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	NRM2030426190
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Endeavor Energy Resources, LP	OGRID 190595
Contact Name Teffanie Fawks	Contact Telephone 432-262-4203
Contact email teffanies@eeronline.com	Incident # *(assigned by OCD)*
Contact mailing address 110 N. Marienfeld, Suite 200, Midland, TX 79706	

Location of Release Source

Latitude 33.622009 Longitude -103.569111
(NAD 83 in decimal degrees to 5 decimal places)

Site Name State 22 Water Transfer Line	Site Type Battery
Date Release Discovered 6/7/2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
G	16	8S	33E	Chaves

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) 0.2	Volume Recovered (bbls) 0.1
☒ Produced Water	Volume Released (bbls) 18.1	Volume Recovered (bbls) 7.9
	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
Busted line underground coming from a nearby water tank was transferring water to swd.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM2030426190
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 not been undertaken, explain why:

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

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

Printed Name: Teffanie Fawks Title: HSE Environmental Field Tech

Signature: Fawks Date: 10/20/20

email: teffanies@eeronline.com Telephone: 432-262-4203

OCD Only

Received by: Cristina Eads Date: 10/22/2020

State 22 Water Trans. Line

Volume Calcuation

ID	Area (Ft^2)	Depth (Ft)	%Porosity/ Saturation	Volume (Ft^3)	Volume (bbls)
Area 1	465	0.50	0.15	34.88	6.2
Area 2	1,042	0.08	0.15	13.03	2.3
Area 3	3,069	0.02	0.15	9.59	1.7

Volume of Liquid Remaining in Soil:	10	bbls
Volume Recovered:	8	bbls
Total Volume:	18	bbls
Oil (Approximate)	1.0	%

Volume of Oil Released:	0.2	bbls
Volume of Water Released:	18.1	bbls
Volume of Oil Recovered:	0.08	
Volume of Water Recovered:	7.9	

State of New Mexico
Oil Conservation Division

Incident ID	NRM2030426190
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?	~132 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NRM2030426190
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: Teffanie Fawks Title: Environmental Technician

Signature: TFawks Date: 10/20/20

email: teffanies@eeronline.com Telephone: 432-262-4203

OCD Only

Received by: Cristina Eads Date: 10/22/2020

State 22 Water Trans.

State of New Mexico
Oil Conservation Division

Incident ID	NRM2030426190
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: Teffanie Fawks Title: Environmental Technician

Signature: Fawks Date: 10/20/20

email: teffanies@eeronline.com Telephone: 432-262-4203

OCD Only

Received by: Cristina Eads Date: 10/22/2020

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

Signature: Cristina Eads Date: 01/08/2021

State 22 Water Transfer

Site Assessment Report and Proposed Remediation Workplan

Endeavor Energy Resources, LP
State 22 Water Transfer
Chaves County, New Mexico
Unit Letter G, Section 16, Township 8 South, Range 33 East
Latitude 33.622009 North, Longitude 103.569111 West
NMOCD Reference No. pending

Prepared By:

Etech Environmental & Safety Solutions, Inc.
3100 Plains Highway
Lovington, New Mexico 88260

Matthew Grieco

Joel W. Lowry

Midland • San Antonio • Lubbock • Lovington • Lafayette

TABLE OF CONTENTS

Section

PROJECT INFORMATION…. **1.0**
SITE CHARACTERIZATION…. **2.0**
CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE…. **3.0**
INITIAL SITE ASSESSMENT…. **4.0**
PROPOSED REMEDIATION PLAN…. **5.0**
SAMPLING PLAN…. **6.0**
TIMELINE AND ESTIMATED VOLUME OF SOIL TO BE REMEDIATED…. **7.0**
RESTORATION, RECLAMATION AND RE-VEGETATION PLAN…. **8.0**
LIMITATIONS…. **9.0**
DISTRIBUTION…. **10.0**

FIGURES

Figure 1 - Topographic Map
Figure 2 - Aerial Proximity Map
Figure 3 - Site & Sample Location Map

TABLES

Table 1 - Concentrations of BTEX, TPH and/or Chloride in Soil

APPENDICES

Appendix A - Depth to Groundwater Information
Appendix B - Field Data and Soil Profile Logs
Appendix C - Laboratory Analytical Reports
Appendix D - Photographic Log

1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Endeavor Energy Resources, LP, has prepared this Report for the Release Site known as the State 22 Water Transfer. Details of the release are summarized below:

Location of Release Source

Latitude: 33.622009 Longitude: -103.569111

Provided GPS are in WGS84 format.

Site Name:	State 22 Water Transfer	Site Type:	Tank Battery
Date Release Discovered:	6/7/2020	API # (if applicable):	N/A

Unit Letter	Section	Township	Range	County
G	16	8S	33E	Chaves

Surface Owner: [X] State [ ] Federal [ ] Tribal [ ] Private (Name _____)

Nature and Volume of Release

[X] Crude Oil	Volume Released (bbls) 0.2	Volume Recovered (bbls) 0.1
[X] Produced Water	Volume Released (bbls) 18.1	Volume Recovered (bbls) 7.9
	Is the concentration of dissolved chloride in the produced water > 10,000 mg/L?	[X] Yes [ ] No [ ] N/A
[ ] Condensate	Volume Released (bbls)	Volume Recovered (bbls)
[ ] Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
[ ] Other (describe)	Volume/Weight Released	Volume/Weight Recovered

Cause of Release:
Busted line underground coming from a nearby water tank was transferring water to swd.

Initial Response

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

Previously submitted portions of the NMOCD Form C-141 are available on the NMOCD Imaging System.

2.0 SITE CHARACTERIZATION

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) was conducted in an effort to determine the horizontal distance to known water sources within a half mile radius of the Release Site. Probable groundwater depth was determined using data generated by numeric models based on available water well data, published information, and/or well gauging data. Depth to groundwater information is provided as Appendix A.

What is the shallowest depth to groundwater beneath the area affected by the release?	~132 Ft
Did the 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 any 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 the 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

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted on Figures 1 & 2.

3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

Based on the volume and nature of the release, inferred depth to groundwater and NMOCD Siting Criteria, the NMOCD Closure Criteria for the Site is as follows:

Closure Criteria for Soil Impacted by a Release			
Probable Depth to Groundwater	**Constituent**	**Method**	**Limit**
~132 Ft	Chloride	EPA 300.0 or SM4500 Cl B	20000 mg/kg
	TPH (GRO + DRO + MRO)	EPA SW-846 Method 8015M Ext	2500 mg/kg
	DRO + GRO	EPA SW-846 Method 8015M	1000 mg/kg
	BTEX	EPA SW-846 Methods 8021b or 8260b	50 mg/kg
	Benzene	EPA SW-846 Methods 8021b or 8260b	10 mg/kg

4.0 INITIAL SITE ASSESSMENT

On June 11, 2020, Etech conducted an initial site assessment. During the initial site assessment, a series of hand-augered soil bores were advanced within the release margins in an effort to determine the vertical extent of soil impacts. In addition, hand-augered soil bores were advanced at the inferred edges of the affected area in an effort to determine the horizontal extent of soil impacts. During the advancement of the hand-augered soil bores, field soil samples were collected and field-screened for the presence of Volatile Organic Compounds utilizing a Photoionization Detector (PID) and/or concentrations of chloride utilizing a Hach Quantab ® chloride test kit.

Based on field observations and field test data, eleven (11) delineation soil samples (SH @ Surf., SH @ 1', NH @ Surf., NH @ 1', WHA @ Surf., WHA @ 1', V2 @ 1' R, V1 @ 2.5' R, V3 @ 2' R, EHB @ Surf., and EHB @ 1') were submitted to the laboratory for analysis of BTEX, TPH and/or Chloride. Based on laboratory analytical results, the horizontal extent of affected soil impacted above the NMOCD Closure Criteria was adequately defined. Due to hand auger refusal, the vertical extent of affected soil was not adequately defined.

On June 24, 2020, Etech returned to the site to complete the initial site assessment. A series of test trenches were advanced within the release margins in an effort to determine the vertical extent of soil impacts. Field soil samples were collected from the test trenches and field-screened for the presence of Volatile Organic Compounds utilizing a Photoionization Detector (PID) and/or concentrations of chloride utilizing a Hach Quantab ® chloride test kit.

Based on field observations and field test data, five (5) delineation soil samples (V1 @ 3', V1 @ 4', V2 @ 2', V3 @ 3', V3 @ 4') were submitted to the laboratory for analysis of BTEX, TPH and/or Chloride. Based on laboratory analytical results, soil was not affected above the NMOCD Closure Criteria and/or the NMOCD Reclamation Standard beyond 4 Ft. bgs in the areas characterized by sample points V1 and V3, and beyond 2 Ft bgs in the area characterized by sample point V2. The vertical extent of affected soil was adequately defined.

A "Site & Sample Location Map" is provided as Figure 3. Field data and soil profile logs, if applicable, are provided as Appendix B. A "Soil Chemistry Table" is provided as Table 1. Laboratory Analytical Reports are provided in Appendix C.

5.0 PROPOSED REMEDIATION PLAN

Based on laboratory analytical results, site characteristics and field observations made during the initial site assessment, Endeavor Energy Resources, LP proposes the following remediation activities designed to advance the Site toward an approved closure:

- Utilizing mechanical equipment, excavate impacted soil affected above the NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in the areas characterized by sample points V1 and V3 to a depth of approximately 4 Ft. bgs, and V2 to a depth of approximately 2 Ft. bgs.
- The floor and sidewalls of the excavated area will be advanced until laboratory analytical results indicate impacted soil affected above the NMOCD Closure Criteria and/or the NMOCD Reclamation Standard has been removed.
- Excavated material will be temporarily stockpiled on-site, then transported to an NMOCD-approved disposal facility.
- Upon excavating impacted soil affected above the NMOCD Closure Criteria and/or the NMOCD Reclamation Standard, collect the requisite excavation confirmation soil samples.
- Upon receiving laboratory analytical results from excavation confirmation soil samples, backfill the excavated area with locally sourced, non-impacted "like" material.
- Excavation backfill will be contoured to match the surrounding topography.
- Upon completion of remediation activities, prepare a Remediation Summary and Site Closure Request detailing remediation activities and the results of confirmation soil samples.

6.0 SAMPLING PLAN

Upon completion of excavation activities, representative five-point composite excavation confirmation soil samples will be collected from the excavation sidewalls in each cardinal direction, representing no more than 50 linear ft. A minimum of one (1) representative five-point composite excavation confirmation soil sample will be collected from the base of the excavated area representing every 400 square feet. Additional, discrete grab samples will be collected from wet or visibly stained areas inferred to have been affected by the release, as necessary.

7.0 TIMELINE AND ESTIMATED VOLUME OF SOIL TO BE REMEDIATED

Remediation activities are expected to be completed within 90 days of receiving necessary approval(s) of the Site Assessment Summary and Proposed Remediation Plan. Based on laboratory analytical results, site characteristics and field observations made during the initial site assessment it is estimated that approximately 600 cubic yards is in need of removal.

8.0 RESTORATION, RECLAMATION AND RE-VEGETATION PLAN

Areas affected by remediation and closure activities will be substantially restored to the condition that existed prior to the release, to the extent practicable. Excavated areas will be backfilled with locally sourced, non-impacted "like" material placed at or near original relative positions. The affected area will be contoured and/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable. Affected areas not on production pads and/or lease roads will be reseeded with an agency and/or landowner-approved seed mixture during the first favorable growing season following closure of the site.

9.0 LIMITATIONS

Etech Environmental & Safety Solutions, Inc., has prepared this Site Assessment Report and Proposed Remediation Plan to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents reference in the report and on oral statements made by certain individuals. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. Etech has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Etech has prepared the report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Endeavor Energy Resources, LP. Use of the information contained in this report is prohibited without the consent of Etech and/or Endeavor Energy Resources, LP.

10.0 DISTRIBUTION

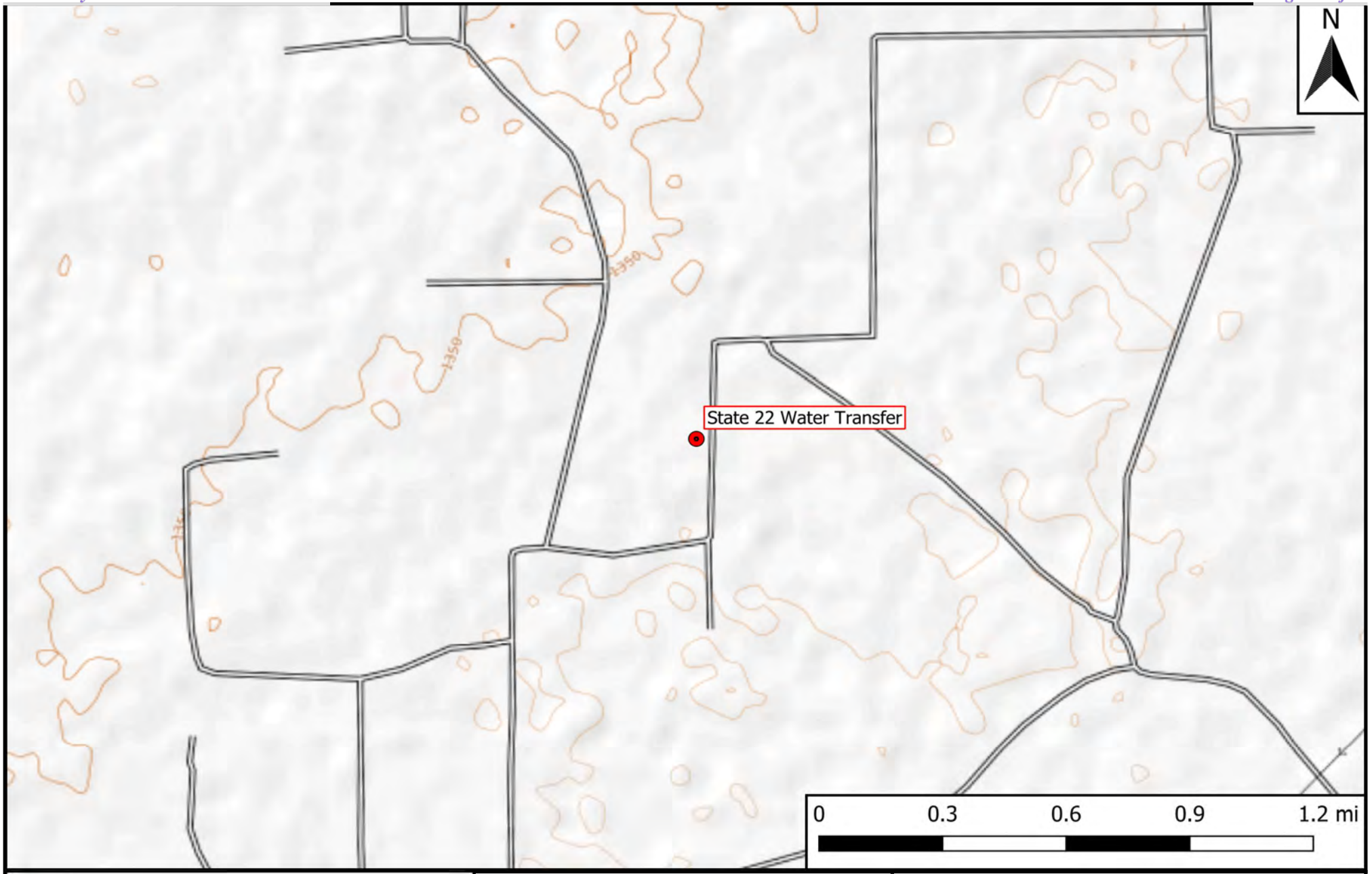
Endeavor Energy Resources, LP
110 N. Marienfeld St
Suite 200
Midland, TX 79701

New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 1
1220 South St. Francis Drive
Santa Fe, NM 87505

Hobbs Field Office
New Mexico State Land Office
2827 North Dal Paso Street
Suite 117
Hobbs, NM 88240

(Electronic Submission)

Figure 1
Topographic Map



Legend

Site Location

Figure 1

Topographic Map

Endeavor Energy Resources, LP

State 22 Water Transfer

GPS: 33.622009, -103.569111

Chaves County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 6/10/20

Figure 2
Aerial Proximity Map

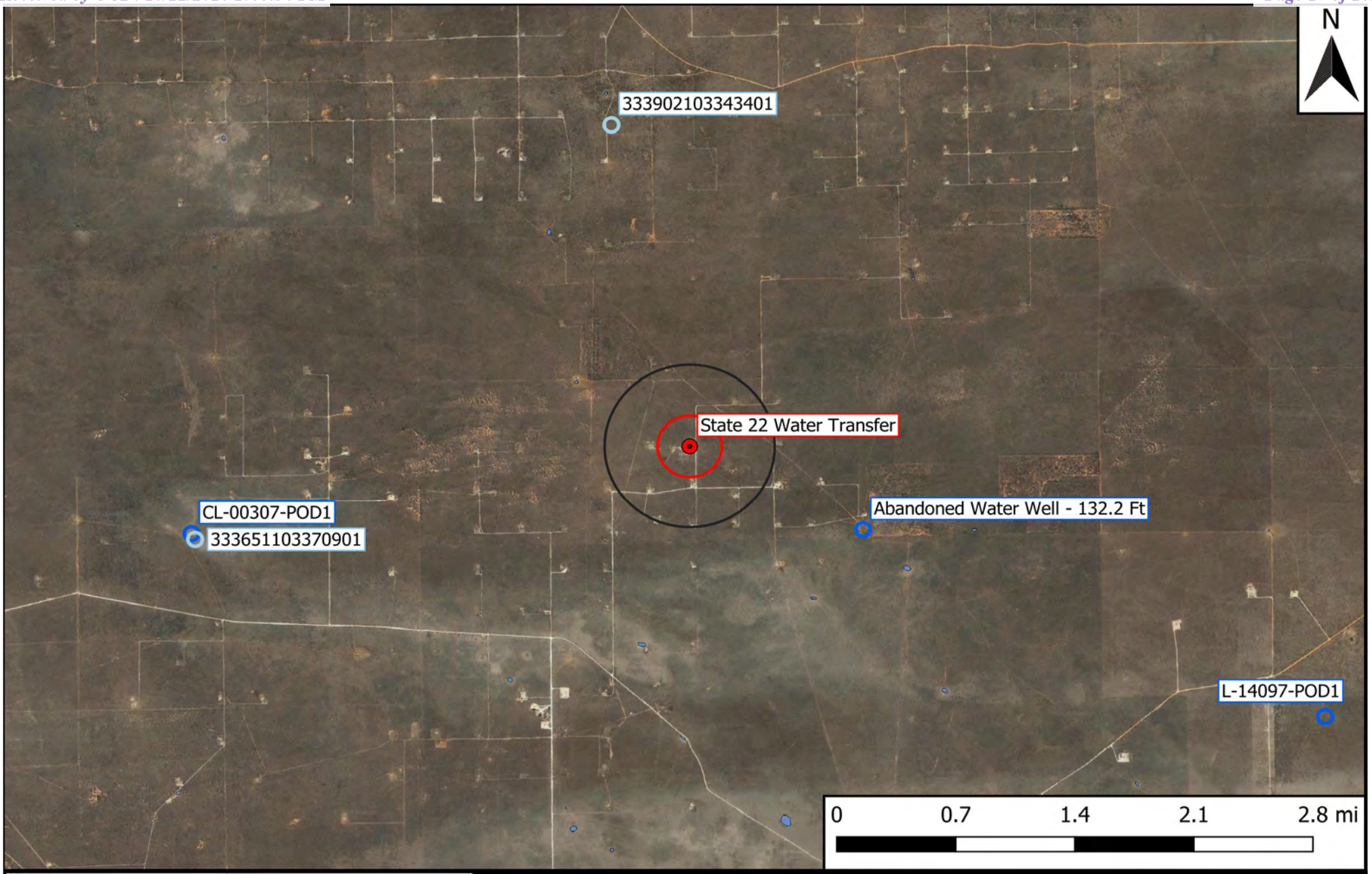
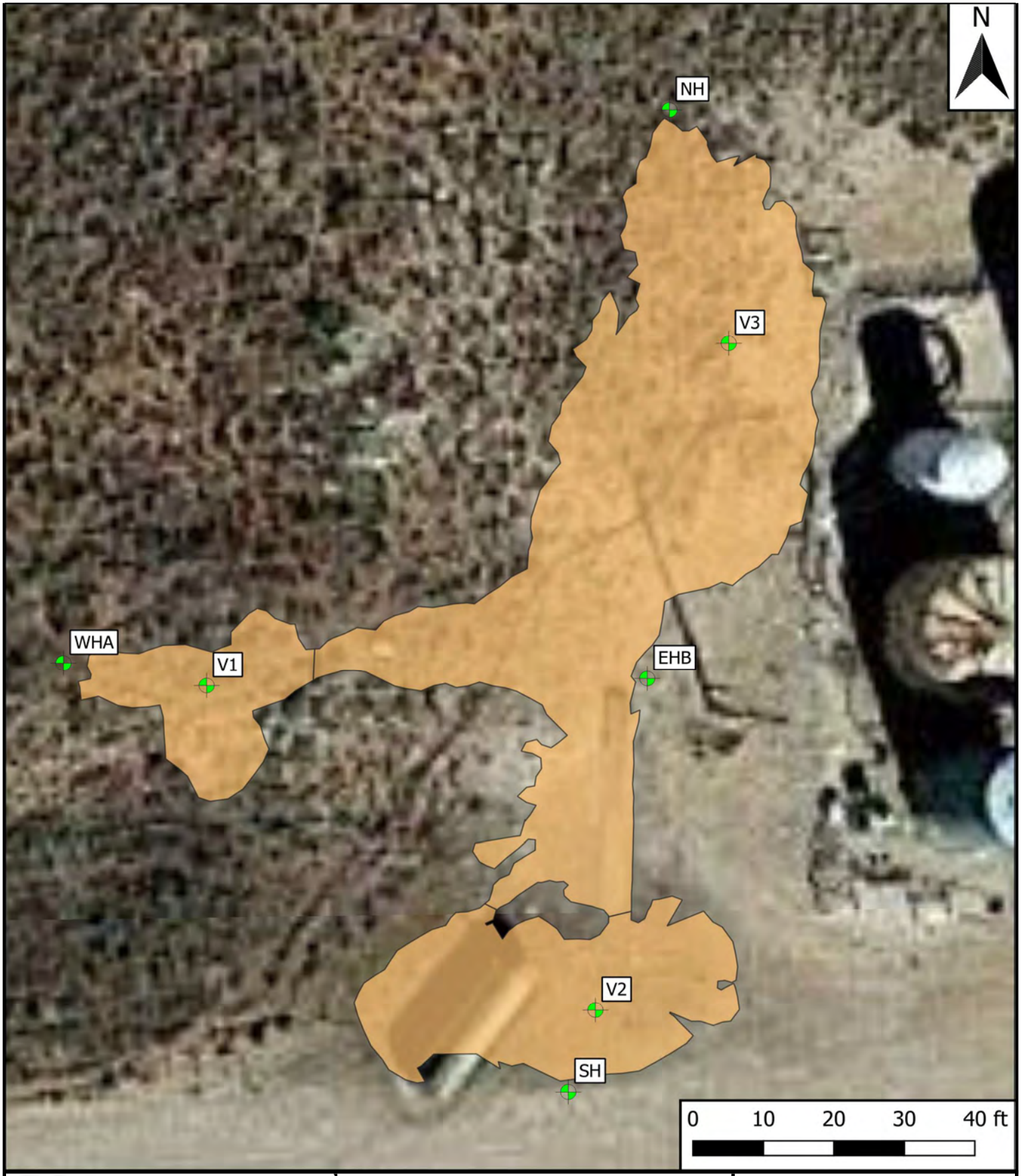


Figure 2
Aerial Map
Endeavor Energy Resources, LP
State 22 Water Transfer
GPS: 33.622009, -103.569111
Chaves County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 7/7/20

Figure 3
Site and Sample Location Map



Legend

Sample Point

Release Area

Figure 3

Site and Sample Location Map

Endeavor Energy Resources, LP

State 22 Water Transfer

GPS: 33.622009, -103.569111

Chaves County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag

Checked: jwl Date: 7/7/20

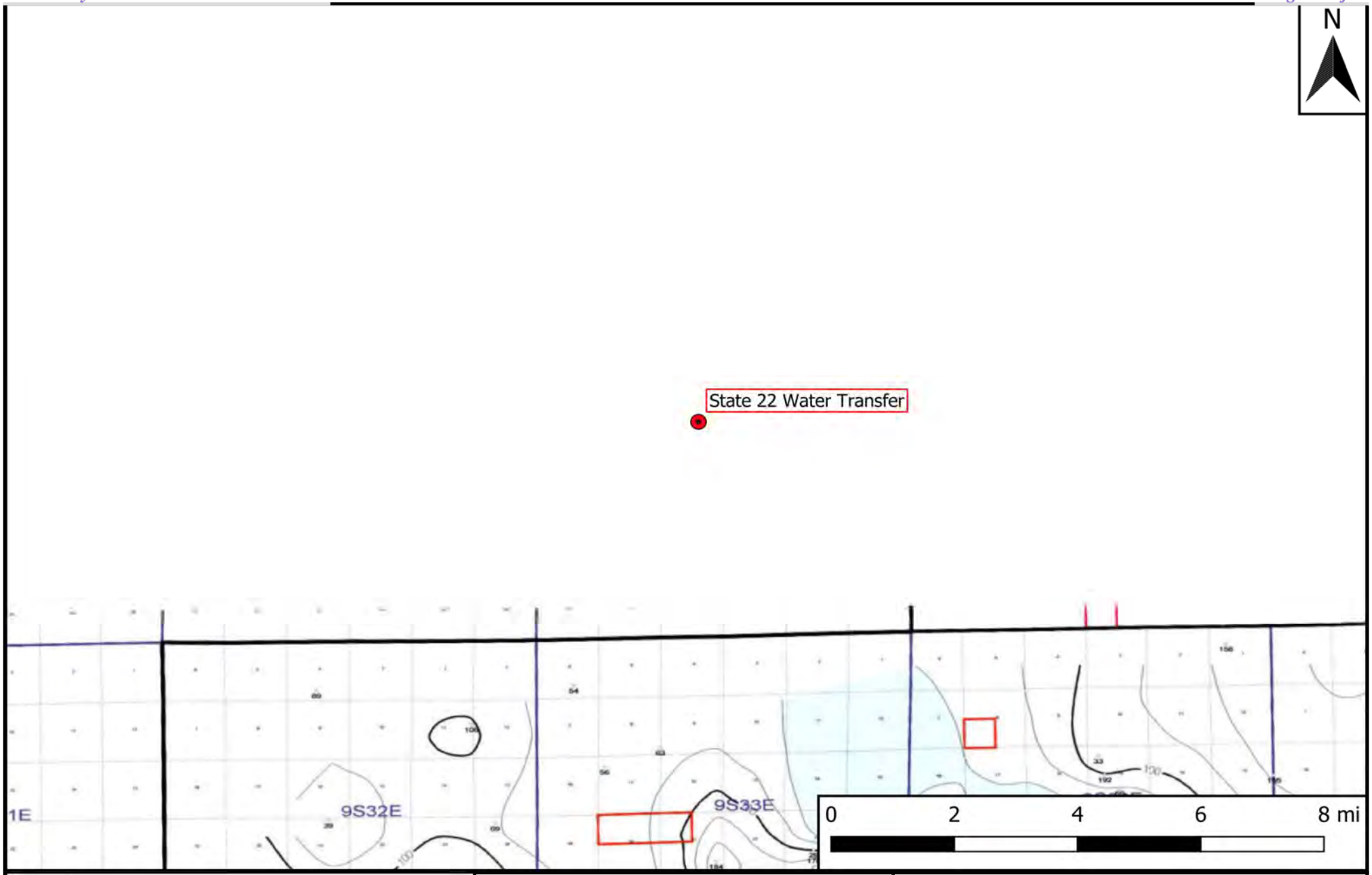
Table 1
Concentrations of BTEX, TPH, and/or Chloride in Soil

TABLE 1
CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL
Endeavor Energy Resources, LP
State 22 Water Transfer
NMOCD Ref. #: pending

NMOCD Closure Criteria				**10**	**50**	**-**	**-**	**1000**	**-**	**2500**	**20000**
NMOCD Reclamation Standard				**10**	**50**	**-**	**-**	**-**	**-**	**100**	**600**
Sample ID	**Date**	**Depth**	**Soil Status**	**SW 846 8021B**		**SW 846 8015M Ext.**					**4500 Cl**
				Benzene (mg/kg)	**BTEX (mg/kg)**	**GRO C_6-C_{10} (mg/kg)**	**DRO C_{10}-C_{28} (mg/kg)**	**GRO + DRO C_6-C_{28} (mg/kg)**	**ORO C_{28}-C_{36} (mg/kg)**	**TPH C_6-C_{36} (mg/kg)**	**Chloride (mg/kg)**
SH @ Surface	6/11/2020	0'	In-Situ	<0.00200	0.00203	<49.9	117	117	59.5	177	636
SH @ 1'	6/11/2020	1'	In-Situ	<0.00199	<0.00199	<50.0	115	115	52.6	168	65.1
NH @ Surface	6/11/2020	0'	In-Situ	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	7.21
NH @ 1'	6/11/2020	1'	In-Situ	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	<5.01
WHA @ Surface	6/11/2020	0'	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<4.97
WHA @ 1'	6/11/2020	1'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	<4.99
V2 @ 1' R	6/11/2020	1'	In-Situ	<0.00201	0.00277	<49.8	<49.8	<49.8	<49.8	<49.8	14,700
V1 @ 2.5' R	6/11/2020	2.5'	In-Situ	0.00909	0.434	<50.0	274	274	<50.0	274	1,060
V3 @ 2' R	6/11/2020	2'	In-Situ	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	13,300
EHB @ Surface	6/11/2020	0'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	47.9
EHB @ 1'	6/11/2020	1'	In-Situ	<0.00200	<0.00200	<49.8	57.9	57.9	<49.8	57.9	35.6
V1 @ 3'	6/24/2020	3'	In-Situ	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	4,970
V1 @ 4'	6/24/2020	4'	In-Situ	<0.00200	<0.00200	<50.0	449	449	50.7	500	1,600
V2 @ 2'	6/24/2020	2'	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	461
V3 @ 3'	6/24/2020	3'	In-Situ	<0.00201	<0.00201	<49.9	151	151	<49.9	151	1,280
V3 @ 4'	6/24/2020	4'	In-Situ	<0.00201	<0.00201	<50.0	92.5	92.5	<50.0	92.5	514

NOTES:
- = Sample not analyzed for that constituent.
Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

Appendix A
Depth to Groundwater Information



Legend

Site Location

Figure 4

Inferred Depth to Groundwater Trend Map

Endeavor Energy Resources, LP

State 22 Water Transfer

GPS: 33.622009, -103.569111

Chaves County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 6/10/20

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CL 00314 POD1		CL	CH	1	2	2	34	08S	33E	634611	3716897	4663	220	157	63
CL 00307 POD1		CL	CH	2	3	4	13	08S	32E	628014	3720298	4791	195	165	30

Average Depth to Water: **161 feet**

Minimum Depth: **157 feet**

Maximum Depth: **165 feet**

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 632727.28 **Northing (Y):** 3721164.18 **Radius:** 4830

New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twsp	Rng	X	Y
	CL 00307 POD1	2	3	4	13	08S	32E	628014	3720298

Driller License: 1497 **Driller Company:** COX DRILLING

Driller Name: COX, TOM W.

Drill Start Date:	05/15/2015	**Drill Finish Date:**	05/15/2015	**Plug Date:**	
Log File Date:	05/29/2015	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	1 GPM
Casing Size:	5.00	**Depth Well:**	195 feet	**Depth Water:**	165 feet

Water Bearing Stratifications:	Top	Bottom	Description
	165	175	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	125	195

New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	CL 00314 POD1	1	2	2	34	08S	33E	634611	3716897

Driller License:	1626	**Driller Company:**	TAYLOR, ROY ALLEN		
Driller Name:	TAYLOR, ROY A.				
Drill Start Date:	04/18/2016	**Drill Finish Date:**	04/20/2016	**Plug Date:**	
Log File Date:	04/29/2016	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	5 GPM
Casing Size:	5.00	**Depth Well:**	220 feet	**Depth Water:**	157 feet

Water Bearing Stratifications:	Top	Bottom	Description
	116	135	Sandstone/Gravel/Conglomerate
	135	185	Sandstone/Gravel/Conglomerate
	182	205	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	160	220

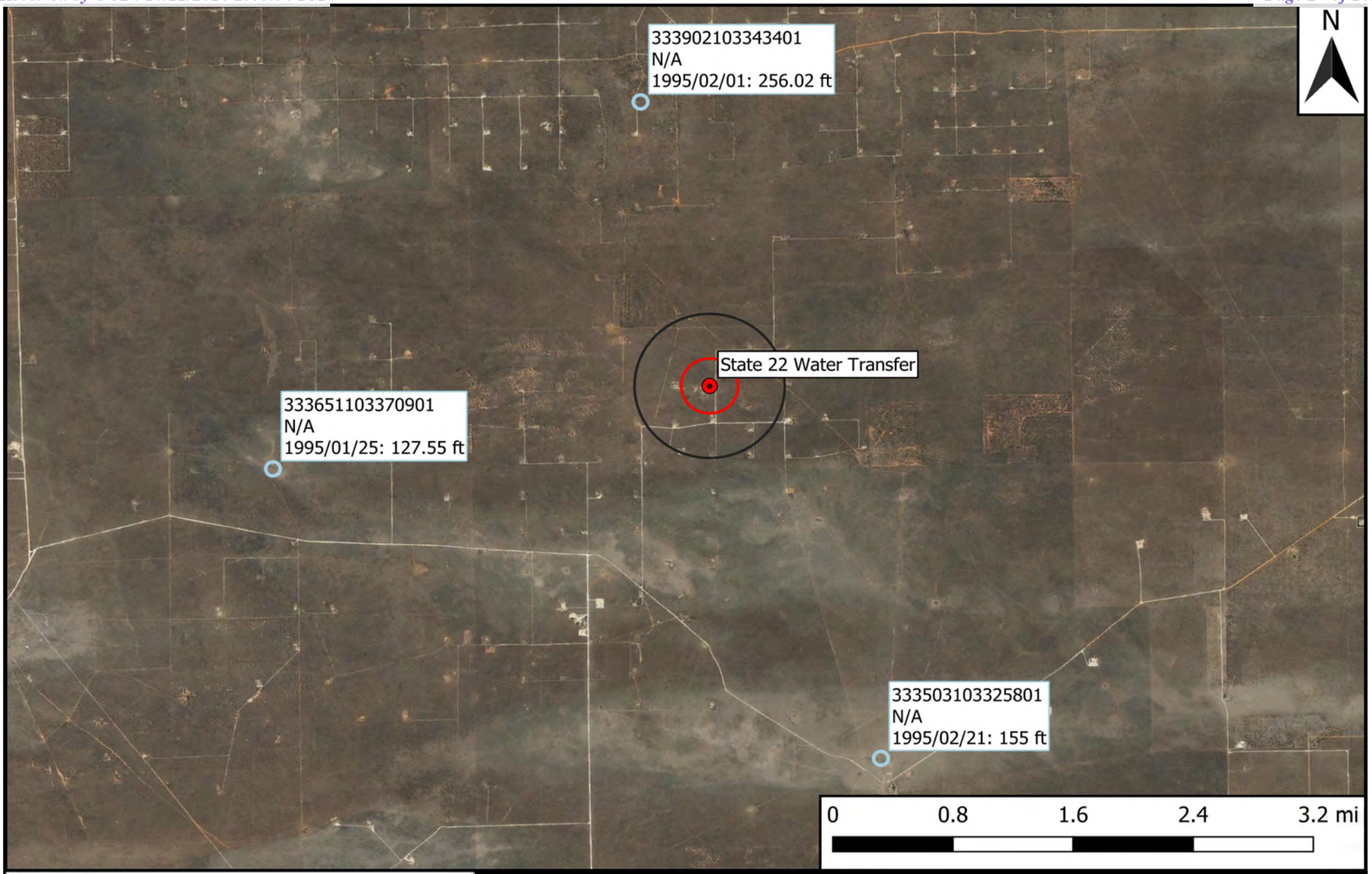


Figure 5
USGS Well Proximity Map
Endeavor Energy Resources, LP
State 22 Water Transfer
GPS: 33.622009, -103.569111
Chaves County

eTECH Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 6/10/20

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 333902103343401

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 333902103343401 08S.33E.04.114343

Chaves County, New Mexico
Latitude 33°39'02", Longitude 103°34'34" NAD27
Land-surface elevation 4,423 feet above NGVD29
The depth of the well is 453 feet below land surface.

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
1995-02-01		D	256.02			2		S	USGS	S	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

0.26 0.23 nadww02

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 333651103370901

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 333651103370901 08s.32e.13.43421

Chaves County, New Mexico
Latitude 33°36'51", Longitude 103°37'09" NAD27
Land-surface elevation 4,418 feet above NGVD29
The depth of the hole is 180.00 feet below land surface.

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
1995-01-25		D	127.55			2		S	USGS	S	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

0.28 0.26 nadww02

Click to hideNews Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 333503103325801

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

USGS 333503103325801 08S.33E.34.212211

Chaves County, New Mexico
Latitude 33°35'03", Longitude 103°32'58" NAD27
Land-surface elevation 4,355 feet above NGVD29
The depth of the well is 180 feet below land surface.

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
1995-02-21		D	155			0		S	USGS	S	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	0	Water level accuracy to nearest foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

0.23 0.21 nadww02

Appendix B
Field Data and Soil Profile Logs

eTECH Environmental & Safety Solutions, Inc.

Initial Release Assessment Form

Date: 6/24/20

Project: State 22 Water Transfer

Clean Up Level: 20,000 mg/kg Cl-, 2,500 mg/kg TPH

Project Number: 12538

Latitude: 33.622009

Longitude: -103.569111

Site Diagram

See attached Map for site diagram.

Notes: Hard caliche makes hand augering difficult. Refusal at 1'-2', [illegible]

~Length: ~Width: ~Area: ~Depth:

	Yes	No
3-4 Representative Pictures of the Affected Area including sample locations?	☑	☐
Necessary Samples Field Screened and on Ice?	☑	☐
Sample and Field Screen Data Entered on Sample Log?	☑	☐
Was horizontal and vertical delineation achieved?	☑	☐

ETECH Environmental & Safety Solutions, Inc.

Sample Log

Project: State 22 Water & Transfer Line
Project Number: _____ Latitude: _____ Longitude: _____
Date: 6-24-20

Sample ID	PID/Odor	Chloride Conc.	GPS
V1@3'	moderate	>2604	
V1@4'	moderate	992	
V2@2'	none	536	
V3@3'	mild	1,064 TR	
V3@4'	mild	1,692	
V4@surface	none	<128	
V4@1'	none	1,216	
V4@2'	none	1,692	
V4@3'	moderate	>2,604	
V4@4'	none	864	
V5surface	none	<128	
V5@1'	none	128	

Sample Point = SP #1 @ ## etc
Floor = FL #1 etc
Sidewall = SW #1 etc

Test Trench = TT #1 @ ##
Refusal = SP #1 @ 4'-R
Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b
Stockpile = Stockpile #1
GPS Sample Points, Center of Comp Areas

eTECH Environmental & Safety Solutions, Inc.

Sample Log

Date: 6/11/2020

Project: State 22 Water Transfer

Project Number: 12538 Latitude: 33.622009 Longitude: -103.569111

Sample ID	PID/Odor	Chloride Conc.		GPS
EH @ Surf	~~Yes~~	248		
EH @ 1'	~~Yes~~	464		
SH @ Surf	—	556		
SH @ 1'	—	~~424~~ 348		
WH @ Surf	—	1744		
WH @ 1'	—	> 2504		
NH @ Surf	—	168		
NH @ 1'	—	248		
EHA @ Surf	—	> 2504		
EHA @ 1'	—	~~> 2504~~ 424		
WHA @ Surf	—	124		
WHA @ 1'	—	< 124		
V2 @ Surf	Yes	~~DO~~ 14808	L+H	
V2 @ 1' -R	Yes	12340	L+H	
V1 @ Surf	Yes	8900	L+H	
V1 @ 2'	Yes	19368	L+H	
V1 @ 2.5' -R	Yes	15528	L+H	
V3 @ Surf	—	8048	L+H	
V3 @ 1'	—	9584	L+H	
V3 @ 2'-R	—	14004	L+H	
EHB @ Surf	—	196		
EHB @ 1'	—	~~196~~ 464		

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas

eTECH Environmental & Safety Solutions, Inc.

Soil Profile

Date: 6/24/20

Project: State 22 Water Transfer

Project Number: 12538 Latitude: 33.622009 Longitude: -103.569111

Depth (ft. bgs)	Description
0.5	Brown Rocky Soil/
2.5	caliche

Appendix C
Laboratory Analytical Reports

Certificate of Analysis Summary 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: State 22 Water Transfer

Project Id: 12538
Contact: PM
Project Location: Endeavor

Date Received in Lab: Mon 06.15.2020 09:35
Report Date: 06.22.2020 16:28
Project Manager: Jessica Kramer

Analysis Requested		664362-001		664362-002		664362-003		664362-004		664362-005		664362-006	
	Field Id:	SH @ Surface		SH @ 1'		NH @ Surface		NH @ 1'		WHA @ Surface		WHA @ 1'	
	Depth:			1- ft				1- ft				1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	06.11.2020 00:00		06.11.2020 00:00		06.11.2020 00:00		06.11.2020 00:00		06.11.2020 00:00		06.11.2020 00:00	
BTEX by EPA 8021B	*Extracted:*	06.19.2020 15:15		06.19.2020 15:15		06.19.2020 15:15		06.19.2020 15:15		06.19.2020 15:15		06.19.2020 15:15	
	Analyzed:	06.20.2020 05:09		06.20.2020 05:29		06.20.2020 05:49		06.20.2020 06:10		06.20.2020 06:30		06.20.2020 06:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Toluene		0.00203	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00399	0.00399	<0.00398	0.00398	<0.00403	0.00403	<0.00404	0.00404	<0.00399	0.00399	<0.00401	0.00401
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		0.00203	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300	*Extracted:*	06.15.2020 11:50		06.15.2020 11:50		06.15.2020 11:50		06.15.2020 11:50		06.15.2020 11:50		06.15.2020 11:50	
	Analyzed:	06.15.2020 13:34		06.15.2020 13:53		06.15.2020 13:59		06.15.2020 14:18		06.15.2020 14:25		06.15.2020 14:31	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		636	5.05	65.1	4.99	7.21	4.99	<5.01	5.01	<4.97	4.97	<4.99	4.99
TPH By SW8015 Mod	*Extracted:*	06.16.2020 12:15		06.16.2020 12:15		06.16.2020 12:15		06.16.2020 12:15		06.16.2020 12:15		06.16.2020 12:15	
	Analyzed:	06.16.2020 17:39		06.16.2020 18:00		06.16.2020 18:22		06.16.2020 18:43		06.16.2020 19:05		06.16.2020 19:26	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<50.0	50.0	<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0
Diesel Range Organics (DRO)		117	49.9	115	50.0	<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		59.5	49.9	52.6	50.0	<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0
Total TPH		177	49.9	168	50.0	<50.0	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0

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

Jessica Kramer
Project Manager

Certificate of Analysis Summary 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: State 22 Water Transfer

Project Id: 12538
Contact: PM
Project Location: Endeavor

Date Received in Lab: Mon 06.15.2020 09:35
Report Date: 06.22.2020 16:28
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	664362-007		664362-008		664362-009		664362-010		664362-011	
	Field Id:	V2 @ 1' R		V1 @ 2.5' R		V3 @ 2' R		EHB @ Surface		EHB @ 1'	
	Depth:	1- ft		2.5- ft		2- ft				1- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	06.11.2020 00:00		06.11.2020 00:00		06.11.2020 00:00		06.11.2020 00:00		06.11.2020 00:00	
BTEX by EPA 8021B	***Extracted:***	06.19.2020 15:15		06.19.2020 15:15		06.19.2020 15:15		06.19.2020 15:15		06.19.2020 15:15	
	Analyzed:	06.20.2020 07:11		06.20.2020 07:31		06.20.2020 07:52		06.20.2020 10:23		06.20.2020 10:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00201	0.00201	0.00909	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Toluene		0.00277	0.00201	0.0944	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Ethylbenzene		<0.00201	0.00201	0.168	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
m,p-Xylenes		<0.00402	0.00402	0.109	0.00402	<0.00402	0.00402	<0.00400	0.00400	<0.00400	0.00400
o-Xylene		<0.00201	0.00201	0.0538	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Total Xylenes		<0.00201	0.00201	0.163	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Total BTEX		0.00277	0.00201	0.434	0.00201	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200
Chloride by EPA 300	***Extracted:***	06.15.2020 11:50		06.15.2020 11:50		06.15.2020 11:50		06.15.2020 11:50		06.15.2020 15:00	
	Analyzed:	06.15.2020 14:37		06.15.2020 14:44		06.15.2020 14:50		06.15.2020 14:56		06.15.2020 19:38	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		14700	99.0	1060	4.96	13300	101	47.9	5.02	35.6	4.96
TPH By SW8015 Mod	***Extracted:***	06.16.2020 12:15		06.16.2020 12:15		06.16.2020 12:15		06.16.2020 12:15		06.16.2020 12:00	
	Analyzed:	06.16.2020 19:48		06.16.2020 20:09		06.16.2020 20:30		06.16.2020 20:52		06.17.2020 03:46	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8
Diesel Range Organics (DRO)		<49.8	49.8	274	50.0	<49.9	49.9	<50.0	50.0	57.9	49.8
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<50.0	50.0	<49.9	49.9	<50.0	50.0	<49.8	49.8
Total TPH		<49.8	49.8	274	50.0	<49.9	49.9	<50.0	50.0	57.9	49.8

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

Jessica Kramer
Project Manager

Analytical Report 664362

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

State 22 Water Transfer

12538

06.22.2020

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-34), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
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)

06.22.2020

Project Manager: **PM**
Etech Environmental & Safety Solution, Inc
P.O. Box 62228
Midland, TX 79711

Reference: XENCO Report No(s): **664362**
State 22 Water Transfer
Project Address: Endeavor

PM :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 664362. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 664362 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

Sample Cross Reference 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SH @ Surface	S	06.11.2020 00:00		664362-001
SH @ 1'	S	06.11.2020 00:00	1 ft	664362-002
NH @ Surface	S	06.11.2020 00:00		664362-003
NH @ 1'	S	06.11.2020 00:00	1 ft	664362-004
WHA @ Surface	S	06.11.2020 00:00		664362-005
WHA @ 1'	S	06.11.2020 00:00	1 ft	664362-006
V2 @ 1' R	S	06.11.2020 00:00	1 ft	664362-007
V1 @ 2.5' R	S	06.11.2020 00:00	2.5 ft	664362-008
V3 @ 2' R	S	06.11.2020 00:00	2 ft	664362-009
EHB @ Surface	S	06.11.2020 00:00		664362-010
EHB @ 1'	S	06.11.2020 00:00	1 ft	664362-011

CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: State 22 Water Transfer

Project ID: *12538*
Work Order Number(s): *664362*

Report Date: *06.22.2020*
Date Received: *06.15.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3129609 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Samples affected are: 7705919-1-BKS,7705919-1-BLK,7705919-1-BSD,664211-018 S,664211-018 SD,664362-006,664362-007,664362-008,664362-009,664362-010,664362-005,664362-004,664362-011,664362-002,664362-001,664362-003.

The ending CCV was bias high for Benzene, ethylbenzene, m,p-Xylenes, and o-Xylene. All samples reported did not take hits for those analytes, therefore data was accepted.

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **SH @ Surface** Matrix: Soil Date Received:06.15.2020 09:35

Lab Sample Id: 664362-001 Date Collected: 06.11.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 06.15.2020 11:50 Basis: Wet Weight

Seq Number: 3129045

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**636**	5.05	mg/kg	06.15.2020 13:34		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 06.16.2020 12:15 Basis: Wet Weight

Seq Number: 3129216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.16.2020 17:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	**117**	49.9	mg/kg	06.16.2020 17:39		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**59.5**	49.9	mg/kg	06.16.2020 17:39		1
Total TPH	PHC635	**177**	49.9	mg/kg	06.16.2020 17:39		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-130	06.16.2020 17:39	
o-Terphenyl	84-15-1	97	%	70-130	06.16.2020 17:39	

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id:	**SH @ Surface**	Matrix:	Soil	Date Received:	06.15.2020 09:35
Lab Sample Id:	664362-001	Date Collected:	06.11.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.19.2020 15:15	Basis:	Wet Weight
Seq Number:	3129609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 05:09	U	1
Toluene	108-88-3	**0.00203**	0.00200	mg/kg	06.20.2020 05:09		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 05:09	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.20.2020 05:09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 05:09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 05:09	U	1
Total BTEX		**0.00203**	0.00200	mg/kg	06.20.2020 05:09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	147	%	70-130	06.20.2020 05:09	**
1,4-Difluorobenzene	540-36-3	81	%	70-130	06.20.2020 05:09	

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id:	**SH @ 1'**	Matrix:	Soil	Date Received:	06.15.2020 09:35
Lab Sample Id:	664362-002	Date Collected:	06.11.2020 00:00	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.15.2020 11:50	Basis:	Wet Weight
Seq Number:	3129045				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**65.1**	4.99	mg/kg	06.15.2020 13:53		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.16.2020 12:15	Basis:	Wet Weight
Seq Number:	3129216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.16.2020 18:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	**115**	50.0	mg/kg	06.16.2020 18:00		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**52.6**	50.0	mg/kg	06.16.2020 18:00		1
Total TPH	PHC635	**168**	50.0	mg/kg	06.16.2020 18:00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-130	06.16.2020 18:00	
o-Terphenyl	84-15-1	105	%	70-130	06.16.2020 18:00	

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id:	**SH @ 1'**	Matrix:	Soil	Date Received:	06.15.2020 09:35
Lab Sample Id:	664362-002	Date Collected:	06.11.2020 00:00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.19.2020 15:15	Basis:	Wet Weight
Seq Number:	3129609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.20.2020 05:29	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.20.2020 05:29	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.20.2020 05:29	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.20.2020 05:29	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.20.2020 05:29	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.20.2020 05:29	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.20.2020 05:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	154	%	70-130	06.20.2020 05:29	**
1,4-Difluorobenzene	540-36-3	83	%	70-130	06.20.2020 05:29	

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **NH @ Surface** Matrix: Soil Date Received:06.15.2020 09:35

Lab Sample Id: 664362-003 Date Collected: 06.11.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 06.15.2020 11:50 Basis: Wet Weight

Seq Number: 3129045

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.21**	4.99	mg/kg	06.15.2020 13:59		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 06.16.2020 12:15 Basis: Wet Weight

Seq Number: 3129216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.16.2020 18:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.16.2020 18:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.16.2020 18:22	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.16.2020 18:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	06.16.2020 18:22	
o-Terphenyl	84-15-1	94	%	70-130	06.16.2020 18:22	

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id:	**NH @ Surface**	Matrix:	Soil	Date Received:	06.15.2020 09:35
Lab Sample Id:	664362-003	Date Collected:	06.11.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.19.2020 15:15	Basis:	Wet Weight
Seq Number:	3129609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.20.2020 05:49	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.20.2020 05:49	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.20.2020 05:49	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	06.20.2020 05:49	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.20.2020 05:49	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.20.2020 05:49	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.20.2020 05:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	70-130	06.20.2020 05:49	
4-Bromofluorobenzene	460-00-4	159	%	70-130	06.20.2020 05:49	**

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **NH @ 1'** Matrix: Soil Date Received:06.15.2020 09:35

Lab Sample Id: 664362-004 Date Collected: 06.11.2020 00:00 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 06.15.2020 11:50 Basis: Wet Weight

Seq Number: 3129045

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.01	5.01	mg/kg	06.15.2020 14:18	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 06.16.2020 12:15 Basis: Wet Weight

Seq Number: 3129216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.16.2020 18:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.16.2020 18:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.16.2020 18:43	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.16.2020 18:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-130	06.16.2020 18:43	
o-Terphenyl	84-15-1	101	%	70-130	06.16.2020 18:43	

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id:	**NH @ 1'**	Matrix:	Soil	Date Received:	06.15.2020 09:35
Lab Sample Id:	664362-004	Date Collected:	06.11.2020 00:00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.19.2020 15:15	Basis:	Wet Weight
Seq Number:	3129609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.20.2020 06:10	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.20.2020 06:10	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.20.2020 06:10	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.20.2020 06:10	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.20.2020 06:10	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.20.2020 06:10	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.20.2020 06:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	82	%	70-130	06.20.2020 06:10	
4-Bromofluorobenzene	460-00-4	173	%	70-130	06.20.2020 06:10	**

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **WHA @ Surface** Matrix: Soil Date Received:06.15.2020 09:35

Lab Sample Id: 664362-005 Date Collected: 06.11.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 06.15.2020 11:50 Basis: Wet Weight

Seq Number: 3129045

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.97	4.97	mg/kg	06.15.2020 14:25	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 06.16.2020 12:15 Basis: Wet Weight

Seq Number: 3129216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.16.2020 19:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.16.2020 19:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.16.2020 19:05	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.16.2020 19:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	06.16.2020 19:05	
o-Terphenyl	84-15-1	99	%	70-130	06.16.2020 19:05	

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id:	**WHA @ Surface**	Matrix:	Soil	Date Received:	06.15.2020 09:35
Lab Sample Id:	664362-005	Date Collected:	06.11.2020 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.19.2020 15:15	Basis:	Wet Weight
Seq Number:	3129609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 06:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.20.2020 06:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 06:30	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.20.2020 06:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 06:30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 06:30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.20.2020 06:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	70-130	06.20.2020 06:30	
4-Bromofluorobenzene	460-00-4	171	%	70-130	06.20.2020 06:30	**

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id:	**WHA @ 1'**	Matrix:	Soil	Date Received:	06.15.2020 09:35
Lab Sample Id:	664362-006	Date Collected:	06.11.2020 00:00	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.15.2020 11:50	Basis:	Wet Weight
Seq Number:	3129045				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	06.15.2020 14:31	U	1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.16.2020 12:15	Basis:	Wet Weight
Seq Number:	3129216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.16.2020 19:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.16.2020 19:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.16.2020 19:26	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.16.2020 19:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	06.16.2020 19:26	
o-Terphenyl	84-15-1	100	%	70-130	06.16.2020 19:26	

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id:	**WHA @ 1'**	Matrix:	Soil	Date Received:	06.15.2020 09:35
Lab Sample Id:	664362-006	Date Collected:	06.11.2020 00:00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.19.2020 15:15	Basis:	Wet Weight
Seq Number:	3129609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 06:51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.20.2020 06:51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 06:51	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.20.2020 06:51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 06:51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 06:51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.20.2020 06:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	170	%	70-130	06.20.2020 06:51	**
1,4-Difluorobenzene	540-36-3	83	%	70-130	06.20.2020 06:51	

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id:	**V2 @ 1' R**	Matrix:	Soil	Date Received:	06.15.2020 09:35
Lab Sample Id:	664362-007	Date Collected:	06.11.2020 00:00	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.15.2020 11:50	Basis:	Wet Weight
Seq Number:	3129045				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**14700**	99.0	mg/kg	06.15.2020 14:37		20

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.16.2020 12:15	Basis:	Wet Weight
Seq Number:	3129216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	06.16.2020 19:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	06.16.2020 19:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	06.16.2020 19:48	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	06.16.2020 19:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	06.16.2020 19:48	
o-Terphenyl	84-15-1	99	%	70-130	06.16.2020 19:48	

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id:	**V2 @ 1' R**	Matrix:	Soil	Date Received:	06.15.2020 09:35
Lab Sample Id:	664362-007	Date Collected:	06.11.2020 00:00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.19.2020 15:15	Basis:	Wet Weight
Seq Number:	3129609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.20.2020 07:11	U	1
Toluene	108-88-3	**0.00277**	0.00201	mg/kg	06.20.2020 07:11		1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.20.2020 07:11	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.20.2020 07:11	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.20.2020 07:11	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.20.2020 07:11	U	1
Total BTEX		**0.00277**	0.00201	mg/kg	06.20.2020 07:11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	162	%	70-130	06.20.2020 07:11	**
1,4-Difluorobenzene	540-36-3	81	%	70-130	06.20.2020 07:11	

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id:	**V1 @ 2.5' R**	Matrix:	Soil	Date Received:	06.15.2020 09:35
Lab Sample Id:	664362-008	Date Collected:	06.11.2020 00:00	Sample Depth:	2.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.15.2020 11:50	Basis:	Wet Weight
Seq Number:	3129045				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1060**	4.96	mg/kg	06.15.2020 14:44		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.16.2020 12:15	Basis:	Wet Weight
Seq Number:	3129216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.16.2020 20:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	**274**	50.0	mg/kg	06.16.2020 20:09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.16.2020 20:09	U	1
Total TPH	PHC635	**274**	50.0	mg/kg	06.16.2020 20:09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-130	06.16.2020 20:09	
o-Terphenyl	84-15-1	106	%	70-130	06.16.2020 20:09	

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id:	**V1 @ 2.5' R**	Matrix:	Soil	Date Received:	06.15.2020 09:35
Lab Sample Id:	664362-008	Date Collected:	06.11.2020 00:00	Sample Depth:	2.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.19.2020 15:15	Basis:	Wet Weight
Seq Number:	3129609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.00909**	0.00201	mg/kg	06.20.2020 07:31		1
Toluene	108-88-3	**0.0944**	0.00201	mg/kg	06.20.2020 07:31		1
Ethylbenzene	100-41-4	**0.168**	0.00201	mg/kg	06.20.2020 07:31		1
m,p-Xylenes	179601-23-1	**0.109**	0.00402	mg/kg	06.20.2020 07:31		1
o-Xylene	95-47-6	**0.0538**	0.00201	mg/kg	06.20.2020 07:31		1
Total Xylenes	1330-20-7	**0.163**	0.00201	mg/kg	06.20.2020 07:31		1
Total BTEX		**0.434**	0.00201	mg/kg	06.20.2020 07:31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	86	%	70-130	06.20.2020 07:31	
4-Bromofluorobenzene	460-00-4	191	%	70-130	06.20.2020 07:31	**

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id:	**V3 @ 2' R**	Matrix:	Soil	Date Received:	06.15.2020 09:35
Lab Sample Id:	664362-009	Date Collected:	06.11.2020 00:00	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.15.2020 11:50	Basis:	Wet Weight
Seq Number:	3129045				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13300**	101	mg/kg	06.15.2020 14:50		20

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.16.2020 12:15	Basis:	Wet Weight
Seq Number:	3129216				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.16.2020 20:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.16.2020 20:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.16.2020 20:30	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.16.2020 20:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-130	06.16.2020 20:30	
o-Terphenyl	84-15-1	102	%	70-130	06.16.2020 20:30	

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id:	**V3 @ 2' R**	Matrix:	Soil	Date Received:	06.15.2020 09:35
Lab Sample Id:	664362-009	Date Collected:	06.11.2020 00:00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.19.2020 15:15	Basis:	Wet Weight
Seq Number:	3129609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.20.2020 07:52	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.20.2020 07:52	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.20.2020 07:52	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.20.2020 07:52	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.20.2020 07:52	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.20.2020 07:52	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.20.2020 07:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	76	%	70-130	06.20.2020 07:52	
4-Bromofluorobenzene	460-00-4	157	%	70-130	06.20.2020 07:52	**

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **EHB @ Surface** Matrix: Soil Date Received:06.15.2020 09:35

Lab Sample Id: 664362-010 Date Collected: 06.11.2020 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE % Moisture:

Analyst: CHE Date Prep: 06.15.2020 11:50 Basis: Wet Weight

Seq Number: 3129045

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**47.9**	5.02	mg/kg	06.15.2020 14:56		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM % Moisture:

Analyst: ARM Date Prep: 06.16.2020 12:15 Basis: Wet Weight

Seq Number: 3129216

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.16.2020 20:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.16.2020 20:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.16.2020 20:52	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.16.2020 20:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-130	06.16.2020 20:52	
o-Terphenyl	84-15-1	100	%	70-130	06.16.2020 20:52	

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id: **EHB @ Surface** Matrix: Soil Date Received:06.15.2020 09:35

Lab Sample Id: 664362-010 Date Collected: 06.11.2020 00:00

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: KTL % Moisture:

Analyst: KTL Date Prep: 06.19.2020 15:15 Basis: Wet Weight

Seq Number: 3129609

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 10:23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.20.2020 10:23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 10:23	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	06.20.2020 10:23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 10:23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 10:23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.20.2020 10:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	161	%	70-130	06.20.2020 10:23	**
1,4-Difluorobenzene	540-36-3	80	%	70-130	06.20.2020 10:23	

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id:	**EHB @ 1'**	Matrix:	Soil	Date Received:	06.15.2020 09:35
Lab Sample Id:	664362-011	Date Collected:	06.11.2020 00:00	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.15.2020 15:00	Basis:	Wet Weight
Seq Number:	3129048				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**35.6**	4.96	mg/kg	06.15.2020 19:38		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.16.2020 12:00	Basis:	Wet Weight
Seq Number:	3129214				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	06.17.2020 03:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	**57.9**	49.8	mg/kg	06.17.2020 03:46		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	06.17.2020 03:46	U	1
Total TPH	PHC635	**57.9**	49.8	mg/kg	06.17.2020 03:46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-130	06.17.2020 03:46	
o-Terphenyl	84-15-1	117	%	70-130	06.17.2020 03:46	

Certificate of Analytical Results 664362

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer

Sample Id:	**EHB @ 1'**	Matrix:	Soil	Date Received:	06.15.2020 09:35
Lab Sample Id:	664362-011	Date Collected:	06.11.2020 00:00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.19.2020 15:15	Basis:	Wet Weight
Seq Number:	3129609				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.20.2020 10:43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.20.2020 10:43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.20.2020 10:43	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	06.20.2020 10:43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.20.2020 10:43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.20.2020 10:43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.20.2020 10:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	162	%	70-130	06.20.2020 10:43	**
1,4-Difluorobenzene	540-36-3	79	%	70-130	06.20.2020 10:43	

Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **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

QC Summary 664362

Etech Environmental & Safety Solution, Inc

State 22 Water Transfer

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129045 — Matrix: Solid — Date Prep: 06.15.2020
MB Sample Id: 7705455-1-BLK — LCS Sample Id: 7705455-1-BKS — LCSD Sample Id: 7705455-1-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	257	103	258	103	90-110	0	20	mg/kg	06.15.2020 11:56	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129048 — Matrix: Solid — Date Prep: 06.15.2020
MB Sample Id: 7705489-1-BLK — LCS Sample Id: 7705489-1-BKS — LCSD Sample Id: 7705489-1-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	259	104	260	104	90-110	0	20	mg/kg	06.15.2020 16:40	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129045 — Matrix: Soil — Date Prep: 06.15.2020
Parent Sample Id: 664339-104 — MS Sample Id: 664339-104 S — MSD Sample Id: 664339-104 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.95	248	278	112	275	111	90-110	1	20	mg/kg	06.15.2020 12:14	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129045 — Matrix: Soil — Date Prep: 06.15.2020
Parent Sample Id: 664362-001 — MS Sample Id: 664362-001 S — MSD Sample Id: 664362-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	636	253	867	91	867	91	90-110	0	20	mg/kg	06.15.2020 13:40	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129048 — Matrix: Soil — Date Prep: 06.15.2020
Parent Sample Id: 664452-004 — MS Sample Id: 664452-004 S — MSD Sample Id: 664452-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	178	252	462	113	447	107	90-110	3	20	mg/kg	06.15.2020 16:59	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3129048 — Matrix: Soil — Date Prep: 06.15.2020
Parent Sample Id: 664452-008 — MS Sample Id: 664452-008 S — MSD Sample Id: 664452-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	258	252	529	108	524	106	90-110	1	20	mg/kg	06.15.2020 18:28	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

QC Summary 664362

Etech Environmental & Safety Solution, Inc

State 22 Water Transfer

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129214 — Matrix: Solid — Date Prep: 06.16.2020
MB Sample Id: 7705538-1-BLK — LCS Sample Id: 7705538-1-BKS — LCSD Sample Id: 7705538-1-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	1050	105	1050	105	70-130	0	20	mg/kg	06.17.2020 01:35	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	1050	105	70-130	0	20	mg/kg	06.17.2020 01:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		129		129		70-130	%	06.17.2020 01:35
o-Terphenyl	126		122		126		70-130	%	06.17.2020 01:35

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129216 — Matrix: Solid — Date Prep: 06.16.2020
MB Sample Id: 7705540-1-BLK — LCS Sample Id: 7705540-1-BKS — LCSD Sample Id: 7705540-1-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	866	87	904	90	70-130	4	20	mg/kg	06.16.2020 12:15	
Diesel Range Organics (DRO)	<50.0	1000	947	95	968	97	70-130	2	20	mg/kg	06.16.2020 12:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		102		105		70-130	%	06.16.2020 12:15
o-Terphenyl	98		101		106		70-130	%	06.16.2020 12:15

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129214 — Matrix: Solid — Date Prep: 06.16.2020
MB Sample Id: 7705538-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.17.2020 01:16	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129216 — Matrix: Solid — Date Prep: 06.16.2020
MB Sample Id: 7705540-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.16.2020 11:54	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

QC Summary 664362

Etech Environmental & Safety Solution, Inc

State 22 Water Transfer

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129214 — Matrix: Soil — Date Prep: 06.16.2020
Parent Sample Id: 664364-021 — MS Sample Id: 664364-021 S — MSD Sample Id: 664364-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	1080	108	1100	110	70-130	2	20	mg/kg	06.17.2020 02:31	
Diesel Range Organics (DRO)	<49.9	997	1100	110	1110	111	70-130	1	20	mg/kg	06.17.2020 02:31	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		130		70-130	%	06.17.2020 02:31
o-Terphenyl	125		124		70-130	%	06.17.2020 02:31

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3129216 — Matrix: Soil — Date Prep: 06.16.2020
Parent Sample Id: 664339-101 — MS Sample Id: 664339-101 S — MSD Sample Id: 664339-101 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	861	86	848	85	70-130	2	20	mg/kg	06.16.2020 13:20	
Diesel Range Organics (DRO)	<49.9	997	945	95	927	93	70-130	2	20	mg/kg	06.16.2020 13:20	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		101		70-130	%	06.16.2020 13:20
o-Terphenyl	100		98		70-130	%	06.16.2020 13:20

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3129609 — Matrix: Solid — Date Prep: 06.19.2020
MB Sample Id: 7705919-1-BLK — LCS Sample Id: 7705919-1-BKS — LCSD Sample Id: 7705919-1-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	0.113	113	70-130	3	35	mg/kg	06.20.2020 02:28	
Toluene	<0.00200	0.100	0.104	104	0.107	107	70-130	3	35	mg/kg	06.20.2020 02:28	
Ethylbenzene	<0.00200	0.100	0.106	106	0.110	110	70-130	4	35	mg/kg	06.20.2020 02:28	
m,p-Xylenes	<0.00400	0.200	0.217	109	0.225	113	70-130	4	35	mg/kg	06.20.2020 02:28	
o-Xylene	<0.00200	0.100	0.109	109	0.113	113	70-130	4	35	mg/kg	06.20.2020 02:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	81		84		88		70-130	%	06.20.2020 02:28
4-Bromofluorobenzene	156	**	147	**	155	**	70-130	%	06.20.2020 02:28

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

QC Summary 664362

Etech Environmental & Safety Solution, Inc

State 22 Water Transfer

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3129609 Matrix: Soil Date Prep: 06.19.2020

Parent Sample Id: 664211-018 MS Sample Id: 664211-018 S MSD Sample Id: 664211-018 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0947	95	0.0913	91	70-130	4	35	mg/kg	06.20.2020 03:08	
Toluene	<0.00199	0.0996	0.0842	85	0.0815	82	70-130	3	35	mg/kg	06.20.2020 03:08	
Ethylbenzene	<0.00199	0.0996	0.0879	88	0.0851	85	70-130	3	35	mg/kg	06.20.2020 03:08	
m,p-Xylenes	<0.00398	0.199	0.174	87	0.169	85	70-130	3	35	mg/kg	06.20.2020 03:08	
o-Xylene	<0.00199	0.0996	0.0912	92	0.0889	89	70-130	3	35	mg/kg	06.20.2020 03:08	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	88		89		70-130	%	06.20.2020 03:08
4-Bromofluorobenzene	155	**	156	**	70-130	%	06.20.2020 03:08

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

Work Order No: 12538

6643607

www.xenco.com Page 1 of 2

Project Manager:	Joel Lowry	Bill to: (if different)	Tiffany Fawks
Company Name:	Etech Environmental & Safety	Company Name:	Endeavor
Address:	3100 Plains Highway	Address:	
City, State ZIP:	Lovington, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to PM@etechenv.com + Client

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level I ☐ Level II ☐ PST/US ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	State 22 Water Transfer	Turn Around	
Project Number:	12538	Routine:	☑
Project Location	Endeavor	Rush:	☐
Sampler's Name:	Matt Grieco	Due Date:	
PO #:			

SAMPLE RECEIPT

Temperature (°C):	4.2/3.8	Temp Blank:	Yes (No)
Received Intact:	(Yes) No	Thermometer ID	IR8
Cooler Custody Seals:	(Yes) No N/A	Correction Factor:	-0.4
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

Wet Ice: (Yes) No

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	Chloride E300	BTEX 8021	TPH Modified Ext	TPH TX1005
SHe Surf.	S	6-11-20				✓	✓	✓	✓
SHe 1'	S	6-11-20		1'		✓	✓	✓	
NHe Surf.	S	6-11-20				✓	✓	✓	
NHe 1'	S	6-11-20		1'		✓	✓	✓	
WHAe Surf.	S	6-11-20				✓	✓	✓	
WHAe 1'	S	6-11-20		1'		✓	✓	✓	
V2e 1'-R	S	6-11-20		1'		✓	✓	✓	
V1e 2.5-R	S	6-11-20		2½'		✓	✓	✓	
V3e 2'-R	S	6-11-20		2'		✓	✓	✓	
EHBe Surf.	S	6-11-20				✓	✓	✓	

Preservative Codes

HNO3: HN
H2S04: H2
HCL: HL
None: NO
NaOH: Na
MeOH: Me
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time		Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		Ezra Cahill		2			
3				4			
5				6			

Revised Date101419 Rev. 2019.1

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

Work Order No: 12538

6643607

www.xenco.com Page 2 of 2

Project Manager:	Joel Lowry	Bill to: (if different)	Tiffanie Fawks
Company Name:	Etech Environmental & Safety	Company Name:	Endeavor
Address:	3100 Plains Highway	Address:	
City, State ZIP:	Lovington, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to PM@etechenv.com + Client

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level I ☐ Level II ☐ PST/UST ☐ TRRP ☐ Level III ☐

Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	State 22 Water Transfer	Turn Around	
Project Number:	12538	Routine:	☑
Project Location	Endeavor	Rush:	☐
Sampler's Name:	Matt Grieco	Due Date:	
PO #:			

SAMPLE RECEIPT			
Temperature (°C):	4.2/3.8	Temp Blank:	Yes (No)
Received Intact:	(Yes) No	Wet Ice:	(Yes) No
Cooler Custody Seals:	Yes No (N/A)	Thermometer ID	128
Sample Custody Seals:	Yes No (N/A)	Correction Factor:	-0.4
		Total Containers:	

Preservative Codes

HNO3: HN
H2S04: H2
HCL: HL
None: NO
NaOH: Na
MeOH: Me
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	Chloride E300	BTEX 8021	TPH Modified Ext	TPH TX1005	Sample Comments
EHB@1'	S	6-11-20		1'		✓	✓	✓		

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Matt Lie	Eppa Carill		2	Kramer	6/15 935
3			4		
5			6		

Revised Date 101419 Rev. 2019.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 06.12.2020 04.20.49 PM

Work Order #: 664362

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

Temperature Measuring device used : IR8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3.8	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	BTEX RECEIVED 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: 06.15.2020
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 06.15.2020
Jessica Kramer

eurofins | Xenco

Certificate of Analysis Summary 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: State 22 Water Transfer Line

Project Id: 12538
Contact: PM
Project Location: Rural Chavez

Date Received in Lab: Fri 06.26.2020 10:40
Report Date: 07.07.2020 12:24
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	665647-001		665647-002		665647-003		665647-004		665647-005	
	Field Id:	V1 @ 3'		V1 @ 4'		V2 @ 2'		V3 @ 3'		V3 @ 4'	
	Depth:	3- ft		4- ft		2- ft		3- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	06.24.2020 00:00		06.24.2020 00:00		06.24.2020 00:00		06.24.2020 00:00		06.24.2020 00:00	
BTEX by EPA 8021B	***Extracted:***	06.29.2020 15:30		06.29.2020 15:30		06.29.2020 15:30		06.29.2020 15:30		06.29.2020 15:30	
	Analyzed:	06.30.2020 02:33		06.30.2020 02:53		06.30.2020 03:14		06.30.2020 04:36		06.30.2020 13:29	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201
Toluene		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201
Ethylbenzene		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201
m,p-Xylenes		<0.00403	0.00403	<0.00401	0.00401	<0.00398	0.00398	<0.00402	0.00402	<0.00402	0.00402
o-Xylene		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201
Total Xylenes		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201
Total BTEX		<0.00202	0.00202	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201	<0.00201	0.00201
Chloride by EPA 300	***Extracted:***	06.26.2020 16:40		06.26.2020 16:40		06.26.2020 16:40		06.26.2020 16:40		06.26.2020 16:40	
	Analyzed:	06.26.2020 18:38		06.26.2020 18:53		06.26.2020 18:59		06.26.2020 19:04		06.26.2020 19:09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		4970	25.0	1600	25.0	461	5.00	1280	25.0	514	5.00
TPH By SW8015 Mod	***Extracted:***	06.26.2020 16:30		06.26.2020 16:30		06.26.2020 16:30		06.26.2020 16:30		06.26.2020 16:30	
	Analyzed:	06.26.2020 23:59		06.27.2020 00:20		06.27.2020 00:41		06.27.2020 01:24		06.27.2020 09:38	
	Units/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	<50.0	50.0
Diesel Range Organics (DRO)		<49.8	49.8	449	50.0	<50.0	50.0	151	49.9	92.5	50.0
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	50.7	50.0	<50.0	50.0	<49.9	49.9	<50.0	50.0
Total TPH		<49.8	49.8	500	50.0	<50.0	50.0	151	49.9	92.5	50.0

BRL - Below Reporting Limit

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

Holly Taylor

eurofins | Xenco

Analytical Report 665647

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

State 22 Water Transfer Line

12538

07.07.2020

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)

eurofins | Xenco

07.07.2020

Project Manager: **PM**
Etech Environmental & Safety Solution, Inc
P.O. Box 62228
Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): **665647**
State 22 Water Transfer Line
Project Address: Rural Chavez

PM :

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) 665647. 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. 665647 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,

Holly Taylor

Holly Taylor
Project Manager

A Small Business and Minority Company

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

eurofins | Xenco

Sample Cross Reference 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
V1 @ 3'	S	06.24.2020 00:00	3 ft	665647-001
V1 @ 4'	S	06.24.2020 00:00	4 ft	665647-002
V2 @ 2'	S	06.24.2020 00:00	2 ft	665647-003
V3 @ 3'	S	06.24.2020 00:00	3 ft	665647-004
V3 @ 4'	S	06.24.2020 00:00	4 ft	665647-005

CASE NARRATIVE

eurofins | Xenco

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: State 22 Water Transfer Line

Project ID: *12538*
Work Order Number(s): *665647*

Report Date: *07.07.2020*
Date Received: *06.26.2020*

Sample receipt non conformances and comments:

7/7/2020 1.001 Revised to correct sample IDs for 004 and 005 per Matthew Greico (email). HT

Sample receipt non conformances and comments per sample:

None

eurofins | Xenco

Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id:	**V1 @ 3'**	Matrix:	Soil	Date Received:	06.26.2020 10:40
Lab Sample Id:	665647-001	Date Collected:	06.24.2020 00:00	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.26.2020 16:40	Basis:	Wet Weight
Seq Number:	3130312				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4970**	25.0	mg/kg	06.26.2020 18:38		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.26.2020 16:30	Basis:	Wet Weight
Seq Number:	3130173				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	06.26.2020 23:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	06.26.2020 23:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	06.26.2020 23:59	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	06.26.2020 23:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	06.26.2020 23:59	
o-Terphenyl	84-15-1	94	%	70-130	06.26.2020 23:59	

eurofins | Xenco

Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id:	**V1 @ 3'**	Matrix:	Soil	Date Received:	06.26.2020 10:40
Lab Sample Id:	665647-001	Date Collected:	06.24.2020 00:00	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.29.2020 15:30	Basis:	Wet Weight
Seq Number:	3130369				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	06.30.2020 02:33	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	06.30.2020 02:33	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.30.2020 02:33	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	06.30.2020 02:33	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.30.2020 02:33	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.30.2020 02:33	U	1
Total BTEX		<0.00202	0.00202	mg/kg	06.30.2020 02:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	06.30.2020 02:33	
1,4-Difluorobenzene	540-36-3	111	%	70-130	06.30.2020 02:33	

eurofins | Xenco

Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id:	**V1 @ 4'**	Matrix:	Soil	Date Received:	06.26.2020 10:40
Lab Sample Id:	665647-002	Date Collected:	06.24.2020 00:00	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.26.2020 16:40	Basis:	Wet Weight
Seq Number:	3130312				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1600**	25.0	mg/kg	06.26.2020 18:53		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.26.2020 16:30	Basis:	Wet Weight
Seq Number:	3130173				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.27.2020 00:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	**449**	50.0	mg/kg	06.27.2020 00:20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**50.7**	50.0	mg/kg	06.27.2020 00:20		1
Total TPH	PHC635	**500**	50.0	mg/kg	06.27.2020 00:20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	06.27.2020 00:20	
o-Terphenyl	84-15-1	95	%	70-130	06.27.2020 00:20	

eurofins | Xenco

Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id:	**V1 @ 4'**	Matrix:	Soil	Date Received:	06.26.2020 10:40
Lab Sample Id:	665647-002	Date Collected:	06.24.2020 00:00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.29.2020 15:30	Basis:	Wet Weight
Seq Number:	3130369				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.30.2020 02:53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.30.2020 02:53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.30.2020 02:53	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	06.30.2020 02:53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.30.2020 02:53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.30.2020 02:53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.30.2020 02:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	06.30.2020 02:53	
1,4-Difluorobenzene	540-36-3	111	%	70-130	06.30.2020 02:53	

eurofins | Xenco

Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id:	**V2 @ 2'**	Matrix:	Soil	Date Received:	06.26.2020 10:40
Lab Sample Id:	665647-003	Date Collected:	06.24.2020 00:00	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.26.2020 16:40	Basis:	Wet Weight
Seq Number:	3130312				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**461**	5.00	mg/kg	06.26.2020 18:59		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.26.2020 16:30	Basis:	Wet Weight
Seq Number:	3130173				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.27.2020 00:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.27.2020 00:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.27.2020 00:41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.27.2020 00:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-130	06.27.2020 00:41	
o-Terphenyl	84-15-1	97	%	70-130	06.27.2020 00:41	

eurofins | Xenco

Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id:	**V2 @ 2'**	Matrix:	Soil	Date Received:	06.26.2020 10:40
Lab Sample Id:	665647-003	Date Collected:	06.24.2020 00:00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.29.2020 15:30	Basis:	Wet Weight
Seq Number:	3130369				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.30.2020 03:14	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	06.30.2020 03:14	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.30.2020 03:14	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.30.2020 03:14	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.30.2020 03:14	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.30.2020 03:14	U	1
Total BTEX		<0.00199	0.00199	mg/kg	06.30.2020 03:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	06.30.2020 03:14	
4-Bromofluorobenzene	460-00-4	98	%	70-130	06.30.2020 03:14	

eurofins | Xenco

Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id:	**V3 @ 3'**	Matrix:	Soil	Date Received:	06.26.2020 10:40
Lab Sample Id:	665647-004	Date Collected:	06.24.2020 00:00	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.26.2020 16:40	Basis:	Wet Weight
Seq Number:	3130312				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1280**	25.0	mg/kg	06.26.2020 19:04		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.26.2020 16:30	Basis:	Wet Weight
Seq Number:	3130173				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.27.2020 01:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	**151**	49.9	mg/kg	06.27.2020 01:24		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.27.2020 01:24	U	1
Total TPH	PHC635	**151**	49.9	mg/kg	06.27.2020 01:24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	06.27.2020 01:24	
o-Terphenyl	84-15-1	90	%	70-130	06.27.2020 01:24	

eurofins | Xenco

Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id:	**V3 @ 3'**	Matrix:	Soil	Date Received:	06.26.2020 10:40
Lab Sample Id:	665647-004	Date Collected:	06.24.2020 00:00	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.29.2020 15:30	Basis:	Wet Weight
Seq Number:	3130369				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.30.2020 04:36	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.30.2020 04:36	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.30.2020 04:36	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.30.2020 04:36	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.30.2020 04:36	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.30.2020 04:36	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.30.2020 04:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	06.30.2020 04:36	
4-Bromofluorobenzene	460-00-4	97	%	70-130	06.30.2020 04:36	

eurofins | Xenco

Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id:	**V3 @ 4'**	Matrix:	Soil	Date Received:	06.26.2020 10:40
Lab Sample Id:	665647-005	Date Collected:	06.24.2020 00:00	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE			% Moisture:	
Analyst:	CHE	Date Prep:	06.26.2020 16:40	Basis:	Wet Weight
Seq Number:	3130312				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**514**	5.00	mg/kg	06.26.2020 19:09		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM			% Moisture:	
Analyst:	ARM	Date Prep:	06.26.2020 16:30	Basis:	Wet Weight
Seq Number:	3130173				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.27.2020 09:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	**92.5**	50.0	mg/kg	06.27.2020 09:38		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.27.2020 09:38	U	1
Total TPH	PHC635	**92.5**	50.0	mg/kg	06.27.2020 09:38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	06.27.2020 09:38	
o-Terphenyl	84-15-1	91	%	70-130	06.27.2020 09:38	

eurofins | Xenco

Certificate of Analytical Results 665647

Etech Environmental & Safety Solution, Inc, Midland, TX

State 22 Water Transfer Line

Sample Id:	**V3 @ 4'**	Matrix:	Soil	Date Received:	06.26.2020 10:40
Lab Sample Id:	665647-005	Date Collected:	06.24.2020 00:00	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL			% Moisture:	
Analyst:	KTL	Date Prep:	06.29.2020 15:30	Basis:	Wet Weight
Seq Number:	3130369				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	06.30.2020 13:29	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	06.30.2020 13:29	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.30.2020 13:29	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.30.2020 13:29	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.30.2020 13:29	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.30.2020 13:29	U	1
Total BTEX		<0.00201	0.00201	mg/kg	06.30.2020 13:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	06.30.2020 13:29	
4-Bromofluorobenzene	460-00-4	94	%	70-130	06.30.2020 13:29	

eurofins | 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

eurofins | Xenco

QC Summary 665647

Etech Environmental & Safety Solution, Inc

State 22 Water Transfer Line

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3130312 — Matrix: Solid — Date Prep: 06.26.2020
MB Sample Id: 7706300-1-BLK — LCS Sample Id: 7706300-1-BKS — LCSD Sample Id: 7706300-1-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	249	100	271	108	90-110	8	20	mg/kg	06.26.2020 16:57	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3130312 — Matrix: Soil — Date Prep: 06.26.2020
Parent Sample Id: 665657-004 — MS Sample Id: 665657-004 S — MSD Sample Id: 665657-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	343	250	587	98	590	99	90-110	1	20	mg/kg	06.26.2020 18:23	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3130312 — Matrix: Soil — Date Prep: 06.26.2020
Parent Sample Id: 665695-005 — MS Sample Id: 665695-005 S — MSD Sample Id: 665695-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1050	250	1250	80	1230	72	90-110	2	20	mg/kg	06.26.2020 17:12	X

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3130173 — Matrix: Solid — Date Prep: 06.26.2020
MB Sample Id: 7706305-1-BLK — LCS Sample Id: 7706305-1-BKS — LCSD Sample Id: 7706305-1-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	978	98	945	95	70-130	3	20	mg/kg	06.26.2020 20:04	
Diesel Range Organics (DRO)	<50.0	1000	978	98	985	99	70-130	1	20	mg/kg	06.26.2020 20:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		94		93		70-130	%	06.26.2020 20:04
o-Terphenyl	90		89		87		70-130	%	06.26.2020 20:04

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3130173 — Matrix: Solid — Date Prep: 06.26.2020
MB Sample Id: 7706305-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.26.2020 19:43	

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

eurofins | Xenco

QC Summary 665647

Etech Environmental & Safety Solution, Inc

State 22 Water Transfer Line

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3130173 Matrix: Soil Date Prep: 06.26.2020
Parent Sample Id: 665645-001 MS Sample Id: 665645-001 S MSD Sample Id: 665645-001 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	846	85	837	84	70-130	1	20	mg/kg	06.26.2020 21:09	
Diesel Range Organics (DRO)	<49.9	998	863	86	873	88	70-130	1	20	mg/kg	06.26.2020 21:09	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		98		70-130	%	06.26.2020 21:09
o-Terphenyl	90		91		70-130	%	06.26.2020 21:09

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3130369 Matrix: Solid Date Prep: 06.29.2020
MB Sample Id: 7706406-1-BLK LCS Sample Id: 7706406-1-BKS LCSD Sample Id: 7706406-1-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	0.130	130	0.126	126	70-130	3	35	mg/kg	06.29.2020 22:06	
Toluene	<0.00200	0.100	0.106	106	0.105	105	70-130	1	35	mg/kg	06.29.2020 22:06	
Ethylbenzene	<0.00200	0.100	0.0970	97	0.0961	96	70-130	1	35	mg/kg	06.29.2020 22:06	
m,p-Xylenes	<0.00400	0.200	0.180	90	0.180	90	70-130	0	35	mg/kg	06.29.2020 22:06	
o-Xylene	<0.00200	0.100	0.0913	91	0.0912	91	70-130	0	35	mg/kg	06.29.2020 22:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		103		102		70-130	%	06.29.2020 22:06
4-Bromofluorobenzene	93		87		86		70-130	%	06.29.2020 22:06

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3130369 Matrix: Soil Date Prep: 06.29.2020
Parent Sample Id: 665645-001 MS Sample Id: 665645-001 S MSD Sample Id: 665645-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0840	84	0.0841	84	70-130	0	35	mg/kg	06.29.2020 22:47	
Toluene	<0.00200	0.100	0.0715	72	0.0878	88	70-130	20	35	mg/kg	06.29.2020 22:47	
Ethylbenzene	<0.00200	0.100	0.0670	67	0.0798	80	70-130	17	35	mg/kg	06.29.2020 22:47	X
m,p-Xylenes	<0.00400	0.200	0.131	66	0.158	79	70-130	19	35	mg/kg	06.29.2020 22:47	X
o-Xylene	<0.00200	0.100	0.0659	66	0.0792	80	70-130	18	35	mg/kg	06.29.2020 22:47	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		97		70-130	%	06.29.2020 22:47
4-Bromofluorobenzene	92		100		70-130	%	06.29.2020 22:47

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

Chain of Custody

Work Order No: 1065647

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

www.xenco.com Page 1 of 1

Project Manager:	Lance Crenshaw	Bill to: (if different)	Teffanie Fawks
Company Name:	Etech Environmental and Safety	Company Name:	Endeavor
Address:	3100 Plains Hwy	Address:	
City, State ZIP:	Lovington, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to: PM@etechenv.com + Client

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfield ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level I ☐ Level II ☐ PST/US ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	State 22 Water Transfer Line	Turn Around	
Project Number:	12538	Routine:	X
Project Location	Rural Chavez	Rush:	☐
Sampler's Name:	Hilda Villa	Due Date:	
PO #:			

SAMPLE RECEIPT				
Temperature (°C):	4.6	Temp Blank:	Yes (No)	Wet Ice: (Yes) No
Received Intact:	(Yes) No	Thermometer ID:	DLE-004	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:		
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	BTEX (SW 846 8021B)	TPH (SW 846 8015M Ext.)	Cl- (4500 Cl)	Sample Comments
V1 @ 3'	Soil	6/24/2020		3'	1/NO	X	X	X	
V1 @ 4'	Soil	6/24/2020		4'	1/NO	X	X	X	
V2 @ 2'	Soil	6/24/2020		2'	1/NO	X	X	X	
V3 @ 3'	Soil	6/24/2020		3'	1/NO	X	X	X	
V3 @ 4'	Soil	6/24/2020		4'	1/NO	X	X	X	

Preservative Codes

HNO3: HN
H2S04: H2
HCL: HL
None: NO
NaOH: Na
MeOH: Me
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:30pm

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75.00 will be applied to each project and a charge of $5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		06-25-20 3:04 PM	2		
3			4		
5			6		

Revised Date101419 Rev. 2019.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 06.26.2020 10.40.00 AM

Work Order #: 665647

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)?	4.6	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	TPH 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: 06.26.2020

Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 06.26.2020

Jessica Kramer

Appendix D
Photographic Log

Photographic Log

Photo Number: 1	
Photo Direction: Southeast	
Photo Description: Spill area adjacent to road.	

Photo Number: 2	
Photo Direction: East	
Photo Description: Initial release point facing downhill toward the bulk of the release.	

Photographic Log

Photo Number: 3	
Photo Direction: South	
Photo Description: Field area affected by release.	

Photo Number: 4	
Photo Direction: West	
Photo Description: Release area blocked by fiberglass pipe.	

Photographic Log

Photo Number: 5	
Photo Direction: Southeast	
Photo Description: Field area affected by release.	

Photo Number: 6	
Photo Direction: Southeast	
Photo Description: Runoff down hill from initial release point.	

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 10809

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
ENDEAVOR ENERGY RESOURCES, LP 110 North Marienfeld Suite 200 Midland, TX79701	190595	10809	C-141

OCD Reviewer	Condition
ceads	Additional remediation may be required because evidence of the depth to groundwater determination is insufficient.
ceads	When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, the data should be no more than 25 years old, and well construction information should be provided. The responsible party may choose to remediate the affected area to the most stringent levels listed in Table 1 in lieu of drilling to determine the depth to groundwater.