

INFORMATION ONLY

February 22, 2017

Tomáš 'Doc' Oberding PhD
Hydrologist, Adv-District 1
New Mexico Oil Conservation Division
District 1
1625 N. French Drive
Hobbs, New Mexico 88240

Transmitted via email Tomas 'Doc' Obderling tomas.oberding@state.nm.us

Re: Report of Additional Soil Delineation at the Harris Federal #1 Lease, Unit O Section 5, T-22-S, R-34-E, Lea County, New Mexico (1RP-1335 and 1RP 1741)

Mr. Oberding:

Atkins Engineering Associates Inc. (AEA) on behalf of Trainer Partners, LTD (TPL) is pleased to submit this Report of Additional Soil Delineation (Report). This Report summarizes the soil delineation at the Harris Federal #1 Lease (Site) located in Unit O, Section 5, Township 22S, Range 24E, N.M.P.M. Lea County, New Mexico.

Field work was conducted under work plan submitted to the New Mexico Oil Conservation Division (NMOCD) on August 15, 2016 and approved via email on September 1, 2017.

General Procedures

AEA personnel and equipment performed the delineation December 01-02, 2016 and January 10, 2017. After constructing a decontamination and soil storage "pit" using 4"x4" and visqueen, and building ramps to access the legacy excavations, AEA began drilling. Where necessary composite mats were used to provide access into the boring locations.

Soil borings were advanced with an Ingersoll Rand 300-A drill rig using 4.25" or 3.25" inside diameter hollow stem augers. Split spoon samples were collected on 5-foot centers with a 140 lb. automatic drop hammer. Samples logged and screened for hydrocarbon contamination using visual/olfactory observations and a calibrated MiniRae 3000 photo-ionization detector. Split

spoons were decontaminated between samples using Alconox, and all drill tooling was steam pressure washed between borings.

Samples were collected in laboratory supplied glass jars with appropriate preservatives as needed/. Samples were labeled and stored in coolers on ice until shipped to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico under Chain of Custody procedures.

Investigative-derived waste was collected, transported and stored in the constructed decontamination/storage pit. At the end of the delineation the visqueen was used to wrap the cuttings for storage on site. Soil borings were abandoned with native fill to within 10' of land surface and then filled with hydrated bentonite hole plug.

At the end of the delineation work, AEA technicians surveyed the boring locations with a Topcon GR-5 GPS to obtain horizontal and vertical positions.

Soil borings

A total of 13 soil borings were advanced on the site (Baseline BL-1 and Soil Borings SB-1 through SB-12). Figure 1 shows the boring locations with the previously surveyed excavation contours.

All sample intervals from all borings were sent for analysis of Chlorides using EPA Method 300.0 and the deepest interval of soil borings SB-1 through SB-12 was sent for analysis for Total Petroleum Hydrocarbons (Gasoline, Diesel, Motor Oil Range) using EPA Method 8015M/D and Volatile Organic Compounds (Benzene, Toluene, Ethylbenzene, Total Xylenes using EPA Method 8021B.

During drilling, PID readings slightly over 100 ppm-v were encountered in several soil borings: SB-5 (4-6'), SB-6 (4-6', 9-11', 14-16'), SB-7 (4-6', 9-11', 14-16'), SB-7 (4-6'). Samples from these intervals were sent to the HEAL and analyzed for BTEX and TPH. The lab reported below detection limits for those constituents in these samples and in the deepest interval of each soil boring.

The following table summarizes the depths and intervals of chlorides throughout the soil borings:

Table 1: Excavation– Chloride(mg/Kg) by Boring Interval

Well ID	Elevation LS (ft.)	Chloride (mg/Kg)		
		4-6'	9-11'	14-16'
SB-1	3,602.04	<30	<30	<30
SB-2	3,600.64	<30	<30	<30
SB-3	3,599.80	<30	<30	<30
SB-4	3,600.81	<30	<30	<30
SB-5	3,607.35	<30	<30	<30
SB-6	3,607.64	<30	<30	<30
SB-7	3,609.85	<30	<30	<30
SB-8	3,610.75	<30	<30	63
SB-9	3,611.42	180	48	280
SB-10	3,610.18	230	100	270
SB-11	3,610.60	1,400	100	230
SB-12	3,612.23	980	87	130

Baseline

To help understand the background conditions a baseline boring was advanced north of the excavation in a readily accessible area. The total depth of this boring was chosen to mirror the total depth of the additional soil borings to be advanced when accounting for the depth of the excavations. The following table summarizes the depths and intervals of contamination throughout the baseline:

Table 2: Baseline – Chloride(mg/Kg) by Boring Interval

	BL-1
Elevation LS (ft)	3618.66
4-6'	700
9-11'	1,100
14-16'	720
19-21'	130
24-26'	120
29-31'	<30
24-36'	33

Groundwater and Geological Conditions

The site is located west of the Mescalero Escarpment which is the prominent “defining” western edge of the Ogallala aquifer. That said, regional groundwater in the area could be derived from alluvium, followed by layers in the Chinle, and lastly in the Triassic Santa Rosa sandstone. Evidence exists that groundwater in the vicinity of the site can be found in the alluvium and is expected at depths of less than 100 feet below land surface.

The nearby shallow water well located in Unit H of Section 8, Township 22S, Range 34 E, N.M.P.M. as shown on the USGS topographic maps as the “Hamilton Well” shows water levels of 30.84 feet in 1996 (The earliest recorded water level from 1968 shows a water level of 31.64 feet). With a land surface elevation 3,578.00 this would put the water level elevation at 3,547.16. The Office of the State Engineer considers this well to be landed in the alluvial. With a general undisturbed site elevation of 3,615.00 which is 37 feet higher than the land surface at the Hamilton Well, the projected shallow alluvial groundwater under the Harris site is projected to be near 70 feet below land surface.

The surface soil adjacent to the site consists of Pyote soil and maljamar fine sands. The National Resources Conservation Service (NRCS) considers the top 24 inches to be fine sand and fine sandy clay loam from 24-50 inches with a slope of 0-3 percent. Soil has negligible run off and is well

drained. capacity. Calcium carbonate in site is considered to be 5%, gypsum 1% with a nonsaline to very slightly saline profile. Minor soil components include Kermit, and Playas.

Analysis and recommendations

No hydrocarbon contamination was found during this delineation event. The borings all achieved chloride delineation to either below 250 mg/Kg or slightly above that mark in soil borings SB-9, SB-10 and SB-11. Some indication of elevated chlorides was identified at 4-6' in soil boring SB-11 and SB-12. The baseline boring BL-1 showed elevated chlorides at 4-6', 9-11', and 14-16' but delineated out at 19-21'.

Figure 1 and Figure 2 show the boring with chloride values and the existing grades/excavation.

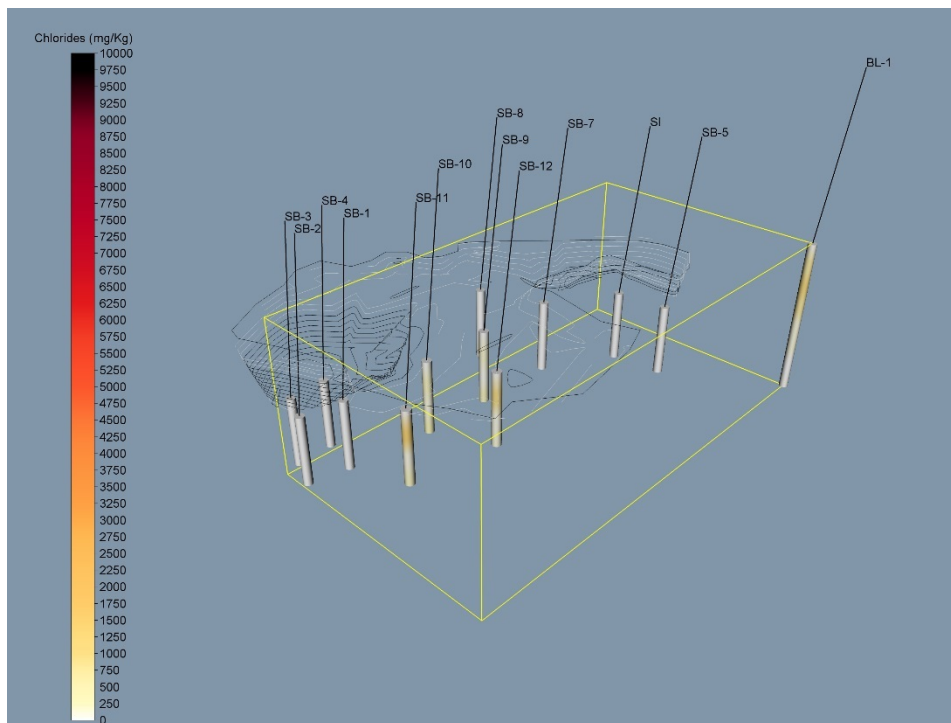


Figure 1: Site borings with chlorides (mg/Kg) and grade

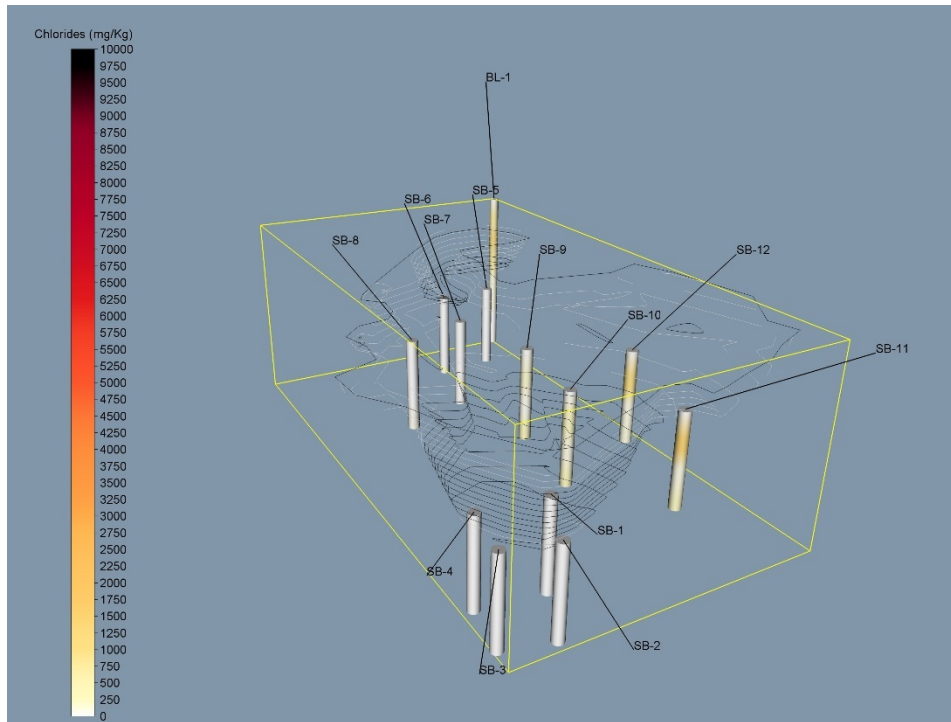


Figure 2: Site borings with chlorides (mg/Kg) and grade

AEA recommends closing the excavations to date with compacted native fill, and preparing the surface for revegetation with an appropriate BLM seed mixture.

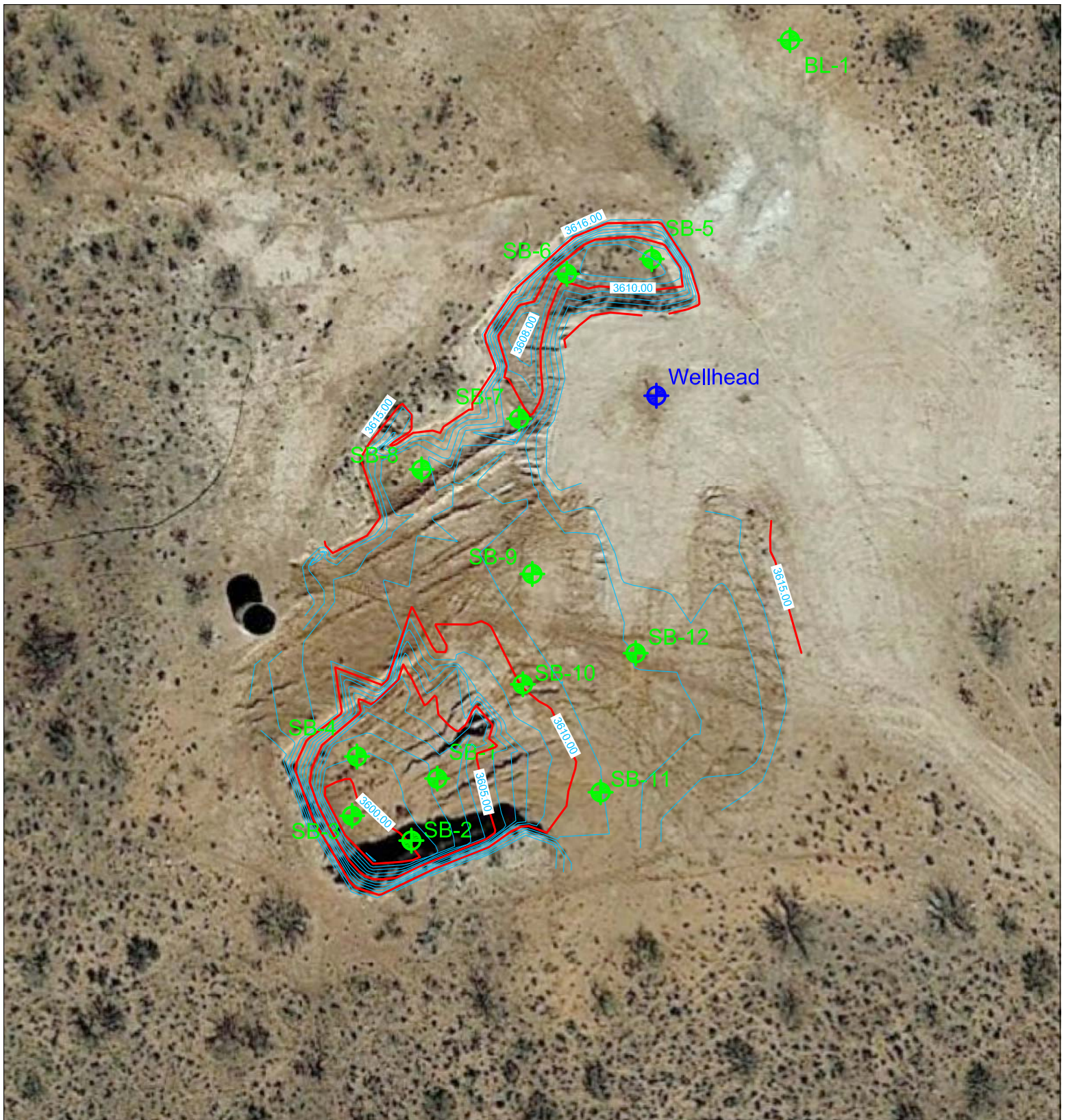
We request a meeting with the NMOCD and New Mexico State Land Office to help refine the scope and move the site toward final closure. If you have any questions and to set this meeting up, please contact me at jim.coburn@atkinseng.com and Chris Cortez at chris@atkinseng.com

Sincerely,

Jim Coburn P.E.
Consulting Engineer
jim.coburn@atkinseng.com

Figure 1 - Site Map with Boring Locations, Attachment A: Logs, Attachment B: Lab Reports

Cc: Olivia Yu via email Olivia.yu@state.nm.us
Kristen Lynch via email Kristen.Lynch@state.nm.us
Shelly Tucker via email stucker@blm.gov
Randall Mark Trainer via email randall@trainerpartners.com



Legend

- Contour Line
- + Soil Boring Location
- + Harris Federal #1 Lease Wellhead

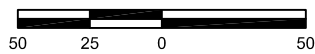


Figure 1.
Soil Boring Locations
Harris Federal #1 Lease

SCALE
 1" = 50'

January 2017

JOB NO. TPLHARR.ENV.16



2904 W. 2nd St.
 Roswell, NM 88201
 voice: 575.624.2420
 fax: 575.624.2421

Client	Trainer Partners LTD	Completion Date	12-01-16	Latitude	32.41567818
Location	Harris Federal #1 Lease near Hobbs, NM	Drilling Contractor	Atkins Engineering Assoc. Inc.	Longitude	-103.48972927
Purpose	Soil Sampling	Drilling Method	Hollow-stem auger	Surface Elevation (ft)	3618.66
Project	TPHARR.ENV.16	Boring Diameter	8.675"	TOC Elevation (ft)	N/A
		Well Diameter	N/A	Total Depth (ft)	34.5
		Well Screen	N/A		

Depth in feet	Lithology	USCS	Description	LAB TPH DRO/MRO GRO Cl mg/Kg	PID ppm-v	Well Construction Detail
0			Silty sand, fine to medium grain sand, brown, dry	nd/nd nd 700	0.8	Native Fill
-5		SM	Silty sand, fine to medium grain sand, some caliche, brown, dry			Bentonite Seal
-10			Sandy clay, very fine to medium grain sand, some caliche, brown, dry	nd/nd nd 1100	0.9	
-15		CL		nd/nd nd 720	1.0	
-20			Silty sand, very fine to medium grain sand, brown, dry	nd/nd nd 130	0.8	
-25		SM	Silty sand, very fine to fine grain sand, red, dry	nd/nd nd 120	0.4	
-30			Sand, fine to medium grain sand, brown, dry	nd/nd nd <30	0.5	
-35		SP	Sand, fine to medium grain, red, dry	nd/nd nd 33	1.2	Native Fill
-40						

Bottom of Boring (ft) = 34.5 BGS

Client	Trainer Partners LTD	Completion Date	12-01-16	Latitude	32.41490953
Location	Harris Federal #1 Lease near Hobbs, NM	Drilling Contractor	Atkins Engineering Assoc. Inc.	Longitude	-103.49017095
Purpose	Soil Sampling	Drilling Method	Hollow-stem auger	Surface Elevation (ft)	3602.04
Project	TPHARR.ENV.16	Boring Diameter	8.675"	TOC Elevation (ft)	N/A
		Well Diameter	N/A	Total Depth (ft)	14.5
		Well Screen	N/A		

Depth in feet	Lithology	USCS	Description	LAB TPH DRO/MRO GRO Cl mg/Kg	PID ppm-v	Well Construction Detail
0						
			Silty sand, very fine to medium grain sand, some caliche streaks, brown, damp	nd/nd nd <30	0.7	
-5		SM				
			Silty sand, very fine to fine grain sand, brown to red, damp	nd/nd nd <30	0.5	
-10						
			Caliche, hard, dry	<9.5/<47 <3.9 <30	4.0	
-15		OL SM				
			Silty sand, very fine to fine grain sand, brown to red, damp			

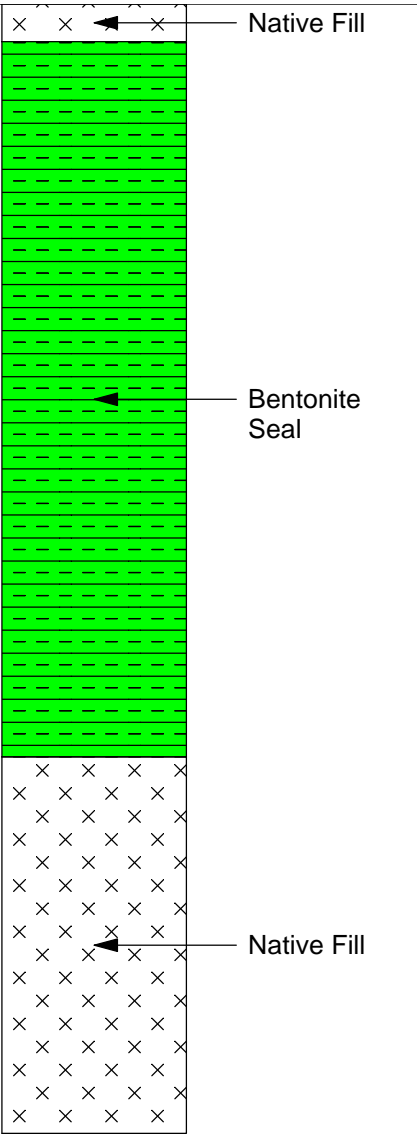
Bottom of Boring (ft) = 14.5 BGS

Client	Trainer Partners LTD	Completion Date	12-01-16	Latitude	32.41484499
Location	Harris Federal #1 Lease near Hobbs, NM	Drilling Contractor	Atkins Engineering Assoc. Inc.	Longitude	-103.49020342
Purpose	Soil Sampling	Drilling Method	Hollow-stem auger	Surface Elevation (ft)	3600.64
Project	TPHARR.ENV.16	Boring Diameter	8.675"	TOC Elevation (ft)	N/A
		Well Diameter	N/A	Total Depth (ft)	14.5
		Well Screen	N/A		

Depth in feet	Lithology	USCS	Description	LAB TPH DRO/MRO GRO Cl mg/Kg	PID ppm-v	Well Construction Detail
0			Silty sand, very fine to fine grain sand, brown, soft, damp			Native Fill
-5			Silty sand, very fine to fine grain sand, red, soft, damp	nd/nd nd <30	8.0	Bentonite Seal
-10	SM			nd/nd nd <30	8.2	Native Fill
-15				<9.8/<49 <3.8 <30	12.8	

Bottom of Boring (ft) = 14.5 BGS

Client	Trainer Partners LTD	Completion Date	12-02-16	Latitude	32.41493328
Location	Harris Federal #1 Lease near Hobbs, NM	Drilling Contractor	Atkins Engineering Assoc. Inc.	Longitude	-103.49026965
Purpose	Soil Sampling	Drilling Method	Hollow-stem auger	Surface Elevation (ft)	3600.81
Project	TP LHARR.ENV.16	Boring Diameter	8.675"	TOC Elevation (ft)	N/A
		Well Diameter	N/A	Total Depth (ft)	14.5
		Well Screen	N/A		

Depth in feet	Lithology	USCS	Description	LAB TPH DRO/MRO GRO Cl mg/Kg	PID ppm-v	Well Construction Detail
0			Silty sand, very fine to medium grain sand, red, damp	nd/nd nd <30	3.1	 <p>Native Fill</p> <p>Bentonite Seal</p> <p>Native Fill</p>
-5						
-10	SM		Silty sand, very fine to medium grain sand, some caliche, red, damp	nd/nd nd <30	3.1	
-15				<9.2/<46 <3.6 <30	4.6	

Bottom of Boring (ft) = 14.5 BGS

Client	Trainer Partners LTD	Completion Date	12-02-16	Latitude	32.41545070
Location	Harris Federal #1 Lease near Hobbs, NM	Drilling Contractor	Atkins Engineering Assoc. Inc.	Longitude	-103.48990166
Purpose	Soil Sampling	Drilling Method	Hollow-stem auger	Surface Elevation (ft)	3607.35
Project	TPHARR.ENV.16	Boring Diameter	8.675"	TOC Elevation (ft)	N/A
		Well Diameter	N/A	Total Depth (ft)	14.5
		Well Screen	N/A		

Depth in feet	Lithology	USCS	Description	LAB TPH DRO/MRO GRO Cl mg/Kg	PID ppm-v	Well Construction Detail
0			Sandy clay, very fine to fine grain sand, red, damp			Native Fill
	CL					
-5			Lean clay, slightly sticky, red, hard, dry	<9.9/nd <4.2 <30	320	Bentonite Seal
	CL					
-10			Sand, fine to coarse grain sand, red, damp	nd/nd nd <30	5.4	Native Fill
	SM					
-15				<9.3/<46 <3.3 <30	6.9	

Bottom of Boring (ft) = 14.5 BGS

Client	Trainer Partners LTD	Completion Date	12-02-16	Latitude	32.41543589
Location	Harris Federal #1 Lease near Hobbs, NM	Drilling Contractor	Atkins Engineering Assoc. Inc.	Longitude	-103.49000641
Purpose	Soil Sampling	Drilling Method	Hollow-stem auger	Surface Elevation (ft)	3607.64
Project	TPHARR.ENV.16	Boring Diameter	8.675"	TOC Elevation (ft)	N/A
		Well Diameter	N/A	Total Depth (ft)	14.5
		Well Screen	N/A		

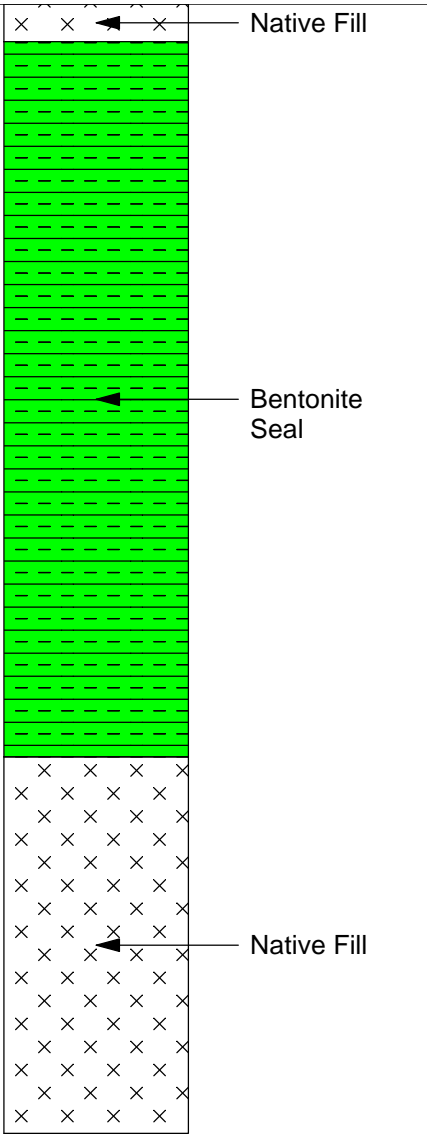
Depth in feet	Lithology	USCS	Description	LAB TPH DRO/MRO GRO Cl mg/Kg	PID ppm-v	Well Construction Detail
0						
		SP	Sand, fine to medium grain, brown, damp			
			Lean clay, red, hard, dry			
-5		CL		<10/nd <4.4 <30	362	
-10		SP	Sand, very fine to fine grain sand, brown to red, damp	nd/nd nd <30	12.0	
-15				<9.2/<46 <3.6 <30	11.6	

Bottom of Boring (ft) = 14.5 BGS

Client	Trainer Partners LTD	Completion Date	12-02-16	Latitude	32.41528489
Location	Harris Federal #1 Lease near Hobbs, NM	Drilling Contractor	Atkins Engineering Assoc. Inc.	Longitude	-103.49006654
Purpose	Soil Sampling	Drilling Method	Hollow-stem auger	Surface Elevation (ft)	3609.85
Project	TPHARR.ENV.16	Boring Diameter	8.675"	TOC Elevation (ft)	N/A
		Well Diameter	N/A	Total Depth (ft)	14.5
		Well Screen	N/A		

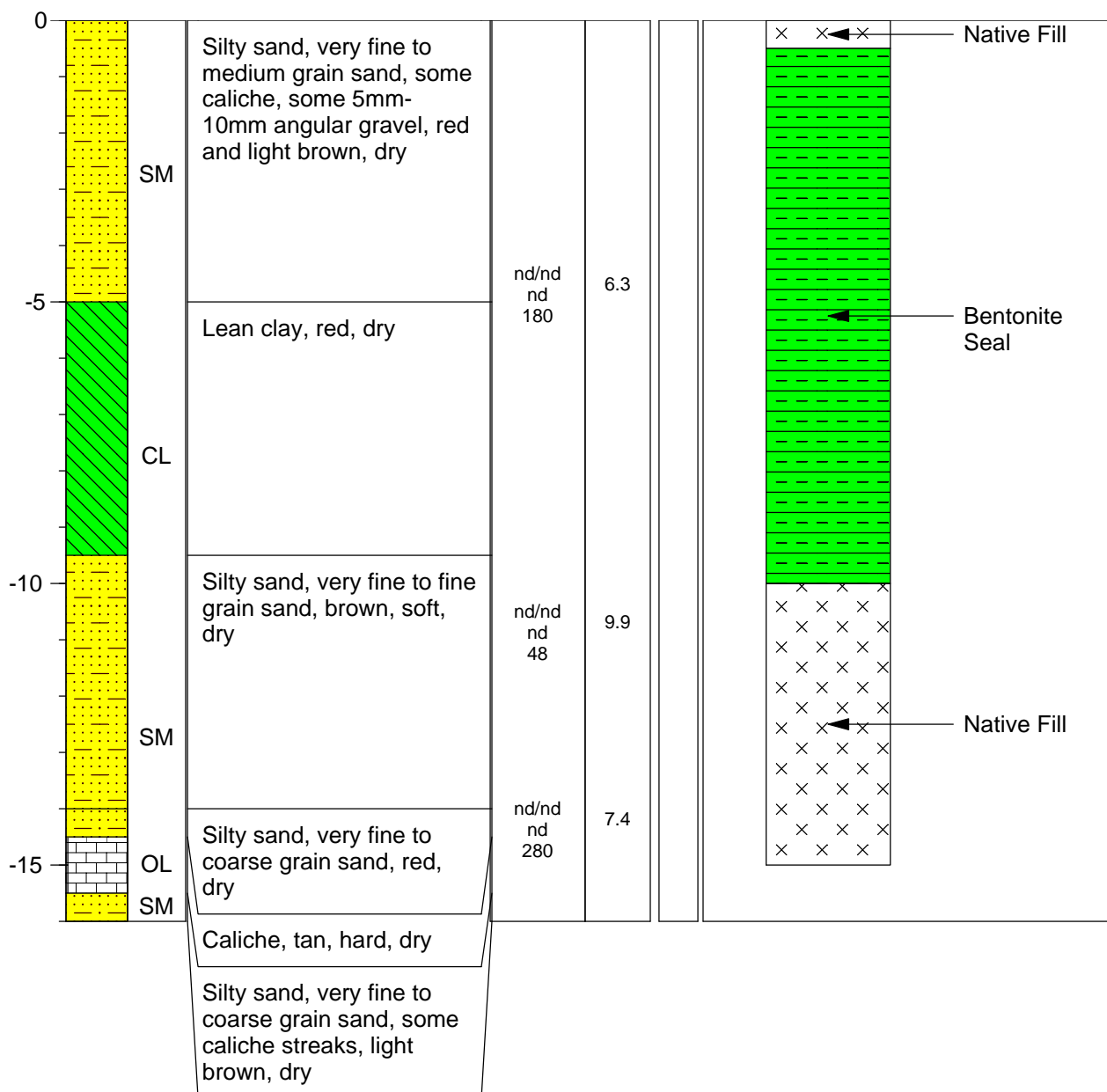
Depth in feet	Lithology	USCS	Description	LAB TPH DRO/MRO GRO Cl mg/Kg	PID ppm-v	Well Construction Detail
0						
		SP	Sand, fine to medium grain sand, some 5mm subangular gravel, red, damp			
-5						
		CL	Sandy clay and sand, mixed layering, very fine to fine grain sand, red, dry	<9.2/nd <3.9 <30	350	
-10						
			Sandy clay, very fine to fine grain sand, some caliche, red, hard, dry	<10/nd <3.3 <30	320	
-15		SP	Sand, very fine to fine grain sand, some caliche, red, damp	<9.8/<49 <3.4 <30	340	

Client	Trainer Partners LTD	Completion Date	12-02-16	Latitude	32.41523270
Location	Harris Federal #1 Lease near Hobbs, NM	Drilling Contractor	Atkins Engineering Assoc. Inc.	Longitude	-103.49018723
Purpose	Soil Sampling	Drilling Method	Hollow-stem auger	Surface Elevation (ft)	3610.75
Project	TP LHARR.ENV.16	Boring Diameter	8.675"	TOC Elevation (ft)	N/A
		Well Diameter	N/A	Total Depth (ft)	14.5
		Well Screen	N/A		

Depth in feet	Lithology	USCS	Description	LAB TPH DRO/MRO GRO Cl mg/Kg	PID ppm-v	Well Construction Detail
0	CL		Sandy clay, very fine to fine grain sand, some 5mm angular gravel, brown, damp	<9.6/nd <3.7 <30	146	
-5			Sandy clay, very fine to fine grain sand, some caliche, red, hard, dry			
-10			Sandy clay and sand, mixed layering, very fine to fine grain sand, some caliche, red, dry	nd/nd nd <30	68	
-15			Sandy clay and sand, mixed layering, medium to coarse grain sand, light brown, dry	<9.3/<46 <3.8 63	14	

Client	Trainer Partners LTD	Completion Date	01-10-17	Latitude	32.41512257
Location	Harris Federal #1 Lease near Hobbs, NM	Drilling Contractor	Atkins Engineering Assoc. Inc.	Longitude	-103.49005195
Purpose	Soil Sampling	Drilling Method	Hollow-stem auger	Surface Elevation (ft)	3611.42
Project	TPHARR.ENV.16	Boring Diameter	6.50"	TOC Elevation (ft)	N/A
		Well Diameter	N/A	Total Depth (ft)	14.5
		Well Screen	N/A		

Depth in feet	Lithology	USCS	Description	LAB TPH DRO/MRO GRO Cl mg/Kg	PID ppm-v	Well Construction Detail
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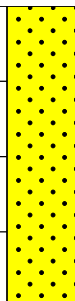
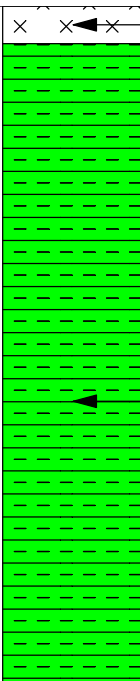
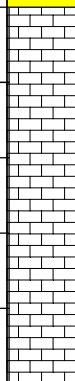
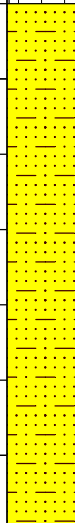
Client	Trainer Partners LTD	Completion Date	01-10-17	Latitude	32.41500735
Location	Harris Federal #1 Lease near Hobbs, NM	Drilling Contractor	Atkins Engineering Assoc. Inc.	Longitude	-103.49006462
Purpose	Soil Sampling	Drilling Method	Hollow-stem auger	Surface Elevation (ft)	3610.18
Project	TPHARR.ENV.16	Boring Diameter	6.50"	TOC Elevation (ft)	N/A
		Well Diameter	N/A	Total Depth (ft)	14.5
		Well Screen	N/A		

Depth in feet	Lithology	USCS	Description	LAB TPH DRO/MRO GRO Cl mg/Kg	PID ppm-v	Well Construction Detail
0			Silty sand, very fine to medium grain sand, some 5mm-10mm angular gravel, brown, dry			Native Fill
	SM					
-5			Caliche, tan, hard, dry	nd/nd nd 230	8.0	Bentonite Seal
	OL					
-10			Silty sand, very fine to medium grain sand, brown, dry	nd/nd nd 100	8.4	
	SM					Native Fill
-15			Silty sand, fine to coarse grain sand, red, dry	nd/nd nd 270	9.7	

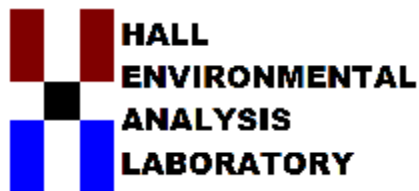
Client	Trainer Partners LTD	Completion Date	01-10-17	Latitude	32.41489389
Location	Harris Federal #1 Lease near Hobbs, NM	Drilling Contractor	Atkins Engineering Assoc. Inc.	Longitude	-103.48996990
Purpose	Soil Sampling	Drilling Method	Hollow-stem auger	Surface Elevation (ft)	3610.60
Project	TPHARR.ENV.16	Boring Diameter	6.50"	TOC Elevation (ft)	N/A
		Well Diameter	N/A	Total Depth (ft)	14.5
		Well Screen	N/A		

Depth in feet	Lithology	USCS	Description	LAB TPH DRO/MRO GRO Cl mg/Kg	PID ppm-v	Well Construction Detail
0			Silty sand, very fine to medium grain sand, some 5mm-10mm subangular gravel, brown, dry			Native Fill
-5		SM		nd/nd nd 1400	3.9	
		CL	Sandy clay and mixed caliche, very fine to fine grain sand, brown, dry			Bentonite Seal
-10		SM	Silty sand, very fine to fine grain sand, light brown, dry	nd/nd nd 100	4.6	
-15		S	Sand, fine to coarse grain sand, some caliche streaks, red, dry	nd/nd nd 230	7.3	Native Fill

Client	Trainer Partners LTD	Completion Date	01-10-17	Latitude	32.41503899
Location	Harris Federal #1 Lease near Hobbs, NM	Drilling Contractor	Atkins Engineering Assoc. Inc.	Longitude	-103.48992530
Purpose	Soil Sampling	Drilling Method	Hollow-stem auger	Surface Elevation (ft)	3612.23
Project	TPHARR.ENV.16	Boring Diameter	6.50"	TOC Elevation (ft)	N/A
		Well Diameter	N/A	Total Depth (ft)	14.5
		Well Screen	N/A		

Depth in feet	Lithology	USCS	Description	LAB TPH DRO/MRO GRO Cl mg/Kg	PID ppm-v	Well Construction Detail
0		S	Sand, fine to coarse grain sand, red, dry	nd/nd nd 980	8.0	 Native Fill
-5						
-10		SM		Silty sand, very fine to fine grain sand, brown, dry @ 14-15' BGS some caliche streaks	nd/nd nd 87	8.4
-15						

Bottom of Boring (ft) = 14.5 BGS



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

December 16, 2016

Christopher Cortez

Atkins Engineering Associates

2904 West Second Street

Roswell, NM 88201

TEL: (575) 624-2420

FAX (575) 624-2421

RE: Harris Federal 1 Lease

OrderNo.: 1612294

Dear Christopher Cortez:

Hall Environmental Analysis Laboratory received 32 sample(s) on 12/6/2016 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued December 15, 2016.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. 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. All samples are reported as received unless otherwise indicated.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**

Date Reported: **12/16/2016**

CLIENT: Atkins Engineering Associates

Client Sample ID: BL-1 @ 1-6' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/1/2016 9:45:00 AM

Lab ID: 1612294-001

Matrix: SOIL

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	700	30		mg/Kg	20	12/10/2016 2:52:57 PM	29108

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**

Date Reported: **12/16/2016**

CLIENT: Atkins Engineering Associates

Client Sample ID: BL-1 @ 9-11' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/1/2016 10:00:00 AM

Lab ID: 1612294-002

Matrix: SOIL

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	1100	30		mg/Kg	20	12/10/2016 3:30:11 PM	29108

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**

Date Reported: **12/16/2016**

CLIENT: Atkins Engineering Associates

Client Sample ID: BL-1 @ 14-16' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/1/2016 10:15:00 AM

Lab ID: 1612294-003

Matrix: SOIL

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	720	30		mg/Kg	20	12/10/2016 3:42:35 PM	29108

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**

Date Reported: **12/16/2016**

CLIENT: Atkins Engineering Associates

Client Sample ID: BL-1 @ 19-21' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/1/2016 10:50:00 AM

Lab ID: 1612294-004

Matrix: SOIL

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	130	30		mg/Kg	20	12/10/2016 3:54:59 PM	29108

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**

Date Reported: **12/16/2016**

CLIENT: Atkins Engineering Associates

Client Sample ID: BL-1 @ 24-26' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/1/2016 11:15:00 AM

Lab ID: 1612294-005

Matrix: SOIL

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	120	30		mg/Kg	20	12/10/2016 4:07:24 PM	29108

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**

Date Reported: **12/16/2016**

CLIENT: Atkins Engineering Associates

Client Sample ID: BL-1 @ 29-31' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/1/2016 11:50:00 AM

Lab ID: 1612294-006

Matrix: SOIL

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	12/10/2016 4:19:49 PM	29108

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**

Date Reported: **12/16/2016**

CLIENT: Atkins Engineering Associates

Client Sample ID: BL-1 @ 34-36' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/1/2016 12:20:00 PM

Lab ID: 1612294-007

Matrix: SOIL

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	33	30		mg/Kg	20	12/10/2016 4:57:03 PM	29108

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**

Date Reported: **12/16/2016**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-1 @ 4-6' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/1/2016 2:00:00 PM

Lab ID: 1612294-008

Matrix: SOIL

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	12/10/2016 5:09:28 PM	29108

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**

Date Reported: **12/16/2016**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-1 @ 9-11' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/1/2016 2:15:00 PM

Lab ID: 1612294-009

Matrix: SOIL

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	12/10/2016 5:21:53 PM	29108

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1612294

Date Reported: 12/16/2016

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-1 @ 14-16' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/1/2016 2:45:00 PM

Lab ID: 1612294-010

Matrix: MEOH (SOIL)

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	12/10/2016 5:34:18 PM	29108
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	12/8/2016 1:48:18 PM	29058
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/8/2016 1:48:18 PM	29058
Surr: DNOP	96.6	70-130		%Rec	1	12/8/2016 1:48:18 PM	29058
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	12/7/2016 6:03:59 PM	29014
Surr: BFB	87.9	68.3-144		%Rec	1	12/7/2016 6:03:59 PM	29014
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.020		mg/Kg	1	12/7/2016 6:03:59 PM	29014
Toluene	ND	0.039		mg/Kg	1	12/7/2016 6:03:59 PM	29014
Ethylbenzene	ND	0.039		mg/Kg	1	12/7/2016 6:03:59 PM	29014
Xylenes, Total	ND	0.079		mg/Kg	1	12/7/2016 6:03:59 PM	29014
Surr: 4-Bromofluorobenzene	95.7	80-120		%Rec	1	12/7/2016 6:03:59 PM	29014

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**

Date Reported: **12/16/2016**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-2 @ 4-6' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/1/2016 3:35:00 PM

Lab ID: 1612294-011

Matrix: SOIL

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	12/10/2016 5:46:43 PM	29108

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**

Date Reported: **12/16/2016**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-2 @ 9-11' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/1/2016 3:45:00 PM

Lab ID: 1612294-012

Matrix: SOIL

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	12/10/2016 5:59:07 PM	29108

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**Date Reported: **12/16/2016****CLIENT:** Atkins Engineering Associates**Client Sample ID:** SB-2 @ 14-16' BGS**Project:** Harris Federal 1 Lease**Collection Date:** 12/1/2016 4:05:00 PM**Lab ID:** 1612294-013**Matrix:** MEOH (SOIL)**Received Date:** 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	12/10/2016 6:11:32 PM	29108
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/8/2016 2:10:01 PM	29058
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/8/2016 2:10:01 PM	29058
Surr: DNOP	97.5	70-130		%Rec	1	12/8/2016 2:10:01 PM	29058
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	12/7/2016 6:27:30 PM	29014
Surr: BFB	84.7	68.3-144		%Rec	1	12/7/2016 6:27:30 PM	29014
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	12/7/2016 6:27:30 PM	29014
Toluene	ND	0.038		mg/Kg	1	12/7/2016 6:27:30 PM	29014
Ethylbenzene	ND	0.038		mg/Kg	1	12/7/2016 6:27:30 PM	29014
Xylenes, Total	ND	0.077		mg/Kg	1	12/7/2016 6:27:30 PM	29014
Surr: 4-Bromofluorobenzene	91.3	80-120		%Rec	1	12/7/2016 6:27:30 PM	29014

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**

Date Reported: **12/16/2016**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-3 @ 4-6' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/2/2016 7:50:00 AM

Lab ID: 1612294-014

Matrix: SOIL

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	12/10/2016 6:23:57 PM	29108

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**

Date Reported: **12/16/2016**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-3 @ 9-11' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/2/2016 8:10:00 AM

Lab ID: 1612294-015

Matrix: SOIL

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	ND	30		mg/Kg	20	12/10/2016 6:36:22 PM	29108

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1612294

Date Reported: 12/16/2016

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-3 @ 14-16' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/2/2016 8:20:00 AM

Lab ID: 1612294-016

Matrix: MEOH (SOIL)

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	12/10/2016 6:48:47 PM	29108
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	12/8/2016 2:31:46 PM	29058
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	12/8/2016 2:31:46 PM	29058
Surr: DNOP	90.2	70-130		%Rec	1	12/8/2016 2:31:46 PM	29058
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	12/7/2016 6:51:09 PM	29014
Surr: BFB	85.3	68.3-144		%Rec	1	12/7/2016 6:51:09 PM	29014
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	12/7/2016 6:51:09 PM	29014
Toluene	ND	0.035		mg/Kg	1	12/7/2016 6:51:09 PM	29014
Ethylbenzene	ND	0.035		mg/Kg	1	12/7/2016 6:51:09 PM	29014
Xylenes, Total	ND	0.069		mg/Kg	1	12/7/2016 6:51:09 PM	29014
Surr: 4-Bromofluorobenzene	92.7	80-120		%Rec	1	12/7/2016 6:51:09 PM	29014

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**

Date Reported: **12/16/2016**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-4 @ 4-6' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/2/2016 9:20:00 AM

Lab ID: 1612294-017

Matrix: SOIL

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	12/10/2016 7:26:00 PM	29108

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**

Date Reported: **12/16/2016**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-4 @ 9-11' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/2/2016 9:35:00 AM

Lab ID: 1612294-018

Matrix: SOIL

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	ND	30		mg/Kg	20	12/10/2016 7:38:24 PM	29108

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1612294

Date Reported: 12/16/2016

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-4 @ 14-16' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/2/2016 9:55:00 AM

Lab ID: 1612294-019

Matrix: MEOH (SOIL)

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	12/12/2016 1:06:40 PM	29142
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	12/8/2016 2:53:30 PM	29058
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	12/8/2016 2:53:30 PM	29058
Surr: DNOP	91.3	70-130		%Rec	1	12/8/2016 2:53:30 PM	29058
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	12/7/2016 11:39:02 PM	SG39221
Surr: BFB	83.2	68.3-144		%Rec	1	12/7/2016 11:39:02 PM	SG39221
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	12/7/2016 11:39:02 PM	R39221
Toluene	ND	0.036		mg/Kg	1	12/7/2016 11:39:02 PM	R39221
Ethylbenzene	ND	0.036		mg/Kg	1	12/7/2016 11:39:02 PM	R39221
Xylenes, Total	ND	0.072		mg/Kg	1	12/7/2016 11:39:02 PM	R39221
Surr: 4-Bromofluorobenzene	92.8	80-120		%Rec	1	12/7/2016 11:39:02 PM	R39221

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1612294

Date Reported: 12/16/2016

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-5 @ 4-6' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/2/2016 11:00:00 AM

Lab ID: 1612294-020

Matrix: MEOH (SOIL)

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	12/12/2016 1:43:55 PM	29142
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/8/2016 3:15:08 PM	29058
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/8/2016 3:15:08 PM	29058
Surr: DNOP	85.9	70-130		%Rec	1	12/8/2016 3:15:08 PM	29058
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	12/8/2016 1:46:57 PM	G39252
Surr: BFB	85.4	68.3-144		%Rec	1	12/8/2016 1:46:57 PM	G39252
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.021		mg/Kg	1	12/8/2016 1:46:57 PM	B39252
Toluene	ND	0.042		mg/Kg	1	12/8/2016 1:46:57 PM	B39252
Ethylbenzene	ND	0.042		mg/Kg	1	12/8/2016 1:46:57 PM	B39252
Xylenes, Total	ND	0.083		mg/Kg	1	12/8/2016 1:46:57 PM	B39252
Surr: 4-Bromofluorobenzene	95.6	80-120		%Rec	1	12/8/2016 1:46:57 PM	B39252

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**

Date Reported: **12/16/2016**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-5 @ 9-11' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/2/2016 11:15:00 AM

Lab ID: 1612294-021

Matrix: SOIL

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: MRA	
Chloride	ND	30		mg/Kg	20	12/12/2016 1:56:19 PM	29142

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1612294

Date Reported: 12/16/2016

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-5 @ 14-16' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/2/2016 11:30:00 AM

Lab ID: 1612294-022

Matrix: MEOH (SOIL)

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	12/12/2016 2:08:44 PM	29142
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	12/8/2016 3:36:46 PM	29058
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	12/8/2016 3:36:46 PM	29058
Surr: DNOP	89.8	70-130		%Rec	1	12/8/2016 3:36:46 PM	29058
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	12/8/2016 3:00:24 PM	G39252
Surr: BFB	88.0	68.3-144		%Rec	1	12/8/2016 3:00:24 PM	G39252
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	12/8/2016 3:00:24 PM	B39252
Toluene	ND	0.033		mg/Kg	1	12/8/2016 3:00:24 PM	B39252
Ethylbenzene	ND	0.033		mg/Kg	1	12/8/2016 3:00:24 PM	B39252
Xylenes, Total	ND	0.067		mg/Kg	1	12/8/2016 3:00:24 PM	B39252
Surr: 4-Bromofluorobenzene	99.4	80-120		%Rec	1	12/8/2016 3:00:24 PM	B39252

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1612294

Date Reported: 12/16/2016

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-6 @ 4-6' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/2/2016 12:35:00 PM

Lab ID: 1612294-023

Matrix: MEOH (SOIL)

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	12/12/2016 2:21:09 PM	29142
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/8/2016 3:58:17 PM	29058
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/8/2016 3:58:17 PM	29058
Surr: DNOP	88.5	70-130		%Rec	1	12/8/2016 3:58:17 PM	29058
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	12/8/2016 5:51:24 PM	G39252
Surr: BFB	85.1	68.3-144		%Rec	1	12/8/2016 5:51:24 PM	G39252
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.022		mg/Kg	1	12/8/2016 5:51:24 PM	B39252
Toluene	ND	0.044		mg/Kg	1	12/8/2016 5:51:24 PM	B39252
Ethylbenzene	ND	0.044		mg/Kg	1	12/8/2016 5:51:24 PM	B39252
Xylenes, Total	ND	0.089		mg/Kg	1	12/8/2016 5:51:24 PM	B39252
Surr: 4-Bromofluorobenzene	97.4	80-120		%Rec	1	12/8/2016 5:51:24 PM	B39252

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**

Date Reported: **12/16/2016**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-6 @ 9-11' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/2/2016 12:55:00 PM

Lab ID: 1612294-024

Matrix: SOIL

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	12/12/2016 2:33:33 PM	29142

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1612294

Date Reported: 12/16/2016

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-6 @ 14-16' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/2/2016 1:10:00 PM

Lab ID: 1612294-025

Matrix: MEOH (SOIL)

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	12/12/2016 2:45:57 PM	29142
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	12/8/2016 4:19:55 PM	29058
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	12/8/2016 4:19:55 PM	29058
Surr: DNOP	92.0	70-130		%Rec	1	12/8/2016 4:19:55 PM	29058
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	12/8/2016 6:15:43 PM	G39252
Surr: BFB	84.2	68.3-144		%Rec	1	12/8/2016 6:15:43 PM	G39252
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	12/8/2016 6:15:43 PM	B39252
Toluene	ND	0.036		mg/Kg	1	12/8/2016 6:15:43 PM	B39252
Ethylbenzene	ND	0.036		mg/Kg	1	12/8/2016 6:15:43 PM	B39252
Xylenes, Total	ND	0.072		mg/Kg	1	12/8/2016 6:15:43 PM	B39252
Surr: 4-Bromofluorobenzene	93.4	80-120		%Rec	1	12/8/2016 6:15:43 PM	B39252

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1612294

Date Reported: 12/16/2016

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-7 @ 4-6' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/2/2016 2:00:00 PM

Lab ID: 1612294-026

Matrix: MEOH (SOIL)

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	12/12/2016 2:58:22 PM	29142
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	12/8/2016 4:41:27 PM	29058
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	12/8/2016 4:41:27 PM	29058
Surr: DNOP	89.4	70-130		%Rec	1	12/8/2016 4:41:27 PM	29058
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	12/8/2016 6:40:01 PM	G39252
Surr: BFB	90.3	68.3-144		%Rec	1	12/8/2016 6:40:01 PM	G39252
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.020		mg/Kg	1	12/8/2016 6:40:01 PM	B39252
Toluene	ND	0.039		mg/Kg	1	12/8/2016 6:40:01 PM	B39252
Ethylbenzene	ND	0.039		mg/Kg	1	12/8/2016 6:40:01 PM	B39252
Xylenes, Total	ND	0.079		mg/Kg	1	12/8/2016 6:40:01 PM	B39252
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	12/8/2016 6:40:01 PM	B39252

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1612294

Date Reported: 12/16/2016

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-7 @ 9-11' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/2/2016 2:20:00 PM

Lab ID: 1612294-027

Matrix: MEOH (SOIL)

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	12/12/2016 3:35:35 PM	29142
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/8/2016 5:03:15 PM	29058
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/8/2016 5:03:15 PM	29058
Surr: DNOP	88.2	70-130		%Rec	1	12/8/2016 5:03:15 PM	29058
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	12/8/2016 7:04:21 PM	G39252
Surr: BFB	86.2	68.3-144		%Rec	1	12/8/2016 7:04:21 PM	G39252
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	12/8/2016 7:04:21 PM	B39252
Toluene	ND	0.033		mg/Kg	1	12/8/2016 7:04:21 PM	B39252
Ethylbenzene	ND	0.033		mg/Kg	1	12/8/2016 7:04:21 PM	B39252
Xylenes, Total	ND	0.067		mg/Kg	1	12/8/2016 7:04:21 PM	B39252
Surr: 4-Bromofluorobenzene	96.0	80-120		%Rec	1	12/8/2016 7:04:21 PM	B39252

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1612294

Date Reported: 12/16/2016

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-7 @ 14-16' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/2/2016 2:30:00 PM

Lab ID: 1612294-028

Matrix: MEOH (SOIL)

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	12/12/2016 3:47:59 PM	29142
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/8/2016 5:24:43 PM	29058
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/8/2016 5:24:43 PM	29058
Surr: DNOP	89.5	70-130		%Rec	1	12/8/2016 5:24:43 PM	29058
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	12/8/2016 7:28:43 PM	G39252
Surr: BFB	85.7	68.3-144		%Rec	1	12/8/2016 7:28:43 PM	G39252
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.017		mg/Kg	1	12/8/2016 7:28:43 PM	B39252
Toluene	ND	0.034		mg/Kg	1	12/8/2016 7:28:43 PM	B39252
Ethylbenzene	ND	0.034		mg/Kg	1	12/8/2016 7:28:43 PM	B39252
Xylenes, Total	ND	0.068		mg/Kg	1	12/8/2016 7:28:43 PM	B39252
Surr: 4-Bromofluorobenzene	95.4	80-120		%Rec	1	12/8/2016 7:28:43 PM	B39252

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1612294

Date Reported: 12/16/2016

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-8 @ 4-6' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/2/2016 3:30:00 PM

Lab ID: 1612294-029

Matrix: MEOH (SOIL)

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	12/12/2016 4:00:24 PM	29142
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	12/8/2016 5:46:18 PM	29058
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/8/2016 5:46:18 PM	29058
Surr: DNOP	84.5	70-130		%Rec	1	12/8/2016 5:46:18 PM	29058
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	12/8/2016 7:53:09 PM	G39252
Surr: BFB	84.8	68.3-144		%Rec	1	12/8/2016 7:53:09 PM	G39252
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	12/8/2016 7:53:09 PM	B39252
Toluene	ND	0.037		mg/Kg	1	12/8/2016 7:53:09 PM	B39252
Ethylbenzene	ND	0.037		mg/Kg	1	12/8/2016 7:53:09 PM	B39252
Xylenes, Total	ND	0.075		mg/Kg	1	12/8/2016 7:53:09 PM	B39252
Surr: 4-Bromofluorobenzene	95.4	80-120		%Rec	1	12/8/2016 7:53:09 PM	B39252

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1612294**

Date Reported: **12/16/2016**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-8 @ 9-11' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/2/2016 3:50:00 PM

Lab ID: 1612294-030

Matrix: SOIL

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	30		mg/Kg	20	12/12/2016 4:12:48 PM	29142

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1612294

Date Reported: 12/16/2016

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-8 @ 14-16' BGS

Project: Harris Federal 1 Lease

Collection Date: 12/2/2016 4:05:00 PM

Lab ID: 1612294-031

Matrix: MEOH (SOIL)

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	63	30		mg/Kg	20	12/12/2016 4:25:12 PM	29142
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	12/8/2016 6:07:50 PM	29058
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	12/8/2016 6:07:50 PM	29058
Surr: DNOP	86.7	70-130		%Rec	1	12/8/2016 6:07:50 PM	29058
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	12/8/2016 8:17:42 PM	G39252
Surr: BFB	84.2	68.3-144		%Rec	1	12/8/2016 8:17:42 PM	G39252
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	12/8/2016 8:17:42 PM	B39252
Toluene	ND	0.038		mg/Kg	1	12/8/2016 8:17:42 PM	B39252
Ethylbenzene	ND	0.038		mg/Kg	1	12/8/2016 8:17:42 PM	B39252
Xylenes, Total	ND	0.077		mg/Kg	1	12/8/2016 8:17:42 PM	B39252
Surr: 4-Bromofluorobenzene	93.1	80-120		%Rec	1	12/8/2016 8:17:42 PM	B39252

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1612294

Date Reported: 12/16/2016

CLIENT: Atkins Engineering Associates

Client Sample ID: MEOH BLANK

Project: Harris Federal 1 Lease

Collection Date:

Lab ID: 1612294-032

Matrix: MEOH BLAN

Received Date: 12/6/2016 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/8/2016 8:42:10 PM	G39252
Surr: BFB	83.0	68.3-144		%Rec	1	12/8/2016 8:42:10 PM	G39252
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	12/8/2016 8:42:10 PM	B39252
Toluene	ND	0.050		mg/Kg	1	12/8/2016 8:42:10 PM	B39252
Ethylbenzene	ND	0.050		mg/Kg	1	12/8/2016 8:42:10 PM	B39252
Xylenes, Total	ND	0.10		mg/Kg	1	12/8/2016 8:42:10 PM	B39252
Surr: 4-Bromofluorobenzene	90.0	80-120		%Rec	1	12/8/2016 8:42:10 PM	B39252

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1612294

16-Dec-16

Client: Atkins Engineering Associates

Project: Harris Federal 1 Lease

Sample ID	MB-29108	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	29108	RunNo:	39311					
Prep Date:	12/10/2016	Analysis Date:	12/10/2016	SeqNo:	1230398	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-29108	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	29108	RunNo:	39311					
Prep Date:	12/10/2016	Analysis Date:	12/10/2016	SeqNo:	1230399	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	99.7	90	110			

Sample ID	MB-29142	SampType:	mblk	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBS	Batch ID:	29142	RunNo:	39341					
Prep Date:	12/12/2016	Analysis Date:	12/12/2016	SeqNo:	1231613	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-29142	SampType:	lcs	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSS	Batch ID:	29142	RunNo:	39341					
Prep Date:	12/12/2016	Analysis Date:	12/12/2016	SeqNo:	1231614	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.9	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

R RPD outside accepted recovery limits

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1612294

16-Dec-16

Client: Atkins Engineering Associates

Project: Harris Federal 1 Lease

Sample ID	LCS-29058		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29058		RunNo: 39238					
Prep Date:	12/7/2016		Analysis Date: 12/8/2016		SeqNo: 1228615		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.1	62.6	124			
Surr: DNOP	4.3		5.000		86.2	70	130			

Sample ID	MB-29058		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	29058		RunNo:	39238				
Prep Date:	12/7/2016		Analysis Date:	12/8/2016		SeqNo:	1228616		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	9.6		10.00		96.0	70	130				

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1612294

16-Dec-16

Client: Atkins Engineering Associates

Project: Harris Federal 1 Lease

Sample ID	MB-29014		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS		Batch ID: 29014		RunNo: 39220					
Prep Date:	12/6/2016		Analysis Date: 12/7/2016		SeqNo: 1227407		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	840		1000		83.6	68.3	144			

Sample ID	LCS-29014		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: 29014		RunNo: 39220					
Prep Date:	12/6/2016		Analysis Date: 12/7/2016		SeqNo: 1227408		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.7	74.6	123			
Surr: BFB	920		1000		92.3	68.3	144			

Sample ID	RB	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID: SG39221			RunNo: 39221					
Prep Date:		Analysis Date: 12/7/2016			SeqNo: 1227450		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	870		1000		87.3	68.3	144			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: SG39221		RunNo: 39221					
Prep Date:			Analysis Date: 12/7/2016		SeqNo: 1227451		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.7	74.6	123			
Surr: BFB	920		1000		92.3	68.3	144			

Sample ID	RB	SampType:	MBLK		TestCode:	EPA Method 8015D: Gasoline Range				
Client ID:	PBS	Batch ID:	G39252		RunNo:	39252				
Prep Date:		Analysis Date:	12/8/2016		SeqNo:	1228807		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		85.1	68.3	144			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSS		Batch ID: G39252		RunNo: 39252					
Prep Date:			Analysis Date: 12/8/2016		SeqNo: 1228808		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1612294

16-Dec-16

Client: Atkins Engineering Associates

Project: Harris Federal 1 Lease

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G39252	RunNo:	39252					
Prep Date:		Analysis Date:	12/8/2016	SeqNo:	1228808	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.2	74.6	123			
Surr: BFB	940		1000		93.6	68.3	144			

Sample ID	1612294-020AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SB-5 @ 4-6' BGS	Batch ID:	G39252	RunNo:	39252					
Prep Date:		Analysis Date:	12/8/2016	SeqNo:	1228810	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.2	20.80	0	114	61.3	150			
Surr: BFB	730		831.9		87.5	68.3	144			

Sample ID	1612294-020AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SB-5 @ 4-6' BGS	Batch ID:	G39252	RunNo:	39252					
Prep Date:		Analysis Date:	12/8/2016	SeqNo:	1228811	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.2	20.80	0	115	61.3	150	0.558	20	
Surr: BFB	750		831.9		90.3	68.3	144	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
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1612294

16-Dec-16

Client: Atkins Engineering Associates

Project: Harris Federal 1 Lease

Sample ID	MB-29014		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	29014		RunNo:	39220			
Prep Date:	12/6/2016		Analysis Date:	12/7/2016		SeqNo:	1227432	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.91		1.000		90.7	80	120			

Sample ID	LCS-29014		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	29014		RunNo:	39220			
Prep Date:	12/6/2016		Analysis Date:	12/7/2016		SeqNo:	1227433	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	105	75.2	115			
Toluene	0.97	0.050	1.000	0	96.9	80.7	112			
Ethylbenzene	0.94	0.050	1.000	0	93.8	78.9	117			
Xylenes, Total	2.8	0.10	3.000	0	93.7	79.2	115			
Surr: 4-Bromofluorobenzene	0.97		1.000		97.3	80	120			

Sample ID	RB		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	R39221		RunNo:	39221			
Prep Date:			Analysis Date:	12/7/2016		SeqNo:	1227481	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		99.7	80	120			

Sample ID	100NG BTEX LCS		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	R39221		RunNo:	39221			
Prep Date:			Analysis Date:	12/7/2016		SeqNo:	1227482	Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	108	75.2	115			
Toluene	1.0	0.050	1.000	0	105	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	101	78.9	117			
Xylenes, Total	2.9	0.10	3.000	0	97.7	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	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
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1612294

16-Dec-16

Client: Atkins Engineering Associates

Project: Harris Federal 1 Lease

Sample ID RB	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: B39252		RunNo: 39252							
Prep Date:	Analysis Date: 12/8/2016		SeqNo: 1228831		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	0.96		1.000		96.4	80	120			

Sample ID 100NG BTEX LCS	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: B39252		RunNo: 39252							
Prep Date:	Analysis Date: 12/8/2016		SeqNo: 1228832		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	111	75.2	115			
Toluene	1.1	0.050	1.000	0	107	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	103	78.9	117			
Xylenes, Total	2.9	0.10	3.000	0	97.9	79.2	115			
Surr: 4-Bromofluorobenzene	0.98		1.000		98.3	80	120			

Sample ID 1612294-022AMS	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: SB-5 @ 14-16' BGS	Batch ID: B39252		RunNo: 39252							
Prep Date:	Analysis Date: 12/8/2016		SeqNo: 1228841		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.75	0.017	0.6689	0	111	61.5	138			
Toluene	0.72	0.033	0.6689	0	108	71.4	127			
Ethylbenzene	0.70	0.033	0.6689	0	104	70.9	132			
Xylenes, Total	2.0	0.067	2.007	0.009967	97.4	76.2	123			
Surr: 4-Bromofluorobenzene	0.65		0.6689		96.5	80	120			

Sample ID 1612294-022AMSD	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: SB-5 @ 14-16' BGS	Batch ID: B39252		RunNo: 39252							
Prep Date:	Analysis Date: 12/8/2016		SeqNo: 1228842		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.72	0.017	0.6689	0	107	61.5	138	3.86	20	
Toluene	0.68	0.033	0.6689	0	101	71.4	127	6.89	20	
Ethylbenzene	0.66	0.033	0.6689	0	98.4	70.9	132	5.88	20	
Xylenes, Total	1.9	0.067	2.007	0.009967	92.3	76.2	123	5.43	20	
Surr: 4-Bromofluorobenzene	0.62		0.6689		92.1	80	120	0	0	

Qualifiers:

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



Hall Environmental Analysis Laboratory
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: ATK

Work Order Number: 1612294

RcptNo: 1

Received by/date:

Logged By: Ashley Gallegos

12/6/2016 8:45:00 AM

Completed By: Ashley Gallegos

12/7/2016 8:41:41 AM

Reviewed By:

Chain of Custody

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

Log In

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

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified:		Date:	
By Whom:		Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

18. Cooler Information

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

Chain-of-Custody Record

Client: Atkos Engineering Assoc

Mailing Address: 2904 W. 2nd St

Doswell, NM 8820

Phone #: 505-621-2720

Email or Fax#: sampling@atkoseng.com

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Harris Federal #1 Lease

Project #:

TPLHARR-ENV-16

Project Manager:

Chris Cortez

Sampler: ALP

On Ice: ☒ Yes ☐ No

Sample Temperature: 2-6°C

Container Type and #

Preservative Type

HEAL No.

1018294

-013

-014

-015

-016

-017

-018

-019

-020

-021

-022

-023

-024

Date

Time

Matrix

Sample Request ID

11/16 1605

12/16 0750

0810

0820

0920

0935

0955

1100

1115

1130

1235

1255

Relinquished by:

Time:

Relinquished by:

Time:

Received by:

Date

Received by:

Date

Remarks:

Date

Time

Date

Time

Remarks:

Date

Time

Date

Time

Remarks:

Date

Time

Date

Time

Remarks:

Date

Time

Date

Time

Remarks:

Date

Time

Date

Time

Remarks:

Date

Time

Date

Time

Chain-of-Custody Record

Client: Atkins Engineering Assoc

Mailing Address: 2904 W 2nd St
Roswell, NM 88201

Phone #: 505-621-2420

Email or Fax#: Sampling@atkinseng.com

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

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Date	Time	Matrix	Sample Request ID
2/16	1310	Solid	SB-6 @ 14-16' BGS
	1400		SB-7 @ 4-6' BGS
	1420		SB-7 @ 9-11' BGS
	1430		SB-7 @ 14-16' BGS
	1530		SB-8 @ 4-6' BGS
	1550		SB-8 @ 9-11' BGS
	1605		SB-8 @ 14-16' BGS
			TRIP BLANK

Relinquished by: am Date: 15/16 1500

Relinquished by: _____ Date: _____

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: Harris Federal #1 Lease

Project #: TPLHARR. ENV. 16

Project Manager: Chris Cortez

Sampler: ACM

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.

Container Type and #	Preservative Type	HEAL No.
402 Jar (2) 402-L	MeOH	-025
		-026
		-027
		-028
		-029
		-030
402 Jar (2) 402-L	MeOH	-031

Received by: am Date: 12/06/16 0845

Received by: _____ Date: _____



HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Analysis Request											
BTEX + MTBE + TMBs (8021)	X	X	X	X	X	X	X	X	X	X	X
BTEX + MTBE + TPH (Gas only)											
TPH 8015B (GRO / DRO / MRO)	X	X	X	X	X	X	X	X	X	X	X
TPH (Method 418.1)											
EDB (Method 504.1)											
PAH's (8310 or 8270 SIMS)											
RCRA 8 Metals											
Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)											
8081 Pesticides / 8082 PCB's											
8260B (VOA)											
8270 (Semi-VOA)											

Remarks: B-11 to Trainer Partners



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
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January 26, 2017

Christopher Cortez

Atkins Engineering Associates

2904 West Second Street

Roswell, NM 88201

TEL: (575) 624-2420

FAX (575) 624-2421

RE: Harris Federal #1 Lease

OrderNo.: 1701514

Dear Christopher Cortez:

Hall Environmental Analysis Laboratory received 12 sample(s) on 1/12/2017 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued January 24, 2017.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. 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. All samples are reported as received unless otherwise indicated.

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1701514**

Date Reported: **1/26/2017**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-9@4-6' BGS

Project: Harris Federal #1 Lease

Collection Date: 1/10/2017 10:25:00 AM

Lab ID: 1701514-001

Matrix: SOIL

Received Date: 1/12/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	180	30		mg/Kg	20	1/17/2017 9:58:38 PM	29741

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1701514**

Date Reported: **1/26/2017**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-9@9-11' BGS

Project: Harris Federal #1 Lease

Collection Date: 1/10/2017 10:35:00 AM

Lab ID: 1701514-002

Matrix: SOIL

Received Date: 1/12/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: LGT	
Chloride	48	30		mg/Kg	20	1/17/2017 11:00:41 PM	29741

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1701514**Date Reported: **1/26/2017****CLIENT:** Atkins Engineering Associates**Client Sample ID:** SB-9@14-16' BGS**Project:** Harris Federal #1 Lease**Collection Date:** 1/10/2017 10:50:00 AM**Lab ID:** 1701514-003**Matrix:** MEOH (SOIL)**Received Date:** 1/12/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	280	30		mg/Kg	20	1/17/2017 11:13:06 PM	29741
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: MAB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/17/2017 11:29:07 AM	29711
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	1/17/2017 11:29:07 AM	29711
Surr: DNOP	107	70-130		%Rec	1	1/17/2017 11:29:07 AM	29711
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	1/16/2017 5:35:57 PM	G40040
Surr: BFB	88.8	68.3-144		%Rec	1	1/16/2017 5:35:57 PM	G40040
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.020		mg/Kg	1	1/16/2017 5:35:57 PM	B40040
Toluene	ND	0.040		mg/Kg	1	1/16/2017 5:35:57 PM	B40040
Ethylbenzene	ND	0.040		mg/Kg	1	1/16/2017 5:35:57 PM	B40040
Xylenes, Total	ND	0.080		mg/Kg	1	1/16/2017 5:35:57 PM	B40040
Surr: 4-Bromofluorobenzene	95.6	80-120		%Rec	1	1/16/2017 5:35:57 PM	B40040

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1701514**

Date Reported: **1/26/2017**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-10@4-6' BGS

Project: Harris Federal #1 Lease

Collection Date: 1/10/2017 11:25:00 AM

Lab ID: 1701514-004

Matrix: SOIL

Received Date: 1/12/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	230	30		mg/Kg	20	1/17/2017 11:25:31 PM	29741

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1701514**

Date Reported: **1/26/2017**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-10@9-11' BGS

Project: Harris Federal #1 Lease

Collection Date: 1/10/2017 11:35:00 AM

Lab ID: 1701514-005

Matrix: SOIL

Received Date: 1/12/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	100	30		mg/Kg	20	1/17/2017 11:37:56 PM	29741

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1701514**

Date Reported: **1/26/2017**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-10@14-16' BGS

Project: Harris Federal #1 Lease

Collection Date: 1/10/2017 11:45:00 AM

Lab ID: 1701514-006

Matrix: MEOH (SOIL)

Received Date: 1/12/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	270	30		mg/Kg	20	1/17/2017 11:50:20 PM	29741
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: MAB
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	1/17/2017 12:50:55 PM	29711
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	1/17/2017 12:50:55 PM	29711
Surr: DNOP	111	70-130		%Rec	1	1/17/2017 12:50:55 PM	29711
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/16/2017 5:59:23 PM	G40040
Surr: BFB	88.6	68.3-144		%Rec	1	1/16/2017 5:59:23 PM	G40040
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	1/16/2017 5:59:23 PM	B40040
Toluene	ND	0.047		mg/Kg	1	1/16/2017 5:59:23 PM	B40040
Ethylbenzene	ND	0.047		mg/Kg	1	1/16/2017 5:59:23 PM	B40040
Xylenes, Total	ND	0.093		mg/Kg	1	1/16/2017 5:59:23 PM	B40040
Surr: 4-Bromofluorobenzene	94.2	80-120		%Rec	1	1/16/2017 5:59:23 PM	B40040

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1701514**

Date Reported: **1/26/2017**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-11 @4-6' BGS

Project: Harris Federal #1 Lease

Collection Date: 1/10/2017 12:40:00 PM

Lab ID: 1701514-007

Matrix: SOIL

Received Date: 1/12/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	1400	75		mg/Kg	50	1/18/2017 4:53:25 PM	29741

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1701514**

Date Reported: **1/26/2017**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-11@9-11' BGS

Project: Harris Federal #1 Lease

Collection Date: 1/10/2017 12:55:00 PM

Lab ID: 1701514-008

Matrix: SOIL

Received Date: 1/12/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	100	30		mg/Kg	20	1/18/2017 12:15:09 AM	29741

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1701514

Date Reported: 1/26/2017

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-11 @ 14-16' BGS

Project: Harris Federal #1 Lease

Collection Date: 1/10/2017 1:05:00 PM

Lab ID: 1701514-009

Matrix: MEOH (SOIL)

Received Date: 1/12/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	230	30		mg/Kg	20	1/18/2017 12:27:35 AM	29741
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: MAB
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	1/17/2017 1:18:15 PM	29711
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/17/2017 1:18:15 PM	29711
Surr: DNOP	104	70-130		%Rec	1	1/17/2017 1:18:15 PM	29711
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	1/16/2017 6:22:49 PM	G40040
Surr: BFB	87.6	68.3-144		%Rec	1	1/16/2017 6:22:49 PM	G40040
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.018		mg/Kg	1	1/16/2017 6:22:49 PM	B40040
Toluene	ND	0.035		mg/Kg	1	1/16/2017 6:22:49 PM	B40040
Ethylbenzene	ND	0.035		mg/Kg	1	1/16/2017 6:22:49 PM	B40040
Xylenes, Total	ND	0.070		mg/Kg	1	1/16/2017 6:22:49 PM	B40040
Surr: 4-Bromofluorobenzene	93.0	80-120		%Rec	1	1/16/2017 6:22:49 PM	B40040

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1701514**

Date Reported: **1/26/2017**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-12@4-6' BGS

Project: Harris Federal #1 Lease

Collection Date: 1/10/2017 1:30:00 PM

Lab ID: 1701514-010

Matrix: SOIL

Received Date: 1/12/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	980	30		mg/Kg	20	1/18/2017 1:04:49 AM	29741

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1701514**

Date Reported: **1/26/2017**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-12@9-11' BGS

Project: Harris Federal #1 Lease

Collection Date: 1/10/2017 1:45:00 PM

Lab ID: 1701514-011

Matrix: SOIL

Received Date: 1/12/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	87	30		mg/Kg	20	1/18/2017 1:17:14 AM	29741

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1701514**

Date Reported: **1/26/2017**

CLIENT: Atkins Engineering Associates

Client Sample ID: SB-12@14-16' BGS

Project: Harris Federal #1 Lease

Collection Date: 1/10/2017 1:55:00 PM

Lab ID: 1701514-012

Matrix: MEOH (SOIL)

Received Date: 1/12/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	130	30		mg/Kg	20	1/18/2017 1:29:39 AM	29741
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: MAB
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	1/17/2017 1:45:28 PM	29711
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	1/17/2017 1:45:28 PM	29711
Surr: DNOP	104	70-130		%Rec	1	1/17/2017 1:45:28 PM	29711
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	1/16/2017 6:46:22 PM	G40040
Surr: BFB	89.5	68.3-144		%Rec	1	1/16/2017 6:46:22 PM	G40040
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.019		mg/Kg	1	1/16/2017 6:46:22 PM	B40040
Toluene	ND	0.037		mg/Kg	1	1/16/2017 6:46:22 PM	B40040
Ethylbenzene	ND	0.037		mg/Kg	1	1/16/2017 6:46:22 PM	B40040
Xylenes, Total	ND	0.074		mg/Kg	1	1/16/2017 6:46:22 PM	B40040
Surr: 4-Bromofluorobenzene	95.2	80-120		%Rec	1	1/16/2017 6:46:22 PM	B40040

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1701514

26-Jan-17

Client: Atkins Engineering Associates

Project: Harris Federal #1 Lease

Sample ID	MB-29741		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29741		RunNo:	40098				
Prep Date:	1/17/2017		Analysis Date:	1/17/2017		SeqNo:	1256788		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29741		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29741		RunNo: 40098					
Prep Date:	1/17/2017		Analysis Date: 1/17/2017		SeqNo: 1256789		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	98.8	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
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1701514

26-Jan-17

Client: Atkins Engineering Associates

Project: Harris Federal #1 Lease

Sample ID	MB-29711		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS		Batch ID: 29711		RunNo: 40061					
Prep Date:	1/16/2017		Analysis Date: 1/17/2017		SeqNo: 1255569		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	10		10.00		104	70	130			

Sample ID	LCS-29711		SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 29711		RunNo: 40061					
Prep Date:	1/16/2017		Analysis Date: 1/17/2017		SeqNo: 1255607		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.0	63.8	116			
Surr: DNOP	5.8		5.000		116	70	130			

Sample ID	1701514-003AMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SB-9@14-16' BGS		Batch ID: 29711		RunNo: 40061					
Prep Date:	1/16/2017		Analysis Date: 1/17/2017		SeqNo: 1255712		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	49.75	0	96.3	51.6	130			
Surr: DNOP	5.8		4.975		117	70	130			

Sample ID	1701514-003AMSD		SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SB-9@14-16' BGS		Batch ID: 29711		RunNo: 40061					
Prep Date:	1/16/2017		Analysis Date: 1/17/2017		SeqNo: 1255776		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.6	48.17	0	99.3	51.6	130	0.164	20	
Surr: DNOP	5.7		4.817		119	70	130	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
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1701514

26-Jan-17

Client: Atkins Engineering Associates

Project: Harris Federal #1 Lease

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	G40040	RunNo:	40040					
Prep Date:		Analysis Date:	1/16/2017	SeqNo:	1254956	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		86.4	68.3	144			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	G40040	RunNo:	40040					
Prep Date:		Analysis Date:	1/16/2017	SeqNo:	1254957	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.8	74.6	123			
Surr: BFB	1000		1000		99.8	68.3	144			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1701514

26-Jan-17

Client: Atkins Engineering Associates

Project: Harris Federal #1 Lease

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	B40040	RunNo:	40040					
Prep Date:		Analysis Date:	1/16/2017	SeqNo:	1254972	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	0.93		1.000		92.8	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	B40040	RunNo:	40040					
Prep Date:		Analysis Date:	1/16/2017	SeqNo:	1254973	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	109	75.2	115			
Toluene	0.97	0.050	1.000	0	96.9	80.7	112			
Ethylbenzene	0.94	0.050	1.000	0	94.3	78.9	117			
Xylenes, Total	2.8	0.10	3.000	0	93.9	79.2	115			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	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
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
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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: ATK

Work Order Number: 1701514

RcptNo: 1

Received by/date:

RE 1/12/17

Logged By:

Andy Jansson

1/12/2017 9:35:00 AM

Completed By:

Andy Jansson 1/12/17

Reviewed By:

LA 01/13/17

Chain of Custody

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

Log In

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

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

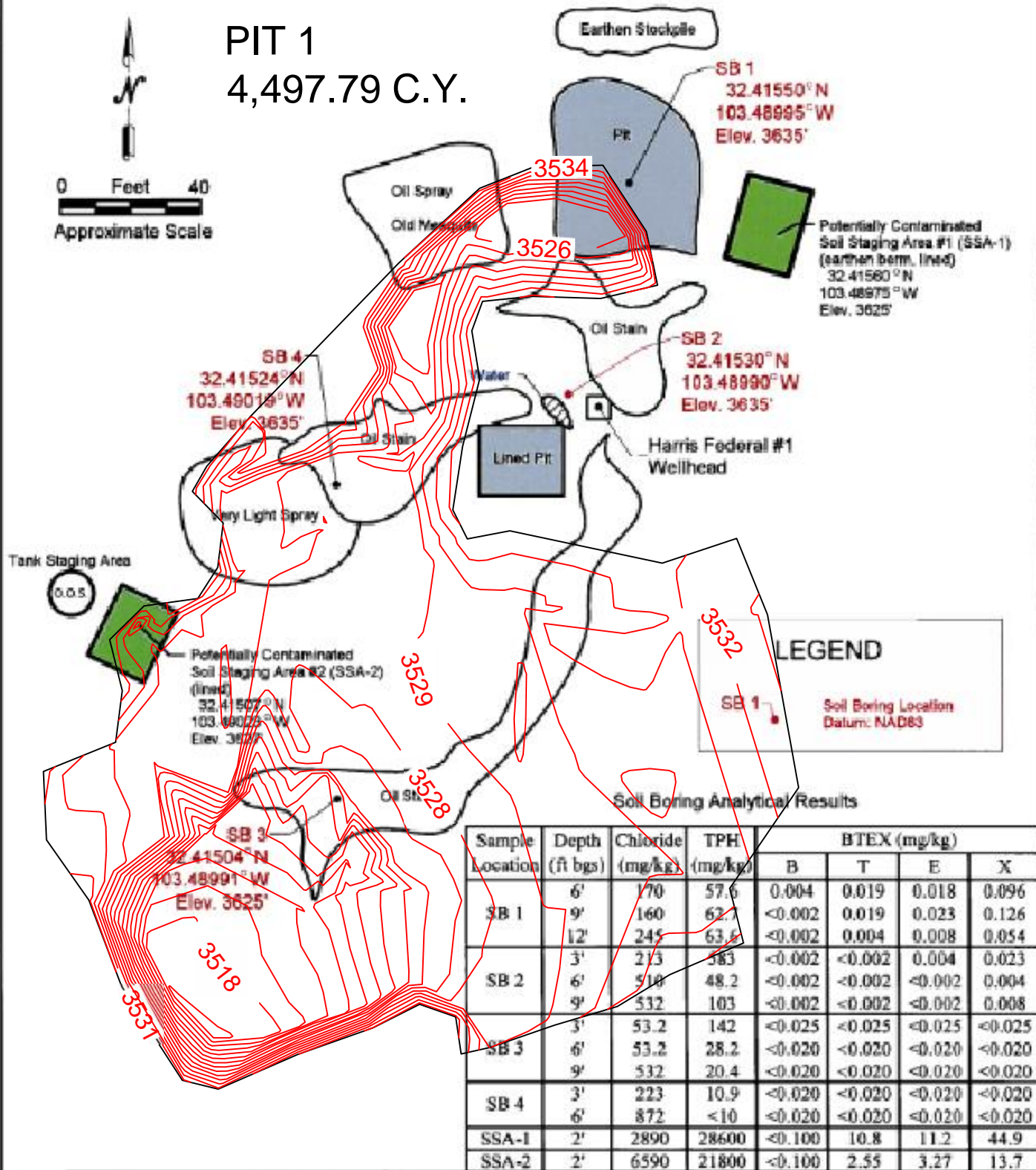
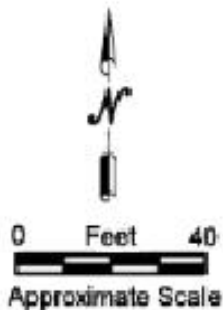
Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.0	Good	Yes			

PIT 1
4,497.79 C.Y.



C. W. TRAINER
HARRIS FEDERAL #1

T-22-S, R-34-E, Section 5, Unit O

SOIL INVESTIGATION

June 6, 2007

OCT 10 2007