

SITE INFORMATION

Report Type: Work Plan

General Site Information:

Site:	Sea Biscuit Federal Com 002H (5.20.2020)					
Company:	COG Operating LLC					
Section, Township and Range	Unit H	Sec. 12	T 24S	R 31E		
Lease Number:	API No. 30-015-37607					
County:	Eddy County					
GPS:	32.233011			-103.72022		
Surface Owner:	Federal					
Mineral Owner:	Federal					
Directions:	From intersection HWY 1 and HWY 128, travel west for 3.12 miles, Turn left onto lease road, follow for 0.15 miles. Release located on the right.					

Release Data:

Date Released:	5/2/2020
Type Release:	Produced Water
Source of Contamination:	Flowline
Fluid Released:	100 bbl water
Fluids Recovered:	0 bbls water

Official Communication:

Name:	Ike Tavaréz		Mike Carmona
Company:	COG Operating, LLC		Tetra Tech
Address:	One Concho Center		901 West Wall Street
	600 W. Illinois Ave.		Suite 100
City:	Midland Texas, 79701		Midland, Texas
Phone number:	(432) 686-3023		(432) 685-4559
Fax:	(432) 684-7137		
Email:	itavarez@conchoresources.com		Mike.Carmona@tetrattech.com

Site Characterization

Depth to Groundwater:	380' Below Surface
Karst Potential:	Low

Recommended Remedial Action Levels (RRALs)

Benzene	Total BTEX	TPH (GRO+DRO)	TPH (GRO+DRO+MRO)	Chlorides
10 mg/kg	50 mg/kg	1,000 mg/kg	2,500 mg/kg	10,000 mg/kg

November 2, 2020

Mr Mike Bratcher
District Supervisor
Oil Conservation Division, District 2
811 S. First Street
Artesia, New Mexico 88210

Re: Work Plan for the COG Operating, LLC, Sea Biscuit Federal Com #2H, Unit H, Section 12, Township 24 South, Range 31 East, Eddy County, New Mexico. NRM2013962666

Mr Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating, LLC (COG) to assess a release that occurred at the Sea Biscuit Federal Com #2H, Unit H, Section 12, Township 24 South, Range 31 East, Eddy County, New Mexico (Site). The spill site coordinates are 32.233011°, -103.720220°. The site location is shown on Figures 1 and 2.

BACKGROUND INFORMATION

According to the State of New Mexico C-141 Initial Report, the release was discovered on May 2, 2020, and released approximately 100 barrels of produced water due to a ruptured transfer pump flowline. None of produced water was recovered. The release in the pasture impacted an area measuring approximately 525' x 90'. The release occurred along a right-of-way impacting the areas of surface flowlines, DCP line and Mesquite water line. The C-141 form is included in Appendix A.

SITE CHARACTERIZATION

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

The nearest water well is listed on NMOSE database, approximately 1.93 miles northeast of the site, and has a reported depth to groundwater of 380'. The site characterization data is shown in Appendix B.

On August 5, 2020, Scarborough Drilling, Inc was onsite to drill a groundwater determination bore to 55' below ground surface, and within a ½ mile radius of the location. The bore was left open for 72 hours and tagged with a water level meter. No water was detected at 55' below surface. The coordinates for the groundwater determination bore are 32.233386 -103.719410. See Appendix B for the driller's log.

Tetra Tech

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

Tel 432.682.4559 Fax 432.682.3946 www.tetrattech.com



REGULATORY

A risk-based evaluation was performed for the site by the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills, and Releases, updated August 14, 2018. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based on the site characterization, the proposed RRALs for the top 4.0' of soil for TPH is 100 mg/kg (GRO + DRO + MRO) and for chlorides is 600 mg/kg. Below the top 4.0' of soil, the proposed RRALs for TPH is 2,500 mg/kg (GRO + DRO + MRO) and for chlorides is 10,000 mg/kg.

SOIL ASSESSMENT AND ANALYTICAL RESULTS

On August 6 and August 12, 2020, Tetra Tech personnel were onsite to evaluate and sample the release area. To assess the release, a total of six (6) boreholes were installed (BH-1 through BH-6) on August 6, and a total of eleven (11) horizontal samples were collected on August 12 to horizontally delineate the area. Samples collected selected were Selected soil samples were collected and submitted to the laboratory for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The results of the sampling are summarized in Table 1 and The sample locations are shown on Figures 3.

Borehole Installation

In the release area, a total of six (6) boreholes were installed to total depths ranging from surface to 30.0' below surface. Additional boreholes were not installed due to access issues in the area.

Referring to Table 1, none of the samples analyzed showed benzene or total BTEX concentrations above the laboratory reporting limits. However, samples collected from boreholes (BH-1, BH-3, and BH-4) reported concentrations exceeding TPH RRALs showing total TPH concentrations ranging from 199 mg/kg to 2,670 mg/kg at depths of surface to 3.0' below surface.

All boreholes showed elevated chloride concentrations ranging from 779 mg/kg to 27,100 mg/kg. Boreholes (BH-1, BH-3, and BH-5) were vertically defined at 9.0'-10.0', boreholes (BH-2 and BH-4) were vertically defined at 6.0'-7.0', and borehole (BH-6) was vertically defined at 2.0'-3.0' below surface.

Horizontal Samples

In the outer perimeter of the release area, a total of eleven (11) horizontals were installed to total depths ranging from surface to 1.0' below surface. Referring to Table 1, none of the samples analyzed showed benzene, total BTEX, and total TPH concentrations above the laboratory reporting limits. In addition, all samples collected showed chloride concentrations below RRALs, ranging from 10.3 mg/kg to 185 mg/kg.



PROPOSED WORK PLAN

Based on the laboratory results, the chloride and TPH concentrations detected, COG proposes to excavate the areas as shown on Figure 4 and highlighted (green) on Table 1.

- The area of BH-1, BH-3, and BH-5 will be excavated to a depth of 6.0' below surface and backfilled with clean material to grade.
- The areas of BH-2 and BH-4, will be excavated to a depth of 4.0' below surface and backfilled with clean material to grade.
- The area of BH-6 will be excavated to a depth of 1.0' below surface and backfilled with clean material to grade.

Sampling Plan and Backfilling

Five-point composite bottom and sidewall confirmation samples will be collected every 400 square feet to ensure proper removal of the impacted areas. Once completed, the excavated areas will then be backfilled with clean material to surface grade. All the excavated material will be transported offsite for proper disposal. COG estimates approximately 3,122 cubic yards will be excavated and will be implemented within ninety (90) days of the work plan being approved.

Safety Concerns

The release migrated along a pipeline right-of-way impacting the areas along flowlines, DCP line and Mequite water line. The proposed excavation depths may not be reached due to wall cave-ins and safety concerns for onsite personnel. Also, impacted soil around oil and gas equipment, structures or lines may not be feasible or practicable to be removed due to safety concerns for onsite personnel. As such, COG will excavate the impacted soils to the maximum extent practicable.

CONCLUSION

Once the remediation activities have been completed, a final report will be submitted. If you have any questions or comments concerning the assessment or remediation activities for this site, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH

A handwritten signature in black ink, appearing to read 'Mike Carmona'.

Mike Carmona,
Geologist

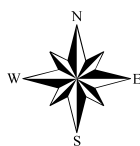
A handwritten signature in black ink, appearing to read 'Brittany Long'.

Brittany Long,
Environmental Scientist

Figures



SITE LOCATION



0 10,416.5 20,833

Approximate Scale in Feet

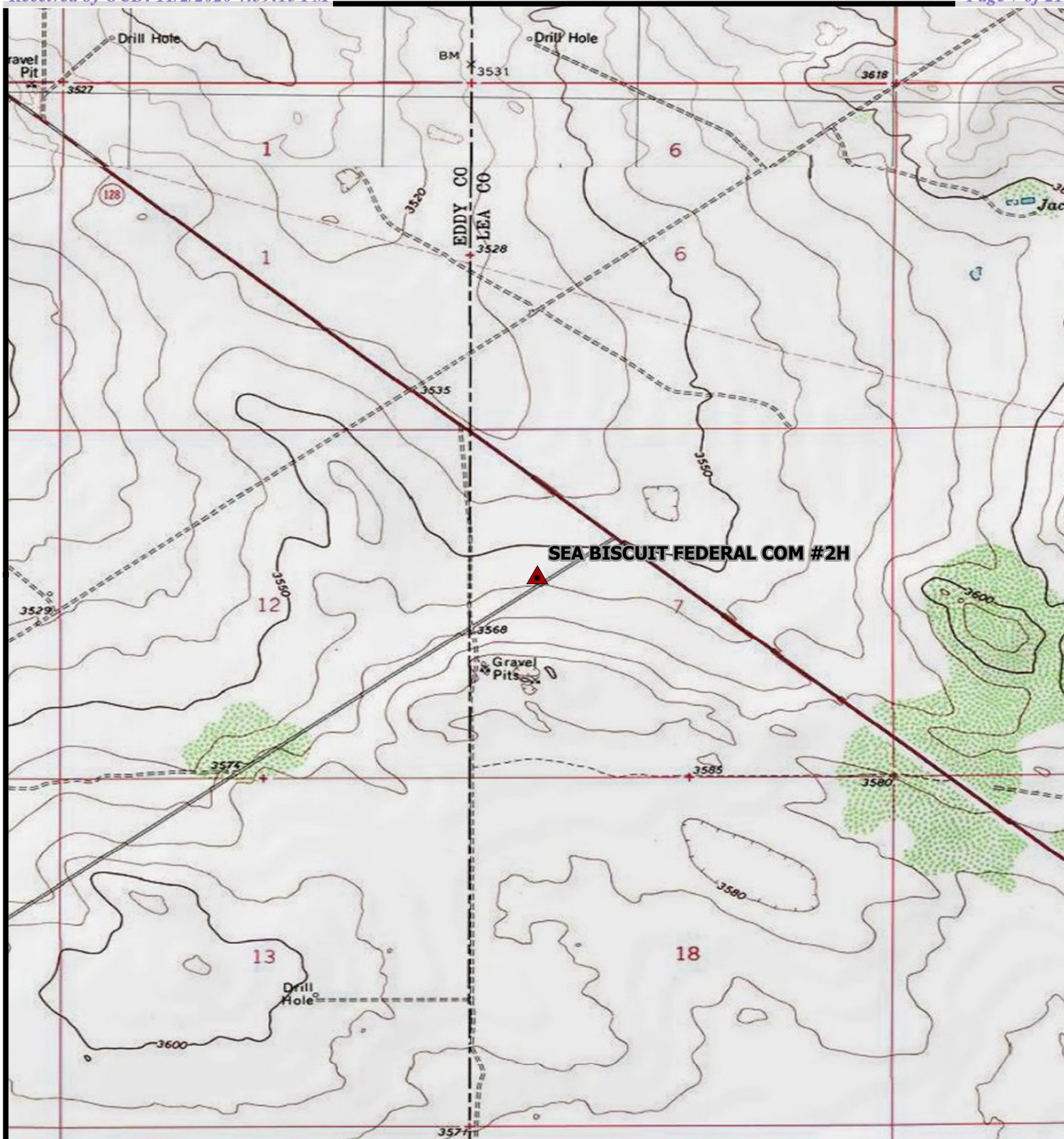


STATE LOCATOR MAP

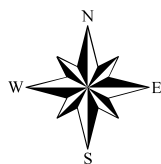
OVERVIEW MAP

SEA BISCUIT FEDERAL COM #2H

Property Located at coordinates 32.233011°,-103.720220°
LEA COUNTY, NEW MEXICOTETRA TECH
901 W Wall St Ste. 100,
Midland, TX 79701
(432) 682-4559Project #: 212C-MD-02226
Date: 08/10/2020
Drawn By: MLMFIGURE
1Service 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



SITE LOCATION



0 1,000 2,000

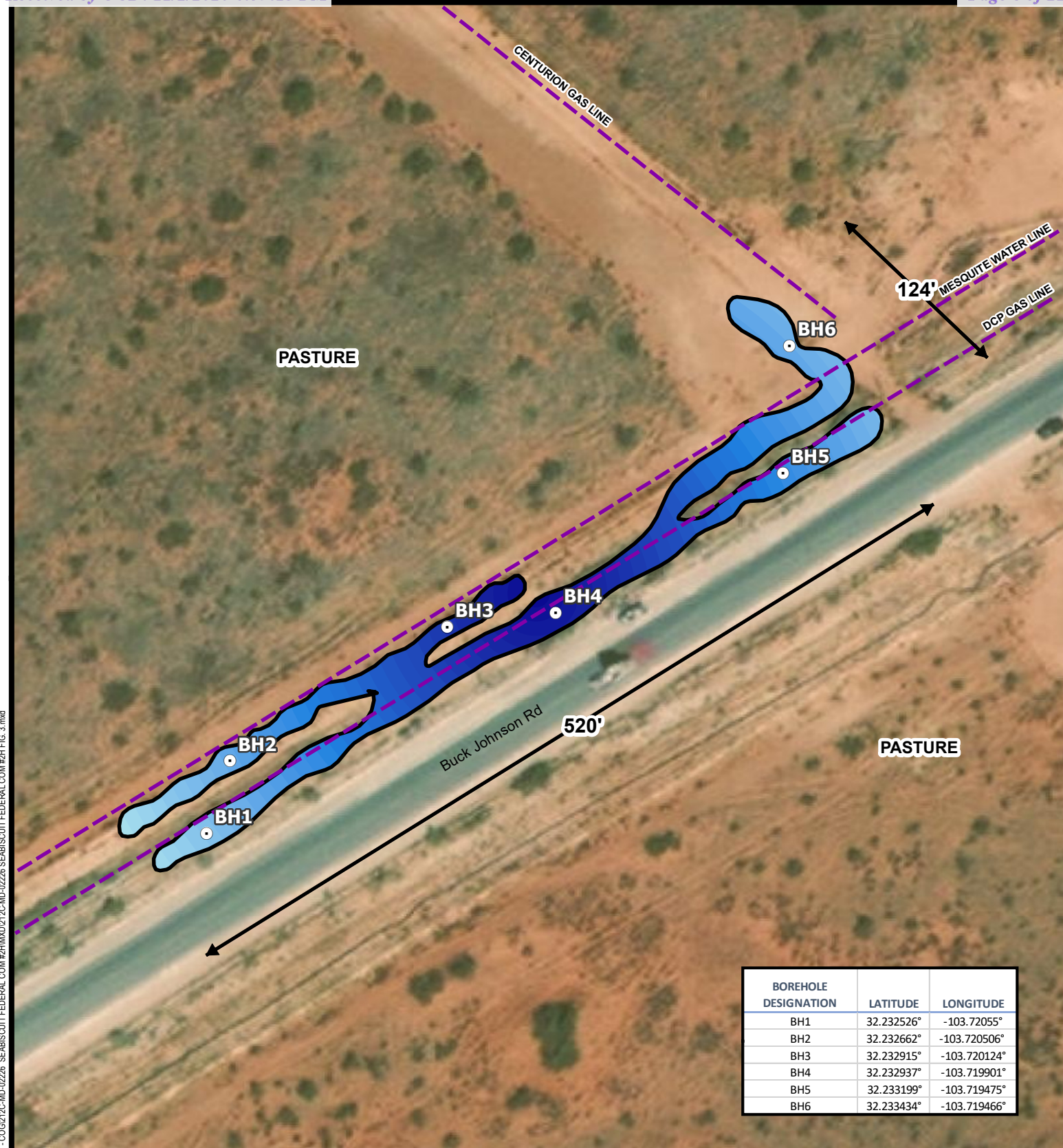
Approximate Scale in Feet

TOPOGRAPHIC MAP
 SEA BISCUIT FEDERAL COM #2H
 Property Located at coordinates 32.233011°,-103.720220°
 LEA COUNTY, NEW MEXICO



Project #: 212C-MD-02226
 Date: 08/10/2020
 Drawn By: MLM

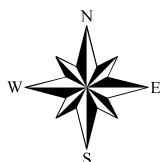
FIGURE
 2



● BOREHOLE SAMPLE LOCATIONS

— BURIED PIPELINE

■ SPILL AREA



0 45 90
Approximate Scale in Feet

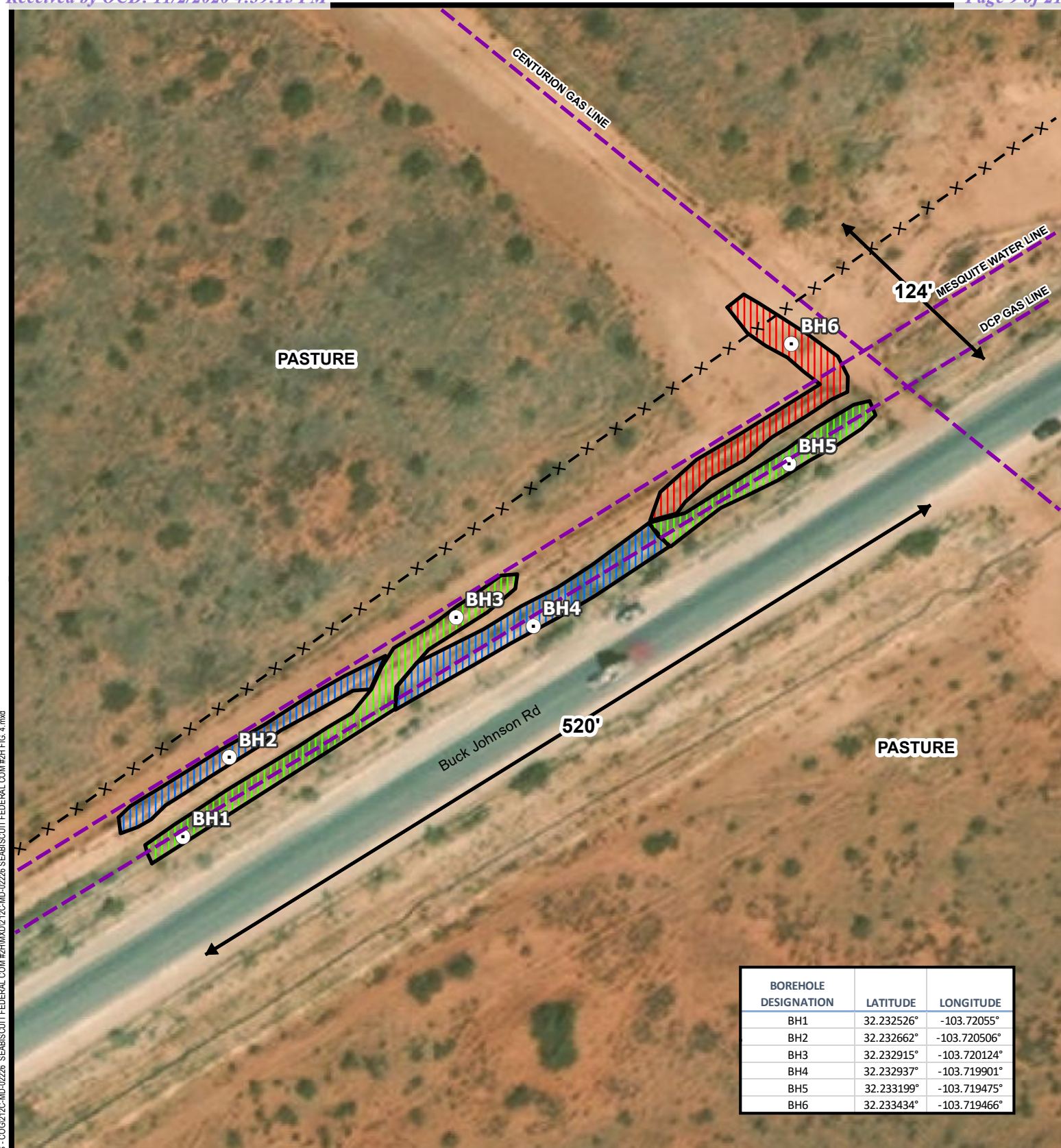
Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

SPILL ASSESSMENT MAP
SEA BISCUIT FEDERAL COM #2H
Property Located at coordinates 32.233011°,-103.720220°
LEA COUNTY, NEW MEXICO



Project #: 212C-MD-02226
Date: 08/11/2020
Drawn By: MLM

FIGURE
3



BOREHOLE DESIGNATION	LATITUDE	LONGITUDE
BH1	32.232526°	-103.72055°
BH2	32.232662°	-103.720506°
BH3	32.232915°	-103.720124°
BH4	32.232937°	-103.719901°
BH5	32.233199°	-103.719475°
BH6	32.233434°	-103.719466°

● BOREHOLE SAMPLE LOCATION

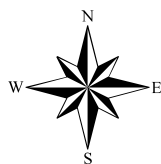
× — × FENCE LINE

— BURIED PIPELINE

1.0' EXCAVATED AREA

4.0' EXCAVATED AREA

6.0' EXCAVATED AREA



0 45 90
Approximate Scale in Feet

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

EXCAVATION AREA & DEPTH MAP
SEA BISCUIT FEDERAL COM #2H
Property Located at coordinates 32.233011°,-103.720220°
LEA COUNTY, NEW MEXICO



TETRA TECH
901 W Wall St Ste. 100,
Midland, TX 79701
(432) 682-4559
Project #: 212C-MD-02226
Date: 09/03/2020
Drawn By: MLM

FIGURE
4

Tables

Table 1
COG
Sea Biscuit Federal Com 002H (5.20.2020)
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
Bore Hole-1	8/6/2020	0-1	X		<50.0	2410	257	2670	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	1,090
	"	2-3	X		<49.9	218	57.4	275	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	215
	"	4-5	X		<49.9	<49.9	<49.9	<49.9	-	-	-	-	-	20,000
	"	6-7	X		-	-	-	-	-	-	-	-	-	11,800
	"	9-10	X		-	-	-	-	-	-	-	-	-	5,280
	"	14-15	X		-	-	-	-	-	-	-	-	-	598
Bore Hole-2	8/6/2020	0-1	X		<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	7,090
	"	2-3	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	7,700
	"	4-5	X		-	-	-	-	-	-	-	-	-	4,780
	"	6-7	X		-	-	-	-	-	-	-	-	-	3,950
	"	9-10	X		-	-	-	-	-	-	-	-	-	4,220
	"	14-15	X		-	-	-	-	-	-	-	-	-	3,220
	"	19-20	X		-	-	-	-	-	-	-	-	-	447
	"	24-25	X		-	-	-	-	-	-	-	-	-	332
Bore Hole-3	8/6/2020	0-1	X		<49.9	261	<49.9	261	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	5,260
	"	2-3	X		<50.0	71.0	<50.0	71.0	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	6,180
	"	4-5	X		-	-	-	-	-	-	-	-	-	27,100
	"	6-7	X		-	-	-	-	-	-	-	-	-	17,700
	"	9-10	X		-	-	-	-	-	-	-	-	-	6,020
	"	14-15	X		-	-	-	-	-	-	-	-	-	359
Bore Hole-4	8/6/2020	0-1	X		<49.9	420	67.5	488	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	5,500
	"	2-3	X		<49.9	199	<49.9	199	<0.00202	<0.00202	<0.00202	<0.00202	<0.00202	6,800
	"	4-5	X		<49.8	<49.8	<49.8	<49.8	-	-	-	-	-	1,670
	"	6-7	X		-	-	-	-	-	-	-	-	-	489
	"	9-10	X		-	-	-	-	-	-	-	-	-	779
	"	14-15	X		-	-	-	-	-	-	-	-	-	448
Bore Hole-5	8/6/2020	0-1	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	2,530
	"	2-3	X		<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	2,310
	"	4-5	X		-	-	-	-	-	-	-	-	-	14,800
	"	6-7	X		-	-	-	-	-	-	-	-	-	19,100
	"	9-10	X		-	-	-	-	-	-	-	-	-	5,950
	"	14-15	X		-	-	-	-	-	-	-	-	-	2,560
	"	19-20	X		-	-	-	-	-	-	-	-	-	507
Bore Hole-6	8/6/2020	0-1	X		<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	<0.00201	<0.00201	<0.00201	5,390
	"	2-3	X		-	-	-	-	-	-	-	-	-	330
	"	4-5	X		-	-	-	-	-	-	-	-	-	51.3
	"	6-7	X		-	-	-	-	-	-	-	-	-	64.0

Table 1
COG
Sea Biscuit Federal Com 002H (5.20.2020)
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	Total						
Horizontal-1	8/12/2020	0-1	X		<49.8	<49.8	<49.8	<49.8	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	10.3
Horizontal-2	8/12/2020	0-1	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	18.5
Horizontal-3	8/12/2020	0-1	X		<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	31.1
Horizontal-4	8/12/2020	0-1	X		<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	68.2
Horizontal-5	8/12/2020	0-1	X		<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	185
Horizontal-6	8/12/2020	0-1	X		<50.0	<50.0	<50.0	<50.0	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	55.4
Horizontal-7	8/12/2020	0-1	X		<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	16.6
Horizontal-8	8/12/2020	0-1	X		<50.0	<50.0	<50.0	<50.0	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	10.5
Horizontal-9	8/12/2020	0-1	X		<49.9	<49.9	<49.9	<49.9	<0.00198	<0.00198	<0.00198	<0.00198	<0.00198	13.3
Horizontal-10	8/12/2020	0-1	X		<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	20.2
Horizontal-11	8/12/2020	0-1	X		<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	33.6

(-)

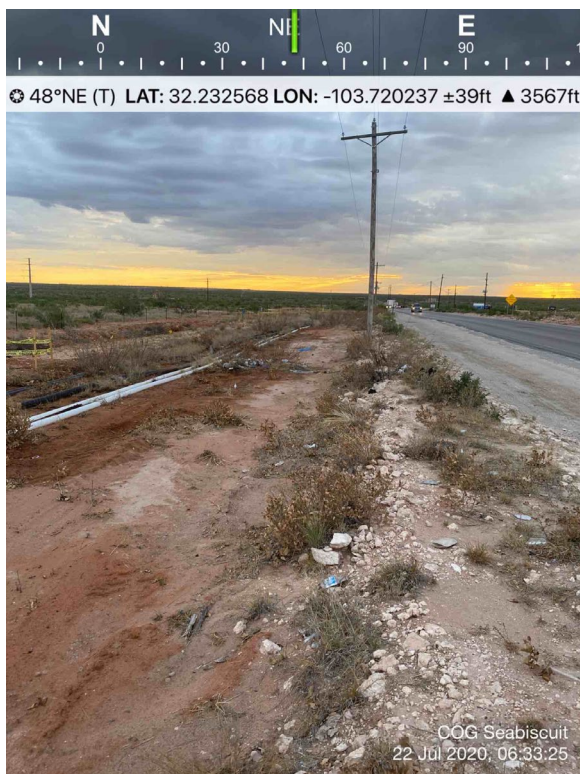
Not Analyzed



Proposed Excavation

Photos

COG
Sea Biscuit Federal Com 002H
(5.20.2020)
Eddy County, New Mexico



View Northeast – Area of release.



View Northeast – Area of release.

COG
Sea Biscuit Federal Com 002H
(5.20.2020)
Eddy County, New Mexico



View Northeast – Area of release.



View Northwest – Area of release.

COG
Sea Biscuit Federal Com 002H
(5.20.2020)
Eddy County, New Mexico



View Southwest – Area of release.



View West – Area of release.

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	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

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)	Volume Recovered (bbls)
☐ 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		

Incident ID	
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: _____	Title: _____
Signature: <u>Patricia Zapanta</u>	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
Received by: _____	Date: _____

***** LIQUID SPILLS - VOLUME CALCULATIONS *****

Location of spill: COG -Seabiscuit Federal Com 2H

Date of Spill: 2-May-2020

If the leak/spill is associated with production equipment, i.e. - wellhead, stuffing box, flowline, tank battery, production vessel, transfer pump, or storage tank place an "X" here: ☒

Input Data:

If spill volumes from measurement, i.e. metering, tank volumes, etc. are known enter the volumes here: OIL: 0.0 BBL WATER: 0.0 BBL

If "known" spill volumes are given, input data for the following "Area Calculations" is optional. The above will override the calculated volumes.

Total Area Calculations						Standing Liquid Calculations							
Total Surface Area	width	length	wet soil			oil (%)	Standing Liquid Area	width	length	liquid depth		oil (%)	
			depth										
Rectangle Area #1	550 ft	20 ft	X	4.50 in	0%	Rectangle Area #1	0 ft	X	0 ft	X	0 in	0%	
Rectangle Area #2	0 ft	X	0 0	X	0.00 in	0%	Rectangle Area #2	0 ft	X	0 ft	X	0 in	0%
Rectangle Area #3	0 ft	X	0 ft	X	0 in	0%	Rectangle Area #3	0 ft	X	0 ft	X	0 in	0%
Rectangle Area #4	0 ft	X	0 ft	X	0 in	0%	Rectangle Area #4	0 ft	X	0 ft	X	0 in	0%
Rectangle Area #5	0 ft	X	0 ft	X	0 in	0%	Rectangle Area #5	0 ft	X	0 ft	X	0 in	0%
Rectangle Area #6	0 ft	X	0 ft	X	0 in	0%	Rectangle Area #6	0 ft	X	0 ft	X	0 in	0%
Rectangle Area #7	0 ft	X	0 ft	X	0 in	0%	Rectangle Area #7	0 ft	X	0 ft	X	0 in	0%
Rectangle Area #8	0 ft	X	0 ft	X	0 in	0%	Rectangle Area #8	0 ft	X	0 ft	X	0 in	0%

okay

production system leak - DAILY PRODUCTION DATA REQUIRED

Average Daily Production: Oil 0 BBL Water 0 BBL 0 Gas (MCFD)

Total Hydrocarbon Content in gas: 0% (percentage)

Did leak occur before the separator?: ☒ YES ☒ N/A (place an "X")

H2S Content in Produced Gas: 0 PPM

H2S Content in Tank Vapors: 0 PPM

Amount of Free Liquid Recovered: 0 BBL okay

Percentage of Oil in Free Liquid Recovered: 0% (percentage)

Liquid holding factor *: 0.14 gal per gal

Use the following when the spill wets the grains of the soil.

* Sand = 0.08 gallon (gal.) liquid per gal. volume of soil.

* Gravelly (caliche) loam = 0.14 gal. liquid per gal. volume of soil.

* Sandy clay loam soil = 0.14 gal liquid per gal. volume of soil.

* Clay loam = 0.16 gal. liquid per gal. volume of soil.

Use the following when the liquid completely fills the pore space of the soil:

Occurs when the spill soaked soil is contained by barriers, natural (or not).

* Clay loam = 0.20 gal. liquid per gal. volume of soil.

* Gravelly (caliche) loam = 0.25 gal. liquid per gal. volume of soil.

* Sandy loam = 0.5 gal. liquid per gal. volume of soil.

Total Solid/Liquid Volume: 11,000 sq. ft.	4,125 cu. ft.	cu. ft.	Total Free Liquid Volume: sq. ft.	cu. ft.	cu. ft.
Estimated Volumes Spilled			Estimated Production Volumes Lost		
Liquid in Soil:	H2O 102.9 BBL	OIL 0.0 BBL	Estimated Production Spilled:	H2O 0.0 BBL	OIL 0.0 BBL
Free Liquid:	0.0 BBL	0.0 BBL			
Totals:	102.9 BBL	0.0 BBL			
Total Liquid Spill Liquid:	102.9 BBL	0.00 BBL	Estimated Surface Damage		
			Surface Area: 11,000 sq. ft.		
			Surface Area: .2525 acre		
Recovered Volumes			Estimated Weights, and Volumes		
Estimated oil recovered:	BBL	check - okay	Saturated Soil = 462,000 lbs	4,125 cu. ft.	153 cu. yds.
Estimated water recovered:	BBL	check - okay	Total Liquid = 103 BBL	4,320 gallon	35,940 lbs

Air Emission from flowline leaks:

Volume of oil spill: - BBL
 Separator gas calculated: - MCF
 Separator gas released: - MCF
 Gas released from oil: - lb
 H2S released: - lb
 Total HC gas released: - lb
 Total HC gas released: - MCF

Air Emission of Reporting Requirements:

New Mexico
 HC gas release reportable? NO
 H2S release reportable? NO
 Texas
 NO
 NO

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

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: *Ake Tavaraz* Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: Ake Tavaraz Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

Appendix B

SCARBOROUGH DRILLING, INC.

TEST HOLES • WATER WELLS

P.O. Box 305 - Ph. 806-872-3285 or 872-9349

LAMESA, TEXAS 79331

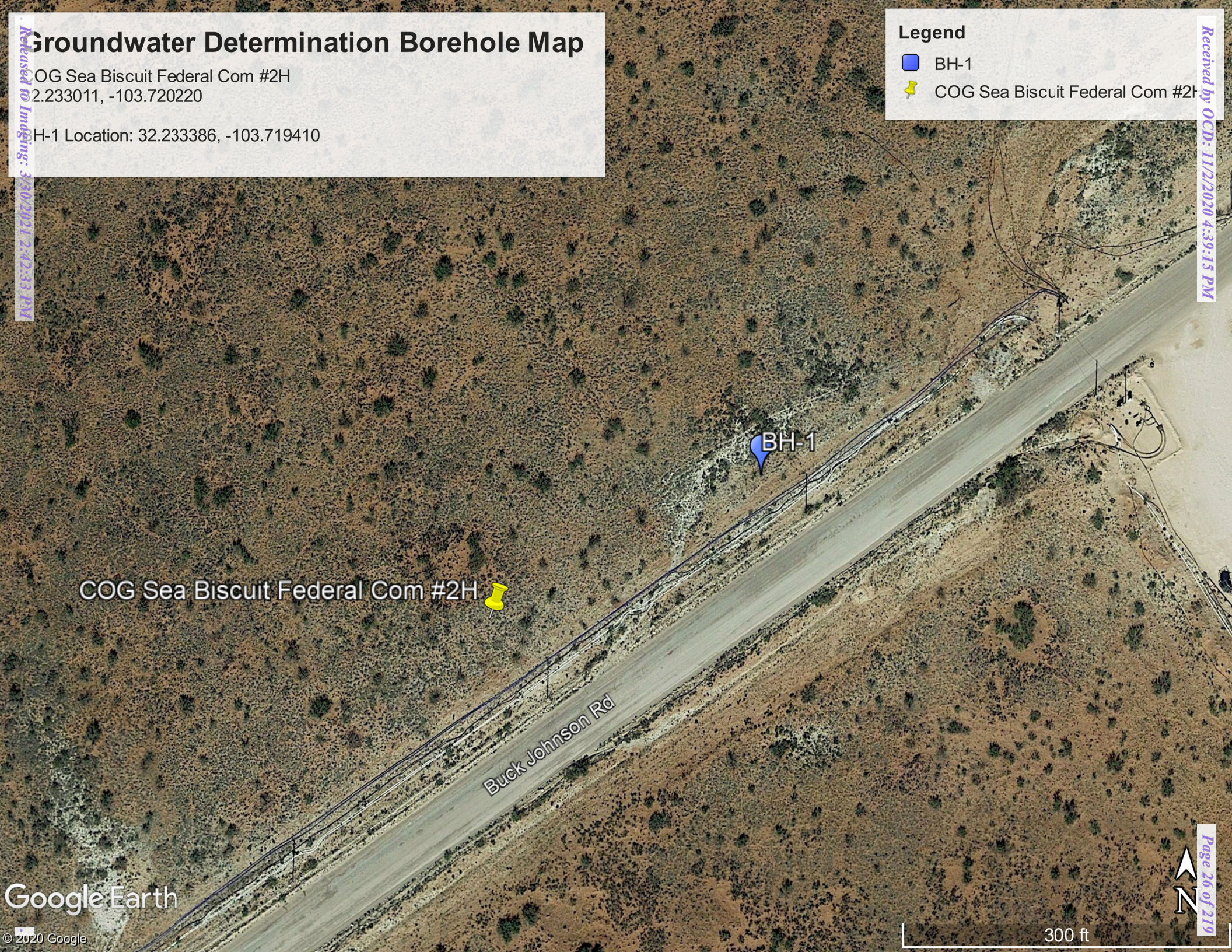
2001 South Hwy. 87

WELL LOG

From	To	FORMATION
0	4	Brown Top Soil
4	5	Caliche
5	12	Red Sand
12	20	Red Sand w/ Caliche layers
20	30	Caliche w Red Sand
30	55	Red Shale w/ Caliche
		BH1
		LOG - Seabiscuit
		Federal Com 2H+4H
		Plugged w/ Hole Plug
		32.233386 -103.719410

Date 8-5-20 DrillerLee Seay

GIBBS PRINTING CO. LAMESA, TX





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

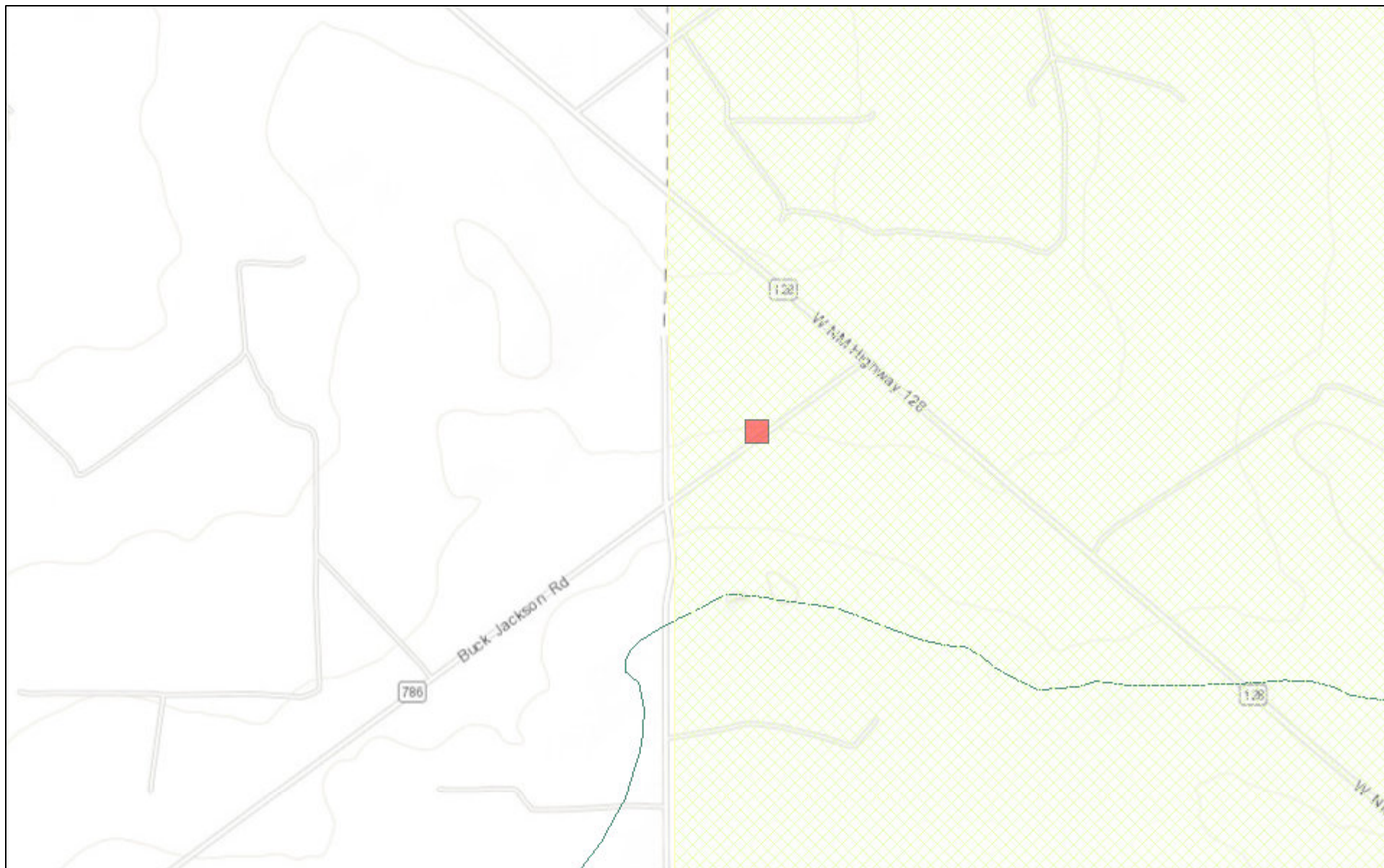
National Water Information System: Mapper

[Help](#)



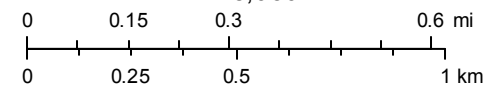
Site Information

New Mexico NFHL Data



June 11, 2020

1:18,056



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



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 03527 POD1	C	LE		1	2	3	03	24S	32E	625770	3568487	500		
C 03528 POD1	C	LE		1	1	2	15	24S	32E	626040	3566129	541		
C 03530 POD1	C	LE		3	4	3	07	24S	32E	620886	3566156	550		
C 03555 POD1	C	LE		2	2	1	05	24S	32E	622709	3569231	600	380	220

Average Depth to Water: **380 feet**

Minimum Depth: **380 feet**

Maximum Depth: **380 feet**

Record Count: 4

Basin/County Search:

County: Lea

PLSS Search:

Township: 24S

Range: 32E

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.

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
Groundwater										New Mexico	GO

Click to hideNews Bulletins

- [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 =

- 321312103395601

Minimum number of levels = 1

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

USGS 321312103395601 24S.32E.10.344333

Lea County, New Mexico

Latitude 32°13'30.4", Longitude 103°39'52.7" NAD83

Land-surface elevation 3,589.00 feet above NGVD29

The depth of the well is 60 feet below land surface.

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
1950-04-13			D 33.64				2		U		U A
1955-06-03			D 31.90				2	R	U		U A
1976-01-22			D 31.80				2		U		U A
1981-03-20			D 19.93				2		U		U A
1986-03-18			D 37.16				2		U		U A
1991-05-29			D 39.64				2		U		U A
1996-03-14			D 38.20				2		S		U A
2001-02-27			D 36.58				2		S		U A
2006-02-07	09:30 MST	m	19.40				2		S	USGS	S A
2010-12-16	15:30 MST	m	33.96				2		S	USGS	S A

Explanation

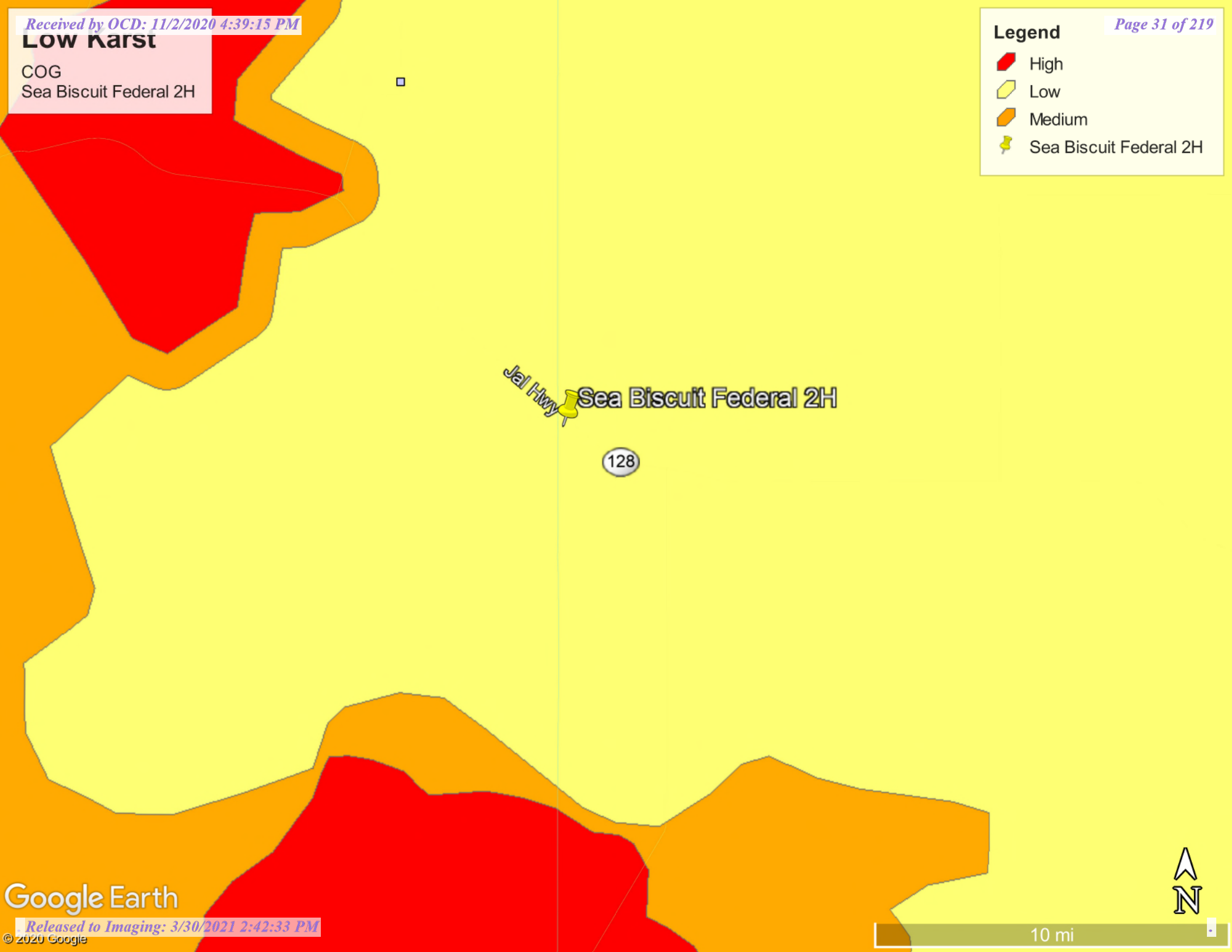
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Status	R	Site had been pumped recently.
Method of measurement	S	Steel-tape measurement.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	S	Measured by personnel of reporting agency.
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

LOW Karst

COG
Sea Biscuit Federal 2H

Legend

- High
- Low
- Medium
- Sea Biscuit Federal 2H



Water Well Data
Average Depth to Groundwater (ft)
COG - Sea Biscuit Federal 2H

23 South			31 East		
6	5	4	3	2	1
85	354	168			
7	8	9	10	11	12
140					
18	17	16	15	14	13
	125				
19	20	21	22	23	24
30	29	28	27	26	25
	140			430	
31	32	33	34	35	36

23 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
		400			
30	29	28	27	26	25
31	32	33	34	35	36

23 South			33 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

24 South			31 East		
6	5	4	3	2	1
				205	
7	8	9	10	11	12
				160	
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36
		474			

24 South			32 East		
6	5	4	3	2	1
7	8	9	10	11	12
			20		
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36
		290			

24 South			33 East		
6	5	4	3	2	1
7	8	9	10	20	11
			22		12
18	17	16	15	14	13
19	20	21	22	23	24
				208	16.9
30	29	28	27	26	25
31	32	33	70	34	35
		93.2			36

25 South			31 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	390	22	23
		290		24	
30	29	28	27	26	25
31	32	33	34	35	36

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
	290				

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

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



Xenco

Certificate of Analysis Summary 666260

Tetra Tech- Midland, Midland, TX

Project Name: Sea Biscuit (5.20.20)

Project Id: 212C-MD-02226

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Thu 07.02.2020 16:27

Report Date: 07.09.2020 14:29

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	666260-001	666260-002	666260-003	666260-004	666260-005	666260-006
	<i>Field Id:</i>	Trench 1 (0-1')	Trench 1 (1')	Trench 1 (2')	Trench 1 (3')	Trench 1 (4')	Trench 1 (5')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	*** ** *					
	<i>Analyzed:</i>	07.03.2020 05:57					
	<i>Units/RL:</i>	mg/kg RL					
Benzene		<0.00199 0.00199					
Toluene		<0.00199 0.00199					
Ethylbenzene		<0.00199 0.00199					
m,p-Xylenes		<0.00398 0.00398					
o-Xylene		<0.00199 0.00199					
Total Xylenes		<0.00199 0.00199					
Total BTEX		<0.00199 0.00199					
Chloride by EPA 300	<i>Extracted:</i>	07.06.2020 15:35	07.06.2020 15:35	07.06.2020 15:35	07.06.2020 15:35	07.06.2020 15:35	07.06.2020 15:35
	<i>Analyzed:</i>	07.06.2020 17:58	07.06.2020 18:04	07.06.2020 18:10	07.06.2020 18:28	07.06.2020 18:34	07.06.2020 18:39
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		3280 25.0	4460 25.3	2530 24.8	5980 50.0	7930 49.8	23100 251
TPH by SW8015 Mod	<i>Extracted:</i>	07.03.2020 10:00	07.08.2020 16:30				
	<i>Analyzed:</i>	07.03.2020 17:34	07.09.2020 07:07				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	169 49.9				
Diesel Range Organics (DRO)		470 X 50.0	1230 49.9				
Motor Oil Range Hydrocarbons (MRO)		58.3 50.0	179 49.9				
Total TPH		528 50.0	1580 49.9				

BRL - Below Reporting Limit

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



Xenco

Certificate of Analysis Summary 666260

Tetra Tech- Midland, Midland, TX

Project Name: Sea Biscuit (5.20.20)

Project Id: 212C-MD-02226

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Thu 07.02.2020 16:27

Report Date: 07.09.2020 14:29

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	666260-007	666260-008	666260-009	666260-010	666260-011	666260-012
	<i>Field Id:</i>	Trench 1 (6')	Trench 2 (0-1')	Trench 2 (1')	Trench 2 (2')	Trench 2 (3')	Trench 2 (4')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>		*** **				
	<i>Analyzed:</i>		07.03.2020 06:18				
	<i>Units/RL:</i>		mg/kg RL				
Benzene			<0.00199 0.00199				
Toluene			<0.00199 0.00199				
Ethylbenzene			<0.00199 0.00199				
m,p-Xylenes			<0.00398 0.00398				
o-Xylene			<0.00199 0.00199				
Total Xylenes			<0.00199 0.00199				
Total BTEX			<0.00199 0.00199				
Chloride by EPA 300	<i>Extracted:</i>	07.06.2020 15:35	07.06.2020 15:35	07.06.2020 15:35	07.06.2020 15:35	07.06.2020 15:35	07.06.2020 15:35
	<i>Analyzed:</i>	07.06.2020 18:45	07.06.2020 18:51	07.06.2020 19:15	07.06.2020 19:20	07.06.2020 19:38	07.06.2020 19:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		6100 49.6	6990 49.5	2640 25.0	7080 50.4	9940 49.8	22700 248
TPH by SW8015 Mod	<i>Extracted:</i>		07.03.2020 10:00				
	<i>Analyzed:</i>		07.03.2020 18:30				
	<i>Units/RL:</i>		mg/kg RL				
Gasoline Range Hydrocarbons (GRO)			<50.0 50.0				
Diesel Range Organics (DRO)			<50.0 50.0				
Motor Oil Range Hydrocarbons (MRO)			<50.0 50.0				
Total TPH			<50.0 50.0				

BRL - Below Reporting Limit

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



Xenco

Certificate of Analysis Summary 666260

Tetra Tech- Midland, Midland, TX

Project Name: Sea Biscuit (5.20.20)

Project Id: 212C-MD-02226

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Thu 07.02.2020 16:27

Report Date: 07.09.2020 14:29

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	666260-013	666260-014	666260-015	666260-016	666260-017	666260-018
	<i>Field Id:</i>	Trench 4 (0-1')	Trench 4 (1')	Trench 4 (2')	Trench 4 (3')	Trench 4 (4')	Trench 6 (0-1')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	*** ** *					*** ** *
	<i>Analyzed:</i>	07.03.2020 06:38					07.03.2020 06:59
	<i>Units/RL:</i>	mg/kg RL					mg/kg RL
Benzene		<0.00200 0.00200					<0.00200 0.00200
Toluene		<0.00200 0.00200					<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200					<0.00200 0.00200
m,p-Xylenes		<0.00400 0.00400					<0.00400 0.00400
o-Xylene		<0.00200 0.00200					<0.00200 0.00200
Total Xylenes		<0.00200 0.00200					<0.00200 0.00200
Total BTEX		<0.00200 0.00200					<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	07.06.2020 15:35	07.06.2020 15:35	07.06.2020 15:35	07.06.2020 15:35	07.06.2020 15:35	07.06.2020 16:00
	<i>Analyzed:</i>	07.06.2020 19:50	07.06.2020 19:56	07.06.2020 20:01	07.06.2020 20:07	07.06.2020 20:13	07.06.2020 16:47
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		6180 50.5	6160 50.5	6530 50.5	6050 49.8	37300 250	8590 49.6
TPH by SW8015 Mod	<i>Extracted:</i>	07.03.2020 10:00					07.03.2020 10:00
	<i>Analyzed:</i>	07.03.2020 18:49					07.03.2020 19:08
	<i>Units/RL:</i>	mg/kg RL					mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0					<49.9 49.9
Diesel Range Organics (DRO)		84.2 50.0					<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0					<49.9 49.9
Total TPH		84.2 50.0					<49.9 49.9

BRL - Below Reporting Limit

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



Xenco

Certificate of Analysis Summary 666260

Tetra Tech- Midland, Midland, TX

Project Name: Sea Biscuit (5.20.20)

Project Id: 212C-MD-02226

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Thu 07.02.2020 16:27

Report Date: 07.09.2020 14:29

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	666260-019	666260-020	666260-021	666260-022	666260-023	666260-024
	<i>Field Id:</i>	Trench 6 (1')	Trench 6 (2')	Trench 6 (3')	Trench 6 (4')	Trench 8 (0-1')	Trench 8 (1')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>					*** ** *	
	<i>Analyzed:</i>					07.03.2020 07:19	
	<i>Units/RL:</i>					mg/kg RL	
Benzene						<0.00201 0.00201	
Toluene						<0.00201 0.00201	
Ethylbenzene						<0.00201 0.00201	
m,p-Xylenes						<0.00402 0.00402	
o-Xylene						<0.00201 0.00201	
Total Xylenes						<0.00201 0.00201	
Total BTEX						<0.00201 0.00201	
Chloride by EPA 300	<i>Extracted:</i>	07.06.2020 16:00	07.06.2020 16:00	07.06.2020 16:00	07.06.2020 16:00	07.06.2020 16:00	07.06.2020 16:00
	<i>Analyzed:</i>	07.06.2020 16:54	07.06.2020 17:00	07.06.2020 17:06	07.06.2020 17:25	07.06.2020 17:32	07.06.2020 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		5460 49.9	5770 50.2	9560 50.5	8400 50.5	2780 24.9	683 4.99
TPH by SW8015 Mod	<i>Extracted:</i>					07.03.2020 10:00	07.08.2020 16:30
	<i>Analyzed:</i>					07.03.2020 19:26	07.09.2020 07:26
	<i>Units/RL:</i>					mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)						<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)						343 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)						59.5 50.0	<49.9 49.9
Total TPH						403 50.0	<49.9 49.9

BRL - Below Reporting Limit

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Certificate of Analysis Summary 666260

Tetra Tech- Midland, Midland, TX

Project Name: Sea Biscuit (5.20.20)

Project Id: 212C-MD-02226

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Thu 07.02.2020 16:27

Report Date: 07.09.2020 14:29

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	666260-025	666260-026	666260-027	666260-028	666260-029	666260-030
	<i>Field Id:</i>	Trench 8 (2')	Trench 8 (3')	Trench 8 (4')	Trench 8 (5')	Trench 8 (6')	Trench 8 (7')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00
Chloride by EPA 300	<i>Extracted:</i>	07.06.2020 16:00	07.06.2020 16:00	07.06.2020 16:00	07.06.2020 16:00	07.06.2020 16:00	07.06.2020 16:00
	<i>Analyzed:</i>	07.06.2020 17:44	07.06.2020 17:51	07.06.2020 18:16	07.06.2020 18:23	07.06.2020 18:42	07.06.2020 18:48
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		791 4.95	1880 25.1	8900 50.0	22400 250	16200 99.4	22000 248

BRL - Below Reporting Limit

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Certificate of Analysis Summary 666260

Tetra Tech- Midland, Midland, TX

Project Name: Sea Biscuit (5.20.20)

Project Id: 212C-MD-02226

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Thu 07.02.2020 16:27

Report Date: 07.09.2020 14:29

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	666260-031	666260-032	666260-033	666260-034	666260-035	666260-036
	<i>Field Id:</i>	Trench 8 (8')	Trench 8 (9')	Trench 8 (10')	Trench 9 (0-1')	Trench 9 (1')	Trench 9 (2')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>				07.02.2020 17:00		
	<i>Analyzed:</i>				07.03.2020 07:40		
	<i>Units/RL:</i>				mg/kg RL		
Benzene					<0.00200 0.00200		
Toluene					<0.00200 0.00200		
Ethylbenzene					<0.00200 0.00200		
m,p-Xylenes					<0.00401 0.00401		
o-Xylene					<0.00200 0.00200		
Total Xylenes					<0.00200 0.00200		
Total BTEX					<0.00200 0.00200		
Chloride by EPA 300	<i>Extracted:</i>	07.06.2020 16:00	07.06.2020 16:00	07.06.2020 16:00	07.06.2020 16:00	07.06.2020 16:00	07.06.2020 16:00
	<i>Analyzed:</i>	07.06.2020 18:54	07.06.2020 19:01	07.06.2020 19:07	07.06.2020 19:13	07.06.2020 19:20	07.06.2020 16:28
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		23100 252	23000 248	27200 248	514 5.03	73.6 4.97	98.2 5.00
TPH by SW8015 Mod	<i>Extracted:</i>				07.03.2020 10:00	07.08.2020 16:30	
	<i>Analyzed:</i>				07.03.2020 19:45	07.09.2020 07:44	
	<i>Units/RL:</i>				mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)					<49.8 49.8	<49.9 49.9	
Diesel Range Organics (DRO)					246 49.8	<49.9 49.9	
Motor Oil Range Hydrocarbons (MRO)					50.6 49.8	<49.9 49.9	
Total TPH					297 49.8	<49.9 49.9	

BRL - Below Reporting Limit

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Certificate of Analysis Summary 666260

Tetra Tech- Midland, Midland, TX

Project Name: Sea Biscuit (5.20.20)

Project Id: 212C-MD-02226

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Thu 07.02.2020 16:27

Report Date: 07.09.2020 14:29

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	666260-037	666260-038	666260-039	666260-040	666260-041	666260-042
	<i>Field Id:</i>	Trench 9 (3')	Trench 9 (4')	Trench 9 (5')	Trench 9 (6')	Trench 9 (7')	Trench 9 (8')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00	07.02.2020 00:00
Chloride by EPA 300	<i>Extracted:</i>	07.06.2020 16:00	07.06.2020 16:30	07.06.2020 16:30	07.06.2020 16:30	07.06.2020 16:30	07.06.2020 16:30
	<i>Analyzed:</i>	07.06.2020 17:57	07.06.2020 20:17	07.06.2020 20:23	07.06.2020 20:30	07.06.2020 20:36	07.06.2020 20:55
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		562 X 5.04	21400 253	25800 250	19800 248	23800 252	15900 249

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Certificate of Analysis Summary 666260

Tetra Tech- Midland, Midland, TX

Project Name: Sea Biscuit (5.20.20)

Project Id: 212C-MD-02226

Contact: Mike Carmona

Project Location: Lea Co, NM

Date Received in Lab: Thu 07.02.2020 16:27

Report Date: 07.09.2020 14:29

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	666260-043	666260-044				
	Field Id:	Trench 9 (9')	Trench 9 (10')				
	Depth:						
	Matrix:	SOIL	SOIL				
	Sampled:	07.02.2020 00:00	07.02.2020 00:00				
Chloride by EPA 300	Extracted:	07.06.2020 16:30	07.06.2020 16:30				
	Analyzed:	07.06.2020 21:01	07.06.2020 21:08				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		16400 100	14900 99.4				

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Xenco

Analytical Report 666260

for

Tetra Tech- Midland

Project Manager: Mike Carmona

Sea Biscuit (5.20.20)

212C-MD-02226

07.09.2020

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
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 (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



07.09.2020

Project Manager: **Mike Carmona**

Tetra Tech- Midland

901 West Wall ST

Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **666260**

Sea Biscuit (5.20.20)

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 Eurofins Xenco, LLC Report Number(s) 666260. 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 Eurofins Xenco, LLC. 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. 666260 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 Eurofins Xenco, LLC 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



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Sample Cross Reference 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Trench 1 (0-1')	S	07.02.2020 00:00		666260-001
Trench 1 (1')	S	07.02.2020 00:00		666260-002
Trench 1 (2')	S	07.02.2020 00:00		666260-003
Trench 1 (3')	S	07.02.2020 00:00		666260-004
Trench 1 (4')	S	07.02.2020 00:00		666260-005
Trench 1 (5')	S	07.02.2020 00:00		666260-006
Trench 1 (6')	S	07.02.2020 00:00		666260-007
Trench 2 (0-1')	S	07.02.2020 00:00		666260-008
Trench 2 (1')	S	07.02.2020 00:00		666260-009
Trench 2 (2')	S	07.02.2020 00:00		666260-010
Trench 2 (3')	S	07.02.2020 00:00		666260-011
Trench 2 (4')	S	07.02.2020 00:00		666260-012
Trench 4 (0-1')	S	07.02.2020 00:00		666260-013
Trench 4 (1')	S	07.02.2020 00:00		666260-014
Trench 4 (2')	S	07.02.2020 00:00		666260-015
Trench 4 (3')	S	07.02.2020 00:00		666260-016
Trench 4 (4')	S	07.02.2020 00:00		666260-017
Trench 6 (0-1')	S	07.02.2020 00:00		666260-018
Trench 6 (1')	S	07.02.2020 00:00		666260-019
Trench 6 (2')	S	07.02.2020 00:00		666260-020
Trench 6 (3')	S	07.02.2020 00:00		666260-021
Trench 6 (4')	S	07.02.2020 00:00		666260-022
Trench 8 (0-1')	S	07.02.2020 00:00		666260-023
Trench 8 (1')	S	07.02.2020 00:00		666260-024
Trench 8 (2')	S	07.02.2020 00:00		666260-025
Trench 8 (3')	S	07.02.2020 00:00		666260-026
Trench 8 (4')	S	07.02.2020 00:00		666260-027
Trench 8 (5')	S	07.02.2020 00:00		666260-028
Trench 8 (6')	S	07.02.2020 00:00		666260-029
Trench 8 (7')	S	07.02.2020 00:00		666260-030
Trench 8 (8')	S	07.02.2020 00:00		666260-031
Trench 8 (9')	S	07.02.2020 00:00		666260-032
Trench 8 (10')	S	07.02.2020 00:00		666260-033
Trench 9 (0-1')	S	07.02.2020 00:00		666260-034
Trench 9 (1')	S	07.02.2020 00:00		666260-035
Trench 9 (2')	S	07.02.2020 00:00		666260-036
Trench 9 (3')	S	07.02.2020 00:00		666260-037
Trench 9 (4')	S	07.02.2020 00:00		666260-038
Trench 9 (5')	S	07.02.2020 00:00		666260-039
Trench 9 (6')	S	07.02.2020 00:00		666260-040
Trench 9 (7')	S	07.02.2020 00:00		666260-041
Trench 9 (8')	S	07.02.2020 00:00		666260-042
Trench 9 (9')	S	07.02.2020 00:00		666260-043



Sample Cross Reference 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Trench 9 (10')

S

07.02.2020 00:00

666260-044



Xenco

CASE NARRATIVE**Client Name: Tetra Tech- Midland****Project Name: Sea Biscuit (5.20.20)**

Project ID: 212C-MD-02226
Work Order Number(s): 666260

Report Date: 07.09.2020
Date Received: 07.02.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3130738 BTEX by EPA 8021B

Middle and closing CCVs failed high on benzene indicating potential high bias on data for that analyte; only non-detect benzene samples were reported.

Batch: LBA-3130741 TPH by SW8015 Mod

Lab Sample ID 666260-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Diesel Range Organics (DRO) recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 666260-001, -008, -013, -018, -023, -034.

The Laboratory Control Sample for Diesel Range Organics (DRO) is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3130868 Chloride by EPA 300

Lab Sample ID 666260-037 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 666260-018, -019, -020, -021, -022, -023, -024, -025, -026, -027, -028, -029, -030, -031, -032, -033, -034, -035, -036, -037.

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

Batch: LBA-3131136 TPH by SW8015 Mod

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

Samples affected are: 666260-002.



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 1 (0-1')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-001

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 15:35

Basis: Wet Weight

Seq Number: 3130865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3280	25.0	mg/kg	07.06.2020 17:58		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 07.03.2020 10:00

Basis: Wet Weight

Seq Number: 3130741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.03.2020 17:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	470	50.0	mg/kg	07.03.2020 17:34	X	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	58.3	50.0	mg/kg	07.03.2020 17:34		1
Total TPH	PHC635	528	50.0	mg/kg	07.03.2020 17:34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	07.03.2020 17:34	
o-Terphenyl	84-15-1	113	%	70-130	07.03.2020 17:34	



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 1 (0-1')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-001

Date Collected: 07.02.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 07.02.2020 16:00

Basis: Wet Weight

Seq Number: 3130755

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.03.2020 05:57	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.03.2020 05:57	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.03.2020 05:57	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.03.2020 05:57	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.03.2020 05:57	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.03.2020 05:57	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.03.2020 05:57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	07.03.2020 05:57		
4-Bromofluorobenzene	460-00-4	106	%	70-130	07.03.2020 05:57		



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Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 1 (1')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-002

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 15:35

Basis: Wet Weight

Seq Number: 3130865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4460	25.3	mg/kg	07.06.2020 18:04		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 07.08.2020 16:30

Basis: Wet Weight

Seq Number: 3131136

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	169	49.9	mg/kg	07.09.2020 07:07		1
Diesel Range Organics (DRO)	C10C28DRO	1230	49.9	mg/kg	07.09.2020 07:07		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	179	49.9	mg/kg	07.09.2020 07:07		1
Total TPH	PHC635	1580	49.9	mg/kg	07.09.2020 07:07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	127	%	70-130	07.09.2020 07:07	
o-Terphenyl	84-15-1	139	%	70-130	07.09.2020 07:07	**



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 1 (2')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-003

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 15:35

Basis: Wet Weight

Seq Number: 3130865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2530	24.8	mg/kg	07.06.2020 18:10		5



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 1 (3')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-004

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 15:35

Basis: Wet Weight

Seq Number: 3130865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5980	50.0	mg/kg	07.06.2020 18:28		10



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 1 (4')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-005

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 15:35

Basis: Wet Weight

Seq Number: 3130865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7930	49.8	mg/kg	07.06.2020 18:34		10



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 1 (5')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-006

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 15:35

Basis: Wet Weight

Seq Number: 3130865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23100	251	mg/kg	07.06.2020 18:39		50



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 1 (6')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-007

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 15:35

Basis: Wet Weight

Seq Number: 3130865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6100	49.6	mg/kg	07.06.2020 18:45		10



Xenco

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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: Trench 2 (0-1')

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-008

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 15:35

Basis: Wet Weight

Seq Number: 3130865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6990	49.5	mg/kg	07.06.2020 18:51		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 07.03.2020 10:00

Basis: Wet Weight

Seq Number: 3130741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.03.2020 18:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	07.03.2020 18:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.03.2020 18:30	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	07.03.2020 18:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	07.03.2020 18:30	
o-Terphenyl	84-15-1	105	%	70-130	07.03.2020 18:30	



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 2 (0-1')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-008

Date Collected: 07.02.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 07.02.2020 16:00

Basis: Wet Weight

Seq Number: 3130755

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.03.2020 06:18	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	07.03.2020 06:18	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	07.03.2020 06:18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	07.03.2020 06:18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	07.03.2020 06:18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	07.03.2020 06:18	U	1
Total BTEX		<0.00199	0.00199	mg/kg	07.03.2020 06:18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	07.03.2020 06:18		
1,4-Difluorobenzene	540-36-3	109	%	70-130	07.03.2020 06:18		



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 2 (1')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-009

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 15:35

Basis: Wet Weight

Seq Number: 3130865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2640	25.0	mg/kg	07.06.2020 19:15		5



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 2 (2')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-010

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 15:35

Basis: Wet Weight

Seq Number: 3130865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7080	50.4	mg/kg	07.06.2020 19:20		10



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 2 (3')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-011

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 15:35

Basis: Wet Weight

Seq Number: 3130865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9940	49.8	mg/kg	07.06.2020 19:38		10



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 2 (4')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-012

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 15:35

Basis: Wet Weight

Seq Number: 3130865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22700	248	mg/kg	07.06.2020 19:44		50



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 4 (0-1')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-013

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 15:35

Basis: Wet Weight

Seq Number: 3130865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6180	50.5	mg/kg	07.06.2020 19:50		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 07.03.2020 10:00

Basis: Wet Weight

Seq Number: 3130741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.03.2020 18:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	84.2	50.0	mg/kg	07.03.2020 18:49		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	07.03.2020 18:49	U	1
Total TPH	PHC635	84.2	50.0	mg/kg	07.03.2020 18:49		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	07.03.2020 18:49	
o-Terphenyl	84-15-1	104	%	70-130	07.03.2020 18:49	



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 4 (0-1')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-013

Date Collected: 07.02.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 07.02.2020 16:00

Basis: Wet Weight

Seq Number: 3130755

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.03.2020 06:38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.03.2020 06:38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.03.2020 06:38	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.03.2020 06:38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.03.2020 06:38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.03.2020 06:38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.03.2020 06:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	07.03.2020 06:38	
4-Bromofluorobenzene	460-00-4	99	%	70-130	07.03.2020 06:38	



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 4 (1')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-014

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 15:35

Basis: Wet Weight

Seq Number: 3130865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6160	50.5	mg/kg	07.06.2020 19:56		10



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 4 (2')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-015

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 15:35

Basis: Wet Weight

Seq Number: 3130865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6530	50.5	mg/kg	07.06.2020 20:01		10



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 4 (3')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-016

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 15:35

Basis: Wet Weight

Seq Number: 3130865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6050	49.8	mg/kg	07.06.2020 20:07		10



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 4 (4')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-017

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 15:35

Basis: Wet Weight

Seq Number: 3130865

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	37300	250	mg/kg	07.06.2020 20:13		50



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: Trench 6 (0-1')

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-018

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8590	49.6	mg/kg	07.06.2020 16:47		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 07.03.2020 10:00

Basis: Wet Weight

Seq Number: 3130741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.03.2020 19:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	07.03.2020 19:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	07.03.2020 19:08	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	07.03.2020 19:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	07.03.2020 19:08	
o-Terphenyl	84-15-1	104	%	70-130	07.03.2020 19:08	



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 6 (0-1')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-018

Date Collected: 07.02.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 07.02.2020 16:00

Basis: Wet Weight

Seq Number: 3130755

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.03.2020 06:59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.03.2020 06:59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.03.2020 06:59	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	07.03.2020 06:59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.03.2020 06:59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.03.2020 06:59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.03.2020 06:59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	07.03.2020 06:59		
1,4-Difluorobenzene	540-36-3	109	%	70-130	07.03.2020 06:59		



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 6 (1')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-019

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5460	49.9	mg/kg	07.06.2020 16:54		10



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 6 (2')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-020

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5770	50.2	mg/kg	07.06.2020 17:00		10



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 6 (3')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-021

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9560	50.5	mg/kg	07.06.2020 17:06		10



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 6 (4')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-022

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8400	50.5	mg/kg	07.06.2020 17:25		10



Xenco

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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 8 (0-1')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-023

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2780	24.9	mg/kg	07.06.2020 17:32		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 07.03.2020 10:00

Basis: Wet Weight

Seq Number: 3130741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	07.03.2020 19:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	343	50.0	mg/kg	07.03.2020 19:26		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	59.5	50.0	mg/kg	07.03.2020 19:26		1
Total TPH	PHC635	403	50.0	mg/kg	07.03.2020 19:26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	07.03.2020 19:26	
o-Terphenyl	84-15-1	116	%	70-130	07.03.2020 19:26	



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Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 8 (0-1')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-023

Date Collected: 07.02.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 07.02.2020 16:00

Basis: Wet Weight

Seq Number: 3130755

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.03.2020 07:19	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	07.03.2020 07:19	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	07.03.2020 07:19	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	07.03.2020 07:19	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	07.03.2020 07:19	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	07.03.2020 07:19	U	1
Total BTEX		<0.00201	0.00201	mg/kg	07.03.2020 07:19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	114	%	70-130	07.03.2020 07:19		
1,4-Difluorobenzene	540-36-3	104	%	70-130	07.03.2020 07:19		



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 8 (1')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-024

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	683	4.99	mg/kg	07.06.2020 17:38		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 07.08.2020 16:30

Basis: Wet Weight

Seq Number: 3131136

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.09.2020 07:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	07.09.2020 07:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	07.09.2020 07:26	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	07.09.2020 07:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-130	07.09.2020 07:26	
o-Terphenyl	84-15-1	122	%	70-130	07.09.2020 07:26	



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 8 (2')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-025

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	791	4.95	mg/kg	07.06.2020 17:44		1



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 8 (3')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-026

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1880	25.1	mg/kg	07.06.2020 17:51		5



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 8 (4')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-027

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8900	50.0	mg/kg	07.06.2020 18:16		10



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 8 (5')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-028

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22400	250	mg/kg	07.06.2020 18:23		50



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 8 (6')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-029

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16200	99.4	mg/kg	07.06.2020 18:42		20



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 8 (7')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-030

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22000	248	mg/kg	07.06.2020 18:48		50



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 8 (8')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-031

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23100	252	mg/kg	07.06.2020 18:54		50



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 8 (9')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-032

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23000	248	mg/kg	07.06.2020 19:01		50



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 8 (10')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-033

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	27200	248	mg/kg	07.06.2020 19:07		50



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 9 (0-1')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-034

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	514	5.03	mg/kg	07.06.2020 19:13		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 07.03.2020 10:00

Basis: Wet Weight

Seq Number: 3130741

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	07.03.2020 19:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	246	49.8	mg/kg	07.03.2020 19:45		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	50.6	49.8	mg/kg	07.03.2020 19:45		1
Total TPH	PHC635	297	49.8	mg/kg	07.03.2020 19:45		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	07.03.2020 19:45	
o-Terphenyl	84-15-1	109	%	70-130	07.03.2020 19:45	



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 9 (0-1')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-034

Date Collected: 07.02.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 07.02.2020 17:00

Basis: Wet Weight

Seq Number: 3130738

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.03.2020 07:40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.03.2020 07:40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.03.2020 07:40	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.03.2020 07:40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.03.2020 07:40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.03.2020 07:40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.03.2020 07:40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	125	%	70-130	07.03.2020 07:40		
1,4-Difluorobenzene	540-36-3	88	%	70-130	07.03.2020 07:40		



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 9 (1')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-035

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	73.6	4.97	mg/kg	07.06.2020 19:20		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 07.08.2020 16:30

Basis: Wet Weight

Seq Number: 3131136

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	07.09.2020 07:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	07.09.2020 07:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	07.09.2020 07:44	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	07.09.2020 07:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-130	07.09.2020 07:44	
o-Terphenyl	84-15-1	118	%	70-130	07.09.2020 07:44	



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 9 (2')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-036

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	98.2	5.00	mg/kg	07.06.2020 16:28		1



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 9 (3')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-037

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:00

Basis: Wet Weight

Seq Number: 3130868

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	562	5.04	mg/kg	07.06.2020 17:57	X	1



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 9 (4')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-038

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:30

Basis: Wet Weight

Seq Number: 3130870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21400	253	mg/kg	07.06.2020 20:17		50



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 9 (5')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-039

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:30

Basis: Wet Weight

Seq Number: 3130870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	25800	250	mg/kg	07.06.2020 20:23		50



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 9 (6')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-040

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:30

Basis: Wet Weight

Seq Number: 3130870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	19800	248	mg/kg	07.06.2020 20:30		50



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 9 (7')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-041

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:30

Basis: Wet Weight

Seq Number: 3130870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23800	252	mg/kg	07.06.2020 20:36		50



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 9 (8')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-042

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:30

Basis: Wet Weight

Seq Number: 3130870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15900	249	mg/kg	07.06.2020 20:55		50



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 9 (9')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-043

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:30

Basis: Wet Weight

Seq Number: 3130870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16400	100	mg/kg	07.06.2020 21:01		20



Certificate of Analytical Results 666260

Tetra Tech- Midland, Midland, TX

Sea Biscuit (5.20.20)

Sample Id: **Trench 9 (10')**

Matrix: Soil

Date Received: 07.02.2020 16:27

Lab Sample Id: 666260-044

Date Collected: 07.02.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 07.06.2020 16:30

Basis: Wet Weight

Seq Number: 3130870

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14900	99.4	mg/kg	07.06.2020 21:08		20



Xenco

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

Sea Biscuit (5.20.20)

Analytical Method: Chloride by EPA 300

Seq Number: 3130865

MB Sample Id: 7706805-1-BLK

Matrix: Solid

LCS Sample Id: 7706805-1-BKS

Prep Method: E300P

Date Prep: 07.06.2020

LCSD Sample Id: 7706805-1-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	243	97	245	98	90-110	1	20	mg/kg	07.06.2020 17:23	

Analytical Method: Chloride by EPA 300

Seq Number: 3130868

MB Sample Id: 7706806-1-BLK

Matrix: Solid

LCS Sample Id: 7706806-1-BKS

Prep Method: E300P

Date Prep: 07.06.2020

LCSD Sample Id: 7706806-1-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	242	97	242	97	90-110	0	20	mg/kg	07.06.2020 16:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3130870

MB Sample Id: 7706807-1-BLK

Matrix: Solid

LCS Sample Id: 7706807-1-BKS

Prep Method: E300P

Date Prep: 07.06.2020

LCSD Sample Id: 7706807-1-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	236	94	236	94	90-110	0	20	mg/kg	07.06.2020 19:45	

Analytical Method: Chloride by EPA 300

Seq Number: 3130865

Parent Sample Id: 666308-001

Matrix: Solid

MS Sample Id: 666308-001 S

Prep Method: E300P

Date Prep: 07.06.2020

MSD Sample Id: 666308-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	13.8	248	258	98	259	99	90-110	0	20	mg/kg	07.06.2020 17:41	

Analytical Method: Chloride by EPA 300

Seq Number: 3130865

Parent Sample Id: 666309-001

Matrix: Solid

MS Sample Id: 666309-001 S

Prep Method: E300P

Date Prep: 07.06.2020

MSD Sample Id: 666309-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	260	249	496	95	501	97	90-110	1	20	mg/kg	07.06.2020 19:03	

Analytical Method: Chloride by EPA 300

Seq Number: 3130868

Parent Sample Id: 666260-036

Matrix: Soil

MS Sample Id: 666260-036 S

Prep Method: E300P

Date Prep: 07.06.2020

MSD Sample Id: 666260-036 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	98.2	250	347	100	347	100	90-110	0	20	mg/kg	07.06.2020 16:35	

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

Sea Biscuit (5.20.20)

Analytical Method: Chloride by EPA 300

Seq Number: 3130868

Parent Sample Id: 666260-037

Matrix: Soil

MS Sample Id: 666260-037 S

Prep Method: E300P

Date Prep: 07.06.2020

MSD Sample Id: 666260-037 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	562	252	778	86	781	87	90-110	0	20	mg/kg	07.06.2020 18:04	X

Analytical Method: Chloride by EPA 300

Seq Number: 3130870

Parent Sample Id: 666164-050

Matrix: Soil

MS Sample Id: 666164-050 S

Prep Method: E300P

Date Prep: 07.06.2020

MSD Sample Id: 666164-050 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	295	252	551	102	540	97	90-110	2	20	mg/kg	07.06.2020 20:04	

Analytical Method: Chloride by EPA 300

Seq Number: 3130870

Parent Sample Id: 666164-052

Matrix: Soil

MS Sample Id: 666164-052 S

Prep Method: E300P

Date Prep: 07.06.2020

MSD Sample Id: 666164-052 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	224	250	470	98	466	97	90-110	1	20	mg/kg	07.06.2020 21:33	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3130741

MB Sample Id: 7706721-1-BLK

Matrix: Solid

LCS Sample Id: 7706721-1-BKS

Prep Method: SW8015P

Date Prep: 07.03.2020

LCSD Sample Id: 7706721-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1080	108	923	92	70-130	16	20	mg/kg	07.03.2020 16:56	
Diesel Range Organics (DRO)	<50.0	1000	1150	115	961	96	70-130	18	20	mg/kg	07.03.2020 16:56	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		128		123		70-130	%	07.03.2020 16:56
o-Terphenyl	100		130		114		70-130	%	07.03.2020 16:56

Analytical Method: TPH by SW8015 Mod

Seq Number: 3131136

MB Sample Id: 7706973-1-BLK

Matrix: Solid

LCS Sample Id: 7706973-1-BKS

Prep Method: SW8015P

Date Prep: 07.08.2020

LCSD Sample Id: 7706973-1-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	1090	109	1100	110	70-130	1	20	mg/kg	07.09.2020 01:13	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	1110	111	70-130	0	20	mg/kg	07.09.2020 01:13	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		126		127		70-130	%	07.09.2020 01:13
o-Terphenyl	115		120		121		70-130	%	07.09.2020 01:13

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

Sea Biscuit (5.20.20)

Analytical Method: TPH by SW8015 Mod

Seq Number: 3130741

Matrix: Solid

Prep Method: SW8015P

Date Prep: 07.03.2020

MB Sample Id: 7706721-1-BLK

Parameter

Motor Oil Range Hydrocarbons (MRO)

MB
Result

<50.0

Units

mg/kg

Analysis
Date

07.03.2020 16:38

Flag

Analytical Method: TPH by SW8015 Mod

Seq Number: 3131136

Matrix: Solid

Prep Method: SW8015P

Date Prep: 07.08.2020

MB Sample Id: 7706973-1-BLK

Parameter

Motor Oil Range Hydrocarbons (MRO)

MB
Result

<50.0

Units

mg/kg

Analysis
Date

07.09.2020 00:54

Flag

Analytical Method: TPH by SW8015 Mod

Seq Number: 3130741

Matrix: Soil

Prep Method: SW8015P

Date Prep: 07.03.2020

Parent Sample Id: 666260-001

MS Sample Id: 666260-001 S

MSD Sample Id: 666260-001 SD

Parameter

Gasoline Range Hydrocarbons (GRO)

Parent
Result

<49.9

Spike
Amount

997

MS
Result

928

MS
%Rec

93

MSD
Result

978

MSD
%Rec

98

Limits

70-130

%RPD

5

RPD
Limit

20

Units

mg/kg

Analysis
Date

07.03.2020 17:53

Flag

Diesel Range Organics (DRO)

470

997

967

50

977

51

70-130

1

20

mg/kg

07.03.2020 17:53

X

Surrogate

1-Chlorooctane

MS
%Rec

114

MS
FlagMSD
%Rec

113

MSD
Flag

Limits

70-130

Units

%

Analysis
Date

07.03.2020 17:53

o-Terphenyl

112

113

70-130

%

07.03.2020 17:53

Analytical Method: TPH by SW8015 Mod

Seq Number: 3131136

Matrix: Soil

Prep Method: SW8015P

Date Prep: 07.08.2020

Parent Sample Id: 666538-001

MS Sample Id: 666538-001 S

MSD Sample Id: 666538-001 SD

Parameter

Gasoline Range Hydrocarbons (GRO)

Parent
Result

<49.8

Spike
Amount

996

MS
Result

975

MS
%Rec

98

MSD
Result

954

MSD
%Rec

95

Limits

70-130

%RPD

2

RPD
Limit

20

Units

mg/kg

Analysis
Date

07.09.2020 02:10

Flag

Diesel Range Organics (DRO)

<49.8

996

997

100

987

99

70-130

1

20

mg/kg

07.09.2020 02:10

Surrogate

1-Chlorooctane

MS
%Rec

126

MS
FlagMSD
%Rec

125

MSD
Flag

Limits

70-130

Units

%

Analysis
Date

07.09.2020 02:10

o-Terphenyl

120

117

70-130

%

07.09.2020 02:10

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 ResultMS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Tetra Tech- Midland
Sea Biscuit (5.20.20)

Analytical Method: BTEX by EPA 8021B

Seq Number: 3130755

MB Sample Id: 7706740-1-BLK

Matrix: Solid

LCS Sample Id: 7706740-1-BKS

Prep Method: SW5035A

Date Prep: 07.02.2020

LCSD Sample Id: 7706740-1-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	0.104	104	0.101	101	70-130	3	35	mg/kg	07.02.2020 22:27	
Toluene	<0.00200	0.100	0.0995	100	0.101	101	70-130	1	35	mg/kg	07.02.2020 22:27	
Ethylbenzene	<0.00200	0.100	0.0961	96	0.0989	99	70-130	3	35	mg/kg	07.02.2020 22:27	
m,p-Xylenes	<0.00400	0.200	0.182	91	0.189	95	70-130	4	35	mg/kg	07.02.2020 22:27	
o-Xylene	<0.00200	0.100	0.0943	94	0.0975	98	70-130	3	35	mg/kg	07.02.2020 22:27	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	107		98		96		70-130	%	07.02.2020 22:27
4-Bromofluorobenzene	96		89		94		70-130	%	07.02.2020 22:27

Analytical Method: BTEX by EPA 8021B

Seq Number: 3130738

MB Sample Id: 7706727-1-BLK

Matrix: Solid

LCS Sample Id: 7706727-1-BKS

Prep Method: SW5035A

Date Prep: 07.02.2020

LCSD Sample Id: 7706727-1-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	0.107	107	0.106	106	70-130	1	35	mg/kg	07.03.2020 04:38	
Toluene	<0.00200	0.100	0.103	103	0.102	102	70-130	1	35	mg/kg	07.03.2020 04:38	
Ethylbenzene	<0.00200	0.100	0.108	108	0.107	107	70-130	1	35	mg/kg	07.03.2020 04:38	
m,p-Xylenes	<0.00400	0.200	0.213	107	0.211	106	70-130	1	35	mg/kg	07.03.2020 04:38	
o-Xylene	<0.00200	0.100	0.111	111	0.109	109	70-130	2	35	mg/kg	07.03.2020 04:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		93		92		70-130	%	07.03.2020 04:38
4-Bromofluorobenzene	121		120		121		70-130	%	07.03.2020 04:38

Analytical Method: BTEX by EPA 8021B

Seq Number: 3130755

Parent Sample Id: 665975-007

Matrix: Soil

MS Sample Id: 665975-007 S

Prep Method: SW5035A

Date Prep: 07.02.2020

MSD Sample Id: 665975-007 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	0.0561	56	0.0378	45	70-130	39	35	mg/kg	07.02.2020 23:08	XF
Toluene	<0.00200	0.100	0.0403	40	0.0262	31	70-130	42	35	mg/kg	07.02.2020 23:08	XF
Ethylbenzene	<0.00200	0.100	0.0323	32	0.0198	24	70-130	48	35	mg/kg	07.02.2020 23:08	XF
m,p-Xylenes	<0.00401	0.200	0.0637	32	0.0380	23	70-130	51	35	mg/kg	07.02.2020 23:08	XF
o-Xylene	<0.00200	0.100	0.0365	37	0.0228	27	70-130	46	35	mg/kg	07.02.2020 23:08	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		104		70-130	%	07.02.2020 23:08
4-Bromofluorobenzene	99		100		70-130	%	07.02.2020 23:08

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

Sea Biscuit (5.20.20)

Analytical Method: BTEX by EPA 8021B

Seq Number: 3130738

Parent Sample Id: 666185-001

Matrix: Soil

MS Sample Id: 666185-001 S

Prep Method: SW5035A

Date Prep: 07.02.2020

MSD Sample Id: 666185-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0386	39	0.0480	48	70-130	22	35	mg/kg	07.03.2020 05:19	X
Toluene	<0.00200	0.0998	0.0248	25	0.0305	31	70-130	21	35	mg/kg	07.03.2020 05:19	X
Ethylbenzene	<0.00200	0.0998	0.0179	18	0.0217	22	70-130	19	35	mg/kg	07.03.2020 05:19	X
m,p-Xylenes	0.00508	0.200	0.0368	16	0.0428	19	70-130	15	35	mg/kg	07.03.2020 05:19	X
o-Xylene	<0.00200	0.0998	0.0191	19	0.0227	23	70-130	17	35	mg/kg	07.03.2020 05:19	X

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		94		70-130	%	07.03.2020 05:19
4-Bromofluorobenzene	101		103		70-130	%	07.03.2020 05:19

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 5

Project Name:		COG				Site Manager:	Mike Carmona
Project Location: (county, state)		Sea Biscuit (5.20.20)				Project #:	212C-MD-02226
Invoice to:		Lea Co, NM					
Receiving Laboratory:		COG - Ike Tavaréz					
Comments:		Xenco				Sampler Signature: Comer Moehring	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD					# CONTAINERS	FILTERED (Y/N)	
		YEAR: 2020		WATER	SOIL	HCL	HNO ₃	ICE	None				
		DATE	TIME										
	Trench 1 (0-1')	7/2/2020		X				X				1 N	
	Trench 1 (1')	7/2/2020		X				X				1 N	
	Trench 1 (2')	7/2/2020		X				X				1 N	
	Trench 1 (3')	7/2/2020		X				X				1 N	
	Trench 1 (4')	7/2/2020		X				X				1 N	
	Trench 1 (5')	7/2/2020		X				X				1 N	
	Trench 1 (6')	7/2/2020		X				X				1 N	
	Trench 2 (0-1')	7/2/2020		X				X				1 N	
	Trench 2 (1')	7/2/2020		X				X				1 N	
	Trench 2 (2)	7/2/2020		X				X				1 N	

Inquished by: _____ Date: _____ Time: _____

Inquished by: *Conner Moehring* 7/2/20 1627

Received by: *[Signature]* Date: 7/2/20 Time: 1627

Received by: _____ Date: _____ Time: _____

[illegible]

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Analysis Request of Custody Record

Page 2 of 3

**Tetra Tech, Inc.**901 W. Wall Street, Ste 100
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

Site Manager: Mike Carmona

ANALYSIS REQUEST

Project Name: Sea Biscuit (5.20.20)

Project #: 212C-MD-02226

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

Invoice to:

COG - Ike Tavares

Receiving Laboratory:

Xenco

Sampler Signature:

Conner Moehring

Comments:

LAB #
(LAB USE ONLY)

SAMPLE IDENTIFICATION

7/2/2020 1:15 PM

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD					# CONTAINERS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
		DATE	TIME	WATER	SOIL		HCL	HNO ₃	ICE	None		FILTERED (Y/N)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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Relinquished by: <i>Connie Nguyen</i> Date: 7/2/20 Date: 7/2/20 Time: 1627 Time: 1627	Received by: <i>[Signature]</i> Date: Date: Time: Time:
Relinquished by: _____ Date: _____ Time: _____	Received by: _____ Date: _____ Time: _____

(Circle or Specify Method No.)

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

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Analysis Request of Chain of Custody Record

Page 3 of 5



Tetra Tech, Inc.

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

Client Name:

Site Manager:

Mike Carmona

Project Name:

Sea Biscuit (5.20.20)

Project Location:

Lea Co, NM

Project #:

212C-MD-02226

Invoice to:

COG - Ike Tavaréz

Receiving Laboratory:

Xenco

Sampler Signature:

Conner Moehring

Comments:

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD			# CONTAINERS	FILTERED (Y/N)	
		DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE			None
	Trench 6 (3')	7/2/2020		X				X		1 N	
	Trench 6 (4')	7/2/2020		X				X		1 N	
	Trench 8 (0-1')	7/2/2020		X				X		1 N	
	Trench 8 (1')	7/2/2020		X				X		1 N	
	Trench 8 (2')	7/2/2020		X				X		1 N	
	Trench 8 (3')	7/2/2020		X				X		1 N	
	Trench 8 (4')	7/2/2020		X				X		1 N	
	Trench 8 (5')	7/2/2020		X				X		1 N	
	Trench 8 (6')	7/2/2020		X				X		1 N	
	Trench 8 (7')	7/2/2020		X				X		1 N	

Relinquished by: *Conner Moehring* Date: 7/2/20 Time: 1627

Relinquished by: _____ Date: _____ Time: _____

Relinquished by: _____ Date: _____ Time: _____

Received by: *Mike Carmona* Date: 7/2/20 Time: _____

Received by: _____ Date: _____ Time: _____

Received by: _____ Date: _____ Time: _____

Date: _____ Time: _____

Date: _____ Time: _____

Date: _____ Time: _____

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

ORIGINAL COPY

ANALYSIS REQUEST
(Circle or Specify Method No.)*10000000*

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 of Chain of Custody Record

Page 4 of 5

**Tetra Tech, Inc.**901W Wall Street, Ste 100
Midland, Texas 79705
Tel (432) 682-4559
Fax (432) 682-3946

Mike Carmona

ANALYSIS REQUEST

COG

Sea Biscuit (5.20.20)

Lea Co, NM

212C-MD-02226

COG - Ike Tavares

Xenco

Sampler Signature:

Conner Moehring

Comments:

SAMPLE IDENTIFICATION

7/2/2020 3:15 PM

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		DATE	TIME	WATER	SOIL	HCL	HNO ₃			ICE	None																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	Trench 8 (8')	7/2/2020		X				X		1 N																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

Relinquished by: <i>Theresa Mayberry</i>	Date: 7/2/20	Time: 1627	Received by: <i>Conner Moehring</i>	Date: 7/2/20	Time: 1627
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

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

(Circle or Specify Method No.)

LAB USE ONLY

Sample Temperature

REMARKS:

STANDARD

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

ORIGINAL COPY

Analysis Request of Custody Record

Page 5 of 5



Tetra Tech, Inc.

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

Client Name:

Site Manager:

Mike Carmona

Project Name:

Sea Biscuit (5.20.20)

Project Location:

Lea Co, NM

Project #:

212C-MD-02226

Invoice to:

COG - Ike Tavares

Receiving Laboratory:

Xenco

Sampler Signature:

Conner Moehring

Comments:

SAMPLE IDENTIFICATION

 SAMPLING
 YEAR: 2020
 DATE
 TIME

 MATRIX
 WATER
 SOIL
 HCL
 HNO₃
 ICE
 None
 PRESERVATIVE METHOD

CONTAINERS

FILTERED (Y/N)

BTEX 8021B BTEX 8260B

TPH TX1005 (Ext to C35)

TPH 8015M (GRO - DRO - ORO - MRO)

PAH 8270C

Total Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Metals Ag As Ba Cd Cr Pb Se Hg

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8260B / 624

GC/MS Semi. Vol. 8270C/625

PCB's 8082 / 608

NORM

PLM (Asbestos)

Chloride

Chloride Sulfate TDS

General Water Chemistry (see attached list)

Anion/Cation Balance

Hold

(Circle or Specify Method No.)

ANALYSIS REQUEST

 Relinquished by: *Sam Moberg*
 Date: 7/2/20 Time: 1447
 Relinquished by: *[Signature]*
 Date: 7/2/20 Time: 1447
 Relinquished by: *[Signature]*
 Date: 7/2/20 Time: 1447

 Received by: *[Signature]*
 Date: 7/2/20 Time: 1447
 Received by: *[Signature]*
 Date: 7/2/20 Time: 1447
 Received by: *[Signature]*
 Date: 7/2/20 Time: 1447

 Date: 7/2/20 Time: 1447
 Date: 7/2/20 Time: 1447
 Date: 7/2/20 Time: 1447

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

 REMARKS:
☐ 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 #:

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 07.02.2020 04.27.00 PM

Work Order #: 666260

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	7.1	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	Cooling in progress
#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: 07.02.2020

Checklist reviewed by:



Holly Taylor

Date: 07.07.2020

Certificate of Analysis Summary 669480



Tetra Tech- Midland, Midland, TX

Project Name: Concho Sea Federal Com 002H (5.20.2020)

Project Id: 212C-MD-02226
Contact: Mike Carmona
Project Location: Eddy County, New Mexico

Date Received in Lab: Fri 08.07.2020 10:22
Report Date: 08.17.2020 08:58
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i> <i>Field Id:</i> <i>Depth:</i> <i>Matrix:</i> <i>Sampled:</i>	669480-001 Borehole-1 (0'-1')	669480-002 Borehole-1 (2'-3')	669480-003 Borehole-1 (4'-5')	669480-004 Borehole-1 (6'-7')	669480-005 Borehole-1 (9'-10')	669480-006 Borehole-1 (14'-15')
		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	08.08.2020 15:30 08.09.2020 21:24 mg/kg RL	08.08.2020 15:30 08.09.2020 21:45 mg/kg RL				
Benzene		<0.00200 0.00200	<0.00200 0.00200				
Toluene		<0.00200 0.00200	<0.00200 0.00200				
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200				
m,p-Xylenes		<0.00401 0.00401	<0.00401 0.00401				
o-Xylene		<0.00200 0.00200	<0.00200 0.00200				
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200				
Total BTEX		<0.00200 0.00200	<0.00200 0.00200				
Chloride by EPA 300	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	08.07.2020 13:50 08.08.2020 23:58 mg/kg RL	08.07.2020 13:50 08.09.2020 00:05 mg/kg RL	08.07.2020 13:50 08.09.2020 00:11 mg/kg RL	08.07.2020 13:50 08.09.2020 00:17 mg/kg RL	08.07.2020 14:30 08.08.2020 12:05 mg/kg RL	08.07.2020 14:30 08.08.2020 12:24 mg/kg RL
Chloride		1090 4.96	215 4.95	20000 250	11800 100	5280 49.5	598 4.99
TPH by SW8015 Mod	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	08.07.2020 16:00 08.08.2020 03:12 mg/kg RL	08.07.2020 16:00 08.08.2020 03:33 mg/kg RL	08.11.2020 12:00 08.11.2020 19:42 mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<49.9 49.9			
Diesel Range Organics (DRO)		2410 50.0	218 49.9	<49.9 49.9			
Motor Oil Range Hydrocarbons (MRO)		257 50.0	57.4 49.9	<49.9 49.9			
Total TPH		2670 50.0	275 49.9	<49.9 49.9			

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 669480

Tetra Tech- Midland, Midland, TX

Project Name: Concho Sea Federal Com 002H (5.20.2020)

Project Id: 212C-MD-02226
 Contact: Mike Carmona
 Project Location: Eddy County, New Mexico

Date Received in Lab: Fri 08.07.2020 10:22

Report Date: 08.17.2020 08:58

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	669480-008	669480-009	669480-010	669480-011	669480-012	669480-013
	<i>Field Id:</i>	Borehole-2 (0-1)	Borehole-2 (2'-3')	Borehole-2 (4'-5')	Borehole-2 (6'-7')	Borehole-2 (9'-10')	Borehole-2 (14'-15')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	08.08.2020 15:30	08.08.2020 15:30				
	<i>Analyzed:</i>	08.09.2020 22:05	08.09.2020 22:26				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Benzene		<0.00201 0.00201	<0.00199 0.00199				
Toluene		<0.00201 0.00201	<0.00199 0.00199				
Ethylbenzene		<0.00201 0.00201	<0.00199 0.00199				
m,p-Xylenes		<0.00402 0.00402	<0.00398 0.00398				
o-Xylene		<0.00201 0.00201	<0.00199 0.00199				
Total Xylenes		<0.00201 0.00201	<0.00199 0.00199				
Total BTEX		<0.00201 0.00201	<0.00199 0.00199				
Chloride by EPA 300	<i>Extracted:</i>	08.07.2020 14:30	08.07.2020 14:30	08.07.2020 14:30	08.07.2020 14:30	08.07.2020 14:30	08.07.2020 14:30
	<i>Analyzed:</i>	08.08.2020 12:30	08.08.2020 12:36	08.08.2020 12:43	08.08.2020 13:02	08.08.2020 13:08	08.08.2020 13:14
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		7090 50.0	7700 49.8	4780 50.2	3950 24.8	4220 25.0	3220 24.9
TPH by SW8015 Mod	<i>Extracted:</i>	08.07.2020 16:00	08.07.2020 16:00				
	<i>Analyzed:</i>	08.08.2020 03:54	08.08.2020 04:14				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<50.0 50.0				
Diesel Range Organics (DRO)		<49.8 49.8	<50.0 50.0				
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.0 50.0				
Total TPH		<49.8 49.8	<50.0 50.0				

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 669480



Tetra Tech- Midland, Midland, TX

Project Name: Concho Sea Federal Com 002H (5.20.2020)

Project Id: 212C-MD-02226
Contact: Mike Carmona
Project Location: Eddy County, New Mexico

Date Received in Lab: Fri 08.07.2020 10:22**Report Date:** 08.17.2020 08:58**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i> <i>Field Id:</i> <i>Depth:</i> <i>Matrix:</i> <i>Sampled:</i>	669480-014 Borehole-2 (16'-20')	669480-015 Borehole-2 (24'-25')	669480-016 Borehole-2 (29'-30')	669480-017 Borehole-3 (0-1)	669480-018 Borehole-3 (2'-3')	669480-019 Borehole-3 (4'-5')
BTEX by EPA 8021B	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	SOIL 08.06.2020 00:00	SOIL 08.06.2020 00:00	SOIL 08.06.2020 00:00	SOIL 08.06.2020 00:00	SOIL 08.06.2020 00:00	SOIL 08.06.2020 00:00
Benzene					08.08.2020 15:30 08.09.2020 22:46 mg/kg RL	08.08.2020 15:30 08.09.2020 23:06 mg/kg RL	
Toluene					<0.00200 0.00200	<0.00202 0.00202	
Ethylbenzene					<0.00200 0.00200	<0.00202 0.00202	
m,p-Xylenes					<0.00401 0.00401	<0.00403 0.00403	
o-Xylene					<0.00200 0.00200	<0.00202 0.00202	
Total Xylenes					<0.00200 0.00200	<0.00202 0.00202	
Total BTEX					<0.00200 0.00200	<0.00202 0.00202	
Chloride by EPA 300	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>	08.12.2020 16:40 08.12.2020 19:45 mg/kg RL	08.12.2020 16:40 08.12.2020 19:51 mg/kg RL	08.12.2020 16:40 08.12.2020 19:39 mg/kg RL	08.07.2020 14:30 08.08.2020 13:34 mg/kg RL	08.07.2020 14:30 08.08.2020 13:53 mg/kg RL	08.07.2020 14:30 08.08.2020 13:59 mg/kg RL
Chloride		447 5.00	332 5.00	412 5.00	5260 50.0	6180 50.3	27100 250
TPH by SW8015 Mod	<i>Extracted:</i> <i>Analyzed:</i> <i>Units/RL:</i>				08.07.2020 16:00 08.08.2020 04:35 mg/kg RL	08.07.2020 16:00 08.08.2020 04:56 mg/kg RL	
Gasoline Range Hydrocarbons (GRO)					<49.9 49.9	<50.0 50.0	
Diesel Range Organics (DRO)					261 49.9	71.0 50.0	
Motor Oil Range Hydrocarbons (MRO)					<49.9 49.9	<50.0 50.0	
Total TPH					261 49.9	71.0 50.0	

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 669480



Tetra Tech- Midland, Midland, TX

Project Name: Concho Sea Federal Com 002H (5.20.2020)

Project Id: 212C-MD-02226
Contact: Mike Carmona
Project Location: Eddy County, New Mexico

Date Received in Lab: Fri 08.07.2020 10:22**Report Date:** 08.17.2020 08:58**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	669480-020	669480-021	669480-022	669480-024	669480-025	669480-026
	<i>Field Id:</i>	Borehole-3 (6'-7')	Borehole-3 (9'-10')	Borehole-3 (14'-15')	Borehole-4 (0-1)	Borehole-4 (2'-3')	Borehole-4 (4'-5')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>				08.08.2020 15:30	08.08.2020 15:30	
	<i>Analyzed:</i>				08.09.2020 23:27	08.09.2020 23:48	
	<i>Units/RL:</i>				mg/kg RL	mg/kg RL	
Benzene					<0.00200 0.00200	<0.00202 0.00202	
Toluene					<0.00200 0.00200	<0.00202 0.00202	
Ethylbenzene					<0.00200 0.00200	<0.00202 0.00202	
m,p-Xylenes					<0.00401 0.00401	<0.00404 0.00404	
o-Xylene					<0.00200 0.00200	<0.00202 0.00202	
Total Xylenes					<0.00200 0.00200	<0.00202 0.00202	
Total BTEX					<0.00200 0.00200	<0.00202 0.00202	
Chloride by EPA 300	<i>Extracted:</i>	08.07.2020 14:30	08.07.2020 14:30	08.07.2020 14:30	08.07.2020 14:30	08.07.2020 14:30	08.07.2020 14:30
	<i>Analyzed:</i>	08.08.2020 14:18	08.08.2020 14:24	08.08.2020 14:31	08.08.2020 14:37	08.08.2020 14:43	08.08.2020 14:50
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		17700 253	6020 50.5	359 5.05	5550 49.8	6800 50.0	1670 25.0
TPH by SW8015 Mod	<i>Extracted:</i>				08.07.2020 16:00	08.07.2020 16:00	08.11.2020 12:00
	<i>Analyzed:</i>				08.08.2020 05:16	08.08.2020 05:37	08.11.2020 20:01
	<i>Units/RL:</i>				mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)					<49.9 49.9	<49.9 49.9	<49.8 49.8
Diesel Range Organics (DRO)					420 49.9	199 49.9	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)					67.5 49.9	<49.9 49.9	<49.8 49.8
Total TPH					488 49.9	199 49.9	<49.8 49.8

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 669480

Tetra Tech- Midland, Midland, TX

Project Name: Concho Sea Federal Com 002H (5.20.2020)

Project Id: 212C-MD-02226
 Contact: Mike Carmona
 Project Location: Eddy County, New Mexico

Date Received in Lab: Fri 08.07.2020 10:22

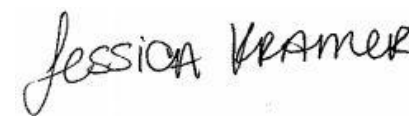
Report Date: 08.17.2020 08:58

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	669480-027	669480-028	669480-029	669480-032	669480-033	669480-034
	<i>Field Id:</i>	Borehole-4 (6'-7')	Borehole-4(9'-10')	Borehole-4 (14'-15')	Borehole-5 (0-1)	Borehole-5 (2'-3')	Borehole-5 (4'-5')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>				08.08.2020 15:30	08.08.2020 15:30	
	<i>Analyzed:</i>				08.10.2020 00:08	08.09.2020 21:04	
	<i>Units/RL:</i>				mg/kg RL	mg/kg RL	
Benzene					<0.00199 0.00199	<0.00201 0.00201	
Toluene					<0.00199 0.00199	<0.00201 0.00201	
Ethylbenzene					<0.00199 0.00199	<0.00201 0.00201	
m,p-Xylenes					<0.00398 0.00398	<0.00402 0.00402	
o-Xylene					<0.00199 0.00199	<0.00201 0.00201	
Total Xylenes					<0.00199 0.00199	<0.00201 0.00201	
Total BTEX					<0.00199 0.00199	<0.00201 0.00201	
Chloride by EPA 300	<i>Extracted:</i>	08.07.2020 14:30	08.07.2020 15:00	08.07.2020 15:00	08.07.2020 15:00	08.07.2020 15:00	08.07.2020 15:00
	<i>Analyzed:</i>	08.08.2020 14:56	08.09.2020 00:52	08.09.2020 01:08	08.09.2020 01:13	08.09.2020 01:18	08.09.2020 01:23
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		489 5.04	779 X 5.00	448 4.99	2530 24.8	2310 24.9	14800 248
TPH by SW8015 Mod	<i>Extracted:</i>				08.07.2020 16:00	08.07.2020 12:00	
	<i>Analyzed:</i>				08.08.2020 05:58	08.07.2020 20:35	
	<i>Units/RL:</i>				mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)					<50.0 50.0	<49.9 49.9	
Diesel Range Organics (DRO)					<50.0 50.0	<49.9 49.9	
Motor Oil Range Hydrocarbons (MRO)					<50.0 50.0	<49.9 49.9	
Total TPH					<50.0 50.0	<49.9 49.9	

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 669480

Tetra Tech- Midland, Midland, TX

Project Name: Concho Sea Federal Com 002H (5.20.2020)

Project Id: 212C-MD-02226
 Contact: Mike Carmona
 Project Location: Eddy County, New Mexico

Date Received in Lab: Fri 08.07.2020 10:22
 Report Date: 08.17.2020 08:58
 Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	669480-035	669480-036	669480-037	669480-038	669480-039	669480-041
	<i>Field Id:</i>	Borehole-5 (6'-7')	Borehole-5 (9'-10')	Borehole-5 (14'-15')	Borehole-5 (19'-20')	Borehole-5 (24'-25')	Borehole-6 (0-1)
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>						08.08.2020 15:30
	<i>Analyzed:</i>						08.10.2020 01:31
	<i>Units/RL:</i>						mg/kg RL
Benzene							<0.00201 0.00201
Toluene							<0.00201 0.00201
Ethylbenzene							<0.00201 0.00201
m,p-Xylenes							<0.00402 0.00402
o-Xylene							<0.00201 0.00201
Total Xylenes							<0.00201 0.00201
Total BTEX							<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	08.07.2020 15:00	08.07.2020 15:00	08.07.2020 15:00	08.07.2020 15:00	08.07.2020 15:00	08.07.2020 15:00
	<i>Analyzed:</i>	08.09.2020 01:39	08.09.2020 01:44	08.09.2020 01:50	08.09.2020 01:55	08.09.2020 02:00	08.09.2020 02:05
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		19100 252	5950 49.8	2560 25.0	507 5.05	308 5.05	5390 49.8
TPH by SW8015 Mod	<i>Extracted:</i>						08.07.2020 12:00
	<i>Analyzed:</i>						08.07.2020 20:35
	<i>Units/RL:</i>						mg/kg RL
Gasoline Range Hydrocarbons (GRO)							<50.0 50.0
Diesel Range Organics (DRO)							<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)							<50.0 50.0
Total TPH							<50.0 50.0

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 669480

Tetra Tech- Midland, Midland, TX

Project Name: Concho Sea Federal Com 002H (5.20.2020)

Project Id: 212C-MD-02226
 Contact: Mike Carmona
 Project Location: Eddy County, New Mexico

Date Received in Lab: Fri 08.07.2020 10:22
 Report Date: 08.17.2020 08:58
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	669480-042	669480-043	669480-044			
	Field Id:	Borehole-6(2'-3')	Borehole-6 (4'-5')	Borehole-6 (6'-7')			
	Depth:						
	Matrix:	SOIL	SOIL	SOIL			
Chloride by EPA 300	Sampled:	08.06.2020 00:00	08.06.2020 00:00	08.06.2020 00:00			
	Extracted:	08.07.2020 15:00	08.07.2020 15:00	08.07.2020 15:00			
	Analyzed:	08.09.2020 02:21	08.09.2020 02:27	08.09.2020 02:42			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		330 4.97	51.3 4.96	64.0 4.99			

BRL - Below Reporting Limit

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



Analytical Report 669480

for

Tetra Tech- Midland

Project Manager: Mike Carmona

Concho Sea Federal Com 002H (5.20.2020)

212C-MD-02226

08.17.2020

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-37), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNi02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



08.17.2020

Project Manager: **Mike Carmona**

Tetra Tech- Midland

901 West Wall ST

Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **669480**

Concho Sea Federal Com 002H (5.20.2020)

Project Address: Eddy County, New Mexico

Mike Carmona:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 669480. 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 Eurofins Xenco, LLC. 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. 669480 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 Eurofins Xenco, LLC 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 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Borehole-1 (0-1)	S	08.06.2020 00:00		669480-001
Borehole-1 (2'-3')	S	08.06.2020 00:00		669480-002
Borehole-1 (4'-5')	S	08.06.2020 00:00		669480-003
Borehole-1 (6'-7')	S	08.06.2020 00:00		669480-004
Borehole-1 (9'-10')	S	08.06.2020 00:00		669480-005
Borehole-1 (14'-15')	S	08.06.2020 00:00		669480-006
Borehole-2 (0-1)	S	08.06.2020 00:00		669480-008
Borehole-2 (2'-3')	S	08.06.2020 00:00		669480-009
Borehole-2 (4'-5')	S	08.06.2020 00:00		669480-010
Borehole-2 (6'-7')	S	08.06.2020 00:00		669480-011
Borehole-2 (9'-10')	S	08.06.2020 00:00		669480-012
Borehole-2 (14'-15')	S	08.06.2020 00:00		669480-013
Borehole-2 (16'-20')	S	08.06.2020 00:00		669480-014
Borehole-2 (24'-25')	S	08.06.2020 00:00		669480-015
Borehole-2 (29-30')	S	08.06.2020 00:00		669480-016
Borehole-3 (0-1)	S	08.06.2020 00:00		669480-017
Borehole-3 (2'-3')	S	08.06.2020 00:00		669480-018
Borehole-3 (4'-5')	S	08.06.2020 00:00		669480-019
Borehole-3 (6'-7')	S	08.06.2020 00:00		669480-020
Borehole-3 (9'-10')	S	08.06.2020 00:00		669480-021
Borehole-3 (14'-15')	S	08.06.2020 00:00		669480-022
Borehole-4 (0-1)	S	08.06.2020 00:00		669480-024
Borehole-4 (2'-3')	S	08.06.2020 00:00		669480-025
Borehole-4 (4'-5')	S	08.06.2020 00:00		669480-026
Borehole-4 (6'-7')	S	08.06.2020 00:00		669480-027
Borehole-4(9'-10')	S	08.06.2020 00:00		669480-028
Borehole-4 (14'-15')	S	08.06.2020 00:00		669480-029
Borehole-5 (0-1)	S	08.06.2020 00:00		669480-032
Borehole-5 (2'-3')	S	08.06.2020 00:00		669480-033
Borehole-5 (4'-5')	S	08.06.2020 00:00		669480-034
Borehole-5 (6'-7')	S	08.06.2020 00:00		669480-035
Borehole-5 (9'-10')	S	08.06.2020 00:00		669480-036
Borehole-5 (14'-15')	S	08.06.2020 00:00		669480-037
Borehole-5 (19'-20')	S	08.06.2020 00:00		669480-038
Borehole-5 (24'-25')	S	08.06.2020 00:00		669480-039
Borehole-6 (0-1)	S	08.06.2020 00:00		669480-041
Borehole-6(2'-3')	S	08.06.2020 00:00		669480-042
Borehole-6 (4'-5')	S	08.06.2020 00:00		669480-043
Borehole-6 (6'-7')	S	08.06.2020 00:00		669480-044
Borehole-1 (19'-20')	S	08.06.2020 00:00		Not Analyzed
Borehole-3(19'-20')	S	08.06.2020 00:00		Not Analyzed
Borehole-4 (19'-20')	S	08.06.2020 00:00		Not Analyzed
Borehole-4 (24'-25')	S	08.06.2020 00:00		Not Analyzed



Sample Cross Reference 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Borehole-5 (29'-30')	S	08.06.2020 00:00	Not Analyzed
Borehole-6 (9'-10')	S	08.06.2020 00:00	Not Analyzed
Borehole-6 (14'-15')	S	08.06.2020 00:00	Not Analyzed

**CASE NARRATIVE****Client Name: Tetra Tech- Midland****Project Name: Concho Sea Federal Com 002H (5.20.2020)**

Project ID: 212C-MD-02226
Work Order Number(s): 669480

Report Date: 08.17.2020
Date Received: 08.07.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3133978 Chloride by EPA 300

Lab Sample ID 669480-041 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 669480-028, -029, -032, -033, -034, -035, -036, -037, -038, -039, -041, -042, -043, -044.

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

Batch: LBA-3133986 BTEX by EPA 8021B

Lab Sample ID 669480-033 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 669480-001, -002, -008, -009, -017, -018, -024, -025, -032, -033, -041.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-1 (0-1)** Matrix: Soil Date Received: 08.07.2020 10:22
 Lab Sample Id: 669480-001 Date Collected: 08.06.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.07.2020 13:50 Basis: Wet Weight
 Seq Number: 3133971

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1090	4.96	mg/kg	08.08.2020 23:58		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.07.2020 16:00 Basis: Wet Weight
 Seq Number: 3134015

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.08.2020 03:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	2410	50.0	mg/kg	08.08.2020 03:12		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	257	50.0	mg/kg	08.08.2020 03:12		1
Total TPH	PHC635	2670	50.0	mg/kg	08.08.2020 03:12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-130	08.08.2020 03:12	
o-Terphenyl	84-15-1	127	%	70-130	08.08.2020 03:12	



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-1 (0-1)**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-001

Date Collected: 08.06.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.08.2020 15:30

Basis: Wet Weight

Seq Number: 3133986

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.09.2020 21:24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.09.2020 21:24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.09.2020 21:24	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.09.2020 21:24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.09.2020 21:24	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.09.2020 21:24	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.09.2020 21:24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	112	%	70-130	08.09.2020 21:24		
1,4-Difluorobenzene	540-36-3	109	%	70-130	08.09.2020 21:24		



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-1 (2'-3')** Matrix: Soil Date Received: 08.07.2020 10:22
 Lab Sample Id: 669480-002 Date Collected: 08.06.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.07.2020 13:50 Basis: Wet Weight
 Seq Number: 3133971

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	215	4.95	mg/kg	08.09.2020 00:05		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.07.2020 16:00 Basis: Wet Weight
 Seq Number: 3134015

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.08.2020 03:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	218	49.9	mg/kg	08.08.2020 03:33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	57.4	49.9	mg/kg	08.08.2020 03:33		1
Total TPH	PHC635	275	49.9	mg/kg	08.08.2020 03:33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	129	%	70-130	08.08.2020 03:33	
o-Terphenyl	84-15-1	113	%	70-130	08.08.2020 03:33	



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-1 (2'-3')** Matrix: Soil Date Received: 08.07.2020 10:22
 Lab Sample Id: 669480-002 Date Collected: 08.06.2020 00:00
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.08.2020 15:30 Basis: Wet Weight
 Seq Number: 3133986

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.09.2020 21:45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.09.2020 21:45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.09.2020 21:45	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.09.2020 21:45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.09.2020 21:45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.09.2020 21:45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.09.2020 21:45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	08.09.2020 21:45		
4-Bromofluorobenzene	460-00-4	118	%	70-130	08.09.2020 21:45		



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-1 (4'-5')** Matrix: Soil Date Received: 08.07.2020 10:22
 Lab Sample Id: 669480-003 Date Collected: 08.06.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.07.2020 13:50 Basis: Wet Weight
 Seq Number: 3133971

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20000	250	mg/kg	08.09.2020 00:11		50

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.11.2020 12:00 Basis: Wet Weight
 Seq Number: 3134289

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.11.2020 19:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.11.2020 19:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.11.2020 19:42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.11.2020 19:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-130	08.11.2020 19:42	
o-Terphenyl	84-15-1	128	%	70-130	08.11.2020 19:42	



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-1 (6'-7')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-004

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 13:50

Basis: Wet Weight

Seq Number: 3133971

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11800	100	mg/kg	08.09.2020 00:17		20



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Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-1 (9'-10')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-005

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 14:30

Basis: Wet Weight

Seq Number: 3133975

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5280	49.5	mg/kg	08.08.2020 12:05		10



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-1 (14'-15')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-006

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 14:30

Basis: Wet Weight

Seq Number: 3133975

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	598	4.99	mg/kg	08.08.2020 12:24		1



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-2 (0-1)** Matrix: Soil Date Received: 08.07.2020 10:22
 Lab Sample Id: 669480-008 Date Collected: 08.06.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.07.2020 14:30 Basis: Wet Weight
 Seq Number: 3133975

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7090	50.0	mg/kg	08.08.2020 12:30		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.07.2020 16:00 Basis: Wet Weight
 Seq Number: 3134015

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.08.2020 03:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.08.2020 03:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.08.2020 03:54	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.08.2020 03:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	127	%	70-130	08.08.2020 03:54	
o-Terphenyl	84-15-1	108	%	70-130	08.08.2020 03:54	



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-2 (0-1)** Matrix: Soil Date Received: 08.07.2020 10:22
 Lab Sample Id: 669480-008 Date Collected: 08.06.2020 00:00
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.08.2020 15:30 Basis: Wet Weight
 Seq Number: 3133986

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.09.2020 22:05	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.09.2020 22:05	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.09.2020 22:05	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.09.2020 22:05	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.09.2020 22:05	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.09.2020 22:05	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.09.2020 22:05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	08.09.2020 22:05		
1,4-Difluorobenzene	540-36-3	110	%	70-130	08.09.2020 22:05		



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-2 (2'-3')** Matrix: Soil Date Received: 08.07.2020 10:22
 Lab Sample Id: 669480-009 Date Collected: 08.06.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.07.2020 14:30 Basis: Wet Weight
 Seq Number: 3133975

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7700	49.8	mg/kg	08.08.2020 12:36		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.07.2020 16:00 Basis: Wet Weight
 Seq Number: 3134015

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.08.2020 04:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.08.2020 04:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.08.2020 04:14	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.08.2020 04:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	127	%	70-130	08.08.2020 04:14	
o-Terphenyl	84-15-1	107	%	70-130	08.08.2020 04:14	



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Tetra Tech- Midland, Midland, TX Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-2 (2'-3')** Matrix: Soil Date Received: 08.07.2020 10:22
 Lab Sample Id: 669480-009 Date Collected: 08.06.2020 00:00
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.08.2020 15:30 Basis: Wet Weight
 Seq Number: 3133986

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.09.2020 22:26	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.09.2020 22:26	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.09.2020 22:26	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.09.2020 22:26	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.09.2020 22:26	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.09.2020 22:26	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.09.2020 22:26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	110	%	70-130	08.09.2020 22:26		
4-Bromofluorobenzene	460-00-4	114	%	70-130	08.09.2020 22:26		



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-2 (4'-5')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-010

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 14:30

Basis: Wet Weight

Seq Number: 3133975

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4780	50.2	mg/kg	08.08.2020 12:43		10

**Certificate of Analytical Results 669480****Tetra Tech- Midland, Midland, TX**

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-2 (6'-7')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-011

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 14:30

Basis: Wet Weight

Seq Number: 3133975

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3950	24.8	mg/kg	08.08.2020 13:02		5



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-2 (9'-10')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-012

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 14:30

Basis: Wet Weight

Seq Number: 3133975

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4220	25.0	mg/kg	08.08.2020 13:08		5



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-2 (14'-15')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-013

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 14:30

Basis: Wet Weight

Seq Number: 3133975

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3220	24.9	mg/kg	08.08.2020 13:14		5



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-2 (16'-20')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-014

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.12.2020 16:40

Basis: Wet Weight

Seq Number: 3134378

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	447	5.00	mg/kg	08.12.2020 19:45		1

**Certificate of Analytical Results 669480****Tetra Tech- Midland, Midland, TX**

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-2 (24'-25')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-015

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.12.2020 16:40

Basis: Wet Weight

Seq Number: 3134378

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	332	5.00	mg/kg	08.12.2020 19:51		1

**Certificate of Analytical Results 669480****Tetra Tech- Midland, Midland, TX**

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-2 (29-30')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-016

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.12.2020 16:40

Basis: Wet Weight

Seq Number: 3134378

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	412	5.00	mg/kg	08.12.2020 19:39		1



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-3 (0-1)**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-017

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 14:30

Basis: Wet Weight

Seq Number: 3133975

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5260	50.0	mg/kg	08.08.2020 13:34		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 08.07.2020 16:00

Basis: Wet Weight

Seq Number: 3134015

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.08.2020 04:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	261	49.9	mg/kg	08.08.2020 04:35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.08.2020 04:35	U	1
Total TPH	PHC635	261	49.9	mg/kg	08.08.2020 04:35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	129	%	70-130	08.08.2020 04:35	
o-Terphenyl	84-15-1	115	%	70-130	08.08.2020 04:35	



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-3 (0-1)** Matrix: Soil Date Received: 08.07.2020 10:22
 Lab Sample Id: 669480-017 Date Collected: 08.06.2020 00:00
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.08.2020 15:30 Basis: Wet Weight
 Seq Number: 3133986

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.09.2020 22:46	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.09.2020 22:46	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.09.2020 22:46	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.09.2020 22:46	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.09.2020 22:46	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.09.2020 22:46	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.09.2020 22:46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	08.09.2020 22:46		
4-Bromofluorobenzene	460-00-4	117	%	70-130	08.09.2020 22:46		



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-3 (2'-3')** Matrix: Soil Date Received: 08.07.2020 10:22
 Lab Sample Id: 669480-018 Date Collected: 08.06.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.07.2020 14:30 Basis: Wet Weight
 Seq Number: 3133975

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6180	50.3	mg/kg	08.08.2020 13:53		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.07.2020 16:00 Basis: Wet Weight
 Seq Number: 3134015

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.08.2020 04:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	71.0	50.0	mg/kg	08.08.2020 04:56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.08.2020 04:56	U	1
Total TPH	PHC635	71.0	50.0	mg/kg	08.08.2020 04:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-130	08.08.2020 04:56	
o-Terphenyl	84-15-1	111	%	70-130	08.08.2020 04:56	



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Tetra Tech- Midland, Midland, TX Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-3 (2'-3')** Matrix: Soil Date Received: 08.07.2020 10:22
 Lab Sample Id: 669480-018 Date Collected: 08.06.2020 00:00
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.08.2020 15:30 Basis: Wet Weight
 Seq Number: 3133986

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.09.2020 23:06	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.09.2020 23:06	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.09.2020 23:06	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.09.2020 23:06	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.09.2020 23:06	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.09.2020 23:06	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.09.2020 23:06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	08.09.2020 23:06		
1,4-Difluorobenzene	540-36-3	108	%	70-130	08.09.2020 23:06		



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-3 (4'-5')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-019

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 14:30

Basis: Wet Weight

Seq Number: 3133975

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	27100	250	mg/kg	08.08.2020 13:59		50

**Certificate of Analytical Results 669480****Tetra Tech- Midland, Midland, TX**

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-3 (6'-7')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-020

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 14:30

Basis: Wet Weight

Seq Number: 3133975

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17700	253	mg/kg	08.08.2020 14:18		50

**Certificate of Analytical Results 669480****Tetra Tech- Midland, Midland, TX**

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-3 (9'-10')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-021

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 14:30

Basis: Wet Weight

Seq Number: 3133975

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6020	50.5	mg/kg	08.08.2020 14:24		10



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Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-3 (14'-15')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-022

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 14:30

Basis: Wet Weight

Seq Number: 3133975

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	359	5.05	mg/kg	08.08.2020 14:31		1



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Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-4 (0-1)** Matrix: Soil Date Received: 08.07.2020 10:22
 Lab Sample Id: 669480-024 Date Collected: 08.06.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.07.2020 14:30 Basis: Wet Weight
 Seq Number: 3133975

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5550	49.8	mg/kg	08.08.2020 14:37		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.07.2020 16:00 Basis: Wet Weight
 Seq Number: 3134015

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.08.2020 05:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	420	49.9	mg/kg	08.08.2020 05:16		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	67.5	49.9	mg/kg	08.08.2020 05:16		1
Total TPH	PHC635	488	49.9	mg/kg	08.08.2020 05:16		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	123	%	70-130	08.08.2020 05:16	
o-Terphenyl	84-15-1	109	%	70-130	08.08.2020 05:16	



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-4 (0-1)**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-024

Date Collected: 08.06.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.08.2020 15:30

Basis: Wet Weight

Seq Number: 3133986

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.09.2020 23:27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.09.2020 23:27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.09.2020 23:27	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.09.2020 23:27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.09.2020 23:27	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.09.2020 23:27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.09.2020 23:27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	109	%	70-130	08.09.2020 23:27		
4-Bromofluorobenzene	460-00-4	116	%	70-130	08.09.2020 23:27		



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Tetra Tech- Midland, Midland, TX Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-4 (2'-3')** Matrix: Soil Date Received: 08.07.2020 10:22
 Lab Sample Id: 669480-025 Date Collected: 08.06.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.07.2020 14:30 Basis: Wet Weight
 Seq Number: 3133975

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6800	50.0	mg/kg	08.08.2020 14:43		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.07.2020 16:00 Basis: Wet Weight
 Seq Number: 3134015

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.08.2020 05:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	199	49.9	mg/kg	08.08.2020 05:37		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.08.2020 05:37	U	1
Total TPH	PHC635	199	49.9	mg/kg	08.08.2020 05:37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-130	08.08.2020 05:37	
o-Terphenyl	84-15-1	113	%	70-130	08.08.2020 05:37	



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Tetra Tech- Midland, Midland, TX Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-4 (2'-3')** Matrix: Soil Date Received: 08.07.2020 10:22
 Lab Sample Id: 669480-025 Date Collected: 08.06.2020 00:00
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.08.2020 15:30 Basis: Wet Weight
 Seq Number: 3133986

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.09.2020 23:48	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.09.2020 23:48	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.09.2020 23:48	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	08.09.2020 23:48	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.09.2020 23:48	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.09.2020 23:48	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.09.2020 23:48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	70-130	08.09.2020 23:48		
1,4-Difluorobenzene	540-36-3	111	%	70-130	08.09.2020 23:48		



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Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-4 (4'-5')** Matrix: Soil Date Received: 08.07.2020 10:22
 Lab Sample Id: 669480-026 Date Collected: 08.06.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.07.2020 14:30 Basis: Wet Weight
 Seq Number: 3133975

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1670	25.0	mg/kg	08.08.2020 14:50		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.11.2020 12:00 Basis: Wet Weight
 Seq Number: 3134289

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.11.2020 20:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.11.2020 20:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.11.2020 20:01	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.11.2020 20:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	130	%	70-130	08.11.2020 20:01	
o-Terphenyl	84-15-1	128	%	70-130	08.11.2020 20:01	



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-4 (6'-7')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-027

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 14:30

Basis: Wet Weight

Seq Number: 3133975

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	489	5.04	mg/kg	08.08.2020 14:56		1



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Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-4(9'-10')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-028

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 15:00

Basis: Wet Weight

Seq Number: 3133978

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	779	5.00	mg/kg	08.09.2020 00:52	X	1

**Certificate of Analytical Results 669480****Tetra Tech- Midland, Midland, TX**

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-4 (14'-15')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-029

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 15:00

Basis: Wet Weight

Seq Number: 3133978

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	448	4.99	mg/kg	08.09.2020 01:08		1



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-5 (0-1)** Matrix: Soil Date Received: 08.07.2020 10:22
 Lab Sample Id: 669480-032 Date Collected: 08.06.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.07.2020 15:00 Basis: Wet Weight
 Seq Number: 3133978

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2530	24.8	mg/kg	08.09.2020 01:13		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.07.2020 16:00 Basis: Wet Weight
 Seq Number: 3134015

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.08.2020 05:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.08.2020 05:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.08.2020 05:58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.08.2020 05:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	130	%	70-130	08.08.2020 05:58	
o-Terphenyl	84-15-1	108	%	70-130	08.08.2020 05:58	



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-5 (0-1)**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-032

Date Collected: 08.06.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.08.2020 15:30

Basis: Wet Weight

Seq Number: 3133986

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.10.2020 00:08	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.10.2020 00:08	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.10.2020 00:08	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.10.2020 00:08	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.10.2020 00:08	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.10.2020 00:08	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.10.2020 00:08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	110	%	70-130	08.10.2020 00:08		
4-Bromofluorobenzene	460-00-4	118	%	70-130	08.10.2020 00:08		



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-5 (2'-3')** Matrix: Soil Date Received: 08.07.2020 10:22
 Lab Sample Id: 669480-033 Date Collected: 08.06.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.07.2020 15:00 Basis: Wet Weight
 Seq Number: 3133978

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2310	24.9	mg/kg	08.09.2020 01:18		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.07.2020 12:00 Basis: Wet Weight
 Seq Number: 3134024

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.07.2020 20:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.07.2020 20:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.07.2020 20:35	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.07.2020 20:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	123	%	70-130	08.07.2020 20:35	
o-Terphenyl	84-15-1	109	%	70-130	08.07.2020 20:35	



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-5 (2'-3')** Matrix: Soil Date Received: 08.07.2020 10:22
 Lab Sample Id: 669480-033 Date Collected: 08.06.2020 00:00
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.08.2020 15:30 Basis: Wet Weight
 Seq Number: 3133986

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.09.2020 21:04	UX	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.09.2020 21:04	UX	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.09.2020 21:04	UX	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.09.2020 21:04	UX	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.09.2020 21:04	UX	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.09.2020 21:04	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.09.2020 21:04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	08.09.2020 21:04		
1,4-Difluorobenzene	540-36-3	112	%	70-130	08.09.2020 21:04		



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-5 (4'-5')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-034

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 15:00

Basis: Wet Weight

Seq Number: 3133978

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14800	248	mg/kg	08.09.2020 01:23		50



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-5 (6'-7')** Matrix: Soil Date Received: 08.07.2020 10:22
Lab Sample Id: 669480-035 Date Collected: 08.06.2020 00:00
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 08.07.2020 15:00 Basis: Wet Weight
Seq Number: 3133978

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	19100	252	mg/kg	08.09.2020 01:39		50



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-5 (9'-10')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-036

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 15:00

Basis: Wet Weight

Seq Number: 3133978

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5950	49.8	mg/kg	08.09.2020 01:44		10



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-5 (14'-15')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-037

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 15:00

Basis: Wet Weight

Seq Number: 3133978

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2560	25.0	mg/kg	08.09.2020 01:50		5



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-5 (19'-20')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-038

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 15:00

Basis: Wet Weight

Seq Number: 3133978

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	507	5.05	mg/kg	08.09.2020 01:55		1



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-5 (24'-25')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-039

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 15:00

Basis: Wet Weight

Seq Number: 3133978

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	308	5.05	mg/kg	08.09.2020 02:00		1



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-6 (0-1)**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-041

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 15:00

Basis: Wet Weight

Seq Number: 3133978

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5390	49.8	mg/kg	08.09.2020 02:05		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 08.07.2020 12:00

Basis: Wet Weight

Seq Number: 3134011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.07.2020 20:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.07.2020 20:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.07.2020 20:35	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.07.2020 20:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-130	08.07.2020 20:35	
o-Terphenyl	84-15-1	103	%	70-130	08.07.2020 20:35	



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-6 (0-1)**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-041

Date Collected: 08.06.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.08.2020 15:30

Basis: Wet Weight

Seq Number: 3133986

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.10.2020 01:31	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.10.2020 01:31	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.10.2020 01:31	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.10.2020 01:31	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.10.2020 01:31	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.10.2020 01:31	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.10.2020 01:31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	08.10.2020 01:31		
1,4-Difluorobenzene	540-36-3	105	%	70-130	08.10.2020 01:31		



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-6(2'-3')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-042

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 15:00

Basis: Wet Weight

Seq Number: 3133978

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	330	4.97	mg/kg	08.09.2020 02:21		1



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-6 (4'-5')** Matrix: Soil Date Received: 08.07.2020 10:22
Lab Sample Id: 669480-043 Date Collected: 08.06.2020 00:00
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: CHE % Moisture:
Analyst: CHE Date Prep: 08.07.2020 15:00 Basis: Wet Weight
Seq Number: 3133978

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	51.3	4.96	mg/kg	08.09.2020 02:27		1



Certificate of Analytical Results 669480

Tetra Tech- Midland, Midland, TX

Concho Sea Federal Com 002H (5.20.2020)

Sample Id: **Borehole-6 (6'-7')**

Matrix: Soil

Date Received: 08.07.2020 10:22

Lab Sample Id: 669480-044

Date Collected: 08.06.2020 00:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.07.2020 15:00

Basis: Wet Weight

Seq Number: 3133978

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	64.0	4.99	mg/kg	08.09.2020 02:42		1

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
Concho Sea Federal Com 002H (5.20.2020)

Analytical Method: Chloride by EPA 300

Seq Number: 3133971

MB Sample Id: 7708977-1-BLK

Matrix: Solid

LCS Sample Id: 7708977-1-BKS

Prep Method: E300P

Date Prep: 08.07.2020

LCSD Sample Id: 7708977-1-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	08.08.2020 21:15	

Analytical Method: Chloride by EPA 300

Seq Number: 3133975

MB Sample Id: 7708982-1-BLK

Matrix: Solid

LCS Sample Id: 7708982-1-BKS

Prep Method: E300P

Date Prep: 08.07.2020

LCSD Sample Id: 7708982-1-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	255	102	255	102	90-110	0	20	mg/kg	08.08.2020 11:48	

Analytical Method: Chloride by EPA 300

Seq Number: 3133978

MB Sample Id: 7708990-1-BLK

Matrix: Solid

LCS Sample Id: 7708990-1-BKS

Prep Method: E300P

Date Prep: 08.07.2020

LCSD Sample Id: 7708990-1-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	245	98	244	98	90-110	0	20	mg/kg	08.09.2020 00:41	

Analytical Method: Chloride by EPA 300

Seq Number: 3134378

MB Sample Id: 7709299-1-BLK

Matrix: Solid

LCS Sample Id: 7709299-1-BKS

Prep Method: E300P

Date Prep: 08.12.2020

LCSD Sample Id: 7709299-1-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	273	109	274	110	90-110	0	20	mg/kg	08.12.2020 16:47	

Analytical Method: Chloride by EPA 300

Seq Number: 3133971

Parent Sample Id: 669481-060

Matrix: Soil

MS Sample Id: 669481-060 S

Prep Method: E300P

Date Prep: 08.07.2020

MSD Sample Id: 669481-060 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	9.09	249	260	101	261	101	90-110	0	20	mg/kg	08.08.2020 21:34	

Analytical Method: Chloride by EPA 300

Seq Number: 3133971

Parent Sample Id: 669481-070

Matrix: Soil

MS Sample Id: 669481-070 S

Prep Method: E300P

Date Prep: 08.07.2020

MSD Sample Id: 669481-070 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	7.99	248	243	95	243	95	90-110	0	20	mg/kg	08.08.2020 23:02	

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
Concho Sea Federal Com 002H (5.20.2020)

Analytical Method: Chloride by EPA 300

Seq Number: 3133975

Parent Sample Id: 669480-005

Matrix: Soil

MS Sample Id: 669480-005 S

Prep Method: E300P

Date Prep: 08.07.2020

MSD Sample Id: 669480-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5280	2480	7900	106	7910	106	90-110	0	20	mg/kg	08.08.2020 12:11	

Analytical Method: Chloride by EPA 300

Seq Number: 3133975

Parent Sample Id: 669480-017

Matrix: Soil

MS Sample Id: 669480-017 S

Prep Method: E300P

Date Prep: 08.07.2020

MSD Sample Id: 669480-017 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5260	2500	7690	97	7690	97	90-110	0	20	mg/kg	08.08.2020 13:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3133978

Parent Sample Id: 669480-028

Matrix: Soil

MS Sample Id: 669480-028 S

Prep Method: E300P

Date Prep: 08.07.2020

MSD Sample Id: 669480-028 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	779	250	987	83	983	82	90-110	0	20	mg/kg	08.09.2020 00:57	X

Analytical Method: Chloride by EPA 300

Seq Number: 3133978

Parent Sample Id: 669480-041

Matrix: Soil

MS Sample Id: 669480-041 S

Prep Method: E300P

Date Prep: 08.07.2020

MSD Sample Id: 669480-041 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5390	2490	7940	102	7960	103	90-110	0	20	mg/kg	08.09.2020 02:11	

Analytical Method: Chloride by EPA 300

Seq Number: 3134378

Parent Sample Id: 669777-001

Matrix: Soil

MS Sample Id: 669777-001 S

Prep Method: E300P

Date Prep: 08.12.2020

MSD Sample Id: 669777-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.96	248	282	114	280	113	90-110	1	20	mg/kg	08.12.2020 17:06	X

Analytical Method: Chloride by EPA 300

Seq Number: 3134378

Parent Sample Id: 669808-001

Matrix: Soil

MS Sample Id: 669808-001 S

Prep Method: E300P

Date Prep: 08.12.2020

MSD Sample Id: 669808-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2230	1240	3590	110	3590	110	90-110	0	20	mg/kg	08.12.2020 18:35	

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
Concho Sea Federal Com 002H (5.20.2020)

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134011

Matrix: Solid

Prep Method: SW8015P

Date Prep: 08.07.2020

MB Sample Id: 7709030-1-BLK

LCS Sample Id: 7709030-1-BKS

LCSD Sample Id: 7709030-1-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	905	91	878	88	70-130	3	20	mg/kg	08.07.2020 12:04	
Diesel Range Organics (DRO)	<50.0	1000	919	92	923	92	70-130	0	20	mg/kg	08.07.2020 12:04	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	90		90		94		70-130	%	08.07.2020 12:04			
o-Terphenyl	96		88		93		70-130	%	08.07.2020 12:04			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134024

Matrix: Solid

Prep Method: SW8015P

Date Prep: 08.07.2020

MB Sample Id: 7709032-1-BLK

LCS Sample Id: 7709032-1-BKS

LCSD Sample Id: 7709032-1-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	936	94	906	91	70-130	3	20	mg/kg	08.07.2020 12:04	
Diesel Range Organics (DRO)	<50.0	1000	992	99	965	97	70-130	3	20	mg/kg	08.07.2020 12:04	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	121		125		118		70-130	%	08.07.2020 12:04			
o-Terphenyl	111		114		107		70-130	%	08.07.2020 12:04			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134015

Matrix: Solid

Prep Method: SW8015P

Date Prep: 08.07.2020

MB Sample Id: 7709036-1-BLK

LCS Sample Id: 7709036-1-BKS

LCSD Sample Id: 7709036-1-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	944	94	952	95	70-130	1	20	mg/kg	08.07.2020 21:38	
Diesel Range Organics (DRO)	<50.0	1000	950	95	955	96	70-130	1	20	mg/kg	08.07.2020 21:38	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	126		123		125		70-130	%	08.07.2020 21:38			
o-Terphenyl	114		110		116		70-130	%	08.07.2020 21:38			

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
Concho Sea Federal Com 002H (5.20.2020)

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134289

MB Sample Id: 7709212-1-BLK

Matrix: Solid

LCS Sample Id: 7709212-1-BKS

Prep Method: SW8015P

Date Prep: 08.11.2020

LCSD Sample Id: 7709212-1-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	854	85	884	88	70-130	3	20	mg/kg	08.11.2020 12:17	
Diesel Range Organics (DRO)	<50.0	1000	838	84	898	90	70-130	7	20	mg/kg	08.11.2020 12:17	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		124		129		70-130	%	08.11.2020 12:17
o-Terphenyl	121		120		128		70-130	%	08.11.2020 12:17

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134011

Matrix: Solid

MB Sample Id: 7709030-1-BLK

Prep Method: SW8015P

Date Prep: 08.07.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.07.2020 11:43	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134024

Matrix: Solid

MB Sample Id: 7709032-1-BLK

Prep Method: SW8015P

Date Prep: 08.07.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.07.2020 11:43	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134015

Matrix: Solid

MB Sample Id: 7709036-1-BLK

Prep Method: SW8015P

Date Prep: 08.07.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.07.2020 21:17	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134289

Matrix: Solid

MB Sample Id: 7709212-1-BLK

Prep Method: SW8015P

Date Prep: 08.11.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.11.2020 11:57	

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
Concho Sea Federal Com 002H (5.20.2020)

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134011

Parent Sample Id: 669427-001

Matrix: Soil

MS Sample Id: 669427-001 S

Prep Method: SW8015P

Date Prep: 08.07.2020

MSD Sample Id: 669427-001 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)	<49.9	997	842	84	800	80	70-130	5	20	mg/kg	08.07.2020 13:08	
Diesel Range Organics (DRO)	<49.9	997	838	84	831	83	70-130	1	20	mg/kg	08.07.2020 13:08	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		95		70-130	%	08.07.2020 13:08
o-Terphenyl	93		93		70-130	%	08.07.2020 13:08

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134024

Parent Sample Id: 669326-004

Matrix: Soil

MS Sample Id: 669326-004 S

Prep Method: SW8015P

Date Prep: 08.07.2020

MSD Sample Id: 669326-004 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	868	87	885	89	70-130	2	20	mg/kg	08.07.2020 13:08	
Diesel Range Organics (DRO)	<50.0	999	892	89	913	91	70-130	2	20	mg/kg	08.07.2020 13:08	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		111		70-130	%	08.07.2020 13:08
o-Terphenyl	98		100		70-130	%	08.07.2020 13:08

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134015

Parent Sample Id: 669481-061

Matrix: Soil

MS Sample Id: 669481-061 S

Prep Method: SW8015P

Date Prep: 08.07.2020

MSD Sample Id: 669481-061 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	880	88	903	91	70-130	3	20	mg/kg	08.07.2020 22:41	
Diesel Range Organics (DRO)	<49.9	997	832	83	952	96	70-130	13	20	mg/kg	08.07.2020 22:41	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		113		70-130	%	08.07.2020 22:41
o-Terphenyl	101		103		70-130	%	08.07.2020 22:41

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
Concho Sea Federal Com 002H (5.20.2020)

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134289

Parent Sample Id: 669564-001

Matrix: Soil

MS Sample Id: 669564-001 S

Prep Method: SW8015P

Date Prep: 08.11.2020

MSD Sample Id: 669564-001 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)	<49.9	997	801	80	821	82	70-130	2	20	mg/kg	08.11.2020 13:16	
Diesel Range Organics (DRO)	104	997	874	77	866	77	70-130	1	20	mg/kg	08.11.2020 13:16	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		124		70-130	%	08.11.2020 13:16
o-Terphenyl	120		124		70-130	%	08.11.2020 13:16

Analytical Method: BTEX by EPA 8021B

Seq Number: 3133986

MB Sample Id: 7709044-1-BLK

Matrix: Solid

LCS Sample Id: 7709044-1-BKS

Prep Method: SW5035A

Date Prep: 08.08.2020

LCSD Sample Id: 7709044-1-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	0.110	110	0.105	105	70-130	5	35	mg/kg	08.09.2020 18:40	
Toluene	<0.00200	0.100	0.0976	98	0.0940	94	70-130	4	35	mg/kg	08.09.2020 18:40	
Ethylbenzene	<0.00200	0.100	0.0912	91	0.0884	88	70-130	3	35	mg/kg	08.09.2020 18:40	
m,p-Xylenes	<0.00400	0.200	0.180	90	0.174	87	70-130	3	35	mg/kg	08.09.2020 18:40	
o-Xylene	<0.00200	0.100	0.0896	90	0.0869	87	70-130	3	35	mg/kg	08.09.2020 18:40	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		103		101		70-130	%	08.09.2020 18:40
4-Bromofluorobenzene	106		95		93		70-130	%	08.09.2020 18:40

Analytical Method: BTEX by EPA 8021B

Seq Number: 3133986

Parent Sample Id: 669480-033

Matrix: Soil

MS Sample Id: 669480-033 S

Prep Method: SW5035A

Date Prep: 08.08.2020

MSD Sample Id: 669480-033 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	0.0640	63	0.0600	59	70-130	6	35	mg/kg	08.09.2020 19:22	X
Toluene	<0.00202	0.101	0.0446	44	0.0419	41	70-130	6	35	mg/kg	08.09.2020 19:22	X
Ethylbenzene	<0.00202	0.101	0.0348	34	0.0333	33	70-130	4	35	mg/kg	08.09.2020 19:22	X
m,p-Xylenes	<0.00403	0.202	0.0552	27	0.0507	25	70-130	8	35	mg/kg	08.09.2020 19:22	X
o-Xylene	<0.00202	0.101	0.0382	38	0.0372	37	70-130	3	35	mg/kg	08.09.2020 19:22	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		109		70-130	%	08.09.2020 19:22
4-Bromofluorobenzene	106		108		70-130	%	08.09.2020 19:22

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.

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

Client Name: Concho Site Manager: Mike Carmona

Project Name: Sea Biscuit Federal Com 002H (5.20.2020)

Project Location: Eddy County, New Mexico

Project #: 212C-MD-02226

Invoice to:

Ike Tavares

Receiving Laboratory:

Xenco

Sampler Signature:

Devlin Dominguez

Comments:

Run deeper sample if Benzene exceeds 10 mg/kg or total BTEX exceeds 50 mg/kg. Run deeper sample if TPH exceeds 100 mg/kg.

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX	PRESERVATIVE METHOD					# CONTAINERS	FILTERED (Y/N)
		YEAR 2020			WATER	SOIL	HCL	HNO ₃	ICE		
		DATE	TIME								
	Borehole-1 (0-1')	8/6/2020		X			X			1	N
	Borehole-1 (2-3')	8/6/2020		X			X			1	N
	Borehole-1 (4-5')	8/6/2020		X			X			1	N
	Borehole-1 (6-7')	8/6/2020		X			X			1	N
	Borehole-1 (9-10')	8/6/2020		X			X			1	N
	Borehole-1 (14-15')	8/6/2020		X			X			1	N
	Borehole-1 (19-20')	8/6/2020		X			X			1	N
	Borehole-2 (0-1')	8/6/2020		X			X			1	N
	Borehole-2 (2-3')	8/6/2020		X			X			1	N
	Borehole-2 (4-5')	8/6/2020		X			X			1	N
Relinquished by:		Date: 8/1/20	Time: 1022	Received by: 	Date: 8/1/20	Time: 1022					
Relinquished by:		Date:	Time:	Received by:	Date:	Time:					
Relinquished by:		Date:	Time:	Received by:	Date:	Time:					

Relinquished by:

Date: Time:

Received by:

Date: Time:

Relinquished by:

Date: Time:

Received by:

Date: Time:

Relinquished by:

Date: Time:

Received by:

Date: Time:

ANALYSIS REQUEST

(Circle or Specify Method No.)

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

Hold

LAB USE ONLY

REMARKS:

☐ STANDARD

☒ RUSH: Same Day 24 hr 48 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

42 hr

Sample Temperature
24/22

-0.1

ORIGINAL COPY

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

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

Page 2 of 5

Client Name: Concho		Site Manager: Mike Carmona	
Project Name: Sea Biscuit Federal Com 002H (5.20.2020)			
Project Location: Eddy County, New Mexico		Project #: 212C-MD-02226	
Invoice to: Ike Tavaréz			
Receiving Laboratory: Xenco		Sampler Signature: Devin Dominguez	
Comments: Run deeper sample if Benzene exceeds 10 mg/kg or total BTEX exceeds 50 mg/kg. Run deeper sample if TPH exceeds 100 mg/kg.			

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD					# CONTAINERS	FILTERED (Y/N)	
		DATE	TIME	WATER	SOIL	HCL	HNO ₃	ICE	None				
										YEAR: 2020			
	Borehole-2 (6'-7')	8/6/2020			X			X				1	N
	Borehole-2 (9'-10')	8/6/2020			X			X				1	N
	Borehole-2 (14'-15')	8/6/2020			X			X				1	N
	Borehole-2 (19'-20')	8/6/2020			X			X				1	N
	Borehole-2 (24'-25')	8/6/2020			X			X				1	N
	Borehole-2 (29'-30')	8/6/2020			X			X				1	N
	Borehole-3 (0'-1')	8/6/2020			X			X				1	N
	Borehole-3 (2'-3')	8/6/2020			X			X				1	N
	Borehole-3 (4'-5')	8/6/2020			X			X				1	N
	Borehole-3 (6'-7')	8/6/2020			X			X				1	N

Relinquished by:	Date: 8/7/20	Time: 10:22	Received by:	Date: 8/6/2020	Time: 10:22
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

ORIGINAL COPY

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

(Circle or Specify Method No.)	
BTEX 8021B	BTEX 8260B
TPH TX1005 (Ext to C35)	
TPH 8015M (GRO - DRO - ORO - MRO)	
FAH 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	
PCI	
GC/MS Vol. 8260B / 624	
GC/MS Semi. Vol. 8270C/625	
PCB's 8082 / 608	
NORM	
PLM (Asbestos)	
Chloride	
Chloride Sulfate TDS	
General Water Chemistry (see attached list)	
Anion/Cation Balance	
TPH 8015R	
Hold	

Analysis Request of Custody Record

Page 3 of 5



Tetra Tech, Inc.

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

1069460

Client Name: Concho		Site Manager: Mike Carmona	
Project Name: Sea Biscuit Federal Com 002H (5.20.2020)			
Project Location: Eddy County, New Mexico		Project #: 212C-MD-02226	
Invoice to: Ike Tavaréz			
Receiving Laboratory: Xenco		Sampler Signature: Devin Dominguez	
Comments: Run deeper sample if Benzene exceeds 10 mg/kg or total BTEX exceeds 50 mg/kg. Run deeper sample if TPH exceeds 100 mg/kg.			

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					
	Borehole-3 (9'-10')	8/6/2020			X			X				1	N		
	Borehole-3 (14'-15')	8/6/2020			X			X				1	N		
	Borehole-3 (19'-20')	8/6/2020			X			X				1	N		
	Borehole-4 (0'-1')	8/6/2020			X			X				1	N		
	Borehole-4 (2'-3')	8/6/2020			X			X				1	N		
	Borehole-4 (4'-5')	8/6/2020			X			X				1	N		
	Borehole-4 (6'-7')	8/6/2020			X			X				1	N		
	Borehole-4 (9'-10')	8/6/2020			X			X				1	N		
	Borehole-4 (14'-15')	8/6/2020			X			X				1	N		
	Borehole-4 (19'-20')	8/6/2020			X			X				1	N		

Relinquished by: [Signature]	Date: 8/7/20	Time: 10:22	Received by: [Signature]	Date: 8/7/20	Time: 10:22
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
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LAB USE ONLY	REMARKS:
☐ STANDARD	
☒ RUSH: Same Day 24 hr 48 hr 72 hr	
☐ Rush Charges Authorized	
☐ Special Report Limits or TRRP Report	

Sample Temperature	24.9/2.2
--------------------	----------

(Circle) HAND DELIVERED FEDEX UPS Tracking #:	
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ORIGINAL COPY

(Circle or Specify Method No.)

ANALYSIS REQUEST

Hold

Analysis Request of Custody Record



Tetra Tech, Inc.

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

Page 4 of 5

Client Name: Concho		Site Manager: Mike Carmona	
Project Name: Sea Biscuit Federal Com 002H (5.20.2020)			
Project Location: Eddy County, New Mexico		Project #: 212C-MD-02226	
Invoice to: Ike Tavares			
Receiving Laboratory: Xenco		Sampler Signature: Devin Dominguez	
Comments: Run deeper sample if Benzene exceeds 10 mg/kg or total BTEX exceeds 50 mg/kg. Run deeper sample if TPH exceeds 100 mg/kg.			

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS	FILTERED (Y/N)		
		DATE	TIME	WATER	SOIL	HCL	HNO ₃			ICE	None
	Borehole-4 (24'-25')	8/6/2020		X		X		1	N		
	Borehole-5 (0'-1')	8/6/2020		X		X		1	N		
	Borehole-5 (2'-3')	8/6/2020		X		X		1	N		
	Borehole-5 (4'-5')	8/6/2020		X		X		1	N		
	Borehole-5 (6'-7')	8/6/2020		X		X		1	N		
	Borehole-5 (9'-10')	8/6/2020		X		X		1	N		
	Borehole-5 (14'-15')	8/6/2020		X		X		1	N		
	Borehole-5 (19'-20')	8/6/2020		X		X		1	N		
	Borehole-5 (24'-25')	8/6/2020		X		X		1	N		
	Borehole-5 (29'-30')	8/6/2020		X		X		1	N		

LAB USE ONLY	REMARKS:
☐ STANDARD ☒ RUSH: Same Day 24 hr 48 hr 24 hr ☐ Rush Charges Authorized ☐ Special Report Limits or TRRP Report	ANALYSIS REQUEST (Circle or Specify Method No.) BTEX 8021B BTEX 8260B TPH TX1005 (Ext to C35) TPH 8015M (GRO - DRO - ORO - MRO) PAH 8270C Total Metals Ag As Ba Cd Cr Pb Se Hg TCLP Metals Ag As Ba Cd Cr Pb Se Hg TCLP Volatiles TCLP Semi Volatiles RCI GC/MS Vol. 8260B / 624 GC/MS Semi. Vol. 8270C/625 PCB's 8082 / 608 NORM PLM (Asbestos) Chloride Chloride Sulfate TDS General Water Chemistry (see attached list) Anion/Cation Balance TPH 8015R Hold

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

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

1009490

Page 5 of 5

Project Name:		Concho		Site Manager:		Mike Carmona																	
Project Location:		Sea Biscuit Federal Com 002H (5.20.2020)		Project #:		212C-MD-02226																	
Project Location:		Eddy County, New Mexico		Project #:		212C-MD-02226																	
Invoice to:		Ike Tavaraz		Sampler Signature:		Devin Dominguez																	
Receiving Laboratory:		Xenco		Sampler Signature:		Devin Dominguez																	
Comments:		Run deeper sample if Benzene exceeds 10 mg/kg or total BTEX exceeds 50 mg/kg. Run deeper sample if TPH exceeds 100 mg/kg.																					
LAB # (LAB USE ONLY)		SAMPLE IDENTIFICATION		SAMPLING		MATRIX		PRESERVATIVE METHOD		# CONTAINERS		FILTERED (Y/N)											
		Borehole-6 (0-1')		DATE		TIME		WATER		SOIL		HCL		HNO ₃		ICE		None					
		Borehole-6 (2-3')		8/6/2020				X		X		X		X		X		X		1		N	
		Borehole-6 (4-5')		8/6/2020				X		X		X		X		X		X		1		N	
		Borehole-6 (6-7')		8/6/2020				X		X		X		X		X		X		1		N	
		Borehole-6 (9-10')		8/6/2020				X		X		X		X		X		X		1		N	
		Borehole-6 (14-15')		8/6/2020				X		X		X		X		X		X		1		N	
						</																	

ORIGINAL COPY

(Circle)	HAND DELIVERED	FEDEX	UPS	Tracking #

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 08.07.2020 10.22.00 AM

Work Order #: 669480

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.2
#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?	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: 08.07.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.07.2020

Certificate of Analysis Summary 670009



Tetra Tech- Midland, Midland, TX

Project Name: Concho Sea Biscuit Federal Com 002H (5.20.2020)

Project Id: 212C-MD-02226
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Thu 08.13.2020 15:21**Report Date:** 08.17.2020 13:06**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	670009-001	670009-002	670009-003	670009-004	670009-005	670009-006
	<i>Field Id:</i>	Horizontal-1 (0-1')	Horizontal-2 (0-1')	Horizontal-3 (0-1')	Horizontal-4 (0-1')	Horizontal-5 (0-1')	Horizontal-6 (0-1')
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	08.12.2020 00:00	08.12.2020 00:00	08.12.2020 00:00	08.12.2020 00:00	08.12.2020 00:00	08.12.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	08.14.2020 16:30	08.14.2020 16:30	08.14.2020 16:30	08.14.2020 16:30	08.14.2020 16:30	08.14.2020 16:30
	<i>Analyzed:</i>	08.15.2020 00:02	08.15.2020 00:23	08.15.2020 00:43	08.15.2020 01:04	08.15.2020 01:24	08.15.2020 02:47
	<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	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00400 0.00400	<0.00398 0.00398	<0.00399 0.00399	<0.00398 0.00398
o-Xylene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	08.14.2020 09:45	08.14.2020 09:45	08.14.2020 09:45	08.14.2020 09:45	08.14.2020 09:45	08.14.2020 09:45
	<i>Analyzed:</i>	08.14.2020 12:07	08.14.2020 12:12	08.14.2020 12:17	08.14.2020 12:22	08.14.2020 12:28	08.14.2020 12:33
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		10.3 4.98	18.5 5.03	31.1 4.99	68.2 4.96	185 5.04	55.4 4.98
TPH by SW8015 Mod	<i>Extracted:</i>	08.13.2020 17:00	08.13.2020 17:00	08.13.2020 17:00	08.13.2020 17:00	08.13.2020 17:00	08.13.2020 17:00
	<i>Analyzed:</i>	08.13.2020 22:07	08.13.2020 23:03	08.14.2020 02:12	08.14.2020 02:31	08.14.2020 02:49	08.14.2020 03:08
	<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	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0
Diesel Range Organics (DRO)		<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0
Total TPH		<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 670009



Tetra Tech- Midland, Midland, TX

Project Name: Concho Sea Biscuit Federal Com 002H (5.20.2020)

Project Id: 212C-MD-02226
Contact: Mike Carmona
Project Location: Lea County, New Mexico

Date Received in Lab: Thu 08.13.2020 15:21
Report Date: 08.17.2020 13:06
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	670009-007	670009-008	670009-009	670009-010	670009-011	
	<i>Field Id:</i>	Horizontal-7 (0-1')	Horizontal-8 (0-1')	Horizontal-9 (0-1')	Horizontal-10 (0-1')	Horizontal-11 (0-1')	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	08.12.2020 00:00	08.12.2020 00:00	08.12.2020 00:00	08.12.2020 00:00	08.12.2020 00:00	
BTEX by EPA 8021B	<i>Extracted:</i>	08.14.2020 16:30	08.14.2020 16:30	08.14.2020 16:30	08.14.2020 16:30	08.14.2020 16:30	
	<i>Analyzed:</i>	08.15.2020 03:07	08.15.2020 03:28	08.15.2020 03:48	08.15.2020 04:09	08.15.2020 04:29	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	
Toluene		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	
Ethylbenzene		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	
m,p-Xylenes		<0.00400 0.00400	<0.00397 0.00397	<0.00397 0.00397	<0.00400 0.00400	<0.00398 0.00398	
o-Xylene		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	
Total Xylenes		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	
Total BTEX		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	
Chloride by EPA 300	<i>Extracted:</i>	08.14.2020 09:45	08.14.2020 09:45	08.14.2020 09:45	08.14.2020 09:45	08.14.2020 09:45	
	<i>Analyzed:</i>	08.14.2020 12:49	08.14.2020 12:54	08.14.2020 13:44	08.14.2020 13:49	08.14.2020 13:55	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		16.6 5.03	10.5 4.96	13.3 4.95	20.2 4.95	33.6 4.95	
TPH by SW8015 Mod	<i>Extracted:</i>	08.13.2020 17:00	08.13.2020 17:00	08.13.2020 17:00	08.13.2020 17:00	08.13.2020 17:00	
	<i>Analyzed:</i>	08.13.2020 23:22	08.13.2020 22:45	08.14.2020 03:27	08.13.2020 23:41	08.14.2020 00:00	
	<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	<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9	
Diesel Range Organics (DRO)		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9	
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9	
Total TPH		<49.9 49.9	<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9	

BRL - Below Reporting Limit

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

Analytical Report 670009

for

Tetra Tech- Midland

Project Manager: Mike Carmona

Concho Sea Biscuit Federal Com 002H (5.20.2020)

212C-MD-02226

08.17.2020

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-37), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



08.17.2020

Project Manager: **Mike Carmona**

Tetra Tech- Midland

901 West Wall ST

Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **670009**

Concho Sea Biscuit Federal Com 002H (5.20.2020)

Project Address: Lea County, New Mexico

Mike Carmona:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 670009. 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 Eurofins Xenco, LLC. 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. 670009 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 Eurofins Xenco, LLC 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 670009****Tetra Tech- Midland, Midland, TX**

Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Horizontal-1 (0-1')	S	08.12.2020 00:00		670009-001
Horizontal-2 (0-1')	S	08.12.2020 00:00		670009-002
Horizontal-3 (0-1')	S	08.12.2020 00:00		670009-003
Horizontal-4 (0-1')	S	08.12.2020 00:00		670009-004
Horizontal-5 (0-1')	S	08.12.2020 00:00		670009-005
Horizontal-6 (0-1')	S	08.12.2020 00:00		670009-006
Horizontal-7 (0-1')	S	08.12.2020 00:00		670009-007
Horizontal-8 (0-1')	S	08.12.2020 00:00		670009-008
Horizontal-9 (0-1')	S	08.12.2020 00:00		670009-009
Horizontal-10 (0-1')	S	08.12.2020 00:00		670009-010
Horizontal-11 (0-1')	S	08.12.2020 00:00		670009-011



CASE NARRATIVE

Client Name: Tetra Tech- Midland

Project Name: Concho Sea Biscuit Federal Com 002H (5.20.2020)

Project ID: 212C-MD-02226
Work Order Number(s): 670009

Report Date: 08.17.2020
Date Received: 08.13.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3134546 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7709438-1-BLK, 670009-009.



Certificate of Analytical Results 670009

Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-1 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-001 Date Collected: 08.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 09:45 Basis: Wet Weight
 Seq Number: 3134684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.3	4.98	mg/kg	08.14.2020 12:07		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.13.2020 17:00 Basis: Wet Weight
 Seq Number: 3134546

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.13.2020 22:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.13.2020 22:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.13.2020 22:07	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.13.2020 22:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-130	08.13.2020 22:07	
o-Terphenyl	84-15-1	115	%	70-130	08.13.2020 22:07	



Certificate of Analytical Results 670009

Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-1 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-001 Date Collected: 08.12.2020 00:00
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.14.2020 16:30 Basis: Wet Weight
 Seq Number: 3134670

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.15.2020 00:02	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.15.2020 00:02	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.15.2020 00:02	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.15.2020 00:02	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.15.2020 00:02	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.15.2020 00:02	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.15.2020 00:02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	111	%	70-130	08.15.2020 00:02		
4-Bromofluorobenzene	460-00-4	113	%	70-130	08.15.2020 00:02		



Certificate of Analytical Results 670009

Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-2 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-002 Date Collected: 08.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 09:45 Basis: Wet Weight
 Seq Number: 3134684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18.5	5.03	mg/kg	08.14.2020 12:12		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.13.2020 17:00 Basis: Wet Weight
 Seq Number: 3134546

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.13.2020 23:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.13.2020 23:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.13.2020 23:03	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.13.2020 23:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	123	%	70-130	08.13.2020 23:03	
o-Terphenyl	84-15-1	126	%	70-130	08.13.2020 23:03	



Certificate of Analytical Results 670009

Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-2 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-002 Date Collected: 08.12.2020 00:00
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.14.2020 16:30 Basis: Wet Weight
 Seq Number: 3134670

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.15.2020 00:23	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.15.2020 00:23	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.15.2020 00:23	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.15.2020 00:23	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.15.2020 00:23	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.15.2020 00:23	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.15.2020 00:23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	115	%	70-130	08.15.2020 00:23		
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.15.2020 00:23		



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Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-3 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-003 Date Collected: 08.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 09:45 Basis: Wet Weight
 Seq Number: 3134684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.1	4.99	mg/kg	08.14.2020 12:17		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.13.2020 17:00 Basis: Wet Weight
 Seq Number: 3134546

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 02:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.14.2020 02:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.14.2020 02:12	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.14.2020 02:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-130	08.14.2020 02:12	
o-Terphenyl	84-15-1	118	%	70-130	08.14.2020 02:12	



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Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-3 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-003 Date Collected: 08.12.2020 00:00
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.14.2020 16:30 Basis: Wet Weight
 Seq Number: 3134670

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.2020 00:43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.15.2020 00:43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.15.2020 00:43	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.15.2020 00:43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.15.2020 00:43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.15.2020 00:43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.15.2020 00:43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.15.2020 00:43		
1,4-Difluorobenzene	540-36-3	117	%	70-130	08.15.2020 00:43		



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Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-4 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-004 Date Collected: 08.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 09:45 Basis: Wet Weight
 Seq Number: 3134684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	68.2	4.96	mg/kg	08.14.2020 12:22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.13.2020 17:00 Basis: Wet Weight
 Seq Number: 3134546

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.14.2020 02:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.14.2020 02:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.14.2020 02:31	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.14.2020 02:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-130	08.14.2020 02:31	
o-Terphenyl	84-15-1	122	%	70-130	08.14.2020 02:31	



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Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-4 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-004 Date Collected: 08.12.2020 00:00
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.14.2020 16:30 Basis: Wet Weight
 Seq Number: 3134670

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.15.2020 01:04	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.15.2020 01:04	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.15.2020 01:04	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.15.2020 01:04	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.15.2020 01:04	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.15.2020 01:04	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.15.2020 01:04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	08.15.2020 01:04		
1,4-Difluorobenzene	540-36-3	112	%	70-130	08.15.2020 01:04		



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Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-5 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-005 Date Collected: 08.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 09:45 Basis: Wet Weight
 Seq Number: 3134684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	185	5.04	mg/kg	08.14.2020 12:28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.13.2020 17:00 Basis: Wet Weight
 Seq Number: 3134546

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.14.2020 02:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.14.2020 02:49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.14.2020 02:49	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.14.2020 02:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	126	%	70-130	08.14.2020 02:49	
o-Terphenyl	84-15-1	124	%	70-130	08.14.2020 02:49	



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Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-5 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-005 Date Collected: 08.12.2020 00:00
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.14.2020 16:30 Basis: Wet Weight
 Seq Number: 3134670

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.2020 01:24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.15.2020 01:24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.15.2020 01:24	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.15.2020 01:24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.15.2020 01:24	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.15.2020 01:24	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.15.2020 01:24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	118	%	70-130	08.15.2020 01:24		
1,4-Difluorobenzene	540-36-3	114	%	70-130	08.15.2020 01:24		



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Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-6 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-006 Date Collected: 08.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 09:45 Basis: Wet Weight
 Seq Number: 3134684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	55.4	4.98	mg/kg	08.14.2020 12:33		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.13.2020 17:00 Basis: Wet Weight
 Seq Number: 3134546

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 03:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.14.2020 03:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.14.2020 03:08	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.14.2020 03:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-130	08.14.2020 03:08	
o-Terphenyl	84-15-1	121	%	70-130	08.14.2020 03:08	



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Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-6 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-006 Date Collected: 08.12.2020 00:00
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.14.2020 16:30 Basis: Wet Weight
 Seq Number: 3134670

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.15.2020 02:47	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.15.2020 02:47	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.15.2020 02:47	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.15.2020 02:47	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.15.2020 02:47	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.15.2020 02:47	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.15.2020 02:47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	89	%	70-130	08.15.2020 02:47		
1,4-Difluorobenzene	540-36-3	114	%	70-130	08.15.2020 02:47		



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Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-7 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-007 Date Collected: 08.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 09:45 Basis: Wet Weight
 Seq Number: 3134684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.6	5.03	mg/kg	08.14.2020 12:49		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.13.2020 17:00 Basis: Wet Weight
 Seq Number: 3134546

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.13.2020 23:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.13.2020 23:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.13.2020 23:22	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.13.2020 23:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-130	08.13.2020 23:22	
o-Terphenyl	84-15-1	123	%	70-130	08.13.2020 23:22	



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Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-7 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-007 Date Collected: 08.12.2020 00:00
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.14.2020 16:30 Basis: Wet Weight
 Seq Number: 3134670

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.2020 03:07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.15.2020 03:07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.15.2020 03:07	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.15.2020 03:07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.15.2020 03:07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.15.2020 03:07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.15.2020 03:07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	08.15.2020 03:07		
1,4-Difluorobenzene	540-36-3	118	%	70-130	08.15.2020 03:07		



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Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-8 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-008 Date Collected: 08.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 09:45 Basis: Wet Weight
 Seq Number: 3134684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.5	4.96	mg/kg	08.14.2020 12:54		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.13.2020 17:00 Basis: Wet Weight
 Seq Number: 3134546

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.13.2020 22:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.13.2020 22:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.13.2020 22:45	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.13.2020 22:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-130	08.13.2020 22:45	
o-Terphenyl	84-15-1	126	%	70-130	08.13.2020 22:45	



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Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-8 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-008 Date Collected: 08.12.2020 00:00
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.14.2020 16:30 Basis: Wet Weight
 Seq Number: 3134670

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.15.2020 03:28	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.15.2020 03:28	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.15.2020 03:28	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.15.2020 03:28	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.15.2020 03:28	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.15.2020 03:28	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.15.2020 03:28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	08.15.2020 03:28		
1,4-Difluorobenzene	540-36-3	118	%	70-130	08.15.2020 03:28		



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Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-9 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-009 Date Collected: 08.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 09:45 Basis: Wet Weight
 Seq Number: 3134684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.3	4.95	mg/kg	08.14.2020 13:44		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.13.2020 17:00 Basis: Wet Weight
 Seq Number: 3134546

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.14.2020 03:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.14.2020 03:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.14.2020 03:27	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.14.2020 03:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-130	08.14.2020 03:27	
o-Terphenyl	84-15-1	131	%	70-130	08.14.2020 03:27	**



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Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-9 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-009 Date Collected: 08.12.2020 00:00
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.14.2020 16:30 Basis: Wet Weight
 Seq Number: 3134670

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.15.2020 03:48	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.15.2020 03:48	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.15.2020 03:48	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.15.2020 03:48	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.15.2020 03:48	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.15.2020 03:48	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.15.2020 03:48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	119	%	70-130	08.15.2020 03:48		
4-Bromofluorobenzene	460-00-4	102	%	70-130	08.15.2020 03:48		



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Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-10 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-010 Date Collected: 08.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 09:45 Basis: Wet Weight
 Seq Number: 3134684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.2	4.95	mg/kg	08.14.2020 13:49		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.13.2020 17:00 Basis: Wet Weight
 Seq Number: 3134546

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.13.2020 23:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.13.2020 23:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.13.2020 23:41	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.13.2020 23:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-130	08.13.2020 23:41	
o-Terphenyl	84-15-1	120	%	70-130	08.13.2020 23:41	



Certificate of Analytical Results 670009

Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-10 (0-1')**

Matrix: Soil

Date Received: 08.13.2020 15:21

Lab Sample Id: 670009-010

Date Collected: 08.12.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.14.2020 16:30

Basis: Wet Weight

Seq Number: 3134670

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.2020 04:09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.15.2020 04:09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.15.2020 04:09	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.15.2020 04:09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.15.2020 04:09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.15.2020 04:09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.15.2020 04:09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	08.15.2020 04:09		
1,4-Difluorobenzene	540-36-3	114	%	70-130	08.15.2020 04:09		



Certificate of Analytical Results 670009

Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-11 (0-1')** Matrix: Soil Date Received: 08.13.2020 15:21
 Lab Sample Id: 670009-011 Date Collected: 08.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 09:45 Basis: Wet Weight
 Seq Number: 3134684

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	33.6	4.95	mg/kg	08.14.2020 13:55		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.13.2020 17:00 Basis: Wet Weight
 Seq Number: 3134546

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.14.2020 00:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.14.2020 00:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.14.2020 00:00	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.14.2020 00:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-130	08.14.2020 00:00	
o-Terphenyl	84-15-1	121	%	70-130	08.14.2020 00:00	



Certificate of Analytical Results 670009

Tetra Tech- Midland, Midland, TX Concho Sea Biscuit Federal Com 002H (5.20.2020)

Sample Id: **Horizontal-11 (0-1')**

Matrix: Soil

Date Received: 08.13.2020 15:21

Lab Sample Id: 670009-011

Date Collected: 08.12.2020 00:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.14.2020 16:30

Basis: Wet Weight

Seq Number: 3134670

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.15.2020 04:29	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.15.2020 04:29	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.15.2020 04:29	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.15.2020 04:29	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.15.2020 04:29	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.15.2020 04:29	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.15.2020 04:29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	08.15.2020 04:29		
1,4-Difluorobenzene	540-36-3	117	%	70-130	08.15.2020 04:29		

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
Concho Sea Biscuit Federal Com 002H (5.20.2020)

Analytical Method: Chloride by EPA 300

Seq Number: 3134684

Matrix: Solid

Prep Method: E300P

Date Prep: 08.14.2020

MB Sample Id: 7709448-1-BLK

LCS Sample Id: 7709448-1-BKS

LCSD Sample Id: 7709448-1-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	241	96	241	96	90-110	0	20	mg/kg	08.14.2020 10:34	

Analytical Method: Chloride by EPA 300

Seq Number: 3134684

Matrix: Soil

Prep Method: E300P

Date Prep: 08.14.2020

Parent Sample Id: 670008-021

MS Sample Id: 670008-021 S

MSD Sample Id: 670008-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5890	2520	8660	110	8690	111	90-110	0	20	mg/kg	08.14.2020 10:50	X

Analytical Method: Chloride by EPA 300

Seq Number: 3134684

Matrix: Soil

Prep Method: E300P

Date Prep: 08.14.2020

Parent Sample Id: 670009-006

MS Sample Id: 670009-006 S

MSD Sample Id: 670009-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	55.4	249	323	107	324	108	90-110	0	20	mg/kg	08.14.2020 12:38	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134546

Matrix: Solid

Prep Method: SW8015P

Date Prep: 08.13.2020

MB Sample Id: 7709438-1-BLK

LCS Sample Id: 7709438-1-BKS

LCSD Sample Id: 7709438-1-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	984	98	985	99	70-130	0	20	mg/kg	08.13.2020 17:58	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	1040	104	70-130	1	20	mg/kg	08.13.2020 17:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	127		130		130		70-130	%	08.13.2020 17:58
o-Terphenyl	135	**	129		127		70-130	%	08.13.2020 17:58

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134546

Matrix: Solid

Prep Method: SW8015P

Date Prep: 08.13.2020

MB Sample Id: 7709438-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.13.2020 17:39	

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
Concho Sea Biscuit Federal Com 002H (5.20.2020)

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134546

Parent Sample Id: 670008-001

Matrix: Soil

MS Sample Id: 670008-001 S

Prep Method: SW8015P

Date Prep: 08.13.2020

MSD Sample Id: 670008-001 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)	<49.9	998	941	94	953	96	70-130	1	20	mg/kg	08.13.2020 18:56	
Diesel Range Organics (DRO)	<49.9	998	995	100	1030	103	70-130	3	20	mg/kg	08.13.2020 18:56	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		89		70-130	%	08.13.2020 18:56
o-Terphenyl	115		113		70-130	%	08.13.2020 18:56

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134670

MB Sample Id: 7709516-1-BLK

Matrix: Solid

LCS Sample Id: 7709516-1-BKS

Prep Method: SW5035A

Date Prep: 08.14.2020

LCSD Sample Id: 7709516-1-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	0.104	104	0.100	100	70-130	4	35	mg/kg	08.14.2020 19:56	
Toluene	<0.00200	0.100	0.0921	92	0.0869	87	70-130	6	35	mg/kg	08.14.2020 19:56	
Ethylbenzene	<0.00200	0.100	0.0886	89	0.0811	81	70-130	9	35	mg/kg	08.14.2020 19:56	
m,p-Xylenes	<0.00400	0.200	0.169	85	0.156	78	70-130	8	35	mg/kg	08.14.2020 19:56	
o-Xylene	<0.00200	0.100	0.0857	86	0.0778	78	70-130	10	35	mg/kg	08.14.2020 19:56	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		105		105		70-130	%	08.14.2020 19:56
4-Bromofluorobenzene	105		90		89		70-130	%	08.14.2020 19:56

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134670

Parent Sample Id: 670008-001

Matrix: Soil

MS Sample Id: 670008-001 S

Prep Method: SW5035A

Date Prep: 08.14.2020

MSD Sample Id: 670008-001 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	0.100	0.0920	92	0.0923	92	70-130	0	35	mg/kg	08.14.2020 20:37	
Toluene	<0.00201	0.100	0.0770	77	0.0783	78	70-130	2	35	mg/kg	08.14.2020 20:37	
Ethylbenzene	<0.00201	0.100	0.0686	69	0.0705	71	70-130	3	35	mg/kg	08.14.2020 20:37	X
m,p-Xylenes	<0.00402	0.201	0.132	66	0.136	68	70-130	3	35	mg/kg	08.14.2020 20:37	X
o-Xylene	<0.00201	0.100	0.0654	65	0.0667	67	70-130	2	35	mg/kg	08.14.2020 20:37	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		107		70-130	%	08.14.2020 20:37
4-Bromofluorobenzene	93		96		70-130	%	08.14.2020 20:37

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.

 900 West Wall Street, Ste 100
 Midland, Texas 79701
 Tel (432) 682-4559
 Fax (432) 682-3846

Page 1 of 2

Client Name: Concho		Site Manager: Mike Carmona	
Project Name: Sea Biscuit Federal Com 002H (5.20.2020)			
Project Location: Eddy County, New Mexico		Project #: 217C-WD-02226	
Invoice to: Ike Tavares		Sampler Signature: Devin Dominguez	
Receiving Laboratory: Xenco		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					
	Horizontal-1(0-1')	8/12/2020		X				X				1	N	X	
	Horizontal-2(0-1')	8/12/2020		X				X				1	N	X	
	Horizontal-3(0-1')	8/12/2020		X				X				1	N	X	
	Horizontal-4(0-1')	8/12/2020		X				X				1	N	X	
	Horizontal-5(0-1')	8/12/2020		X				X				1	N	X	
	Horizontal-6(0-1')	8/12/2020		X				X				1	N	X	
	Horizontal-7(0-1')	8/12/2020		X				X				1	N	X	
	Horizontal-8(0-1')	8/12/2020		X				X				1	N	X	
	Horizontal-9(0-1')	8/12/2020		X				X				1	N	X	
	Horizontal-10(0-1')	8/12/2020		X				X				1	N	X	

Relinquished by: Corny [Signature]	Date: 8/13/20	Time: 1521	Received by: [Signature]	Date: 8/13	Time: 1521
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 or Specify Method No.) BTEX 8021B BTEX 8260B TPH TX1005 (Ext to C35) TPH 8015M (GRO - DRO - ORO - MRO) PAH 8270C Total Metals Ag As Ba Cd Cr Pb Se Hg TCLP Metals Ag As Ba Cd Cr Pb Se Hg TCLP Volatiles TCLP Semi Volatiles RCI GC/MS Vol. 8260B / 624 GC/MS Semi. Vol. 8270C/625 PCB's 8082 / 608 NORM PLM (Asbestos) Chloride Chloride Sulfate TDS General Water Chemistry (see attached list) Anion/Cation Balance TPH 8015R Hold

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

CSC/0.4

Sample Temperature

Analysis Request of Chain of Custody Record



Tetra Tech, Inc.

900 West Wall Street, Ste 1000
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Page 2 of 2

Client Name: Concho		Site Manager: Mike Carmona	
Project Name: Sea Biscuit Federal Com 002H (5.20.2020)			
Project Location: Eddy County, New Mexico		Project #: 2126-WD-02226	
Invoice to: Eddy County, New Mexico		Receiving Laboratory: Xenco	
Receiving Laboratory: Xenco		Sampler Signature: Devin Dominguez	
Comments:			
LAB # (LAB USE ONLY)			
SAMPLE IDENTIFICATION			
Horizontal-11 (0-1')			
DATE: 8/12/2020			
TIME:			
WATER			
SOIL			
HCL			
HNO3			
ICE			
None			
# CONTAINERS			
1			
N			
FILTERED (Y/N)			
X			
BTEX 8021B BTEX 8260B			
TPH TX1005 (Ext to C35)			
X			
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)			
X			
Chloride			
Chloride Sulfate TDS			
General Water Chemistry (see attached list)			
Anion/Cation Balance			
TPH 8015R			
Hold			
LAB USE ONLY			
REMARKS:			
STANDARD			
RUSH: Same Day 24 hr 48 hr 72 hr			
Special Report Limits or TRRP Report			
Sample Temperature			
0.8/6.4			

ORIGINAL COPY

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Tetra Tech- Midland

Date/ Time Received: 08.13.2020 03.21.00 PM

Work Order #: 670009

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.4
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	Yes
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes 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: 08.13.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.14.2020

Incident ID	NRM2013962666
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: Each of the following items must be included in the plan.

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation.

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: Ake Tavaraz Date: _____

email: _____ Telephone: _____

OCD OnlyReceived by: Robert Hamlet Date: 3/30/2021☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral ApprovedSignature: Robert Hamlet Date: 3/30/2021

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 11012

CONDITIONS OF APPROVAL

Operator:	COG OPERATING LLC	600 W Illinois Ave	Midland, TX79701	OGRID:	229137	Action Number:	11012	Action Type:	C-141
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OCD Reviewer	Condition
rhamlet	The Remediation Plan is approved with the following conditions: All floor samples 0-4' need to be below closure criteria standards of <50' depth to groundwater from Table 1 of the spill rule. All floor samples >4' need to be below closure criteria standards of 51-100' depth to groundwater from Table 1 of the spill rule. Please make sure the edges/sidewalls are delineated to 600 mg/kg for chlorides and 100 mg/kg for TPH.