OIL CONS. DIV DIST. 3

JAN 19 2016

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: **Lateral K-31**	Facility Type: **Natural Gas Gathering Pipeline**

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

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	**9**	**25N**	**6W**	**1674**	(South)	**684**	(West)	**Rio Arriba**

Latitude 36.41141 Longitude 107.47916

NATURE OF RELEASE

Type of Release: Natural Gas and Condensate	Volume of Release: **17.57 MCF Gas; 5-10 BBLS Liquids**	Volume Recovered: **None**
Source of Release: Internal Corrosion	Date and Hour of Occurrence: **10/15/2015 @ 1:00 p.m.**	Date and Hour of Discovery: **10/15/2015 @ 1:30 p.m.**
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? Courtesy Notification Cory Smith – NMOCD; Katherina Diemer - BLM	
By Whom? Thomas Long	Date and Hour 10/26/2015 @ 7:43 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 October 15, 2015, Enterprise technicians discovered a natural gas leak in the Lateral K-31 right of way. The pipeline was isolated, depressurized, locked out and tagged out. Repairs and remediation were completed on October 28, 2015.

Describe Area Affected and Cleanup Action Taken: The soil contaminant mass was removed by mechanical excavation. The final excavation measured approximately 49 feet long by 16 feet wide ranging from 4 to 12 feet below ground surface where groundwater was encountered. Approximately 260 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation approved land farm facility. Results from the excavation water sample indicate benzene and toluene concentrations exceed New Mexico Water Quality Control Commission standards. A third party corrective action report is included with this "Final Soils" C-141. Additional groundwater delineation is required.

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

Signature: Jon Fields	OIL CONSERVATION DIVISION
Printed Name: Jon E. Fields	Approved by Environmental Specialist:
Title: Director, Field Environmental	Approval Date: 1/19/2017 Expiration Date:
E-mail Address:jefields@eprod.com	Conditions of Approval: Attached ☐
Date: 1-13-2016 Phone: (713)381-6684	NCS1534128324

* Attach Additional Sheets If Necessary

63

APEX

CORRECTIVE ACTION REPORT

Property:

Lateral K-31 (October 2015) Pipeline Release
SW 1/4, S9 T25N R6W
Rio Arriba County, New Mexico

December 14, 2015
Apex Project No. 7250415025

Prepared for:

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

Prepared by:

Ranee Deechilly
Environmental Scientist

Kyle Summers, CPG
Branch Manager/Senior Geologist

Apex TITAN, Inc., a subsidiary of Apex Companies, LLC
606 S Rio Grande, Unit A, Aztec, NM 87410 T 505.334.5200 F 505.334.5204 www.apexcos.com

TABLE OF CONTENTS

LIST OF APPENDICES

APEX

CORRECTIVE ACTION REPORT

Lateral K-31 (October 2015) Pipeline Release
SW 1/4, S9 T25N R6W
Rio Arriba County, New Mexico

Apex Project No. 7250415025

1.0 INTRODUCTION

1.1 Site Description & Background

The Lateral K-31 pipeline release site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the southwest (SW) ¼ of Section 9 in Township 25 North and Range 6 West in rural Rio Arriba County, New Mexico (36.41141N, 107.47916W), referred to hereinafter as the "Site" or "subject Site". The Site is located on land managed by the United States Bureau of Land Management (BLM). The Site is surrounded by native vegetation rangeland periodically interrupted by oil and gas production and gathering facilities, including the Enterprise natural gas gathering pipeline which traverses the area from approximately north to south.

On October 15, 2015, a natural gas pipeline release was reported by Enterprise personnel. On October 22, 2015, Enterprise initiated excavation activities to facilitate the repair of the pipeline, and to remediate potential hydrocarbon impact. The pipeline was subsequently repaired by replacing approximately 40 feet of pipe. Natural gas was released from the pipeline as a result of internal corrosion. The surface expression of the release was characterized by minimally distressed vegetation in the immediate vicinity of the release.

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

1.2 Project Objective

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

2.0 SITE RANKING

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

Ranking Criteria			Ranking Score
Depth to Groundwater	<50 feet	20	20
	50 to 99 feet	10	
	>100 feet	0	
Wellhead Protection Area • <1,000 feet from a water source, or; <200 feet from private domestic water source.	Yes	20	0
	No	0	
Distance to Surface Water Body	<200 feet	20	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 earn a maximum Total Ranking Score of "30". This ranking is based on the following:

- Groundwater was encountered during excavation activities at approximately 10 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, or lack thereof, result in a wellhead protection area ranking of "0".
- The release point is located approximately 850 feet from the main Largo Wash cut-bank, resulting in a distance to surface water ranking of "10".

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

Beginning on October 22, 2015, Enterprise initiated excavation activities at the Site to repair the subsurface leak, and remediate potential hydrocarbon impact. The pipeline was subsequently repaired by replacing approximately 40 feet of pipe. Natural gas was released from the pipeline as a result of internal corrosion. The surface expression of the release was characterized by minimal distressed vegetation in the immediate vicinity of the release. During corrective action activities, Halo Services, Inc., provided heavy equipment and labor support. Kyle Summers an Apex environmental professional, provided environmental support.

On October 22 and October 23, 2015, confirmation soil samples CS-1 through CS-11 were collected from the sidewalls and base of the excavation. In addition, three (3) soil samples (SP-2 through SP-4) were collected from the stockpiled spoils to determine the potential to reuse a portion of the soils as backfill material. Stockpile SP-1 was designated for disposal/remediation based on elevated photoionization detector (PID) readings and therefore was not sampled for laboratory analysis. Subsequent analytical results for the three sampled (3) stockpiles indicated that soils associated with sample SP-2 still exhibited evidence of hydrocarbon impact above OCD guidelines. Stockpiles SP-1 and SP-2 were transported to the OCD-approved landfarm for disposal/remediation.

Excavation activities resumed at the Site on October 27, 2015 and were completed on October 28, 2015. Confirmation soil samples CS-12 through CS-14 were collected from the remaining untested portions of the excavation, and after sitting open overnight, apparent groundwater accumulated to approximately 10 feet bgs in the central (deeper) portion of the excavation floor. One (1) water sample was subsequently collected from the accumulated water for laboratory analysis. The final excavation measured approximately 49 feet long by 16 feet wide at the

maximum extents, with a total depth ranging from four (4) feet to twelve (12) feet bgs. After the water sample was collected, the deeper portion of the excavation was partially backfilled with clean fill, providing a safe work environment for the completion of pipeline repairs.

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

A total of approximately 260 cubic yards of hydrocarbon affected soils 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. The excavation was backfilled with clean imported fill and contoured to surrounding grade.

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

3.2 Water and Soil Sampling Program

Apex screened head-space samples of Site soils with a photoionization detector (PID) fitted with a 10.6 eV lamp to evaluate volatile organic compounds (VOCs) and aid in determining the excavation limits.

Apex's soil sampling program included the collection of fourteen (14) confirmation soil samples (CS-1 through CS-14) from the resulting excavation, and three (3) stockpile soil samples (SP-2 through SP-4) for laboratory analysis. Stockpiles SP-1 and SP-2 were transported to the OCD-approved landfarm for disposal/remediation. Figure 3 depicts the approximate location of the excavated area and shows the final confirmation sample locations in relation to the final excavation dimensions (Appendix A).

A water sample was collected from the open excavation utilizing a bailer, and was subsequently submitted for laboratory analysis to evaluate the potential for groundwater impact at the Site.

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

3.3 Laboratory Analytical Methods

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

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

4.0 DATA EVALUATION

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

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

4.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or laboratory reporting limits associated with the final confirmation samples (CS-1 through CS-14) and stockpiles samples for soils remaining at the Site (SP-3 and SP-4) to the OCD *RALs* for sites having a total ranking score of "30". Stockpiles SP-1 and SP-2 were removed by excavation and transported to Envirotech for disposal/treatment, and are not included in the following discussion.

- The laboratory analyses of confirmation samples collected from soils remaining in place and the reused spoils indicated benzene concentrations ranging from below the laboratory reporting limits to 0.20 milligram per kilogram (mg/kg) (CS-8 and CS-9), which are below the OCD *RAL* of 10 mg/kg.

- The laboratory analyses of the confirmation samples collected from soils remaining in place and the reused spoils indicate total BTEX concentrations ranging from below the laboratory reporting limits to 0.92 mg/kg (CS-8), which are below the OCD *RAL* of 50 mg/kg.

- The laboratory analyses of the confirmation samples collected from soils remaining in place and the reused spoils indicate combined TPH GRO/DRO concentrations ranging from below the laboratory reporting limits to 6.7 mg/kg (CS-7), which are below the OCD *RAL* of 100 mg/kg for a Site ranking of "30".

The soils from stockpiles SP-1 and SP-2 were transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/remediation.

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

4.2 Water Sample

Apex compared the BTEX concentrations associated with the water sample collected from the open excavation to the New Mexico Quality Control Commission (WQCC) Groundwater Quality Standards (GQSs).

- The laboratory analysis of the water sample (W-1) indicates a benzene concentration of 250 micrograms per liter (µ/L), which exceeds the WQCC GQS of 10 µ/L.

- The laboratory analysis of W-1 indicates a toluene concentration of 980 µ/L, which exceeds the WQCC GQS of 750 µ/L.

- The laboratory analysis of W-1 indicates an ethylbenzene concentration of 81 µ/L, which is below the WQCC GQS of 750 µ/L.

- The laboratory analysis of W-1 indicates a total xylenes concentration of 490 µ/L, which is below the WQCC GQS of 620 µ/L.

It should be noted that due to the potential of "mixing/blending" with overburden soils during excavation activities, open excavation water sample analyses are not always indicative of actual groundwater concentrations in the area.

Water sample results are provided in Table 2 in Appendix D.

5.0 FINDINGS AND RECOMMENDATIONS

The Lateral K-31 pipeline release site is located within the Enterprise ROW in the SW ¼ of Section 9 in Township 25 North and Range 6 West in rural 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 production and gathering facilities, including the Enterprise natural gas gathering pipeline which traverses the area from approximately north to south.

On October 15, 2015, a natural gas pipeline release was reported by Enterprise personnel. On October 22, 2015, Enterprise initiated excavation activities to facilitate the repair of the pipeline, and to remediate potential hydrocarbon impact. The pipeline was subsequently repaired by replacing approximately 40 feet of pipe. Natural gas was released from the pipeline as a result of internal corrosion. The surface expression of the release was characterized by distressed vegetation in the immediate vicinity of the release.

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

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

- The final excavation measured approximately 49 feet long by 16 feet wide at the maximum extents, with total depths ranging of approximately four (4) to twelve (12) feet bgs.

- Prior to backfilling, fourteen (14) confirmation samples soil samples were collected from the resulting final excavation for laboratory analyses. In addition, three (3) stockpile soil samples were collected from the excavation spoils to determine the potential to reuse a portion of the soils as backfill material. Stockpiles SP-1 and SP-2 were transported to the OCD-approved landfarm for disposal/remediation. Based on analytical results, soils remaining on Site do not exhibit COC concentrations above the OCD *RALs* for a Site ranking of "40".

- One (1) water sample was collected from the accumulated water in the excavation base for laboratory analysis. **The laboratory analysis of the water sample indicates a benzene concentration of 250 µ/L, which exceeds the WQCC GQS of 10 µ/L. In addition, the water sample exhibits a toluene concentration of 980 µ/L, which exceeds the WQCC GQS of 750 µ/L.**

- A total of approximately 260 cubic yards of hydrocarbon affected soils were transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/remediation. The excavation was backfilled with clean imported fill, and contoured to surrounding grade.

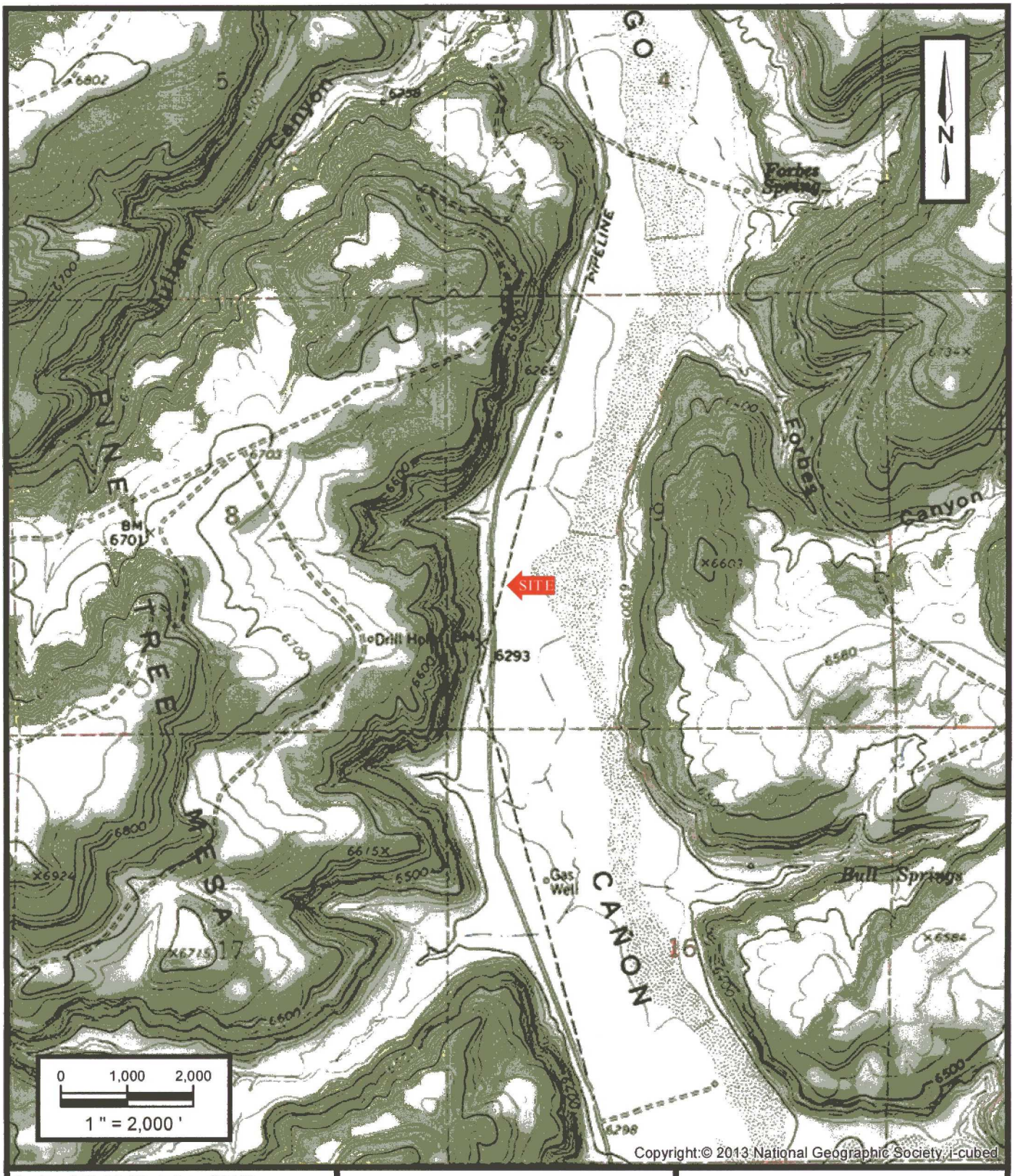
Based on field observations and laboratory analytical results, no additional investigation or corrective action with respect to soil impact appears warranted at this time. However, further groundwater evaluation is warranted.

6.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

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

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

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



Lateral K-31 (October 2015)
Pipeline Release
SW1/4 Sec9 T25N R6W
Rio Arriba County, New Mexico
36.41141N, 107.47916W

Project No. 7250415025

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

FIGURE 1

Topographic Map
Gonzales Mesa, NM Quadrangle
1963

Z:\Houston South\Drafting\New Mexico 04\2015\7250415025\Figure 1.mxd 11/24/2015 WGS 1984 Web Mercator Auxiliary Sphere Projected Coordinate System

Lateral K-31 (October 2015)
Pipeline Release
SW1/4 Sec9 T25N R6W
Rio Arriba County, New Mexico
36.41141N, 107.47916W

Project No. 7250415025

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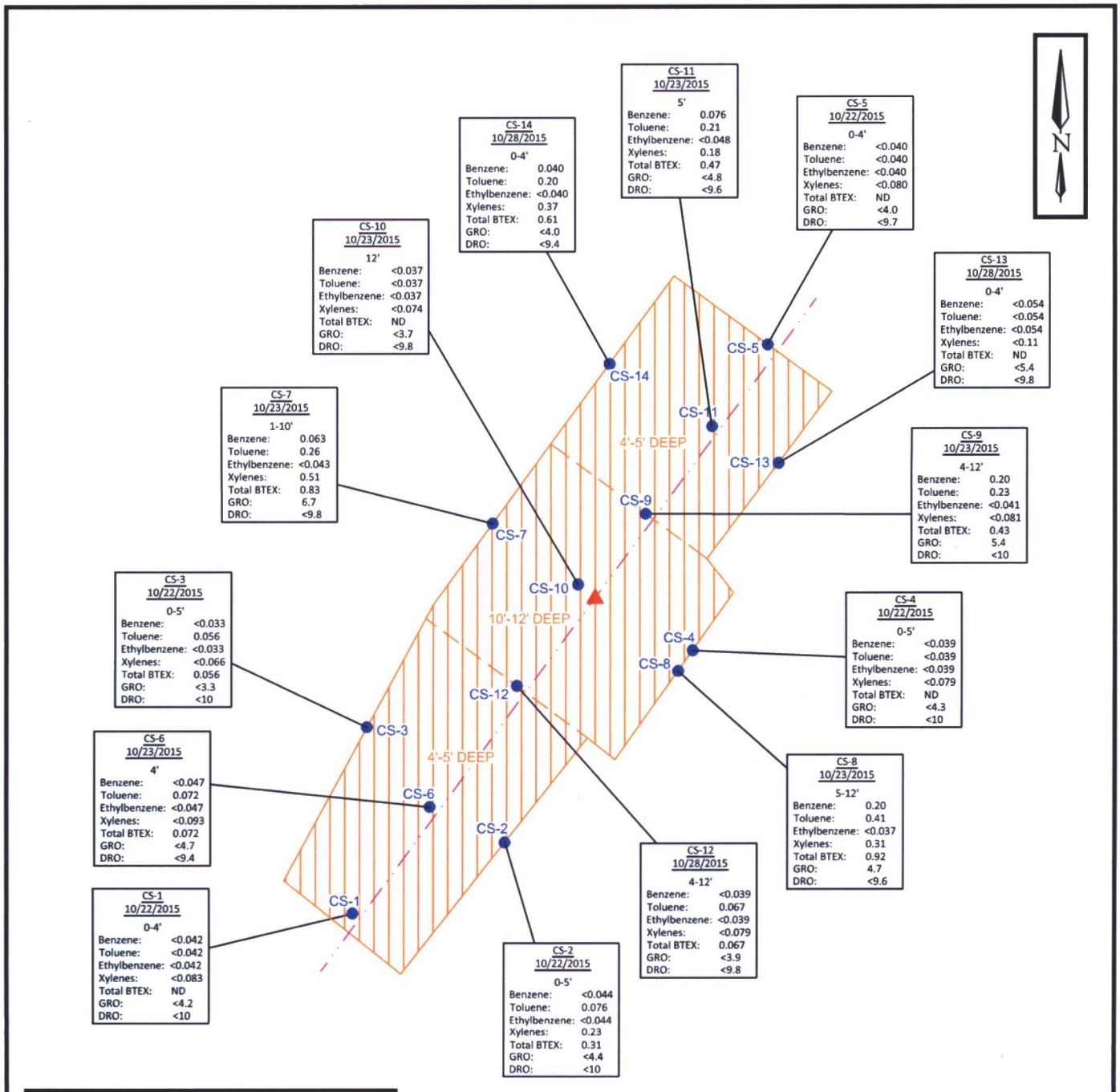
606 South Rio Grande, Suite A
Aztec, NM 87410
Phone: (505) 334-6591
www.apexcos.com
A Subsidiary of Apex Companies, LLC

FIGURE 2

Site Vicinity Map

Z:\Houston South\Drafting\New Mexico 04\2015\7250415025\Figure 2.mxd 11/5/2015 WGS 1984 Web Mercator Auxiliary Sphere Projected Coordinate System



Lateral K-31 (October 2015)
Pipeline Release
SW1/4 Sec9 T25N R6W
Rio Arriba County, New Mexico
36.41141N, 107.47916W

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FIGURE 3

Site Map with Soil Analytical Results

Z:\Houston South\Drafting\New Mexico 04\2015\7250415025\Figure 3.dwg 12/14/15

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1 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 97057-0753
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 K-31
Oct./Nov. 2015

3. Location of Material (Street Address, City, State or ULSTR):
UL L Section 9 T 25N R 6W, GPS 36.41141, -107.479160, Rio Arriba, NM

4. Source and Description of Waste:
Source: Natural Gas Pipeline Release
Description: Hydrocarbon impacted soils associated with remediation activities for a natural gas pipeline release..
Estimated Volume 100 (yd³) / bbls Known Volume (to be entered by the operator at the end of the haul) 260 (yd³) / bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

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

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

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

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

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long, 10-26-15, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, Eric Tice, representative for Envirotech Inc. do hereby certify that
Representative/Agent Signature
representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples 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: ~~Crossfire~~, Ibarra, Cotant, BET, Rich1, Lobato, Envirotech, Terraco

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 Administrator DATE: 10/27/15
SIGNATURE: Eric Liese TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

Photograph 1

View of the initial excavtion and source area, facing north. Liquids are from rain event.

Photograph 2

View of the initial excavation and repaired pipe, facing north.

Photograph 3

View of central excavation prior to water sample collection and final cleanout of soil directly beneath pipeline.

Photograph 4 After all sampling was complete, the lower portion of the excavation was backfilled to reduce sloughing (safety concerns).	
Photograph 5 View of partially backfilled excavation, facing north.	

TABLE 2
K-31 (October 2015) Pipeline Release
GROUNDWATER ANALYTICAL SUMMARY

Sample I.D.	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
New Mexico Water Quality Control Commmission (WQCC) Groundwater Quality Standards		10	750	750	620
W-1	10.27.15	**250**	**980**	81	490

Note: Concentrations in **bold** and yellow exceed the applicable New Mexico WQCC Groundwater Quality Standards

NA = Not Analyzed

NE = Not Established

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

TABLE 1
K-31 (October 2015) Pipeline Release
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100	
Stockpile Samples for Soils Transported to Envirotech for Treatment/Disposal									
SP-1	10.22.15	Stockpile	**Not Analyzed - Elevated PID Reading**						
SP-2	10.22.15	Stockpile	0.30	2.5	1.6	18	22	**270**	**140**
Stockpile Samples for Soils Used for Backfill									
SP-3	10.22.15	Stockpile	<0.041	<0.041	<0.041	<0.081	ND	<4.1	<9.9
SP-4	10.22.15	Stockpile	<0.046	<0.046	<0.046	<0.092	ND	<4.6	<9.8
Excavation Confirmation Samples									
CS-1	10.22.15	0-4	<0.042	<0.042	<0.042	<0.083	ND	<4.2	<10
CS-2	10.22.15	0-5	<0.044	0.076	<0.044	0.23	0.31	<4.4	<10
CS-3	10.22.15	0-5	<0.033	0.056	<0.033	<0.066	0.056	<3.3	<10
CS-4	10.22.15	0-5	<0.039	<0.039	<0.039	<0.079	ND	4.3	<10
CS-5	10.22.15	0-4	<0.040	<0.040	<0.040	<0.080	ND	<4.0	<9.7
CS-6	10.23.15	4	<0.047	0.072	<0.047	<0.093	0.072	<4.7	<9.4
CS-7	10.23.15	1-10	0.063	0.26	<0.043	0.51	0.83	6.7	<9.8
CS-8	10.23.15	5-12	0.20	0.41	<0.037	0.31	0.92	4.7	<9.6
CS-9	10.23.15	4-12	0.20	0.23	<0.041	<0.081	0.43	5.4	<10
CS-10	10.23.15	12	<0.037	<0.037	<0.037	<0.074	ND	<3.7	<9.8
CS-11	10.23.15	5	0.076	0.21	<0.048	0.18	0.47	<4.8	<9.6
CS-12	10.28.15	4-12	<0.039	0.067	<0.039	<0.079	0.067	<3.9	<9.8
CS-13	10.28.15	0-4	<0.054	<0.054	<0.054	<0.11	ND	<5.4	<9.8
CS-14	10.28.15	0-4	0.040	0.20	<0.040	0.37	0.61	<4.0	<9.4

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 27, 2015

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

RE: K-31 (Oct 2015) OrderNo.: 1510A81

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 5 sample(s) on 10/23/2015 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1510A81**
Date Reported: **10/27/2015**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-1
Project: K-31 (Oct 2015)
Collection Date: 10/22/2015 1:00:00 PM
Lab ID: 1510A81-001
Matrix: SOIL
Received Date: 10/23/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/23/2015 10:04:04 AM	21995
Surr: DNOP	93.2	70-130		%REC	1	10/23/2015 10:04:04 AM	21995
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	10/23/2015 10:37:44 AM	21928
Surr: BFB	86.4	75.4-113		%REC	1	10/23/2015 10:37:44 AM	21928
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.042		mg/Kg	1	10/23/2015 10:37:44 AM	21928
Toluene	ND	0.042		mg/Kg	1	10/23/2015 10:37:44 AM	21928
Ethylbenzene	ND	0.042		mg/Kg	1	10/23/2015 10:37:44 AM	21928
Xylenes, Total	ND	0.083		mg/Kg	1	10/23/2015 10:37:44 AM	21928
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	10/23/2015 10:37:44 AM	21928

Refer to the QC Summary report and 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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: K-31 (Oct 2015)
Lab ID: 1510A81-002 **Matrix:** SOIL

Client Sample ID: CS-2
Collection Date: 10/22/2015 1:15:00 PM
Received Date: 10/23/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/23/2015 10:25:18 AM	21995
Surr: DNOP	91.4	70-130		%REC	1	10/23/2015 10:25:18 AM	21995
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	10/23/2015 11:01:04 AM	21928
Surr: BFB	92.9	75.4-113		%REC	1	10/23/2015 11:01:04 AM	21928
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.044		mg/Kg	1	10/23/2015 11:01:04 AM	21928
Toluene	0.076	0.044		mg/Kg	1	10/23/2015 11:01:04 AM	21928
Ethylbenzene	ND	0.044		mg/Kg	1	10/23/2015 11:01:04 AM	21928
Xylenes, Total	0.23	0.087		mg/Kg	1	10/23/2015 11:01:04 AM	21928
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	10/23/2015 11:01:04 AM	21928

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-3
Project: K-31 (Oct 2015)
Collection Date: 10/22/2015 1:30:00 PM
Lab ID: 1510A81-003
Matrix: SOIL
Received Date: 10/23/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/23/2015 10:46:39 AM	21995
Surr: DNOP	96.0	70-130		%REC	1	10/23/2015 10:46:39 AM	21995
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	10/23/2015 11:24:21 AM	21928
Surr: BFB	87.9	75.4-113		%REC	1	10/23/2015 11:24:21 AM	21928
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.033		mg/Kg	1	10/23/2015 11:24:21 AM	21928
Toluene	0.056	0.033		mg/Kg	1	10/23/2015 11:24:21 AM	21928
Ethylbenzene	ND	0.033		mg/Kg	1	10/23/2015 11:24:21 AM	21928
Xylenes, Total	ND	0.066		mg/Kg	1	10/23/2015 11:24:21 AM	21928
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	10/23/2015 11:24:21 AM	21928

Refer to the QC Summary report and 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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-4
Project: K-31 (Oct 2015)
Collection Date: 10/22/2015 2:00:00 PM
Lab ID: 1510A81-004
Matrix: SOIL
Received Date: 10/23/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/23/2015 11:07:50 AM	21995
Surr: DNOP	96.5	70-130		%REC	1	10/23/2015 11:07:50 AM	21995
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	4.3	3.9		mg/Kg	1	10/23/2015 11:47:38 AM	21928
Surr: BFB	101	75.4-113		%REC	1	10/23/2015 11:47:38 AM	21928
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.039		mg/Kg	1	10/23/2015 11:47:38 AM	21928
Toluene	ND	0.039		mg/Kg	1	10/23/2015 11:47:38 AM	21928
Ethylbenzene	ND	0.039		mg/Kg	1	10/23/2015 11:47:38 AM	21928
Xylenes, Total	ND	0.079		mg/Kg	1	10/23/2015 11:47:38 AM	21928
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	10/23/2015 11:47:38 AM	21928

Refer to the QC Summary report and 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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-5
Project: K-31 (Oct 2015)
Collection Date: 10/22/2015 2:10:00 PM
Lab ID: 1510A81-005
Matrix: SOIL
Received Date: 10/23/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/23/2015 11:29:08 AM	21995
Surr: DNOP	93.0	70-130		%REC	1	10/23/2015 11:29:08 AM	21995
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	10/23/2015 12:10:56 PM	21928
Surr: BFB	88.4	75.4-113		%REC	1	10/23/2015 12:10:56 PM	21928
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.040		mg/Kg	1	10/23/2015 12:10:56 PM	21928
Toluene	ND	0.040		mg/Kg	1	10/23/2015 12:10:56 PM	21928
Ethylbenzene	ND	0.040		mg/Kg	1	10/23/2015 12:10:56 PM	21928
Xylenes, Total	ND	0.080		mg/Kg	1	10/23/2015 12:10:56 PM	21928
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	10/23/2015 12:10:56 PM	21928

Refer to the QC Summary report and 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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1510A81**

27-Oct-15

Client: APEX TITAN
Project: K-31 (Oct 2015)

Sample ID **MB-21995**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **21995**			RunNo: **29746**					
Prep Date: **10/23/2015**	Analysis Date: **10/23/2015**			SeqNo: **906086**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.4		10.00		93.7	70	130			

Sample ID **LCS-21995**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **21995**			RunNo: **29746**					
Prep Date: **10/23/2015**	Analysis Date: **10/23/2015**			SeqNo: **906089**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.4	57.4	139			
Surr: DNOP	4.5		5.000		90.1	70	130			

Sample ID **1510A81-001AMS**	SampType: **MS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **CS-1**	Batch ID: **21995**			RunNo: **29746**					
Prep Date: **10/23/2015**	Analysis Date: **10/23/2015**			SeqNo: **906244**		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	0	96.8	42.3	146			
Surr: DNOP	4.3		4.771		90.3	70	130			

Sample ID **MB-21955**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **21955**			RunNo: **29745**					
Prep Date: **10/21/2015**	Analysis Date: **10/23/2015**			SeqNo: **906245**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		114	70	130			

Sample ID **1510A81-001AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **CS-1**	Batch ID: **21995**			RunNo: **29746**					
Prep Date: **10/23/2015**	Analysis Date: **10/23/2015**			SeqNo: **906335**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	51.98	0	97.2	42.3	146	8.95	28.9	
Surr: DNOP	4.7		5.198		90.7	70	130	0	0	

Sample ID **LCS-21955**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **21955**			RunNo: **29745**					
Prep Date: **10/21/2015**	Analysis Date: **10/23/2015**			SeqNo: **906757**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	6.0		5.000		120	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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1510A81**

27-Oct-15

Client: APEX TITAN

Project: K-31 (Oct 2015)

Sample ID **MB-21928**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **PBS**	Batch ID: **21928**			RunNo: **29756**					
Prep Date: **10/20/2015**	Analysis Date: **10/23/2015**			SeqNo: **906440**		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		86.2	75.4	113			

Sample ID **LCS-21928**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **LCSS**	Batch ID: **21928**			RunNo: **29756**					
Prep Date: **10/20/2015**	Analysis Date: **10/23/2015**			SeqNo: **906441**		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	79.6	122			
Surr: BFB	920		1000		91.8	75.4	113			

Sample ID **MB-21980**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **PBS**	Batch ID: **21980**			RunNo: **29756**					
Prep Date: **10/22/2015**	Analysis Date: **10/23/2015**			SeqNo: **906456**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	870		1000		86.7	75.4	113			

Sample ID **LCS-21980**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **LCSS**	Batch ID: **21980**			RunNo: **29756**					
Prep Date: **10/22/2015**	Analysis Date: **10/23/2015**			SeqNo: **906457**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	950		1000		94.6	75.4	113			

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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1510A81**

27-Oct-15

Client: APEX TITAN

Project: K-31 (Oct 2015)

Sample ID **MB-21928**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **21928**	RunNo: **29756**
Prep Date: **10/20/2015**	Analysis Date: **10/23/2015**	SeqNo: **906475** Units: **mg/Kg**

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

Sample ID **LCS-21928**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **21928**	RunNo: **29756**
Prep Date: **10/20/2015**	Analysis Date: **10/23/2015**	SeqNo: **906476** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	107	80	120			
Toluene	0.97	0.050	1.000	0	96.7	80	120			
Ethylbenzene	0.94	0.050	1.000	0	93.5	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.3	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID **MB-21980**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **21980**	RunNo: **29756**
Prep Date: **10/22/2015**	Analysis Date: **10/23/2015**	SeqNo: **906486** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID **LCS-21980**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **21980**	RunNo: **29756**
Prep Date: **10/22/2015**	Analysis Date: **10/23/2015**	SeqNo: **906487** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- 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

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: 1510A81 | RcptNo: 1

Received by/date: _____

Logged By: Anne Thorne | 10/23/2015 7:00:00 AM | Anne Thorne

Completed By: Anne Thorne | 10/23/2015 | Anne Thorne

Reviewed By: [signature] | 10/23/15

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.2	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec

Project Manager: Summers

Laboratory: Hall

Address: ABQ

Contact: Freeman

Phone:

PO/SO #:

Lab use only
Due Date:

Temp. of coolers when received (C°): 1, 2

1	2	3	4	5

Page 1 of

Sampler's Name: Kyle Summers

Sampler's Signature:

Proj. No.

Project Name: R-31 (Oct 2015)

No/Type of Containers

ANALYSIS REQUESTED: BTEX 8021 / TPH GRO/DRO 8015

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	10/22	1300	X		CS-1						1		1510A81-001
		1315			CS-2								-002
		1330			CS-3								-003
		1400			CS-4								-004
↓	↓	1410			CS-5						↓		-005
					NFS								
					NS								

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10/22/15	1732	Mary Walker	10/22/15	1732
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Mary Walker	10/22/15	2050		10/23/15	0700
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: RUSH
Bill Tom Long
RB21200

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 27, 2015

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

RE: K-31 (Oct 2015) OrderNo.: 1510A82

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 3 sample(s) on 10/23/2015 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1510A82**
Date Reported: **10/27/2015**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: K-31 (Oct 2015)
Lab ID: 1510A82-001 **Matrix:** SOIL

Client Sample ID: SP-2
Collection Date: 10/22/2015 2:45:00 PM
Received Date: 10/23/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	140	9.8		mg/Kg	1	10/23/2015 3:58:00 PM	21995
Surr: DNOP	121	70-130		%REC	1	10/23/2015 3:58:00 PM	21995
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	270	36		mg/Kg	10	10/23/2015 12:34:18 PM	21928
Surr: BFB	183	75.4-113	S	%REC	10	10/23/2015 12:34:18 PM	21928
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.30	0.18		mg/Kg	10	10/23/2015 12:34:18 PM	21928
Toluene	2.5	0.36		mg/Kg	10	10/23/2015 12:34:18 PM	21928
Ethylbenzene	1.6	0.36		mg/Kg	10	10/23/2015 12:34:18 PM	21928
Xylenes, Total	18	0.72		mg/Kg	10	10/23/2015 12:34:18 PM	21928
Surr: 4-Bromofluorobenzene	118	80-120		%REC	10	10/23/2015 12:34:18 PM	21928

Refer to the QC Summary report and 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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: SP-3
Project: K-31 (Oct 2015)
Collection Date: 10/22/2015 3:00:00 PM
Lab ID: 1510A82-002
Matrix: SOIL
Received Date: 10/23/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: **KJH**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/23/2015 10:52:00 AM	21995
Surr: DNOP	100	70-130		%REC	1	10/23/2015 10:52:00 AM	21995
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	10/23/2015 12:57:42 PM	21928
Surr: BFB	93.7	75.4-113		%REC	1	10/23/2015 12:57:42 PM	21928
EPA METHOD 8021B: VOLATILES							Analyst: **NSB**
Benzene	ND	0.041		mg/Kg	1	10/23/2015 12:57:42 PM	21928
Toluene	ND	0.041		mg/Kg	1	10/23/2015 12:57:42 PM	21928
Ethylbenzene	ND	0.041		mg/Kg	1	10/23/2015 12:57:42 PM	21928
Xylenes, Total	ND	0.081		mg/Kg	1	10/23/2015 12:57:42 PM	21928
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	10/23/2015 12:57:42 PM	21928

Refer to the QC Summary report and 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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: K-31 (Oct 2015)
Lab ID: 1510A82-003
Matrix: SOIL
Client Sample ID: SP-4
Collection Date: 10/22/2015 3:30:00 PM
Received Date: 10/23/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/23/2015 11:18:52 AM	21995
Surr: DNOP	116	70-130		%REC	1	10/23/2015 11:18:52 AM	21995
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/23/2015 1:21:06 PM	21928
Surr: BFB	90.6	75.4-113		%REC	1	10/23/2015 1:21:06 PM	21928
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.046		mg/Kg	1	10/23/2015 1:21:06 PM	21928
Toluene	ND	0.046		mg/Kg	1	10/23/2015 1:21:06 PM	21928
Ethylbenzene	ND	0.046		mg/Kg	1	10/23/2015 1:21:06 PM	21928
Xylenes, Total	ND	0.092		mg/Kg	1	10/23/2015 1:21:06 PM	21928
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	10/23/2015 1:21:06 PM	21928

Refer to the QC Summary report and 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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1510A82**

27-Oct-15

Client: APEX TITAN
Project: K-31 (Oct 2015)

Sample ID **MB-21995**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **21995**			RunNo: **29746**					
Prep Date: **10/23/2015**	Analysis Date: **10/23/2015**			SeqNo: **906086**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.4		10.00		93.7	70	130			

Sample ID **LCS-21995**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **21995**			RunNo: **29746**					
Prep Date: **10/23/2015**	Analysis Date: **10/23/2015**			SeqNo: **906089**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.4	57.4	139			
Surr: DNOP	4.5		5.000		90.1	70	130			

Sample ID **MB-21955**	SampType: **MBLK**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **PBS**	Batch ID: **21955**			RunNo: **29745**					
Prep Date: **10/21/2015**	Analysis Date: **10/23/2015**			SeqNo: **906245**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		114	70	130			

Sample ID **LCS-21955**	SampType: **LCS**			TestCode: **EPA Method 8015M/D: Diesel Range Organics**					
Client ID: **LCSS**	Batch ID: **21955**			RunNo: **29745**					
Prep Date: **10/21/2015**	Analysis Date: **10/23/2015**			SeqNo: **906757**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	6.0		5.000		120	70	130			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1510A82**

27-Oct-15

Client: APEX TITAN

Project: K-31 (Oct 2015)

Sample ID **MB-21928**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **PBS**	Batch ID: **21928**			RunNo: **29756**					
Prep Date: **10/20/2015**	Analysis Date: **10/23/2015**			SeqNo: **906440**		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		86.2	75.4	113			

Sample ID **LCS-21928**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **LCSS**	Batch ID: **21928**			RunNo: **29756**					
Prep Date: **10/20/2015**	Analysis Date: **10/23/2015**			SeqNo: **906441**		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	79.6	122			
Surr: BFB	920		1000		91.8	75.4	113			

Sample ID **MB-21980**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **PBS**	Batch ID: **21980**			RunNo: **29756**					
Prep Date: **10/22/2015**	Analysis Date: **10/23/2015**			SeqNo: **906456**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	870		1000		86.7	75.4	113			

Sample ID **LCS-21980**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**					
Client ID: **LCSS**	Batch ID: **21980**			RunNo: **29756**					
Prep Date: **10/22/2015**	Analysis Date: **10/23/2015**			SeqNo: **906457**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	950		1000		94.6	75.4	113			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1510A82**

27-Oct-15

Client: APEX TITAN

Project: K-31 (Oct 2015)

Sample ID **MB-21928**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **21928**	RunNo: **29756**
Prep Date: **10/20/2015**	Analysis Date: **10/23/2015**	SeqNo: **906475** Units: **mg/Kg**

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

Sample ID **LCS-21928**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **21928**	RunNo: **29756**
Prep Date: **10/20/2015**	Analysis Date: **10/23/2015**	SeqNo: **906476** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	107	80	120			
Toluene	0.97	0.050	1.000	0	96.7	80	120			
Ethylbenzene	0.94	0.050	1.000	0	93.5	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.3	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID **MB-21980**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **21980**	RunNo: **29756**
Prep Date: **10/22/2015**	Analysis Date: **10/23/2015**	SeqNo: **906486** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID **LCS-21980**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **21980**	RunNo: **29756**
Prep Date: **10/22/2015**	Analysis Date: **10/23/2015**	SeqNo: **906487** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	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		

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: 1510A82 | RcptNo: 1

Received by/date: _____

Logged By: Anne Thorne 10/23/2015 7:00:00 AM Anne Thorne

Completed By: Anne Thorne 10/23/2015 Anne Thorne

Reviewed By: 10/23/15

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: _____

Special Handling (If applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.2	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec

Project Manager: Summers

Laboratory: Hall
Address: ABQ
Contact: Freeman
Phone:
PO/SO #:

Sampler's Name: Kyle Summers
Sampler's Signature:

Proj. No.
Project Name: K-31 (Oct 2015)

ANALYSIS REQUESTED: BTEX 8021, TPH GRO/DRO 8015

Lab use only
Due Date:
Temp. of coolers when received (C°): 1.2
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 Lt.	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	10/22/15	1445	X		SP-2						1		1510A82-001
↓	↓	1500	↓		SP-3								-002
↓	↓	1530	↓		SP-4								-003

NF-1
K-5

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10/22/15	1732		10/22/15	1732
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Matt Webb	10/22/15	2050		10/23/15	0700
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: RUSH
Bill Tom Long
RP 21200

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 27, 2015

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

RE: K-31 (Oct 2015) OrderNo.: 1510B54

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/24/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data 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 **1510B54**
Date Reported: **10/27/2015**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-6
Project: K-31 (Oct 2015)
Collection Date: 10/23/2015 1:00:00 PM
Lab ID: 1510B54-001
Matrix: MEOH (SOIL)
Received Date: 10/24/2015 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/26/2015 10:52:57 AM	22013
Surr: DNOP	155	70-130	S	%REC	1	10/26/2015 10:52:57 AM	22013
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/26/2015 8:47:30 AM	R29787
Surr: BFB	88.0	75.4-113		%REC	1	10/26/2015 8:47:30 AM	R29787
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.047		mg/Kg	1	10/26/2015 8:47:30 AM	A29787
Toluene	0.072	0.047		mg/Kg	1	10/26/2015 8:47:30 AM	A29787
Ethylbenzene	ND	0.047		mg/Kg	1	10/26/2015 8:47:30 AM	A29787
Xylenes, Total	ND	0.093		mg/Kg	1	10/26/2015 8:47:30 AM	A29787
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	10/26/2015 8:47:30 AM	A29787

Refer to the QC Summary report and 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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-7
Project: K-31 (Oct 2015)
Collection Date: 10/23/2015 1:15:00 PM
Lab ID: 1510B54-002
Matrix: MEOH (SOIL)
Received Date: 10/24/2015 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/26/2015 10:38:56 AM	22013
Surr: DNOP	89.3	70-130		%REC	1	10/26/2015 10:38:56 AM	22013
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	6.7	4.3		mg/Kg	1	10/26/2015 9:10:54 AM	R29787
Surr: BFB	95.0	75.4-113		%REC	1	10/26/2015 9:10:54 AM	R29787
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.063	0.043		mg/Kg	1	10/26/2015 9:10:54 AM	A29787
Toluene	0.26	0.043		mg/Kg	1	10/26/2015 9:10:54 AM	A29787
Ethylbenzene	ND	0.043		mg/Kg	1	10/26/2015 9:10:54 AM	A29787
Xylenes, Total	0.51	0.086		mg/Kg	1	10/26/2015 9:10:54 AM	A29787
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	10/26/2015 9:10:54 AM	A29787

Refer to the QC Summary report and 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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-8
Project: K-31 (Oct 2015)
Collection Date: 10/23/2015 2:00:00 PM
Lab ID: 1510B54-003
Matrix: MEOH (SOIL)
Received Date: 10/24/2015 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/26/2015 11:00:13 AM	22013
Surr: DNOP	91.4	70-130		%REC	1	10/26/2015 11:00:13 AM	22013
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	4.7	3.7		mg/Kg	1	10/26/2015 9:34:18 AM	R29787
Surr: BFB	90.2	75.4-113		%REC	1	10/26/2015 9:34:18 AM	R29787
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.20	0.037		mg/Kg	1	10/26/2015 9:34:18 AM	A29787
Toluene	0.41	0.037		mg/Kg	1	10/26/2015 9:34:18 AM	A29787
Ethylbenzene	ND	0.037		mg/Kg	1	10/26/2015 9:34:18 AM	A29787
Xylenes, Total	0.31	0.074		mg/Kg	1	10/26/2015 9:34:18 AM	A29787
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	10/26/2015 9:34:18 AM	A29787

Refer to the QC Summary report and 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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-9
Project: K-31 (Oct 2015)
Collection Date: 10/23/2015 2:10:00 PM
Lab ID: 1510B54-004
Matrix: MEOH (SOIL)
Received Date: 10/24/2015 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/26/2015 11:21:36 AM	22013
Surr: DNOP	93.7	70-130		%REC	1	10/26/2015 11:21:36 AM	22013
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	5.4	4.1		mg/Kg	1	10/26/2015 9:57:50 AM	R29787
Surr: BFB	89.6	75.4-113		%REC	1	10/26/2015 9:57:50 AM	R29787
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.20	0.041		mg/Kg	1	10/26/2015 9:57:50 AM	A29787
Toluene	0.23	0.041		mg/Kg	1	10/26/2015 9:57:50 AM	A29787
Ethylbenzene	ND	0.041		mg/Kg	1	10/26/2015 9:57:50 AM	A29787
Xylenes, Total	ND	0.081		mg/Kg	1	10/26/2015 9:57:50 AM	A29787
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	10/26/2015 9:57:50 AM	A29787

Refer to the QC Summary report and 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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: K-31 (Oct 2015)
Lab ID: 1510B54-005
Client Sample ID: CS-10
Collection Date: 10/23/2015 2:30:00 PM
Matrix: MEOH (SOIL)
Received Date: 10/24/2015 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/26/2015 11:42:55 AM	22013
Surr: DNOP	92.6	70-130		%REC	1	10/26/2015 11:42:55 AM	22013
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	10/26/2015 10:21:14 AM	R29787
Surr: BFB	87.3	75.4-113		%REC	1	10/26/2015 10:21:14 AM	R29787
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.037		mg/Kg	1	10/26/2015 10:21:14 AM	A29787
Toluene	ND	0.037		mg/Kg	1	10/26/2015 10:21:14 AM	A29787
Ethylbenzene	ND	0.037		mg/Kg	1	10/26/2015 10:21:14 AM	A29787
Xylenes, Total	ND	0.074		mg/Kg	1	10/26/2015 10:21:14 AM	A29787
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	10/26/2015 10:21:14 AM	A29787

Refer to the QC Summary report and 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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-11
Project: K-31 (Oct 2015)
Collection Date: 10/23/2015 2:50:00 PM
Lab ID: 1510B54-006
Matrix: MEOH (SOIL)
Received Date: 10/24/2015 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **KJH**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/26/2015 12:04:22 PM	22013
Surr: DNOP	87.3	70-130		%REC	1	10/26/2015 12:04:22 PM	22013
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/26/2015 10:44:36 AM	R29787
Surr: BFB	90.6	75.4-113		%REC	1	10/26/2015 10:44:36 AM	R29787
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.076	0.048		mg/Kg	1	10/26/2015 10:44:36 AM	A29787
Toluene	0.21	0.048		mg/Kg	1	10/26/2015 10:44:36 AM	A29787
Ethylbenzene	ND	0.048		mg/Kg	1	10/26/2015 10:44:36 AM	A29787
Xylenes, Total	0.18	0.096		mg/Kg	1	10/26/2015 10:44:36 AM	A29787
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	10/26/2015 10:44:36 AM	A29787

Refer to the QC Summary report and 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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1510B54**

27-Oct-15

Client: APEX TITAN

Project: K-31 (Oct 2015)

Sample ID **MB-22013**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **22013**	RunNo: **29779**
Prep Date: **10/26/2015**	Analysis Date: **10/26/2015**	SeqNo: **907195** 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	14		10.00		139	70	130			S

Sample ID **LCS-22013**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **22013**	RunNo: **29779**
Prep Date: **10/26/2015**	Analysis Date: **10/26/2015**	SeqNo: **907623** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	103	57.4	139			
Surr: DNOP	5.6		5.000		111	70	130			

Sample ID **1510B54-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **CS-6**	Batch ID: **22013**	RunNo: **29779**
Prep Date: **10/26/2015**	Analysis Date: **10/26/2015**	SeqNo: **907624** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	9.6	47.85	0	105	42.3	146			
Surr: DNOP	5.3		4.785		111	70	130			

Sample ID **1510B54-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **CS-6**	Batch ID: **22013**	RunNo: **29779**
Prep Date: **10/26/2015**	Analysis Date: **10/26/2015**	SeqNo: **907625** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.4	46.99	0	96.2	42.3	146	10.2	28.9	
Surr: DNOP	4.9		4.699		105	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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1510B54**

27-Oct-15

Client: APEX TITAN
Project: K-31 (Oct 2015)

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **R29787**	RunNo: **29787**
Prep Date:	Analysis Date: **10/26/2015**	SeqNo: **907561** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		88.7	75.4	113			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R29787**	RunNo: **29787**
Prep Date:	Analysis Date: **10/26/2015**	SeqNo: **907562** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.1	79.6	122			
Surr: BFB	950		1000		94.8	75.4	113			

Sample ID **1510B54-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **CS-6**	Batch ID: **R29787**	RunNo: **29787**
Prep Date:	Analysis Date: **10/26/2015**	SeqNo: **907564** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.7	23.34	1.905	106	62.5	151			
Surr: BFB	880		933.7		94.5	75.4	113			

Sample ID **1510B54-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **CS-6**	Batch ID: **R29787**	RunNo: **29787**
Prep Date:	Analysis Date: **10/26/2015**	SeqNo: **907565** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.7	23.34	1.905	107	62.5	151	1.12	22.1	
Surr: BFB	900		933.7		96.0	75.4	113	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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1510B54**

27-Oct-15

Client: APEX TITAN

Project: K-31 (Oct 2015)

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **A29787**	RunNo: **29787**
Prep Date:	Analysis Date: **10/26/2015**	SeqNo: **907590** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		105	80	120			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **A29787**	RunNo: **29787**
Prep Date:	Analysis Date: **10/26/2015**	SeqNo: **907591** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	112	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.0	0.050	1.000	0	99.7	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.5	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		114	80	120			

Sample ID **1510B54-002AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **CS-7**	Batch ID: **A29787**	RunNo: **29787**
Prep Date:	Analysis Date: **10/26/2015**	SeqNo: **907592** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.043	0.8562	0.06342	109	69.6	136			
Toluene	1.1	0.043	0.8562	0.2626	102	76.2	134			
Ethylbenzene	0.84	0.043	0.8562	0.04145	93.7	75.8	137			
Xylenes, Total	3.0	0.086	2.569	0.5090	95.9	78.9	133			
Surr: 4-Bromofluorobenzene	0.97		0.8562		114	80	120			

Sample ID **1510B54-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **CS-7**	Batch ID: **A29787**	RunNo: **29787**
Prep Date:	Analysis Date: **10/26/2015**	SeqNo: **907593** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.043	0.8562	0.06342	113	69.6	136	3.51	20	
Toluene	1.2	0.043	0.8562	0.2626	107	76.2	134	3.24	20	
Ethylbenzene	0.88	0.043	0.8562	0.04145	98.1	75.8	137	4.46	20	
Xylenes, Total	3.1	0.086	2.569	0.5090	100	78.9	133	3.46	20	
Surr: 4-Bromofluorobenzene	0.97		0.8562		113	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

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: 1510B54 RcptNo: 1

Received by/date: 10/24/15

Logged By: Lindsay Mangin 10/24/2015 9:00:00 AM

Completed By: Lindsay Mangin 10/24/2015 9:38:42 AM

Reviewed By: 10/24/15

Chain of Custody

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

Log In

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

Special Handling (if applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1 6	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec

Project Manager: Summers

Laboratory: Hall

Address: ABQ

Contact: Freeman

Phone:

PO/SO #:

Sampler's Name: Kyle Summers

Sampler's Signature:

Proj. No.

Project Name: N-31 (Oct 2015)

No/Type of Containers

ANALYSIS REQUESTED: BTEX 8021 / TPH GRO/DRO 8015

Lab use only
Due Date:

Temp. of coolers when received (C°): 1.6

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	10/23	1300	X		CS-6							2	1510B54-001
		1315			CS-7								-002
		1400			CS-8								-003
		1410			CS-9								-004
		1430			CS-10								-005
		1450			CS-11								-006
					NFS								
					KS								

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☒ 100% Rush 5 days

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10/23/15	1515		10/23/15	1715
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10/23/15	1802		10/23/15	1800
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10/23/15	1840		10/24/15	0900
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: RUSH
Bill Tom Long
N22745

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 29, 2015

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

RE: K-31 (Oct 2015) OrderNo.: 1510C80

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/28/2015 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

50

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1510C80**
Date Reported: **10/29/2015**

CLIENT: APEX TITAN
Project: K-31 (Oct 2015)
Lab ID: 1510C80-001
Matrix: AQUEOUS
Client Sample ID: W-1
Collection Date: 10/27/2015 9:00:00 AM
Received Date: 10/28/2015 8:34:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	250	10		µg/L	10	10/28/2015 9:32:55 AM	R29843
Toluene	980	10		µg/L	10	10/28/2015 9:32:55 AM	R29843
Ethylbenzene	81	10		µg/L	10	10/28/2015 9:32:55 AM	R29843
Xylenes, Total	490	20		µg/L	10	10/28/2015 9:32:55 AM	R29843
Surr: 4-Bromofluorobenzene	123	65-127		%REC	10	10/28/2015 9:32:55 AM	R29843

Refer to the QC Summary report and 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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1510C80**

29-Oct-15

Client: APEX TITAN

Project: K-31 (Oct 2015)

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R29843**	RunNo: **29843**
Prep Date:	Analysis Date: **10/28/2015**	SeqNo: **909431** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	22		20.00		109	65	127			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R29843**	RunNo: **29843**
Prep Date:	Analysis Date: **10/28/2015**	SeqNo: **909432** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.9	80	120			
Toluene	20	1.0	20.00	0	99.3	80	120			
Ethylbenzene	18	1.0	20.00	0	91.3	80	120			
Xylenes, Total	53	2.0	60.00	0	88.6	80	120			
Surr: 4-Bromofluorobenzene	24		20.00		120	65	127			

Sample ID **1510C80-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **W-1**	Batch ID: **R29843**	RunNo: **29843**
Prep Date:	Analysis Date: **10/28/2015**	SeqNo: **909510** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	470	10	200.0	246.8	113	50.9	146			
Toluene	1200	10	200.0	978.2	92.7	71.7	136			E
Ethylbenzene	280	10	200.0	80.76	98.5	74.2	132			
Xylenes, Total	1100	20	600.0	486.2	104	75.7	130			
Surr: 4-Bromofluorobenzene	260		200.0		130	65	127			S

Sample ID **1510C80-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **W-1**	Batch ID: **R29843**	RunNo: **29843**
Prep Date:	Analysis Date: **10/28/2015**	SeqNo: **909511** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	470	10	200.0	246.8	110	50.9	146	1.25	20	
Toluene	1200	10	200.0	978.2	87.0	71.7	136	0.986	20	E
Ethylbenzene	280	10	200.0	80.76	98.5	74.2	132	0.00720	20	
Xylenes, Total	1100	20	600.0	486.2	103	75.7	130	0.844	20	
Surr: 4-Bromofluorobenzene	260		200.0		130	65	127	0	0	S

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		

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: 1510C80 RcptNo: 1

Received by/date: 10/28/15

Logged By: Lindsay Mangin 10/28/2015 8:34:00 AM

Completed By: Lindsay Mangin 10/28/2015 8:53:51 AM

Reviewed By: 10/28/15

Chain of Custody

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

Log In

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

Special Handling (if applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good	Yes			

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec

Project Manager: Summers

Laboratory: Hall

Address: ABQ

Contact: Freeman

Phone:

PO/SO #:

Sampler's Name: Kyle Summers

Sampler's Signature: Kyle Summers

Proj. No.

Project Name: K-31 (Oct 2015)

No/Type of Containers

ANALYSIS REQUESTED: BTEX 8021

Lab use only
Due Date:

Temp. of coolers when received (C°): 2.2

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)
W	10/27	0900		X	MW-1			3					1510C80-001

NVFS
KC

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10/27/15	1710		10/27/15	1710
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10/27/15	1832		10/28/15	0834
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: Rush
Bill Tom Long
N2274S

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 30, 2015

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

RE: K-31 (Oct 2015) OrderNo.: 1510D67

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 3 sample(s) on 10/29/2015 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1510D67**
Date Reported: **10/30/2015**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-12
Project: K-31 (Oct 2015)
Collection Date: 10/28/2015 10:00:00 AM
Lab ID: 1510D67-001
Matrix: MEOH (SOIL)
Received Date: 10/29/2015 8:15:00 AM

Analyses	Result	RL	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	10/29/2015 10:37:06 AM	22079
Surr: DNOP	91.6	70-130		%REC	1	10/29/2015 10:37:06 AM	22079
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	10/29/2015 9:24:16 AM	22060
Surr: BFB	88.2	75.4-113		%REC	1	10/29/2015 9:24:16 AM	22060
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.039		mg/Kg	1	10/29/2015 9:24:16 AM	22060
Toluene	0.067	0.039		mg/Kg	1	10/29/2015 9:24:16 AM	22060
Ethylbenzene	ND	0.039		mg/Kg	1	10/29/2015 9:24:16 AM	22060
Xylenes, Total	ND	0.079		mg/Kg	1	10/29/2015 9:24:16 AM	22060
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	10/29/2015 9:24:16 AM	22060

Refer to the QC Summary report and 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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Client Sample ID: CS-13
Project: K-31 (Oct 2015)
Collection Date: 10/28/2015 10:30:00 AM
Lab ID: 1510D67-002
Matrix: MEOH (SOIL)
Received Date: 10/29/2015 8:15:00 AM

Analyses	Result	RL	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	10/29/2015 10:58:10 AM	22079
Surr: DNOP	97.2	70-130		%REC	1	10/29/2015 10:58:10 AM	22079
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.4		mg/Kg	1	10/29/2015 9:47:41 AM	22060
Surr: BFB	86.7	75.4-113		%REC	1	10/29/2015 9:47:41 AM	22060
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.054		mg/Kg	1	10/29/2015 9:47:41 AM	22060
Toluene	ND	0.054		mg/Kg	1	10/29/2015 9:47:41 AM	22060
Ethylbenzene	ND	0.054		mg/Kg	1	10/29/2015 9:47:41 AM	22060
Xylenes, Total	ND	0.11		mg/Kg	1	10/29/2015 9:47:41 AM	22060
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	10/29/2015 9:47:41 AM	22060

Refer to the QC Summary report and 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		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
Project: K-31 (Oct 2015)
Lab ID: 1510D67-003
Client Sample ID: CS-14
Collection Date: 10/28/2015 11:00:00 AM
Matrix: MEOH (SOIL)
Received Date: 10/29/2015 8:15:00 AM

Analyses	Result	RL	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	10/29/2015 11:19:39 AM	22079
Surr: DNOP	92.3	70-130		%REC	1	10/29/2015 11:19:39 AM	22079
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	10/29/2015 10:11:06 AM	22060
Surr: BFB	90.8	75.4-113		%REC	1	10/29/2015 10:11:06 AM	22060
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.040	0.040		mg/Kg	1	10/29/2015 10:11:06 AM	22060
Toluene	0.20	0.040		mg/Kg	1	10/29/2015 10:11:06 AM	22060
Ethylbenzene	ND	0.040		mg/Kg	1	10/29/2015 10:11:06 AM	22060
Xylenes, Total	0.37	0.080		mg/Kg	1	10/29/2015 10:11:06 AM	22060
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	10/29/2015 10:11:06 AM	22060

Refer to the QC Summary report and 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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1510D67**

30-Oct-15

Client: APEX TITAN

Project: K-31 (Oct 2015)

Sample ID **MB-22079**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **22079**	RunNo: **29870**
Prep Date: **10/29/2015**	Analysis Date: **10/29/2015**	SeqNo: **909857** 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	8.8		10.00		88.3	70	130			

Sample ID **LCS-22079**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **22079**	RunNo: **29870**
Prep Date: **10/29/2015**	Analysis Date: **10/29/2015**	SeqNo: **909858** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.6	57.4	139			
Surr: DNOP	4.4		5.000		87.1	70	130			

Sample ID **MB-22053**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **22053**	RunNo: **29870**
Prep Date: **10/28/2015**	Analysis Date: **10/29/2015**	SeqNo: **910099** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.7		10.00		96.6	70	130			

Sample ID **LCS-22053**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **22053**	RunNo: **29870**
Prep Date: **10/28/2015**	Analysis Date: **10/29/2015**	SeqNo: **910100** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		87.1	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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1510D67**

30-Oct-15

Client: APEX TITAN

Project: K-31 (Oct 2015)

Sample ID **MB-22060**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **22060**	RunNo: **29871**
Prep Date: **10/28/2015**	Analysis Date: **10/29/2015**	SeqNo: **910476** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		85.9	75.4	113			

Sample ID **LCS-22060**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **22060**	RunNo: **29871**
Prep Date: **10/28/2015**	Analysis Date: **10/29/2015**	SeqNo: **910477** 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	97.5	79.6	122			
Surr: BFB	920		1000		91.7	75.4	113			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1510D67**

30-Oct-15

Client: APEX TITAN

Project: K-31 (Oct 2015)

Sample ID **MB-22060**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **22060**	RunNo: **29871**
Prep Date: **10/28/2015**	Analysis Date: **10/29/2015**	SeqNo: **910488** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID **LCS-22060**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **22060**	RunNo: **29871**
Prep Date: **10/28/2015**	Analysis Date: **10/29/2015**	SeqNo: **910489** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	111	80	120			
Toluene	0.99	0.050	1.000	0	99.3	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.1	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.0	80	120			
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		

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: **1510D67** RcptNo: 1

Received by/date: JA 10/29/15

Logged By: **Ashley Gallegos** **10/29/2015 8:15:00 AM** AG

Completed By: **Ashley Gallegos** **10/29/2015 8:51:31 AM** AG

Reviewed By: CS 10/29/15

Chain of Custody

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

Log In

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

Special Handling (if applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

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

CHAIN OF CUSTODY RECORD

APEX

Office Location: Aztec

Project Manager: Summers

Laboratory: Hall

Address: ABQ

Contact: Fleeman

Phone:

PO/SO #:

Lab use only
Due Date:

Temp. of coolers when received (C°): 1.1

1 | 2 | 3 | 4 | 5

Page 1 of 1

Sampler's Name: Kyle Summers

Sampler's Signature:

Proj. No.

Project Name: R-31 (Oct 2015)

No/Type of Containers

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Li.	250 ml	Glass Jar	P/O	BTEX 8021	TPH GRO/DRO 8015	Lab Sample ID (Lab Use Only)
S	10/28/15	1000	X		C-S-12						1		X	X	1510D67-001
↓	↓	1030	↓		C-S-13						6		X	X	-002
↓	↓	1100	↓		C-S-14						6		X	X	-003

NFS
K.C

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
	10/28/15	1547	Maddie Walls	10/28/15	1547
Maddie Walls	10/28/15	1740		10/29/15	0915
	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: RUSH
Bill Tom Long
N22745

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