Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☐ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: _____ Title: _____

Signature: Todd Wells Date: 1/13/2021

email: _____ Telephone: _____

OCD Only

Received by: Robert Hamlet Date: 4/29/2021

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Robert Hamlet Date: 4/29/2021

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

Report Type: Closure Report 1RP-5558

General Site Information:						
Site:	**Cholla 18 Fed Com #1H**					
Company:	**EOG Resources**					
Section, Township and Range	**Unit I**	**Sec 18**	**T 18S**	**R 33E**		
County:	**Lea County**					
GPS:	**32.744710**			**-103.694930**		
Surface Owner:	Federal					
Directions:	From the intersection of NM 529 & 126A, travel east on NM 529 for 4.7 miles, turn south onto lease road for 2.9 miles, turn east onto lease road for 0.45 miles, turn south onto lease road for 0.50 miles to location.					

Release Data:	
Date Released:	5/22/2019
Type Release:	Oil & Produced Water
Source of Contamination:	Tank Overflow
Fluid Released:	11 bbls oil & 1 bbl water
Fluids Recovered:	9 bbls oil & 1 bbl water

Official Communication:			
Name:	Todd Wells		Mike Carmona
Company:	EOG Resources		Tetra Tech
Address:	5509 Champions Dr		901 W. Wall St.
			Ste 100
City:	Midland Texas, 79706		Midland, Texas
Phone number:	(432) 258-4346		(432) 682-4559
Fax:			
Email:	Todd_Wells@eogresources.com		Mike.Carmona@TetraTech.com

Site Characterization	
Depth to Groundwater:	*Greater than 50'*
Karst Potential:	*Low*

Recommended Remedial Action Levels (RRALs)				
Benzene	***Total BTEX***	***TPH (GRO+DRO)***	***TPH (GRO+DRO+MRO)***	***Chlorides***
10 mg/kg	*50 mg/kg*	*1,000 mg/kg*	*2,500 mg/kg*	*10,000 mg/kg*

TETRA TECH

January 13, 2021

Environmental Specialist
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Closure Report for the EOG Resources, Cholla 18 Fed Com 1H, Unit I, Section 18, Township 18 South, Range 33 East, Lea County, New Mexico. 1RP-5558.

Oil Conservation Division:

Tetra Tech, Inc. (Tetra Tech) was contacted by EOG Resources (EOG) to assess and remediate a release that occurred at the EOG Resources, Cholla 18 Fed Com 1H, Unit I, Section 18, Township 18 South, Range 33 East, Lea County, New Mexico (Site). The site coordinates are 32.74471°, -103.69493°. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the release was discovered on May 22, 2019, and released approximately 11 barrels of oil and 1 barrel of produced water due to a tank overflow. Approximately 9 barrels of oil and 1 barrel of produced water were recovered. The release occurred on the facility pad, impacting an area measuring approximately 129' x 49' and migrated into the adjacent pasture measuring approximately 50' x 40'. The C-141 form is included in Appendix A.

Site Characterization

A site characterization was performed for the site and no lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances. Additionally, the site is located in a low karst potential area.

The nearest well is listed on the New Mexico Office of the State Engineers (NMOSE) database, in Section 30 approximately 1.40 miles south of the site, and has a reported depth to groundwater of 35 feet below surface. An additional well listed on the NMOSE database, located in Section 08, and approximately 1.65 miles to the northeast of the site, has a reported depth to groundwater of 100 feet below surface.

Additionally, during the investigation activities, one bore hole was drilled at the site to a total depth of 60' feet below surface, and no water was encountered at the site. Site

Tetra Tech
901 West Wall Street, Suite 100, Midland, TX 79701
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

TETRA TECH

characterization data is included in Appendix B.

Regulatory

A risk-based evaluation was performed for the site following the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills, and Releases, updated August 14, 2018. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene, and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the site characterization, beyond the top 4.0' of soil, the proposed RRAL for TPH is 1,000 mg/kg (GRO + DRO) and 2,500 mg/kg (GRO + DRO + MRO). Additionally, based on the site characterization, beyond the top 4.0' of soil, the proposed RRAL for chlorides is 10,000 mg/kg.

Soil Assessment and Analytical Results

Initial Assessment

On June 25, 2019, Tetra Tech personnel were onsite to evaluate and sample the release area. A total of three (3) auger holes (AH-1, AH-2, and AH-3) were installed in the release footprint to total depths ranging from 5.0'-5.5' and 7.0'-7.5' below surface. Selected samples were submitted to the laboratory for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D. The results of the sampling are summarized in Table 1. The sample locations are shown in Figure 3

Referring to Table 1, the areas of auger holes (AH-1 and AH-2) did not show any benzene, total BTEX, or chlorides above the RRALs. However, the area of AH-2 did show a shallow TPH impact of 2,290 mg/kg at 0-1', which then declined with depth to below the RRAL at 1'-1.5' below surface. The area of auger hole (AH-3) did not show any chloride concentrations above the laboratory reporting limits. The area of auger hole (AH-3) showed total BTEX concentrations above the RRAL to a depth of 4'-4.5' below surface. Additionally, TPH concentrations above the thresholds were detected and the area was not vertically defined for TPH impact.

Bore Holes

Based on the laboratory data, Tetra Tech personnel returned to the site on August 16, 2019, to install one borehole (BH-1) to a total depth of 59'-60' below surface to vertically define the hydrocarbon impact in the area of auger hole (AH-3). All collected soil samples and submitted to the laboratory for TPH analysis by EPA method 8015 modified and BTEX by EPA Method 8021B. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D. The results of the sampling are summarized in Table 1. The borehole drilling log is included in Appendix C. The sample locations are shown on Figure 3.

Referring to Table 1, the area of BH-1 showed elevated TPH concentrations from surface to 6'-7', before declining with depth to 114 mg/kg at 9-10' and showed a bottom hole concentration of <50.0 mg/kg at 59'-60' below surface. No benzene concentrations above 10 mg/kg were

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detected. However total BTEX concentration of 101 mg/kg was detected at 4'-5' below surface, which declined with depth to below the laboratory reporting limit at 9'-10' below surface.

Remediation and Reclamation Activities

Tetra Tech personnel were onsite October 22, 2019, through November 4, 2019, to supervise the remediation and collect confirmation samples. The impacted areas were excavated to depths ranging from 2.0' below surface and 7.0' below surface, as shown on Figure 4 and Table 1.

Confirmation bottom hole and sidewall samples were collected every 200 square feet, a total of 24 bottom hole samples (Bottom Hole 1 through Bottom Hole 24) and 12 sidewall samples (NSW-1 through NSW-4, SSW-1 through SSW-3, WSW-1 through WSW-3, and ESW-1 through ESW-2) were collected to ensure proper removal of the impacted soils. The samples were submitted to the laboratory to be analyzed for TPH method 8015 extended, BTEX method 8021B, and Chloride by EPA Method 300.0. The sampling results are summarized in Table 1. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D. The excavation depths, and sample locations are shown in Figure 4.

Referring to Table 1, all final confirmation samples collected showed benzene, total BTEX, and TPH concentrations below the laboratory reporting limits. Additionally, all final samples showed chloride concentrations below the 10,000 mg/kg threshold.

Approximately 941 cubic yards of material was excavated and transported offsite for proper disposal. The areas were then backfilled with clean material to surface grade.

Conclusion

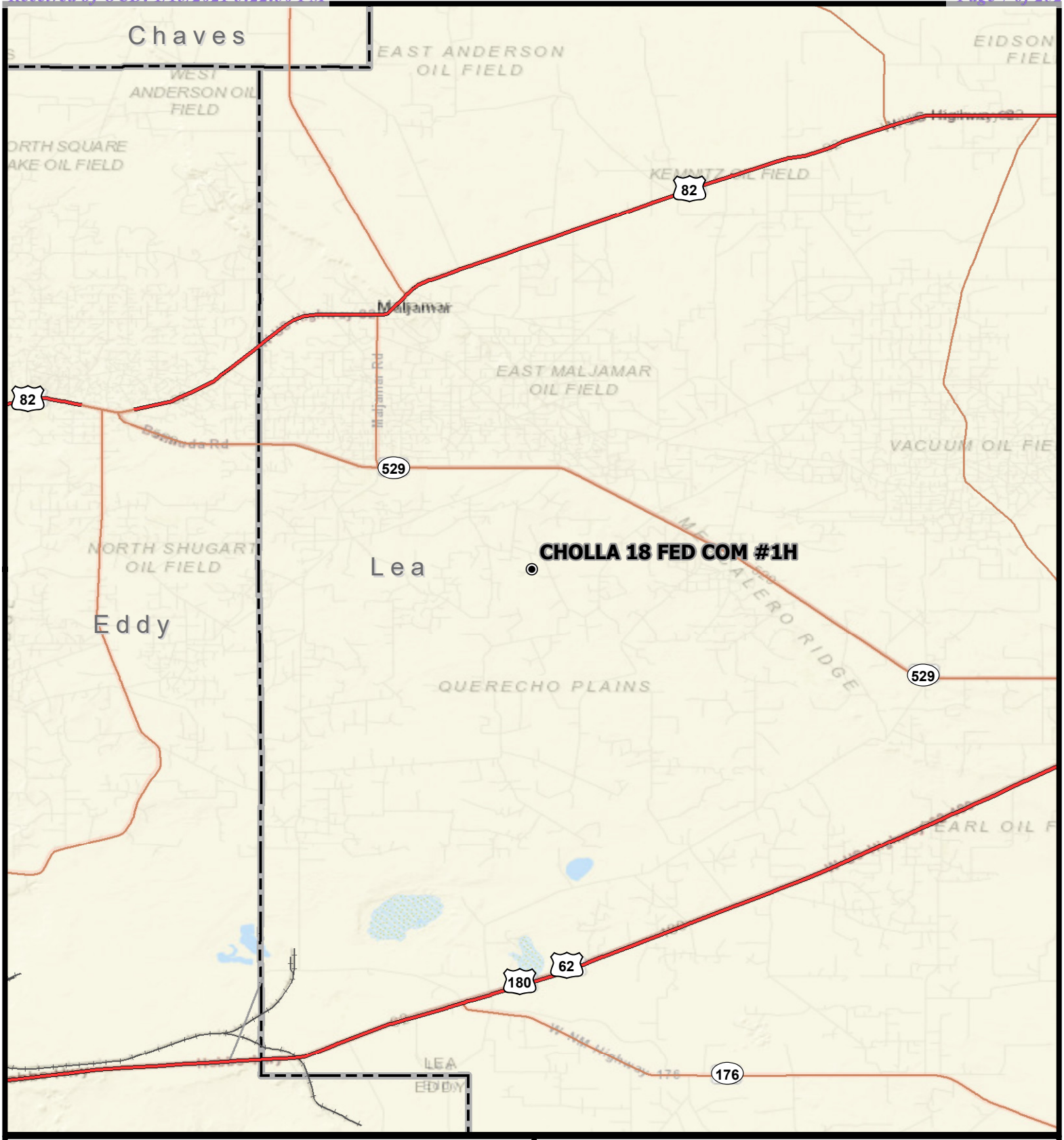
Based on the laboratory results, remediation activities performed, EOG requests closure of this spill issue. The final C-141 is enclosed in Appendix A. If you have any questions or comments concerning the assessment or remediation activities for this site, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Mike Carmona
Project Manager

Brittany Long,
Project Manager

Figures



SITE LOCATION

N
W E
S

0 10,416.5 20,833

Approximate Scale in Feet

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO,

STATE LOCATOR MAP

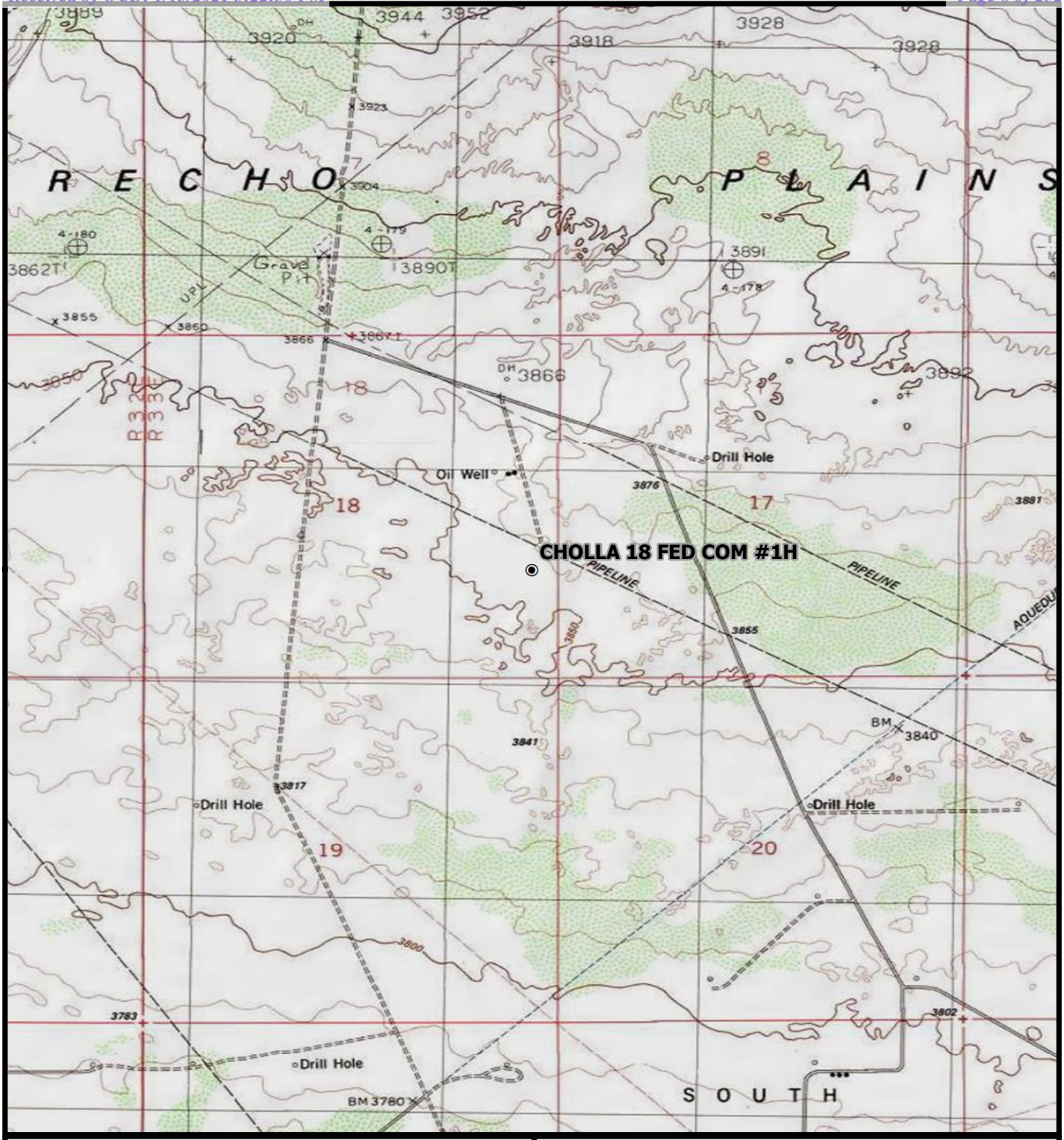
OVERVIEW MAP
CHOLLA 18 FED COM #1
Property Located at coordinates 32.744717°,-103.694937°
LEA COUNTY, NEW MEXICO

eog resources

Project #:
212C-MD-01810

FIGURE
1

Document Path: C:\Users\MISTI.MORGAN\Desktop\project folder\212C-MD-01810 CHOLLA 18 FED COM #1\MXD\212C-MD-01810 CHOLLA 18 FED COM #1 FIG 1.mxd



SITE LOCATION

TOPOGRAPHIC MAP
CHOLLA 18 FED COM #1
Property Located at coordinates 32.744717°,-103.694937°
LEA COUNTY, NEW MEXICO

N
W E
S

0 1,000 2,000
Approximate Scale in Feet

Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed
Sources: Esri, USGS, NOAA
Sources: Esri, Garmin, USGS, NPS

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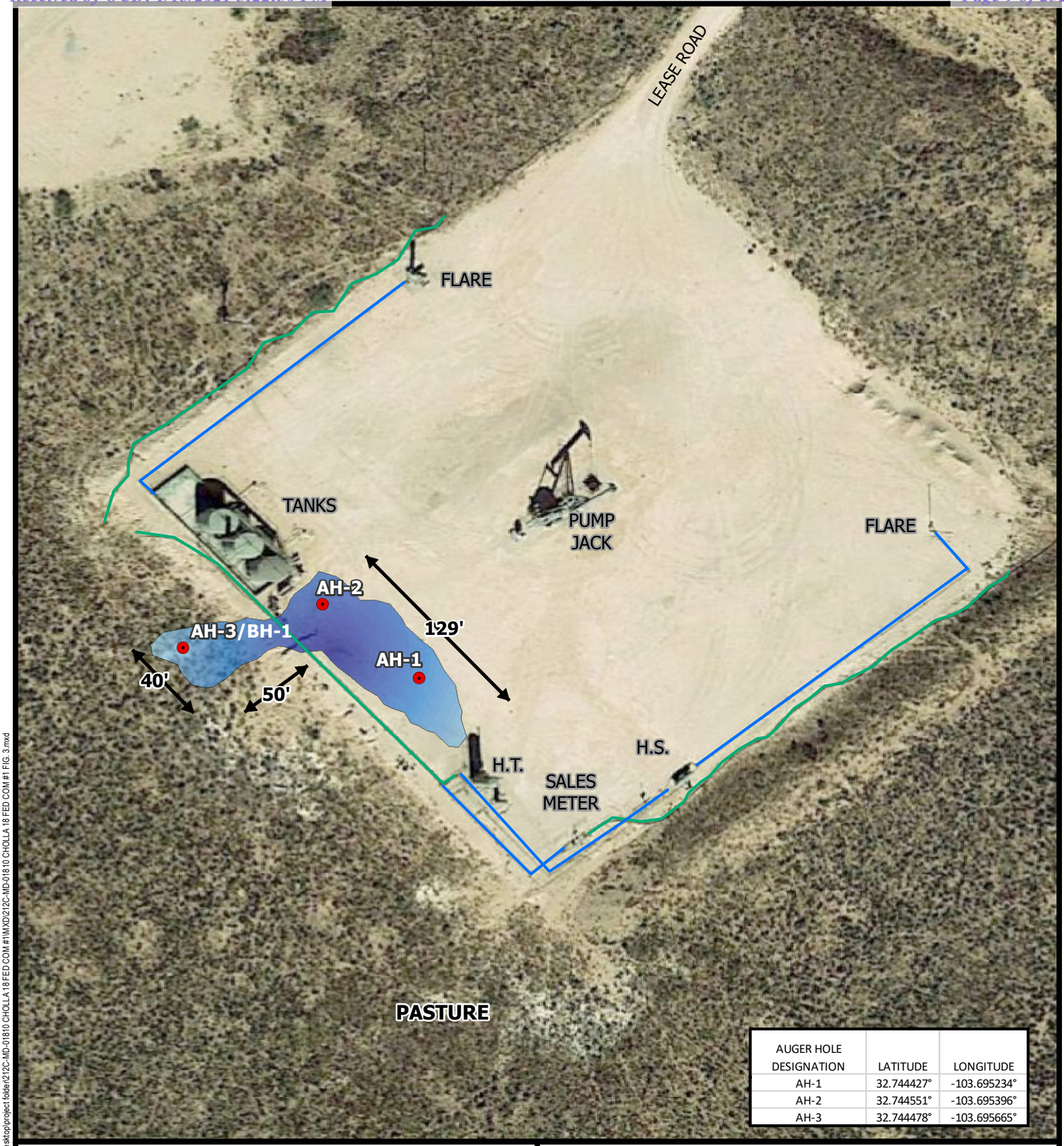
Project #:
212C-MD-01810

FIGURE
2

Document Path: C:\Users\MISTI.MORGAN\Desktop\project folder\212C-MD-01810 CHOLLA 18 FED COM #1\MXD\212C-MD-01810 CHOLLA 18 FED COM #1 FIG 2.mxd



AUGER HOLE DESIGNATION	LATITUDE	LONGITUDE
AH-1	32.744427°	-103.695234°
AH-2	32.744551°	-103.695396°
AH-3	32.744478°	-103.695665°

AUGERHOLE/Borehole SAMPLE LOCATIONS
PIPE
FLOWLINES
AFFECTED SPILL AREA

N
W E
S

0 40 80
Approximate Scale in Feet

Source: "New Mexico". 32°44'40.98"N, 103°41'41.77"W. **Google Earth.** November 2017. September 25, 2019.

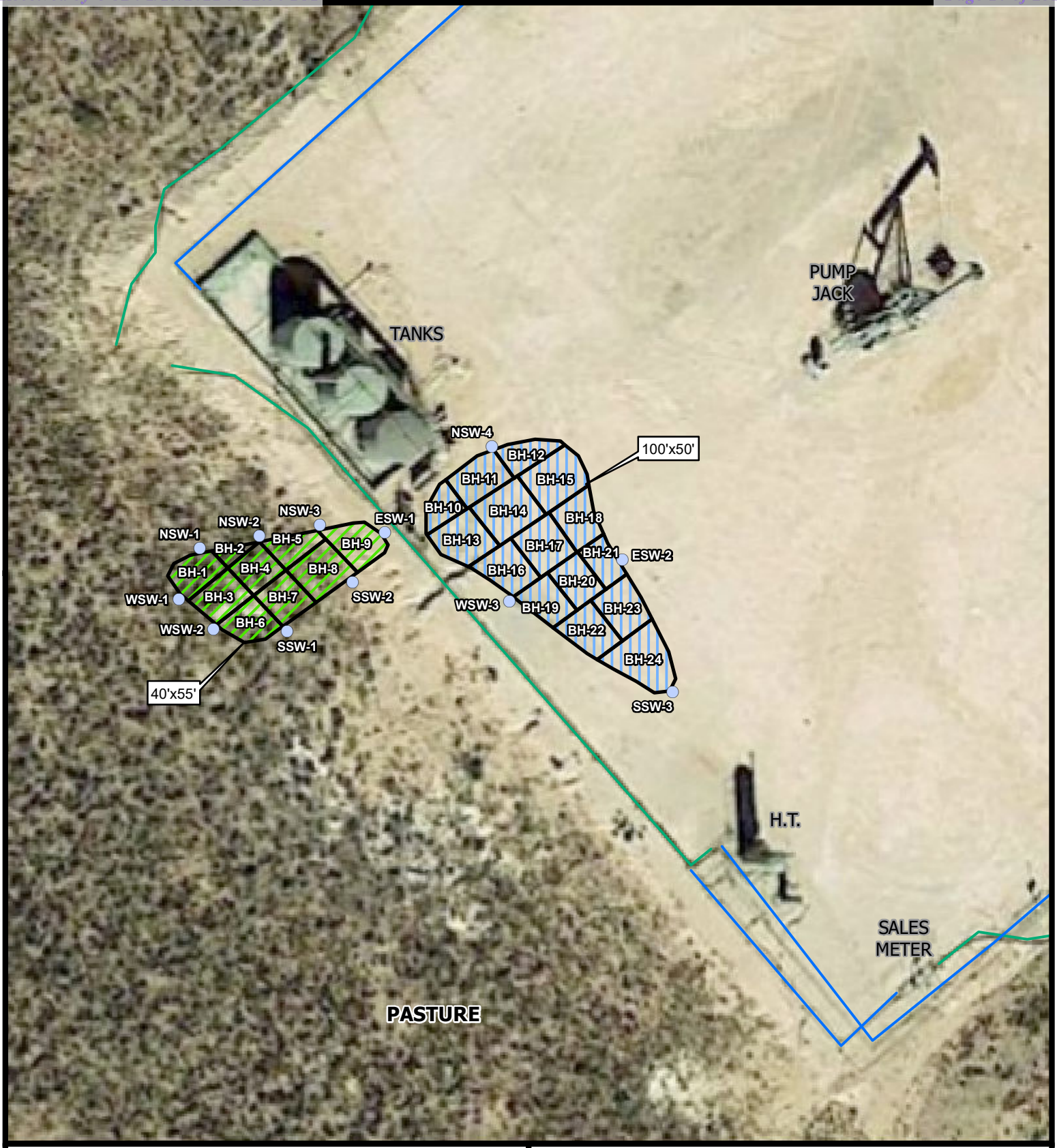
SPILL ASSESSMENT MAP
CHOLLA 18 FED COM #1
Property Located at coordinates 32.744717°,-103.694937°
LEA COUNTY, NEW MEXICO

eog resources

Project #: 212C-MD-01810

FIGURE 3

Date: 9/26/2019 Document Path: C:\Users\MISTI.MORGAN\Desktop\project folder\212C-MD-01810 CHOLLA 18 FED COM #1\MXD\212C-MD-01810 CHOLLA 18 FED COM #1 FIG. 3.mxd



SIDEWALL SAMPLE LOCATIONS
PIPE
FLOWLINES
7.0' EXCAVATED DEPTH
2.0' EXCAVATED DEPTH

N
W
E
S

0 20 40
Approximate Scale in Feet

Source: "New Mexico". 32°44'40.98"N, 103°41'41.77"W. **Google Earth.** November 2017. September 25, 2019.

EXCAVATED AREA & DEPTH MAP
CHOLLA 18 FED COM #1
Property Located at coordinates 32.744717°,-103.694937°
LEA COUNTY, NEW MEXICO

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Project #: 212C-MD-01810

FIGURE 4

Date: 11/9/2020 Document Path: C:\GIS\EOG Resources\212C-MD-01810\212C-MD-01810 CHOLLA 18 FED COM_EXCAVATION_FIG4.mxd

Tables

Table 1
EOG
Cholla 18 Fed Com #1H
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Excavation Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	ORO	Total						
AH-1	6/25/2019	0-1	-	X		14.9	486	32.1	533	<0.000386	<0.000457	<0.000566	0.00378	0.00378	11.1
	"	1-1.5	-	X		8.24	51.8	<8.11	60.0	<0.00387	<0.00458	0.0105	<0.000346	0.0105	4.58
	"	2-2.5	-	X		-	-	-	-	-	-	-	-	-	2.76
	"	3-3.5	-	X		-	-	-	-	-	-	-	-	-	5.06
	"	4-4.5	-	X		-	-	-	-	-	-	-	-	-	8.38
	"	5-5.5	-	X		-	-	-	-	-	-	-	-	-	7.43
AH-2	6/25/2019	0-1	-		X	379	1,820	87.3	**2,290**	<0.000382	<0.000452	0.0530	0.344	0.397	379
	"	1-1.5	-		X	31.6	388	25.2	**445**	<0.000383	0.00120	0.00353	0.0233	0.0280	82.1
	"	2-2.5	-	X		10.7	<8.10	<8.10	10.7	-	-	-	-	-	62.8
	"	3-3.5	-	X		13.0	<8.10	<8.10	13.0	-	-	-	-	-	<0.857
	"	4-4.5	-	X		-	-	-	-	-	-	-	-	-	<0.850
	"	5-5.5	-	X		-	-	-	-	-	-	-	-	-	<0.867
AH-3	6/25/2019	0-1	-		X	2,500	9,000	439	**11,900**	0.362	17.1	24.0	51.4	**92.9**	<0.853
	"	1-1.5	-		X	2,170	5,130	269	**7,570**	0.337	21.6	26.2	47.0	**95.1**	<0.858
	"	2-2.5	-		X	1,960	5,820	322	**8,100**	<0.0383	12.8	19.6	38.7	**71.1**	<0.858
	"	3-3.5	-		X	3,640	7,480	460	**11,600**	6.49	125	103	190	**424**	<0.858
	"	4-4.5	-		X	4430	9960	486	**14,900**	1.38	115	134	251	**501**	<0.867
	"	5-5.5	-		X	418	2040	113	**2,570**	0.0142	0.339	3.83	11.5	15.7	<0.867
	"	6-6.5	-		X	9.25	141	12.3	163	<0.000389	0.00186	0.000626	0.00390	0.00639	<0.853
	"	7-7.5	-		X	78.8	910	59.8	**1,050**	<0.000385	0.00544	0.0448	0.210	0.260	<0.850
BH-1	8/16/2019	0-1	-		X	481	7,790	762	**9,030**	<0.0199	0.196	0.137	7.20	7.53	-
	"	2-3	-		X	1,010	6,250	574	**7,830**	0.0551	0.758	0.732	16.4	17.9	-
	"	4-5	-		X	1,310	4,310	409	**6,030**	1.09	20.8	25.4	53.8	**101**	-
	"	6-7	-		X	167	1,920	200	**2,290**	0.0137	0.299	0.390	2.47	3.17	-
	"	9-10	-	X		<49.8	114	<49.8	114	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	-
	"	14-15	-	X		<49.9	190	<49.9	190	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	-
	"	19-20	-	X		<50.0	57.5	<50.0	57.5	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	-
	"	24-25	-	X		<50.0	169	<50.0	169	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	-
	"	29-30	-	X		<49.9	235	<49.9	235	<0.00200	<0.00200	<0.00200	0.00308	0.00308	-
	"	34-35	-	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	-
	"	39-40	-	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	-
	"	44-45	-	X		<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	-
	"	49-50	-	X		<49.8	67.4	<49.9	67.4	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	-
	"	54-55	-	X		<50.0	72.7	<50.0	72.7	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	-
	"	59-60	-	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	-

Table 1
EOG
Cholla 18 Fed Com #1H
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Excavation Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	ORO	Total						
Bottom Hole 1	10/22/2019	-	7.0	X		<49.9	216	<49.9	216	<0.00198	0.00271	0.0938	0.148	0.245	115
Bottom Hole 2	10/22/2019	-	7.0	X		<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	12.5
Bottom Hole 3	10/22/2019	-	7.0	X		<49.9	70.5	<49.9	70.5	<0.00200	<0.00200	<0.00200	0.0314	0.0314	5.37
Bottom Hole 4	10/22/2019	-	7.0	X		<49.9	63.3	<49.9	63.3	<0.00198	0.00359	0.00623	0.0133	0.0231	5.85
Bottom Hole 5	10/22/2019	-	7.0	X		<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	56.0
Bottom Hole 6	10/22/2019	-	7.0	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	15.2
Bottom Hole 7	10/22/2019	-	7.0	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	28.3
Bottom Hole 8	10/22/2019	-	7.0	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	8.66
Bottom Hole 9	10/22/2019	-	7.0	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	52.5
Bottom Hole 10	10/22/2019	-	1.0		X	<49.9	487	64.3	**551**	<0.00200	<0.00200	<0.00200	0.0107	0.0107	22.0
	10/31/2019	-	2.0	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	6.70
Bottom Hole 11	10/22/2019	-	1.0		X	<49.8	271	<49.8	**271**	<0.00198	<0.00198	<0.00198	0.00984	0.00984	52.0
	10/31/2019	-	2.0	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	5.46
Bottom Hole 12	10/22/2019	-	1.0		X	<50.0	302	<50.0	**302**	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	358
	10/31/2019	-	2.0	X		<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	5.08
Bottom Hole 13	10/22/2019	-	1.0		X	<50.0	953	112	**1,070**	<0.00202	<0.00202	<0.00202	0.0119	0.0119	18.4
	10/31/2019	-	2.0	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<5.04
Bottom Hole 14	10/22/2019	-	1.0		X	<49.9	319	<49.9	**319**	<0.00200	<0.00200	<0.00200	0.0101	0.0101	43.2
	10/31/2019	-	2.0	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	19.7
Bottom Hole 15	10/22/2019	-	1.0		X	<50.0	163	<50.0	**163**	<0.00199	<0.00199	<0.00199	0.0119	0.0119	147
	10/31/2019	-	2.0	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	25.9
Bottom Hole 16	10/22/2019	-	1.0		X	<49.8	277	<49.8	**277**	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	49.7
	10/31/2019	-	2.0	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	14.3
Bottom Hole 17	10/22/2019	-	1.0		X	<50.0	882	99.4	**981**	<0.00202	<0.00202	0.00617	0.0140	0.0202	90.7
	10/31/2019	-	2.0	X		<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	16.8
Bottom Hole 18	10/22/2019	-	1.0		X	<49.9	337	<49.9	**337**	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	43.6
	10/31/2019	-	2.0	X		<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	22.8
Bottom Hole 19	10/22/2019	-	1.0		X	<50.0	873	101	**974**	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	87.8
	10/31/2019	-	2.0	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	9.79
Bottom Hole 20	10/22/2019	-	1.0		X	<49.9	266	<49.9	**266**	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	46.5
	10/31/2019	-	2.0	X		<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	15.0
Bottom Hole 21	10/22/2019	-	1.0		X	<50.0	345	<50.0	**345**	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	11.4
	10/31/2019	-	2.0	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	6.63
Bottom Hole 22	10/22/2019	-	1.0		X	<50.0	432	54.9	**487**	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	145
	10/31/2019	-	2.0	X		<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	5.35
Bottom Hole 23	10/22/2019	-	1.0		X	<50.0	716	84.7	**801**	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	443
	10/31/2019	-	2.0	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	7.04
Bottom Hole 24	10/31/2019	-	2.0	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	6.67

Table 1
EOG
Cholla 18 Fed Com #1H
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Excavation Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	ORO	Total						
NSW-1	10/25/2019	-	-		X	<50.0	307	51.6	**359**	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	64.0
	11/4/2019	-	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
NSW-2	10/25/2019	-	-	X		<50.0	95.0	<50.0	95.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	76.8
NSW-3	10/25/2019	-	-	X		<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	8.70
NSW-4	10/25/2019	-	-	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	91.8
SSW-1	10/25/2019	-	-		X	<50.0	103	<50.0	**103**	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	78.8
	11/4/2019	-	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16.0
SSW-2	10/25/2019	-	-		X	<49.9	114	<49.9	**114**	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	72.8
	11/4/2019	-	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0
SSW-3	10/25/2019	-	-	X		<50.0	82.8	<50.0	82.8	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	76.1
WSW-1	10/25/2019	-	-	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	9.87
WSW-2	10/25/2019	-	-		X	<49.9	136	<49.9	**136**	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	49.6
	11/4/2019	-	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	<16.0
WSW-3	10/25/2019	-	-	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	94.2
ESW-1	10/25/2019	-	-		X	<49.9	102	<49.9	**102**	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	67.7
	11/4/2019	-	-	X		<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	176
ESW-2	10/25/2019	-	-	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	11.0

(-) Not Analyzed

Excavated

Photos

EOG Resources
Cholla 18 Fed Com #1H
Lea County, New Mexico

TETRA TECH

View South - Areas of Bottom Hole (1-9)

View East - Areas of Bottom Hole (1-9)

EOG Resources
Cholla 18 Fed Com #1H
Lea County, New Mexico

View Northwest - Areas of Bottom Hole (10-24)

View Northwest - Areas of Bottom Hole (10-24)

Appendix A

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NDHR1917150279
District RP	1RP-5558
Facility ID	
Application ID	pDHR1917150100

Release Notification

Responsible Party

Responsible Party EOG Resources	OGRID 7377
Contact Name Todd Wells	Contact Telephone (432) 686-3613
Contact email Todd_Wells@eogresources.com	Incident # *(assigned by OCD)* NDHR1917150279
Contact mailing address 5509 Champions Drive Midland, TX 79706	

Location of Release Source

Latitude 32.74471° Longitude -103.69493°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Cholla 18 Fed Com #1H Facility	Site Type EOG Facility
Date Release Discovered 5/22/19	API# *(if applicable)* 30-025-40257

Unit Letter	Section	Township	Range	County
I	18	18S	33E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* Bureau of Land Management, BLM)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls) 11	Volume Recovered (bbls) 9
☒ Produced Water	Volume Released (bbls) 1	Volume Recovered (bbls) 1
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: The 1" valve to the overflow tank was partially open, allowing the tank to fill up and overflow onto location. Approximately 12 bbls of oil and water was released and 10 bbls recovered.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NDHR1917150279
District RP	1RP-5558
Facility ID	
Application ID	pDHR1917150100

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Todd Wells Title: Environmental Specialist

Signature: Todd Wells Date: 6-6-19

email: Todd_Wells@eogresources.com Telephone: (432) 686-3613

OCD Only

Received by: Dylan Rose-Coss Date: 06/20/2019

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	_____ (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☐ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☐ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☐ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☐ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☐ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☐ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☐ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☐ Data table of soil contaminant concentration data
- ☐ Depth to water determination
- ☐ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☐ Topographic/Aerial maps
- ☐ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: _____ Title: _____

Signature: Todd Wells Date: 1/13/2021

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☐ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☐ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☐ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: _____ Title: _____

Signature: Todd Wells Date: 1/13/2021

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Appendix B

Water Well Data
Average Depth to Groundwater (ft)
EOG - Cholla 18 Fed Com #1H, Lea County, New Mexico

6	5	4 82	3	2 60	1 225
7	8	9	10 132	11 70 88	12 120
18	17	16	15	14	13
19	20	21	22	23	24
30 180 dry	29	28	27	26	25
31	32	33	34	35	36

6 90	5	4	3 155	2 158	1 150
7 167	8 173	9 161	10	11	12
18 188	17 180	16	15	14	13 165
19	20 190	21	22	23 115	24
30 69	29 60	28	27	26	25
31	32	33 120	34	35 155	36

6 120	5	4	3	2 80	1
7 140	8 140	9	10 95	11 92	12 115
18 160	17 113	16 60	15 114 60	14 79	13 84
19 78	20 140	21 153	22 109	23	24
30	29	28	27	26	25 82
31	32	33	34	35	36

18 South 32 East

6	5	4 65	3	2	1
7 460 82	8	9	10	11	12
18	17	16 84	15	14	13
19	20 164	21	22 429	23	24
30	29	28	27	26	25
31	32	33	34 117	35	36

18 South 33 East

6	5	4	3 60	2	1
7	8 100	9 70	10 62	11 46	12 143 140
18	17	16	15	14 36	13 60
19 >140	20	21	22	23	24 195
30 35	29	28	27	26	25
31	32	33 177	34	35	36

18 South 34 East

6 130	5 105	4	3 87	2 102	1 107
7 83	8 148	9	10 148	11 110	12 115 92
18 125	17	16 108	15 114 110	14 103	13 96
19 105	20 125	21	22	23	24
30	29	28	27 112	26	25 117
31	32	33	34	35 118	36

19 South 32 East

6	5	4	3	2	1
7	8 365	9	10	11	12
18	17	16	15	14	13 135 dry
19 102	20 345	21	22	23	24
30	29	28	27	26	25
31	32	33	34 250	35	36
31	32	33	34	35 261	36

19 South 33 East

6	5	4	3	2	1
7	8	9	10	11	12
18 340	17 116	16	15	14	13
19	20	21	22	23	24
30	29	28 130 dry	27	26 92 85	25
31	32 185	33	34	35	36
31	32	33	34 117	35	36

19 South 34 East

6 244	5	4	3	2 100	1
7	8	9 29 28.6	10	11 123	12 60
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25 28
31 65	32	33	34	35	36
31	32	33	34 177	35	36

88 New Mexico State Engineers Well Reports
105 USGS Well Reports
90 Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)
90 Geology and Groundwater Resources of Eddy County, NM (Report 3)
34 NMOCD - Groundwater Data
121 Abandoned Waterwell (recently measured)

USGS science for a changing world

National Water Information System: Mapper

Sites | Map

Search

Search by Street Address:
32.744717, -103.694937

Search by Place Name:
Enter Place Name

Search by Site Number(s):
Enter Site Number(s)

Search by State/Territory:
Select an Area

Search by Watershed Region:
Select a Region

Surface-Water Sites

Groundwater Sites

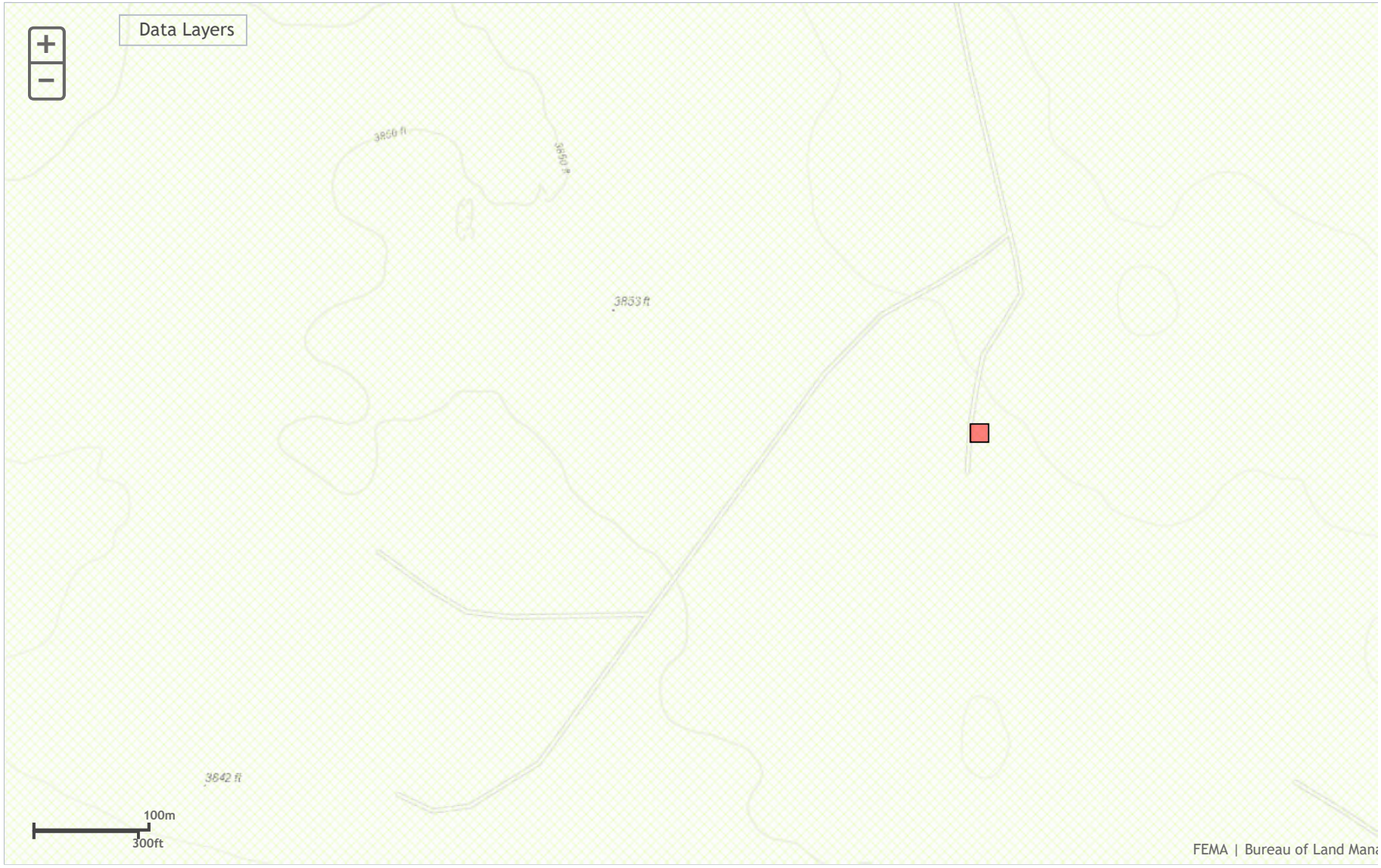
Springs

Atmospheric Sites

Other Sites

Site Information

NFHL Web Mapping Application



New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number		POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00072 POD1		CP	LE	2	3	4	11	18S	33E	628284	3625242*	85		
CP 00072 POD2		CP	LE			4	11	18S	33E	628386	3625344	90		
CP 00072 POD3		CP	LE	2	4	4	10	18S	33E	627076	3625223*	70		
CP 00072 POD4		CP	LE	1	4	2	10	18S	33E	626865	3626028*	70		
CP 00072 POD5		CP	LE	2	1	4	11	18S	33E	628219	3625573	100	64	36
CP 00072 POD6		CP	LE	2	4	4	11	18S	33E	628603	3625179	100	61	39
CP 00546 POD1		CP	LE	2	2	4	09	18S	33E	625464	3625597*	90	70	20
CP 00623 POD1		CP	LE	1	1	1	13	18S	33E	628895	3624852*	82	60	22
CP 00623 POD2		CP	LE	1	2	1	13	18S	33E	629243	3624542	100		
CP 00691		CP	LE	4	4	2	24	18S	33E	630327	3622662*	215	195	20
CP 00701		CP	LE		1	3	11	18S	33E	627373	3625534*	100		
CP 00701 POD2		CP	LE	4	1	3	11	18S	33E	627472	3625433*	100		
CP 00758 POD1		CP	LE			3	04	18S	33E	624345	3626886*	250		
CP 00769 POD1		CP	LE	1	1	2	13	18S	33E	629699	3624866*	115	70	45
CP 00813 POD1		CP	LE			1	33	18S	33E	624441	3619644*	300		
CP 01417 POD1		CP	LE				11	18S	33E	627036	3625738	120	54	66
L 02878	R	L	LE		4	4	12	18S	33E	628946	3736195	205	150	55
L 02878 POD2		L	LE		4	4	12	18S	33E	630196	3625175	220	220	0
L 03454		L	LE		2	2	30	18S	33E	622200	3621422*	100	35	65
L 04649		L	LE	1	1	3	03	18S	33E	625644	3627213*	100	45	55
L 06131		L	LE	3	1	2	08	18S	33E	623241	3626167*	194	100	94
L 06347		L	LE		4	4	12	18S	33E	630196	3625175*	170	130	40
L 08288		L	LE	3	3	3	12	18S	33E	628890	3625054*	79	60	19
L 13406 POD1		L	LE	4	4	4	12	18S	33E	630279	3625061	220		

***UTM location was derived from PLSS - see Help**

Average Depth to Water: **93 feet**

Minimum Depth: **35 feet**

Maximum Depth: **220 feet**

Record Count: 24

PLSS Search:

Township: 18S **Range:** 33E

Karst Potential

EOG Cholla 18 Fed Com #1H

Appendix C

TETRA TECH

Borehole ID:
Borehole 1 (BH-1)

Soil Drilling Log with Field Testing Results

Project Name : EOG Cholla Fed Com #1
Project No. : 212C-MD-01810
Location : Lea County, New Mexico
Coordinates : 32.744427°, -103.695234°

Date : Friday, August 16, 2019
Sampler : Joe Tyler
Driller : Scarborough Drilling
Method : Air Rotary

Depth (ft.)	WL	Soil Description	Discoloration /Staining	Odors /Fumes	OVM Field Test (ppm)	Chloride Field Test (ppm)	Field Titration Test (ppm)
0		Brown silty sand	Stained	Heavy odor	1,615	-	-
			Stained	Heavy odor	4,751	-	-
5		Brown silty sand w/ gravel		Heavy odor	>15,000	-	-
				Heavy odor	1,405	-	-
10		Brown silty sand		Heavy odor	18.2	-	-
15		Brown silty sand w/ light gravel		Heavy odor	160.1	-	-
20				Heavy odor	135.6	131	160
25		Brown sand w/ heavy gravel		Heavy odor	144.1	-	-
30				Heavy odor	209.1	153	200
35				Heavy odor	31.9	-	-
40		Brown silty sand w/ light gravel		Heavy odor	26.4	-	-
45				Low odor	15.5	-	-
50					33.0	-	-
55					71.2	188	200
60		Total Depth = 60 feet			24.6	169	160

Comments:
* H.O. = Heavy Odor
* H.S. = Heavy Staining

No Groundwater detected at 60' below surface
* L.O. = Low Odor
* L.S. = Low Staining

* O.L. = Over Readable Limit

Appendix D

Analytical Report 628956

for

Tetra Tech- Midland

Project Manager: Clair Gonzales

Cholla 18 Fed Com #1H

22-JUL-19

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

22-JUL-19

Project Manager: **Clair Gonzales**
Tetra Tech- Midland
901 West Wall ST
Midland, TX 79701

Reference: XENCO Report No(s): **628956**
Cholla 18 Fed Com #1H
Project Address: Lea Co, NM

Clair Gonzales :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 628956. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 628956 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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Sample Cross Reference 628956

Tetra Tech- Midland, Midland, TX

Cholla 18 Fed Com #1H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
AH #1	S	06-25-19 00:00	0 - 1 ft	628956-001
AH #1	S	06-25-19 00:00	1 - 1.5 ft	628956-002
AH #1	S	06-25-19 00:00	2 - 2.5 ft	628956-003
AH #1	S	06-25-19 00:00	3 - 3.5 ft	628956-004
AH #1	S	06-25-19 00:00	4 - 4.5 ft	628956-005
AH #1	S	06-25-19 00:00	5 - 5.5 ft	628956-006
AH #2	S	06-25-19 00:00	0 - 1 ft	628956-007
AH #2	S	06-25-19 00:00	1 - 1.5 ft	628956-008
AH #2	S	06-25-19 00:00	2 - 2.5 ft	628956-009
AH #2	S	06-25-19 00:00	3 - 3.5 ft	628956-010
AH #2	S	06-25-19 00:00	4 - 4.5 ft	628956-011
AH #2	S	06-25-19 00:00	5 - 5.5 ft	628956-012
AH #3	S	06-25-19 00:00	0 - 1 ft	628956-013
AH #3	S	06-25-19 00:00	1 - 1.5 ft	628956-014
AH #3	S	06-25-19 00:00	2 - 2.5 ft	628956-015
AH #3	S	06-25-19 00:00	3 - 3.5 ft	628956-016
AH #3	S	06-25-19 00:00	4 - 4.5 ft	628956-017
AH #3	S	06-25-19 00:00	5 - 5.5 ft	628956-018
AH #3	S	06-25-19 00:00	6 - 6.5 ft	628956-019
AH #3	S	06-25-19 00:00	7. - 7.5 ft	628956-020

CASE NARRATIVE

Client Name: Tetra Tech- Midland
Project Name: Cholla 18 Fed Com #1H

Project ID:
Work Order Number(s): *628956*

Report Date: *22-JUL-19*
Date Received: *06/25/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3093717 Chloride by EPA 300
Lab Sample ID 628956-019 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 628956-009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3093751 TPH by SW8015 Mod
Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 628956-013.

Batch: LBA-3094500 BTEX by EPA 8021B
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 628956-007.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3095963 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 628956-015,628956-016,628956-020,628956-018,628956-017.

Batch: LBA-3096052 TPH by SW8015 Mod
Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 628956-017.

Certificate of Analysis Summary 628956

Tetra Tech- Midland, Midland, TX

Project Name: Cholla 18 Fed Com #1H

Project Id:
Contact: Clair Gonzales
Project Location: Lea Co, NM

Date Received in Lab: Tue Jun-25-19 12:45 pm
Report Date: 22-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	628956-001		628956-002		628956-003		628956-004		628956-005		628956-006	
	Field Id:	AH #1		AH #1		AH #1		AH #1		AH #1		AH #1	
	Depth:	0-1 ft		1-1.5 ft		2-2.5 ft		3-3.5 ft		4-4.5 ft		5-5.5 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-25-19 00:00		Jun-25-19 00:00		Jun-25-19 00:00		Jun-25-19 00:00		Jun-25-19 00:00		Jun-25-19 00:00	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-02-19 17:00		Jul-02-19 17:00									
	Analyzed:	Jul-04-19 13:22		Jul-04-19 13:45									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Benzene		<0.000386	0.000386	<0.000387	0.000387								
Toluene		<0.000457	0.000457	<0.000458	0.000458								
Ethylbenzene		<0.000566	0.000566	0.0105	0.000568								
m,p-Xylenes		0.00203 J	0.00102	<0.00102	0.00102								
o-Xylene		0.00175 J	0.000345	<0.000346	0.000346								
Total Xylenes		0.00378	0.000345	<0.000346	0.000346								
Total BTEX		0.00378	0.000345	0.0105	0.000346								
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jun-26-19 16:15		Jun-26-19 16:15		Jun-26-19 16:15		Jun-26-19 16:15		Jun-26-19 16:15		Jun-26-19 16:15	
	Analyzed:	Jun-26-19 23:34		Jun-26-19 23:56		Jun-27-19 00:03		Jun-27-19 00:11		Jun-27-19 00:18		Jun-27-19 00:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		11.1	0.867	4.58 J	0.857	2.76 J	0.855	5.06	0.850	8.38	0.850	7.43	0.867
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jun-26-19 14:00		Jun-26-19 14:00									
	Analyzed:	Jun-27-19 07:23		Jun-27-19 07:48									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Gasoline Range Hydrocarbons (GRO)		14.9 J	7.97	8.24 J	7.99								
Diesel Range Organics (DRO)		486	8.10	51.8	8.11								
Motor Oil Range Hydrocarbons (MRO)		32.1	8.10	<8.11	8.11								
Total TPH		533	7.97	60.0	7.99								

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Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 628956

Tetra Tech- Midland, Midland, TX

Project Name: Cholla 18 Fed Com #1H

Project Id:
Contact: Clair Gonzales
Project Location: Lea Co, NM

Date Received in Lab: Tue Jun-25-19 12:45 pm
Report Date: 22-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	628956-007		628956-008		628956-009		628956-010		628956-011		628956-012	
	Field Id:	AH #2		AH #2		AH #2		AH #2		AH #2		AH #2	
	Depth:	0-1 ft		1-1.5 ft		2-2.5 ft		3-3.5 ft		4-4.5 ft		5-5.5 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-25-19 00:00		Jun-25-19 00:00		Jun-25-19 00:00		Jun-25-19 00:00		Jun-25-19 00:00		Jun-25-19 00:00	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-02-19 17:00		Jul-02-19 17:00									
	Analyzed:	Jul-04-19 14:08		Jul-04-19 14:31									
	Units/RL:	mg/kg	RL	mg/kg	RL								
Benzene		<0.000382	0.000382	<0.000383	0.000383								
Toluene		<0.000452	0.000452	0.00120 J	0.000453								
Ethylbenzene		0.0530	0.000560	0.00353	0.000561								
m,p-Xylenes		0.0360	0.00101	0.00307 J	0.00101								
o-Xylene		0.308	0.000342	0.0202	0.000342								
Total Xylenes		0.344	0.000342	0.0233	0.000342								
Total BTEX		0.397	0.000342	0.0280	0.000342								
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jun-26-19 16:15		Jun-26-19 16:15		Jun-26-19 16:35		Jun-26-19 16:35		Jun-26-19 16:35		Jun-26-19 16:35	
	Analyzed:	Jun-27-19 00:32		Jun-27-19 00:40		Jun-26-19 16:47		Jun-26-19 17:02		Jun-26-19 17:07		Jun-26-19 17:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		315	0.864	82.1	0.853	62.8	0.864	<0.857	0.857	<0.850	0.850	<0.867	0.867
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jun-26-19 14:00		Jun-26-19 14:00		Jul-08-19 10:00		Jul-08-19 10:00					
	Analyzed:	Jun-27-19 08:12		Jun-27-19 08:36		Jul-15-19 05:42		Jul-15-19 06:06					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		379	8.00	31.6	7.99	10.7 J	7.97	13.0 J	7.98				
Diesel Range Organics (DRO)		1820	8.13	388	8.12	<8.10	8.10	<8.10	8.10				
Motor Oil Range Hydrocarbons (MRO)		87.3	8.13	25.2	8.12	<8.10	8.10	<8.10	8.10				
Total TPH		2290	8.00	445	7.99	10.7 J	7.97	13.0 J	7.98				

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Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 628956

Tetra Tech- Midland, Midland, TX

Project Name: Cholla 18 Fed Com #1H

Project Id:

Contact: Clair Gonzales

Project Location: Lea Co, NM

Date Received in Lab: Tue Jun-25-19 12:45 pm

Report Date: 22-JUL-19

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	628956-013		628956-014		628956-015		628956-016		628956-017		628956-018	
	Field Id:	AH #3		AH #3		AH #3		AH #3		AH #3		AH #3	
	Depth:	0-1 ft		1-1.5 ft		2-2.5 ft		3-3.5 ft		4-4.5 ft		5-5.5 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-25-19 00:00		Jun-25-19 00:00		Jun-25-19 00:00		Jun-25-19 00:00		Jun-25-19 00:00		Jun-25-19 00:00	
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-02-19 17:00		Jul-02-19 17:00		Jul-17-19 11:02		Jul-17-19 11:02		Jul-17-19 11:02		Jul-17-19 11:02	
	Analyzed:	Jul-04-19 18:59		Jul-04-19 19:23		Jul-20-19 01:24		Jul-20-19 05:45		Jul-20-19 06:07		Jul-20-19 04:29	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		0.362 J	0.0770	0.337 J	0.0768	<0.0383	0.0383	6.49 K	0.192	1.38 K	0.194	0.0142 JK	0.00383
Toluene		17.1	0.0911	21.6	0.0909	12.8 K	0.0454	125 K	0.227	115 K	0.230	0.339 K	0.00453
Ethylbenzene		24.0	0.113	26.2	0.113	19.6 K	0.0563	103 K	0.282	134 K	0.285	3.83 K	0.00561
m,p-Xylenes		35.9	0.203	33.4	0.202	27.3 K	0.101	140 K	0.506	184 K	0.512	7.52 K	0.0101
o-Xylene		15.5	0.0689	13.6	0.0687	11.4 K	0.0343	49.8 K	0.172	66.8 K	0.174	3.96 K	0.00342
Total Xylenes		51.4	0.0689	47.0	0.0687	38.7 K	0.0343	190 K	0.172	251 K	0.174	11.5 K	0.00342
Total BTEX		92.9	0.0689	95.1	0.0687	71.1 K	0.0343	424 K	0.172	501 K	0.174	15.7 K	0.00342
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jun-26-19 16:35		Jun-26-19 16:35		Jun-26-19 16:35		Jun-26-19 16:35		Jun-26-19 16:35		Jun-26-19 16:35	
	Analyzed:	Jun-26-19 17:16		Jun-26-19 17:31		Jun-26-19 17:36		Jun-26-19 17:41		Jun-26-19 17:45		Jun-26-19 17:50	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<0.853	0.853	<0.858	0.858	<0.858	0.858	<0.858	0.858	<0.867	0.867	<0.867	0.867
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jun-26-19 14:00		Jun-26-19 14:00		Jul-08-19 10:00		Jul-08-19 10:00		Jul-21-19 09:00		Jul-21-19 09:00	
	Analyzed:	Jun-27-19 09:01		Jun-27-19 09:25		Jul-15-19 06:30		Jul-15-19 06:55		Jul-22-19 02:40		Jul-22-19 03:04	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		2500	40.0	2170	39.9	1960	40.0	3640	40.0	4430 K	39.9	418 K	7.99
Diesel Range Organics (DRO)		9000	40.6	5130	40.6	5820	40.6	7480	40.6	9960 K	40.5	2040 K	8.12
Motor Oil Range Hydrocarbons (MRO)		439	40.6	269	40.6	322	40.6	460	40.6	486 K	40.5	113 K	8.12
Total TPH		11900	40.0	7570	39.9	8100	40.0	11600	40.0	14900 K	39.9	2570 K	7.99

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Version: 1.%

Jessica Kramer
Project Assistant

Certificate of Analysis Summary 628956

Tetra Tech- Midland, Midland, TX

Project Name: Cholla 18 Fed Com #1H

Project Id:
Contact: Clair Gonzales
Project Location: Lea Co, NM

Date Received in Lab: Tue Jun-25-19 12:45 pm
Report Date: 22-JUL-19
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	628956-019		628956-020					
	Field Id:	AH #3		AH #3					
	Depth:	6-6.5 ft		7.-7.5 ft					
	Matrix:	SOIL		SOIL					
	Sampled:	Jun-25-19 00:00		Jun-25-19 00:00					
BTEX by EPA 8021B SUB: T104704400-18-16	***Extracted:***	Jul-17-19 11:02		Jul-17-19 11:02					
	Analyzed:	Jul-20-19 10:58		Jul-19-19 11:18					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.000389	0.000389	<0.000385	0.000385				
Toluene		0.00186 JK	0.000460	0.00544 K	0.000456				
Ethylbenzene		0.000626 JK	0.000570	0.0448 K	0.000565				
m,p-Xylenes		0.00133 JK	0.00102	0.0139 K	0.00101				
o-Xylene		0.00257 K	0.000348	0.196 K	0.000344				
Total Xylenes		0.00390 K	0.000348	0.210 K	0.000344				
Total BTEX		0.00639 K	0.000348	0.260 K	0.000344				
Chloride by EPA 300 SUB: T104704400-18-16	***Extracted:***	Jun-26-19 16:35		Jun-26-19 16:35					
	Analyzed:	Jun-26-19 17:55		Jun-26-19 18:10					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		<0.853	0.853	<0.850	0.850				
TPH by SW8015 Mod SUB: T104704400-18-16	***Extracted:***	Jul-21-19 09:00		Jul-21-19 09:00					
	Analyzed:	Jul-22-19 03:51		Jul-22-19 04:15					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		9.25 JK	8.00	78.8 K	7.98				
Diesel Range Organics (DRO)		141 K	8.13	910 K	8.10				
Motor Oil Range Hydrocarbons (MRO)		12.3 JK	8.13	59.8 K	8.10				
Total TPH		163 K	8.00	1050 K	7.98				

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Version: 1.%

Jessica Kramer
Project Assistant

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: Cholla 18 Fed Com #1H

Work Orders : 628956,

Project ID:

Lab Batch #: 3093751 **Sample:** 628956-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/27/19 07:23

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.6	101	70-135	
o-Terphenyl	51.6	49.8	104	70-135	

Lab Batch #: 3093751 **Sample:** 628956-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/27/19 07:48

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.2	99.8	92	70-135	
o-Terphenyl	42.1	49.9	84	70-135	

Lab Batch #: 3093751 **Sample:** 628956-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/27/19 08:12

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	53.3	50.0	107	70-135	

Lab Batch #: 3093751 **Sample:** 628956-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/27/19 08:36

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.4	99.9	99	70-135	
o-Terphenyl	45.3	50.0	91	70-135	

Lab Batch #: 3093751 **Sample:** 628956-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/27/19 09:01

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	99.9	122	70-135	
o-Terphenyl	82.2	50.0	164	70-135	**

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Cholla 18 Fed Com #1H

Work Orders : 628956,

Project ID:

Lab Batch #: 3093751 **Sample:** 628956-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/27/19 09:25

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	99.8	111	70-135	
o-Terphenyl	60.9	49.9	122	70-135	

Lab Batch #: 3094500 **Sample:** 628956-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/04/19 13:22

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	70-130	
4-Bromofluorobenzene	0.0329	0.0300	110	70-130	

Lab Batch #: 3094500 **Sample:** 628956-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/04/19 13:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	70-130	
4-Bromofluorobenzene	0.0341	0.0300	114	70-130	

Lab Batch #: 3094500 **Sample:** 628956-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/04/19 14:08

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0267	0.0300	89	70-130	
4-Bromofluorobenzene	0.0806	0.0300	269	70-130	**

Lab Batch #: 3094500 **Sample:** 628956-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/04/19 14:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	70-130	
4-Bromofluorobenzene	0.0380	0.0300	127	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Cholla 18 Fed Com #1H

Work Orders : 628956,

Project ID:

Lab Batch #: 3094500 **Sample:** 628956-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/04/19 18:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0266	0.0300	89	70-130	
4-Bromofluorobenzene	0.0386	0.0300	129	70-130	

Lab Batch #: 3094500 **Sample:** 628956-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/04/19 19:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	70-130	
4-Bromofluorobenzene	0.0375	0.0300	125	70-130	

Lab Batch #: 3095302 **Sample:** 628956-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/15/19 05:42

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.0	99.6	88	70-135	
o-Terphenyl	40.0	49.8	80	70-135	

Lab Batch #: 3095302 **Sample:** 628956-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/15/19 06:06

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	81.4	99.7	82	70-135	
o-Terphenyl	36.9	49.9	74	70-135	

Lab Batch #: 3095302 **Sample:** 628956-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/15/19 06:30

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.9	109	70-135	
o-Terphenyl	61.7	50.0	123	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Cholla 18 Fed Com #1H

Work Orders : 628956,

Project ID:

Lab Batch #: 3095302 **Sample:** 628956-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/15/19 06:55

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	64.3	50.0	129	70-135	

Lab Batch #: 3095963 **Sample:** 628956-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/19/19 11:18

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	70-130	
4-Bromofluorobenzene	0.0539	0.0300	180	70-130	**

Lab Batch #: 3095963 **Sample:** 628956-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/20/19 01:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	70-130	
4-Bromofluorobenzene	0.0548	0.0300	183	70-130	**

Lab Batch #: 3095963 **Sample:** 628956-018 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/20/19 04:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0269	0.0300	90	70-130	
4-Bromofluorobenzene	0.0941	0.0300	314	70-130	**

Lab Batch #: 3095963 **Sample:** 628956-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/20/19 05:45

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	70-130	
4-Bromofluorobenzene	0.0501	0.0300	167	70-130	**

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Cholla 18 Fed Com #1H

Work Orders : 628956,

Project ID:

Lab Batch #: 3095963 **Sample:** 628956-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/20/19 06:07

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	70-130	
4-Bromofluorobenzene	0.0567	0.0300	189	70-130	**

Lab Batch #: 3095963 **Sample:** 628956-019 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/20/19 10:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	70-130	
4-Bromofluorobenzene	0.0338	0.0300	113	70-130	

Lab Batch #: 3096052 **Sample:** 628956-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/22/19 02:40

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	126	99.7	126	70-135	
o-Terphenyl	72.1	49.9	144	70-135	**

Lab Batch #: 3096052 **Sample:** 628956-018 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/22/19 03:04

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.9	106	70-135	
o-Terphenyl	38.3	50.0	77	70-135	

Lab Batch #: 3096052 **Sample:** 628956-019 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/22/19 03:51

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	40.7	50.0	81	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Cholla 18 Fed Com #1H

Work Orders : 628956,

Project ID:

Lab Batch #: 3096052 **Sample:** 628956-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/22/19 04:15

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	99.7	115	70-135	
o-Terphenyl	45.7	49.9	92	70-135	

Lab Batch #: 3093751 **Sample:** 7680886-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/26/19 23:23

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.4	100	91	70-135	
o-Terphenyl	41.3	50.0	83	70-135	

Lab Batch #: 3094500 **Sample:** 7681350-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/04/19 11:27

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0241	0.0300	80	70-130	
4-Bromofluorobenzene	0.0359	0.0300	120	70-130	

Lab Batch #: 3095302 **Sample:** 7681992-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/14/19 20:51

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.3	100	85	70-135	
o-Terphenyl	48.9	50.0	98	70-135	

Lab Batch #: 3095963 **Sample:** 7682226-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/19/19 04:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	70-130	
4-Bromofluorobenzene	0.0282	0.0300	94	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Cholla 18 Fed Com #1H

Work Orders : 628956,

Project ID:

Lab Batch #: 3096052 **Sample:** 7682451-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/21/19 21:26

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	41.7	50.0	83	70-135	

Lab Batch #: 3093751 **Sample:** 7680886-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/26/19 23:47

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.1	100	97	70-135	
o-Terphenyl	51.1	50.0	102	70-135	

Lab Batch #: 3094500 **Sample:** 7681350-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/04/19 09:24

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0260	0.0300	87	70-130	
4-Bromofluorobenzene	0.0321	0.0300	107	70-130	

Lab Batch #: 3095302 **Sample:** 7681992-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/14/19 21:16

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	100	103	70-135	
o-Terphenyl	63.0	50.0	126	70-135	

Lab Batch #: 3095963 **Sample:** 7682226-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/19/19 02:58

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	70-130	
4-Bromofluorobenzene	0.0306	0.0300	102	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Cholla 18 Fed Com #1H

Work Orders : 628956,

Project ID:

Lab Batch #: 3096052 **Sample:** 7682451-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/21/19 21:49

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	39.3	50.0	79	70-135	

Lab Batch #: 3093751 **Sample:** 7680886-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/27/19 00:11

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.7	100	100	70-135	
o-Terphenyl	52.2	50.0	104	70-135	

Lab Batch #: 3094500 **Sample:** 7681350-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/04/19 09:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	70-130	
4-Bromofluorobenzene	0.0300	0.0300	100	70-130	

Lab Batch #: 3095302 **Sample:** 7681992-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/14/19 21:41

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.8	100	93	70-135	
o-Terphenyl	53.9	50.0	108	70-135	

Lab Batch #: 3095963 **Sample:** 7682226-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/19/19 03:19

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	70-130	
4-Bromofluorobenzene	0.0335	0.0300	112	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Cholla 18 Fed Com #1H

Work Orders : 628956,

Project ID:

Lab Batch #: 3096052 **Sample:** 7682451-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 07/21/19 22:13

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	100	113	70-135	
o-Terphenyl	46.5	50.0	93	70-135	

Lab Batch #: 3093751 **Sample:** 628925-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/27/19 01:00

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.7	99.9	86	70-135	
o-Terphenyl	40.3	50.0	81	70-135	

Lab Batch #: 3094500 **Sample:** 628928-019 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/04/19 10:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	70-130	
4-Bromofluorobenzene	0.0352	0.0300	117	70-130	

Lab Batch #: 3095302 **Sample:** 629984-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/14/19 22:30

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.1	99.7	86	70-135	
o-Terphenyl	56.5	49.9	113	70-135	

Lab Batch #: 3095963 **Sample:** 630893-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/19/19 06:04

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	70-130	
4-Bromofluorobenzene	0.0265	0.0300	88	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Cholla 18 Fed Com #1H

Work Orders : 628956,

Project ID:

Lab Batch #: 3096052 **Sample:** 630699-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/21/19 23:00

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.8	99.7	93	70-135	
o-Terphenyl	35.6	49.9	71	70-135	

Lab Batch #: 3093751 **Sample:** 628925-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/27/19 01:24

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.8	99.7	91	70-135	
o-Terphenyl	42.9	49.9	86	70-135	

Lab Batch #: 3094500 **Sample:** 628928-019 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/04/19 10:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	70-130	
4-Bromofluorobenzene	0.0313	0.0300	104	70-130	

Lab Batch #: 3095302 **Sample:** 629984-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/14/19 22:54

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.7	99.6	90	70-135	
o-Terphenyl	56.8	49.8	114	70-135	

Lab Batch #: 3095963 **Sample:** 630893-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/19/19 06:25

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	70-130	
4-Bromofluorobenzene	0.0341	0.0300	114	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Cholla 18 Fed Com #1H

Work Orders : 628956,

Project ID:

Lab Batch #: 3096052 **Sample:** 630699-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 07/21/19 23:23

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.1	99.9	90	70-135	
o-Terphenyl	35.4	50.0	71	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Version: 1.%

BS / BSD Recoveries

Project Name: Cholla 18 Fed Com #1H

Work Order #: 628956 **Project ID:**

Analyst: AMB **Date Prepared:** 07/02/2019 **Date Analyzed:** 07/04/2019

Lab Batch ID: 3094500 **Sample:** 7681350-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000386	0.100	0.0750	75	0.0998	0.0863	86	14	70-130	35	
Toluene	<0.000457	0.100	0.0939	94	0.0998	0.0992	99	5	70-130	35	
Ethylbenzene	<0.000566	0.100	0.106	106	0.0998	0.110	110	4	70-130	35	
m,p-Xylenes	<0.00102	0.200	0.208	104	0.200	0.214	107	3	70-130	35	
o-Xylene	<0.000345	0.100	0.0983	98	0.0998	0.101	101	3	70-130	35	

Analyst: FOV **Date Prepared:** 07/17/2019 **Date Analyzed:** 07/19/2019

Lab Batch ID: 3095963 **Sample:** 7682226-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000385	0.100	0.107	107	0.100	0.110	110	3	70-130	35	
Toluene	<0.000456	0.100	0.105	105	0.100	0.106	106	1	70-130	35	
Ethylbenzene	<0.000565	0.100	0.117	117	0.100	0.119	119	2	70-130	35	
m,p-Xylenes	<0.00101	0.200	0.234	117	0.200	0.241	121	3	70-130	35	
o-Xylene	<0.000344	0.100	0.112	112	0.100	0.117	117	4	70-130	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Version: 1.%

BS / BSD Recoveries

Project Name: Cholla 18 Fed Com #1H

Work Order #: 628956 **Project ID:**

Analyst: CHE **Date Prepared:** 06/26/2019 **Date Analyzed:** 06/26/2019

Lab Batch ID: 3093716 **Sample:** 7680862-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.858	250	254	102	250	254	102	0	90-110	20	

Analyst: CHE **Date Prepared:** 06/26/2019 **Date Analyzed:** 06/26/2019

Lab Batch ID: 3093717 **Sample:** 7680864-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.858	250	272	109	250	272	109	0	90-110	20	

Analyst: ARM **Date Prepared:** 06/26/2019 **Date Analyzed:** 06/26/2019

Lab Batch ID: 3093751 **Sample:** 7680886-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1190	119	1000	1160	116	3	70-135	20	
Diesel Range Organics (DRO)	<8.13	1000	1160	116	1000	1160	116	0	70-135	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Version: 1.%

BS / BSD Recoveries

Project Name: Cholla 18 Fed Com #1H

Work Order #: 628956 **Project ID:**

Analyst: ARM **Date Prepared:** 07/14/2019 **Date Analyzed:** 07/14/2019

Lab Batch ID: 3095302 **Sample:** 7681992-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1130	113	1000	1090	109	4	70-135	20	
Diesel Range Organics (DRO)	<8.13	1000	1170	117	1000	1160	116	1	70-135	20	

Analyst: ARM **Date Prepared:** 07/21/2019 **Date Analyzed:** 07/21/2019

Lab Batch ID: 3096052 **Sample:** 7682451-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1140	114	1000	1140	114	0	70-135	20	
Diesel Range Organics (DRO)	<8.13	1000	1100	110	1000	1160	116	5	70-135	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Version: 1.%

Form 3 - MS / MSD Recoveries

Project Name: Cholla 18 Fed Com #1H

Work Order # : 628956 **Project ID:**

Lab Batch ID: 3094500 **QC- Sample ID:** 628928-019 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/04/2019 **Date Prepared:** 07/02/2019 **Analyst:** AMB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000387	0.101	0.0654	65	0.101	0.0761	75	15	70-130	35	X
Toluene	0.000645	0.101	0.0834	82	0.101	0.0831	82	0	70-130	35	
Ethylbenzene	<0.000568	0.101	0.0958	95	0.101	0.0898	89	6	70-130	35	
m,p-Xylenes	0.00195	0.201	0.188	93	0.201	0.175	86	7	70-130	35	
o-Xylene	0.000645	0.101	0.0904	89	0.101	0.0832	82	8	70-130	35	

Lab Batch ID: 3095963 **QC- Sample ID:** 630893-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/19/2019 **Date Prepared:** 07/17/2019 **Analyst:** FOV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000382	0.0992	0.0835	84	0.0998	0.0893	89	7	70-130	35	
Toluene	<0.000452	0.0992	0.0798	80	0.0998	0.0861	86	8	70-130	35	
Ethylbenzene	<0.000560	0.0992	0.0840	85	0.0998	0.0915	92	9	70-130	35	
m,p-Xylenes	<0.00101	0.198	0.167	84	0.200	0.185	93	10	70-130	35	
o-Xylene	<0.000342	0.0992	0.0763	77	0.0998	0.0865	87	13	70-130	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Cholla 18 Fed Com #1H

Work Order # : 628956 **Project ID:**

Lab Batch ID: 3093716 **QC- Sample ID:** 628868-007 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/26/2019 **Date Prepared:** 06/26/2019 **Analyst:** CHE

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	822	250	1020	79	250	1020	79	0	90-110	20	X

Lab Batch ID: 3093716 **QC- Sample ID:** 628871-009 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/26/2019 **Date Prepared:** 06/26/2019 **Analyst:** CHE

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	4.98	249	266	105	249	266	105	0	90-110	20	

Lab Batch ID: 3093717 **QC- Sample ID:** 628956-009 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/26/2019 **Date Prepared:** 06/26/2019 **Analyst:** CHE

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	62.8	252	357	117	252	354	116	1	90-110	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Cholla 18 Fed Com #1H

Work Order # : 628956 **Project ID:**

Lab Batch ID: 3093717 **QC- Sample ID:** 628956-019 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/26/2019 **Date Prepared:** 06/26/2019 **Analyst:** CHE

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.853	249	284	114	249	281	113	1	90-110	20	X

Lab Batch ID: 3093751 **QC- Sample ID:** 628925-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/27/2019 **Date Prepared:** 06/26/2019 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	12.2	999	996	98	997	1050	104	5	70-135	20	
Diesel Range Organics (DRO)	8.65	999	1010	100	997	1080	107	7	70-135	20	

Lab Batch ID: 3095302 **QC- Sample ID:** 629984-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/14/2019 **Date Prepared:** 07/14/2019 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	8.34	997	978	97	996	999	99	2	70-135	20	
Diesel Range Organics (DRO)	<8.10	997	1070	107	996	1070	107	0	70-135	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Cholla 18 Fed Com #1H

Work Order # : 628956 **Project ID:**

Lab Batch ID: 3096052 **QC- Sample ID:** 630699-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/21/2019 **Date Prepared:** 07/21/2019 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	11.0	997	1030	102	999	1010	100	2	70-135	20	
Diesel Range Organics (DRO)	10.1	997	990	98	999	967	96	2	70-135	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Analysis Request of Chain of Custody Record

Page 1 of 2

Tetra Tech, Inc.

901W Wall Street, Ste 100
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

Ce289Se

Client Name: EOG

Site Manager: Clair Gonzales

Project Name: Cholla 18 Fed Com #1H

Project Location: (county, state) Lea Co, NM

Project #: Pending

Invoice to: EOG - James Kennedy

Receiving Laboratory: Xenco

Sampler Signature: Tony Laganda

Comments: Run deeper Sample if Benzene exceeds 10. ~~BTEX~~ B+EX 50 OR GRO+DRO Exceeds 100.

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2019 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD None	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)
	AH #1 (0-1')	6/25/19			X				X			1	N
	AH #1 (1-1.5')				X				X			1	N
	AH #1 (2-2.5')				X				X			1	N
	AH #1 (3-3.5')				X				X			1	N
	AH #1 (4-4.5')				X				X			1	N
	AH #1 (5-5.5')				X				X			1	N
	AH #2 (0-1')				X				X			1	N
	AH #2 (1-1.5')				X				X			1	N
	AH #2 (2-2.5')				X				X			1	N
	AH #2 (3-3.5')	V			X				X			1	N

ANALYSIS REQUEST
(Circle or Specify Method No.)

BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance				Hold
X		X												X							
X		X												X							
														X							
														X							
														X							
														X							
X	X	X												X							
X	X	X												X							
														X							
														X							

Relinquished by: Antonio E. Laganda Date: 6/25/19 Time: 1230

Received by: Conner Moehring Date: 6/25/19 Time: 1230

Relinquished by: Conner Moehring Date: 6/25/19 Time: 1245

Received by: Courtney Date: 6/25/19 Time: 12:45

Relinquished by: Date: Time:

Received by: Date: Time:

LAB USE ONLY

Sample Temperature 4.5°C

REMARKS:

☒ STANDARD

☐ RUSH: Same Day 24 hr 48 hr 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

901W Wall Street, Ste 100
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

Q239540

Client Name: EOG	Site Manager: Clair Gonzales
Project Name: Cholla 18 Fed Com #1H	
Project Location: (county, state) Lea Co, NM	Project #: Pending
Invoice to: EOG - James Kennedy	
Receiving Laboratory: Xenco	Sampler Signature: Tony Loganda
Comments: Run deeper Sample if Benzene exceeds 10. BTEX exceeds 50 or DRO + GRO exceeds 100.	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE (YEAR: 2019)	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: None	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)
	AH #2 (4-4.5')	6/25/19			X				X			1	N
	AH #2 (5-5.5')				X				X			1	N
	AH #3 (0-1')				X				X			1	N
	AH #3 (1-1.5')				X				X			1	N
	AH #3 (2-2.5')				X				X			1	N
	AH #3 (3-3.5')				X				X			1	N
	AH #3 (4-4.5')				X				X			1	N
	AH #3 (5-5.5')				X				X			1	N
	AH #3 (6-6.5')				X				X			1	N
	AH #3 (7-7.5')				X				X			1	N

ANALYSIS REQUEST (Circle or Specify Method No.)

	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance				Hold
															X							
															X							
	X		X												X							
	X		X												X							
															X							
															X							
															X							
															X							
															X							
															X							

Relinquished by: Antonio E. Loganda Date: 6/25/19 Time: 1230
Received by: Conner Molloy Date: 6/25/19 Time: 1230

Relinquished by: Conner Molloy Date: 6/25/19 Time: 1245
Received by: Date: 6/25/19 Time: 12:45

Relinquished by: Date: Time:
Received by: Date: Time:

LAB USE ONLY
Sample Temperature
4.5°C

REMARKS:
☒ STANDARD
☐ RUSH: Same Day 24 hr 48 hr 72 hr
☐ Rush Charges Authorized
☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ORIGINAL COPY

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 06/25/2019 12:45:00 PM

Work Order #: 628956

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4.5	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**Yes**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	Subbed to Xenco Midland.
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Elizabeth McClellan Date: 06/25/2019

Checklist reviewed by: Jessica Kramer Date: 06/28/2019

Jessica Kramer

Certificate of Analysis Summary 634452

Tetra Tech- Midland, Midland, TX

Project Name: EOG-Cholla 18 Fed Com #1

Project Id: 212C-MD-01810
Contact: Mike Carmona
Project Location: Lea County, New Mexcio

Date Received in Lab: Mon Aug-19-19 01:43 pm
Report Date: 26-AUG-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	634452-001		634452-002		634452-003		634452-004		634452-005		634452-006	
	Field Id:	BH-1 (0'-1')		BH-1 (2'-3')		BH-1 (4'-5')		BH-1 (6'-7')		BH-1 (9'-10')		BH-1 (14'-15')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-16-19 00:00		Aug-16-19 00:00		Aug-16-19 00:00		Aug-16-19 00:00		Aug-16-19 00:00		Aug-16-19 00:00	
BTEX by EPA 8021B	***Extracted:***	Aug-21-19 13:30		Aug-21-19 13:30		Aug-21-19 13:30		Aug-21-19 13:30		Aug-21-19 13:30		Aug-21-19 13:30	
	Analyzed:	Aug-22-19 03:16		Aug-22-19 03:36		Aug-22-19 03:56		Aug-22-19 04:16		Aug-22-19 04:37		Aug-22-19 04:57	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.0199	0.0199	0.0551	0.0399	1.09	0.0399	0.0137	0.00994	<0.00201	0.00201	<0.00202	0.00202
Toluene		0.196	0.0199	0.758	0.0399	20.8 D	0.399	0.299	0.00994	<0.00201	0.00201	<0.00202	0.00202
Ethylbenzene		0.137	0.0199	0.732	0.0399	25.4 D	0.399	0.390	0.00994	<0.00201	0.00201	<0.00202	0.00202
m,p-Xylenes		3.52	0.0398	8.69	0.0798	32.8 D	0.798	1.52	0.0199	<0.00402	0.00402	<0.00403	0.00403
o-Xylene		3.68	0.0199	7.66	0.0399	21.0 D	0.399	0.947	0.00994	<0.00201	0.00201	<0.00202	0.00202
Total Xylenes		7.20	0.0199	16.4	0.0399	53.8	0.399	2.47	0.00994	<0.00201	0.00201	<0.00202	0.00202
Total BTEX		7.53	0.0199	17.9	0.0399	101	0.0399	3.17	0.00994	<0.00201	0.00201	<0.00202	0.00202
TPH By SW8015 Mod	***Extracted:***	Aug-19-19 15:00		Aug-19-19 15:00		Aug-19-19 15:00		Aug-19-19 15:00		Aug-19-19 15:00		Aug-19-19 15:00	
	Analyzed:	Aug-21-19 01:31		Aug-21-19 01:53		Aug-21-19 02:15		Aug-21-19 02:37		Aug-21-19 02:59		Aug-21-19 03:20	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		481	49.9	1010	49.8	1310	50.0	167	50.0	<49.8	49.8	<49.9	49.9
Diesel Range Organics (DRO)		7790	49.9	6250	49.8	4310	50.0	1920	50.0	114	49.8	190	49.9
Motor Oil Range Hydrocarbons (MRO)		762	49.9	574	49.8	409	50.0	200	50.0	<49.8	49.8	<49.9	49.9
Total TPH		9030	49.9	7830	49.8	6030	50.0	2290	50.0	114	49.8	190	49.9

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Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 634452

Tetra Tech- Midland, Midland, TX

Project Name: EOG-Cholla 18 Fed Com #1

Project Id: 212C-MD-01810
Contact: Mike Carmona
Project Location: Lea County, New Mexcio

Date Received in Lab: Mon Aug-19-19 01:43 pm
Report Date: 26-AUG-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	634452-007		634452-008		634452-009		634452-010		634452-011		634452-012	
	Field Id:	BH-1 (19'-20')		BH-1 (24'-25')		BH-1 (29'-30')		BH-1 (34'-35')		BH-1 (39'-40')		BH-1 (44'-45')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-16-19 00:00		Aug-16-19 00:00		Aug-16-19 00:00		Aug-16-19 00:00		Aug-16-19 00:00		Aug-16-19 00:00	
BTEX by EPA 8021B	***Extracted:***	Aug-21-19 13:30		Aug-21-19 13:30		Aug-21-19 13:30		Aug-21-19 13:30		Aug-21-19 13:30		Aug-21-19 13:30	
	Analyzed:	Aug-22-19 05:17		Aug-22-19 05:37		Aug-22-19 05:57		Aug-22-19 06:16		Aug-22-19 07:36		Aug-22-19 07:56	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200
m,p-Xylenes		<0.00400	0.00400	<0.00402	0.00402	<0.00399	0.00399	<0.00398	0.00398	<0.00403	0.00403	<0.00400	0.00400
o-Xylene		<0.00200	0.00200	<0.00201	0.00201	0.00308	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00201	0.00201	0.00308	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00201	0.00201	0.00308	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200
TPH By SW8015 Mod	***Extracted:***	Aug-19-19 15:00		Aug-19-19 15:00		Aug-19-19 15:00		Aug-19-19 15:00		Aug-19-19 15:00		Aug-19-19 15:00	
	Analyzed:	Aug-21-19 03:42		Aug-21-19 04:26		Aug-21-19 04:48		Aug-21-19 05:10		Aug-21-19 05:32		Aug-21-19 05:54	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.8	49.8
Diesel Range Organics (DRO)		57.5	50.0	169	50.0	235	49.9	<50.0	50.0	<50.0	50.0	<49.8	49.8
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0	<50.0	50.0	<49.8	49.8
Total TPH		57.5	50.0	169	50.0	235	49.9	<50.0	50.0	<50.0	50.0	<49.8	49.8

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Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 634452

Tetra Tech- Midland, Midland, TX

Project Name: EOG-Cholla 18 Fed Com #1

Project Id: 212C-MD-01810
Contact: Mike Carmona
Project Location: Lea County, New Mexcio

Date Received in Lab: Mon Aug-19-19 01:43 pm
Report Date: 26-AUG-19
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	634452-013		634452-014		634452-015			
	Field Id:	BH-1 (49'-50')		BH-1 (54'-55')		BH-1 (59'-60')			
	Depth:								
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Aug-16-19 00:00		Aug-16-19 00:00		Aug-16-19 00:00			
BTEX by EPA 8021B	***Extracted:***	Aug-21-19 13:30		Aug-21-19 13:30		Aug-21-19 13:30			
	Analyzed:	Aug-22-19 08:16		Aug-22-19 08:35		Aug-22-19 08:56			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		<0.00201	0.00201	<0.00200	0.00200	<0.00198	0.00198		
Toluene		<0.00201	0.00201	<0.00200	0.00200	<0.00198	0.00198		
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200	<0.00198	0.00198		
m,p-Xylenes		<0.00402	0.00402	<0.00399	0.00399	<0.00397	0.00397		
o-Xylene		<0.00201	0.00201	<0.00200	0.00200	<0.00198	0.00198		
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200	<0.00198	0.00198		
Total BTEX		<0.00201	0.00201	<0.00200	0.00200	<0.00198	0.00198		
TPH By SW8015 Mod	***Extracted:***	Aug-19-19 15:00		Aug-19-19 15:00		Aug-19-19 15:00			
	Analyzed:	Aug-21-19 06:16		Aug-21-19 06:38		Aug-21-19 06:59			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<50.0	50.0	<50.0	50.0		
Diesel Range Organics (DRO)		67.4	49.9	72.7	50.0	<50.0	50.0		
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0	<50.0	50.0		
Total TPH		67.4	49.9	72.7	50.0	<50.0	50.0		

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Assistant

Final 1.000

Analytical Report 634452

for

Tetra Tech- Midland

Project Manager: Mike Carmona

EOG-Cholla 18 Fed Com #1

212C-MD-01810

26-AUG-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

26-AUG-19

Project Manager: **Mike Carmona**
Tetra Tech- Midland
901 West Wall ST
Midland, TX 79701

Reference: XENCO Report No(s): **634452**
EOG-Cholla 18 Fed Com #1
Project Address: Lea County, New Mexcio

Mike Carmona:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 634452. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 634452 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 634452

Tetra Tech- Midland, Midland, TX

EOG-Cholla 18 Fed Com #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BH-1 (0'-1')	S	08-16-19 00:00		634452-001
BH-1 (2'-3')	S	08-16-19 00:00		634452-002
BH-1 (4'-5')	S	08-16-19 00:00		634452-003
BH-1 (6'-7')	S	08-16-19 00:00		634452-004
BH-1 (9'-10')	S	08-16-19 00:00		634452-005
BH-1 (14'-15')	S	08-16-19 00:00		634452-006
BH-1 (19'-20')	S	08-16-19 00:00		634452-007
BH-1 (24'-25')	S	08-16-19 00:00		634452-008
BH-1 (29'-30')	S	08-16-19 00:00		634452-009
BH-1 (34'-35')	S	08-16-19 00:00		634452-010
BH-1 (39'-40')	S	08-16-19 00:00		634452-011
BH-1 (44'-45')	S	08-16-19 00:00		634452-012
BH-1 (49'-50')	S	08-16-19 00:00		634452-013
BH-1 (54'-55')	S	08-16-19 00:00		634452-014
BH-1 (59'-60')	S	08-16-19 00:00		634452-015

CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: EOG-Cholla 18 Fed Com #1

Project ID: *212C-MD-01810*
Work Order Number(s): *634452*

Report Date: *26-AUG-19*
Date Received: *08/19/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3099479 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 634452-003,634452-002,634452-005,634452-008,634452-010,634452-001,634452-004.

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 634452

Tetra Tech- Midland, Midland, TX

EOG-Cholla 18 Fed Com #1

Sample Id: **BH-1 (0'-1')** Matrix: Soil Date Received:08.19.19 13.43

Lab Sample Id: 634452-001 Date Collected: 08.16.19 00.00

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.19.19 15.00 Basis: Wet Weight

Seq Number: 3099194

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**481**	49.9	mg/kg	08.21.19 01.31		1
Diesel Range Organics (DRO)	C10C28DRO	**7790**	49.9	mg/kg	08.21.19 01.31		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**762**	49.9	mg/kg	08.21.19 01.31		1
Total TPH	PHC635	**9030**	49.9	mg/kg	08.21.19 01.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	08.21.19 01.31	
o-Terphenyl	84-15-1	102	%	70-135	08.21.19 01.31	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: KTL % Moisture:

Analyst: KTL Date Prep: 08.21.19 13.30 Basis: Wet Weight

Seq Number: 3099479

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0199	0.0199	mg/kg	08.22.19 03.16	U	10
Toluene	108-88-3	**0.196**	0.0199	mg/kg	08.22.19 03.16		10
Ethylbenzene	100-41-4	**0.137**	0.0199	mg/kg	08.22.19 03.16		10
m,p-Xylenes	179601-23-1	**3.52**	0.0398	mg/kg	08.22.19 03.16		10
o-Xylene	95-47-6	**3.68**	0.0199	mg/kg	08.22.19 03.16		10
Total Xylenes	1330-20-7	**7.20**	0.0199	mg/kg	08.22.19 03.16		10
Total BTEX		**7.53**	0.0199	mg/kg	08.22.19 03.16		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	164	%	70-130	08.22.19 03.16	**
1,4-Difluorobenzene	540-36-3	108	%	70-130	08.22.19 03.16	

Certificate of Analytical Results 634452

Tetra Tech- Midland, Midland, TX

EOG-Cholla 18 Fed Com #1

Sample Id: **BH-1 (2'-3')** Matrix: Soil Date Received:08.19.19 13.43

Lab Sample Id: 634452-002 Date Collected: 08.16.19 00.00

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.19.19 15.00 Basis: Wet Weight

Seq Number: 3099194

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**1010**	49.8	mg/kg	08.21.19 01.53		1
Diesel Range Organics (DRO)	C10C28DRO	**6250**	49.8	mg/kg	08.21.19 01.53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**574**	49.8	mg/kg	08.21.19 01.53		1
Total TPH	PHC635	**7830**	49.8	mg/kg	08.21.19 01.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	08.21.19 01.53	
o-Terphenyl	84-15-1	115	%	70-135	08.21.19 01.53	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: KTL % Moisture:

Analyst: KTL Date Prep: 08.21.19 13.30 Basis: Wet Weight

Seq Number: 3099479

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0551**	0.0399	mg/kg	08.22.19 03.36		20
Toluene	108-88-3	**0.758**	0.0399	mg/kg	08.22.19 03.36		20
Ethylbenzene	100-41-4	**0.732**	0.0399	mg/kg	08.22.19 03.36		20
m,p-Xylenes	179601-23-1	**8.69**	0.0798	mg/kg	08.22.19 03.36		20
o-Xylene	95-47-6	**7.66**	0.0399	mg/kg	08.22.19 03.36		20
Total Xylenes	1330-20-7	**16.4**	0.0399	mg/kg	08.22.19 03.36		20
Total BTEX		**17.9**	0.0399	mg/kg	08.22.19 03.36		20

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	08.22.19 03.36	
4-Bromofluorobenzene	460-00-4	201	%	70-130	08.22.19 03.36	**

Certificate of Analytical Results 634452

Tetra Tech- Midland, Midland, TX

EOG-Cholla 18 Fed Com #1

Sample Id: **BH-1 (4'-5')** Matrix: Soil Date Received:08.19.19 13.43

Lab Sample Id: 634452-003 Date Collected: 08.16.19 00.00

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.19.19 15.00 Basis: Wet Weight

Seq Number: 3099194

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**1310**	50.0	mg/kg	08.21.19 02.15		1
Diesel Range Organics (DRO)	C10C28DRO	**4310**	50.0	mg/kg	08.21.19 02.15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**409**	50.0	mg/kg	08.21.19 02.15		1
Total TPH	PHC635	**6030**	50.0	mg/kg	08.21.19 02.15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	08.21.19 02.15	
o-Terphenyl	84-15-1	100	%	70-135	08.21.19 02.15	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: KTL % Moisture:

Analyst: KTL Date Prep: 08.21.19 13.30 Basis: Wet Weight

Seq Number: 3099479

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**1.09**	0.0399	mg/kg	08.22.19 03.56		20
Toluene	108-88-3	**20.8**	0.399	mg/kg	08.22.19 19.57	D	200
Ethylbenzene	100-41-4	**25.4**	0.399	mg/kg	08.22.19 19.57	D	200
m,p-Xylenes	179601-23-1	**32.8**	0.798	mg/kg	08.22.19 19.57	D	200
o-Xylene	95-47-6	**21.0**	0.399	mg/kg	08.22.19 19.57	D	200
Total Xylenes	1330-20-7	**53.8**	0.399	mg/kg	08.22.19 19.57		200
Total BTEX		**101**	0.0399	mg/kg	08.22.19 19.57		200

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	200	%	70-130	08.22.19 03.56	**
1,4-Difluorobenzene	540-36-3	112	%	70-130	08.22.19 03.56	

Certificate of Analytical Results 634452

Tetra Tech- Midland, Midland, TX

EOG-Cholla 18 Fed Com #1

Sample Id: **BH-1 (6'-7')** Matrix: Soil Date Received:08.19.19 13.43

Lab Sample Id: 634452-004 Date Collected: 08.16.19 00.00

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.19.19 15.00 Basis: Wet Weight

Seq Number: 3099194

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**167**	50.0	mg/kg	08.21.19 02.37		1
Diesel Range Organics (DRO)	C10C28DRO	**1920**	50.0	mg/kg	08.21.19 02.37		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**200**	50.0	mg/kg	08.21.19 02.37		1
Total TPH	PHC635	**2290**	50.0	mg/kg	08.21.19 02.37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	08.21.19 02.37	
o-Terphenyl	84-15-1	107	%	70-135	08.21.19 02.37	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: KTL % Moisture:

Analyst: KTL Date Prep: 08.21.19 13.30 Basis: Wet Weight

Seq Number: 3099479

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0137**	0.00994	mg/kg	08.22.19 04.16		5
Toluene	108-88-3	**0.299**	0.00994	mg/kg	08.22.19 04.16		5
Ethylbenzene	100-41-4	**0.390**	0.00994	mg/kg	08.22.19 04.16		5
m,p-Xylenes	179601-23-1	**1.52**	0.0199	mg/kg	08.22.19 04.16		5
o-Xylene	95-47-6	**0.947**	0.00994	mg/kg	08.22.19 04.16		5
Total Xylenes	1330-20-7	**2.47**	0.00994	mg/kg	08.22.19 04.16		5
Total BTEX		**3.17**	0.00994	mg/kg	08.22.19 04.16		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	08.22.19 04.16	
4-Bromofluorobenzene	460-00-4	158	%	70-130	08.22.19 04.16	**

Certificate of Analytical Results 634452

Tetra Tech- Midland, Midland, TX

EOG-Cholla 18 Fed Com #1

Sample Id: **BH-1 (9'-10')** Matrix: Soil Date Received:08.19.19 13.43

Lab Sample Id: 634452-005 Date Collected: 08.16.19 00.00

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.19.19 15.00 Basis: Wet Weight

Seq Number: 3099194

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.21.19 02.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	**114**	49.8	mg/kg	08.21.19 02.59		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.21.19 02.59	U	1
Total TPH	PHC635	**114**	49.8	mg/kg	08.21.19 02.59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	08.21.19 02.59	
o-Terphenyl	84-15-1	104	%	70-135	08.21.19 02.59	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: KTL % Moisture:

Analyst: KTL Date Prep: 08.21.19 13.30 Basis: Wet Weight

Seq Number: 3099479

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.22.19 04.37	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.22.19 04.37	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.22.19 04.37	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.22.19 04.37	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.22.19 04.37	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.22.19 04.37	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.22.19 04.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	139	%	70-130	08.22.19 04.37	**
1,4-Difluorobenzene	540-36-3	105	%	70-130	08.22.19 04.37	

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Tetra Tech- Midland, Midland, TX

EOG-Cholla 18 Fed Com #1

Sample Id: **BH-1 (14'-15')** Matrix: Soil Date Received:08.19.19 13.43

Lab Sample Id: 634452-006 Date Collected: 08.16.19 00.00

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.19.19 15.00 Basis: Wet Weight

Seq Number: 3099194

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.21.19 03.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	**190**	49.9	mg/kg	08.21.19 03.20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.21.19 03.20	U	1
Total TPH	PHC635	**190**	49.9	mg/kg	08.21.19 03.20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	08.21.19 03.20	
o-Terphenyl	84-15-1	106	%	70-135	08.21.19 03.20	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: KTL % Moisture:

Analyst: KTL Date Prep: 08.21.19 13.30 Basis: Wet Weight

Seq Number: 3099479

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.22.19 04.57	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.22.19 04.57	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.22.19 04.57	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.22.19 04.57	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.22.19 04.57	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.22.19 04.57	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.22.19 04.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	127	%	70-130	08.22.19 04.57	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.22.19 04.57	

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Tetra Tech- Midland, Midland, TX

EOG-Cholla 18 Fed Com #1

Sample Id: **BH-1 (19'-20')** Matrix: Soil Date Received:08.19.19 13.43

Lab Sample Id: 634452-007 Date Collected: 08.16.19 00.00

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.19.19 15.00 Basis: Wet Weight

Seq Number: 3099194

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.21.19 03.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	**57.5**	50.0	mg/kg	08.21.19 03.42		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.21.19 03.42	U	1
Total TPH	PHC635	**57.5**	50.0	mg/kg	08.21.19 03.42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	08.21.19 03.42	
o-Terphenyl	84-15-1	90	%	70-135	08.21.19 03.42	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: KTL % Moisture:

Analyst: KTL Date Prep: 08.21.19 13.30 Basis: Wet Weight

Seq Number: 3099479

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.22.19 05.17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.22.19 05.17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.22.19 05.17	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.22.19 05.17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.22.19 05.17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.22.19 05.17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.22.19 05.17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	08.22.19 05.17	
1,4-Difluorobenzene	540-36-3	99	%	70-130	08.22.19 05.17	

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Tetra Tech- Midland, Midland, TX

EOG-Cholla 18 Fed Com #1

Sample Id: **BH-1 (24'-25')** Matrix: Soil Date Received:08.19.19 13.43

Lab Sample Id: 634452-008 Date Collected: 08.16.19 00.00

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.19.19 15.00 Basis: Wet Weight

Seq Number: 3099194

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.21.19 04.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	**169**	50.0	mg/kg	08.21.19 04.26		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.21.19 04.26	U	1
Total TPH	PHC635	**169**	50.0	mg/kg	08.21.19 04.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-135	08.21.19 04.26	
o-Terphenyl	84-15-1	83	%	70-135	08.21.19 04.26	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: KTL % Moisture:

Analyst: KTL Date Prep: 08.21.19 13.30 Basis: Wet Weight

Seq Number: 3099479

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.22.19 05.37	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.22.19 05.37	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.22.19 05.37	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.22.19 05.37	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.22.19 05.37	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.22.19 05.37	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.22.19 05.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	134	%	70-130	08.22.19 05.37	**
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.22.19 05.37	

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Tetra Tech- Midland, Midland, TX

EOG-Cholla 18 Fed Com #1

Sample Id: **BH-1 (29'-30')** Matrix: Soil Date Received:08.19.19 13.43

Lab Sample Id: 634452-009 Date Collected: 08.16.19 00.00

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.19.19 15.00 Basis: Wet Weight

Seq Number: 3099194

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.21.19 04.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	**235**	49.9	mg/kg	08.21.19 04.48		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.21.19 04.48	U	1
Total TPH	PHC635	**235**	49.9	mg/kg	08.21.19 04.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	08.21.19 04.48	
o-Terphenyl	84-15-1	106	%	70-135	08.21.19 04.48	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: KTL % Moisture:

Analyst: KTL Date Prep: 08.21.19 13.30 Basis: Wet Weight

Seq Number: 3099479

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.22.19 05.57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.22.19 05.57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.22.19 05.57	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.22.19 05.57	U	1
o-Xylene	95-47-6	**0.00308**	0.00200	mg/kg	08.22.19 05.57		1
Total Xylenes	1330-20-7	**0.00308**	0.00200	mg/kg	08.22.19 05.57		1
Total BTEX		**0.00308**	0.00200	mg/kg	08.22.19 05.57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.22.19 05.57	
4-Bromofluorobenzene	460-00-4	125	%	70-130	08.22.19 05.57	

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Tetra Tech- Midland, Midland, TX

EOG-Cholla 18 Fed Com #1

Sample Id: **BH-1 (34'-35')** Matrix: Soil Date Received:08.19.19 13.43

Lab Sample Id: 634452-010 Date Collected: 08.16.19 00.00

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.19.19 15.00 Basis: Wet Weight

Seq Number: 3099194

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.21.19 05.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.21.19 05.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.21.19 05.10	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.21.19 05.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	08.21.19 05.10	
o-Terphenyl	84-15-1	89	%	70-135	08.21.19 05.10	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: KTL % Moisture:

Analyst: KTL Date Prep: 08.21.19 13.30 Basis: Wet Weight

Seq Number: 3099479

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.22.19 06.16	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.22.19 06.16	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.22.19 06.16	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.22.19 06.16	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.22.19 06.16	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.22.19 06.16	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.22.19 06.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	89	%	70-130	08.22.19 06.16	
4-Bromofluorobenzene	460-00-4	136	%	70-130	08.22.19 06.16	**

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Tetra Tech- Midland, Midland, TX

EOG-Cholla 18 Fed Com #1

Sample Id: **BH-1 (39'-40')** Matrix: Soil Date Received:08.19.19 13.43

Lab Sample Id: 634452-011 Date Collected: 08.16.19 00.00

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.19.19 15.00 Basis: Wet Weight

Seq Number: 3099194

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.21.19 05.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.21.19 05.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.21.19 05.32	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.21.19 05.32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	08.21.19 05.32	
o-Terphenyl	84-15-1	104	%	70-135	08.21.19 05.32	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: KTL % Moisture:

Analyst: KTL Date Prep: 08.21.19 13.30 Basis: Wet Weight

Seq Number: 3099479

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.22.19 07.36	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.22.19 07.36	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.22.19 07.36	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.22.19 07.36	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.22.19 07.36	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.22.19 07.36	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.22.19 07.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	08.22.19 07.36	
4-Bromofluorobenzene	460-00-4	110	%	70-130	08.22.19 07.36	

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Tetra Tech- Midland, Midland, TX

EOG-Cholla 18 Fed Com #1

Sample Id: **BH-1 (44'-45')** Matrix: Soil Date Received:08.19.19 13.43

Lab Sample Id: 634452-012 Date Collected: 08.16.19 00.00

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.19.19 15.00 Basis: Wet Weight

Seq Number: 3099194

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.21.19 05.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.21.19 05.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.21.19 05.54	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.21.19 05.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	08.21.19 05.54	
o-Terphenyl	84-15-1	100	%	70-135	08.21.19 05.54	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: KTL % Moisture:

Analyst: KTL Date Prep: 08.21.19 13.30 Basis: Wet Weight

Seq Number: 3099479

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.22.19 07.56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.22.19 07.56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.22.19 07.56	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.22.19 07.56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.22.19 07.56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.22.19 07.56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.22.19 07.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	08.22.19 07.56	
1,4-Difluorobenzene	540-36-3	97	%	70-130	08.22.19 07.56	

Certificate of Analytical Results 634452

Tetra Tech- Midland, Midland, TX

EOG-Cholla 18 Fed Com #1

Sample Id: **BH-1 (49'-50')** Matrix: Soil Date Received:08.19.19 13.43

Lab Sample Id: 634452-013 Date Collected: 08.16.19 00.00

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.19.19 15.00 Basis: Wet Weight

Seq Number: 3099194

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.21.19 06.16	U	1
Diesel Range Organics (DRO)	C10C28DRO	**67.4**	49.9	mg/kg	08.21.19 06.16		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.21.19 06.16	U	1
Total TPH	PHC635	**67.4**	49.9	mg/kg	08.21.19 06.16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	08.21.19 06.16	
o-Terphenyl	84-15-1	100	%	70-135	08.21.19 06.16	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: KTL % Moisture:

Analyst: KTL Date Prep: 08.21.19 13.30 Basis: Wet Weight

Seq Number: 3099479

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.22.19 08.16	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.22.19 08.16	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.22.19 08.16	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.22.19 08.16	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.22.19 08.16	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.22.19 08.16	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.22.19 08.16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.22.19 08.16	
4-Bromofluorobenzene	460-00-4	112	%	70-130	08.22.19 08.16	

Certificate of Analytical Results 634452

Tetra Tech- Midland, Midland, TX

EOG-Cholla 18 Fed Com #1

Sample Id: **BH-1 (54'-55')** Matrix: Soil Date Received:08.19.19 13.43

Lab Sample Id: 634452-014 Date Collected: 08.16.19 00.00

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.19.19 15.00 Basis: Wet Weight

Seq Number: 3099194

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.21.19 06.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	**72.7**	50.0	mg/kg	08.21.19 06.38		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.21.19 06.38	U	1
Total TPH	PHC635	**72.7**	50.0	mg/kg	08.21.19 06.38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	08.21.19 06.38	
o-Terphenyl	84-15-1	107	%	70-135	08.21.19 06.38	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: KTL % Moisture:

Analyst: KTL Date Prep: 08.21.19 13.30 Basis: Wet Weight

Seq Number: 3099479

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.22.19 08.35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.22.19 08.35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.22.19 08.35	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.22.19 08.35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.22.19 08.35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.22.19 08.35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.22.19 08.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	08.22.19 08.35	
4-Bromofluorobenzene	460-00-4	101	%	70-130	08.22.19 08.35	

Certificate of Analytical Results 634452

Tetra Tech- Midland, Midland, TX

EOG-Cholla 18 Fed Com #1

Sample Id: **BH-1 (59'-60')** Matrix: Soil Date Received:08.19.19 13.43

Lab Sample Id: 634452-015 Date Collected: 08.16.19 00.00

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 08.19.19 15.00 Basis: Wet Weight

Seq Number: 3099194

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.21.19 06.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.21.19 06.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.21.19 06.59	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.21.19 06.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	08.21.19 06.59	
o-Terphenyl	84-15-1	101	%	70-135	08.21.19 06.59	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: KTL % Moisture:

Analyst: KTL Date Prep: 08.21.19 13.30 Basis: Wet Weight

Seq Number: 3099479

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.22.19 08.56	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.22.19 08.56	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.22.19 08.56	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.22.19 08.56	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.22.19 08.56	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.22.19 08.56	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.22.19 08.56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.22.19 08.56	
1,4-Difluorobenzene	540-36-3	100	%	70-130	08.22.19 08.56	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 634452

Tetra Tech- Midland

EOG-Cholla 18 Fed Com #1

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3099194 — Matrix: Solid — Date Prep: 08.19.19
MB Sample Id: 7684522-1-BLK — LCS Sample Id: 7684522-1-BKS — LCSD Sample Id: 7684522-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	859	86	879	88	70-135	2	20	mg/kg	08.20.19 22:59	
Diesel Range Organics (DRO)	<25.0	1000	901	90	1070	107	70-135	17	20	mg/kg	08.20.19 22:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	89		77		97		70-135	%	08.20.19 22:59
o-Terphenyl	98		81		106		70-135	%	08.20.19 22:59

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3099194 — Matrix: Soil — Date Prep: 08.20.19
Parent Sample Id: 634513-061 — MS Sample Id: 634513-061 S — MSD Sample Id: 634513-061 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	998	838	84	847	85	70-135	1	20	mg/kg	08.21.19 00:04	
Diesel Range Organics (DRO)	<25.0	998	990	99	964	97	70-135	3	20	mg/kg	08.21.19 00:04	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		89		70-135	%	08.21.19 00:04
o-Terphenyl	97		94		70-135	%	08.21.19 00:04

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3099479 — Matrix: Solid — Date Prep: 08.21.19
MB Sample Id: 7684715-1-BLK — LCS Sample Id: 7684715-1-BKS — LCSD Sample Id: 7684715-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.102	102	0.104	104	70-130	2	35	mg/kg	08.22.19 01:17	
Toluene	<0.000456	0.100	0.102	102	0.105	105	70-130	3	35	mg/kg	08.22.19 01:17	
Ethylbenzene	<0.000565	0.100	0.109	109	0.114	114	70-130	4	35	mg/kg	08.22.19 01:17	
m,p-Xylenes	<0.00101	0.200	0.211	106	0.223	112	70-130	6	35	mg/kg	08.22.19 01:17	
o-Xylene	<0.000344	0.100	0.109	109	0.117	117	70-130	7	35	mg/kg	08.22.19 01:17	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		100		101		70-130	%	08.22.19 01:17
4-Bromofluorobenzene	106		113		120		70-130	%	08.22.19 01:17

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 634452

Tetra Tech- Midland

EOG-Cholla 18 Fed Com #1

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3099479 Matrix: Soil Date Prep: 08.21.19

Parent Sample Id: 634452-005 MS Sample Id: 634452-005 S MSD Sample Id: 634452-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0766	77	0.0860	85	70-130	12	35	mg/kg	08.22.19 01:57	
Toluene	0.00115	0.0996	0.0773	76	0.0873	85	70-130	12	35	mg/kg	08.22.19 01:57	
Ethylbenzene	<0.00199	0.0996	0.0812	82	0.0938	93	70-130	14	35	mg/kg	08.22.19 01:57	
m,p-Xylenes	0.00307	0.199	0.158	78	0.183	89	70-130	15	35	mg/kg	08.22.19 01:57	
o-Xylene	0.00182	0.0996	0.0813	80	0.0948	92	70-130	15	35	mg/kg	08.22.19 01:57	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		103		70-130	%	08.22.19 01:57
4-Bromofluorobenzene	116		121		70-130	%	08.22.19 01:57

MS/MSD Percent Recovery	[D] = 100*(C-A) / B	LCS = Laboratory Control Sample	MS = Matrix Spike
Relative Percent Difference	RPD = 200* | (C-E) / (C+E) |	A = Parent Result	B = Spike Added
LCS/LCSD Recovery	[D] = 100 * (C) / [B]	C = MS/LCS Result	D = MSD/LCSD % Rec
Log Difference	Log Diff. = Log(Sample Duplicate) - Log(Original Sample)	E = MSD/LCSD Result	

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

901 West Wall Street, Suite 100
Midland,Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: EOG	Site Manager: Mike Carmona
Project Name: Cholla 18 Fed Com #1	
Project Location: (county, state) Lea County, New Mexico	Project #: 212C-MD-01810
Invoice to: EOG - James Kennedy	
Receiving Laboratory: Xenco	Sampler Signature:
Comments:	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2019 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD NONE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	HOLD
	BH-1 (0'- 1')	8/16/2019	-		X			X		1	N	X		X																	
	BH-1 (2'- 3')	8/16/2019	-		X			X		1	N																				
	BH-1 (4'- 5')	8/16/2019	-		X			X		1	N																				
	BH-1 (6'- 7')	8/16/2019	-		X			X		1	N																				
	BH-1 (9'- 10')	8/16/2019	-		X			X		1	N																				
	BH-1 (14'- 15')	8/16/2019	-		X			X		1	N																				
	BH-1 (19'- 20')	8/16/2019	-		X			X		1	N																				
	BH-1 (24'- 25')	8/16/2019	-		X			X		1	N																				
	BH-1 (29'- 30')	8/16/2019	-		X			X		1	N																				
	BH-1 (34'- 35')	8/16/2019	-		X			X		1	N																				

Relinquished by:	Date: 8-19-19	Time: 1343	Received by: Date: 8/19/19 Time: 1343
Relinquished by:	Date:	Time:	Received by: Date: Time:
Relinquished by:	Date:	Time:	Received by: Date: Time:

LAB USE ONLY

Sample Temperature 3.5/3.3 -0.2/2C

REMARKS:

- [X] STANDARD
- [ ] RUSH: Same Day 24 hr 48 hr 72 hr
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Analysis Request of Chain of Custody Record

1034452

Tetra Tech, Inc.

901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: EOG	Site Manager: Mike Carmona
Project Name: Cholla 18 Fed Com #1	
Project Location: (county, state) Lea County, New Mexico	Project #: 212C-MD-01810
Invoice to: EOG - James Kennedy	
Receiving Laboratory: Xenco	Sampler Signature:
Comments:	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD NONE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	HOLD
	BH-1 (39'- 40')	8/16/2019	-		X			X		1	N	X		X																	
	BH-1 (44'- 45')	8/16/2019	-		X			X		1	N	↓		↓																	
	BH-1 (49'- 50')	8/16/2019	-		X			X		1	N																				
	BH-1 (54'- 55')	8/16/2019	-		X			X		1	N																				
	BH-1 (59'- 60')	8/16/2019	-		X			X		1	N																				

Relinquished by: L. Lopez	Date: 8-19-19	Time: 1343	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:

Received by: Date: 8/19/19 Time: 1343
Received by: Date: Time:
Received by: Date: Time:

LAB USE ONLY

Sample Temperature: 3.5/3.3 -0.2=3.3

REMARKS:

- [x] STANDARD
- [ ] RUSH: Same Day 24 hr 48 hr 72 hr
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 08/19/2019 01:43:00 PM

Work Order #: 634452

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.3
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 08/19/2019
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 08/20/2019
Jessica Kramer

Certificate of Analysis Summary 640918

Tetra Tech- Midland, Midland, TX

Project Name: EOG Cholla 18 Federal Com #1H

Project Id: 212C-MD-01810
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Thu Oct-24-19 10:48 am
Report Date: 25-OCT-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	640918-001		640918-002		640918-003		640918-004		640918-005		640918-006	
	Field Id:	BottomHole 10 (Composite		BottomHole 11 (Composite		BottomHole 12 (Composite		BottomHole 13 (Composite		BottomHole 14 (Composite		BottomHole 15 (Composite 1	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-22-19 00:00		Oct-22-19 00:00		Oct-22-19 00:00		Oct-22-19 00:00		Oct-22-19 00:00		Oct-22-19 00:00	
BTEX by EPA 8021B	*Extracted:*	Oct-24-19 13:00		Oct-24-19 13:00		Oct-24-19 13:00		Oct-24-19 13:00		Oct-24-19 13:00		Oct-24-19 13:00	
	Analyzed:	Oct-24-19 20:45		Oct-24-19 21:05		Oct-24-19 21:25		Oct-24-19 21:45		Oct-24-19 22:05		Oct-24-19 22:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199
Toluene		<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199
Ethylbenzene		<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199
m,p-Xylenes		0.00592	0.00400	0.00520	0.00397	<0.00398	0.00398	0.00644	0.00403	0.00554	0.00401	0.00542	0.00398
o-Xylene		0.00479	0.00200	0.00464	0.00198	<0.00199	0.00199	0.00546	0.00202	0.00459	0.00200	0.00646	0.00199
Total Xylenes		0.0107	0.00200	0.00984	0.00198	<0.00199	0.00199	0.0119	0.00202	0.0101	0.00200	0.0119	0.00199
Total BTEX		0.0107	0.00200	0.00984	0.00198	<0.00199	0.00199	0.0119	0.00202	0.0101	0.00200	0.0119	0.00199
Chloride by EPA 300	*Extracted:*	Oct-24-19 12:25		Oct-24-19 12:25		Oct-24-19 12:25		Oct-24-19 12:25		Oct-24-19 12:25		Oct-24-19 12:25	
	Analyzed:	Oct-24-19 12:28		Oct-24-19 12:34		Oct-24-19 12:39		Oct-24-19 12:55		Oct-24-19 13:01		Oct-24-19 13:06	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		22.0	5.00	52.0	5.00	358	5.04	18.4	4.98	43.2	4.96	147	5.05
TPH By SW8015 Mod	*Extracted:*	Oct-24-19 15:00		Oct-24-19 15:00		Oct-24-19 15:00		Oct-24-19 15:00		Oct-24-19 15:00		Oct-24-19 15:00	
	Analyzed:	Oct-24-19 22:51		Oct-24-19 23:54		Oct-25-19 00:15		Oct-25-19 00:36		Oct-25-19 00:57		Oct-25-19 01:17	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0
Diesel Range Organics (DRO)		487	49.9	271	49.8	302	50.0	953	50.0	319	49.9	163	50.0
Motor Oil Range Hydrocarbons (MRO)		64.3	49.9	<49.8	49.8	<50.0	50.0	112	50.0	<49.9	49.9	<50.0	50.0
Total TPH		551	49.9	271	49.8	302	50.0	1070	50.0	319	49.9	163	50.0

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Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 640918

Tetra Tech- Midland, Midland, TX

Project Name: EOG Cholla 18 Federal Com #1H

Project Id: 212C-MD-01810
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Thu Oct-24-19 10:48 am
Report Date: 25-OCT-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	640918-007		640918-008		640918-009		640918-010		640918-011		640918-012	
	Field Id:	BottomHole 16 (Composite		BottomHole 17 (Composite		BottomHole 18 (Composite		BottomHole 19 (Composite		BottomHole 20 (Composite		BottomHole 21 (Composite 1	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-22-19 00:00		Oct-22-19 00:00		Oct-22-19 00:00		Oct-22-19 00:00		Oct-22-19 00:00		Oct-22-19 00:00	
BTEX by EPA 8021B	***Extracted:***	Oct-24-19 13:00		Oct-24-19 13:00		Oct-24-19 13:00		Oct-24-19 13:00		Oct-24-19 14:00		Oct-24-19 14:00	
	Analyzed:	Oct-24-19 22:45		Oct-24-19 23:05		Oct-24-19 23:25		Oct-24-19 23:45		Oct-25-19 09:54		Oct-25-19 10:15	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00202	0.00202	<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00202	0.00202	<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	0.00617	0.00202	<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00399	0.00399	0.00788	0.00403	<0.00403	0.00403	<0.00402	0.00402	<0.00398	0.00398	<0.00401	0.00401
o-Xylene		<0.00200	0.00200	0.00615	0.00202	<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	0.0140	0.00202	<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	0.0202	0.00202	<0.00202	0.00202	<0.00201	0.00201	<0.00199	0.00199	<0.00200	0.00200
Chloride by EPA 300	***Extracted:***	Oct-24-19 12:25		Oct-24-19 12:25		Oct-24-19 12:25		Oct-24-19 12:25		Oct-24-19 12:25		Oct-24-19 12:25	
	Analyzed:	Oct-24-19 13:12		Oct-24-19 13:17		Oct-24-19 13:34		Oct-24-19 13:39		Oct-24-19 13:44		Oct-24-19 13:50	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		49.7	4.99	90.7	4.97	43.6	5.02	87.8	5.00	46.5	5.00	11.4	5.00
TPH By SW8015 Mod	***Extracted:***	Oct-24-19 15:00		Oct-24-19 15:00		Oct-24-19 15:00		Oct-24-19 15:00		Oct-24-19 15:00		Oct-24-19 15:00	
	Analyzed:	Oct-25-19 01:38		Oct-25-19 01:59		Oct-25-19 02:20		Oct-25-19 02:41		Oct-25-19 03:23		Oct-25-19 03:44	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0
Diesel Range Organics (DRO)		277	49.8	882	50.0	337	49.9	873	50.0	266	49.9	345	50.0
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	99.4	50.0	<49.9	49.9	101	50.0	<49.9	49.9	<50.0	50.0
Total TPH		277	49.8	981	50.0	337	49.9	974	50.0	266	49.9	345	50.0

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Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 640918

Tetra Tech- Midland, Midland, TX

Project Name: EOG Cholla 18 Federal Com #1H

Project Id: 212C-MD-01810
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Thu Oct-24-19 10:48 am
Report Date: 25-OCT-19
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	640918-013		640918-014					
	Field Id:	BottomHole 22 (Composite 1		BottomHole 23 (Composite 1					
	Depth:								
	Matrix:	SOIL		SOIL					
	Sampled:	Oct-22-19 00:00		Oct-22-19 00:00					
BTEX by EPA 8021B	**Extracted:**	Oct-24-19 14:00		Oct-24-19 14:00					
	Analyzed:	Oct-25-19 10:35		Oct-25-19 10:55					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00201	0.00201				
Toluene		<0.00200	0.00200	<0.00201	0.00201				
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201				
m,p-Xylenes		<0.00399	0.00399	<0.00402	0.00402				
o-Xylene		<0.00200	0.00200	<0.00201	0.00201				
Total Xylenes		<0.00200	0.00200	<0.00201	0.00201				
Total BTEX		<0.00200	0.00200	<0.00201	0.00201				
Chloride by EPA 300	**Extracted:**	Oct-24-19 13:10		Oct-24-19 13:10					
	Analyzed:	Oct-24-19 15:41		Oct-24-19 15:56					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		145	5.02	443	4.98				
TPH By SW8015 Mod	**Extracted:**	Oct-24-19 15:00		Oct-24-19 15:00					
	Analyzed:	Oct-25-19 04:05		Oct-25-19 04:26					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0				
Diesel Range Organics (DRO)		432	50.0	716	50.0				
Motor Oil Range Hydrocarbons (MRO)		54.9	50.0	84.7	50.0				
Total TPH		487	50.0	801	50.0				

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Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Analytical Report 640918

for

Tetra Tech- Midland

Project Manager: Mike Carmona

EOG Cholla 18 Federal Com #1H

212C-MD-01810

25-OCT-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

25-OCT-19

Project Manager: **Mike Carmona**
Tetra Tech- Midland
901 West Wall ST
Midland, TX 79701

Reference: XENCO Report No(s): **640918**
EOG Cholla 18 Federal Com #1H
Project Address: Lea County, New Mexico

Mike Carmona:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 640918. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 640918 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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Sample Cross Reference 640918

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BottomHole 10 (Composite 1')	S	10-22-19 00:00		640918-001
BottomHole 11 (Composite 1')	S	10-22-19 00:00		640918-002
BottomHole 12 (Composite 1')	S	10-22-19 00:00		640918-003
BottomHole 13 (Composite 1')	S	10-22-19 00:00		640918-004
BottomHole 14 (Composite 1')	S	10-22-19 00:00		640918-005
BottomHole 15 (Composite 1')	S	10-22-19 00:00		640918-006
BottomHole 16 (Composite 1')	S	10-22-19 00:00		640918-007
BottomHole 17 (Composite 1')	S	10-22-19 00:00		640918-008
BottomHole 18 (Composite 1')	S	10-22-19 00:00		640918-009
BottomHole 19 (Composite 1')	S	10-22-19 00:00		640918-010
BottomHole 20 (Composite 1')	S	10-22-19 00:00		640918-011
BottomHole 21 (Composite 1')	S	10-22-19 00:00		640918-012
BottomHole 22 (Composite 1')	S	10-22-19 00:00		640918-013
BottomHole 23 (Composite 1')	S	10-22-19 00:00		640918-014
BottomHole 24 (Composite 1')	S	10-22-19 00:00		Not Analyzed

Version: 1.%

CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: EOG Cholla 18 Federal Com #1H

Project ID: *212C-MD-01810*
Work Order Number(s): *640918*

Report Date: *25-OCT-19*
Date Received: *10/24/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3105389 BTEX by EPA 8021B
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 640919-001 SD.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3105434 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 640918

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id: **BottomHole 10 (Composite 1')** Matrix: Soil Date Received:10.24.19 10.48

Lab Sample Id: 640918-001 Date Collected: 10.22.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.24.19 12.25 Basis: Wet Weight

Seq Number: 3105225

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**22.0**	5.00	mg/kg	10.24.19 12.28		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.24.19 15.00 Basis: Wet Weight

Seq Number: 3105467

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.24.19 22.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	**487**	49.9	mg/kg	10.24.19 22.51		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**64.3**	49.9	mg/kg	10.24.19 22.51		1
Total TPH	PHC635	**551**	49.9	mg/kg	10.24.19 22.51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	10.24.19 22.51	
o-Terphenyl	84-15-1	97	%	70-135	10.24.19 22.51	

Certificate of Analytical Results 640918

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 10 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-001	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.24.19 20.45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.24.19 20.45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.24.19 20.45	U	1
m,p-Xylenes	179601-23-1	**0.00592**	0.00400	mg/kg	10.24.19 20.45		1
o-Xylene	95-47-6	**0.00479**	0.00200	mg/kg	10.24.19 20.45		1
Total Xylenes	1330-20-7	**0.0107**	0.00200	mg/kg	10.24.19 20.45		1
Total BTEX		**0.0107**	0.00200	mg/kg	10.24.19 20.45		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	10.24.19 20.45	
1,4-Difluorobenzene	540-36-3	88	%	70-130	10.24.19 20.45	

Certificate of Analytical Results 640918

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 11 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-002	Date Collected:	10.22.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 12.25	Basis:	Wet Weight
Seq Number:	3105225				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**52.0**	5.00	mg/kg	10.24.19 12.34		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 15.00	Basis:	Wet Weight
Seq Number:	3105467				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.24.19 23.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	**271**	49.8	mg/kg	10.24.19 23.54		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.24.19 23.54	U	1
Total TPH	PHC635	**271**	49.8	mg/kg	10.24.19 23.54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	10.24.19 23.54	
o-Terphenyl	84-15-1	96	%	70-135	10.24.19 23.54	

Certificate of Analytical Results 640918

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 11 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-002	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.24.19 21.05	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.24.19 21.05	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.24.19 21.05	U	1
m,p-Xylenes	179601-23-1	**0.00520**	0.00397	mg/kg	10.24.19 21.05		1
o-Xylene	95-47-6	**0.00464**	0.00198	mg/kg	10.24.19 21.05		1
Total Xylenes	1330-20-7	**0.00984**	0.00198	mg/kg	10.24.19 21.05		1
Total BTEX		**0.00984**	0.00198	mg/kg	10.24.19 21.05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	79	%	70-130	10.24.19 21.05	
4-Bromofluorobenzene	460-00-4	120	%	70-130	10.24.19 21.05	

Certificate of Analytical Results 640918

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id: **BottomHole 12 (Composite 1')** Matrix: Soil Date Received:10.24.19 10.48

Lab Sample Id: 640918-003 Date Collected: 10.22.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.24.19 12.25 Basis: Wet Weight

Seq Number: 3105225

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**358**	5.04	mg/kg	10.24.19 12.39		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.24.19 15.00 Basis: Wet Weight

Seq Number: 3105467

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.25.19 00.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	**302**	50.0	mg/kg	10.25.19 00.15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.25.19 00.15	U	1
Total TPH	PHC635	**302**	50.0	mg/kg	10.25.19 00.15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	10.25.19 00.15	
o-Terphenyl	84-15-1	98	%	70-135	10.25.19 00.15	

Certificate of Analytical Results 640918

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 12 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-003	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.24.19 21.25	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.24.19 21.25	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.24.19 21.25	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.24.19 21.25	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.24.19 21.25	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.24.19 21.25	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.24.19 21.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	76	%	70-130	10.24.19 21.25	
4-Bromofluorobenzene	460-00-4	126	%	70-130	10.24.19 21.25	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id: **BottomHole 13 (Composite 1')** Matrix: Soil Date Received:10.24.19 10.48

Lab Sample Id: 640918-004 Date Collected: 10.22.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.24.19 12.25 Basis: Wet Weight

Seq Number: 3105225

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18.4**	4.98	mg/kg	10.24.19 12.55		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.24.19 15.00 Basis: Wet Weight

Seq Number: 3105467

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.25.19 00.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	**953**	50.0	mg/kg	10.25.19 00.36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**112**	50.0	mg/kg	10.25.19 00.36		1
Total TPH	PHC635	**1070**	50.0	mg/kg	10.25.19 00.36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	10.25.19 00.36	
o-Terphenyl	84-15-1	105	%	70-135	10.25.19 00.36	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 13 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-004	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.24.19 21.45	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.24.19 21.45	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.24.19 21.45	U	1
m,p-Xylenes	179601-23-1	**0.00644**	0.00403	mg/kg	10.24.19 21.45		1
o-Xylene	95-47-6	**0.00546**	0.00202	mg/kg	10.24.19 21.45		1
Total Xylenes	1330-20-7	**0.0119**	0.00202	mg/kg	10.24.19 21.45		1
Total BTEX		**0.0119**	0.00202	mg/kg	10.24.19 21.45		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	70-130	10.24.19 21.45	
1,4-Difluorobenzene	540-36-3	88	%	70-130	10.24.19 21.45	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id: **BottomHole 14 (Composite 1')** Matrix: Soil Date Received:10.24.19 10.48

Lab Sample Id: 640918-005 Date Collected: 10.22.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.24.19 12.25 Basis: Wet Weight

Seq Number: 3105225

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**43.2**	4.96	mg/kg	10.24.19 13.01		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.24.19 15.00 Basis: Wet Weight

Seq Number: 3105467

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.25.19 00.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	**319**	49.9	mg/kg	10.25.19 00.57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.25.19 00.57	U	1
Total TPH	PHC635	**319**	49.9	mg/kg	10.25.19 00.57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	10.25.19 00.57	
o-Terphenyl	84-15-1	100	%	70-135	10.25.19 00.57	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 14 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-005	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.24.19 22.05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.24.19 22.05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.24.19 22.05	U	1
m,p-Xylenes	179601-23-1	**0.00554**	0.00401	mg/kg	10.24.19 22.05		1
o-Xylene	95-47-6	**0.00459**	0.00200	mg/kg	10.24.19 22.05		1
Total Xylenes	1330-20-7	**0.0101**	0.00200	mg/kg	10.24.19 22.05		1
Total BTEX		**0.0101**	0.00200	mg/kg	10.24.19 22.05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	128	%	70-130	10.24.19 22.05	
1,4-Difluorobenzene	540-36-3	88	%	70-130	10.24.19 22.05	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 15 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-006	Date Collected:	10.22.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 12.25	Basis:	Wet Weight
Seq Number:	3105225				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**147**	5.05	mg/kg	10.24.19 13.06		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 15.00	Basis:	Wet Weight
Seq Number:	3105467				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.25.19 01.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	**163**	50.0	mg/kg	10.25.19 01.17		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.25.19 01.17	U	1
Total TPH	PHC635	**163**	50.0	mg/kg	10.25.19 01.17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	10.25.19 01.17	
o-Terphenyl	84-15-1	94	%	70-135	10.25.19 01.17	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 15 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-006	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.24.19 22.25	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.24.19 22.25	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.24.19 22.25	U	1
m,p-Xylenes	179601-23-1	**0.00542**	0.00398	mg/kg	10.24.19 22.25		1
o-Xylene	95-47-6	**0.00646**	0.00199	mg/kg	10.24.19 22.25		1
Total Xylenes	1330-20-7	**0.0119**	0.00199	mg/kg	10.24.19 22.25		1
Total BTEX		**0.0119**	0.00199	mg/kg	10.24.19 22.25		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	127	%	70-130	10.24.19 22.25	
1,4-Difluorobenzene	540-36-3	91	%	70-130	10.24.19 22.25	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id: **BottomHole 16 (Composite 1')** Matrix: Soil Date Received:10.24.19 10.48

Lab Sample Id: 640918-007 Date Collected: 10.22.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.24.19 12.25 Basis: Wet Weight

Seq Number: 3105225

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**49.7**	4.99	mg/kg	10.24.19 13.12		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.24.19 15.00 Basis: Wet Weight

Seq Number: 3105467

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.25.19 01.38	U	1
Diesel Range Organics (DRO)	C10C28DRO	**277**	49.8	mg/kg	10.25.19 01.38		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.25.19 01.38	U	1
Total TPH	PHC635	**277**	49.8	mg/kg	10.25.19 01.38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	10.25.19 01.38	
o-Terphenyl	84-15-1	94	%	70-135	10.25.19 01.38	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 16 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-007	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.24.19 22.45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.24.19 22.45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.24.19 22.45	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.24.19 22.45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.24.19 22.45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.24.19 22.45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.24.19 22.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	70-130	10.24.19 22.45	
4-Bromofluorobenzene	460-00-4	122	%	70-130	10.24.19 22.45	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 17 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-008	Date Collected:	10.22.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 12.25	Basis:	Wet Weight
Seq Number:	3105225				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**90.7**	4.97	mg/kg	10.24.19 13.17		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 15.00	Basis:	Wet Weight
Seq Number:	3105467				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.25.19 01.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	**882**	50.0	mg/kg	10.25.19 01.59		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**99.4**	50.0	mg/kg	10.25.19 01.59		1
Total TPH	PHC635	**981**	50.0	mg/kg	10.25.19 01.59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	10.25.19 01.59	
o-Terphenyl	84-15-1	102	%	70-135	10.25.19 01.59	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 17 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-008	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.24.19 23.05	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.24.19 23.05	U	1
Ethylbenzene	100-41-4	**0.00617**	0.00202	mg/kg	10.24.19 23.05		1
m,p-Xylenes	179601-23-1	**0.00788**	0.00403	mg/kg	10.24.19 23.05		1
o-Xylene	95-47-6	**0.00615**	0.00202	mg/kg	10.24.19 23.05		1
Total Xylenes	1330-20-7	**0.0140**	0.00202	mg/kg	10.24.19 23.05		1
Total BTEX		**0.0202**	0.00202	mg/kg	10.24.19 23.05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	129	%	70-130	10.24.19 23.05	
1,4-Difluorobenzene	540-36-3	92	%	70-130	10.24.19 23.05	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id: **BottomHole 18 (Composite 1')** Matrix: Soil Date Received:10.24.19 10.48

Lab Sample Id: 640918-009 Date Collected: 10.22.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.24.19 12.25 Basis: Wet Weight

Seq Number: 3105225

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**43.6**	5.02	mg/kg	10.24.19 13.34		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.24.19 15.00 Basis: Wet Weight

Seq Number: 3105467

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.25.19 02.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	**337**	49.9	mg/kg	10.25.19 02.20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.25.19 02.20	U	1
Total TPH	PHC635	**337**	49.9	mg/kg	10.25.19 02.20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	10.25.19 02.20	
o-Terphenyl	84-15-1	96	%	70-135	10.25.19 02.20	

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EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 18 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-009	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.24.19 23.25	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.24.19 23.25	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.24.19 23.25	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	10.24.19 23.25	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.24.19 23.25	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.24.19 23.25	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.24.19 23.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	10.24.19 23.25	
4-Bromofluorobenzene	460-00-4	125	%	70-130	10.24.19 23.25	

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EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 19 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-010	Date Collected:	10.22.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 12.25	Basis:	Wet Weight
Seq Number:	3105225				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**87.8**	5.00	mg/kg	10.24.19 13.39		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 15.00	Basis:	Wet Weight
Seq Number:	3105467				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.25.19 02.41	U	1
Diesel Range Organics (DRO)	C10C28DRO	**873**	50.0	mg/kg	10.25.19 02.41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**101**	50.0	mg/kg	10.25.19 02.41		1
Total TPH	PHC635	**974**	50.0	mg/kg	10.25.19 02.41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	10.25.19 02.41	
o-Terphenyl	84-15-1	100	%	70-135	10.25.19 02.41	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 19 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-010	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.24.19 23.45	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.24.19 23.45	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.24.19 23.45	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.24.19 23.45	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.24.19 23.45	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.24.19 23.45	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.24.19 23.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	10.24.19 23.45	
4-Bromofluorobenzene	460-00-4	124	%	70-130	10.24.19 23.45	

Certificate of Analytical Results 640918

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 20 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-011	Date Collected:	10.22.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 12.25	Basis:	Wet Weight
Seq Number:	3105225				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**46.5**	5.00	mg/kg	10.24.19 13.44		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 15.00	Basis:	Wet Weight
Seq Number:	3105467				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.25.19 03.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	**266**	49.9	mg/kg	10.25.19 03.23		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.25.19 03.23	U	1
Total TPH	PHC635	**266**	49.9	mg/kg	10.25.19 03.23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	10.25.19 03.23	
o-Terphenyl	84-15-1	99	%	70-135	10.25.19 03.23	

Certificate of Analytical Results 640918

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 20 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-011	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 14.00	Basis:	Wet Weight
Seq Number:	3105434				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.25.19 09.54	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.25.19 09.54	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.25.19 09.54	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.25.19 09.54	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.25.19 09.54	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.25.19 09.54	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.25.19 09.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	89	%	70-130	10.25.19 09.54	
4-Bromofluorobenzene	460-00-4	96	%	70-130	10.25.19 09.54	

Certificate of Analytical Results 640918

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 21 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-012	Date Collected:	10.22.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 12.25	Basis:	Wet Weight
Seq Number:	3105225				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.4**	5.00	mg/kg	10.24.19 13.50		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 15.00	Basis:	Wet Weight
Seq Number:	3105467				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.25.19 03.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	**345**	50.0	mg/kg	10.25.19 03.44		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.25.19 03.44	U	1
Total TPH	PHC635	**345**	50.0	mg/kg	10.25.19 03.44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	10.25.19 03.44	
o-Terphenyl	84-15-1	96	%	70-135	10.25.19 03.44	

Certificate of Analytical Results 640918

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 21 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-012	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 14.00	Basis:	Wet Weight
Seq Number:	3105434				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.25.19 10.15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.25.19 10.15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.25.19 10.15	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.25.19 10.15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.25.19 10.15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.25.19 10.15	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.25.19 10.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	90	%	70-130	10.25.19 10.15	
4-Bromofluorobenzene	460-00-4	126	%	70-130	10.25.19 10.15	

Certificate of Analytical Results 640918

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id: **BottomHole 22 (Composite 1')** Matrix: Soil Date Received:10.24.19 10.48

Lab Sample Id: 640918-013 Date Collected: 10.22.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.24.19 13.10 Basis: Wet Weight

Seq Number: 3105372

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**145**	5.02	mg/kg	10.24.19 15.41		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.24.19 15.00 Basis: Wet Weight

Seq Number: 3105467

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.25.19 04.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	**432**	50.0	mg/kg	10.25.19 04.05		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**54.9**	50.0	mg/kg	10.25.19 04.05		1
Total TPH	PHC635	**487**	50.0	mg/kg	10.25.19 04.05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	10.25.19 04.05	
o-Terphenyl	84-15-1	102	%	70-135	10.25.19 04.05	

Certificate of Analytical Results 640918

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 22 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-013	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 14.00	Basis:	Wet Weight
Seq Number:	3105434				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.25.19 10.35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.25.19 10.35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.25.19 10.35	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.25.19 10.35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.25.19 10.35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.25.19 10.35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.25.19 10.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	87	%	70-130	10.25.19 10.35	
4-Bromofluorobenzene	460-00-4	125	%	70-130	10.25.19 10.35	

Certificate of Analytical Results 640918

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 23 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-014	Date Collected:	10.22.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 13.10	Basis:	Wet Weight
Seq Number:	3105372				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**443**	4.98	mg/kg	10.24.19 15.56		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 15.00	Basis:	Wet Weight
Seq Number:	3105467				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.25.19 04.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	**716**	50.0	mg/kg	10.25.19 04.26		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**84.7**	50.0	mg/kg	10.25.19 04.26		1
Total TPH	PHC635	**801**	50.0	mg/kg	10.25.19 04.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	10.25.19 04.26	
o-Terphenyl	84-15-1	99	%	70-135	10.25.19 04.26	

Certificate of Analytical Results 640918

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 23 (Composite 1')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640918-014	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 14.00	Basis:	Wet Weight
Seq Number:	3105434				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	10.25.19 10.55	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	10.25.19 10.55	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	10.25.19 10.55	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	10.25.19 10.55	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	10.25.19 10.55	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	10.25.19 10.55	U	1
Total BTEX		<0.00201	0.00201	mg/kg	10.25.19 10.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	10.25.19 10.55	
1,4-Difluorobenzene	540-36-3	89	%	70-130	10.25.19 10.55	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 640918

Tetra Tech- Midland

EOG Cholla 18 Federal Com #1H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105225 — Matrix: Solid — Date Prep: 10.24.19
MB Sample Id: 7688760-1-BLK — LCS Sample Id: 7688760-1-BKS — LCSD Sample Id: 7688760-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	253	101	254	102	90-110	0	20	mg/kg	10.24.19 08:44	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105372 — Matrix: Solid — Date Prep: 10.24.19
MB Sample Id: 7688816-1-BLK — LCS Sample Id: 7688816-1-BKS — LCSD Sample Id: 7688816-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	261	104	261	104	90-110	0	20	mg/kg	10.24.19 15:31	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105225 — Matrix: Soil — Date Prep: 10.24.19
Parent Sample Id: 640858-001 — MS Sample Id: 640858-001 S — MSD Sample Id: 640858-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	695	251	920	90	918	89	90-110	0	20	mg/kg	10.24.19 09:00	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105225 — Matrix: Soil — Date Prep: 10.24.19
Parent Sample Id: 640918-003 — MS Sample Id: 640918-003 S — MSD Sample Id: 640918-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	358	252	611	100	609	100	90-110	0	20	mg/kg	10.24.19 12:45	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105372 — Matrix: Soil — Date Prep: 10.24.19
Parent Sample Id: 640918-013 — MS Sample Id: 640918-013 S — MSD Sample Id: 640918-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	145	251	416	108	414	107	90-110	0	20	mg/kg	10.24.19 15:46	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 640918

Tetra Tech- Midland

EOG Cholla 18 Federal Com #1H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3105372 Matrix: Soil Date Prep: 10.24.19
Parent Sample Id: 640919-009 MS Sample Id: 640919-009 S MSD Sample Id: 640919-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	52.5	248	323	109	323	109	90-110	0	20	mg/kg	10.24.19 16:55	

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3105467 Matrix: Solid Date Prep: 10.24.19
MB Sample Id: 7688843-1-BLK LCS Sample Id: 7688843-1-BKS LCSD Sample Id: 7688843-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1170	117	1060	106	70-135	10	20	mg/kg	10.24.19 22:10	
Diesel Range Organics (DRO)	<15.0	1000	1180	118	1010	101	70-135	16	20	mg/kg	10.24.19 22:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		126		110		70-135	%	10.24.19 22:10
o-Terphenyl	110		126		114		70-135	%	10.24.19 22:10

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3105467 Matrix: Solid Date Prep: 10.24.19
MB Sample Id: 7688843-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.24.19 21:49	

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3105467 Matrix: Soil Date Prep: 10.24.19
Parent Sample Id: 640918-001 MS Sample Id: 640918-001 S MSD Sample Id: 640918-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	910	91	931	93	70-135	2	20	mg/kg	10.24.19 23:12	
Diesel Range Organics (DRO)	487	999	1410	92	1450	97	70-135	3	20	mg/kg	10.24.19 23:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		101		70-135	%	10.24.19 23:12
o-Terphenyl	102		106		70-135	%	10.24.19 23:12

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 640918

Tetra Tech- Midland

EOG Cholla 18 Federal Com #1H

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3105389 — Matrix: Solid — Date Prep: 10.24.19
MB Sample Id: 7688838-1-BLK — LCS Sample Id: 7688838-1-BKS — LCSD Sample Id: 7688838-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.109	109	0.104	104	70-130	5	35	mg/kg	10.24.19 15:45	
Toluene	<0.00200	0.100	0.100	100	0.0962	96	70-130	4	35	mg/kg	10.24.19 15:45	
Ethylbenzene	<0.00200	0.100	0.102	102	0.0961	96	70-130	6	35	mg/kg	10.24.19 15:45	
m,p-Xylenes	<0.00400	0.200	0.199	100	0.194	97	70-130	3	35	mg/kg	10.24.19 15:45	
o-Xylene	<0.00200	0.100	0.0984	98	0.0927	93	70-130	6	35	mg/kg	10.24.19 15:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		101		102		70-130	%	10.24.19 15:45
4-Bromofluorobenzene	100		106		111		70-130	%	10.24.19 15:45

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3105434 — Matrix: Solid — Date Prep: 10.24.19
MB Sample Id: 7688839-1-BLK — LCS Sample Id: 7688839-1-BKS — LCSD Sample Id: 7688839-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.106	106	0.111	111	70-130	5	35	mg/kg	10.25.19 02:25	
Toluene	<0.00200	0.100	0.0927	93	0.0982	98	70-130	6	35	mg/kg	10.25.19 02:25	
Ethylbenzene	<0.00200	0.100	0.0904	90	0.0952	95	70-130	5	35	mg/kg	10.25.19 02:25	
m,p-Xylenes	<0.00400	0.200	0.179	90	0.189	95	70-130	5	35	mg/kg	10.25.19 02:25	
o-Xylene	<0.00200	0.100	0.0851	85	0.0904	90	70-130	6	35	mg/kg	10.25.19 02:25	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		96		101		70-130	%	10.25.19 02:25
4-Bromofluorobenzene	90		100		104		70-130	%	10.25.19 02:25

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5030B
Seq Number: 3105389 — Matrix: Soil — Date Prep: 10.24.19
Parent Sample Id: 640919-001 — MS Sample Id: 640919-001 S — MSD Sample Id: 640919-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0947	95	0.0909	90	70-130	4	35	mg/kg	10.24.19 16:25	
Toluene	0.00271	0.100	0.0926	90	0.0817	78	70-130	13	35	mg/kg	10.24.19 16:25	
Ethylbenzene	0.0938	0.100	0.103	9	0.0895	0	70-130	14	35	mg/kg	10.24.19 16:25	X
m,p-Xylenes	0.0827	0.200	0.216	67	0.173	45	70-130	22	35	mg/kg	10.24.19 16:25	X
o-Xylene	0.0654	0.100	0.109	44	0.0882	23	70-130	21	35	mg/kg	10.24.19 16:25	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		96		70-130	%	10.24.19 16:25
4-Bromofluorobenzene	125		131	**	70-130	%	10.24.19 16:25

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 640918

Tetra Tech- Midland

EOG Cholla 18 Federal Com #1H

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5030B

Seq Number: 3105434 Matrix: Soil Date Prep: 10.24.19

Parent Sample Id: 640659-001 MS Sample Id: 640659-001 S MSD Sample Id: 640659-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.100	100	0.102	102	70-130	2	35	mg/kg	10.25.19 03:05	
Toluene	<0.00200	0.100	0.0863	86	0.0908	91	70-130	5	35	mg/kg	10.25.19 03:05	
Ethylbenzene	<0.00200	0.100	0.0860	86	0.0840	84	70-130	2	35	mg/kg	10.25.19 03:05	
m,p-Xylenes	<0.00400	0.200	0.173	87	0.168	84	70-130	3	35	mg/kg	10.25.19 03:05	
o-Xylene	<0.00200	0.100	0.0819	82	0.0821	82	70-130	0	35	mg/kg	10.25.19 03:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		70-130	%	10.25.19 03:05
4-Bromofluorobenzene	116		105		70-130	%	10.25.19 03:05

MS/MSD Percent Recovery	[D] = 100*(C-A) / B	LCS = Laboratory Control Sample	MS = Matrix Spike
Relative Percent Difference	RPD = 200* | (C-E) / (C+E) |	A = Parent Result	B = Spike Added
LCS/LCSD Recovery	[D] = 100 * (C) / [B]	C = MS/LCS Result	D = MSD/LCSD % Rec
Log Difference	Log Diff. = Log(Sample Duplicate) - Log(Original Sample)	E = MSD/LCSD Result	

Analysis Request of Chain of Custody Record

Page 1 of 2

Tetra Tech, Inc.

901 West Wall, Suite 100
Midland,Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: EOG	**Site Manager:** Mike Carmona
Project Name: Cholla 18 Federal Com #1H	
Project Location: (county, state) Lea County, New Mexico	**Project #:** 212C-MD-01810
Invoice to: EOG Todd Wells	
Receiving Laboratory: Xenco	**Sampler Signature:** Bucky Moore
Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2019 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD None	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance				Hold
	BottomHole 10 (Composite 1')	10.22.19			X				X			1	N	X		X												X						
	BottomHole 11 (Composite 1')	10.22.19			X				X			1	N	X		X												X						
	BottomHole 12 (Composite 1')	10.22.19			X				X			1	N	X		X												X						
	BottomHole 13 (Composite 1')	10.22.19			X				X			1	N	X		X												X						
	BottomHole 14 (Composite 1')	10.22.19			X				X			1	N	X		X												X						
	BottomHole 15 (Composite 1')	10.22.19			X				X			1	N	X		X												X						
	BottomHole 16 (Composite 1')	10.22.19			X				X			1	N	X		X												X						
	BottomHole 17 (Composite 1')	10.22.19			X				X			1	N	X		X												X						
	BottomHole 18 (Composite 1')	10.22.19			X				X			1	N	X		X												X						
	BottomHole 19 (Composite 1')	10.22.19			X				X			1	N	X		X												X						

ANALYSIS REQUEST
(Circle or Specify Method No.)

Final 1.000

Page 41 of 43

	Relinquished by:	Date:	Time:	Received by:	Date:	Time:
1		10/24/19	1048		10/24/19	1048
2	Relinquished by:	Date:	Time:	Received by:	Date:	Time:
3	Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY
Sample Temperature
1.5/1.3

REMARKS:
- ☐ STANDARD
- ☒ RUSH: Same Day (24 hr) 48 hr 72 hr
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Analysis Request of Chain of Custody Record

1040918

Tetra Tech, Inc.

901 West Wall, Suite 100
Midland,Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: EOG	**Site Manager:** Mike Carmona
Project Name: Cholla 18 Federal Com #1H	
Project Location: (county, state) Lea County, New Mexico	**Project #:** 212C-MD-01810
Invoice to: EOG Todd Wells	
Receiving Laboratory: Xenco	**Sampler Signature:** Bucky Moore
Comments:	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2019 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD None	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance				Hold
	BottomHole 20 (Composite 1')	10.22.19			X				X			1	N	X		X												X							
	BottomHole 21 (Composite 1')	10.22.19			X				X			1	N	X		X												X							
	BottomHole 22 (Composite 1')	10.22.19			X				X			1	N	X		X												X							
	BottomHole 23 (Composite 1')	10.22.19			X				X			1	N	X		X												X							
	BottomHole 24 (Composite 1')	10.22.19			X				X			1	N	X		X												X							

Final 1.000

Page 42 of 43

Relinquished by: Date: 10/24/19 Time: 1048
Received by: Date: 10/24/19 Time: 1048

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: Date: Time:
Received by: Date: Time:

LAB USE ONLY

Sample Temperature 1.3

REMARKS:

- [ ] STANDARD
- [X] RUSH: Same Day (24 hr) 48 hr 72 hr
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 10/24/2019 10:48:00 AM

Work Order #: 640918

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**Yes**	MISSING SAMPLE 015 - BottomHole 24 (Composite 1')
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**N/A**	
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 10/24/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 10/24/2019

Jessica Kramer

Certificate of Analysis Summary 640919

Tetra Tech- Midland, Midland, TX

Project Name: EOG Cholla 18 Federal Com #1H

Project Id: 212C-MD-01810
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Thu Oct-24-19 10:48 am
Report Date: 25-OCT-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	640919-001		640919-002		640919-003		640919-004		640919-005		640919-006	
	Field Id:	BottomHole 1 (Composite 7		BottomHole 2 (Composite 7		BottomHole 3 (Composite 7		BottomHole 4 (Composite 7		BottomHole 5 (Composite 7		BottomHole 6 (Composite 7'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-22-19 00:00		Oct-22-19 00:00		Oct-22-19 00:00		Oct-22-19 00:00		Oct-22-19 00:00		Oct-22-19 00:00	
BTEX by EPA 8021B	*Extracted:*	Oct-24-19 13:00		Oct-24-19 13:00		Oct-24-19 13:00		Oct-24-19 13:00		Oct-24-19 13:00		Oct-24-19 13:00	
	Analyzed:	Oct-24-19 17:25		Oct-24-19 17:45		Oct-24-19 18:05		Oct-24-19 18:25		Oct-24-19 18:45		Oct-24-19 19:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199
Toluene		0.00271	0.00198	<0.00200	0.00200	<0.00200	0.00200	0.00359	0.00198	<0.00200	0.00200	<0.00199	0.00199
Ethylbenzene		0.0938	0.00198	<0.00200	0.00200	<0.00200	0.00200	0.00623	0.00198	<0.00200	0.00200	<0.00199	0.00199
m,p-Xylenes		0.0827	0.00397	<0.00401	0.00401	<0.00401	0.00401	0.00662	0.00396	<0.00399	0.00399	<0.00398	0.00398
o-Xylene		0.0654	0.00198	<0.00200	0.00200	0.00314	0.00200	0.00665	0.00198	<0.00200	0.00200	<0.00199	0.00199
Total Xylenes		0.148	0.00198	<0.00200	0.00200	0.00314	0.00200	0.0133	0.00198	<0.00200	0.00200	<0.00199	0.00199
Total BTEX		0.245	0.00198	<0.00200	0.00200	0.00314	0.00200	0.0231	0.00198	<0.00200	0.00200	<0.00199	0.00199
Chloride by EPA 300	*Extracted:*	Oct-24-19 13:10		Oct-24-19 13:10		Oct-24-19 13:10		Oct-24-19 13:10		Oct-24-19 13:10		Oct-24-19 13:10	
	Analyzed:	Oct-24-19 16:01		Oct-24-19 16:06		Oct-24-19 16:11		Oct-24-19 16:26		Oct-24-19 16:31		Oct-24-19 16:36	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		115	4.95	12.5	4.95	5.37	4.95	5.85	5.05	56.0	4.99	15.2	5.03
TPH By SW8015 Mod	*Extracted:*	Oct-24-19 11:00		Oct-24-19 11:00		Oct-24-19 11:00		Oct-24-19 15:00		Oct-24-19 15:00		Oct-24-19 15:00	
	Analyzed:	Oct-24-19 15:53		Oct-24-19 16:14		Oct-24-19 16:35		Oct-25-19 04:47		Oct-25-19 05:09		Oct-25-19 05:30	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<49.8	49.8	<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.0	50.0
Diesel Range Organics (DRO)		216	49.9	<49.8	49.8	70.5	49.9	63.3	49.9	<49.8	49.8	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<49.8	49.8	<49.9	49.9	<49.9	49.9	<49.8	49.8	<50.0	50.0
Total TPH		216	49.9	<49.8	49.8	70.5	49.9	63.3	49.9	<49.8	49.8	<50.0	50.0

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 640919

Tetra Tech- Midland, Midland, TX

Project Name: EOG Cholla 18 Federal Com #1H

Project Id: 212C-MD-01810
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Thu Oct-24-19 10:48 am
Report Date: 25-OCT-19
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	640919-007		640919-008		640919-009			
	Field Id:	BottomHole 7 (Composite 7		BottomHole 8 (Composite 7		BottomHole 9 (Composite 7			
	Depth:								
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Oct-22-19 00:00		Oct-22-19 00:00		Oct-22-19 00:00			
BTEX by EPA 8021B	***Extracted:***	Oct-24-19 13:00		Oct-24-19 13:00		Oct-24-19 13:00			
	Analyzed:	Oct-24-19 19:25		Oct-24-19 19:45		Oct-24-19 20:05			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200		
Toluene		<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200		
Ethylbenzene		<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200		
m,p-Xylenes		<0.00398	0.00398	<0.00397	0.00397	<0.00400	0.00400		
o-Xylene		<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200		
Total Xylenes		<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200		
Total BTEX		<0.00199	0.00199	<0.00198	0.00198	<0.00200	0.00200		
Chloride by EPA 300	***Extracted:***	Oct-24-19 13:10		Oct-24-19 13:10		Oct-24-19 13:10			
	Analyzed:	Oct-24-19 16:41		Oct-24-19 16:46		Oct-24-19 16:50			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		28.3	4.96	8.66	4.95	52.5	4.95		
TPH By SW8015 Mod	***Extracted:***	Oct-24-19 15:00		Oct-24-19 15:00		Oct-24-19 15:00			
	Analyzed:	Oct-25-19 05:51		Oct-25-19 06:13		Oct-25-19 06:34			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0	<50.0	50.0		
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0	<50.0	50.0		
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<50.0	50.0		
Total TPH		<50.0	50.0	<50.0	50.0	<50.0	50.0		

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Assistant

Final 1.000

Analytical Report 640919

for

Tetra Tech- Midland

Project Manager: Mike Carmona

EOG Cholla 18 Federal Com #1H

212C-MD-01810

25-OCT-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

25-OCT-19

Project Manager: **Mike Carmona**
Tetra Tech- Midland
901 West Wall ST
Midland, TX 79701

Reference: XENCO Report No(s): **640919**
EOG Cholla 18 Federal Com #1H
Project Address: Lea County, New Mexico

Mike Carmona:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 640919. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 640919 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 640919

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BottomHole 1 (Composite 7')	S	10-22-19 00:00		640919-001
BottomHole 2 (Composite 7')	S	10-22-19 00:00		640919-002
BottomHole 3 (Composite 7')	S	10-22-19 00:00		640919-003
BottomHole 4 (Composite 7')	S	10-22-19 00:00		640919-004
BottomHole 5 (Composite 7')	S	10-22-19 00:00		640919-005
BottomHole 6 (Composite 7')	S	10-22-19 00:00		640919-006
BottomHole 7 (Composite 7')	S	10-22-19 00:00		640919-007
BottomHole 8 (Composite 7')	S	10-22-19 00:00		640919-008
BottomHole 9 (Composite 7')	S	10-22-19 00:00		640919-009

CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: EOG Cholla 18 Federal Com #1H

Project ID: *212C-MD-01810*
Work Order Number(s): *640919*

Report Date: *25-OCT-19*
Date Received: *10/24/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3105389 BTEX by EPA 8021B
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.
Samples affected are: 640919-001 SD,640919-003,640919-001.

Lab Sample ID 640919-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 640919-001, -002, -003, -004, -005, -006, -007, -008, -009.
The Laboratory Control Sample for m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 640919

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 1 (Composite 7')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640919-001	Date Collected:	10.22.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 13.10	Basis:	Wet Weight
Seq Number:	3105372				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**115**	4.95	mg/kg	10.24.19 16.01		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105466				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.24.19 15.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	**216**	49.9	mg/kg	10.24.19 15.53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.24.19 15.53	U	1
Total TPH	PHC635	**216**	49.9	mg/kg	10.24.19 15.53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	10.24.19 15.53	
o-Terphenyl	84-15-1	97	%	70-135	10.24.19 15.53	

Certificate of Analytical Results 640919

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 1 (Composite 7')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640919-001	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.24.19 17.25	U	1
Toluene	108-88-3	**0.00271**	0.00198	mg/kg	10.24.19 17.25		1
Ethylbenzene	100-41-4	**0.0938**	0.00198	mg/kg	10.24.19 17.25		1
m,p-Xylenes	179601-23-1	**0.0827**	0.00397	mg/kg	10.24.19 17.25		1
o-Xylene	95-47-6	**0.0654**	0.00198	mg/kg	10.24.19 17.25		1
Total Xylenes	1330-20-7	**0.148**	0.00198	mg/kg	10.24.19 17.25		1
Total BTEX		**0.245**	0.00198	mg/kg	10.24.19 17.25		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	190	%	70-130	10.24.19 17.25	**
1,4-Difluorobenzene	540-36-3	95	%	70-130	10.24.19 17.25	

Certificate of Analytical Results 640919

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 2 (Composite 7')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640919-002	Date Collected:	10.22.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 13.10	Basis:	Wet Weight
Seq Number:	3105372				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.5**	4.95	mg/kg	10.24.19 16.06		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105466				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.24.19 16.14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.24.19 16.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.24.19 16.14	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.24.19 16.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	10.24.19 16.14	
o-Terphenyl	84-15-1	90	%	70-135	10.24.19 16.14	

Certificate of Analytical Results 640919

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 2 (Composite 7')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640919-002	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.24.19 17.45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.24.19 17.45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.24.19 17.45	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.24.19 17.45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.24.19 17.45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.24.19 17.45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.24.19 17.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	10.24.19 17.45	
4-Bromofluorobenzene	460-00-4	117	%	70-130	10.24.19 17.45	

Certificate of Analytical Results 640919

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 3 (Composite 7')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640919-003	Date Collected:	10.22.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 13.10	Basis:	Wet Weight
Seq Number:	3105372				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.37**	4.95	mg/kg	10.24.19 16.11		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 11.00	Basis:	Wet Weight
Seq Number:	3105466				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.24.19 16.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	**70.5**	49.9	mg/kg	10.24.19 16.35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.24.19 16.35	U	1
Total TPH	PHC635	**70.5**	49.9	mg/kg	10.24.19 16.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	10.24.19 16.35	
o-Terphenyl	84-15-1	95	%	70-135	10.24.19 16.35	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 3 (Composite 7')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640919-003	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.24.19 18.05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.24.19 18.05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.24.19 18.05	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.24.19 18.05	U	1
o-Xylene	95-47-6	**0.00314**	0.00200	mg/kg	10.24.19 18.05		1
Total Xylenes	1330-20-7	**0.00314**	0.00200	mg/kg	10.24.19 18.05		1
Total BTEX		**0.00314**	0.00200	mg/kg	10.24.19 18.05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	146	%	70-130	10.24.19 18.05	**
1,4-Difluorobenzene	540-36-3	96	%	70-130	10.24.19 18.05	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 4 (Composite 7')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640919-004	Date Collected:	10.22.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 13.10	Basis:	Wet Weight
Seq Number:	3105372				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.85**	5.05	mg/kg	10.24.19 16.26		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 15.00	Basis:	Wet Weight
Seq Number:	3105467				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.25.19 04.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	**63.3**	49.9	mg/kg	10.25.19 04.47		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.25.19 04.47	U	1
Total TPH	PHC635	**63.3**	49.9	mg/kg	10.25.19 04.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	10.25.19 04.47	
o-Terphenyl	84-15-1	106	%	70-135	10.25.19 04.47	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 4 (Composite 7')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640919-004	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.24.19 18.25	U	1
Toluene	108-88-3	**0.00359**	0.00198	mg/kg	10.24.19 18.25		1
Ethylbenzene	100-41-4	**0.00623**	0.00198	mg/kg	10.24.19 18.25		1
m,p-Xylenes	179601-23-1	**0.00662**	0.00396	mg/kg	10.24.19 18.25		1
o-Xylene	95-47-6	**0.00665**	0.00198	mg/kg	10.24.19 18.25		1
Total Xylenes	1330-20-7	**0.0133**	0.00198	mg/kg	10.24.19 18.25		1
Total BTEX		**0.0231**	0.00198	mg/kg	10.24.19 18.25		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	124	%	70-130	10.24.19 18.25	
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.24.19 18.25	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id: **BottomHole 5 (Composite 7')** Matrix: Soil Date Received:10.24.19 10.48

Lab Sample Id: 640919-005 Date Collected: 10.22.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.24.19 13.10 Basis: Wet Weight

Seq Number: 3105372

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**56.0**	4.99	mg/kg	10.24.19 16.31		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.24.19 15.00 Basis: Wet Weight

Seq Number: 3105467

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.25.19 05.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.25.19 05.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.25.19 05.09	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.25.19 05.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	10.25.19 05.09	
o-Terphenyl	84-15-1	91	%	70-135	10.25.19 05.09	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 5 (Composite 7')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640919-005	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.24.19 18.45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.24.19 18.45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.24.19 18.45	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.24.19 18.45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.24.19 18.45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.24.19 18.45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.24.19 18.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.24.19 18.45	
4-Bromofluorobenzene	460-00-4	115	%	70-130	10.24.19 18.45	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id: **BottomHole 6 (Composite 7')** Matrix: Soil Date Received:10.24.19 10.48

Lab Sample Id: 640919-006 Date Collected: 10.22.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.24.19 13.10 Basis: Wet Weight

Seq Number: 3105372

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**15.2**	5.03	mg/kg	10.24.19 16.36		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.24.19 15.00 Basis: Wet Weight

Seq Number: 3105467

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.25.19 05.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.25.19 05.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.25.19 05.30	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.25.19 05.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	10.25.19 05.30	
o-Terphenyl	84-15-1	104	%	70-135	10.25.19 05.30	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 6 (Composite 7')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640919-006	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.24.19 19.05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.24.19 19.05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.24.19 19.05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.24.19 19.05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.24.19 19.05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.24.19 19.05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.24.19 19.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	10.24.19 19.05	
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.24.19 19.05	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 7 (Composite 7')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640919-007	Date Collected:	10.22.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 13.10	Basis:	Wet Weight
Seq Number:	3105372				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**28.3**	4.96	mg/kg	10.24.19 16.41		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 15.00	Basis:	Wet Weight
Seq Number:	3105467				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.25.19 05.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.25.19 05.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.25.19 05.51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.25.19 05.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	10.25.19 05.51	
o-Terphenyl	84-15-1	94	%	70-135	10.25.19 05.51	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 7 (Composite 7')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640919-007	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.24.19 19.25	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.24.19 19.25	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.24.19 19.25	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.24.19 19.25	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.24.19 19.25	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.24.19 19.25	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.24.19 19.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.24.19 19.25	
4-Bromofluorobenzene	460-00-4	100	%	70-130	10.24.19 19.25	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 8 (Composite 7')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640919-008	Date Collected:	10.22.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.24.19 13.10	Basis:	Wet Weight
Seq Number:	3105372				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.66**	4.95	mg/kg	10.24.19 16.46		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.24.19 15.00	Basis:	Wet Weight
Seq Number:	3105467				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.25.19 06.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.25.19 06.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.25.19 06.13	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.25.19 06.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	10.25.19 06.13	
o-Terphenyl	84-15-1	96	%	70-135	10.25.19 06.13	

Certificate of Analytical Results 640919

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 8 (Composite 7')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640919-008	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.24.19 19.45	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.24.19 19.45	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.24.19 19.45	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	10.24.19 19.45	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.24.19 19.45	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.24.19 19.45	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.24.19 19.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	10.24.19 19.45	
4-Bromofluorobenzene	460-00-4	109	%	70-130	10.24.19 19.45	

Certificate of Analytical Results 640919

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id: **BottomHole 9 (Composite 7')** Matrix: Soil Date Received:10.24.19 10.48

Lab Sample Id: 640919-009 Date Collected: 10.22.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 10.24.19 13.10 Basis: Wet Weight

Seq Number: 3105372

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**52.5**	4.95	mg/kg	10.24.19 16.50		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 10.24.19 15.00 Basis: Wet Weight

Seq Number: 3105467

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.25.19 06.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.25.19 06.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.25.19 06.34	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.25.19 06.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	10.25.19 06.34	
o-Terphenyl	84-15-1	91	%	70-135	10.25.19 06.34	

Certificate of Analytical Results 640919

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Federal Com #1H

Sample Id:	**BottomHole 9 (Composite 7')**	Matrix:	Soil	Date Received:	10.24.19 10.48
Lab Sample Id:	640919-009	Date Collected:	10.22.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.24.19 13.00	Basis:	Wet Weight
Seq Number:	3105389				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.24.19 20.05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.24.19 20.05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.24.19 20.05	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.24.19 20.05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.24.19 20.05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.24.19 20.05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.24.19 20.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	10.24.19 20.05	
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.24.19 20.05	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 640919

Tetra Tech- Midland

EOG Cholla 18 Federal Com #1H

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3105372 Matrix: Solid Date Prep: 10.24.19
MB Sample Id: 7688816-1-BLK LCS Sample Id: 7688816-1-BKS LCSD Sample Id: 7688816-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	261	104	261	104	90-110	0	20	mg/kg	10.24.19 15:31	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3105372 Matrix: Soil Date Prep: 10.24.19
Parent Sample Id: 640918-013 MS Sample Id: 640918-013 S MSD Sample Id: 640918-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	145	251	416	108	414	107	90-110	0	20	mg/kg	10.24.19 15:46	

Analytical Method: **Chloride by EPA 300** Prep Method: E300P
Seq Number: 3105372 Matrix: Soil Date Prep: 10.24.19
Parent Sample Id: 640919-009 MS Sample Id: 640919-009 S MSD Sample Id: 640919-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	52.5	248	323	109	323	109	90-110	0	20	mg/kg	10.24.19 16:55	

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3105466 Matrix: Solid Date Prep: 10.24.19
MB Sample Id: 7688841-1-BLK LCS Sample Id: 7688841-1-BKS LCSD Sample Id: 7688841-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	983	98	981	98	70-135	0	20	mg/kg	10.24.19 12:32	
Diesel Range Organics (DRO)	<50.0	1000	927	93	1040	104	70-135	11	20	mg/kg	10.24.19 12:32	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		101		102		70-135	%	10.24.19 12:32
o-Terphenyl	99		101		100		70-135	%	10.24.19 12:32

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 640919

Tetra Tech- Midland

EOG Cholla 18 Federal Com #1H

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105467 — Matrix: Solid — Date Prep: 10.24.19
MB Sample Id: 7688843-1-BLK — LCS Sample Id: 7688843-1-BKS — LCSD Sample Id: 7688843-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1170	117	1060	106	70-135	10	20	mg/kg	10.24.19 22:10	
Diesel Range Organics (DRO)	<15.0	1000	1180	118	1010	101	70-135	16	20	mg/kg	10.24.19 22:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		126		110		70-135	%	10.24.19 22:10
o-Terphenyl	110		126		114		70-135	%	10.24.19 22:10

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105466 — Matrix: Solid — Date Prep: 10.24.19
MB Sample Id: 7688841-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.24.19 12:11	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105467 — Matrix: Solid — Date Prep: 10.24.19
MB Sample Id: 7688843-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.24.19 21:49	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105466 — Matrix: Soil — Date Prep: 10.24.19
Parent Sample Id: 640827-001 — MS Sample Id: 640827-001 S — MSD Sample Id: 640827-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	975	98	965	97	70-135	1	20	mg/kg	10.24.19 13:34	
Diesel Range Organics (DRO)	22.3	997	924	90	899	88	70-135	3	20	mg/kg	10.24.19 13:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	91		89		70-135	%	10.24.19 13:34
o-Terphenyl	86		84		70-135	%	10.24.19 13:34

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 640919

Tetra Tech- Midland

EOG Cholla 18 Federal Com #1H

Analytical Method: TPH By SW8015 Mod | Prep Method: SW8015P
Seq Number: 3105467 | Matrix: Soil | Date Prep: 10.24.19
Parent Sample Id: 640918-001 | MS Sample Id: 640918-001 S | MSD Sample Id: 640918-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	910	91	931	93	70-135	2	20	mg/kg	10.24.19 23:12	
Diesel Range Organics (DRO)	487	999	1410	92	1450	97	70-135	3	20	mg/kg	10.24.19 23:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		101		70-135	%	10.24.19 23:12
o-Terphenyl	102		106		70-135	%	10.24.19 23:12

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3105389 | Matrix: Solid | Date Prep: 10.24.19
MB Sample Id: 7688838-1-BLK | LCS Sample Id: 7688838-1-BKS | LCSD Sample Id: 7688838-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.109	109	0.104	104	70-130	5	35	mg/kg	10.24.19 15:45	
Toluene	<0.00200	0.100	0.100	100	0.0962	96	70-130	4	35	mg/kg	10.24.19 15:45	
Ethylbenzene	<0.00200	0.100	0.102	102	0.0961	96	70-130	6	35	mg/kg	10.24.19 15:45	
m,p-Xylenes	<0.00400	0.200	0.199	100	0.194	97	70-130	3	35	mg/kg	10.24.19 15:45	
o-Xylene	<0.00200	0.100	0.0984	98	0.0927	93	70-130	6	35	mg/kg	10.24.19 15:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		101		102		70-130	%	10.24.19 15:45
4-Bromofluorobenzene	100		106		111		70-130	%	10.24.19 15:45

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3105389 | Matrix: Soil | Date Prep: 10.24.19
Parent Sample Id: 640919-001 | MS Sample Id: 640919-001 S | MSD Sample Id: 640919-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0947	95	0.0909	90	70-130	4	35	mg/kg	10.24.19 16:25	
Toluene	0.00271	0.100	0.0926	90	0.0817	78	70-130	13	35	mg/kg	10.24.19 16:25	
Ethylbenzene	0.0938	0.100	0.103	9	0.0895	0	70-130	14	35	mg/kg	10.24.19 16:25	X
m,p-Xylenes	0.0827	0.200	0.216	67	0.173	45	70-130	22	35	mg/kg	10.24.19 16:25	X
o-Xylene	0.0654	0.100	0.109	44	0.0882	23	70-130	21	35	mg/kg	10.24.19 16:25	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		96		70-130	%	10.24.19 16:25
4-Bromofluorobenzene	125		131	**	70-130	%	10.24.19 16:25

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Final 1.000

Analysis Request of Chain of Custody Record

L40919

Tetra Tech, Inc.

901 West Wall, Suite 100
Midland,Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: EOG	**Site Manager:** Mike Carmona
Project Name: Cholla 18 Federal Com #1H	
Project Location: (county, state) Lea County, New Mexico	**Project #:** 212C-MD-01810
Invoice to: EOG Todd Wells	
Receiving Laboratory: Xenco	**Sampler Signature:** Bucky Moore
Comments:	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2019 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD None	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance				Hold
	BottomHole 1 (Composite 7')	10.22.19			X				X		1	N	X		X												X						
	BottomHole 2 (Composite 7')	10.22.19			X				X		1	N	X		X												X						
	BottomHole 3 (Composite 7')	10.22.19			X				X		1	N	X		X												X						
	BottomHole 4 (Composite 7')	10.22.19			X				X		1	N	X		X												X						
	BottomHole 5 (Composite 7')	10.22.19			X				X		1	N	X		X												X						
	BottomHole 6 (Composite 7')	10.22.19			X				X		1	N	X		X												X						
	BottomHole 7 (Composite 7')	10.22.19			X				X		1	N	X		X												X						
	BottomHole 8 (Composite 7')	10.22.19			X				X		1	N	X		X												X						
	BottomHole 9 (Composite 7')	10.22.19			X				X		1	N	X		X												X						

Hold

Final 1.000

Relinquished by:	Date: 10/24/19	Time: 1048	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:

Date: 10/24/19 Time: 1048

Date: Time:

Date: Time:

LAB USE ONLY

Sample Temperature

1.5 1.3

REMARKS:

- ☐ STANDARD
- ☒ RUSH: Same Day (24 hr) 48 hr 72 hr
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 10/24/2019 10:48:00 AM

Work Order #: 640919

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.3
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 10/24/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 10/24/2019

Jessica Kramer

Certificate of Analysis Summary 641420

Tetra Tech- Midland, Midland, TX

Project Name: EOG Cholla 18 Fed COM 1H

Project Id: 212C-MD-01810
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Tue Oct-29-19 03:45 pm
Report Date: 31-OCT-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	641420-001		641420-002		641420-003		641420-004		641420-005		641420-006	
	Field Id:	NSW-1		NSW-2		NSW-3		NSW-4		SSW-1		SSW-2	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-25-19 00:00		Oct-25-19 00:00		Oct-25-19 00:00		Oct-25-19 00:00		Oct-25-19 00:00		Oct-25-19 00:00	
BTEX by EPA 8021B	***Extracted:***	Oct-29-19 16:15		Oct-29-19 16:15		Oct-29-19 16:15		Oct-29-19 16:15		Oct-29-19 16:15		Oct-29-19 16:15	
	Analyzed:	Oct-30-19 10:24		Oct-30-19 19:45		Oct-30-19 11:04		Oct-30-19 11:24		Oct-30-19 11:44		Oct-30-19 12:04	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00398	0.00398	<0.00400	0.00400	<0.00398	0.00398	<0.00401	0.00401	<0.00400	0.00400	<0.00399	0.00399
o-Xylene		<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300	***Extracted:***	Oct-30-19 10:45		Oct-30-19 10:45		Oct-30-19 10:45		Oct-30-19 10:45		Oct-30-19 10:45		Oct-30-19 10:45	
	Analyzed:	Oct-30-19 11:19		Oct-30-19 11:39		Oct-30-19 11:46		Oct-30-19 11:52		Oct-30-19 11:59		Oct-30-19 12:19	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		64.0	5.00	76.8	5.03	8.70	5.00	91.8	5.05	78.8	4.99	72.8	4.95
TPH By SW8015 Mod	***Extracted:***	Oct-29-19 17:00		Oct-29-19 17:00		Oct-29-19 17:00		Oct-29-19 17:00		Oct-29-19 17:00		Oct-29-19 17:00	
	Analyzed:	Oct-30-19 01:27		Oct-30-19 01:46		Oct-30-19 02:24		Oct-30-19 02:43		Oct-30-19 03:02		Oct-30-19 03:21	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0	<49.8	49.8	<49.9	49.9	<50.0	50.0	<49.9	49.9
Diesel Range Organics (DRO)		307	50.0	95.0	50.0	<49.8	49.8	<49.9	49.9	103	50.0	114	49.9
Motor Oil Range Hydrocarbons (MRO)		51.6	50.0	<50.0	50.0	<49.8	49.8	<49.9	49.9	<50.0	50.0	<49.9	49.9
Total TPH		359	50.0	95.0	50.0	<49.8	49.8	<49.9	49.9	103	50.0	114	49.9

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 641420

Tetra Tech- Midland, Midland, TX

Project Name: EOG Cholla 18 Fed COM 1H

Project Id: 212C-MD-01810
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Tue Oct-29-19 03:45 pm
Report Date: 31-OCT-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	641420-007		641420-008		641420-009		641420-010		641420-011		641420-012	
	Field Id:	SSW-3		WSW-1		WSW-2		WSW-3		ESW-1		ESW-2	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-25-19 00:00		Oct-25-19 00:00		Oct-25-19 00:00		Oct-25-19 00:00		Oct-25-19 00:00		Oct-25-19 00:00	
BTEX by EPA 8021B	*Extracted:*	Oct-29-19 16:15		Oct-29-19 16:15		Oct-29-19 16:15		Oct-29-19 16:15		Oct-29-19 16:15		Oct-29-19 16:15	
	Analyzed:	Oct-30-19 12:24		Oct-30-19 12:45		Oct-30-19 13:05		Oct-30-19 13:25		Oct-30-19 15:10		Oct-30-19 15:30	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Toluene		<0.00202	0.00202	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Ethylbenzene		<0.00202	0.00202	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
m,p-Xylenes		<0.00403	0.00403	<0.00401	0.00401	<0.00397	0.00397	<0.00399	0.00399	<0.00398	0.00398	<0.00398	0.00398
o-Xylene		<0.00202	0.00202	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Total Xylenes		<0.00202	0.00202	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Total BTEX		<0.00202	0.00202	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00199	0.00199	<0.00199	0.00199
Chloride by EPA 300	*Extracted:*	Oct-30-19 10:45		Oct-30-19 10:45		Oct-30-19 10:45		Oct-30-19 10:45		Oct-30-19 10:45		Oct-30-19 10:45	
	Analyzed:	Oct-30-19 12:26		Oct-30-19 12:32		Oct-30-19 12:39		Oct-30-19 12:46		Oct-30-19 12:52		Oct-30-19 13:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		76.1	4.95	9.82	5.02	49.6	5.05	94.2	5.05	67.7	5.00	11.0	4.98
TPH By SW8015 Mod	*Extracted:*	Oct-29-19 17:00		Oct-29-19 17:00		Oct-29-19 17:00		Oct-29-19 17:00		Oct-29-19 17:00		Oct-29-19 17:00	
	Analyzed:	Oct-30-19 03:40		Oct-30-19 03:59		Oct-30-19 04:18		Oct-30-19 04:37		Oct-30-19 04:56		Oct-30-19 05:15	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0
Diesel Range Organics (DRO)		82.8	50.0	<49.9	49.9	136	49.9	<50.0	50.0	102	49.9	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0
Total TPH		82.8	50.0	<49.9	49.9	136	49.9	<50.0	50.0	102	49.9	<50.0	50.0

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Assistant

Final 1.000

Analytical Report 641420

for

Tetra Tech- Midland

Project Manager: Mike Carmona

EOG Cholla 18 Fed COM 1H

212C-MD-01810

31-OCT-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

31-OCT-19

Project Manager: **Mike Carmona**
Tetra Tech- Midland
901 West Wall ST
Midland, TX 79701

Reference: XENCO Report No(s): **641420**
EOG Cholla 18 Fed COM 1H
Project Address: Lea County, New Mexico

Mike Carmona:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 641420. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 641420 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 641420

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NSW-1	S	10-25-19 00:00		641420-001
NSW-2	S	10-25-19 00:00		641420-002
NSW-3	S	10-25-19 00:00		641420-003
NSW-4	S	10-25-19 00:00		641420-004
SSW-1	S	10-25-19 00:00		641420-005
SSW-2	S	10-25-19 00:00		641420-006
SSW-3	S	10-25-19 00:00		641420-007
WSW-1	S	10-25-19 00:00		641420-008
WSW-2	S	10-25-19 00:00		641420-009
WSW-3	S	10-25-19 00:00		641420-010
ESW-1	S	10-25-19 00:00		641420-011
ESW-2	S	10-25-19 00:00		641420-012

CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: EOG Cholla 18 Fed COM 1H

Project ID: *212C-MD-01810*
Work Order Number(s): *641420*

Report Date: *31-OCT-19*
Date Received: *10/29/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3105954 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 641420

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**NSW-1**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-001	Date Collected:	10.25.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.30.19 10.45	Basis:	Wet Weight
Seq Number:	3105919				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**64.0**	5.00	mg/kg	10.30.19 11.19		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.29.19 17.00	Basis:	Wet Weight
Seq Number:	3105826				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.30.19 01.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	**307**	50.0	mg/kg	10.30.19 01.27		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**51.6**	50.0	mg/kg	10.30.19 01.27		1
Total TPH	PHC635	**359**	50.0	mg/kg	10.30.19 01.27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	10.30.19 01.27	
o-Terphenyl	84-15-1	99	%	70-135	10.30.19 01.27	

Certificate of Analytical Results 641420

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**NSW-1**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-001	Date Collected:	10.25.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 16.15	Basis:	Wet Weight
Seq Number:	3105954				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.30.19 10.24	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.30.19 10.24	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.30.19 10.24	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.30.19 10.24	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.30.19 10.24	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.30.19 10.24	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.30.19 10.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	10.30.19 10.24	
1,4-Difluorobenzene	540-36-3	98	%	70-130	10.30.19 10.24	

Certificate of Analytical Results 641420

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**NSW-2**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-002	Date Collected:	10.25.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.30.19 10.45	Basis:	Wet Weight
Seq Number:	3105919				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**76.8**	5.03	mg/kg	10.30.19 11.39		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.29.19 17.00	Basis:	Wet Weight
Seq Number:	3105826				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.30.19 01.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	**95.0**	50.0	mg/kg	10.30.19 01.46		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.30.19 01.46	U	1
Total TPH	PHC635	**95.0**	50.0	mg/kg	10.30.19 01.46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	10.30.19 01.46	
o-Terphenyl	84-15-1	84	%	70-135	10.30.19 01.46	

Certificate of Analytical Results 641420

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**NSW-2**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-002	Date Collected:	10.25.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 16.15	Basis:	Wet Weight
Seq Number:	3105954				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.30.19 19.45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.30.19 19.45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.30.19 19.45	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.30.19 19.45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.30.19 19.45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.30.19 19.45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.30.19 19.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	10.30.19 19.45	
4-Bromofluorobenzene	460-00-4	114	%	70-130	10.30.19 19.45	

Certificate of Analytical Results 641420

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**NSW-3**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-003	Date Collected:	10.25.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.30.19 10.45	Basis:	Wet Weight
Seq Number:	3105919				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.70**	5.00	mg/kg	10.30.19 11.46		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.29.19 17.00	Basis:	Wet Weight
Seq Number:	3105826				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	10.30.19 02.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	10.30.19 02.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	10.30.19 02.24	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	10.30.19 02.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	10.30.19 02.24	
o-Terphenyl	84-15-1	88	%	70-135	10.30.19 02.24	

Certificate of Analytical Results 641420

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**NSW-3**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-003	Date Collected:	10.25.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 16.15	Basis:	Wet Weight
Seq Number:	3105954				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.30.19 11.04	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.30.19 11.04	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.30.19 11.04	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.30.19 11.04	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.30.19 11.04	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.30.19 11.04	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.30.19 11.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	10.30.19 11.04	
4-Bromofluorobenzene	460-00-4	106	%	70-130	10.30.19 11.04	

Certificate of Analytical Results 641420

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**NSW-4**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-004	Date Collected:	10.25.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.30.19 10.45	Basis:	Wet Weight
Seq Number:	3105919				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**91.8**	5.05	mg/kg	10.30.19 11.52		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.29.19 17.00	Basis:	Wet Weight
Seq Number:	3105826				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.30.19 02.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.30.19 02.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.30.19 02.43	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.30.19 02.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	10.30.19 02.43	
o-Terphenyl	84-15-1	85	%	70-135	10.30.19 02.43	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**NSW-4**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-004	Date Collected:	10.25.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 16.15	Basis:	Wet Weight
Seq Number:	3105954				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.30.19 11.24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.30.19 11.24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.30.19 11.24	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.30.19 11.24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.30.19 11.24	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.30.19 11.24	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.30.19 11.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	10.30.19 11.24	
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.30.19 11.24	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**SSW-1**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-005	Date Collected:	10.25.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.30.19 10.45	Basis:	Wet Weight
Seq Number:	3105919				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**78.8**	4.99	mg/kg	10.30.19 11.59		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.29.19 17.00	Basis:	Wet Weight
Seq Number:	3105826				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.30.19 03.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	**103**	50.0	mg/kg	10.30.19 03.02		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.30.19 03.02	U	1
Total TPH	PHC635	**103**	50.0	mg/kg	10.30.19 03.02		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	10.30.19 03.02	
o-Terphenyl	84-15-1	92	%	70-135	10.30.19 03.02	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**SSW-1**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-005	Date Collected:	10.25.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 16.15	Basis:	Wet Weight
Seq Number:	3105954				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.30.19 11.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.30.19 11.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.30.19 11.44	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	10.30.19 11.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.30.19 11.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.30.19 11.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.30.19 11.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	10.30.19 11.44	
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.30.19 11.44	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**SSW-2**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-006	Date Collected:	10.25.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.30.19 10.45	Basis:	Wet Weight
Seq Number:	3105919				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**72.8**	4.95	mg/kg	10.30.19 12.19		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.29.19 17.00	Basis:	Wet Weight
Seq Number:	3105826				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.30.19 03.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	**114**	49.9	mg/kg	10.30.19 03.21		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.30.19 03.21	U	1
Total TPH	PHC635	**114**	49.9	mg/kg	10.30.19 03.21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	10.30.19 03.21	
o-Terphenyl	84-15-1	89	%	70-135	10.30.19 03.21	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**SSW-2**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-006	Date Collected:	10.25.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 16.15	Basis:	Wet Weight
Seq Number:	3105954				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.30.19 12.04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.30.19 12.04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.30.19 12.04	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.30.19 12.04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.30.19 12.04	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.30.19 12.04	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.30.19 12.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.30.19 12.04	
4-Bromofluorobenzene	460-00-4	111	%	70-130	10.30.19 12.04	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**SSW-3**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-007	Date Collected:	10.25.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.30.19 10.45	Basis:	Wet Weight
Seq Number:	3105919				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**76.1**	4.95	mg/kg	10.30.19 12.26		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.29.19 17.00	Basis:	Wet Weight
Seq Number:	3105826				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.30.19 03.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	**82.8**	50.0	mg/kg	10.30.19 03.40		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.30.19 03.40	U	1
Total TPH	PHC635	**82.8**	50.0	mg/kg	10.30.19 03.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	10.30.19 03.40	
o-Terphenyl	84-15-1	87	%	70-135	10.30.19 03.40	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**SSW-3**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-007	Date Collected:	10.25.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 16.15	Basis:	Wet Weight
Seq Number:	3105954				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	10.30.19 12.24	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	10.30.19 12.24	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	10.30.19 12.24	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	10.30.19 12.24	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	10.30.19 12.24	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	10.30.19 12.24	U	1
Total BTEX		<0.00202	0.00202	mg/kg	10.30.19 12.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	10.30.19 12.24	
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.30.19 12.24	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**WSW-1**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-008	Date Collected:	10.25.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.30.19 10.45	Basis:	Wet Weight
Seq Number:	3105919				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.82**	5.02	mg/kg	10.30.19 12.32		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.29.19 17.00	Basis:	Wet Weight
Seq Number:	3105826				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.30.19 03.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	10.30.19 03.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.30.19 03.59	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	10.30.19 03.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	10.30.19 03.59	
o-Terphenyl	84-15-1	88	%	70-135	10.30.19 03.59	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**WSW-1**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-008	Date Collected:	10.25.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 16.15	Basis:	Wet Weight
Seq Number:	3105954				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.30.19 12.45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.30.19 12.45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.30.19 12.45	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	10.30.19 12.45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.30.19 12.45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.30.19 12.45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.30.19 12.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	10.30.19 12.45	
1,4-Difluorobenzene	540-36-3	102	%	70-130	10.30.19 12.45	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**WSW-2**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-009	Date Collected:	10.25.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.30.19 10.45	Basis:	Wet Weight
Seq Number:	3105919				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**49.6**	5.05	mg/kg	10.30.19 12.39		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.29.19 17.00	Basis:	Wet Weight
Seq Number:	3105826				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.30.19 04.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	**136**	49.9	mg/kg	10.30.19 04.18		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.30.19 04.18	U	1
Total TPH	PHC635	**136**	49.9	mg/kg	10.30.19 04.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	10.30.19 04.18	
o-Terphenyl	84-15-1	85	%	70-135	10.30.19 04.18	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**WSW-2**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-009	Date Collected:	10.25.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 16.15	Basis:	Wet Weight
Seq Number:	3105954				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	10.30.19 13.05	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	10.30.19 13.05	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	10.30.19 13.05	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	10.30.19 13.05	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	10.30.19 13.05	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	10.30.19 13.05	U	1
Total BTEX		<0.00198	0.00198	mg/kg	10.30.19 13.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	10.30.19 13.05	
1,4-Difluorobenzene	540-36-3	103	%	70-130	10.30.19 13.05	

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EOG Cholla 18 Fed COM 1H

Sample Id:	**WSW-3**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-010	Date Collected:	10.25.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.30.19 10.45	Basis:	Wet Weight
Seq Number:	3105919				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**94.2**	5.05	mg/kg	10.30.19 12.46		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.29.19 17.00	Basis:	Wet Weight
Seq Number:	3105826				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.30.19 04.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.30.19 04.37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.30.19 04.37	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.30.19 04.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	10.30.19 04.37	
o-Terphenyl	84-15-1	86	%	70-135	10.30.19 04.37	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**WSW-3**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-010	Date Collected:	10.25.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 16.15	Basis:	Wet Weight
Seq Number:	3105954				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	10.30.19 13.25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	10.30.19 13.25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	10.30.19 13.25	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	10.30.19 13.25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	10.30.19 13.25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	10.30.19 13.25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	10.30.19 13.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	10.30.19 13.25	
4-Bromofluorobenzene	460-00-4	106	%	70-130	10.30.19 13.25	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**ESW-1**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-011	Date Collected:	10.25.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.30.19 10.45	Basis:	Wet Weight
Seq Number:	3105919				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**67.7**	5.00	mg/kg	10.30.19 12.52		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.29.19 17.00	Basis:	Wet Weight
Seq Number:	3105826				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	10.30.19 04.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	**102**	49.9	mg/kg	10.30.19 04.56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	10.30.19 04.56	U	1
Total TPH	PHC635	**102**	49.9	mg/kg	10.30.19 04.56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	10.30.19 04.56	
o-Terphenyl	84-15-1	91	%	70-135	10.30.19 04.56	

Certificate of Analytical Results 641420

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**ESW-1**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-011	Date Collected:	10.25.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 16.15	Basis:	Wet Weight
Seq Number:	3105954				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.30.19 15.10	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.30.19 15.10	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.30.19 15.10	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.30.19 15.10	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.30.19 15.10	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.30.19 15.10	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.30.19 15.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	10.30.19 15.10	
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.30.19 15.10	

Certificate of Analytical Results 641420

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**ESW-2**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-012	Date Collected:	10.25.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	10.30.19 10.45	Basis:	Wet Weight
Seq Number:	3105919				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.0**	4.98	mg/kg	10.30.19 13.12		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	10.29.19 17.00	Basis:	Wet Weight
Seq Number:	3105826				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	10.30.19 05.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	10.30.19 05.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	10.30.19 05.15	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	10.30.19 05.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	10.30.19 05.15	
o-Terphenyl	84-15-1	86	%	70-135	10.30.19 05.15	

Certificate of Analytical Results 641420

Tetra Tech- Midland, Midland, TX

EOG Cholla 18 Fed COM 1H

Sample Id:	**ESW-2**	Matrix:	Soil	Date Received:	10.29.19 15.45
Lab Sample Id:	641420-012	Date Collected:	10.25.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	10.29.19 16.15	Basis:	Wet Weight
Seq Number:	3105954				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	10.30.19 15.30	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	10.30.19 15.30	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	10.30.19 15.30	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	10.30.19 15.30	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	10.30.19 15.30	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	10.30.19 15.30	U	1
Total BTEX		<0.00199	0.00199	mg/kg	10.30.19 15.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	10.30.19 15.30	
1,4-Difluorobenzene	540-36-3	99	%	70-130	10.30.19 15.30	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 641420

Tetra Tech- Midland

EOG Cholla 18 Fed COM 1H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105919 — Matrix: Solid — Date Prep: 10.30.19
MB Sample Id: 7689209-1-BLK — LCS Sample Id: 7689209-1-BKS — LCSD Sample Id: 7689209-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	253	101	251	100	90-110	1	20	mg/kg	10.30.19 11:06	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105919 — Matrix: Soil — Date Prep: 10.30.19
Parent Sample Id: 641420-001 — MS Sample Id: 641420-001 S — MSD Sample Id: 641420-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	64.0	250	325	104	325	104	90-110	0	20	mg/kg	10.30.19 11:26	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3105919 — Matrix: Soil — Date Prep: 10.30.19
Parent Sample Id: 641420-011 — MS Sample Id: 641420-011 S — MSD Sample Id: 641420-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	67.7	250	330	105	332	106	90-110	1	20	mg/kg	10.30.19 12:59	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105826 — Matrix: Solid — Date Prep: 10.29.19
MB Sample Id: 7689184-1-BLK — LCS Sample Id: 7689184-1-BKS — LCSD Sample Id: 7689184-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1050	105	1050	105	70-135	0	20	mg/kg	10.29.19 21:41	
Diesel Range Organics (DRO)	<15.0	1000	1010	101	1010	101	70-135	0	20	mg/kg	10.29.19 21:41	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	89		113		115		70-135	%	10.29.19 21:41
o-Terphenyl	88		93		96		70-135	%	10.29.19 21:41

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3105826 — Matrix: Solid — Date Prep: 10.29.19
MB Sample Id: 7689184-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.29.19 21:22	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 641420

Tetra Tech- Midland

EOG Cholla 18 Fed COM 1H

Analytical Method: TPH By SW8015 Mod | Prep Method: SW8015P
Seq Number: 3105826 | Matrix: Soil | Date Prep: 10.29.19
Parent Sample Id: 641370-001 | MS Sample Id: 641370-001 S | MSD Sample Id: 641370-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	1010	101	1030	103	70-135	2	20	mg/kg	10.29.19 22:38	
Diesel Range Organics (DRO)	<15.0	997	1010	101	1030	103	70-135	2	20	mg/kg	10.29.19 22:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		112		70-135	%	10.29.19 22:38
o-Terphenyl	89		89		70-135	%	10.29.19 22:38

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3105954 | Matrix: Solid | Date Prep: 10.29.19
MB Sample Id: 7689168-1-BLK | LCS Sample Id: 7689168-1-BKS | LCSD Sample Id: 7689168-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.101	101	0.106	106	70-130	5	35	mg/kg	10.30.19 08:02	
Toluene	<0.00200	0.100	0.0948	95	0.103	103	70-130	8	35	mg/kg	10.30.19 08:02	
Ethylbenzene	<0.00200	0.100	0.0953	95	0.105	105	70-130	10	35	mg/kg	10.30.19 08:02	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.213	107	70-130	10	35	mg/kg	10.30.19 08:02	
o-Xylene	<0.00200	0.100	0.0969	97	0.109	109	70-130	12	35	mg/kg	10.30.19 08:02	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		97		97		70-130	%	10.30.19 08:02
4-Bromofluorobenzene	98		100		111		70-130	%	10.30.19 08:02

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3105954 | Matrix: Soil | Date Prep: 10.29.19
Parent Sample Id: 641420-001 | MS Sample Id: 641420-001 S | MSD Sample Id: 641420-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.0796	80	0.0780	78	70-130	2	35	mg/kg	10.30.19 08:42	
Toluene	<0.00198	0.0992	0.0733	74	0.0748	75	70-130	2	35	mg/kg	10.30.19 08:42	
Ethylbenzene	<0.00198	0.0992	0.0698	70	0.0707	71	70-130	1	35	mg/kg	10.30.19 08:42	
m,p-Xylenes	<0.00397	0.198	0.142	72	0.147	74	70-130	3	35	mg/kg	10.30.19 08:42	
o-Xylene	<0.00198	0.0992	0.0730	74	0.0758	76	70-130	4	35	mg/kg	10.30.19 08:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		102		70-130	%	10.30.19 08:42
4-Bromofluorobenzene	108		120		70-130	%	10.30.19 08:42

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Final 1.000

Analysis Request of Chain of Custody Record

1041420

Tetra Tech, Inc.

901 West Wall, Ste 100
Midland,Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: EOG	**Site Manager:** Mike Carmona
Project Name: Cholla 18 Fed COM 1H	
Project Location: (county, state) Lea County, New Mexico	**Project #:** 212C-MD-01810
Invoice to: Attn: Todd Wells, EOG	
Receiving Laboratory: Xenco	**Sampler Signature:** Devin D
Comments:	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: DATE	TIME	MATRIX WATER	SOIL	PRESERVATIVE METHOD HCL	HNO_3	ICE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TOX			Hold
	NSW-1	10/25/2019	-		X			X	1		X		X												X							
	NSW-2	10/25/2019	-		X			X	1		X		X												X							
	NSW-3	10/25/2019	-		X			X	1		X		X												X							
	NSW-4	10/25/2019	-		X			X	1		X		X												X							
	SSW-1	10/25/2019	-		X			X	1		X		X												X							
	SSW-2	10/25/2019	-		X			X	1		X		X												X							
	SSW-3	10/25/2019	-		X			X	1		X		X												X							
	WSW-1	10/25/2019	-		X			X	1		X		X												X							
	WSW-2	10/25/2019	-		X			X	1		X		X												X							
	WSW-3	10/25/2019	-		X			X	1		X		X												X							

Relinquished by: Clint Martin	Date: 10/29	Time: 15:45	Received by: J KRAMER
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:

Date: 10/29 Time: 1545

LAB USE ONLY

Sample Temperature 1.2/1.0

REMARKS:

[X] RUSH: Same Day 24 hr 48 hr 72 hr

[ ] Rush Charges Authorized

[ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Analysis Request of Chain of Custody Record

Page 2 of 2

Tetra Tech, Inc.

901 West Wall, Ste 100
Midland,Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: EOG	**Site Manager:** Mike Carmona
Project Name: Cholla 18 Fed COM 1H	
Project Location: (county, state) Lea County New Mexico	**Project #:** 212C-MD-01810
Invoice to: Attn: Todd Wells, Bill to EOG	
Receiving Laboratory: Xenco	**Sampler Signature:** Devin D
Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD:	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)
	ESW-1	10/25/2019	-		X				X			1	
	ESW-2	10/25/2019	-		X				X			1	

ANALYSIS REQUEST
(Circle or Specify Method No.)

BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TOX			Hold
X		X												X							
X		X												X							

Final 1.000

Relinquished by:	Date:	Time:	Received by:
	10/29	15:45	10/29 1545
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:

LAB USE ONLY

Sample Temperature 1.2/1.0

REMARKS:

- [X] RUSH: Same Day (24 hr) 48 hr 72 hr
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 10/29/2019 03:45:00 PM

Work Order #: 641420

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 10/29/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 10/30/2019

Jessica Kramer

Certificate of Analysis Summary 641762

Tetra Tech- Midland, Midland, TX

Project Name: EOG Cholla 18

Project Id: 212C-MD-01810
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Thu Oct-31-19 04:34 pm
Report Date: 04-NOV-19
Project Manager: Jessica Kramer

Analysis Requested		641762-001		641762-002		641762-003		641762-004		641762-005		641762-006	
	Field Id:	Bottomhole-10 Comp 2'		Bottomhole-11 Comp 2'		Bottomhole-12 Comp 2'		Bottomhole-13 Comp 2'		Bottomhole-14 Comp 2'		Bottomhole-15 Comp 2'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Oct-31-19 00:00		Oct-31-19 00:00		Oct-31-19 00:00		Oct-31-19 00:00		Oct-31-19 00:00		Oct-31-19 00:00	
BTEX by EPA 8021B	Extracted:	Nov-01-19 16:00		Nov-01-19 16:00		Nov-01-19 16:00		Nov-01-19 16:00		Nov-01-19 16:00		Nov-01-19 16:00	
	Analyzed:	Nov-02-19 15:03		Nov-02-19 15:24		Nov-02-19 15:44		Nov-02-19 16:04		Nov-02-19 16:24		Nov-02-19 16:44	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Toluene		<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Ethylbenzene		<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
m,p-Xylenes		<0.00398	0.00398	<0.00403	0.00403	<0.00399	0.00399	<0.00399	0.00399	<0.00398	0.00398	<0.00400	0.00400
o-Xylene		<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Total Xylenes		<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Total BTEX		<0.00199	0.00199	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200
Chloride by EPA 300	Extracted:	Oct-31-19 17:35		Oct-31-19 17:35		Oct-31-19 17:35		Oct-31-19 17:35		Oct-31-19 17:35		Oct-31-19 17:35	
	Analyzed:	Oct-31-19 23:00		Oct-31-19 23:17		Oct-31-19 23:23		Oct-31-19 23:29		Oct-31-19 23:35		Oct-31-19 23:52	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		6.70	5.00	5.46	5.01	5.08	5.02	<5.04	5.04	19.7	5.00	25.9	4.98
TPH By SW8015 Mod	Extracted:	Nov-01-19 11:00		Nov-01-19 11:00		Nov-01-19 11:00		Nov-01-19 11:00		Nov-01-19 11:00		Nov-01-19 11:00	
	Analyzed:	Nov-01-19 21:58		Nov-01-19 23:00		Nov-01-19 23:21		Nov-01-19 23:42		Nov-02-19 00:04		Nov-02-19 00:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9
Total TPH		<50.0	50.0	<50.0	50.0	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9

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Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 641762

Tetra Tech- Midland, Midland, TX

Project Name: EOG Cholla 18

Project Id: 212C-MD-01810
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Thu Oct-31-19 04:34 pm
Report Date: 04-NOV-19
Project Manager: Jessica Kramer

Analysis Requested		Lab Id:	641762-007		641762-008		641762-009		641762-010		641762-011		641762-012	
		Field Id:	Bottomhole-16 Comp 2'		Bottomhole-17 Comp 2'		Bottomhole-18 Comp 2'		Bottomhole-19 Comp 2'		Bottomhole-20 Comp 2'		Bottomhole-21 Comp 2'	
		Depth:												
		Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
		Sampled:	Oct-31-19 00:00		Oct-31-19 00:00		Oct-31-19 00:00		Oct-31-19 00:00		Oct-31-19 00:00		Oct-31-19 00:00	
BTEX by EPA 8021B		Extracted:	Nov-01-19 16:00		Nov-01-19 16:00		Nov-01-19 16:00		Nov-01-19 16:00		Nov-01-19 16:00		Nov-01-19 16:00	
		Analyzed:	Nov-02-19 17:04		Nov-02-19 17:24		Nov-02-19 17:44		Nov-02-19 18:05		Nov-02-19 19:23		Nov-02-19 19:43	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene			<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00198	0.00198
Toluene			<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00198	0.00198
Ethylbenzene			<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00198	0.00198
m,p-Xylenes			<0.00401	0.00401	<0.00397	0.00397	<0.00398	0.00398	<0.00404	0.00404	<0.00398	0.00398	<0.00396	0.00396
o-Xylene			<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00198	0.00198
Total Xylenes			<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00198	0.00198
Total BTEX			<0.00200	0.00200	<0.00198	0.00198	<0.00199	0.00199	<0.00202	0.00202	<0.00199	0.00199	<0.00198	0.00198
Chloride by EPA 300		Extracted:	Oct-31-19 17:35		Oct-31-19 17:35		Oct-31-19 17:35		Oct-31-19 17:35		Oct-31-19 17:35		Oct-31-19 17:35	
		Analyzed:	Oct-31-19 23:58		Nov-01-19 00:04		Nov-01-19 00:10		Nov-01-19 00:16		Nov-01-19 00:21		Nov-01-19 00:39	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride			14.3	5.01	16.8	5.00	22.8	5.03	9.79	4.97	15.0	5.00	6.63	4.99
TPH By SW8015 Mod		Extracted:	Nov-01-19 11:00		Nov-01-19 11:00		Nov-01-19 11:00		Nov-01-19 11:00		Nov-01-19 11:00		Nov-01-19 11:00	
		Analyzed:	Nov-02-19 00:46		Nov-02-19 01:07		Nov-02-19 01:28		Nov-02-19 01:48		Nov-02-19 02:30		Nov-02-19 02:51	
		Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)			<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0
Diesel Range Organics (DRO)			<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)			<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0
Total TPH			<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<49.9	49.9	<50.0	50.0

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Jessica Kramer
Project Assistant

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Certificate of Analysis Summary 641762

Tetra Tech- Midland, Midland, TX

Project Name: EOG Cholla 18

Project Id: 212C-MD-01810
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Thu Oct-31-19 04:34 pm
Report Date: 04-NOV-19
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	641762-013		641762-014		641762-015			
	Field Id:	Bottomhole-22 Comp 2'		Bottomhole-23 Comp 2'		Bottomhole-24 Comp 2'			
	Depth:								
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Oct-31-19 00:00		Oct-31-19 00:00		Oct-31-19 00:00			
BTEX by EPA 8021B	***Extracted:***	Nov-01-19 16:00		Nov-01-19 16:00		Nov-01-19 16:00			
	Analyzed:	Nov-02-19 20:03		Nov-02-19 20:23		Nov-02-19 20:43			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200		
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200		
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200		
m,p-Xylenes		<0.00399	0.00399	<0.00399	0.00399	<0.00401	0.00401		
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200		
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200		
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200		
Chloride by EPA 300	***Extracted:***	Oct-31-19 17:35		Oct-31-19 17:35		Oct-31-19 17:35			
	Analyzed:	Nov-01-19 00:45		Nov-01-19 01:02		Nov-01-19 01:08			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		5.35	5.03	7.04	4.97	6.67	4.95		
TPH By SW8015 Mod	***Extracted:***	Nov-01-19 11:00		Nov-01-19 11:00		Nov-01-19 11:00			
	Analyzed:	Nov-02-19 03:13		Nov-02-19 03:34		Nov-02-19 03:55			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<49.9	49.9	<50.0	50.0		
Diesel Range Organics (DRO)		<49.8	49.8	<49.9	49.9	<50.0	50.0		
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<49.9	49.9	<50.0	50.0		
Total TPH		<49.8	49.8	<49.9	49.9	<50.0	50.0		

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Jessica Kramer
Project Assistant

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Analytical Report 641762

for

Tetra Tech- Midland

Project Manager: Mike Carmona

EOG Cholla 18

212C-MD-01810

04-NOV-19

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

04-NOV-19

Project Manager: **Mike Carmona**
Tetra Tech- Midland
901 West Wall ST
Midland, TX 79701

Reference: XENCO Report No(s): **641762**
EOG Cholla 18
Project Address: Lea County, New Mexico

Mike Carmona:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 641762. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 641762 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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Sample Cross Reference 641762

Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Bottomhole-10 Comp 2'	S	10-31-19 00:00		641762-001
Bottomhole-11 Comp 2'	S	10-31-19 00:00		641762-002
Bottomhole-12 Comp 2'	S	10-31-19 00:00		641762-003
Bottomhole-13 Comp 2'	S	10-31-19 00:00		641762-004
Bottomhole-14 Comp 2'	S	10-31-19 00:00		641762-005
Bottomhole-15 Comp 2'	S	10-31-19 00:00		641762-006
Bottomhole-16 Comp 2'	S	10-31-19 00:00		641762-007
Bottomhole-17 Comp 2'	S	10-31-19 00:00		641762-008
Bottomhole-18 Comp 2'	S	10-31-19 00:00		641762-009
Bottomhole-19 Comp 2'	S	10-31-19 00:00		641762-010
Bottomhole-20 Comp 2'	S	10-31-19 00:00		641762-011
Bottomhole-21 Comp 2'	S	10-31-19 00:00		641762-012
Bottomhole-22 Comp 2'	S	10-31-19 00:00		641762-013
Bottomhole-23 Comp 2'	S	10-31-19 00:00		641762-014
Bottomhole-24 Comp 2'	S	10-31-19 00:00		641762-015

CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: EOG Cholla 18

Project ID: *212C-MD-01810*
Work Order Number(s): *641762*

Report Date: *04-NOV-19*
Date Received: *10/31/2019*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3106371 BTEX by EPA 8021B
Surrogate 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected.
Samples affected are: 641762-010.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 641762

Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id:	**Bottomhole-10 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-001	Date Collected:	10.31.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.35	Basis:	Wet Weight
Seq Number:	3106120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.70**	5.00	mg/kg	10.31.19 23.00		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 11.00	Basis:	Wet Weight
Seq Number:	3106226				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.01.19 21.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.01.19 21.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.01.19 21.58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.01.19 21.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.01.19 21.58	
o-Terphenyl	84-15-1	100	%	70-135	11.01.19 21.58	

Certificate of Analytical Results 641762

Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id:	**Bottomhole-10 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-001	Date Collected:	10.31.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.01.19 16.00	Basis:	Wet Weight
Seq Number:	3106371				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.02.19 15.03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.02.19 15.03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.02.19 15.03	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.02.19 15.03	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.02.19 15.03	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.02.19 15.03	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.02.19 15.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.02.19 15.03	
1,4-Difluorobenzene	540-36-3	94	%	70-130	11.02.19 15.03	

Certificate of Analytical Results 641762

Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id: **Bottomhole-11 Comp 2'** Matrix: Soil Date Received:10.31.19 16.34

Lab Sample Id: 641762-002 Date Collected: 10.31.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 10.31.19 17.35 Basis: Wet Weight

Seq Number: 3106120

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.46**	5.01	mg/kg	10.31.19 23.17		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 11.01.19 11.00 Basis: Wet Weight

Seq Number: 3106226

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.01.19 23.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.01.19 23.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.01.19 23.00	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.01.19 23.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	11.01.19 23.00	
o-Terphenyl	84-15-1	97	%	70-135	11.01.19 23.00	

Certificate of Analytical Results 641762

Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id:	**Bottomhole-11 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-002	Date Collected:	10.31.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.01.19 16.00	Basis:	Wet Weight
Seq Number:	3106371				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.02.19 15.24	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.02.19 15.24	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.02.19 15.24	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.02.19 15.24	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.02.19 15.24	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.02.19 15.24	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.02.19 15.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	11.02.19 15.24	
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.02.19 15.24	

Certificate of Analytical Results 641762

Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id: **Bottomhole-12 Comp 2'** Matrix: Soil Date Received:10.31.19 16.34

Lab Sample Id: 641762-003 Date Collected: 10.31.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 10.31.19 17.35 Basis: Wet Weight

Seq Number: 3106120

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.08**	5.02	mg/kg	10.31.19 23.23		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 11.01.19 11.00 Basis: Wet Weight

Seq Number: 3106226

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.01.19 23.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.01.19 23.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.01.19 23.21	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.01.19 23.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	11.01.19 23.21	
o-Terphenyl	84-15-1	95	%	70-135	11.01.19 23.21	

Certificate of Analytical Results 641762

Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id:	**Bottomhole-12 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-003	Date Collected:	10.31.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.01.19 16.00	Basis:	Wet Weight
Seq Number:	3106371				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.02.19 15.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.02.19 15.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.02.19 15.44	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.02.19 15.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.02.19 15.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.02.19 15.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.02.19 15.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	11.02.19 15.44	
4-Bromofluorobenzene	460-00-4	74	%	70-130	11.02.19 15.44	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id: **Bottomhole-13 Comp 2'** Matrix: Soil Date Received:10.31.19 16.34

Lab Sample Id: 641762-004 Date Collected: 10.31.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 10.31.19 17.35 Basis: Wet Weight

Seq Number: 3106120

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.04	5.04	mg/kg	10.31.19 23.29	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 11.01.19 11.00 Basis: Wet Weight

Seq Number: 3106226

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.01.19 23.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.01.19 23.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.01.19 23.42	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.01.19 23.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	11.01.19 23.42	
o-Terphenyl	84-15-1	101	%	70-135	11.01.19 23.42	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id:	**Bottomhole-13 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-004	Date Collected:	10.31.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.01.19 16.00	Basis:	Wet Weight
Seq Number:	3106371				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.02.19 16.04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.02.19 16.04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.02.19 16.04	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.02.19 16.04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.02.19 16.04	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.02.19 16.04	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.02.19 16.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	81	%	70-130	11.02.19 16.04	
4-Bromofluorobenzene	460-00-4	104	%	70-130	11.02.19 16.04	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id:	**Bottomhole-14 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-005	Date Collected:	10.31.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.35	Basis:	Wet Weight
Seq Number:	3106120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**19.7**	5.00	mg/kg	10.31.19 23.35		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 11.00	Basis:	Wet Weight
Seq Number:	3106226				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.02.19 00.04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.02.19 00.04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.02.19 00.04	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.02.19 00.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	11.02.19 00.04	
o-Terphenyl	84-15-1	96	%	70-135	11.02.19 00.04	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id:	**Bottomhole-14 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-005	Date Collected:	10.31.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.01.19 16.00	Basis:	Wet Weight
Seq Number:	3106371				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.02.19 16.24	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.02.19 16.24	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.02.19 16.24	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.02.19 16.24	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.02.19 16.24	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.02.19 16.24	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.02.19 16.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	11.02.19 16.24	
1,4-Difluorobenzene	540-36-3	92	%	70-130	11.02.19 16.24	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id:	**Bottomhole-15 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-006	Date Collected:	10.31.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.35	Basis:	Wet Weight
Seq Number:	3106120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**25.9**	4.98	mg/kg	10.31.19 23.52		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 11.00	Basis:	Wet Weight
Seq Number:	3106226				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.02.19 00.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.02.19 00.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.02.19 00.25	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.02.19 00.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	11.02.19 00.25	
o-Terphenyl	84-15-1	100	%	70-135	11.02.19 00.25	

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EOG Cholla 18

Sample Id:	**Bottomhole-15 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-006	Date Collected:	10.31.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.01.19 16.00	Basis:	Wet Weight
Seq Number:	3106371				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.02.19 16.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.02.19 16.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.02.19 16.44	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.02.19 16.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.02.19 16.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.02.19 16.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.02.19 16.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	81	%	70-130	11.02.19 16.44	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.02.19 16.44	

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EOG Cholla 18

Sample Id:	**Bottomhole-16 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-007	Date Collected:	10.31.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.35	Basis:	Wet Weight
Seq Number:	3106120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14.3**	5.01	mg/kg	10.31.19 23.58		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 11.00	Basis:	Wet Weight
Seq Number:	3106226				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.02.19 00.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.02.19 00.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.02.19 00.46	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.02.19 00.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	11.02.19 00.46	
o-Terphenyl	84-15-1	111	%	70-135	11.02.19 00.46	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id:	**Bottomhole-16 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-007	Date Collected:	10.31.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.01.19 16.00	Basis:	Wet Weight
Seq Number:	3106371				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.02.19 17.04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.02.19 17.04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.02.19 17.04	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.02.19 17.04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.02.19 17.04	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.02.19 17.04	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.02.19 17.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.02.19 17.04	
1,4-Difluorobenzene	540-36-3	95	%	70-130	11.02.19 17.04	

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EOG Cholla 18

Sample Id:	**Bottomhole-17 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-008	Date Collected:	10.31.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.35	Basis:	Wet Weight
Seq Number:	3106120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16.8**	5.00	mg/kg	11.01.19 00.04		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 11.00	Basis:	Wet Weight
Seq Number:	3106226				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.02.19 01.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.02.19 01.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.02.19 01.07	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.02.19 01.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	11.02.19 01.07	
o-Terphenyl	84-15-1	111	%	70-135	11.02.19 01.07	

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Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id:	**Bottomhole-17 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-008	Date Collected:	10.31.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.01.19 16.00	Basis:	Wet Weight
Seq Number:	3106371				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.02.19 17.24	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.02.19 17.24	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.02.19 17.24	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.02.19 17.24	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.02.19 17.24	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.02.19 17.24	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.02.19 17.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	95	%	70-130	11.02.19 17.24	
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.02.19 17.24	

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EOG Cholla 18

Sample Id:	**Bottomhole-18 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-009	Date Collected:	10.31.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.35	Basis:	Wet Weight
Seq Number:	3106120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**22.8**	5.03	mg/kg	11.01.19 00.10		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 11.00	Basis:	Wet Weight
Seq Number:	3106226				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.02.19 01.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.02.19 01.28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.02.19 01.28	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.02.19 01.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	11.02.19 01.28	
o-Terphenyl	84-15-1	101	%	70-135	11.02.19 01.28	

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EOG Cholla 18

Sample Id:	**Bottomhole-18 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-009	Date Collected:	10.31.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.01.19 16.00	Basis:	Wet Weight
Seq Number:	3106371				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.02.19 17.44	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.02.19 17.44	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.02.19 17.44	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.02.19 17.44	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.02.19 17.44	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.02.19 17.44	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.02.19 17.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.02.19 17.44	
1,4-Difluorobenzene	540-36-3	95	%	70-130	11.02.19 17.44	

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EOG Cholla 18

Sample Id:	**Bottomhole-19 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-010	Date Collected:	10.31.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.35	Basis:	Wet Weight
Seq Number:	3106120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.79**	4.97	mg/kg	11.01.19 00.16		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 11.00	Basis:	Wet Weight
Seq Number:	3106226				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.02.19 01.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.02.19 01.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.02.19 01.48	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.02.19 01.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	11.02.19 01.48	
o-Terphenyl	84-15-1	103	%	70-135	11.02.19 01.48	

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EOG Cholla 18

Sample Id:	**Bottomhole-19 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-010	Date Collected:	10.31.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.01.19 16.00	Basis:	Wet Weight
Seq Number:	3106371				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.02.19 18.05	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.02.19 18.05	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.02.19 18.05	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.02.19 18.05	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.02.19 18.05	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.02.19 18.05	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.02.19 18.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	66	%	70-130	11.02.19 18.05	**
4-Bromofluorobenzene	460-00-4	120	%	70-130	11.02.19 18.05	

Certificate of Analytical Results 641762

Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id: **Bottomhole-20 Comp 2'** Matrix: Soil Date Received:10.31.19 16.34

Lab Sample Id: 641762-011 Date Collected: 10.31.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 10.31.19 17.35 Basis: Wet Weight

Seq Number: 3106120

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**15.0**	5.00	mg/kg	11.01.19 00.21		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 11.01.19 11.00 Basis: Wet Weight

Seq Number: 3106226

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.02.19 02.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.02.19 02.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.02.19 02.30	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.02.19 02.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	11.02.19 02.30	
o-Terphenyl	84-15-1	108	%	70-135	11.02.19 02.30	

Certificate of Analytical Results 641762

Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id:	**Bottomhole-20 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-011	Date Collected:	10.31.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.01.19 16.00	Basis:	Wet Weight
Seq Number:	3106371				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.02.19 19.23	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.02.19 19.23	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.02.19 19.23	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.02.19 19.23	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.02.19 19.23	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.02.19 19.23	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.02.19 19.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	11.02.19 19.23	
1,4-Difluorobenzene	540-36-3	93	%	70-130	11.02.19 19.23	

Certificate of Analytical Results 641762

Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id:	**Bottomhole-21 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-012	Date Collected:	10.31.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.35	Basis:	Wet Weight
Seq Number:	3106120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.63**	4.99	mg/kg	11.01.19 00.39		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 11.00	Basis:	Wet Weight
Seq Number:	3106226				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.02.19 02.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.02.19 02.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.02.19 02.51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.02.19 02.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.02.19 02.51	
o-Terphenyl	84-15-1	99	%	70-135	11.02.19 02.51	

Certificate of Analytical Results 641762

Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id:	**Bottomhole-21 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-012	Date Collected:	10.31.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.01.19 16.00	Basis:	Wet Weight
Seq Number:	3106371				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.02.19 19.43	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.02.19 19.43	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.02.19 19.43	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	11.02.19 19.43	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.02.19 19.43	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.02.19 19.43	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.02.19 19.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	84	%	70-130	11.02.19 19.43	
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.02.19 19.43	

Certificate of Analytical Results 641762

Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id:	**Bottomhole-22 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-013	Date Collected:	10.31.19 00.00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SPC			% Moisture:	
Analyst:	SPC	Date Prep:	10.31.19 17.35	Basis:	Wet Weight
Seq Number:	3106120				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.35**	5.03	mg/kg	11.01.19 00.45		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	11.01.19 11.00	Basis:	Wet Weight
Seq Number:	3106226				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.02.19 03.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.02.19 03.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.02.19 03.13	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.02.19 03.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	11.02.19 03.13	
o-Terphenyl	84-15-1	102	%	70-135	11.02.19 03.13	

Certificate of Analytical Results 641762

Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id:	**Bottomhole-22 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-013	Date Collected:	10.31.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.01.19 16.00	Basis:	Wet Weight
Seq Number:	3106371				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.02.19 20.03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.02.19 20.03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.02.19 20.03	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.02.19 20.03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.02.19 20.03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.02.19 20.03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.02.19 20.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	11.02.19 20.03	
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.02.19 20.03	

Certificate of Analytical Results 641762

Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id: **Bottomhole-23 Comp 2'** Matrix: Soil Date Received:10.31.19 16.34

Lab Sample Id: 641762-014 Date Collected: 10.31.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 10.31.19 17.35 Basis: Wet Weight

Seq Number: 3106120

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.04**	4.97	mg/kg	11.01.19 01.02		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 11.01.19 11.00 Basis: Wet Weight

Seq Number: 3106226

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.02.19 03.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.02.19 03.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.02.19 03.34	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.02.19 03.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	11.02.19 03.34	
o-Terphenyl	84-15-1	106	%	70-135	11.02.19 03.34	

Certificate of Analytical Results 641762

Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id:	**Bottomhole-23 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-014	Date Collected:	10.31.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.01.19 16.00	Basis:	Wet Weight
Seq Number:	3106371				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.02.19 20.23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.02.19 20.23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.02.19 20.23	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.02.19 20.23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.02.19 20.23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.02.19 20.23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.02.19 20.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	11.02.19 20.23	
1,4-Difluorobenzene	540-36-3	95	%	70-130	11.02.19 20.23	

Certificate of Analytical Results 641762

Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id: **Bottomhole-24 Comp 2'** Matrix: Soil Date Received:10.31.19 16.34

Lab Sample Id: 641762-015 Date Collected: 10.31.19 00.00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC % Moisture:

Analyst: SPC Date Prep: 10.31.19 17.35 Basis: Wet Weight

Seq Number: 3106120

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.67**	4.95	mg/kg	11.01.19 01.08		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 11.01.19 11.00 Basis: Wet Weight

Seq Number: 3106226

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.02.19 03.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.02.19 03.55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.02.19 03.55	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.02.19 03.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.02.19 03.55	
o-Terphenyl	84-15-1	97	%	70-135	11.02.19 03.55	

Certificate of Analytical Results 641762

Tetra Tech- Midland, Midland, TX

EOG Cholla 18

Sample Id:	**Bottomhole-24 Comp 2'**	Matrix:	Soil	Date Received:	10.31.19 16.34
Lab Sample Id:	641762-015	Date Collected:	10.31.19 00.00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	11.01.19 16.00	Basis:	Wet Weight
Seq Number:	3106371				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.02.19 20.43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.02.19 20.43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.02.19 20.43	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.02.19 20.43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.02.19 20.43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.02.19 20.43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.02.19 20.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	11.02.19 20.43	
4-Bromofluorobenzene	460-00-4	100	%	70-130	11.02.19 20.43	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 641762

Tetra Tech- Midland

EOG Cholla 18

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3106120 — Matrix: Solid — Date Prep: 10.31.19
MB Sample Id: 7689358-1-BLK — LCS Sample Id: 7689358-1-BKS — LCSD Sample Id: 7689358-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	247	99	246	98	90-110	0	20	mg/kg	10.31.19 22:48	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3106120 — Matrix: Soil — Date Prep: 10.31.19
Parent Sample Id: 641762-001 — MS Sample Id: 641762-001 S — MSD Sample Id: 641762-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.70	250	249	97	248	97	90-110	0	20	mg/kg	10.31.19 23:06	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3106120 — Matrix: Soil — Date Prep: 10.31.19
Parent Sample Id: 641762-011 — MS Sample Id: 641762-011 S — MSD Sample Id: 641762-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	15.0	250	258	97	258	97	90-110	0	20	mg/kg	11.01.19 00:27	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3106226 — Matrix: Solid — Date Prep: 11.01.19
MB Sample Id: 7689389-1-BLK — LCS Sample Id: 7689389-1-BKS — LCSD Sample Id: 7689389-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1080	108	1060	106	70-135	2	20	mg/kg	11.01.19 21:16	
Diesel Range Organics (DRO)	<15.0	1000	1140	114	1130	113	70-135	1	20	mg/kg	11.01.19 21:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		114		114		70-135	%	11.01.19 21:16
o-Terphenyl	106		111		113		70-135	%	11.01.19 21:16

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3106226 — Matrix: Solid — Date Prep: 11.01.19
MB Sample Id: 7689389-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.01.19 20:55	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 641762

Tetra Tech- Midland

EOG Cholla 18

Analytical Method: TPH By SW8015 Mod | Prep Method: SW8015P
Seq Number: 3106226 | Matrix: Soil | Date Prep: 11.01.19
Parent Sample Id: 641762-001 | MS Sample Id: 641762-001 S | MSD Sample Id: 641762-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	24.5	998	986	96	972	95	70-135	1	20	mg/kg	11.01.19 22:19	
Diesel Range Organics (DRO)	15.5	998	1120	111	1100	109	70-135	2	20	mg/kg	11.01.19 22:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		104		70-135	%	11.01.19 22:19
o-Terphenyl	101		99		70-135	%	11.01.19 22:19

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3106371 | Matrix: Solid | Date Prep: 11.01.19
MB Sample Id: 7689432-1-BLK | LCS Sample Id: 7689432-1-BKS | LCSD Sample Id: 7689432-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0960	96	0.0999	100	70-130	4	35	mg/kg	11.02.19 13:04	
Toluene	<0.00200	0.100	0.103	103	0.0952	95	70-130	8	35	mg/kg	11.02.19 13:04	
Ethylbenzene	<0.00200	0.100	0.114	114	0.0957	96	70-130	17	35	mg/kg	11.02.19 13:04	
m,p-Xylenes	<0.00400	0.200	0.238	119	0.194	97	70-130	20	35	mg/kg	11.02.19 13:04	
o-Xylene	<0.00200	0.100	0.118	118	0.0966	97	70-130	20	35	mg/kg	11.02.19 13:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		93		99		70-130	%	11.02.19 13:04
4-Bromofluorobenzene	95		115		97		70-130	%	11.02.19 13:04

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3106371 | Matrix: Soil | Date Prep: 11.01.19
Parent Sample Id: 641762-001 | MS Sample Id: 641762-001 S | MSD Sample Id: 641762-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0938	94	0.0934	93	70-130	0	35	mg/kg	11.02.19 13:44	
Toluene	<0.00200	0.100	0.0928	93	0.0866	87	70-130	7	35	mg/kg	11.02.19 13:44	
Ethylbenzene	<0.00200	0.100	0.0830	83	0.0729	73	70-130	13	35	mg/kg	11.02.19 13:44	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.169	84	70-130	13	35	mg/kg	11.02.19 13:44	
o-Xylene	<0.00200	0.100	0.101	101	0.0892	89	70-130	12	35	mg/kg	11.02.19 13:44	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		102		70-130	%	11.02.19 13:44
4-Bromofluorobenzene	123		113		70-130	%	11.02.19 13:44

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Analysis Request of Chain of Custody Record

10417602

Tetra Tech, Inc.

901 West Wall, Suite 100
Midland,Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: EOG	**Site Manager:** Mike Carmona
Project Name: Cholla 18	
Project Location: (county, state) Lea County, New Mexico	**Project #:** 212C-MD-01810
Invoice to: EOG Todd Wells	
Receiving Laboratory: Xenco	**Sampler Signature:** Devin D
Comments: Inc	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2019 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD None	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance				Hold
	Bottomhole-10 Comp 2'	10/31/2019			X				X			1	N	X		X												X							
	Bottomhole-11 Comp 2'	10/31/2019			X				X			1	N	X		X												X							
	Bottomhole-12 Comp 2'	10/31/2019			X				X			1	N	X		X												X							
	Bottomhole-13 Comp 2'	10/31/2019			X				X			1	N	X		X												X							
	Bottomhole-14 Comp 2'	10/31/2019			X				X			1	N	X		X												X							
	Bottomhole-15 Comp 2'	10/31/2019			X				X			1	N	X		X												X							
	Bottomhole-16 Comp 2'	10/31/2019			X				X			1	N	X		X												X							
	Bottomhole-17 Comp 2'	10/31/2019			X				X			1	N	X		X												X							
	Bottomhole-18 Comp 2'	10/31/2019			X				X			1	N	X		X												X							
	Bottomhole-19 Comp 2'	10/31/2019			X				X			1	N	X		X												X							

Final 1.000

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Relinquished by:	Date: 10/31/19	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by:

Date: Time: 1484

Date: Time:

Date: Time:

LAB USE ONLY

Sample Temperature 3.3

REMARKS:

- ☐ STANDARD
- ☒ RUSH: Same Day 24 hr 48 hr 72 hr
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Analysis Request of Chain of Custody Record

10/17/02

Page 42 of 43

Tetra Tech, Inc.

901 West Wall, Suite 100
Midland,Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: EOG	**Site Manager:** Mike Carmona
Project Name: Cholla 18	
Project Location: (county, state) Lea County, New Mexico	**Project #:** 212C-MD-01810
Invoice to: EOG Todd Wells	
Receiving Laboratory: Xenco	**Sampler Signature:** Devin D
Comments: Inc	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2019 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD None	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B	BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Sulfate	TDS	Chloride	General Water Chemistry (see attached list)	Anion/Cation Balance	Hold
	Bottomhole-20 Comp 2'	10/31/2019			X			X		1	N	X		X													X							
	Bottomhole-21 Comp 2'	10/31/2019			X			X		1	N	X		X													X							
	Bottomhole-22 Comp 2'	10/31/2019			X			X		1	N	X		X													X							
	Bottomhole-23 Comp 2'	10/31/2019			X			X		1	N	X		X													X							
	Bottomhole-24 Comp 2'	10/31/2019			X			X		1	N	X		X													X							

ANALYSIS REQUEST
(Circle or Specify Method No.)

Final 1.000

Hold

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Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	10/31/19				1634
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY

Sample Temperature 3.5/3.2

REMARKS:

- ☐ STANDARD
- ☒ RUSH: Same Day (24 hr) 48 hr 72 hr
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 10/31/2019 04:34:00 PM

Work Order #: 641762

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.3
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 10/31/2019

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 11/01/2019

Jessica Kramer

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

November 06, 2019

MIKE CARMONA

TETRA TECH

901 WEST WALL STREET , STE 100

MIDLAND, TX 79701

RE: CHOLLA 18

Enclosed are the results of analyses for samples received by the laboratory on 11/05/19 12:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
MIKE CARMONA
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	11/05/2019	Sampling Date:	11/04/2019
Reported:	11/06/2019	Sampling Type:	Soil
Project Name:	CHOLLA 18	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

Sample ID: NSW - 1 COMP 7' (H903761-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/05/2019	ND	2.00	100	2.00	2.64	
Toluene*	<0.050	0.050	11/05/2019	ND	1.79	89.3	2.00	2.55	
Ethylbenzene*	<0.050	0.050	11/05/2019	ND	1.81	90.5	2.00	0.667	QM-07
Total Xylenes*	<0.150	0.150	11/05/2019	ND	5.48	91.3	6.00	1.42	
Total BTEX	<0.300	0.300	11/05/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	11/06/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/05/2019	ND	210	105	200	1.75	
DRO >C10-C28*	<10.0	10.0	11/05/2019	ND	211	106	200	0.788	
EXT DRO >C28-C36	<10.0	10.0	11/05/2019	ND					

Surrogate: 1-Chlorooctane *103 %* *41-142*

Surrogate: 1-Chlorooctadecane *107 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
MIKE CARMONA
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	11/05/2019	Sampling Date:	11/04/2019
Reported:	11/06/2019	Sampling Type:	Soil
Project Name:	CHOLLA 18	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

Sample ID: WSW - 2 COMP 7' (H903761-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/05/2019	ND	2.00	100	2.00	2.64	
Toluene*	<0.050	0.050	11/05/2019	ND	1.79	89.3	2.00	2.55	
Ethylbenzene*	<0.050	0.050	11/05/2019	ND	1.81	90.5	2.00	0.667	
Total Xylenes*	<0.150	0.150	11/05/2019	ND	5.48	91.3	6.00	1.42	
Total BTEX	<0.300	0.300	11/05/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.9 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/06/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/05/2019	ND	210	105	200	1.75	
DRO >C10-C28*	<10.0	10.0	11/05/2019	ND	211	106	200	0.788	
EXT DRO >C28-C36	<10.0	10.0	11/05/2019	ND					

Surrogate: 1-Chlorooctane *105 %* *41-142*

Surrogate: 1-Chlorooctadecane *108 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
MIKE CARMONA
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	11/05/2019	Sampling Date:	11/04/2019
Reported:	11/06/2019	Sampling Type:	Soil
Project Name:	CHOLLA 18	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

Sample ID: SSW - 1 COMP 7' (H903761-03)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/05/2019	ND	2.00	100	2.00	2.64	
Toluene*	<0.050	0.050	11/05/2019	ND	1.79	89.3	2.00	2.55	
Ethylbenzene*	<0.050	0.050	11/05/2019	ND	1.81	90.5	2.00	0.667	
Total Xylenes*	<0.150	0.150	11/05/2019	ND	5.48	91.3	6.00	1.42	
Total BTEX	<0.300	0.300	11/05/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.6 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	11/06/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/05/2019	ND	210	105	200	1.75	
DRO >C10-C28*	<10.0	10.0	11/05/2019	ND	211	106	200	0.788	
EXT DRO >C28-C36	<10.0	10.0	11/05/2019	ND					

Surrogate: 1-Chlorooctane *108 %* *41-142*

Surrogate: 1-Chlorooctadecane *111 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
MIKE CARMONA
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	11/05/2019	Sampling Date:	11/04/2019
Reported:	11/06/2019	Sampling Type:	Soil
Project Name:	CHOLLA 18	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

Sample ID: SSW - 2 COMP 7' (H903761-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/05/2019	ND	2.00	100	2.00	2.64	
Toluene*	<0.050	0.050	11/05/2019	ND	1.79	89.3	2.00	2.55	
Ethylbenzene*	<0.050	0.050	11/05/2019	ND	1.81	90.5	2.00	0.667	
Total Xylenes*	<0.150	0.150	11/05/2019	ND	5.48	91.3	6.00	1.42	
Total BTEX	<0.300	0.300	11/05/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.5 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/06/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/05/2019	ND	210	105	200	1.75	
DRO >C10-C28*	<10.0	10.0	11/05/2019	ND	211	106	200	0.788	
EXT DRO >C28-C36	<10.0	10.0	11/05/2019	ND					

Surrogate: 1-Chlorooctane *103 %* *41-142*

Surrogate: 1-Chlorooctadecane *108 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TETRA TECH
MIKE CARMONA
901 WEST WALL STREET , STE 100
MIDLAND TX, 79701
Fax To: (432) 682-3946

Received:	11/05/2019	Sampling Date:	11/04/2019
Reported:	11/06/2019	Sampling Type:	Soil
Project Name:	CHOLLA 18	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	EOG - LEA CO NM		

Sample ID: ESW - 1 COMP 7' (H903761-05)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/05/2019	ND	2.00	100	2.00	2.64	
Toluene*	<0.050	0.050	11/05/2019	ND	1.79	89.3	2.00	2.55	
Ethylbenzene*	<0.050	0.050	11/05/2019	ND	1.81	90.5	2.00	0.667	
Total Xylenes*	<0.150	0.150	11/05/2019	ND	5.48	91.3	6.00	1.42	
Total BTEX	<0.300	0.300	11/05/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID *94.4 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	11/06/2019	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: CK

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/06/2019	ND	210	105	200	1.75	
DRO >C10-C28*	<10.0	10.0	11/06/2019	ND	211	106	200	0.788	
EXT DRO >C28-C36	<10.0	10.0	11/06/2019	ND					

Surrogate: 1-Chlorooctane *92.6 %* *41-142*

Surrogate: 1-Chlorooctadecane *95.8 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Analysis Request of Chain of Custody Record

Page 1 of 1

Tetra Tech, Inc.

900 West Wall Street, Ste 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name:	EOG	Site Manager:	Mike Carmona
Project Name:	Cholla 18		
Project Location: (county, state)	Lea County, New Mexico	Project #:	
Invoice to:	James Kennedy		
Receiving Laboratory:	Cardinal Lab	Sampler Signature:	Devin Dominguez
Comments:			

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2019 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD None	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)
H903761													
1	NSW-1 comp 7'	11/4/2019			X				X			1	N
2	WSW-2 comp 7'	11/4/2019			X				X			1	N
3	SSW-1 comp 7'	11/4/2019			X				X			1	N
4	SSW-2 comp 7'	11/4/2019			X				X			1	N
5	ESW-1 comp 7'	11/4/2019			X				X			1	N

ANALYSIS REQUEST
(Circle or Specify Method No.)

BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R			Hold
X		X												X							
X		X												X							
X		X												X							
X		X												X							
X		X												X							
X		X												X							

Relinquished by: Date: 11/5/19 Time: 1000
Received by: Tamara Oldaker Date: 11-5-19 Time: 12:00

Relinquished by: Date: Time:
Received by: Date: Time:

Relinquished by: Date: Time:
Received by: Date: Time:

LAB USE ONLY

Sample Temperature
2.9° #97
Corrected
3.3°

REMARKS:

- ☐ STANDARD
- ☒ RUSH: Same Day (24 hr) 48 hr 72 hr
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 14535

CONDITIONS OF APPROVAL

Operator:			OGRID:	Action Number:	Action Type:
EOG RESOURCES INC	P.O. Box 2267	Midland, TX79702	7377	14535	C-141

OCD Reviewer	Condition
rhamlet	We have received your closure report and final C-141 for Incident #NDHR1917150279 CHOLLA 18 FEDERAL COM #001H, thank you. This closure is approved.