: **8/11/2016**	SeqNo: **1129288** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.49		0.5000		97.8	70	130			

Sample ID **1608646-004a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **Ex 2-6**	Batch ID: **S36398**	RunNo: **36398**
Prep Date:	Analysis Date: **8/11/2016**	SeqNo: **1129289** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	1.000	0	98.9	49.2	155	2.45	20	
Toluene	0.95	0.050	1.000	0	94.7	52	154	3.06	20	
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		101	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.7	70	130	0	0	
Surr: Dibromofluoromethane	0.53		0.5000		105	70	130	0	0	
Surr: Toluene-d8	0.48		0.5000		96.9	70	130	0	0	

Sample ID **lcs-26903**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **26903**	RunNo: **36398**
Prep Date: **8/10/2016**	Analysis Date: **8/12/2016**	SeqNo: **1129292** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		107	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		101	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608646**

12-Aug-16

Client: APEX TITAN
Project: Lateral 10D-1

Sample ID **2.5ug gro lcs**	SampType: **LCS**			TestCode: **EPA Method 8015D Mod: Gasoline Range**					
Client ID: **LCSS**	Batch ID: **G36398**			RunNo: **36398**					
Prep Date:	Analysis Date: **8/11/2016**			SeqNo: **1127795**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.3	62.9	123			
Surr: BFB	450		500.0		90.0	70	130			

Sample ID **rb**	SampType: **MBLK**			TestCode: **EPA Method 8015D Mod: Gasoline Range**					
Client ID: **PBS**	Batch ID: **G36398**			RunNo: **36398**					
Prep Date:	Analysis Date: **8/11/2016**			SeqNo: **1127796**		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	410		500.0		82.5	70	130			

Sample ID **lcs-26903**	SampType: **LCS**			TestCode: **EPA Method 8015D Mod: Gasoline Range**					
Client ID: **LCSS**	Batch ID: **26903**			RunNo: **36398**					
Prep Date: **8/10/2016**	Analysis Date: **8/11/2016**			SeqNo: **1129201**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	460		500.0		91.4	70	130			

Sample ID **mb-26903**	SampType: **MBLK**			TestCode: **EPA Method 8015D Mod: Gasoline Range**					
Client ID: **PBS**	Batch ID: **26903**			RunNo: **36398**					
Prep Date: **8/10/2016**	Analysis Date: **8/12/2016**			SeqNo: **1129202**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	460		500.0		91.5	70	130			

Sample ID **1608646-002a ms**	SampType: **MS**			TestCode: **EPA Method 8015D Mod: Gasoline Range**					
Client ID: **Ex 1-7**	Batch ID: **G36398**			RunNo: **36398**					
Prep Date:	Analysis Date: **8/11/2016**			SeqNo: **1129290**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	87.4	52.3	132			
Surr: BFB	430		500.0		85.4	70	130			

Sample ID **1608646-002a msd**	SampType: **MSD**			TestCode: **EPA Method 8015D Mod: Gasoline Range**					
Client ID: **Ex 1-7**	Batch ID: **G36398**			RunNo: **36398**					
Prep Date:	Analysis Date: **8/11/2016**			SeqNo: **1129291**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.5	52.3	132	2.27	20	
Surr: BFB	430		500.0		86.4	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix
- W Sample container temperature is out of limit as specified

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: 1608646 | RcptNo: 1

Received by/date: AT 08/11/16

Logged By: Anne Thorne 8/11/2016 6:45:00 AM

Completed By: Anne Thorne 8/11/2016

Reviewed By: aJ 08/11/16

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	2.1	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: K. Summers

Laboratory: Hall

Address: ABQ, NM

Contact: A. Freeman

Phone:

PO/SO #:

Sampler's Name: Ranee Deechilly

Sampler's Signature: R. Deechilly

Proj. No.

Project Name: Lateral 10D-1

No/Type of Containers

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

Lab use only
Due Date: 2.1
Temp. of coolers when received (C°): 1 | 2 | 3 | 4 | 5
Page 1 of 1

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	8/10/16	1300			EX1-1						1		1608646-001
S		1330			EX1-7						1		002
S		1340			EX2-1						1		003
S		1405			EX2-6						1		004
S		1440			EX3-5						1		005
S		1455			EX4-3						1		006
S		1530			EX5-5						1		007

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
R. Deechilly	8/10/16	1920	[illegible]	8/10/16	1920
[illegible]	8/10/16	2040	[illegible]	8/11/16	0645

NOTES:

Rush

Bill to Tom Long EPROD

Nm APE N26208

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

August 16, 2016

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Lateral 10D-1 OrderNo.: 1608655

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 24 sample(s) on 8/11/2016 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 **1608655**
Date Reported: **8/16/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-001 **Matrix:** SOIL

Client Sample ID: EX1-2
Collection Date: 8/10/2016 1:05:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	16	9.2		mg/Kg	1	8/12/2016 12:51:27 PM	26950
Surr: DNOP	97.0	70-130		%Rec	1	8/12/2016 12:51:27 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/12/2016 10:29:56 AM	26944
Surr: BFB	118	68.3-144		%Rec	1	8/12/2016 10:29:56 AM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	8/12/2016 10:29:56 AM	26944
Toluene	ND	0.048		mg/Kg	1	8/12/2016 10:29:56 AM	26944
Ethylbenzene	ND	0.048		mg/Kg	1	8/12/2016 10:29:56 AM	26944
Xylenes, Total	0.27	0.096		mg/Kg	1	8/12/2016 10:29:56 AM	26944
Surr: 4-Bromofluorobenzene	115	80-120		%Rec	1	8/12/2016 10:29:56 AM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-002 **Matrix:** SOIL

Client Sample ID: EX1-3
Collection Date: 8/10/2016 1:10:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	8/12/2016 2:35:46 PM	26950
Surr: DNOP	88.9	70-130		%Rec	1	8/12/2016 2:35:46 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/12/2016 11:43:30 AM	26944
Surr: BFB	79.1	68.3-144		%Rec	1	8/12/2016 11:43:30 AM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	8/12/2016 11:43:30 AM	26944
Toluene	ND	0.047		mg/Kg	1	8/12/2016 11:43:30 AM	26944
Ethylbenzene	ND	0.047		mg/Kg	1	8/12/2016 11:43:30 AM	26944
Xylenes, Total	ND	0.093		mg/Kg	1	8/12/2016 11:43:30 AM	26944
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	8/12/2016 11:43:30 AM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-003 **Matrix:** SOIL

Client Sample ID: EX1-4
Collection Date: 8/10/2016 1:15:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/12/2016 3:11:24 PM	26950
Surr: DNOP	83.8	70-130		%Rec	1	8/12/2016 3:11:24 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/12/2016 12:57:25 PM	26944
Surr: BFB	87.7	68.3-144		%Rec	1	8/12/2016 12:57:25 PM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	8/12/2016 12:57:25 PM	26944
Toluene	ND	0.048		mg/Kg	1	8/12/2016 12:57:25 PM	26944
Ethylbenzene	ND	0.048		mg/Kg	1	8/12/2016 12:57:25 PM	26944
Xylenes, Total	ND	0.097		mg/Kg	1	8/12/2016 12:57:25 PM	26944
Surr: 4-Bromofluorobenzene	113	80-120		%Rec	1	8/12/2016 12:57:25 PM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-004 **Matrix:** SOIL

Client Sample ID: EX1-5
Collection Date: 8/10/2016 1:20:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/12/2016 4:07:38 PM	26950
Surr: DNOP	82.5	70-130		%Rec	1	8/12/2016 4:07:38 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/12/2016 1:21:59 PM	26944
Surr: BFB	85.3	68.3-144		%Rec	1	8/12/2016 1:21:59 PM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	8/12/2016 1:21:59 PM	26944
Toluene	ND	0.047		mg/Kg	1	8/12/2016 1:21:59 PM	26944
Ethylbenzene	ND	0.047		mg/Kg	1	8/12/2016 1:21:59 PM	26944
Xylenes, Total	ND	0.094		mg/Kg	1	8/12/2016 1:21:59 PM	26944
Surr: 4-Bromofluorobenzene	111	80-120		%Rec	1	8/12/2016 1:21:59 PM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-005
Matrix: SOIL
Client Sample ID: EX1-6
Collection Date: 8/10/2016 1:25:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/12/2016 4:35:55 PM	26950
Surr: DNOP	85.7	70-130		%Rec	1	8/12/2016 4:35:55 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/12/2016 1:46:30 PM	26944
Surr: BFB	82.2	68.3-144		%Rec	1	8/12/2016 1:46:30 PM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.025		mg/Kg	1	8/12/2016 1:46:30 PM	26944
Toluene	ND	0.049		mg/Kg	1	8/12/2016 1:46:30 PM	26944
Ethylbenzene	ND	0.049		mg/Kg	1	8/12/2016 1:46:30 PM	26944
Xylenes, Total	ND	0.098		mg/Kg	1	8/12/2016 1:46:30 PM	26944
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	8/12/2016 1:46:30 PM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-006 **Matrix:** SOIL

Client Sample ID: EX1-8
Collection Date: 8/10/2016 1:35:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/12/2016 1:31:52 PM	26950
Surr: DNOP	78.0	70-130		%Rec	1	8/12/2016 1:31:52 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/12/2016 2:11:03 PM	26944
Surr: BFB	77.2	68.3-144		%Rec	1	8/12/2016 2:11:03 PM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	8/12/2016 2:11:03 PM	26944
Toluene	ND	0.046		mg/Kg	1	8/12/2016 2:11:03 PM	26944
Ethylbenzene	ND	0.046		mg/Kg	1	8/12/2016 2:11:03 PM	26944
Xylenes, Total	ND	0.093		mg/Kg	1	8/12/2016 2:11:03 PM	26944
Surr: 4-Bromofluorobenzene	95.6	80-120		%Rec	1	8/12/2016 2:11:03 PM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-007
Matrix: SOIL
Client Sample ID: EX2-2
Collection Date: 8/10/2016 1:45:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/12/2016 2:12:43 PM	26950
Surr: DNOP	81.8	70-130		%Rec	1	8/12/2016 2:12:43 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/12/2016 2:35:34 PM	26944
Surr: BFB	80.0	68.3-144		%Rec	1	8/12/2016 2:35:34 PM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	8/12/2016 2:35:34 PM	26944
Toluene	ND	0.046		mg/Kg	1	8/12/2016 2:35:34 PM	26944
Ethylbenzene	ND	0.046		mg/Kg	1	8/12/2016 2:35:34 PM	26944
Xylenes, Total	ND	0.092		mg/Kg	1	8/12/2016 2:35:34 PM	26944
Surr: 4-Bromofluorobenzene	99.9	80-120		%Rec	1	8/12/2016 2:35:34 PM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-008 **Matrix:** SOIL

Client Sample ID: EX2-3
Collection Date: 8/10/2016 1:50:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	8/12/2016 2:34:34 PM	26950
Surr: DNOP	84.7	70-130		%Rec	1	8/12/2016 2:34:34 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/12/2016 3:00:11 PM	26944
Surr: BFB	75.5	68.3-144		%Rec	1	8/12/2016 3:00:11 PM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	8/12/2016 3:00:11 PM	26944
Toluene	ND	0.046		mg/Kg	1	8/12/2016 3:00:11 PM	26944
Ethylbenzene	ND	0.046		mg/Kg	1	8/12/2016 3:00:11 PM	26944
Xylenes, Total	ND	0.091		mg/Kg	1	8/12/2016 3:00:11 PM	26944
Surr: 4-Bromofluorobenzene	92.8	80-120		%Rec	1	8/12/2016 3:00:11 PM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-009 **Matrix:** SOIL

Client Sample ID: EX2-4
Collection Date: 8/10/2016 1:55:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	8/12/2016 2:56:53 PM	26950
Surr: DNOP	84.4	70-130		%Rec	1	8/12/2016 2:56:53 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/12/2016 3:24:49 PM	26944
Surr: BFB	77.9	68.3-144		%Rec	1	8/12/2016 3:24:49 PM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	8/12/2016 3:24:49 PM	26944
Toluene	ND	0.046		mg/Kg	1	8/12/2016 3:24:49 PM	26944
Ethylbenzene	ND	0.046		mg/Kg	1	8/12/2016 3:24:49 PM	26944
Xylenes, Total	ND	0.092		mg/Kg	1	8/12/2016 3:24:49 PM	26944
Surr: 4-Bromofluorobenzene	98.8	80-120		%Rec	1	8/12/2016 3:24:49 PM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-010 **Matrix:** SOIL

Client Sample ID: EX2-5
Collection Date: 8/10/2016 2:00:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	8/12/2016 3:21:10 PM	26950
Surr: DNOP	87.6	70-130		%Rec	1	8/12/2016 3:21:10 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/12/2016 3:49:30 PM	26944
Surr: BFB	77.5	68.3-144		%Rec	1	8/12/2016 3:49:30 PM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	8/12/2016 3:49:30 PM	26944
Toluene	ND	0.046		mg/Kg	1	8/12/2016 3:49:30 PM	26944
Ethylbenzene	ND	0.046		mg/Kg	1	8/12/2016 3:49:30 PM	26944
Xylenes, Total	ND	0.093		mg/Kg	1	8/12/2016 3:49:30 PM	26944
Surr: 4-Bromofluorobenzene	96.3	80-120		%Rec	1	8/12/2016 3:49:30 PM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-011 **Matrix:** SOIL

Client Sample ID: EX2-7
Collection Date: 8/10/2016 2:10:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	8/12/2016 1:01:18 PM	26950
Surr: DNOP	88.2	70-130		%Rec	1	8/12/2016 1:01:18 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/12/2016 6:37:25 PM	26944
Surr: BFB	82.5	68.3-144		%Rec	1	8/12/2016 6:37:25 PM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	8/12/2016 6:37:25 PM	26944
Toluene	ND	0.047		mg/Kg	1	8/12/2016 6:37:25 PM	26944
Ethylbenzene	ND	0.047		mg/Kg	1	8/12/2016 6:37:25 PM	26944
Xylenes, Total	ND	0.093		mg/Kg	1	8/12/2016 6:37:25 PM	26944
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	8/12/2016 6:37:25 PM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-012
Matrix: SOIL
Client Sample ID: EX2-8
Collection Date: 8/10/2016 2:15:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/12/2016 1:23:06 PM	26950
Surr: DNOP	87.9	70-130		%Rec	1	8/12/2016 1:23:06 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/12/2016 7:01:52 PM	26944
Surr: BFB	79.4	68.3-144		%Rec	1	8/12/2016 7:01:52 PM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.025		mg/Kg	1	8/12/2016 7:01:52 PM	26944
Toluene	ND	0.049		mg/Kg	1	8/12/2016 7:01:52 PM	26944
Ethylbenzene	ND	0.049		mg/Kg	1	8/12/2016 7:01:52 PM	26944
Xylenes, Total	ND	0.098		mg/Kg	1	8/12/2016 7:01:52 PM	26944
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	8/12/2016 7:01:52 PM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-013
Matrix: SOIL
Client Sample ID: EX3-1
Collection Date: 8/10/2016 2:20:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	8/12/2016 1:44:49 PM	26950
Surr: DNOP	80.4	70-130		%Rec	1	8/12/2016 1:44:49 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/12/2016 7:26:26 PM	26944
Surr: BFB	84.8	68.3-144		%Rec	1	8/12/2016 7:26:26 PM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.025		mg/Kg	1	8/12/2016 7:26:26 PM	26944
Toluene	ND	0.050		mg/Kg	1	8/12/2016 7:26:26 PM	26944
Ethylbenzene	ND	0.050		mg/Kg	1	8/12/2016 7:26:26 PM	26944
Xylenes, Total	ND	0.10		mg/Kg	1	8/12/2016 7:26:26 PM	26944
Surr: 4-Bromofluorobenzene	109	80-120		%Rec	1	8/12/2016 7:26:26 PM	26944

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-014 **Matrix:** SOIL

Client Sample ID: EX3-2
Collection Date: 8/10/2016 2:25:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	8/12/2016 2:06:30 PM	26950
Surr: DNOP	88.8	70-130		%Rec	1	8/12/2016 2:06:30 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/12/2016 7:50:57 PM	26944
Surr: BFB	82.1	68.3-144		%Rec	1	8/12/2016 7:50:57 PM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	8/12/2016 7:50:57 PM	26944
Toluene	ND	0.048		mg/Kg	1	8/12/2016 7:50:57 PM	26944
Ethylbenzene	ND	0.048		mg/Kg	1	8/12/2016 7:50:57 PM	26944
Xylenes, Total	ND	0.097		mg/Kg	1	8/12/2016 7:50:57 PM	26944
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	8/12/2016 7:50:57 PM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-015 **Matrix:** SOIL

Client Sample ID: EX3-3
Collection Date: 8/10/2016 2:30:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	8/12/2016 2:28:16 PM	26950
Surr: DNOP	87.4	70-130		%Rec	1	8/12/2016 2:28:16 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/12/2016 8:15:30 PM	26944
Surr: BFB	79.0	68.3-144		%Rec	1	8/12/2016 8:15:30 PM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	8/12/2016 8:15:30 PM	26944
Toluene	ND	0.047		mg/Kg	1	8/12/2016 8:15:30 PM	26944
Ethylbenzene	ND	0.047		mg/Kg	1	8/12/2016 8:15:30 PM	26944
Xylenes, Total	ND	0.094		mg/Kg	1	8/12/2016 8:15:30 PM	26944
Surr: 4-Bromofluorobenzene	97.4	80-120		%Rec	1	8/12/2016 8:15:30 PM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-016 **Matrix:** SOIL

Client Sample ID: EX3-4
Collection Date: 8/10/2016 2:35:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	8/12/2016 2:50:27 PM	26950
Surr: DNOP	87.2	70-130		%Rec	1	8/12/2016 2:50:27 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/12/2016 8:40:01 PM	26944
Surr: BFB	86.4	68.3-144		%Rec	1	8/12/2016 8:40:01 PM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	8/12/2016 8:40:01 PM	26944
Toluene	ND	0.049		mg/Kg	1	8/12/2016 8:40:01 PM	26944
Ethylbenzene	ND	0.049		mg/Kg	1	8/12/2016 8:40:01 PM	26944
Xylenes, Total	ND	0.098		mg/Kg	1	8/12/2016 8:40:01 PM	26944
Surr: 4-Bromofluorobenzene	113	80-120		%Rec	1	8/12/2016 8:40:01 PM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-017
Matrix: SOIL
Client Sample ID: EX4-1
Collection Date: 8/10/2016 2:45:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	8/12/2016 3:12:54 PM	26950
Surr: DNOP	86.2	70-130		%Rec	1	8/12/2016 3:12:54 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/12/2016 9:04:32 PM	26944
Surr: BFB	83.0	68.3-144		%Rec	1	8/12/2016 9:04:32 PM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	8/12/2016 9:04:32 PM	26944
Toluene	ND	0.048		mg/Kg	1	8/12/2016 9:04:32 PM	26944
Ethylbenzene	ND	0.048		mg/Kg	1	8/12/2016 9:04:32 PM	26944
Xylenes, Total	ND	0.096		mg/Kg	1	8/12/2016 9:04:32 PM	26944
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	8/12/2016 9:04:32 PM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-018
Matrix: SOIL
Client Sample ID: EX4-2
Collection Date: 8/10/2016 2:50:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	8/12/2016 3:34:37 PM	26950
Surr: DNOP	89.0	70-130		%Rec	1	8/12/2016 3:34:37 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/12/2016 9:28:58 PM	26944
Surr: BFB	82.0	68.3-144		%Rec	1	8/12/2016 9:28:58 PM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.025		mg/Kg	1	8/12/2016 9:28:58 PM	26944
Toluene	ND	0.050		mg/Kg	1	8/12/2016 9:28:58 PM	26944
Ethylbenzene	ND	0.050		mg/Kg	1	8/12/2016 9:28:58 PM	26944
Xylenes, Total	ND	0.10		mg/Kg	1	8/12/2016 9:28:58 PM	26944
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	8/12/2016 9:28:58 PM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-019
Matrix: SOIL
Client Sample ID: EX4-4
Collection Date: 8/10/2016 3:00:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	8/12/2016 3:56:30 PM	26950
Surr: DNOP	90.4	70-130		%Rec	1	8/12/2016 3:56:30 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/12/2016 9:53:25 PM	26944
Surr: BFB	88.5	68.3-144		%Rec	1	8/12/2016 9:53:25 PM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	8/12/2016 9:53:25 PM	26944
Toluene	ND	0.046		mg/Kg	1	8/12/2016 9:53:25 PM	26944
Ethylbenzene	ND	0.046		mg/Kg	1	8/12/2016 9:53:25 PM	26944
Xylenes, Total	ND	0.091		mg/Kg	1	8/12/2016 9:53:25 PM	26944
Surr: 4-Bromofluorobenzene	114	80-120		%Rec	1	8/12/2016 9:53:25 PM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-020 **Matrix:** SOIL

Client Sample ID: EX4-5
Collection Date: 8/10/2016 3:05:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	8/12/2016 4:18:12 PM	26950
Surr: DNOP	91.5	70-130		%Rec	1	8/12/2016 4:18:12 PM	26950
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/12/2016 10:17:50 PM	26944
Surr: BFB	79.2	68.3-144		%Rec	1	8/12/2016 10:17:50 PM	26944
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	8/12/2016 10:17:50 PM	26944
Toluene	ND	0.048		mg/Kg	1	8/12/2016 10:17:50 PM	26944
Ethylbenzene	ND	0.048		mg/Kg	1	8/12/2016 10:17:50 PM	26944
Xylenes, Total	ND	0.097		mg/Kg	1	8/12/2016 10:17:50 PM	26944
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	8/12/2016 10:17:50 PM	26944

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-021 **Matrix:** SOIL

Client Sample ID: EX5-1
Collection Date: 8/10/2016 3:10:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/15/2016 12:15:40 PM	26954
Surr: DNOP	95.0	70-130		%Rec	1	8/15/2016 12:15:40 PM	26954
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/15/2016 3:42:48 PM	26953
Surr: BFB	82.6	68.3-144		%Rec	1	8/15/2016 3:42:48 PM	26953
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	8/15/2016 3:42:48 PM	26953
Toluene	ND	0.047		mg/Kg	1	8/15/2016 3:42:48 PM	26953
Ethylbenzene	ND	0.047		mg/Kg	1	8/15/2016 3:42:48 PM	26953
Xylenes, Total	ND	0.093		mg/Kg	1	8/15/2016 3:42:48 PM	26953
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	8/15/2016 3:42:48 PM	26953

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-022 **Matrix:** SOIL

Client Sample ID: EX5-2
Collection Date: 8/10/2016 3:15:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	35	9.6		mg/Kg	1	8/15/2016 12:37:18 PM	26954
Surr: DNOP	104	70-130		%Rec	1	8/15/2016 12:37:18 PM	26954
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/15/2016 4:56:43 PM	26953
Surr: BFB	85.4	68.3-144		%Rec	1	8/15/2016 4:56:43 PM	26953
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	8/15/2016 4:56:43 PM	26953
Toluene	ND	0.046		mg/Kg	1	8/15/2016 4:56:43 PM	26953
Ethylbenzene	ND	0.046		mg/Kg	1	8/15/2016 4:56:43 PM	26953
Xylenes, Total	ND	0.093		mg/Kg	1	8/15/2016 4:56:43 PM	26953
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	8/15/2016 4:56:43 PM	26953

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-023 **Matrix:** SOIL

Client Sample ID: EX5-3
Collection Date: 8/10/2016 3:20:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/15/2016 12:59:04 PM	26954
Surr: DNOP	93.6	70-130		%Rec	1	8/15/2016 12:59:04 PM	26954
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/15/2016 6:10:21 PM	26953
Surr: BFB	78.6	68.3-144		%Rec	1	8/15/2016 6:10:21 PM	26953
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	8/15/2016 6:10:21 PM	26953
Toluene	ND	0.046		mg/Kg	1	8/15/2016 6:10:21 PM	26953
Ethylbenzene	ND	0.046		mg/Kg	1	8/15/2016 6:10:21 PM	26953
Xylenes, Total	ND	0.093		mg/Kg	1	8/15/2016 6:10:21 PM	26953
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	8/15/2016 6:10:21 PM	26953

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Lateral 10D-1
Lab ID: 1608655-024 **Matrix:** SOIL

Client Sample ID: EX5-4
Collection Date: 8/10/2016 3:25:00 PM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/15/2016 1:20:47 PM	26954
Surr: DNOP	93.4	70-130		%Rec	1	8/15/2016 1:20:47 PM	26954
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/15/2016 6:34:57 PM	26953
Surr: BFB	85.2	68.3-144		%Rec	1	8/15/2016 6:34:57 PM	26953
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	8/15/2016 6:34:57 PM	26953
Toluene	ND	0.048		mg/Kg	1	8/15/2016 6:34:57 PM	26953
Ethylbenzene	ND	0.048		mg/Kg	1	8/15/2016 6:34:57 PM	26953
Xylenes, Total	ND	0.096		mg/Kg	1	8/15/2016 6:34:57 PM	26953
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	1	8/15/2016 6:34:57 PM	26953

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608655**

16-Aug-16

Client: APEX TITAN
Project: Lateral 10D-1

Sample ID **MB-26950**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **26950**			RunNo: **36457**					
Prep Date: **8/12/2016**	Analysis Date: **8/12/2016**			SeqNo: **1129314**		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	8.9		10.00		89.2	70	130			

Sample ID **LCS-26954**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **26954**			RunNo: **36459**					
Prep Date: **8/12/2016**	Analysis Date: **8/12/2016**			SeqNo: **1129462**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	81.5	62.6	124			
Surr: DNOP	4.0		5.000		79.5	70	130			

Sample ID **MB-26954**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **26954**			RunNo: **36459**					
Prep Date: **8/12/2016**	Analysis Date: **8/12/2016**			SeqNo: **1129463**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.4		10.00		83.5	70	130			

Sample ID **1608655-001AMS**	SampType: **MS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **EX1-2**	Batch ID: **26950**			RunNo: **36457**					
Prep Date: **8/12/2016**	Analysis Date: **8/12/2016**			SeqNo: **1129509**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	65	9.7	48.36	15.77	101	33.9	141			
Surr: DNOP	4.4		4.836		91.5	70	130			

Sample ID **1608655-001AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **EX1-2**	Batch ID: **26950**			RunNo: **36457**					
Prep Date: **8/12/2016**	Analysis Date: **8/12/2016**			SeqNo: **1129510**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	61	9.3	46.25	15.77	97.8	33.9	141	6.04	20	
Surr: DNOP	4.1		4.625		89.1	70	130	0	0	

Sample ID **LCS-26950**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **26950**			RunNo: **36457**					
Prep Date: **8/12/2016**	Analysis Date: **8/12/2016**			SeqNo: **1129511**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608655**

16-Aug-16

Client: APEX TITAN

Project: Lateral 10D-1

Sample ID **LCS-26950**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **26950**	RunNo: **36457**
Prep Date: **8/12/2016**	Analysis Date: **8/12/2016**	SeqNo: **1129511** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.5	62.6	124			
Surr: DNOP	4.5		5.000		90.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608655**

16-Aug-16

Client: APEX TITAN
Project: Lateral 10D-1

Sample ID **1608655-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **EX1-3**	Batch ID: **26944**	RunNo: **36500**							
Prep Date: **8/11/2016**	Analysis Date: **8/12/2016**	SeqNo: **1130240**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.2	59.3	143			
Surr: BFB	910		1000		91.4	68.3	144			

Sample ID **1608655-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **EX1-3**	Batch ID: **26944**	RunNo: **36500**							
Prep Date: **8/11/2016**	Analysis Date: **8/12/2016**	SeqNo: **1130242**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	24.98	0	92.2	59.3	143	2.29	20	
Surr: BFB	870		999.0		87.5	68.3	144	0	0	

Sample ID **LCS-26944**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **26944**	RunNo: **36500**							
Prep Date: **8/11/2016**	Analysis Date: **8/12/2016**	SeqNo: **1130279**	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	97.0	80	120			
Surr: BFB	950		1000		95.5	68.3	144			

Sample ID **MB-26944**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **26944**	RunNo: **36500**							
Prep Date: **8/11/2016**	Analysis Date: **8/12/2016**	SeqNo: **1130281**	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	800		1000		80.0	68.3	144			

Sample ID **MB-26953**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **26953**	RunNo: **36508**							
Prep Date: **8/12/2016**	Analysis Date: **8/15/2016**	SeqNo: **1130701**	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	760		1000		75.7	68.3	144			

Sample ID **LCS-26953**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **26953**	RunNo: **36508**							
Prep Date: **8/12/2016**	Analysis Date: **8/15/2016**	SeqNo: **1130702**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608655**

16-Aug-16

Client: APEX TITAN

Project: Lateral 10D-1

Sample ID	LCS-26953	SampType:	LCS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	LCSS	Batch ID:	26953		RunNo:	36508				
Prep Date:	8/12/2016	Analysis Date:	8/15/2016		SeqNo:	1130702	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	25.00	0	81.2	80	120			
Surr: BFB	860		1000		85.6	68.3	144			

Sample ID	1608655-022AMS	SampType:	MS		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	EX5-2	Batch ID:	26953		RunNo:	36508				
Prep Date:	8/12/2016	Analysis Date:	8/15/2016		SeqNo:	1130705	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.9	24.41	0	82.7	59.3	143			
Surr: BFB	880		976.6		89.7	68.3	144			

Sample ID	1608655-022AMSD	SampType:	MSD		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	EX5-2	Batch ID:	26953		RunNo:	36508				
Prep Date:	8/12/2016	Analysis Date:	8/15/2016		SeqNo:	1130706	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	24.88	0	81.8	59.3	143	0.754	20	
Surr: BFB	870		995.0		87.3	68.3	144	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608655**

16-Aug-16

Client: APEX TITAN

Project: Lateral 10D-1

Sample ID **1608655-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **EX1-2**	Batch ID: **26944**	RunNo: **36500**
Prep Date: **8/11/2016**	Analysis Date: **8/12/2016**	SeqNo: **1130355** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.023	0.9225	0	97.8	71.5	122			
Toluene	0.89	0.046	0.9225	0	96.0	71.2	123			
Ethylbenzene	0.95	0.046	0.9225	0.03547	98.9	75.2	130			
Xylenes, Total	3.1	0.092	2.768	0.2669	101	72.4	131			
Surr: 4-Bromofluorobenzene	1.1		0.9225		120	80	120			S

Sample ID **1608655-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **EX1-2**	Batch ID: **26944**	RunNo: **36500**
Prep Date: **8/11/2016**	Analysis Date: **8/12/2016**	SeqNo: **1130356** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.024	0.9728	0	94.9	71.5	122	2.31	20	
Toluene	0.91	0.049	0.9728	0	94.0	71.2	123	3.19	20	
Ethylbenzene	0.96	0.049	0.9728	0.03547	94.8	75.2	130	1.02	20	
Xylenes, Total	3.1	0.097	2.918	0.2669	96.1	72.4	131	0.139	20	
Surr: 4-Bromofluorobenzene	1.1		0.9728		117	80	120	0	0	

Sample ID **LCS-26944**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **26944**	RunNo: **36500**
Prep Date: **8/11/2016**	Analysis Date: **8/12/2016**	SeqNo: **1130376** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	96.2	75.3	123			
Toluene	0.94	0.050	1.000	0	93.9	80	124			
Ethylbenzene	0.91	0.050	1.000	0	91.0	82.8	121			
Xylenes, Total	2.7	0.10	3.000	0	88.9	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID **MB-26944**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **26944**	RunNo: **36500**
Prep Date: **8/11/2016**	Analysis Date: **8/12/2016**	SeqNo: **1130377** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1608655**

16-Aug-16

Client: APEX TITAN
Project: Lateral 10D-1

Sample ID **MB-26953**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **26953**	RunNo: **36508**
Prep Date: **8/12/2016**	Analysis Date: **8/15/2016**	SeqNo: **1130726** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		99.8	80	120			

Sample ID **LCS-26953**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **26953**	RunNo: **36508**
Prep Date: **8/12/2016**	Analysis Date: **8/15/2016**	SeqNo: **1130727** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	100	75.3	123			
Toluene	1.0	0.050	1.000	0	102	80	124			
Ethylbenzene	0.96	0.050	1.000	0	96.4	82.8	121			
Xylenes, Total	2.9	0.10	3.000	0	95.8	83.9	122			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Sample ID **1608655-021AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **EX5-1**	Batch ID: **26953**	RunNo: **36508**
Prep Date: **8/12/2016**	Analysis Date: **8/15/2016**	SeqNo: **1130729** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	0.9823	0	107	71.5	122			
Toluene	1.1	0.049	0.9823	0	113	71.2	123			
Ethylbenzene	1.1	0.049	0.9823	0	108	75.2	130			
Xylenes, Total	3.1	0.098	2.947	0	105	72.4	131			
Surr: 4-Bromofluorobenzene	1.2		0.9823		118	80	120			

Sample ID **1608655-021AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **EX5-1**	Batch ID: **26953**	RunNo: **36508**
Prep Date: **8/12/2016**	Analysis Date: **8/15/2016**	SeqNo: **1130730** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9960	0	103	71.5	122	2.46	20	
Toluene	1.0	0.050	0.9960	0	105	71.2	123	5.83	20	
Ethylbenzene	1.0	0.050	0.9960	0	101	75.2	130	4.91	20	
Xylenes, Total	3.0	0.10	2.988	0	99.9	72.4	131	3.76	20	
Surr: 4-Bromofluorobenzene	1.1		0.9960		114	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix
- W Sample container temperature is out of limit as specified

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: 1608655 | RcptNo: 1

Received by/date: 08/11/16
Logged By: Lindsay Mangin 8/11/2016 6:45:00 AM
Completed By: Lindsay Mangin 8/11/2016 10:19:36 AM
Reviewed By: CS 08/11/16

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 ☐	
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	2.1	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: R. Sumners

Laboratory: Hall

Address: ABQ

Contact: A. Freeman

Phone:

PO/SO #:

Sampler's Name: Ranee Duechilly

Sampler's Signature:

Proj. No.

Project Name: Lateral 10D-1

No/Type of Containers

ANALYSIS REQUESTED: 8021 BTEX; 8015 TPH GRO/DRO

Lab use only
Due Date:

Temp. of coolers when received (C°): 2.1

1 | 2 | 3 | 4 | 5

Page 1 of 3

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	8/10/16	1305			EX1-2						1		X X 1608655-001
		1310			EX1-3								-002
		1315			EX1-4								-003
		1320			EX1-5								-004
		1325			EX1-6								-005
		1335			EX1-8								-006
		1345			EX2-2								-007
		1350			EX2-3								-008
		1355			EX2-4								-009
		1400			EX2-5								-010

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	8/10/16	1920		8/10/16	1920
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	8/10/16	2040		08/11/16	0845
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

Bill to Tom Long

NonAFE

N 26208

3-DAY

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

Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: K. Summers

Laboratory: Hall

Address: ABQ, NM

Contact: A. Freeman

Phone:

PO/SO #:

Sampler's Name: Ranee Deechilly

Sampler's Signature:

Proj. No.

Project Name: Lateral 10D-1

No/Type of Containers

ANALYSIS REQUESTED: 8021 BTEX; 8015 TPH GRO/DRO

Lab use only
Due Date:

Temp. of coolers when received (C°): 2.1

1 | 2 | 3 | 4 | 5

Page 2 of 3

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	8/10/16	1410			EX2-7						1		1608655-011
		1415			EX2-8								-012
		1420			EX3-1								-013
		1425			EX3-2								-014
		1430			EX3-3								-015
		1435			EX3-4								-016
		1445			EX4-1								-017
		1450			EX4-2								-018
		1500			EX4-4								-019
		1505			EX4-5								-020

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	8/10/16	1920		8/10/16	1920
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	8/10/16	2040		08/11/16	0645
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

Bill to Tom Long

Non AFE

N 26208

3-DAY

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

Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: R. Summers

Laboratory: Hall

Address: ABQ, NM

Contact: A. Freeman

Phone:

PO/SO #:

Sampler's Name: Kanee Deechilly

Sampler's Signature:

Proj. No.

Project Name: Lateral 10D-1

No/Type of Containers

ANALYSIS REQUESTED: 8021 BTEX; 8015 TPH GRO/DRO

Lab use only
Due Date:

Temp. of coolers when received (C°): 2, 1

1 | 2 | 3 | 4 | 5

Page 3 of 3

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	Lab Sample ID (Lab Use Only)
S	8/10/16	1510			EX5-1			X	X				1608655-021
↓	↓	1515			EX5-2			X	X				-022
↓	↓	1520			EX5-3			X	X				-023
↓	↓	1525			EX5-4			X	X				-024

N/S

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush 3 day

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	8/10/16	1920		8/10/16	1920
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	8/10/16	2040		08/11/16	0640
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

Bill to Tom Long
Non APE
N26208

3-DAY

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

August 16, 2016

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: 10D-1 OrderNo.: 1608656

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 11 sample(s) on 8/11/2016 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 **1608656**
Date Reported: **8/16/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: EX5-SP1
Project: 10D-1
Collection Date: 8/10/2016 3:00:00 AM
Lab ID: 1608656-001
Matrix: SOIL
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/15/2016 1:08:27 PM	26954
Surr: DNOP	86.9	70-130		%Rec	1	8/15/2016 1:08:27 PM	26954
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/15/2016 6:59:33 PM	26953
Surr: BFB	77.8	68.3-144		%Rec	1	8/15/2016 6:59:33 PM	26953
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	8/15/2016 6:59:33 PM	26953
Toluene	ND	0.048		mg/Kg	1	8/15/2016 6:59:33 PM	26953
Ethylbenzene	ND	0.048		mg/Kg	1	8/15/2016 6:59:33 PM	26953
Xylenes, Total	ND	0.096		mg/Kg	1	8/15/2016 6:59:33 PM	26953
Surr: 4-Bromofluorobenzene	100	80-120		%Rec	1	8/15/2016 6:59:33 PM	26953

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: EX5-SP2
Project: 10D-1
Collection Date: 8/10/2016 3:10:00 AM
Lab ID: 1608656-002
Matrix: SOIL
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	8/15/2016 1:30:20 PM	26954
Surr: DNOP	88.0	70-130		%Rec	1	8/15/2016 1:30:20 PM	26954
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/15/2016 7:24:06 PM	26953
Surr: BFB	78.9	68.3-144		%Rec	1	8/15/2016 7:24:06 PM	26953
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	8/15/2016 7:24:06 PM	26953
Toluene	ND	0.046		mg/Kg	1	8/15/2016 7:24:06 PM	26953
Ethylbenzene	ND	0.046		mg/Kg	1	8/15/2016 7:24:06 PM	26953
Xylenes, Total	ND	0.092		mg/Kg	1	8/15/2016 7:24:06 PM	26953
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	8/15/2016 7:24:06 PM	26953

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: EX4-SP1
Project: 10D-1
Collection Date: 8/10/2016 3:10:00 AM
Lab ID: 1608656-003
Matrix: SOIL
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	23	9.8		mg/Kg	1	8/15/2016 1:52:20 PM	26954
Surr: DNOP	87.0	70-130		%Rec	1	8/15/2016 1:52:20 PM	26954
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/15/2016 7:48:38 PM	26953
Surr: BFB	89.6	68.3-144		%Rec	1	8/15/2016 7:48:38 PM	26953
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.025		mg/Kg	1	8/15/2016 7:48:38 PM	26953
Toluene	ND	0.050		mg/Kg	1	8/15/2016 7:48:38 PM	26953
Ethylbenzene	ND	0.050		mg/Kg	1	8/15/2016 7:48:38 PM	26953
Xylenes, Total	ND	0.10		mg/Kg	1	8/15/2016 7:48:38 PM	26953
Surr: 4-Bromofluorobenzene	113	80-120		%Rec	1	8/15/2016 7:48:38 PM	26953

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: EX4-SP2
Project: 10D-1
Collection Date: 8/10/2016 3:30:00 AM
Lab ID: 1608656-004
Matrix: SOIL
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	12	9.8		mg/Kg	1	8/15/2016 2:14:11 PM	26954
Surr: DNOP	91.6	70-130		%Rec	1	8/15/2016 2:14:11 PM	26954
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/15/2016 8:13:07 PM	26953
Surr: BFB	80.2	68.3-144		%Rec	1	8/15/2016 8:13:07 PM	26953
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	8/15/2016 8:13:07 PM	26953
Toluene	ND	0.046		mg/Kg	1	8/15/2016 8:13:07 PM	26953
Ethylbenzene	ND	0.046		mg/Kg	1	8/15/2016 8:13:07 PM	26953
Xylenes, Total	ND	0.093		mg/Kg	1	8/15/2016 8:13:07 PM	26953
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	8/15/2016 8:13:07 PM	26953

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: 10D-1
Lab ID: 1608656-005 **Matrix:** SOIL

Client Sample ID: EX3-SP1
Collection Date: 8/10/2016 3:40:00 AM
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	9.5	9.2		mg/Kg	1	8/15/2016 2:36:14 PM	26954
Surr: DNOP	90.5	70-130		%Rec	1	8/15/2016 2:36:14 PM	26954
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/15/2016 8:37:32 PM	26953
Surr: BFB	79.3	68.3-144		%Rec	1	8/15/2016 8:37:32 PM	26953
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	8/15/2016 8:37:32 PM	26953
Toluene	ND	0.047		mg/Kg	1	8/15/2016 8:37:32 PM	26953
Ethylbenzene	ND	0.047		mg/Kg	1	8/15/2016 8:37:32 PM	26953
Xylenes, Total	ND	0.095		mg/Kg	1	8/15/2016 8:37:32 PM	26953
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	8/15/2016 8:37:32 PM	26953

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: EX3-SP2
Project: 10D-1
Collection Date: 8/10/2016 3:50:00 AM
Lab ID: 1608656-006
Matrix: SOIL
Received Date: 8/11/2016 6:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/15/2016 2:58:10 PM	26954
Surr: DNOP	93.0	70-130		%Rec	1	8/15/2016 2:58:10 PM	26954
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/15/2016 10:39:49 PM	26953
Surr: BFB	73.5	68.3-144		%Rec	1	8/15/2016 10:39:49 PM	26953
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.024		mg/Kg	1	8/15/2016 10:39:49 PM	26953
Toluene	ND	0.048		mg/Kg	1	8/15/2016 10:39:49 PM	26953
Ethylbenzene	ND	0.048		mg/Kg	1	8/15/2016 10:39:49 PM	26953
Xylenes, Total	ND	0.097		mg/Kg	1	8/15/2016 10:39:49 PM	26953
Surr: 4-Bromofluorobenzene	93.4	80-120		%Rec	1	8/15/2016 10:39:49 PM	26953

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec NM

Project Manager: K. Summers

Laboratory: Hall Env

Address: ABQ N.M

Contact: A Fireman

Phone:

PO/SO #:

Sampler's Name: Chad D'Agonti

Sampler's Signature:

Proj. No.

Project Name: 10D-1

No/Type of Containers

ANALYSIS REQUESTED: BTEX 8021 / TPH GRO/DRO 8015

Lab use only
Due Date:

Temp. of coolers when received (C°): 2.1

1 | 2 | 3 | 4 | 5

Page 1 of 2

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	Lab Sample ID (Lab Use Only)
S	8/10/16	300			Ex 5 - SP1						1		1608656-001
		310			Ex 5 - SP2						1		-002
		320			Ex 4 - SP1						1		-003
		330			Ex 4 - SP2						1		-004
		340			Ex 3 - SP1						1		-005
		350			Ex 3 - SP2						1		-006
		400			Ex 2 - SP1						1		-007
		430			Ex 2 - SP2						1		-008
		440			Ex 2 - SP3						1		-009
		500			Ex 1 - SP1						1		-010

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush 3 day Turn

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	8/10/16	6:40		8/10/16	1841
	8/10/16	1920		8/10/16	1920
	8/10/16	2040		08/11/16	0645
	Date:	Time:		Date:	Time:

NOTES:

Bill to Tom Long 3 day

AFE N20208

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

Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other _____

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec N.M

Project Manager: R Summers

Laboratory: Hall Env

Address: ABQ N.M

Contact: A Fireman

Phone:

PO/SO #:

Sampler's Name: Chad D'Apanti

Sampler's Signature:

Proj. No.

Project Name

No/Type of Containers

ANALYSIS REQUESTED: BTEX 8021, TPH GRO/DRO 8015

Lab use only
Due Date:

Temp. of coolers when received (C°): 2.1

1 | 2 | 3 | 4 | 5

Page 2 of 2

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	Lab Sample ID (Lab Use Only)
S	8/10/16	5:10			EX 1 - SP2						1		1608656-011

BTEX
CD

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush 3 Day

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	8/10/16	6:40		8/10/16	1920
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	8/10/16	1920		8/10/16	1920
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	8/10/16	2040		08/11/16	0445
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

Bill to Tom Long 3day

AFE N 26208

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: **Florance #21A**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **State of New Mexico**	Mineral Owner: **State of New Mexico**	**Serial Number: N/A**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from	North/South Line	Feet from	East/West Line	County
M	**36**	**30N**	**9W**	the **957**	North (South)	the **829**	East (West)	**San Juan**

Latitude 36.76328 **Longitude** -107.73779

NATURE OF RELEASE

Type of Release: Natural Gas	Volume of Release **40.43 MCF Gas; 10-15 BBLs Condensate**	Volume Recovered: **None**
Source of Release: Internal Corrosion	Date and Hour of Occurrence: **1/10/2017 @ 11:30 a.m.**	Date and Hour of Discovery: **1/10/2017 @ 11:30 a.m.**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? Vanessa Fields – NMOCD; Brandon Foley -SLO	
By Whom?	Date and Time.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume	

OIL CONS. DIV DIST. 3

MAR 31 2017

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On December 20, 2016, Enterprise technicians discovered a gas leak on the Florance #21A pipeline. No Fluids were observed on the ground surface. The pipeline was isolated, blown down, locked out and tagged out.

Describe Area Affected and Cleanup Action: Repairs and remediation were completed on January 31, 2017. The remediation of this release is associated with Case #nVF1702449270. The contaminant mass was removed by mechanical excavation. The final excavations removed approximately 1, 870 cubic yards of hydrocarbon impacted soil. Excavated soil was transported to a New Mexico Oil Conservation Division approved land farm facility. A third party corrective action reports 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: 4/4/2017 Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval: Attached ☐
Date: 3.28.2017 Phone: (713)381-6684	nVF1702449270

* Attach Additional Sheets If Necessary

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APEX

CORRECTIVE ACTION REPORT

Property:

Florance #21A Pipeline Release
SW 1/4, S36 T30N R9W
San Juan County, New Mexico

March 10, 2017
Apex Project No. 725040112240

Prepared for:

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

Prepared by:

Ranee Deechilly
Project Scientist

Kyle Summers, CPG
Branch Manager/Senior Project Manager

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Chain of Custody Documentation

APEX

CORRECTIVE ACTION REPORT

Florance #21A Pipeline Release
SW 1/4, S36 T30N R9W
San Juan County, New Mexico

Apex Project No. 725040112240

1.0 INTRODUCTION

1.1 Site Description & Background

The Florance #21A pipeline release site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the southwest (SW) ¼ of Section 36, Township 30 North, Range 9 West, in San Juan County, New Mexico (36.76327N, 107.73779W), referred to hereinafter as the "Site". The Site is located on a natural gas production well pad, on land managed by the New Mexico State Land Office (SLO). The Site is surrounded by native vegetation rangeland periodically interrupted by oil and gas gathering facilities, including the Enterprise natural gas well tie which traverses the area from approximately southeast to northwest.

On January 10, 2017, a release on the Florance #21A pipeline was identified and reported to Enterprise by a third party. Enterprise subsequently isolated and locked the line out of service. On January 13, 2017, Enterprise initiated excavation activities to facilitate the repair of the pipeline and the remediation of hydrocarbon impact. The line was repaired by cleaning and clamping the pipe.

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

2.0 SITE RANKING

In accordance with the New Mexico 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 to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the following table:

Ranking Criteria			Ranking Score
Depth to Groundwater	<50 feet	20	0
	50 to 99 feet	10	
	>100 feet	0	
Wellhead Protection Area • <1,000 feet from a water source, or; <200 feet from private domestic water source.	Yes	20	20
	No	0	
Distance to Surface Water Body	<200 feet	20	10
	200 to 1,000 feet	10	
	>1,000 feet	0	
Total Ranking Score			**30**

Based on Apex's evaluation of the scoring criteria, the Site would have a conservative Total Ranking Score of 30. This ranking is based on the following:

- Based on water well record descriptions obtained from the Office of the State Engineer (OSE) website, the nearest water well (SJ02298) is located approximately 1,300 feet north of the Site with a reported depth to water of four (4) feet below grade surface (bgs). The exact location the water well is unclear however it is assumed that the water well is located near the bank of the San Juan River based on the available records. The release Site is located at an elevation of approximately 150 feet above that of the San Juan Valley floor. Due to the apparent absence of visible or documented springs along the cliff face, it seems unlikely that significant groundwater is present within the sandstone near the cliff faces. Based on the difference in elevation between the river and Site, and the apparent absence of springs in the area, the depth to groundwater at the Site is anticipated to be greater than 100 feet bgs, resulting in a ranking score of "0" for depth to groundwater.

- No water source wells (municipal/community wells) were identified within 1,000 feet of the Site. No private domestic water sources were identified within 200 feet of the Site. The San Juan River, 850 feet to the northwest, is ultimately a source of drinking water for municipalities downstream. The proximity of the Site to the river results in a conservative wellhead/water source protection area ranking score of "20".

- The Site is located approximately 850 feet southeast of the San Juan River. This information supports a distance to surface water ranking score of "10".

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

On January 10, 2017, a release on the Florance #21A pipeline was identified and reported to Enterprise by a third party. Enterprise subsequently isolated and locked the line out of service. On January 13, 2017, Enterprise initiated excavation activities to facilitate the repair of the pipeline and the remediation of hydrocarbon impact. The line was ultimately repaired by cleaning and clamping the pipe. During the pipeline repair and corrective action activities, HALO Services, Inc., provided heavy equipment and labor support, and Apex provided environmental support.

Soil sampling was initiated on January 17, 2017, when ten (10) soil samples (S-1 through S-10) were collected from the initial repair excavation. Analytical results for these samples indicated that both soils and sandstone exhibited COC concentrations above OCD guidelines. The north and west sidewall were subsequently over-excavated, and six (6) soil samples (S-11 through S-16) were collected for laboratory analysis on January 18, and January 20, 2017.

After removing an unidentified abandoned pipeline, Enterprise extended the excavation to the east and south, and over-excavated a portion of the eastern floor to approximately 13 feet bgs. An additional nine (9) soil samples (S-17 through S-25) were collected from the expanded excavation on January 26, 2017.

The southern wall, east of the Florance #21A pipeline, was over-excavated and soil samples S-26 and S-27 were collected for laboratory analysis on January 31, 2017. Further excavation of the east wall was halted when two (2) additional abandoned ConocoPhillips pipelines, one of which was severely deteriorated, were encountered. At this point, due to infrastructure and apparently increasing COC concentrations, ConocoPhillips elected to implement delineation activities for the eastern portion of the well pad in an effort to identify the apparently unrelated source of impact. A representative from the OCD was present during each of the soil sampling events.

The final Enterprise excavation measured approximately 92 feet long by 55 feet wide at the maximum extents. The depth of the excavation ranged from five (5) feet bgs to 13 feet bgs.

The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated silty sand and weathered sandstone, underlain by sandstone.

A total of approximately 1,870 cubic yards of hydrocarbon affected soils and 55 barrels of hydro-excavation cuttings were transported to the Envirotech Inc. (Envirotech) landfarm near Hilltop, New Mexico for disposal/remediation. The executed C-138 form is provided in Appendix B.

Figure 3 is a Site Map with Soil Analytical Results that indicates the approximate sample locations in relation to the excavation extents and pipelines (Appendix A). Photographic documentation of the field activities is included in Appendix C.

3.2 Soil Sampling Program

Apex field screened soil samples from the excavation utilizing a photoionization detector (PID) fitted with a 10.6 eV lamp and a calibrated Dexsil PetroFLAG® hydrocarbon analyzer system to guide excavation extents.

Apex's soil sampling program included the collection of 27 soil samples (S-1 through S-27) from the repair excavation for laboratory analysis.

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

3.3 Laboratory Analytical Methods

The confirmation soil samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA SW-846 Method #8021, and total petroleum hydrocarbon (TPH)

gasoline range organics (GRO), diesel range organics (DRO), and motor oil/lube oil range organics (MRO) using EPA SW-846 Method #8015.

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

4.0 DATA EVALUATION

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

4.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or practical quantitation limits (PQLs) associated with the confirmation soil samples (S-3, S-6, S-7, S-11, S-12, S-14 through S-17, S-19, S-21, and S-23 through S-27) to the OCD *RALs* for sites having a total ranking score of "30". Soils associated with confirmation samples S-1, S-2, S-4, S-5, S-8 through S-10, S-13, S-18, S-20 and S-22 were removed by excavation and transported to the Envirotech landfarm near Hilltop, NM for disposal/treatment, and are not included in the following discussion.

- The laboratory analyses of confirmation soil samples S-3, S-6, S-7, S-11, S-12, S-14 through S-17, S-19, S-21, and S-23 through S-27 indicate benzene concentrations ranging from below the PQLs to 2.6 mg/kg (S-19), which are below the OCD *RAL* of 10 mg/kg.

- **The laboratory analyses of confirmation soil samples S-17 and S-19 indicate total BTEX concentration of 53 milligrams per kilogram (mg/kg) and 201 mg/kg, respectively, which exceed the OCR *RAL* of 50 mg/kg.** The laboratory analyses of the confirmation soil samples S-3, S-6, S-7, S-11, S-12, S-14 through S-16, S-21, and S-23 through S-27 indicate total BTEX concentrations ranging from below the PQLs to 2.1 mg/kg (S-21), which are below the OCD *RAL* of 50 mg/kg.

- **The laboratory analyses of confirmation soil samples S-7, S-15, S-17, S-19, S-21, and S-23 through S-25 indicate combined TPH GRO/DRO/MRO concentrations ranging from 139 mg/kg (S-21) to 5,420 mg/kg (S-19), which exceed the OCD *RAL* of 100 mg/kg.** The laboratory analyses of the confirmation soil samples S-3, S-6, S-11, S-12, S-14, S-16, S-26, and S-27 indicate combined TPH GRO/DRO/MRO concentrations ranging from below the PQLs to 54 mg/kg (S-3), which are below the OCD *RAL* of 100 mg/kg.

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

5.0 FINDINGS AND RECOMMENDATIONS

The Site is located within the Enterprise pipeline ROW in the SW ¼ of Section 36, Township 30 North, Range 9 West, in San Juan County, New Mexico. The Site is located on a natural gas production well pad, on land managed by the State of New Mexico. The Site is surrounded by native vegetation rangeland periodically interrupted by oil and gas gathering facilities, including the Enterprise natural gas well tie which traverses the area from approximately southeast to northwest.

On January 10, 2017, a release on the Florance #21A pipeline was identified and reported to Enterprise by a third party. Enterprise subsequently isolated and locked the line out of service. On January 13, 2017, Enterprise initiated excavation activities to facilitate the repair of the pipeline and the remediation of hydrocarbon impact. The line was repaired by cleaning and clamping the pipe.

- The primary objective of the environmental corrective actions was to reduce, as practicable, 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 silty sand and weathered sandstone, underlain sandstone.

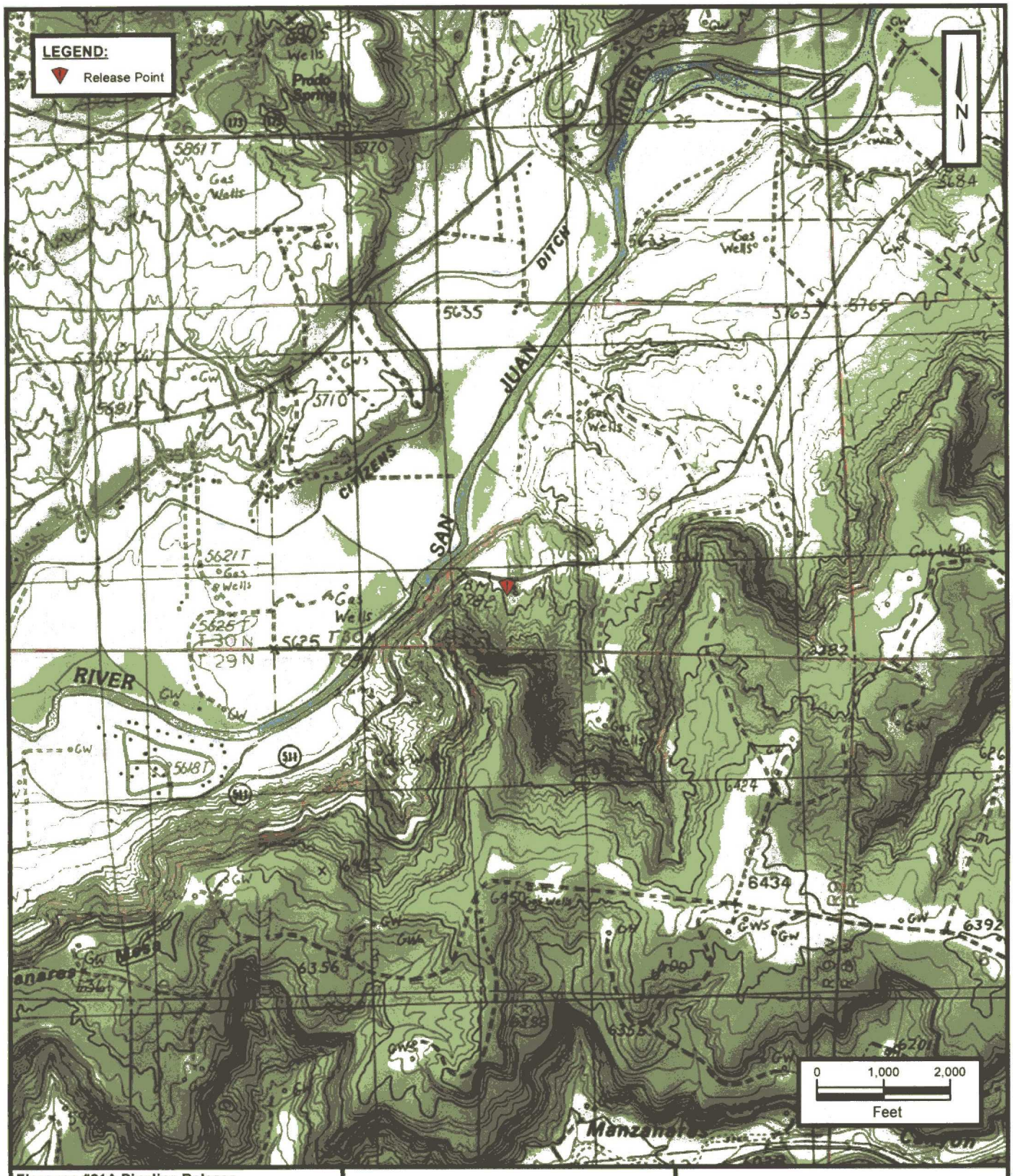
- The final Enterprise excavation measured approximately 92 feet long by 55 feet wide at the maximum extents. The depth of the excavation ranged from five (5) feet bgs to 13 feet bgs.

- **The laboratory analyses of confirmation soil samples S-17 and S-19 indicate total BTEX concentration of 53 milligrams per kilogram (mg/kg) and 201 mg/kg, respectively, which are above the OCR *RAL* of 50 mg/kg.**

- **The laboratory analyses of confirmation soil samples S-7, S-15, S-17, S-19, S-21, and S-23 through S-25 indicate combined TPH GRO/DRO/MRO concentrations ranging from 139 mg/kg (S-21) to 5,420 mg/kg (S-19), which are above the OCD *RAL* of 100 mg/kg.**

- A total of approximately 1,870 cubic yards of hydrocarbon affected soils and 55 barrels of hydro-excavator cuttings were transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/remediation.

No benzene exceedances were identified in soils/sandstone remaining in place. Of soils and weathered sandstone remaining in place, only the soils associated with samples S-17 (excavation floor sample of moderately weathered sandstone) and S-19 (excavation sidewall sample at eastern extent of excavation) exhibited total BTEX concentrations above the OCD RALs. Analytical results from the deepest portion of the excavation appear to indicate COC concentrations are decreasing with depth. Enterprise, based on the absence of remaining surface impact, no apparent groundwater threat, and the apparently declining (with depth) COC concentrations, requests that the Enterprise portion of this Site be closed with no further action.



Florance #21A Pipeline Release
SW 1/4, Sec 36 T30N R9W
San Juan County, New Mexico
36.76327 N, 107.73779 W

Project No. 725040112240

Apex TITAN, Inc.
606 South 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

Service Layer Credits:
Copyright:© 2013 National Geographic Society, i-cubed, Archuleta, Cutter Canyon, Turley, and Blanco New Mexico 7.5-Minute Quadrangles 1985

Z:\Dallas South\Drafting\2016\725040112240\Figure 1.mxd Modified 2/8/2017 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System

Imagery ©2017 , DigitalGlobe, USDA Farm Service Agency

Pinkerton 021A Pipeline Release
SW 1/4, Sec 33 T32N R5W
San Juan County, New Mexico
36.78327 N, 107.73778 W

Project No. 72504-0122-0

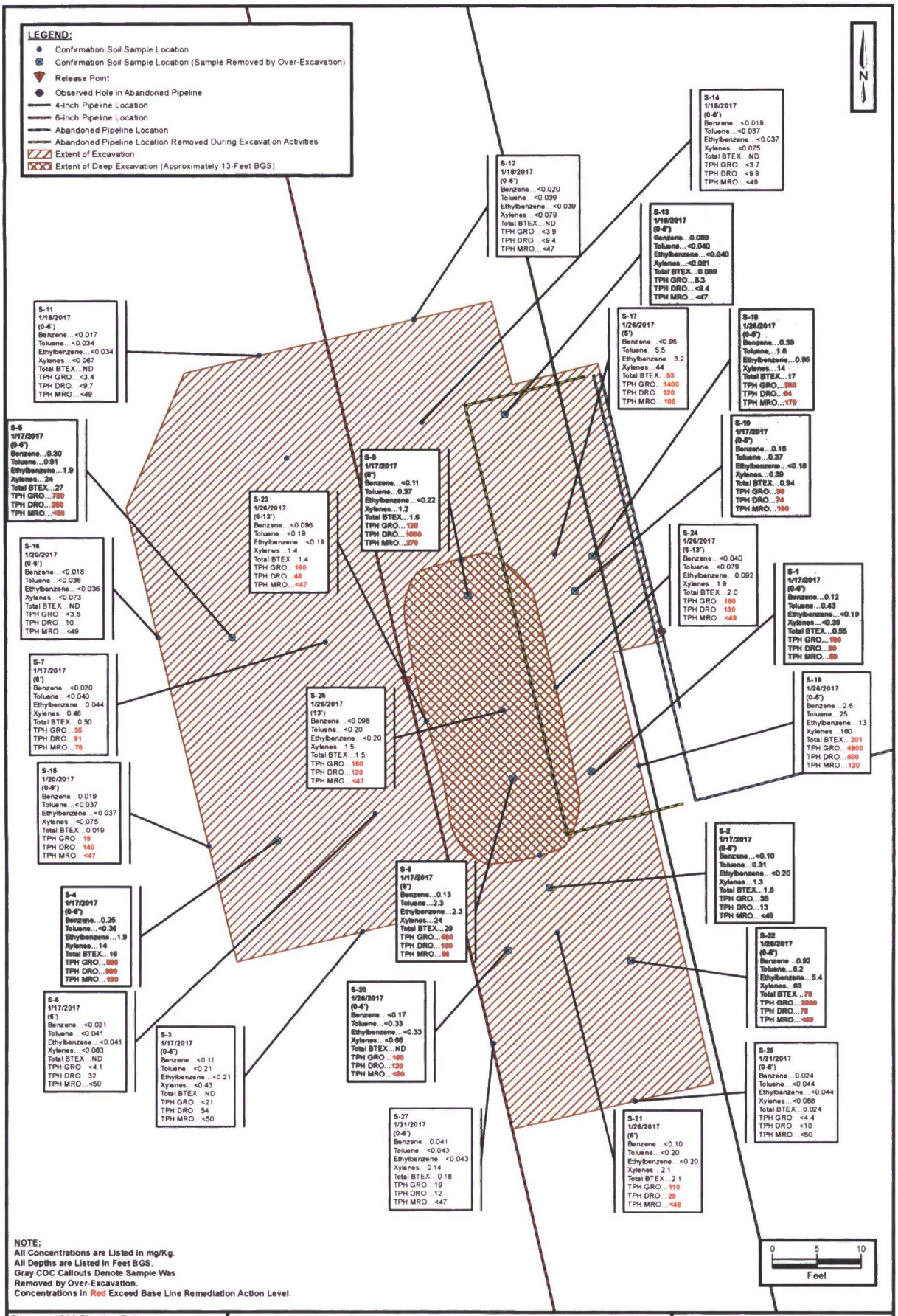
Apex TITAN, Inc.
606 South Rio Grande, Suite A
Aztec, New Mexico 87410
Phone: (505) 334-3303
www.apexcos.com
A Subsidiary of Apex Companies, LLC

FIGURE 2

Site Vicinity Map

Sources: Layer Credits
Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Aerial Photograph March 2017

Z:\Aztec Staff\Drawing\2017\72504017122\Figure 2.mxd Modified 2/6/2017 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System



NOTE:
All Concentrations are Listed in mg/Kg.
All Depths are Listed in Feet BGS.
Gray COC Callouts Denote Sample Was Removed by Over-Excavation.
Concentrations in Red Exceed Base Line Remediation Action Level.

Florance #21A Pipeline Release
SW 1/4, Sec 36 T30N R9W
San Juan County, New Mexico
36.76327 N, 107.73779 W

Project No. 725040112240

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

FIGURE 3

Site Map with Soil Analytical Results

C:\Users\jsimpson\Desktop\725040112240\Figure 3_11.mxd Modified 3/9/2017 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System

APPENDIX B

Executed C-138 Solid Waste Acceptance Form

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

State of New Mexico
Energy Minerals and Natural Resources

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

97057-0819

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:**
Florance #21A Release Site

3. **Location of Material (Street Address, City, State or ULSTR):**
UL M T-30-N R-9-W Sec.36; 36.76328 -107.73779
January 2017

4. **Source and Description of Waste:** Hydrocarbon impacted soil/sludge associated with the remediation of a natural gas pipeline release.

5. Estimated Volume 20 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 1870/55 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) 1-11-17, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to
Generator Signature
complete the required testing/sign the Generator Waste Testing Certification.

I, [signature], 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: To be determined.** Tenco, Rich1, Lobato Trucking, Halo, 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)

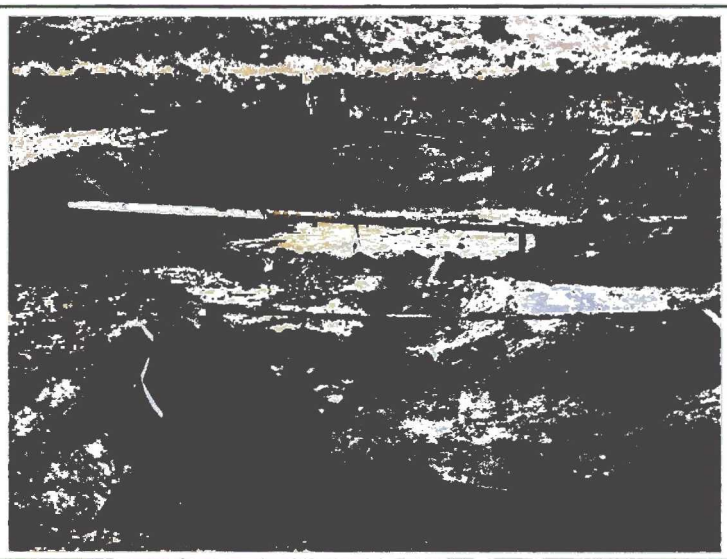
PRINT NAME: Greg Crabtree TITLE: Environmental Manager DATE: 1/11/17

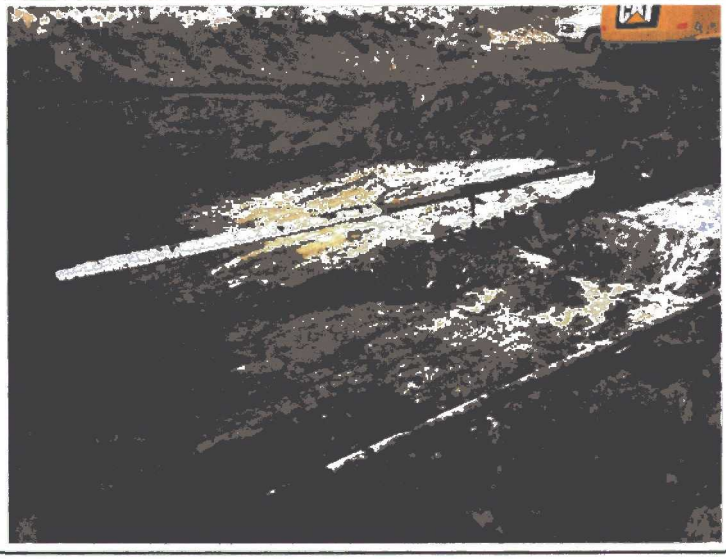
SIGNATURE: [signature] TELEPHONE NO.: (505) 632-0615
Surface Waste Management Facility Authorized Agent

APEX

APPENDIX C

Photographic Documentation

Photograph 1 View of in-process corrective actions, facing west.	
Photograph 2 View of in-process corrective actions, facing north.	
Photograph 3 View of the initial excavation, facing west.	

Photograph 4 View of the initial excavation, facing northwest.	
Photograph 5 View of over-excavation activities, facing north.	
Photograph 6 View of the over-excavated area, facing south.	

Photograph 7 View of the over-excavated east wall (north end), facing south. .	
Photograph 8 View of the over-excavated east wall (north end), facing north .	

APPENDIX D

Tables

APEX

TABLE 1
Florance #21A 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)	TPH MRO (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100		
Soil Samples Removed by Over-Excavation										
S-1	01.17.17	0 to 6	0.12	0.43	<0.19	<0.39	0.55	**180**	**80**	**50**
S-2	01.17.17	0 to 6	<0.10	0.31	<0.20	1.3	1.6	35	13	<49
S-4	01.17.17	0 to 6	0.25	<0.36	1.9	14	16	**890**	**990**	**130**
S-5	01.17.17	0 to 6	0.30	0.91	1.9	24	27	**720**	**250**	**<50**
S-8	01.17.17	6	0.13	2.3	2.3	24	29	**650**	**130**	**56**
S-9	01.17.17	6	<0.11	0.37	<0.22	1.2	1.6	**120**	**1,000**	**270**
S-10	01.17.17	0 to 5	0.18	0.37	<0.18	0.39	0.94	**39**	**74**	**160**
S-13	01.18.17	0 to 6	0.089	<0.040	<0.040	<0.081	0.089	8.3	<9.4	<47
S-18	01.26.17	0 to 5	0.39	1.6	0.95	14	17	**280**	**64**	**170**
S-20	01.26.17	0 to 6	<0.17	<0.33	<0.33	<0.66	ND	**180**	**120**	**<50**
S-22	01.26.17	0 to 6	0.92	6.2	5.4	63	**76**	**2,200**	**78**	**<49**
Excavation Soil Samples										
S-3	01.17.17	0 to 6	<0.11	<0.21	<0.21	<0.43	ND	<21	54	<50
S-6	01.17.17	6	<0.021	<0.041	<0.041	<0.083	ND	<4.1	32	<50
S-7	01.17.17	6	<0.020	<0.040	0.044	0.46	0.50	**35**	**91**	**76**
S-11	01.18.17	0 to 6	<0.017	<0.034	<0.034	<0.067	ND	<3.4	<9.7	<49
S-12	01.18.17	0 to 6	<0.020	<0.039	<0.039	<0.079	ND	<3.9	<9.4	<47
S-14	01.18.17	0 to 6	<0.019	<0.037	<0.037	<0.075	ND	<3.7	<9.9	<49
S-15	01.20.17	0 to 9	0.019	<0.037	<0.037	<0.075	0.019	**19**	**140**	**<47**
S-16	01.20.17	0 to6	<0.018	<0.036	<0.036	<0.073	ND	<3.6	10	<49
S-17	01.26.17	5	<0.95	5.5	3.2	44	**53**	**1,400**	**120**	**100**
S-19	01.26.17	0 to 5	2.6	25	13	160	**201**	**4,900**	**400**	**120**
S-21	01.26.17	6	<0.10	<0.20	<0.20	2.1	2.1	**110**	**29**	**<48**
S-23	01.26.17	6 to 13	<0.096	<0.19	<0.19	1.4	1.4	**160**	**48**	**<47**
S-24	01.26.17	6 to 13	<0.040	<0.079	0.092	1.9	2.0	**180**	**130**	**<49**
S-25	01.26.17	13	<0.098	<0.20	<0.20	1.5	1.5	**160**	**120**	**<47**
S-26	01.31.17	0 to 6	0.024	<0.044	<0.044	<0.088	0.024	<4.4	<10	<50
S-27	01.31.17	0 to 6	0.041	<0.043	<0.043	0.14	0.18	19	12	<47

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

ND = Not Detected above the Practical Quantitation Limits

NE = Not established

mg/kg = milligram per kilogram

APEX

Appendix E

Laboratory Analytical Reports & Chain of Custody Documentation

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 20, 2017

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Florance A #21 OrderNo.: 1701714

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 10 sample(s) on 1/18/2017 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: Florance A #21
Lab ID: 1701714-001 **Matrix:** SOIL

Client Sample ID: S-1
Collection Date: 1/17/2017 10:30:00 AM
Received Date: 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	180	19		mg/Kg	5	1/18/2017 12:03:40 PM	GS4010
Surr: BFB	99.4	70-130		%Rec	5	1/18/2017 12:03:40 PM	GS4010
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	80	9.9		mg/Kg	1	1/18/2017 10:07:26 AM	29752
Motor Oil Range Organics (MRO)	50	50		mg/Kg	1	1/18/2017 10:07:26 AM	29752
Surr: DNOP	94.6	70-130		%Rec	1	1/18/2017 10:07:26 AM	29752
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	0.12	0.097		mg/Kg	5	1/18/2017 12:03:40 PM	SLS401C
Toluene	0.43	0.19		mg/Kg	5	1/18/2017 12:03:40 PM	SLS401C
Ethylbenzene	ND	0.19		mg/Kg	5	1/18/2017 12:03:40 PM	SLS401C
Xylenes, Total	ND	0.39		mg/Kg	5	1/18/2017 12:03:40 PM	SLS401C
Surr: 1,2-Dichloroethane-d4	97.1	70-130		%Rec	5	1/18/2017 12:03:40 PM	SLS401C
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	5	1/18/2017 12:03:40 PM	SLS401C
Surr: Dibromofluoromethane	101	70-130		%Rec	5	1/18/2017 12:03:40 PM	SLS401C
Surr: Toluene-d8	101	70-130		%Rec	5	1/18/2017 12:03:40 PM	SLS401C

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A #21
Lab ID: 1701714-002 **Matrix:** SOIL

Client Sample ID: S-2
Collection Date: 1/17/2017 10:40:00 AM
Received Date: 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	35	20		mg/Kg	5	1/18/2017 12:32:55 PM	GS4010
Surr: BFB	88.7	70-130		%Rec	5	1/18/2017 12:32:55 PM	GS4010
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	13	9.8		mg/Kg	1	1/18/2017 10:30:40 AM	29752
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/18/2017 10:30:40 AM	29752
Surr: DNOP	98.7	70-130		%Rec	1	1/18/2017 10:30:40 AM	29752
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	0.10		mg/Kg	5	1/18/2017 12:32:55 PM	SLS401C
Toluene	0.31	0.20		mg/Kg	5	1/18/2017 12:32:55 PM	SLS401C
Ethylbenzene	ND	0.20		mg/Kg	5	1/18/2017 12:32:55 PM	SLS401C
Xylenes, Total	1.3	0.40		mg/Kg	5	1/18/2017 12:32:55 PM	SLS401C
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	5	1/18/2017 12:32:55 PM	SLS401C
Surr: 4-Bromofluorobenzene	95.6	70-130		%Rec	5	1/18/2017 12:32:55 PM	SLS401C
Surr: Dibromofluoromethane	104	70-130		%Rec	5	1/18/2017 12:32:55 PM	SLS401C
Surr: Toluene-d8	95.8	70-130		%Rec	5	1/18/2017 12:32:55 PM	SLS401C

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A #21
Lab ID: 1701714-003 **Matrix:** SOIL

Client Sample ID: S-3
Collection Date: 1/17/2017 10:50:00 AM
Received Date: 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	21		mg/Kg	5	1/18/2017 1:02:12 PM	GS4010
Surr: BFB	90.0	70-130		%Rec	5	1/18/2017 1:02:12 PM	GS4010
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	54	10		mg/Kg	1	1/18/2017 10:53:51 AM	29752
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/18/2017 10:53:51 AM	29752
Surr: DNOP	93.7	70-130		%Rec	1	1/18/2017 10:53:51 AM	29752
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	ND	0.11		mg/Kg	5	1/18/2017 1:02:12 PM	SLS401
Toluene	ND	0.21		mg/Kg	5	1/18/2017 1:02:12 PM	SLS401
Ethylbenzene	ND	0.21		mg/Kg	5	1/18/2017 1:02:12 PM	SLS401
Xylenes, Total	ND	0.43		mg/Kg	5	1/18/2017 1:02:12 PM	SLS401
Surr: 1,2-Dichloroethane-d4	98.6	70-130		%Rec	5	1/18/2017 1:02:12 PM	SLS401
Surr: 4-Bromofluorobenzene	98.3	70-130		%Rec	5	1/18/2017 1:02:12 PM	SLS401
Surr: Dibromofluoromethane	103	70-130		%Rec	5	1/18/2017 1:02:12 PM	SLS401
Surr: Toluene-d8	96.9	70-130		%Rec	5	1/18/2017 1:02:12 PM	SLS401

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1701714**
Date Reported: **1/20/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A #21
Lab ID: 1701714-004 **Matrix:** SOIL

Client Sample ID: S-4
Collection Date: 1/17/2017 11:00:00 AM
Received Date: 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	890	36		mg/Kg	10	1/18/2017 11:05:13 AM	GS4010
Surr: BFB	118	70-130		%Rec	10	1/18/2017 11:05:13 AM	GS4010
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	990	19		mg/Kg	2	1/18/2017 12:03:42 PM	29752
Motor Oil Range Organics (MRO)	130	96		mg/Kg	2	1/18/2017 12:03:42 PM	29752
Surr: DNOP	90.8	70-130		%Rec	2	1/18/2017 12:03:42 PM	29752
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	0.25	0.18		mg/Kg	10	1/18/2017 11:05:13 AM	SLS401
Toluene	ND	0.36		mg/Kg	10	1/18/2017 11:05:13 AM	SLS401
Ethylbenzene	1.9	0.36		mg/Kg	10	1/18/2017 11:05:13 AM	SLS401
Xylenes, Total	14	0.72		mg/Kg	10	1/18/2017 11:05:13 AM	SLS401
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	10	1/18/2017 11:05:13 AM	SLS401
Surr: 4-Bromofluorobenzene	126	70-130		%Rec	10	1/18/2017 11:05:13 AM	SLS401
Surr: Dibromofluoromethane	100	70-130		%Rec	10	1/18/2017 11:05:13 AM	SLS401
Surr: Toluene-d8	104	70-130		%Rec	10	1/18/2017 11:05:13 AM	SLS401

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A #21
Lab ID: 1701714-005 **Matrix:** SOIL

Client Sample ID: S-5
Collection Date: 1/17/2017 11:10:00 AM
Received Date: 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	720	40		mg/Kg	10	1/18/2017 11:34:25 AM	GS4010
Surr: BFB	99.5	70-130		%Rec	10	1/18/2017 11:34:25 AM	GS4010
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	250	10		mg/Kg	1	1/18/2017 11:40:11 AM	29752
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/18/2017 11:40:11 AM	29752
Surr: DNOP	98.3	70-130		%Rec	1	1/18/2017 11:40:11 AM	29752
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**	
Benzene	0.30	0.20		mg/Kg	10	1/18/2017 11:34:25 AM	SLS401
Toluene	0.91	0.40		mg/Kg	10	1/18/2017 11:34:25 AM	SLS401
Ethylbenzene	1.9	0.40		mg/Kg	10	1/18/2017 11:34:25 AM	SLS401
Xylenes, Total	24	0.79		mg/Kg	10	1/18/2017 11:34:25 AM	SLS401
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	10	1/18/2017 11:34:25 AM	SLS401
Surr: 4-Bromofluorobenzene	114	70-130		%Rec	10	1/18/2017 11:34:25 AM	SLS401
Surr: Dibromofluoromethane	103	70-130		%Rec	10	1/18/2017 11:34:25 AM	SLS401
Surr: Toluene-d8	94.4	70-130		%Rec	10	1/18/2017 11:34:25 AM	SLS401

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A #21
Lab ID: 1701714-006 **Matrix:** SOIL

Client Sample ID: S-6
Collection Date: 1/17/2017 11:20:00 AM
Received Date: 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	1/18/2017 11:41:32 AM	A40108
Surr: BFB	100	70-130		%Rec	1	1/18/2017 11:41:32 AM	A40108
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **MAB**	
Diesel Range Organics (DRO)	32	10		mg/Kg	1	1/18/2017 11:07:18 AM	29752
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/18/2017 11:07:18 AM	29752
Surr: DNOP	109	70-130		%Rec	1	1/18/2017 11:07:18 AM	29752
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	ND	0.021		mg/Kg	1	1/18/2017 11:41:32 AM	R40108
Toluene	ND	0.041		mg/Kg	1	1/18/2017 11:41:32 AM	R40108
Ethylbenzene	ND	0.041		mg/Kg	1	1/18/2017 11:41:32 AM	R40108
Xylenes, Total	ND	0.083		mg/Kg	1	1/18/2017 11:41:32 AM	R40108
Surr: 1,2-Dichloroethane-d4	96.2	70-130		%Rec	1	1/18/2017 11:41:32 AM	R40108
Surr: 4-Bromofluorobenzene	90.4	70-130		%Rec	1	1/18/2017 11:41:32 AM	R40108
Surr: Dibromofluoromethane	99.9	70-130		%Rec	1	1/18/2017 11:41:32 AM	R40108
Surr: Toluene-d8	94.1	70-130		%Rec	1	1/18/2017 11:41:32 AM	R40108

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A #21
Lab ID: 1701714-007 **Matrix:** SOIL

Client Sample ID: S-7
Collection Date: 1/17/2017 11:30:00 AM
Received Date: 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	35	4.0		mg/Kg	1	1/18/2017 12:10:13 PM	A40108
Surr: BFB	99.5	70-130		%Rec	1	1/18/2017 12:10:13 PM	A40108
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **MAB**	
Diesel Range Organics (DRO)	91	9.8		mg/Kg	1	1/18/2017 11:34:24 AM	29752
Motor Oil Range Organics (MRO)	76	49		mg/Kg	1	1/18/2017 11:34:24 AM	29752
Surr: DNOP	111	70-130		%Rec	1	1/18/2017 11:34:24 AM	29752
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	ND	0.020		mg/Kg	1	1/18/2017 12:10:13 PM	R40108
Toluene	ND	0.040		mg/Kg	1	1/18/2017 12:10:13 PM	R40108
Ethylbenzene	0.044	0.040		mg/Kg	1	1/18/2017 12:10:13 PM	R40108
Xylenes, Total	0.46	0.079		mg/Kg	1	1/18/2017 12:10:13 PM	R40108
Surr: 1,2-Dichloroethane-d4	91.7	70-130		%Rec	1	1/18/2017 12:10:13 PM	R40108
Surr: 4-Bromofluorobenzene	76.1	70-130		%Rec	1	1/18/2017 12:10:13 PM	R40108
Surr: Dibromofluoromethane	99.4	70-130		%Rec	1	1/18/2017 12:10:13 PM	R40108
Surr: Toluene-d8	97.1	70-130		%Rec	1	1/18/2017 12:10:13 PM	R40108

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A #21
Lab ID: 1701714-008 **Matrix:** SOIL

Client Sample ID: S-8
Collection Date: 1/17/2017 11:40:00 AM
Received Date: 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	650	210		mg/Kg	50	1/18/2017 12:38:56 PM	A40108
Surr: BFB	96.9	70-130		%Rec	50	1/18/2017 12:38:56 PM	A40108
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **MAB**	
Diesel Range Organics (DRO)	130	9.6		mg/Kg	1	1/18/2017 12:01:58 PM	29752
Motor Oil Range Organics (MRO)	56	48		mg/Kg	1	1/18/2017 12:01:58 PM	29752
Surr: DNOP	111	70-130		%Rec	1	1/18/2017 12:01:58 PM	29752
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	0.13	0.11		mg/Kg	5	1/18/2017 10:15:31 AM	R40108
Toluene	2.3	0.21		mg/Kg	5	1/18/2017 10:15:31 AM	R40108
Ethylbenzene	2.3	0.21		mg/Kg	5	1/18/2017 10:15:31 AM	R40108
Xylenes, Total	24	0.42		mg/Kg	5	1/18/2017 10:15:31 AM	R40108
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	5	1/18/2017 10:15:31 AM	R40108
Surr: 4-Bromofluorobenzene	79.6	70-130		%Rec	5	1/18/2017 10:15:31 AM	R40108
Surr: Dibromofluoromethane	104	70-130		%Rec	5	1/18/2017 10:15:31 AM	R40108
Surr: Toluene-d8	92.3	70-130		%Rec	5	1/18/2017 10:15:31 AM	R40108

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A #21
Lab ID: 1701714-009 **Matrix:** SOIL

Client Sample ID: S-9
Collection Date: 1/17/2017 11:50:00 AM
Received Date: 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	120	22		mg/Kg	5	1/18/2017 10:44:11 AM	A40108
Surr: BFB	101	70-130		%Rec	5	1/18/2017 10:44:11 AM	A40108
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	1000	20		mg/Kg	2	1/18/2017 12:50:57 PM	29752
Motor Oil Range Organics (MRO)	270	99		mg/Kg	2	1/18/2017 12:50:57 PM	29752
Surr: DNOP	87.6	70-130		%Rec	2	1/18/2017 12:50:57 PM	29752
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	ND	0.11		mg/Kg	5	1/18/2017 10:44:11 AM	R40108
Toluene	0.37	0.22		mg/Kg	5	1/18/2017 10:44:11 AM	R40108
Ethylbenzene	ND	0.22		mg/Kg	5	1/18/2017 10:44:11 AM	R40108
Xylenes, Total	1.2	0.43		mg/Kg	5	1/18/2017 10:44:11 AM	R40108
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	5	1/18/2017 10:44:11 AM	R40108
Surr: 4-Bromofluorobenzene	77.7	70-130		%Rec	5	1/18/2017 10:44:11 AM	R40108
Surr: Dibromofluoromethane	105	70-130		%Rec	5	1/18/2017 10:44:11 AM	R40108
Surr: Toluene-d8	95.9	70-130		%Rec	5	1/18/2017 10:44:11 AM	R40108

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A #21
Lab ID: 1701714-010 **Matrix:** SOIL

Client Sample ID: S-10
Collection Date: 1/17/2017 12:00:00 PM
Received Date: 1/18/2017 7:25:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	39	18		mg/Kg	5	1/18/2017 11:12:51 AM	A40108
Surr: BFB	104	70-130		%Rec	5	1/18/2017 11:12:51 AM	A40108
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **MAB**	
Diesel Range Organics (DRO)	74	9.8		mg/Kg	1	1/18/2017 12:29:30 PM	29752
Motor Oil Range Organics (MRO)	160	49		mg/Kg	1	1/18/2017 12:29:30 PM	29752
Surr: DNOP	110	70-130		%Rec	1	1/18/2017 12:29:30 PM	29752
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	0.18	0.090		mg/Kg	5	1/18/2017 11:12:51 AM	R40108
Toluene	0.37	0.18		mg/Kg	5	1/18/2017 11:12:51 AM	R40108
Ethylbenzene	ND	0.18		mg/Kg	5	1/18/2017 11:12:51 AM	R40108
Xylenes, Total	0.39	0.36		mg/Kg	5	1/18/2017 11:12:51 AM	R40108
Surr: 1,2-Dichloroethane-d4	92.6	70-130		%Rec	5	1/18/2017 11:12:51 AM	R40108
Surr: 4-Bromofluorobenzene	80.2	70-130		%Rec	5	1/18/2017 11:12:51 AM	R40108
Surr: Dibromofluoromethane	104	70-130		%Rec	5	1/18/2017 11:12:51 AM	R40108
Surr: Toluene-d8	99.1	70-130		%Rec	5	1/18/2017 11:12:51 AM	R40108

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701714**

20-Jan-17

Client: APEX TITAN
Project: Florance A #21

Sample ID **LCS-29752**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **29752**	RunNo: **40100**
Prep Date: **1/18/2017**	Analysis Date: **1/18/2017**	SeqNo: **1257041** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.1	63.8	116			
Surr: DNOP	4.5		5.000		89.1	70	130			

Sample ID **MB-29752**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **29752**	RunNo: **40100**
Prep Date: **1/18/2017**	Analysis Date: **1/18/2017**	SeqNo: **1257042** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		98.1	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701714**

20-Jan-17

Client: APEX TITAN
Project: Florance A #21

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **R40108**	RunNo: **40108**
Prep Date:	Analysis Date: **1/18/2017**	SeqNo: **1257594** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	70	130			
Toluene	1.0	0.050	1.000	0	101	70	130			
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		93.3	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		103	70	130			
Surr: Toluene-d8	0.50		0.5000		99.6	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **R40108**	RunNo: **40108**
Prep Date:	Analysis Date: **1/18/2017**	SeqNo: **1257595** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.1	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.0	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

Sample ID **1701714-006ams**	SampType: **MS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S-6**	Batch ID: **R40108**	RunNo: **40108**
Prep Date:	Analysis Date: **1/18/2017**	SeqNo: **1257596** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.021	0.8299	0	98.3	61.9	146			
Toluene	0.81	0.041	0.8299	0.01286	96.3	70	130			
Surr: 1,2-Dichloroethane-d4	0.40		0.4150		96.9	70	130			
Surr: 4-Bromofluorobenzene	0.36		0.4150		87.8	70	130			
Surr: Dibromofluoromethane	0.41		0.4150		98.9	70	130			
Surr: Toluene-d8	0.39		0.4150		95.0	70	130			

Sample ID **1701714-006amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S-6**	Batch ID: **R40108**	RunNo: **40108**
Prep Date:	Analysis Date: **1/18/2017**	SeqNo: **1257597** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.021	0.8299	0	100	61.9	146	1.86	20	
Toluene	0.78	0.041	0.8299	0.01286	93.0	70	130	3.37	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701714**

20-Jan-17

Client: APEX TITAN
Project: Florance A #21

Sample ID **1701714-006amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S-6**	Batch ID: **R40108**	RunNo: **40108**
Prep Date:	Analysis Date: **1/18/2017**	SeqNo: **1257597** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.41		0.4150		99.3	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.38		0.4150		91.0	70	130	0	0	
Surr: Dibromofluoromethane	0.44		0.4150		105	70	130	0	0	
Surr: Toluene-d8	0.39		0.4150		92.9	70	130	0	0	

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **SLS40109**	RunNo: **40109**
Prep Date:	Analysis Date: **1/18/2017**	SeqNo: **1257850** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	70	130			
Toluene	0.99	0.050	1.000	0	99.3	70	130			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.6	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.1	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.4	70	130			
Surr: Toluene-d8	0.49		0.5000		98.9	70	130			

Sample ID **1701714-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S-1**	Batch ID: **SLS40109**	RunNo: **40109**
Prep Date:	Analysis Date: **1/18/2017**	SeqNo: **1257851** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	4.2	0.097	3.870	0.1201	106	61.9	146			
Toluene	4.2	0.19	3.870	0.4344	96.5	70	130			
Surr: 1,2-Dichloroethane-d4	2.0		1.935		102	70	130			
Surr: 4-Bromofluorobenzene	2.1		1.935		109	70	130			
Surr: Dibromofluoromethane	1.9		1.935		100	70	130			
Surr: Toluene-d8	1.8		1.935		95.5	70	130			

Sample ID **1701714-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S-1**	Batch ID: **SLS40109**	RunNo: **40109**
Prep Date:	Analysis Date: **1/18/2017**	SeqNo: **1257852** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	4.0	0.097	3.870	0.1201	101	61.9	146	5.34	20	
Toluene	4.0	0.19	3.870	0.4344	93.3	70	130	2.99	20	
Surr: 1,2-Dichloroethane-d4	2.0		1.935		103	70	130	0	0	
Surr: 4-Bromofluorobenzene	2.1		1.935		110	70	130	0	0	
Surr: Dibromofluoromethane	2.0		1.935		101	70	130	0	0	
Surr: Toluene-d8	1.9		1.935		99.0	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701714**

20-Jan-17

Client: APEX TITAN
Project: Florance A #21

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **SLS40109**	RunNo: **40109**
Prep Date:	Analysis Date: **1/18/2017**	SeqNo: **1257853** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.6	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		95.6	70	130			
Surr: Toluene-d8	0.49		0.5000		97.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701714**

20-Jan-17

Client: APEX TITAN
Project: Florance A #21

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **A40108**	RunNo: **40108**							
Prep Date:	Analysis Date: **1/18/2017**	SeqNo: **1257591**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	62.9	123			
Surr: BFB	490		500.0		98.3	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**							
Client ID: **PBS**	Batch ID: **A40108**	RunNo: **40108**							
Prep Date:	Analysis Date: **1/18/2017**	SeqNo: **1257592**	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	490		500.0		98.0	70	130			

Sample ID **1701714-006AMS**	SampType: **MS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**							
Client ID: **S-6**	Batch ID: **A40108**	RunNo: **40108**							
Prep Date:	Analysis Date: **1/18/2017**	SeqNo: **1257598**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.1	20.75	2.689	103	52.3	132			
Surr: BFB	420		415.0		101	70	130			

Sample ID **1701714-006AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D Mod: Gasoline Range**							
Client ID: **S-6**	Batch ID: **A40108**	RunNo: **40108**							
Prep Date:	Analysis Date: **1/18/2017**	SeqNo: **1257599**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.1	20.75	2.689	105	52.3	132	2.02	20	
Surr: BFB	430		415.0		103	70	130	0	0	

Sample ID **1701714-002A MS**	SampType: **MS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**							
Client ID: **S-2**	Batch ID: **GS40109**	RunNo: **40109**							
Prep Date:	Analysis Date: **1/18/2017**	SeqNo: **1257856**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	130	20	100.5	35.49	93.1	52.3	132			
Surr: BFB	1800		2010		91.3	70	130			

Sample ID **1701714-002A MSD**	SampType: **MSD**	TestCode: **EPA Method 8015D Mod: Gasoline Range**							
Client ID: **S-2**	Batch ID: **GS40109**	RunNo: **40109**							
Prep Date:	Analysis Date: **1/18/2017**	SeqNo: **1257857**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701714**

20-Jan-17

Client: APEX TITAN
Project: Florance A #21

Sample ID **1701714-002A MSD**	SampType: **MSD**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **S-2**	Batch ID: **GS40109**	RunNo: **40109**
Prep Date:	Analysis Date: **1/18/2017**	SeqNo: **1257857** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	120	20	100.5	35.49	83.2	52.3	132	8.03	20	
Surr: BFB	1800		2010		89.1	70	130	0	0	

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **GS40109**	RunNo: **40109**
Prep Date:	Analysis Date: **1/18/2017**	SeqNo: **1257858** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	62.9	123			
Surr: BFB	440		500.0		88.4	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **GS40109**	RunNo: **40109**
Prep Date:	Analysis Date: **1/18/2017**	SeqNo: **1257859** 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	440		500.0		88.1	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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: 1701714 RcptNo: 1

Received by/date: AT 01/18/17

Logged By: Anne Thorne 1/18/2017 7:25:00 AM Anne Thorne

Completed By: Anne Thorne 1/18/2017 8:13:00 AM Anne Thorne

Reviewed By: 01/18/17

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	1.4	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: K. Summers

Laboratory: Hall Environmental

Address: ABQ, NM

Contact: A. Freeman

Phone:

PO/SO #:

Lab use only
Due Date: 1.4

Temp. of coolers when received (C°): 1 | 2 | 3 | 4 | 5

Page 1 of 1

Sampler's Name: Ranee Deechilly

Sampler's Signature:

Proj. No.

Project Name: Florance A#21

No/Type of Containers

ANALYSIS REQUESTED: 8021 BTEX; 8015 TPH GRO/DRO/MRO

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	Lab Sample ID (Lab Use Only)
S	1/17/17	1030	X		S-1						1		X X 1701714-001
		1040			S-2								002
		1050			S-3								003
		1100			S-4								004
		1110			S-5								005
		1120			S-6								006
		1130			S-7								007
		1140			S-8								008
		1150			S-9								009
		1200			S-10								010

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☒ 100% Rush SAME DAY

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	1/17/17	1535		1/17/17	1535
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	1/17/17	1821		01/18/17	0725
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

RUSH

Bill to Tom Long (EPPOD)

SAMEDAY

Non-AFE N27812

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 30, 2017

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Florance A 21 OrderNo.: 1701B25

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 9 sample(s) on 1/27/2017 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 **1701B25**
Date Reported: **1/30/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A 21
Lab ID: 1701B25-001

Client Sample ID: S-17
Collection Date: 1/26/2017 2:15:00 PM
Matrix: MEOH (SOIL) **Received Date:** 1/27/2017 8:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	1400	190		mg/Kg	50	1/27/2017 10:35:16 AM	A40332
Surr: BFB	98.5	70-130		%Rec	50	1/27/2017 10:35:16 AM	A40332
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	120	9.4		mg/Kg	1	1/27/2017 9:58:57 AM	29920
Motor Oil Range Organics (MRO)	100	47		mg/Kg	1	1/27/2017 9:58:57 AM	29920
Surr: DNOP	109	70-130		%Rec	1	1/27/2017 9:58:57 AM	29920
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	ND	0.95		mg/Kg	50	1/27/2017 10:35:16 AM	R40332
Toluene	5.5	1.9		mg/Kg	50	1/27/2017 10:35:16 AM	R40332
Ethylbenzene	3.2	1.9		mg/Kg	50	1/27/2017 10:35:16 AM	R40332
Xylenes, Total	44	3.8		mg/Kg	50	1/27/2017 10:35:16 AM	R40332
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	50	1/27/2017 10:35:16 AM	R40332
Surr: 4-Bromofluorobenzene	90.9	70-130		%Rec	50	1/27/2017 10:35:16 AM	R40332
Surr: Dibromofluoromethane	111	70-130		%Rec	50	1/27/2017 10:35:16 AM	R40332
Surr: Toluene-d8	96.9	70-130		%Rec	50	1/27/2017 10:35:16 AM	R40332

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A 21
Lab ID: 1701B25-002
Matrix: MEOH (SOIL)
Client Sample ID: S-18
Collection Date: 1/26/2017 2:25:00 PM
Received Date: 1/27/2017 8:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	280	41		mg/Kg	10	1/27/2017 12:59:34 PM	A40332
Surr: BFB	102	70-130		%Rec	10	1/27/2017 12:59:34 PM	A40332
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	64	9.7		mg/Kg	1	1/27/2017 10:20:19 AM	29920
Motor Oil Range Organics (MRO)	170	48		mg/Kg	1	1/27/2017 10:20:19 AM	29920
Surr: DNOP	111	70-130		%Rec	1	1/27/2017 10:20:19 AM	29920
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	0.39	0.21		mg/Kg	10	1/27/2017 12:59:34 PM	R40332
Toluene	1.6	0.41		mg/Kg	10	1/27/2017 12:59:34 PM	R40332
Ethylbenzene	0.95	0.41		mg/Kg	10	1/27/2017 12:59:34 PM	R40332
Xylenes, Total	14	0.82		mg/Kg	10	1/27/2017 12:59:34 PM	R40332
Surr: 1,2-Dichloroethane-d4	96.0	70-130		%Rec	10	1/27/2017 12:59:34 PM	R40332
Surr: 4-Bromofluorobenzene	91.2	70-130		%Rec	10	1/27/2017 12:59:34 PM	R40332
Surr: Dibromofluoromethane	113	70-130		%Rec	10	1/27/2017 12:59:34 PM	R40332
Surr: Toluene-d8	98.3	70-130		%Rec	10	1/27/2017 12:59:34 PM	R40332

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A 21
Lab ID: 1701B25-003

Client Sample ID: S-19
Collection Date: 1/26/2017 2:35:00 PM
Matrix: MEOH (SOIL) **Received Date:** 1/27/2017 8:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	4900	200		mg/Kg	50	1/27/2017 11:33:10 AM	A40332
Surr: BFB	96.5	70-130		%Rec	50	1/27/2017 11:33:10 AM	A40332
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	400	9.6		mg/Kg	1	1/27/2017 10:41:57 AM	29920
Motor Oil Range Organics (MRO)	120	48		mg/Kg	1	1/27/2017 10:41:57 AM	29920
Surr: DNOP	109	70-130		%Rec	1	1/27/2017 10:41:57 AM	29920
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	2.6	1.0		mg/Kg	50	1/27/2017 11:33:10 AM	R40332
Toluene	25	2.0		mg/Kg	50	1/27/2017 11:33:10 AM	R40332
Ethylbenzene	13	2.0		mg/Kg	50	1/27/2017 11:33:10 AM	R40332
Xylenes, Total	160	4.0		mg/Kg	50	1/27/2017 11:33:10 AM	R40332
Surr: 1,2-Dichloroethane-d4	94.2	70-130		%Rec	50	1/27/2017 11:33:10 AM	R40332
Surr: 4-Bromofluorobenzene	85.5	70-130		%Rec	50	1/27/2017 11:33:10 AM	R40332
Surr: Dibromofluoromethane	108	70-130		%Rec	50	1/27/2017 11:33:10 AM	R40332
Surr: Toluene-d8	102	70-130		%Rec	50	1/27/2017 11:33:10 AM	R40332

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A 21
Lab ID: 1701B25-004

Client Sample ID: S-20
Collection Date: 1/26/2017 2:45:00 PM
Matrix: MEOH (SOIL) **Received Date:** 1/27/2017 8:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	180	33	D	mg/Kg	10	1/27/2017 12:02:01 PM	A40332
Surr: BFB	97.1	70-130	D	%Rec	10	1/27/2017 12:02:01 PM	A40332
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	120	9.9		mg/Kg	1	1/27/2017 11:03:02 AM	29920
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/27/2017 11:03:02 AM	29920
Surr: DNOP	109	70-130		%Rec	1	1/27/2017 11:03:02 AM	29920
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	ND	0.17	D	mg/Kg	10	1/27/2017 12:02:01 PM	R40332
Toluene	ND	0.33	D	mg/Kg	10	1/27/2017 12:02:01 PM	R40332
Ethylbenzene	ND	0.33	D	mg/Kg	10	1/27/2017 12:02:01 PM	R40332
Xylenes, Total	ND	0.66	D	mg/Kg	10	1/27/2017 12:02:01 PM	R40332
Surr: 1,2-Dichloroethane-d4	103	70-130	D	%Rec	10	1/27/2017 12:02:01 PM	R40332
Surr: 4-Bromofluorobenzene	82.3	70-130	D	%Rec	10	1/27/2017 12:02:01 PM	R40332
Surr: Dibromofluoromethane	116	70-130	D	%Rec	10	1/27/2017 12:02:01 PM	R40332
Surr: Toluene-d8	98.8	70-130	D	%Rec	10	1/27/2017 12:02:01 PM	R40332

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A 21
Lab ID: 1701B25-005
Client Sample ID: S-21
Collection Date: 1/26/2017 2:55:00 PM
Matrix: MEOH (SOIL)
Received Date: 1/27/2017 8:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	110	20		mg/Kg	5	1/27/2017 12:30:50 PM	A40332
Surr: BFB	107	70-130		%Rec	5	1/27/2017 12:30:50 PM	A40332
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	29	9.6		mg/Kg	1	1/27/2017 11:24:43 AM	29920
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/27/2017 11:24:43 AM	29920
Surr: DNOP	108	70-130		%Rec	1	1/27/2017 11:24:43 AM	29920
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	ND	0.10		mg/Kg	5	1/27/2017 12:30:50 PM	R40332
Toluene	ND	0.20		mg/Kg	5	1/27/2017 12:30:50 PM	R40332
Ethylbenzene	ND	0.20		mg/Kg	5	1/27/2017 12:30:50 PM	R40332
Xylenes, Total	2.1	0.40		mg/Kg	5	1/27/2017 12:30:50 PM	R40332
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	5	1/27/2017 12:30:50 PM	R40332
Surr: 4-Bromofluorobenzene	92.4	70-130		%Rec	5	1/27/2017 12:30:50 PM	R40332
Surr: Dibromofluoromethane	115	70-130		%Rec	5	1/27/2017 12:30:50 PM	R40332
Surr: Toluene-d8	103	70-130		%Rec	5	1/27/2017 12:30:50 PM	R40332

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A 21
Lab ID: 1701B25-006
Client Sample ID: S-22
Collection Date: 1/26/2017 3:05:00 PM
Matrix: MEOH (SOIL)
Received Date: 1/27/2017 8:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	2200	95		mg/Kg	25	1/27/2017 1:57:17 PM	D40344
Surr: BFB	87.7	70-130		%Rec	25	1/27/2017 1:57:17 PM	D40344
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	78	9.7		mg/Kg	1	1/27/2017 11:46:20 AM	29920
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/27/2017 11:46:20 AM	29920
Surr: DNOP	109	70-130		%Rec	1	1/27/2017 11:46:20 AM	29920
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	0.92	0.48		mg/Kg	25	1/27/2017 1:57:17 PM	C40344
Toluene	6.2	0.95		mg/Kg	25	1/27/2017 1:57:17 PM	C40344
Ethylbenzene	5.4	0.95		mg/Kg	25	1/27/2017 1:57:17 PM	C40344
Xylenes, Total	63	1.9		mg/Kg	25	1/27/2017 1:57:17 PM	C40344
Surr: 1,2-Dichloroethane-d4	86.3	70-130		%Rec	25	1/27/2017 1:57:17 PM	C40344
Surr: 4-Bromofluorobenzene	86.8	70-130		%Rec	25	1/27/2017 1:57:17 PM	C40344
Surr: Dibromofluoromethane	83.5	70-130		%Rec	25	1/27/2017 1:57:17 PM	C40344
Surr: Toluene-d8	102	70-130		%Rec	25	1/27/2017 1:57:17 PM	C40344

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A 21
Lab ID: 1701B25-007

Client Sample ID: S-23
Collection Date: 1/26/2017 3:15:00 PM
Matrix: MEOH (SOIL) **Received Date:** 1/27/2017 8:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	160	19		mg/Kg	5	1/27/2017 12:00:48 PM	D40344
Surr: BFB	91.3	70-130		%Rec	5	1/27/2017 12:00:48 PM	D40344
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	48	9.4		mg/Kg	1	1/27/2017 12:08:04 PM	29920
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/27/2017 12:08:04 PM	29920
Surr: DNOP	109	70-130		%Rec	1	1/27/2017 12:08:04 PM	29920
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.096		mg/Kg	5	1/27/2017 12:00:48 PM	C40344
Toluene	ND	0.19		mg/Kg	5	1/27/2017 12:00:48 PM	C40344
Ethylbenzene	ND	0.19		mg/Kg	5	1/27/2017 12:00:48 PM	C40344
Xylenes, Total	1.4	0.38		mg/Kg	5	1/27/2017 12:00:48 PM	C40344
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	5	1/27/2017 12:00:48 PM	C40344
Surr: 4-Bromofluorobenzene	95.4	70-130		%Rec	5	1/27/2017 12:00:48 PM	C40344
Surr: Dibromofluoromethane	101	70-130		%Rec	5	1/27/2017 12:00:48 PM	C40344
Surr: Toluene-d8	95.9	70-130		%Rec	5	1/27/2017 12:00:48 PM	C40344

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A 21
Lab ID: 1701B25-008
Client Sample ID: S-24
Collection Date: 1/26/2017 3:25:00 PM
Matrix: MEOH (SOIL)
Received Date: 1/27/2017 8:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	180	7.9		mg/Kg	2	1/27/2017 2:26:16 PM	D40344
Surr: BFB	101	70-130		%Rec	2	1/27/2017 2:26:16 PM	D40344
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **MAB**	
Diesel Range Organics (DRO)	130	9.8		mg/Kg	1	1/27/2017 11:25:22 AM	29920
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/27/2017 11:25:22 AM	29920
Surr: DNOP	85.7	70-130		%Rec	1	1/27/2017 11:25:22 AM	29920
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.040		mg/Kg	2	1/27/2017 2:26:16 PM	C40344
Toluene	ND	0.079		mg/Kg	2	1/27/2017 2:26:16 PM	C40344
Ethylbenzene	0.092	0.079		mg/Kg	2	1/27/2017 2:26:16 PM	C40344
Xylenes, Total	1.9	0.16		mg/Kg	2	1/27/2017 2:26:16 PM	C40344
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	2	1/27/2017 2:26:16 PM	C40344
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	2	1/27/2017 2:26:16 PM	C40344
Surr: Dibromofluoromethane	98.1	70-130		%Rec	2	1/27/2017 2:26:16 PM	C40344
Surr: Toluene-d8	100	70-130		%Rec	2	1/27/2017 2:26:16 PM	C40344

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A 21
Lab ID: 1701B25-009

Client Sample ID: S-25
Collection Date: 1/26/2017 3:35:00 PM
Matrix: MEOH (SOIL) **Received Date:** 1/27/2017 8:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	160	20		mg/Kg	5	1/27/2017 12:29:54 PM	D40344
Surr: BFB	86.8	70-130		%Rec	5	1/27/2017 12:29:54 PM	D40344
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **MAB**	
Diesel Range Organics (DRO)	120	9.5		mg/Kg	1	1/27/2017 10:57:34 AM	29920
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/27/2017 10:57:34 AM	29920
Surr: DNOP	87.4	70-130		%Rec	1	1/27/2017 10:57:34 AM	29920
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.098		mg/Kg	5	1/27/2017 12:29:54 PM	C40344
Toluene	ND	0.20		mg/Kg	5	1/27/2017 12:29:54 PM	C40344
Ethylbenzene	ND	0.20		mg/Kg	5	1/27/2017 12:29:54 PM	C40344
Xylenes, Total	1.5	0.39		mg/Kg	5	1/27/2017 12:29:54 PM	C40344
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	5	1/27/2017 12:29:54 PM	C40344
Surr: 4-Bromofluorobenzene	89.9	70-130		%Rec	5	1/27/2017 12:29:54 PM	C40344
Surr: Dibromofluoromethane	101	70-130		%Rec	5	1/27/2017 12:29:54 PM	C40344
Surr: Toluene-d8	99.8	70-130		%Rec	5	1/27/2017 12:29:54 PM	C40344

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701B25**

30-Jan-17

Client: APEX TITAN
Project: Florance A 21

Sample ID	LCS-29873	SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	29873		RunNo:	40298				
Prep Date:	1/25/2017	Analysis Date:	1/26/2017		SeqNo:	1263368	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		5.000		98.6	70	130			

Sample ID	MB-29873	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	29873		RunNo:	40298				
Prep Date:	1/25/2017	Analysis Date:	1/26/2017		SeqNo:	1263369	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		99.9	70	130			

Sample ID	LCS-29871	SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	29871		RunNo:	40298				
Prep Date:	1/25/2017	Analysis Date:	1/26/2017		SeqNo:	1263907	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		5.000		101	70	130			

Sample ID	MB-29871	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	29871		RunNo:	40298				
Prep Date:	1/25/2017	Analysis Date:	1/26/2017		SeqNo:	1263908	Units:	%Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		108	70	130			

Sample ID	LCS-29920	SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	29920		RunNo:	40298				
Prep Date:	1/27/2017	Analysis Date:	1/27/2017		SeqNo:	1264177	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.0	63.8	116			
Surr: DNOP	5.1		5.000		102	70	130			

Sample ID	MB-29920	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	29920		RunNo:	40298				
Prep Date:	1/27/2017	Analysis Date:	1/27/2017		SeqNo:	1264178	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		110	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701B25**

30-Jan-17

Client: APEX TITAN

Project: Florance A 21

Sample ID **1701B25-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-17**	Batch ID: **29920**	RunNo: **40298**
Prep Date: **1/27/2017**	Analysis Date: **1/27/2017**	SeqNo: **1265100** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	130	9.5	47.35	116.9	24.8	51.6	130			S
Surr: DNOP	5.0		4.735		105	70	130			

Sample ID **1701B25-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-17**	Batch ID: **29920**	RunNo: **40298**
Prep Date: **1/27/2017**	Analysis Date: **1/27/2017**	SeqNo: **1265101** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	130	9.4	46.86	116.9	35.1	51.6	130	3.60	20	S
Surr: DNOP	5.4		4.686		114	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701B25**

30-Jan-17

Client: APEX TITAN
Project: Florance A 21

Sample ID **1701b25-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S-17**	Batch ID: **R40332**	RunNo: **40332**
Prep Date:	Analysis Date: **1/27/2017**	SeqNo: **1264901** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	41	0.95	38.02	0	107	61.9	146			
Toluene	44	1.9	38.02	5.492	101	70	130			
Surr: 1,2-Dichloroethane-d4	18		19.01		95.2	70	130			
Surr: 4-Bromofluorobenzene	18		19.01		92.2	70	130			
Surr: Dibromofluoromethane	19		19.01		100	70	130			
Surr: Toluene-d8	19		19.01		100	70	130			

Sample ID **1701b25-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S-17**	Batch ID: **R40332**	RunNo: **40332**
Prep Date:	Analysis Date: **1/27/2017**	SeqNo: **1264902** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	39	0.95	38.02	0	103	61.9	146	4.23	20	
Toluene	41	1.9	38.02	5.492	93.0	70	130	7.49	20	
Surr: 1,2-Dichloroethane-d4	19		19.01		101	70	130	0	0	
Surr: 4-Bromofluorobenzene	17		19.01		91.9	70	130	0	0	
Surr: Dibromofluoromethane	19		19.01		101	70	130	0	0	
Surr: Toluene-d8	19		19.01		98.8	70	130	0	0	

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **R40332**	RunNo: **40332**
Prep Date:	Analysis Date: **1/27/2017**	SeqNo: **1264944** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.9	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.56		0.5000		112	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **R40332**	RunNo: **40332**
Prep Date:	Analysis Date: **1/27/2017**	SeqNo: **1264945** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	113	70	130			
Toluene	1.0	0.050	1.000	0	101	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701B25**

30-Jan-17

Client: APEX TITAN
Project: Florance A 21

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **R40332**	RunNo: **40332**
Prep Date:	Analysis Date: **1/27/2017**	SeqNo: **1264945** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		105	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.3	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		105	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **C40344**	RunNo: **40344**
Prep Date:	Analysis Date: **1/27/2017**	SeqNo: **1264986** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.1	70	130			
Surr: 4-Bromofluorobenzene	0.39		0.5000		77.5	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		99.1	70	130			
Surr: Toluene-d8	0.50		0.5000		99.6	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **C40344**	RunNo: **40344**
Prep Date:	Analysis Date: **1/27/2017**	SeqNo: **1264987** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.0	70	130			
Toluene	1.0	0.050	1.000	0	101	70	130			
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		101	70	130			
Surr: 4-Bromofluorobenzene	0.40		0.5000		79.9	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		99.2	70	130			
Surr: Toluene-d8	0.49		0.5000		98.2	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701B25**

30-Jan-17

Client: APEX TITAN
Project: Florance A 21

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **A40332**	RunNo: **40332**
Prep Date:	Analysis Date: **1/27/2017**	SeqNo: **1264868** 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	520		500.0		105	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **A40332**	RunNo: **40332**
Prep Date:	Analysis Date: **1/27/2017**	SeqNo: **1264870** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	62.9	123			
Surr: BFB	520		500.0		103	70	130			

Sample ID **1701b25-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **S-17**	Batch ID: **A40332**	RunNo: **40332**
Prep Date:	Analysis Date: **1/27/2017**	SeqNo: **1264873** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	2300	190	950.6	1388	98.2	52.3	132			
Surr: BFB	19000		19010		102	70	130			

Sample ID **1701b25-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **S-17**	Batch ID: **A40332**	RunNo: **40332**
Prep Date:	Analysis Date: **1/27/2017**	SeqNo: **1264874** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	2200	190	950.6	1388	83.2	52.3	132	6.35	20	
Surr: BFB	19000		19010		101	70	130	0	0	

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **D40344**	RunNo: **40344**
Prep Date:	Analysis Date: **1/27/2017**	SeqNo: **1264993** 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	370		500.0		73.9	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **D40344**	RunNo: **40344**
Prep Date:	Analysis Date: **1/27/2017**	SeqNo: **1264996** Units: **mg/Kg**

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701B25**

30-Jan-17

Client: APEX TITAN

Project: Florance A 21

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **D40344**	RunNo: **40344**
Prep Date:	Analysis Date: **1/27/2017**	SeqNo: **1264996** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	62.9	123			
Surr: BFB	410		500.0		82.8	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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: 1701B25 | RcptNo: 1

Received by/date: RE 01/27/17

Logged By: Ashley Gallegos 1/27/2017 8:40:00 AM

Completed By: Ashley Gallegos 1/27/2017 8:58:10 AM

Reviewed By: aj 1/27/17

Chain of Custody

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

Log In

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

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

Adjusted?

Checked by:

Special Handling (if applicable)

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

Person Notified: Date

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

Regarding:

Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: K. Summers

Laboratory: Hall

Address: ABQ, NM

Contact: A. Freeman

Phone:

PO/SO #:

Lab use only
Due Date:

Temp. of coolers when received (C°): 1.9-0.1=1.8

1	2	3	4	5

Page 1 of 1

Sampler's Name: Rance Deschilly

Sampler's Signature:

Proj. No.

Project Name: Florance A#21

No/Type of Containers

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

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	Lab Sample ID (Lab Use Only)
S	1/26/17	1415	X		S-17						1		1701B25-001
		1425	X		S-18								-002
		1435	X		S-19								-003
		1445	X		S-20								-004
		1455		X	S-21								-005
		1505	X		S-22								-006
		1515	X		S-23								-007
		1525	X		S-24								-008
		1535	X		S-25								-009
					NFS								-010

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☒ 100% Rush SAME DAY

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	1/26/17	1710		1/26/17	1710
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	1/26/17	1903		1/27/17	0840
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

Bill to Tom Long

Non AFE # N27812

Rush

SAME DAY

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, 2017

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Florance A 21 OrderNo.: 1702001

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 2/1/2017 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 **1702001**
Date Reported: **2/2/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A 21
Lab ID: 1702001-001

Client Sample ID: S-26
Collection Date: 1/31/2017 9:00:00 AM
Matrix: MEOH (SOIL) **Received Date:** 2/1/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/1/2017 11:33:50 AM	29988
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/1/2017 11:33:50 AM	29988
Surr: DNOP	112	70-130		%Rec	1	2/1/2017 11:33:50 AM	29988
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	2/1/2017 11:35:16 AM	29940
Surr: BFB	90.1	68.3-144		%Rec	1	2/1/2017 11:35:16 AM	29940
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.024	0.022		mg/Kg	1	2/1/2017 11:35:16 AM	29940
Toluene	ND	0.044		mg/Kg	1	2/1/2017 11:35:16 AM	29940
Ethylbenzene	ND	0.044		mg/Kg	1	2/1/2017 11:35:16 AM	29940
Xylenes, Total	ND	0.088		mg/Kg	1	2/1/2017 11:35:16 AM	29940
Surr: 4-Bromofluorobenzene	89.4	80-120		%Rec	1	2/1/2017 11:35:16 AM	29940

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A 21
Lab ID: 1702001-002
Client Sample ID: S-27
Collection Date: 1/31/2017 9:05:00 AM
Matrix: MEOH (SOIL)
Received Date: 2/1/2017 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	12	9.4		mg/Kg	1	2/1/2017 2:27:22 PM	29988
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/1/2017 2:27:22 PM	29988
Surr: DNOP	115	70-130		%Rec	1	2/1/2017 2:27:22 PM	29988
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	19	4.3		mg/Kg	1	2/1/2017 11:58:57 AM	29940
Surr: BFB	199	68.3-144	S	%Rec	1	2/1/2017 11:58:57 AM	29940
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.041	0.022		mg/Kg	1	2/1/2017 11:58:57 AM	29940
Toluene	ND	0.043		mg/Kg	1	2/1/2017 11:58:57 AM	29940
Ethylbenzene	ND	0.043		mg/Kg	1	2/1/2017 11:58:57 AM	29940
Xylenes, Total	0.14	0.087		mg/Kg	1	2/1/2017 11:58:57 AM	29940
Surr: 4-Bromofluorobenzene	93.8	80-120		%Rec	1	2/1/2017 11:58:57 AM	29940

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

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1702001**

02-Feb-17

Client: APEX TITAN
Project: Florance A 21

Sample ID **MB-29988**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **29988**	RunNo: **40413**
Prep Date: **2/1/2017**	Analysis Date: **2/1/2017**	SeqNo: **1266782** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		107	70	130			

Sample ID **LCS-29988**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **29988**	RunNo: **40413**
Prep Date: **2/1/2017**	Analysis Date: **2/1/2017**	SeqNo: **1266804** 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	96.8	63.8	116			
Surr: DNOP	5.0		5.000		100	70	130			

Sample ID **1702001-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-26**	Batch ID: **29988**	RunNo: **40413**
Prep Date: **2/1/2017**	Analysis Date: **2/1/2017**	SeqNo: **1267392** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	9.9	49.36	5.272	90.1	51.6	130			
Surr: DNOP	5.4		4.936		110	70	130			

Sample ID **1702001-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-26**	Batch ID: **29988**	RunNo: **40413**
Prep Date: **2/1/2017**	Analysis Date: **2/1/2017**	SeqNo: **1267393** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	9.6	47.80	5.272	94.7	51.6	130	1.59	20	
Surr: DNOP	5.2		4.780		109	70	130	0	0	

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1702001**

02-Feb-17

Client: APEX TITAN
Project: Florance A 21

Sample ID **MB-29940**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **29940**	RunNo: **40433**
Prep Date: **1/30/2017**	Analysis Date: **2/1/2017**	SeqNo: **1267563** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		85.8	68.3	144			

Sample ID **LCS-29940**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **29940**	RunNo: **40433**
Prep Date: **1/30/2017**	Analysis Date: **2/1/2017**	SeqNo: **1267564** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	74.6	123			
Surr: BFB	930		1000		93.1	68.3	144			

Sample ID **MB-29966**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **29966**	RunNo: **40433**
Prep Date: **1/31/2017**	Analysis Date: **2/1/2017**	SeqNo: **1267573** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	870		1000		87.1	68.3	144			

Sample ID **LCS-29966**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **29966**	RunNo: **40433**
Prep Date: **1/31/2017**	Analysis Date: **2/1/2017**	SeqNo: **1267575** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970		1000		96.9	68.3	144			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1702001**

02-Feb-17

Client: APEX TITAN
Project: Florance A 21

Sample ID **MB-29940**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **29940**	RunNo: **40433**
Prep Date: **1/30/2017**	Analysis Date: **2/1/2017**	SeqNo: **1267607** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.86		1.000		86.4	80	120			

Sample ID **LCS-29940**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **29940**	RunNo: **40433**
Prep Date: **1/30/2017**	Analysis Date: **2/1/2017**	SeqNo: **1267608** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	94.8	75.2	115			
Toluene	0.84	0.050	1.000	0	83.7	80.7	112			
Ethylbenzene	0.82	0.050	1.000	0	81.8	78.9	117			
Xylenes, Total	2.5	0.10	3.000	0	82.7	79.2	115			
Surr: 4-Bromofluorobenzene	0.91		1.000		90.6	80	120			

Sample ID **MB-29966**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **29966**	RunNo: **40433**
Prep Date: **1/31/2017**	Analysis Date: **2/1/2017**	SeqNo: **1267615** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.90		1.000		89.6	80	120			

Sample ID **LCS-29966**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **29966**	RunNo: **40433**
Prep Date: **1/31/2017**	Analysis Date: **2/1/2017**	SeqNo: **1267616** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.93		1.000		93.5	80	120			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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: 1702001 RcptNo: 1

Received by/date: AJ 2/1/17

Logged By: Andy Jansson 2/1/2017 8:00:00 AM

Completed By: Andy Jansson 2/1/17

Reviewed By: 02/01/17

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

APEX

Office Location: Aztec N.M

Project Manager: K Summers

Laboratory: Hall Env

Address: Abq N.M

Contact: A. Fillmore

Phone:

PO/SO #:

Sampler's Name: Chad D'Apenti

Sampler's Signature:

Proj. No.

Project Name: Florence A #21

No/Type of Containers

ANALYSIS REQUESTED: BETX Soil; TPH GRO/DRO LMBO Soils; MES

Lab use only
Due Date:

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

1	2	3	4	5

Page 1 of 1

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	Lab Sample ID (Lab Use Only)
S	1/31/17	900			S-26						1		1702001-001
S	1/31/17	905			S-27						1		1702001-002

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	1-31-17	1436	Chad Ward	1/31/17	1430
Chad Ward	1/31/17	1847		2/1/17	0800
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

Bill to Tom Long

AFE # N27812

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 24, 2017

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Florance A 21 OrderNo.: 1701925

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 1/21/2017 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: Florance A 21
Lab ID: 1701925-001
Client Sample ID: S-15
Collection Date: 1/20/2017 1:00:00 PM
Matrix: MEOH (SOIL)
Received Date: 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	19	3.7		mg/Kg	1	1/21/2017 12:30:59 PM	C40186
Surr: BFB	103	70-130		%Rec	1	1/21/2017 12:30:59 PM	C40186
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **MAB**	
Diesel Range Organics (DRO)	140	9.5		mg/Kg	1	1/23/2017 11:46:28 AM	29817
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/23/2017 11:46:28 AM	29817
Surr: DNOP	113	70-130		%Rec	1	1/23/2017 11:46:28 AM	29817
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	0.019	0.019		mg/Kg	1	1/21/2017 12:30:59 PM	A40186
Toluene	ND	0.037		mg/Kg	1	1/21/2017 12:30:59 PM	A40186
Ethylbenzene	ND	0.037		mg/Kg	1	1/21/2017 12:30:59 PM	A40186
Xylenes, Total	ND	0.075		mg/Kg	1	1/21/2017 12:30:59 PM	A40186
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%Rec	1	1/21/2017 12:30:59 PM	A40186
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	1/21/2017 12:30:59 PM	A40186
Surr: Dibromofluoromethane	96.4	70-130		%Rec	1	1/21/2017 12:30:59 PM	A40186
Surr: Toluene-d8	100	70-130		%Rec	1	1/21/2017 12:30:59 PM	A40186

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

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A 21
Lab ID: 1701925-002

Client Sample ID: S-16
Collection Date: 1/20/2017 1:05:00 PM
Matrix: MEOH (SOIL) **Received Date:** 1/21/2017 9:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	1/21/2017 1:58:21 PM	C40186
Surr: BFB	99.5	70-130		%Rec	1	1/21/2017 1:58:21 PM	C40186
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **MAB**	
Diesel Range Organics (DRO)	10	9.7		mg/Kg	1	1/23/2017 1:09:05 PM	29817
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/23/2017 1:09:05 PM	29817
Surr: DNOP	115	70-130		%Rec	1	1/23/2017 1:09:05 PM	29817
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.018		mg/Kg	1	1/21/2017 1:58:21 PM	A40186
Toluene	ND	0.036		mg/Kg	1	1/21/2017 1:58:21 PM	A40186
Ethylbenzene	ND	0.036		mg/Kg	1	1/21/2017 1:58:21 PM	A40186
Xylenes, Total	ND	0.073		mg/Kg	1	1/21/2017 1:58:21 PM	A40186
Surr: 1,2-Dichloroethane-d4	86.7	70-130		%Rec	1	1/21/2017 1:58:21 PM	A40186
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	1/21/2017 1:58:21 PM	A40186
Surr: Dibromofluoromethane	88.4	70-130		%Rec	1	1/21/2017 1:58:21 PM	A40186
Surr: Toluene-d8	103	70-130		%Rec	1	1/21/2017 1:58:21 PM	A40186

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

Qualifiers:

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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701925**

24-Jan-17

Client: APEX TITAN

Project: Florance A 21

Sample ID **1701925-001AMS**	SampType: **MS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **S-15**	Batch ID: **29817**			RunNo: **40201**					
Prep Date: **1/21/2017**	Analysis Date: **1/23/2017**			SeqNo: **1260597**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	210	9.5	47.71	143.7	139	51.6	130			S
Surr: DNOP	5.9		4.771		125	70	130			

Sample ID **1701925-001AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **S-15**	Batch ID: **29817**			RunNo: **40201**					
Prep Date: **1/21/2017**	Analysis Date: **1/23/2017**			SeqNo: **1260598**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	200	9.6	47.85	143.7	124	51.6	130	3.35	20	
Surr: DNOP	5.9		4.785		123	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701925**

24-Jan-17

Client: APEX TITAN
Project: Florance A 21

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **A40186**	RunNo: **40186**
Prep Date:	Analysis Date: **1/21/2017**	SeqNo: **1259842** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.0	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		102	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		95.6	70	130			
Surr: Toluene-d8	0.52		0.5000		104	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **A40186**	RunNo: **40186**
Prep Date:	Analysis Date: **1/21/2017**	SeqNo: **1259843** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.2	70	130			
Toluene	1.0	0.050	1.000	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.9	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.5	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Sample ID **1701925-001AMS**	SampType: **MS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S-15**	Batch ID: **A40186**	RunNo: **40186**
Prep Date:	Analysis Date: **1/21/2017**	SeqNo: **1259845** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.69	0.019	0.7491	0.01928	89.8	61.9	146			
Toluene	0.76	0.037	0.7491	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	0.36		0.3746		95.1	70	130			
Surr: 4-Bromofluorobenzene	0.39		0.3746		104	70	130			
Surr: Dibromofluoromethane	0.35		0.3746		94.1	70	130			
Surr: Toluene-d8	0.38		0.3746		100	70	130			

Sample ID **1701925-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S-15**	Batch ID: **A40186**	RunNo: **40186**
Prep Date:	Analysis Date: **1/21/2017**	SeqNo: **1259846** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.66	0.019	0.7491	0.01928	85.6	61.9	146	4.60	20	
Toluene	0.76	0.037	0.7491	0	101	70	130	0.797	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Diluted Due to Matrix
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701925**

24-Jan-17

Client: APEX TITAN

Project: Florance A 21

Sample ID **1701925-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S-15**	Batch ID: **A40186**	RunNo: **40186**
Prep Date:	Analysis Date: **1/21/2017**	SeqNo: **1259846** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.35		0.3746		93.3	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.39		0.3746		103	70	130	0	0	
Surr: Dibromofluoromethane	0.33		0.3746		89.2	70	130	0	0	
Surr: Toluene-d8	0.39		0.3746		103	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701925**

24-Jan-17

Client: APEX TITAN

Project: Florance A 21

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **C40186**	RunNo: **40186**
Prep Date:	Analysis Date: **1/21/2017**	SeqNo: **1259894** 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	500		500.0		100	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **C40186**	RunNo: **40186**
Prep Date:	Analysis Date: **1/21/2017**	SeqNo: **1259895** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	62.9	123			
Surr: BFB	500		500.0		99.0	70	130			

Sample ID **1701925-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **S-16**	Batch ID: **C40186**	RunNo: **40186**
Prep Date:	Analysis Date: **1/21/2017**	SeqNo: **1259898** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	3.6	18.13	1.755	104	52.3	132			
Surr: BFB	360		362.6		100	70	130			

Sample ID **1701925-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **S-16**	Batch ID: **C40186**	RunNo: **40186**
Prep Date:	Analysis Date: **1/21/2017**	SeqNo: **1259899** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	3.6	18.13	1.755	96.8	52.3	132	6.64	20	
Surr: BFB	370		362.6		102	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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: 1701925 RcptNo: 1

Received by/date: 01/20/17

Logged By: Lindsay Mangin 1/21/2017 9:15:00 AM

Completed By: Lindsay Mangin 1/21/2017 9:27:31 AM

Reviewed By: DF 1/21/2017

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	2.0	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec N.M

Project Manager: K Summers

Laboratory: Hall Env

Address: ABQ N.M

Contact: A Freeman

Phone:

PO/SO #:

Sampler's Name: Chad D'Agenti

Sampler's Signature:

Proj. No.: 205C401122410

Project Name: Florance A #21

No/Type of Containers

ANALYSIS REQUESTED: BTEX 8021 / TPH GRO DRO LMRO 8015 / NO3

Lab use only
Due Date:

Temp. of coolers when received (C°): 2.0

1 | 2 | 3 | 4 | 5

Page 1 of 1

Lab Sample ID (Lab Use Only): 1701924-001, -002

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 L	250 ml	Glass Jar	P/O
S	1/20/17	1300			S-15						1	
S	1/20/17	1305			S-16						1	

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	1-2017	1540		1/20/17	1540
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	1/21/17	1904		01/21	FT 0915
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

Bill to Tom Long

APEX N27812

Same Day

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 20, 2017

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Florance A 21 OrderNo.: 1701811

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 4 sample(s) on 1/19/2017 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 **1701811**
Date Reported: **1/20/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A 21
Lab ID: 1701811-001

Client Sample ID: S-11
Collection Date: 1/18/2017 12:10:00 PM
Matrix: MEOH (SOIL) **Received Date:** 1/19/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	1/19/2017 10:14:28 AM	G40131
Surr: BFB	101	70-130		%Rec	1	1/19/2017 10:14:28 AM	G40131
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	1/19/2017 9:30:28 AM	29777
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/19/2017 9:30:28 AM	29777
Surr: DNOP	98.4	70-130		%Rec	1	1/19/2017 9:30:28 AM	29777
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	ND	0.017		mg/Kg	1	1/19/2017 10:14:28 AM	R40131
Toluene	ND	0.034		mg/Kg	1	1/19/2017 10:14:28 AM	R40131
Ethylbenzene	ND	0.034		mg/Kg	1	1/19/2017 10:14:28 AM	R40131
Xylenes, Total	ND	0.067		mg/Kg	1	1/19/2017 10:14:28 AM	R40131
Surr: 1,2-Dichloroethane-d4	95.1	70-130		%Rec	1	1/19/2017 10:14:28 AM	R40131
Surr: 4-Bromofluorobenzene	90.4	70-130		%Rec	1	1/19/2017 10:14:28 AM	R40131
Surr: Dibromofluoromethane	104	70-130		%Rec	1	1/19/2017 10:14:28 AM	R40131
Surr: Toluene-d8	93.1	70-130		%Rec	1	1/19/2017 10:14:28 AM	R40131

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A 21
Lab ID: 1701811-002

Client Sample ID: S-12
Collection Date: 1/18/2017 12:15:00 PM
Matrix: MEOH (SOIL) **Received Date:** 1/19/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	1/19/2017 10:43:01 AM	G40131
Surr: BFB	99.0	70-130		%Rec	1	1/19/2017 10:43:01 AM	G40131
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/19/2017 9:51:57 AM	29777
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/19/2017 9:51:57 AM	29777
Surr: DNOP	101	70-130		%Rec	1	1/19/2017 9:51:57 AM	29777
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	ND	0.020		mg/Kg	1	1/19/2017 10:43:01 AM	R40131
Toluene	ND	0.039		mg/Kg	1	1/19/2017 10:43:01 AM	R40131
Ethylbenzene	ND	0.039		mg/Kg	1	1/19/2017 10:43:01 AM	R40131
Xylenes, Total	ND	0.079		mg/Kg	1	1/19/2017 10:43:01 AM	R40131
Surr: 1,2-Dichloroethane-d4	94.7	70-130		%Rec	1	1/19/2017 10:43:01 AM	R40131
Surr: 4-Bromofluorobenzene	91.7	70-130		%Rec	1	1/19/2017 10:43:01 AM	R40131
Surr: Dibromofluoromethane	106	70-130		%Rec	1	1/19/2017 10:43:01 AM	R40131
Surr: Toluene-d8	94.4	70-130		%Rec	1	1/19/2017 10:43:01 AM	R40131

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A 21
Lab ID: 1701811-003
Client Sample ID: S-13
Collection Date: 1/18/2017 12:20:00 PM
Matrix: MEOH (SOIL)
Received Date: 1/19/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	8.3	4.0		mg/Kg	1	1/19/2017 11:11:36 AM	G40131
Surr: BFB	96.1	70-130		%Rec	1	1/19/2017 11:11:36 AM	G40131
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/19/2017 10:13:28 AM	29777
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/19/2017 10:13:28 AM	29777
Surr: DNOP	103	70-130		%Rec	1	1/19/2017 10:13:28 AM	29777
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	0.089	0.020		mg/Kg	1	1/19/2017 11:11:36 AM	R40131
Toluene	ND	0.040		mg/Kg	1	1/19/2017 11:11:36 AM	R40131
Ethylbenzene	ND	0.040		mg/Kg	1	1/19/2017 11:11:36 AM	R40131
Xylenes, Total	ND	0.081		mg/Kg	1	1/19/2017 11:11:36 AM	R40131
Surr: 1,2-Dichloroethane-d4	94.8	70-130		%Rec	1	1/19/2017 11:11:36 AM	R40131
Surr: 4-Bromofluorobenzene	86.1	70-130		%Rec	1	1/19/2017 11:11:36 AM	R40131
Surr: Dibromofluoromethane	102	70-130		%Rec	1	1/19/2017 11:11:36 AM	R40131
Surr: Toluene-d8	92.5	70-130		%Rec	1	1/19/2017 11:11:36 AM	R40131

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Florance A 21
Lab ID: 1701811-004
Client Sample ID: S-14
Collection Date: 1/18/2017 12:30:00 PM
Matrix: MEOH (SOIL)
Received Date: 1/19/2017 7:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **AG**	
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	1/19/2017 11:40:13 AM	G40131
Surr: BFB	98.0	70-130		%Rec	1	1/19/2017 11:40:13 AM	G40131
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/19/2017 10:35:01 AM	29777
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/19/2017 10:35:01 AM	29777
Surr: DNOP	101	70-130		%Rec	1	1/19/2017 10:35:01 AM	29777
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **AG**	
Benzene	ND	0.019		mg/Kg	1	1/19/2017 11:40:13 AM	R40131
Toluene	ND	0.037		mg/Kg	1	1/19/2017 11:40:13 AM	R40131
Ethylbenzene	ND	0.037		mg/Kg	1	1/19/2017 11:40:13 AM	R40131
Xylenes, Total	ND	0.075		mg/Kg	1	1/19/2017 11:40:13 AM	R40131
Surr: 1,2-Dichloroethane-d4	97.0	70-130		%Rec	1	1/19/2017 11:40:13 AM	R40131
Surr: 4-Bromofluorobenzene	90.5	70-130		%Rec	1	1/19/2017 11:40:13 AM	R40131
Surr: Dibromofluoromethane	107	70-130		%Rec	1	1/19/2017 11:40:13 AM	R40131
Surr: Toluene-d8	93.9	70-130		%Rec	1	1/19/2017 11:40:13 AM	R40131

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701811**

20-Jan-17

Client: APEX TITAN
Project: Florance A 21

Sample ID **MB-29777**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **29777**	RunNo: **40123**
Prep Date: **1/19/2017**	Analysis Date: **1/19/2017**	SeqNo: **1257613** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.7		10.00		96.9	70	130			

Sample ID **LCS-29777**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **29777**	RunNo: **40123**
Prep Date: **1/19/2017**	Analysis Date: **1/19/2017**	SeqNo: **1257640** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.5	63.8	116			
Surr: DNOP	4.7		5.000		93.8	70	130			

Sample ID **1701811-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-11**	Batch ID: **29777**	RunNo: **40123**
Prep Date: **1/19/2017**	Analysis Date: **1/19/2017**	SeqNo: **1258298** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.5	47.26	1.339	91.8	51.6	130			
Surr: DNOP	4.5		4.726		96.0	70	130			

Sample ID **1701811-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-11**	Batch ID: **29777**	RunNo: **40123**
Prep Date: **1/19/2017**	Analysis Date: **1/19/2017**	SeqNo: **1258302** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.4	46.82	1.339	95.8	51.6	130	3.17	20	
Surr: DNOP	4.7		4.682		100	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701811**

20-Jan-17

Client: APEX TITAN
Project: Florance A 21

Sample ID **1701811-001ams** SampType: **MS** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S-11** Batch ID: **R40131** RunNo: **40131**
Prep Date: Analysis Date: **1/20/2017** SeqNo: **1258635** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	61.9	146			
Toluene	1.0	0.050	1.000	0.003550	102	70	130			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.5	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		90.5	70	130			
Surr: Dibromofluoromethane	0.49		0.5000		97.1	70	130			
Surr: Toluene-d8	0.48		0.5000		96.4	70	130			

Sample ID **1701811-001amsd** SampType: **MSD** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S-11** Batch ID: **R40131** RunNo: **40131**
Prep Date: Analysis Date: **1/20/2017** SeqNo: **1258636** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	97.6	61.9	146	3.79	20	
Toluene	0.97	0.050	1.000	0.003550	96.6	70	130	5.43	20	
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		91.0	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.45		0.5000		90.5	70	130	0	0	
Surr: Dibromofluoromethane	0.50		0.5000		99.4	70	130	0	0	
Surr: Toluene-d8	0.48		0.5000		95.5	70	130	0	0	

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS** Batch ID: **R40131** RunNo: **40131**
Prep Date: Analysis Date: **1/19/2017** SeqNo: **1258683** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	96.4	70	130			
Toluene	1.0	0.050	1.000	0	101	70	130			
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.1	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		89.1	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.9	70	130			
Surr: Toluene-d8	0.50		0.5000		99.8	70	130			

Sample ID **rb** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **R40131** RunNo: **40131**
Prep Date: Analysis Date: **1/19/2017** SeqNo: **1258727** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701811**

20-Jan-17

Client: APEX TITAN
Project: Florance A 21

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **R40131**	RunNo: **40131**
Prep Date:	Analysis Date: **1/19/2017**	SeqNo: **1258727** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.4	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		95.9	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		105	70	130			
Surr: Toluene-d8	0.49		0.5000		97.4	70	130			

Sample ID **lcs-29756**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **29756**	RunNo: **40131**
Prep Date: **1/18/2017**	Analysis Date: **1/19/2017**	SeqNo: **1258728** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		90.8	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		91.3	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		101	70	130			
Surr: Toluene-d8	0.48		0.5000		96.5	70	130			

Sample ID **mb-29756**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **29756**	RunNo: **40131**
Prep Date: **1/18/2017**	Analysis Date: **1/19/2017**	SeqNo: **1258729** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		90.4	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		89.5	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		105	70	130			
Surr: Toluene-d8	0.51		0.5000		101	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701811**

20-Jan-17

Client: APEX TITAN

Project: Florance A 21

Sample ID **1701811-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **S-11**	Batch ID: **G40131**	RunNo: **40131**
Prep Date:	Analysis Date: **1/20/2017**	SeqNo: **1258737** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.4	16.78	0.7852	100	52.3	132			
Surr: BFB	350		335.6		104	70	130			

Sample ID **1701811-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **S-11**	Batch ID: **G40131**	RunNo: **40131**
Prep Date:	Analysis Date: **1/20/2017**	SeqNo: **1258738** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	3.4	16.78	0.7852	94.2	52.3	132	5.89	20	
Surr: BFB	330		335.6		99.6	70	130	0	0	

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G40131**	RunNo: **40131**
Prep Date:	Analysis Date: **1/19/2017**	SeqNo: **1258739** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.3	62.9	123			
Surr: BFB	480		500.0		96.5	70	130			

Sample ID **rb**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **G40131**	RunNo: **40131**
Prep Date:	Analysis Date: **1/19/2017**	SeqNo: **1258740** 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		96.1	70	130			

Sample ID **lcs-29756**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **29756**	RunNo: **40131**
Prep Date: **1/18/2017**	Analysis Date: **1/19/2017**	SeqNo: **1258749** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	520		500.0		103	70	130			

Sample ID **mb-29756**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **29756**	RunNo: **40131**
Prep Date: **1/18/2017**	Analysis Date: **1/19/2017**	SeqNo: **1258750** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	540		500.0		108	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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: 1701811 | RcptNo: 1

Received by/date: 01/19/17

Logged By: Lindsay Mangin 1/19/2017 7:35:00 AM

Completed By: Lindsay Mangin 1/19/2017 8:01:07 AM

Reviewed By: 01/19/17

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 N.M

Project Manager: K. Summers

Laboratory: Hall Env

Address: ABQ N.M

Contact: A. Fireman

Phone:

PO/SO #:

Sampler's Name: Chad D'Apenti

Sampler's Signature:

Proj. No.: 205040112240

Project Name: Florance A #2J

No/Type of Containers

ANALYSIS REQUESTED: BTEX 8021; TPH GRO/DRO/MRO 8015; 300.1

Lab use only
Due Date:

Temp. of coolers when received (C°): 1.3

1	2	3	4	5

Page 1 of 1

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	Lab Sample ID (Lab Use Only)
S	1/18/17	12:10			S-11								1701811-001
S	"	12:15			S-12								-002
S	"	12:20			S-13								-003
S	"	12:30			S-14								-004

N/ES

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	1-18-17	1431	Misty Watt	1/18/17	1431
Misty Watt	1/18/17	1904		01/19/17	0735
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

Bill to Tom Long

Non AFE # N27812

Same Day

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, 201

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

March 10, 2017 Received

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Repo

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: **Lateral 2A-4**	Facility Type: **Natural Gas Gathering Pipeline**

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

LOCATION OF RELEASE

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

Latitude 36.563480 **Longitude** 107.851010

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: **2/17/2017 @ 2:05 p.m.**	Date and Hour of Discovery: **2/17/2017 @ 2:30 p.m.**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? Courtesy Notification: Cory Smith – NMOCD; Whitney Thomas - BLM	
By Whom? Thomas Long	Date and Hour March 2, 2017 @ 10:56 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 February 17, 2017, during routine operations a field operation technician identified a natural gas release on Lateral 2A-4 pipeline. The pipeline was isolated, depressurized, locked out and tagged out. Repairs and remediation are currently in progress and Enterprise has determined this release is reportable per NMOCD regulation on March 2, 2017, due to the volume of subsurface impacts.

Describe Area Affected and Cleanup Action Taken.* Repairs and remediation are currently in progress. Enterprise will remove the contaminant mass by mechanical excavation. A third party corrective action report will be included with the "Final." C-141.

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

Signature: Jon E. Fields	OIL CONSERVATION DIVISION
Printed Name: Jon E. Fields	Approved by Environmental Specialist:
Title: Director, Environmental	Approval Date: 3/14/2017 Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval: Attached ☐
Date: 3-6-17 Phone: (713)381-6684	NVF1707334470

* Attach Additional Sheets If Necessary

3

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 3/10/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number NVF-1707334452 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District II office in 30 on or before 4/10/2017. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
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505-476-3465
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District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: **Lateral H-45**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **BLM**	Mineral Owner: **BLM**	**Serial Number: NM 097563**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from	North/South Line	Feet from	East/West Line	County
A	**11**	**31N**	**13W**	the **642**	(North) South	the **946**	(East) West	**San Juan**

Latitude 36.91977 **Longitude -108.16735**

NATURE OF RELEASE

Type of Release: Natural Gas/Water/Condensate	Volume of Release **Estimated 5-7 barrels**	Volume Recovered: **None**
Source of Release: Suspected Internal Corrosion	Date and Hour of Occurrence: **2/11/2017 @ 11:45 a.m.**	Date and Hour of Discovery: **2/11/2017 @ 11:45 a.m.**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Cory Smith – NMOCD; Whitey Thomas -BLM	
By Whom? Thomas Long	Date and Time. 2/11/2017 @ 2:35 p.m.	
Was a Watercourse Reached? ☒ Yes ☐ No	If YES, Volume	

OIL CONS. DIV DIST. 3
FEB 24 2017

If a Watercourse was Impacted, Describe Fully.* The release was located in a small ephemeral wash and fluids flowed approximately 450 feet down the wash where the flow was terminated and stable.

Describe Cause of Problem and Remedial Action: On February 11, 2017, Enterprise technicians were notified of a release on the Lateral H-45 pipeline. The release was located in a small ephemeral wash and fluids flowed approximately 450 feet down the wash where the flow was terminated and stable. The pipeline was isolated, blown down, locked out and tagged out.

Describe Area Affected and Cleanup Action: Due to the rains on February 12 and 13, 2017, the released fluids were mobilized further down gradient. On February 13, 2017, Enterprise personnel installed earthen berms, absorbent socks/booms, absorbent pads and sphagsorb in the wash to reduce mobilization of the oil/condensate mixture further down gradient. Repairs and remediation are in the scheduling process. Enterprise will remove the contaminant mass by mechanical excavation. A third party corrective action report will be included with the "Final." C-141.

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

Signature: Jon E. Fields	OIL CONSERVATION DIVISION
Printed Name: Jon E. Fields	Approved by Environmental Specialist:
Title: Director, Environmental	Approval Date: 3/14/17 Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval: Sample for TPH (GRO, MRO, DRO) BTEX Follow Attached Work plan. Attached ☒
Date: 2/16/2017 Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

NCS 1704531637 Remediation to START By 4/17/17

16

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 2/24/17 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number NCS1704531637 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 3 office in Aztec on or before N/A. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

• Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

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• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
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Santa Fe, New Mexico 87505
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APEX

OIL CONS. DIV DIST. 3
MAR 0 8 2017

SOIL SAMPLING WORK PLAN – SURFACE FLOW PATH

Property:

Lateral H-45 Pipeline Release
NE 1/4, S11 T31N R13W
San Juan County, New Mexico

February 27, 2017
Apex Project No. 725040112257

Prepared for:

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

Prepared by:

Chad D'Aponti
Project Scientist

Kyle Summers, CPG
Branch Manager/ Senior Geologist

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- **1.1 Site Description** 1
- **1.2 Proposed Cleanup Goals** 1

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Figure 2 – Site Vicinity Map
Figure 3 – Proposed Sample Aliquot Map
Figure 4 – PID Screening Results

Appendix B: Table 1 – Preliminary PID Field Screening

APEX

SOIL SAMPLING WORK PLAN – SURFACE FLOW PATH

Lateral H-45 Pipeline Release
NE 1/4, S11 T31N R13W
San Juan County, New Mexico

Apex Project No. 725040112257

1.0 INTRODUCTION

This plan documents the sampling frequency, approximate aliquot collection points, and laboratory analytical methods proposed to evaluate the presence, magnitude and/or extent of constituents of concern (COCs) in the surface flow path that resulted from a natural gas pipeline release on the lateral H-45 pipeline.

1.1 Site Description

The Lateral H-45 Pipeline Release Site originates at the Enterprise Field Services, LLC (Enterprise) pipeline in the northeast (NE) ¼ of Section 11, Township 31 North, Range 13 West, in rural San Juan County, New Mexico (36.919791N, 108.167367W), referred to hereinafter as the "Site". The Site is located on land managed by the Bureau of Land Management (BLM). The Site is surrounded by native-vegetation rangeland periodically interrupted by oil and gas production and gathering facilities, including one (1) Enterprise natural gas pipeline which traverses the area from approximately north to south.

A release of natural gas and associated pipeline liquids was discovered at the Site on February 11, 2017. The release breached the ground surface near the pipeline, and pipeline liquids traveled west approximately 700 feet in an ephemeral wash, and then south-southwest an additional 400 feet towards McDermott Arroyo. Enterprise and New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD) representatives were on Site on February 13, 2017 for the initial emergency response actions, during which hand tools and sorbents were utilized to mitigate free liquids and affected soils from the ground surface. On February 15, 2017, Apex TITAN, Inc. (Apex) visited the Site and field screened 12 soil samples from the lower release flow path and generally mapped the flow path. Soil field screening results utilizing a photoionization detector (PID) ranged from 0 parts per million (ppm) to 678 ppm.

A Topographic Map (Figure 1), Site Vicinity Map (Figure 2), and Proposed Sample Aliquot Map (Figure 3) are included in Appendix A.

1.2 Proposed Cleanup Goals

The Site is under the jurisdiction of the New Mexico ENMRD OCD. Initial Site activities were performed in accordance with the ENMRD OCD *Guidelines for Remediation of Leaks, Spills and Releases*, in addition to the OCD rules, specifically New Mexico Administrative Code (NMAC) 19.15.29 *Release Notification*. This guidance establishes investigation and abatement action requirements for sites subject to reporting and/or corrective action.

Apex utilized the general site characteristics and information available from the New Mexico Office of the State Engineer (OSE) to determine the appropriate OCD "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 OCD Total Ranking Score of "40". This ranking is based on the following:

- The nearest water well (SJ 01026) identified on the OSE website is located approximately 0.67 miles northwest of the Site, but does not identify a depth to water. Based on this information and the Site's proximity to the McDermott Arroyo, depth to groundwater is anticipated to be less than 50 feet bgs resulting in a ranking score of "20" for depth to groundwater.

- No water sources (municipal/community wells) were identified within 1,000 feet of the Site. No domestic water sources were identified within 200 feet of the Site. These proximities result in a wellhead protection area ranking score of "0".

- A portion of the release flowed within the paleo cut-banks and into a portion of an apparent high-water flood channel of the McDermott Arroyo that is listed as a "blue line" on the United States Geological Survey topographic map, resulting in a ranking score of "20" for distance to surface water.

Based on a Total Ranking Score of 40, cleanup goals for soil located at the Site include: 10 milligrams per kilogram (mg/kg) for benzene, 50 mg/kg for combined benzene, toluene, ethylbenzene, and total xylenes (BTEX), and 100 mg/kg for total petroleum hydrocarbons (TPH) gasoline range organic (GRO) diesel range organics (DRO) and motor oil/lube oil range organics (MRO).

2.0 SOIL SAMPLING WORK PLAN

2.1 Objective

The objective of the Soil Sampling Work Plan (SSWP) is to evaluate the presence, magnitude and/or extent of BTEX and TPH GRO/DRO/MRO concentrations in soils associated with the surface flow path where the release of natural gas and associated pipeline liquids occurred.

2.2 Health and Safety Plan

Apex will develop a site specific Health and Safety Plan (HSP) for the performance of the proposed scope of services described in this work plan. For the purposes of this HSP, it is assumed that the constituents of concern include petroleum hydrocarbons. For the purposes of this work plan, it is assumed that the scope of services can be conducted under modified Level D

personal protective equipment (PPE), which will include a hard hat, steel-toed boots, protective eyewear, and gloves. Should the need arise to upgrade PPE (e.g. respiratory protection), the client will be notified, and the HSP will be modified accordingly.

2.3 Soil Sampling Program

Soil samples will be collected utilizing hand tools, and each sample will comprise soils from the ground surface to six (6) inches below the ground surface. The proposed sample locations were derived from the preliminary field screening results which are depicted on Figure 4 (Appendix A) and listed on Table 1 (Appendix B).

Enterprise proposes to collect up to eight (8) composite soil samples along the primary release flow path. Each composite flow path sample will be comprised of five (5) aliquots collected at approximately 50-foot increments along the primary flow path, which is estimated at 1,100 feet in length.

In addition, an estimated eight (8) composite soil samples will be collected from soils adjacent to the primary flow path, in areas near the McDermott Arroyo flood channel, where sheet flow might have occurred. These sheet flow area composite samples will each be comprised of five (5) aliquots collected from approximately 100-foot by 100-foot grids adjacent to the primary flow path. The sheet flow area aliquot locations will be based, in part, on relative ground elevations, and will not be collected from areas of obvious "higher ground" where the flow could not have occurred. Additionally, the sheet flow aliquots will not be collected from the primary flow path where grid overlap occurs. The approximate sample grid for the sheet flow composites and the primary flow path aliquot locations are depicted on Figure 4 in Appendix A.

Sample locations may be subject to modification, based on conditions encountered in the field and/or OCD input.

Trip blanks or duplicates will not be collected, unless specifically requested. Enterprise will notify NMOCD prior to initialization of soil sampling program.

The soil samples will be collected in laboratory prepared glassware and placed on ice in a cooler, which will be secured with a custody seal. The soil samples will be transported to Hall Environmental Analysis Laboratory (HEAL), in Albuquerque, New Mexico with a completed chain-of-custody form.

2.4 Soil Laboratory Analytical Program

Soil samples will be analyzed for total TPH GRO/DRO/MRO utilizing Environmental Protection Agency (EPA) SW-846 Method 8015 and BTEX utilizing EPA SW-846 Method 8021.

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

Analytes	Sample Matrix	No. of Samples	EPA Method
TPH GRO/DRO/MRO	Soil	16 (estimated)	SW-846 8015
BTEX	Soil	16 (estimated)	SW-846 8021

3.0 REPORTING

Upon the completion of sampling activities and receipt of the analytical results, a report will be prepared that will include documentation of the field activities, tabular data summaries, a site plan detailing pertinent site features, laboratory analytical reports, an evaluation of sampling results and recommendations concerning further action.

4.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

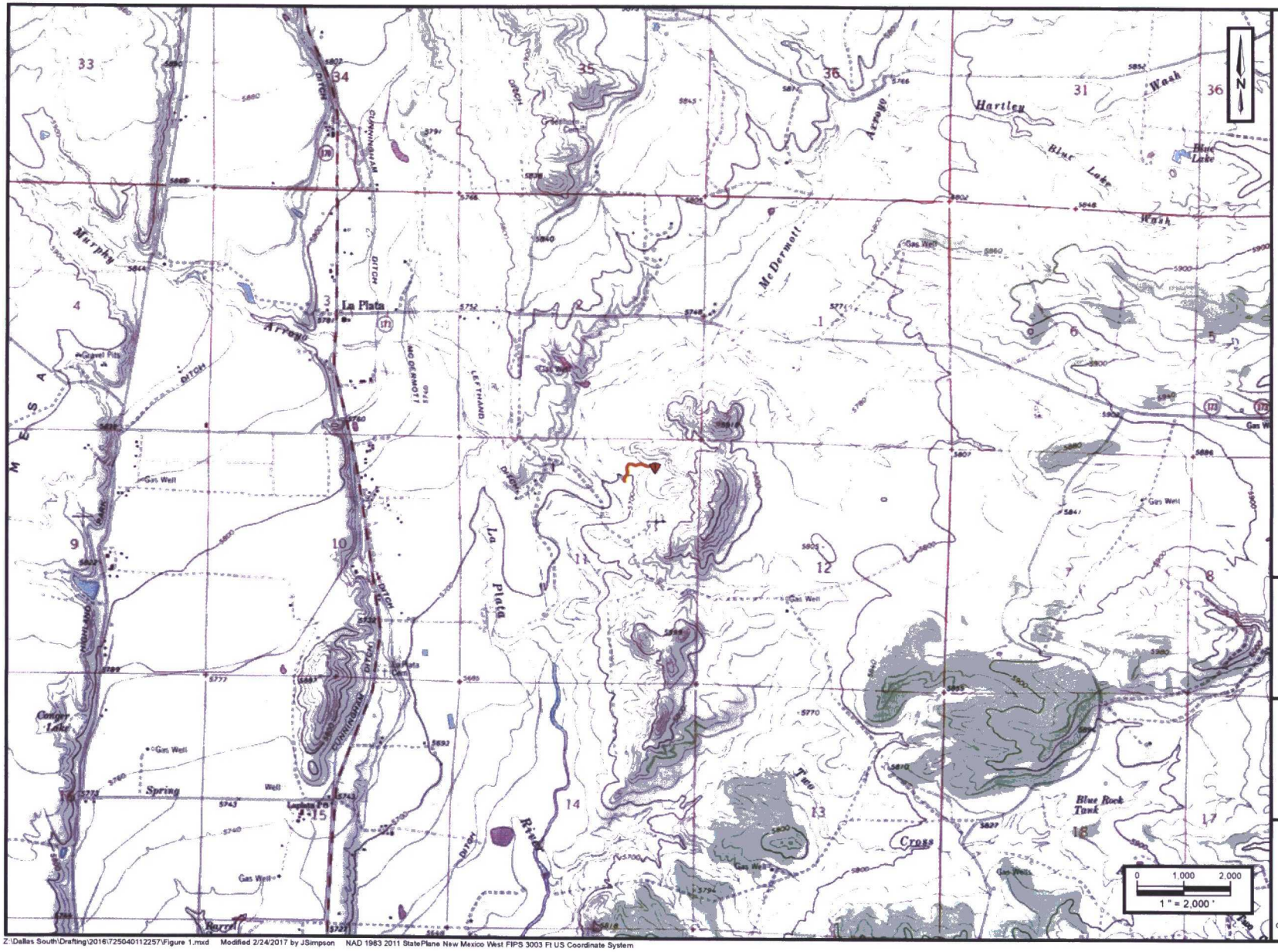
Apex's services will be performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, Apex does not warrant the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

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

APPENDIX A

Figures



LEGEND:

- Release Point
- Flow Path

Apex TITAN, Inc.
12100 Ford Road, Suite 401
Dallas, Texas 75234
Phone: (469) 365-1100
www.apexcos.com
A Subsidiary of Apex Companies, LLC

Lateral H-45
NE 1/4 S11 T31N R13W
San Juan County, New Mexico
36.91977 N, 108.16736 W

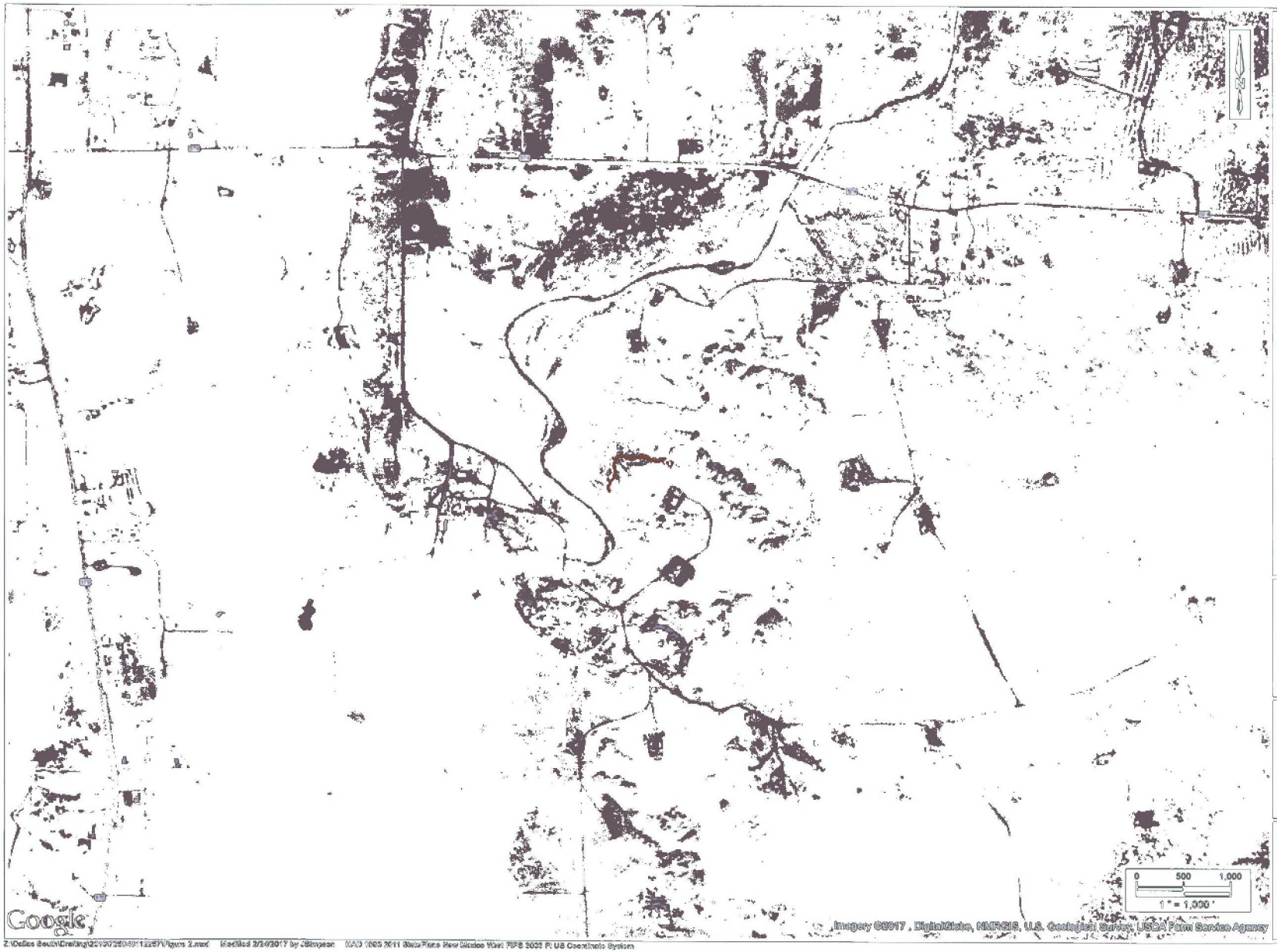
Project No. 725040112257

FIGURE 1

Topographic Map

Service Layer Credits:
Copyright © 2013 National Geographic Society, i-cubed, La Plata New Mexico and Colorado 7.5-Minute Quadrangle 1978

Z:\Dallas South\Drafting\2016\725040112257\Figure 1.mxd Modified 2/24/2017 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System



LEGEND:

Release Point

Flow Path

Apex TITAN, Inc.
12100 Ford Road, Suite 401
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A Subsidiary of Apex Companies, LLC

Latera: H-46
NE 1/4 S11 T31N R13W
San Juan County, New Mexico
36.91977 N, 108.18736 W

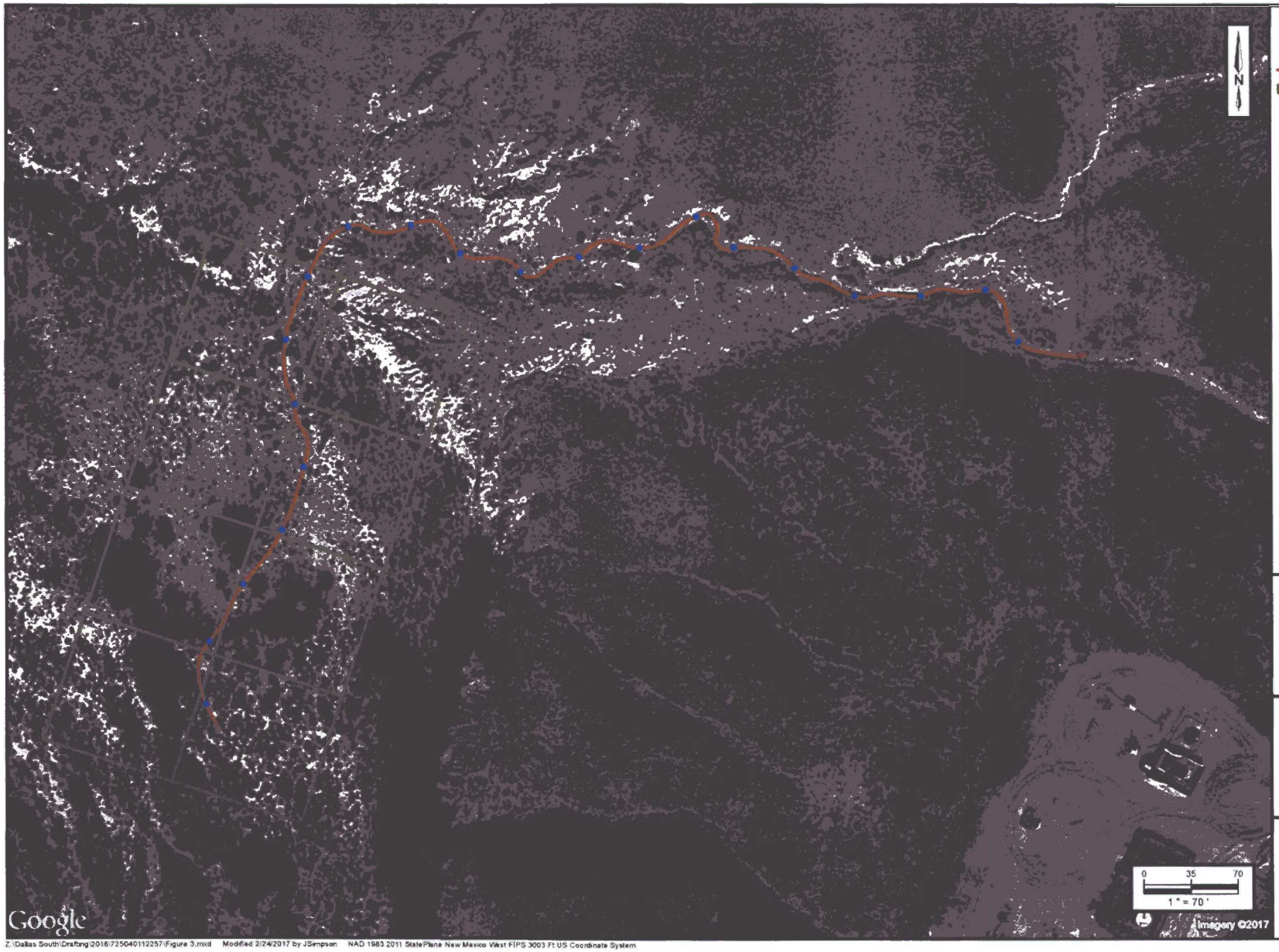
Project No. 725040112257

FIGURE 2

Site Vicinity Map

Service Layer Credits:
Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, Aerial Photograph March 2015

Z:\Dallas South\Drafting\2017\725040112257\Figure 2.mxd Modified 2/24/2017 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3002 Ft US Coordinate System



LEGEND:

- Flow Path Aliquots
- Release Point
- Flow Path
- Potential Sheet Flow Composite Sample Grids

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Dallas, Texas 75234
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Lateral H-45
NE 1/4 S11 T31N R13W
San Juan County, New Mexico
36.91977 N, 108.16736 W

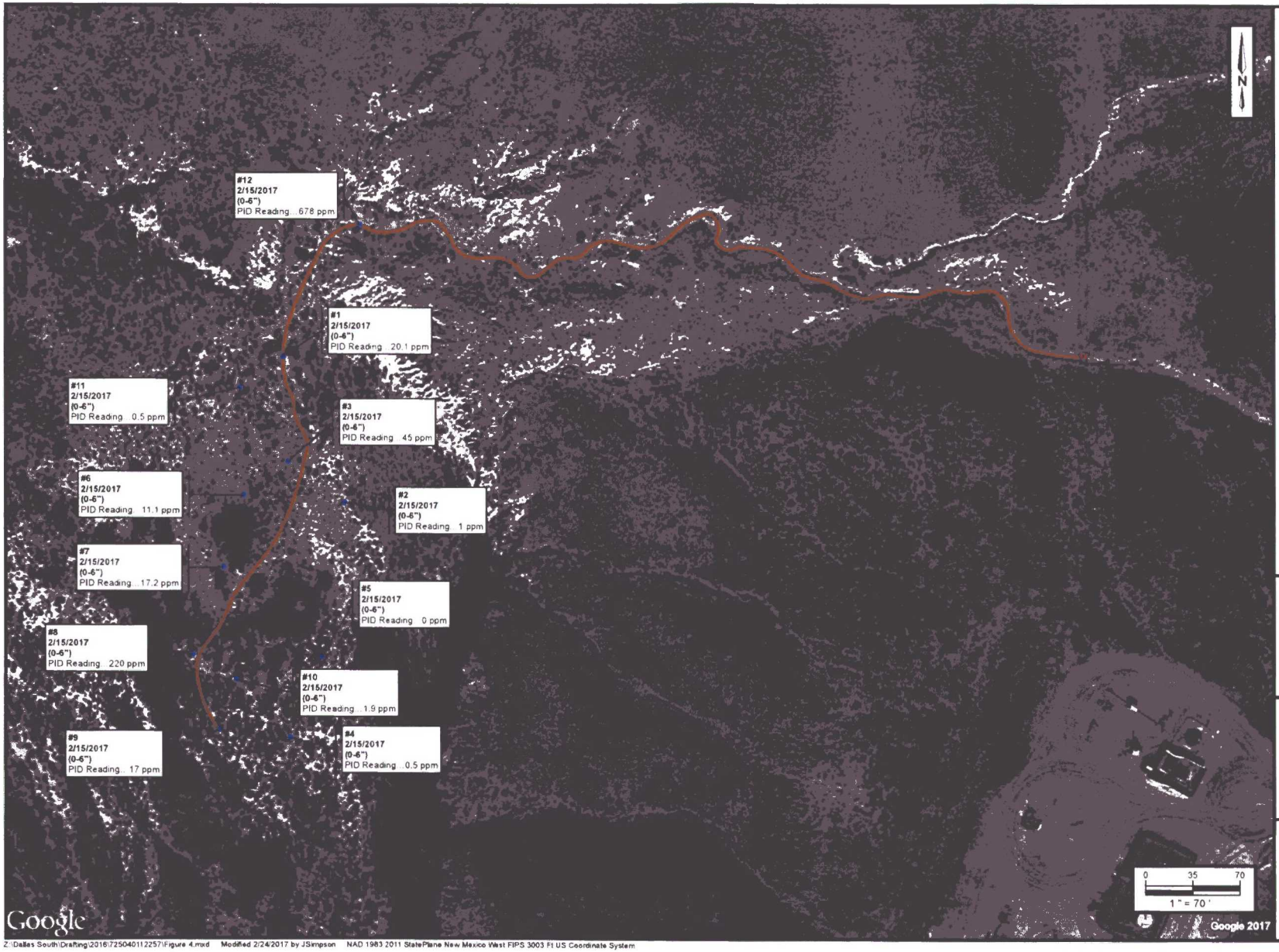
Project No. 725040112257

FIGURE 3

Proposed Sample Aliquot Map

Service Layer Credits:
Aerial Photograph March 2015

Z:\Dallas South\Drafting\2016\725040112257\Figure 3.mxd Modified 2/24/2017 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System



LEGEND:

- PID Screening Location
- Release Point
- Flow Path

Apex TITAN, Inc.
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Dallas, Texas 75234
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Lateral H-45
NE 1/4 S11 T31N R13W
San Juan County, New Mexico
36.91977 N, 108.16736 W

Project No. 725040112257

FIGURE 4

PID Screening Results

Service Layer Credits:
Aerial Photograph March 2015

Z:\Dallas South\Drafting\2016\725040112257\Figure 4.mxd Modified 2/24/2017 by JSimpson NAD 1983 2011 StatePlane New Mexico West FIPS 3003 Ft US Coordinate System

APPENDIX B

Table

APEX

TABLE 1
H-45 Pipeline Release
Preliminary PID Field Screening

Screening ID	Date	Sample Depth (inches)	VOCs* (PPM**)
PID Readings From Flow Path			
#1	2.15.17	0 to 6	20.1
#2	2.15.17	0 to 6	1
#3	2.15.17	0 to 6	45
#4	2.15.17	0 to 6	0.5
#5	2.15.17	0 to 6	0
#6	2.15.17	0 to 6	11.1
#7	2.15.17	0 to 6	17.2
#8	2.15.17	0 to 6	220
#9	2.15.17	0 to 6	17
#10	2.15.17	0 to 6	1.9
#11	2.15.17	0 to 6	0.5
#12	2.15.17	0 to 6	678

**PPM = Parts Per Million

* VOCs = Volatile Organic Compounds detected by the photoionization detector

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 Repo

Name of Company: Enterprise Field Services, LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: **Chaco Gas Plant**	Facility Type: **Natural Gas Processing Plant**

Surface Owner: **Private**	Mineral Owner: **Private**	Serial Number: **N/A**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	**16**	**26N**	**12W**	**710**	North (South)	**1968**	East (West)	**San Juan**

Latitude 36.482905 Longitude -108.119193

NATURE OF RELEASE

Type of Release: Natural Gas	Volume of Release **593 MCF**	Volume Recovered: **None**
Source of Release: By Pass Block Valve	Date and Hour of Occurrence: **3/1/2017 @ 4:00 p.m.**	Date and Hour of Discovery: **3/1/2017 @ 4:00 p.m.**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Vanessa Fields, NMOCD	
By Whom? Thomas Long	Date and Time March 2, 2017 @ 7:30 a.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume	

OIL CONS. DIV DIST.
MAR 13 2017

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: At approximately 4:00 p.m. in the process of starting the 400 Train, an Operator noticed a gas leak on the residue gas reflux flow control valve loop. Upon further investigation the 4" bypass block valve was identified as the leak point. Personnel were removed from the area and a Train shutdown was performed. Once Train was isolated & de-pressured the insulation was removed and a cracked valve bonnet on the 4" reflux FCV bypass valve was identified.

Describe Area Affected and Cleanup Action: None

OIL CONS. DIV DIST. 3
MAR 13 2017

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: 3/13/2017 Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval: Attached ☐
Date: 3-7-2017 Phone: (713)381-6684	NVF1706228754

* Attach Additional Sheets If Necessary

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: **Trunk 2B**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **Navajo Nation/NAPI**	Mineral Owner: **Navajo Nation/NAPI**	Serial Number: N/A

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from	North/South Line	Feet from	East/West Line	County
D	**7**	**27N**	**11W**	the **735**		the **682**		**San Juan**

Latitude 36.594826 Longitude -108.051979

NATURE OF RELEASE

Type of Release: Natural Gas and Condensate	Volume of Release **6.15 MCF Gas; 5-10 BBL Condensate**	Volume Recovered: **None**
Source of Release: Internal Corrosion of the Pipeline	Date and Hour of Occurrence: **4/22/2016 @ 4:30 p.m.**	Date and Hour of Discovery: **4/22/2016 @ 5:30 p.m.**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Cory Smith – NMOCD, Steve Austin – NNEPA and Mike Freeman - NAPI	
By Whom? Thomas Long	Date and Time 4/22/2016 @ 6:29 p.m.	AUG 29 2016
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume	OIL CONS. DIV DIST. 3

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action: On April 22, 2016, Enterprise technician discovered a gas leak from on the Trunk 2B pipeline The pipeline was isolated, blown down, locked out and tagged out. An area of soil staining of approximately 30 feet long by 3 feet wide was observed on the ground surface. Repairs and remediation were completed on July 25, 2016.

Describe Area Affected and Cleanup Action The contaminant mass was removed by mechanical excavation. The final excavation measured approximately 45 feet long by 14 feet wide ranging from 8 to 18 feet deep. Approximately 373 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation Division approved land farm facility. A third party corrective action report is included with this "Final" C-141.

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

Signature: Jon E. Fields	OIL CONSERVATION DIVISION
Printed Name: Jon E. Fields	Approved by Environmental Specialist: Cory Smith
Title: Director, Field Environmental	Approval Date: 1/23/17 Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval: — Attached ☐
Date: 8/26/2016 Phone: (713)381-6684	

* Attach Additional Sheets If Necessary #NVF1618252440

65

CORRECTIVE ACTION REPORT

Property:

Trunk 2B (April 2016) Pipeline Release
NW 1/4, S7 T27N R11W
San Juan County, New Mexico

August 12, 2016
Apex Project No. 725040112153

Prepared for:

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

Prepared by:

Ranee Deechilly
Project Scientist

Kyle Summers, CPG
Branch Manager/Senior Project Manager

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Chain of Custody Documentation

APEX

CORRECTIVE ACTION REPORT

Trunk 2B (April 2016) Pipeline Release
NW 1/4, S7 T27N R11W
San Juan County, New Mexico

Apex Project No. 725040112153

1.0 INTRODUCTION

1.1 Site Description & Background

The Trunk 2B pipeline release Site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the northwest (NW) ¼ of Section 7, Township 27 North, Range 11 West, in San Juan County, New Mexico (36.59485N, 108.05373W), referred to hereinafter as the "Site" or "subject Site". The Site is located on Navajo Nation Trust Land. The Site is surrounded by agricultural land operated by Navajo Agriculture Products Industry (NAPI), and native-vegetation rangeland periodically interrupted by oil and gas gathering facilities, including the Enterprise natural gas pipeline which traverses the area from east to west.

On April 22, 2016, Enterprise personnel discovered evidence of a surface release on the Trunk 2B pipeline. The surface expression of the release was characterized by soil discoloration at the ground surface and evidence of a pipeline liquids flow path that traveled northwest from the release point. Beginning on April 27, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. Three (3) corrosion-related leaks were identified and subsequently repaired utilizing pipeline repair clamps.

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

2.0 SITE RANKING

The Site is subject to regulatory oversight by the Navajo Nation Environmental Protection Agency (NNEPA) and the New Mexico OCD. In the absence of published NNEPA regulatory guidance, Apex TITAN, Inc. (Apex) references the New Mexico ENMRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases.* Apex utilized the general site characteristics obtained during the completion of corrective action activities and information available from the Office of the New Mexico Office of the State Engineer (OSE) to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the following table:

Ranking Criteria			Ranking Score
Depth to Groundwater	<50 feet	20	**10**
	50 to 99 feet	10	
	>100 feet	0	
Wellhead Protection Area • <1,000 feet from a water source, or; <200 feet from private domestic water source.	Yes	20	**0**
	No	0	
Distance to Surface Water Body	<200 feet	20	**0**
	200 to 1,000 feet	10	
	>1,000 feet	0	
Total Ranking Score			**10**

Based on Apex and Enterprise evaluations of the scoring criteria, which was verbally approved by the OCD and Navajo Nation Environmental Protection Agency (NNEPA), the Site would have a Total Ranking Score of 10. This ranking is based on the following:

- One water well identified on the OSE website is located less than a mile south of the Site with a depth to water greater than 100 feet below grade surface (bgs). However based on the Site's proximity to NAPI irrigation fields, the depth to groundwater at the Site may be between 50 and 100 feet bgs, resulting in a ranking of "10" for depth to groundwater.

- No water source wells (municipal/community wells) were identified within 1,000 feet of the Site. No private domestic water sources were identified within 200 feet of the Site. These proximities result in a wellhead protection area ranking of "0".

- A man-made pond is located approximately 986 feet south of the Site. However, this pond is located at a higher elevation and was primarily constructed above-grade. As such, this pond would not be a potential run-off receptor for any release in the vicinity of the Site. This information supports a distance to surface water ranking of "0".

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

On April 22, 2016, Enterprise personnel discovered evidence of a surface release on the Trunk 2B pipeline. The surface expression of the release was characterized by soil discoloration at the ground surface and evidence of a pipeline liquids flow path that traveled northwest from the release point. Beginning on April 27, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. Three (3) corrosion-related leaks were identified and subsequently repaired utilizing pipeline repair clamps. During the corrective action activities, West States Energy Contractors provided heavy equipment and labor support, and Ranee Deechilly, an Apex environmental professional, provided environmental support.

On April 28, 2016, four (4) confirmation soil samples (CS-1 through CS-4) were collected from the sidewalls and base of the western portion of the excavation. On April 29, 2016 eight (8) additional confirmation soil samples (CS-5 through CS-12) were collected from the eastern portion of the excavation. The flow path to the northwest was scraped to approximately 0.5 feet bgs, and one five-part composite sample (CS-12) was collected from the remediated flow path footprint for laboratory analysis. Subsequent analytical results indicated that that soils beneath the pipeline (soil samples CS-6, CS-7, and CS-11) in the eastern section of the excavation still

exhibited evidence of hydrocarbon impact. The excavation was backfilled with clean fill to allow the pipeline to temporarily return to service, with the intention of finishing remedial activities at a later date. An OCD representative was on-Site during the sampling event.

On July 25, 2016 corrective action activities resumed at the Site and after the clean backfill was removed, the eastern section of the excavation was over-excavated. Confirmation soil samples CS-13 through CS-17 were collected from the excavation to complete the analytical profile of the corrective actions. Additionally, one stockpiled soil sample (SP-1) was collected from the unaffected soils that were designated for reuse (primarily consisting of the original clean backfill), to confirm the material was suitable to remain on-Site.

The final excavation measured approximately 45 feet long by 14 feet wide. The total depth ranged from approximately eight (8) feet bgs (western portion) to 18 feet bgs (eastern portion). The scraped flow path measured approximately 103 feet in total length, up to 30 feet at the maximum width, and 0.5 feet bgs in depth.

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

A total of approximately 373 cubic yards of hydrocarbon-affected soils and four (4) barrels of potentially hydrocarbon-affected hydro-excavator cuttings 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 the laboratory–confirmed stockpiled soils and contoured to surrounding grade.

Figure 3 is a site map that indicates the approximate location of the excavated area in relation to Enterprise pipelines (Appendix A). Figure 4 is a site map that indicates the approximate location of the flow in relation to the road, fence line, and the Enterprise pipelines (Appendix A). Photographic documentation of the field activities is included in Appendix C.

3.2 Soil Sampling Program

Apex screened head-space samples of the impacted soils with a photoionization detector (PID) fitted with a 10.6 eV lamp to estimate excavation limits.

Apex's soil sampling program included the collection of 17 confirmation soil samples (CS-1 through CS-11 and CS-13 through CS-17) from the sidewalls and base of the excavation; one (1) five part composite flow path sample (CS-12); and one (1) stockpiled soil sample (SP-1) for laboratory analysis.

Figure 3 depicts the approximate location of the excavated area and depicts the confirmation sample locations in relation to the final excavation dimensions (Appendix A). Figure 4 depicts the approximate location of the flow path and the confirmation sample aliquot locations (Appendix A) for the surface release.

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

3.3 Laboratory Analytical Methods

The confirmation soil samples and stockpiled soil sample were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA SW-846 Method #8021, and total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (GRO) using EPA SW-846 Method #8015.

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

4.0 DATA EVALUATION

The Site is subject to regulatory oversight by the NNEPA and the New Mexico OCD. In the absence of published NNEPA regulatory guidance, Apex referenced the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the OCD rules, specifically New Mexico Administrative Code 19.15.29 *Release Notification*. These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action.

4.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or practical quantitation limits (PQLs) associated with the final soil samples (CS-1 through CS-17) and stockpile soil sample (SP-1) to the OCD *RALs* for sites having a total ranking score of "10". Soils associated with CS-6, CS-7, and CS-11 were removed by over-excavation and transported to the Envirotech Landfarm near Hilltop, NM, and are not included in the following discussion.

- The laboratory analyses of the confirmation samples from soils remaining in place and the reused stockpiled soils indicate benzene concentrations ranging from below the PQLs to 0.62 microgram per kilogram (mg/kg) (CS-5), which are below the OCD *RAL* of 10 mg/kg.

- The laboratory analyses of the confirmation samples from soils remaining in place and the reused stockpiled soils indicate total BTEX concentrations ranging from below the PQLs to 21 mg/kg (CS-5), which are below the OCD *RAL* of 50 mg/kg.

- The laboratory analyses of confirmation samples collected from soils remaining in place and the reused stockpiled soils indicate combined TPH GRO/DRO concentrations ranging from below PQLs to 620 mg/kg (CS-5), which are below the OCD *RAL* of 1,000 mg/kg for a Site ranking of "10".

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

5.0 FINDINGS AND RECOMMENDATIONS

The Trunk 2B pipeline release Site is located within the Enterprise pipeline ROW in the NW ¼ of Section 7, Township 27 North, Range 11 West, in San Juan County, New Mexico. The Site is located on Navajo Nation Trust Land. The Site is surrounded by agricultural land operated by NAPI, and native-vegetation rangeland periodically interrupted by oil and gas gathering facilities, including the Enterprise natural gas pipeline which traverses the area from east to west.

On April 22, 2016, Enterprise personnel discovered evidence of a surface release on the Trunk 2B pipeline. The surface expression of the release was characterized by soil discoloration at the ground surface and evidence of a pipeline liquids flow path that traveled northwest from the release point. Beginning on April 27, 2016, Enterprise initiated excavation activities to facilitate the repair of the pipeline and to remediate potential hydrocarbon impact. Three (3) corrosion-related leaks were identified and subsequently repaired utilizing pipeline repair clamps.

- 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 silty sand.

- The final excavation measure approximately 45 feet long by 14 feet wide, with total depths ranging from eight (8) feet bgs (western portion) to 18 feet bgs (eastern portion). The flow path measured approximately 103 feet in total length, up to 30 feet at the maximum width, and 0.5 feet bgs in depth.

- Prior to final backfilling, 17 excavation soil samples and one (1) stockpile soil sample were collected for laboratory analyses. Soils associated with three (3) of the confirmation samples (CS-6, CS-7, and CS-11) were removed by over-excavation and transported to the Envirotech Landfarm near Hilltop, NM for disposal/remediation. Based on analytical results, soils remaining in place do not exhibit BTEX or TPH GRO/DRO concentrations above the OCD *RALs* for a site ranking of "10".

- A total of approximately 373 cubic yards of hydrocarbon-affected soils and four (4) barrels of potentially hydrocarbon-affected hydro-excavator cuttings were transported to the Envirotech Landfarm near Hilltop, NM for disposal/remediation. The excavation was backfilled with clean imported fill and laboratory-confirmed stockpiled soils and contoured to the approximate surrounding grade.

Based on the 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 or described herein. Additionally, Apex does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client.

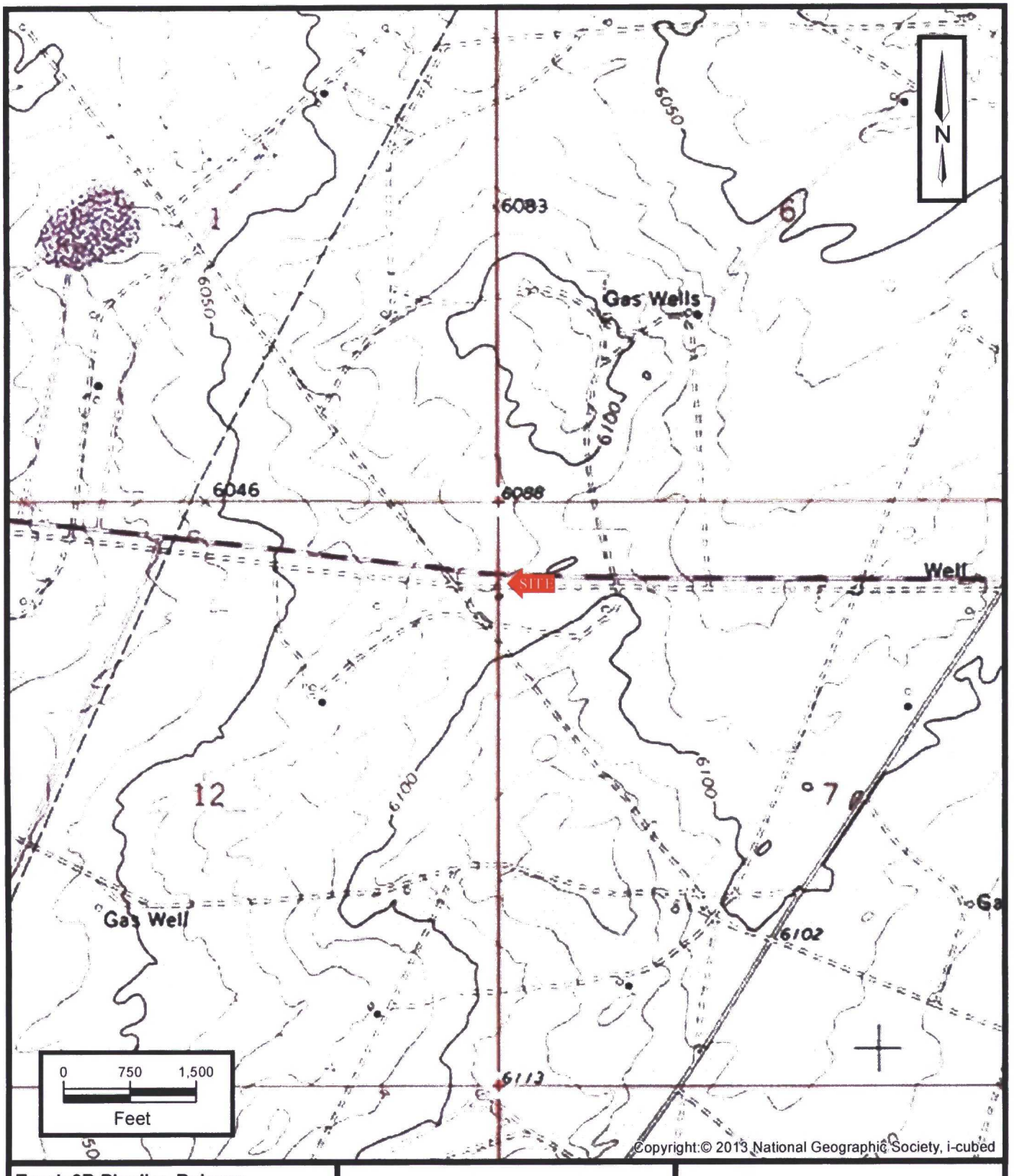
Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence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

encountered at actual sample locations. Apex's findings and recommendations are based solely upon data available to Apex at the time of these services.

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

APPENDIX A

Figures



Trunk 2B Pipeline Release
NW1/4 Sec7 T27N R11W
San Juan County, New Mexico
36.59485N, 108.05373W

Project No. 725040112153

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
Gallegos Trading Post,
New Mexico Quadrangle
1965

Z:\Houston South\Drafting\New Mexico 04\2016\725040112153\Figure 1.mxd 7/28/2016 WGS 1984 Web Mercator Auxiliary Sphere Projected Coordinate System

Trunk 2B Pipeline Release
NW1/4 Sec7 T27N R11W
San Juan County, New Mexico
36.59485N, 108.05373W

Project No. 725040112153

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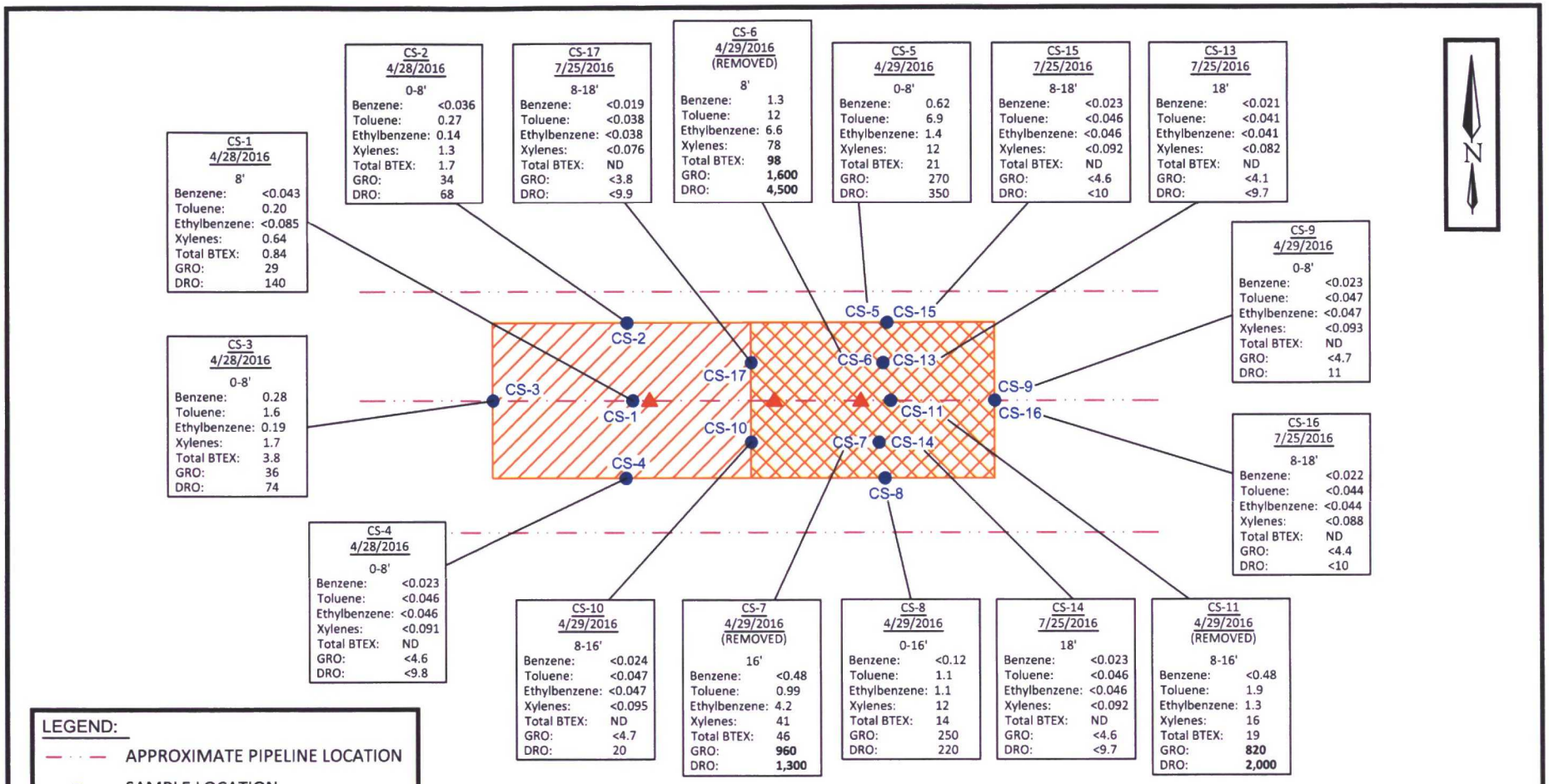
606 South Rio Grande, Suite A
Aztec, NM 87410
Phone: (505) 334-5200
www.apexcos.com
A Subsidiary of Apex Companies, LLC

FIGURE 2

Site Vicinity Map

Z:\Houston South\Drafting\New Mexico 04\2016\725040112153\Figure 2.mxd 7/28/2016 WGS 1984 Web Mercator Auxiliary Sphere Projected Coordinate System



Trunk 2B Pipeline Release
NW1/4 Sec7 T27N R11W
San Juan County, New Mexico
36.59485N, 108.05373W

Project No. 725040112153

Apex TITAN, Inc.
606 S. Rio Grande, Suite A
Aztec, New Mexico 87410
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A Subsidiary of Apex Companies, LLC

FIGURE 3

Site Map with Soil Analytical Results

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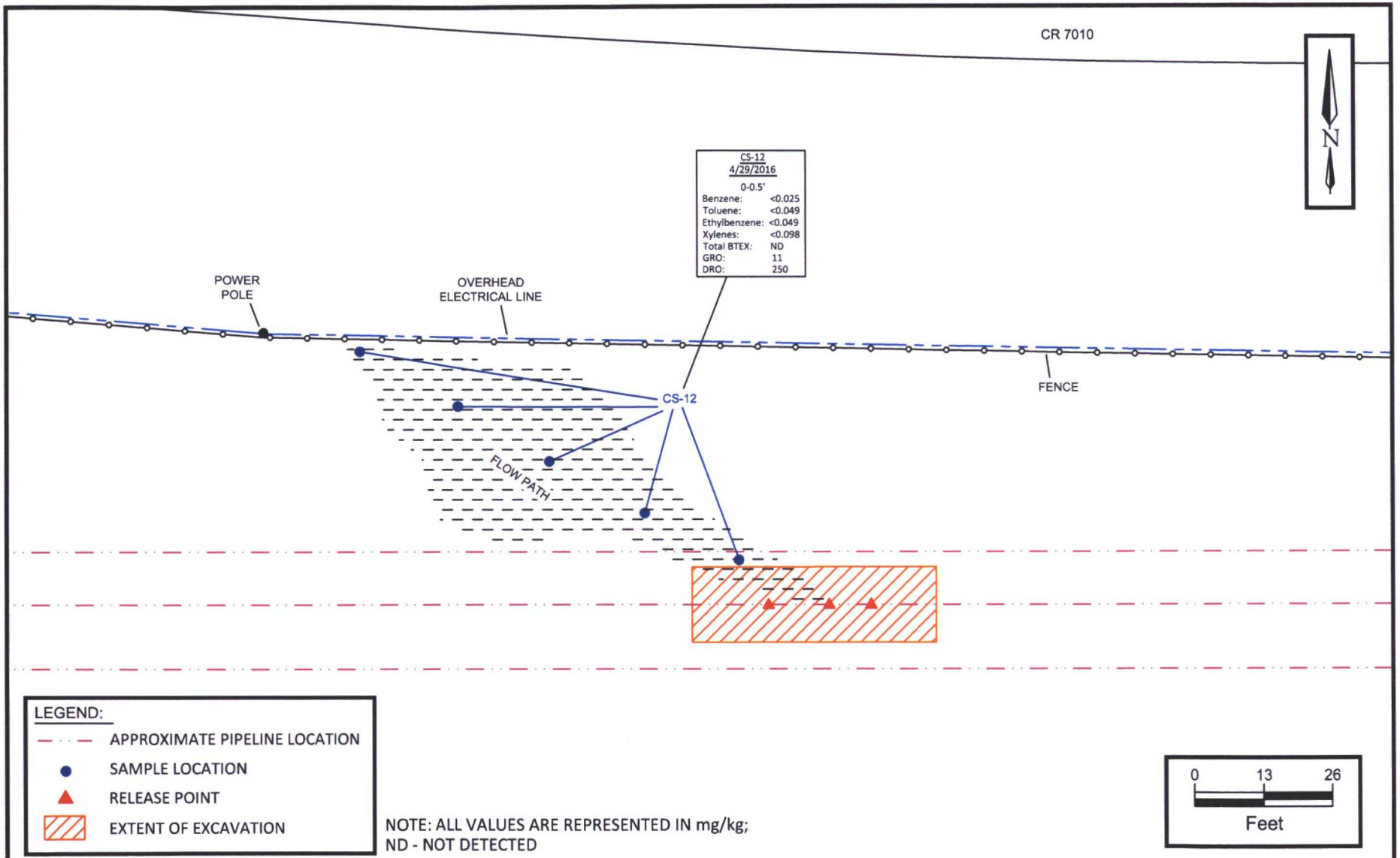

Trunk 2B Pipeline Release
NW1/4 Sec7 T27N R11W
San Juan County, New Mexico
36.59485N, 108.05373W

Project No. 725040112153

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606 S. Rio Grande, Suite A
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FIGURE 4

Site Map with Flow Path Soil Analytical Results

Z:\Houston South\Drafting\New Mexico 04\2016\725040112153\Figures.dwg 08/01/16

APEX

APPENDIX B

Executed C-138 Solid Waste Acceptance Forms

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

State of New Mexico
Energy Minerals and Natural Resources 97057-0772

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

Form C-138
Revised August 1, 2011

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

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator Name and Address:**
Enterprise Field Services, LLC, 614 Reilly Avenue, Farmington, NM 87401

2. **Originating Site:**
Trunk 2B Pipeline April 2016

3. **Location of Material (Street Address, City, State or ULSTR):**
Unit Letter D Section 7 Township 27 North Range 11 West; 36.594826, -108.051979; San Juan County, NM

4. **Source and Description of Waste:** Hydrocarbon impacted soil associated with a pipeline release.

5. Estimated Volume 100 (yd³) / bbls Known Volume (to be entered by the operator at the end of the haul) 229/4 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) 4-26-16, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to
Generator Signature
complete the required testing/sign the Generator Waste Testing Certification.

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

6. **Transporter: West States Energy Contractors**, Doug Foutz, HBL, Nelson Revegetation

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: Eric Liese TITLE: Landfarm Coordinator DATE: 4/27/16

SIGNATURE: (Eric Liese) 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

97057-0772

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:**
Trunk 2B Pipeline July '16

3. **Location of Material (Street Address, City, State or ULSTR):**
Unit Letter D Section 7 Township 27 North Range 11 West; 36.594826, -108.051979; San Juan County, NM

4. **Source and Description of Waste:** Hydrocarbon impacted soil associated with a pipeline release.

5. Estimated Volume 100 (yd³) / bbls Known Volume (to be entered by the operator at the end of the haul) 144 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) 7-25-16, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to
Generator Signature
complete the required testing/sign the Generator Waste Testing Certification.

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

6. **Transporter: West States Energy Contractors**

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

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

Waste Acceptance Status:

☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: Eric Liese TITLE: Landfarm Coordinator DATE: 7/25/16

SIGNATURE: (Eric Liese) TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

APPENDIX C

Photographic Documentation

Photograph 1

View of the release area and flow path, facing northwest.

Photograph 2

View of the in-process corrective action activities, facing northeast.

Photograph 3

View of the in-process corrective action activities, facing west.

Photograph 4 View of the scraped flowpath, facing northwest.	
Photograph 5 View of the over-excavated section, facing northwest.	

APPENDIX D

Table

APEX

TABLE 1

Trunk 2B (April 2016) Pipeline Release

SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	1,000	
Samples Removed by Excavation									
CS-6	4.29.16	8	1.3	12	6.6	78	**98**	**1,600**	**4,500**
CS-7	4.29.16	16	<0.48	0.99	4.2	41	46	**960**	**1,300**
CS-11	4.29.16	8 to 16	<0.48	1.9	1.3	16	19	**820**	**2,000**
Excavation Backfill Sample									
SP-1	7.25.16	Stockpile	<0.018	<0.035	<0.035	<0.070	ND	<3.5	56
Excavation Confirmation Samples									
CS-1	4.28.16	8	<0.043	0.20	<0.085	0.64	0.84	29	140
CS-2	4.28.16	0 to 8	<0.036	0.27	0.14	1.3	1.7	34	68
CS-3	4.28.16	0 to 8	0.28	1.6	0.19	1.7	3.8	36	74
CS-4	4.28.16	0 to 8	<0.023	<0.046	<0.046	<0.091	ND	<4.6	<9.8
CS-5	4.29.16	0 to 8	0.62	6.9	1.4	12	21	270	350
CS-8	4.29.16	0 to 16	<0.12	1.1	1.1	12	14	250	220
CS-9	4.29.16	0 to 8	<0.023	<0.047	<0.047	<0.093	ND	<4.7	11
CS-10	4.29.16	8 to 16	<0.024	<0.047	<0.047	<0.095	ND	<4.7	20
CS-12	4.29.16	0 to 0.5	<0.025	<0.049	<0.049	<0.098	ND	11	250
CS-13	7.25.16	18	<0.021	<0.041	<0.041	<0.082	ND	<4.1	<9.7
CS-14	7.25.16	18	<0.023	<0.046	<0.046	<0.092	ND	<4.6	<9.7
CS-15	7.25.16	8 to18	<0.023	<0.046	<0.046	<0.092	ND	<4.6	<10
CS-16	7.25.16	8 to 18	<0.022	<0.044	<0.044	<0.088	ND	<4.4	<10
CS-17	7.25.16	8 to 18	<0.019	<0.038	<0.038	<0.076	ND	<3.8	<9.9

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

ND = Not Detected above the Laboratory Reporting Limits

NE = Not established

APEX

APPENDIX E

Laboratory Data Sheets & Chain of Custody Documentation

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

May 02, 2016

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Trunk 2B OrderNo.: 1604C68

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/29/2016 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 **1604C68**
Date Reported: **5/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Trunk 2B
Lab ID: 1604C68-001
Matrix: MEOH (SOIL)
Client Sample ID: CS-1
Collection Date: 4/28/2016 11:45:00 AM
Received Date: 4/29/2016 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	140	9.3		mg/Kg	1	4/29/2016 11:38:17 AM	25071
Surr: DNOP	97.9	70-130		%Rec	1	4/29/2016 11:38:17 AM	25071
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	29	8.5		mg/Kg	2	4/29/2016 11:21:07 AM	25062
Surr: BFB	145	80-120	S	%Rec	2	4/29/2016 11:21:07 AM	25062
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.043		mg/Kg	2	4/29/2016 11:21:07 AM	25062
Toluene	0.20	0.085		mg/Kg	2	4/29/2016 11:21:07 AM	25062
Ethylbenzene	ND	0.085		mg/Kg	2	4/29/2016 11:21:07 AM	25062
Xylenes, Total	0.64	0.17		mg/Kg	2	4/29/2016 11:21:07 AM	25062
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	2	4/29/2016 11:21:07 AM	25062

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-2
Project: Trunk 2B
Collection Date: 4/28/2016 11:55:00 AM
Lab ID: 1604C68-002
Matrix: MEOH (SOIL)
Received Date: 4/29/2016 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	68	9.6		mg/Kg	1	4/29/2016 11:59:51 AM	25071
Surr: DNOP	94.0	70-130		%Rec	1	4/29/2016 11:59:51 AM	25071
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	34	7.3		mg/Kg	2	4/29/2016 11:44:50 AM	25062
Surr: BFB	165	80-120	S	%Rec	2	4/29/2016 11:44:50 AM	25062
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.036		mg/Kg	2	4/29/2016 11:44:50 AM	25062
Toluene	0.27	0.073		mg/Kg	2	4/29/2016 11:44:50 AM	25062
Ethylbenzene	0.14	0.073		mg/Kg	2	4/29/2016 11:44:50 AM	25062
Xylenes, Total	1.3	0.15		mg/Kg	2	4/29/2016 11:44:50 AM	25062
Surr: 4-Bromofluorobenzene	109	80-120		%Rec	2	4/29/2016 11:44:50 AM	25062

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-3
Project: Trunk 2B
Collection Date: 4/28/2016 12:05:00 PM
Lab ID: 1604C68-003
Matrix: MEOH (SOIL)
Received Date: 4/29/2016 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	74	9.7		mg/Kg	1	4/29/2016 12:21:21 PM	25071
Surr: DNOP	100	70-130		%Rec	1	4/29/2016 12:21:21 PM	25071
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	36	4.6		mg/Kg	1	4/29/2016 12:08:32 PM	25062
Surr: BFB	167	80-120	S	%Rec	1	4/29/2016 12:08:32 PM	25062
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.28	0.023		mg/Kg	1	4/29/2016 12:08:32 PM	25062
Toluene	1.6	0.046		mg/Kg	1	4/29/2016 12:08:32 PM	25062
Ethylbenzene	0.19	0.046		mg/Kg	1	4/29/2016 12:08:32 PM	25062
Xylenes, Total	1.7	0.092		mg/Kg	1	4/29/2016 12:08:32 PM	25062
Surr: 4-Bromofluorobenzene	110	80-120		%Rec	1	4/29/2016 12:08:32 PM	25062

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-4
Project: Trunk 2B
Collection Date: 4/28/2016 12:15:00 PM
Lab ID: 1604C68-004
Matrix: MEOH (SOIL)
Received Date: 4/29/2016 7:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/29/2016 12:43:08 PM	25071
Surr: DNOP	98.8	70-130		%Rec	1	4/29/2016 12:43:08 PM	25071
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/29/2016 12:32:13 PM	25062
Surr: BFB	101	80-120		%Rec	1	4/29/2016 12:32:13 PM	25062
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	4/29/2016 12:32:13 PM	25062
Toluene	ND	0.046		mg/Kg	1	4/29/2016 12:32:13 PM	25062
Ethylbenzene	ND	0.046		mg/Kg	1	4/29/2016 12:32:13 PM	25062
Xylenes, Total	ND	0.091		mg/Kg	1	4/29/2016 12:32:13 PM	25062
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	4/29/2016 12:32:13 PM	25062

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1604C68**

02-May-16

Client: APEX TITAN
Project: Trunk 2B

Sample ID **LCS-25071**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **25071**			RunNo: **33883**					
Prep Date: **4/29/2016**	Analysis Date: **4/29/2016**			SeqNo: **1043645**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.8	65.8	136			
Surr: DNOP	4.6		5.000		91.9	70	130			

Sample ID **MB-25071**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **25071**			RunNo: **33883**					
Prep Date: **4/29/2016**	Analysis Date: **4/29/2016**			SeqNo: **1043646**		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	70	130			

Sample ID **MB-25085**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **25085**			RunNo: **33883**					
Prep Date: **4/30/2016**	Analysis Date: **4/30/2016**			SeqNo: **1044127**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.0		10.00		90.1	70	130			

Sample ID **LCS-25085**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **25085**			RunNo: **33883**					
Prep Date: **4/30/2016**	Analysis Date: **4/30/2016**			SeqNo: **1044133**		Units: **%Rec**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		87.8	70	130			

Sample ID **1604C68-001AMS**	SampType: **MS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **CS-1**	Batch ID: **25071**			RunNo: **33883**					
Prep Date: **4/29/2016**	Analysis Date: **4/29/2016**			SeqNo: **1044148**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	210	9.7	48.59	138.0	145	33.9	141			S
Surr: DNOP	4.6		4.859		95.0	70	130			

Sample ID **1604C68-001AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **CS-1**	Batch ID: **25071**			RunNo: **33883**					
Prep Date: **4/29/2016**	Analysis Date: **4/29/2016**			SeqNo: **1044149**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	210	9.6	47.94	138.0	160	33.9	141	3.01	20	S
Surr: DNOP	4.3		4.794		90.1	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1604C68**

02-May-16

Client: APEX TITAN
Project: Trunk 2B

Sample ID **MB-25062**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **25062**	RunNo: **33888**
Prep Date: **4/28/2016**	Analysis Date: **4/29/2016**	SeqNo: **1043964** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	980		1000		97.6	80	120			

Sample ID **LCS-25062**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **25062**	RunNo: **33888**
Prep Date: **4/28/2016**	Analysis Date: **4/29/2016**	SeqNo: **1043965** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.8	80	120			
Surr: BFB	1000		1000		105	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1604C68**

02-May-16

Client: APEX TITAN
Project: Trunk 2B

Sample ID **MB-25062**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **25062**	RunNo: **33888**
Prep Date: **4/28/2016**	Analysis Date: **4/29/2016**	SeqNo: **1043996** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID **LCS-25062**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **25062**	RunNo: **33888**
Prep Date: **4/28/2016**	Analysis Date: **4/29/2016**	SeqNo: **1043997** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.1	75.3	123			
Toluene	0.84	0.050	1.000	0	84.4	80	124			
Ethylbenzene	0.83	0.050	1.000	0	82.6	82.8	121			S
Xylenes, Total	2.5	0.10	3.000	0	81.8	83.9	122			S
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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: **1604C68** RcptNo: **1**

Received by/date: 04/29/16

Logged By: **Lindsay Mangin** 4/29/2016 7:00:00 AM

Completed By: **Lindsay Mangin** 4/29/2016 7:30:47 AM

Reviewed By: 04/29/16

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	3.0	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: K. Summers

Laboratory: Hall

Address: ABQ, NM

Contact: A. Freeman

Phone:

PO/SO #:

Lab use only
Due Date:

Temp. of coolers when received (C°): 3.0

1 | 2 | 3 | 4 | 5

Page 1 of 1

Sampler's Name: Rance Deechilly

Sampler's Signature: Rance Deechilly

Proj. No.

Project Name: Trunk 23

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	ANALYSIS REQUESTED: 8021 BTEX	8015 TPH (GRO/DRO)	Lab Sample ID (Lab Use Only)
S	4/28/16	1145			CS-1						1		X	X	1604C168-001
S		1155			CS-2						1		X	X	-002
S		1205			CS-3						1		X	X	-003
S		1215			CS-4						1		X	X	-004

NFS

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	4/28/16	1739		4/28/16	1739
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	4/28/16	1810		04/29/16	0700
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

Rush

Bill to Tom Long

NMAPE N25369

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

May 06, 2016

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Trunk 2B OrderNo.: 1605012

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 8 sample(s) on 4/30/2016 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 **1605012**
Date Reported: **5/6/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-5
Project: Trunk 2B
Collection Date: 4/29/2016 12:00:00 PM
Lab ID: 1605012-001
Matrix: SOIL
Received Date: 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	350	9.5		mg/Kg	1	5/4/2016 4:05:58 PM	25093
Surr: DNOP	141	70-130	S	%Rec	1	5/4/2016 4:05:58 PM	25093
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	270	48		mg/Kg	10	5/4/2016 7:06:08 PM	25102
Surr: BFB	178	80-120	S	%Rec	10	5/4/2016 7:06:08 PM	25102
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.62	0.24		mg/Kg	10	5/4/2016 7:06:08 PM	25102
Toluene	6.9	0.48		mg/Kg	10	5/4/2016 7:06:08 PM	25102
Ethylbenzene	1.4	0.48		mg/Kg	10	5/4/2016 7:06:08 PM	25102
Xylenes, Total	12	0.97		mg/Kg	10	5/4/2016 7:06:08 PM	25102
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	10	5/4/2016 7:06:08 PM	25102

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Trunk 2B
Lab ID: 1605012-002 **Matrix:** SOIL

Client Sample ID: CS-6
Collection Date: 4/29/2016 12:10:00 PM
Received Date: 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	4500	93		mg/Kg	10	5/3/2016 9:52:51 PM	25093
Surr: DNOP	0	70-130	S	%Rec	10	5/3/2016 9:52:51 PM	25093
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	1600	240		mg/Kg	50	5/4/2016 7:29:31 PM	25102
Surr: BFB	245	80-120	S	%Rec	50	5/4/2016 7:29:31 PM	25102
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	1.3	1.2		mg/Kg	50	5/4/2016 7:29:31 PM	25102
Toluene	12	2.4		mg/Kg	50	5/4/2016 7:29:31 PM	25102
Ethylbenzene	6.6	2.4		mg/Kg	50	5/4/2016 7:29:31 PM	25102
Xylenes, Total	78	4.7		mg/Kg	50	5/4/2016 7:29:31 PM	25102
Surr: 4-Bromofluorobenzene	113	80-120		%Rec	50	5/4/2016 7:29:31 PM	25102

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Trunk 2B
Lab ID: 1605012-003 **Matrix:** SOIL

Client Sample ID: CS-7
Collection Date: 4/29/2016 12:20:00 PM
Received Date: 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	1300	96		mg/Kg	10	5/4/2016 9:33:03 AM	25093
Surr: DNOP	0	70-130	S	%Rec	10	5/4/2016 9:33:03 AM	25093
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	960	96		mg/Kg	20	5/4/2016 7:52:51 PM	25102
Surr: BFB	366	80-120	S	%Rec	20	5/4/2016 7:52:51 PM	25102
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.48		mg/Kg	20	5/4/2016 7:52:51 PM	25102
Toluene	0.99	0.96		mg/Kg	20	5/4/2016 7:52:51 PM	25102
Ethylbenzene	4.2	0.96		mg/Kg	20	5/4/2016 7:52:51 PM	25102
Xylenes, Total	41	1.9		mg/Kg	20	5/4/2016 7:52:51 PM	25102
Surr: 4-Bromofluorobenzene	120	80-120		%Rec	20	5/4/2016 7:52:51 PM	25102

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-8
Project: Trunk 2B
Collection Date: 4/29/2016 12:30:00 PM
Lab ID: 1605012-004
Matrix: SOIL
Received Date: 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	220	10		mg/Kg	1	5/3/2016 11:20:08 PM	25093
Surr: DNOP	111	70-130		%Rec	1	5/3/2016 11:20:08 PM	25093
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	250	25		mg/Kg	5	5/4/2016 8:16:09 PM	25102
Surr: BFB	357	80-120	S	%Rec	5	5/4/2016 8:16:09 PM	25102
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.12		mg/Kg	5	5/4/2016 8:16:09 PM	25102
Toluene	1.1	0.25		mg/Kg	5	5/4/2016 8:16:09 PM	25102
Ethylbenzene	1.1	0.25		mg/Kg	5	5/4/2016 8:16:09 PM	25102
Xylenes, Total	12	0.49		mg/Kg	5	5/4/2016 8:16:09 PM	25102
Surr: 4-Bromofluorobenzene	122	80-120	S	%Rec	5	5/4/2016 8:16:09 PM	25102

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Trunk 2B
Lab ID: 1605012-005 **Matrix:** SOIL

Client Sample ID: CS-9
Collection Date: 4/29/2016 12:40:00 PM
Received Date: 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	11	9.7		mg/Kg	1	5/3/2016 11:41:47 PM	25093
Surr: DNOP	103	70-130		%Rec	1	5/3/2016 11:41:47 PM	25093
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/4/2016 8:39:28 PM	25102
Surr: BFB	109	80-120		%Rec	1	5/4/2016 8:39:28 PM	25102
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	5/4/2016 8:39:28 PM	25102
Toluene	ND	0.047		mg/Kg	1	5/4/2016 8:39:28 PM	25102
Ethylbenzene	ND	0.047		mg/Kg	1	5/4/2016 8:39:28 PM	25102
Xylenes, Total	ND	0.093		mg/Kg	1	5/4/2016 8:39:28 PM	25102
Surr: 4-Bromofluorobenzene	98.7	80-120		%Rec	1	5/4/2016 8:39:28 PM	25102

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-10
Project: Trunk 2B
Collection Date: 4/29/2016 12:50:00 PM
Lab ID: 1605012-006
Matrix: SOIL
Received Date: 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	20	9.5		mg/Kg	1	5/4/2016 12:03:37 AM	25093
Surr: DNOP	121	70-130		%Rec	1	5/4/2016 12:03:37 AM	25093
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	5/4/2016 9:02:57 PM	25102
Surr: BFB	96.5	80-120		%Rec	1	5/4/2016 9:02:57 PM	25102
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	5/4/2016 9:02:57 PM	25102
Toluene	ND	0.047		mg/Kg	1	5/4/2016 9:02:57 PM	25102
Ethylbenzene	ND	0.047		mg/Kg	1	5/4/2016 9:02:57 PM	25102
Xylenes, Total	ND	0.095		mg/Kg	1	5/4/2016 9:02:57 PM	25102
Surr: 4-Bromofluorobenzene	97.6	80-120		%Rec	1	5/4/2016 9:02:57 PM	25102

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Trunk 2B
Lab ID: 1605012-007
Matrix: SOIL
Client Sample ID: CS-11
Collection Date: 4/29/2016 1:00:00 PM
Received Date: 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	2000	100		mg/Kg	10	5/4/2016 9:54:36 AM	25093
Surr: DNOP	0	70-130	S	%Rec	10	5/4/2016 9:54:36 AM	25093
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	820	97		mg/Kg	20	5/4/2016 9:26:17 PM	25102
Surr: BFB	378	80-120	S	%Rec	20	5/4/2016 9:26:17 PM	25102
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.48		mg/Kg	20	5/4/2016 9:26:17 PM	25102
Toluene	1.9	0.97		mg/Kg	20	5/4/2016 9:26:17 PM	25102
Ethylbenzene	1.3	0.97		mg/Kg	20	5/4/2016 9:26:17 PM	25102
Xylenes, Total	16	1.9		mg/Kg	20	5/4/2016 9:26:17 PM	25102
Surr: 4-Bromofluorobenzene	116	80-120		%Rec	20	5/4/2016 9:26:17 PM	25102

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Trunk 2B
Lab ID: 1605012-008 **Matrix:** SOIL

Client Sample ID: CS-12
Collection Date: 4/29/2016 1:10:00 PM
Received Date: 4/30/2016 8:03:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	250	9.2		mg/Kg	1	5/4/2016 1:08:41 AM	25093
Surr: DNOP	123	70-130		%Rec	1	5/4/2016 1:08:41 AM	25093
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	11	4.9		mg/Kg	1	5/4/2016 9:49:39 PM	25102
Surr: BFB	176	80-120	S	%Rec	1	5/4/2016 9:49:39 PM	25102
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/4/2016 9:49:39 PM	25102
Toluene	ND	0.049		mg/Kg	1	5/4/2016 9:49:39 PM	25102
Ethylbenzene	ND	0.049		mg/Kg	1	5/4/2016 9:49:39 PM	25102
Xylenes, Total	ND	0.098		mg/Kg	1	5/4/2016 9:49:39 PM	25102
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	5/4/2016 9:49:39 PM	25102

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605012**

06-May-16

Client: APEX TITAN
Project: Trunk 2B

Sample ID **LCS-25093**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **25093**	RunNo: **33949**
Prep Date: **5/2/2016**	Analysis Date: **5/3/2016**	SeqNo: **1045935** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.6	65.8	136			
Surr: DNOP	4.3		5.000		85.2	70	130			

Sample ID **MB-25093**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **25093**	RunNo: **33949**
Prep Date: **5/2/2016**	Analysis Date: **5/3/2016**	SeqNo: **1045937** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.5		10.00		94.6	70	130			

Sample ID **LCS-25140**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **25140**	RunNo: **33966**
Prep Date: **5/4/2016**	Analysis Date: **5/4/2016**	SeqNo: **1047132** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.000		94.2	70	130			

Sample ID **MB-25140**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **25140**	RunNo: **33966**
Prep Date: **5/4/2016**	Analysis Date: **5/4/2016**	SeqNo: **1047133** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.8		10.00		97.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605012**

06-May-16

Client: APEX TITAN
Project: Trunk 2B

Sample ID **MB-25102**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **25102**	RunNo: **33952**
Prep Date: **5/2/2016**	Analysis Date: **5/3/2016**	SeqNo: **1046281** 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	990		1000		99.5	80	120			

Sample ID **LCS-25102**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **25102**	RunNo: **33952**
Prep Date: **5/2/2016**	Analysis Date: **5/3/2016**	SeqNo: **1046282** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.7	80	120			
Surr: BFB	1100		1000		107	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1605012**

06-May-16

Client: APEX TITAN
Project: Trunk 2B

Sample ID **MB-25102**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **25102**	RunNo: **33952**
Prep Date: **5/2/2016**	Analysis Date: **5/3/2016**	SeqNo: **1046354** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
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-25102**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **25102**	RunNo: **33952**
Prep Date: **5/2/2016**	Analysis Date: **5/3/2016**	SeqNo: **1046361** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	95.9	75.3	123			
Toluene	0.86	0.050	1.000	0	86.2	80	124			
Ethylbenzene	0.85	0.050	1.000	0	84.7	82.8	121			
Xylenes, Total	2.5	0.10	3.000	0	83.5	83.9	122			S
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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: 1605012 | RcptNo: 1

Received by/date: 04/20/16

Logged By: Lindsay Mangin | 4/30/2016 8:03:00 AM

Completed By: Lindsay Mangin | 5/2/2016 10:13:04 AM

Reviewed By: 05/02/16

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	3.8	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: K. Summers

Laboratory: Hall

Address: Albuquerque, NM

Contact: A. Freeman

Phone:

PO/SO #:

Sampler's Name: Rance Dierchilly

Sampler's Signature: Rance Dierchilly

Proj. No.

Project Name: Trunk 2B

No/Type of Containers

ANALYSIS REQUESTED

8021 BTEX

8015 TPH GRO/DRO

Lab use only

Due Date:

Temp. of coolers when received (C°): 3.8

1 2 3 4 5

Page 1 of 1

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	Lab Sample ID (Lab Use Only)
S	4/29/16	1200			CS-5						1		1605012-001
		1210			CS-6						1		-002
		1220			CS-7						1		-003
		1230			CS-8						1		-004
		1240			CS-9						1		-005
		1250			CS-10						1		-006
		1300			CS-11						1		-007
		1310			CS-12						1		-008

NFS

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	4/29/16	1635			1635
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	4/29/16	1746		04/30/16	0803
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

Bill to Tom Long

Non AFE N25369

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

July 28, 2016

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Trunk 2B OrderNo.: 1607C97

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 7/26/2016 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
Client Sample ID: SP-1
Project: Trunk 2B
Collection Date: 7/25/2016 1:50:00 PM
Lab ID: 1607C97-001
Matrix: MEOH (SOIL)
Received Date: 7/26/2016 7:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	56	10		mg/Kg	1	7/26/2016 10:06:31 AM	26602
Surr: DNOP	93.3	70-130		%Rec	1	7/26/2016 10:06:31 AM	26602
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	7/26/2016 12:34:51 PM	R35987
Surr: BFB	89.4	80-120		%Rec	1	7/26/2016 12:34:51 PM	R35987
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.018		mg/Kg	1	7/26/2016 12:34:51 PM	B35987
Toluene	ND	0.035		mg/Kg	1	7/26/2016 12:34:51 PM	B35987
Ethylbenzene	ND	0.035		mg/Kg	1	7/26/2016 12:34:51 PM	B35987
Xylenes, Total	ND	0.070		mg/Kg	1	7/26/2016 12:34:51 PM	B35987
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	7/26/2016 12:34:51 PM	B35987

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1607C97**

28-Jul-16

Client: APEX TITAN
Project: Trunk 2B

Sample ID **LCS-26602**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **26602**	RunNo: **35982**
Prep Date: **7/26/2016**	Analysis Date: **7/26/2016**	SeqNo: **1114066** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	10	50.00	0	78.0	62.6	124			
Surr: DNOP	4.3		5.000		85.3	70	130			

Sample ID **MB-26602**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **26602**	RunNo: **35982**
Prep Date: **7/26/2016**	Analysis Date: **7/26/2016**	SeqNo: **1114067** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.7		10.00		87.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1607C97**

28-Jul-16

Client: APEX TITAN

Project: Trunk 2B

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R35987**	RunNo: **35987**
Prep Date:	Analysis Date: **7/26/2016**	SeqNo: **1115529** 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	80	120			
Surr: BFB	960		1000		95.8	80	120			

Sample ID **5ML-RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R35987**	RunNo: **35987**
Prep Date:	Analysis Date: **7/26/2016**	SeqNo: **1115530** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	820		1000		81.6	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1607C97**

28-Jul-16

Client: APEX TITAN
Project: Trunk 2B

Sample ID **100NG BTEX LCS** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **B35987** RunNo: **35987**
Prep Date: Analysis Date: **7/26/2016** SeqNo: **1115534** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.2	75.3	123			
Toluene	1.0	0.050	1.000	0	104	80	124			
Ethylbenzene	0.98	0.050	1.000	0	97.7	82.8	121			
Xylenes, Total	2.8	0.10	3.000	0	94.2	83.9	122			
Surr: 4-Bromofluorobenzene	1.2		1.000		116	80	120			

Sample ID **5ML-RB** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **B35987** RunNo: **35987**
Prep Date: Analysis Date: **7/26/2016** SeqNo: **1115537** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		97.4	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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: 1607C97 RcptNo: 1

Received by/date: 07/21/16

Logged By: Lindsay Mangin 7/26/2016 7:50:00 AM

Completed By: Lindsay Mangin 7/26/2016 8:05:14 AM

Reviewed By: AS 07/26/16

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	2.7	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: K. Summers

Laboratory: Hall Environmental

Address: Albuquerque, NM

Contact: A. Freeman

Phone:

PO/SO #:

Sampler's Name: Ranee Deechilly

Sampler's Signature:

Proj. No.

Project Name: Trunk 2B

No/Type of Containers

ANALYSIS REQUESTED: 8021 BTEX; 8015 TPH GRO/DRO

Lab use only
Due Date:

Temp. of coolers when received (C°): 2.7

1 | 2 | 3 | 4 | 5

Page 1 of 1

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 L.	250 ml	Glass Jar	P/O	8021 BTEX	8015 TPH GRO/DRO	Lab Sample ID (Lab Use Only)
S	7/25/16	1350			SP-1						1		X	X	1607C17-001

NFS

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

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	7/25/16	1556		7/25/16	1558
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	7/25/16	1852		07/26/16	0750
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

Bill to Tom Long EPROD — Rush

Non AFE # 25369

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

July 28, 2016

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX

RE: Trunk 2B OrderNo.: 1607C96

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 5 sample(s) on 7/26/2016 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 **1607C96**
Date Reported: **7/28/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-13
Project: Trunk 2B
Collection Date: 7/25/2016 1:00:00 PM
Lab ID: 1607C96-001
Matrix: MEOH (SOIL)
Received Date: 7/26/2016 7:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/26/2016 10:34:35 AM	26602
Surr: DNOP	85.5	70-130		%Rec	1	7/26/2016 10:34:35 AM	26602
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	7/26/2016 10:33:12 AM	R35987
Surr: BFB	79.5	80-120	S	%Rec	1	7/26/2016 10:33:12 AM	R35987
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.021		mg/Kg	1	7/26/2016 10:33:12 AM	B35987
Toluene	ND	0.041		mg/Kg	1	7/26/2016 10:33:12 AM	B35987
Ethylbenzene	ND	0.041		mg/Kg	1	7/26/2016 10:33:12 AM	B35987
Xylenes, Total	ND	0.082		mg/Kg	1	7/26/2016 10:33:12 AM	B35987
Surr: 4-Bromofluorobenzene	99.4	80-120		%Rec	1	7/26/2016 10:33:12 AM	B35987

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: Trunk 2B
Lab ID: 1607C96-002

Client Sample ID: CS-14
Collection Date: 7/25/2016 1:10:00 PM
Matrix: MEOH (SOIL) **Received Date:** 7/26/2016 7:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/26/2016 11:02:44 AM	26602
Surr: DNOP	84.6	70-130		%Rec	1	7/26/2016 11:02:44 AM	26602
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/26/2016 10:57:29 AM	R35987
Surr: BFB	86.5	80-120		%Rec	1	7/26/2016 10:57:29 AM	R35987
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	7/26/2016 10:57:29 AM	B35987
Toluene	ND	0.046		mg/Kg	1	7/26/2016 10:57:29 AM	B35987
Ethylbenzene	ND	0.046		mg/Kg	1	7/26/2016 10:57:29 AM	B35987
Xylenes, Total	ND	0.092		mg/Kg	1	7/26/2016 10:57:29 AM	B35987
Surr: 4-Bromofluorobenzene	109	80-120		%Rec	1	7/26/2016 10:57:29 AM	B35987

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-15
Project: Trunk 2B
Collection Date: 7/25/2016 1:20:00 PM
Lab ID: 1607C96-003
Matrix: MEOH (SOIL)
Received Date: 7/26/2016 7:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/26/2016 11:30:39 AM	26602
Surr: DNOP	84.2	70-130		%Rec	1	7/26/2016 11:30:39 AM	26602
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	7/26/2016 11:21:47 AM	R35987
Surr: BFB	83.0	80-120		%Rec	1	7/26/2016 11:21:47 AM	R35987
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.023		mg/Kg	1	7/26/2016 11:21:47 AM	B35987
Toluene	ND	0.046		mg/Kg	1	7/26/2016 11:21:47 AM	B35987
Ethylbenzene	ND	0.046		mg/Kg	1	7/26/2016 11:21:47 AM	B35987
Xylenes, Total	ND	0.092		mg/Kg	1	7/26/2016 11:21:47 AM	B35987
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	7/26/2016 11:21:47 AM	B35987

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-16
Project: Trunk 2B
Collection Date: 7/25/2016 1:30:00 PM
Lab ID: 1607C96-004
Matrix: MEOH (SOIL)
Received Date: 7/26/2016 7:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/26/2016 11:58:44 AM	26602
Surr: DNOP	85.9	70-130		%Rec	1	7/26/2016 11:58:44 AM	26602
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	7/26/2016 11:46:04 AM	R35987
Surr: BFB	82.3	80-120		%Rec	1	7/26/2016 11:46:04 AM	R35987
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.022		mg/Kg	1	7/26/2016 11:46:04 AM	B35987
Toluene	ND	0.044		mg/Kg	1	7/26/2016 11:46:04 AM	B35987
Ethylbenzene	ND	0.044		mg/Kg	1	7/26/2016 11:46:04 AM	B35987
Xylenes, Total	ND	0.088		mg/Kg	1	7/26/2016 11:46:04 AM	B35987
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	7/26/2016 11:46:04 AM	B35987

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-17
Project: Trunk 2B
Collection Date: 7/25/2016 1:40:00 PM
Lab ID: 1607C96-005
Matrix: MEOH (SOIL)
Received Date: 7/26/2016 7:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/26/2016 12:26:50 PM	26602
Surr: DNOP	85.5	70-130		%Rec	1	7/26/2016 12:26:50 PM	26602
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	7/26/2016 12:10:23 PM	R35987
Surr: BFB	85.1	80-120		%Rec	1	7/26/2016 12:10:23 PM	R35987
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.019		mg/Kg	1	7/26/2016 12:10:23 PM	B35987
Toluene	ND	0.038		mg/Kg	1	7/26/2016 12:10:23 PM	B35987
Ethylbenzene	ND	0.038		mg/Kg	1	7/26/2016 12:10:23 PM	B35987
Xylenes, Total	ND	0.076		mg/Kg	1	7/26/2016 12:10:23 PM	B35987
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	7/26/2016 12:10:23 PM	B35987

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
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1607C96**

28-Jul-16

Client: APEX TITAN

Project: Trunk 2B

Sample ID **LCS-26602**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **26602**	RunNo: **35982**
Prep Date: **7/26/2016**	Analysis Date: **7/26/2016**	SeqNo: **1114066** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	10	50.00	0	78.0	62.6	124			
Surr: DNOP	4.3		5.000		85.3	70	130			

Sample ID **MB-26602**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **26602**	RunNo: **35982**
Prep Date: **7/26/2016**	Analysis Date: **7/26/2016**	SeqNo: **1114067** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.7		10.00		87.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1607C96**

28-Jul-16

Client: APEX TITAN
Project: Trunk 2B

Sample ID **1607C96-001A MS**	SampType: **MS**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **CS-13**	Batch ID: **R35987**			RunNo: **35987**					
Prep Date:	Analysis Date: **7/26/2016**			SeqNo: **1115527**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.1	20.52	0	103	59.3	143			
Surr: BFB	770		821.0		94.1	80	120			

Sample ID **1607C96-001A MSD**	SampType: **MSD**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **CS-13**	Batch ID: **R35987**			RunNo: **35987**					
Prep Date:	Analysis Date: **7/26/2016**			SeqNo: **1115528**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.1	20.52	0	97.8	59.3	143	4.83	20	
Surr: BFB	740		821.0		90.7	80	120	0	0	

Sample ID **2.5UG GRO LCS**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **LCSS**	Batch ID: **R35987**			RunNo: **35987**					
Prep Date:	Analysis Date: **7/26/2016**			SeqNo: **1115529**		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	80	120			
Surr: BFB	960		1000		95.8	80	120			

Sample ID **5ML-RB**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **PBS**	Batch ID: **R35987**			RunNo: **35987**					
Prep Date:	Analysis Date: **7/26/2016**			SeqNo: **1115530**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	820		1000		81.6	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1607C96**

28-Jul-16

Client: APEX TITAN
Project: Trunk 2B

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B35987**	RunNo: **35987**
Prep Date:	Analysis Date: **7/26/2016**	SeqNo: **1115534** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.2	75.3	123			
Toluene	1.0	0.050	1.000	0	104	80	124			
Ethylbenzene	0.98	0.050	1.000	0	97.7	82.8	121			
Xylenes, Total	2.8	0.10	3.000	0	94.2	83.9	122			
Surr: 4-Bromofluorobenzene	1.2		1.000		116	80	120			

Sample ID **1607C96-002A MS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **CS-14**	Batch ID: **B35987**	RunNo: **35987**
Prep Date:	Analysis Date: **7/26/2016**	SeqNo: **1115535** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.77	0.023	0.9217	0	84.0	71.5	122			
Toluene	0.78	0.046	0.9217	0	85.0	71.2	123			
Ethylbenzene	0.75	0.046	0.9217	0	81.8	75.2	130			
Xylenes, Total	2.2	0.092	2.765	0	78.0	72.4	131			
Surr: 4-Bromofluorobenzene	1.0		0.9217		109	80	120			

Sample ID **1607C96-002A MSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **CS-14**	Batch ID: **B35987**	RunNo: **35987**
Prep Date:	Analysis Date: **7/26/2016**	SeqNo: **1115536** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.023	0.9217	0	98.5	71.5	122	15.9	20	
Toluene	0.89	0.046	0.9217	0	96.5	71.2	123	12.7	20	
Ethylbenzene	0.86	0.046	0.9217	0	93.0	75.2	130	12.9	20	
Xylenes, Total	2.5	0.092	2.765	0	89.4	72.4	131	13.6	20	
Surr: 4-Bromofluorobenzene	1.0		0.9217		109	80	120	0	0	

Sample ID **5ML-RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B35987**	RunNo: **35987**
Prep Date:	Analysis Date: **7/26/2016**	SeqNo: **1115537** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		97.4	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

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: 1607C96 | RcptNo: 1

Received by/date: 07/26/16

Logged By: Lindsay Mangin 7/26/2016 7:50:00 AM

Completed By: Lindsay Mangin 7/26/2016 8:01:00 AM

Reviewed By: AT 07/26/16

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	2.7	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec, NM

Project Manager: K. Summers

Laboratory: Hall Environmental

Address: Albuquerque, NM

Contact: A. Freeman

Phone:

PO/SO #:

Sampler's Name: Ranee Deechilly

Sampler's Signature: Ranee Deechilly

Proj. No.

Project Name: Trunk 2B

No/Type of Containers

ANALYSIS REQUESTED: 8021 BTEX; 8015 TPH GRO/DRO

Lab use only
Due Date:

Temp. of coolers when received (C°): 2.7

1 | 2 | 3 | 4 | 5

Page 1 of 1

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 L.	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	7/25/16	1300			CS-13						1		1607C96-001
S		1310			CS-14						1		-002
S		1320			CS-15						1		-003
S		1330			CS-16						1		-004
S		1340			CS-17						1		-005

NAD 83

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Ranee Deechilly	7/25/16	1550		7/25/16	1550
	7/25/16	1852		07/26/16	0758
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: Rush

Bill to Tom Long EPROD

NonAFE N25369

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: **Quinn 320S**	Facility Type: **Natural Gas Gathering Pipeline**

Surface Owner: **Private**	Mineral Owner: **BLM**	**Serial Number: N/A**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from	North/South Line	Feet from	East/West Line	County
K	**20**	**31N**	**8W**	the **1516**	North (South)	the **1693**	East (West)	**San Juan**

Latitude 36.880355 Longitude -107.701975

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: **12/20/2016 @ 12:10 p.m.**	Date and Hour of Discovery: **12/20/2016 @ 12:30 p.m.**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Vanessa Fields - NMOCD	
By Whom? Thomas Long	Date and Time December 21, 2016 @ 1:46 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume	

If a Watercourse was Impacted, Describe Fully.* The release was located in a small ephemeral wash. No Fluids were observed on the ground surface.

Describe Cause of Problem and Remedial Action: On December 20, 2016, Enterprise technicians discovered a gas leak on the Quinn 320S pipeline. The release was located in a small ephemeral wash. No Fluids were observed on the ground surface. The pipeline was isolated, blown down, locked out and tagged out.

OIL CONS. DIV DIST. 3

JAN 03 2017

Describe Area Affected and Cleanup Action: Repairs and remediation are in the scheduling process. Enterprise will remove the contaminant mass by mechanical excavation. A third party corrective action report will be included with the "Final." C-141.

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

Signature: Jon E. Fields	OIL CONSERVATION DIVISION
Printed Name: Jon E. Fields	Approved by Environmental Specialist:
Title: Director, Environmental	Approval Date: 1/4/2017 Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval: Attached ☒
Date: 12/29/2016 Phone: (713)381-6684	NVF1636440386

* Attach Additional Sheets If Necessary

3

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 1/3/2017 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number NVF1636440386 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District III office in 30 days on or before 2/3/2017. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

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