## 3R-1012

# Release Report/ General Correspondence

**Enterprise RA** 

Date: Q1/Q2 2018



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.

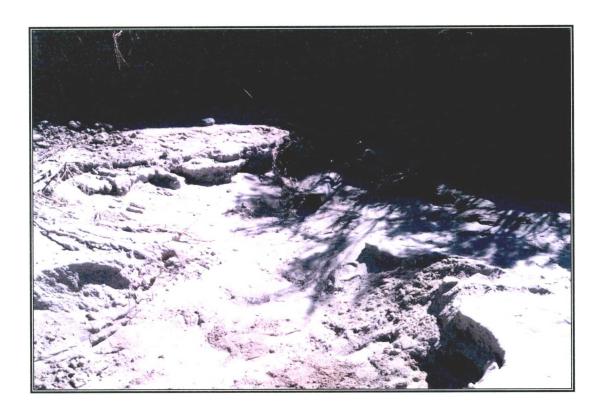
Form C-141 Revised August 8, 2011

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

#### Santa Fe, NM 87505 **Release Notification and Corrective Action**

						<b>OPERA</b>	ΓOR		Initial	al Report	$\boxtimes$	Final F	Report
Name of Co	mpany En	terprise Fiel	d Service	es, LLC.	(	Contact: James Lieb and Runell Seale							
Address 61	4 Reilly A	Ave., Farmin	gton, NN	1 87401			No. 505-599-21			2124			
Facility Nan	ne: Latera	al K-34 Pipel	line		]	Facility Typ	e: Natural Gas (	Gatheri	ng Line				
Surface Ow	ner BLM			Mineral Ov	wner	BLM			API No	)			
Surface Own	ilei. BElvi								7111110	· .			
						OF REI				,			
Unit Letter	Section	Township	Range	Feet from the	North/	South Line	Feet from the	East/\	West Line	County			
N	4	25N	7W							Rio Arriba	1		
										CVD NOV			
				Latitude N 36.	42254	7 Longitude	W -107.580262	2	9.7	OIL CONS	. DIV		
				NATI	URE	OF REL	EASE			DIST.			
Type of Relea	ase: Natur	al Gas Conde	nsate and	Produced Water			Release: Liquids	3	Volume I	Recovered:	none,	there wa	as no
							~86,184 mcf of n	atural		ation in the	area of	the line	
C		C	1	.1		gas release			break	II CD:			
flash flood ev		rance of a nati	ıraı gas ga	thering pipeline du	iring a		lour of Occurrence 18, 2013 4:00 p.n			Hour of Dis			
1100000						September	10, 2015 4.00 p.ii	11.		9-23-13 11:0		lated	
Was Immedia	ite Notice (		V [	N- DN-D		If YES, To				1 45			
			res	No Not Rec	quired	ROW notif	Bill Hoppe notified the BLM at 2:	23 pm	none call al	bout 1:45 pn	1		
							ed at 2:45 pm via		call.				
By Whom?	Runell Seal	le.				Date and H	our 09/23/2013						
Was a Water							lume Impacting t		ercourse. U	nknown vol	ume		
			Yes [	] No			rame impacting t		oreourse. o	maio viii voi			
If a Watercou	rse was Im	pacted Descr	ibe Fully 3	* A recent storm e	vent car	used approxi	nately 30 feet of a	nineline	that snann	ed Palluche	Wash t	o he	
				y to Canyon Largo									ash.
							• •						
				n Taken.* A recent									
				ed during discovery reak. The assessme									or
report is inclu	ided with th	nis form.											
Describe Area	a Affected	and Cleanup A	Action Tak	en.* A recent sto	rm ever	nt caused an	approximately 30	foot sec	ction of pip	eline that sp	anned I	Palluche	
				tal assessment peri									
obtaining reg			Tille breat	k. Hence, cleanup	18 1101 11	leeded. Elitei	prise will remove	the bro	ken section	of pipe from	in the w	asn arre	r
I hereby certi	fy that the i	nformation gi	ven above	is true and comple	ete to th	e best of my	knowledge and un	nderstar	nd that purs	suant to NM	OCD ru	iles and	
regulations al	l operators	are required to	o report ar	nd/or file certain re	lease no	otifications ar	nd perform correc	tive act	ions for rele	eases which	may en	danger	
should their o	or the envil	ronment. The	acceptano	ee of a C-141 repor investigate and rea	t by the	NMOCD m	arked as "Final Re	eport" d	oes not reli	eve the oper	ator of	liability	lth
or the environ	ment. In a	ddition, NMC	CD accep	tance of a C-141 re	eport do	es not reliev	e the operator of r	esponsi	bility for c	ompliance wa	ith any	other	itii
		ws and/or regu											
		///	11				OIL CONS	SERV	ATION	DIVISIO	N		
Signature:	C/1	a true						`					
	-		Y			Annroved by	Environmental Sp	necialist			_		
Printed Name	: Jon Field	ds				ipproved by	Environmental of	- Ciarisi	1		<u>_</u>	$\overline{}$	
Title: Directo	r Field En	vironmental				Approval Dat	215118	١,	Expiration 1	Datas			
Title. Direct	n, rieid Eii	vironinicitai			- 1	Арргочаг Бас	6.0/0/18		expiration	Date:			
E-mail Addre	ss: JEFIE	LDS@eprod.c	com		(	Conditions of	Approval:			Attached			
Date: 10/2	1 /2012		DL	712 201 ((04			-			Attached			
Date: 10/3	1 /2013		Pho	ne: 713-381-6684			1 . 0 -						
						N21	L13311	319	763				2

## Enterprise Products Lateral K-34 Pipeline Release Latitude North 36.4225 1, Longitude West -107.58034 SE 1/4, SW 1/4 Section 4 T25N R7W Rio Arriba County, New Mexico



#### Submitted To:

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

#### Submitted By:

Souder, Miller & Associates 2101 San Juan Boulevard Farmington, NM 87401 (505)325-7535



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Table 3: Summary of Field Screening Results Table 4: Summary of Laboratory Analysis

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Appendix C: Laboratory Analytical Reports

1.0 Executive Summary

release and remediation activities.

## On October 1, 2013, Souder, Miller & Associates (SMA) responded to a hydrocarbon release associated with the Lateral K-34 pipeline. The table below summarizes information about the

	TABLE 1: RELEASE INFORMATION							
Name		Lateral K-34	Pipeline Release					
	Latitude	e/Longitude	Section, Township, Range					
Location	36.42251	-107.58034	Unit N SE 1/4 SW 1/4 Section 4	T 25N, R 7W				
Date Reported	September 23	2013						
	Runell Seale							
Land Owner	Bureau of Land	d Management (BLI	M)					
Reported To	New Mexico O	New Mexico Oil Conservation Division (NMOCD) and BLM						
Diameter of Pipeline	6 inches	3 inches						
Source of Release	Natural Gas Pi	Natural Gas Pipeline was severed during a flash flood event						
Release Contents	Natural Gas Li	quids/Condensate						
Release Volume	Unknown							
Nearest Waterway	Palluche Wash							
Depth to Groundwater	Assumed to be	e less than 50 feet						
Nearest Domestic	Greater than 2	00 feet						
Water Source								
NMOCD Ranking	40							
SMA Response Dates	October 1, 201	3						
Subcontractors	NA							
Disposal Facility	NA							
Yd <sup>3</sup> Contaminated								
Soil Excavated and	NA							
Disposed								

#### 2.0 Introduction

On behalf of Enterprise Products Operating, LLC. (Enterprise), SMA has prepared this report that describes remediation of a hydrocarbon release associated with the Lateral K-34 pipeline. The Lateral K-34 pipeline release was a result of a natural gas pipeline that was completely severed during a flash flood event in Palluche Wash. The release was reported on September 23, 2013. The pipeline is located in Unit N (SE ¼, SW ¼) Section 4, Township 25 North, Range 7 West, 36.42251, -107.58034 Rio Arriba County, New Mexico. Figure 1, Vicinity Map, illustrates the location of the release.

#### 3.0 Site Ranking and Land Jurisdiction

The release site is located in Palluche Wash on BLM land with an elevation of approximately 6,328 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be less than 50 feet below ground surface (bgs).

SMA searched the New Mexico State Engineer's Office online water well data base for water wells in the vicinity of the release. No wells were located in Sections 4 or 9. The physical location of this release is within the jurisdiction of NMOCD. This release location has been assigned a NMOCD ranking of 40 which requires a soil remediation standard of 10 parts per million (ppm) benzene, 50 ppm total benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and 100 ppm total petroleum hydrocarbons (TPH). Table 2 illustrates site ranking rationale.

#### 4.0 Summary of Field Activities

October 1, 2013, SMA mobilized to the release site to delineate the release area by installing soil borings with a hand auger and conduct field screening. A total of five soil borings were installed to a total depth of three feet below ground surface (bgs). Soil samples were collected at one foot intervals for field screening with a calibrated photo-ionization detector (PID). Field notes for both events are included in Appendix A. Field screening results are summarized in Table 3. Figure 2 illustrates the locations of the soil borings and laboratory results. Site photographs are included in Appendix B.

SMA collected a total of five soil samples for laboratory analysis. All soil samples were collected from the bottom of each soil boring, at three feet bgs. All laboratory soil samples were field screened with a calibrated PID and submitted for laboratory analysis per United States Environmental Protection Agency Method 8021 BTEX, and 8015 Diesel Range Organics (DRO) and Gasoline Range Organics (GRO) to Hall Environmental Analysis Laboratory of Albuquerque, New Mexico.

#### 5.0 Conclusions and Recommendations

As noted in Section 3.0 of this report, NMOCD Guidelines for Remediation of Leaks, Spills, and Releases have established the following action levels for contaminants of concern with a site ranking of 40: 10 ppm benzene, 50 ppm total BTEX, and 100 ppm TPH. Based on laboratory analysis, all of the soil samples collected were below laboratory detection limits. Soil contaminant concentrations are illustrated in Figure 2. A summary of laboratory analysis is included in Table 4. Laboratory reports are included in Appendix C.

SMA recommends no further action at this site.

#### 6.0 Closure and Limitations

The scope of our services consisted of the performance of a preliminary spill assessment and stabilization, regulatory liaison, oversight and control of remediation operations, disposal arrangements and documentation, project management, and preparation of this summary report. All work has been performed in accordance with generally accepted professional environmental consulting practices.

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

Submitted by:

Reviewed by:

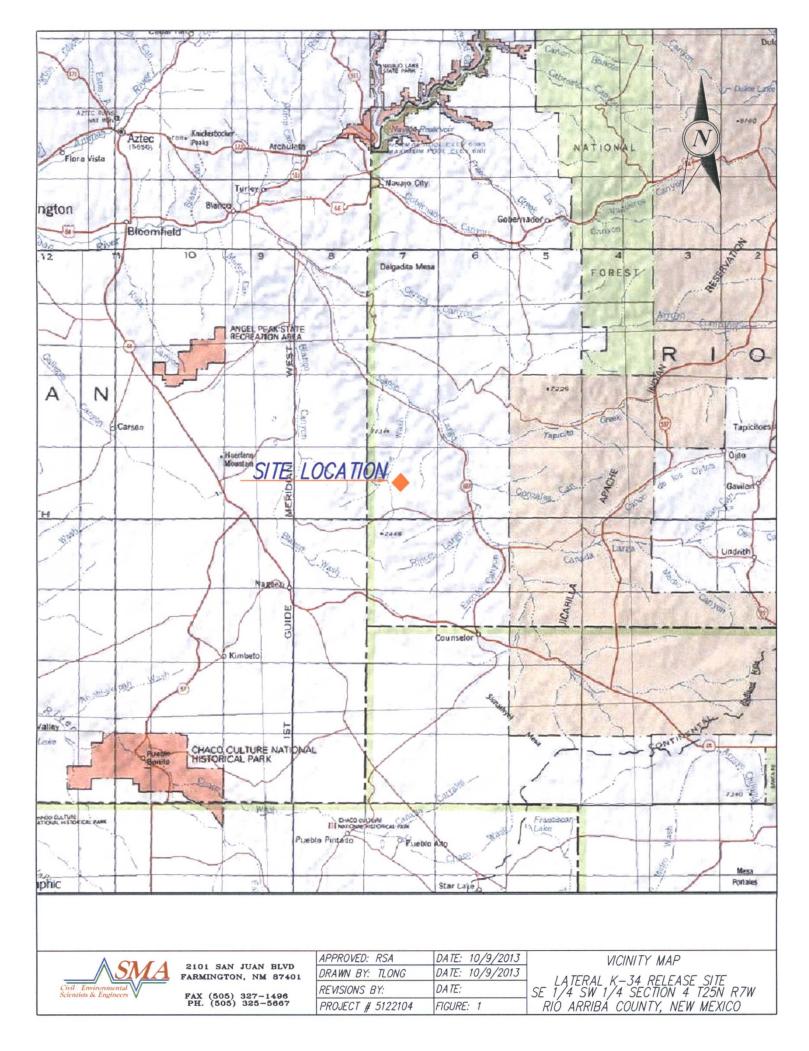
XIL alle

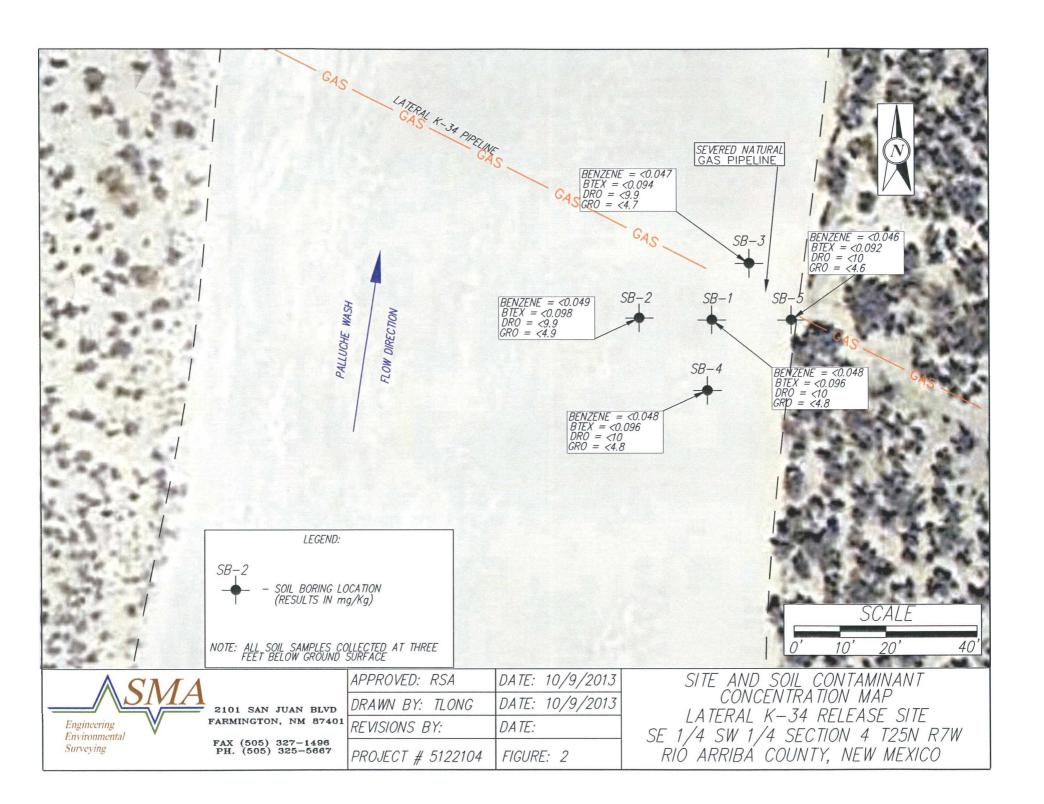
SOUDER, MILLER & ASSOCIATES

Thomas J. Long Project Scientist

Morres J. Lay

Reid S. Allan, PG Principal Scientist





Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes	
< 50 BGS = 20	20	USGS Topo Maps; Google Earth Elevation Difference		
50' to 99' = 10		from the site and the unamed wash to the	Release is located in Palluche Wash	
>100' = 0		north		
Ranking Criteria for Horizontal Distance to Nearest Surface Water	NMOCD Numeric Rank for this Site	Source for Ranking	Notes	
< 200' = 20	20			
200'-1000' = 10		USGS Topo Maps; Google Earth; PRCC Mapping Tool	Release is located in Palluche Wash	
>1000'				
Ranking Criteria for Horizontal Distance to a Water Well or Water Source	NMOCD Numeric Rank for this Site	Source for Ranking	Notes	
<1000' from a water source? <200' for a private domestic	0			
water source? YES OR NO to BOTH. YES = 20, NO = 0		NM State Engineer Water Well Database	No well located in Sections 4 or 9	
Total Site Ranking	40			
Soil Remedation Standards	0 to 9	10 to 19	>19	
Benzene	10 PPM	10 PPM	10 PPM	
BTEX	50 PPM	50 PPM	50 PPM	
ТРН	5000 PPM	1000 PPM	100 PPM	



## Enterprise Products Table 3: Summary of Field Screening Results (PPM)

		FIELD SCREENING RE	SULTS SUMMA	RY	
Date	Time	Field Screening Reference	Sample Depth (Feet BGS)	PID Results	Lab Sample Collected Y/N
10/1/2013	11:32	SB-1	1	0.0	N
10/1/2013	11:33	SB-1	2	0.0	N
10/1/2013	11:34	SB-1	3	0.0	Y
10/1/2013	11:35	SB-2	2	0.0	N
10/1/2013	11:36	SB-2	3	0.0	Y
10/1/2013	11:37	SB-3	1	0.0	N
10/1/2013	11:38	SB-3	2	0.0	N
10/1/2013	11:39	SB-3	3	0.0	Υ
10/1/2013	11:40	SB-4	1	0.0	N
10/1/2013	11:41	SB-4	2	0.0	N
10/1/2013	11:42	SB-4	3	0.0	Y
10/1/2013	11:43	SB-5	1	0.0	N
10/1/2013	11:44	SB-5	2	0.0	N
10/1/2013	11:45	SB-5	3.0	0.0	Υ



## Enterprise Products Table 4: Summary of Laboratory Analysis Results in Kg/mg

	LABORATORY ANALYTICAL SUMMARY										
Date	Time	Sample ID	Sample Depth (Feet BGS)	Method 8015 GRO	Method 8015 DRO	Method 8021 Benzene	Method 8021 BTEX				
10/1/2013	11:34	SB-1	3	<4.8	<10	<0.048	<0.096				
10/1/2013	11:36	SB-2	3	<4.9	<9.9	<0.049	<0.098				
10/1/2013	11:39	SB-3	3	<4.7	<9.9	<0.047	<0.094				
10/1/2013	11:42	SB-4	3	<4.8	<10	<0.048	<0.096				
10/1/2013	11:45	SB-5	3	<4.6	<10	<0.046	<0.092				



Lateral K-34 PROJECT STANOY PAGE 1 of 2 SUBJECT Entopose 10-1-13 BY 70L CLIENT CHECKED

onsite o	1100		CHECKED	ву	
Install	Soil Borings	00			
10 1	Time	Ppm	SB-5	Time	Ppr
SB -1		40.0		1143	0.0
11	1132	0.0	1		0.0
/					
2'	1133	0.6	2'	1144	0.0
	7 (/	0 =			
3 ′	1134	0.0	3'	1145	0.0
58-2			- GPS in	Soil Bonny	
<i>50 a</i>					3
( '	N4		1200	offsite	
2'	1135	0.0			
3'	1136	010			
	1.56				
SB-3					
200		. 0			
1.	1137	6.0			
2'	1138	0,0			
21	.129	0.0			1
3′	1139				
50 11	1	0 :-			
SB- 4	1140	0.0			
1.	م	10			
		- 0			
2	1141	0.0			
2.4	(1.11.5				
3′	1142	0.0			
1					1

### Site Photographs Enterprise Products Lateral K-34 Pipeline Release

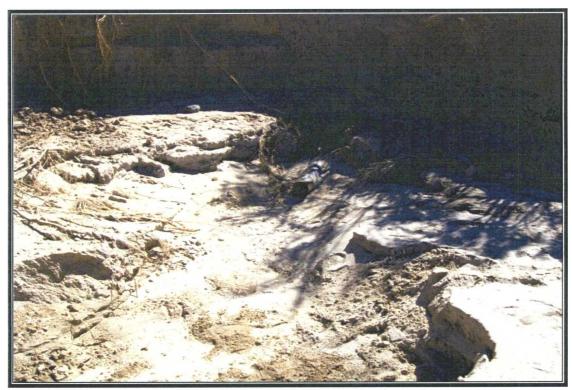


Photo 1: View of the severed pipeline and release area.



Photo 2: View of the release area.



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

OrderNo.: 1310156

October 07, 2013

Thomas Long Souder, Miller and Associates 2101 San Juan Boulevard Farmington, NM 87401 TEL: (505) 325-7535

FAX:

RE: Enterprise Lateral K-34

Dear Thomas Long:

Hall Environmental Analysis Laboratory received 5 sample(s) on 10/2/2013 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> 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

Only

4901 Hawkins NE

Albuquerque, NM 87109

Date Reported: 10/7/2013

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Enterprise Lateral K-34 Project:

Lab ID:

1310156-001 Matrix: SOIL Client Sample ID: SB-1 @ 3"

Collection Date: 10/1/2013 11:34:00 AM

Received Date: 10/2/2013 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE	ORGANICS				Analyst	BCN
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	10/4/2013 7:37:08 PM	9632
Surr: DNOP	85.0	63-147	%REC	1	10/4/2013 7:37:08 PM	9632
EPA METHOD 8015D: GASOLINE RAM	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/4/2013 3:11:05 PM	9636
Surr: BFB	100	80-120	%REC	1	10/4/2013 3:11:05 PM	9636
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.048	mg/Kg	1	10/4/2013 3:11:05 PM	9636
Toluene	ND	0.048	mg/Kg	1	10/4/2013 3:11:05 PM	9636
Ethylbenzene	ND	0.048	mg/Kg	1	10/4/2013 3:11:05 PM	9636
Xylenes, Total	ND	0.096	mg/Kg	1	10/4/2013 3:11:05 PM	9636
Surr: 4-Bromofluorobenzene	112	80-120	%REC	1	10/4/2013 3:11:05 PM	9636

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

#### Qualifiers:

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

Page 1 of 8

- Sample pH greater than 2 for VOA and TOC only
- RL Reporting Detection Limit

#### Analytical Report

Lab Order 1310156

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 10/7/2013

CLIENT: Souder, Miller and Associates

Client Sample ID: SB-2 @ 3'

Project:

Enterprise Lateral K-34

Collection Date: 10/1/2013 11:36:00 AM

Lab ID:

1310156-002

Matrix: SOIL

Received Date: 10/2/2013 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analyst	BCN
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	10/4/2013 7:59:09 PM	9632
Surr: DNOP	94.3	63-147	%REC	1	10/4/2013 7:59:09 PM	9632
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	10/4/2013 5:48:29 PM	9636
Surr: BFB	100	80-120	%REC	1	10/4/2013 5:48:29 PM	9636
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.049	mg/Kg	1	10/4/2013 5:48:29 PM	9636
Toluene	ND	0.049	mg/Kg	1	10/4/2013 5:48:29 PM	9636
Ethylbenzene	ND	0.049	mg/Kg	1	10/4/2013 5:48:29 PM	9636
Xylenes, Total	ND	0.098	mg/Kg	1	10/4/2013 5:48:29 PM	9636
Surr: 4-Bromofluorobenzene	112	80-120	%REC	1	10/4/2013 5:48:29 PM	9636

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

#### Qualifiers:

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

Page 2 of 8

- P Sample pH greater than 2 for VOA and TOC only
- RL Reporting Detection Limit

Date Reported: 10/7/2013

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates Client Sample ID: SB-3 @ 3'

Enterprise Lateral K-34 Collection Date: 10/1/2013 11:39:00 AM Project: Lab ID: 1310156-003 Matrix: SOIL Received Date: 10/2/2013 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analyst	BCN
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	10/4/2013 8:21:10 PM	9632
Surr: DNOP	94.6	63-147	%REC	1	10/4/2013 8:21:10 PM	9632
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	10/4/2013 6:18:33 PM	9636
Surr: BFB	106	80-120	%REC	1	10/4/2013 6:18:33 PM	9636
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.047	mg/Kg	1	10/4/2013 6:18:33 PM	9636
Toluene	ND	0.047	mg/Kg	1	10/4/2013 6:18:33 PM	9636
Ethylbenzene	ND	0.047	mg/Kg	1	10/4/2013 6:18:33 PM	9636
Xylenes, Total	ND	0.094	mg/Kg	1	10/4/2013 6:18:33 PM	9636
Surr: 4-Bromofluorobenzene	115	80-120	%REC	1	10/4/2013 6:18:33 PM	9636

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

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Not Detected at the Reporting Limit Page 3 of 8 Sample pH greater than 2 for VOA and TOC only.
- Reporting Detection Limit

Date Reported: 10/7/2013

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SB-4 @ 3'

Collection Date: 10/1/2013 11:42:00 AM Enterprise Lateral K-34 Project:

Lab ID: 1310156-004 Matrix: SOIL Received Date: 10/2/2013 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE	ORGANICS				Analyst	BCN
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	10/4/2013 8:43:18 PM	9632
Surr: DNOP	94.3	63-147	%REC	1	10/4/2013 8:43:18 PM	9632
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/4/2013 6:48:46 PM	9636
Surr: BFB	102	80-120	%REC	1	10/4/2013 6:48:46 PM	9636
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.048	mg/Kg	1	10/4/2013 6:48:46 PM	9636
Toluene	ND	0.048	mg/Kg	1	10/4/2013 6:48:46 PM	9636
Ethylbenzene	ND	0.048	mg/Kg	1	10/4/2013 6:48:46 PM	9636
Xylenes, Total	ND	0.096	mg/Kg	1	10/4/2013 6:48:46 PM	9636
Surr: 4-Bromofluorobenzene	113	80-120	%REC	1	10/4/2013 6:48:46 PM	9636

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

#### Qualifiers:

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

Date Reported: 10/7/2013

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Enterprise Lateral K-34

Lab ID: 1310156-005

Project:

Client Sample ID: SB-5 @ 3'

**Collection Date:** 10/1/2013 11:45:00 AM

Received Date: 10/2/2013 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E ORGANICS				Analyst	BCN
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	10/4/2013 9:05:17 PM	9632
Surr: DNOP	95.5	63-147	%REC	1	10/4/2013 9:05:17 PM	9632
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	10/4/2013 7:18:59 PM	9636
Surr: BFB	98.1	80-120	%REC	1	10/4/2013 7:18:59 PM	9636
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.046	mg/Kg	1	10/4/2013 7:18:59 PM	9636
Toluene	ND	0.046	mg/Kg	1	10/4/2013 7:18:59 PM	9636
Ethylbenzene	ND	0.046	mg/Kg	1	10/4/2013 7:18:59 PM	9636
Xylenes, Total	ND	0.092	mg/Kg	1	10/4/2013 7:18:59 PM	9636
Surr: 4-Bromofluorobenzene	109	80-120	%REC	1	10/4/2013 7:18:59 PM	9636

Matrix: SOIL

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

#### Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Page 5 of 8
- P Sample pH greater than 2 for VOA and TOC only
- RL Reporting Detection Limit

#### **QC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

WO#:

1310156

07-Oct-13

Client:

Souder, Miller and Associates

Project:

Enterprise Lateral K-34

Sample ID: LCS-9632	SampT	ype: LC	S	Test	tCode: El	PA Method	8015D: Diese	el Range C	Organics	
Client ID: LCSS	Batch	ID: 963	32	R	RunNo: 1	3798				
Prep Date: 10/3/2013	Analysis D	ate: 10	/3/2013	S	SeqNo: 3	94361	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	10	50.00	0	77.2	77.1	128			
Surr: DNOP	5.4		5.000		108	63	147			

Sample ID: MB-9632	SampTy	ype: ME	LK	Tes	tCode: EF	PA Method	8015D: Diese	el Range C	Organics	
Client ID: PBS	Batch	ID: 963	32	F	RunNo: 1	3798				
Prep Date: 10/3/2013	Analysis Da	ate: 10	/3/2013	S	SeqNo: 39	94539	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr DNOP	10		10.00		104	63	147			

#### Qualifiers:

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

Page 6 of 8

#### **QC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

WO#:

1310156

07-Oct-13

Client:

Souder, Miller and Associates

Project:

Enterprise Lateral K-34

Sample ID: MB-9636

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID: PBS Batch ID: 9636

RunNo: 13860

Prep Date: 10/3/2013

Analysis Date: 10/4/2013

Units: mg/Kg

Analyte

Result PQL SeqNo: 396249

Gasoline Range Organics (GRO)

5.0

LowLimit

ND

SPK value SPK Ref Val %REC

HighLimit

%RPD **RPDLimit** 

Surr: BFB

Prep Date: 10/3/2013

1000

1000

102

120

Sample ID: LCS-9636

Client ID: LCSS

SampType: LCS Batch ID: 9636

Analysis Date: 10/4/2013

0

RunNo: 13860 SeqNo: 396250

Units: mg/Kg

LowLimit HighLimit %RPD

**RPDLimit** Qual

Gasoline Range Organics (GRO) Surr: BFB

1100

Result

23

PQL SPK value SPK Ref Val 5.0

25.00 1000 91.5 106

%REC

74.5 80

80

TestCode: EPA Method 8015D: Gasoline Range

126 120

Qualifiers:

Value exceeds Maximum Contaminant Level.

E Value above quantitation range

Analyte detected below quantitation limits

0 RSD is greater than RSDlimit

R RPD outside accepted recovery limits

Spike Recovery outside accepted recovery limits

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

Sample pH greater than 2 for VOA and TOC only.

Reporting Detection Limit

Page 7 of 8

#### QC SUMMARY REPORT

#### Hall Environmental Analysis Laboratory, Inc.

WO#: 1310156

07-Oct-13

Client:	Souder, Miller and Associates
Project:	Enterprise Lateral K-34

Sample ID: MB-9636	SampT	ype: ME	BLK	Tes	Code: ER	PA Method	8021B: Volat	iles		
Client ID: PBS	Batch	n ID: 963	36	F	lunNo: 1	3860				
Prep Date: 10/3/2013	Analysis D	ate: 10	/4/2013	S	SeqNo: 3	96276	Units: mg/K	g		
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		115	80	120			

Sample ID: LCS-9636	SampT	ype: LC	S	Tes	tCode: El	iles				
Client ID: LCSS	Batch	n ID: 963	36	F	RunNo: 1	3860				
Prep Date: 10/3/2013	Analysis D	ate: 10	/4/2013	8	SeqNo: 3	96277	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.050	1.000	0	96.4	80	120			
Toluene	0.97	0.050	1.000	0	96.6	80	120			
Ethylbenzene	0.99	0.050	1.000	0	98.9	80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		116	80	120			

Sample ID: 1310156-001AMS	SampT	SampType: MS TestCode: EPA Method 8021B: Volatiles					iles			
Client ID: SB-1 @ 3"	Batch	ID: 963	36	F	RunNo: 13	3860				
Prep Date: 10/3/2013	Analysis D	ate: 10	/4/2013	S	SeqNo: 39	96279	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	<b>RPDLimit</b>	Qual
Benzene	0.91	0.049	0.9718	0	94.0	67.3	145			
Toluene	0.93	0.049	0.9718	0	96.0	66.8	144			
Ethylbenzene	0.97	0.049	0.9718	0	99.5	61.9	153			
Xylenes, Total	3.0	0.097	2.915	0	103	65.8	149			
Surr: 4-Bromofluorobenzene	1.1		0.9718		116	80	120			

Sample ID: 1310156-001AMSD	SampT	ype: MS	D	Test	Code: EF	iles				
Client ID: SB-1 @ 3"	Batch	ID: 963	36	R	RunNo: 13	3860				
Prep Date: 10/3/2013	Analysis D	ate: 10	/4/2013	S	SeqNo: 39	96280	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	<b>RPDLimit</b>	Qual
Benzene	0.85	0.049	0.9737	0	87.0	67.3	145	7.64	20	
Toluene	0.85	0.049	0.9737	0	87.4	66.8	144	9.23	20	
Ethylbenzene	0.88	0.049	0.9737	0	90.2	61.9	153	9.53	20	
Xylenes, Total	2.8	0.097	2.921	0	94.3	65.8	149	8.66	20	
Surr: 4-Bromofluorobenzene	1.1		0.9737		114	80	120	0	0	

#### Qualifiers:

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

Page 8 of 8



Hau Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

#### Sample Log-In Check List

Client Name: SMA-FARM	Work Order Number:	1310156		RcptNo:	1
Received by/date:	100/13				
Logged By: Michelle Garcla	10/2/2013 10:00:00 AM		Michaelle Gan	uie	
Completed By: Michelle Garcia	10/3/2013 8:42\31 AM		Michael Gan	un	
Reviewed By:	10/03/13				
Chain of Custody	1 1				
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			
<u>Log In</u>					
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	y 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 broke	n?	Yes	No 🗹	# of preserved	
40		づ	N 🗆	bottles checked	
12.Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No L	for pH: (<2 or	>12 unless noted)
13. Are matrices correctly identified on Chain of	Custody?	Yes 🗸	No 🗌	Adjusted?	
14. Is it clear what analyses were requested?		Yes 🗸	No 🗆		
15. Were all holding times able to be met?		Yes 🗸	No 🗆	Checked by:	
(If no, notify customer for authorization.)				*	
Special Handling (if applicable)					
16. Was client notified of all discrepancies with the	nis order?	Yes	No 🗹	NA 🗆	
Person Notified:	Date:	year-1			
By Whom:	Via:	eMail	Phone Fax	☐ In Person	
Regarding:					
Client Instructions:		A COMMO	MARKAT AND		
17. Additional remarks:					,
18. Cooler Information  Cooler No Temp °C Condition Se  1 1.0 Good Yes	<del></del>	eal Date	Signed By		

U	Cnain-of-Custody Record		stody Record	Turn-Around Time:									=	A I X	TE		BIB	415	8.175	A I	
Client:	5MA			☐ Standard	□ Rush			4,624	H										NTA	RY	
				Project Name	: Enterpais	e									nent						
Mailing	Address	: 2101	San Juan Blut.	Lan	teral K-3	34		49	01 H	lawki								109			
to	unning	ton Ma	n Rauni	Project #:						)5-34							4107				
Phone :	#: 505	325	n 87401 7535 e Soudavuiller.com	5	192104				Ha			CONTRACTOR OF	respond to box	COMPANIES.	Req	COLUMN TO	SCHOOL SECTION				
email o	r Fax#:	tom.long	e Soulovoiller.com	Project Mana	ger:		<u>-</u>	ly)	1					04)							
QA/QC	Package:		☐ Level 4 (Full Validation)		Thomas L	onej	TMB's (8021)	+ MTBE + TPH (Gas only)	8015B (GRO / DRO / WIRE)			SIMS)		PO4,S(	PCB's						
Accredi				Sampler: 7	TL		T T T	H	/ DF	=	=	70 8		NO2	3082					2	-
□ NEL		☐ Other	r		X Yes		1+	+ 1	SRO	418.	504	r 82	S	103,1	8/8		OA)			1	-
□ EDD	(Type)	Г		Sample Lemp	perature:		+ MTBE	TBE	B (C	pou	poq	100	/eta	C,N	icide	OA)	ni-V				Z.
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + M	BTEX + M	<b>TPH 8015</b>	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270	RCRA 8 N	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)				
10-1-13	1134	Soil	58-1@3'	402 Bar	cool	-001	X		×										T		-
		5	SB-2e3'		1	-062	Y		4												-
	1136	7	56-303'			-003	×		¥											11	_
	1142		SB-403'			-004	X		×										1		_
V	1145	1	56-503'	1	V	-005	Y		X												_
		-																	+	-	-
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											7								+	+	_
Date:	Time:	Relinquishe	Moranon Lann	Received by:	1 1-	Date Time 10/1/13 1700	Ren	nark	s:	Bi	11	7	0 6	Ente	ops.	se					
Date:	[700] Time:	Relinquishe	ed by:	Received by:	n Well	Date Time									/						
1/1/13	1740	/Thu	sthe Walter	F	2 10/9	02/13 10:1	DI	)_													

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.

Form C-141 Revised April 3, 2017

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

MAD no 2010

				Sa	nta F	e, NM 87	505		MAI	1 09 2	(010			
		F	Releas	e Notific	atio	n and C	orrective	Acti	onisti	RICT	111			
					OF	PERATO	3		] Initial F	Report	$\boxtimes$	Final Repor		
				vices, LLC			omas Long							
Address 61							No. <b>505-599-</b>							
Facility Na	me Lindrit	h Compre	ssor Sta	tion		Facility Typ	e Natural Ga	s Com	pressor	Station				
Surface Ov	vner <b>Jicar</b>	illa Apache	e Tribe	Mineral (	Owner	Jicarilla A	pache Tribe		Serial Nu	mber:				
				LOCA	OITA	ION OF RELEASE								
Unit Letter I	Section 18	Township 24N	Range 5W	Feet from the 1707	Nort Line	South	Feet from the 735	East/ Line	Vest	County Rio Arr	iba			
		La	atitude 3		gitude 107.395614 NAD83									
Type of Rele	assa: Cond	ancate and F	Produced \		UKE	OF RELI	FRelease 10-1	5	Volume F	Recovere	d None			
		2		, vater		BBLs of	Condensate/W	ater						
Source of R			Vent Pipe			9/27/2017	Hour of Occurry @ 8:30 a.m.		Date and 9/27/2017	7 @ 8:30	a.m.			
Was Immed	iate Notice	Given?	☐ Yes	□ No ⊠ N	Not	If YES, To Sandoval	Whom? : Noti - JAEPO	fication	to Vanessa	a Fields -	- NMOC	CD; Hobson		
Required														
By Whom?	Thomas Lor	ng					Hour 10/12/201							
Was a Wate	ercourse Re		☐ Yes	⊠ No		If YES, Vo	olume Impacting	g the Wa	atercourse					
If a Waterco														
	down vent p	ipe during E	SD testing	. Upon receip			017, condensat ysis, Enterprise							
produced wapproximate transported "Final" C-14	vater. The ely 112 feet to a New M 1.	e contamina long by 70 exico Oil Co	nt mass feet by 2 f nservation	was removed feet deep. A n Division app	d by r pproxin roved la	nechanical nately 342 c and farm fac	ubic yards of h ility. A third pa	The fire	nal excava bon impac ective actio	ation din ted soil v on report	nension were ex is inclu	s measured cavated and ded with this		
rules and re which may e relieve the o ground water	gulations all endanger pu perator of li er, surface v	l operators a ublic health of ability should vater, humar	ire require or the envir d their ope n health or	d to report and conment. The trations have f the environme	d/or file accept failed to ent. In	certain releadance of a Conductely addition, NM	st of my knowled ase notifications 141 report by the investigate and MOCD acceptar aws and/or regu	s and per he NMC d remed nce of a	erform corre CD marke iate contan	ective ac d as "Fir nination	tions fo al Repo that pos	r releases ort" does not se a threat to		
	//	6					OIL CON	SER\	/ATION	DIVIS	ION			
Signature:	M	1. Lu	4											
Printed Nam	ne: Jon E. F	ields			Approved by Environmental Specialist:									
Title: Directo	or, Environn	nental			Approval Date: Expiration Date:									
E-mail Addr	ess: jefields	@eprod.con	n		Conditions of Approval:									
Date: 3/5/208 Phone: (713) 381-						Attached								

6684

NVF1728530935

<sup>\*</sup> Attach Additional Sheets If Necessary



#### **CORRECTIVE ACTION REPORT**

Property:

Lindrith Compressor Station Vent Stack Release (2017) SE ¼, S18 T24N R5W Rio Arriba County, New Mexico

> February 5, 2018 Apex Project No. 725040112345

> > Prepared for:

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

Prepared by:

Ranee Deechilly Project Scientist

Kyle Summers, CPG

Branch Manager / Senior Project

Manager

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#### **CORRECTIVE ACTION REPORT**

#### Lindrith Compressor Station Vent Stack Release (2017) SE ¼, S18 T24N R5W Rio Arriba County, New Mexico

Apex Project No. 725040112345

#### 1.0 INTRODUCTION

#### 1.1 Site Description & Background

The Enterprise Field Services, LLC (Enterprise) Lindrith Compressor Station is located off Jicarilla Road J-36, approximately 7.2 miles west of State Highway 537, in the southeast (SE) ¼ of Section 18, Township 24 North, Range 5 West (36.310191N, 107.395616W), Rio Arriba County, Jicarilla Apache Nation, New Mexico, referred to hereinafter as the "Site". The Site is a natural gas compressor station utilized to dehydrate and compress natural gas collected from production wells in the area for transportation via pipeline. The Site was constructed in the 1950s and currently includes three (3) compressor engines, a dehydration unit, one (1) bullet storage tank, a condensate storage tank battery (which includes eight (8) condensate storage tanks), one (1) below-grade tank, inlet scrubbers, an out-of-service water tower, and office/shop buildings.

On September 27, 2017, a release was identified at the Lindrith Compressor Station vent stack. On October 26, 2017, Enterprise initiated corrective action activities to remediate potential petroleum hydrocarbon impact resulting from 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 constituent of concern (COC) concentrations in the on-Site soils to below the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD) Remediation Action Levels (RALs) using the New Mexico EMNRD OCD's Guidelines for Remediation of Leaks, Spills and Releases as guidance.

#### 2.0 SITE RANKING

The Site is under the jurisdiction of the Jicarilla Apache Nation Environmental Protection Office (JANEPO) and the New Mexico EMNRD OCD. In the absence of published JANEPO regulatory guidance, Apex TITAN Inc. (Apex) references the New Mexico ENMRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases*. Apex utilized the general site characteristics obtained during the completion of corrective action activities and information available from the 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:



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

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

- The depth to the initial groundwater-bearing zone is <50 feet below surface grade (bgs), based on groundwater monitoring wells at the Site, resulting in a ranking score of "20" for depth to groundwater.
- No water source wells (municipal/community wells) were identified within 1,000 feet of the Site. A livestock well that is currently used to supply a stock pond that is located approximately 850 feet southeast of the Site. These proximities result in a wellhead protection area ranking score of "0".
- The release point is located approximately 4,485 feet from Largo Wash, and approximately 850 feet from the stock pond and livestock well, resulting in a distance to surface water ranking score of "10".

Based on the site ranking, the New Mexico EMNRD OCD *RALs* for soils located at the Site include: 10 milligrams per kilogram (mg/kg) for benzene, 50 mg/kg for total benzene, toluene, ethylbenzene, and total xylenes (BTEX) and 100 mg/kg for combined total petroleum hydrocarbon (TPH) gasoline range organics (GRO) diesel range organics (DRO) and motor oil/lube oil range organics (MRO).

#### 3.0 RESPONSE ACTIONS

#### 3.1 Soil Excavation Activities

On October 26, 2017, Enterprise initiated corrective action activities to remediate potential petroleum hydrocarbon impact resulting from the release. During the corrective action activities, Halo Services, Inc., provided heavy equipment and labor support, and Apex provided environmental consulting support.

The affected area was excavated to approximately one (1) to two (2) feet bgs. On October 30, 2017, 13 composite soil samples (CS-1 through CS-13) were collected from the base and sidewalls of the excavation for laboratory analysis. On October 31, 2017, five (5) additional composite soil samples (CS-14 through CS-16) were collected for laboratory analysis. Soils



directly beneath the vent stack are potentially impacted, but were not removed due to concerns by Enterprise engineers regarding the structural stability of the planned vent stack modifications.

The overall final excavation measured approximately 112 feet long by 70 feet wide at the maximum extents. The maximum depth of the excavation was approximately two (2) feet bgs.

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

A total of approximately 342 cubic yards of petroleum hydrocarbon affected soils were transported to the Envirotech landfarm (Envirotech) near Hilltop, New Mexico for disposal/remediation. The executed C-138 solid waste acceptance form is provided in **Appendix B**. The excavation was backfilled with imported fill and contoured to surrounding grade.

**Figure 3** is a map with soil sample locations that depicts the approximate location of the excavated area in relation to the vent stack (**Appendix A**). Photographic documentation of the field activities is included in **Appendix C**.

#### 3.2 Soil Sampling Program

Apex field screened soil samples from the excavation utilizing a photoionization detector (PID) fitted with a 10.6 eV lamp and a calibrated Dexsil PetroFLAG® hydrocarbon analyzer system to quide excavation extents.

Apex's soil sampling program included the collection of 18 composite soil samples (CS-1 through CS-18) from the excavation.

The soil samples were collected and placed in laboratory prepared glassware, labeled/sealed using laboratory supplied custody seals, and stored on ice in a cooler. The samples were relinquished to the courier for Hall Environmental Analysis Laboratory of Albuquerque, New Mexico under proper chain-of-custody procedures.

#### 3.3 Laboratory Analytical Methods

The composite soil samples were analyzed for BTEX using EPA SW-846 Method #8021, and TPH GRO/DRO/MRO using EPA SW-846 Method #8015.

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

#### 4.0 DATA EVALUATION

The Site is subject to regulatory oversight by JANEPO and the New Mexico EMNRD OCD. In the absence of published JANEPO regulatory guidance, Apex referenced the New Mexico ENMRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the New Mexico EMNRD 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 Soil Samples

Apex compared the BTEX and TPH concentrations or practical quantitation limits (PQLs) associated with the composite soil samples to the New Mexico EMNRD OCD *RALs* for sites having a total ranking score of "30".

- The laboratory analyses of composite soil samples collected from soils remaining in place, potentially excluding soils directly beneath the vent stack, do not indicate benzene concentrations above the PQLs, which are below the New Mexico EMNRD OCD RAL of 10 milligrams per kilogram (mg/kg).
- The laboratory analyses of the composite soil samples from soils remaining in place, excluding soils directly beneath the vent stack, do not indicate total BTEX concentrations above the PQLs, which are below the New Mexico EMNRD OCD RAL of 50 mg/kg.
- The laboratory analyses of the composite soil samples from soils remaining in place, excluding soils directly beneath the vent stack, do not indicate combined TPH GRO/DRO/MRO concentrations above the PQLs, which are below the New Mexico EMNRD OCD RAL of 100 mg/kg.

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

#### 5.0 FINDINGS AND RECOMMENDATIONS

The Enterprise Lindrith Compressor Station is located off Jicarilla Road J-36, approximately 7.2 miles west of State Highway 537, in the SE ¼ of Section 18, Township 24 North, Range 5 West, Rio Arriba County, Jicarilla Apache Nation, New Mexico. The Site is a natural gas compressor station utilized to dehydrate and compress natural gas collected from production wells in the area for transportation via pipeline. The Site was constructed in the 1950s and currently includes three (3) compressor engines, a dehydration unit, one (1) bullet storage tank, a condensate storage tank battery (which includes eight (8) condensate storage tanks), one (1) below-grade tank, inlet scrubbers, an out-of-service water tower, and office/shop buildings.

On September 27, 2017, a release was identified at the Lindrith Compressor Station vent stack. On October 26, 2017, Enterprise initiated corrective action activities to remediate potential petroleum hydrocarbon impact resulting from the release.

- The primary objective of the corrective actions was to reduce COC concentrations 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 112 feet long by 70 feet wide at the maximum extents. The maximum depth of the excavation was approximately two (2) feet bgs.
- Prior to backfilling, 18 composite soil samples were collected for laboratory analyses.
   Based on analytical results, soils remaining in place, potentially excluding soils directly



beneath the vent stack, do not exhibit BTEX or TPH GRO/DRO/MRO concentrations above the New Mexico EMNRD OCD *RALs* for a site ranking of "30".

- A total of approximately 342 cubic yards of soil were transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/remediation. The excavation was backfilled with imported fill and contoured to the approximate surrounding grade.
- Soils directly beneath the vent stack were not removed due to structural stability and safety concerns. Potentially impacted soils may be present beneath the structural supports of the vent stack.

Based on field observations and laboratory analytical results, no additional corrective action with respect to the excavated area of soil impact appears warranted at this time. Due to the shallow vertical penetration of the release liquids into the substrate, it also appears unlikely that the soils remaining in place beneath the structural supports of the vent stack pose a significant environmental threat.

#### 6.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

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

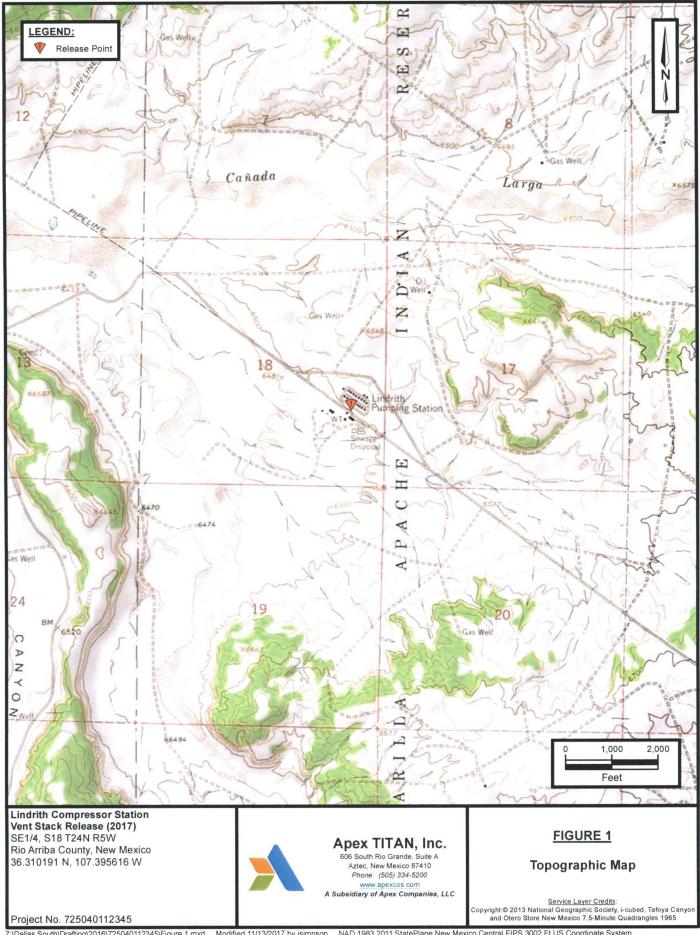
Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence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

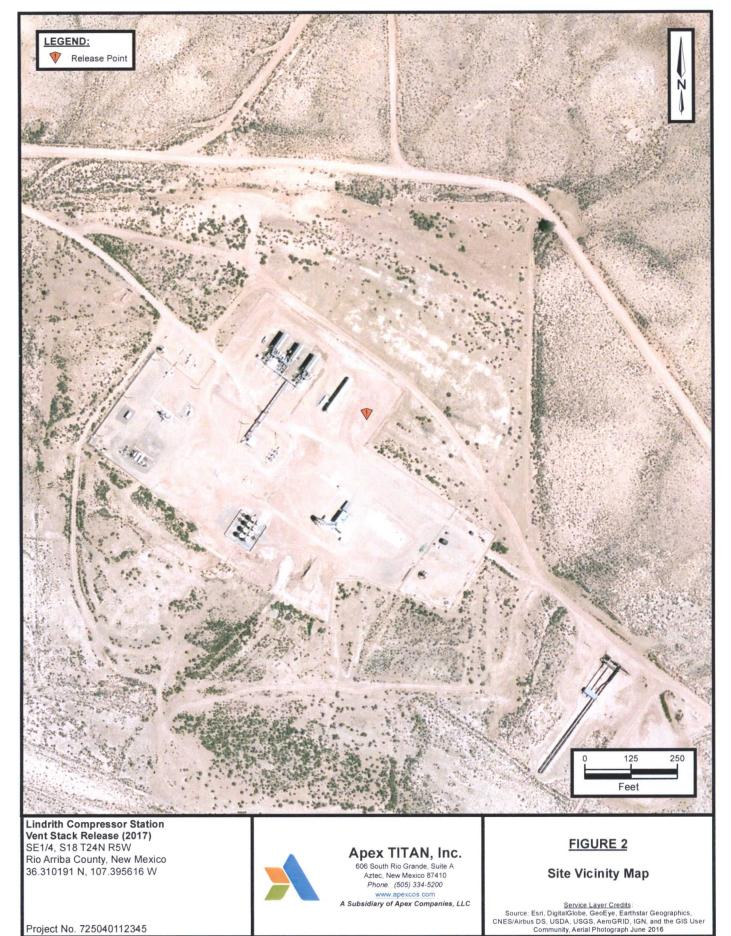
This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the expressed written authorization of Enterprise and Apex. Any unauthorized distribution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

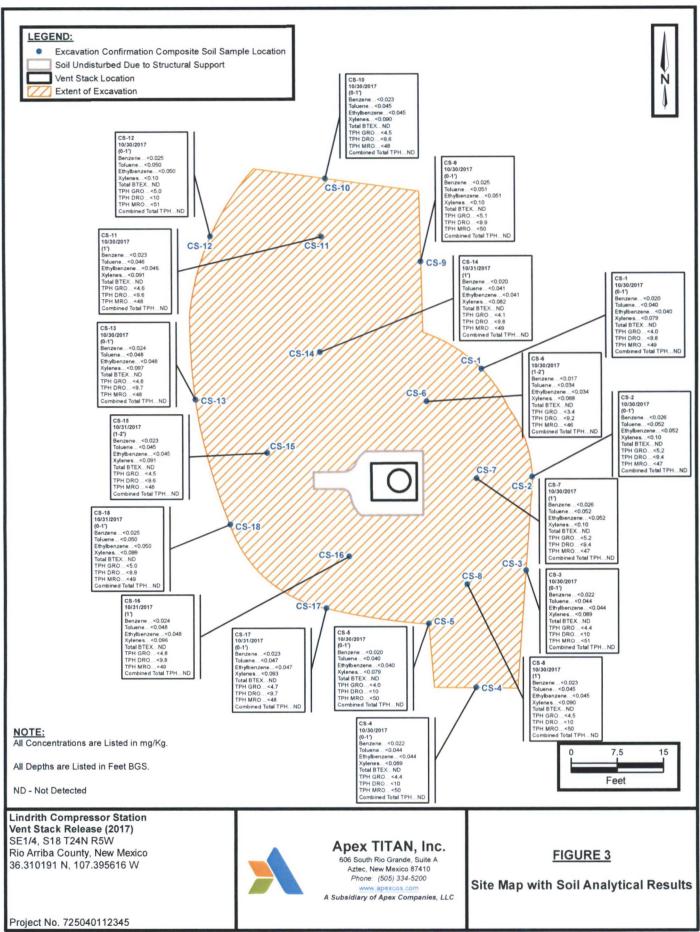


APPENDIX A

Figures









APPENDIX B

Executed C-138 Solid Waste Acceptance Form

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

### State of New Mexico Energy Minerals and Natural Resources

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

97057-0868 Form C-138 Revised August 1, 2011

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

## REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

111 6 111 111 111 111 111 111 111 111 1	-
<ol> <li>Generator Name and Address: Enterprise Field Services, LLC, 614 Reilly Avenue, Farmington, NM 87401</li> </ol>	
2. Originating Site: Lindrith Comopressor Station  Nov. 2017	
3. Location of Material (Street Address, City, State or ULSTR): UL I Section 18 T24N R 5W; 36.310191, -107.395614	
4. Source and Description of Waste: Hydrocarbon impacted soils associated with a release from a natural gas vent stack.	
Estimated Volume50yd³ bbls Known Volume (to be entered by the operator at the end of the haul)342yd³ bbls	
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS	
I, Thomas Long representative or authorized agent for Enterprise Field Services, LLC do hereby PRINT & SIGN NAME COMPANY NAME	
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 196 regulatory determination, the above described waste is: (Check the appropriate classification)	88
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 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. (Che 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	
1, 10-26-17 , representative for <u>Enterprise Field Services, LLC</u> authorize <u>Envirotech, Inc</u> . to complete the required <u>Generator Signature</u> testing/sign the Generator Waste Testing Certification.	
I,	les
5. Transporter: Poutzand Bursum Kelly O: I field, Riley, ACE, IMI, Envirotech, Halo	
OCD Permitted Surface Waste Management Facility  Name and Facility Permit #: Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011  Address of Facility: Hilltop, NM	
Method of Treatment and/or Disposal: ☐ Evaporation ☐ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other	
Waste Acceptance Status:  APPROVED  DENIED (Must Be Maintained As Permanent Record	
PRINT NAME: Greg Crabtiee  TITLE: Environmental Manager DATE: 11/7/17  SIGNATURE: Surface Waste Management Facility Authorized Agent	



APPENDIX C
Photographic Documentation





Lindrith Compressor Station Vent Stack Release (2017)

## Photograph 1

View of in-process excavation activities, facing northwest.



### Photograph 2

View of in-process excavation activities, facing southwest.



### Photograph 3

View of in-process excavation activities, facing northwest.







#### Lindrith Compressor Station Vent Stack Release (2017)

## Photograph 4

View of the final excavation, facing northwest.



## Photograph 5

View of the final excavation, facing south.



## Photograph 6

View of the final excavation, facing west.





APPENDIX D

Table



# TABLE 1 Lindrith Compressor Station Vent Stack Release (2017) SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Combined Total TPH (mg/kg)
		& Natural Resource n, Remediation Act		10	NE	NE	NE	50				100
			THE BUILDING THE	Name of the Party	Exca	vation Confirmation	Soil Samples					
CS-1	10.30.17	С	0 to 1	<0.020	<0.040	<0.040	< 0.079	ND	<4.0	<9.8	<49	ND
CS-2	10.30.17	С	0 to 1	<0.026	< 0.052	<0.052	<0.10	ND	<5.2	<9.4	<47	ND
CS-3	10.30.17	С	0 to 1	<0.022	<0.044	<0.044	<0.089	ND	<4.4	<10	<51	ND
CS-4	10.30.17	С	0 to 1	<0.022	<0.044	<0.044	<0.089	ND	<4.4	<10	<50	ND
CS-5	10.30.17	С	0 to 1	<0.020	<0.040	<0.040	< 0.079	ND	<4.0	<10	<50	ND
CS-6	10.30.17	С	1 to 2	< 0.017	< 0.034	<0.034	<0.068	ND	<3.4	<9.2	<46	ND
CS-7	10.30.17	С	1	<0.026	< 0.052	<0.052	<0.10	ND	<5.2	<9.4	<47	ND
CS-8	10.30.17	С	1	< 0.023	< 0.045	<0.045	< 0.090	ND	<4.5	<10	<50	ND
CS-9	10.30.17	С	0 to 1	< 0.025	< 0.051	<0.051	<0.10	ND	<5.1	<9.9	<50	ND
CS-10	10.30.17	С	0 to 1	< 0.023	<0.045	<0.045	< 0.090	ND	<4.5	<9.6	<48	ND
CS-11	10.30.17	С	1	<0.023	<0.046	<0.046	<0.091	ND	<4.6	<9.6	<48	ND
CS-12	10.30.17	С	0 to 1	<0.025	< 0.050	<0.050	<0.10	ND	<5.0	<10	<51	ND
CS-13	10.30.17	С	0 to 1	<0.024	<0.048	<0.048	<0.097	ND	<4.8	<9.7	<48	ND
CS-14	10.31.17	С	1	<0.020	<0.041	<0.041	<0.082	ND	<4.1	<9.8	<49	ND
CS-15	10.31.17	С	1 to 2	<0.023	<0.045	<0.045	< 0.091	ND	<4.5	<9.6	<48	ND
CS-16	10.31.17	С	1	<0.024	<0.048	<0.048	< 0.096	ND	<4.8	<9.8	<49	ND
CS-17	10.31.17	С	0 to 1	< 0.023	< 0.047	<0.047	< 0.093	ND	<4.7	<9.7	<48	ND
CS-18	10.31.17	С	0 to 1	< 0.025	< 0.050	<0.050	< 0.099	ND	<5.0	<9.9	<49	ND

ND = Not Detected above the Practical Quantitation Limits

NE = Not established

mg/kg = milligram per kilogram



Appendix E

Laboratory Data Sheets & Chain of Custody Documentation



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

November 02, 2017

Kyle Summers
APEX TITAN
606 S. Rio Grande Unit A

Aztec, NM 87410 TEL: (903) 821-5603

FAX

RE: Lindrith Vent Stack OrderNo.: 1710F58

### Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 13 sample(s) on 10/31/2017 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

#### Lab Order 1710F58

Date Reported: 11/2/2017

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: CS-1

 Project:
 Lindrith Vent Stack
 Collection Date: 10/30/2017 2:15:00 PM

 Lab ID:
 1710F58-001
 Matrix: MEOH (SOIL)
 Received Date: 10/31/2017 8:15:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS	3			Analyst	том
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	10/31/2017 1:00:22 PM	34718
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	10/31/2017 1:00:22 PM	34718
Surr: DNOP	87.0	70-130	%Rec	1	10/31/2017 1:00:22 PM	34718
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	10/31/2017 9:12:04 AM	G46774
Surr: BFB	79.5	15-316	%Rec	1	10/31/2017 9:12:04 AM	G46774
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst	NSB
Benzene	ND	0.020	mg/Kg	1	10/31/2017 9:12:04 AM	B46774
Toluene	ND	0.040	mg/Kg	1	10/31/2017 9:12:04 AM	B46774
Ethylbenzene	ND	0.040	mg/Kg	1	10/31/2017 9:12:04 AM	B46774
Xylenes, Total	ND	0.079	mg/Kg	1	10/31/2017 9:12:04 AM	B46774
Surr: 4-Bromofluorobenzene	88.7	80-120	%Rec	1	10/31/2017 9:12:04 AM	B46774

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

- \* 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
- PQL Practical Quanitative Limit
- 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 Page 1 of 18
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1710F58

Date Reported: 11/2/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT: APEX TITAN** Client Sample ID: CS-2

Collection Date: 10/30/2017 2:25:00 PM Project: Lindrith Vent Stack Lab ID: 1710F58-002 Matrix: MEOH (SOIL) Received Date: 10/31/2017 8:15:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	3			Analy	st: TOM
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	10/31/2017 11:04:29	AM 34718
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	10/31/2017 11:04:29	AM 34718
Surr: DNOP	91.5	70-130	%Rec	1	10/31/2017 11:04:29	AM 34718
EPA METHOD 8015D: GASOLINE RAN	NGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	5.2	mg/Kg	1	10/31/2017 9:35:29 A	M G46774
Surr: BFB	84.0	15-316	%Rec	1	10/31/2017 9:35:29 A	M G46774
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.026	mg/Kg	1	10/31/2017 9:35:29 A	AM B46774
Toluene	ND	0.052	mg/Kg	1	10/31/2017 9:35:29 A	M B46774
Ethylbenzene	ND	0.052	mg/Kg	1	10/31/2017 9:35:29 A	AM B46774
Xylenes, Total	ND	0.10	mg/Kg	1	10/31/2017 9:35:29 A	AM B46774
Surr: 4-Bromofluorobenzene	93.1	80-120	%Rec	1	10/31/2017 9:35:29 A	AM B46774

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

- 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
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 18
- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

#### Lab Order 1710F58

Date Reported: 11/2/2017

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Project: Lindrith Vent Stack

**Lab ID:** 1710F58-003

Client Sample ID: CS-3

**Collection Date:** 10/30/2017 2:35:00 PM

Matrix: MEOH (SOIL) Received Date: 10/31/2017 8:15:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS	3			Analy	st: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	10/31/2017 11:26:30	AM 34718
Motor Oil Range Organics (MRO)	ND	51	mg/Kg	1	10/31/2017 11:26:30	AM 34718
Surr: DNOP	88.8	70-130	%Rec	1	10/31/2017 11:26:30	AM 34718
EPA METHOD 8015D: GASOLINE RAN	IGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	4.4	mg/Kg	1	10/31/2017 9:58:54 A	AM G46774
Surr: BFB	81.8	15-316	%Rec	1	10/31/2017 9:58:54	AM G46774
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.022	mg/Kg	1	10/31/2017 9:58:54	AM B46774
Toluene	ND	0.044	mg/Kg	1	10/31/2017 9:58:54	AM B46774
Ethylbenzene	ND	0.044	mg/Kg	1	10/31/2017 9:58:54	AM B46774
Xylenes, Total	ND	0.089	mg/Kg	1	10/31/2017 9:58:54	AM B46774
Surr: 4-Bromofluorobenzene	91.9	80-120	%Rec	1	10/31/2017 9:58:54 A	AM B46774

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

- \* 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
- PQL Practical Quanitative Limit
- 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 Page 3 of 18
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1710F58

Date Reported: 11/2/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT: APEX TITAN** 

Client Sample ID: CS-4

Project: Lindrith Vent Stack

Collection Date: 10/30/2017 2:45:00 PM

Lab ID:

1710F58-004

Matrix: MEOH (SOIL)

Received Date: 10/31/2017 8:15:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS	1			Analys	st: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	10/31/2017 11:48:21 /	AM 34718
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	10/31/2017 11:48:21 /	AM 34718
Surr: DNOP	95.0	70-130	%Rec	1	10/31/2017 11:48:21	AM 34718
EPA METHOD 8015D: GASOLINE RAN	IGE				Analys	st: NSB
Gasoline Range Organics (GRO)	ND	4.4	mg/Kg	1	10/31/2017 10:22:21 /	AM G46774
Surr: BFB	82.3	15-316	%Rec	1	10/31/2017 10:22:21	AM G46774
EPA METHOD 8021B: VOLATILES					Analys	st: NSB
Benzene	ND	0.022	mg/Kg	1	10/31/2017 10:22:21	AM B46774
Toluene	ND	0.044	mg/Kg	1	10/31/2017 10:22:21	AM B46774
Ethylbenzene	ND	0.044	mg/Kg	1	10/31/2017 10:22:21	AM B46774
Xylenes, Total	ND	0.089	mg/Kg	1	10/31/2017 10:22:21	AM B46774
Surr: 4-Bromofluorobenzene	91.9	80-120	%Rec	1	10/31/2017 10:22:21	AM B46774

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits Page 4 of 18
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

#### Lab Order 1710F58

Hall Environmental Analysis Laboratory, Inc. Date Reported: 11/2/2017

**CLIENT: APEX TITAN** Client Sample ID: CS-5

Project: Lindrith Vent Stack Collection Date: 10/30/2017 2:55:00 PM Lab ID: 1710F58-005 Matrix: MEOH (SOIL) Received Date: 10/31/2017 8:15:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	i			Analy	st: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	10/31/2017 12:10:17	PM 34718
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	10/31/2017 12:10:17	PM 34718
Surr: DNOP	91.7	70-130	%Rec	1	10/31/2017 12:10:17	PM 34718
EPA METHOD 8015D: GASOLINE RAM	NGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	10/31/2017 10:45:52	AM G46774
Surr: BFB	85.0	15-316	%Rec	1	10/31/2017 10:45:52	AM G46774
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.020	mg/Kg	1	10/31/2017 10:45:52	AM B46774
Toluene	ND	0.040	mg/Kg	1	10/31/2017 10:45:52	AM B46774
Ethylbenzene	ND	0.040	mg/Kg	1	10/31/2017 10:45:52	AM B46774
Xylenes, Total	ND	0.079	mg/Kg	1	10/31/2017 10:45:52	AM B46774
Surr: 4-Bromofluorobenzene	94.7	80-120	%Rec	1	10/31/2017 10:45:52	AM B46774

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

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 5 of 18
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

#### Lab Order 1710F58

Date Reported: 11/2/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** APEX TITAN

Client Sample ID: CS-6

Project: Lindrith Vent Stack

Collection Date: 10/30/2017 3:05:00 PM

Lab ID: 1710F58-006

Matrix: MEOH (SOIL) Received Date: 10/31/2017 8:15:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS				Analy	yst: TOM
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	10/31/2017 12:32:10	PM 34718
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	10/31/2017 12:32:10	PM 34718
Surr: DNOP	90.1	70-130	%Rec	1	10/31/2017 12:32:10	PM 34718
EPA METHOD 8015D: GASOLINE RAN	IGE				Analy	yst: NSB
Gasoline Range Organics (GRO)	ND	3.4	mg/Kg	1	10/31/2017 11:09:15	AM G46774
Surr: BFB	82.0	15-316	%Rec	1	10/31/2017 11:09:15	AM G46774
EPA METHOD 8021B: VOLATILES					Analy	yst: NSB
Benzene	ND	0.017	mg/Kg	1	10/31/2017 11:09:15	AM B46774
Toluene	ND	0.034	mg/Kg	1	10/31/2017 11:09:15	AM B46774
Ethylbenzene	ND	0.034	mg/Kg	1	10/31/2017 11:09:15	AM B46774
Xylenes, Total	ND	0.068	mg/Kg	1	10/31/2017 11:09:15	AM B46774
Surr: 4-Bromofluorobenzene	92.4	80-120	%Rec	1	10/31/2017 11:09:15	AM B46774

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

- 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
- PQL Practical Quanitative Limit
- 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 Page 6 of 18
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## Analytical Report Lab Order 1710F58

Date Reported: 11/2/2017

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: CS-7

 Project:
 Lindrith Vent Stack
 Collection Date: 10/30/2017 3:15:00 PM

 Lab ID:
 1710F58-007
 Matrix: MEOH (SOIL)
 Received Date: 10/31/2017 8:15:00 AM

Analyses	Result	PQL Qu	al Units	DF Date Analyzed Batch	F	atch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	3		Analyst: TOM		ОМ
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1 10/31/2017 12:54:16 PM 34718		4718
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1 10/31/2017 12:54:16 PM 34718		4718
Surr: DNOP	92.6	70-130	%Rec	1 10/31/2017 12:54:16 PM 34718		4718
EPA METHOD 8015D: GASOLINE RANG	SE .			Analyst: NSB		SB
Gasoline Range Organics (GRO)	ND	5.2	mg/Kg	1 10/31/2017 11:32:41 AM G4677		46774
Surr: BFB	85.6	15-316	%Rec	1 10/31/2017 11:32:41 AM G4677		46774
EPA METHOD 8021B: VOLATILES				Analyst: NSB		SB
Benzene	ND	0.026	mg/Kg	1 10/31/2017 11:32:41 AM B4677		46774
Toluene	ND	0.052	mg/Kg	1 10/31/2017 11:32:41 AM B4677		46774
Ethylbenzene	ND	0.052	mg/Kg	1 10/31/2017 11:32:41 AM B4677		46774
Xylenes, Total	ND	0.10	mg/Kg	1 10/31/2017 11:32:41 AM B4677		46774
Surr: 4-Bromofluorobenzene	96.1	80-120	%Rec	1 10/31/2017 11:32:41 AM B4677		46774

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
- PQL Practical Quanitative Limit
- 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 Page 7 of 18
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1710F58

Date Reported: 11/2/2017

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: CS-8

 Project:
 Lindrith Vent Stack
 Collection Date: 10/30/2017 3:25:00 PM

 Lab ID:
 1710F58-008
 Matrix: MEOH (SOIL)
 Received Date: 10/31/2017 8:15:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	3			Analy	st: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	10/31/2017 1:16:11 P	M 34718
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	10/31/2017 1:16:11 P	M 34718
Surr: DNOP	89.4	70-130	%Rec	1	10/31/2017 1:16:11 P	M 34718
EPA METHOD 8015D: GASOLINE RAN	GE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	4.5	mg/Kg	1	10/31/2017 11:56:14	AM G46774
Surr: BFB	86.0	15-316	%Rec	1	10/31/2017 11:56:14	AM G46774
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.023	mg/Kg	1	10/31/2017 11:56:14	AM B46774
Toluene	ND	0.045	mg/Kg	1	10/31/2017 11:56:14	AM B46774
Ethylbenzene	ND	0.045	mg/Kg	1	10/31/2017 11:56:14	AM B46774
Xylenes, Total	ND	0.090	mg/Kg	1	10/31/2017 11:56:14	AM B46774
Surr: 4-Bromofluorobenzene	97.4	80-120	%Rec	1	10/31/2017 11:56:14	AM B46774

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

- 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
- PQL Practical Quanitative Limit
- 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 Page 8 of 18
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1710F58

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/2/2017

CLIENT: APEX TITAN Client Sample ID: CS-9

 Project:
 Lindrith Vent Stack
 Collection Date: 10/30/2017 3:35:00 PM

 Lab ID:
 1710F58-009
 Matrix: MEOH (SOIL)
 Received Date: 10/31/2017 8:15:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAM	IGE ORGANICS	;			Analy	st: TOM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	10/31/2017 1:38:22 P	M 34718
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	10/31/2017 1:38:22 F	M 34718
Surr: DNOP	93.3	70-130	%Rec	1	10/31/2017 1:38:22 F	M 34718
EPA METHOD 8015D: GASOLINE RA	NGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	5.1	mg/Kg	1	10/31/2017 12:19:49	PM G46774
Surr: BFB	85.0	15-316	%Rec	1	10/31/2017 12:19:49	PM G46774
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.025	mg/Kg	1	10/31/2017 12:19:49	PM B46774
Toluene	ND	0.051	mg/Kg	1	10/31/2017 12:19:49	PM B46774
Ethylbenzene	ND	0.051	mg/Kg	1	10/31/2017 12:19:49	PM B46774
Xylenes, Total	ND	0.10	mg/Kg	1	10/31/2017 12:19:49	PM B46774
Surr: 4-Bromofluorobenzene	94.5	80-120	%Rec	1	10/31/2017 12:19:49	PM B46774

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

- \* 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
- PQL Practical Quanitative Limit
- 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 Page 9 of 18
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1710F58

Date Reported: 11/2/2017

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: CS-10

 Project:
 Lindrith Vent Stack
 Collection Date: 10/30/2017 3:45:00 PM

 Lab ID:
 1710F58-010
 Matrix: MEOH (SOIL)
 Received Date: 10/31/2017 8:15:00 AM

Analyses	Result	PQL Qu	al Units	DF Da	te Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS	6			Analys	t: TOM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1 10	/31/2017 2:00:19 PM	И 34718
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1 10	/31/2017 2:00:19 PM	A 34718
Surr: DNOP	91.5	70-130	%Rec	1 10	/31/2017 2:00:19 PM	M 34718
EPA METHOD 8015D: GASOLINE RAN	IGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.5	mg/Kg	1 10	/31/2017 12:43:22 P	M G46774
Surr: BFB	83.4	15-316	%Rec	1 10	/31/2017 12:43:22 P	M G46774
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.023	mg/Kg	1 10	/31/2017 12:43:22 P	M B46774
Toluene	ND	0.045	mg/Kg	1 10	/31/2017 12:43:22 P	M B46774
Ethylbenzene	ND	0.045	mg/Kg	1 10	/31/2017 12:43:22 P	M B46774
Xylenes, Total	ND	0.090	mg/Kg	1 10	/31/2017 12:43:22 F	PM B46774
Surr: 4-Bromofluorobenzene	93.1	80-120	%Rec	1 10	/31/2017 12:43:22 P	PM B46774

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

- 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
- PQL Practical Quanitative Limit
- 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 Page 10 of 18
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1710F58

Date Reported: 11/2/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT: APEX TITAN** 

Client Sample ID: CS-11

Project: Lindrith Vent Stack

Collection Date: 10/30/2017 2:00:00 PM

**Lab ID:** 1710F58-011

Matrix: MEOH (SOIL) Received Date: 10/31/2017 8:15:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANICS				Analyst	ТОМ
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	10/31/2017 2:22:30 PM	34718
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	10/31/2017 2:22:30 PM	34718
Surr: DNOP	89.5	70-130	%Rec	1	10/31/2017 2:22:30 PM	34718
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	10/31/2017 9:59:41 AM	G46775
Surr: BFB	103	15-316	%Rec	1	10/31/2017 9:59:41 AM	G46775
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.023	mg/Kg	1	10/31/2017 9:59:41 AM	B46775
Toluene	ND	0.046	mg/Kg	1	10/31/2017 9:59:41 AM	B46775
Ethylbenzene	ND	0.046	mg/Kg	1	10/31/2017 9:59:41 AM	B46775
Xylenes, Total	ND	0.091	mg/Kg	1	10/31/2017 9:59:41 AM	B46775
Surr: 4-Bromofluorobenzene	102	80-120	%Rec	1	10/31/2017 9:59:41 AM	B46775

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

- 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
- PQL Practical Quanitative Limit
- 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 Page 11 of 18
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## Analytical Report Lab Order 1710F58

Date Reported: 11/2/2017

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: CS-12

 Project:
 Lindrith Vent Stack
 Collection Date: 10/30/2017 2:05:00 PM

 Lab ID:
 1710F58-012
 Matrix: MEOH (SOIL)
 Received Date: 10/31/2017 8:15:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	3			Analy	st: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	10/31/2017 2:44:31 P	M 34718
Motor Oil Range Organics (MRO)	ND	51	mg/Kg	1	10/31/2017 2:44:31 P	M 34718
Surr: DNOP	95.8	70-130	%Rec	1	10/31/2017 2:44:31 P	M 34718
EPA METHOD 8015D: GASOLINE RANG	GE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	10/31/2017 10:23:32	AM G46775
Surr: BFB	105	15-316	%Rec	1	10/31/2017 10:23:32	AM G46775
<b>EPA METHOD 8021B: VOLATILES</b>					Analy	st: NSB
Benzene	ND	0.025	mg/Kg	1	10/31/2017 10:23:32	AM B46775
Toluene	ND	0.050	mg/Kg	1	10/31/2017 10:23:32	AM B46775
Ethylbenzene	ND	0.050	mg/Kg	1	10/31/2017 10:23:32	AM B46775
Xylenes, Total	ND	0.10	mg/Kg	1	10/31/2017 10:23:32	AM B46775
Surr: 4-Bromofluorobenzene	103	80-120	%Rec	1	10/31/2017 10:23:32	AM B46775

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

- 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
- PQL Practical Quanitative Limit
- 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 Page 12 of 18
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Collection Date: 10/30/2017 2:10:00 PM

#### Lab Order 1710F58

Date Reported: 11/2/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT: APEX TITAN** Client Sample ID: CS-13

Project: Lindrith Vent Stack

Lab ID: 1710F58-013 Matrix: MEOH (SOIL) Received Date: 10/31/2017 8:15:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analy	st: TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	10/31/2017 3:06:36 P	M 34718
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	10/31/2017 3:06:36 P	M 34718
Surr: DNOP	95.6	70-130	%Rec	1	10/31/2017 3:06:36 P	M 34718
EPA METHOD 8015D: GASOLINE RANG	GE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/31/2017 10:47:25	AM G46775
Surr: BFB	105	15-316	%Rec	1	10/31/2017 10:47:25	AM G46775
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.024	mg/Kg	1	10/31/2017 10:47:25	AM B46775
Toluene	ND	0.048	mg/Kg	1	10/31/2017 10:47:25	AM B46775
Ethylbenzene	ND	0.048	mg/Kg	1	10/31/2017 10:47:25	AM B46775
Xylenes, Total	ND	0.097	mg/Kg	1	10/31/2017 10:47:25	AM B46775
Surr: 4-Bromofluorobenzene	103	80-120	%Rec	1	10/31/2017 10:47:25	AM B46775

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

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limit Page 13 of 18
- P Sample pH Not In Range
- RLReporting Detection Limit
- Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1710F58

02-Nov-17

Client: APEX TITAN
Project: Lindrith Vent Stack

Sample ID	LCS-34718	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
O!:4 ID:	1.000	D-+-1- ID: 04740	Dunkley 40707

Client ID: LCSS Batch ID: 34718 RunNo: 46767

Prep Date: 10/31/2017 Analysis Date: 10/31/2017 SeqNo: 1490982 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	93.0	73.2	114			

Surr: DNOP 4.2 5.000 84.6 70 130

Sample ID MB-34718	SampT	ype: ME	BLK	Test	Code: El	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: PBS	Batch	ID: 34	718	R	lunNo: 4	6767				
Prep Date: 10/31/2017	Analysis D	ate: 10	/31/2017	S	eqNo: 1	490986	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.6		10.00		85.8	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

PQL Practical Quanitative Limit

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

Page 14 of 18

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1710F58

02-Nov-17

Client: Project:	APEX TI	TAN Vent Stack									
Trojecti	Zindirin .	- Chi Stack									
Sample ID	RB	SampTy	pe: MB	BLK	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	е	
Client ID:	PBS	Batch	ID: <b>G4</b>	6775	F	RunNo: 4	6775				
Prep Date:		Analysis Da	ate: 10	/31/2017	5	SeqNo: 1	491516	Units: mg/k	<b>(</b> g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	ND 1000	5.0	1000		100	15	316			
Sample ID	2.5UG GRO CCV	SampTy	pe: LC	S	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	е	
Client ID:	LCSS	Batch	ID: <b>G4</b>	6775	F	RunNo: 4	6775				
Prep Date:		Analysis Da	ate: 10	/31/2017	5	SeqNo: 1	491517	Units: mg/k	<b>(</b> g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	26	5.0	25.00	0	103	75.9	131			
Surr: BFB		1100		1000		110	15	316			
Sample ID	RB	SampTy	/pe: ME	BLK	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	e	
Client ID:	PBS	Batch	ID: <b>G4</b>	6774	F	RunNo: 4	6774				
Prep Date:		Analysis Da	ate: 10	/31/2017	5	SeqNo: 1	491561	Units: mg/k	<b>(</b> g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	e Organics (GRO)	ND 830	5.0	1000		83.3	15	316			
Sample ID	2.5UG GRO LCS	SampTy	/pe: LC	S	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	e	
Client ID:	LCSS	Batch	ID: G4	6774	F	RunNo: 4	6774				
Prep Date:		Analysis Da	ate: 10	/31/2017	5	SeqNo: 1	491562	Units: mg/k	<b>(</b> g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	e Organics (GRO)	24	5.0	25.00	0	97.0	75.9	131			
Surr: BFB		950		1000		94.8	15	316			
Sample ID	1710F58-001AMS	SampTy	/pe: MS	3	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	e	
Client ID:	CS-1		ID: <b>G4</b>			RunNo: 4					
Prep Date:		Analysis Da	ate: 10	/31/2017	5	SeqNo: 1	491563	Units: mg/k	<b>(</b> g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	e Organics (GRO)	20	4.0	19.78	0	99.9	77.8	128			
Surr: BFB		750		791.1		94.5	15	316			
Sample ID	1710F58-001AMSI	O SampTy	/pe: MS	SD .	Tes	tCode: E	PA Method	8015D: Gaso	oline Rang	e	
Client ID:			ID: <b>G4</b>			RunNo: 4					
Prep Date:		Analysis Da				SeqNo: 1		Units: mg/k	(g		
100						(5)		3	_		

#### Qualifiers:

Analyte

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

Result

**PQL** 

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

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

Page 15 of 18

Qual

**RPDLimit** 

%RPD

P Sample pH Not In Range

SPK value SPK Ref Val %REC LowLimit

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

HighLimit

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1710F58 02-Nov-17

Client:

APEX TITAN

**Project:** 

Lindrith Vent Stack

Sample ID 1710F58-001AMSD SampType: MSD

TestCode: EPA Method 8015D: Gasoline Range

Client ID: CS-1

Batch ID: G46774

RunNo: 46774

Prep Date: Analysis Date: 10/31/2017 SeqNo: 1491564

Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.0	19.78	0	98.9	77.8	128	1.05	20	
Surr: BFB	770		791.1		97.9	15	316	0	0	

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

**PQL** Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Page 16 of 18

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1710F58

02-Nov-17

Client:	APEX TI										
Project:	Lindrith V	ent Stack	:								
Sample ID	RB	SampT	ype: ME	BLK	Test	Code: EF	PA Method	8021B: Volat	iles		
Client ID:	PBS	Batch	n ID: <b>B4</b>	6775	R	tunNo: 46	6775				
Prep Date:		Analysis D	ate: 10	0/31/2017	S	eqNo: 14	491539	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Brom	ofluorobenzene	1.0		1.000		100	80	120			
Sample ID	100NG BTEX LCS	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8021B: Volat	tiles		
Client ID:	LCSS	Batch	n ID: <b>B4</b>	6775	F	RunNo: 40	6775				
Prep Date:		Analysis D	Date: 10	0/31/2017	S	SeqNo: 14	491540	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.93	0.025	1.000	0	93.5	77.3	128			
Toluene		0.97	0.050	1.000	0	97.0	79.2	125			
Ethylbenzene		0.96	0.050	1.000	0	96.3	80.7	127			
Xylenes, Total		2.9	0.10	3.000	0	96.7	81.6	129			
Surr: 4-Brom	ofluorobenzene	1.1		1.000		106	80	120			
Sample ID	RB	SampT	уре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Sample ID Client ID:			ype: <b>ME</b> n ID: <b>B4</b>			tCode: EF		8021B: Vola	tiles		
			h ID: <b>B4</b>	6774	F		6774	8021B: Volati Units: mg/k			
Client ID:		Batch	h ID: <b>B4</b>	6774 0/31/2017	F	RunNo: 4	6774			RPDLimit	Qual
Client ID: Prep Date:		Batch Analysis D	h ID: <b>B4</b> Date: <b>1</b> (	6774 0/31/2017	F	RunNo: 40 SeqNo: 10	6774 491592	Units: mg/K	(g	RPDLimit	Qual
Client ID: Prep Date: Analyte		Batch Analysis D Result	n ID: <b>B4</b> Date: <b>1</b> (	6774 0/31/2017	F	RunNo: 40 SeqNo: 10	6774 491592	Units: mg/K	(g	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene		Batch Analysis D Result ND	PQL 0.025	6774 0/31/2017	F	RunNo: 40 SeqNo: 10	6774 491592	Units: mg/K	(g	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene Toluene		Batch Analysis D Result ND ND	PQL 0.025 0.050	6774 0/31/2017	F	RunNo: 40 SeqNo: 10	6774 491592	Units: mg/K	(g	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total		Batch Analysis D Result ND ND ND	PQL 0.025 0.050	6774 0/31/2017	F	RunNo: 40 SeqNo: 10	6774 491592	Units: mg/K	(g	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom	PBS	Result  ND  ND  ND  ND  ND  ND  ND  0.96	PQL 0.025 0.050	6774 0/31/2017 SPK value 1.000	SPK Ref Val	RunNo: 46 SeqNo: 16 %REC	6774 491592 LowLimit	Units: <b>mg/K</b> HighLimit	%RPD	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom	PBS	Result ND ND ND ND ND SD SampT	PQL 0.025 0.050 0.050 0.10	6774 0/31/2017 SPK value	SPK Ref Val	RunNo: 46 SeqNo: 16 %REC	6774 491592 LowLimit 80	Units: mg/K HighLimit	%RPD	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom	nofluorobenzene  100NG BTEX LCS	Result ND ND ND ND ND SD SampT	PQL 0.025 0.050 0.10 0.10 0.10 0.10 0.10 0.10 0.	1.000 SS 66774	SPK Ref Val  Tes	RunNo: 46 SeqNo: 16 %REC 96.1	6774 491592 LowLimit 80 PA Method 6774	Units: mg/K HighLimit	%RPD	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom  Sample ID Client ID:	nofluorobenzene  100NG BTEX LCS	Batch Analysis D Result ND ND ND ND SampT Batch Analysis D Result	PQL 0.025 0.050 0.10 0.10 0.10 0.10 0.10 0.10 0.	1.000 SS 6774 0/31/2017	SPK Ref Val  Tes	RunNo: 46 ReqNo: 16 ReqNo: 16 ReqNo: 46 ReqNo: 16 ReqNo: 16	80 PA Method 6774 491593 LowLimit	Units: mg/k HighLimit  120  8021B: Volate Units: mg/k HighLimit	%RPD	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom  Sample ID Client ID: Prep Date:	nofluorobenzene  100NG BTEX LCS	Batch Analysis D Result ND ND ND ND SampT Batch Analysis D	PQL 0.025 0.050 0.10 0.10   Type: LC h ID: B4	1.000 SS 6774 0/31/2017	SPK Ref Val  Tes	RunNo: 46 SeqNo: 16 %REC  96.1 tCode: ER RunNo: 46 SeqNo: 16	80 PA Method	Units: mg/K HighLimit  120  8021B: Volate Units: mg/K	%RPD		
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte	nofluorobenzene  100NG BTEX LCS	Batch Analysis D Result ND ND ND ND SampT Batch Analysis D Result	PQL 0.025 0.050 0.10 0.10 0.10 0.10 0.10 0.10 0.	1.000 SS 66774 D/31/2017 SPK value	Tes SPK Ref Val	RunNo: 46 ReqNo: 16 ReqNo: 16 ReqNo: 46 ReqNo: 16 ReqNo: 16	80 PA Method 6774 491593 LowLimit	Units: mg/k HighLimit  120  8021B: Volate Units: mg/k HighLimit	%RPD		
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom  Sample ID Client ID: Prep Date: Analyte Benzene	nofluorobenzene  100NG BTEX LCS	Result ND ND ND ND O.96  SampT Batcl Analysis D Result 0.93	PQL 0.025 0.050 0.10  Type: LC h ID: B4  PQL 0.025 0.050 0.10  PQL 0.025 0.050 0.10	1.000 SPK value 1.000 SS 66774 D/31/2017 SPK value 1.000	Tes SPK Ref Val  O	96.1 tCode: EF RunNo: 4/6 SeqNo: 1/6 ReqNo: 1/6 %REC 93.4	80 PA Method 6774 491593 LowLimit 77.3	Units: mg/k HighLimit  120  8021B: Volat  Units: mg/k HighLimit 128	%RPD		
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom  Sample ID Client ID: Prep Date: Analyte Benzene Toluene	nofluorobenzene  100NG BTEX LCS	Result ND ND ND ND O.96  SampT Batcl Analysis D Result 0.93 0.93	PQL 0.025 0.050 0.10 0.025 0.050 0.10 0.025 0.050 0.10 0.025 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050 0.050	1.000 SPK value 1.000 SS 66774 0/31/2017 SPK value 1.000 1.000	Tes SPK Ref Val  O 0	96.1 tCode: El RunNo: 4 8eqNo: 1 4 8eqNo: 1 %REC 93.4 92.8	80 PA Method 6774 491593 LowLimit 77.3 79.2	Units: mg/K HighLimit  120  8021B: Volat  Units: mg/K HighLimit 128 125	%RPD		
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte	nofluorobenzene  100NG BTEX LCS	Batch Analysis D Result ND ND ND ND SampT Batch Analysis D Result	PQL 0.025 0.050 0.10 0.10 0.10 0.10 0.10 0.10 0.	1.000 SS 66774 D/31/2017 SPK value	Tes SPK Ref Val	RunNo: 46 ReqNo: 16 ReqNo: 16 ReqNo: 46 ReqNo: 16 ReqNo: 16	80 PA Method 6774 491593 LowLimit	Units: mg/k HighLimit  120  8021B: Volate Units: mg/k HighLimit	%RPD		

#### 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

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 17 of 18

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1710F58

02-Nov-17

Client: APEX TITAN

Project: Lindrith Vent Stack

Sample ID 1710F58-002AMS	SampT	ype: MS	3	Tes	TestCode: EPA Method 8021B: Volatiles							
Client ID: CS-2	Batch	Batch ID: <b>B46774</b> RunNo.					46774					
Prep Date:	Analysis D	ate: 10	)/31/2017	S	eqNo: 1	491594	Units: mg/K	g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	1.3	0.026	1.046	0	121	80.9	132					
Toluene	1.3	0.052	1.046	0.007845	119	79.8	136					
Ethylbenzene	1.2	0.052	1.046	0	119	79.4	140					
Xylenes, Total	3.7	0.10	3.138	0	119	78.5	142					
Surr: 4-Bromofluorobenzene	1.0		1.046		95.2	80	120					

Sample ID 1710F58-002AM	SD SampT	ype: MS	SD	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: CS-2	Batch	Batch ID: <b>B46774</b> RunNo: <b>46774</b>								
Prep Date:	Analysis D	ate: 10	0/31/2017	S	SeqNo: 1	491613	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.026	1.046	0	118	80.9	132	2.31	20	
Toluene	1.2	0.052	1.046	0.007845	117	79.8	136	1.92	20	
Ethylbenzene	1.2	0.052	1.046	0	115	79.4	140	3.64	20	
Xylenes, Total	3.7	0.10	3.138	0	117	78.5	142	2.00	20	
Surr: 4-Bromofluorobenzene	1.0		1.046		95.8	80	120	0	0	

#### 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

PQL Practical Quanitative Limit

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

Page 18 of 18

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified



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	er: 1710F58		RcptNo:	1
Received By:	Richie Eriacho	10/31/2017 8:15:00	AM	12-6		
Completed By	. Ashley Gallego	s 10/31/2017 8:39:18	AM	A		
Reviewed By:	ENM	10/31/17		V		
Chain of Cu	stody					
1. Custody s	eals intact on sample	e bottles?	Yes	No	Not Present	
2. Is Chain o	of Custody complete?		Yes 🗹	No 🗌	Not Present	
3. How was	the sample delivered	?	Courier			
Log In						
_	ttempt made to cool	the samples?	Yes 🗹	No 🗆	NA 🗆	
5. Were all s	samples received at a	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 in	dicated test(s)?	Yes 🗸	No 🗆		
8. Are samp	les (except VOA and	ONG) properly preserved?	Yes 🗹	No 🗌		
9. Was pres	ervative added to bo	ttles?	Yes	No 🗹	NA 🗆	
10.VOA vials	have zero headspace	ee?	Yes 🗌	No 🗔	No VOA Vials ✓	
	sample containers		Yes 🗆	No 🗹		
	•				# of preserved bottles checked	
12.Does pap	erwork match bottle	abels?	Yes 🗸	No 🗌	for pH:	
	crepancies on chain			N. 🗆	(<2 or Adjusted?	>12 unless noted)
		d on Chain of Custody?	Yes ✓	No 🗔		
	what analyses were nolding times able to		Yes 🗹	No 🗆	Checked by:	
	ify customer for auth		Tes 💌	140		
Special Ha	ndling (if applica	able)				
16. Was clier	t notified of all discre	pancies with this order?	Yes 🗆	No 🗆	NA 🗹	
Per	son Notified:	Date				
Ву	Whom:	Via:	eMail	Phone  Fax	in Person	
Reg	arding:					
Clie	nt Instructions:					
17. Additions	ıl remarks:					
18. Cooler la						
Coole		ondition   Seal Intact   Seal No od   Yes	Seal Date	Signed By		
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Proj.	No.	74.66	Proje	ect Na		0400		/	No/T	ype of C	ontain	ers		1	41/	10	/ /			/ /	/ /			
705	04010	3415		red,	inth U	ent Sta	ek							1	4	9//				/ /				
Matrix	Date	Time	CoEp	Grab	Identifying Mar	ks of Sample(s)	Start	End Depth	VOA	A/G	250 ml	Glass	P/0		100			//	/ /			Lab S	Sample ID	(Lab Use Only)
5	10/30/17	1415	X		CS-							1		X	X						1-	710	F58	3-001
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Matrix Contai		W - Wastewa OA - 40 ml vis			W - Water S A/G - Amber / Or	- Soil SD - Sol Glass 1 Liter		- Liquio	d A	- Air Ba	g uth			rcoal to		SL - sl	ludge	(	) - OII					

																						CHA	AIN O	F (	CUSTODY REC	ORE
,	A														AN	ALYS	IS	/	/ /	1	1		/ /		Lab use only	
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Matrix	Dat	te	Time	CoEp	Grab	Identifying Ma	arks of Sample(s)	Start	End	VOA	A/G	250 ml	Glass	P/0	Q	MOL	/ /		//				La	ab Sa	ample ID (Lab Use Onl	y)
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Matrix Contain	ner		V - Wastewa A - 40 ml via			W - Water A/G - Amber / O	S - Soil SD - Soil or Glass 1 Liter				- Air Ba				rcoal tu		SL - slu	dge	0	- Oil						

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

OrderNo.: 1711002

November 02, 2017

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

FAX

RE: Lindrith Vent Stack

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 5 sample(s) on 11/1/2017 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Lab Order 1711002

Date Reported: 11/2/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT: APEX TITAN** 

Project: Lindrith Vent Stack

1711002-001 Lab ID:

Client Sample ID: CS-14

Collection Date: 10/31/2017 9:50:00 AM

Received Date: 11/1/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	3			Analys	t: TOM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/1/2017 12:49:51 PM	И 34734
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/1/2017 12:49:51 PM	M 34734
Surr: DNOP	92.7	70-130	%Rec	1	11/1/2017 12:49:51 PM	M 34734
EPA METHOD 8015D: GASOLINE RAN	NGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.1	mg/Kg	1	11/1/2017 9:07:30 AM	34720
Surr: BFB	84.1	15-316	%Rec	1	11/1/2017 9:07:30 AM	34720
<b>EPA METHOD 8021B: VOLATILES</b>					Analys	t: NSB
Benzene	ND	0.020	mg/Kg	1	11/1/2017 9:07:30 AM	34720
Toluene	ND	0.041	mg/Kg	1	11/1/2017 9:07:30 AM	34720
Ethylbenzene	ND	0.041	mg/Kg	1	11/1/2017 9:07:30 AM	34720
Xylenes, Total	ND	0.082	mg/Kg	1	11/1/2017 9:07:30 AM	34720
Surr: 4-Bromofluorobenzene	92.1	80-120	%Rec	1	11/1/2017 9:07:30 AM	34720

Matrix: SOIL

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

#### Lab Order 1711002

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/2/2017

CLIENT: APEX TITAN Client Sample ID: CS-15

 Project:
 Lindrith Vent Stack
 Collection Date: 10/31/2017 10:00:00 AM

 Lab ID:
 1711002-002
 Matrix: SOIL
 Received Date: 11/1/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANICS	3			Analyst	TOM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/1/2017 11:21:30 AM	34734
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/1/2017 11:21:30 AM	34734
Surr: DNOP	93.1	70-130	%Rec	1	11/1/2017 11:21:30 AM	34734
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.5	mg/Kg	1	11/1/2017 9:31:10 AM	34720
Surr: BFB	83.9	15-316	%Rec	1	11/1/2017 9:31:10 AM	34720
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.023	mg/Kg	1	11/1/2017 9:31:10 AM	34720
Toluene	ND	0.045	mg/Kg	1	11/1/2017 9:31:10 AM	34720
Ethylbenzene	ND	0.045	mg/Kg	1	11/1/2017 9:31:10 AM	34720
Xylenes, Total	ND	0.091	mg/Kg	1	11/1/2017 9:31:10 AM	34720
Surr: 4-Bromofluorobenzene	93.6	80-120	%Rec	1	11/1/2017 9:31:10 AM	34720

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

- \* 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
- PQL Practical Quanitative Limit
- 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 Page 2 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1711002

Date Reported: 11/2/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT: APEX TITAN** 

Client Sample ID: CS-16

Project: Lindrith Vent Stack

Collection Date: 10/31/2017 10:10:00 AM

Lab ID:

1711002-003

Matrix: SOIL

Received Date: 11/1/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	1			Analys	t: TOM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/1/2017 11:43:32 AM	1 34734
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/1/2017 11:43:32 AM	1 34734
Surr: DNOP	91.8	70-130	%Rec	1	11/1/2017 11:43:32 AM	1 34734
EPA METHOD 8015D: GASOLINE RAN	GE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/1/2017 9:54:48 AM	34720
Surr: BFB	85.5	15-316	%Rec	1	11/1/2017 9:54:48 AM	34720
<b>EPA METHOD 8021B: VOLATILES</b>					Analys	t: NSB
Benzene	ND	0.024	mg/Kg	1	11/1/2017 9:54:48 AM	34720
Toluene	ND	0.048	mg/Kg	1	11/1/2017 9:54:48 AM	34720
Ethylbenzene	ND	0.048	mg/Kg	1	11/1/2017 9:54:48 AM	34720
Xylenes, Total	ND	0.096	mg/Kg	1	11/1/2017 9:54:48 AM	34720
Surr: 4-Bromofluorobenzene	93.9	80-120	%Rec	1	11/1/2017 9:54:48 AM	34720

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Holding times for preparation or analysis exceeded H
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 3 of 8 J
- P Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

### Lab Order 1711002

Hall Environmental Analysis Laboratory, Inc. Date Reported: 11/2/2017

**CLIENT: APEX TITAN** Client Sample ID: CS-17

Project: Lindrith Vent Stack Collection Date: 10/31/2017 10:20:00 AM Lab ID: 1711002-004 Matrix: SOIL Received Date: 11/1/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS	3			Analys	t: TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/1/2017 12:05:40 PM	1 34734
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/1/2017 12:05:40 PM	1 34734
Surr: DNOP	92.8	70-130	%Rec	1	11/1/2017 12:05:40 PM	1 34734
EPA METHOD 8015D: GASOLINE RAM	NGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/1/2017 10:18:26 AM	A 34720
Surr: BFB	85.3	15-316	%Rec	1	11/1/2017 10:18:26 AM	A 34720
<b>EPA METHOD 8021B: VOLATILES</b>					Analys	t: NSB
Benzene	ND	0.023	mg/Kg	1	11/1/2017 10:18:26 AM	A 34720
Toluene	ND	0.047	mg/Kg	1	11/1/2017 10:18:26 AM	1 34720
Ethylbenzene	ND	0.047	mg/Kg	1	11/1/2017 10:18:26 AM	1 34720
Xylenes, Total	ND	0.093	mg/Kg	1	11/1/2017 10:18:26 AM	A 34720
Surr: 4-Bromofluorobenzene	95.6	80-120	%Rec	1	11/1/2017 10:18:26 AM	1 34720

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

- 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
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 4 of 8 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

### Lab Order 1711002

Date Reported: 11/2/2017

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT: APEX TITAN** Client Sample ID: CS-18

Collection Date: 10/31/2017 10:30:00 AM Project: Lindrith Vent Stack Received Date: 11/1/2017 7:00:00 AM Lab ID: 1711002-005 Matrix: SOIL

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RAM	IGE ORGANICS	3			Analyst	: ТОМ
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/1/2017 12:27:41 PM	34734
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/1/2017 12:27:41 PM	34734
Surr: DNOP	92.1	70-130	%Rec	1	11/1/2017 12:27:41 PM	34734
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/1/2017 10:42:07 AM	34720
Surr: BFB	85.9	15-316	%Rec	1	11/1/2017 10:42:07 AM	34720
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.025	mg/Kg	1	11/1/2017 10:42:07 AM	34720
Toluene	ND	0.050	mg/Kg	1	11/1/2017 10:42:07 AM	34720
Ethylbenzene	ND	0.050	mg/Kg	1	11/1/2017 10:42:07 AM	34720
Xylenes, Total	ND	0.099	mg/Kg	1	11/1/2017 10:42:07 AM	34720
Surr: 4-Bromofluorobenzene	93.7	80-120	%Rec	1	11/1/2017 10:42:07 AM	34720

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

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 5 of 8 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

# **OC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1711002

02-Nov-17

Client:

APEX TITAN

Lindrith Vent Stack Project:

Sample ID LCS-34734 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics Client ID: LCSS Batch ID: 34734 RunNo: 46793

Prep Date: 11/1/2017 Analysis Date: 11/1/2017 SeqNo: 1492094 Units: mg/Kg

%RPD **RPDLimit** Analyte Result PQL SPK value SPK Ref Val %REC HighLimit LowLimit Qual Diesel Range Organics (DRO) 46 10 50.00 92.0 73.2 114

70 Surr: DNOP 5.000 81.9 4.1 130

Sample ID MB-34734 TestCode: EPA Method 8015M/D: Diesel Range Organics SampType: MBLK Client ID: PBS Batch ID: 34734 RunNo: 46793 Prep Date: 11/1/2017 Analysis Date: 11/1/2017 SeqNo: 1492095 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Diesel Range Organics (DRO) ND 10

Motor Oil Range Organics (MRO) ND 50

Surr: DNOP 8.8 10.00 87.7 70 130

### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

**PQL** Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 6 of 8

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1711002

02-Nov-17

Client: APEX TITAN
Project: Lindrith Vent Stack

Sample ID MB-34720 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range PBS Client ID: Batch ID: 34720 RunNo: 46791 Prep Date: 10/31/2017 Analysis Date: 11/1/2017 SeqNo: 1492520 Units: mg/Kg SPK value SPK Ref Val %REC LowLimit %RPD Analyte Result **PQL** HighLimit **RPDLimit** Qual Gasoline Range Organics (GRO) ND 5.0 850 Surr: BFB 1000 85.0 15 316

Sample ID LCS-34720 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: 34720 RunNo: 46791 Prep Date: 10/31/2017 Analysis Date: 11/1/2017 SeqNo: 1492521 Units: mg/Kg Analyte Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 25 5.0 25.00 0 100 75.9 131 Surr: BFB 950 1000 95.1 15 316

#### 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

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 7 of 8

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1711002

02-Nov-17

Client:

APEX TITAN

Project: Lindrith Vent Stack

Sample ID MB-34720	SampT	ype: ME	BLK	Tes	tCode: El						
Client ID: PBS	Batch	n ID: 34	720	R	RunNo: 46791						
Prep Date: 10/31/2017	31/2017 Analysis Date: 11/1/2017				SeqNo: 1492552			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.025									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 4-Bromofluorobenzene	0.94		1.000		93.7	80	120				

Sample ID LCS-34720	SampT	ype: LC	S	Tes	TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batcl	h ID: 34	720	F	RunNo: 4						
Prep Date: 10/31/2017	Analysis Date: 11/1/2017			5	SeqNo: 1492553			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.91	0.025	1.000	0	90.8	77.3	128				
Toluene	0.91	0.050	1.000	0	90.6	79.2	125				
Ethylbenzene	0.90	0.050	1.000	0	90.0	80.7	127				
Xylenes, Total	2.7	0.10	3.000	0	91.4	81.6	129				
Surr: 4-Bromofluorobenzene	0.93		1.000		93.1	80	. 120				

#### 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

PQL Practical Quanitative Limit

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

Page 8 of 8

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

# Sample Log-In Check List

LABORATOR	t Y	Website: www.hal	lenviro	nmenta	al.com		
Client Name: APEX	AZTEC	Work Order Number:	17110	)02		RcptN	lo: 1
Received By: Anne	Thome	11/1/2017 7:00:00 AM			Anne Home		
Completed By: Anne	Thorne	11/1/2017 7:16:12 AM			anne Am	_	
Reviewed By:	-	11/11/17					
Chain of Custody							
1. Custody seals intact	on sample bottles?		Yes		No 🗆	Not Present	
2. Is Chain of Custody	complete?		Yes	<b>~</b>	No 🗌	Not Present	
3. How was the sample	e delivered?		Cour	ier			
Log In					_	_	_
4. Was an attempt ma	de to cool the samples	?	Yes	<b>✓</b>	No 🗆	NA [	
5. Were all samples re	ceived at a temperature	e of >0° C to 6.0°C	Yes	<b>~</b>	No 🗆	NA [	
6. Sample(s) in proper	container(s)?		Yes	<b>✓</b>	No 🗌		
7. Sufficient sample vo	lume for indicated test(	s)?	Yes	<b>V</b>	No 🗌		
8. Are samples (excep	t VOA and ONG) prope	rly preserved?	Yes	<b>V</b>	No 🗌		
9. Was preservative ad	ided to bottles?		Yes		No 🗹	NA [	
10.VOA vials have zero	headspace?		Yes		No 🗆	No VOA Vials	
11. Were any sample c	ontainers received brok	en?	Yes		No 🗹	# of preserved bottles checked	
12. Does paperwork ma	tch bottle labels? on chain of custody)		Yes	<b>✓</b>	No 🗌	for pH:	2 or >12 unless noted)
13. Are matrices correct		f Custody?	Yes	<b>V</b>	No 🗌	Adjusted?	
14. Is it clear what analy	rses were requested?		Yes	<b>~</b>	No 🗌		6
15. Were all holding tim (If no, notify custome			Yes	<b>✓</b>	No 🗌	Checked by	y:
<u>Special Handling (i</u>							_
16. Was client notified of	f all discrepancies with	this order?	Yes		No L	NA N	
Person Notifie	d:	Date			THE STATE OF THE S		
By Whom:		Via: [	_ eMa	ail 📋	Phone Fax	In Person	
Regarding:		THORN THE TOTAL ASSESSMENT AND ASSESSMENT ASSESSMENT AND ASSESSMENT ASSESSME	avan dravous	egrigayenin	OTHORISECTOR ASSOCIATIONS OF THE	MODEL DESIGNATION OF THE PARTY	
Client Instructi	ons:						
17. Additional remarks:							
18. Cooler Information		entinent la constitución	Sec. 1 =	1	Oleved D	ı	
Cooler No Ten	np °C   Condition   S Good   Ye		Seal D	ate	Signed By		
Lance of the state	AMERICA CONTRACTOR AND ADDRESS OF THE PARTY AN					I	

					CHAIN OF CUSTODY RECORD
-4	Hall En	vironmental		ANALYSIS /, /	Lab use only
3	Laboratory: Analysi			REQUESTED / SO	/ / / / Due Date:
APEX	Address: 4901 1+a		-		
— .				Mec	Temp. of coolers /- (Q when received (C°):
Office Location	Al haguagae, NA	8 +10 /		1 2	1 2 3 4 5
606 S. Rio Grande, Suite A	Contact: A.F.	eeman		1 / 6/ /	
Aztec, NM 87410	Phone:505-30			न्त्र य	
Project Manager K. Summers	PO/SO#: See note	es			
	Sampler's Signature				
Rance Deechilly	an Duly			1 1 1 1	
Proj. No. Project Name Fasouolla345 Lindrith Ve	al Slack	No/Type of Containe	ers	FTEX FUAL TPH(FR)/PRO//	
				74//	
Matrix Date Time C G r Identifying Mar	ks of Sample(s)	VOA 11.1.	Glass Jar P/O		Lab Sample ID (Lab Use Only)
S 16/31/17 950 X CS-	14		1	XX	1711002-001
S 031/7 1000 X CS.	-15		1	X x \	-602
S 10/31/17 1010 Y CS-			1	XX	703
S 10/31/17 1010 X CS- 5 10/31/17 1020 X CS-			i	4/	704
5 10/31/19/1030 X C5			1	XX	705
2 1/11/10/20 1	18			72	7003
	MES				
	1017				
	50% Rush 100% Rush	SAME	PACT	Time: NOTES:	
	Time: Received by: (Signal		Date:	1528	(=00.5)
Relinquished by (Signature) Date:	ime: Received by: (Signat	hure) I	Date:	Time:	11 to Tom ling (EPROD)
	Time: Received by: (Signat		Date:	0706 Time:	IN AFF N32339
0		Date.			
Relinquished by (Signature) Date: 1	Time: Received by: (Signat	ture)	Date:	Time: S	AME DAY
Matrix WW - Wastewater W - Water S Container VOA - 40 ml vial A/G - Amber / Or	G - Soil SD - Solid L - Liquid	A - Air Bag Glass wide mouth		rcoal tube SL - sludge astic or other	O - Oil

District I
1620 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 NMOCD

Form C-141 Revised April 3, 2017

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

DISTRICT III

	Santa Fe, NM 87505												
		F	Releas	e Notific	atio	n and C	orrective	Acti	on		V-Maria Branches		
					Ol	PERATO	R		Initial	Report	$\boxtimes$	Final Report	
Name of C	ompany E	nterprise l	ield Ser	vices, LLC		Contact Th	nomas Long						
Address 6	4 Reilly A	Ave, Farmii	ngton, N	M 87401		Telephone No. 505-599-2286							
Facility Na	me <b>San J</b> ı	uan 30-6 #4	432s			Facility Ty	pe Natural Ga	s Gath	ering Pi	peline			
Surface Ov	vner <b>BLM</b>			Mineral (	Owner	BLM			Serial	No NM 1	1158	1	
				LOCA	ATIO	N OF REI	LEASE						
Unit Letter	Section	Township	Range			South	Feet from	East/	Vest	County			
I	9	30N	6W	the <b>2388</b>	Line		the <b>86</b>	Line		Rio Arrib	ра		
Latitude 36.826352 Longitude -107.441559 NAD83													
NATURE OF RELEASE  Type of Release Natural gas and Natural Gas Liquids  Volume of Release 49.62 MCF   Volume Recovered None													
Type of Rele	ease Natura	al gas and Na	atural Gas	Liquids		Chi deci Associationi i del	f Release <b>49.62</b> ) BBLs Conder		Volume	Recovered	None	ŧ	
Source of R	elease Inter	rnal Corrosio	on of the P	ipeline		A SALES AND	Hour of Occurre 17 @ 1:37 p.m.	ence		Hour of D		ery	
Was Immed	iate Notice	Given?					Whom? : Cour	rtesy No				OCD	
			Yes	□ No ⊠ 1	Vot								
Required													
By Whom?							Hour Novembe						
Was a Wate	rcourse Re	ached?	☐ Yes	⊠ No		If YES, V	olume Impacting	g the Wa	atercourse	).			
If a Waterco	urse was In	npacted, Des	scribe Full	y.*									
							017, a contracto						
#432s pipeli	ne. Enterp	rise technicia	ans confirr	ned the releas	se and	isolated, dep	ressurized, lock	ked out	and tagge	d out the p	ipeline	<b>}.</b>	
							as removed by n						
							Approximately 1						
		insported to a his "Final" C-		xico Oil Cons	ervatio	n Division ap	proved land fari	m facility	y. A third	party corre	ective	action	
report is into	adea with t	ilio i iliai O	141.										
							st of my knowled						
							ase notifications -141 report by th						
							investigate and						
ground water	r, surface v	water, humar	health or	the environm	ent. In	addition, NI	MOCD acceptan	ice of a					
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Printed Nan	ne: Jon E. F	ielas			+								
Title: Direct	or, Environn	nental				Approval Date: 5/8/18 Expiration Date:							
E-mail Addr	ess: jefields	s@eprod.cor	n			Conditions	of Approval:			Attache	d□		
	1				1						_		

\* Attach Additional Sheets If Necessary

#NCS 180 165 5315

Phone: (713) 381-6684





### **CORRECTIVE ACTION REPORT**

Property:

SJ 30-6 #432s Well Tie SE 1/4, S10 T30N R6W Rio Arriba County, New Mexico

February 5, 2018 Apex Project No. 725040112352 NWOCD

MAR 1 2 2018

DISTRICT\_III

Prepared for:

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

Prepared by:

Ranee Deechilly Project Scientist

Kyle Summers, CPG

Branch Manager / Senior Geologist

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#### CORRECTIVE ACTION REPORT

SJ 30-6 #432s Well Tie SE 1/4, S10 T30N R6W Rio Arriba County, New Mexico

Apex Project No. 725040112352

#### 1.0 INTRODUCTION

### 1.1 Site Description & Background

The SJ 30-6 #403 well tie release site, referred to hereinafter as the "Site", is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the southeast (SE) ¼ of Section 10, Township 30 North, Range 6 West, in rural Rio Arriba County, New Mexico (36.826352N,107.441559W). The Site is located on land managed by the United States Bureau of Land Management (BLM). The Site is surrounded by rangeland that is periodically interrupted by oil and gas production and gathering facilities, including the Enterprise natural gas gathering pipeline which transects the area from approximately east to west.

On November 16, 2017, a release of natural gas was discovered at the Site. Enterprise subsequently isolated and locked the line out of service. On November 22, 2017, Enterprise initiated excavation activities to facilitate the repair of the pipeline, and to remediate potential petroleum hydrocarbon impact resulting from the release. The pipeline was repaired and placed back into service.

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

#### 1.2 Project Objective

The primary objective of the corrective action was to reduce constituent of concern (COC) concentrations 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 implementation of corrective action activities and information available from 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.



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

Based on Apex's evaluation of the scoring criteria, the Site would earn a maximum Total Ranking Score of "10". The ranking is based on the following information:

- No water wells were identified within a mile of the Site on the OSE Water Right Reporting System (WRRS) database. The release Site is located at an elevation of approximately 107 feet above the La Jara Canyon Wash. Based on the difference in elevation between the wash and Site, and the absence of visible seeps or springs, the depth to groundwater at the Site is anticipated to be greater than 100 feet below grade surface (bgs). This information supports a ranking score of "0" for depth to groundwater.
- No water source wells (municipal/community wells) were identified within 1,000 feet of the Site. No private domestic water sources were identified within 200 feet of the Site. These proximities result in a wellhead/water source protection area ranking score of "0".
- The release point is approximately 670 feet north of a stock pond and the La Jara Canyon Wash, resulting in a distance to surface water ranking score of "10".

#### 3.0 RESPONSE ACTIONS

#### 3.1 Soil Excavation Activities

On November 22, 2017, Enterprise initiated excavation activities to facilitate the repair of the pipeline, and to remediate potential petroleum hydrocarbon impact resulting from the release. The pipeline was repaired and placed back into service. During the pipeline repair and corrective action activities, Halo Services Inc., provided heavy equipment and labor support, and Apex provided environmental consulting support.

On November 27, 2017, 11 composite soil samples (S-1 through S-11) were collected from the sidewalls and base of the excavation for laboratory analysis. In addition, three (3) composite soil samples (SP-1 through SP-3) were collected from stockpiled soils. Subsequent laboratory analytical results indicate that soils associated with composite soil sample S-5 and S-6 exhibit COC concentrations above New Mexico EMNRD OCD standards. On November 30, 2017, the base and west wall adjacent to the source were further excavated to remove affected soils. Two (2) composite soil samples were collected from the base and west wall on December 1, 2017 for laboratory analysis.

The excavation measured approximately 61 feet long by ten (10) feet wide. The maximum depth of the excavation measured approximately 14 feet bgs.



The lithology encountered during the completion of corrective action activities consisted primarily of semi-consolidated silty sand and weathered shaly sandstone.

A total of approximately 135 cubic yards of petroleum hydrocarbon affected soils were transported to the Envirotech, Inc. (Envirotech) landfarm near Hilltop, New Mexico for disposal/remediation. The executed C-138 solid waste acceptance form is provided in **Appendix B**. The excavation was backfilled with laboratory-confirmed stockpiled soils and imported fill, and contoured to surrounding grade.

**Figure 3** is a map with soil sample locations that depicts the approximate location of the excavation in relation to the pipeline (**Appendix A**). Photographic documentation of the field activities is included in **Appendix C**.

#### 3.2 Soil Sampling Program

Apex field screened soil samples from the excavation utilizing a photoionization detector (PID) fitted with a 10.6 eV lamp and a calibrated Dexsil PetroFLAG® hydrocarbon analyzer system to guide excavation extents.

Apex's soil sampling program included the collection of 13 composite soil samples (S-1 through S-13) from the excavation and three (3) composite soil samples (SP-1 through SP-3) from the stockpiled soils for laboratory analysis.

The samples were collected and placed in laboratory prepared glassware, labeled/sealed using the laboratory supplied custody seal, and stored on ice in a cooler. The samples were relinquished to the courier for Hall Environmental Analysis Laboratory of Albuquerque, New Mexico, under proper chain-of-custody procedures.

#### 3.3 Laboratory Analytical Methods

The composite soil samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) using Environmental Protection Agency (EPA) SW-846 Method #8021, total petroleum hydrocarbon (TPH) gasoline range organics (GRO), diesel range organics (DRO), and motor oil/lube oil range organics (MRO) using EPA SW-846 Method #8015, and chlorides using EPA Method #300.0.

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 New Mexico EMNRD 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 Soil Samples

Apex compared the BTEX and TPH concentrations or laboratory practical quantitation limits (PQLs) associated with the composite soil samples (S-1 through S-4 and S-7 through S-13) and composite stockpiled soil samples (SP-1 and SP-3) to the New Mexico EMNRD OCD *RALs* for sites having a total ranking score of "10". Soils associated with composite soil samples S-5 and S-6, and composite stockpiled soil sample SP-2 were removed and transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/treatment, and are not included in the following discussion.

- The laboratory analyses of the composite soil samples collected from soils remaining in
  place and the composite soil samples collected from the reused stockpiled soils do not
  indicate benzene concentrations above the laboratory PQLs, which are below the New
  Mexico EMNRD OCD RAL of 10 milligrams per kilogram (mg/kg).
- The laboratory analyses of the composite soil samples collected from soils remaining in
  place and the composite soil samples collected from the reused stockpiled soils do not
  indicate total BTEX concentrations above the laboratory PQLs, which are below the New
  Mexico EMNRD OCD RAL of 50 mg/kg.
- The laboratory analyses of the composite soil samples collected from soils remaining in
  place and the composite soil samples collected from the reused stockpiled soils indicate
  combined TPH GRO/DRO/MRO concentrations ranging from below the laboratory PQLs
  to 57 mg/kg (S-7), which are below the New Mexico EMNRD OCD RAL of 1,000 mg/kg
  for a Site ranking of "10".
- The laboratory analyses of composite soil samples collected from soils remaining in place and the composite soil samples collected from the reused stockpiled soils indicate chloride concentrations ranging from below the laboratory PQLs to 62 mg/kg (S-3).

Composite soil sample results are provided in Table 1 in Appendix D.

#### 5.0 FINDINGS AND RECOMMENDATIONS

The SJ 30-6 #432s well tie release site is located within the Enterprise ROW in the SE  $\frac{1}{4}$  of Section 10, Township 30 North, Range 6 West, in rural Rio Arriba County, New Mexico. The Site is located on land managed by the United States BLM. The Site is surrounded by rangeland that is periodically interrupted by oil and gas production and gathering facilities, including the Enterprise natural gas gathering pipeline which transects the area from approximately east to west.

On November 16, 2017, a release of natural gas was discovered at the Site. Enterprise subsequently isolated and locked the line out of service. On November 22, 2017, Enterprise initiated excavation activities to facilitate the repair of the pipeline, and to remediate potential petroleum hydrocarbon impact resulting from the release. The pipeline was repaired and placed back into service.

- The primary objective of the corrective action was to reduce COC concentrations 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 semi-consolidated silty sand and weathered shally sandstone.



- The excavation measured approximately 61 feet long by ten (10) feet wide. The maximum depth of the excavation measured approximately 14 feet bgs.
- Prior to backfilling, 13 composite soil samples (S-1 through S-13) from the excavation and three (3) composite soil samples (SP-1 through SP-3) from the stockpiled soils were collected for laboratory analysis. Based on soil analytical results, soils remaining in place and reused stockpiled soils do not exhibit COC concentrations above the New Mexico EMNRD OCD RALs for a Site ranking of "10".
- A total of approximately 135 cubic yards of petroleum hydrocarbon affected soils were transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/remediation.
   The excavation was backfilled with laboratory-confirmed stockpiled soils and imported fill and contoured to surrounding grade.

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

### 6.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

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

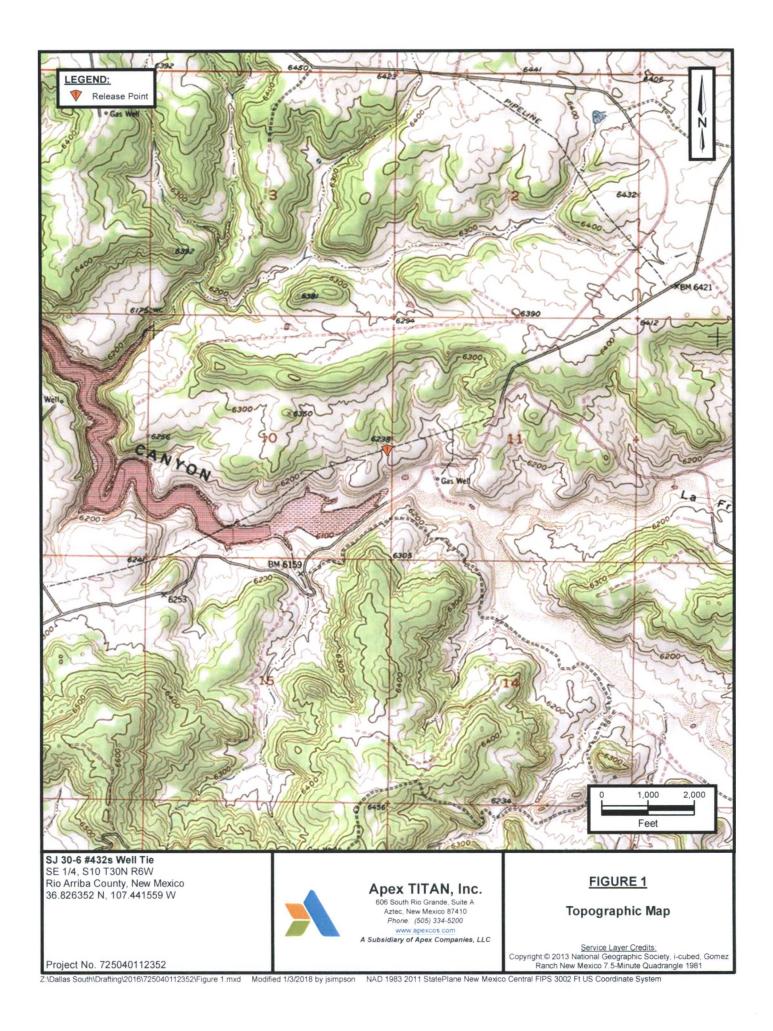
Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence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

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



APPENDIX A

Figures





**SJ 30-6 #432s Well Tie** SE 1/4, S10 T30N R6W Rio Arriba County, New Mexico 36.826352 N, 107.441559 W



### Apex TITAN, Inc.

606 South Rio Grande, Suite A Aztec, New Mexico 87410 Phone: (505) 334-5200 www.apexcos.com

A Subsidiary of Apex Companies, LLC

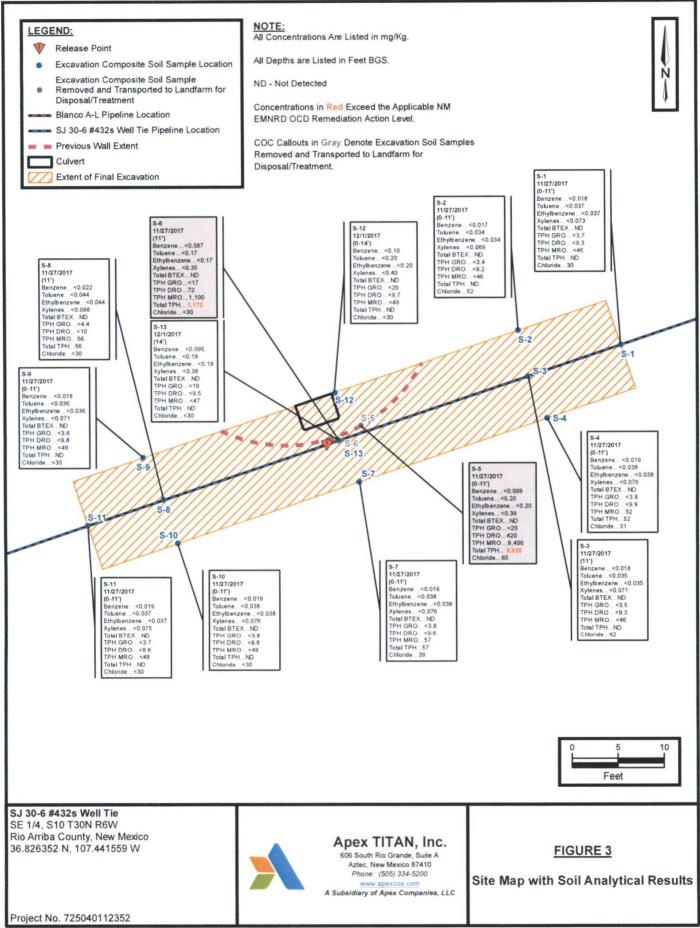
### FIGURE 2

### Site Vicinity Map

....,

Service Layer Credits:

Esri, HERE, DeLorme, Mapmylndia, © OpenStreetMap contributors, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Aerial Photograph June 2016





APPENDIX B

Executed C-138 Solid Waste Acceptance Form

<u>District 1</u> 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

9 7057-0871 Form C-138 Revised August 1, 2011

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

# REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

REQUEST TORALTROTAL TO ACCEL T SOLID WASTE
<ol> <li>Generator Name and Address:         Enterprise Field Services, LLC, 614 Reilly Avenue, Farmington, NM 87401     </li> </ol>
2. Originating Site: SJ 30-6 #432s Pipeline
3. Location of Material (Street Address, City, State or ULSTR): UL G Section 9 T30N R 6W; 36.829257 -107.467112  **Nov. 2017**
4. Source and Description of Waste: Hydrocarbon impacted soils associated with a release from a natural gas pipeline.
Estimated Volume50yd³ bbls Known Volume (to be entered by the operator at the end of the haul)135yd³/ bbls
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS  I, Thomas Long representative or authorized agent for Enterprise Field Services, LLC do hereby  COMPANY NAME  certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1983 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.       ○ 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 to 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. (Chec 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, 11-29-17, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete the required Generator Signature testing/sign the Generator Waste Testing Certification.
1,
5. Transporter: TBD IMI, ACE, Rich Trucking, Sweazen, Esparza
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 ☐ Landfill ☐ Other
Waste Acceptance Status:  APPROVED  DENIED (Must Be Maintained As Permanent Record)
PRINT NAME: Greg Crabtree TITLE: Environmental Manager DATE: 11/29/17
SIGNATURE: TELEPHONE NO.: 505-632-0615



APPENDIX C
Photographic Documentation



# Photograph 1

View of the initial excavation, facing northeast.



# Photograph 2

View of the initial excavation, facing southwest.



# Photograph 3

View of in-process excavation activities, facing northwest.





# Photograph 4

View of the final excavation, facing southeast.





APPENDIX D

Table



### TABLE 1 SJ 30-6 #432s Well Tie SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total Combined TPH (mg/kg)	Chloride (mg/kg)
		Natural Resources Remediation Action		10	NE	NE	NE	50				1,000	NE
				5	tockpiled Soils	Removed and Trans	ported to Landfa	arm for Disposal/Tre	eatment	MEDAKEN			
SP-2	11.27.17	С	Stockpile	< 0.095	<0.19	<0.19	<0.38	ND	<19	26	62	88	<30
	MARKET FARE			Excavation	Composite Soil	Samples Removed	and Transported	to Landfarm for Dis	sposal/Treatment				
S-5	11.27.17	С	0 to 11	< 0.099	<0.20	<0.20	< 0.39	ND	<20	420	9,400	9,820	65
S-6	11.27.17	С	11	< 0.087	<0.17	<0.17	< 0.35	ND	<17	72	1,100	1,172	<30
			LEGISLA			Soil Samples Collec	ted from Stockp	iled Soils					
SP-1	11.27.17	С	Stockpile	<0.020	< 0.039	< 0.039	<0.078	ND	<3.9	<9.6	<48	ND	<30
SP-3	11.27.17	С	Stockpile	<0.020	< 0.040	<0.040	< 0.079	ND	<4.0	<9.3	<47	ND	34
						Excavation Cor	nposite Soil San	nples		THE STATE OF			E LE LE LE
S-1	11.27.17	С	0 to 11	<0.018	< 0.037	<0.037	< 0.073	ND	<3.7	<9.3	<46	ND	30
S-2	11.27.17	С	0 to 11	< 0.017	< 0.034	<0.034	< 0.069	ND	<3.4	<9.2	<46	ND	52
S-3	11.27.17	С	11	<0.018	< 0.035	< 0.035	< 0.071	ND	<3.5	<9.3	<46	ND	62
S-4	11.27.17	С	0 to 11	< 0.019	<0.038	<0.038	< 0.076	ND	<3.8	<9.9	52	52	31
S-7	11.27.17	С	0 to 11	< 0.019	<0.038	<0.038	< 0.076	ND	<3.8	<9.6	57	57	39
S-8	11.27.17	С	11	<0.022	<0.044	<0.044	<0.088	ND	<4.4	<10	56	56	<30
S-9	11.27.17	С	0 to 11	<0.018	< 0.036	<0.036	< 0.071	ND	<3.6	<9.8	<49	ND	<30
S-10	11.27.17	С	0 to 11	< 0.019	<0.038	<0.038	< 0.076	ND	<3.8	<9.8	<49	ND	<30
S-11	11.27.17	С	0 to 11	< 0.019	< 0.037	<0.037	< 0.075	ND	<3.7	<9.6	<48	ND	<30
S-12	12.01.17	С	0 to 14	<0.10	<0.20	<0.20	<0.40	ND	<20	<9.7	<49	ND	<30
S-13	12.01.17	С	14	< 0.095	<0.19	<0.19	<0.38	ND	<19	<9.5	<47	ND	<30

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

ND = Not Detected above the Practical Quantitation Limits

NE = Not established

mg/kg = milligram per kilogram



Appendix E

Laboratory Data Sheets & Chain of Custody Documentation



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

November 29, 2017

Kyle Summers APEX TITAN 606 S. Rio Grande Unit A Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: SJ 30-6 432S OrderNo.: 1711C52

### Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 11 sample(s) on 11/28/2017 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

### Lab Order 1711C52

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/29/2017

CLIENT: APEX TITAN Client Sample ID: S-1

 Project:
 SJ 30-6 432S
 Collection Date: 11/27/2017 9:00:00 AM

 Lab ID:
 1711C52-001
 Matrix: SOIL
 Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: MRA
Chloride	30	30	mg/Kg	20	11/28/2017 11:29:59 A	M 35185
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANICS				Analys	t: TOM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	11/28/2017 9:57:55 AM	И 35179
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	11/28/2017 9:57:55 AM	M 35179
Surr: DNOP	93.9	70-130	%Rec	1	11/28/2017 9:57:55 AM	M 35179
EPA METHOD 8015D: GASOLINE RAN	GE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	3.7	mg/Kg	1	11/28/2017 6:00:38 PM	M G47369
Surr: BFB	107	15-316	%Rec	1	11/28/2017 6:00:38 PM	M G47369
<b>EPA METHOD 8021B: VOLATILES</b>					Analys	t: NSB
Benzene	ND	0.018	mg/Kg	1	11/28/2017 6:00:38 PM	И В47369
Toluene	ND	0.037	mg/Kg	1	11/28/2017 6:00:38 PM	И В47369
Ethylbenzene	ND	0.037	mg/Kg	1	11/28/2017 6:00:38 PM	M B47369
Xylenes, Total	ND	0.073	mg/Kg	1	11/28/2017 6:00:38 PM	И В47369
Surr: 4-Bromofluorobenzene	103	80-120	%Rec	1	11/28/2017 6:00:38 PM	M B47369

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

- \* 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
- PQL Practical Quanitative Limit
- 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 Page 1 of 16
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### Lab Order 1711C52

Hall Environmental Analysis Laboratory, Inc. Date Reported: 11/29/2017

**CLIENT: APEX TITAN** Client Sample ID: S-2

**Project:** SJ 30-6 432S Collection Date: 11/27/2017 9:10:00 AM Lab ID: 1711C52-002 Matrix: SOIL Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: MRA
Chloride	52	30	mg/Kg	20	11/28/2017 11:42:23	AM 35185
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analy	st: TOM
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	11/28/2017 10:19:54	AM 35179
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	11/28/2017 10:19:54	AM 35179
Surr: DNOP	90.6	70-130	%Rec	1	11/28/2017 10:19:54	AM 35179
EPA METHOD 8015D: GASOLINE RA	NGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	3.4	mg/Kg	1	11/28/2017 6:24:28 P	M G47369
Surr: BFB	108	15-316	%Rec	1	11/28/2017 6:24:28 P	M G47369
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.017	mg/Kg	1	11/28/2017 6:24:28 P	M B47369
Toluene	ND	0.034	mg/Kg	1	11/28/2017 6:24:28 P	M B47369
Ethylbenzene	ND	0.034	mg/Kg	1	11/28/2017 6:24:28 P	M B47369
Xylenes, Total	ND	0.069	mg/Kg	1	11/28/2017 6:24:28 P	M B47369
Surr: 4-Bromofluorobenzene	103	80-120	%Rec	1	11/28/2017 6:24:28 P	M B47369

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

- 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
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 16 J
- Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1711C52

Date Reported: 11/29/2017

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT: APEX TITAN** 

Client Sample ID: S-3

 Project:
 SJ 30-6 432S
 Collection Date: 11/27/2017 9:20:00 AM

 Lab ID:
 1711C52-003
 Matrix: SOIL
 Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: MRA
Chloride	62	30	mg/Kg	20	11/28/2017 11:54:48	AM 35185
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analy	st: TOM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	11/28/2017 10:41:54	AM 35179
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	11/28/2017 10:41:54	AM 35179
Surr: DNOP	89.1	70-130	%Rec	1	11/28/2017 10:41:54	AM 35179
EPA METHOD 8015D: GASOLINE RANG	Ε				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	3.5	mg/Kg	1	11/28/2017 6:48:19 P	M G47369
Surr: BFB	107	15-316	%Rec	1	11/28/2017 6:48:19 P	M G47369
<b>EPA METHOD 8021B: VOLATILES</b>					Analy	st: NSB
Benzene	ND	0.018	mg/Kg	1	11/28/2017 6:48:19 P	M B47369
Toluene	ND	0.035	mg/Kg	1	11/28/2017 6:48:19 P	M B47369
Ethylbenzene	ND	0.035	mg/Kg	1	11/28/2017 6:48:19 P	M B47369
Xylenes, Total	ND	0.071	mg/Kg	1	11/28/2017 6:48:19 P	M B47369
Surr: 4-Bromofluorobenzene	103	80-120	%Rec	1	11/28/2017 6:48:19 P	M B47369

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

- \* 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
- PQL Practical Quanitative Limit
- 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 Page 3 of 16
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# Lab Order 1711C52

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/29/2017

CLIENT: APEX TITAN Client Sample ID: S-4

**Project:** SJ 30-6 432S **Collection Date:** 11/27/2017 9:30:00 AM

Lab ID: 1711C52-004 Matrix: SOIL Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: MRA
Chloride	31	30	mg/Kg	20	11/28/2017 12:07:12 PM 35185
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/28/2017 3:48:29 PM 35179
Motor Oil Range Organics (MRO)	52	49	mg/Kg	1	11/28/2017 3:48:29 PM 35179
Surr: DNOP	102	70-130	%Rec	1	11/28/2017 3:48:29 PM 35179
EPA METHOD 8015D: GASOLINE RANGE	GE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.8	mg/Kg	1	11/28/2017 10:52:50 AM G47369
Surr: BFB	105	15-316	%Rec	1	11/28/2017 10:52:50 AM G47369
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.019	mg/Kg	1	11/28/2017 10:52:50 AM B47369
Toluene	ND	0.038	mg/Kg	1	11/28/2017 10:52:50 AM B47369
Ethylbenzene	ND	0.038	mg/Kg	1	11/28/2017 10:52:50 AM B47369
Xylenes, Total	ND	0.076	mg/Kg	1	11/28/2017 10:52:50 AM B47369
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	11/28/2017 10:52:50 AM B47369

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

- 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
- PQL Practical Quanitative Limit
- 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 Page 4 of 16
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### Lab Order 1711C52

Date Reported: 11/29/2017

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT: APEX TITAN** 

Lab ID:

**Project:** SJ 30-6 432S

1711C52-005

Client Sample ID: S-5

Collection Date: 11/27/2017 9:40:00 AM

Matrix: SOIL Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: MRA
Chloride	65	30	mg/Kg	20	11/28/2017 12:19:37	PM 35185
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS				Analy	st: TOM
Diesel Range Organics (DRO)	420	95	mg/Kg	10	11/28/2017 2:35:19 P	M 35179
Motor Oil Range Organics (MRO)	9400	480	mg/Kg	10	11/28/2017 2:35:19 P	M 35179
Surr: DNOP	0	70-130	S %Rec	10	11/28/2017 2:35:19 F	M 35179
EPA METHOD 8015D: GASOLINE RAN	IGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	20	mg/Kg	5	11/28/2017 11:16:44	AM G47369
Surr: BFB	108	15-316	%Rec	5	11/28/2017 11:16:44	AM G47369
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.099	mg/Kg	5	11/28/2017 11:16:44	AM B47369
Toluene	ND	0.20	mg/Kg	5	11/28/2017 11:16:44	AM B47369
Ethylbenzene	ND	0.20	mg/Kg	5	11/28/2017 11:16:44	AM B47369
Xylenes, Total	ND	0.39	mg/Kg	5	11/28/2017 11:16:44	AM B47369
Surr: 4-Bromofluorobenzene	104	80-120	%Rec	5	11/28/2017 11:16:44	AM B47369

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

- 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
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 5 of 16 J
- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

Lab Order 1711C52

Date Reported: 11/29/2017

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT: APEX TITAN** 

Client Sample ID: S-6

 Project:
 SJ 30-6 432S
 Collection Date: 11/27/2017 9:50:00 AM

 Lab ID:
 1711C52-006
 Matrix: SOIL
 Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: MRA
Chloride	ND	30	mg/Kg	20	11/28/2017 12:32:01 F	PM 35185
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS				Analys	t: TOM
Diesel Range Organics (DRO)	72	20	mg/Kg	2	11/28/2017 2:24:03 PM	M 35179
Motor Oil Range Organics (MRO)	1100	99	mg/Kg	2	11/28/2017 2:24:03 PM	M 35179
Surr: DNOP	103	70-130	%Rec	2	11/28/2017 2:24:03 PM	M 35179
EPA METHOD 8015D: GASOLINE RAN	IGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	17	mg/Kg	5	11/28/2017 11:40:34 A	M G47369
Surr: BFB	107	15-316	%Rec	5	11/28/2017 11:40:34 A	M G47369
<b>EPA METHOD 8021B: VOLATILES</b>					Analys	t: NSB
Benzene	ND	0.087	mg/Kg	5	11/28/2017 11:40:34 A	M B47369
Toluene	ND	0.17	mg/Kg	5	11/28/2017 11:40:34 A	M B47369
Ethylbenzene	ND	0.17	mg/Kg	5	11/28/2017 11:40:34 A	M B47369
Xylenes, Total	ND	0.35	mg/Kg	5	11/28/2017 11:40:34 A	M B47369
Surr: 4-Bromofluorobenzene	103	80-120	%Rec	5	11/28/2017 11:40:34 A	M B47369

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

- \* 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
- PQL Practical Quanitative Limit
- 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 Page 6 of 16
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1711C52

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/29/2017

CLIENT: APEX TITAN Client Sample ID: S-7

 Project:
 SJ 30-6 432S
 Collection Date: 11/27/2017 10:00:00 AM

 Lab ID:
 1711C52-007
 Matrix: SOIL
 Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qua	al Units	DF 1	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Anal	yst: MRA
Chloride	39	30	mg/Kg	20	11/28/2017 12:44:26	PM 35185
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Anal	yst: TOM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/28/2017 12:33:57	PM 35179
Motor Oil Range Organics (MRO)	57	48	mg/Kg	1	11/28/2017 12:33:57	PM 35179
Surr: DNOP	98.0	70-130	%Rec	1	11/28/2017 12:33:57	PM 35179
EPA METHOD 8015D: GASOLINE RAI	NGE				Anal	yst: NSB
Gasoline Range Organics (GRO)	ND	3.8	mg/Kg	1	11/28/2017 12:04:18	PM G47369
Surr: BFB	104	15-316	%Rec	1	11/28/2017 12:04:18	B PM G47369
EPA METHOD 8021B: VOLATILES					Anal	yst: NSB
Benzene	ND	0.019	mg/Kg	1	11/28/2017 12:04:18	8 PM B47369
Toluene	ND	0.038	mg/Kg	1	11/28/2017 12:04:18	B PM B47369
Ethylbenzene	ND	0.038	mg/Kg	1	11/28/2017 12:04:18	3 PM B47369
Xylenes, Total	ND	0.076	mg/Kg	1	11/28/2017 12:04:18	3 PM B47369
Surr: 4-Bromofluorobenzene	102	80-120	%Rec	1	11/28/2017 12:04:18	3 PM B47369

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

- 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
- PQL Practical Quanitative Limit
- 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 Page 7 of 16
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### Lab Order 1711C52

Date Reported: 11/29/2017

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT: APEX TITAN** 

Client Sample ID: S-8

 Project:
 SJ 30-6 432S
 Collection Date: 11/27/2017 10:10:00 AM

 Lab ID:
 1711C52-008
 Matrix: SOIL
 Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Anal	yst: MRA
Chloride	ND	30	mg/Kg	20	11/28/2017 12:56:51	PM 35185
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Anal	yst: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	11/28/2017 12:55:57	PM 35179
Motor Oil Range Organics (MRO)	56	51	mg/Kg	1	11/28/2017 12:55:57	PM 35179
Surr: DNOP	96.9	70-130	%Rec	1	11/28/2017 12:55:57	PM 35179
EPA METHOD 8015D: GASOLINE RAN	NGE				Anal	yst: NSB
Gasoline Range Organics (GRO)	ND	4.4	mg/Kg	1	11/28/2017 12:28:01	PM G47369
Surr: BFB	104	15-316	%Rec	1	11/28/2017 12:28:01	PM G47369
EPA METHOD 8021B: VOLATILES					Anal	yst: NSB
Benzene	ND	0.022	mg/Kg	1	11/28/2017 12:28:01	PM B47369
Toluene	ND	0.044	mg/Kg	1	11/28/2017 12:28:01	PM B47369
Ethylbenzene	ND	0.044	mg/Kg	1	11/28/2017 12:28:01	PM B47369
Xylenes, Total	ND	0.088	mg/Kg	1	11/28/2017 12:28:01	PM B47369
Surr: 4-Bromofluorobenzene	99.6	80-120	%Rec	1	11/28/2017 12:28:01	PM B47369

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

- \* 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
- PQL Practical Quanitative Limit
- 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 Page 8 of 16
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### **Analytical Report**

### Lab Order 1711C52

Date Reported: 11/29/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT: APEX TITAN** 

Client Sample ID: S-9

 Project:
 SJ 30-6 432S
 Collection Date: 11/27/2017 10:20:00 AM

 Lab ID:
 1711C52-009
 Matrix: SOIL
 Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed Ba	atch
EPA METHOD 300.0: ANIONS					Analyst: M	IRA
Chloride	ND	30	mg/Kg	20	11/28/2017 1:34:05 PM 3	5185
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst: T	OM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/28/2017 1:18:09 PM 3	5179
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/28/2017 1:18:09 PM 3	5179
Surr: DNOP	94.3	70-130	%Rec	1	11/28/2017 1:18:09 PM 3	5179
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst: N	ISB
Gasoline Range Organics (GRO)	ND	3.6	mg/Kg	1	11/28/2017 12:51:50 PM G	347369
Surr: BFB	104	15-316	%Rec	1	11/28/2017 12:51:50 PM G	347369
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst: N	ISB
Benzene	ND	0.018	mg/Kg	1	11/28/2017 12:51:50 PM B	347369
Toluene	ND	0.036	mg/Kg	1	11/28/2017 12:51:50 PM B	347369
Ethylbenzene	ND	0.036	mg/Kg	1	11/28/2017 12:51:50 PM B	347369
Xylenes, Total	ND	0.071	mg/Kg	1	11/28/2017 12:51:50 PM B	347369
Surr: 4-Bromofluorobenzene	100	80-120	%Rec	1	11/28/2017 12:51:50 PM B	347369

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

- \* 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
- PQL Practical Quanitative Limit
- 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 Page 9 of 16
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### Lab Order 1711C52

Date Reported: 11/29/2017

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: S-10

 Project:
 SJ 30-6 432S
 Collection Date: 11/27/2017 10:30:00 AM

 Lab ID:
 1711C52-010
 Matrix: SOIL
 Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	: MRA
Chloride	ND	30	mg/Kg	20	11/28/2017 1:46:30 PM	35185
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analys	: TOM
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	11/28/2017 1:40:14 PM	35179
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	11/28/2017 1:40:14 PM	35179
Surr: DNOP	96.3	70-130	%Rec	1	11/28/2017 1:40:14 PM	35179
EPA METHOD 8015D: GASOLINE RAI	NGE				Analys	: NSB
Gasoline Range Organics (GRO)	ND	3.8	mg/Kg	1	11/28/2017 1:15:37 PM	G47369
Surr: BFB	104	15-316	%Rec	1	11/28/2017 1:15:37 PM	G47369
EPA METHOD 8021B: VOLATILES					Analys	: NSB
Benzene	ND	0.019	mg/Kg	1	11/28/2017 1:15:37 PM	B47369
Toluene	ND	0.038	mg/Kg	1	11/28/2017 1:15:37 PM	B47369
Ethylbenzene	ND	0.038	mg/Kg	1	11/28/2017 1:15:37 PM	B47369
Xylenes, Total	ND	0.076	mg/Kg	1	11/28/2017 1:15:37 PM	B47369
Surr: 4-Bromofluorobenzene	96.9	80-120	%Rec	1	11/28/2017 1:15:37 PM	B47369

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

- \* 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
- PQL Practical Quanitative Limit
- 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 Page 10 of 16
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### **Analytical Report**

### Lab Order 1711C52

Date Reported: 11/29/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT: APEX TITAN** Client Sample ID: S-11

Collection Date: 11/27/2017 10:40:00 AM **Project:** SJ 30-6 432S Lab ID: 1711C52-011 Matrix: SOIL Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	11/28/2017 1:58:55 PM	35185
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANICS				Analyst	TOM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/28/2017 2:02:11 PM	35179
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/28/2017 2:02:11 PM	35179
Surr: DNOP	99.0	70-130	%Rec	1	11/28/2017 2:02:11 PM	35179
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	3.7	mg/Kg	1	11/28/2017 1:39:19 PM	G47369
Surr: BFB	106	15-316	%Rec	1	11/28/2017 1:39:19 PM	G47369
<b>EPA METHOD 8021B: VOLATILES</b>					Analyst	NSB
Benzene	ND	0.019	mg/Kg	1	11/28/2017 1:39:19 PM	B47369
Toluene	ND	0.037	mg/Kg	1	11/28/2017 1:39:19 PM	B47369
Ethylbenzene	ND	0.037	mg/Kg	1	11/28/2017 1:39:19 PM	B47369
Xylenes, Total	ND	0.075	mg/Kg	1	11/28/2017 1:39:19 PM	B47369
Surr: 4-Bromofluorobenzene	98.3	80-120	%Rec	1	11/28/2017 1:39:19 PM	B47369

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

- 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
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 11 of 16
- Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1711C52

29-Nov-17

Client: APEX TITAN
Project: SJ 30-6 432S

Sample ID MB-35185 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 35185 RunNo: 47366

Prep Date: 11/28/2017 Analysis Date: 11/28/2017 SeqNo: 1512112 Units: mg/Kg

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

Chloride ND 1.5

Sample ID LCS-35185 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 35185 RunNo: 47366

Prep Date: 11/28/2017 Analysis Date: 11/28/2017 SeqNo: 1512113 Units: mg/Kg

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

Chloride 14 1.5 15.00 0 92.7 90 110

### 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

PQL Practical Quanitative Limit

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

Page 12 of 16

P Sample pH Not In Range

RL Reporting Detection Limit

APEX TITAN

Client:

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1711C52

29-Nov-17

Project: SJ 30-6 4	32S								
Sample ID LCS-35179	SampType: L	cs	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: LCSS	Batch ID: 3	5179	F	RunNo: 4	7353				
Prep Date: 11/28/2017	Analysis Date: 1	1/28/2017	S	SeqNo: 1	510946	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45 10	50.00	0	89.9	73.2	114			
Surr: DNOP	4.4	5.000		88.0	70	130			
Sample ID MB-35179	SampType: M	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: PBS	Batch ID: 3	5179	F	RunNo: 4	7353				
Prep Date: 11/28/2017	Analysis Date:	1/28/2017	8	SeqNo: 1	510947	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND 10								
Motor Oil Range Organics (MRO) Surr: DNOP	ND 50	10.00		91.5	70	130			
Suil. DNOF	9.1	10.00		91.5	70	130			
Sample ID LCS-35180	SampType: L					8015M/D: Die	esel Range	e Organics	
Client ID: LCSS	Batch ID: 3		F	RunNo: 4	7354				
Prep Date: 11/28/2017	Analysis Date:	1/28/2017	8	SeqNo: 1	510950	Units: %Re	С		
Analyte	Result PQL		SPK Ref Val			HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.9	5.000		78.6	70	130			
Sample ID MB-35180	SampType: N	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: PBS	Batch ID: 3	5180	F	RunNo: 4	7354				
Prep Date: 11/28/2017	Analysis Date:	1/28/2017	5	SeqNo: 1	510951	Units: %Re	С		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.5	10.00		85.5	70	130			
Sample ID 1711C52-001AMS	SampType: N	IS	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: S-1	Batch ID: 3	5179	F	RunNo: 4	7353				
Prep Date: 11/28/2017	Analysis Date:	1/28/2017	5	SeqNo: 1	511922	Units: mg/k	(g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46 9.8		2.286	89.9	55.8	125			
Surr: DNOP	4.4	4.912		90.0	70	130			
Sample ID 1711C52-001AMS	D SampType: N	ISD	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: S-1	Batch ID: 3	5179	F	RunNo: 4	7353				
Prep Date: 11/28/2017	Analysis Date:	1/28/2017	\$	SeqNo: 1	511923	Units: mg/k	(g		
Analyte	Result PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45 9.5	47.62	2.286	90.4	55.8	125	2.36	20	

### 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

PQL Practical Quanitative Limit

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

n limits Page 13 of 16

P Sample pH Not In Range

RL Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1711C52

29-Nov-17

Client: APEX TITAN
Project: SJ 30-6 432S

Sample ID 1711C52-001AMSD SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: S-1 Batch ID: 35179 RunNo: 47353

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

Surr: DNOP 4.3 4.762 90.3 70 130 0 0

Sample ID LCS-35150 SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: LCSS Batch ID: 35150 RunNo: 47354

Prep Date: 11/27/2017 Analysis Date: 11/28/2017 SeqNo: 1512100 Units: %Rec

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

Surr: DNOP 4.7 5.000 94.1 70 130

Sample ID MB-35150 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: PBS Batch ID: 35150 RunNo: 47354

Prep Date: 11/27/2017 Analysis Date: 11/28/2017 SeqNo: 1512101 Units: %Rec

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

Surr: DNOP 10 10.00 103 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

PQL Practical Quanitative Limit

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

Page 14 of 16

P Sample pH Not In Range

RL Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

3.7

19

880

18.30

732.1

WO#: 1711C52

29-Nov-17

Client:	APEX TITAN
Project:	SJ 30-6 432S

Project:	SJ 30-6 4	32S									
Sample ID	RB	SampTy	pe: ME	BLK	Test	Code: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	PBS	Batch	ID: G4	7369	R	unNo: 4	7369				
Prep Date:		Analysis Da	ate: 11	1/28/2017	S	eqNo: 1	511549	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range	e Organics (GRO)	ND	5.0								
Surr: BFB		1100		1000		110	15	316			
Sample ID	2.5UG GRO LCS	SampTy	pe: LC	s	Tes	Code: El	PA Method	8015D: Gaso	line Rang	е	
Client ID:	LCSS	Batch	ID: G4	7369	R	unNo: 4	7369				
Prep Date:		Analysis Da	ate: 1	1/28/2017	S	eqNo: 1	511550	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	22	5.0	25.00	0	89.2	75.9	131			
Surr: BFB		1200		1000		116	15	316			
Sample ID	1711C52-001AMS	SampTy	/pe: <b>M</b> \$	S	Tes	Code: E	PA Method	8015D: Gaso	line Rang	е	
Client ID:	S-1	Batch	ID: G4	17369	F	lunNo: 4	7369				
Prep Date:		Analysis Da	ate: 1	1/28/2017	S	SeqNo: 1	511552	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	19	3.7	18.30	0	103	77.8	128			
Surr: BFB		880		732.1		120	15	316			
Sample ID	1711C52-001AMS	D SampTy	/pe: <b>M</b> \$	SD	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID:	S-1	Batch	ID: G4	17369	F	RunNo: 4	7369				
Prep Date:		Analysis Da	ate: 1	1/28/2017	S	SeqNo: 1	511553	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Η Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

**PQL** Practical Quanitative Limit

Gasoline Range Organics (GRO)

Surr: BFB

% Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

Value above quantitation range

103

120

0

77.8

15

128

316

0.660

Analyte detected below quantitation limits

Page 15 of 16

20

0

P Sample pH Not In Range

RL Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

WO#: 17

1711C52

29-Nov-17

Client:	APEX TITAN
Project:	SJ 30-6 432S

Sample ID RB	SampType: MBLK			Test	TestCode: EPA Method 8021B: Volatiles					
Client ID: PBS	Batch ID: <b>B47369</b>			R	tunNo: 4	7369				
Prep Date:	Analysis D	ate: 11	1/28/2017	S	eqNo: 1	511568	Units: mg/k	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID 100NG BTEX LC	SampT	ype: LC	S	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: LCSS	Batch	Batch ID: <b>B47369</b> RunNo: <b>47369</b>								
Prep Date:	Analysis D	Date: 11	1/28/2017	8	SeqNo: 1	511569	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.2	77.3	128			
Toluene	0.96	0.050	1.000	0	96.5	79.2	125			
Ethylbenzene	0.96	0.050	1.000	0	95.5	80.7	127			
Xylenes, Total	2.8	0.10	3.000	0	95.0	81.6	129			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID 1711C52-002AM	S SampT	SampType: MS TestCode: EPA Method 8021B: Volatiles								
Client ID: S-2	Batch	Batch ID: <b>B47369</b> RunNo: <b>47369</b>								
Prep Date:	Analysis D	ate: 11	1/28/2017	8	SeqNo: 1	511572	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.69	0.017	0.6897	0	100	80.9	132			
Toluene	0.69	0.034	0.6897	0	100	79.8	136			
Ethylbenzene	0.66	0.034	0.6897	0	95.0	79.4	140			
Xylenes, Total	1.9	0.069	2.069	0	93.4	78.5	142			
Surr: 4-Bromofluorobenzene	0.73		0.6897		105	80	120			

Sample ID 1711C52-002AMS	D SampType	MSD	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: S-2	Batch ID: <b>B47369</b> RunNo: <b>47369</b>								
Prep Date:	Analysis Date:	11/28/2017	5	SeqNo: 1	511573	Units: mg/k	<b>(</b> g		
Analyte	Result P	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.69 0.	0.6897	0	99.4	80.9	132	0.658	20	
Toluene	0.69 0.	0.6897	0	99.8	79.8	136	0.413	20	
Ethylbenzene	0.67 0.	0.6897	0	97.0	79.4	140	2.11	20	
Xylenes, Total	2.0 0.	2.069	0	94.6	78.5	142	1.31	20	
Surr: 4-Bromofluorobenzene	0.73	0.6897		106	80	120	0	0	

### 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

PQL Practical Quanitative Limit

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

Page 16 of 16

P Sample pH Not In Range

RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name:	APEX AZTEC	Work Order Numbe	r: 1711C52		RcptNo:	1
B		44/00/2017 - 20		2 10		
Received By:	Anne Thome	11/28/2017 7:00:00 A		aone Am		
Completed By:	Anne Thome	11/28/2017 7:23:19 A	M	anne Sham		
Reviewed By:	INO	11 (28)17				
Chain of Cus	stody					
1. Custody se	als intact on sample bott	les?	Yes 🗸	No 🗌	Not Present	
2. Is Chain of	Custody complete?		Yes 🗸	No 🗌	Not Present	
3. How was th	e sample delivered?		Courier			
Log In						
4. Was an att	empt made to cool the s	amples?	Yes 🗸	No 🗌	NA 🗌	
5. Were all sa	imples received at a tem	perature of >0° C to 6.0°C	Yes 🗸	No 🗆	NA 🗆	
6. Sample(s)	in proper container(s)?		Yes 🗸	No 🗌		
7. Sufficient s	ample volume for indicat	ed test(s)?	Yes 🗹	No 🗆		
8. Are sample	s (except VOA and ONG	b) properly preserved?	Yes 🗹	No 🗆		
9. Was presen	vative added to bottles?		Yes	No 🗸	NA	
10.VOA vials	nave zero headspace?		Yes	No 🗆	No VOA Vials 🗹	
11. Were any	sample containers receiv	ed broken?	Yes	No 🗹	# of preserved	
40 -				N. []	bottles checked	
	work match bottle labels epancies on chain of cus		Yes 🗸	No 🗀	for pH:	>12 unless noted)
	s correctly identified on		Yes 🗹	No 🗆	Adjusted?	
14. Is it clear w	hat analyses were reque	sted?	Yes 🗹	No 🗆		
	lding times able to be may customer for authorizat		Yes 🗸	No 🗆	Checked by:	
Special Han	dling (if applicable	<u>}</u>				
16. Was dient	notified of all discrepand	es with this order?	Yes	No 🗆	NA 🗹	
Perso	on Notified:	Date		EADS-MULTIMETERS MUSICIPALITY CONTRACTOR		
By W	hom:	Via:	eMail	Phone  Fax	☐ In Person	
Rega	rding:					
Client	Instructions:	- Company of the Comp	,		The second control of	
17. Additional	remarks:					
18. Cooler Inf	1		outou I	ala		
Cooler N	•		Seal Date	Signed By		
Ľ	1.0 Good	Yes				

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Δ	PEX	•				Address:							_				111	/ /	/ /			/ /		/ ps	_
																/	The state of the s	//		/	/ /	/	Temp. of	coolers //O reived (C°):	
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GOOD S. PID Grande Suite A Contact: A. Freem.															/ 9	9 /		/ /	/ /	/					
Project Manager K.Summers PO/SO#: See											75					12			/ /				Page	1_of2	-
		ger_K	Sum	me		PO/SO #: _		see	104	es_						to to				/	/ /				
	ler's Name	1 - 15	4			Sampler's Sign	ature								i	X	D	/ /	/	/	/ /				
Ko	inee I	leechil	ly			Kowk	lily								PIE SE	The second	Sport		/ /	/ /					
Proj. I			Proje	ect Na					No/T	ype of C	ontain	ers		1	E.	# 3	7 /	/ /	/ /						
725	640112	352	C	53	30-6	H4325	_	_		1	1			,	72	Less transfers		//							
Matrix	Date	Time	Comp	G r a b	Identifying Mai	rks of Sample(s)	Start	End Depth	VOA	A/G	250 ml	Glass	P/0	,		/ /		/ /		//		Lab (	Sample ID (L	ab Use Only)	
5	11/27/17	900	X		S-I							)		X	X	X						17	1105	2-001	
5	11/27/17		X		5-2							1		X	X	X								-002	
5	11/27/17		V		S-3							]		X	X	X								703	
	11/27/17		X		5-4							1		1	X	X								405	
-	11/27/17		X		5-5							1		X	X	X								-05	
5	11/27/17		V		5-6							1		X	1	X								role	_
-	11/27/17		1		S-7							1		X	1	X								-201	
-	11 27/17		7									1		<u>/</u>	J	7								208	_
			1		S-8							1		1	7	7									
5	11/27/17		X		5-9									X	X	X			+					-a9 -010	-
	round time	D No	rmal	D2	5-10 25% Rush		100%	Rush			~	AL	1=	DA	W	<u> </u>								-010	_
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Relino	uished by (	(Signature)	)		Date: 1	Time: Receiv	red by:	(Signa	ture)	æ		Date		Ti	ime:	10	ex.	Q	000	7	~ ·	-	EPROD		
Matrix Contain		V - Wastewa A - 40 ml vi			W - Water S A/G - Amber / Or	S - Soil SD - Soir Glass 1 Liter	lid L	- Liquio	I A	- Air Ba	g uth	C -	Char	rcoal to	ube r other	SL - s	sludge	0-	Oil						

					CHAIN OF CUSTODY RECORD
*	Hall 2 Laboratory: And	Environm alvis ca	rentall bratory	ANALYSIS REQUESTED	Lab use only Due Date:
APEX	Address: 4901	Hawkins	NE		Temp. of coolers Ad
Office Location	Albuqueque,				when received (C°):
606 S. Rio Grant Site A	Contact: A.T	rouman			5 1 2 3 4 5
Azterna 87410	Phone: 505-2			12	Page 2 of 2
Project Manager K.Summers		spense		3	
Ranee Deechilly 7	Sampler's Signature	)		BIEN SOA	
Proj. No. Project Name	1	No/Type of	Containers	一个是 3	<u> </u>
73564412352 55 30-6 \$	4325			1 / 17 7	1 / / / / /
73504012352 55 30-6 #  Matrix Date Time 0 I   Identifying Ma	cks of Sample(s)	VOA VOA 11 L.	Glass Jar P/O		Lab Sample ID (Lab Use Only)
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ar out 6 history in	50% Rush 100% Rus	100 / 1			
	Time: Repeived by: (Si	gnature)	Date:	Time: NO	OTES:
Relinguished by (Signature) Date:	Time: Received by: (Si	ghature)	Date:	Time:	Bill to Tom Long Col 120)
	Time: Received by: (Si	gnature)	Date:	Time:	- 45
Relinquished by (Signature) Date:	Time: Received by: (Si	gnature)	Date:	Time:	Bill to Tom Long (EPROD)  SAMSAY Wheel Sci?
			0.01		thirties and the
Matrix WW - Wastewater W - Water S Container VOA - 40 ml vial A/G - Amber / O		iquid A - Air B mi - Glass wide m		rcoal tube SL -	sludge O - Oil



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

November 29, 2017

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

**FAX** 

RE: SJ 30-6 432S OrderNo.: 1711C54

### Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 3 sample(s) on 11/28/2017 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

### **Analytical Report**

### Lab Order 1711C54

Date Reported: 11/29/2017

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: SP-1

 Project:
 SJ 30-6 432S
 Collection Date: 11/27/2017 11:00:00 AM

 Lab ID:
 1711C54-001
 Matrix: SOIL
 Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: MRA
Chloride	ND	30	mg/Kg	20	11/28/2017 12:44:43	PM 35186
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	;			Analy	st: TOM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/28/2017 11:56:48	AM 35179
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/28/2017 11:56:48	AM 35179
Surr: DNOP	78.7	70-130	%Rec	1	11/28/2017 11:56:48	AM 35179
EPA METHOD 8015D: GASOLINE RANG	GE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	3.9	mg/Kg	1	11/28/2017 12:54:22	PM G47368
Surr: BFB	88.4	15-316	%Rec	1	11/28/2017 12:54:22	PM G47368
<b>EPA METHOD 8021B: VOLATILES</b>					Analy	st: NSB
Benzene	ND	0.020	mg/Kg	1	11/28/2017 12:54:22	PM B47368
Toluene	ND	0.039	mg/Kg	1	11/28/2017 12:54:22	PM B47368
Ethylbenzene	ND	0.039	mg/Kg	1	11/28/2017 12:54:22	PM B47368
Xylenes, Total	ND	0.078	mg/Kg	1	11/28/2017 12:54:22	PM B47368
Surr: 4-Bromofluorobenzene	85.2	80-120	%Rec	1	11/28/2017 12:54:22	PM B47368

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

- \* 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
- PQL Practical Quanitative Limit
  - 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 Page 1 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# Analytical Report Lab Order 1711C54

Date Reported: 11/29/2017

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: SP-2

 Project:
 SJ 30-6 432S
 Collection Date: 11/27/2017 11:10:00 AM

 Lab ID:
 1711C54-002
 Matrix: SOIL
 Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Anal	yst: MRA
Chloride	ND	30	mg/Kg	20	11/28/2017 12:57:07	PM 35186
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Anal	yst: TOM
Diesel Range Organics (DRO)	26	9.4	mg/Kg	1	11/28/2017 12:24:30	PM 35179
Motor Oil Range Organics (MRO)	62	47	mg/Kg	1	11/28/2017 12:24:30	PM 35179
Surr: DNOP	85.0	70-130	%Rec	1	11/28/2017 12:24:30	PM 35179
EPA METHOD 8015D: GASOLINE RAI	NGE				Anal	yst: NSB
Gasoline Range Organics (GRO)	ND	19	mg/Kg	5	11/28/2017 1:17:44	PM G47368
Surr: BFB	87.1	15-316	%Rec	5	11/28/2017 1:17:44	PM G47368
EPA METHOD 8021B: VOLATILES					Anal	yst: NSB
Benzene	ND	0.095	mg/Kg	5	11/28/2017 1:17:44	PM B47368
Toluene	ND	0.19	mg/Kg	5	11/28/2017 1:17:44	PM B47368
Ethylbenzene	ND	0.19	mg/Kg	5	11/28/2017 1:17:44	PM B47368
Xylenes, Total	ND	0.38	mg/Kg	5	11/28/2017 1:17:44	PM B47368
Surr: 4-Bromofluorobenzene	85.4	80-120	%Rec	5	11/28/2017 1:17:44	PM B47368

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

- 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
- PQL Practical Quanitative Limit
- 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 Page 2 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## **Analytical Report**

Lab Order 1711C54

Date Reported: 11/29/2017

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT: APEX TITAN** 

Client Sample ID: SP-3

 Project:
 SJ 30-6 432S
 Collection Date: 11/27/2017 11:20:00 AM

 Lab ID:
 1711C54-003
 Matrix: SOIL
 Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: MRA
Chloride	34	30	mg/Kg	20	11/28/2017 1:34:22 PM	A 35186
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANICS				Analys	t: TOM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	11/28/2017 12:52:41 P	M 35179
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	11/28/2017 12:52:41 P	M 35179
Surr: DNOP	82.1	70-130	%Rec	1	11/28/2017 12:52:41 P	M 35179
EPA METHOD 8015D: GASOLINE RAN	GE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	11/28/2017 1:41:11 PM	M G47368
Surr: BFB	90.6	15-316	%Rec	1	11/28/2017 1:41:11 PM	M G47368
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.020	mg/Kg	1	11/28/2017 1:41:11 PM	И В47368
Toluene	ND	0.040	mg/Kg	1	11/28/2017 1:41:11 PM	И В47368
Ethylbenzene	ND	0.040	mg/Kg	1	11/28/2017 1:41:11 PM	И B47368
Xylenes, Total	ND	0.079	mg/Kg	1	11/28/2017 1:41:11 PM	И B47368
Surr: 4-Bromofluorobenzene	87.3	80-120	%Rec	1	11/28/2017 1:41:11 PM	И В47368

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

- \* 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
- PQL Practical Quanitative Limit
- 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 Page 3 of 7
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1711C54

29-Nov-17

Client: APEX TITAN
Project: SJ 30-6 432S

Sample ID MB-35186 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS Batch ID: 35186 RunNo: 47367

Prep Date: 11/28/2017 Analysis Date: 11/28/2017 SeqNo: 1512196 Units: mg/Kg

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

Chloride ND 1.5

Sample ID LCS-35186 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 35186 RunNo: 47367

Prep Date: 11/28/2017 Analysis Date: 11/28/2017 SeqNo: 1512197 Units: mg/Kg

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

Chloride 14 1.5 15.00 0 94.6 90 110

### 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

PQL Practical Quanitative Limit

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

Page 4 of 7

P Sample pH Not In Range

RL Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1711C54 29-Nov-17

Client: APEX TITAN
Project: SJ 30-6 432S

Project: SJ 50-0	4323	
Sample ID LCS-35179	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 35179	RunNo: 47353
Prep Date: 11/28/2017	Analysis Date: 11/28/2017	SeqNo: 1510946 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	45 10 50.00	
Surr: DNOP	4.4 5.000	88.0 70 130
Sample ID MB-35179	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 35179	RunNo: 47353
Prep Date: 11/28/2017	Analysis Date: 11/28/2017	SeqNo: 1510947 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	ND 10	
Motor Oil Range Organics (MRO)	ND 50	04.5
Surr: DNOP	9.1 10.00	91.5 70 130
Sample ID LCS-35180	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 35180	RunNo: 47354
Prep Date: 11/28/2017	Analysis Date: 11/28/2017	SeqNo: <b>1510950</b> Units: <b>%Rec</b>
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	3.9 5.000	78.6 70 130
Sample ID MB-35180	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 35180	RunNo: 47354
Prep Date: 11/28/2017	Analysis Date: 11/28/2017	SeqNo: <b>1510951</b> Units: <b>%Rec</b>
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	8.5 10.00	85.5 70 130
Sample ID LCS-35150	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 35150	RunNo: 47354
Prep Date: 11/27/2017	Analysis Date: 11/28/2017	SeqNo: 1512100 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	4.7 5.000	94.1 70 130
Sample ID MB-35150	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 35150	RunNo: 47354
Prep Date: 11/27/2017	Analysis Date: 11/28/2017	SeqNo: 1512101 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	10 10.00	103 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

PQL Practical Quanitative Limit

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

Page 5 of 7

P Sample pH Not In Range

RL Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1711C54

29-Nov-17

Client: APEX TITAN
Project: SJ 30-6 432S

Project:	SJ 30-6 432S
Sample ID RB	SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range
Client ID: PBS	Batch ID: <b>G47368</b> RunNo: <b>47368</b>
Prep Date:	Analysis Date: 11/28/2017 SeqNo: 1511580 Units: mg/Kg
Analyte	Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organics	(GRO) ND 5.0
Surr: BFB	890 1000 89.4 15 316
Sample ID 2.5UG (	GRO LCS SampType: LCS TestCode: EPA Method 8015D: Gasoline Range
Client ID: LCSS	Batch ID: <b>G47368</b> RunNo: <b>47368</b>
Prep Date:	Analysis Date: 11/28/2017 SeqNo: 1511581 Units: mg/Kg
Analyte	Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Gasoline Range Organica	(GRO) 22 5.0 25.00 0 88.7 75.9 131
Surr: BFB	1000 1000 100 15 316
Sample ID MB-351	54 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range
Client ID: PBS	Batch ID: 35154 RunNo: 47368
Prep Date: 11/27/	2017 Analysis Date: 11/28/2017 SeqNo: 1511588 Units: %Rec
Analyte	Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: BFB	880 1000 88.1 15 316
Sample ID LCS-35	154 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range
Client ID: LCSS	Batch ID: 35154 RunNo: 47368
Prep Date: 11/27/	2017 Analysis Date: 11/28/2017 SeqNo: 1511589 Units: %Rec
Analyte	Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: BFB	1000 1000 102 15 316

#### 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

PQL Practical Quanitative Limit

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

Page 6 of 7

P Sample pH Not In Range

RL Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1711C54

29-Nov-17

Client:	APEX TITAN
Project:	SJ 30-6 432S

1 Toject.	53 50-0 4.										
Sample ID	RB	SampTy	pe: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	PBS	Batch	ID: <b>B4</b>	7368	F	RunNo: 4	7368				
Prep Date:		Analysis Da	ate: 11	/28/2017	8	SeqNo: 1	511605	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Brom	ofluorobenzene	0.90		1.000		90.0	80	120			
Sample ID	100NG BTEX LCS	SampTy	ype: LC	S	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	LCSS	Batch	ID: <b>B4</b>	7368	F	RunNo: 4	7368				
Prep Date:		Analysis Da	ate: 11	1/28/2017	5	SeqNo: 1	511606	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.93	0.025	1.000	0	93.2	77.3	128			
Toluene		0.93	0.050	1.000	0	92.6	79.2	125			
Ethylbenzene		0.92	0.050	1.000	0	92.0	80.7	127			
Xylenes, Total		2.8	0.10	3.000	0	92.6	81.6	129			
Surr: 4-Brom	ofluorobenzene	0.92		1.000		92.2	80	120			
Sample ID	MB-35154	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID:	PBS	Batch	ID: 35	154	F	RunNo: 4	7368				
Prep Date:	11/27/2017	Analysis Da	ate: 11	1/28/2017	5	SeqNo: 1	511613	Units: %Red	С		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Brom	ofluorobenzene	0.89		1.000		88.7	80	120			
Sample ID	LCS-35154	SampT	ype: LC	S	Tes	tCode: El	PA Method	8021B: Volat	tiles		

Sample ID LCS-35154	SampType: I	LCS	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batch ID:	35154	R	RunNo: 4	47368				
Prep Date: 11/27/2017	Analysis Date:	11/28/2017	S	SeqNo: 1	1511614	Units: %Red	С		
Analyte	Result PQI	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.94	1.000		94.1	80	120			

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

PQL Practical Quanitative Limit

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

Page 7 of 7

P Sample pH Not In Range

RL Reporting Detection Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name:	APEX AZTEC	Work Order Numbe	er: 17110	C54	,,	Ropth	lo: 1
Received By:	Anne Thorne	11/28/2017 7:00:00 A	AM		anne Am	_	
Completed By:	Anne Thorne	11/28/2017 8:25:43	MA		ame Am	_	
Reviewed By:	Duo	11(28/17			Olara Johnson		
Chain of Cus	stodv						
	als intact on sample bottl	es?	Yes	<b>V</b>	No 🗆	Not Present	
	Custody complete?		Yes	<b>✓</b>	No 🗌	Not Present	
3. How was the	e sample delivered?		Cour	<u>ier</u>			
Log In							
4. Was an atte	empt made to cool the sa	amples?	Yes	<b>✓</b>	No 🗆	NA [	
5. Were all sai	mples received at a temp	perature of >0° C to 6.0°C	Yes	<b>✓</b>	No 🗌	NA [	]
6. Sample(s) i	n proper container(s)?		Yes	<b>V</b>	No 🗆		
7. Sufficient sa	ample volume for indicate	ed test(s)?	Yes	<b>V</b>	No 🗆		
8. Are samples	s (except VOA and ONG)	properly preserved?	Yes	<b>V</b>	No 🗌		
9. Was preser	vative added to bottles?		Yes		No 🗸	NA [	
10.VOA vials h	ave zero headspace?		Yes		No 🗌	No VOA Vials	
11. Were any s	ample containers receive	ed broken?	Yes		No 🗸	# of preserved	2
12. Does paper	work match bottle labels?	7	Yes	<b>V</b>	No 🗆	bottles checked for pH:	
(Note discre	pancies on chain of cust	ody)					2 or >12 unless noted)
	s correctly identified on C		Yes		No 🗀	Adjusted?	
	nat analyses were reques		Yes	<b>V</b>	No 🗆	Checked by	,,
	ding times able to be me customer for authorization		Yes	<b>~</b>	No 🗔	Checked by	·
Special Hand	lling (if applicable)						*
	otified of all discrepance	es with this order?	Yes		No 🗆	NA 5	
Person	n Notified:	Date		hitedhishidadh	AND THE PERSON NAMED AND THE P		
By Wh	nom:	Via:	a ☐ eMa	ail 🗆	Phone Fax	In Person	
Regar	ding:	HEROTE SCHOOLSE THE THE SAME AND AND SCHOOLSE SAME SCHOOL AND SCHOOL AND SCHOOL AND	PLANTAL MARKANA	NAME OF TAXABLE PARTY.			
Client	Instructions:			CHOLOGRAMO			
17. Additional r	emarks:		10				
18. <u>Cooler Info</u>							
Cooler N			Seal Da	ate	Signed By		
[1	1.0 Good	Yes		1,-1,1,1,1			

					CH	IAIN OF CUSTODY RECORD
*	Hall d Laboratory: And	Environme Uvsis Lab	untul poratony	ANALYSIS REQUESTED	$\langle \cdot   \cdot   \cdot   \cdot   \cdot   \cdot  $	Lab use only Due Date:
APEX	Address: 490/ -	Hawkin	NE	/ 3		Temp. of coolers /. o`
Office Location	Albuquergu	e, mm	87104	1 /d		when received (C°):
666 S. 270 Grando, Surk A	Contact:	4	JAK ,		1 2 3 4 5	
Azter, NM 57410	Phone: 50.5 -	345-39	75			Page
Project Manager <u>Fishermors</u>	PO/SO#:	see notes	3	7 8 /		
Sampler's Name Range Doe chilly	Sampler's Signature	)		FITER SOLAL TOPH CORP. PROJUMED	/////	
Proj. No. Project Name		No/Type of	Containers	PH Choco		
7250401/2352 55 30-(	e # 4325			MAY /		
Matrix Date Time C G o r Identifying Ma	rks of Sample(s)	VOA VOA	Z50 ml Glass Jar P/O			Lab Sample ID (Lab Use Only)
S 1/27/17 1100 X SP-	.(		İ	* X X.		1711CS4-001
5 112717 1110 X SP-	2		1	XXX		202
S 11/27/17/11/20 X SP-	3		)	XXX		703
	MES					
	50% Rush 100% Ru		INE OF			
Kullahud 11/2/14/17	Time: Received by: (S		Date: 1/27/n	Time: NOTES:		(-000)
	Time: Received by: (S	ignature)	Date:	Time: 3	ill to Tom (	long (FFRECE)
T V VV	Time: Received by: (S	ignature)	Date:	Time:	CAME	NAX
Relinquished by (Signature) Date:	Time: Received by: (S	ignature)	Date:	Time:	AHVE	DAY COCSEAL
Matrix WW - Wastewater W - Water Container VOA - 40 ml vial A/G - Amber / O		Liquid A - Air E		rcoal tube SL - sludge	O - Oil	



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

December 05, 2017

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

FAX

RE: SJ 30-6 432s OrderNo.: 1712079

### Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/2/2017 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

### **Analytical Report**

### Lab Order 1712079

Date Reported: 12/5/2017

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: S-12

**Project:** SJ 30-6 432s **Collection Date:** 12/1/2017 12:10:00 PM

Lab ID: 1712079-001 Matrix: MEOH (SOIL) Received Date: 12/2/2017 8:30:00 AM

Analyses	Result	Result PQL Qual Units		DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	ND	30	mg/Kg	20	12/4/2017 10:48:22 AM	35291
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	12/4/2017 11:14:27 AM	35289
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/4/2017 11:14:27 AM	35289
Surr: DNOP	81.5	70-130	%Rec	1	12/4/2017 11:14:27 AM	35289
EPA METHOD 8015D: GASOLINE RA	ANGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	20	mg/Kg	5	12/4/2017 9:48:31 AM	G47501
Surr: BFB	* 88.5	15-316	%Rec	5	12/4/2017 9:48:31 AM	G47501
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	0.10	mg/Kg	5	12/4/2017 9:48:31 AM	B47501
Toluene	ND	0.20	mg/Kg	5	12/4/2017 9:48:31 AM	B47501
Ethylbenzene	ND	0.20	mg/Kg	5	12/4/2017 9:48:31 AM	B47501
Xylenes, Total	ND	0.40	mg/Kg	5	12/4/2017 9:48:31 AM	B47501
Surr: 4-Bromofluorobenzene	87.0	80-120	%Rec	5	12/4/2017 9:48:31 AM	B47501

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

- \* 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
- PQL Practical Quanitative Limit
  - 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 Page 1 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### **Analytical Report**

### Lab Order 1712079

Date Reported: 12/5/2017

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: S-13

 Project:
 SJ 30-6 432s
 Collection Date: 12/1/2017 12:20:00 PM

 Lab ID:
 1712079-002
 Matrix: MEOH (SOIL)
 Received Date: 12/2/2017 8:30:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: MRA
Chloride	ND	30	mg/Kg	20	12/4/2017 11:00:46 AM	1 35291
EPA METHOD 8015M/D: DIESEL RANG	SE ORGANICS				Analys	t: TOM
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	12/4/2017 11:36:24 AM	1 35289
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/4/2017 11:36:24 AM	1 35289
Surr: DNOP	84.4	70-130	%Rec	1	12/4/2017 11:36:24 AM	1 35289
EPA METHOD 8015D: GASOLINE RAN	GE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	19	mg/Kg	5	12/4/2017 10:11:54 AM	1 G47501
Surr: BFB	91.4	15-316	%Rec	5	12/4/2017 10:11:54 AM	1 G47501
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.095	mg/Kg	5	12/4/2017 10:11:54 AM	1 B47501
Toluene	ND	0.19	mg/Kg	5	12/4/2017 10:11:54 AM	B47501
Ethylbenzene	ND	0.19	mg/Kg	5	12/4/2017 10:11:54 AM	B47501
Xylenes, Total	ND	0.38	mg/Kg	5	12/4/2017 10:11:54 AM	B47501
Surr: 4-Bromofluorobenzene	87.4	80-120	%Rec	5	12/4/2017 10:11:54 AM	1 B47501

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

- \* 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
- PQL Practical Quanitative Limit
- 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 Page 2 of 8
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1712079

05-Dec-17

Client:

APEX TITAN

Project:

SJ 30-6 432s

Sample ID MB-35291

SampType: mblk

TestCode: EPA Method 300.0: Anions

Client ID:

PBS

Batch ID: 35291

RunNo: 47497

HighLimit

Prep Date: 12/4/2017

Analysis Date: 12/4/2017 PQL

SeqNo: 1517588

Units: mg/Kg

**RPDLimit** 

Qual

Analyte Chloride

ND 1.5

Sample ID LCS-35291

SampType: Ics

TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 35291

Result

RunNo: 47497

Prep Date:

12/4/2017

Analysis Date: 12/4/2017

SeqNo: 1517589

Units: mg/Kg

%RPD Qual

Analyte

SPK value SPK Ref Val %REC LowLimit **PQL** Chloride 14 1.5 15.00

110

HighLimit

SPK value SPK Ref Val %REC LowLimit

90.6

%RPD

**RPDLimit** 

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

Η Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

**PQL** Practical Quanitative Limit % Recovery outside of range due to dilution or matrix Analyte detected in the associated Method Blank

E Value above quantitation range

Analyte detected below quantitation limits

Page 3 of 8

P Sample pH Not In Range

RL Reporting Detection Limit Sample container temperature is out of limit as specified

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1712079

05-Dec-17

Client: APEX TITAN
Project: SJ 30-6 432s

<b>Project:</b> 53 30-6 4	+328										
Sample ID LCS-35289	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Org	ganics							
Client ID: LCSS	Batch ID: 35289	RunNo: 47491									
Prep Date: 12/4/2017	Analysis Date: 12/4/2017	SeqNo: 1516589	Units: mg/Kg								
Analyte	Result PQL SPK value	e SPK Ref Val %REC LowLimit	HighLimit %RPD RP	DLimit Qual							
Diesel Range Organics (DRO)	47 10 50.0	0 93.6 73.2	114								
Surr: DNOP	3.6 5.00	71.3 70	130								
Sample ID MB-35289	SampType: MBLK	TestCode: EPA Method	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 35289	RunNo: 47491									
Prep Date: 12/4/2017	Analysis Date: 12/4/2017	SeqNo: 1516590	Units: mg/Kg								
Analyte	Result PQL SPK value	e SPK Ref Val %REC LowLimit	HighLimit %RPD RP	DLimit Qual							
Diesel Range Organics (DRO)	ND 10										
Motor Oil Range Organics (MRO)	ND 50										
Surr: DNOP	7.8 10.0	77.7 70	130								
Sample ID 1712079-001AMS	SampType: MS	SampType: MS TestCode: EPA Method 8015M/D: Diesel Range Organics									
Client ID: S-12	Batch ID: 35289	RunNo: 47491									
Prep Date: 12/4/2017	Analysis Date: 12/4/2017	SeqNo: 1516888	Units: mg/Kg								
Analyte	Result PQL SPK value	e SPK Ref Val %REC LowLimit	HighLimit %RPD RP	DLimit Qual							
Diesel Range Organics (DRO)	47 9.8 48.8	8 1.603 92.9 55.8	125								
Surr: DNOP	4.2 4.88	8 85.6 70	130								
Sample ID 1712079-001AMS	D SampType: MSD	TestCode: EPA Method	8015M/D: Diesel Range Org	ganics							
Client ID: S-12	Batch ID: 35289	RunNo: 47491									
Prep Date: 12/4/2017	Analysis Date: 12/4/2017	SeqNo: 1516889	Units: mg/Kg								
Analyte	Result PQL SPK value	e SPK Ref Val %REC LowLimit	HighLimit %RPD RP	DLimit Qual							
Diesel Range Organics (DRO)	46 9.5 47.3	9 1.603 93.5 55.8	125 2.38	20							
Surr: DNOP	4.1 4.73	9 86.4 70	130 0	0							
Sample ID LCS-35267	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Org	ganics							
Client ID: LCSS	Batch ID: 35267	RunNo: 47491									
Prep Date: 12/1/2017	Analysis Date: 12/4/2017	SeqNo: 1517261	Units: %Rec								
Analyte	Result PQL SPK value	e SPK Ref Val %REC LowLimit	HighLimit %RPD RP	DLimit Qual							
Surr: DNOP	4.3 5.00	0 85.2 70	130								
Sample ID MB-35267	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Org	ganics							
Client ID: PBS	Batch ID: 35267	RunNo: 47491									
Prep Date: 12/1/2017	Analysis Date: 12/4/2017	SeqNo: 1517263	Units: %Rec								
Analyte	Result PQL SPK value	e SPK Ref Val %REC LowLimit	HighLimit %RPD RP	DLimit Qual							

### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

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

Page 4 of 8

P Sample pH Not In Range

RL Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1712079

05-Dec-17

**Client:** 

APEX TITAN

**Project:** 

SJ 30-6 432s

Sample ID MB-35267

SampType: MBLK

TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID:

**PBS** 

Batch ID: 35267

RunNo: 47491

Prep Date: 12/1/2017 Analysis Date: 12/4/2017

**PQL** 

SeqNo: 1517263

Units: %Rec

HighLimit

**RPDLimit** 

Qual

Analyte Surr: DNOP Result 9.4

10.00

93.6

SPK value SPK Ref Val %REC LowLimit

70

130

%RPD

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

H Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

**PQL** Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix В Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

Page 5 of 8

## Hall Environmental Analysis Laboratory, Inc.

WO#:

1712079

05-Dec-17

**Client:** Project: APEX TITAN SJ 30-6 432s

Sample ID RB

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

15

75.9

15

TestCode: EPA Method 8015D: Gasoline Range

Client ID: **PBS**  Batch ID: G47501

RunNo: 47501

Prep Date:

Analysis Date: 12/4/2017

SeqNo: 1517074

%RPD

Analyte

Result PQL 5.0 SPK value SPK Ref Val %REC LowLimit Units: mg/Kg

**RPDLimit** Qual

Gasoline Range Organics (GRO) Surr: BFB

ND 900

1000

90.0

316

HighLimit

Sample ID 2.5UG GRO LCS

PQL

RunNo: 47501

Prep Date:

Analyte

Client ID:

Batch ID: G47501 Analysis Date: 12/4/2017

SampType: LCS

SeqNo: 1517075

106

Units: mg/Kg

HighLimit

Qual

Gasoline Range Organics (GRO) Surr: BFB

24 1100

850

Result

Result

880

19

Result

SPK value 5.0 25.00 1000

SPK Ref Val %REC LowLimit 95.6

131

%RPD **RPDLimit** 

Sample ID 1712079-001AMS

SampType: MS

RunNo: 47501

TestCode: EPA Method 8015D: Gasoline Range

Prep Date:

Client ID: S-12 Batch ID: G47501

0

SeqNo: 1517076

Units: mg/Kg

316

316

Analyte

Analysis Date: 12/4/2017

Qual

Gasoline Range Organics (GRO)

SPK value SPK Ref Val Result PQL 20 4.0

20.16

806.5

20.16

806.5

%REC 0 101

106

LowLimit **HighLimit** 77.8 128 %RPD

**RPDLimit** 

Surr: BFB

Sample ID 1712079-001AMSD

SampType: MSD

TestCode: EPA Method 8015D: Gasoline Range

15

Client ID: Prep Date:

S-12

Batch ID: G47501 Analysis Date: 12/4/2017

PQL

4.0

RunNo: 47501 SeqNo: 1517077

15

Units: mg/Kg

**RPDLimit** 

0

Analyte Gasoline Range Organics (GRO) Surr: BFB

12/1/2017

12/1/2017

810

Batch ID: 35265

Analysis Date: 12/4/2017

PQL

0 95.2 100

%REC LowLimit 77.8 HighLimit 128

316

%RPD

5.48

20

Prep Date:

Sample ID MB-35265 Client ID: **PBS** 

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

RunNo: 47501

SeqNo: 1517086

Qual

Qual

Analyte Surr: BFB

1000

SPK value SPK Ref Val

SPK value SPK Ref Val

SPK value SPK Ref Val %REC LowLimit 88.2

HighLimit

HighLimit

316

Units: %Rec

316

%RPD **RPDLimit** 

Sample ID LCS-35265

Client ID: LCSS SampType: LCS Batch ID: 35265

TestCode: EPA Method 8015D: Gasoline Range

LowLimit

15

15

Prep Date:

Result

1000

Analysis Date: 12/4/2017

1000

RunNo: 47501 SeqNo: 1517087 %REC

101

Units: %Rec %RPD

**RPDLimit** Qual

Page 6 of 8

Analyte Surr: BFB

ND

**PQL** 

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix D

Practical Quanitative Limit

Holding times for preparation or analysis exceeded Η

Not Detected at the Reporting Limit

B Analyte detected in the associated Method Blank

Value above quantitation range

P

RL Reporting Detection Limit Sample container temperature is out of limit as specified

Analyte detected below quantitation limits

% Recovery outside of range due to dilution or matrix

Sample pH Not In Range

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1712079

05-Dec-17

Client:	APEX TITAN
<b>Project:</b>	SJ 30-6 432s

Sample ID RB	SampT	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID: PBS	Batch ID: <b>B47501</b>			R	RunNo: 47501					
Prep Date:	Analysis Date: 12/4/2017			S	SeqNo: 1517118			Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.85		1.000		85.2	80	120			

Sample ID 100NG BTEX LCS	SampType	Type: LCS TestCode: EPA Method 8					8021B: Volat	iles			
Client ID: LCSS	Batch ID: <b>B47501</b>			R	RunNo: 47501						
Prep Date:	Analysis Date: 12/4/2017			S	SeqNo: 1517120 Units: mg/Kg						
Analyte	Result P	QL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.87 0.	025	1.000	0	86.5	77.3	128				
Toluene	0.87 0.	050	1.000	0	86.5	79.2	125				
Ethylbenzene	0.85 0.	.050	1.000	0	85.3	80.7	127				
Xylenes, Total	2.6	0.10	3.000	0	86.9	81.6	129				
Surr: 4-Bromofluorobenzene	0.88		1.000		88.5	80	120				

Sample ID 1712079-002AMS	Samp	SampType: MS			TestCode: EPA Method 8021B: Volatiles					
Client ID: S-13	Batc	Batch ID: <b>B47501</b>			RunNo: 47501					
Prep Date:	Analysis Date: 12/4/2017			8	SeqNo: 1517121			(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.69	0.019	0.7570	0	91.3	80.9	132			
Toluene	0.69	0.038	0.7570	0	91.3	79.8	136			
Ethylbenzene	0.69	0.038	0.7570	0	91.3	79.4	140			
Xylenes, Total	2.1	0.076	2.271	0	91.9	78.5	142			
Surr: 4-Bromofluorobenzene	0.64		0.7570		84.5	80	120			

Sample ID 1712079-002AM	SD SampT	D SampType: MSD			TestCode: EPA Method 8021B: Volatiles					
Client ID: S-13	Batch	Batch ID: <b>B47501</b>			RunNo: 47501					
Prep Date:	Analysis D	ate: 12	2/4/2017	S	SeqNo: 1517122 Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.67	0.019	0.7570	0	88.9	80.9	132	2.66	20	
Toluene	0.68	0.038	0.7570	0	89.5	79.8	136	2.00	20	
Ethylbenzene	0.67	0.038	0.7570	0	89.0	79.4	140	2.52	20	
Xylenes, Total	2.0	0.076	2.271	0	89.4	78.5	142	2.74	20	
Surr: 4-Bromofluorobenzene	0.63		0.7570		82.9	80	120	0	0	

#### 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

PQL Practical Quanitative Limit

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

Page 7 of 8

P Sample pH Not In Range

RL Reporting Detection Limit

### Hall Environmental Analysis Laboratory, Inc.

WO#:

1712079 05-Dec-17

Client:

APEX TITAN

Project:

SJ 30-6 432s

Sample ID MB-35265

SampType: MBLK

TestCode: EPA Method 8021B: Volatiles

80

Client ID:

PBS

Batch ID: 35265

RunNo: 47501

12/1/2017

Analysis Date: 12/4/2017

SeqNo: 1517123

Units: %Rec

Prep Date:

Result

Analyte

0.82

PQL

1.000

SPK value SPK Ref Val %REC LowLimit 82.2

HighLimit

**RPDLimit** 

Qual

Surr: 4-Bromofluorobenzene Sample ID LCS-35265

SampType: LCS

TestCode: EPA Method 8021B: Volatiles

120

%RPD

%RPD

Client ID:

LCSS

Batch ID: 35265

RunNo: 47501

Prep Date: 12/1/2017

Analysis Date: 12/4/2017

SeqNo: 1517124

Units: %Rec

**RPDLimit** Qual

Surr: 4-Bromofluorobenzene

120

Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit 0.91 1.000 91.3 80

### **Qualifiers:**

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

**PQL** Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank B

E Value above quantitation range

Analyte detected below quantitation limits

Page 8 of 8

P Sample pH Not In Range

RL Reporting Detection Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE

Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

## Sample Log-In Check List

**APEX AZTEC** Work Order Number: 1712079 RcptNo: 1 Client Name: Received By: **Ashley Gallegos** 12/2/2017 8:30:00 AM Completed By: **Ashley Gallegos** 12/2/2017 9:50:52 AM 8Re 12/04/17 Reviewed By: Chain of Custody No 🗌 1 Custody seals intact on sample bottles? Not Present No 🗌 Not Present 2. Is Chain of Custody complete? 3 How was the sample delivered? Courier Log In No 🗌 NA 🗌 Yes 🗸 4. Was an attempt made to cool the samples? NA 🗌 5. Were all samples received at a temperature of >0° C to 6.0°C Yes V No 🗌 No 🗌 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? No 🗸 NA 🗌 9. Was preservative added to bottles? Yes 🗌 No VOA Vials No 🗌 10. VOA vials have zero headspace? Yes No V 11. Were any sample containers received broken? # of preserved bottles checked No 🗌 for pH: 12. Does paperwork match bottle labels? Yes 🗸 (Note discrepancies on chain of custody) (<2 or >12 unless noted) Adjusted? No 🗌 13. Are matrices correctly identified on Chain of Custody? Yes V No 🗌 14. Is it clear what analyses were requested? Checked by: Yes 🗸 No 🗌 15. Were all holding times able to be met? (If no, notify customer for authorization.) Special Handling (if applicable) Yes No 🗌 NA V 16. Was client notified of all discrepancies with this order? Person Notified: Date By Whom: eMail Phone Fax In Person Via: Regarding: Client Instructions: 17. Additional remarks: 18. Cooler Information Cooler No Temp °C Condition Seal Intact Seal No Seal Date Good

				CHAIN OF CUSTODY RECORD
=4	Hall En	ivonmenta!	Analysis	Lab use only
	Laboratory: Analys	is Laboratory	REQUESTED	Due Date:
APEX	Address: 4901 Ha		150	
Office Location	Albugue,			Temp. of coolers 0.40.5 when received (C°): 0.9
606 S RIO Grande, Suited	Contact: AF		an I	1 2 3 4 5
Aztecinm 8740	Phone: 505-3	,	72	Pageor
Project Manager K. Summers	PO/SO#: See	odes	\$ \$4	/ / /
	Sampler's Signature		BIEN SORI TRH CROUPEDINES	/ / /
Project Name	#022-	No/Type of Containers	日本美///	//
	ks of Sample(s)	VOA A/G 1 LL. 250 ml Glass Jar P/O		Lab Sample ID (Lab Use Only)
5 12117 120 X S-		1	XXX	1712079-001
S 12 1 1 1220 X S-1			XXX	-002
	KB			
Turn around time ☐ Normal ☐ 25% Rush ☐	50% Rush 3(100% Rush	SAME DAY		
The Duly 19117 1	The Received by: (Signator)	12/1/17	Time: NOTES:	
Relinquished by (S)gnature) Date: T	ime: Received by: (Signa	ture) Date: 12/02/17	0830 Bill to ion	Larg (EPROD)
Relinquished by (Signature) Date: T	ime: Received by: Signa	ture) Date:	Time: IV Un AFE /V	1 32635 Seck of COCALables
Relinquished by (Signature) Date: T	ime: Received by: (Signa	ture) Date:	Time: SAME DA	Cocylables
Matrix WW - Wastewater W - Water S Container VOA - 40 ml via A/G - Amber / Or	S - Soil SD - Solid L - Liquid Glass 1 Liter 250 ml -		rcoal tube SL - sludge O - Oil lastic or other	

District I
1625 M. Frenciè 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

\* Attach Additional Sheets If Necessary

State of New Mexico Energy Minerals and Natural Resources

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

Form C-141 Revised April 3, 2017

MAR 1 2 2018 Revised April 3, 2017
Submit 1 Copy to appropriate District Office
DISTINACCORDANCE With 19.15.29 NMAC.

## **Release Notification and Corrective Action**

					OP	<b>ERATOR</b>	3		Initial F	Report	$\boxtimes$	Final Repo	rt
Name of C	ompany E	nterprise F	ield Sen	vices, LLC	(	Contact Thomas Long							
Address 61	14 Reilly A	ve, Farmir	ngton, NI	VI 87401		Telephone	No. <b>505-599-</b> 2	2286					
Facility Na	me <b>San J</b> u	ıan 30-6 #4	03		F	Facility Type Natural Gas Gathering Pipeline							
Surface Ov	wner <b>BLM</b>			Mineral	Owner I	BLM			Serial	No. NM (	)76762	2	
				LOC		OF REL	EASE						
Unit Letter <b>G</b>	Section 9	Township 30N	Range 6W	Feet from the 1817	North Line	South	Feet from the 2248	East/ Line	Vest County Rio Arriba				
Latitude 36.829257 Longitude 107.467122 NAD83													
NATURE OF RELEASE													
Type of Rele	ease Natura			f Release 22.04 BBLS Condens		Volume F	Recovered	None					
Source of R	elease Inter		Hour of Occurre 7 @ 12:40 p.m.			Hour of E							
Was Immed	iate Notice		) Whom? : Cour		tification (	Cory Smith	ı – NM	OCD					
By Whom?							Hour November						
Was a Wate	rcourse Rea		☐ Yes	⊠ No		If YES, Vo	olume Impacting	the Wa	atercourse				
		npacted, Des											
							117, a contractor essurized, locke						
dimensions	measured a and transpor	approximately ted to a New	y 41 feet lo	ong by 8 feet	by 7 fee	t deep. Ap	s removed by n proximately 70 d d land farm facil	cubic ya	irds of hyd	drocarbon	impact	ted soil were	
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.													
		11-	1.	-			OIL CON		<b>ATION</b>	DIVISI	ON		
Signature:	M	1. fu	1			Annual de	. Consideration	Cassia	1 /a	ng f	4	-	,
Printed Nam	ne: Jon E. Fi	ields				Approved by Environmental Specialist:							
Title: Directo	or, Environm	nental			A	Approval Date: 5/8//8 Expiration Date:							
E-mail Addre	ess: jefields	@eprod.com	1			Conditions of Approval:  Attached							
Date: 3	15/701	18				_							

#NCS 180 1655 622

(50)



### **CORRECTIVE ACTION REPORT**

Property:

SJ 30-6 #403 Well Tie NE 1/4, S9 T30N R6W Rio Arriba County, New Mexico

February 5, 2018 Apex Project No. 725040112351

NMOCD

MAR 1 2 2018

DISTRICT III

Prepared for:

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

Prepared by:

Ranee Deechilly Project Scientist

Kyle Summers, CPG

Branch Manager / Senior Geologist

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#### CORRECTIVE ACTION REPORT

SJ 30-6 #403 Well Tie NE 1/4, S9 T30N R6W Rio Arriba County, New Mexico

Apex Project No. 725040112351

### 1.0 INTRODUCTION

### 1.1 Site Description & Background

The SJ 30-6 #403 well tie release site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the northeast (NE) ¼ of Section 9, Township 30 North, Range 6 West, in rural Rio Arriba County, New Mexico (36.829257N,107.467112W), referred to hereinafter as the "Site". The Site is located on land managed by the United States Bureau of Land Management (BLM). The Site is surrounded by rangeland that is periodically interrupted by oil and gas production and gathering facilities, including the Enterprise natural gas gathering pipeline which transects the area from approximately east to west.

On November 14, 2017, a release of natural gas was discovered at the Site. Enterprise subsequently isolated and locked the line out of service. On November 21, 2017, Enterprise initiated excavation activities to facilitate the repair of the pipeline, and to remediate potential petroleum hydrocarbon impact resulting from the release. The pipeline was repaired and placed back into service.

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

### 1.2 Project Objective

The primary objective of the corrective action was to reduce constituent of concern (COC) concentrations 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 implementation of corrective action activities and information available from 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.



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

- No water wells were identified within a mile of the Site on the OSE Water Right Reporting System (WRRS) database. The release Site is located on a mesa at an elevation of approximately 170 feet above the Navajo Dam Reservoir average water level. Based on the difference in elevation between the lake and the Site and the lack of observable seeps or springs, the depth to groundwater at the Site is anticipated to be greater than 100 feet below grade surface (bgs). This information supports a ranking score of "0" for depth to groundwater.
- No water source wells (municipal/community wells) were identified within 1,000 feet of the Site. No private domestic water sources were identified within 200 feet of the Site. The Navajo Dam Reservoir (659 horizontal feet to the north) is situated on the San Juan River which is a source of irrigation water in the area and is also a downstream drinking water supply. The proximity of the Site to the river results in a wellhead/water source protection area ranking score of "20".
- The Site is approximately 659 horizontal feet south and 170 feet above the Navajo Dam Reservoir, resulting in a distance to surface water ranking score of "10".

#### 3.0 RESPONSE ACTIONS

#### 3.1 Soil Excavation Activities

On November 21, 2017, Enterprise initiated excavation activities to facilitate the repair of the pipeline, and to remediate potential petroleum hydrocarbon impact resulting from the release. The pipeline was repaired and placed back into service. During the pipeline repair and corrective action activities, Halo Services Inc., provided heavy equipment and labor support, and Apex provided environmental consulting support.

On November 27, 2017, eight (8) composite soil samples (CS-1 through CS-8) were collected from the sidewalls and base of the excavation for laboratory analysis. In addition, two (2) composite soil samples (SP-1 and SP-2) were collected from stockpiled soils. Subsequent laboratory analytical results indicate that soils associated with composite soil sample CS-7 and composite soil sample SP-2 exhibit COC concentrations above New Mexico EMNRD OCD standards.

Enterprise Field Services, LLC Corrective Action Report SJ 30-6 #403 Well Tie February 5, 2018



The excavation measured approximately 41 feet long by eight (8) feet wide. The maximum depth of the excavation measured approximately seven (7) feet bgs.

The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated silty sand and weathered sandstone, with sandstone present at the base of the excavation.

A total of approximately 70 cubic yards of petroleum hydrocarbon affected soils were transported to the Envirotech, Inc. (Envirotech) landfarm near Hilltop, New Mexico for disposal/remediation. The executed C-138 solid waste acceptance form is provided in **Appendix B**. Following confirmation from the New Mexico ENMRD OCD, the excavation was backfilled with laboratory-confirmed stockpiled soils and imported fill, and contoured to surrounding grade.

**Figure 3** is a map with soil sample locations that depicts the approximate location of the excavation in relation to the pipeline (**Appendix A**). Photographic documentation of the field activities is included in **Appendix C**.

#### 3.2 Soil Sampling Program

Apex field screened soil samples from the excavation utilizing a photoionization detector (PID) fitted with a 10.6 eV lamp and a calibrated Dexsil PetroFLAG® hydrocarbon analyzer system.

Apex's soil sampling program included the collection of eight (8) composite soil samples (CS-1 through CS-8) from the excavation and two (2) composite soil samples (SP-1 and SP-2) from the stockpiled soils for laboratory analysis.

The samples were collected and placed in laboratory prepared glassware, labeled/sealed using the laboratory supplied labels and custody seals, and stored on ice in a cooler. The samples were relinquished to the courier for Hall Environmental Analysis Laboratory of Albuquerque, New Mexico, under proper chain-of-custody procedures.

#### 3.3 Laboratory Analytical Methods

The composite soil samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) using Environmental Protection Agency (EPA) SW-846 Method #8021/#8260, total petroleum hydrocarbon (TPH) gasoline range organics (GRO), diesel range organics (DRO), and motor oil/lube oil range organics (MRO) using EPA SW-846 Method #8015, and chlorides using EPA Method #300.0.

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 New Mexico EMNRD 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 Soil Samples

Apex compared the BTEX and TPH concentrations or practical quantitation limits (PQLs) associated with the composite soil samples (CS-1 through CS-8) and composite stockpiled soil sample SP-1 to the New Mexico EMNRD OCD *RALs* for sites having a total ranking score of "30". Soils associated with composite soil sample SP-2 were removed and transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/treatment, and are not included in the following discussion.

- The laboratory analyses of the composite soil samples collected from soils remaining in
  place and the composite soil sample from the reused stockpiled soils do not indicate
  benzene concentrations above the PQLs, which are below the New Mexico EMNRD
  OCD RAL of 10 milligrams per kilogram (mg/kg).
- The laboratory analyses of the composite soil samples collected from soils remaining in
  place and the composite soil sample from the reused stockpiled soils do not indicate total
  BTEX concentrations above the PQLs, which are below the New Mexico EMNRD OCD
  RAL of 50 mg/kg.
- The laboratory analyses of the composite soil sample CS-7 indicates a combined TPH GRO/DRO/MRO concentration of 504 mg/kg, which is above the New Mexico EMNRD OCD RAL of 100 mg/kg. TPH MRO (470 mg/kg) is the primary constituent of the elevated combined TPH result for composite soil sample CS-7. The laboratory analyses of the remaining composite soil samples collected from soils remaining in place and the composite soil sample from the reused stockpiled soils indicate combined TPH GRO/DRO/MRO concentrations ranging from below the PQLs to 87 (CS-8), which are below the New Mexico EMNRD OCD RAL of 100 mg/kg for a Site ranking of "30".
- The laboratory analyses of the composite soil samples collected from soils remaining in place and the composite soil sample from the reused stockpiled soils do not indicate chloride concentrations above the PQLs.

Composite soil sample results are provided in Table 1 in Appendix D.

#### 5.0 FINDINGS AND RECOMMENDATIONS

The SJ 30-6 #403 well tie release site is located within the Enterprise ROW in the NE ¼ of Section 9, Township 30 North, Range 6 West, in rural Rio Arriba County, New Mexico. The Site is located on land managed by the United States BLM. The Site is surrounded by rangeland that is periodically interrupted by oil and gas production and gathering facilities, including the Enterprise natural gas gathering pipeline which transects the area from approximately east to west.

On November 14, 2017, a release of natural gas was discovered at the Site. Enterprise subsequently isolated and locked the line out of service. On November 21, 2017, Enterprise initiated excavation activities to facilitate the repair of the pipeline, and to remediate potential petroleum hydrocarbon impact resulting from the release. The pipeline was repaired and placed back into service.

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



- The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated silty sand and weathered sandstone.
- The excavation measured approximately 41 feet long by eight (8) feet wide. The maximum depth of the excavation measured approximately seven (7) feet bgs.
- Prior to backfilling, eight (8) composite soil samples from the excavation and two (2) composite soil samples (SP-1 and SP-2) from the stockpiled soils were collected for laboratory analysis. Based on analytical results, soils associated with composite soil samples CS-1 through CS-6, and CS-8, and composite stockpiled soil sample SP-1 do not exhibit COC concentrations above the New Mexico EMNRD OCD RALs for a Site ranking of "30".
- The laboratory analysis of composite soil sample CS-7 indicates a combined TPH GRO/DRO/MRO concentration of 504 mg/kg, which is above the New Mexico EMNRD OCD RAL of 100 mg/kg.
- A total of approximately 70 cubic yards of petroleum hydrocarbon affected soils were transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/remediation. Following confirmation from the New Mexico ENMRD OCD, the excavation was backfilled with laboratory-confirmed stockpiled soils and imported fill, and contoured to surrounding grade.

Based on laboratory analytical results, no benzene exceedances were identified in soil, weathered sandstone, or sandstone remaining in place. Only the soils associated with composite soil sample CS-7 (sandstone excavation floor) exhibit TPH concentrations (most of which is within the MRO carbon range) above the applicable New Mexico EMNRD OCD standard. Enterprise received regulatory approval for closure on November 29, 2017. Regulatory correspondence is provided in Appendix F.

#### 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

Enterprise Field Services, LLC Corrective Action Report SJ 30-6 #403 Well Tie February 5, 2018

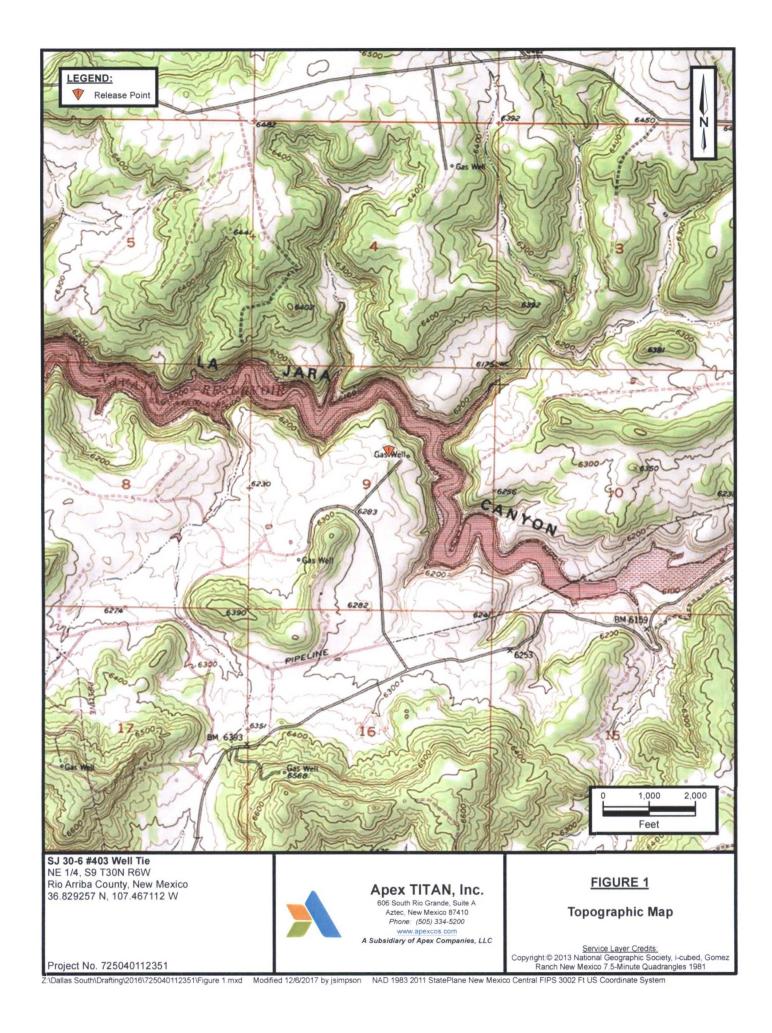


distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, the report, and Apex's Agreement. The limitation of liability defined in the agreement is the aggregate limit of Apex's liability to the client.



APPENDIX A

Figures





SJ 30-6 #403 Well Tie NE 1/4, S9 T30N R6W Rio Arriba County, New Mexico 36.829257 N, 107.467112 W



Apex TITAN, Inc. 606 South Rio Grande, Suite A Aztec, New Mexico 87410 Phone: (505) 334-5200

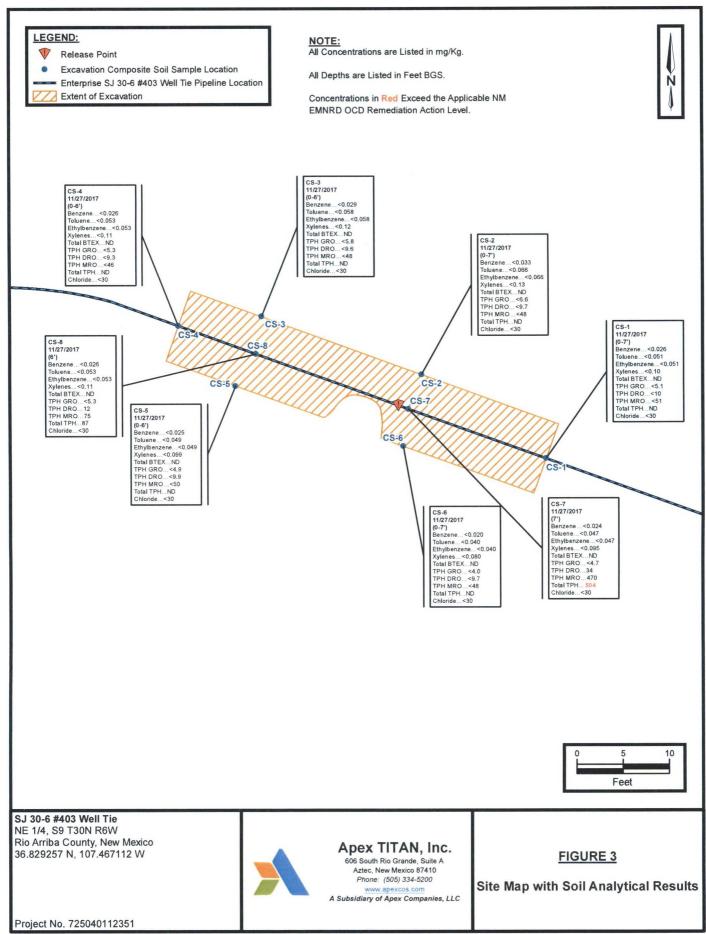
www.apexcos.com
A Subsidiary of Apex Companies, LLC

# FIGURE 2

Site Vicinity Map

Service Layer Credits: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors

Project No. 725040112351





APPENDIX B

Executed C-138 Solid Waste Acceptance Form

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

#### State of New Mexico Energy Minerals and Natural Resources

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

97057-0872 Form C-138 Revised August 1, 2011

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

# DECLIEST FOR APPROVAL TO ACCEPT SOLID WASTE



APPENDIX C
Photographic Documentation



# Photograph 1

View of the initial excavation, facing northwest.



# Photograph 2

View of the initial excavation, facing southeast.



# Photograph 3

View of the final excavation, facing southwest.





#### SITE PHOTOGRAPHS

SJ 30-6 #403 Well Tie

# Photograph 4

View of the final excavation, facing west





APPENDIX D

Table



# TABLE 1 SJ 30-6 #403 Well Tie SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total Combined TPH (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level		10	NE	NE NE		50			100	NE			
M. January G.					Stockpiled Soils	Removed and Trans	ported to Landf	arm for disposal/trea	ament				
SP-2	11.27.17	С	Stockpile	< 0.027	< 0.055	<0.055	<0.11	ND	<5.5	21	160	181	<30
						Soil Sample Collect	ed from Stockpi	led Soils					
SP-1	11.27.17	С	Stockpile	<0.024	<0.048	<0.048	< 0.097	ND	<4.8	<9.7	<48	ND	<30
						Excavation Con	posite Soil Sam	ples					
CS-1	11.27.17	С	0 to 7	< 0.026	< 0.051	<0.051	<0.10	ND	<5.1	<10	<51	ND	<30
CS-2	11.27.17	С	0 to 7	< 0.033	< 0.066	<0.066	<0.13	ND	<6.6	<9.7	<48	ND	<30
CS-3	11.27.17	С	0 to 6	< 0.029	<0.058	<0.058	<0.12	ND	<5.8	<9.6	<48	ND	<30
CS-4	11.27.17	С	0 to 6	< 0.026	< 0.053	< 0.053	<0.11	ND	<5.3	<9.3	<46	ND	<30
CS-5	11.27.17	С	0 to 6	< 0.025	< 0.049	<0.049	< 0.099	ND	<4.9	<9.9	<50	ND	<30
CS-6	11.27.17	С	0 to 7	<0.020	< 0.040	<0.040	<0.080	ND	<4.0	<9.7	<48	ND	<30
CS-7	11.27.17	С	7	<0.024	< 0.047	<0.047	< 0.095	ND	<4.7	34	470	504	<30
CS-8	11.27.17	С	6	< 0.026	< 0.053	< 0.053	<0.11	ND	<5.3	12	75	87	<30

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

ND = Not Detected above the Practical Quantitation Limits

NE = Not established

mg/kg = milligram per kilogram



Appendix E

Laboratory Data Sheets & Chain of Custody Documentation



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

November 29, 2017

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

**FAX** 

RE: SJ 30-6 403 OrderNo.: 1711C53

#### Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 8 sample(s) on 11/28/2017 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

Only

4901 Hawkins NE

Albuquerque, NM 87109

#### Lab Order 1711C53

Date Reported: 11/29/2017

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT: APEX TITAN** Client Sample ID: CS-1

**Project:** SJ 30-6 403 Collection Date: 11/27/2017 1:00:00 PM Lab ID: 1711C53-001 Matrix: SOIL Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: MRA
Chloride	ND	30	mg/Kg	20	11/28/2017 2:11:20 PM	M 35185
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS				Analys	t: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	11/28/2017 10:17:34 A	M 35180
Motor Oil Range Organics (MRO)	ND	51	mg/Kg	1	11/28/2017 10:17:34 A	M 35180
Surr: DNOP	78.7	70-130	%Rec	1	11/28/2017 10:17:34 A	M 35180
EPA METHOD 8015D: GASOLINE RAN	GE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	5.1	mg/Kg	1	11/28/2017 8:19:07 PI	M G47368
Surr: BFB	88.0	15-316	%Rec	1	11/28/2017 8:19:07 Pt	M G47368
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.026	mg/Kg	1	11/28/2017 8:19:07 PI	M B47368
Toluene	ND	0.051	mg/Kg	1	11/28/2017 8:19:07 Pt	M B47368
Ethylbenzene	ND	0.051	mg/Kg	1	11/28/2017 8:19:07 Pt	M B47368
Xylenes, Total	ND	0.10	mg/Kg	1	11/28/2017 8:19:07 Pt	M B47368
Surr: 4-Bromofluorobenzene	86.2	80-120	%Rec	1	11/28/2017 8:19:07 Pt	И В47368

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

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 14
- Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

#### Lab Order 1711C53

Date Reported: 11/29/2017

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: CS-2

**Project:** SJ 30-6 403

Collection Date: 11/27/2017 1:10:00 PM

**Lab ID:** 1711C53-002

Matrix: SOIL

Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	st: MRA
Chloride	ND	30	mg/Kg	20	11/28/2017 2:23:44 PI	M 35185
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analys	st: TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/28/2017 10:41:49	AM 35180
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/28/2017 10:41:49	AM 35180
Surr: DNOP	87.2	70-130	%Rec	1	11/28/2017 10:41:49	AM 35180
EPA METHOD 8015D: GASOLINE RAI	NGE				Analys	st: NSB
Gasoline Range Organics (GRO)	ND	6.6	mg/Kg	1	11/28/2017 8:42:33 P	M G47368
Surr: BFB	90.5	15-316	%Rec	1	11/28/2017 8:42:33 P	M G47368
EPA METHOD 8021B: VOLATILES					Analys	st: NSB
Benzene	ND	0.033	mg/Kg	1	11/28/2017 8:42:33 P	M B47368
Toluene	ND	0.066	mg/Kg	1	11/28/2017 8:42:33 P	M B47368
Ethylbenzene	ND	0.066	mg/Kg	1	11/28/2017 8:42:33 P	M B47368
Xylenes, Total	ND	0.13	mg/Kg	1	11/28/2017 8:42:33 P	M B47368
Surr: 4-Bromofluorobenzene	89.2	80-120	%Rec	1	11/28/2017 8:42:33 P	M B47368

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

- \* 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
- PQL Practical Quanitative Limit
- 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 Page 2 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1711C53

Date Reported: 11/29/2017

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: CS-3

 Project:
 SJ 30-6 403
 Collection Date: 11/27/2017 1:20:00 PM

 Lab ID:
 1711C53-003
 Matrix: SOIL
 Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	yst: MRA
Chloride	ND	30	mg/Kg	20	11/28/2017 11:30:15	AM 35186
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analy	yst: TOM
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	11/28/2017 11:06:16	AM 35180
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/28/2017 11:06:16	AM 35180
Surr: DNOP	83.6	70-130	%Rec	1	11/28/2017 11:06:16	AM 35180
EPA METHOD 8015D: GASOLINE RAM	NGE				Analy	yst: NSB
Gasoline Range Organics (GRO)	ND	5.8	mg/Kg	1	11/28/2017 9:05:50 F	PM G47368
Surr: BFB	89.9	15-316	%Rec	1	11/28/2017 9:05:50 F	PM G47368
<b>EPA METHOD 8021B: VOLATILES</b>					Analy	yst: NSB
Benzene	ND	0.029	mg/Kg	1	11/28/2017 9:05:50 F	PM B47368
Toluene	ND	0.058	mg/Kg	1	11/28/2017 9:05:50 F	PM B47368
Ethylbenzene	ND	0.058	mg/Kg	1	11/28/2017 9:05:50 F	PM B47368
Xylenes, Total	ND	0.12	mg/Kg	1	11/28/2017 9:05:50 F	PM B47368
Surr: 4-Bromofluorobenzene	89.1	80-120	%Rec	1	11/28/2017 9:05:50 F	PM B47368

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

- \* 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
- PQL Practical Quanitative Limit
- 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 Page 3 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1711C53

Date Reported: 11/29/2017

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT: APEX TITAN** 

SJ 30-6 403

Client Sample ID: CS-4

Collection Date: 11/27/2017 1:30:00 PM

Received Date: 11/28/2017 7:00:00 AM

Project: Lab ID: 1711C53-004

Matrix: SOIL

Analyses	Result	PQL Qua	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	ND	30	mg/Kg	20	11/28/2017 11:42:40 AM	35186
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analyst:	TOM
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	11/28/2017 11:34:56 AM	35180
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	11/28/2017 11:34:56 AM	35180
Surr: DNOP	88.9	70-130	%Rec	1	11/28/2017 11:34:56 AM	35180
EPA METHOD 8015D: GASOLINE RAM	NGE				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	5.3	mg/Kg	1	11/28/2017 10:57:06 AM	G47368
Surr: BFB	87.9	15-316	%Rec	1	11/28/2017 10:57:06 AM	G47368
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.026	mg/Kg	1	11/28/2017 10:57:06 AM	B47368
Toluene	ND	0.053	mg/Kg	1	11/28/2017 10:57:06 AM	B47368
Ethylbenzene	ND	0.053	mg/Kg	1	11/28/2017 10:57:06 AM	B47368
Xylenes, Total	ND	0.11	mg/Kg	1	11/28/2017 10:57:06 AM	B47368
Surr: 4-Bromofluorobenzene	87.3	80-120	%Rec	1	11/28/2017 10:57:06 AM	B47368

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

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- Not Detected at the Reporting Limit ND
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits Page 4 of 14
- Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

#### Lab Order 1711C53

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/29/2017

CLIENT: APEX TITAN Client Sample ID: CS-5

 Project:
 SJ 30-6 403
 Collection Date: 11/27/2017 1:40:00 PM

 Lab ID:
 1711C53-005
 Matrix: SOIL
 Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: MRA
Chloride	ND	30	mg/Kg	20	11/28/2017 11:55:04 A	M 35186
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analys	t: TOM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	11/28/2017 11:59:24 A	M 35180
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/28/2017 11:59:24 A	M 35180
Surr: DNOP	87.6	70-130	%Rec	1	11/28/2017 11:59:24 A	M 35180
EPA METHOD 8015D: GASOLINE RANG	GE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/28/2017 11:20:25 A	M G47368
Surr: BFB	93.0	15-316	%Rec	1	11/28/2017 11:20:25 A	M G47368
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.025	mg/Kg	1	11/28/2017 11:20:25 A	M B47368
Toluene	ND	0.049	mg/Kg	1	11/28/2017 11:20:25 A	M B47368
Ethylbenzene	ND	0.049	mg/Kg	1	11/28/2017 11:20:25 A	M B47368
Xylenes, Total	ND	0.099	mg/Kg	1	11/28/2017 11:20:25 A	M B47368
Surr: 4-Bromofluorobenzene	89.5	80-120	%Rec	1	11/28/2017 11:20:25 A	M B47368

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

- \* 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
- PQL Practical Quanitative Limit
- 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 Page 5 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1711C53

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/29/2017

CLIENT: APEX TITAN Client Sample ID: CS-6

 Project:
 SJ 30-6 403
 Collection Date: 11/27/2017 1:50:00 PM

 Lab ID:
 1711C53-006
 Matrix: SOIL
 Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: MRA
Chloride	ND	30	mg/Kg	20	11/28/2017 12:07:29	PM 35186
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANICS				Analy	st: TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/28/2017 12:23:50	PM 35180
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/28/2017 12:23:50	PM 35180
Surr: DNOP	90.7	70-130	%Rec	1	11/28/2017 12:23:50	PM 35180
EPA METHOD 8015D: GASOLINE RA	NGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	4.0	mg/Kg	1	11/28/2017 11:43:54	AM G47368
Surr: BFB	88.1	15-316	%Rec	1	11/28/2017 11:43:54	AM G47368
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.020	mg/Kg	1	11/28/2017 11:43:54	AM B47368
Toluene	ND	0.040	mg/Kg	1	11/28/2017 11:43:54	AM B47368
Ethylbenzene	ND	0.040	mg/Kg	1	11/28/2017 11:43:54	AM B47368
Xylenes, Total	ND	0.080	mg/Kg	1	11/28/2017 11:43:54	AM B47368
Surr: 4-Bromofluorobenzene	85.3	80-120	%Rec	1	11/28/2017 11:43:54	AM B47368

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

- \* 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
- PQL Practical Quanitative Limit
- 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 Page 6 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

### Lab Order 1711C53

Date Reported: 11/29/2017

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: CS-7

 Project:
 SJ 30-6 403
 Collection Date: 11/27/2017 2:00:00 PM

 Lab ID:
 1711C53-007
 Matrix: SOIL
 Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	ND	30	mg/Kg	20	11/28/2017 12:19:54 PM	35186
EPA METHOD 8015M/D: DIESEL RANGI	E ORGANICS				Analyst:	том
Diesel Range Organics (DRO)	34	10	mg/Kg	1	11/28/2017 12:48:28 PM	35180
Motor Oil Range Organics (MRO)	470	50	mg/Kg	1	11/28/2017 12:48:28 PM	35180
Surr: DNOP	104	70-130	%Rec	1	11/28/2017 12:48:28 PM	35180
EPA METHOD 8015D: GASOLINE RANG	E				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	11/28/2017 12:07:27 PM	G47368
Surr: BFB	89.8	15-316	%Rec	1	11/28/2017 12:07:27 PM	G47368
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	11/28/2017 12:07:27 PM	B47368
Toluene	ND	0.047	mg/Kg	1	11/28/2017 12:07:27 PM	B47368
Ethylbenzene	ND	0.047	mg/Kg	1	11/28/2017 12:07:27 PM	B47368
Xylenes, Total	ND	0.095	mg/Kg	1	11/28/2017 12:07:27 PM	B47368
Surr: 4-Bromofluorobenzene	86.8	80-120	%Rec	1	11/28/2017 12:07:27 PM	B47368

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

- 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
- PQL Practical Quanitative Limit
- 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 Page 7 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

#### Lab Order 1711C53

aboratory, Inc. Date Reported: 11/29/2017

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Client Sample ID: CS-8

 Project:
 SJ 30-6 403
 Collection Date: 11/27/2017 2:10:00 PM

 Lab ID:
 1711C53-008
 Matrix: SOIL
 Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: MRA
Chloride	ND	30	mg/Kg	20	11/28/2017 12:32:19	PM 35186
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analy	st: TOM
Diesel Range Organics (DRO)	12	9.9	mg/Kg	1	11/28/2017 1:37:31 F	PM 35180
Motor Oil Range Organics (MRO)	75	50	mg/Kg	1	11/28/2017 1:37:31 F	PM 35180
Surr: DNOP	100	70-130	%Rec	1	11/28/2017 1:37:31 F	PM 35180
EPA METHOD 8015D: GASOLINE RAM	NGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	5.3	mg/Kg	1	11/28/2017 12:30:54	PM G47368
Surr: BFB	84.8	15-316	%Rec	1	11/28/2017 12:30:54	PM G47368
EPA METHOD 8021B: VOLATILES					Analy	yst: NSB
Benzene	ND	0.026	mg/Kg	1	11/28/2017 12:30:54	PM B47368
Toluene	ND	0.053	mg/Kg	1	11/28/2017 12:30:54	PM B47368
Ethylbenzene	ND	0.053	mg/Kg	1	11/28/2017 12:30:54	PM B47368
Xylenes, Total	ND	0.11	mg/Kg	1	11/28/2017 12:30:54	PM B47368
Surr: 4-Bromofluorobenzene	85.0	80-120	%Rec	1	11/28/2017 12:30:54	PM B47368

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

- \* 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
- PQL Practical Quanitative Limit
- 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 Page 8 of 14
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# OC SUMMARY REPORT

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1711C53

29-Nov-17

Client: Project: APEX TITAN

Prep Date:

SJ 30-6 403

Sample ID MB-35185

SampType: mblk

TestCode: EPA Method 300.0: Anions

PBS Client ID:

Batch ID: 35185 Analysis Date: 11/28/2017

PQL

RunNo: 47366

SeqNo: 1512112

Units: mg/Kg HighLimit

%RPD **RPDLimit** 

Qual

Analyte Chloride

ND 1.5

Result

Result

14

LCSS

SampType: Ics

TestCode: EPA Method 300.0: Anions

Sample ID LCS-35185

Batch ID: 35185

RunNo: 47366

Client ID: Prep Date:

11/28/2017

11/28/2017

Analysis Date: 11/28/2017

1.5

1.5

SeqNo: 1512113

SPK value SPK Ref Val %REC LowLimit

Units: mg/Kg

Qual

Analyte Chloride

POI

SPK value SPK Ref Val 15.00 0

%REC LowLimit 92.7

90

%RPD HighLimit 110

**RPDLimit** 

Client ID:

Prep Date:

Sample ID MB-35186

PBS

SampType: mblk Batch ID: 35186

TestCode: EPA Method 300.0: Anions

RunNo: 47367

SeqNo: 1512196

Units: mg/Kg

Analyte

11/28/2017

Result PQL

ND

Result

Analysis Date: 11/28/2017

SPK value SPK Ref Val %REC LowLimit

HighLimit

%RPD **RPDLimit** 

Qual

Chloride

SampType: Ics

TestCode: EPA Method 300.0: Anions

RunNo: 47367

Units: mg/Kg

Analyte Chloride

Client ID:

Prep Date:

11/28/2017

LCSS

Sample ID LCS-35186

Batch ID: 35186

Analysis Date: 11/28/2017

SeqNo: 1512197

LowLimit

HighLimit

%RPD

**RPDLimit** 

Qual

PQL 1.5

15.00

SPK value SPK Ref Val

%REC 94.6

110

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND **PQL** Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank В

E Value above quantitation range

P Sample pH Not In Range

RL Reporting Detection Limit Sample container temperature is out of limit as specified

Analyte detected below quantitation limits

Page 9 of 14

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1711C53 29-Nov-17

Client: APEX TITAN
Project: SJ 30-6 403

Project:	SJ 30-6 4	03									
Sample ID	LCS-35180	SampType	e: LC	s	Test	Code: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	LCSS	Batch ID	35	180	R	tunNo: 4	7354				
Prep Date:	11/28/2017	Analysis Date	: 1	1/28/2017	S	eqNo: 1	510950	Units: mg/k	(g		
Analyte		Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	Organics (DRO)	49	10	50.00	0	98.1	73.2	114			
Surr: DNOP		3.9		5.000		78.6	70	130			
Sample ID	MB-35180	SampType	e: ME	BLK	Test	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	PBS	Batch ID	35	180	R	RunNo: 4	7354				
Prep Date:	11/28/2017	Analysis Date	e: 1	1/28/2017	S	eqNo: 1	510951	Units: mg/F	(g		
Analyte		Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
7.	Organics (DRO)	ND	10								
Motor Oil Rang Surr: DNOP	ge Organics (MRO)	ND 8.5	50	10.00		85.5	70	130			
Sull. DNOP		0.5		10.00		00.0	70	130			
Sample ID	LCS-35150	SampType	e: LC	S	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	LCSS	Batch ID	35	150	F	RunNo: 4	7354				
Prep Date:	11/27/2017	Analysis Date	e: 1	1/28/2017	S	SeqNo: 1	512100	Units: %Re	С		
Analyte		Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		4.7		5.000		94.1	70	130			
Sample ID	MB-35150	SampType	e: MI	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	PBS	Batch ID	35	150	F	RunNo: 4	7354				
Prep Date:	11/27/2017	Analysis Date	e: 1	1/28/2017	S	SeqNo: 1	512101	Units: %Re	С		
Analyte		Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		10		10.00		103	70	130			
Sample ID	1711C53-001AMS	SampType	e: <b>M</b> \$	S	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	CS-1	Batch ID	): 35	180	F	RunNo: 4	7354				
Prep Date:	11/28/2017	Analysis Date	e: 1	1/28/2017	S	SeqNo: 1	512102	Units: mg/h	<b>(</b> g		
Analyte		Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
9	Organics (DRO)	46	9.7	48.26	2.119	91.3	55.8	125			
Surr: DNOP		4.4		4.826		91.4	70	130			
Sample ID	1711C53-001AMS	D SampType	e: <b>M</b> \$	SD	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	CS-1	Batch ID	35	180	F	RunNo: 4	7354				
Prep Date:	11/28/2017	Analysis Date	: 1	1/28/2017	S	SeqNo: 1	512103	Units: mg/k	(g		
Analyte		Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	51	9.7	48.59	2.119	100	55.8	125	9.77	20	

#### 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

PQL Practical Quanitative Limit

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

Page 10 of 14

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1711C53

29-Nov-17

Client:

APEX TITAN

Project: SJ 30-6 403

Sample ID 1711C53-001AMSD

SampType: MSD TestCode: EPA Method 8015M/D: Diesel Range Organics

Client ID: CS-1 Batch ID: 35180 RunNo: 47354

Prep Date: 11/28/2017

SeqNo: 1512103 Analysis Date: 11/28/2017 Units: mg/Kg

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

Surr: DNOP

97.8

0

4.8

4.859

70

130

0

Qualifiers:

Value exceeds Maximum Contaminant Level.

Sample Diluted Due to Matrix D

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

**PQL** Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

В Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Page 11 of 14

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

# **OC SUMMARY REPORT**

#### Hall Environmental Analysis Laboratory, Inc.

WO#: 1711C53

29-Nov-17

APEX TITAN Client: SJ 30-6 403 Project:

Sample ID RB SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PBS Batch ID: **G47368** RunNo: 47368 Prep Date: Analysis Date: 11/28/2017 SeaNo: 1511580 Units: mg/Kg

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

Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 890 1000 89.4 15 316

Sample ID 2.5UG GRO LCS SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: **G47368** RunNo: 47368 Prep Date: Analysis Date: 11/28/2017 SeqNo: 1511581 Units: mg/Kg Result PQL SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Analyte SPK value Qual Gasoline Range Organics (GRO) 22 5.0 25.00 0 88.7 75.9 131 Surr: BFB 1000 1000 100 15 316

Sample ID 1711C53-001AMS SampType: MS TestCode: EPA Method 8015D: Gasoline Range Client ID: CS-1 Batch ID: G47368 RunNo: 47368 Prep Date: Analysis Date: 11/28/2017 SeqNo: 1511583 Units: mg/Kg Analyte Result SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) 25 5.1 25.72 0 97.1 77.8 128 Surr: BFB 1100 1029 103 15 316

Sample ID 1711C53-001AMSD SampType: MSD TestCode: EPA Method 8015D: Gasoline Range Client ID: CS-1 Batch ID: G47368 RunNo: 47368 Prep Date: Analysis Date: 11/28/2017 SeqNo: 1511585 Units: mg/Kg SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Analyte Result PQL LowLimit Qual Gasoline Range Organics (GRO) 24 25.72 0 77.8 1.96 20 5.1 952 128 Surr: BFB 1000 1029 102 15 316 0 0

Sample ID MB-35154 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PBS Batch ID: 35154 RunNo: 47368 Prep Date: 11/27/2017 Analysis Date: 11/28/2017 SeqNo: 1511588 Units: %Rec Analyte Result PQL SPK value SPK Ref Val %REC HighLimit %RPD **RPDLimit** Qual LowLimit Surr: BFB 1000 88.1 15 316

Sample ID LCS-35154 SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: 35154 RunNo: 47368 Prep Date: 11/27/2017 Analysis Date: 11/28/2017 SeqNo: 1511589 Units: %Rec %RPD Analyte Result POI SPK value SPK Ref Val %REC LowLimit HighLimit **RPDL** imit Qual Surr: BFB 1000 1000 102 15 316

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded Н

Not Detected at the Reporting Limit ND

**PQL** Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

Value above quantitation range

Analyte detected below quantitation limits

Page 12 of 14

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1711C53

29-Nov-17

Client: APEX TITAN
Project: SJ 30-6 403

Sample ID RB	SampT	ype: ME	BLK	Test	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch	1D: <b>B4</b>	7368	R	RunNo: 47368								
Prep Date:	Analysis D	ate: 11	1/28/2017	S	eqNo: 1	511605	Units: mg/K	(g					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	ND	0.025											
Toluene	ND	0.050											
Ethylbenzene	ND	0.050											
Xylenes, Total	ND	0.10											
Surr: 4-Bromofluorobenzene	0.90		1.000		90.0	80	120						

Sample ID 100NG BTEX LC	SampT	ype: LC	S	Tes	PA Method	d 8021B: Volatiles							
Client ID: LCSS	Batch	n ID: <b>B4</b>	7368	RunNo: 47368									
Prep Date: Analysis Date: 11/28/2017				8	SeqNo: 1	511606	Units: mg/F						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	0.93	0.025	1.000	0	93.2	77.3	128						
Toluene	0.93	0.050	1.000	0	92.6	79.2	125						
Ethylbenzene	0.92	0.050	1.000	0	92.0	80.7	127						
Xylenes, Total	2.8	0.10	3.000	0	92.6	81.6	129						
Surr: 4-Bromofluorobenzene	0.92		1.000		92.2	80	120						

Sample ID 1711C53-002AM	SampT	SampType: MS TestCode: EPA Method 8021B: Volatiles											
Client ID: CS-2	Batch	ID: <b>B4</b>	7368	RunNo: 47368									
Prep Date:	Analysis D	ate: 11	/28/2017	8	SeqNo: 1	511610	Units: mg/K	ζg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	1.2	0.033	1.311	0	92.6	80.9	132						
Toluene	1.2	0.066	1.311	0	93.0	79.8	136						
Ethylbenzene	1.2	0.066	1.311	0	93.2	79.4	140						
Xylenes, Total	3.7	0.13	3.932	0	93.8	78.5	142						
Surr: 4-Bromofluorobenzene	1.2		1.311		88.8	80	120						

Sample ID 1711C53-002AM	SD SampT	ype: MS	SD	Tes	TestCode: EPA Method 8021B: Volatiles							
Client ID: CS-2	Batch	ID: <b>B4</b>	7368	F	RunNo: 47368							
Prep Date:	Analysis Date: 11/28/2017					511611	Units: mg/K	g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	<b>RPDLimit</b>	Qual		
Benzene	1.2	0.033	1.311	0	90.1	80.9	132	2.75	20			
Toluene	1.2	0.066	1.311	0	90.5	79.8	136	2.69	20			
Ethylbenzene	1.2	0.066	1.311	0	90.6	79.4	140	2.83	20			
Xylenes, Total	3.6	3.932	0	91.5	78.5	142	2.45	20				
Surr: 4-Bromofluorobenzene	1.2		1.311		90.4	80	120	0	0			

#### 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

PQL Practical Quanitative Limit

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

Page 13 of 14

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# **QC SUMMARY REPORT**

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1711C53

29-Nov-17

APEX TITAN Client: SJ 30-6 403 Project:

Sample ID MB-35154 TestCode: EPA Method 8021B: Volatiles SampType: MBLK

PBS RunNo: 47368 Client ID: Batch ID: 35154

Prep Date: Analysis Date: 11/28/2017 SeqNo: 1511613 11/27/2017 Units: %Rec

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

0.89 1.000 120 Surr: 4-Bromofluorobenzene

Sample ID LCS-35154 SampType: LCS TestCode: EPA Method 8021B: Volatiles

Client ID: LCSS Batch ID: 35154 RunNo: 47368

Prep Date: 11/27/2017 Analysis Date: 11/28/2017 SeqNo: 1511614 Units: %Rec

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

Surr: 4-Bromofluorobenzene 0.94 1.000 94.1 80 120

#### **Qualifiers:**

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded H

ND Not Detected at the Reporting Limit

**PQL** Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank B

Value above quantitation range

Analyte detected below quantitation limits

Page 14 of 14

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified



# 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

The same of the sa						
Client Name:	APEX AZTEC	Work Order Num	nber: 1711C53		RcptNo:	1
Received By:	Anne Thorne	11/28/2017 7:00:00	0 AM	aone Am	_	
Completed By:	Anne Thome		3 AM	aone Stran		
Reviewed By:	DUS	11/28/17				
Chain of Cus	tody					
1. Custody sea	als intact on sam	ple bottles?	Yes 🗹	No 🗆	Not Present	
2. Is Chain of 0	Custody complet	e?	Yes 🔽	No 🗌	Not Present	
3. How was the	sample deliver	ed?	Courier			
Log In						
4. Was an atte	empt made to co	ol the samples?	Yes 🗹	No 🗌	NA 🗆	
5. Were all sar	mples received a	at a temperature of >0° C to 6.0°C	Yes 🗹	No 🗆	NA 🗆	
6. Sample(s) i	n proper contain	er(s)?	Yes 🗹	No 🗌		
7. Sufficient sa	mple volume for	indicated test(s)?	Yes 🗹	No 🗆		
8. Are samples	(except VOA a	nd ONG) properly preserved?	Yes 🗸	No 🗌		
9. Was presen	rative added to b	oottles?	Yes	No 🗸	NA	
10. VOA vials ha	ave zero headsp	ace?	Yes	No 🗆	No VOA Vials	
11. Were any s	ample container	s received broken?	Yes	No 🗸	# of preserved	
12. Does paper	work match bottl pancies on chair		Yes 🗹	No 🗆	bottles checked for pH:	>12 unless noted)
13. Are matrices	correctly identif	ied on Chain of Custody?	Yes 🗹	No 🗌	Adjusted?	
14. Is it clear wh	at analyses wer	e requested?	Yes 🗹	No 🗆		
15. Were all hole (If no, notify	ding times able t customer for au		Yes 🗹	No 🗆	Checked by:	
Special Hand	llina (if appli	cable)				
		repancies with this order?	Yes	No 🗌	NA 🗹	
Person	Notified:	Dat	e l	Cabacine State Additional Confession Confess		
By Wh	om:	Vla	,	Phone Fax	In Person	
Regard	ding:		AND THE PROPERTY OF THE PARTY O		PLOUDENANT ALAMAN CASHED AND DESCRIPTION OF THE PROPERTY OF TH	V
Client	Instructions:	entrophene partierna en		MANURATATA THE MENTAL TAXABLE CONTROL OF THE CONTRO	an menakur kenandah bahar hunik selah selah disebah berandah haran semen-	
17. Additional re	emarks:					1
18. <u>Cooler Info</u>		Condition   Seal Intact   Seal No	Seal Date	Signed By		
1		Good Yes				

																					- 1	<u>CHA</u>	IN OF	F CI	USTODY RECORD
	-								Hal	1 7-			ant	al		ANA	ALYS	SIS /	//			/	//	1	Lab use only
	1						l ab		1141	1 6	1011	1.1	الاحداد	Ln		REC	QUES	STED /				/ /	/		Due Date:
A		V					Lab	oratory:	110	naly	515	abo	n.	7				STED	/		/ /			/	
/٦		.^					Add	ress:	490	1 #	civi	ins	100		_			1 29	/ /	/ /	/	/	//	/	Temp. of coolers /.0
Office Location Albuqueque, NM 871.									09	_			UMBO	/ /				/ /		when received (C°):					
1006 S RIO Covande, Suite A Contact: A.7																13/1	/ /			/ /	/		1 2 3 4 5		
Azter NM 87410 Phone: 505-3								45	5-3975 notes						/	F	Pageof								
Project Manager 1. Summers PO/SO#: See							500	ne	He	_				W	J. Z. K	/ /	/ /	/	/						
Sampl	er's N	ame	,				Samp	ler's Sign	ature	1								( )	/ /				/		
K	lne	e I	Dee chi	114			K	4 July	ul	5							THE STATE OF THE S	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	/ /			/ /			
Proj. N	o.			Proje	ect Na						No/Ty	pe of C	Contain	ners		9	M /	7 7 1	/		/ /				
725	640	112	35/		5	J 30	-6 #	403					, ,				/ 1	79/	/ /	/ /		/			
Matrix	Da	te	Time	Comp	Grab	Identifyii	ng Marks of S	iample(s)	Start	End Depth	VOA	A/G	250 m	Glass	P/0	/	/ /	/ / / ,	/ /				Lal	b San	nple ID (Lab Use Only)
S	11/27	17	1300	X			CS-1									X	X	1						17,	11653-001
S	11/27	17	1310	X			CS-2							1		X	X	1							-02
S	. 1		1320	V			CS-3							1		X	X	4							703
	11/27	17	1330	X			CS-4							1		X	X	X							204
	- 1		1340	X			CS-5							1		X.	X	2							705
			1350	1			CS-6							1		V	XI	1							-206
	,	,	1400	-			CS-7							1		Ź,	V	V		$\top$	T				-201
	-	1	1410				CS-8						-	1		1	7	2		+	T				708
	- C   X-1	117	1910	/		· ·	5.2							-			/								
																		-				-			
Turn a	ound	time	□ Nor	mal	02	25% Rush	□ 50% F	Rush 🗆	<b>1</b> €100%	Rush		SA	MF	- n	A										
			Signature)		-	Date:	Time:	Receiv	ed by:	(Şigna	ture)			Date	: 1	Tir	ne:	NOTES:					,	,	\
l h	· Fer	VV	- 1		- [1]	23/17	1727 Time:		red by:		tural			Date		<u>pa</u>	me:	B	111+	UT	m	Lon	9 (	.EP	reo)
1/03	7	$\sim$	Signature)		1	hate	1910	1000	1/2	~	1/2		111	128/	7	6700	}	N	Dn /	AFE	Λ	132	159=	7	PROD)
Relinq	uished	by (	(Signature)			Date:	Time:	Receiv	ed by:	(Signa	ture)			Date	:	Tir	me:	1				0			
Relinq	uished	by (	Signature)			Date:	Time:	Receiv	red by:	(Signa	ture)			Date	): 	Tir	ne:	SA	ME.	V <del>/</del>			1	200	Seal of Ser
Matrix Contain	er		V - Wastewa A - 40 ml via			W - Water	S - Soil per / Or Glass			- Liquio						rcoal tu		SL - sludge	0	- Oil					



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

November 29, 2017

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

FAX

RE: SJ 30-6 403 OrderNo.: 1711C55

#### Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 11/28/2017 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

#### Lab Order 1711C55

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/29/2017

CLIENT: APEX TITAN Client Sample ID: SP-1

 Project:
 SJ 30-6 403
 Collection Date: 11/27/2017 2:30:00 PM

 Lab ID:
 1711C55-001
 Matrix: SOIL
 Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: MRA
Chloride	ND	30	mg/Kg	20	11/28/2017 1:46:46 PM	A 35186
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANICS				Analys	t: TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/28/2017 10:05:54 A	M 35180
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/28/2017 10:05:54 A	M 35180
Surr: DNOP	82.2	70-130	%Rec	1	11/28/2017 10:05:54 A	M 35180
EPA METHOD 8015D: GASOLINE RAI	NGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	11/28/2017 2:03:04 PM	M G47369
Surr: BFB	103	15-316	%Rec	1	11/28/2017 2:03:04 PM	M G47369
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.024	mg/Kg	1	11/28/2017 2:03:04 PM	И В47369
Toluene	ND	0.048	mg/Kg	1	11/28/2017 2:03:04 PM	И В47369
Ethylbenzene	ND	0.048	mg/Kg	1	11/28/2017 2:03:04 PM	M B47369
Xylenes, Total	ND	0.097	mg/Kg	1	11/28/2017 2:03:04 PM	И В47369
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	11/28/2017 2:03:04 PM	И В47369

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

- \* 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
- PQL Practical Quanitative Limit
- 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 Page 1 of 6
- P Sample pH Not In Range
- RL Reporting Detection Limit
  - W Sample container temperature is out of limit as specified

## **Analytical Report**

Sample container temperature is out of limit as specified

#### Lab Order 1711C55

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 11/29/2017

CLIENT: APEX TITAN Client Sample ID: SP-2

 Project:
 SJ 30-6 403
 Collection Date: 11/27/2017 2:40:00 PM

 Lab ID:
 1711C55-002
 Matrix: SOIL
 Received Date: 11/28/2017 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	st: MRA
Chloride	ND	30	mg/Kg	20	11/28/2017 1:59:11 P	M 35186
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS				Analy	st: TOM
Diesel Range Organics (DRO)	21	9.6	mg/Kg	1	11/28/2017 10:33:32	AM 35180
Motor Oil Range Organics (MRO)	160	48	mg/Kg	1	11/28/2017 10:33:32	AM 35180
Surr: DNOP	85.3	70-130	%Rec	1	11/28/2017 10:33:32	AM 35180
EPA METHOD 8015D: GASOLINE RAN	IGE				Analy	st: NSB
Gasoline Range Organics (GRO)	ND	5.5	mg/Kg	1	11/28/2017 2:26:48 F	M G47369
Surr: BFB	107	15-316	%Rec	1	11/28/2017 2:26:48 F	M G47369
EPA METHOD 8021B: VOLATILES					Analy	st: NSB
Benzene	ND	0.027	mg/Kg	1	11/28/2017 2:26:48 F	M B47369
Toluene	ND	0.055	mg/Kg	1	11/28/2017 2:26:48 F	M B47369
Ethylbenzene	ND	0.055	mg/Kg	1	11/28/2017 2:26:48 F	M B47369
Xylenes, Total	ND	0.11	mg/Kg	1	11/28/2017 2:26:48 F	M B47369
Surr: 4-Bromofluorobenzene	100	80-120	%Rec	1	11/28/2017 2:26:48 F	M B47369

Refer to the QC Summary report and 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 Page 2 of 6 ND Not Detected at the Reporting Limit P Sample pH Not In Range PQL Practical Quantitative Limit RL Reporting Detection Limit

% Recovery outside of range due to dilution or matrix

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1711C55

29-Nov-17

APEX TITAN Client: Project: SJ 30-6 403

Sample ID MB-35186 SampType: mblk TestCode: EPA Method 300.0: Anions

Client ID: PBS RunNo: 47367 Batch ID: 35186

Prep Date: 11/28/2017 Analysis Date: 11/28/2017 SeqNo: 1512196 Units: mg/Kg

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

Chloride ND 1.5

Sample ID LCS-35186 SampType: Ics TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 35186 RunNo: 47367

Prep Date: 11/28/2017 Analysis Date: 11/28/2017 SeqNo: 1512197 Units: mg/Kg

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

Chloride 14 1.5 15.00 0 94.6 90 110

#### Qualifiers:

Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

Holding times for preparation or analysis exceeded Н

ND Not Detected at the Reporting Limit

**PQL** Practical Quanitative Limit

% Recovery outside of range due to dilution or matrix

Analyte detected in the associated Method Blank B

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

Sample container temperature is out of limit as specified

Page 3 of 6

**Client:** 

APEX TITAN

# Hall Environmental Analysis Laboratory, Inc.

10

10.00

WO#: 1711C55

29-Nov-17

Project: SJ 30-6	403			
Sample ID LCS-35180	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range	e Organics
Client ID: LCSS	Batch ID: 35180	RunNo: 47354		
Prep Date: 11/28/2017	Analysis Date: 11/28/2017	SeqNo: 1510950	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Diesel Range Organics (DRO)	49 10 50.00	0 98.1 73.2	114	
Surr: DNOP	3.9 5.000	78.6 70	130	
Sample ID MB-35180	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range	Organics
Client ID: PBS	Batch ID: 35180	RunNo: 47354		
Prep Date: 11/28/2017	Analysis Date: 11/28/2017	SeqNo: 1510951	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Diesel Range Organics (DRO)	ND 10			
Motor Oil Range Organics (MRO)	ND 50			
Surr: DNOP	8.5 10.00	85.5 70	130	
Sample ID LCS-35150	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range	Organics
Client ID: LCSS	Batch ID: 35150	RunNo: 47354		
Prep Date: 11/27/2017	Analysis Date: 11/28/2017	SeqNo: <b>1512100</b>	Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Surr: DNOP	4.7 5.000	94.1 70	130	
Sample ID MB-35150	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range	Organics
Client ID: PBS	Batch ID: 35150	RunNo: 47354		
Prep Date: 11/27/2017	Analysis Date: 11/28/2017	SeqNo: <b>1512101</b>	Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual

#### Qualifiers:

Surr: DNOP

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

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

70

130

103

E Value above quantitation range

J Analyte detected below quantitation limits

titation limits Page 4 of 6

P Sample pH Not In Range

RL Reporting Detection Limit

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1711C55

29-Nov-17

Client: APEX TITAN
Project: SJ 30-6 403

Sample ID RB SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PBS Batch ID: G47369 RunNo: 47369 Prep Date: Analysis Date: 11/28/2017 SeqNo: 1511549 Units: mg/Kg SPK value SPK Ref Val %REC %RPD **RPDLimit PQL** LowLimit HighLimit Qual Analyte Result Gasoline Range Organics (GRO) ND 5.0

Surr: BFB 1100 1000 110 15 316

Sample ID 2.5UG GRO LCS SampType: LCS TestCode: EPA Method 8015D: Gasoline Range Client ID: LCSS Batch ID: G47369 RunNo: 47369 Prep Date: Analysis Date: 11/28/2017 SeqNo: 1511550 Units: mg/Kg %RPD %REC HighLimit **RPDLimit** Result PQL SPK value SPK Ref Val LowLimit Qual Analyte Gasoline Range Organics (GRO) 22 5.0 25.00 0 89.2 75.9 131 1200 1000 116 15 316 Surr: BFB

#### 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

PQL Practical Quanitative Limit

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

Page 5 of 6

P Sample pH Not In Range

RL Reporting Detection Limit

# Hall Environmental Analysis Laboratory, Inc.

WO#: 1711C55

29-Nov-17

Client: Project: APEX TITAN SJ 30-6 403

Sample ID RB	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID: PBS	Batch	n ID: <b>B4</b>	7369	F	RunNo: 4	7369				
Prep Date:	Analysis D	)ate: 11	1/28/2017	S	SeqNo: 1	511568	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID 100NG BTEX LC	S Samp	Type: LC	s	TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSS	Batc	h ID: <b>B4</b>	7369	F	RunNo: 4	7369				
Prep Date:	Analysis [	Date: 11	1/28/2017	8	SeqNo: 1	511569	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.2	77.3	128			
Toluene	0.96	0.050	1.000	0	96.5	79.2	125			
Ethylbenzene	0.96	0.050	1.000	0	95.5	80.7	127			
Xylenes, Total	2.8	0.10	3.000	0	95.0	81.6	129			
Surr: 4-Bromofluorobenzene	1.1		1 000		109	80	120			

#### 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

PQL Practical Quanitative Limit

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

Page 6 of 6

P Sample pH Not In Range

RL Reporting Detection Limit



#### Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

# Albuqueque, NM 87109 Sample Log-In Check List

		and another trans								
Client Name:	APEX AZTE		Work Order	Number:	1711C	55			RcptNo:	1
Received By:	Anne Thorn	e	11/28/2017 7:0	0:00 AM			ane i	2-		
Completed By:	Anne Thorn	0	11/28/2017 8:3	30:19 AM			Anne 's	2		
Reviewed By:	MO		11/28/17				Clare s	72-		
			[ [							
Chain of Cus	stody									
1. Custody sea	als intact on sar	nple bottles	?		Yes	<b>✓</b>	No [		Not Present	
2. Is Chain of	Custody comple	ete?			Yes	<b>~</b>	No [		Not Present	
3. How was th	e sample delive	red?			Courie	<u>16</u>				
Log In	•									
4. Was an atte	empt made to o	ool the sam	oles?		Yes	<b>V</b>	No		NA $\square$	
5. Were all sa	mples received	at a tempera	ature of >0° C to 6.0	°C	Yes	<b>V</b>	No [		NA 🗆	
6. Sample(s)	in proper contai	ner(s)?			Yes	<b>v</b>	No			
7. Sufficient sa	ample volume f	or indicated t	test(s)?		Yes	<b>✓</b>	No [			
8. Are sample:	s (except VOA	and ONG) pr	roperly preserved?		Yes	<b>V</b>	No [			
9. Was preser	vative added to	bottles?			Yes		No 8	<b>V</b>	NA 🗆	
10. VOA vials h	ave zero heads	pace?			Yes		No [		No VOA Vials	
11. Were any s	sample containe	ers received I	broken?		Yes		No	<b>V</b>	4-5	
								. !	# of preserved bottles checked	
12. Does paper					Yes	<b>✓</b>	No		for pH:	or >12 unless noted)
13. Are matrice	epancies on cha				Yes	•	No [		Adjusted?	or > 12 umess noteu)
14. Is it clear w						<b>V</b>	No [			
15. Were all ho					Yes		No [		Checked by:	
	customer for a		)					Į		
Special Hand						_		_		
16. Was client i	notified of all dis	crepancies	with this order?		Yes		No		NA 🗹	_
Perso	n Notified:		ACREA DE LA CONTRACTOR	Date		and the same of the		intotular		
By W	hom:	AA BUANINKANA	PROFILE CONTRACTOR	Via:	eMai	I [	Phone i	Fax	In Person	
Regar	rding:									
Client	Instructions:	LTIFFLESS ABY EVENE THE BEST ABY EVENE ABY		SARRICSAND COMMUNICATION CO.		ALGEN EDWA	A TO TO STATE AT A PARTY AND AND AND A STATE AND A	MELPLEMENT	MANAGEMENT CONTROL CON	
17. Additional r	remarks:									
18. Cooler Info	ormation									
Cooler N	1	Condition	Seal Intact   Sea	No S	eal Da	te	Signed By	y		
1	1.0	Good	Yes							

						CHAIN OF CUSTODY RECORD
	Hall	Environnu	antal	ANALYSIS	14///	/ / Lab use only
	Laboratory: Anal			REQUESTED		/ / Due Date:
APEX	Address: 401			/		Tamp of poolers / U
				/:	95 / / /	Temp. of coolers / when received (C°):
Office Location	Albuquerque			/3	7////	1 2 3 4 5
606 S. Dio Grando Siit A	Observed A. 4	Treaman	7.0-	E TE		
Azter, NM 87410	Phone: 505-			1 W Z	30 / /	Pageof
Project Manager <u>FiSummors</u> Sampler's Name	PO/SO#:S	ee nore		X.A.	8 / / /	( / /
	Sampler's Signature			TOT CONTRACTORY		
Proj. No. Project Name		No/Type of 0	Containers	1 /7 4		/ /
72504011235/ SJ 30-6						/ /
Matrix Date Time C G G I Identifying Ma	rks of Sample(s)	VOA VOA	Glass Jar P/O		//////	Lab Sample ID (Lab Use Only)
5 112417 1430 X SP	-1		1	XXX		1711C55-001
S 11/27/17 1440 X SP-			1	XXX		202
31	~					
	NES					
	50% Rush 100% Rus		SAME D			
12 ml 11217	Time: Redeived by: (Si	a	Date:	Time: NOTE	Bill to Ton	Long (EPECS)
	Received by: (Si	gnature)	Date:	Time: 7 0700	Non AFE	-
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Relinquished by (Signature) Date:	Time: Received by: (Signature)	gnature)	Date:	Time:	SAME	DAY COCSED
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Container VOA - 40 ml vial A/G - Amber / O		ml - Glass wide me		astic or other		



Appendix F Regulatory Correspondence From: Fields, Vanessa, EMNRD

To: Long, Thomas; Smith, Cory, EMNRD; l1thomas@blm.gov

Cc: Stone, Brian

Subject: RE: San Juan 30-6 #403 - UL G Section 9 T30N R 6W; 36.829257 -107.467112

Date: Wednesday, November 29, 2017 11:12:08 AM

Good morning Tom,

Based on our conversation on the San Juan 30-6 #403 and the depth of sample CS-7 collected at of 6' the OCD grants Enterprise approval for the variance on closure.

Please provide this e-mail in your final C-141.

Thank you,

Vanessa Fields Environmental Specialist Oil Conservation Division Energy, Minerals, & Natural Resources 1000 Rio Brazos, Aztec, NM 87410 (505)334-6178 ext 119

Cell: (505) 419-0463

vanessa.fields@state.nm.us

From: Long, Thomas [mailto:tjlong@eprod.com]
Sent: Tuesday, November 28, 2017 4:56 PM

To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Fields, Vanessa, EMNRD

<Vanessa.Fields@state.nm.us>; l1thomas@blm.gov

Cc: Stone, Brian <br/>
<br/>
bmstone@eprod.com>

Subject: FW: San Juan 30-6 #403 - UL G Section 9 T30N R 6W; 36.829257 -107.467112

Cory,

Please find the attached site sketch and laboratory reports for the SJ 30-6 #403 excavation and stock piled soil. Enterprise has determined this release is reportable based on the volume of subsurface impacts. All sample results are below the site specific remediation standard except for CS-7 with as sum of 504 ppm TPH (470 ppm MRO + 34 ppm DRO). Sample CS-7 is on hard sandstone. We attempted to remove additional sandstone by removing the "butter bar" on the backhoe bucket, but removal of additional sandstone was unsuccessful. Enterprise requests closure with the current laboratory result of 504 ppm TPH for CS-7, as that the majority of the contaminants are Motor Oil Range organics and it is the base of the excavation which is competent sandstone. Enterprise will properly dispose of the southern stockpile of soil and re-use the northern stockpile of soil as backfill material. If you have any questions, please call or email.

Sincerely,

Tom Long 505-599-2286 (office) 505-215-4727 (Cell) tilong@eprod.com

From: Long, Thomas

Sent: Wednesday, November 22, 2017 3:38 PM

To: 'Smith, Cory, EMNRD (Cory, Smith@state.nm.us)'; Fields, Vanessa, EMNRD

(Vanessa.Fields@state.nm.us); l1thomas@blm.gov

Cc: Stone, Brian

Subject: FW: San Juan 30-6 #403 - UL G Section 9 T30N R 6W; 36.829257 -107.467112

Cory,

This email is to notify you that Enterprise will be collecting soil sample for laboratory analysis on Monday, November 27, 2017 at 12:00 p.m. If you have any questions, please call or email.

Sincerely,

Tom Long 505-599-2286 (office) 505-215-4727 (Cell) tilong@eprod.com

From: Long, Thomas

Sent: Friday, November 17, 2017 7:24 AM

To: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)'; Fields, Vanessa, EMNRD

(Vanessa.Fields@state.nm.us)

Cc: Stone, Brian

Subject: San Juan 30-6 #403 - UL G Section 9 T30N R 6W; 36.829257 -107.467112

Cory,

This email is a courtesy notification that Enterprise had a release on the San Juan 30-6 #403. This release has not been determined reportable. No fluids were observed on the ground surface. The release is located at UL G Section 9 T30N R 6W; 36.829257 -107.467112. I will let you know more when we start excavating.

Thomas J. Long Senior Environmental Scientist Enterprise Products Company 614 Reilly Ave. Farmington, New Mexico 87401 505-599-2286 (office)

## 505-215-4727 (Cell)

tjlong@eprod.com



This message (including any attachments) is confidential and intended for a specific individual and purpose. If you are not the intended recipient, please notify the sender immediately and delete this message.

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

\* Attach Additional Sheets If Necessary

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 NMOCD Form C-141
MAR 2 2 2018 Revised April 3, 2017

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

# **Release Notification and Corrective Action**

					UP	EKATU	(	$\triangle$	Initial F	Report 🔛 Final Report
Name of C	ompany E	nterprise F	ield Serv	ices, LLC	(	Contact Th	omas Long			
Address 61	4 Reilly A	ve, Farmir	ngton, NN	1 87401			No. 505-599-2	2286		
Facility Nar						Facility Typ	e Natural Gas	s Gathe	erina Pir	peline
Surface Ov	vner <b>Jica</b> ı	rilla Apach	e Tribe	Mineral (	Owner .	Jicarilla A	pache Tribe		Serial	No. N/A
				LOCA	ATION	OF REL	EASE			
Unit Letter C	Section 11	Township 24N	Range 5W	Feet from the 408	North/ Line	outh	Feet from the 2263	East/V Line	Vest	County Rio Arriba
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		I Gas and N					Release Unkno			Recovered None
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Was Immed	iate Notice	Given?						cation C		n – NMOCD; Hobson
			⊠ Yes [	□ No □ N	lot	Sandoval			,	
Required										
By Whom?	Thomas Lor	ng				Date and	Hour March 9, 2	018 at	1:48 p.m.	
Was a Wate							lume Impacting			
			⊠ Yes [			None.				
If a Waterco surface.	urse was In	npacted, Des	scribe Fully	.* The releas	e is loca	ated in a sm	all ephemeral w	ash. No	fluids we	re observed on the ground
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rules and re which may e relieve the o	gulations al endanger pu perator of li	I operators a ublic health o ability should	re required or the environ d their oper	I to report and onment. The rations have f	d/or file accepta ailed to	certain relea ance of a C- adequately	ase notifications 141 report by th investigate and	and per e NMO0 remedia	form corr CD marke ate contar	nd that pursuant to NMOCD ective actions for releases ed as "Final Report" does not mination that pose a threat to ort does not relieve the
				ny other fede	ral, stat	e, or local la	ws and/or regul	ations.		
		6	///				OIL CONS	SERV	ATION	DIVISION
Signature:	M	1. tu	del							// // X
Printed Nam	e: Jon E. F	ields			,	Approved by	/ Environmental	Special	ist:	and I
Title: Directo	or, Environn	nental			,	Approval Da	te: 3/27/1	8 E	expiration	Date:
E-mail Addre	ess: jefields	@eprod.com	1			Conditions of	of Approval: 5	Ample	tar	Attached 5
Date: 3	115/2	018	Phone	e: (713) 381-6	6684	TPH BIT	ex Bensen			

#MS 1808 648104

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 3/20/15 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 1/25/808/648/649. has been assigned. Please refer to this case number in all future correspondence.

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

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

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

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

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
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- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

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

- •Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.
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- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

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

## Jim Griswold

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

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

Date:

State of New Mexico **Energy Minerals and Natural** Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa En NIM 97505

NMOCD

Form C-141 Revised April 3, 2017

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



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Surface O	wner <b>Priv</b>	ate		Mineral	Owner	Federal			Serial	No. N/A		
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By Whom?	Thomas Lo	ng				Date and	Hour March 14,	, 2018 a	t 4:56 p.i	m.		
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Title: Direct	or, Environ	mental				Approval D	oate: 3/3o/	18 1	Expiration	n Date:		
E-mail Addr	ress: jefield:	s@eprod.con	n			Conditions	of Approval:	Ampl.	e	Attached		

Phone: (713) 381-6684 Area Below Leating Value Fox \* Attach Additional Sheets If Necessary #1000 1808942753 ToH, Btex, Benzene Operator/Responsible Party,

The OCD has received the form C-141 you provided on 3/29/19 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 4808942753. has been assigned. Please refer to this case number in all future correspondence.

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

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

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#### State of New Mexico **Energy Minerals and Natural** Resources

Revised April 3, 2017

Form C-141

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

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

THE RESERVE OF THE PERSON NAMED IN												
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Signature:	Ch	I. tu	Les les				OIL CON	ISERV	ATION	DIVISI	ON	2.
Printed Nam	ne: Jon E. F	ields				Approved b	y Environmenta	l Specia	list:	an C	4	U

Phone: (713) 381-6684 \* Attach Additional Sheets If Necessary

E-mail Address: jefields@eprod.com

Title: Director, Environmental

# NCS 1814339445

Approval Date: 5

Conditions of Approval: Smaple For

Attached 🔀

Expiration Date:

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 5/16/16 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number NCS 161 4339445 . has been assigned. Please refer to this case number in all future correspondence.

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

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

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

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

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

- •Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.
- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.
- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

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

#### Jim Griswold

OCD Environmental Bureau Chief 1220 South St. Francis Drive Santa Fe, New Mexico 87505 505-476-3465 jim.griswold@state.nm.us District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
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



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

OCOMN

#### Release Notification and Corrective Action **OPERATOR** ☐ Initial Report Final Report Name of Company Enterprise Field Services, LLC, Contact Thomas Long Address 614 Reilly Ave, Farmington, NM 87401 Telephone No. 505-599-2286 Facility Name Lybrook Pump Station Facility Type Natural Gas Liquids Pumping Station Surface Owner Private Mineral Owner Federal Serial No. N/A LOCATION OF RELEASE North/South Unit Letter Section Township Range Feet from Feet from East/West County the Rio Arriba C 14 23N **7W** Line 448 114 Latitude 36.232608 Longitude -107.546006 NAD83 NATURE OF RELEASE Type of Release Natural Gas Liquids (NGLs) Volume of Release 336.7 Volume Recovered None **BBLs of NGLs** Source of Release Equipment Failure Date and Hour of Occurrence Date and Hour of Discovery 3/14/2018 at 2:41 p.m. 3/14/2018 at 2:41 p.m. Was Immediate Notice Given? If YES, To Whom?: Notification Cory Smith - NMOCD: NRC - Incident #1206809 Required By Whom? Thomas Long Date and Hour March 14, 2018 at 4:56 p.m. Was a Watercourse Reached? If YES, Volume Impacting the Watercourse. ☐ Yes ☒ No None. If a Watercourse was Impacted, Describe Fully.\* Describe Cause of Problem and Remedial Action Taken. On March 14, 2018, an Enterprise Technician discovered a small leak on the threads of the 1 inch plug on the 10-Inch Red Line (Line ID #701). The pipeline was isolated, locked out and tagged out. Describe Area Affected and Cleanup Action Taken. The repairs were completed and the pipeline returned to service on March 24, 2018. At the request of NMOCD, a soil sample was collected for laboratory analysis from beneath the valve from where the leaked occurred. No contaminants of concern exceeding NMOCD soil remediation standards were identified. The laboratory report is included with this Final C-141. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. OIL CONSERVATION DIVISION Signature: Approved by Environmental Specialist: Printed Name: Jon E. Fields Expiration Date: Title: Director, Field Environmental Approval Date:

\* Attach Additional Sheets If Necessary

E-mail Address: jefields@eprod.com

Date: 5 - 23-18

#NCS 1808942753

Conditions of Approval:

Phone: (713) 381-6684

Attached



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

April 20, 2018

Thomas Long
Enterprise Field Services
614 Reilly Ave.
Farmington, NM 87401
TEL:
FAX

RE: MAPL Lybrook Pumping Station OrderNo.: 1804740

Dear Thomas Long:

Hall Environmental Analysis Laboratory received 1 sample(s) on 4/13/2018 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 <a href="www.hallenvironmental.com">www.hallenvironmental.com</a> or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

Andy Freeman

Laboratory Manager

andyl

4901 Hawkins NE

Albuquerque, NM 87109

#### **Analytical Report**

Lab Order 1804740

Date Reported: 4/20/2018

## Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Enterprise Field Services

Client Sample ID: SC-1

Project: MAPL Lybrook Pumping Station

Collection Date: 4/12/2018 10:15:00 AM

Lab ID:

1804740-001

Matrix: SOIL

Received Date: 4/13/2018 7:00:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLIN	IE RANGE				Analyst	: AG
Gasoline Range Organics (GRO)	96	4.8	mg/Kg	1	4/18/2018 1:14:38 PM	37609
Surr: BFB	119	70-130	%Rec	1	4/18/2018 1:14:38 PM	37609
EPA METHOD 8015M/D: DIESEL RAN	IGE ORGANICS	<b>3</b>			Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	4/19/2018 3:17:49 PM	37670
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	4/19/2018 3:17:49 PM	37670
Surr: DNOP	99.4	70-130	%Rec	1	4/19/2018 3:17:49 PM	37670
EPA METHOD 8260B: VOLATILES SH	HORT LIST				Analyst	: AG
Benzene	ND	0.024	mg/Kg	1	4/18/2018 1:14:38 PM	37609
Toluene	0.80	0.048	mg/Kg	1	4/18/2018 1:14:38 PM	37609
Ethylbenzene	0.37	0.048	mg/Kg	1	4/18/2018 1:14:38 PM	37609
Xylenes, Total	0.92	0.097	mg/Kg	1	4/18/2018 1:14:38 PM	37609
Surr: 4-Bromofluorobenzene	129	70-130	%Rec	1	4/18/2018 1:14:38 PM	37609
Surr: Toluene-d8	103	70-130	%Rec	1	4/18/2018 1:14:38 PM	37609

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
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- Value above quantitation range
- Analyte detected below quantitation limits Page 1 of 4 J
- Sample pH Not In Range
- Reporting Detection Limit RL
- Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1804740

20-Apr-18

**Client:** 

**Enterprise Field Services** 

Project:

MAPL Lybrook Pumping Station

						and the second s			
SampT	ype: LC	S	Test	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Batch	ID: 37	670	R	RunNo: 5	0693				
Analysis D	Analysis Date: 4/19/2018 SeqNo: 1644506 Units: mg/Kg								
Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
45	10	50.00	0	89.0	70	130			
4.2		5.000		84.7	70	130			
	Batch Analysis D Result	Batch ID: 37/ Analysis Date: 4/ Result PQL 45 10	Result PQL SPK value 45 10 50.00	Batch ID: 37670       R         Analysis Date:       4/19/2018       S         Result       PQL       SPK value       SPK Ref Val         45       10       50.00       0	Batch ID: 37670       RunNo: 5         Analysis Date:       4/19/2018       SeqNo: 1         Result       PQL       SPK value       SPK Ref Val       %REC         45       10       50.00       0       89.0	Batch ID: 37670       RunNo: 50693         Analysis Date:       4/19/2018       SeqNo: 1644506         Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit         45       10       50.00       0       89.0       70	Batch ID: 37670       RunNo: 50693         Analysis Date:       4/19/2018       SeqNo: 1644506       Units: mg/k         Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit         45       10       50.00       0       89.0       70       130	Batch ID: 37670       RunNo: 50693         Analysis Date:       4/19/2018       SeqNo: 1644506       Units: mg/Kg         Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD         45       10       50.00       0       89.0       70       130	Batch ID: 37670       RunNo: 50693         Analysis Date:       4/19/2018       SeqNo: 1644506       Units: mg/Kg         Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit         45       10       50.00       0       89.0       70       130       TO

Sample ID MB-37670	SampT	ype: ME	BLK	TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch	ID: 37	670	R	RunNo: 5	0693				
Prep Date: 4/18/2018	Analysis D	ate: 4/	19/2018	S	SeqNo: 1	644507	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.6		10.00		96.1	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

PQL Practical Quanitative Limit

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

Page 2 of 4

P Sample pH Not In Range

RL Reporting Detection Limit

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1804740

20-Apr-18

**Client:** 

Enterprise Field Services

Project:

MAPL Lybrook Pumping Station

Sample ID mb-37609	SampT	Гуре: МЕ	BLK	TestCode: EPA Method 8260B: Volatiles Short List											
Client ID: PBS	Batcl	h ID: 37	609	F	RunNo: 50621										
Prep Date: 4/16/2018	Analysis D	Date: 4/	17/2018	S	eqNo: 1	642161	Units: mg/Kg								
Analyte	Result PQL SPK value		SPK Ref Val	al %REC LowLi		HighLimit	%RPD	RPDLimit	Qual						
Benzene	ND	0.025													
Toluene	ND	0.050													
Ethylbenzene	ND	0.050													
Xylenes, Total	ND	0.10													
Surr: 4-Bromofluorobenzene	0.62		0.5000		124	70	130								
Surr: Toluene-d8	0.47		0.5000		93.2	70	130								
Sample ID Ics-37609	SampT	Гуре: LC	\$4	Tes	Code: El	PA Method	8260B: Volat	iles Short	List						
Sample ID Ics-37609 Client ID: BatchQC		Гуре: <b>LC</b> h ID: <b>37</b>			tCode: Ef		8260B: Volat	iles Short	List						
		h ID: <b>37</b>	609	R		0621	8260B: Volat		List						
Client ID: BatchQC	Batcl	h ID: <b>37</b>	609 17/2018	R	tunNo: 50	0621			<b>List</b> RPDLimit	Qual					
Client ID: BatchQC Prep Date: 4/16/2018	Batcl Analysis D	h ID: <b>37</b> 0 Date: <b>4</b> /	609 17/2018	F	tunNo: 50 SeqNo: 10	0621 642551	Units: mg/K	g		Qual					
Client ID: BatchQC Prep Date: 4/16/2018 Analyte	Batcl Analysis D Result	h ID: <b>37</b> 0 Date: <b>4</b> /	609 17/2018 SPK value	S SPK Ref Val	eqNo: 10	0621 642551 LowLimit	Units: <b>mg/K</b> HighLimit	g		Qual					
Client ID: BatchQC Prep Date: 4/16/2018 Analyte Benzene	Batcl Analysis E Result 0.90	h ID: <b>37</b> 0 Date: <b>4/</b> PQL 0.025	609 17/2018 SPK value 1.000	SPK Ref Val	8unNo: <b>5</b> 6eqNo: <b>1</b> 6 %REC 90.2	0621 642551 LowLimit 80	Units: mg/K HighLimit	g		Qual					
Client ID: BatchQC Prep Date: 4/16/2018 Analyte Benzene Toluene	Analysis D Result 0.90 0.96	PQL 0.025 0.050	5PK value 1.000 1.000	SPK Ref Val 0 0	%REC 90.2 96.1	0621 642551 LowLimit 80 80	Units: mg/K HighLimit 120 120	g		Qual					
Client ID: BatchQC Prep Date: 4/16/2018 Analyte Benzene Toluene Ethylbenzene	Result  0.90 0.96 1.0	PQL 0.025 0.050	17/2018 SPK value 1.000 1.000 1.000	SPK Ref Val 0 0	%REC 90.2 96.1 102	0621 642551 LowLimit 80 80 80	Units: mg/K HighLimit 120 120 120	g		Qual					

#### Qualifiers:

\* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

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

Page 3 of 4

P Sample pH Not In Range

RL Reporting Detection Limit

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1804740

20-Apr-18

**Client:** 

Enterprise Field Services

Project:

MAPL Lybrook Pumping Station

Sample ID Ics-37609	SampT	ype: LC	S	TestCode: EPA Method 8015D Mod: Gasoline Range								
Client ID: LCSS	Batch	ID: 37	609	R								
Prep Date: 4/16/2018	Analysis D	ate: 4/	17/2018	S	SeqNo: 1	642144	Units: mg/k					
Analyte	Result	PQL	SPK value	SPK Ref Val	Ref Val %REC LowLim		HighLimit	%RPD	RPDLimit	Qual		
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.7	70	130					
Surr: BFB	530		500.0		106	70	130					

Sample ID mb-37609 SampType: MBLK TestCode: EPA Method 8015D Mod: Gasoline Range Client ID: Batch ID: 37609 RunNo: 50621 Prep Date: 4/16/2018 Analysis Date: 4/17/2018 SeqNo: 1642145 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual ND 5.0 Gasoline Range Organics (GRO) Surr: BFB 570 500.0 114 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

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 4 of 4



#### 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

Work Order Number: 1804740 Client Name: **Enterprise** RcptNo: 1 4/13/2018 7:00:00 AM Received By: **Anne Thorne** 4/13/2018 3:24:24 PM Completed By: **Anne Thorne** 4/16/18 Reviewed By: Chain of Custody Yes 🗸 No 🗌 Not Present 1. Is Chain of Custody complete? 2. How was the sample delivered? Client Log In Yes 🗸 NA 🗌 3. Was an attempt made to cool the samples? No No . NA 🗌 Were all samples received at a temperature of >0° C to 6.0°C Yes 🗸 Yes 🗸 No 🗌 5. Sample(s) in proper container(s)? V No 🗌 6. Sufficient sample volume for indicated test(s)? **V** 7. Are samples (except VOA and ONG) properly preserved? No No 🗸 NA 🗌 8. Was preservative added to bottles? Yes No VOA Vials 9. VOA vials have zero headspace? No 🗔 No 🗸 10. Were any sample containers received broken? # of preserved bottles checked Yes V No 🗌 for pH: 11. Does paperwork match bottle labels? unless noted) (Note discrepancies on chain of custody) **V** No 🗌 12. Are matrices correctly identified on Chain of Custody? Yes No 🗌 13. Is it clear what analyses were requested? Checked by: Yes 🗸 14. Were all holding times able to be met? No (If no, notify customer for authorization.) Special Handling (if applicable) 15. Was client notified of all discrepancies with this order? Yes No 🗌 NA V Person Notified: Date By Whom: Via: eMail eMail Phone Fax In Person Regarding: Client Instructions: 16. Additional remarks: 17. Cooler Information Cooler No Temp °C Condition Seal Intact | Seal No Seal Date Signed By Good Yes

Chain-of-Custody Record		Turn-Around Time:										-										
Client: Enterprise Products			☑ Standard ☐ Rush					VC											NT			
271,000				Project Name: / which Project					ANALYSIS LABORATORY www.hallenvironmental.com											•		
Mailing Address: Liy Reilly Ave.			Project Name: Lybrack Pumping  MAPL Startion  Project #:					4901 Hawkins NE - Albuquerque, NM 87109  Tel. 505-345-3975 Fax 505-345-4107  Analysis Request														
Farmington Win 8744  Phone #: 565-599-2286  email or Fax#: tilongeaprod.com																						
		Project Manager:					<u>(</u>	0														
QA/QC Package:  Standard			Thomas Long					TPH (Gas only)	/ DRO / MRO)			IMS)		PO <sub>4</sub> ,SO	PCB's							
Accredi				Sampler:	751			WE'S (8021)	PH	70	=	=	70 \$		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	3082						2
□ NELAP □ Other			On Ice. ∠Yes □ No					+	88	418.	504.	r 82	S	0,5	3 / S		(AC				or N)	
□ EDD (Type)			Sample Temperature /.0					+ MTBE	B (G	poc	por	10 0	letal	C,N	icide	(A)	)-ic				S (7	
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	AD-1	L No. ⊒O	BTEX + MPE	BTEX + M	TPH 8015B (GRO	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles
4-12-18	1015	Soil	Sc-1	402 Jer	Cool		-601	X		X											1	
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Date: -12-18	Time:	Relinquished by:		Received by:  Date Time  All John Market Mize Mine				Ren	nark	S:												
Date:	e: Time: Refinquished by:			Received by:  Date Time  64/13/18  6760																		1
	necessary,	samples subr	mitted to Hall Environmental may be subc	contracted to other ac	ccredited laboratorie			s possil	bility.	Any su	ıb-cont	tracted	data v	will be	clear	y nota	ted on	the ar	nalytica	l report		