

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: _____

email: _____ Telephone: _____

OCD Only

Received by: Robert Hamlet Date: 4/26/2021

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: 4/26/2021

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

SITE INFORMATION

Report Type: Closure Report NRM2009048752

General Site Information:

Site:	Ophelia 27 West CTB					
Company:	EOG Resources					
Section, Township and Range	Unit G	Sec. 27	T 26S	R 33E		
Lease Number:	API No.					
County:	Lea County					
GPS:	32.016418			-103.557853		

Release Data:

Date Released:	3/20/2020
Type Release:	Oil
Source of Contamination:	Open Drain Valve
Fluid Released:	23 bbl oil
Fluids Recovered:	20 bbl oil

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, 79701
Phone number:	(432) 258-4346		(432) 682-4559
Fax:			
Email:	Todd_Wells@eogresources.com		Mike.Carmona@Tetrattech.com

Site Characterization

Depth to Groundwater:	80.17
Karst Potential:	Medium

Recommended Remedial Action Levels (RRALs)

Benzene	Total BTEX	TPH (GRO+DRO+MRO)	Chlorides
10 mg/kg	50 mg/kg	100 mg/kg	600 mg/kg



January 11, 2021

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

Re: Closure Report for the EOG Resources, Ophelia 27 West CTB, Unit G, Section 27, Township 26 South, Range 33 East, Lea County, New Mexico. NRM2009048752

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, Ophelia 27 West CTB, Unit G, Section 27, Township 26 South, Range 33 East, Lea County, New Mexico (Site). The site coordinates are 32.016418°, -103.557853°. 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 March 20, 2020, and released approximately 23 barrels of crude oil due to an open drain valve on the oil strainer basket of the LACT unit. A total of 20 barrels of the released fluids were recovered. The release occurred alongside a lease road, impacted areas measuring approximately 175' x 76'. The C-141 form is included in Appendix A.

Site Characterization

A site characterization was performed for the site. No watercourses, lakebeds, sinkholes, playa lakes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, wetlands, incorporated municipal boundaries, subsurface mines floodplains are located within the specified distances. The site is in a medium karst potential area. The nearest well is listed in the USGS National Water Information Database website in Section 27, approximately 0.13 miles southwest of the site, and has a reported depth to groundwater of 80.17 feet below ground surface. Site 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

Tetra Tech

901 West Wall Street, Suite 100, Midland, TX 79701

Tel 432.682.4559 Fax 432.682.3946 www.tetrattech.com



TETRA TECH

(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). The proposed RRAL for TPH is 100 mg/kg (GRO+DRO+MRO) based on the site characterization. Additionally, based on the site characterization, the proposed RRAL for chlorides is 600 mg/kg.

Soil Assessment and Analytical Results

On March 23, 2020, Tetra Tech personnel were on-site to evaluate and sample the release area. A total of five (5) auger holes (AH-1 through AH-5) were installed to total depths ranging from surface to 0.5' below surface. All samples were analyzed 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 C. The results of the sampling are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, the samples analyzed showed benzene, total BTEX, and TPH concentrations above the remediation threshold. The areas of auger holes (AH-1 through AH-5) showed TPH concentrations above, ranging from 863 mg/kg to 31,700 mg/kg. The areas of auger holes (AH-1, AH-3, AH-4, and AH-5) showed concentrations above the RRALs for Total BTEX, with concentrations ranging from 108 mg/kg to 861 mg/kg. The areas of auger holes (AH-3, AH-4, and AH-5) showed Benzene concentrations above RRALs, ranging from 38.20 mg/kg to 78.20 mg/kg.

Remediation and Reclamation Activities

Based on the soil assessment results, Tetra Tech personnel were on-site April 1, 2020, through May 19, 2020, to supervise the remediation and reclamation activities and collect confirmation samples. The impacted areas were excavated to total depths ranging from 4.5'-6.0' below surface, as shown on Figure 4 and Table 2.

A total of fifty-four (54) bottom hole samples (BH-1 through BH-54) and twenty-one (21) sidewall samples (N1SW through N3SW, W1SW through W7SW, E1SW through E6SW, S1SW through S5SW) were collected to ensure proper removal of the contaminated 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 2. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The excavation depths and sample locations are shown in Figure 4.

Referring to Table 2, all of the final samples collected showed BTEX & TPH below the RRALs. Additionally, all samples collected showed chloride concentrations below the RRALs.

Approximately 2,515 cubic yards of material were excavated and transported off-site for proper disposal. The areas were then backfilled with clean material to surface grade.

Conclusion

Based on the laboratory results and remediation activities performed, EOG requests closure of this spill issue. The final C-141 is enclosed in Appendix A. If you have any questions.



TETRA TECH

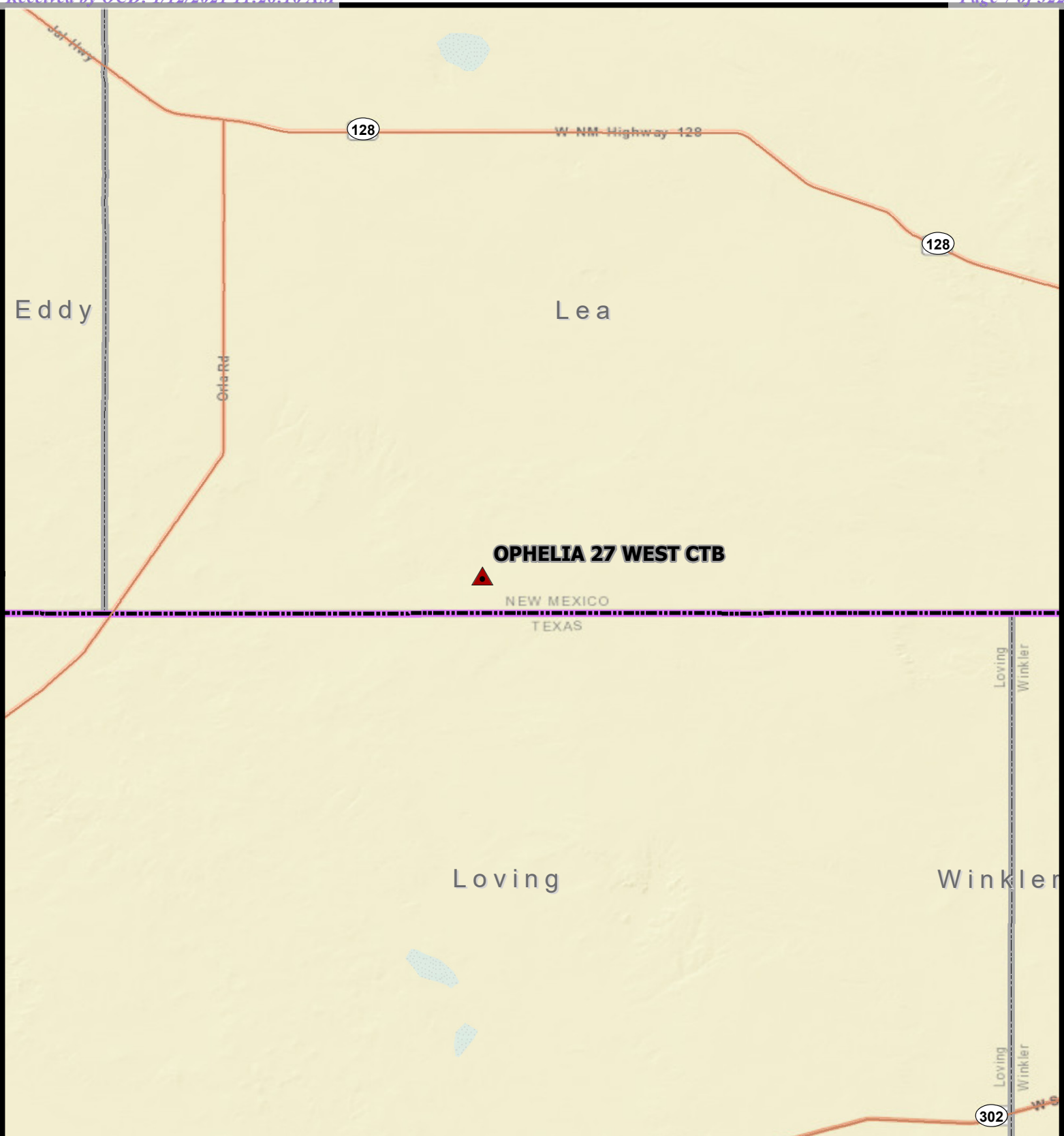
or comments concerning the assessment or remediation activities for this site, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH

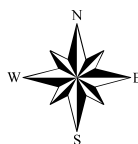


Mike Carmona,
Project Manager

Figures



SITE LOCATION



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

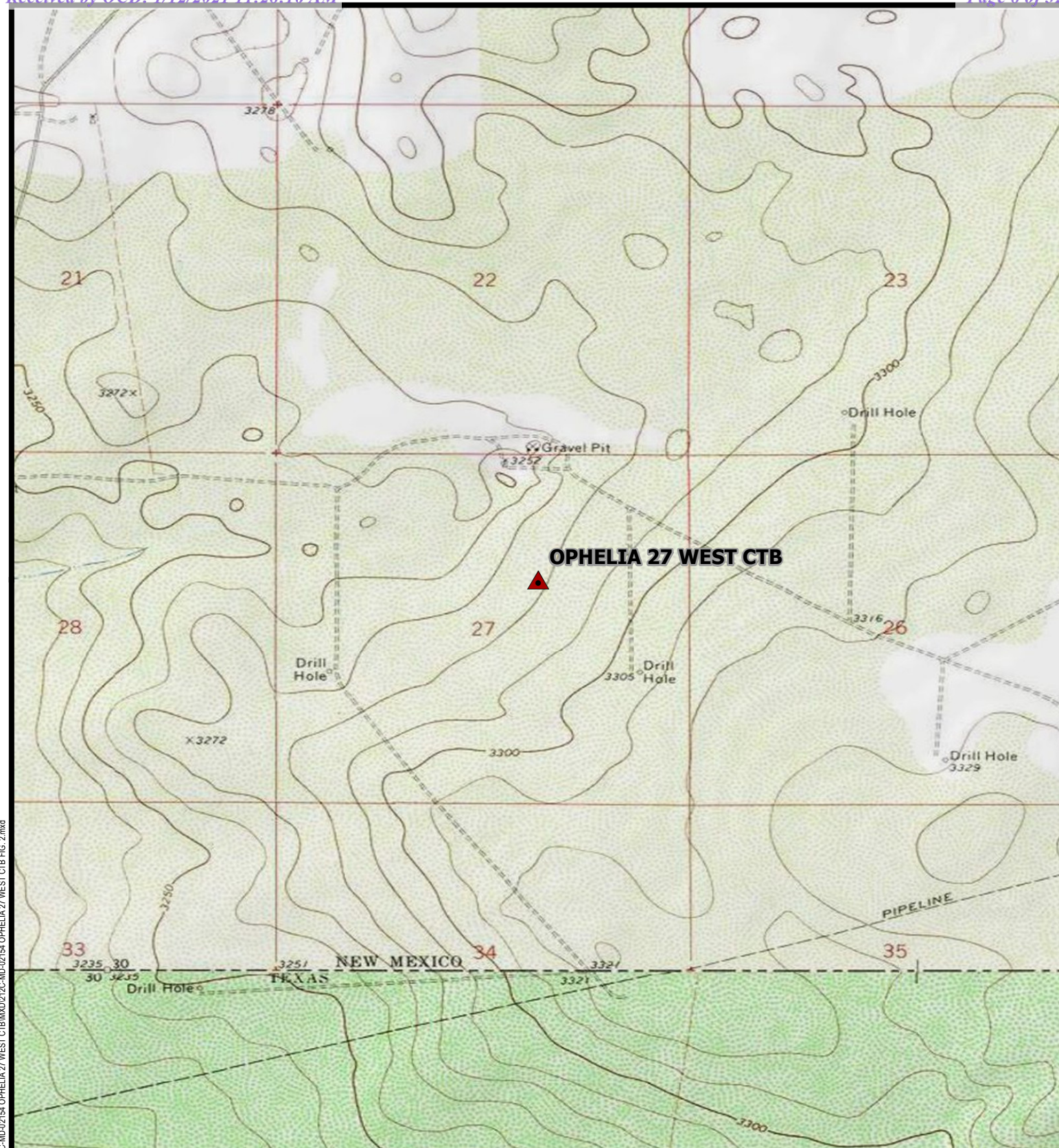
OVERVIEW MAP**OPHELIA 27 WEST CTB**

Property Located at coordinates 32.016418°, -103.557853°
LEA COUNTY, NEW MEXICO

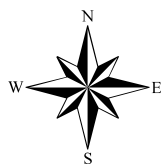


Project #: 212C-MD-02154
Date: 04-06-2020
Drawn By: MLM

FIGURE
1



 SITE LOCATION



0 1,000 2,000
Approximate Scale in Feet

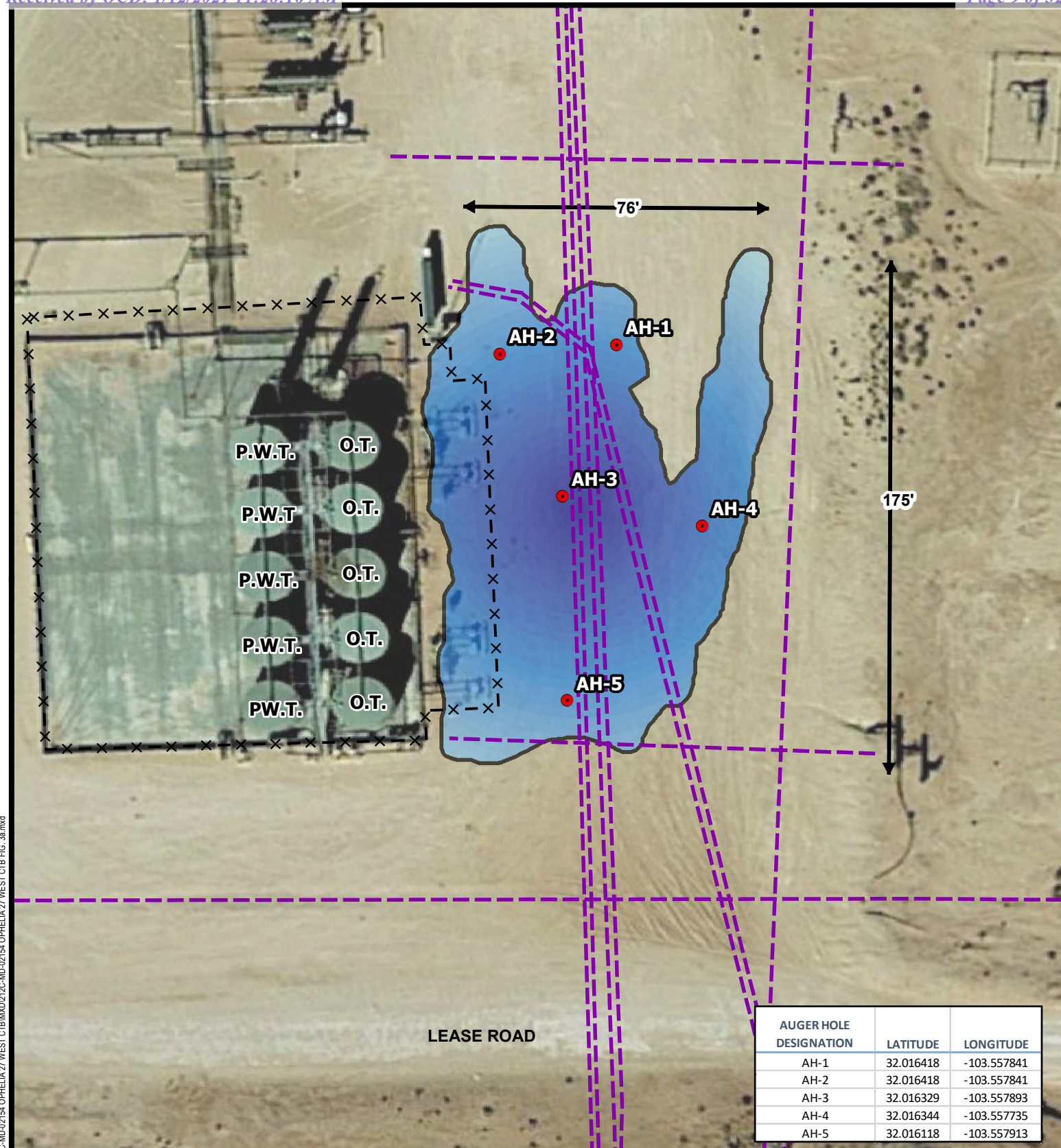
TOPOGRAPHIC MAP
OPHELIA 27 WEST CTB
Property Located at coordinates 32.016418°, -103.557853°
LEA COUNTY, NEW MEXICO

 **TETRA TECH**
901 W Wall St Ste. 100,
Midland, TX 79701
(432) 682-4559

Project #: 212C-MD-02154
Date: 04-06-2020
Drawn By: MLM

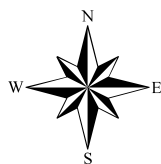
FIGURE
2

 **eog resources**



AUGER HOLE DESIGNATION	LATITUDE	LONGITUDE
AH-1	32.016418	-103.557841
AH-2	32.016418	-103.557841
AH-3	32.016329	-103.557893
AH-4	32.016344	-103.557735
AH-5	32.016118	-103.557913

- AUGER HOLE SAMPLE LOCATIONS
- BURIED PIPELINE
- X FENCELINE
- AFFECTED SPILL AREA



0 20 40
Approximate Scale in Feet

SPILL ASSESSMENT MAP

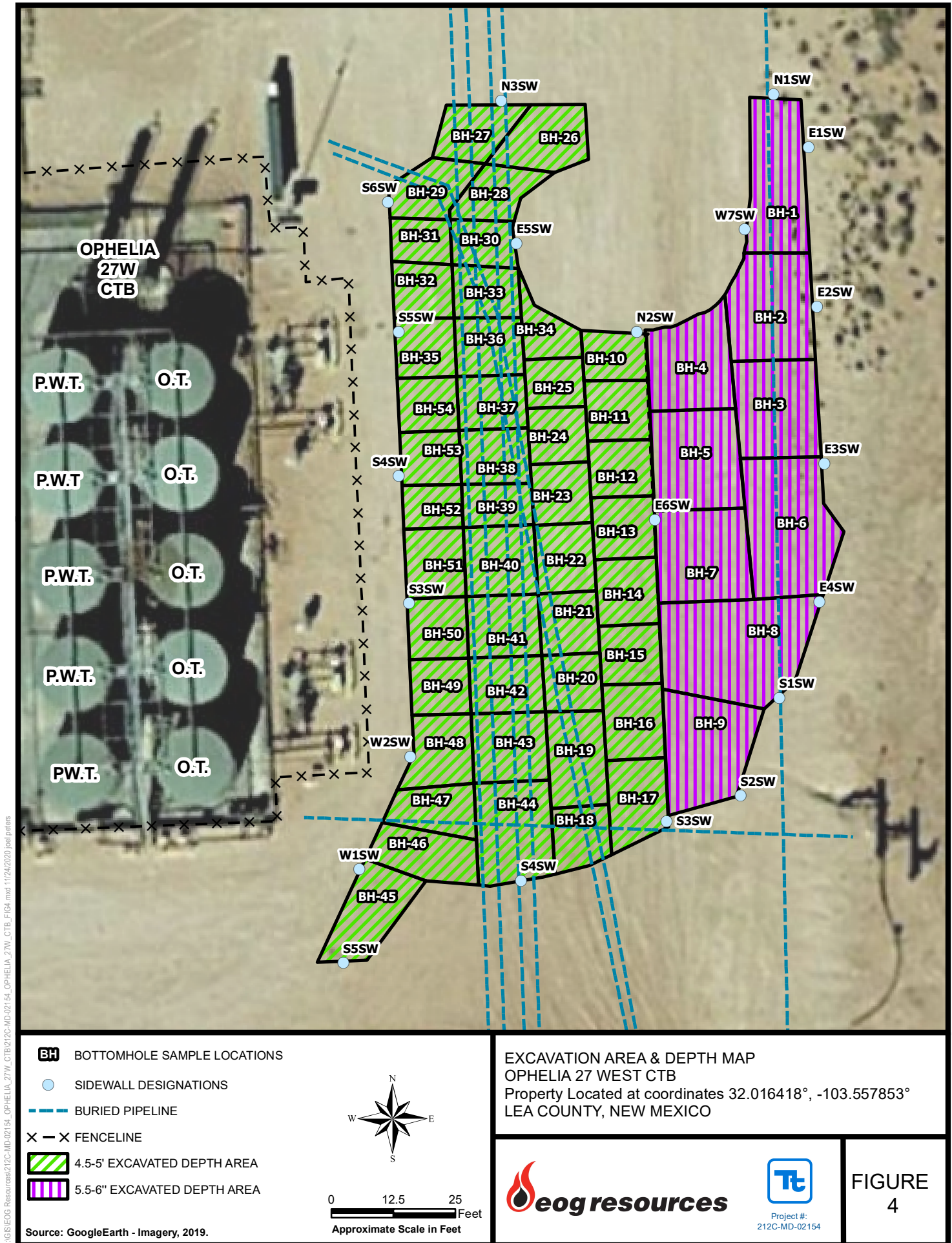
OPHELIA 27 WEST CTB

Property Located at coordinates 32.016418°, -103.557853°
LEA COUNTY, NEW MEXICO



Project #: 212C-MD-02154
Date: 04-05-2020
Drawn By: MLM

FIGURE
3



Tables

Table 1
EOG
Ophelia 27 West CTB
Lea County, New Mexico

Sample ID	Sample Date	Sample 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	MRO	Total						
AH-1	3/23/2020	0-0.5		X	1,560	4,790	378	6,730	6.35	36.4	9.57	55.2	108	16.1
AH-2	3/23/2020	0-0.5		X	<49.9	758	105	863	0.00842	0.073	0.0582	0.439	0.579	<10
AH-3	3/23/2020	0-0.5		X	7,650	13,500	1,070	22,200	71.3	310	67.0	413	861	11.9
AH-4	3/23/2020	0-0.5		X	12,000	18,400	1,300	31,700	78.20	278.0	53.80	322	732	<9.96
AH-5	3/23/2020	0-0.5		X	4,580	8,330	707	13,600	38.20	171.0	36.00	215	460	13.8

(-)

Not Analyzed

Excavation Depths

Table 2
EOG
Ophelia 27 West CTB
Lea County, New Mexico

Sample ID	Sample Date	BEB Sample 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	MRO	Total						
Bottom Hole #1	4/13/2020	4.5'	X		<50.0	752	119	871	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	162
	5/5/2020	4.5'	X		<50.1	<50.1	<50.1	<50.1	<0.00971	<0.00971	<0.00971	<0.00971	<0.00971	34.2
Bottom Hole #2	4/13/2020	4.5'	X		<50.0	142	<50.0	142	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	39.3
	5/5/2020	4.5'	X		<50.2	<50.2	<50.2	<50.2	<0.00870	<0.00870	<0.00870	<0.00870	<0.00870	23.1
Bottom Hole #3	4/13/2020	4.5'	X		<50.0	122	<50.0	122	<0.00199	0.00257	<0.00199	0.00515	0.00772	36.7
	5/5/2020	4.5'	X		<50.1	<50.1	<50.1	<50.1	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	44.7
Bottom Hole #4	4/13/2020	4.5'	X		<49.9	170	<49.9	170	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	56.4
	5/5/2020	4.5'	X		<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	258
Bottom Hole #5	4/13/2020	4.5'	X		<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	212
	5/5/2020	4.5'	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	74.4
Bottom Hole #6	4/13/2020	4.5'	X		<50.0	61.7	<50.0	61.7	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	77.8
	5/5/2020	4.5'	X		<49.8	<49.8	<49.8	<49.8	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	162
Bottom Hole #7	4/13/2020	4.5'	X		<50.0	61.9	<50.0	61.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	286
	5/5/2020	4.5'	X		<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	1,070
	5/19/2020	5.0'	X		<49.8	86.4	<49.8	86.4	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	172
Bottom Hole #8	4/13/2020	4.5'		X	<49.9	394	<49.9	394	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	58.6
	5/5/2020	4.5'		X	<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	3,180
	5/19/2020	4.5'-5.0'	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	15.0
Bottom Hole #9	4/13/2020	4.5'	X		<49.9	142	<49.9	142	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	343
	5/5/2020	5.5'	X		<50.1	<50.1	<50.1	<50.1	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	39.0
Bottom Hole #10	5/19/2020	5.5'-6.0'	X		<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	233
Bottom Hole #11	5/1/2020	5.5'	X		<50.1	<50.1	<50.1	<50.1	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	595
Bottom Hole #12	5/1/2020	5.5'	X		<49.9	77.3	<49.9	77.3	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	189
Bottom Hole #13	5/1/2020	5.5'	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	214
Bottom Hole #14	5/1/2020	5.5'	X		<50.1	83.7	<50.1	83.7	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	167
Bottom Hole #15	5/1/2020	5.5'	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	15.5

Table 2
EOG
Ophelia 27 West CTB
Lea County, New Mexico

Sample ID	Sample Date	BEB Sample 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	MRO	Total						
Bottom Hole #16	5/1/2020	5.5'	X		<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<9.98
Bottom Hole #17	5/1/2020	5.5'	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<10.0
Bottom Hole #18	5/1/2020	5.5'	X		<50.2	<50.2	<50.2	<50.2	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	12.0
Bottom Hole #19	5/1/2020	5.5'	X		<50.1	<50.1	<50.1	<50.1	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	603
	5/19/2020	5.5'-6.0'	X		<50.0	77.9	<50.0	77.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	205
Bottom Hole #20	5/1/2020	5.5'	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	35.2
Bottom Hole #21	5/1/2020	5.5'	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	329
Bottom Hole #22	5/1/2020	5.5'	X		<50.1	<50.1	<50.1	<50.1	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	817
	5/19/2020	5.5'-6.0'	X		<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	114
Bottom Hole #23	5/1/2020	5.5'	X		<50.1	59.7	<50.1	59.7	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	421
Bottom Hole #24	5/1/2020	5.5'	X		<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	10.1
Bottom Hole #25	5/1/2020	5.5'	X		<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	48.5
Bottom Hole #26	5/1/2020	5.5'		X	<50.2	<50.2	<50.2	<50.2	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	1,350
	5/19/2020	5.5'-6.0'	X		<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	89.3
Bottom Hole #27	5/1/2020	5.5'	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	11.8
Bottom Hole #28	5/1/2020	5.5'	X		<50.1	77.9	<50.1	77.9	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	112
Bottom Hole #29	5/1/2020	5.5'		X	<50.0	562	<50.0	562	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	161
	5/19/2020	5.5'-6.0'	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	422
Bottom Hole #30	5/1/2020	5.5'	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	37.0

Table 2
EOG
Ophelia 27 West CTB
Lea County, New Mexico

Sample ID	Sample Date	BEB Sample 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	MRO	Total						
Bottom Hole #31	5/1/2020	5.5'	X		<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	287
Bottom Hole #32	5/1/2020	5.5'	X		<49.8	<49.8	<49.8	<49.8	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	13.5
Bottom Hole #33	5/5/2020	5.5'	X		<50.1	<50.1	<50.1	<50.1	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	155
Bottom Hole #34	5/7/2020	5.5'		X	<50.1	<50.1	<50.1	<50.1	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	2,600
	5/19/2020	5.5'-6.0'	X		<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	11.7
Bottom Hole #35	5/7/2020	5.5'		X	<50.2	<50.2	<50.2	<50.2	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	1,200
	5/19/2020	5.5'-6.0'	X		<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	73.3
Bottom Hole #36	5/7/2020	5.5'	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	116
Bottom Hole #37	5/7/2020	5.5'		X	<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	1,420
	5/19/2020	5.5'-6.0'	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	8.65
Bottom Hole #38	5/7/2020	5.5'		X	<50.1	148	<50.1	148	<0.00990	<0.00990	<0.00990	<0.00990	<0.00990	127
	5/19/2020	5.5'-6.0'	X		<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	6.23
Bottom Hole #39	5/7/2020	5.5'	X		<50.1	<50.1	<50.1	<50.1	<0.00971	<0.00971	<0.00971	<0.00971	<0.00971	16.4
Bottom Hole #40	5/7/2020	5.5'	X		<50.1	<50.1	<50.1	<50.1	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	592
Bottom Hole #41	5/7/2020	5.5'	X		<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	67.3
Bottom Hole #42	5/7/2020	5.5'	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	28.9
Bottom Hole #43	5/7/2020	5.5'	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	213
Bottom Hole #44	5/7/2020	5.5'	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	488
Bottom Hole #45	5/7/2020	5.5'	X		<49.9	88.8	<49.9	88.8	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	194
Bottom Hole #46	5/7/2020	5.5'	X		<50.1	<50.1	<50.1	<50.1	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	98.3
Bottom Hole #47	5/7/2020	5.5'	X		<50.3	<50.3	<50.3	<50.3	<0.00990	<0.00990	<0.00990	<0.00990	<0.00990	175
Bottom Hole #48	5/7/2020	5.5'		X	<50.1	<50.1	<50.1	<50.1	<0.0105	<0.0105	<0.0105	<0.0105	<0.0105	722
	5/19/2020	5.5'-6.0'	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	94.0
Bottom Hole #49	5/7/2020	5.5'	X		<49.9	<49.9	<49.9	<49.9	<0.00980	<0.00980	<0.00980	<0.00980	<0.00980	97.2

Table 2
EOG
Ophelia 27 West CTB
Lea County, New Mexico

Sample ID	Sample Date	BEB Sample 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	MRO	Total						
Bottom Hole #50	5/7/2020	5.5'	X		<50.2	<50.2	<50.2	<50.2	<0.0104	<0.0104	<0.0104	<0.0104	<0.0104	120
Bottom Hole #51	5/7/2020	5.5'	X		<49.8	<49.8	<49.8	<49.8	<0.0105	<0.0105	<0.0105	<0.0105	<0.0105	81.8
Bottom Hole #52	5/7/2020	5.5'	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	13.8
Bottom Hole #53	5/7/2020	5.5'	X		<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	13.4
Bottom Hole #54	5/7/2020	5.5'	X		<50.2	54.3	<50.2	54.3	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	13.5
South 1 Sidewall	4/13/2020	-		X	<49.8	280	<49.8	280	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	532
	5/1/2020	-		X	<50.2	170	<50.2	170	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	91.8
	5/5/2020	-	X		<50.1	<50.1	<50.1	<50.1	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	35.8
South 2 Sidewall	5/1/2020	-		X	<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	169
	5/5/2020	-		X	<50.1	<50.1	<50.1	<50.1	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	698
	5/19/2020	-	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	34.6
South 3 Sidewall	5/1/2020	-	X		<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	246
South 4 Sidewall	5/1/2020	-	X		<50.2	<50.2	<50.2	<50.2	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	64.5

Table 2
EOG
Ophelia 27 West CTB
Lea County, New Mexico

Sample ID	Sample Date	BEB Sample 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	MRO	Total						
South 5 Sidewall	5/1/2020	-	X		<50.2	<50.2	<50.2	<50.2	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	41.7
	5/19/2020	-	X		<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	29.4
East 1 Sidewall	4/13/2020	-		X	<50.0	840	137	977	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	54.9
	5/1/2020	-	X		<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	20.6
East 2 Sidewall	5/1/2020	-	X		<50.1	<50.1	<50.1	<50.1	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	<9.98
East 3 Sidewall	5/5/2020	-	X		<50.1	<50.1	<50.1	<50.1	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	27.1
East 4 Sidewall	4/13/2020	-	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	14.3
	5/1/2020	-	X		<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	12.2
East 5 Sidewall	5/1/2020	-		X	<50.2	162	<50.2	162	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	184
	5/19/2020	-	X		<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	112
East 6 Sidewall	5/1/2020	-		X	<50.2	380	<50.2	380	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	17.8
	5/19/2020	-	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	13.4
North 1 Sidewall	5/1/2020	-	X		<50.1	<50.1	<50.1	<50.1	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	14.9
North 2 Sidewall	5/1/2020	-	X		<50.3	65.8	<50.3	65.8	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	585
North 3 Sidewall	5/1/2020	-	X		<50.1	<50.1	<50.1	<50.1	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<9.92
West 1 Sidewall	5/1/2020	-	X		<50.2	<50.2	<50.2	<50.2	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	11.2
West 2 Sidewall	5/1/2020	-	X		<50.2	<50.2	<50.2	<50.2	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	42.5
West 3 Sidewall	5/1/2020	-	X		<50.3	<50.3	<50.3	<50.3	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	13.9
West 4 Sidewall	5/1/2020	-	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	27.0
West 5 Sidewall	5/1/2020	-		X	<50.3	142	54.1	196	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	141
	5/19/2020	-	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	31.2
West 6 Sidewall	5/1/2020	-	X		<50.1	<50.1	<50.1	<50.1	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	241
West 7 Sidewall	5/5/2020	-	X		<49.9	<49.9	<49.9	<49.9	<0.00204	<0.00204	<0.00204	<0.00204	<0.00204	11.7

(-) Not Analyzed

Photos

EOG Resources
Ophelia 27 West CTB
Lea County, New Mexico



TETRA TECH



View of Remediation – View North



View of Remediation – View North

EOG Resources
Ophelia 27 West CTB
Lea County, New Mexico



TETRA TECH



View of Remediation – View North/Northeast



View of Remediation – View South/Southeast

EOG Resources
Ophelia 27 West CTB
Lea County, New Mexico



TETRA TECH



View of Remediation – View Southwest

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	NRM2009048752
District RP	
Facility ID	
Application ID	

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)
Contact mailing address 5509 Champions Drive Midland, TX 79706	

Location of Release Source

Latitude 32.016176° Longitude -103.557971°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Ophelia 27 West CTB	Site Type Tank Battery
Date Release Discovered 3/20/20	API# (if applicable)

Unit Letter	Section	Township	Range	County
G	27	26S	33E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name: Oliver Kiehne)

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) 23	Volume Recovered (bbls) 20
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	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 LO discovered the drain valve to the oil strainer basket on the LACT unit open. Approximately 23 bbls of crude oil was released on to the pad, 20 bbls was recovered.

Incident ID	NRM2009048752
District RP	
Facility ID	
Application ID	

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 <u>not</u> 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: <u>Todd Wells</u>	Title: <u>Environmental Specialist</u>
Signature: <u><i>Todd Wells</i></u>	Date: <u>3-26-20</u>
email: <u>Todd Wells@eogresources.com</u>	Telephone: <u>(432) 686-3613</u>
<u>OCD Only</u>	
Received by: <u>Ramona Marcus</u>	Date: <u>3/30/2020</u>

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.

State of New Mexico
Oil Conservation Division

Page 4

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: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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: _____

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.

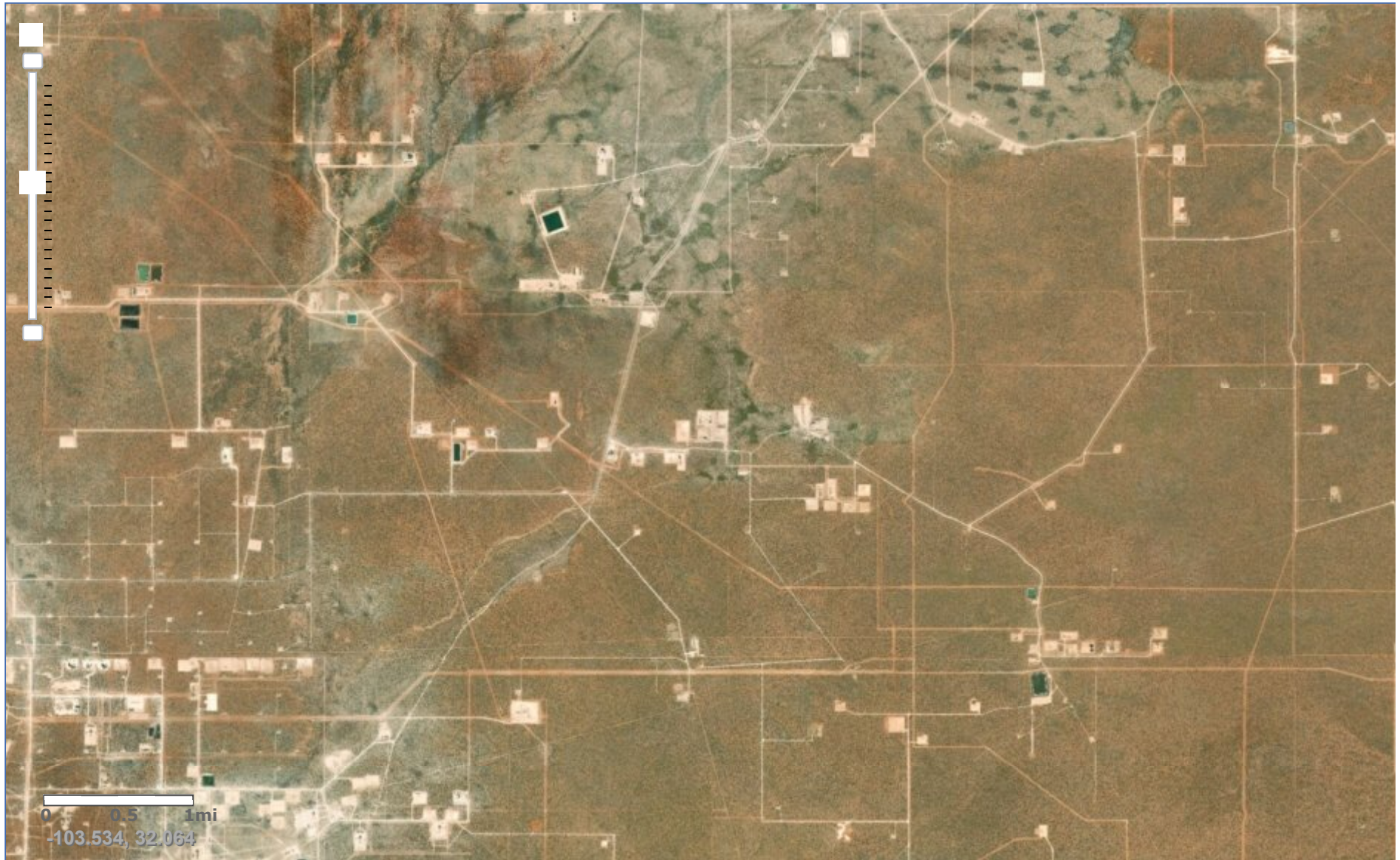
Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Appendix B



National Water Information System: Mapper

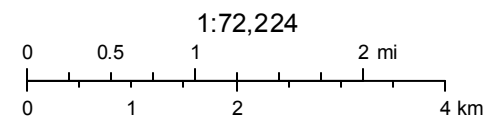


Site Information

New Mexico NFHL Data



April 6, 2020



FEMA
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,



[USGS Home](#)
[Contact USGS](#)
[Search USGS](#)

National Water Information System: Web Interface

USGS Water Resources

Data Category:	Geographic Area:	
Groundwater ▼	New Mexico ▼	GO

Click to hide News Bulletins

- **Notice** - The USGS Water Resources Mission Area's priority is to maintain the safety and well-being of our communities, including providing critical situational awareness in times of flooding in all 50 U.S. states and additional territories. Our hydrologic monitoring stations continue to send data in near real-time to NWISWeb, and we are continuing critical water monitoring activities to protect life and property on a case-by-case basis. The health and safety of the public and our employees are our highest priorities, and we continue to follow guidance from the White House, the CDC, and state and local authorities.
- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#) 

Groundwater levels for New Mexico

Click to hide state-specific text

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 320056103333501

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 320056103333501 26S.33E.27.21132

Lea County, New Mexico

Latitude 32°00'56", Longitude 103°33'35" NAD27

Land-surface elevation 3,273 feet above NAVD88

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1970-12-07			D	75.93		2		U		U	A
1976-01-08			D	75.77		2		U		U	A
1981-03-25			D	80.17		2		U		U	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Title: Groundwater for New Mexico: Water Levels

URL: [https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?](https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?site_no=320056103333501&agency_cd=USGS&format=html)

Page Contact Information: [New Mexico Water Data Maintainer](#)

Page Last Modified: 2020-04-06 20:37:25 EDT

0.28 0.26 nadww01





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	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	DepthWell	DepthWater	Water Column
C_02270		CUB	LE	1	1	2	27	26S	33E	636063	3543722	150	125	25

Average Depth to Water: 125 feet

Minimum Depth: 125 feet

Maximum Depth: 125 feet

Record Count: 1

Basin/County Search:

County: Lea

PLSS Search:

Section(s): 27

Township: 26S

Range: 33E

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

4/6/20 6:36 PM

WATER COLUMN/ AVERAGE DEPTH TO
WATER

Karst Map

EOG Resources
Ophelia 27 West CTB

Legend

-  High
-  Low
-  Medium

 32.016418, -103.557853



Water Well Data
Average Depth to Groundwater (ft)
Ophelia 27 West CTB
Lea County, New Mexico

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

25 South			33 East		
6	5 118	4	3 172	2	1
7	8	9	10	11 140	12 200
18	17	16	15	14	13 185
19	20 200	21 120	22	23	24
30	29	28	27 125	26 110	25
31 190	32	33	34	35	36

25 South			34 East		
6	5	4	3	2	1 260
7	8	9	10	11	12
18	17	16	15 135	14	13
19	20	21	22	23	24 300
30	29 129 50	28	27	26	25
31	32	33	34	35	36

26 South			32 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21 333 180	22	23	24
30	29	28	27	26	25
31 295	32	33	34	35	36

26 South			33 East		
6	5	4	3 180	2	1
7	8	9 106	10 124	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27 80	26	25
31	32	33	34	35	36

26 South			34 East		
6 130	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	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)
Geology and Groundwater Resources of Eddy County, NM (Report 3)
- 34** NMOCD - Groundwater Data
- 123** Tetra Tech installed temporary wells and field water level
- 143** NMOCD Groundwater map well location

Appendix C

Analytical Report 656566

for
Tetra Tech- Midland

Project Manager: Mike Carmona

Ophelia 27 West CTB

25-MAR-20

Collected By: Client



**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

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-Carlsbad (LELAP): Louisiana (05092)

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-MAR-20

Project Manager: **Mike Carmona**

Tetra Tech- Midland

901 West Wall ST

Midland, TX 79701

Reference: XENCO Report No(s): **656566**

Ophelia 27 West CTB

Project Address: Lea Co, NM

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) 656566. 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. 656566 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,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Manager

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 656566****Tetra Tech- Midland, Midland, TX**

Ophelia 27 West CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Auger Hole #1 (0-6")	S	03-23-20 00:00	0 - 6 In	656566-001
Auger Hole #2 (0-6")	S	03-23-20 00:00	0 - 6 ft	656566-002
Auger Hole #3 (0-6")	S	03-23-20 00:00	0 - 6 ft	656566-003
Auger Hole #4 (0-6")	S	03-23-20 00:00	0 - 6 ft	656566-004
Auger Hole #5 (0-6")	S	03-23-20 00:00	0 - 6 ft	656566-005



CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Ophelia 27 West CTB

Project ID:

Work Order Number(s): 656566

Report Date: 25-MAR-20

Date Received: 03/23/2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3120724 BTEX by EPA 8021B

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



Certificate of Analysis Summary 656566

Tetra Tech- Midland, Midland, TX

Project Name: Ophelia 27 West CTB

Project Id:

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Mon Mar-23-20 04:45 pm

Report Date: 25-MAR-20

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	656566-001	656566-002	656566-003	656566-004	656566-005	
	Field Id:	Auger Hole #1 (0-6")	Auger Hole #2 (0-6")	Auger Hole #3 (0-6")	Auger Hole #4 (0-6")	Auger Hole #5 (0-6")	
	Depth:	0-6 In	0-6 ft	0-6 ft	0-6 ft	0-6 ft	
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	
	Sampled:	Mar-23-20 00:00	Mar-23-20 00:00	Mar-23-20 00:00	Mar-23-20 00:00	Mar-23-20 00:00	
BTEX by EPA 8021B	Extracted:	Mar-23-20 18:00	Mar-23-20 18:00	Mar-23-20 18:00	Mar-23-20 18:00	Mar-23-20 18:00	
	Analyzed:	Mar-24-20 02:00	Mar-24-20 10:16	Mar-24-20 10:37	Mar-24-20 10:57	Mar-24-20 11:17	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		6.35 0.198	0.00842 0.00417	71.3 1.99	78.2 2.00	38.2 1.00	
Toluene		36.4 0.198	0.0730 0.0167	310 1.99	278 2.00	171 1.00	
Ethylbenzene		9.57 0.198	0.0582 0.0167	67.0 1.99	53.8 2.00	36.0 1.00	
m,p-Xylenes		41.5 0.396	0.312 0.0333	284 3.98	238 4.00	161 2.00	
o-Xylene		13.7 0.198	0.127 0.0167	129 1.99	83.9 2.00	54.0 1.00	
Total Xylenes		55.2 0.198	0.439 0.0167	413 1.99	322 2.00	215 1.00	
Total BTEX		108 0.198	0.579 0.00417	861 1.99	732 2.00	460 1.00	
Inorganic Anions by EPA 300/300.1	Extracted:	Mar-23-20 17:02	Mar-23-20 17:02	Mar-23-20 17:02	Mar-23-20 17:02	Mar-23-20 17:02	
	Analyzed:	Mar-23-20 21:27	Mar-23-20 21:33	Mar-23-20 21:38	Mar-23-20 21:44	Mar-23-20 21:50	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		16.1 10.1	<10.0 10.0	11.9 9.98	<9.96 9.96	13.8 9.92	
TPH By SW8015 Mod	Extracted:	Mar-24-20 17:30	Mar-24-20 17:30	Mar-24-20 17:30	Mar-24-20 17:30	Mar-24-20 17:30	
	Analyzed:	Mar-25-20 12:53	Mar-25-20 13:13	Mar-25-20 13:34	Mar-25-20 13:54	Mar-25-20 14:14	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		1560 50.1	<49.9 49.9	7650 249	12000 250	4580 251	
Diesel Range Organics (DRO)		4790 50.1	758 49.9	13500 249	18400 250	8330 251	
Motor Oil Range Hydrocarbons (MRO)		378 50.1	105 49.9	1070 249	1300 250	707 251	
Total TPH		6730 50.1	863 49.9	22200 249	31700 250	13600 251	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



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: Ophelia 27 West CTB

Work Orders : 656566,

Lab Batch #: 3120724

Sample: 656566-001 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/24/20 02:00

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	70-130	
4-Bromofluorobenzene	0.0262	0.0300	87	70-130	

Lab Batch #: 3120724

Sample: 656566-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/24/20 10:16

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0321	0.0300	107	70-130	
4-Bromofluorobenzene	0.0265	0.0300	88	70-130	

Lab Batch #: 3120724

Sample: 656566-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/24/20 10:37

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	70-130	
4-Bromofluorobenzene	0.0284	0.0300	95	70-130	

Lab Batch #: 3120724

Sample: 656566-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/24/20 10:57

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	70-130	
4-Bromofluorobenzene	0.0263	0.0300	88	70-130	

Lab Batch #: 3120724

Sample: 656566-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/24/20 11:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0304	0.0300	101	70-130	
4-Bromofluorobenzene	0.0268	0.0300	89	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.



Form 2 - Surrogate Recoveries

Project Name: Ophelia 27 West CTB

Work Orders : 656566,

Lab Batch #: 3120922

Sample: 656566-001 / SMP

Project ID:

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/20 12:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	100	123	70-135	
o-Terphenyl	55.6	50.1	111	70-135	

Lab Batch #: 3120922

Sample: 656566-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/20 13:13

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	57.2	49.9	115	70-135	

Lab Batch #: 3120922

Sample: 656566-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/20 13:34

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.0	99.6	85	70-135	
o-Terphenyl	63.5	49.8	128	70-135	

Lab Batch #: 3120922

Sample: 656566-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/20 13:54

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	130	100	130	70-135	
o-Terphenyl	57.7	50.1	115	70-135	

Lab Batch #: 3120922

Sample: 656566-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/20 14:14

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	134	100	134	70-135	
o-Terphenyl	56.9	50.1	114	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.



Form 2 - Surrogate Recoveries

Project Name: Ophelia 27 West CTB

Work Orders : 656566,

Lab Batch #: 3120724

Sample: 7699590-1-BLK / BLK

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/23/20 18:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0350	0.0300	117	70-130	
4-Bromofluorobenzene	0.0278	0.0300	93	70-130	

Lab Batch #: 3120922

Sample: 7699702-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/25/20 14:56

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	56.1	50.0	112	70-135	

Lab Batch #: 3120724

Sample: 7699590-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/23/20 19:12

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0331	0.0300	110	70-130	
4-Bromofluorobenzene	0.0260	0.0300	87	70-130	

Lab Batch #: 3120922

Sample: 7699702-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/25/20 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	123	100	123	70-135	
o-Terphenyl	60.7	50.0	121	70-135	

Lab Batch #: 3120724

Sample: 7699590-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/23/20 19:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0331	0.0300	110	70-130	
4-Bromofluorobenzene	0.0264	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.



Form 2 - Surrogate Recoveries

Project Name: Ophelia 27 West CTB

Work Orders : 656566,

Lab Batch #: 3120922

Sample: 7699702-1-BSD / BSD

Project ID:

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 03/25/20 09:46

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	100	123	70-135	
o-Terphenyl	61.0	50.0	122	70-135	

Lab Batch #: 3120724

Sample: 656558-005 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/23/20 19:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0332	0.0300	111	70-130	
4-Bromofluorobenzene	0.0253	0.0300	84	70-130	

Lab Batch #: 3120922

Sample: 656666-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/20 10:50

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	126	100	126	70-135	
o-Terphenyl	63.9	50.1	128	70-135	

Lab Batch #: 3120724

Sample: 656558-005 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/23/20 20:13

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0336	0.0300	112	70-130	
4-Bromofluorobenzene	0.0263	0.0300	88	70-130	

Lab Batch #: 3120922

Sample: 656666-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 03/25/20 11:11

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	60.7	50.2	121	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.



BS / BSD Recoveries



Project Name: Ophelia 27 West CTB

Work Order #: 656566

Project ID:

Analyst: MAB

Date Prepared: 03/23/2020

Date Analyzed: 03/23/2020

Lab Batch ID: 3120724

Sample: 7699590-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	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
Analytes											
Benzene	<0.00200	0.100	0.125	125	0.100	0.126	126	1	70-130	35	
Toluene	<0.00200	0.100	0.114	114	0.100	0.116	116	2	70-130	35	
Ethylbenzene	<0.00200	0.100	0.106	106	0.100	0.108	108	2	71-129	35	
m,p-Xylenes	<0.00400	0.200	0.208	104	0.200	0.211	106	1	70-135	35	
o-Xylene	<0.00200	0.100	0.106	106	0.100	0.107	107	1	71-133	35	

Analyst: MAB

Date Prepared: 03/23/2020

Date Analyzed: 03/23/2020

Lab Batch ID: 3120705

Sample: 7699593-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1	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
Analytes											
Chloride	<10.0	250	260	104	250	260	104	0	90-110	20	

Relative Percent Difference RPD = $200 \times |(C-F)/(C+F)|$ Blank Spike Recovery [D] = $100 \times (C)/[B]$ Blank Spike Duplicate Recovery [G] = $100 \times (F)/[E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Ophelia 27 West CTB

Work Order #: 656566

Project ID:

Analyst: DTH

Date Prepared: 03/24/2020

Date Analyzed: 03/25/2020

Lab Batch ID: 3120922

Sample: 7699702-1-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)	<50.0	1000	984	98	1000	992	99	1	70-135	35	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	1000	1090	109	0	70-135	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



Form 3 - MS / MSD Recoveries

Project Name: Ophelia 27 West CTB

Work Order #: 656566

Project ID:

Lab Batch ID: 3120724

QC- Sample ID: 656558-005 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/23/2020

Date Prepared: 03/23/2020

Analyst: MAB

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	<0.00198	0.0992	0.118	119	0.100	0.114	114	3	70-130	35	
Toluene	<0.00198	0.0992	0.106	107	0.100	0.101	101	5	70-130	35	
Ethylbenzene	<0.00198	0.0992	0.0964	97	0.100	0.0894	89	8	71-129	35	
m,p-Xylenes	<0.00397	0.198	0.185	93	0.200	0.172	86	7	70-135	35	
o-Xylene	<0.00198	0.0992	0.0938	95	0.100	0.0899	90	4	71-133	35	

Lab Batch ID: 3120705

QC- Sample ID: 656545-003 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/23/2020

Date Prepared: 03/23/2020

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	306	200	511	103	200	517	106	1	90-110	20	

Lab Batch ID: 3120705

QC- Sample ID: 656560-009 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/23/2020

Date Prepared: 03/23/2020

Analyst: MAB

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	107	199	319	107	199	320	107	0	90-110	20	

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

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

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: Ophelia 27 West CTB

Work Order # : 656566

Project ID:

Lab Batch ID: 3120922

QC- Sample ID: 656666-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 03/25/2020

Date Prepared: 03/24/2020

Analyst: DTH

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)	<50.1	1000	1010	101	1000	912	91	10	70-135	35	
Diesel Range Organics (DRO)	<50.1	1000	1150	115	1000	1030	103	11	70-135	35	

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

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

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.

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

Page 1 of 1

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[illegible]

ORIGINAL COPY

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 03.23.2020 04.45.00 PM

Work Order #: 656566

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)?	4.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#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)?	No
#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: 03.23.2020

Checklist reviewed by:



Jessica Kramer

Date: 03.25.2020



Analytical Report 658719

for

Tetra Tech- Midland

Project Manager: Mike Carmona

EOG Ophelia 27 West CTB

212C-MD-02154

04.15.2020

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 (2019-058), North Carolina (681), Arkansas (19-037-0)

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-Carlsbad (LELAP): Louisiana (05092)

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)



04.15.2020

Project Manager: **Mike Carmona**

Tetra Tech- Midland

901 West Wall ST

Midland, TX 79701

Reference: XENCO Report No(s): **658719**

EOG Ophelia 27 West CTB

Project Address: Lea Co,NM

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) 658719. 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. 658719 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,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 658719****Tetra Tech- Midland, Midland, TX**

EOG Ophelia 27 West CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Bottom Hole #1 (4.5'BEB)	S	04.13.2020 00:00		658719-001
Bottom Hole #2 (4.5'BEB)	S	04.13.2020 00:00		658719-002
Bottom Hole #3 (4.5'BEB)	S	04.13.2020 00:00		658719-003
Bottom Hole #4 (4.5'BEB)	S	04.13.2020 00:00		658719-004
Bottom Hole #5 (4.5'BEB)	S	04.13.2020 00:00		658719-005
Bottom Hole #6 (4.5'BEB)	S	04.13.2020 00:00		658719-006
Bottom Hole #7 (4.5'BEB)	S	04.13.2020 00:00		658719-007
Bottom Hole #8 (4.5'BEB)	S	04.13.2020 00:00		658719-008
Bottom Hole #9 (4.5'BEB)	S	04.13.2020 00:00		658719-009
South 1 Sidewall	S	04.13.2020 00:00		658719-010
East 1 Sidewall	S	04.13.2020 00:00		658719-011
East 4 Sidewall	S	04.13.2020 00:00		658719-012



CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: EOG Ophelia 27 West CTB

Project ID: 212C-MD-02154
Work Order Number(s): 658719

Report Date: 04.15.2020
Date Received: 04.14.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3123032 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.
Samples affected are: 658719-007,658719-006.



Certificate of Analysis Summary 658719

Tetra Tech- Midland, Midland, TX

Project Name: EOG Ophelia 27 West CTB

Project Id: 212C-MD-02154

Contact: Mike Carmona

Project Location: Lea Co,NM

Date Received in Lab: Tue 04.14.2020 08:53

Report Date: 04.15.2020 14:10

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	658719-001	658719-002	658719-003	658719-004	658719-005	658719-006
	Field Id:	Bottom Hole #1 (4.5'BEB	Bottom Hole #2 (4.5'BEB	Bottom Hole #3 (4.5'BEB	Bottom Hole #4 (4.5'BEB	Bottom Hole #5 (4.5'BEB	Bottom Hole #6 (4.5'BEB
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	04.13.2020 00:00	04.13.2020 00:00	04.13.2020 00:00	04.13.2020 00:00	04.13.2020 00:00	04.13.2020 00:00
BTEX by EPA 8021B	Extracted:	04.14.2020 16:00	04.14.2020 16:00	04.14.2020 16:00	04.14.2020 16:00	04.14.2020 16:00	04.14.2020 16:00
	Analyzed:	04.15.2020 00:01	04.15.2020 00:21	04.15.2020 00:42	04.15.2020 01:02	04.15.2020 01:22	04.15.2020 01:43
	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	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00198 0.00198	<0.00200 0.00200	0.00257 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00397 0.00397	<0.00400 0.00400	0.00515 0.00398	<0.00402 0.00402	<0.00399 0.00399	<0.00398 0.00398
o-Xylene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00198 0.00198	<0.00200 0.00200	0.00515 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00198 0.00198	<0.00200 0.00200	0.00772 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199
Inorganic Anions by EPA 300/300.1	Extracted:	04.14.2020 10:25	04.14.2020 10:25	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00
	Analyzed:	04.14.2020 15:53	04.14.2020 15:58	04.14.2020 16:30	04.14.2020 16:46	04.14.2020 16:51	04.14.2020 16:56
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		162 4.97	39.3 5.05	36.7 5.02	56.4 4.96	212 4.99	77.8 4.97
TPH By SW8015 Mod	Extracted:	04.14.2020 10:00	04.14.2020 10:00	04.14.2020 10:00	04.14.2020 10:00	04.14.2020 10:00	04.14.2020 10:00
	Analyzed:	04.14.2020 14:10	04.14.2020 15:15	04.14.2020 15:37	04.14.2020 15:58	04.14.2020 16:19	04.14.2020 16:40
	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	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0
Diesel Range Organics (DRO)		752 50.0	142 50.0	122 50.0	170 49.9	<49.8 49.8	61.7 50.0
Motor Oil Range Hydrocarbons (MRO)		119 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0
Total TPH		871 50.0	142 50.0	122 50.0	170 49.9	<49.8 49.8	61.7 50.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 658719

Tetra Tech- Midland, Midland, TX

Project Name: EOG Ophelia 27 West CTB

Project Id: 212C-MD-02154

Contact: Mike Carmona

Project Location: Lea Co,NM

Date Received in Lab: Tue 04.14.2020 08:53

Report Date: 04.15.2020 14:10

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	658719-007	658719-008	658719-009	658719-010	658719-011	658719-012
	<i>Field Id:</i>	Bottom Hole #7 (4.5'BEB	Bottom Hole #8 (4.5'BEB	Bottom Hole #9 (4.5'BEB	South 1 Sidewall	East 1 Sidewall	East 4 Sidewall
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	04.13.2020 00:00	04.13.2020 00:00	04.13.2020 00:00	04.13.2020 00:00	04.13.2020 00:00	04.13.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	04.14.2020 16:00	04.14.2020 16:00	04.14.2020 16:00	04.14.2020 16:00	04.14.2020 16:00	04.14.2020 16:00
	<i>Analyzed:</i>	04.15.2020 02:03	04.15.2020 02:24	04.15.2020 02:44	04.15.2020 03:05	04.15.2020 04:28	04.15.2020 04:49
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00397 0.00397	<0.00398 0.00398	<0.00400 0.00400	<0.00401 0.00401
o-Xylene		<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00
	<i>Analyzed:</i>	04.14.2020 17:01	04.14.2020 17:17	04.14.2020 17:23	04.14.2020 17:28	04.14.2020 17:33	04.14.2020 17:38
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		286 5.00	58.6 4.98	343 5.04	532 4.95	54.9 4.95	14.3 4.95
TPH By SW8015 Mod	<i>Extracted:</i>	04.14.2020 10:00	04.14.2020 10:00	04.14.2020 10:00	04.14.2020 10:00	04.14.2020 10:00	04.14.2020 10:00
	<i>Analyzed:</i>	04.14.2020 17:01	04.14.2020 17:23	04.14.2020 17:44	04.14.2020 18:05	04.15.2020 07:35	04.15.2020 07:56
	<i>Units/RL:</i>	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	<49.8 49.8	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		61.9 50.0	394 49.9	142 49.9	280 49.8	840 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<49.9 49.9	<49.8 49.8	137 50.0	<49.9 49.9
Total TPH		61.9 50.0	394 49.9	142 49.9	280 49.8	977 50.0	<49.9 49.9

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



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. **ND** Not Detected.

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: EOG Ophelia 27 West CTB

Work Orders: 658719

Project ID: 212C-MD-02154

Lab Batch #: 3123057

Sample: 658719-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.14.2020 14:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.1	99.9	89	70-130	
o-Terphenyl	46.7	50.0	93	70-130	

Lab Batch #: 3123057

Sample: 658719-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.14.2020 15:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.7	99.9	89	70-130	
o-Terphenyl	45.6	50.0	91	70-130	

Lab Batch #: 3123057

Sample: 658719-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.14.2020 15:37

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.4	100	90	70-130	
o-Terphenyl	46.3	50.0	93	70-130	

Lab Batch #: 3123057

Sample: 658719-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.14.2020 15:58

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.7	99.7	92	70-130	
o-Terphenyl	47.9	49.9	96	70-130	

Lab Batch #: 3123057

Sample: 658719-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.14.2020 16:19

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	99.6	93	70-130	
o-Terphenyl	48.1	49.8	97	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.



Form 2 - Surrogate Recoveries

Project Name: EOG Ophelia 27 West CTB

Work Orders: 658719

Project ID: 212C-MD-02154

Lab Batch #: 3123057

Sample: 658719-006 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.14.2020 16:40

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.6	99.9	92	70-130	
o-Terphenyl	47.8	50.0	96	70-130	

Lab Batch #: 3123057

Sample: 658719-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.14.2020 17:01

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.5	100	97	70-130	
o-Terphenyl	49.8	50.0	100	70-130	

Lab Batch #: 3123057

Sample: 658719-008 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.14.2020 17:23

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	99.7	92	70-130	
o-Terphenyl	50.2	49.9	101	70-130	

Lab Batch #: 3123057

Sample: 658719-009 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.14.2020 17:44

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.5	99.8	93	70-130	
o-Terphenyl	47.8	49.9	96	70-130	

Lab Batch #: 3123057

Sample: 658719-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.14.2020 18:05

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.3	99.6	94	70-130	
o-Terphenyl	49.7	49.8	100	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.



Form 2 - Surrogate Recoveries

Project Name: EOG Ophelia 27 West CTB

Work Orders: 658719

Project ID: 212C-MD-02154

Lab Batch #: 3123057

Sample: 658719-011 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.15.2020 07:35

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.9	99.9	86	70-130	
o-Terphenyl	52.1	50.0	104	70-130	

Lab Batch #: 3123057

Sample: 658719-012 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.15.2020 07:56

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.5	99.7	85	70-130	
o-Terphenyl	42.2	49.9	85	70-130	

Lab Batch #: 3123057

Sample: 7701213-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04.14.2020 13:07

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.1	100	92	70-130	
o-Terphenyl	48.8	50.0	98	70-130	

Lab Batch #: 3123057

Sample: 7701213-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04.14.2020 13:28

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.5	100	96	70-130	
o-Terphenyl	48.7	50.0	97	70-130	

Lab Batch #: 3123057

Sample: 7701213-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04.14.2020 13:49

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.2	100	95	70-130	
o-Terphenyl	48.8	50.0	98	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.



Form 2 - Surrogate Recoveries

Project Name: EOG Ophelia 27 West CTB

Work Orders: 658719

Project ID: 212C-MD-02154

Lab Batch #: 3123057

Sample: 658719-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.14.2020 14:32

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.7	99.7	94	70-130	
o-Terphenyl	39.8	49.9	80	70-130	

Lab Batch #: 3123057

Sample: 658719-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.14.2020 14:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.8	99.6	96	70-130	
o-Terphenyl	39.9	49.8	80	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.



BS / BSD Recoveries

Project Name: EOG Ophelia 27 West CTB

Work Order #: 658719

Project ID: 212C-MD-02154

Analyst: ARM

Date Prepared: 04.14.2020

Date Analyzed: 04.14.2020

Lab Batch ID: 3123057

Sample: 7701213-1-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)	<50.0	1000	955	96	1000	954	95	0	70-130	20	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	1000	1010	101	0	70-130	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



Form 3 - MS / MSD Recoveries

Project Name: EOG Ophelia 27 West CTB

Work Order #: 658719

Project ID: 212C-MD-02154

Lab Batch ID: 3123057

QC- Sample ID: 658719-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04.14.2020

Date Prepared: 04.14.2020

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)	<49.9	997	1100	110	996	1150	115	4	70-130	20	
Diesel Range Organics (DRO)	752	997	1870	112	996	1840	109	2	70-130	20	

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

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

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.

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

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

4580719

Page 1 of 2

Client Name: EOG		Site Manager: Mike Carmona	
Project Name: Ophelia 27 West CTB			
Project Location: Lea Co, NM		Project #: 212C-MD-02154	
Invoice to: EOG - Todd Wells			
Receiving Laboratory: Xenco		Sampler Signature: Conner Moehring	
Comments:			

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	LAB USE ONLY	REMARKS:
		DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None				
	Bottom Hole #1 (4.5' BEB)	4/13/2020		X		X				1	N	X	
	Bottom Hole #2 (4.5' BEB)	4/13/2020		X		X				1	N	X	
	Bottom Hole #3 (4.5' BEB)	4/13/2020		X		X				1	N	X	
	Bottom Hole #4 (4.5' BEB)	4/13/2020		X		X				1	N	X	
	Bottom Hole #5 (4.5' BEB)	4/13/2020		X		X				1	N	X	
	Bottom Hole #6 (4.5' BEB)	4/13/2020		X		X				1	N	X	
	Bottom Hole #7 (4.5' BEB)	4/13/2020		X		X				1	N	X	
	Bottom Hole #8 (4.5' BEB)	4/13/2020		X		X				1	N	X	
	Bottom Hole #9 (4.5' BEB)	4/13/2020		X		X				1	N	X	
	South 1 Sidewall	4/13/2020		X		X				1	N	X	

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

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

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

058719

Page 2 of 2

[illegible]

ORIGINAL COPY

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 04.14.2020 08.53.00 AM

Work Order #: 658719

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	.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: 04.14.2020

Checklist reviewed by:



Jessica Kramer

Date: 04.14.2020



Certificate of Analysis Summary 660541

Tetra Tech- Midland, Midland, TX

Project Name: Ophelia 27 West CTB

Project Id: 212C-MD-01254

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Mon 05.04.2020 16:00

Report Date: 05.06.2020 14:01

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660541-001	660541-002	660541-003	660541-004	660541-005	660541-006
	<i>Field Id:</i>	Bottom Hole #11	Bottom Hole #12	Bottom Hole #13	Bottom Hole #14	Bottom Hole #15	Bottom Hole #16
	<i>Depth:</i>	5.5- ft	5.5- ft	5.5- ft	5.5- ft	5.5- ft	5.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	05.04.2020 17:01	05.04.2020 17:01	05.04.2020 17:01	05.04.2020 17:01	05.04.2020 17:01	05.04.2020 17:01
	<i>Analyzed:</i>	05.04.2020 18:51	05.04.2020 19:12	05.04.2020 19:33	05.04.2020 19:55	05.04.2020 20:16	05.04.2020 20:37
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00399 0.00399	<0.00398 0.00398	<0.00404 0.00404	<0.00399 0.00399	<0.00401 0.00401	<0.00398 0.00398
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00
	<i>Analyzed:</i>	05.04.2020 19:01	05.04.2020 19:18	05.04.2020 19:24	05.04.2020 19:29	05.04.2020 19:35	05.04.2020 19:52
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		595 9.98	189 10.0	214 10.0	167 9.96	15.5 10.1	<9.98 9.98
TPH By SW8015 Mod	<i>Extracted:</i>	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00
	<i>Analyzed:</i>	05.04.2020 18:28	05.04.2020 19:31	05.04.2020 19:51	05.04.2020 20:12	05.04.2020 20:32	05.04.2020 20:53
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<49.9 49.9	<50.0 50.0	<50.1 50.1	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<50.1 50.1	77.3 49.9	<50.0 50.0	83.7 50.1	<50.0 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<49.9 49.9	<50.0 50.0	<50.1 50.1	<50.0 50.0	<49.9 49.9
Total TPH		<50.1 50.1	77.3 49.9	<50.0 50.0	83.7 50.1	<50.0 50.0	<49.9 49.9

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 660541

Tetra Tech- Midland, Midland, TX

Project Name: Ophelia 27 West CTB

Project Id: 212C-MD-01254

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Mon 05.04.2020 16:00

Report Date: 05.06.2020 14:01

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660541-007	660541-008	660541-009	660541-010	660541-011	660541-012
	<i>Field Id:</i>	Bottom Hole #17	Bottom Hole #18	Bottom Hole #19	Bottom Hole #20	Bottom Hole #21	Bottom Hole #22
	<i>Depth:</i>	5.5- ft	5.5- ft	5.5- ft	5.5- ft	5.5- ft	5.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	05.04.2020 17:01	05.04.2020 17:01	05.04.2020 17:01	05.04.2020 17:01	05.04.2020 17:01	05.04.2020 17:01
	<i>Analyzed:</i>	05.04.2020 20:59	05.04.2020 21:20	05.04.2020 21:42	05.04.2020 22:03	05.04.2020 23:07	05.04.2020 23:29
	<i>Units/RL:</i>	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	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
m,p-Xylenes		<0.00398 0.00398	<0.00401 0.00401	<0.00402 0.00402	<0.00398 0.00398	<0.00399 0.00399	<0.00396 0.00396
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00
	<i>Analyzed:</i>	05.04.2020 19:58	05.04.2020 20:04	05.04.2020 20:10	05.04.2020 20:15	05.04.2020 20:21	05.04.2020 20:38
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<10.0 10.0	12.0 9.96	603 9.94	35.2 9.94	329 10.0	817 9.96
TPH By SW8015 Mod	<i>Extracted:</i>	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00
	<i>Analyzed:</i>	05.04.2020 21:13	05.04.2020 21:34	05.04.2020 21:54	05.04.2020 22:14	05.04.2020 22:55	05.04.2020 23:15
	<i>Units/RL:</i>	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	<50.2 50.2	<50.1 50.1	<50.0 50.0	<50.0 50.0	<50.1 50.1
Diesel Range Organics (DRO)		<50.0 50.0	<50.2 50.2	<50.1 50.1	<50.0 50.0	<50.0 50.0	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.2 50.2	<50.1 50.1	<50.0 50.0	<50.0 50.0	<50.1 50.1
Total TPH		<50.0 50.0	<50.2 50.2	<50.1 50.1	<50.0 50.0	<50.0 50.0	<50.1 50.1

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 660541

Tetra Tech- Midland, Midland, TX

Project Name: Ophelia 27 West CTB

Project Id: 212C-MD-01254

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Mon 05.04.2020 16:00

Report Date: 05.06.2020 14:01

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660541-013	660541-014	660541-015	660541-016	660541-017	660541-018
	<i>Field Id:</i>	Bottom Hole #23	Bottom Hole #24	Bottom Hole #25	Bottom Hole #26	Bottom Hole #27	Bottom Hole #28
	<i>Depth:</i>	5.5- ft	5.5- ft	5.5- ft	5.5- ft	5.5- ft	5.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	05.04.2020 17:01	05.04.2020 17:01	05.04.2020 17:01	05.04.2020 17:01	05.04.2020 17:01	05.04.2020 17:01
	<i>Analyzed:</i>	05.04.2020 23:50	05.05.2020 00:11	05.05.2020 00:33	05.05.2020 00:54	05.05.2020 01:16	05.05.2020 01:37
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
m,p-Xylenes		<0.00399 0.00399	<0.00398 0.00398	<0.00396 0.00396	<0.00399 0.00399	<0.00401 0.00401	<0.00396 0.00396
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00
	<i>Analyzed:</i>	05.04.2020 20:44	05.04.2020 21:01	05.04.2020 21:07	05.04.2020 21:12	05.04.2020 21:18	05.04.2020 21:24
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		421 9.98	10.1 9.96	48.5 9.90	1350 9.98	11.8 10.0	112 9.90
TPH By SW8015 Mod	<i>Extracted:</i>	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00
	<i>Analyzed:</i>	05.04.2020 23:36	05.04.2020 23:56	05.05.2020 00:17	05.05.2020 00:37	05.05.2020 00:57	05.05.2020 01:18
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<49.9 49.9	<49.9 49.9	<50.2 50.2	<49.9 49.9	<50.1 50.1
Diesel Range Organics (DRO)		59.7 50.1	<49.9 49.9	<49.9 49.9	<50.2 50.2	<49.9 49.9	77.9 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<49.9 49.9	<49.9 49.9	<50.2 50.2	<49.9 49.9	<50.1 50.1
Total TPH		59.7 50.1	<49.9 49.9	<49.9 49.9	<50.2 50.2	<49.9 49.9	77.9 50.1

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 660541

Tetra Tech- Midland, Midland, TX

Project Name: Ophelia 27 West CTB

Project Id: 212C-MD-01254

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Mon 05.04.2020 16:00

Report Date: 05.06.2020 14:01

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660541-019	660541-020	660541-021	660541-022	660541-023	660541-024
	<i>Field Id:</i>	Bottom Hole #29	Bottom Hole #30	Bottom Hole #31	Bottom Hole #32	East #1 Sidewall	East #2 Sidewall
	<i>Depth:</i>	5.5- ft	5.5- ft	5.5- ft	5.5- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	05.04.2020 17:01	05.04.2020 17:01	05.04.2020 17:36	05.04.2020 17:36	05.04.2020 17:36	05.04.2020 17:36
	<i>Analyzed:</i>	05.05.2020 01:58	05.05.2020 02:20	05.05.2020 05:32	05.05.2020 05:54	05.05.2020 06:15	05.05.2020 06:36
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201	<0.00198 0.00198
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201	<0.00198 0.00198
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201	<0.00198 0.00198
m,p-Xylenes		<0.00402 0.00402	<0.00399 0.00399	<0.00402 0.00402	<0.00396 0.00396	<0.00402 0.00402	<0.00396 0.00396
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201	<0.00198 0.00198
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201	<0.00198 0.00198
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00201 0.00201	<0.00198 0.00198
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:47	05.04.2020 17:47	05.04.2020 17:47	05.04.2020 17:47
	<i>Analyzed:</i>	05.04.2020 21:30	05.04.2020 21:35	05.04.2020 22:10	05.04.2020 22:27	05.04.2020 22:32	05.04.2020 22:38
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		161 10.1	37.0 9.98	287 9.96	13.5 10.0	20.6 10.0	<9.98 9.98
TPH By SW8015 Mod	<i>Extracted:</i>	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00
	<i>Analyzed:</i>	05.05.2020 01:38	05.05.2020 01:58	05.05.2020 03:40	05.05.2020 04:41	05.05.2020 05:02	05.05.2020 05:22
	<i>Units/RL:</i>	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	<49.8 49.8	<49.8 49.8	<49.8 49.8	<50.1 50.1
Diesel Range Organics (DRO)		562 50.0	<49.9 49.9	<49.8 49.8	<49.8 49.8	<49.8 49.8	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.8 49.8	<49.8 49.8	<50.1 50.1
Total TPH		562 50.0	<49.9 49.9	<49.8 49.8	<49.8 49.8	<49.8 49.8	<50.1 50.1

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 660541

Tetra Tech- Midland, Midland, TX

Project Name: Ophelia 27 West CTB

Project Id: 212C-MD-01254

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Mon 05.04.2020 16:00

Report Date: 05.06.2020 14:01

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660541-025	660541-026	660541-027	660541-028	660541-029	660541-030
	<i>Field Id:</i>	East #4 Sidewall	East #5 Sidewall	East #6 Sidewall	South #1 Sidewall	South #2 Sidewall	South #3 Sidewall
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	05.04.2020 17:36	05.04.2020 17:36	05.04.2020 17:36	05.04.2020 17:36	05.04.2020 17:36	05.04.2020 17:36
	<i>Analyzed:</i>	05.05.2020 06:58	05.05.2020 07:19	05.05.2020 07:41	05.05.2020 08:02	05.05.2020 08:23	05.05.2020 08:45
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201
m,p-Xylenes		<0.00402 0.00402	<0.00399 0.00399	<0.00398 0.00398	<0.00402 0.00402	<0.00398 0.00398	<0.00402 0.00402
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	05.04.2020 17:47	05.04.2020 17:47	05.04.2020 17:47	05.04.2020 17:47	05.04.2020 17:47	05.04.2020 17:47
	<i>Analyzed:</i>	05.04.2020 22:44	05.04.2020 23:01	05.04.2020 23:07	05.04.2020 23:12	05.04.2020 23:18	05.04.2020 23:24
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		12.2 10.1	184 10.1	17.8 9.94	91.8 9.96	169 9.96	246 9.98
TPH By SW8015 Mod	<i>Extracted:</i>	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00
	<i>Analyzed:</i>	05.05.2020 05:43	05.05.2020 06:03	05.05.2020 06:23	05.05.2020 06:44	05.05.2020 07:04	05.05.2020 07:24
	<i>Units/RL:</i>	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	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.8 49.8	<50.0 50.0
Diesel Range Organics (DRO)		<49.8 49.8	162 50.2	380 50.2	170 50.2	<49.8 49.8	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.2 50.2	<50.2 50.2	<50.2 50.2	<49.8 49.8	<50.0 50.0
Total TPH		<49.8 49.8	162 50.2	380 50.2	170 50.2	<49.8 49.8	<50.0 50.0

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 660541

Tetra Tech- Midland, Midland, TX

Project Name: Ophelia 27 West CTB

Project Id: 212C-MD-01254

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Mon 05.04.2020 16:00

Report Date: 05.06.2020 14:01

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660541-031	660541-032	660541-033	660541-034	660541-035	660541-036
	<i>Field Id:</i>	South #4 Sidewall	South #5 Sidewall	West #1 Sidewall	West #2 Sidewall	West #3 Sidewall	West #4 Sidewall
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	05.04.2020 17:36	05.04.2020 17:36	05.04.2020 17:36	05.04.2020 17:36	05.04.2020 17:36	05.04.2020 17:36
	<i>Analyzed:</i>	05.05.2020 09:49	05.05.2020 10:10	05.05.2020 10:32	05.05.2020 10:53	05.05.2020 11:15	05.05.2020 11:36
	<i>Units/RL:</i>	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	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00404 0.00404	<0.00399 0.00399	<0.00402 0.00402	<0.00403 0.00403	<0.00399 0.00399	<0.00401 0.00401
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	05.04.2020 17:47	05.04.2020 17:47	05.04.2020 17:47	05.04.2020 17:47	05.04.2020 17:47	05.04.2020 17:47
	<i>Analyzed:</i>	05.04.2020 23:29	05.04.2020 23:46	05.04.2020 23:52	05.05.2020 00:09	05.05.2020 00:15	05.05.2020 00:21
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		64.5 9.96	41.7 9.94	11.2 9.94	42.5 10.0	13.9 10.0	27.0 9.96
TPH By SW8015 Mod	<i>Extracted:</i>	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00
	<i>Analyzed:</i>	05.05.2020 08:05	05.05.2020 08:25	05.05.2020 08:45	05.05.2020 09:06	05.05.2020 09:26	05.05.2020 09:47
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.0 50.0
Diesel Range Organics (DRO)		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.0 50.0
Total TPH		<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.2 50.2	<50.3 50.3	<50.0 50.0

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 660541

Tetra Tech- Midland, Midland, TX

Project Name: Ophelia 27 West CTB

Project Id: 212C-MD-01254

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Mon 05.04.2020 16:00

Report Date: 05.06.2020 14:01

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660541-037	660541-038	660541-039	660541-040	660541-041	
	<i>Field Id:</i>	West #5 Sidewall	West #6 Sidewall	North #1 Sidewall	North #2 Sidewall	North #3 Sidewall	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	05.01.2020 00:00	
BTEX by EPA 8021B	<i>Extracted:</i>	05.04.2020 17:36	05.04.2020 17:36	05.04.2020 17:36	05.04.2020 17:36	05.05.2020 09:41	
	<i>Analyzed:</i>	05.05.2020 11:57	05.05.2020 12:19	05.05.2020 12:40	05.05.2020 13:02	05.05.2020 17:19	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	
m,p-Xylenes		<0.00402 0.00402	<0.00399 0.00399	<0.00403 0.00403	<0.00404 0.00404	<0.00400 0.00400	
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	05.04.2020 17:47	05.04.2020 17:47	05.04.2020 17:47	05.04.2020 17:47	05.04.2020 17:30	
	<i>Analyzed:</i>	05.05.2020 00:26	05.05.2020 00:32	05.05.2020 00:38	05.05.2020 00:43	05.05.2020 01:18	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		141 9.98	241 9.88	14.9 9.98	585 10.1	<9.92 9.92	
TPH By SW8015 Mod	<i>Extracted:</i>	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.04.2020 17:00	05.05.2020 17:30	
	<i>Analyzed:</i>	05.05.2020 10:07	05.05.2020 10:27	05.05.2020 10:47	05.05.2020 11:08	05.06.2020 05:54	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		<50.3 50.3	<50.1 50.1	<50.1 50.1	<50.3 50.3	<50.1 50.1	
Diesel Range Organics (DRO)		142 50.3	<50.1 50.1	<50.1 50.1	65.8 50.3	<50.1 50.1	
Motor Oil Range Hydrocarbons (MRO)		54.1 50.3	<50.1 50.1	<50.1 50.1	<50.3 50.3	<50.1 50.1	
Total TPH		196 50.3	<50.1 50.1	<50.1 50.1	65.8 50.3	<50.1 50.1	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Analytical Report 660541

for

Tetra Tech- Midland

Project Manager: Mike Carmona

Ophelia 27 West CTB

212C-MD-01254

05.06.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



05.06.2020

Project Manager: **Mike Carmona**

Tetra Tech- Midland

901 West Wall ST

Midland, TX 79701

Reference: XENCO Report No(s): **660541**

Ophelia 27 West CTB

Project Address: Lea Co, NM

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) 660541. 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. 660541 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,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 660541

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Bottom Hole #11	S	05.01.2020 00:00	5.5 ft	660541-001
Bottom Hole #12	S	05.01.2020 00:00	5.5 ft	660541-002
Bottom Hole #13	S	05.01.2020 00:00	5.5 ft	660541-003
Bottom Hole #14	S	05.01.2020 00:00	5.5 ft	660541-004
Bottom Hole #15	S	05.01.2020 00:00	5.5 ft	660541-005
Bottom Hole #16	S	05.01.2020 00:00	5.5 ft	660541-006
Bottom Hole #17	S	05.01.2020 00:00	5.5 ft	660541-007
Bottom Hole #18	S	05.01.2020 00:00	5.5 ft	660541-008
Bottom Hole #19	S	05.01.2020 00:00	5.5 ft	660541-009
Bottom Hole #20	S	05.01.2020 00:00	5.5 ft	660541-010
Bottom Hole #21	S	05.01.2020 00:00	5.5 ft	660541-011
Bottom Hole #22	S	05.01.2020 00:00	5.5 ft	660541-012
Bottom Hole #23	S	05.01.2020 00:00	5.5 ft	660541-013
Bottom Hole #24	S	05.01.2020 00:00	5.5 ft	660541-014
Bottom Hole #25	S	05.01.2020 00:00	5.5 ft	660541-015
Bottom Hole #26	S	05.01.2020 00:00	5.5 ft	660541-016
Bottom Hole #27	S	05.01.2020 00:00	5.5 ft	660541-017
Bottom Hole #28	S	05.01.2020 00:00	5.5 ft	660541-018
Bottom Hole #29	S	05.01.2020 00:00	5.5 ft	660541-019
Bottom Hole #30	S	05.01.2020 00:00	5.5 ft	660541-020
Bottom Hole #31	S	05.01.2020 00:00	5.5 ft	660541-021
Bottom Hole #32	S	05.01.2020 00:00	5.5 ft	660541-022
East #1 Sidewall	S	05.01.2020 00:00		660541-023
East #2 Sidewall	S	05.01.2020 00:00		660541-024
East #4 Sidewall	S	05.01.2020 00:00		660541-025
East #5 Sidewall	S	05.01.2020 00:00		660541-026
East #6 Sidewall	S	05.01.2020 00:00		660541-027
South #1 Sidewall	S	05.01.2020 00:00		660541-028
South #2 Sidewall	S	05.01.2020 00:00		660541-029
South #3 Sidewall	S	05.01.2020 00:00		660541-030
South #4 Sidewall	S	05.01.2020 00:00		660541-031
South #5 Sidewall	S	05.01.2020 00:00		660541-032
West #1 Sidewall	S	05.01.2020 00:00		660541-033
West #2 Sidewall	S	05.01.2020 00:00		660541-034
West #3 Sidewall	S	05.01.2020 00:00		660541-035
West #4 Sidewall	S	05.01.2020 00:00		660541-036
West #5 Sidewall	S	05.01.2020 00:00		660541-037
West #6 Sidewall	S	05.01.2020 00:00		660541-038
North #1 Sidewall	S	05.01.2020 00:00		660541-039
North #2 Sidewall	S	05.01.2020 00:00		660541-040
North #3 Sidewall	S	05.01.2020 00:00		660541-041



CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Ophelia 27 West CTB

Project ID: 212C-MD-01254
Work Order Number(s): 660541

Report Date: 05.06.2020
Date Received: 05.04.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 660541

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #11**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-001

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	595	9.98	mg/kg	05.04.2020 19:01		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.04.2020 18:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.04.2020 18:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.04.2020 18:28	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.04.2020 18:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	05.04.2020 18:28	
o-Terphenyl	84-15-1	102	%	70-135	05.04.2020 18:28	



Certificate of Analytical Results 660541

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #11**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-001

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.04.2020 18:51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.04.2020 18:51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.04.2020 18:51	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.04.2020 18:51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.04.2020 18:51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.04.2020 18:51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.04.2020 18:51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	05.04.2020 18:51		
1,4-Difluorobenzene	540-36-3	111	%	70-130	05.04.2020 18:51		



Certificate of Analytical Results 660541

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #12** Matrix: Soil Date Received: 05.04.2020 16:00
 Lab Sample Id: 660541-002 Date Collected: 05.01.2020 00:00 Sample Depth: 5.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	189	10.0	mg/kg	05.04.2020 19:18		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.04.2020 19:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	77.3	49.9	mg/kg	05.04.2020 19:31		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.04.2020 19:31	U	1
Total TPH	PHC635	77.3	49.9	mg/kg	05.04.2020 19:31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	05.04.2020 19:31	
o-Terphenyl	84-15-1	109	%	70-135	05.04.2020 19:31	



Certificate of Analytical Results 660541

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #12**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-002

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.04.2020 19:12	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.04.2020 19:12	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.04.2020 19:12	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.04.2020 19:12	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.04.2020 19:12	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.04.2020 19:12	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.04.2020 19:12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.04.2020 19:12		
4-Bromofluorobenzene	460-00-4	103	%	70-130	05.04.2020 19:12		



Certificate of Analytical Results 660541

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #13** Matrix: Soil Date Received: 05.04.2020 16:00
 Lab Sample Id: 660541-003 Date Collected: 05.01.2020 00:00 Sample Depth: 5.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	214	10.0	mg/kg	05.04.2020 19:24		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.04.2020 19:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.04.2020 19:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.04.2020 19:51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.04.2020 19:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	05.04.2020 19:51	
o-Terphenyl	84-15-1	99	%	70-135	05.04.2020 19:51	



Certificate of Analytical Results 660541

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #13**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-003

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.04.2020 19:33	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.04.2020 19:33	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.04.2020 19:33	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.04.2020 19:33	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.04.2020 19:33	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.04.2020 19:33	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.04.2020 19:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	05.04.2020 19:33		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.04.2020 19:33		



Certificate of Analytical Results 660541

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #14** Matrix: Soil Date Received: 05.04.2020 16:00
 Lab Sample Id: 660541-004 Date Collected: 05.01.2020 00:00 Sample Depth: 5.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	167	9.96	mg/kg	05.04.2020 19:29		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.04.2020 20:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	83.7	50.1	mg/kg	05.04.2020 20:12		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.04.2020 20:12	U	1
Total TPH	PHC635	83.7	50.1	mg/kg	05.04.2020 20:12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	05.04.2020 20:12	
o-Terphenyl	84-15-1	101	%	70-135	05.04.2020 20:12	



Certificate of Analytical Results 660541

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #14**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-004

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.04.2020 19:55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.04.2020 19:55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.04.2020 19:55	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.04.2020 19:55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.04.2020 19:55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.04.2020 19:55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.04.2020 19:55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.04.2020 19:55		
1,4-Difluorobenzene	540-36-3	110	%	70-130	05.04.2020 19:55		



Certificate of Analytical Results 660541

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #15** Matrix: Soil Date Received: 05.04.2020 16:00
 Lab Sample Id: 660541-005 Date Collected: 05.01.2020 00:00 Sample Depth: 5.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15.5	10.1	mg/kg	05.04.2020 19:35		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.04.2020 20:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.04.2020 20:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.04.2020 20:32	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.04.2020 20:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	05.04.2020 20:32	
o-Terphenyl	84-15-1	106	%	70-135	05.04.2020 20:32	



Certificate of Analytical Results 660541

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #15**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-005

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.04.2020 20:16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.04.2020 20:16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.04.2020 20:16	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.04.2020 20:16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.04.2020 20:16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.04.2020 20:16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.04.2020 20:16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.04.2020 20:16		
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.04.2020 20:16		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #16**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-006

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	05.04.2020 19:52	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.04.2020 20:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.04.2020 20:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.04.2020 20:53	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.04.2020 20:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	05.04.2020 20:53	
o-Terphenyl	84-15-1	102	%	70-135	05.04.2020 20:53	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #16**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-006

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.04.2020 20:37	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.04.2020 20:37	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.04.2020 20:37	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.04.2020 20:37	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.04.2020 20:37	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.04.2020 20:37	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.04.2020 20:37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	05.04.2020 20:37		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.04.2020 20:37		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #17**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-007

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	05.04.2020 19:58	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.04.2020 21:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.04.2020 21:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.04.2020 21:13	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.04.2020 21:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	05.04.2020 21:13	
o-Terphenyl	84-15-1	106	%	70-135	05.04.2020 21:13	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #17**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-007

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.04.2020 20:59	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.04.2020 20:59	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.04.2020 20:59	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.04.2020 20:59	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.04.2020 20:59	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.04.2020 20:59	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.04.2020 20:59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.04.2020 20:59		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.04.2020 20:59		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #18** Matrix: Soil Date Received: 05.04.2020 16:00
 Lab Sample Id: 660541-008 Date Collected: 05.01.2020 00:00 Sample Depth: 5.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.0	9.96	mg/kg	05.04.2020 20:04		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.04.2020 21:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.04.2020 21:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.04.2020 21:34	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.04.2020 21:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	05.04.2020 21:34	
o-Terphenyl	84-15-1	104	%	70-135	05.04.2020 21:34	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #18**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-008

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.04.2020 21:20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.04.2020 21:20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.04.2020 21:20	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.04.2020 21:20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.04.2020 21:20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.04.2020 21:20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.04.2020 21:20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	117	%	70-130	05.04.2020 21:20		
4-Bromofluorobenzene	460-00-4	109	%	70-130	05.04.2020 21:20		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #19** Matrix: Soil Date Received: 05.04.2020 16:00
 Lab Sample Id: 660541-009 Date Collected: 05.01.2020 00:00 Sample Depth: 5.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	603	9.94	mg/kg	05.04.2020 20:10		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.04.2020 21:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.04.2020 21:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.04.2020 21:54	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.04.2020 21:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	05.04.2020 21:54	
o-Terphenyl	84-15-1	99	%	70-135	05.04.2020 21:54	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #19**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-009

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.04.2020 21:42	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.04.2020 21:42	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.04.2020 21:42	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.04.2020 21:42	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.04.2020 21:42	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.04.2020 21:42	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.04.2020 21:42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.04.2020 21:42		
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.04.2020 21:42		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #20**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-010

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	35.2	9.94	mg/kg	05.04.2020 20:15		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.04.2020 22:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.04.2020 22:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.04.2020 22:14	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.04.2020 22:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.04.2020 22:14	
o-Terphenyl	84-15-1	106	%	70-135	05.04.2020 22:14	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #20**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-010

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.04.2020 22:03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.04.2020 22:03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.04.2020 22:03	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.04.2020 22:03	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.04.2020 22:03	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.04.2020 22:03	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.04.2020 22:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.04.2020 22:03		
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.04.2020 22:03		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #21**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-011

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	329	10.0	mg/kg	05.04.2020 20:21		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.04.2020 22:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.04.2020 22:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.04.2020 22:55	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.04.2020 22:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	05.04.2020 22:55	
o-Terphenyl	84-15-1	104	%	70-135	05.04.2020 22:55	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #21**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-011

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.04.2020 23:07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.04.2020 23:07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.04.2020 23:07	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.04.2020 23:07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.04.2020 23:07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.04.2020 23:07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.04.2020 23:07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	116	%	70-130	05.04.2020 23:07		
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.04.2020 23:07		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #22**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-012

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	817	9.96	mg/kg	05.04.2020 20:38		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.04.2020 23:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.04.2020 23:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.04.2020 23:15	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.04.2020 23:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	05.04.2020 23:15	
o-Terphenyl	84-15-1	100	%	70-135	05.04.2020 23:15	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #22**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-012

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.04.2020 23:29	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.04.2020 23:29	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.04.2020 23:29	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	05.04.2020 23:29	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.04.2020 23:29	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.04.2020 23:29	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.04.2020 23:29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.04.2020 23:29		
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.04.2020 23:29		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #23** Matrix: Soil Date Received: 05.04.2020 16:00
 Lab Sample Id: 660541-013 Date Collected: 05.01.2020 00:00 Sample Depth: 5.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	421	9.98	mg/kg	05.04.2020 20:44		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.04.2020 23:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	59.7	50.1	mg/kg	05.04.2020 23:36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.04.2020 23:36	U	1
Total TPH	PHC635	59.7	50.1	mg/kg	05.04.2020 23:36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	05.04.2020 23:36	
o-Terphenyl	84-15-1	101	%	70-135	05.04.2020 23:36	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #23**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-013

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.04.2020 23:50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.04.2020 23:50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.04.2020 23:50	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.04.2020 23:50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.04.2020 23:50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.04.2020 23:50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.04.2020 23:50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	05.04.2020 23:50		
1,4-Difluorobenzene	540-36-3	111	%	70-130	05.04.2020 23:50		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #24**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-014

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.1	9.96	mg/kg	05.04.2020 21:01		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.04.2020 23:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.04.2020 23:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.04.2020 23:56	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.04.2020 23:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	05.04.2020 23:56	
o-Terphenyl	84-15-1	104	%	70-135	05.04.2020 23:56	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #24**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-014

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.05.2020 00:11	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.05.2020 00:11	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.05.2020 00:11	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.05.2020 00:11	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.05.2020 00:11	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.05.2020 00:11	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.05.2020 00:11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.05.2020 00:11		
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.05.2020 00:11		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #25** Matrix: Soil Date Received: 05.04.2020 16:00
 Lab Sample Id: 660541-015 Date Collected: 05.01.2020 00:00 Sample Depth: 5.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	48.5	9.90	mg/kg	05.04.2020 21:07		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.05.2020 00:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.05.2020 00:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.05.2020 00:17	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.05.2020 00:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	05.05.2020 00:17	
o-Terphenyl	84-15-1	102	%	70-135	05.05.2020 00:17	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #25**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-015

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.05.2020 00:33	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.05.2020 00:33	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.05.2020 00:33	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	05.05.2020 00:33	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.05.2020 00:33	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.05.2020 00:33	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.05.2020 00:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.05.2020 00:33		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.05.2020 00:33		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #26** Matrix: Soil Date Received: 05.04.2020 16:00
 Lab Sample Id: 660541-016 Date Collected: 05.01.2020 00:00 Sample Depth: 5.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1350	9.98	mg/kg	05.04.2020 21:12		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.05.2020 00:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.05.2020 00:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.05.2020 00:37	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.05.2020 00:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.05.2020 00:37	
o-Terphenyl	84-15-1	106	%	70-135	05.05.2020 00:37	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #26**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-016

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.05.2020 00:54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.05.2020 00:54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.05.2020 00:54	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.05.2020 00:54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.05.2020 00:54	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.05.2020 00:54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.05.2020 00:54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.05.2020 00:54		
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.05.2020 00:54		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #27**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-017

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.8	10.0	mg/kg	05.04.2020 21:18		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.05.2020 00:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.05.2020 00:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.05.2020 00:57	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.05.2020 00:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	05.05.2020 00:57	
o-Terphenyl	84-15-1	105	%	70-135	05.05.2020 00:57	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #27**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-017

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.05.2020 01:16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.05.2020 01:16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.05.2020 01:16	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.05.2020 01:16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.05.2020 01:16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.05.2020 01:16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.05.2020 01:16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.05.2020 01:16		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.05.2020 01:16		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #28** Matrix: Soil Date Received: 05.04.2020 16:00
 Lab Sample Id: 660541-018 Date Collected: 05.01.2020 00:00 Sample Depth: 5.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	112	9.90	mg/kg	05.04.2020 21:24		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.05.2020 01:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	77.9	50.1	mg/kg	05.05.2020 01:18		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.05.2020 01:18	U	1
Total TPH	PHC635	77.9	50.1	mg/kg	05.05.2020 01:18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	05.05.2020 01:18	
o-Terphenyl	84-15-1	105	%	70-135	05.05.2020 01:18	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #28**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-018

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.05.2020 01:37	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.05.2020 01:37	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.05.2020 01:37	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	05.05.2020 01:37	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.05.2020 01:37	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.05.2020 01:37	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.05.2020 01:37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.05.2020 01:37		
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.05.2020 01:37		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #29** Matrix: Soil Date Received: 05.04.2020 16:00
 Lab Sample Id: 660541-019 Date Collected: 05.01.2020 00:00 Sample Depth: 5.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	161	10.1	mg/kg	05.04.2020 21:30		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.05.2020 01:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	562	50.0	mg/kg	05.05.2020 01:38		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.05.2020 01:38	U	1
Total TPH	PHC635	562	50.0	mg/kg	05.05.2020 01:38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.05.2020 01:38	
o-Terphenyl	84-15-1	101	%	70-135	05.05.2020 01:38	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #29**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-019

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.05.2020 01:58	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.05.2020 01:58	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.05.2020 01:58	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.05.2020 01:58	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.05.2020 01:58	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.05.2020 01:58	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.05.2020 01:58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	110	%	70-130	05.05.2020 01:58		
4-Bromofluorobenzene	460-00-4	100	%	70-130	05.05.2020 01:58		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #30**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-020

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3124997

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	37.0	9.98	mg/kg	05.04.2020 21:35		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.05.2020 01:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.05.2020 01:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.05.2020 01:58	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.05.2020 01:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	05.05.2020 01:58	
o-Terphenyl	84-15-1	103	%	70-135	05.05.2020 01:58	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #30**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-020

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:01

Basis: Wet Weight

Seq Number: 3124991

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.05.2020 02:20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.05.2020 02:20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.05.2020 02:20	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.05.2020 02:20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.05.2020 02:20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.05.2020 02:20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.05.2020 02:20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.05.2020 02:20		
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.05.2020 02:20		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #31** Matrix: Soil Date Received: 05.04.2020 16:00
 Lab Sample Id: 660541-021 Date Collected: 05.01.2020 00:00 Sample Depth: 5.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.04.2020 17:47 Basis: Wet Weight
 Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	287	9.96	mg/kg	05.04.2020 22:10		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.05.2020 03:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.05.2020 03:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.05.2020 03:40	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.05.2020 03:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	05.05.2020 03:40	
o-Terphenyl	84-15-1	103	%	70-135	05.05.2020 03:40	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #31**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-021

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.05.2020 05:32	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.05.2020 05:32	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.05.2020 05:32	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.05.2020 05:32	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.05.2020 05:32	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.05.2020 05:32	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.05.2020 05:32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.05.2020 05:32		
1,4-Difluorobenzene	540-36-3	116	%	70-130	05.05.2020 05:32		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #32** Matrix: Soil Date Received: 05.04.2020 16:00
 Lab Sample Id: 660541-022 Date Collected: 05.01.2020 00:00 Sample Depth: 5.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.04.2020 17:47 Basis: Wet Weight
 Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.5	10.0	mg/kg	05.04.2020 22:27		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.05.2020 04:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.05.2020 04:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.05.2020 04:41	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.05.2020 04:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	05.05.2020 04:41	
o-Terphenyl	84-15-1	107	%	70-135	05.05.2020 04:41	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #32**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-022

Date Collected: 05.01.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.05.2020 05:54	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.05.2020 05:54	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.05.2020 05:54	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	05.05.2020 05:54	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.05.2020 05:54	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.05.2020 05:54	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.05.2020 05:54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.05.2020 05:54		
4-Bromofluorobenzene	460-00-4	102	%	70-130	05.05.2020 05:54		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **East #1 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-023

Date Collected: 05.01.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:47

Basis: Wet Weight

Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.6	10.0	mg/kg	05.04.2020 22:32		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.05.2020 05:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.05.2020 05:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.05.2020 05:02	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.05.2020 05:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	05.05.2020 05:02	
o-Terphenyl	84-15-1	104	%	70-135	05.05.2020 05:02	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **East #1 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-023

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.05.2020 06:15	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.05.2020 06:15	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.05.2020 06:15	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.05.2020 06:15	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.05.2020 06:15	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.05.2020 06:15	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.05.2020 06:15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	117	%	70-130	05.05.2020 06:15		
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.05.2020 06:15		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **East #2 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-024

Date Collected: 05.01.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:47

Basis: Wet Weight

Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	05.04.2020 22:38	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.05.2020 05:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.05.2020 05:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.05.2020 05:22	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.05.2020 05:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	05.05.2020 05:22	
o-Terphenyl	84-15-1	106	%	70-135	05.05.2020 05:22	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **East #2 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-024

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.05.2020 06:36	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.05.2020 06:36	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.05.2020 06:36	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	05.05.2020 06:36	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.05.2020 06:36	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.05.2020 06:36	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.05.2020 06:36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	05.05.2020 06:36		
1,4-Difluorobenzene	540-36-3	117	%	70-130	05.05.2020 06:36		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **East #4 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-025

Date Collected: 05.01.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:47

Basis: Wet Weight

Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.2	10.1	mg/kg	05.04.2020 22:44		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.05.2020 05:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.05.2020 05:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.05.2020 05:43	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.05.2020 05:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	05.05.2020 05:43	
o-Terphenyl	84-15-1	109	%	70-135	05.05.2020 05:43	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **East #4 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-025

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.05.2020 06:58	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.05.2020 06:58	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.05.2020 06:58	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.05.2020 06:58	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.05.2020 06:58	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.05.2020 06:58	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.05.2020 06:58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.05.2020 06:58		
4-Bromofluorobenzene	460-00-4	109	%	70-130	05.05.2020 06:58		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **East #5 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-026

Date Collected: 05.01.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:47

Basis: Wet Weight

Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	184	10.1	mg/kg	05.04.2020 23:01		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.05.2020 06:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	162	50.2	mg/kg	05.05.2020 06:03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.05.2020 06:03	U	1
Total TPH	PHC635	162	50.2	mg/kg	05.05.2020 06:03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	05.05.2020 06:03	
o-Terphenyl	84-15-1	111	%	70-135	05.05.2020 06:03	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **East #5 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-026

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.05.2020 07:19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.05.2020 07:19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.05.2020 07:19	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.05.2020 07:19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.05.2020 07:19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.05.2020 07:19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.05.2020 07:19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	05.05.2020 07:19		
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.05.2020 07:19		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **East #6 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-027

Date Collected: 05.01.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:47

Basis: Wet Weight

Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17.8	9.94	mg/kg	05.04.2020 23:07		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.05.2020 06:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	380	50.2	mg/kg	05.05.2020 06:23		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.05.2020 06:23	U	1
Total TPH	PHC635	380	50.2	mg/kg	05.05.2020 06:23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	05.05.2020 06:23	
o-Terphenyl	84-15-1	113	%	70-135	05.05.2020 06:23	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **East #6 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-027

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.05.2020 07:41	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.05.2020 07:41	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.05.2020 07:41	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.05.2020 07:41	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.05.2020 07:41	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.05.2020 07:41	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.05.2020 07:41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.05.2020 07:41		
1,4-Difluorobenzene	540-36-3	111	%	70-130	05.05.2020 07:41		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **South #1 Sidewall** Matrix: Soil Date Received: 05.04.2020 16:00
 Lab Sample Id: 660541-028 Date Collected: 05.01.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.04.2020 17:47 Basis: Wet Weight
 Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	91.8	9.96	mg/kg	05.04.2020 23:12		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.05.2020 06:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	170	50.2	mg/kg	05.05.2020 06:44		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.05.2020 06:44	U	1
Total TPH	PHC635	170	50.2	mg/kg	05.05.2020 06:44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	05.05.2020 06:44	
o-Terphenyl	84-15-1	111	%	70-135	05.05.2020 06:44	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **South #1 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-028

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.05.2020 08:02	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.05.2020 08:02	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.05.2020 08:02	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.05.2020 08:02	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.05.2020 08:02	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.05.2020 08:02	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.05.2020 08:02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.05.2020 08:02		
1,4-Difluorobenzene	540-36-3	117	%	70-130	05.05.2020 08:02		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **South #2 Sidewall** Matrix: Soil Date Received: 05.04.2020 16:00
 Lab Sample Id: 660541-029 Date Collected: 05.01.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.04.2020 17:47 Basis: Wet Weight
 Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	169	9.96	mg/kg	05.04.2020 23:18		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.05.2020 07:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.05.2020 07:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.05.2020 07:04	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.05.2020 07:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	05.05.2020 07:04	
o-Terphenyl	84-15-1	113	%	70-135	05.05.2020 07:04	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **South #2 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-029

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.05.2020 08:23	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.05.2020 08:23	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.05.2020 08:23	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.05.2020 08:23	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.05.2020 08:23	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.05.2020 08:23	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.05.2020 08:23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	114	%	70-130	05.05.2020 08:23		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.05.2020 08:23		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **South #3 Sidewall** Matrix: Soil Date Received: 05.04.2020 16:00
 Lab Sample Id: 660541-030 Date Collected: 05.01.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.04.2020 17:47 Basis: Wet Weight
 Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	246	9.98	mg/kg	05.04.2020 23:24		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.05.2020 07:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.05.2020 07:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.05.2020 07:24	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.05.2020 07:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.05.2020 07:24	
o-Terphenyl	84-15-1	106	%	70-135	05.05.2020 07:24	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **South #3 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-030

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.05.2020 08:45	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.05.2020 08:45	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.05.2020 08:45	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.05.2020 08:45	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.05.2020 08:45	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.05.2020 08:45	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.05.2020 08:45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.05.2020 08:45		
1,4-Difluorobenzene	540-36-3	116	%	70-130	05.05.2020 08:45		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **South #4 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-031

Date Collected: 05.01.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:47

Basis: Wet Weight

Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	64.5	9.96	mg/kg	05.04.2020 23:29		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.05.2020 08:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.05.2020 08:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.05.2020 08:05	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.05.2020 08:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	05.05.2020 08:05	
o-Terphenyl	84-15-1	111	%	70-135	05.05.2020 08:05	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **South #4 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-031

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.05.2020 09:49	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.05.2020 09:49	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.05.2020 09:49	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.05.2020 09:49	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.05.2020 09:49	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.05.2020 09:49	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.05.2020 09:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.05.2020 09:49		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.05.2020 09:49		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **South #5 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-032

Date Collected: 05.01.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:47

Basis: Wet Weight

Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	41.7	9.94	mg/kg	05.04.2020 23:46		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.05.2020 08:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.05.2020 08:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.05.2020 08:25	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.05.2020 08:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.05.2020 08:25	
o-Terphenyl	84-15-1	106	%	70-135	05.05.2020 08:25	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **South #5 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-032

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.05.2020 10:10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.05.2020 10:10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.05.2020 10:10	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.05.2020 10:10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.05.2020 10:10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.05.2020 10:10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.05.2020 10:10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.05.2020 10:10		
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.05.2020 10:10		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **West #1 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-033

Date Collected: 05.01.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:47

Basis: Wet Weight

Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.2	9.94	mg/kg	05.04.2020 23:52		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.05.2020 08:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.05.2020 08:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.05.2020 08:45	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.05.2020 08:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	05.05.2020 08:45	
o-Terphenyl	84-15-1	109	%	70-135	05.05.2020 08:45	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **West #1 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-033

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.05.2020 10:32	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.05.2020 10:32	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.05.2020 10:32	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.05.2020 10:32	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.05.2020 10:32	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.05.2020 10:32	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.05.2020 10:32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	116	%	70-130	05.05.2020 10:32		
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.05.2020 10:32		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **West #2 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-034

Date Collected: 05.01.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:47

Basis: Wet Weight

Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	42.5	10.0	mg/kg	05.05.2020 00:09		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.05.2020 09:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.05.2020 09:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.05.2020 09:06	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.05.2020 09:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	05.05.2020 09:06	
o-Terphenyl	84-15-1	106	%	70-135	05.05.2020 09:06	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **West #2 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-034

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.05.2020 10:53	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.05.2020 10:53	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.05.2020 10:53	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.05.2020 10:53	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.05.2020 10:53	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.05.2020 10:53	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.05.2020 10:53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.05.2020 10:53		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.05.2020 10:53		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **West #3 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-035

Date Collected: 05.01.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:47

Basis: Wet Weight

Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.9	10.0	mg/kg	05.05.2020 00:15		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	05.05.2020 09:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	05.05.2020 09:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	05.05.2020 09:26	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	05.05.2020 09:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	05.05.2020 09:26	
o-Terphenyl	84-15-1	111	%	70-135	05.05.2020 09:26	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **West #3 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-035

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.05.2020 11:15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.05.2020 11:15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.05.2020 11:15	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.05.2020 11:15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.05.2020 11:15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.05.2020 11:15	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.05.2020 11:15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.05.2020 11:15		
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.05.2020 11:15		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **West #4 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-036

Date Collected: 05.01.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:47

Basis: Wet Weight

Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	27.0	9.96	mg/kg	05.05.2020 00:21		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.05.2020 09:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.05.2020 09:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.05.2020 09:47	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.05.2020 09:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	05.05.2020 09:47	
o-Terphenyl	84-15-1	109	%	70-135	05.05.2020 09:47	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **West #4 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-036

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.05.2020 11:36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.05.2020 11:36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.05.2020 11:36	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.05.2020 11:36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.05.2020 11:36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.05.2020 11:36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.05.2020 11:36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	116	%	70-130	05.05.2020 11:36		
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.05.2020 11:36		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **West #5 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-037

Date Collected: 05.01.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:47

Basis: Wet Weight

Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	141	9.98	mg/kg	05.05.2020 00:26		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	05.05.2020 10:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	142	50.3	mg/kg	05.05.2020 10:07		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	54.1	50.3	mg/kg	05.05.2020 10:07		1
Total TPH	PHC635	196	50.3	mg/kg	05.05.2020 10:07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	05.05.2020 10:07	
o-Terphenyl	84-15-1	106	%	70-135	05.05.2020 10:07	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **West #5 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-037

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.05.2020 11:57	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.05.2020 11:57	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.05.2020 11:57	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.05.2020 11:57	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.05.2020 11:57	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.05.2020 11:57	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.05.2020 11:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	05.05.2020 11:57	
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.05.2020 11:57	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **West #6 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-038

Date Collected: 05.01.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:47

Basis: Wet Weight

Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	241	9.88	mg/kg	05.05.2020 00:32		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.04.2020 17:00

Basis: Wet Weight

Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.05.2020 10:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.05.2020 10:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.05.2020 10:27	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.05.2020 10:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	05.05.2020 10:27	
o-Terphenyl	84-15-1	98	%	70-135	05.05.2020 10:27	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **West #6 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-038

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.05.2020 12:19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.05.2020 12:19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.05.2020 12:19	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.05.2020 12:19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.05.2020 12:19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.05.2020 12:19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.05.2020 12:19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.05.2020 12:19		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.05.2020 12:19		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **North #1 Sidewall** Matrix: Soil Date Received: 05.04.2020 16:00
 Lab Sample Id: 660541-039 Date Collected: 05.01.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.04.2020 17:47 Basis: Wet Weight
 Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.9	9.98	mg/kg	05.05.2020 00:38		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.05.2020 10:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.05.2020 10:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.05.2020 10:47	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.05.2020 10:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	05.05.2020 10:47	
o-Terphenyl	84-15-1	108	%	70-135	05.05.2020 10:47	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **North #1 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-039

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.05.2020 12:40	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.05.2020 12:40	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.05.2020 12:40	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.05.2020 12:40	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.05.2020 12:40	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.05.2020 12:40	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.05.2020 12:40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.05.2020 12:40		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.05.2020 12:40		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **North #2 Sidewall** Matrix: Soil Date Received: 05.04.2020 16:00
 Lab Sample Id: 660541-040 Date Collected: 05.01.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.04.2020 17:47 Basis: Wet Weight
 Seq Number: 3124998

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	585	10.1	mg/kg	05.05.2020 00:43		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.04.2020 17:00 Basis: Wet Weight
 Seq Number: 3125028

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	05.05.2020 11:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	65.8	50.3	mg/kg	05.05.2020 11:08		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	05.05.2020 11:08	U	1
Total TPH	PHC635	65.8	50.3	mg/kg	05.05.2020 11:08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.05.2020 11:08	
o-Terphenyl	84-15-1	107	%	70-135	05.05.2020 11:08	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **North #2 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-040

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:36

Basis: Wet Weight

Seq Number: 3125055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.05.2020 13:02	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.05.2020 13:02	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.05.2020 13:02	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.05.2020 13:02	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.05.2020 13:02	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.05.2020 13:02	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.05.2020 13:02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.05.2020 13:02		
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.05.2020 13:02		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **North #3 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-041

Date Collected: 05.01.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.04.2020 17:30

Basis: Wet Weight

Seq Number: 3125000

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.92	9.92	mg/kg	05.05.2020 01:18	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.05.2020 17:30

Basis: Wet Weight

Seq Number: 3125169

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.06.2020 05:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.06.2020 05:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.06.2020 05:54	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.06.2020 05:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	05.06.2020 05:54	
o-Terphenyl	84-15-1	128	%	70-135	05.06.2020 05:54	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **North #3 Sidewall**

Matrix: Soil

Date Received: 05.04.2020 16:00

Lab Sample Id: 660541-041

Date Collected: 05.01.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 09:41

Basis: Wet Weight

Seq Number: 3125080

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.05.2020 17:19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.05.2020 17:19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.05.2020 17:19	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.05.2020 17:19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.05.2020 17:19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.05.2020 17:19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.05.2020 17:19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.05.2020 17:19		
4-Bromofluorobenzene	460-00-4	110	%	70-130	05.05.2020 17:19		



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. **ND** Not Detected.

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



Tetra Tech- Midland
Ophelia 27 West CTB

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3124997

Matrix: Solid

Prep Method: E300P

Date Prep: 05.04.2020

MB Sample Id: 7702671-1-BLK

LCS Sample Id: 7702671-1-BKS

LCSD Sample Id: 7702671-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	249	100	248	99	90-110	0	20	mg/kg	05.04.2020 18:50	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3125000

Matrix: Solid

Prep Method: E300P

Date Prep: 05.04.2020

MB Sample Id: 7702682-1-BLK

LCS Sample Id: 7702682-1-BKS

LCSD Sample Id: 7702682-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	250	100	250	100	90-110	0	20	mg/kg	05.05.2020 01:06	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3124998

Matrix: Solid

Prep Method: E300P

Date Prep: 05.04.2020

MB Sample Id: 7702681-1-BLK

LCS Sample Id: 7702681-1-BKS

LCSD Sample Id: 7702681-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	250	100	249	100	90-110	0	20	mg/kg	05.04.2020 21:58	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3124997

Matrix: Soil

Prep Method: E300P

Date Prep: 05.04.2020

Parent Sample Id: 660541-001

MS Sample Id: 660541-001 S

MSD Sample Id: 660541-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	595	200	781	93	780	93	90-110	0	20	mg/kg	05.04.2020 19:07	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3124997

Matrix: Soil

Prep Method: E300P

Date Prep: 05.04.2020

Parent Sample Id: 660541-011

MS Sample Id: 660541-011 S

MSD Sample Id: 660541-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	329	201	524	97	525	98	90-110	0	20	mg/kg	05.04.2020 20:27	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3125000

Matrix: Soil

Prep Method: E300P

Date Prep: 05.04.2020

Parent Sample Id: 660541-041

MS Sample Id: 660541-041 S

MSD Sample Id: 660541-041 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.94	199	194	97	194	97	90-110	0	20	mg/kg	05.05.2020 01:24	

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



Tetra Tech- Midland

Ophelia 27 West CTB

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3124998

Matrix: Soil

Prep Method: E300P

Date Prep: 05.04.2020

Parent Sample Id: 660541-021

MS Sample Id: 660541-021 S

MSD Sample Id: 660541-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	287	200	480	97	477	96	90-110	1	20	mg/kg	05.04.2020 22:15	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3124998

Matrix: Soil

Prep Method: E300P

Date Prep: 05.04.2020

Parent Sample Id: 660541-031

MS Sample Id: 660541-031 S

MSD Sample Id: 660541-031 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	64.5	200	263	99	263	99	90-110	0	20	mg/kg	05.04.2020 23:35	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125008

Matrix: Solid

Prep Method: SW8015P

Date Prep: 05.04.2020

MB Sample Id: 7702689-1-BLK

LCS Sample Id: 7702689-1-BKS

LCSD Sample Id: 7702689-1-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	1000	100	892	89	70-135	11	35	mg/kg	05.04.2020 17:05	
Diesel Range Organics (DRO)	<50.0	1000	1140	114	1010	101	70-135	12	35	mg/kg	05.04.2020 17:05	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		125		115		70-135	%	05.04.2020 17:05
o-Terphenyl	103		126		112		70-135	%	05.04.2020 17:05

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125028

Matrix: Solid

Prep Method: SW8015P

Date Prep: 05.04.2020

MB Sample Id: 7702691-1-BLK

LCS Sample Id: 7702691-1-BKS

LCSD Sample Id: 7702691-1-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	764	76	849	85	70-135	11	35	mg/kg	05.05.2020 02:59	
Diesel Range Organics (DRO)	<50.0	1000	847	85	944	94	70-135	11	35	mg/kg	05.05.2020 02:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	91		98		109		70-135	%	05.05.2020 02:59
o-Terphenyl	97		95		106		70-135	%	05.05.2020 02:59

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



Tetra Tech- Midland

Ophelia 27 West CTB

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125169

MB Sample Id: 7702799-1-BLK

Matrix: Solid

LCS Sample Id: 7702799-1-BKS

Prep Method: SW8015P

Date Prep: 05.05.2020

LCSD Sample Id: 7702799-1-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	1120	112	1040	104	70-135	7	35	mg/kg	05.06.2020 04:12	
Diesel Range Organics (DRO)	<50.0	1000	1150	115	1200	120	70-135	4	35	mg/kg	05.06.2020 04:12	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag		LCSD %Rec	LCSD Flag		Limits	Units	Analysis Date	
1-Chlorooctane	111		131			128			70-135	%	05.06.2020 04:12	
o-Terphenyl	124		128			131			70-135	%	05.06.2020 04:12	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125008

Matrix: Solid

MB Sample Id: 7702689-1-BLK

Prep Method: SW8015P

Date Prep: 05.04.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.04.2020 16:45	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125028

Matrix: Solid

MB Sample Id: 7702691-1-BLK

Prep Method: SW8015P

Date Prep: 05.04.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.05.2020 02:39	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125169

Matrix: Solid

MB Sample Id: 7702799-1-BLK

Prep Method: SW8015P

Date Prep: 05.05.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.06.2020 03:52	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125008

Matrix: Soil

Parent Sample Id: 660541-001

MS Sample Id: 660541-001 S

Prep Method: SW8015P

Date Prep: 05.04.2020

MSD Sample Id: 660541-001 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)	<50.2	1000	848	85	851	85	70-135	0	35	mg/kg	05.04.2020 18:49	
Diesel Range Organics (DRO)	<50.2	1000	932	93	939	94	70-135	1	35	mg/kg	05.04.2020 18:49	
Surrogate			MS %Rec	MS Flag		MSD %Rec	MSD Flag		Limits	Units	Analysis Date	
1-Chlorooctane			112			112			70-135	%	05.04.2020 18:49	
o-Terphenyl			95			96			70-135	%	05.04.2020 18:49	

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



Tetra Tech- Midland

Ophelia 27 West CTB

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125028

Parent Sample Id: 660541-021

Matrix: Soil

MS Sample Id: 660541-021 S

Prep Method: SW8015P

Date Prep: 05.04.2020

MSD Sample Id: 660541-021 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)	<50.2	1000	1140	114	1100	110	70-135	4	35	mg/kg	05.05.2020 04:01	
Diesel Range Organics (DRO)	<50.2	1000	1130	113	1100	110	70-135	3	35	mg/kg	05.05.2020 04:01	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	130		124		70-135	%	05.05.2020 04:01
o-Terphenyl	130		123		70-135	%	05.05.2020 04:01

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125169

Parent Sample Id: 660475-001

Matrix: Soil

MS Sample Id: 660475-001 S

Prep Method: SW8015P

Date Prep: 05.05.2020

MSD Sample Id: 660475-001 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)	<50.3	1010	964	95	922	91	70-135	4	35	mg/kg	05.06.2020 05:14	
Diesel Range Organics (DRO)	<50.3	1010	1110	110	1050	104	70-135	6	35	mg/kg	05.06.2020 05:14	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		117		70-135	%	05.06.2020 05:14
o-Terphenyl	124		121		70-135	%	05.06.2020 05:14

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125055

MB Sample Id: 7702676-1-BLK

Matrix: Solid

LCS Sample Id: 7702676-1-BKS

Prep Method: SW5035A

Date Prep: 05.04.2020

LCSD Sample Id: 7702676-1-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	0.122	122	0.119	119	70-130	2	35	mg/kg	05.05.2020 03:45	
Toluene	<0.00200	0.100	0.107	107	0.107	107	70-130	0	35	mg/kg	05.05.2020 03:45	
Ethylbenzene	<0.00200	0.100	0.0992	99	0.0987	99	71-129	1	35	mg/kg	05.05.2020 03:45	
m,p-Xylenes	<0.00400	0.200	0.192	96	0.192	96	70-135	0	35	mg/kg	05.05.2020 03:45	
o-Xylene	<0.00200	0.100	0.100	100	0.101	101	71-133	1	35	mg/kg	05.05.2020 03:45	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	113		111		111		70-130	%	05.05.2020 03:45
4-Bromofluorobenzene	105		100		102		70-130	%	05.05.2020 03:45

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



Tetra Tech- Midland

Ophelia 27 West CTB

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124991

MB Sample Id: 7702672-1-BLK

Matrix: Solid

LCS Sample Id: 7702672-1-BKS

Prep Method: SW5035A

Date Prep: 05.04.2020

LCSD Sample Id: 7702672-1-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	0.126	126	0.118	118	70-130	7	35	mg/kg	05.04.2020 17:04	
Toluene	<0.00200	0.100	0.114	114	0.110	110	70-130	4	35	mg/kg	05.04.2020 17:04	
Ethylbenzene	<0.00200	0.100	0.107	107	0.104	104	71-129	3	35	mg/kg	05.04.2020 17:04	
m,p-Xylenes	<0.00400	0.200	0.211	106	0.205	103	70-135	3	35	mg/kg	05.04.2020 17:04	
o-Xylene	<0.00200	0.100	0.108	108	0.104	104	71-133	4	35	mg/kg	05.04.2020 17:04	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene	112		110		107		70-130			%	05.04.2020 17:04	
4-Bromofluorobenzene	105		101		99		70-130			%	05.04.2020 17:04	

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125080

MB Sample Id: 7702680-1-BLK

Matrix: Solid

LCS Sample Id: 7702680-1-BKS

Prep Method: SW5035A

Date Prep: 05.05.2020

LCSD Sample Id: 7702680-1-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	0.112	112	0.105	105	70-130	6	35	mg/kg	05.05.2020 14:27	
Toluene	<0.00200	0.100	0.100	100	0.0949	95	70-130	5	35	mg/kg	05.05.2020 14:27	
Ethylbenzene	<0.00200	0.100	0.0940	94	0.0890	89	71-129	5	35	mg/kg	05.05.2020 14:27	
m,p-Xylenes	<0.00400	0.200	0.181	91	0.172	86	70-135	5	35	mg/kg	05.05.2020 14:27	
o-Xylene	<0.00200	0.100	0.0939	94	0.0896	90	71-133	5	35	mg/kg	05.05.2020 14:27	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene	113		108		108		70-130			%	05.05.2020 14:27	
4-Bromofluorobenzene	104		100		97		70-130			%	05.05.2020 14:27	

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124991

Parent Sample Id: 660541-001

Matrix: Soil

MS Sample Id: 660541-001 S

Prep Method: SW5035A

Date Prep: 05.04.2020

MSD Sample Id: 660541-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0934	94	0.118	118	70-130	23	35	mg/kg	05.04.2020 17:46	
Toluene	<0.00199	0.0996	0.0863	87	0.105	105	70-130	20	35	mg/kg	05.04.2020 17:46	
Ethylbenzene	<0.00199	0.0996	0.0802	81	0.0978	98	71-129	20	35	mg/kg	05.04.2020 17:46	
m,p-Xylenes	<0.00398	0.199	0.156	78	0.192	96	70-135	21	35	mg/kg	05.04.2020 17:46	
o-Xylene	<0.00199	0.0996	0.0807	81	0.0987	99	71-133	20	35	mg/kg	05.04.2020 17:46	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene			107		109		70-130			%	05.04.2020 17:46	
4-Bromofluorobenzene			99		99		70-130			%	05.04.2020 17:46	

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



Tetra Tech- Midland

Ophelia 27 West CTB

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125055

Parent Sample Id: 660541-021

Matrix: Soil

MS Sample Id: 660541-021 S

Prep Method: SW5035A

Date Prep: 05.04.2020

MSD Sample Id: 660541-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.100	99	0.0995	99	70-130	1	35	mg/kg	05.05.2020 04:28	
Toluene	<0.00202	0.101	0.0877	87	0.0883	87	70-130	1	35	mg/kg	05.05.2020 04:28	
Ethylbenzene	<0.00202	0.101	0.0819	81	0.0829	82	71-129	1	35	mg/kg	05.05.2020 04:28	
m,p-Xylenes	<0.00403	0.202	0.157	78	0.160	80	70-135	2	35	mg/kg	05.05.2020 04:28	
o-Xylene	<0.00202	0.101	0.0818	81	0.0819	81	71-133	0	35	mg/kg	05.05.2020 04:28	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		107		70-130	%	05.05.2020 04:28
4-Bromofluorobenzene	102		98		70-130	%	05.05.2020 04:28

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125080

Parent Sample Id: 660479-001

Matrix: Soil

MS Sample Id: 660479-001 S

Prep Method: SW5035A

Date Prep: 05.05.2020

MSD Sample Id: 660479-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.112	111	0.119	119	70-130	6	35	mg/kg	05.05.2020 16:36	
Toluene	<0.00202	0.101	0.102	101	0.105	105	70-130	3	35	mg/kg	05.05.2020 16:36	
Ethylbenzene	<0.00202	0.101	0.0946	94	0.0949	95	71-129	0	35	mg/kg	05.05.2020 16:36	
m,p-Xylenes	<0.00404	0.202	0.183	91	0.180	90	70-135	2	35	mg/kg	05.05.2020 16:36	
o-Xylene	<0.00202	0.101	0.0949	94	0.0969	97	71-133	2	35	mg/kg	05.05.2020 16:36	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		108		70-130	%	05.05.2020 16:36
4-Bromofluorobenzene	98		98		70-130	%	05.05.2020 16:36

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

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Mike Carmon

Ophelia 27 West CTB

212C-MD-01254

Comments:

Justin Flores

SAMPLE IDENTIFICATION

SAMPLING
YEAR: 2020

[illegible]

NERS

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

ANALYSIS REQUEST

(Circle or Specify Method No.)

Date: 5/4/20
 Time:

Date: 5/4/20 Time: 12:00

Received by:

Date: Time

5/4/20 16:00

LAB USE ONLY

REMARKS:

STANDARD

Sample Temperature

☒ RUSH:	Same Day	X24 hr	48 hr	72 hr
--	----------	--------	-------	-------

Date: _____ Time: _____

Received by:

Date: Time:

25.

☐ Special Report Limits or TRRP Report

((Circle) HAND DELIVERED FEDEX UPS Tracking #

Page 2 of 5

1060541

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

[illegible]

Page

4 of

leucosy

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

Client Name:		EOG		Site Manager:		Mike Carmon							
Project Name:		Ophelia 27 West CTB											
Project Location:		Lea Co, NM				212C-MD-01254							
(county, state)													
Invoice to:		TODD UPBILLS											
Receiving Laboratory:		Xenco		Sampler Signature: Justin Flores									
Comments:													
LAB # (LAB USE ONLY)		SAMPLE IDENTIFICATION		SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS		FILTERED (Y/N)	
				YEAR: 2020									
		North #1 Sidewall		5/4/2020		X		X					
		North #2 Sidewall		5/4/2020		X		X					
		North #3 Sidewall		5/4/2020		X		X					
				5/4/2020									
				5/4/2020									
				5/4/2020									
				5/4/2020									
				5/4/2020									
				5/4/2020									
				5/4/2020									
				5/4/2020									
				5/4/2020									
				5/4/2020									
Relinquished by:		Justin Flores		Date: 5/14/20 Time: 16:00		Received by:		Justin Flores		Date: 5/14/20 Time: 16:00			
Relinquished by:				Date: Time:		Received by:				Date: Time:			
Relinquished by:				Date: Time:		Received by:				Date: Time:			

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB USE ONLY		REMARKS:	
☐	STANDARD		
☒ RUSH:	Same Day X24 hr 48 hr 72 hr		
☐	Rush Charges Authorized		
☐	Special Report Limits or TRRP Report		

Page 5 of 5

660541

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 05.04.2020 04.00.00 PM

Work Order #: 660541

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)?	3.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	Yes
	We worked with client in organizing some samples, as per the COC there is 2 samples missing. Client verified and removed from Work Order. 5-4-20
#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
	Sampels received in bulk containers.
#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)?	No
#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: 05.04.2020

Checklist reviewed by:



Jessica Kramer

Date: 05.06.2020



Certificate of Analysis Summary 660684

Tetra Tech- Midland, Midland, TX

Project Name: Ophelia 27 West CTB

Project Id: 212C-MD-01254

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Tue 05.05.2020 15:55

Report Date: 05.06.2020 14:02

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660684-001	660684-002	660684-003	660684-004	660684-005	660684-006
	<i>Field Id:</i>	Bottom Hole #1	Bottom Hole #2	Bottom Hole #3	Bottom Hole #4	Bottom Hole #5	Bottom Hole #6
	<i>Depth:</i>	4.5- ft	4.5- ft	4.5- ft	4.5- ft	4.5- ft	4.5- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.05.2020 00:00	05.05.2020 00:00	05.05.2020 00:00	05.05.2020 00:00	05.05.2020 00:00	05.05.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	05.05.2020 17:00	05.05.2020 17:00	05.05.2020 17:00	05.05.2020 17:00	05.05.2020 17:00	05.05.2020 17:00
	<i>Analyzed:</i>	05.05.2020 18:23	05.05.2020 18:44	05.05.2020 19:06	05.05.2020 19:27	05.05.2020 19:49	05.05.2020 20:10
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00971 0.00971	<0.00870 0.00870	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198
Toluene		<0.00971 0.00971	<0.00870 0.00870	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198
Ethylbenzene		<0.00971 0.00971	<0.00870 0.00870	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198
m,p-Xylenes		<0.0194 0.0194	<0.0174 0.0174	<0.00395 0.00395	<0.00404 0.00404	<0.00400 0.00400	<0.00397 0.00397
o-Xylene		<0.00971 0.00971	<0.00870 0.00870	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198
Total Xylenes		<0.00971 0.00971	<0.00870 0.00870	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198
Total BTEX		<0.00971 0.00971	<0.00870 0.00870	<0.00198 0.00198	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	05.05.2020 17:46	05.05.2020 17:46	05.05.2020 17:46	05.05.2020 17:46	05.05.2020 17:46	05.05.2020 17:46
	<i>Analyzed:</i>	05.05.2020 20:13	05.05.2020 20:19	05.05.2020 20:36	05.05.2020 20:42	05.05.2020 20:48	05.05.2020 20:53
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		34.2 10.1	23.1 9.94	44.7 10.0	258 9.96	74.4 9.98	162 9.96
TPH By SW8015 Mod	<i>Extracted:</i>	05.05.2020 17:00	05.05.2020 17:00	05.05.2020 17:00	05.05.2020 17:00	05.05.2020 17:00	05.05.2020 17:00
	<i>Analyzed:</i>	05.05.2020 20:43	05.05.2020 21:04	05.05.2020 21:24	05.05.2020 21:45	05.05.2020 22:05	05.05.2020 22:25
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<50.2 50.2	<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.8 49.8
Diesel Range Organics (DRO)		<50.1 50.1	<50.2 50.2	<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.2 50.2	<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.8 49.8
Total TPH		<50.1 50.1	<50.2 50.2	<50.1 50.1	<49.9 49.9	<50.0 50.0	<49.8 49.8

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 660684

Tetra Tech- Midland, Midland, TX

Project Name: Ophelia 27 West CTB

Project Id: 212C-MD-01254

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Tue 05.05.2020 15:55

Report Date: 05.06.2020 14:02

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660684-007	660684-008	660684-009	660684-010	660684-011	660684-012
	<i>Field Id:</i>	Bottom Hole #7	Bottom Hole #8	Bottom Hole #9	Bottom Hole #33	East #3 Side Wall	South #2 Side Wall
	<i>Depth:</i>	5.5- ft	5.5- ft	5.5- ft	5.5- ft		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.05.2020 00:00	05.05.2020 00:00	05.05.2020 00:00	05.05.2020 00:00	05.05.2020 00:00	05.05.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	05.05.2020 17:00	05.05.2020 17:00	05.05.2020 17:00	05.05.2020 17:00	05.05.2020 17:00	05.05.2020 17:00
	<i>Analyzed:</i>	05.05.2020 21:14	05.05.2020 21:36	05.05.2020 21:57	05.05.2020 22:19	05.05.2020 22:40	05.05.2020 23:01
	<i>Units/RL:</i>	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	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202
Toluene		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202
Ethylbenzene		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202
m,p-Xylenes		<0.00401 0.00401	<0.00397 0.00397	<0.00401 0.00401	<0.00404 0.00404	<0.00402 0.00402	<0.00404 0.00404
o-Xylene		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202
Total Xylenes		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202
Total BTEX		<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00202 0.00202
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	05.05.2020 17:46	05.05.2020 17:46	05.05.2020 17:46	05.05.2020 17:46	05.05.2020 17:46	05.05.2020 17:46
	<i>Analyzed:</i>	05.05.2020 20:59	05.05.2020 21:05	05.05.2020 21:22	05.05.2020 21:28	05.05.2020 21:45	05.05.2020 21:51
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1070 9.98	3180 X 49.4	39.0 10.0	155 10.1	27.1 10.1	698 9.98
TPH By SW8015 Mod	<i>Extracted:</i>	05.05.2020 17:00	05.05.2020 17:00	05.05.2020 17:00	05.05.2020 17:00	05.05.2020 17:00	05.05.2020 17:00
	<i>Analyzed:</i>	05.05.2020 22:46	05.05.2020 23:06	05.05.2020 23:27	05.06.2020 00:07	05.06.2020 00:28	05.06.2020 00:49
	<i>Units/RL:</i>	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	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.1 50.1
Diesel Range Organics (DRO)		<49.8 49.8	<50.0 50.0	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.0 50.0	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.1 50.1
Total TPH		<49.8 49.8	<50.0 50.0	<50.1 50.1	<50.1 50.1	<50.1 50.1	<50.1 50.1

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 660684

Tetra Tech- Midland, Midland, TX

Project Name: Ophelia 27 West CTB

Project Id: 212C-MD-01254

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Tue 05.05.2020 15:55

Report Date: 05.06.2020 14:02

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	660684-013	660684-014				
	Field Id:	South #1 Side Wall	West #7 Side Wall				
	Depth:						
	Matrix:	SOIL	SOIL				
	Sampled:	05.05.2020 00:00	05.05.2020 00:00				
BTEX by EPA 8021B	Extracted:	05.05.2020 17:00	05.05.2020 17:00				
	Analyzed:	05.05.2020 23:23	05.05.2020 23:44				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00202 0.00202	<0.00204 0.00204				
Toluene		<0.00202 0.00202	<0.00204 0.00204				
Ethylbenzene		<0.00202 0.00202	<0.00204 0.00204				
m,p-Xylenes		<0.00403 0.00403	<0.00408 0.00408				
o-Xylene		<0.00202 0.00202	<0.00204 0.00204				
Total Xylenes		<0.00202 0.00202	<0.00204 0.00204				
Total BTEX		<0.00202 0.00202	<0.00204 0.00204				
Inorganic Anions by EPA 300/300.1	Extracted:	05.05.2020 17:46	05.05.2020 17:46				
	Analyzed:	05.05.2020 21:57	05.05.2020 22:03				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		35.8 9.92	11.7 10.0				
TPH By SW8015 Mod	Extracted:	05.05.2020 17:00	05.05.2020 17:00				
	Analyzed:	05.06.2020 01:09	05.06.2020 01:29				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<49.9 49.9				
Diesel Range Organics (DRO)		<50.1 50.1	<49.9 49.9				
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<49.9 49.9				
Total TPH		<50.1 50.1	<49.9 49.9				

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

Jessica Kramer
Project Manager



Analytical Report 660684

for

Tetra Tech- Midland

Project Manager: Mike Carmona

Ophelia 27 West CTB

212C-MD-01254

05.06.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



05.06.2020

Project Manager: **Mike Carmona**

Tetra Tech- Midland

901 West Wall ST

Midland, TX 79701

Reference: XENCO Report No(s): **660684**

Ophelia 27 West CTB

Project Address: Lea Co, NM

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) 660684. 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. 660684 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,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 660684****Tetra Tech- Midland, Midland, TX**

Ophelia 27 West CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Bottom Hole #1	S	05.05.2020 00:00	4.5 ft	660684-001
Bottom Hole #2	S	05.05.2020 00:00	4.5 ft	660684-002
Bottom Hole #3	S	05.05.2020 00:00	4.5 ft	660684-003
Bottom Hole #4	S	05.05.2020 00:00	4.5 ft	660684-004
Bottom Hole #5	S	05.05.2020 00:00	4.5 ft	660684-005
Bottom Hole #6	S	05.05.2020 00:00	4.5 ft	660684-006
Bottom Hole #7	S	05.05.2020 00:00	5.5 ft	660684-007
Bottom Hole #8	S	05.05.2020 00:00	5.5 ft	660684-008
Bottom Hole #9	S	05.05.2020 00:00	5.5 ft	660684-009
Bottom Hole #33	S	05.05.2020 00:00	5.5 ft	660684-010
East #3 Side Wall	S	05.05.2020 00:00	ft	660684-011
South #2 Side Wall	S	05.05.2020 00:00	ft	660684-012
South #1 Side Wall	S	05.05.2020 00:00	ft	660684-013
West #7 Side Wall	S	05.05.2020 00:00	ft	660684-014



CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Ophelia 27 West CTB

Project ID: 212C-MD-01254
Work Order Number(s): 660684

Report Date: 05.06.2020
Date Received: 05.05.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3125112 Inorganic Anions by EPA 300/300.1

Lab Sample ID 660684-008 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 660684-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 660684

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #1** Matrix: Soil Date Received: 05.05.2020 15:55
 Lab Sample Id: 660684-001 Date Collected: 05.05.2020 00:00 Sample Depth: 4.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.05.2020 17:46 Basis: Wet Weight
 Seq Number: 3125112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	34.2	10.1	mg/kg	05.05.2020 20:13		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.05.2020 17:00 Basis: Wet Weight
 Seq Number: 3125163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.05.2020 20:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.05.2020 20:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.05.2020 20:43	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.05.2020 20:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	05.05.2020 20:43	
o-Terphenyl	84-15-1	128	%	70-135	05.05.2020 20:43	



Certificate of Analytical Results 660684

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #1**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-001

Date Collected: 05.05.2020 00:00

Sample Depth: 4.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125080

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00971	0.00971	mg/kg	05.05.2020 18:23	U	1
Toluene	108-88-3	<0.00971	0.00971	mg/kg	05.05.2020 18:23	U	1
Ethylbenzene	100-41-4	<0.00971	0.00971	mg/kg	05.05.2020 18:23	U	1
m,p-Xylenes	179601-23-1	<0.0194	0.0194	mg/kg	05.05.2020 18:23	U	1
o-Xylene	95-47-6	<0.00971	0.00971	mg/kg	05.05.2020 18:23	U	1
Total Xylenes	1330-20-7	<0.00971	0.00971	mg/kg	05.05.2020 18:23	U	1
Total BTEX		<0.00971	0.00971	mg/kg	05.05.2020 18:23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	05.05.2020 18:23		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.05.2020 18:23		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #2**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-002

Date Collected: 05.05.2020 00:00

Sample Depth: 4.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:46

Basis: Wet Weight

Seq Number: 3125112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23.1	9.94	mg/kg	05.05.2020 20:19		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.05.2020 21:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.05.2020 21:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.05.2020 21:04	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.05.2020 21:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	05.05.2020 21:04	
o-Terphenyl	84-15-1	125	%	70-135	05.05.2020 21:04	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #2**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-002

Date Collected: 05.05.2020 00:00

Sample Depth: 4.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125080

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00870	0.00870	mg/kg	05.05.2020 18:44	U	1
Toluene	108-88-3	<0.00870	0.00870	mg/kg	05.05.2020 18:44	U	1
Ethylbenzene	100-41-4	<0.00870	0.00870	mg/kg	05.05.2020 18:44	U	1
m,p-Xylenes	179601-23-1	<0.0174	0.0174	mg/kg	05.05.2020 18:44	U	1
o-Xylene	95-47-6	<0.00870	0.00870	mg/kg	05.05.2020 18:44	U	1
Total Xylenes	1330-20-7	<0.00870	0.00870	mg/kg	05.05.2020 18:44	U	1
Total BTEX		<0.00870	0.00870	mg/kg	05.05.2020 18:44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.05.2020 18:44		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.05.2020 18:44		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #3** Matrix: Soil Date Received: 05.05.2020 15:55
 Lab Sample Id: 660684-003 Date Collected: 05.05.2020 00:00 Sample Depth: 4.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.05.2020 17:46 Basis: Wet Weight
 Seq Number: 3125112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	44.7	10.0	mg/kg	05.05.2020 20:36		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.05.2020 17:00 Basis: Wet Weight
 Seq Number: 3125163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.05.2020 21:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.05.2020 21:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.05.2020 21:24	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.05.2020 21:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	05.05.2020 21:24	
o-Terphenyl	84-15-1	123	%	70-135	05.05.2020 21:24	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #3**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-003

Date Collected: 05.05.2020 00:00

Sample Depth: 4.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125080

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.05.2020 19:06	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.05.2020 19:06	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.05.2020 19:06	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	05.05.2020 19:06	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.05.2020 19:06	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.05.2020 19:06	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.05.2020 19:06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.05.2020 19:06		
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.05.2020 19:06		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #4**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-004

Date Collected: 05.05.2020 00:00

Sample Depth: 4.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:46

Basis: Wet Weight

Seq Number: 3125112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	258	9.96	mg/kg	05.05.2020 20:42		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.05.2020 21:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.05.2020 21:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.05.2020 21:45	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.05.2020 21:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	05.05.2020 21:45	
o-Terphenyl	84-15-1	123	%	70-135	05.05.2020 21:45	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #4**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-004

Date Collected: 05.05.2020 00:00

Sample Depth: 4.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125080

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.05.2020 19:27	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.05.2020 19:27	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.05.2020 19:27	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.05.2020 19:27	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.05.2020 19:27	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.05.2020 19:27	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.05.2020 19:27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	05.05.2020 19:27		
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.05.2020 19:27		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #5** Matrix: Soil Date Received: 05.05.2020 15:55
 Lab Sample Id: 660684-005 Date Collected: 05.05.2020 00:00 Sample Depth: 4.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.05.2020 17:46 Basis: Wet Weight
 Seq Number: 3125112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	74.4	9.98	mg/kg	05.05.2020 20:48		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.05.2020 17:00 Basis: Wet Weight
 Seq Number: 3125163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.05.2020 22:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.05.2020 22:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.05.2020 22:05	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.05.2020 22:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	05.05.2020 22:05	
o-Terphenyl	84-15-1	123	%	70-135	05.05.2020 22:05	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #5**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-005

Date Collected: 05.05.2020 00:00

Sample Depth: 4.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125080

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.05.2020 19:49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.05.2020 19:49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.05.2020 19:49	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.05.2020 19:49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.05.2020 19:49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.05.2020 19:49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.05.2020 19:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	89	%	70-130	05.05.2020 19:49		
1,4-Difluorobenzene	540-36-3	104	%	70-130	05.05.2020 19:49		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #6** Matrix: Soil Date Received: 05.05.2020 15:55
 Lab Sample Id: 660684-006 Date Collected: 05.05.2020 00:00 Sample Depth: 4.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.05.2020 17:46 Basis: Wet Weight
 Seq Number: 3125112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	162	9.96	mg/kg	05.05.2020 20:53		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.05.2020 17:00 Basis: Wet Weight
 Seq Number: 3125163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.05.2020 22:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.05.2020 22:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.05.2020 22:25	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.05.2020 22:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	05.05.2020 22:25	
o-Terphenyl	84-15-1	123	%	70-135	05.05.2020 22:25	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #6**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-006

Date Collected: 05.05.2020 00:00

Sample Depth: 4.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125080

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.05.2020 20:10	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.05.2020 20:10	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.05.2020 20:10	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.05.2020 20:10	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.05.2020 20:10	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.05.2020 20:10	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.05.2020 20:10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.05.2020 20:10		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.05.2020 20:10		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #7** Matrix: Soil Date Received: 05.05.2020 15:55
 Lab Sample Id: 660684-007 Date Collected: 05.05.2020 00:00 Sample Depth: 5.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.05.2020 17:46 Basis: Wet Weight
 Seq Number: 3125112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1070	9.98	mg/kg	05.05.2020 20:59		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.05.2020 17:00 Basis: Wet Weight
 Seq Number: 3125163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.05.2020 22:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.05.2020 22:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.05.2020 22:46	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.05.2020 22:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	05.05.2020 22:46	
o-Terphenyl	84-15-1	129	%	70-135	05.05.2020 22:46	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #7**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-007

Date Collected: 05.05.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125080

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.05.2020 21:14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.05.2020 21:14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.05.2020 21:14	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.05.2020 21:14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.05.2020 21:14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.05.2020 21:14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.05.2020 21:14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.05.2020 21:14		
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.05.2020 21:14		



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Ophelia 27 West CTB

Sample Id: **Bottom Hole #8** Matrix: Soil Date Received: 05.05.2020 15:55
 Lab Sample Id: 660684-008 Date Collected: 05.05.2020 00:00 Sample Depth: 5.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.05.2020 17:46 Basis: Wet Weight
 Seq Number: 3125112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3180	49.4	mg/kg	05.05.2020 21:05	X	5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.05.2020 17:00 Basis: Wet Weight
 Seq Number: 3125163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.05.2020 23:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.05.2020 23:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.05.2020 23:06	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.05.2020 23:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	05.05.2020 23:06	
o-Terphenyl	84-15-1	124	%	70-135	05.05.2020 23:06	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #8**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-008

Date Collected: 05.05.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125080

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.05.2020 21:36	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.05.2020 21:36	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.05.2020 21:36	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.05.2020 21:36	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.05.2020 21:36	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.05.2020 21:36	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.05.2020 21:36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.05.2020 21:36		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.05.2020 21:36		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #9** Matrix: Soil Date Received: 05.05.2020 15:55
 Lab Sample Id: 660684-009 Date Collected: 05.05.2020 00:00 Sample Depth: 5.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.05.2020 17:46 Basis: Wet Weight
 Seq Number: 3125112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	39.0	10.0	mg/kg	05.05.2020 21:22		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.05.2020 17:00 Basis: Wet Weight
 Seq Number: 3125163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.05.2020 23:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.05.2020 23:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.05.2020 23:27	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.05.2020 23:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	05.05.2020 23:27	
o-Terphenyl	84-15-1	124	%	70-135	05.05.2020 23:27	



Certificate of Analytical Results 660684

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #9**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-009

Date Collected: 05.05.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125080

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.05.2020 21:57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.05.2020 21:57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.05.2020 21:57	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.05.2020 21:57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.05.2020 21:57	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.05.2020 21:57	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.05.2020 21:57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	05.05.2020 21:57		
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.05.2020 21:57		



Certificate of Analytical Results 660684

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #33** Matrix: Soil Date Received: 05.05.2020 15:55
 Lab Sample Id: 660684-010 Date Collected: 05.05.2020 00:00 Sample Depth: 5.5 ft
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.05.2020 17:46 Basis: Wet Weight
 Seq Number: 3125112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	155	10.1	mg/kg	05.05.2020 21:28		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.05.2020 17:00 Basis: Wet Weight
 Seq Number: 3125163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.06.2020 00:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.06.2020 00:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.06.2020 00:07	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.06.2020 00:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	05.06.2020 00:07	
o-Terphenyl	84-15-1	124	%	70-135	05.06.2020 00:07	



Certificate of Analytical Results 660684

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #33**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-010

Date Collected: 05.05.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125080

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.05.2020 22:19	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.05.2020 22:19	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.05.2020 22:19	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.05.2020 22:19	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.05.2020 22:19	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.05.2020 22:19	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.05.2020 22:19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.05.2020 22:19		
1,4-Difluorobenzene	540-36-3	111	%	70-130	05.05.2020 22:19		



Certificate of Analytical Results 660684

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **East #3 Side Wall**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-011

Date Collected: 05.05.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:46

Basis: Wet Weight

Seq Number: 3125112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	27.1	10.1	mg/kg	05.05.2020 21:45		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.06.2020 00:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.06.2020 00:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.06.2020 00:28	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.06.2020 00:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	05.06.2020 00:28	
o-Terphenyl	84-15-1	125	%	70-135	05.06.2020 00:28	



Certificate of Analytical Results 660684

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **East #3 Side Wall**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-011

Date Collected: 05.05.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125080

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.05.2020 22:40	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.05.2020 22:40	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.05.2020 22:40	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.05.2020 22:40	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.05.2020 22:40	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.05.2020 22:40	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.05.2020 22:40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.05.2020 22:40		
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.05.2020 22:40		



Certificate of Analytical Results 660684

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **South #2 Side Wall**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-012

Date Collected: 05.05.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:46

Basis: Wet Weight

Seq Number: 3125112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	698	9.98	mg/kg	05.05.2020 21:51		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.06.2020 00:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.06.2020 00:49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.06.2020 00:49	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.06.2020 00:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	05.06.2020 00:49	
o-Terphenyl	84-15-1	124	%	70-135	05.06.2020 00:49	



Certificate of Analytical Results 660684

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **South #2 Side Wall**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-012

Date Collected: 05.05.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125080

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.05.2020 23:01	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.05.2020 23:01	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.05.2020 23:01	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.05.2020 23:01	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.05.2020 23:01	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.05.2020 23:01	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.05.2020 23:01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	112	%	70-130	05.05.2020 23:01		
1,4-Difluorobenzene	540-36-3	99	%	70-130	05.05.2020 23:01		



Certificate of Analytical Results 660684

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **South #1 Side Wall**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-013

Date Collected: 05.05.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:46

Basis: Wet Weight

Seq Number: 3125112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	35.8	9.92	mg/kg	05.05.2020 21:57		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.06.2020 01:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.06.2020 01:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.06.2020 01:09	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.06.2020 01:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	05.06.2020 01:09	
o-Terphenyl	84-15-1	123	%	70-135	05.06.2020 01:09	



Certificate of Analytical Results 660684

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **South #1 Side Wall**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-013

Date Collected: 05.05.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125080

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.05.2020 23:23	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.05.2020 23:23	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.05.2020 23:23	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.05.2020 23:23	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.05.2020 23:23	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.05.2020 23:23	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.05.2020 23:23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.05.2020 23:23		
4-Bromofluorobenzene	460-00-4	106	%	70-130	05.05.2020 23:23		



Certificate of Analytical Results 660684

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **West #7 Side Wall** Matrix: Soil Date Received: 05.05.2020 15:55
 Lab Sample Id: 660684-014 Date Collected: 05.05.2020 00:00
 Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 05.05.2020 17:46 Basis: Wet Weight
 Seq Number: 3125112

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.7	10.0	mg/kg	05.05.2020 22:03		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 05.05.2020 17:00 Basis: Wet Weight
 Seq Number: 3125163

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.06.2020 01:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.06.2020 01:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.06.2020 01:29	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.06.2020 01:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	05.06.2020 01:29	
o-Terphenyl	84-15-1	128	%	70-135	05.06.2020 01:29	



Certificate of Analytical Results 660684

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **West #7 Side Wall**

Matrix: Soil

Date Received: 05.05.2020 15:55

Lab Sample Id: 660684-014

Date Collected: 05.05.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.05.2020 17:00

Basis: Wet Weight

Seq Number: 3125080

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00204	0.00204	mg/kg	05.05.2020 23:44	U	1
Toluene	108-88-3	<0.00204	0.00204	mg/kg	05.05.2020 23:44	U	1
Ethylbenzene	100-41-4	<0.00204	0.00204	mg/kg	05.05.2020 23:44	U	1
m,p-Xylenes	179601-23-1	<0.00408	0.00408	mg/kg	05.05.2020 23:44	U	1
o-Xylene	95-47-6	<0.00204	0.00204	mg/kg	05.05.2020 23:44	U	1
Total Xylenes	1330-20-7	<0.00204	0.00204	mg/kg	05.05.2020 23:44	U	1
Total BTEX		<0.00204	0.00204	mg/kg	05.05.2020 23:44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.05.2020 23:44		
4-Bromofluorobenzene	460-00-4	107	%	70-130	05.05.2020 23:44		



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. **ND** Not Detected.

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



Tetra Tech- Midland

Ophelia 27 West CTB

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3125112

Matrix: Solid

Prep Method: E300P

Date Prep: 05.05.2020

MB Sample Id: 7702762-1-BLK

LCS Sample Id: 7702762-1-BKS

LCSD Sample Id: 7702762-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	251	100	250	100	90-110	0	20	mg/kg	05.05.2020 19:33	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3125112

Matrix: Soil

Prep Method: E300P

Date Prep: 05.05.2020

Parent Sample Id: 660675-013

MS Sample Id: 660675-013 S

MSD Sample Id: 660675-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10.8	202	186	87	185	86	90-110	1	20	mg/kg	05.05.2020 19:50	X

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3125112

Matrix: Soil

Prep Method: E300P

Date Prep: 05.05.2020

Parent Sample Id: 660684-008

MS Sample Id: 660684-008 S

MSD Sample Id: 660684-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3180	202	3370	94	3360	89	90-110	0	20	mg/kg	05.05.2020 21:11	X

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125163

Matrix: Solid

Prep Method: SW8015P

Date Prep: 05.05.2020

MB Sample Id: 7702792-1-BLK

LCS Sample Id: 7702792-1-BKS

LCSD Sample Id: 7702792-1-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	942	94	891	89	70-135	6	35	mg/kg	05.05.2020 19:01	
Diesel Range Organics (DRO)	<50.0	1000	1070	107	1000	100	70-135	7	35	mg/kg	05.05.2020 19:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		120		128		70-135	%	05.05.2020 19:01
o-Terphenyl	133		120		113		70-135	%	05.05.2020 19:01

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125163

Matrix: Solid

Prep Method: SW8015P

Date Prep: 05.05.2020

MB Sample Id: 7702792-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.05.2020 18:41	

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



Tetra Tech- Midland

Ophelia 27 West CTB

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125163

Parent Sample Id: 660566-008

Matrix: Soil

MS Sample Id: 660566-008 S

Prep Method: SW8015P

Date Prep: 05.05.2020

MSD Sample Id: 660566-008 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)	<49.9	997	1120	112	1090	109	70-135	3	35	mg/kg	05.05.2020 20:02	
Diesel Range Organics (DRO)	<49.9	997	1200	120	1120	112	70-135	7	35	mg/kg	05.05.2020 20:02	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		126		70-135	%	05.05.2020 20:02
o-Terphenyl	133		129		70-135	%	05.05.2020 20:02

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125080

MB Sample Id: 7702680-1-BLK

Matrix: Solid

LCS Sample Id: 7702680-1-BKS

Prep Method: SW5035A

Date Prep: 05.05.2020

LCSD Sample Id: 7702680-1-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	0.112	112	0.105	105	70-130	6	35	mg/kg	05.05.2020 14:27	
Toluene	<0.00200	0.100	0.100	100	0.0949	95	70-130	5	35	mg/kg	05.05.2020 14:27	
Ethylbenzene	<0.00200	0.100	0.0940	94	0.0890	89	71-129	5	35	mg/kg	05.05.2020 14:27	
m,p-Xylenes	<0.00400	0.200	0.181	91	0.172	86	70-135	5	35	mg/kg	05.05.2020 14:27	
o-Xylene	<0.00200	0.100	0.0939	94	0.0896	90	71-133	5	35	mg/kg	05.05.2020 14:27	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	113		108		108		70-130	%	05.05.2020 14:27
4-Bromofluorobenzene	104		100		97		70-130	%	05.05.2020 14:27

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125080

Parent Sample Id: 660479-001

Matrix: Soil

MS Sample Id: 660479-001 S

Prep Method: SW5035A

Date Prep: 05.05.2020

MSD Sample Id: 660479-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.112	111	0.119	119	70-130	6	35	mg/kg	05.05.2020 16:36	
Toluene	<0.00202	0.101	0.102	101	0.105	105	70-130	3	35	mg/kg	05.05.2020 16:36	
Ethylbenzene	<0.00202	0.101	0.0946	94	0.0949	95	71-129	0	35	mg/kg	05.05.2020 16:36	
m,p-Xylenes	<0.00404	0.202	0.183	91	0.180	90	70-135	2	35	mg/kg	05.05.2020 16:36	
o-Xylene	<0.00202	0.101	0.0949	94	0.0969	97	71-133	2	35	mg/kg	05.05.2020 16:36	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		108		70-130	%	05.05.2020 16:36
4-Bromofluorobenzene	98		98		70-130	%	05.05.2020 16:36

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

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 05.05.2020 03.55.00 PM

Work Order #: 660684

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)?	3.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#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)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

* 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: 05.05.2020

Checklist reviewed by:



Jessica Kramer

Date: 05.06.2020



Certificate of Analysis Summary 660988

Tetra Tech- Midland, Midland, TX

Project Name: Ophelia 27 West CTB

Project Id: 212c-MD-01254

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Thu 05.07.2020 15:53

Report Date: 05.11.2020 13:25

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	660988-001	660988-002	660988-003	660988-004	660988-005	660988-006
	Field Id:	Bottom Hole # 34 (5.5' BE	Bottom Hole # 35 (5.5' BE	Bottom Hole #36 (5.5' BE	Bottom Hole #37 (5.5' BE	Bottom Hole #38 (5.5' BE	Bottom Hole #39 (5.5' BE
	Depth:	5.5- ft	5.5- ft	5.5- ft	5.5- ft	5.5- ft	5.5- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	05.07.2020 00:00	05.07.2020 00:00	05.07.2020 00:00	05.07.2020 00:00	05.07.2020 00:00	05.07.2020 00:00
BTEX by EPA 8021B	Extracted:	05.08.2020 15:16	05.08.2020 15:16	05.08.2020 15:16	05.08.2020 15:16	05.08.2020 15:16	05.08.2020 15:16
	Analyzed:	05.08.2020 18:32	05.08.2020 18:52	05.08.2020 19:13	05.08.2020 19:33	05.08.2020 19:54	05.08.2020 20:14
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	<0.000189 0.000189	<0.00199 0.00199	<0.00198 0.00198	<0.00198 0.00198	<0.00990 0.00990	<0.00971 0.00971
	Toluene	<0.000189 0.000189	<0.00199 0.00199	<0.00198 0.00198	<0.00198 0.00198	<0.00990 0.00990	<0.00971 0.00971
Ethylbenzene		<0.000189 0.000189	<0.00199 0.00199	<0.00198 0.00198	<0.00198 0.00198	<0.00990 0.00990	<0.00971 0.00971
m,p-Xylenes		<0.000377 0.000377	<0.00398 0.00398	<0.00397 0.00397	<0.00397 0.00397	<0.0198 0.0198	<0.0194 0.0194
o-Xylene		<0.000189 0.000189	<0.00199 0.00199	<0.00198 0.00198	<0.00198 0.00198	<0.00990 0.00990	<0.00971 0.00971
Total Xylenes		<0.000189 0.000189	<0.00199 0.00199	<0.00198 0.00198	<0.00198 0.00198	<0.00990 0.00990	<0.00971 0.00971
Total BTEX		<0.000189 0.000189	<0.00199 0.00199	<0.00198 0.00198	<0.00198 0.00198	<0.00990 0.00990	<0.00971 0.00971
Inorganic Anions by EPA 300/300.1	Extracted:	05.07.2020 16:42	05.07.2020 16:42	05.07.2020 16:42	05.07.2020 16:42	05.07.2020 16:42	05.07.2020 17:49
	Analyzed:	05.07.2020 21:19	05.07.2020 21:24	05.07.2020 21:30	05.07.2020 21:36	05.07.2020 21:42	05.07.2020 22:17
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Chloride	2600 50.1	1200 9.98	116 9.96	1420 9.92	127 10.0	16.4 9.96
TPH By SW8015 Mod	Extracted:	05.08.2020 17:30	05.08.2020 17:30	05.08.2020 17:30	05.08.2020 17:30	05.08.2020 17:30	05.08.2020 17:30
	Analyzed:	05.08.2020 23:28	05.09.2020 00:08	05.09.2020 00:29	05.09.2020 00:49	05.09.2020 01:09	05.09.2020 01:30
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Gasoline Range Hydrocarbons (GRO)	<50.1 50.1	<50.2 50.2	<50.0 50.0	<49.9 49.9	<50.1 50.1	<50.1 50.1
	Diesel Range Organics (DRO)	<50.1 50.1	<50.2 50.2	<50.0 50.0	<49.9 49.9	148 50.1	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.2 50.2	<50.0 50.0	<49.9 49.9	<50.1 50.1	<50.1 50.1
Total TPH		<50.1 50.1	<50.2 50.2	<50.0 50.0	<49.9 49.9	148 50.1	<50.1 50.1

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 660988

Tetra Tech- Midland, Midland, TX

Project Name: Ophelia 27 West CTB

Project Id: 212c-MD-01254

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Thu 05.07.2020 15:53

Report Date: 05.11.2020 13:25

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	660988-007	660988-008	660988-009	660988-010	660988-011	660988-012
	Field Id:	Bottom Hole #40 (5.5' BE	Bottom Hole #41 (5.5' BE	Bottom Hole #42 (5.5' BE	Bottom Hole #43 (5.5' BE	Bottom Hole #44 (5.5' BE	Bottom Hole #45 (5.5' BE
	Depth:	5.5- ft	5.5- ft	5.5- ft	5.5- ft	5.5- ft	5.5- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	05.07.2020 00:00	05.07.2020 00:00	05.07.2020 00:00	05.07.2020 00:00	05.07.2020 00:00	05.07.2020 00:00
BTEX by EPA 8021B	Extracted:	05.08.2020 15:16	05.08.2020 15:16	05.08.2020 15:16	05.08.2020 15:16	05.08.2020 15:16	05.08.2020 15:16
	Analyzed:	05.08.2020 20:34	05.08.2020 20:55	05.08.2020 21:15	05.08.2020 21:36	05.08.2020 22:37	05.08.2020 22:57
	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	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
	Toluene	<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Ethylbenzene		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
m,p-Xylenes		<0.00404 0.00404	<0.00402 0.00402	<0.00398 0.00398	<0.00397 0.00397	<0.00403 0.00403	<0.00398 0.00398
o-Xylene		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Total Xylenes		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Total BTEX		<0.00202 0.00202	<0.00201 0.00201	<0.00199 0.00199	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Inorganic Anions by EPA 300/300.1	Extracted:	05.07.2020 17:49	05.07.2020 17:49	05.07.2020 17:49	05.07.2020 17:49	05.07.2020 17:49	05.07.2020 17:49
	Analyzed:	05.07.2020 22:35	05.07.2020 22:41	05.07.2020 22:47	05.07.2020 22:53	05.07.2020 23:10	05.07.2020 23:16
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Chloride	592 10.0	67.3 9.88	28.9 9.88	213 9.96	488 10.0	194 10.1
TPH By SW8015 Mod	Extracted:	05.08.2020 17:30	05.08.2020 17:30	05.08.2020 17:30	05.08.2020 17:30	05.08.2020 17:30	05.08.2020 17:30
	Analyzed:	05.09.2020 01:50	05.09.2020 02:10	05.09.2020 02:30	05.09.2020 02:51	05.09.2020 03:11	05.08.2020 19:44
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Gasoline Range Hydrocarbons (GRO)	<50.1 50.1	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9
	Diesel Range Organics (DRO)	<50.1 50.1	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	88.8 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9
Total TPH		<50.1 50.1	<50.0 50.0	<50.0 50.0	<50.0 50.0	<50.0 50.0	88.8 49.9

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 660988

Tetra Tech- Midland, Midland, TX

Project Name: Ophelia 27 West CTB

Project Id: 212c-MD-01254

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Thu 05.07.2020 15:53

Report Date: 05.11.2020 13:25

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	660988-013	660988-014	660988-015	660988-016	660988-017	660988-018
	Field Id:	Bottom Hole #46 (5.5' BE	Bottom Hole #47 (5.5' BE	Bottom Hole #48 (5.5' BE	Bottom Hole #49 (5.5' BE	Bottom Hole #50 (5.5' BE	Bottom Hole #51 (5.5' BE
	Depth:	5.5- ft	5.5- ft	5.5- ft	5.5- ft	5.5- ft	5.5- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	05.07.2020 00:00	05.07.2020 00:00	05.07.2020 00:00	05.07.2020 00:00	05.07.2020 00:00	05.07.2020 00:00
BTEX by EPA 8021B	Extracted:	05.08.2020 15:16	05.08.2020 15:16	05.08.2020 15:16	05.08.2020 15:16	05.08.2020 15:16	05.08.2020 15:16
	Analyzed:	05.08.2020 23:18	05.08.2020 23:38	05.08.2020 23:58	05.09.2020 00:19	05.09.2020 00:39	05.09.2020 00:59
	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	<0.00990 0.00990	<0.0105 0.0105	<0.00980 0.00980	<0.0104 0.0104	<0.0105 0.0105
Toluene		<0.00200 0.00200	<0.00990 0.00990	<0.0105 0.0105	<0.00980 0.00980	<0.0104 0.0104	<0.0105 0.0105
Ethylbenzene		<0.00200 0.00200	<0.00990 0.00990	<0.0105 0.0105	<0.00980 0.00980	<0.0104 0.0104	<0.0105 0.0105
m,p-Xylenes		<0.00401 0.00401	<0.0198 0.0198	<0.0211 0.0211	<0.0196 0.0196	<0.0208 0.0208	<0.0211 0.0211
o-Xylene		<0.00200 0.00200	<0.00990 0.00990	<0.0105 0.0105	<0.00980 0.00980	<0.0104 0.0104	<0.0105 0.0105
Total Xylenes		<0.00200 0.00200	<0.00990 0.00990	<0.0105 0.0105	<0.00980 0.00980	<0.0104 0.0104	<0.0105 0.0105
Total BTEX		<0.00200 0.00200	<0.00990 0.00990	<0.0105 0.0105	<0.00980 0.00980	<0.0104 0.0104	<0.0105 0.0105
Inorganic Anions by EPA 300/300.1	Extracted:	05.07.2020 17:49	05.07.2020 17:49	05.07.2020 17:49	05.07.2020 17:49	05.07.2020 17:49	05.07.2020 17:49
	Analyzed:	05.07.2020 23:22	05.07.2020 23:28	05.07.2020 23:34	05.07.2020 23:40	05.07.2020 23:57	05.08.2020 00:03
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		98.3 9.92	175 9.94	722 10.0	97.2 10.0	120 10.1	81.8 10.0
TPH By SW8015 Mod	Extracted:	05.08.2020 17:30	05.08.2020 17:30	05.08.2020 17:30	05.08.2020 17:30	05.08.2020 17:30	05.08.2020 17:30
	Analyzed:	05.08.2020 20:45	05.08.2020 21:05	05.08.2020 21:26	05.08.2020 21:46	05.08.2020 22:07	05.08.2020 22:27
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<50.3 50.3	<50.1 50.1	<49.9 49.9	<50.2 50.2	<49.8 49.8
Diesel Range Organics (DRO)		<50.1 50.1	<50.3 50.3	<50.1 50.1	<49.9 49.9	<50.2 50.2	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.3 50.3	<50.1 50.1	<49.9 49.9	<50.2 50.2	<49.8 49.8
Total TPH		<50.1 50.1	<50.3 50.3	<50.1 50.1	<49.9 49.9	<50.2 50.2	<49.8 49.8

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 660988

Tetra Tech- Midland, Midland, TX

Project Name: Ophelia 27 West CTB

Project Id: 212c-MD-01254

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Thu 05.07.2020 15:53

Report Date: 05.11.2020 13:25

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660988-019	660988-020	660988-021			
	<i>Field Id:</i>	Bottom Hole #52 (5.5' BE	Bottom Hole #53 (5.5' BE	Bottom Hole #54 (5.5' BE			
	<i>Depth:</i>	5.5- ft	5.5- ft	5.5- ft			
	<i>Matrix:</i>	SOIL	SOIL	SOIL			
	<i>Sampled:</i>	05.07.2020 00:00	05.07.2020 00:00	05.07.2020 00:00			
BTEX by EPA 8021B	<i>Extracted:</i>	05.08.2020 15:16	05.08.2020 15:16	05.08.2020 17:07			
	<i>Analyzed:</i>	05.09.2020 01:20	05.09.2020 01:40	05.09.2020 10:17			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200			
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200			
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200			
m,p-Xylenes		<0.00400 0.00400	<0.00398 0.00398	<0.00400 0.00400			
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200			
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200			
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200			
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	05.07.2020 17:49	05.07.2020 17:49	05.07.2020 17:49			
	<i>Analyzed:</i>	05.08.2020 00:21	05.08.2020 00:27	05.08.2020 00:32			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		13.8 10.0	13.4 9.96	13.5 9.96			
TPH By SW8015 Mod	<i>Extracted:</i>	05.08.2020 17:30	05.08.2020 17:30	05.08.2020 17:30			
	<i>Analyzed:</i>	05.08.2020 22:47	05.08.2020 23:07	05.08.2020 23:28			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.8 49.8	<50.2 50.2			
Diesel Range Organics (DRO)		<50.0 50.0	<49.8 49.8	54.3 50.2			
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.8 49.8	<50.2 50.2			
Total TPH		<50.0 50.0	<49.8 49.8	54.3 50.2			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Analytical Report 660988

for

Tetra Tech- Midland

Project Manager: Mike Carmona

Ophelia 27 West CTB

212c-MD-01254

05.11.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



05.11.2020

Project Manager: **Mike Carmona**

Tetra Tech- Midland

901 West Wall ST

Midland, TX 79701

Reference: XENCO Report No(s): **660988**

Ophelia 27 West CTB

Project Address: Lea Co, NM

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) 660988. 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. 660988 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,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 660988****Tetra Tech- Midland, Midland, TX**

Ophelia 27 West CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Bottom Hole # 34 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-001
Bottom Hole # 35 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-002
Bottom Hole #36 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-003
Bottom Hole #37 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-004
Bottom Hole #38 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-005
Bottom Hole #39 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-006
Bottom Hole #40 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-007
Bottom Hole #41 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-008
Bottom Hole #42 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-009
Bottom Hole #43 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-010
Bottom Hole #44 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-011
Bottom Hole #45 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-012
Bottom Hole #46 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-013
Bottom Hole #47 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-014
Bottom Hole #48 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-015
Bottom Hole #49 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-016
Bottom Hole #50 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-017
Bottom Hole #51 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-018
Bottom Hole #52 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-019
Bottom Hole #53 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-020
Bottom Hole #54 (5.5' BEB)	S	05.07.2020 00:00	5.5 ft	660988-021



CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Ophelia 27 West CTB

Project ID: 212c-MD-01254
Work Order Number(s): 660988

Report Date: 05.11.2020
Date Received: 05.07.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 660988

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole # 34 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-001

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 16:42

Basis: Wet Weight

Seq Number: 3125427

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2600	50.1	mg/kg	05.07.2020 21:19		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125528

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.08.2020 23:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.08.2020 23:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.08.2020 23:28	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.08.2020 23:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	05.08.2020 23:28	
o-Terphenyl	84-15-1	77	%	70-135	05.08.2020 23:28	



Certificate of Analytical Results 660988

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole # 34 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-001

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000189	0.000189	mg/kg	05.08.2020 18:32	U	1
Toluene	108-88-3	<0.000189	0.000189	mg/kg	05.08.2020 18:32	U	1
Ethylbenzene	100-41-4	<0.000189	0.000189	mg/kg	05.08.2020 18:32	U	1
m,p-Xylenes	179601-23-1	<0.000377	0.000377	mg/kg	05.08.2020 18:32	U	1
o-Xylene	95-47-6	<0.000189	0.000189	mg/kg	05.08.2020 18:32	U	1
Total Xylenes	1330-20-7	<0.000189	0.000189	mg/kg	05.08.2020 18:32	U	1
Total BTEX		<0.000189	0.000189	mg/kg	05.08.2020 18:32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.08.2020 18:32		
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.08.2020 18:32		



Certificate of Analytical Results 660988

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole # 35 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-002

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 16:42

Basis: Wet Weight

Seq Number: 3125427

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1200	9.98	mg/kg	05.07.2020 21:24		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125528

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.09.2020 00:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.09.2020 00:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.09.2020 00:08	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.09.2020 00:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	05.09.2020 00:08	
o-Terphenyl	84-15-1	79	%	70-135	05.09.2020 00:08	



Certificate of Analytical Results 660988

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole # 35 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-002

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.08.2020 18:52	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.08.2020 18:52	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.08.2020 18:52	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.08.2020 18:52	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.08.2020 18:52	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.08.2020 18:52	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.08.2020 18:52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.08.2020 18:52		
1,4-Difluorobenzene	540-36-3	105	%	70-130	05.08.2020 18:52		



Certificate of Analytical Results 660988

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #36 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-003

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 16:42

Basis: Wet Weight

Seq Number: 3125427

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	116	9.96	mg/kg	05.07.2020 21:30		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125528

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.09.2020 00:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.09.2020 00:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.09.2020 00:29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.09.2020 00:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-135	05.09.2020 00:29	
o-Terphenyl	84-15-1	76	%	70-135	05.09.2020 00:29	



Certificate of Analytical Results 660988

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #36 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-003

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.08.2020 19:13	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.08.2020 19:13	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.08.2020 19:13	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.08.2020 19:13	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.08.2020 19:13	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.08.2020 19:13	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.08.2020 19:13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	05.08.2020 19:13		
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.08.2020 19:13		



Certificate of Analytical Results 660988

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #37 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-004

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 16:42

Basis: Wet Weight

Seq Number: 3125427

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1420	9.92	mg/kg	05.07.2020 21:36		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125528

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.09.2020 00:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.09.2020 00:49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.09.2020 00:49	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.09.2020 00:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-135	05.09.2020 00:49	
o-Terphenyl	84-15-1	77	%	70-135	05.09.2020 00:49	



Certificate of Analytical Results 660988

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #37 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-004

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.08.2020 19:33	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.08.2020 19:33	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.08.2020 19:33	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.08.2020 19:33	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.08.2020 19:33	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.08.2020 19:33	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.08.2020 19:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	05.08.2020 19:33		
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.08.2020 19:33		



Certificate of Analytical Results 660988

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #38 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-005

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 16:42

Basis: Wet Weight

Seq Number: 3125427

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	127	10.0	mg/kg	05.07.2020 21:42		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125528

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.09.2020 01:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	148	50.1	mg/kg	05.09.2020 01:09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.09.2020 01:09	U	1
Total TPH	PHC635	148	50.1	mg/kg	05.09.2020 01:09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	05.09.2020 01:09	
o-Terphenyl	84-15-1	79	%	70-135	05.09.2020 01:09	



Certificate of Analytical Results 660988

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #38 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-005

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00990	0.00990	mg/kg	05.08.2020 19:54	U	1
Toluene	108-88-3	<0.00990	0.00990	mg/kg	05.08.2020 19:54	U	1
Ethylbenzene	100-41-4	<0.00990	0.00990	mg/kg	05.08.2020 19:54	U	1
m,p-Xylenes	179601-23-1	<0.0198	0.0198	mg/kg	05.08.2020 19:54	U	1
o-Xylene	95-47-6	<0.00990	0.00990	mg/kg	05.08.2020 19:54	U	1
Total Xylenes	1330-20-7	<0.00990	0.00990	mg/kg	05.08.2020 19:54	U	1
Total BTEX		<0.00990	0.00990	mg/kg	05.08.2020 19:54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	05.08.2020 19:54		
1,4-Difluorobenzene	540-36-3	102	%	70-130	05.08.2020 19:54		



Certificate of Analytical Results 660988

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #39 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-006

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 17:49

Basis: Wet Weight

Seq Number: 3125428

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.4	9.96	mg/kg	05.07.2020 22:17		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125528

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.09.2020 01:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.09.2020 01:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.09.2020 01:30	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.09.2020 01:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-135	05.09.2020 01:30	
o-Terphenyl	84-15-1	74	%	70-135	05.09.2020 01:30	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #39 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-006

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00971	0.00971	mg/kg	05.08.2020 20:14	U	1
Toluene	108-88-3	<0.00971	0.00971	mg/kg	05.08.2020 20:14	U	1
Ethylbenzene	100-41-4	<0.00971	0.00971	mg/kg	05.08.2020 20:14	U	1
m,p-Xylenes	179601-23-1	<0.0194	0.0194	mg/kg	05.08.2020 20:14	U	1
o-Xylene	95-47-6	<0.00971	0.00971	mg/kg	05.08.2020 20:14	U	1
Total Xylenes	1330-20-7	<0.00971	0.00971	mg/kg	05.08.2020 20:14	U	1
Total BTEX		<0.00971	0.00971	mg/kg	05.08.2020 20:14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	05.08.2020 20:14		
4-Bromofluorobenzene	460-00-4	96	%	70-130	05.08.2020 20:14		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #40 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-007

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 17:49

Basis: Wet Weight

Seq Number: 3125428

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	592	10.0	mg/kg	05.07.2020 22:35		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125528

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.09.2020 01:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.09.2020 01:50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.09.2020 01:50	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.09.2020 01:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	05.09.2020 01:50	
o-Terphenyl	84-15-1	76	%	70-135	05.09.2020 01:50	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #40 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-007

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.08.2020 20:34	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.08.2020 20:34	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.08.2020 20:34	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.08.2020 20:34	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.08.2020 20:34	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.08.2020 20:34	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.08.2020 20:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.08.2020 20:34	
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.08.2020 20:34	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #41 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-008

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 17:49

Basis: Wet Weight

Seq Number: 3125428

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	67.3	9.88	mg/kg	05.07.2020 22:41		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125528

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.09.2020 02:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.09.2020 02:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.09.2020 02:10	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.09.2020 02:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-135	05.09.2020 02:10	
o-Terphenyl	84-15-1	77	%	70-135	05.09.2020 02:10	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #41 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-008

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.08.2020 20:55	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.08.2020 20:55	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.08.2020 20:55	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.08.2020 20:55	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.08.2020 20:55	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.08.2020 20:55	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.08.2020 20:55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.08.2020 20:55		
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.08.2020 20:55		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #42 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-009

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 17:49

Basis: Wet Weight

Seq Number: 3125428

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	28.9	9.88	mg/kg	05.07.2020 22:47		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125528

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.09.2020 02:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.09.2020 02:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.09.2020 02:30	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.09.2020 02:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	05.09.2020 02:30	
o-Terphenyl	84-15-1	81	%	70-135	05.09.2020 02:30	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #42 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-009

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.08.2020 21:15	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.08.2020 21:15	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.08.2020 21:15	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.08.2020 21:15	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.08.2020 21:15	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.08.2020 21:15	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.08.2020 21:15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.08.2020 21:15		
4-Bromofluorobenzene	460-00-4	95	%	70-130	05.08.2020 21:15		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #43 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-010

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 17:49

Basis: Wet Weight

Seq Number: 3125428

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	213	9.96	mg/kg	05.07.2020 22:53		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125528

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.09.2020 02:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.09.2020 02:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.09.2020 02:51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.09.2020 02:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	05.09.2020 02:51	
o-Terphenyl	84-15-1	78	%	70-135	05.09.2020 02:51	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #43 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-010

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	05.08.2020 21:36	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	05.08.2020 21:36	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	05.08.2020 21:36	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	05.08.2020 21:36	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	05.08.2020 21:36	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	05.08.2020 21:36	U	1
Total BTEX		<0.00198	0.00198	mg/kg	05.08.2020 21:36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.08.2020 21:36		
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.08.2020 21:36		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #44 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-011

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 17:49

Basis: Wet Weight

Seq Number: 3125428

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	488	10.0	mg/kg	05.07.2020 23:10		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125528

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.09.2020 03:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.09.2020 03:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.09.2020 03:11	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.09.2020 03:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-135	05.09.2020 03:11	
o-Terphenyl	84-15-1	77	%	70-135	05.09.2020 03:11	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #44 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-011

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.08.2020 22:37	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.08.2020 22:37	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.08.2020 22:37	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.08.2020 22:37	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.08.2020 22:37	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.08.2020 22:37	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.08.2020 22:37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.08.2020 22:37		
4-Bromofluorobenzene	460-00-4	96	%	70-130	05.08.2020 22:37		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #45 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-012

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 17:49

Basis: Wet Weight

Seq Number: 3125428

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	194	10.1	mg/kg	05.07.2020 23:16		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125551

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.08.2020 19:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	88.8	49.9	mg/kg	05.08.2020 19:44		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.08.2020 19:44	U	1
Total TPH	PHC635	88.8	49.9	mg/kg	05.08.2020 19:44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	05.08.2020 19:44	
o-Terphenyl	84-15-1	88	%	70-135	05.08.2020 19:44	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #45 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-012

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.08.2020 22:57	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.08.2020 22:57	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.08.2020 22:57	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.08.2020 22:57	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.08.2020 22:57	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.08.2020 22:57	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.08.2020 22:57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.08.2020 22:57		
4-Bromofluorobenzene	460-00-4	96	%	70-130	05.08.2020 22:57		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #46 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-013

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 17:49

Basis: Wet Weight

Seq Number: 3125428

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	98.3	9.92	mg/kg	05.07.2020 23:22		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125551

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.08.2020 20:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.08.2020 20:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.08.2020 20:45	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.08.2020 20:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	05.08.2020 20:45	
o-Terphenyl	84-15-1	111	%	70-135	05.08.2020 20:45	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #46 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-013

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.08.2020 23:18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.08.2020 23:18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.08.2020 23:18	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.08.2020 23:18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.08.2020 23:18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.08.2020 23:18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.08.2020 23:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	05.08.2020 23:18	
4-Bromofluorobenzene	460-00-4	101	%	70-130	05.08.2020 23:18	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #47 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-014

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 17:49

Basis: Wet Weight

Seq Number: 3125428

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	175	9.94	mg/kg	05.07.2020 23:28		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125551

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	05.08.2020 21:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	05.08.2020 21:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	05.08.2020 21:05	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	05.08.2020 21:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	05.08.2020 21:05	
o-Terphenyl	84-15-1	108	%	70-135	05.08.2020 21:05	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #47 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-014

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00990	0.00990	mg/kg	05.08.2020 23:38	U	1
Toluene	108-88-3	<0.00990	0.00990	mg/kg	05.08.2020 23:38	U	1
Ethylbenzene	100-41-4	<0.00990	0.00990	mg/kg	05.08.2020 23:38	U	1
m,p-Xylenes	179601-23-1	<0.0198	0.0198	mg/kg	05.08.2020 23:38	U	1
o-Xylene	95-47-6	<0.00990	0.00990	mg/kg	05.08.2020 23:38	U	1
Total Xylenes	1330-20-7	<0.00990	0.00990	mg/kg	05.08.2020 23:38	U	1
Total BTEX		<0.00990	0.00990	mg/kg	05.08.2020 23:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	05.08.2020 23:38	
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.08.2020 23:38	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #48 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-015

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 17:49

Basis: Wet Weight

Seq Number: 3125428

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	722	10.0	mg/kg	05.07.2020 23:34		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125551

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	05.08.2020 21:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	05.08.2020 21:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	05.08.2020 21:26	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	05.08.2020 21:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	05.08.2020 21:26	
o-Terphenyl	84-15-1	111	%	70-135	05.08.2020 21:26	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #48 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-015

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0105	0.0105	mg/kg	05.08.2020 23:58	U	1
Toluene	108-88-3	<0.0105	0.0105	mg/kg	05.08.2020 23:58	U	1
Ethylbenzene	100-41-4	<0.0105	0.0105	mg/kg	05.08.2020 23:58	U	1
m,p-Xylenes	179601-23-1	<0.0211	0.0211	mg/kg	05.08.2020 23:58	U	1
o-Xylene	95-47-6	<0.0105	0.0105	mg/kg	05.08.2020 23:58	U	1
Total Xylenes	1330-20-7	<0.0105	0.0105	mg/kg	05.08.2020 23:58	U	1
Total BTEX		<0.0105	0.0105	mg/kg	05.08.2020 23:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	05.08.2020 23:58	
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.08.2020 23:58	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #49 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-016

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 17:49

Basis: Wet Weight

Seq Number: 3125428

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	97.2	10.0	mg/kg	05.07.2020 23:40		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125551

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.08.2020 21:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.08.2020 21:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.08.2020 21:46	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.08.2020 21:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	05.08.2020 21:46	
o-Terphenyl	84-15-1	111	%	70-135	05.08.2020 21:46	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #49 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-016

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00980	0.00980	mg/kg	05.09.2020 00:19	U	1
Toluene	108-88-3	<0.00980	0.00980	mg/kg	05.09.2020 00:19	U	1
Ethylbenzene	100-41-4	<0.00980	0.00980	mg/kg	05.09.2020 00:19	U	1
m,p-Xylenes	179601-23-1	<0.0196	0.0196	mg/kg	05.09.2020 00:19	U	1
o-Xylene	95-47-6	<0.00980	0.00980	mg/kg	05.09.2020 00:19	U	1
Total Xylenes	1330-20-7	<0.00980	0.00980	mg/kg	05.09.2020 00:19	U	1
Total BTEX		<0.00980	0.00980	mg/kg	05.09.2020 00:19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.09.2020 00:19		
4-Bromofluorobenzene	460-00-4	95	%	70-130	05.09.2020 00:19		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #50 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-017

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 17:49

Basis: Wet Weight

Seq Number: 3125428

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	120	10.1	mg/kg	05.07.2020 23:57		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125551

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.08.2020 22:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	05.08.2020 22:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.08.2020 22:07	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	05.08.2020 22:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	05.08.2020 22:07	
o-Terphenyl	84-15-1	109	%	70-135	05.08.2020 22:07	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #50 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-017

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0104	0.0104	mg/kg	05.09.2020 00:39	U	1
Toluene	108-88-3	<0.0104	0.0104	mg/kg	05.09.2020 00:39	U	1
Ethylbenzene	100-41-4	<0.0104	0.0104	mg/kg	05.09.2020 00:39	U	1
m,p-Xylenes	179601-23-1	<0.0208	0.0208	mg/kg	05.09.2020 00:39	U	1
o-Xylene	95-47-6	<0.0104	0.0104	mg/kg	05.09.2020 00:39	U	1
Total Xylenes	1330-20-7	<0.0104	0.0104	mg/kg	05.09.2020 00:39	U	1
Total BTEX		<0.0104	0.0104	mg/kg	05.09.2020 00:39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	05.09.2020 00:39		
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.09.2020 00:39		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #51 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-018

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 17:49

Basis: Wet Weight

Seq Number: 3125428

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	81.8	10.0	mg/kg	05.08.2020 00:03		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125551

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.08.2020 22:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.08.2020 22:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.08.2020 22:27	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.08.2020 22:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	05.08.2020 22:27	
o-Terphenyl	84-15-1	107	%	70-135	05.08.2020 22:27	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #51 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-018

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0105	0.0105	mg/kg	05.09.2020 00:59	U	1
Toluene	108-88-3	<0.0105	0.0105	mg/kg	05.09.2020 00:59	U	1
Ethylbenzene	100-41-4	<0.0105	0.0105	mg/kg	05.09.2020 00:59	U	1
m,p-Xylenes	179601-23-1	<0.0211	0.0211	mg/kg	05.09.2020 00:59	U	1
o-Xylene	95-47-6	<0.0105	0.0105	mg/kg	05.09.2020 00:59	U	1
Total Xylenes	1330-20-7	<0.0105	0.0105	mg/kg	05.09.2020 00:59	U	1
Total BTEX		<0.0105	0.0105	mg/kg	05.09.2020 00:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	70-130	05.09.2020 00:59	
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.09.2020 00:59	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #52 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-019

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 17:49

Basis: Wet Weight

Seq Number: 3125428

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.8	10.0	mg/kg	05.08.2020 00:21		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125551

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.08.2020 22:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.08.2020 22:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.08.2020 22:47	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.08.2020 22:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	05.08.2020 22:47	
o-Terphenyl	84-15-1	111	%	70-135	05.08.2020 22:47	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #52 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-019

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.09.2020 01:20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.09.2020 01:20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.09.2020 01:20	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.09.2020 01:20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.09.2020 01:20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.09.2020 01:20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.09.2020 01:20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.09.2020 01:20		
4-Bromofluorobenzene	460-00-4	98	%	70-130	05.09.2020 01:20		



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #53 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-020

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 17:49

Basis: Wet Weight

Seq Number: 3125428

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.4	9.96	mg/kg	05.08.2020 00:27		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125551

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.08.2020 23:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.08.2020 23:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.08.2020 23:07	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.08.2020 23:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	05.08.2020 23:07	
o-Terphenyl	84-15-1	115	%	70-135	05.08.2020 23:07	



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Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #53 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-020

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 15:16

Basis: Wet Weight

Seq Number: 3125539

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.09.2020 01:40	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.09.2020 01:40	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.09.2020 01:40	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.09.2020 01:40	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.09.2020 01:40	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.09.2020 01:40	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.09.2020 01:40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	05.09.2020 01:40		
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.09.2020 01:40		



Certificate of Analytical Results 660988

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #54 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-021

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.07.2020 17:49

Basis: Wet Weight

Seq Number: 3125428

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.5	9.96	mg/kg	05.08.2020 00:32		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 05.08.2020 17:30

Basis: Wet Weight

Seq Number: 3125551

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	05.08.2020 23:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	54.3	50.2	mg/kg	05.08.2020 23:28		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	05.08.2020 23:28	U	1
Total TPH	PHC635	54.3	50.2	mg/kg	05.08.2020 23:28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	05.08.2020 23:28	
o-Terphenyl	84-15-1	112	%	70-135	05.08.2020 23:28	



Certificate of Analytical Results 660988

Tetra Tech- Midland, Midland, TX

Ophelia 27 West CTB

Sample Id: **Bottom Hole #54 (5.5' BEB)**

Matrix: Soil

Date Received: 05.07.2020 15:53

Lab Sample Id: 660988-021

Date Collected: 05.07.2020 00:00

Sample Depth: 5.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 05.08.2020 17:07

Basis: Wet Weight

Seq Number: 3125536

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.09.2020 10:17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.09.2020 10:17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.09.2020 10:17	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.09.2020 10:17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.09.2020 10:17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.09.2020 10:17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.09.2020 10:17	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.09.2020 10:17		
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.09.2020 10:17		



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. **ND** Not Detected.

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



Tetra Tech- Midland
Ophelia 27 West CTB

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3125427

Matrix: Solid

Prep Method: E300P

Date Prep: 05.07.2020

MB Sample Id: 7702952-1-BLK

LCS Sample Id: 7702952-1-BKS

LCSD Sample Id: 7702952-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	253	101	252	101	90-110	0	20	mg/kg	05.07.2020 18:52	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3125428

Matrix: Solid

Prep Method: E300P

Date Prep: 05.07.2020

MB Sample Id: 7702954-1-BLK

LCS Sample Id: 7702954-1-BKS

LCSD Sample Id: 7702954-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	253	101	252	101	90-110	0	20	mg/kg	05.07.2020 22:06	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3125427

Matrix: Soil

Prep Method: E300P

Date Prep: 05.07.2020

Parent Sample Id: 660927-007

MS Sample Id: 660927-007 S

MSD Sample Id: 660927-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	106	200	320	107	322	108	90-110	1	20	mg/kg	05.07.2020 19:10	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3125427

Matrix: Soil

Prep Method: E300P

Date Prep: 05.07.2020

Parent Sample Id: 660930-001

MS Sample Id: 660930-001 S

MSD Sample Id: 660930-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	220	201	422	100	423	101	90-110	0	20	mg/kg	05.07.2020 20:26	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3125428

Matrix: Soil

Prep Method: E300P

Date Prep: 05.07.2020

Parent Sample Id: 660988-006

MS Sample Id: 660988-006 S

MSD Sample Id: 660988-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	16.4	200	211	97	211	97	90-110	0	20	mg/kg	05.07.2020 22:23	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3125428

Matrix: Soil

Prep Method: E300P

Date Prep: 05.07.2020

Parent Sample Id: 660988-016

MS Sample Id: 660988-016 S

MSD Sample Id: 660988-016 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	97.2	201	292	97	291	97	90-110	0	20	mg/kg	05.07.2020 23:45	

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



Tetra Tech- Midland

Ophelia 27 West CTB

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125528

MB Sample Id: 7703005-1-BLK

Matrix: Solid

LCS Sample Id: 7703005-1-BKS

Prep Method: SW8015P

Date Prep: 05.08.2020

LCSD Sample Id: 7703005-1-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	1120	112	1090	109	70-135	3	35	mg/kg	05.08.2020 19:04	
Diesel Range Organics (DRO)	<50.0	1000	1200	120	1120	112	70-135	7	35	mg/kg	05.08.2020 19:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	73		116		127		70-135	%	05.08.2020 19:04
o-Terphenyl	71		103		99		70-135	%	05.08.2020 19:04

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125551

MB Sample Id: 7703004-1-BLK

Matrix: Solid

LCS Sample Id: 7703004-1-BKS

Prep Method: SW8015P

Date Prep: 05.08.2020

LCSD Sample Id: 7703004-1-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	1160	116	1130	113	70-135	3	35	mg/kg	05.08.2020 19:04	
Diesel Range Organics (DRO)	<50.0	1000	1160	116	1140	114	70-135	2	35	mg/kg	05.08.2020 19:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		135		134		70-135	%	05.08.2020 19:04
o-Terphenyl	103		130		129		70-135	%	05.08.2020 19:04

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125528

Matrix: Solid

MB Sample Id: 7703005-1-BLK

Prep Method: SW8015P

Date Prep: 05.08.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.08.2020 18:43	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125551

Matrix: Solid

MB Sample Id: 7703004-1-BLK

Prep Method: SW8015P

Date Prep: 05.08.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.08.2020 18:43	

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



Tetra Tech- Midland

Ophelia 27 West CTB

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125528

Parent Sample Id: 660927-012

Matrix: Soil

MS Sample Id: 660927-012 S

Prep Method: SW8015P

Date Prep: 05.08.2020

MSD Sample Id: 660927-012 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)	<50.3	1010	1300	129	1250	125	70-135	4	35	mg/kg	05.08.2020 20:05	
Diesel Range Organics (DRO)	<50.3	1010	1230	122	1180	118	70-135	4	35	mg/kg	05.08.2020 20:05	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		105		70-135	%	05.08.2020 20:05
o-Terphenyl	90		90		70-135	%	05.08.2020 20:05

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125551

Parent Sample Id: 660988-012

Matrix: Soil

MS Sample Id: 660988-012 S

Prep Method: SW8015P

Date Prep: 05.08.2020

MSD Sample Id: 660988-012 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)	<50.2	1000	1320	132	1310	131	70-135	1	35	mg/kg	05.08.2020 20:05	
Diesel Range Organics (DRO)	88.8	1000	1310	122	1330	124	70-135	2	35	mg/kg	05.08.2020 20:05	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	116		114		70-135	%	05.08.2020 20:05
o-Terphenyl	88		92		70-135	%	05.08.2020 20:05

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125539

MB Sample Id: 7703032-1-BLK

Matrix: Solid

LCS Sample Id: 7703032-1-BKS

Prep Method: SW5035A

Date Prep: 05.08.2020

LCSD Sample Id: 7703032-1-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	0.113	113	0.109	109	70-130	4	35	mg/kg	05.08.2020 16:50	
Toluene	<0.00200	0.100	0.107	107	0.104	104	70-130	3	35	mg/kg	05.08.2020 16:50	
Ethylbenzene	<0.00200	0.100	0.100	100	0.0964	96	71-129	4	35	mg/kg	05.08.2020 16:50	
m,p-Xylenes	<0.00400	0.200	0.205	103	0.198	99	70-135	3	35	mg/kg	05.08.2020 16:50	
o-Xylene	<0.00200	0.100	0.106	106	0.101	101	71-133	5	35	mg/kg	05.08.2020 16:50	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		103		103		70-130	%	05.08.2020 16:50
4-Bromofluorobenzene	97		92		92		70-130	%	05.08.2020 16:50

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



Tetra Tech- Midland

Ophelia 27 West CTB

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125536

Matrix: Solid

Prep Method: SW5035A

Date Prep: 05.08.2020

MB Sample Id: 7703029-1-BLK

LCS Sample Id: 7703029-1-BKS

LCSD Sample Id: 7703029-1-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	0.115	115	0.113	113	70-130	2	35	mg/kg	05.09.2020 02:04	
Toluene	<0.00200	0.100	0.104	104	0.101	101	70-130	3	35	mg/kg	05.09.2020 02:04	
Ethylbenzene	<0.00200	0.100	0.0970	97	0.0944	94	71-129	3	35	mg/kg	05.09.2020 02:04	
m,p-Xylenes	<0.00400	0.200	0.186	93	0.182	91	70-135	2	35	mg/kg	05.09.2020 02:04	
o-Xylene	<0.00200	0.100	0.0965	97	0.0940	94	71-133	3	35	mg/kg	05.09.2020 02:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	117		108		108		70-130	%	05.09.2020 02:04
4-Bromofluorobenzene	108		98		99		70-130	%	05.09.2020 02:04

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125539

Matrix: Soil

Prep Method: SW5035A

Date Prep: 05.08.2020

Parent Sample Id: 660988-001

MS Sample Id: 660988-001 S

MSD Sample Id: 660988-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.108	107	0.107	107	70-130	1	35	mg/kg	05.08.2020 17:31	
Toluene	<0.00202	0.101	0.103	102	0.102	102	70-130	1	35	mg/kg	05.08.2020 17:31	
Ethylbenzene	<0.00202	0.101	0.0987	98	0.0945	95	71-129	4	35	mg/kg	05.08.2020 17:31	
m,p-Xylenes	<0.00403	0.202	0.199	99	0.193	97	70-135	3	35	mg/kg	05.08.2020 17:31	
o-Xylene	<0.00202	0.101	0.100	99	0.0976	98	71-133	2	35	mg/kg	05.08.2020 17:31	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		104		70-130	%	05.08.2020 17:31
4-Bromofluorobenzene	92		96		70-130	%	05.08.2020 17:31

Analytical Method: BTEX by EPA 8021B

Seq Number: 3125536

Matrix: Soil

Prep Method: SW5035A

Date Prep: 05.08.2020

Parent Sample Id: 660927-015

MS Sample Id: 660927-015 S

MSD Sample Id: 660927-015 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	0.104	104	0.109	109	70-130	5	35	mg/kg	05.09.2020 02:47	
Toluene	<0.00200	0.100	0.0928	93	0.0972	97	70-130	5	35	mg/kg	05.09.2020 02:47	
Ethylbenzene	<0.00200	0.100	0.0861	86	0.0900	90	71-129	4	35	mg/kg	05.09.2020 02:47	
m,p-Xylenes	<0.00400	0.200	0.164	82	0.172	86	70-135	5	35	mg/kg	05.09.2020 02:47	
o-Xylene	<0.00200	0.100	0.0845	85	0.0887	89	71-133	5	35	mg/kg	05.09.2020 02:47	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		107		70-130	%	05.09.2020 02:47
4-Bromofluorobenzene	102		98		70-130	%	05.09.2020 02:47

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



Tetra Tech, Inc.

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

Page 1 of 3

6000988

Client Name:

EOG

Site Manager:

Mike Carmon

Project Name:

Ophelia 27 West CTB

Project Location:

Lea Co, NM

212C-MD-01254

Invoice to:

Todd Wells

Receiving Laboratory:

Xenco

Sampler Signature:

Justin Flores

Comments:

SAMPLE IDENTIFICATION

LAB #
(LAB USE ONLY)

SAMPLING

YEAR: 2020

DATE

TIME

MATRIX

PRESERVATIVE METHOD

WATER
SOIL
HCL
HNO₃
ICE
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

ANALYSIS REQUEST

(Circle or Specify Method No.)

LAB USE ONLY

REMARKS:

☐ STANDARD

☒ RUSH: Same Day 24 hr 48 hr x72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

Sample Temperature

3.8

Date: Time:

Date: Time:

Date: Time:

Date: Time:

Date: Time:

Date: Time:

Date: Time:

Date: Time:

Date: Time:

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Date: Time:

Date: Time:

Date: Time:

Date: Time:

ORIGINAL COPY

(Circle) HAND DELIVERED

FEDEX UPS Tracking #:

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

Client Name: EOG Site Manager: Mike Carmon

Project Name: Ophelia 27 West CTB

Project Location: Lea Co, NM 212C-MD-01254

Invoice to: Todd Wells

Receiving Laboratory: Xenco

Comments: Sampler Signature: Justin Flores

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST (Circle or Specify Method No.)		
		DATE	TIME	WATER	SOIL	HCL	HNO ₃				H ₂ O ₂	None

	Bottom Hole # 44	5/7/2020		X			X		1	X	BTEX 8021B BTEX 8260B
	Bottom Hole # 45	5/7/2020		X			X		1	X	TPH TX1005 (Ext to C35)
	Bottom Hole # 46	5/7/2020		X			X		1	X	TPH 8015M (GRO - DRO - ORO - MRO)
	Bottom Hole # 47	5/7/2020		X			X		1	X	PAH 8270C
	Bottom Hole # 48	5/7/2020		X			X		1	X	Total Metals Ag As Ba Cd Cr Pb Se Hg
	Bottom Hole # 49	5/7/2020		X			X		1	X	TCLP Metals Ag As Ba Cd Cr Pb Se Hg
	Bottom Hole # 50	5/7/2020		X			X		1	X	TCLP Volatiles
	Bottom Hole # 51	5/7/2020		X			X		1	X	TCLP Semi Volatiles
	Bottom Hole # 52	5/7/2020		X			X		1	X	RCI
	Bottom Hole # 53	5/7/2020		X			X		1	X	GC/MS Vol. 8260B / 624

Relinquished by: Justin Flores Date: 5/7/20 Time: 15:53 Received by: [Signature] Date: 5/7/20 Time: 15:53

Relinquished by: [Signature] Date: [] Time: [] Received by: [Signature] Date: [] Time: []

Relinquished by: [Signature] Date: [] Time: [] Received by: [Signature] Date: [] Time: []

LAB USE ONLY

REMARKS:

☐ STANDARD

☒ RUSH: Same Day 24 hr 48 hr x 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

Sample Temperature 3.8

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 05.07.2020 03.53.00 PM

Work Order #: 660988

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)?	3.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#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)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

* 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: 05.07.2020

Checklist reviewed by:



Jessica Kramer

Date: 05.08.2020



Certificate of Analysis Summary 662041

Tetra Tech- Midland, Midland, TX

Project Name: EOG Ophelia 27 W CTB

Project Id: 212C-MD-02154

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Wed 05.20.2020 10:08

Report Date: 05.23.2020 12:43

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	662041-001	662041-002	662041-003	662041-004	662041-005	662041-006
	<i>Field Id:</i>	South 2 Sidewall	South 5 Sidewall	East 5 Sidewall	East 6 Sidewall	West 5 Sidewall	Bottom Hole 7 (4.5-5'BEB)
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.19.2020 00:00	05.19.2020 00:00	05.19.2020 00:00	05.19.2020 00:00	05.19.2020 00:00	05.19.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	05.20.2020 17:00	05.20.2020 17:00	05.20.2020 17:00	05.20.2020 17:00	05.20.2020 17:00	05.20.2020 17:00
	<i>Analyzed:</i>	05.21.2020 03:55	05.21.2020 04:15	05.21.2020 04:36	05.21.2020 04:56	05.21.2020 05:17	05.21.2020 05:37
	<i>Units/RL:</i>	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	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
Toluene		<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
Ethylbenzene		<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
m,p-Xylenes		<0.00399 0.00399	<0.00404 0.00404	<0.00402 0.00402	<0.00401 0.00401	<0.00398 0.00398	<0.00403 0.00403
o-Xylene		<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
Total Xylenes		<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
Total BTEX		<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	05.20.2020 17:20	05.20.2020 17:20	05.20.2020 17:20	05.20.2020 17:20	05.20.2020 17:20	05.20.2020 17:20
	<i>Analyzed:</i>	05.20.2020 21:19	05.20.2020 21:40	05.20.2020 21:46	05.20.2020 21:53	05.20.2020 22:00	05.20.2020 22:21
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		34.6 5.05	29.4 4.96	112 5.04	13.4 5.00	31.2 5.03	172 4.96
TPH By SW8015 Mod	<i>Extracted:</i>	05.21.2020 11:00	05.21.2020 11:00	05.21.2020 11:00	05.21.2020 11:00	05.21.2020 11:00	05.21.2020 11:00
	<i>Analyzed:</i>	05.21.2020 12:47	05.21.2020 13:51	05.21.2020 14:12	05.21.2020 14:33	05.21.2020 14:55	05.21.2020 15:16
	<i>Units/RL:</i>	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	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.8 49.8
Diesel Range Organics (DRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	86.4 49.8
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.8 49.8
Total TPH		<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	86.4 49.8

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 662041

Tetra Tech- Midland, Midland, TX

Project Name: EOG Ophelia 27 W CTB

Project Id: 212C-MD-02154

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Wed 05.20.2020 10:08

Report Date: 05.23.2020 12:43

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	662041-007	662041-008	662041-009	662041-010	662041-011	662041-012
	<i>Field Id:</i>	Bottom Hole 8 (4.5-5'BEB)	Bottom Hole 10 (5.5-6'BE)	Bottom Hole 19 (5.5-6'BE)	Bottom Hole 22 (5.5-6'BE)	Bottom Hole 26 (5.5-6'BE)	Bottom Hole 29 (5.5-6'BE)
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.19.2020 00:00	05.19.2020 00:00	05.19.2020 00:00	05.19.2020 00:00	05.19.2020 00:00	05.19.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	05.20.2020 17:00	05.20.2020 17:00	05.20.2020 17:00	05.20.2020 17:00	05.20.2020 17:00	05.20.2020 17:00
	<i>Analyzed:</i>	05.21.2020 05:58	05.21.2020 06:18	05.21.2020 06:39	05.21.2020 06:59	05.21.2020 08:22	05.21.2020 09:24
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Toluene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402	<0.00402 0.00402	<0.00404 0.00404
o-Xylene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Total Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Total BTEX		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00201 0.00201	<0.00202 0.00202
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	05.20.2020 17:20	05.20.2020 17:20	05.20.2020 17:20	05.20.2020 17:20	05.20.2020 17:20	05.20.2020 17:20
	<i>Analyzed:</i>	05.20.2020 22:28	05.20.2020 22:34	05.20.2020 22:41	05.20.2020 22:48	05.20.2020 22:55	05.20.2020 23:15
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		15.0 4.99	233 4.99	205 5.04	114 4.95	89.3 5.00	422 5.02
TPH By SW8015 Mod	<i>Extracted:</i>	05.21.2020 11:00	05.21.2020 11:00	05.21.2020 11:00	05.21.2020 11:00	05.21.2020 11:00	05.21.2020 11:00
	<i>Analyzed:</i>	05.21.2020 15:38	05.21.2020 16:00	05.21.2020 16:21	05.21.2020 16:42	05.21.2020 17:26	05.21.2020 17:47
	<i>Units/RL:</i>	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	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0
Diesel Range Organics (DRO)		<50.0 50.0	<49.8 49.8	77.9 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0
Total TPH		<50.0 50.0	<49.8 49.8	77.9 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 662041

Tetra Tech- Midland, Midland, TX

Project Name: EOG Ophelia 27 W CTB

Project Id: 212C-MD-02154

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Wed 05.20.2020 10:08

Report Date: 05.23.2020 12:43

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	662041-013	662041-014	662041-015	662041-016	662041-017	
	<i>Field Id:</i>	Bottom Hole 34 (5.5-6'BE)	Bottom Hole 35 (5.5-6'BE)	Bottom Hole 37 (5.5-6'BE)	Bottom Hole 38 (5.5-6'BE)	Bottom Hole 48 (5.5-6'BE)	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	05.19.2020 00:00	05.19.2020 00:00	05.19.2020 00:00	05.19.2020 00:00	05.19.2020 00:00	
BTEX by EPA 8021B	<i>Extracted:</i>	05.20.2020 17:00	05.20.2020 17:00	05.20.2020 17:00	05.20.2020 17:00	05.20.2020 17:00	
	<i>Analyzed:</i>	05.21.2020 09:44	05.21.2020 10:05	05.21.2020 10:25	05.21.2020 10:46	05.21.2020 11:06	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	
m,p-Xylenes		<0.00398 0.00398	<0.00400 0.00400	<0.00399 0.00399	<0.00402 0.00402	<0.00404 0.00404	
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	
Inorganic Anions by EPA 300/300.1	<i>Extracted:</i>	05.20.2020 17:20	05.20.2020 17:20	05.20.2020 17:20	05.20.2020 17:20	05.20.2020 17:20	
	<i>Analyzed:</i>	05.20.2020 23:22	05.20.2020 23:43	05.20.2020 23:50	05.20.2020 23:57	05.21.2020 00:03	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		11.7 4.96	73.3 5.00	8.65 4.97	6.23 5.04	94.0 4.98	
TPH By SW8015 Mod	<i>Extracted:</i>	05.21.2020 11:00	05.21.2020 11:00	05.21.2020 11:00	05.21.2020 11:00	05.21.2020 11:00	
	<i>Analyzed:</i>	05.21.2020 18:09	05.21.2020 18:30	05.21.2020 18:51	05.21.2020 19:13	05.21.2020 19:34	
	<i>Units/RL:</i>	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	<50.0 50.0	
Diesel Range Organics (DRO)		<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	
Total TPH		<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	

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Jessica Kramer
Project Manager



Analytical Report 662041

for

Tetra Tech- Midland

Project Manager: Mike Carmona

EOG Ophelia 27 W CTB

212C-MD-02154

05.23.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-6)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



05.23.2020

Project Manager: **Mike Carmona**

Tetra Tech- Midland

901 West Wall ST

Midland, TX 79701

Reference: XENCO Report No(s): **662041**

EOG Ophelia 27 W CTB

Project Address: Lea Co, NM

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) 662041. 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. 662041 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,

A handwritten signature in black ink that reads 'Jessica Kramer'. The signature is written in a cursive, flowing style.

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 662041****Tetra Tech- Midland, Midland, TX**

EOG Ophelia 27 W CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
South 2 Sidewall	S	05.19.2020 00:00		662041-001
South 5 Sidewall	S	05.19.2020 00:00		662041-002
East 5 Sidewall	S	05.19.2020 00:00		662041-003
East 6 Sidewall	S	05.19.2020 00:00		662041-004
West 5 Sidewall	S	05.19.2020 00:00		662041-005
Bottom Hole 7 (4.5-5'BEB)	S	05.19.2020 00:00		662041-006
Bottom Hole 8 (4.5-5'BEB)	S	05.19.2020 00:00		662041-007
Bottom Hole 10 (5.5-6'BEB)	S	05.19.2020 00:00		662041-008
Bottom Hole 19 (5.5-6'BEB)	S	05.19.2020 00:00		662041-009
Bottom Hole 22 (5.5-6'BEB)	S	05.19.2020 00:00		662041-010
Bottom Hole 26 (5.5-6'BEB)	S	05.19.2020 00:00		662041-011
Bottom Hole 29 (5.5-6'BEB)	S	05.19.2020 00:00		662041-012
Bottom Hole 34 (5.5-6'BEB)	S	05.19.2020 00:00		662041-013
Bottom Hole 35 (5.5-6'BEB)	S	05.19.2020 00:00		662041-014
Bottom Hole 37 (5.5-6'BEB)	S	05.19.2020 00:00		662041-015
Bottom Hole 38 (5.5-6'BEB)	S	05.19.2020 00:00		662041-016
Bottom Hole 48 (5.5-6'BEB)	S	05.19.2020 00:00		662041-017



CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: EOG Ophelia 27 W CTB

Project ID: 212C-MD-02154
Work Order Number(s): 662041

Report Date: 05.23.2020
Date Received: 05.20.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 662041

Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **South 2 Sidewall**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-001

Date Collected: 05.19.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 05.20.2020 17:20

Basis: Wet Weight

Seq Number: 3126619

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	34.6	5.05	mg/kg	05.20.2020 21:19		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.21.2020 11:00

Basis: Wet Weight

Seq Number: 3126770

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.21.2020 12:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.21.2020 12:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.21.2020 12:47	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.21.2020 12:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	05.21.2020 12:47	
o-Terphenyl	84-15-1	96	%	70-130	05.21.2020 12:47	



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **South 2 Sidewall**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-001

Date Collected: 05.19.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.20.2020 17:00

Basis: Wet Weight

Seq Number: 3126605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.21.2020 03:55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.21.2020 03:55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.21.2020 03:55	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.21.2020 03:55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.21.2020 03:55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.21.2020 03:55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.21.2020 03:55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	05.21.2020 03:55		
1,4-Difluorobenzene	540-36-3	109	%	70-130	05.21.2020 03:55		



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **South 5 Sidewall**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-002

Date Collected: 05.19.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 05.20.2020 17:20

Basis: Wet Weight

Seq Number: 3126619

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	29.4	4.96	mg/kg	05.20.2020 21:40		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.21.2020 11:00

Basis: Wet Weight

Seq Number: 3126770

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.21.2020 13:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.21.2020 13:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.21.2020 13:51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.21.2020 13:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-130	05.21.2020 13:51	
o-Terphenyl	84-15-1	112	%	70-130	05.21.2020 13:51	



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **South 5 Sidewall**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-002

Date Collected: 05.19.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.20.2020 17:00

Basis: Wet Weight

Seq Number: 3126605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.21.2020 04:15	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.21.2020 04:15	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.21.2020 04:15	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.21.2020 04:15	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.21.2020 04:15	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.21.2020 04:15	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.21.2020 04:15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.21.2020 04:15		
4-Bromofluorobenzene	460-00-4	110	%	70-130	05.21.2020 04:15		



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **East 5 Sidewall**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-003

Date Collected: 05.19.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 05.20.2020 17:20

Basis: Wet Weight

Seq Number: 3126619

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	112	5.04	mg/kg	05.20.2020 21:46		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.21.2020 11:00

Basis: Wet Weight

Seq Number: 3126770

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.21.2020 14:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.21.2020 14:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.21.2020 14:12	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.21.2020 14:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	05.21.2020 14:12	
o-Terphenyl	84-15-1	96	%	70-130	05.21.2020 14:12	



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **East 5 Sidewall**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-003

Date Collected: 05.19.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.20.2020 17:00

Basis: Wet Weight

Seq Number: 3126605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.21.2020 04:36	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.21.2020 04:36	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.21.2020 04:36	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.21.2020 04:36	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.21.2020 04:36	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.21.2020 04:36	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.21.2020 04:36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	05.21.2020 04:36		
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.21.2020 04:36		



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **East 6 Sidewall**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-004

Date Collected: 05.19.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 05.20.2020 17:20

Basis: Wet Weight

Seq Number: 3126619

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.4	5.00	mg/kg	05.20.2020 21:53		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.21.2020 11:00

Basis: Wet Weight

Seq Number: 3126770

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.21.2020 14:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.21.2020 14:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.21.2020 14:33	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.21.2020 14:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	05.21.2020 14:33	
o-Terphenyl	84-15-1	101	%	70-130	05.21.2020 14:33	



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **East 6 Sidewall**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-004

Date Collected: 05.19.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.20.2020 17:00

Basis: Wet Weight

Seq Number: 3126605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.21.2020 04:56	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.21.2020 04:56	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.21.2020 04:56	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.21.2020 04:56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.21.2020 04:56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.21.2020 04:56	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.21.2020 04:56	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	05.21.2020 04:56		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.21.2020 04:56		



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **West 5 Sidewall**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-005

Date Collected: 05.19.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 05.20.2020 17:20

Basis: Wet Weight

Seq Number: 3126619

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.2	5.03	mg/kg	05.20.2020 22:00		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.21.2020 11:00

Basis: Wet Weight

Seq Number: 3126770

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.21.2020 14:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.21.2020 14:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.21.2020 14:55	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.21.2020 14:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	05.21.2020 14:55	
o-Terphenyl	84-15-1	95	%	70-130	05.21.2020 14:55	



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **West 5 Sidewall**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-005

Date Collected: 05.19.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.20.2020 17:00

Basis: Wet Weight

Seq Number: 3126605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.21.2020 05:17	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.21.2020 05:17	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.21.2020 05:17	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.21.2020 05:17	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.21.2020 05:17	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.21.2020 05:17	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.21.2020 05:17	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	05.21.2020 05:17		
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.21.2020 05:17		



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 7 (4.5-5'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-006

Date Collected: 05.19.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 05.20.2020 17:20

Basis: Wet Weight

Seq Number: 3126619

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	172	4.96	mg/kg	05.20.2020 22:21		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.21.2020 11:00

Basis: Wet Weight

Seq Number: 3126770

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.21.2020 15:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	86.4	49.8	mg/kg	05.21.2020 15:16		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.21.2020 15:16	U	1
Total TPH	PHC635	86.4	49.8	mg/kg	05.21.2020 15:16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	05.21.2020 15:16	
o-Terphenyl	84-15-1	101	%	70-130	05.21.2020 15:16	



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 7 (4.5-5'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-006

Date Collected: 05.19.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.20.2020 17:00

Basis: Wet Weight

Seq Number: 3126605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.21.2020 05:37	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.21.2020 05:37	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.21.2020 05:37	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.21.2020 05:37	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.21.2020 05:37	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.21.2020 05:37	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.21.2020 05:37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	05.21.2020 05:37		
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.21.2020 05:37		



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 8 (4.5-5'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-007

Date Collected: 05.19.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 05.20.2020 17:20

Basis: Wet Weight

Seq Number: 3126619

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15.0	4.99	mg/kg	05.20.2020 22:28		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.21.2020 11:00

Basis: Wet Weight

Seq Number: 3126770

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.21.2020 15:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.21.2020 15:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.21.2020 15:38	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.21.2020 15:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	05.21.2020 15:38	
o-Terphenyl	84-15-1	97	%	70-130	05.21.2020 15:38	



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 8 (4.5-5'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-007

Date Collected: 05.19.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.20.2020 17:00

Basis: Wet Weight

Seq Number: 3126605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.21.2020 05:58	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.21.2020 05:58	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.21.2020 05:58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.21.2020 05:58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.21.2020 05:58	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.21.2020 05:58	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.21.2020 05:58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	05.21.2020 05:58		
1,4-Difluorobenzene	540-36-3	110	%	70-130	05.21.2020 05:58		



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 10 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-008

Date Collected: 05.19.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 05.20.2020 17:20

Basis: Wet Weight

Seq Number: 3126619

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	233	4.99	mg/kg	05.20.2020 22:34		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.21.2020 11:00

Basis: Wet Weight

Seq Number: 3126770

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.21.2020 16:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.21.2020 16:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.21.2020 16:00	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.21.2020 16:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	05.21.2020 16:00	
o-Terphenyl	84-15-1	101	%	70-130	05.21.2020 16:00	



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 10 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-008

Date Collected: 05.19.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.20.2020 17:00

Basis: Wet Weight

Seq Number: 3126605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.21.2020 06:18	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.21.2020 06:18	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.21.2020 06:18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.21.2020 06:18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.21.2020 06:18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.21.2020 06:18	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.21.2020 06:18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	118	%	70-130	05.21.2020 06:18		
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.21.2020 06:18		



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 19 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-009

Date Collected: 05.19.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 05.20.2020 17:20

Basis: Wet Weight

Seq Number: 3126619

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	205	5.04	mg/kg	05.20.2020 22:41		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.21.2020 11:00

Basis: Wet Weight

Seq Number: 3126770

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.21.2020 16:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	77.9	50.0	mg/kg	05.21.2020 16:21		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.21.2020 16:21	U	1
Total TPH	PHC635	77.9	50.0	mg/kg	05.21.2020 16:21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	05.21.2020 16:21	
o-Terphenyl	84-15-1	98	%	70-130	05.21.2020 16:21	



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 19 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-009

Date Collected: 05.19.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.20.2020 17:00

Basis: Wet Weight

Seq Number: 3126605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.21.2020 06:39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.21.2020 06:39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.21.2020 06:39	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.21.2020 06:39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.21.2020 06:39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.21.2020 06:39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.21.2020 06:39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	110	%	70-130	05.21.2020 06:39		
4-Bromofluorobenzene	460-00-4	112	%	70-130	05.21.2020 06:39		



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 22 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-010

Date Collected: 05.19.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 05.20.2020 17:20

Basis: Wet Weight

Seq Number: 3126619

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	114	4.95	mg/kg	05.20.2020 22:48		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.21.2020 11:00

Basis: Wet Weight

Seq Number: 3126770

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.21.2020 16:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.21.2020 16:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.21.2020 16:42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.21.2020 16:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-130	05.21.2020 16:42	
o-Terphenyl	84-15-1	114	%	70-130	05.21.2020 16:42	



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 22 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-010

Date Collected: 05.19.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.20.2020 17:00

Basis: Wet Weight

Seq Number: 3126605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.21.2020 06:59	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.21.2020 06:59	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.21.2020 06:59	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.21.2020 06:59	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.21.2020 06:59	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.21.2020 06:59	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.21.2020 06:59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	05.21.2020 06:59		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.21.2020 06:59		



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 26 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-011

Date Collected: 05.19.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 05.20.2020 17:20

Basis: Wet Weight

Seq Number: 3126619

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	89.3	5.00	mg/kg	05.20.2020 22:55		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.21.2020 11:00

Basis: Wet Weight

Seq Number: 3126770

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.21.2020 17:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.21.2020 17:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.21.2020 17:26	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.21.2020 17:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	05.21.2020 17:26	
o-Terphenyl	84-15-1	98	%	70-130	05.21.2020 17:26	



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 26 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-011

Date Collected: 05.19.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.20.2020 17:00

Basis: Wet Weight

Seq Number: 3126605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.21.2020 08:22	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.21.2020 08:22	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.21.2020 08:22	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.21.2020 08:22	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.21.2020 08:22	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.21.2020 08:22	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.21.2020 08:22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.21.2020 08:22		
4-Bromofluorobenzene	460-00-4	109	%	70-130	05.21.2020 08:22		



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 29 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-012

Date Collected: 05.19.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 05.20.2020 17:20

Basis: Wet Weight

Seq Number: 3126619

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	422	5.02	mg/kg	05.20.2020 23:15		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.21.2020 11:00

Basis: Wet Weight

Seq Number: 3126770

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.21.2020 17:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.21.2020 17:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.21.2020 17:47	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.21.2020 17:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	05.21.2020 17:47	
o-Terphenyl	84-15-1	101	%	70-130	05.21.2020 17:47	



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 29 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-012

Date Collected: 05.19.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.20.2020 17:00

Basis: Wet Weight

Seq Number: 3126605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.21.2020 09:24	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.21.2020 09:24	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.21.2020 09:24	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.21.2020 09:24	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.21.2020 09:24	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.21.2020 09:24	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.21.2020 09:24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	111	%	70-130	05.21.2020 09:24		
4-Bromofluorobenzene	460-00-4	102	%	70-130	05.21.2020 09:24		



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 34 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-013

Date Collected: 05.19.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 05.20.2020 17:20

Basis: Wet Weight

Seq Number: 3126619

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.7	4.96	mg/kg	05.20.2020 23:22		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.21.2020 11:00

Basis: Wet Weight

Seq Number: 3126770

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.21.2020 18:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.21.2020 18:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.21.2020 18:09	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.21.2020 18:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-130	05.21.2020 18:09	
o-Terphenyl	84-15-1	109	%	70-130	05.21.2020 18:09	



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 34 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-013

Date Collected: 05.19.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.20.2020 17:00

Basis: Wet Weight

Seq Number: 3126605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.21.2020 09:44	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.21.2020 09:44	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.21.2020 09:44	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.21.2020 09:44	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.21.2020 09:44	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.21.2020 09:44	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.21.2020 09:44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	05.21.2020 09:44		
4-Bromofluorobenzene	460-00-4	112	%	70-130	05.21.2020 09:44		



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 35 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-014

Date Collected: 05.19.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 05.20.2020 17:20

Basis: Wet Weight

Seq Number: 3126619

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	73.3	5.00	mg/kg	05.20.2020 23:43		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.21.2020 11:00

Basis: Wet Weight

Seq Number: 3126770

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.21.2020 18:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	05.21.2020 18:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.21.2020 18:30	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	05.21.2020 18:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-130	05.21.2020 18:30	
o-Terphenyl	84-15-1	109	%	70-130	05.21.2020 18:30	



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 35 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-014

Date Collected: 05.19.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.20.2020 17:00

Basis: Wet Weight

Seq Number: 3126605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.21.2020 10:05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.21.2020 10:05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.21.2020 10:05	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.21.2020 10:05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.21.2020 10:05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.21.2020 10:05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.21.2020 10:05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	05.21.2020 10:05		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.21.2020 10:05		



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 37 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-015

Date Collected: 05.19.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 05.20.2020 17:20

Basis: Wet Weight

Seq Number: 3126619

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8.65	4.97	mg/kg	05.20.2020 23:50		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.21.2020 11:00

Basis: Wet Weight

Seq Number: 3126770

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.21.2020 18:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.21.2020 18:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.21.2020 18:51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.21.2020 18:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	05.21.2020 18:51	
o-Terphenyl	84-15-1	104	%	70-130	05.21.2020 18:51	



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Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 37 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-015

Date Collected: 05.19.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.20.2020 17:00

Basis: Wet Weight

Seq Number: 3126605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.21.2020 10:25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.21.2020 10:25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.21.2020 10:25	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.21.2020 10:25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.21.2020 10:25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.21.2020 10:25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.21.2020 10:25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	70-130	05.21.2020 10:25		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.21.2020 10:25		



Certificate of Analytical Results 662041

Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 38 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-016

Date Collected: 05.19.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 05.20.2020 17:20

Basis: Wet Weight

Seq Number: 3126619

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6.23	5.04	mg/kg	05.20.2020 23:57		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.21.2020 11:00

Basis: Wet Weight

Seq Number: 3126770

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.21.2020 19:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.21.2020 19:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.21.2020 19:13	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.21.2020 19:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-130	05.21.2020 19:13	
o-Terphenyl	84-15-1	115	%	70-130	05.21.2020 19:13	



Certificate of Analytical Results 662041

Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 38 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-016

Date Collected: 05.19.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.20.2020 17:00

Basis: Wet Weight

Seq Number: 3126605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.21.2020 10:46	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.21.2020 10:46	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.21.2020 10:46	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.21.2020 10:46	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.21.2020 10:46	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.21.2020 10:46	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.21.2020 10:46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	05.21.2020 10:46		
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.21.2020 10:46		



Certificate of Analytical Results 662041

Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 48 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-017

Date Collected: 05.19.2020 00:00

Analytical Method: Inorganic Anions by EPA 300/300.1

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 05.20.2020 17:20

Basis: Wet Weight

Seq Number: 3126619

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	94.0	4.98	mg/kg	05.21.2020 00:03		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.21.2020 11:00

Basis: Wet Weight

Seq Number: 3126770

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.21.2020 19:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.21.2020 19:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.21.2020 19:34	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.21.2020 19:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	05.21.2020 19:34	
o-Terphenyl	84-15-1	109	%	70-130	05.21.2020 19:34	



Certificate of Analytical Results 662041

Tetra Tech- Midland, Midland, TX

EOG Ophelia 27 W CTB

Sample Id: **Bottom Hole 48 (5.5-6'BEB)**

Matrix: Soil

Date Received: 05.20.2020 10:08

Lab Sample Id: 662041-017

Date Collected: 05.19.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.20.2020 17:00

Basis: Wet Weight

Seq Number: 3126605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	05.21.2020 11:06	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	05.21.2020 11:06	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.21.2020 11:06	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	05.21.2020 11:06	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.21.2020 11:06	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.21.2020 11:06	U	1
Total BTEX		<0.00202	0.00202	mg/kg	05.21.2020 11:06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	05.21.2020 11:06		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.21.2020 11:06		



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. **ND** Not Detected.

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



Tetra Tech- Midland
EOG Ophelia 27 W CTB

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3126619

Matrix: Solid

Prep Method: E300P

Date Prep: 05.20.2020

MB Sample Id: 7703781-1-BLK

LCS Sample Id: 7703781-1-BKS

LCSD Sample Id: 7703781-1-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	258	103	258	103	90-110	0	20	mg/kg	05.20.2020 21:05	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3126619

Matrix: Soil

Prep Method: E300P

Date Prep: 05.20.2020

Parent Sample Id: 662041-001

MS Sample Id: 662041-001 S

MSD Sample Id: 662041-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	34.6	253	290	101	287	100	90-110	1	20	mg/kg	05.20.2020 21:26	

Analytical Method: Inorganic Anions by EPA 300/300.1

Seq Number: 3126619

Matrix: Soil

Prep Method: E300P

Date Prep: 05.20.2020

Parent Sample Id: 662041-011

MS Sample Id: 662041-011 S

MSD Sample Id: 662041-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	89.3	250	343	101	343	101	90-110	0	20	mg/kg	05.20.2020 23:02	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3126770

Matrix: Solid

Prep Method: SW8015P

Date Prep: 05.21.2020

MB Sample Id: 7703852-1-BLK

LCS Sample Id: 7703852-1-BKS

LCSD Sample Id: 7703852-1-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	943	94	924	92	70-130	2	20	mg/kg	05.21.2020 12:04	
Diesel Range Organics (DRO)	<50.0	1000	1000	100	953	95	70-130	5	20	mg/kg	05.21.2020 12:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		125		118		70-130	%	05.21.2020 12:04
o-Terphenyl	110		121		109		70-130	%	05.21.2020 12:04

Analytical Method: TPH By SW8015 Mod

Seq Number: 3126770

Matrix: Solid

Prep Method: SW8015P

Date Prep: 05.21.2020

MB Sample Id: 7703852-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.21.2020 11:43	

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



Tetra Tech- Midland
EOG Ophelia 27 W CTB

Analytical Method: TPH By SW8015 Mod

Seq Number: 3126770

Parent Sample Id: 662041-001

Matrix: Soil

MS Sample Id: 662041-001 S

Prep Method: SW8015P

Date Prep: 05.21.2020

MSD Sample Id: 662041-001 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)	<50.0	999	871	87	841	84	70-130	4	20	mg/kg	05.21.2020 13:08	
Diesel Range Organics (DRO)	<50.0	999	901	90	837	84	70-130	7	20	mg/kg	05.21.2020 13:08	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		104		70-130	%	05.21.2020 13:08
o-Terphenyl	101		99		70-130	%	05.21.2020 13:08

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126605

MB Sample Id: 7703801-1-BLK

Matrix: Solid

LCS Sample Id: 7703801-1-BKS

Prep Method: SW5035A

Date Prep: 05.20.2020

LCSD Sample Id: 7703801-1-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	05.21.2020 01:53	
Toluene	<0.00200	0.100	0.0989	99	0.103	103	70-130	4	35	mg/kg	05.21.2020 01:53	
Ethylbenzene	<0.00200	0.100	0.0899	90	0.0949	95	70-130	5	35	mg/kg	05.21.2020 01:53	
m,p-Xylenes	<0.00400	0.200	0.179	90	0.190	95	70-130	6	35	mg/kg	05.21.2020 01:53	
o-Xylene	<0.00200	0.100	0.0886	89	0.0944	94	70-130	6	35	mg/kg	05.21.2020 01:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		107		106		70-130	%	05.21.2020 01:53
4-Bromofluorobenzene	95		97		103		70-130	%	05.21.2020 01:53

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126605

Parent Sample Id: 662041-001

Matrix: Soil

MS Sample Id: 662041-001 S

Prep Method: SW5035A

Date Prep: 05.20.2020

MSD Sample Id: 662041-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0853	84	0.0793	79	70-130	7	35	mg/kg	05.21.2020 02:34	
Toluene	<0.00201	0.101	0.0839	83	0.0796	80	70-130	5	35	mg/kg	05.21.2020 02:34	
Ethylbenzene	<0.00201	0.101	0.0767	76	0.0735	74	70-130	4	35	mg/kg	05.21.2020 02:34	
m,p-Xylenes	<0.00402	0.201	0.153	76	0.148	74	70-130	3	35	mg/kg	05.21.2020 02:34	
o-Xylene	<0.00201	0.101	0.0749	74	0.0735	74	70-130	2	35	mg/kg	05.21.2020 02:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		105		70-130	%	05.21.2020 02:34
4-Bromofluorobenzene	102		101		70-130	%	05.21.2020 02:34

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



Tetra Tech, Inc.

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

Page 1 of 2

Client Name: EOG		Site Manager: Mike Carmona	
Project Name: Ophelia 27 W CTB			
Project Location: Lea Co, NM		Project #: 212C-MD-02154	
Invoice to: EOG - Todd Wells			
Receiving Laboratory: Xenco		Sampler Signature: Conner Moehring	
Comments:			

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD					# CONTAINERS	FILTERED (Y/N)	LAB USE ONLY	REMARKS:
		DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None					
										YEAR: 2020				
	South 2 Sidewall	5/19/2020		X		X						1 N	X	
	South 5 Sidewall	5/19/2020		X		X						1 N	X	
	East 5 Sidewall	5/19/2020		X		X						1 N	X	
	East 6 Sidewall	5/19/2020		X		X						1 N	X	
	West 5 Sidewall	5/19/2020		X		X						1 N	X	
	Bottom Hole 7 (4.5-5' BEB)	5/19/2020		X		X						1 N	X	
	Bottom Hole 8 (4.5-5' BEB)	5/19/2020		X		X						1 N	X	
	Bottom Hole 10 (5.5-6' BEB)	5/19/2020		X		X						1 N	X	
	Bottom Hole 19 (5.5-6' BEB)	5/19/2020		X		X						1 N	X	
	Bottom Hole 22 (5.5-6' BEB)	5/19/2020		X		X						1 N	X	

LAB USE ONLY		REMARKS:
Sample Temperature	39/34	☐ STANDARD
	0.38	☒ RUSH: Same Day 24 hr 48 hr 72 hr
		☐ Rush Charges Authorized
		☐ Special Report Limits or TRRP Report

ANALYSIS REQUEST (Circle or Specify Method No.)	BTX 8021B BTX 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	

ORIGINAL COPY

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

 901 W Wall Street, Ste 100
 Midland, Texas 79705
 Tel (432) 682-4559
 Fax (432) 682-3846

Page 2 of 2

1062041

ANALYSIS REQUEST

(Circle or Specify Method No.)

Client Name: EOG Site Manager: Mike Carmona

Project Name: Ophelia 27 W CTB

Project Location: Lea Co, NM Project #: 212C-MD-02154

Invoice to: EOG - Todd Wells

Receiving Laboratory: Xenco Sampler Signature: Conner Moehring

Comments:

SAMPLE IDENTIFICATION

LAB # (LAB USE ONLY)

YEAR: 2020	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)
	DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None

Bottom Hole 26 (5.5-6' BEB)	5/19/2020		X				X		1 N	
Bottom Hole 29 (5.5-6' BEB)	5/19/2020		X				X		1 N	
Bottom Hole 34 (5.5-6' BEB)	5/19/2020		X				X		1 N	
Bottom Hole 35 (5.5-6' BEB)	5/19/2020		X				X		1 N	
Bottom Hole 37 (5.5-6' BEB)	5/19/2020		X				X		1 N	
Bottom Hole 38 (5.5-6' BEB)	5/19/2020		X				X		1 N	
Bottom Hole 48 (5.5-6' BEB)	5/19/2020		X				X		1 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	

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received by: Date: Time:

LAB USE ONLY

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: 05.20.2020 10.08.00 AM

Work Order #: 662041

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.6
#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 BTEX was in bulk container
#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: 05.20.2020

Checklist reviewed by:



Jessica Kramer

Date: 05.20.2020

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 14510

CONDITIONS OF APPROVAL

Operator:	EOG RESOURCES INC	P.O. Box 2267	Midland, TX79702	OGRID:	7377	Action Number:	14510	Action Type:	C-141
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OCD Reviewer	Condition
rhamlet	We have received your closure report and final C-141 for Incident #NRM2009048752 OPHELIA 27 WEST CTB, thank you. This closure is approved.