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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

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

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

Unit Letter	Section	Township	Range	County

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

Nature and Volume of Release

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Initial Response

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

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

If all the actions described above have 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: _____ Title: _____

Signature: Sheldon Hitson Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: _____ Title: _____

Signature: Sheldon Hitson Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☐ Description of remediation activities

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

Printed Name: _____ Title: _____

Signature: Sheldon Hitson _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Remediation Summary & Soil Closure Request

COG Operating, LLC
Huckleberry State Com 507H
Lea County, New Mexico
Unit Letter D, Section 27, Township 21 South, Range 33 East
Latitude 32.4566 North, Longitude 103.5652 West
NMOCD Reference No. NRM2030929244

Prepared By:

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

Ben J. Arguijo

Joel W. Lowry

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REMEDIATION ACTIVITIES SUMMARY…. **4.0**
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APPENDICES

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1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of COG Operating, LLC (COG), has prepared this *Remediation Summary & Soil Closure Request* for the release site known as the Huckleberry State Com 507H (henceforth, "Site"). Details of the release are summarized below:

Location of Release Source

Latitude: 32.4566 Longitude: -103.5652

Provided GPS are in WGS84 format.

Site Name: Huckleberry State Com 507H	Site Type: Tank Battery
Date Release Discovered:	API # (if applicable): 30-025-45209

Unit Letter	Section	Township	Range	County
D	27	21S	33E	Lea

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

Nature and Volume of Release

[X] Crude Oil	Volume Released (bbls) 1	Volume Recovered (bbls) 0
[ ] Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/L?	[ ] Yes [ ] No [X] 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:
Spill caused by fire on the pad from the gas lift compressor. The fire burned a plastic slop tank. No fluid was recovered due to the fire burning off any standing fluid.

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 Site. Probable groundwater depth was determined using data generated by numeric models based on available water well data and published information. Depth to groundwater information is provided as Appendix A.

What is the shallowest depth to groundwater beneath the area affected by the release?	570'
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) and Fish & Wildlife Services (FWS) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted in Figures 1, 2, 4, and 5.

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 and NMOCD Reclamation Standard for the Site are as follows:

Probable Depth to Groundwater	Constituent	Laboratory Analytical Method	Closure Criteria*†	Reclamation Standard*‡
570'	Chloride (Cl-)	EPA 300.0 or SM4500 Cl B	20,000	600
	Total Petroleum Hydrocarbons (TPH)	EPA SW-846 Method 8015M Ext	2,500	100
	Diesel Range Organics + Gas Range Organics (DRO + GRO)	EPA SW-846 Method 8015M	1,000	-
	Benzene	EPA SW-846 Methods 8021b or 8260b	10	10
	Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA SW-846 Methods 8021b or 8260b	50	50

* Measured in milligrams per kilogram (mg/kg)
† Table I, Section 19.15.29.12 of the New Mexico Administrative Code (NMAC).
‡ The NMOCD Reclamation Standard applies only to the top 4' of soil in non-production areas. Section 19.15.29.13 D.(1) NMAC.

4.0 REMEDIATION ACTIVITIES SUMMARY

On November 17, 2020, COG commenced remediation activities the Site. In accordance with NMOCD regulatory guidelines, impacted soil affected above the NMOCD Closure Criteria was excavated and stockpiled on-site, pending transfer to an NMOCD-approved surface waste facility for disposal. The floor and sidewalls of the excavation were advanced until field observations suggested BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard.

Based on field observations, a total of 13 confirmation soil samples (B-1 through B-11, SW-1, and SW-2) were collected from the base and sidewalls of the excavation. The soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standard, with the exceptions of samples B-1 (521 mg/kg TPH), B-4 (1,430 mg/kg Cl-), B-6 (124 mg/kg TPH), and SW-2 (158 mg/kg TPH).

In January 2021, COG contracted Etech to assume remediation activities for the release.

On January 27, 2021, Etech commenced remediation activities at the Site. Impacted soil in the areas characterized by sample points B-1, B-4, B-6, and SW-2 was excavated until field observations and field test results suggested BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard. After excavation activities were completed, four (4) additional confirmation soil samples (B-1, B-4, B-6, and SW-2) were collected from the base and sidewalls of the excavation. The soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Remediation Standard in each of the submitted soil samples.

A "Site & Sample Location Map" is provided as Figure 3. Soil chemistry data is summarized in Table 1. Field data and soil profile logs are provided in Appendix B. Laboratory analytical reports are provided in Appendix C. General photographs of the Site are provided in Appendix D.

The final dimensions of the excavated area were approximately 49 feet in length, 24 to 36 feet in width, and three (3) inches to 1.5 feet in depth. During the course of remediation activities, approximately 60 cubic yards of impacted soil were transported to an NMOCD-approved surface waste facility for disposal.

5.0 RESTORATION, RECLAMATION & RE-VEGETATION PLAN

Upon receiving laboratory analytical results from confirmation soil samples, excavated areas were backfilled with locally sourced, non-impacted, "like" material placed at or near original relative positions. The affected area was contoured and compacted to fit the needs of the facility and achieve erosion control, stability, and/or preservation of surface water flow to the extent practicable. Affected areas not on the production pad will be reseeded with an agency and/or landowner-approved seed mixture free of noxious weeds during the first favorable growing season following closure of the Site.

6.0 SOIL CLOSURE REQUEST

Remediation activities were conducted in accordance with applicable NMOCD regulations. Impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard was excavated and transported to an NMOCD-approved disposal facility. Laboratory analytical results from confirmation soil samples indicate in-situ concentrations of BTEX, TPH, and chloride are below the NMOCD Closure Criteria and NMOCD Reclamation Standard.

Based on laboratory analytical results and field activities conducted to date, Etech recommends COG provide copies of this *Remediation Summary & Soil Closure Request* to the appropriate agencies and request closure be granted to the Site.

7.0 LIMITATIONS

Etech Environmental & Safety Solutions, Inc., has prepared this *Remediation Summary & Soil Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents referenced 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 COG Operating, LLC. Use of the information contained in this report is prohibited without the consent of Etech and/or COG Operating, LLC.

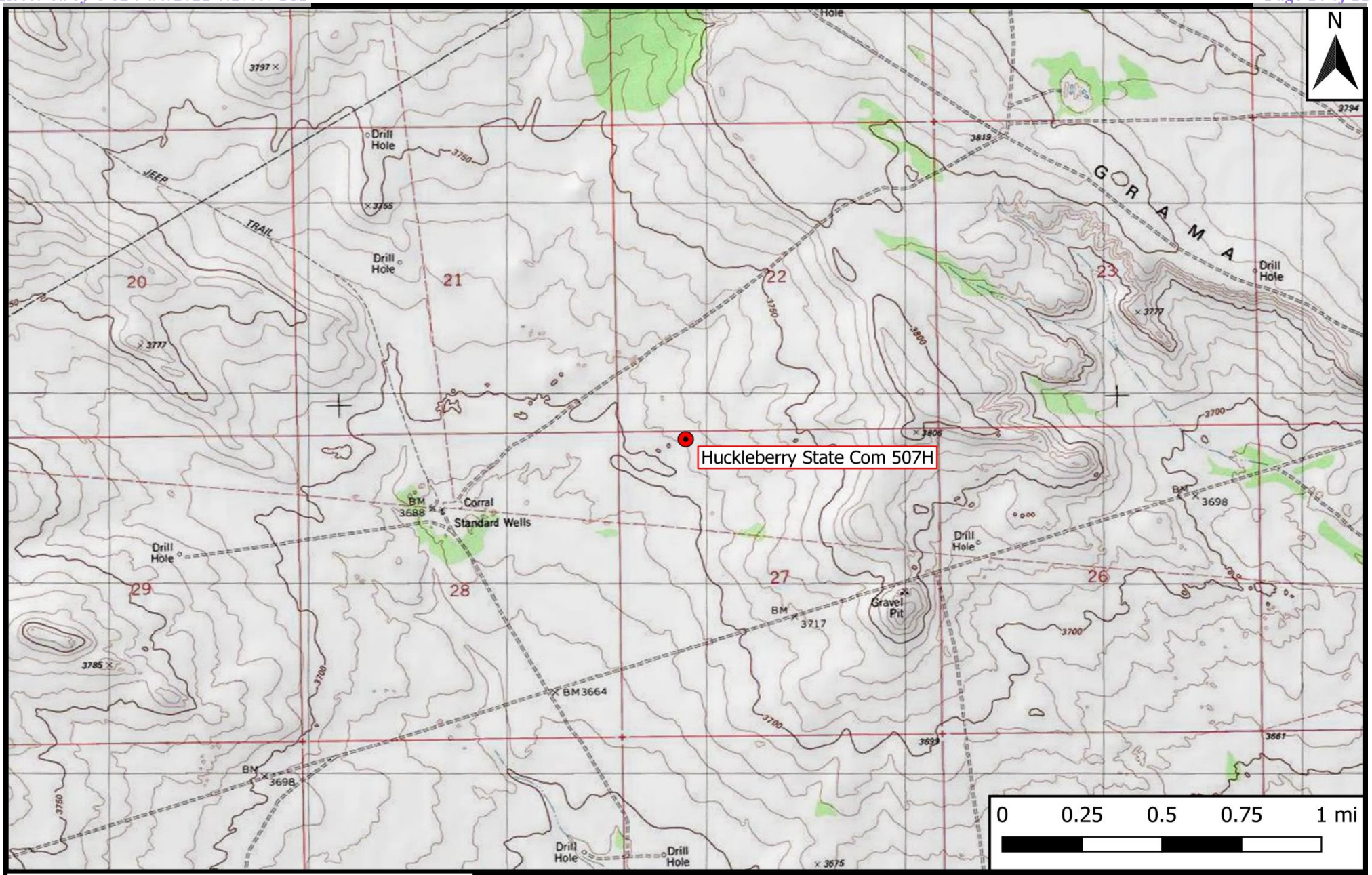
8.0 DISTRIBUTION

COG Operating, LLC
600 West Illinois Avenue
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

(Electronic Submission)

Figure 1
Topographic Map



Legend

- Site Location

Figure 1

Site Location Map

COG Operating, LLC

Huckleberry State Com 507H

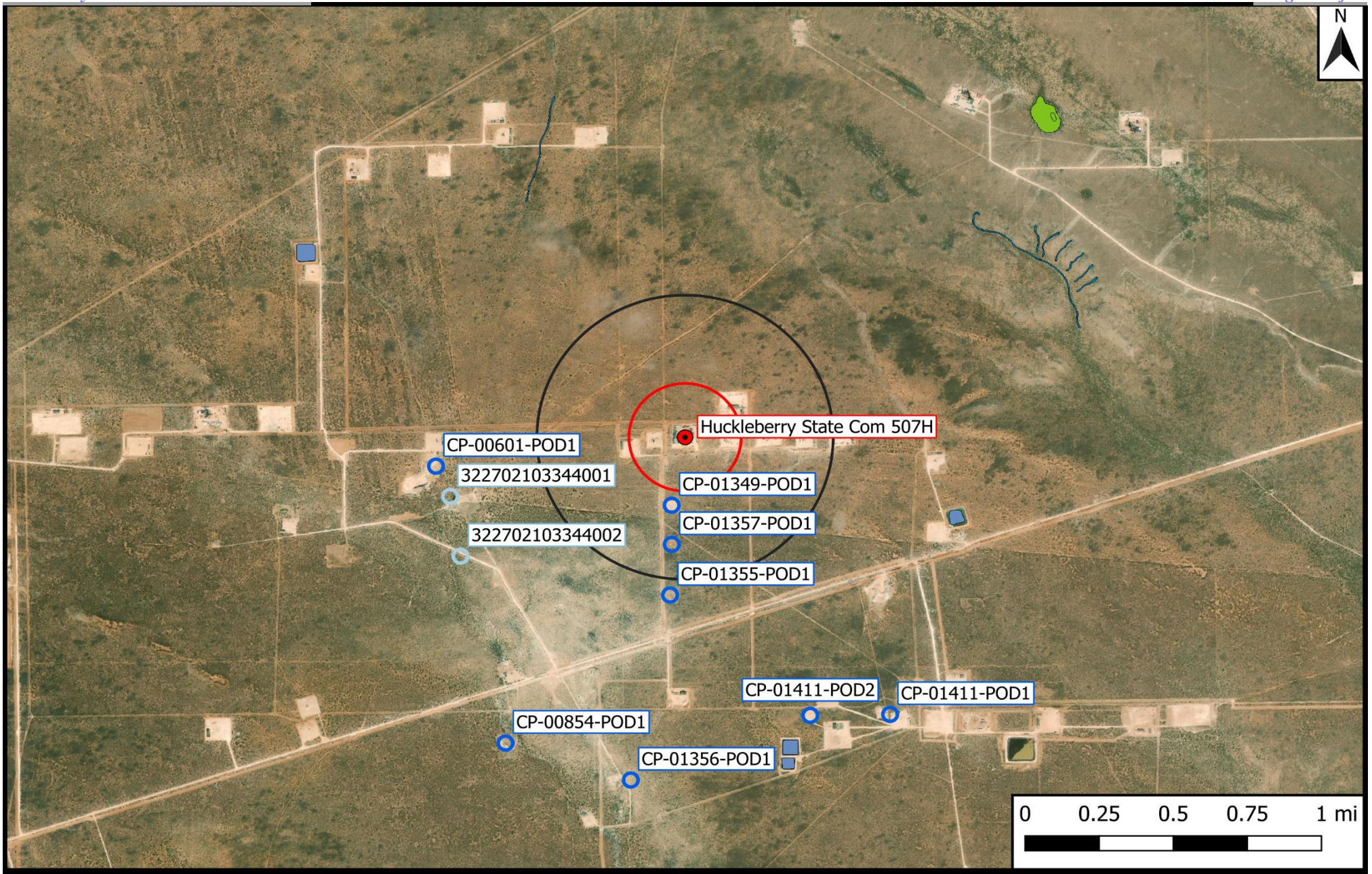
GPS: 32.4566, -103.5652

Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: bja Checked: jwl Date: 3/23/21

Figure 2
Aerial Proximity Map



Legend

- Site Location
- Well - NMOSE
- Well - USGS
- Well - Investigative/Monitor
- Potash Mine Workings
- 1,000-Ft Radius
- 0.5-Mi Radius
- 1% Annual Flood Chance
- Emergent/Forested Wetlands
- Lake/Freshwater Pond
- Medium/High Karst
- Riverine

Figure 2
Aerial Proximity Map
COG Operating, LLC
Huckleberry State Com 507H
GPS: 32.4566, -103.5652
Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: bja Checked: jwl Date: 3/23/21

Figure 3
Site & Sample Location Map

Legend

- Sample Point
- Scrape - 3"
- Excavation - 6"
- Excavation - 1.5'

Figure 3

Site & Sample Location Map

COG Operating, LLC

Huckleberry State Com 507H

GPS: 32.4566, -103.5652

Lea County

eTECH Environmental & Safety Solutions, Inc.

Revised: bja Checked: jwl Date: 3/24/21

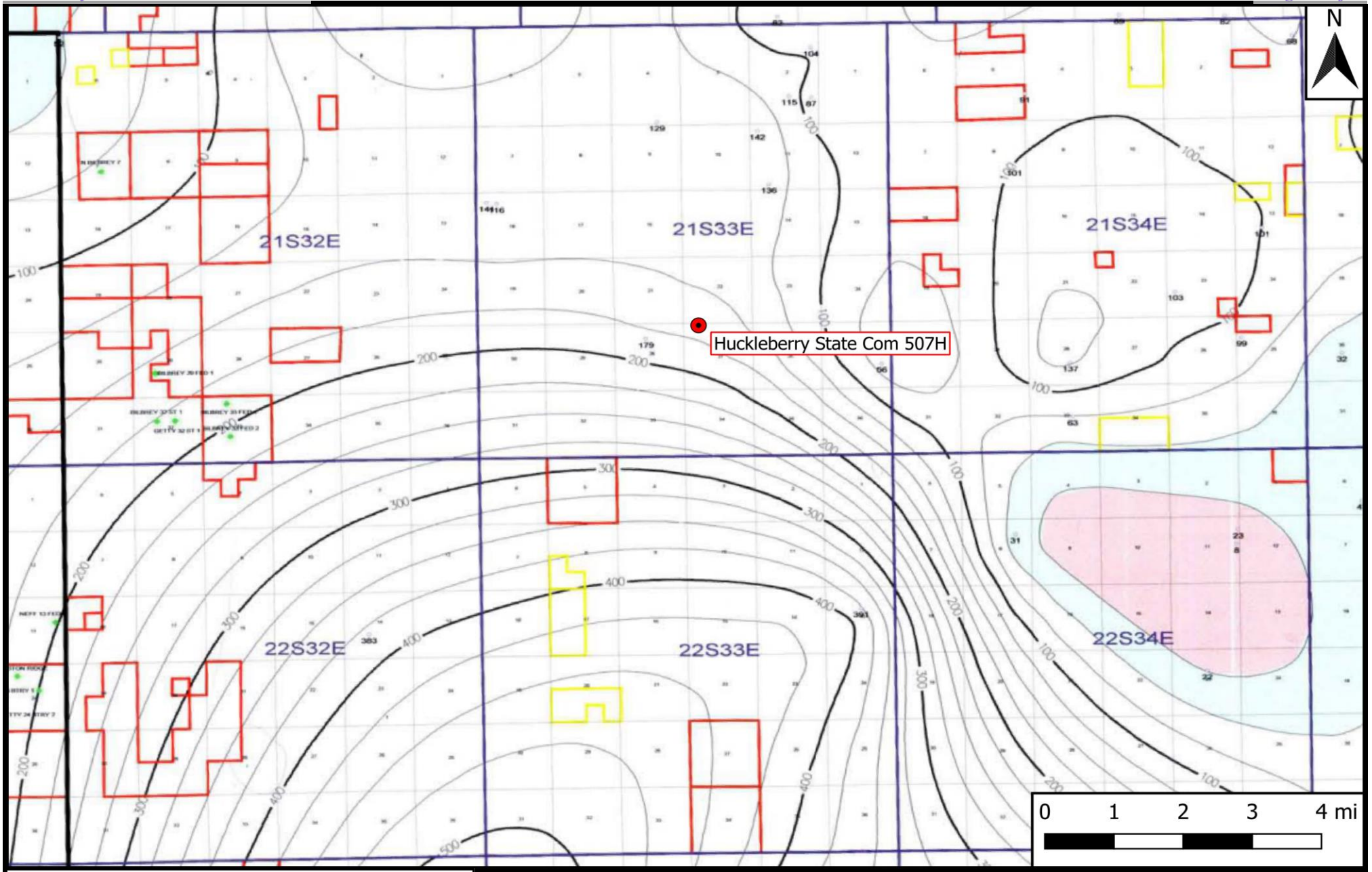
Table 1
Concentrations of BTEX, TPH & Chloride in Soil

Attachment 3
CONCENTRATIONS OF BTEX, TPH & CHLORIDE IN SOIL
COG Operating, LLC
Huckleberry State Com 507H
NMOCD Ref. #: NRM2030929244

NMOCD Closure Criteria				**10**	**50**	**-**	**-**	**1,000**	**-**	**2,500**	**20,000**
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)**
B-1	11/17/2020	3"	Excavated	<0.00199	<0.00199	<50.2	325	325	196	521	361
B-2	11/17/2020	3"	In-Situ	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	142
B-3	11/17/2020	3"	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	590
B-4	11/17/2020	3"	Excavated	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	1,430
B-5	11/17/2020	3"	In-Situ	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	390
B-6	11/17/2020	3"	Excavated	<0.00200	0.0556	<49.9	124	124	<49.9	124	337
B-7	11/17/2020	3"	In-Situ	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	23.6
B-8	11/17/2020	3"	In-Situ	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	42.4
B-9	11/17/2020	3"	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	62.4
B-10	11/17/2020	3"	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	22.6
B-11	11/17/2020	3"	In-Situ	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	15.9
SW-1	11/17/2020	3"	In-Situ	<0.00201	<0.00201	<49.9	89.1	89.1	<49.9	89.1	489
SW-2	11/17/2020	3"	Excavated	<0.00198	<0.00198	<50.2	98.0	98.0	59.5	158	95.5
B1	1/27/2021	1.5'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	365
B4	1/27/2021	6"	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	285
B6	1/27/2021	6"	In-Situ	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	65.7
SW2	1/27/2021	1.5'	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	85.2

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

COG Operating, LLC

Huckleberry State Com 507H

GPS: 32.4566, -103.5652

Lea County

ETECH Environmental & Safety Solutions, Inc.

Drafted: bja Checked: jwl Date: 3/23/21

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 01349 POD1		CP	LE	2	3	1	27	21S	33E	634782	3591569	470	1188	572	616
CP 01357 POD1		CP	LE	4	3	1	27	21S	33E	634782	3591347	686	1286	578	708

Average Depth to Water: **575 feet**

Minimum Depth: **572 feet**

Maximum Depth: **578 feet**

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 634916.73 **Northing (Y):** 3592020.72 **Radius:** 804.67

1/7/21 7:52 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

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
	CP 01349 POD1	2	3	1	27	21S	33E	634782	3591569

Driller License: 421 **Driller Company:** GLENN'S WATER WELL SERVICE

Driller Name: GLENN, CLARK A."CORKY"

Drill Start Date:	07/12/2014	**Drill Finish Date:**	07/18/2014	**Plug Date:**	
Log File Date:	08/04/2014	**PCW Rcv Date:**	04/27/2017	**Source:**	Artesian
Pump Type:	SUBMER	**Pipe Discharge Size:**	3	**Estimated Yield:**	
Casing Size:	7.00	**Depth Well:**	1188 feet	**Depth Water:**	572 feet

Water Bearing Stratifications:	Top	Bottom	Description
	990	1188	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	721	1188

Meter Number:	18275	**Meter Make:**	BLANCETT
Meter Serial Number:	092413719	**Meter Multiplier:**	1.0000
Number of Dials:	9	**Meter Type:**	Diversion
Unit of Measure:	Barrels 42 gal.	**Return Flow Percent:**	
Usage Multiplier:		**Reading Frequency:**	Monthly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
06/02/2015	2015	616318	A	ap	beginning water report	0	
06/27/2015	2015	654758	A	ap		49.547	
07/31/2015	2015	654758	A	ap		0	
08/31/2015	2015	658147	A	ap		4.368	
09/30/2015	2015	658147	A	ap		0	
10/31/2015	2015	658147	A	ap		0	
11/30/2015	2015	658147	A	ap		0	
04/01/2016	2016	0	A	ap	meter was reset	0	
04/30/2016	2016	56	A	ap		0.072	
06/30/2016	2016	45448	A	ap		58.507	
07/27/2016	2016	93651	A	ap		62.130	
08/04/2016	2016	0	A	ap		0	
08/04/2016	2016	93651	A	ap	replacing with new meter	0	
09/01/2016	2016	59651	A	ap		768.861	
09/30/2016	2016	59685	A	ap		0.438	
10/31/2016	2016	59685	A	ap		0	
11/29/2016	2016	123327	A	ap		820.303	
12/31/2016	2016	202400	A	ap		1019.198	
02/01/2017	2017	222525	A	ap		259.398	
02/27/2017	2017	0	A	ap	reset meter again second time	0	

02/27/2017	2017	227465	A	ap		63.673	
03/01/2017	2017	4377	A	ap		56.417	
03/31/2017	2017	63670	A	ap		764.247	
05/01/2017	2017	110035	A	ap		597.614	
05/31/2017	2017	121714	A	ap		150.534	
07/31/2017	2017	179828	A	ap		749.050	
10/31/2017	2017	212568	A	ap		421.997	
11/30/2017	2017	212568	A	ap		0	
11/30/2017	2017	0	A	ap	new meter	0	
12/30/2017	2017	381088	A	ap		4911.968	
01/30/2018	2018	437540	A	ap		727.628	
02/28/2018	2018	489981	A	ap		675.929	
03/30/2018	2018	547614	A	ap		742.851	
04/30/2018	2018	599646	A	ap		670.657	
06/01/2018	2018	653059	A	ap		688.458	
06/29/2018	2018	705152	A	ap		671.444	
07/31/2018	2018	740396	A	ap		454.271	
08/30/2018	2018	797263	A	ap		732.977	
09/30/2018	2018	846832	A	ap		638.911	
11/30/2018	2018	954599	A	ap		1389.044	
01/02/2019	2018	1007303	A	RPT		6.793	
02/01/2019	2019	1020346	A	RPT		1.681	
08/01/2019	2019	1424822	A	RPT		52.134	
09/01/2019	2019	1479315	A	RPT		7.024	
09/30/2019	2019	1532079	A	RPT		6.801	
10/31/2019	2019	1594691	A	RPT		8.070	
11/30/2019	2019	1649180	A	RPT		7.023	
12/31/2019	2019	1680307	A	RPT		4.012	
02/01/2020	2020	1725618	A	RPT		5.840	
03/01/2020	2020	1769757	A	RPT		5.689	
04/01/2020	2020	1795050	A	RPT		3.260	
05/01/2020	2020	1795050	A	RPT		0	
06/01/2020	2020	1827737	A	RPT		4.213	
08/01/2020	2020	1890759	A	RPT		8.123	
09/01/2020	2020	1911876	A	RPT		2.722	
10/01/2020	2020	1921973	A	RPT		1.301	
10/31/2020	2020	1921973	A	WEB		0	X
11/30/2020	2020	1936489	A	WEB		1.871	X
12/31/2020	2020	1985989	A	WEB		6.380	X

x

**YTD Meter Amounts:	Year	Amount
	2015	53.915
	2016	2729.509
	2017	7974.898
	2018	7398.963
	2019	86.745
	2020	39.399

x

New Mexico Office of the State Engineer
Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	CP 01357 POD1	4	3	1	27	21S	33E	634782	3591347

Driller License: 421 **Driller Company:** GLENN'S WATER WELL SERVICE

Driller Name: GLENN, CLARK A."CORKY"

Drill Start Date:	08/16/2014	**Drill Finish Date:**	08/26/2014	**Plug Date:**	
Log File Date:	09/10/2014	**PCW Rcv Date:**	04/27/2017	**Source:**	Artesian
Pump Type:	SUBMER	**Pipe Discharge Size:**	3	**Estimated Yield:**	
Casing Size:	6.37	**Depth Well:**	1286 feet	**Depth Water:**	578 feet

Water Bearing Stratifications:	Top	Bottom	Description
	945	960	Sandstone/Gravel/Conglomerate
	960	1077	Shale/Mudstone/Siltstone
	1077	1215	Sandstone/Gravel/Conglomerate
	1215	1286	Shale/Mudstone/Siltstone

Casing Perforations:	Top	Bottom
	846	1286

Meter Number:	18278	**Meter Make:**	BLANCETT
Meter Serial Number:	002514700	**Meter Multiplier:**	1.0000
Number of Dials:	9	**Meter Type:**	Diversion
Unit of Measure:	Barrels 42 gal.	**Return Flow Percent:**	
Usage Multiplier:		**Reading Frequency:**	Monthly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
06/03/2015	2015	620282	A	ap	beginning meter reading	0	
06/27/2015	2015	648079	A	ap		358.285	
07/31/2015	2015	648079	A	ap		0	
08/21/2015	2015	678838	A	ap		396.463	
09/30/2015	2015	679417	A	ap		7.463	
10/30/2015	2015	777255	A	ap		1261.066	
11/30/2015	2015	798886	A	ap		278.809	
04/30/2016	2016	984569	A	ap		2393.329	
06/30/2016	2016	1124000	A	ap		1797.172	
07/31/2016	2016	1199233	A	ap		969.703	
09/01/2016	2016	1273938	A	ap		962.897	
09/30/2016	2016	1304197	A	ap		390.018	
10/31/2016	2016	1352466	A	ap		622.155	
11/29/2016	2016	1416500	A	ap		825.355	
12/31/2016	2016	1496320	A	ap		1028.826	

02/01/2017	2017	1526044	A	ap	383.122
03/01/2017	2017	1526818	A	ap	9.976
03/31/2017	2017	1549606	A	ap	293.722
05/01/2017	2017	1596745	A	ap	607.590
05/31/2017	2017	1609365	A	ap	162.663
07/31/2017	2017	1675457	A	ap	851.881
10/31/2017	2017	1782654	A	ap	1381.697
11/30/2017	2017	1866815	A	ap	1084.779
12/30/2017	2017	1939812	A	ap	940.882
01/30/2018	2018	2006016	A	ap	853.325
02/28/2018	2018	2071063	A	ap	838.412
03/30/2018	2018	2134697	A	ap	820.199
04/30/2018	2018	2198100	A	ap	817.222
06/01/2018	2018	2264810	A	ap	859.847
06/29/2018	2018	2327836	A	ap	812.363
07/31/2018	2018	2408117	A	ap	1034.768
08/30/2018	2018	2477917	A	ap	899.675
09/30/2018	2018	2536539	A	ap	755.598
11/30/2018	2018	2614905	A	ap	1010.085
01/02/2019	2018	2676128	A	RPT	7.891
02/01/2019	2019	2690452	A	RPT	1.846
08/01/2019	2019	3102120	A	RPT	53.061
09/01/2019	2019	3143282	A	RPT	5.306
09/30/2019	2019	3237244	A	RPT	12.111
10/31/2019	2019	3279628	A	RPT	5.463
11/30/2019	2019	3343068	A	RPT	8.177
12/31/2019	2019	3380700	A	RPT	4.851
02/01/2020	2020	3404021	A	RPT	3.006
03/01/2020	2020	3424112	A	RPT	2.590
04/01/2020	2020	3461970	A	RPT	4.880
05/01/2020	2020	3461970	A	RPT	0
06/01/2020	2020	3474270	A	RPT	1.585
08/01/2020	2020	3485254	A	RPT	1.416
09/01/2020	2020	3495334	A	RPT	1.299
10/01/2020	2020	3495334	A	RPT	0

****YTD Meter Amounts:**

Year	Amount
2015	2302.086
2016	8989.455
2017	5716.312
2018	8709.385
2019	90.815
2020	14.776

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

STATE ENGINEER OFFICE
2014 SEP 10 PM 2:15

1. GENERAL AND WELL LOCATION

OSE POD NUMBER (WELL NUMBER): CP-1349 (Tyler #1) *** ~~REVISED 09/09/14~~ ***	OSE FILE NUMBER(S):
WELL OWNER NAME(S): Merchants/Glenn's Water Well Service, Inc.	PHONE (OPTIONAL): 575-398-2424
WELL OWNER MAILING ADDRESS: P. O. Box 692	CITY: Tatum STATE: NM ZIP: 88267

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32	27	11.3	N
LONGITUDE	103	33	57.7	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

NE1/4SW1/4NW1/4 Section 27, Township 21 South, Range 33 East on Merchants Livestock Land

2. DRILLING & CASING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD 421	Corky Glenn	Glenn's Water Well Service, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
07/12/14	07/18/14	1,188'	1,188'	990'

COMPLETED WELL IS: (•) ARTESIAN ( ) DRY HOLE ( ) SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 572'

DRILLING FLUID: (•) AIR (•) MUD ADDITIVES – SPECIFY:

DRILLING METHOD: (•) ROTARY ( ) HAMMER ( ) CABLE TOOL ( ) OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0'	40'	20"	16"	None	15 1/2"	.250	
0'	754'	14 3/4"	9 5/8"	Thread & Collar	8.921"	36 lbs.	none
721'	1,188'	8 3/4"	7" (467' Total)	Thread & Collar	6.366"	23 lbs.	1/8"
			259.93' perforated				
			on bottom of liner				

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	40'	20"	Cemented	2 yds.	Top Pour
0	754'	14 3/4"	Float and shoe cemented to surface	777	Circulated

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	CP-1349	POD NUMBER	1	TRN NUMBER	548679
LOCATION	Exp1	21S.33E.27.132			PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	4'	4'	Sand	○ Y ◉ N	
4'	19'	15'	Caliche	○ Y ◉ N	
19'	35'	16'	Sand & Clay	○ Y ◉ N	
35'	122'	87'	Red Clay	○ Y ◉ N	
122'	145'	23'	Sandy Red Clay	○ Y ◉ N	
145'	417'	272'	Red & Brown Clay	○ Y ◉ N	
417'	720'	303'	Brown & Red Shale (some clay)	○ Y ◉ N	
720'	742'	22'	Red, Brown & Blue Clay	○ Y ◉ N	
742'	753'	11'	Brown Shale & Brown Sandrock	○ Y ◉ N	
753'	805'	52'	Red & Blue Clay	○ Y ◉ N	
805'	837'	32'	Brown & Red Shale (some sandrock)	○ Y ◉ N	
837'	885'	48'	Brown Sandrock & Shale	○ Y ◉ N	
885'	990'	105'	Red & Brown Shale (some sandrock)	○ Y ◉ N	
990'	1188'	198'	Watersand (Brown Sandrock)	◉ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ◉ PUMP ○ AIR LIFT ○ BAILER ○ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm):

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:
0' to 754' drilled with mud.
754' to 1,188' drilled with air and foam.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

Corky Glenn — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

9/9/14 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	CP-1349	POD NUMBER	1	TRN NUMBER	548699
LOCATION	21S.33E.27.132				PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2014 AUG -4 AM 10: 48

1. GENERAL AND WELL LOCATION

OSE POD NUMBER (WELL NUMBER): CP - 1349 (Tyler #1)	OSE FILE NUMBER(S):
WELL OWNER NAME(S): Merchants Livestock/Glenn's Water Well Servcie, Inc.	PHONE (OPTIONAL): (575)398-2424
WELL OWNER MAILING ADDRESS: P.O. Box 692	CITY: Tatum STATE: NM ZIP: 88267

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32	27	11.3	N
LONGITUDE	103	33	37.7	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

NE/SW/NW Sec. 27, T21S, R33E on Merchants Livestock Land

2. DRILLING & CASING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD 421	Corky Glenn	Glenn's Water Well Service, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
7/12/14	7/18/14	1188'	1188'	990'

COMPLETED WELL IS: (•) ARTESIAN ( ) DRY HOLE ( ) SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT):

DRILLING FLUID: (•) AIR ( ) MUD ADDITIVES – SPECIFY:

DRILLING METHOD: (•) ROTARY ( ) HAMMER ( ) CABLE TOOL ( ) OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0'	40'	20"	16"	none	15 1/2'	.250	
0'	754'	14 3/4"	9 5/8"	Thread and collar	.352	36 lbs.	none
721'	1188'	8 3/4"	7"	Thread and collar	6.5"	23 lbs.	1/8"

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0'	40'	20"	Cemented	2 yds.	Top Pour
0'	754'	14 3/4"	Float and shoe cemented to surface	740	Circulated

FOR OSE INTERNAL USE WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	CP-1349	POD NUMBER	1	TRN NUMBER	548679
LOCATION	21S.33E.27.231				PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0'	4'	4'	Sand	○ Y ◉ N	
4'	19'	15'	Caleche	○ Y ◉ N	
19'	35'	16'	Sand & Clay	○ Y ◉ N	
35'	122'	87'	Red Sand	○ Y ◉ N	
122'	145'	23'	Sandy Red Clay	○ Y ◉ N	
145'	417'	272'	Red & Brown Clay	○ Y ◉ N	
417'	720'	303'	Brown & Red Shale (some clay)	○ Y ◉ N	
720'	742'	22'	Red, Brown & Blue Clay	○ Y ◉ N	
742'	753'	11'	Brown Shale & Brown Sandrock	○ Y ◉ N	
753'	805'	52'	Red & Blue Clay	○ Y ◉ N	
805'	837'	32'	Brown & Red Shale (some sandrock)	○ Y ◉ N	
837'	885'	48'	Brown Sandrock & Shale	○ Y ◉ N	
855'	990'	105'	Red & Brown Shale (some sandrock)	○ Y ◉ N	
990'	1188'	198'	Watersand(Brown sandrock)	◉ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ◉ PUMP ○ AIR LIFT ○ BAILER ○ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 50

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

0' to 754' drilled with mud. 754' to 1188' drilled with air and foam.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

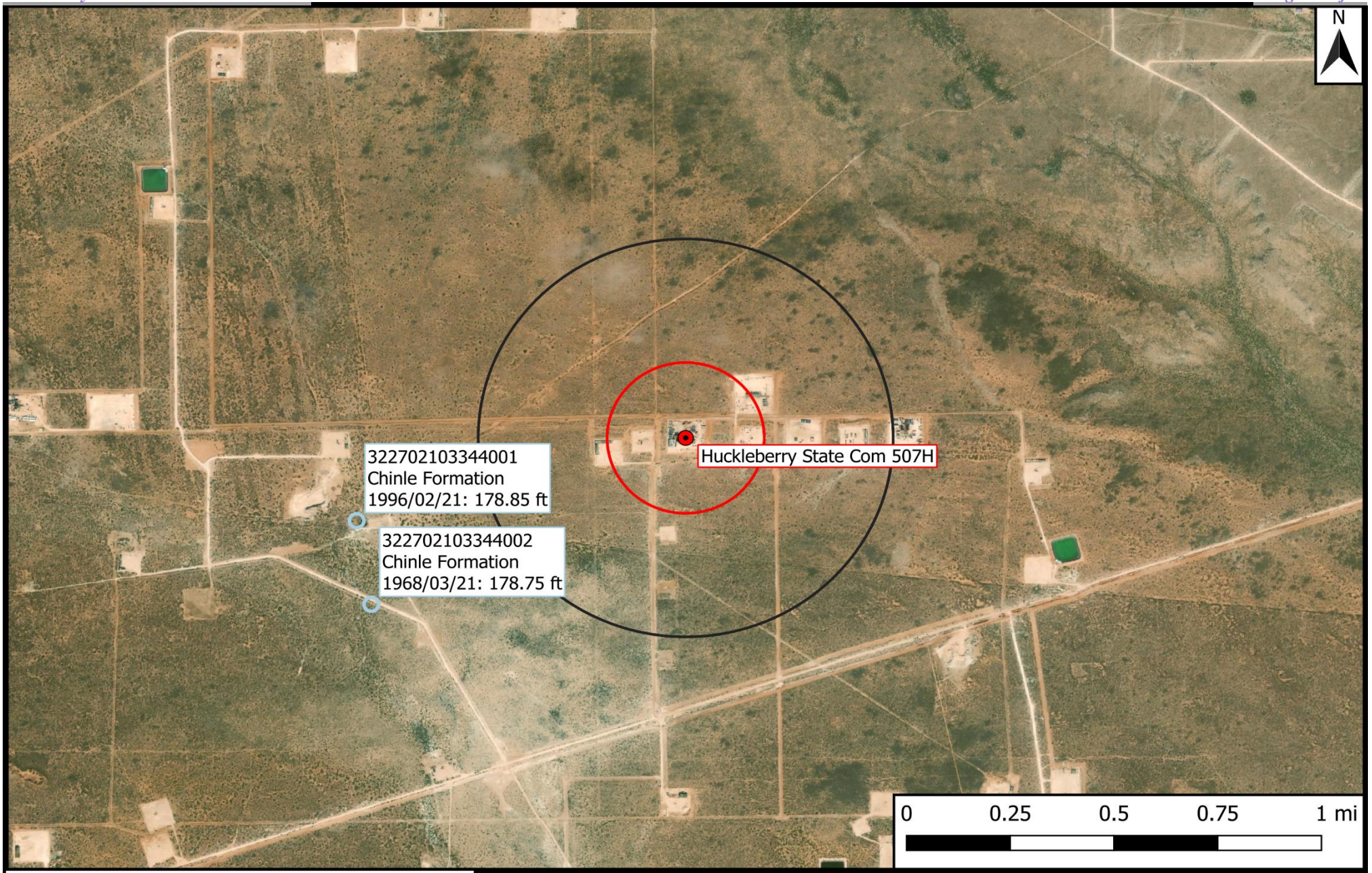
THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

Corky Glenn — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

8/1/14 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	CP-1349	POD NUMBER	1	TRN NUMBER	548679
LOCATION	21S.33E.27.231				PAGE 2 OF 2



Legend
- Site Location
- Well - USGS
- 1,000-Ft Radius
- 0.5-Mi Radius

Figure 5
USGS Well Proximity Map
COG Operating, LLC
Huckleberry State Com 507H
GPS: 32.4566, -103.5652
Lea County

eTECH Environmental & Safety Solutions, Inc.

Drafted: bja Checked: jwl Date: 3/23/21

Click to hideNews Bulletins

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

Groundwater levels for the Nation

* IMPORTANT: Next Generation Station Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 322702103344001

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

USGS 322702103344001 21S.33E.28.12443

Lea County, New Mexico
Latitude 32°27'13", Longitude 103°34'42" NAD27
Land-surface elevation 3,688.00 feet above NGVD29
The depth of the well is 224 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1971-02-04		D	72019	178.62			1	Z			A
1972-09-22		D	72019	178.60			1	Z			A
1976-12-16		D	72019	178.86			1	Z			A
1981-03-10		D	72019	184.67			1	Z			A
1986-03-20		D	72019	179.24			1	Z			A
1991-04-19		D	72019	179.10			1	Z			A
1996-02-21		D	72019	178.85			1	S			A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

Click forNews Bulletins

Groundwater levels for the Nation

* IMPORTANT: Next Generation Station Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 322702103344002

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

USGS 322702103344002 21S.33E.28.12443A

Lea County, New Mexico
Latitude 32°27'02", Longitude 103°34'40" NAD27
Land-surface elevation 3,680 feet above NAVD88
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
			72019								
1968-03-21		D	72019	178.75			1	Z			A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Accessibility FOIA Privacy Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2021-03-22 17:50:08 EDT
0.34 0.29 nadww02

Appendix B
Field Data & Soil Profile Logs

eTECH Environmental & Safety Solutions, Inc.

Sample Log

Date: 1/27/21

Project: Huckleberry State Com 507

Project Number: 13460 Latitude: 32.45719 Longitude: -103.56453

Sample ID	PID/Odor	Chloride Conc.	GPS
B1 Surface	none	628	
B4 Surface	none	412	
B6 Surface	none	148	
SW2	none	148	
B1 @ 1'6"	none	364	
B4 Surface	none	412	
B6	none	148	
SW2	none	120	

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: 1/27/21

Project: Huckleberry State Com 507

Project Number: 13460 Latitude: 32.45719 Longitude: -103.56453

Depth (ft. bgs)	Description
1	Surface Sand
2	at one foot caliche
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
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14	
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Appendix C
Laboratory Analytical Reports

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Certificate of Analysis Summary 678177

COG Operating LLC, Artesia, NM

Project Name: Huckleberry St. 507

Project Id:

Contact: Sheldon Hitchcock

Project Location: Lea Count, New Mexico

Date Received in Lab: Tue 11.17.2020 15:05

Report Date: 11.19.2020 11:10

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	678177-001		678177-002		678177-003		678177-004		678177-005		678177-006	
	Field Id:	B-1		B-2		B-3		B-4		B-5		SW-1	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	11.17.2020 10:50		11.17.2020 10:52		11.17.2020 10:54		11.17.2020 10:56		11.17.2020 10:58		11.17.2020 11:20	
BTEX by EPA 8021B	***Extracted:***	11.17.2020 16:30		11.17.2020 16:30		11.17.2020 16:30		11.17.2020 16:30		11.17.2020 16:30		11.17.2020 16:30	
	Analyzed:	11.17.2020 22:18		11.17.2020 22:46		11.17.2020 23:15		11.18.2020 00:34		11.18.2020 01:03		11.18.2020 01:32	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
m,p-Xylenes		<0.00398	0.00398	<0.00399	0.00399	<0.00398	0.00398	<0.00399	0.00399	<0.00398	0.00398	<0.00402	0.00402
o-Xylene		<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Total Xylenes		<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Total BTEX		<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00200	0.00200	<0.00199	0.00199	<0.00201	0.00201
Chloride by EPA 300	***Extracted:***	11.17.2020 16:55		11.17.2020 16:55		11.17.2020 16:55		11.17.2020 16:55		11.17.2020 16:55		11.17.2020 16:55	
	Analyzed:	11.18.2020 19:27		11.18.2020 19:44		11.18.2020 19:50		11.18.2020 19:56		11.18.2020 20:02		11.18.2020 20:08	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		361	9.94	142	9.90	590	9.90	1430	50.2	390	9.96	489	10.1
TPH By SW8015 Mod	***Extracted:***	11.17.2020 16:00		11.17.2020 16:00		11.17.2020 16:00		11.17.2020 16:00		11.17.2020 16:00		11.17.2020 16:00	
	Analyzed:	11.17.2020 18:18		11.17.2020 18:38		11.17.2020 18:58		11.17.2020 19:18		11.17.2020 19:38		11.17.2020 19:58	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons		<50.2	50.2	<49.8	49.8	<50.0	50.0	<50.2	50.2	<50.1	50.1	<49.9	49.9
Diesel Range Organics		325	50.2	<49.8	49.8	<50.0	50.0	<50.2	50.2	<50.1	50.1	89.1	49.9
Motor Oil Range Hydrocarbons (MRO)		196	50.2	<49.8	49.8	<50.0	50.0	<50.2	50.2	<50.1	50.1	<49.9	49.9
Total TPH		521	50.2	<49.8	49.8	<50.0	50.0	<50.2	50.2	<50.1	50.1	89.1	49.9

BRL - Below Reporting Limit

Jessica Kramer

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Analytical Report 678177

for

COG Operating LLC

Project Manager: Sheldon Hitchcock

Huckleberry St. 507

11.19.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

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

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

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11.19.2020

Project Manager: **Sheldon Hitchcock**
COG Operating LLC
2407 Pecos Avenue
Artesia, NM 88210

Reference: Eurofins Xenco, LLC Report No(s): **678177**
Huckleberry St. 507
Project Address: Lea Count, New Mexico

Sheldon Hitchcock:

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) 678177. 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. 678177 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,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 678177

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
B-1	S	11.17.2020 10:50		678177-001
B-2	S	11.17.2020 10:52		678177-002
B-3	S	11.17.2020 10:54		678177-003
B-4	S	11.17.2020 10:56		678177-004
B-5	S	11.17.2020 10:58		678177-005
SW-1	S	11.17.2020 11:20		678177-006

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CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Huckleberry St. 507

Project ID:
Work Order Number(s): *678177*

Report Date: *11.19.2020*
Date Received: *11.17.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 678177

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B-1**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678177-001	Date Collected:	11.17.2020 10:50		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:55	% Moisture:	
Seq Number:	3142698			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**361**	9.94	mg/kg	11.18.2020 19:27		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.17.2020 16:00	% Moisture:	
Seq Number:	3142569			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.2	50.2	mg/kg	11.17.2020 18:18	U	1
Diesel Range Organics	C10C28DRO	**325**	50.2	mg/kg	11.17.2020 18:18		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**196**	50.2	mg/kg	11.17.2020 18:18		1
Total TPH	PHC635	**521**	50.2	mg/kg	11.17.2020 18:18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	11.17.2020 18:18	
o-Terphenyl	84-15-1	114	%	70-135	11.17.2020 18:18	

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Certificate of Analytical Results 678177

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B-1**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678177-001	Date Collected:	11.17.2020 10:50		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:30	% Moisture:	
Seq Number:	3142571			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.17.2020 22:18	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.17.2020 22:18	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.17.2020 22:18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.17.2020 22:18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.17.2020 22:18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.17.2020 22:18	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.17.2020 22:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	11.17.2020 22:18	
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.17.2020 22:18	

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Certificate of Analytical Results 678177

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B-2**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678177-002	Date Collected:	11.17.2020 10:52		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:55	% Moisture:	
Seq Number:	3142698			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**142**	9.90	mg/kg	11.18.2020 19:44		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.17.2020 16:00	% Moisture:	
Seq Number:	3142569			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.8	49.8	mg/kg	11.17.2020 18:38	U	1
Diesel Range Organics	C10C28DRO	<49.8	49.8	mg/kg	11.17.2020 18:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.17.2020 18:38	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.17.2020 18:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	11.17.2020 18:38	
o-Terphenyl	84-15-1	116	%	70-135	11.17.2020 18:38	

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Certificate of Analytical Results 678177

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B-2**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678177-002	Date Collected:	11.17.2020 10:52		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:30	% Moisture:	
Seq Number:	3142571			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.17.2020 22:46	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.17.2020 22:46	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.17.2020 22:46	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.17.2020 22:46	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.17.2020 22:46	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.17.2020 22:46	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.17.2020 22:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.17.2020 22:46	
4-Bromofluorobenzene	460-00-4	107	%	70-130	11.17.2020 22:46	

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Certificate of Analytical Results 678177

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id: **B-3** Matrix: Soil Date Received:11.17.2020 15:05

Lab Sample Id: 678177-003 Date Collected: 11.17.2020 10:54

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 11.17.2020 16:55 % Moisture:

Seq Number: 3142698 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**590**	9.90	mg/kg	11.18.2020 19:50		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: MAB

Analyst: CAC Date Prep: 11.17.2020 16:00 % Moisture:

Seq Number: 3142569 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	11.17.2020 18:58	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	11.17.2020 18:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.17.2020 18:58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.17.2020 18:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	11.17.2020 18:58	
o-Terphenyl	84-15-1	110	%	70-135	11.17.2020 18:58	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678177

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B-3**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678177-003	Date Collected:	11.17.2020 10:54		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:30	% Moisture:	
Seq Number:	3142571			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.17.2020 23:15	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.17.2020 23:15	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.17.2020 23:15	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.17.2020 23:15	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.17.2020 23:15	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.17.2020 23:15	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.17.2020 23:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.17.2020 23:15	
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.17.2020 23:15	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 678177

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B-4**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678177-004	Date Collected:	11.17.2020 10:56		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:55	% Moisture:	
Seq Number:	3142698			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1430**	50.2	mg/kg	11.18.2020 19:56		5

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.17.2020 16:00	% Moisture:	
Seq Number:	3142569			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.2	50.2	mg/kg	11.17.2020 19:18	U	1
Diesel Range Organics	C10C28DRO	<50.2	50.2	mg/kg	11.17.2020 19:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.17.2020 19:18	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.17.2020 19:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	126	%	70-135	11.17.2020 19:18	
o-Terphenyl	84-15-1	100	%	70-135	11.17.2020 19:18	

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Certificate of Analytical Results 678177

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B-4**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678177-004	Date Collected:	11.17.2020 10:56		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:30	% Moisture:	
Seq Number:	3142571			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.18.2020 00:34	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.18.2020 00:34	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.18.2020 00:34	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.18.2020 00:34	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.18.2020 00:34	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.18.2020 00:34	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.18.2020 00:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.18.2020 00:34	
1,4-Difluorobenzene	540-36-3	95	%	70-130	11.18.2020 00:34	

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Certificate of Analytical Results 678177

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B-5**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678177-005	Date Collected:	11.17.2020 10:58		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:55	% Moisture:	
Seq Number:	3142698			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**390**	9.96	mg/kg	11.18.2020 20:02		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.17.2020 16:00	% Moisture:	
Seq Number:	3142569			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.1	50.1	mg/kg	11.17.2020 19:38	U	1
Diesel Range Organics	C10C28DRO	<50.1	50.1	mg/kg	11.17.2020 19:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.17.2020 19:38	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.17.2020 19:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	11.17.2020 19:38	
o-Terphenyl	84-15-1	108	%	70-135	11.17.2020 19:38	

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Certificate of Analytical Results 678177

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B-5**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678177-005	Date Collected:	11.17.2020 10:58		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:30	% Moisture:	
Seq Number:	3142571			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.18.2020 01:03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.18.2020 01:03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.18.2020 01:03	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.18.2020 01:03	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.18.2020 01:03	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.18.2020 01:03	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.18.2020 01:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.18.2020 01:03	
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.18.2020 01:03	

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Certificate of Analytical Results 678177

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**SW-1**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678177-006	Date Collected:	11.17.2020 11:20		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:55	% Moisture:	
Seq Number:	3142698			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**489**	10.1	mg/kg	11.18.2020 20:08		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.17.2020 16:00	% Moisture:	
Seq Number:	3142569			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	11.17.2020 19:58	U	1
Diesel Range Organics	C10C28DRO	**89.1**	49.9	mg/kg	11.17.2020 19:58		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.17.2020 19:58	U	1
Total TPH	PHC635	**89.1**	49.9	mg/kg	11.17.2020 19:58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	11.17.2020 19:58	
o-Terphenyl	84-15-1	96	%	70-135	11.17.2020 19:58	

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Certificate of Analytical Results 678177

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**SW-1**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678177-006	Date Collected:	11.17.2020 11:20		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:30	% Moisture:	
Seq Number:	3142571			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.18.2020 01:32	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.18.2020 01:32	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.18.2020 01:32	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.18.2020 01:32	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.18.2020 01:32	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.18.2020 01:32	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.18.2020 01:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.18.2020 01:32	
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.18.2020 01:32	

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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 678177

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COG Operating LLC

Huckleberry St. 507

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3142698 — Matrix: Solid — Date Prep: 11.17.2020
MB Sample Id: 7715394-1-BLK — LCS Sample Id: 7715394-1-BKS — LCSD Sample Id: 7715394-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	300	279	93	279	93	90-110	0	20	mg/kg	11.18.2020 18:39	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3142698 — Matrix: Soil — Date Prep: 11.17.2020
Parent Sample Id: 678175-004 — MS Sample Id: 678175-004 S — MSD Sample Id: 678175-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	62.4	197	279	110	279	110	90-110	0	20	mg/kg	11.18.2020 18:57	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3142698 — Matrix: Soil — Date Prep: 11.17.2020
Parent Sample Id: 678179-001 — MS Sample Id: 678179-001 S — MSD Sample Id: 678179-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2260	200	2470	105	2480	110	90-110	0	20	mg/kg	11.18.2020 20:20	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3142569 — Matrix: Solid — Date Prep: 11.17.2020
MB Sample Id: 7715398-1-BLK — LCS Sample Id: 7715398-1-BKS — LCSD Sample Id: 7715398-1-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	<50.0	1000	974	97	966	97	70-135	1	35	mg/kg	11.17.2020 11:28	
Diesel Range Organics	<50.0	1000	1070	107	1070	107	70-135	0	35	mg/kg	11.17.2020 11:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		133		133		70-135	%	11.17.2020 11:28
o-Terphenyl	105		102		102		70-135	%	11.17.2020 11:28

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3142569 — Matrix: Solid — Date Prep: 11.17.2020
MB Sample Id: 7715398-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.17.2020 11:08	

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

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QC Summary 678177

COG Operating LLC

Huckleberry St. 507

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3142569 Matrix: Soil Date Prep: 11.17.2020
Parent Sample Id: 677883-028 MS Sample Id: 677883-028 S MSD Sample Id: 677883-028 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	<50.3	1010	1080	107	1120	112	70-135	4	35	mg/kg	11.17.2020 12:28	
Diesel Range Organics	<50.3	1010	1130	112	1050	105	70-135	7	35	mg/kg	11.17.2020 12:28	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		107		70-135	%	11.17.2020 12:28
o-Terphenyl	104		116		70-135	%	11.17.2020 12:28

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3142571 Matrix: Solid Date Prep: 11.17.2020
MB Sample Id: 7715391-1-BLK LCS Sample Id: 7715391-1-BKS LCSD Sample Id: 7715391-1-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	0.0943	94	0.0960	96	70-130	2	35	mg/kg	11.17.2020 17:36	
Toluene	<0.00200	0.100	0.0887	89	0.0889	89	70-130	0	35	mg/kg	11.17.2020 17:36	
Ethylbenzene	<0.00200	0.100	0.0937	94	0.0919	92	71-129	2	35	mg/kg	11.17.2020 17:36	
m,p-Xylenes	<0.00400	0.200	0.190	95	0.189	95	70-135	1	35	mg/kg	11.17.2020 17:36	
o-Xylene	<0.00200	0.100	0.0943	94	0.0947	95	71-133	0	35	mg/kg	11.17.2020 17:36	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		101		70-130	%	11.17.2020 17:36
4-Bromofluorobenzene	112		105		108		70-130	%	11.17.2020 17:36

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3142571 Matrix: Soil Date Prep: 11.17.2020
Parent Sample Id: 678175-001 MS Sample Id: 678175-001 S MSD Sample Id: 678175-001 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	0.0917	92	0.106	106	70-130	14	35	mg/kg	11.17.2020 18:21	
Toluene	0.00532	0.100	0.0929	88	0.107	102	70-130	14	35	mg/kg	11.17.2020 18:21	
Ethylbenzene	0.00789	0.100	0.0926	85	0.109	101	71-129	16	35	mg/kg	11.17.2020 18:21	
m,p-Xylenes	0.0227	0.200	0.202	90	0.237	107	70-135	16	35	mg/kg	11.17.2020 18:21	
o-Xylene	0.0197	0.100	0.108	88	0.123	103	71-133	13	35	mg/kg	11.17.2020 18:21	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		102		70-130	%	11.17.2020 18:21
4-Bromofluorobenzene	110		114		70-130	%	11.17.2020 18:21

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

678177

Analysis Request of Chain of Custody Record

CONCHO

One Concho Center/600/Illinois Avenue/Midland, Texas Tel (432) 683-7443

Client Name: COG-Artesia	Site Manager: Sheldon Hitchcock
Project Name: Huckleberry St 507	
Project Location: (county, state) Lea, NM	Project #:
Invoice to: Sheldon Hitchcock	
Receiving Laboratory: Xenco	Sampler Name: Sheldon Hitchcock
Comments:	

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	# CONTAINERS	(C)omposite/(G)rab
	B-1	11/17	10:50					X	X	C
	B-2		10:52							
	B-3		10:54							
	B-4		10:56							
	B-5		10:58							
	SW-1		11:20							

ANALYSIS REQUEST (Circle or Specify Method No.)

TPH 8015M (GRO - DRO - MRO)	BTEX 8021B	Chloride	Hold
X	X	X	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Sheldon Hitchcock	11/17/20	15:05		11/17/20	15:05
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY

Sample Temperature: A-2/4.0

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC

Date/ Time Received: 11.17.2020 03.05.00 PM

Work Order #: 678177

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

Temperature Measuring device used : T_NM_007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Cloe Clifton Date: 11.17.2020

Cloe Clifton

Checklist reviewed by: Jessica Kramer Date: 11.19.2020

Jessica Kramer

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Certificate of Analysis Summary 678175

COG Operating LLC, Artesia, NM

Project Name: Huckleberry St. 507

Project Id:

Contact: Grant Huckabay

Project Location: Lea, New Mexico

Date Received in Lab: Tue 11.17.2020 15:05

Report Date: 11.19.2020 11:11

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	678175-001		678175-002		678175-003		678175-004		678175-005		678175-006	
	Field Id:	B-6		B-7		B-8		B-9		B-10		B11	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	11.17.2020 10:36		11.17.2020 10:38		11.17.2020 10:40		11.17.2020 10:42		11.17.2020 10:44		11.17.2020 10:46	
BTEX by EPA 8021B	***Extracted:***	11.17.2020 16:00		11.17.2020 16:00		11.17.2020 16:30		11.17.2020 16:30		11.17.2020 16:30		11.17.2020 16:30	
	Analyzed:	11.17.2020 19:41		11.17.2020 20:03		11.17.2020 20:26		11.17.2020 20:48		11.17.2020 21:10		11.17.2020 21:33	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202
Toluene		0.00532	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202
Ethylbenzene		0.00789	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202
m,p-Xylenes		0.0227	0.00399	<0.00397	0.00397	<0.00399	0.00399	<0.00402	0.00402	<0.00401	0.00401	<0.00403	0.00403
o-Xylene		0.0197	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202
Total Xylenes		0.0424	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202
Total BTEX		0.0556	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00202	0.00202
Chloride by EPA 300	***Extracted:***	11.17.2020 15:52		11.17.2020 15:52		11.17.2020 15:52		11.17.2020 16:55		11.17.2020 16:55		11.17.2020 16:55	
	Analyzed:	11.18.2020 18:03		11.18.2020 18:09		11.18.2020 18:15		11.18.2020 18:51		11.18.2020 19:09		11.18.2020 19:15	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		337	10.1	23.6	10.0	42.4	10.0	62.4	10.1	22.6	10.0	15.9	10.1
TPH By SW8015 Mod	***Extracted:***	11.17.2020 16:00		11.17.2020 16:00		11.17.2020 16:00		11.17.2020 16:00		11.17.2020 16:00		11.17.2020 16:00	
	Analyzed:	11.17.2020 17:58		11.17.2020 18:18		11.17.2020 18:38		11.17.2020 18:58		11.17.2020 19:18		11.17.2020 19:38	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons		<49.9	49.9	<49.8	49.8	<50.1	50.1	<50.0	50.0	<49.9	49.9	<49.8	49.8
Diesel Range Organics		124	49.9	<49.8	49.8	<50.1	50.1	<50.0	50.0	<49.9	49.9	<49.8	49.8
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<49.8	49.8	<50.1	50.1	<50.0	50.0	<49.9	49.9	<49.8	49.8
Total TPH		124	49.9	<49.8	49.8	<50.1	50.1	<50.0	50.0	<49.9	49.9	<49.8	49.8

BRL - Below Reporting Limit

Jessica Kramer

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Certificate of Analysis Summary 678175

COG Operating LLC, Artesia, NM

Project Name: Huckleberry St. 507

Project Id:

Contact: Grant Huckabay

Project Location: Lea, New Mexico

Date Received in Lab: Tue 11.17.2020 15:05

Report Date: 11.19.2020 11:11

Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	678175-007					
	Field Id:	SW-2					
	Depth:						
	Matrix:	SOIL					
	Sampled:	11.17.2020 10:48					
BTEX by EPA 8021B	***Extracted:***	11.17.2020 16:30					
	Analyzed:	11.17.2020 21:55					
	Units/RL:	mg/kg	RL				
Benzene		<0.00198	0.00198				
Toluene		<0.00198	0.00198				
Ethylbenzene		<0.00198	0.00198				
m,p-Xylenes		<0.00397	0.00397				
o-Xylene		<0.00198	0.00198				
Total Xylenes		<0.00198	0.00198				
Total BTEX		<0.00198	0.00198				
Chloride by EPA 300	***Extracted:***	11.17.2020 16:55					
	Analyzed:	11.18.2020 19:21					
	Units/RL:	mg/kg	RL				
Chloride		95.5	10.0				
TPH By SW8015 Mod	***Extracted:***	11.17.2020 16:00					
	Analyzed:	11.17.2020 19:58					
	Units/RL:	mg/kg	RL				
Gasoline Range Hydrocarbons		<50.2	50.2				
Diesel Range Organics		98.0	50.2				
Motor Oil Range Hydrocarbons (MRO)		59.5	50.2				
Total TPH		158	50.2				

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 678175

for

COG Operating LLC

Project Manager: Grant Huckabay

Huckleberry St. 507

11.19.2020

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

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

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

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11.19.2020

Project Manager: **Grant Huckabay**
COG Operating LLC
2407 Pecos Avenue
Artesia, NM 88210

Reference: Eurofins Xenco, LLC Report No(s): **678175**
Huckleberry St. 507
Project Address: Lea, New Mexico

Grant Huckabay:

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) 678175. 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. 678175 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,

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 678175

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COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
B-6	S	11.17.2020 10:36		678175-001
B-7	S	11.17.2020 10:38		678175-002
B-8	S	11.17.2020 10:40		678175-003
B-9	S	11.17.2020 10:42		678175-004
B-10	S	11.17.2020 10:44		678175-005
B11	S	11.17.2020 10:46		678175-006
SW-2	S	11.17.2020 10:48		678175-007

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CASE NARRATIVE

Client Name: COG Operating LLC

Project Name: Huckleberry St. 507

Project ID:
Work Order Number(s): *678175*

Report Date: *11.19.2020*
Date Received: *11.17.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 678175

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id: **B-6** Matrix: Soil Date Received:11.17.2020 15:05

Lab Sample Id: 678175-001 Date Collected: 11.17.2020 10:36

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 11.17.2020 15:52 % Moisture:

Seq Number: 3142697 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**337**	10.1	mg/kg	11.18.2020 18:03		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: MAB

Analyst: CAC Date Prep: 11.17.2020 16:00 % Moisture:

Seq Number: 3142566 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	11.17.2020 17:58	U	1
Diesel Range Organics	C10C28DRO	**124**	49.9	mg/kg	11.17.2020 17:58		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.17.2020 17:58	U	1
Total TPH	PHC635	**124**	49.9	mg/kg	11.17.2020 17:58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	11.17.2020 17:58	
o-Terphenyl	84-15-1	114	%	70-135	11.17.2020 17:58	

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Certificate of Analytical Results 678175

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B-6**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678175-001	Date Collected:	11.17.2020 10:36		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:00	% Moisture:	
Seq Number:	3142571			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.17.2020 19:41	U	1
Toluene	108-88-3	**0.00532**	0.00200	mg/kg	11.17.2020 19:41		1
Ethylbenzene	100-41-4	**0.00789**	0.00200	mg/kg	11.17.2020 19:41		1
m,p-Xylenes	179601-23-1	**0.0227**	0.00399	mg/kg	11.17.2020 19:41		1
o-Xylene	95-47-6	**0.0197**	0.00200	mg/kg	11.17.2020 19:41		1
Total Xylenes	1330-20-7	**0.0424**	0.00200	mg/kg	11.17.2020 19:41		1
Total BTEX		**0.0556**	0.00200	mg/kg	11.17.2020 19:41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.17.2020 19:41	
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.17.2020 19:41	

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Certificate of Analytical Results 678175

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id: **B-7** Matrix: Soil Date Received:11.17.2020 15:05

Lab Sample Id: 678175-002 Date Collected: 11.17.2020 10:38

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 11.17.2020 15:52 % Moisture:

Seq Number: 3142697 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**23.6**	10.0	mg/kg	11.18.2020 18:09		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: MAB

Analyst: CAC Date Prep: 11.17.2020 16:00 % Moisture:

Seq Number: 3142566 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.8	49.8	mg/kg	11.17.2020 18:18	U	1
Diesel Range Organics	C10C28DRO	<49.8	49.8	mg/kg	11.17.2020 18:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.17.2020 18:18	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.17.2020 18:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	11.17.2020 18:18	
o-Terphenyl	84-15-1	106	%	70-135	11.17.2020 18:18	

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Certificate of Analytical Results 678175

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B-7**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678175-002	Date Collected:	11.17.2020 10:38		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:00	% Moisture:	
Seq Number:	3142571			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.17.2020 20:03	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.17.2020 20:03	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.17.2020 20:03	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.17.2020 20:03	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.17.2020 20:03	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.17.2020 20:03	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.17.2020 20:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.17.2020 20:03	
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.17.2020 20:03	

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Certificate of Analytical Results 678175

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B-8**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678175-003	Date Collected:	11.17.2020 10:40		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 15:52	% Moisture:	
Seq Number:	3142697			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**42.4**	10.0	mg/kg	11.18.2020 18:15		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.17.2020 16:00	% Moisture:	
Seq Number:	3142566			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.1	50.1	mg/kg	11.17.2020 18:38	U	1
Diesel Range Organics	C10C28DRO	<50.1	50.1	mg/kg	11.17.2020 18:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.17.2020 18:38	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.17.2020 18:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	11.17.2020 18:38	
o-Terphenyl	84-15-1	98	%	70-135	11.17.2020 18:38	

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Certificate of Analytical Results 678175

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B-8**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678175-003	Date Collected:	11.17.2020 10:40		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:30	% Moisture:	
Seq Number:	3142571			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.17.2020 20:26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.17.2020 20:26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.17.2020 20:26	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.17.2020 20:26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.17.2020 20:26	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.17.2020 20:26	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.17.2020 20:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.17.2020 20:26	
4-Bromofluorobenzene	460-00-4	122	%	70-130	11.17.2020 20:26	

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Certificate of Analytical Results 678175

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B-9**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678175-004	Date Collected:	11.17.2020 10:42		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:55	% Moisture:	
Seq Number:	3142698			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**62.4**	10.1	mg/kg	11.18.2020 18:51		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.17.2020 16:00	% Moisture:	
Seq Number:	3142566			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	11.17.2020 18:58	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	11.17.2020 18:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.17.2020 18:58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.17.2020 18:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	11.17.2020 18:58	
o-Terphenyl	84-15-1	106	%	70-135	11.17.2020 18:58	

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Certificate of Analytical Results 678175

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B-9**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678175-004	Date Collected:	11.17.2020 10:42		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:30	% Moisture:	
Seq Number:	3142571			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.17.2020 20:48	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.17.2020 20:48	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.17.2020 20:48	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.17.2020 20:48	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.17.2020 20:48	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.17.2020 20:48	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.17.2020 20:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.17.2020 20:48	
1,4-Difluorobenzene	540-36-3	107	%	70-130	11.17.2020 20:48	

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Certificate of Analytical Results 678175

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B-10**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678175-005	Date Collected:	11.17.2020 10:44		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:55	% Moisture:	
Seq Number:	3142698			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**22.6**	10.0	mg/kg	11.18.2020 19:09		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.17.2020 16:00	% Moisture:	
Seq Number:	3142566			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	11.17.2020 19:18	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	11.17.2020 19:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.17.2020 19:18	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.17.2020 19:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	11.17.2020 19:18	
o-Terphenyl	84-15-1	116	%	70-135	11.17.2020 19:18	

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Certificate of Analytical Results 678175

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B-10**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678175-005	Date Collected:	11.17.2020 10:44		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:30	% Moisture:	
Seq Number:	3142571			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.17.2020 21:10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.17.2020 21:10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.17.2020 21:10	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.17.2020 21:10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.17.2020 21:10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.17.2020 21:10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.17.2020 21:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	11.17.2020 21:10	
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.17.2020 21:10	

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Certificate of Analytical Results 678175

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B11**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678175-006	Date Collected:	11.17.2020 10:46		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:55	% Moisture:	
Seq Number:	3142698			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**15.9**	10.1	mg/kg	11.18.2020 19:15		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.17.2020 16:00	% Moisture:	
Seq Number:	3142566			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.8	49.8	mg/kg	11.17.2020 19:38	U	1
Diesel Range Organics	C10C28DRO	<49.8	49.8	mg/kg	11.17.2020 19:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.17.2020 19:38	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.17.2020 19:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	11.17.2020 19:38	
o-Terphenyl	84-15-1	114	%	70-135	11.17.2020 19:38	

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Certificate of Analytical Results 678175

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**B11**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678175-006	Date Collected:	11.17.2020 10:46		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:30	% Moisture:	
Seq Number:	3142571			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.17.2020 21:33	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.17.2020 21:33	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.17.2020 21:33	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.17.2020 21:33	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.17.2020 21:33	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.17.2020 21:33	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.17.2020 21:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.17.2020 21:33	
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.17.2020 21:33	

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Certificate of Analytical Results 678175

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**SW-2**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678175-007	Date Collected:	11.17.2020 10:48		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:55	% Moisture:	
Seq Number:	3142698			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**95.5**	10.0	mg/kg	11.18.2020 19:21		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.17.2020 16:00	% Moisture:	
Seq Number:	3142566			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.2	50.2	mg/kg	11.17.2020 19:58	U	1
Diesel Range Organics	C10C28DRO	**98.0**	50.2	mg/kg	11.17.2020 19:58		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**59.5**	50.2	mg/kg	11.17.2020 19:58		1
Total TPH	PHC635	**158**	50.2	mg/kg	11.17.2020 19:58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	11.17.2020 19:58	
o-Terphenyl	84-15-1	106	%	70-135	11.17.2020 19:58	

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Certificate of Analytical Results 678175

COG Operating LLC, Artesia, NM

Huckleberry St. 507

Sample Id:	**SW-2**	Matrix:	Soil	Date Received:	11.17.2020 15:05
Lab Sample Id:	678175-007	Date Collected:	11.17.2020 10:48		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.17.2020 16:30	% Moisture:	
Seq Number:	3142571			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.17.2020 21:55	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.17.2020 21:55	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.17.2020 21:55	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.17.2020 21:55	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.17.2020 21:55	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.17.2020 21:55	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.17.2020 21:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	85	%	70-130	11.17.2020 21:55	
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.17.2020 21:55	

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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 678175

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COG Operating LLC

Huckleberry St. 507

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3142697 — Matrix: Solid — Date Prep: 11.17.2020
MB Sample Id: 7715393-1-BLK — LCS Sample Id: 7715393-1-BKS — LCSD Sample Id: 7715393-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	300	279	93	277	92	90-110	1	20	mg/kg	11.18.2020 14:38	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3142698 — Matrix: Solid — Date Prep: 11.17.2020
MB Sample Id: 7715394-1-BLK — LCS Sample Id: 7715394-1-BKS — LCSD Sample Id: 7715394-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	300	279	93	279	93	90-110	0	20	mg/kg	11.18.2020 18:39	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3142697 — Matrix: Soil — Date Prep: 11.17.2020
Parent Sample Id: 677780-023 — MS Sample Id: 677780-023 S — MSD Sample Id: 677780-023 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	28.4	198	247	110	247	110	90-110	0	20	mg/kg	11.18.2020 17:21	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3142697 — Matrix: Soil — Date Prep: 11.17.2020
Parent Sample Id: 678096-008 — MS Sample Id: 678096-008 S — MSD Sample Id: 678096-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1920	199	2130	106	2120	101	90-110	0	20	mg/kg	11.18.2020 14:56	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3142698 — Matrix: Soil — Date Prep: 11.17.2020
Parent Sample Id: 678175-004 — MS Sample Id: 678175-004 S — MSD Sample Id: 678175-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	62.4	197	279	110	279	110	90-110	0	20	mg/kg	11.18.2020 18:57	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3142698 — Matrix: Soil — Date Prep: 11.17.2020
Parent Sample Id: 678179-001 — MS Sample Id: 678179-001 S — MSD Sample Id: 678179-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2260	200	2470	105	2480	110	90-110	0	20	mg/kg	11.18.2020 20:20	

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 678175

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COG Operating LLC

Huckleberry St. 507

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3142566 Matrix: Solid Date Prep: 11.17.2020
MB Sample Id: 7715396-1-BLK LCS Sample Id: 7715396-1-BKS LCSD Sample Id: 7715396-1-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	<50.0	1000	1160	116	1170	117	70-135	1	35	mg/kg	11.17.2020 11:28	
Diesel Range Organics	<50.0	1000	1020	102	1050	105	70-135	3	35	mg/kg	11.17.2020 11:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		119		113		70-135	%	11.17.2020 11:28
o-Terphenyl	117		123		109		70-135	%	11.17.2020 11:28

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3142566 Matrix: Solid Date Prep: 11.17.2020
MB Sample Id: 7715396-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.17.2020 11:08	

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3142566 Matrix: Soil Date Prep: 11.17.2020
Parent Sample Id: 677883-023 MS Sample Id: 677883-023 S MSD Sample Id: 677883-023 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	<50.0	1000	1060	106	1130	113	70-135	6	35	mg/kg	11.17.2020 12:28	
Diesel Range Organics	<50.0	1000	1010	101	1020	102	70-135	1	35	mg/kg	11.17.2020 12:28	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		112		70-135	%	11.17.2020 12:28
o-Terphenyl	114		114		70-135	%	11.17.2020 12:28

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3142571 Matrix: Solid Date Prep: 11.17.2020
MB Sample Id: 7715391-1-BLK LCS Sample Id: 7715391-1-BKS LCSD Sample Id: 7715391-1-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	0.0943	94	0.0960	96	70-130	2	35	mg/kg	11.17.2020 17:36	
Toluene	<0.00200	0.100	0.0887	89	0.0889	89	70-130	0	35	mg/kg	11.17.2020 17:36	
Ethylbenzene	<0.00200	0.100	0.0937	94	0.0919	92	71-129	2	35	mg/kg	11.17.2020 17:36	
m,p-Xylenes	<0.00400	0.200	0.190	95	0.189	95	70-135	1	35	mg/kg	11.17.2020 17:36	
o-Xylene	<0.00200	0.100	0.0943	94	0.0947	95	71-133	0	35	mg/kg	11.17.2020 17:36	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		101		70-130	%	11.17.2020 17:36
4-Bromofluorobenzene	112		105		108		70-130	%	11.17.2020 17:36

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 678175

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COG Operating LLC

Huckleberry St. 507

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

Seq Number: 3142571 Matrix: Soil Date Prep: 11.17.2020

Parent Sample Id: 678175-001 MS Sample Id: 678175-001 S MSD Sample Id: 678175-001 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	0.0917	92	0.106	106	70-130	14	35	mg/kg	11.17.2020 18:21	
Toluene	0.00532	0.100	0.0929	88	0.107	102	70-130	14	35	mg/kg	11.17.2020 18:21	
Ethylbenzene	0.00789	0.100	0.0926	85	0.109	101	71-129	16	35	mg/kg	11.17.2020 18:21	
m,p-Xylenes	0.0227	0.200	0.202	90	0.237	107	70-135	16	35	mg/kg	11.17.2020 18:21	
o-Xylene	0.0197	0.100	0.108	88	0.123	103	71-133	13	35	mg/kg	11.17.2020 18:21	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		102		70-130	%	11.17.2020 18:21
4-Bromofluorobenzene	110		114		70-130	%	11.17.2020 18:21

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	

678175

Analysis Request of Chain of Custody Record

CONCHO

One Concho Center/600/Illinois Avenue/Midland, Texas
Tel (432) 683-7443

Client Name: COG-Artesia	Site Manager: Sheldon Hitchcock
Project Name: Huckleberry St. 507	
Project Location: (county, state) Lea, NM	Project #:
Invoice to: Sheldon Hitchcock	
Receiving Laboratory: Xenco	Sampler Name: Sheldon Hitchcock
Comments:	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2020 DATE	TIME	MATRIX WATER	MATRIX SOIL	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	# CONTAINERS	(C)omposite/(G)rab	TPH 8015M (GRO - DRO - MRO)	BTEX 8021B	Chloride	Hold
	B-6	11/7	10:36		X			X	1	C	X	X	X	
	B-7		10:38											
	B-8		10:40											
	B-9		10:42											
	B-10		10:44											
	B-11		10:46											
	SW-2		10:48											

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Sheldon Hitchcock	11/17/20	15:05		11/17/20	15:05
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY

Sample Temperature 4.2/4.0

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC

Date/ Time Received: 11.17.2020 03.05.00 PM

Work Order #: 678175

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

Temperature Measuring device used : T_NM_007

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Cloe Clifton Date: 11.17.2020

Cloe Clifton

Checklist reviewed by: Jessica Kramer Date: 11.19.2020

Jessica Kramer

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Certificate of Analysis Summary 686304

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Huckleberry St. Com 507

Project Id: 13460
Contact: PM
Project Location:

Date Received in Lab: Wed 01.27.2021 14:22
Report Date: 02.01.2021 17:12
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	686304-001		686304-002		686304-003		686304-004					
	Field Id:	B1		B4		B6		SW 2					
	Depth:	1.6- ft						1.6- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	01.27.2021 10:50		01.27.2021 08:22		01.27.2021 08:30		01.27.2021 11:15					
BTEX by EPA 8021B	***Extracted:***	01.29.2021 10:33		01.29.2021 10:33		01.29.2021 10:33		01.29.2021 10:33					
	Analyzed:	01.29.2021 13:47		01.29.2021 14:10		01.29.2021 14:32		01.29.2021 14:54					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200				
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200				
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200				
m,p-Xylenes		<0.00399	0.00399	<0.00399	0.00399	<0.00397	0.00397	<0.00399	0.00399				
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200				
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200				
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	01.27.2021 16:00		01.27.2021 16:00		01.27.2021 16:00		01.27.2021 16:00					
	Analyzed:	01.27.2021 20:48		01.27.2021 20:54		01.27.2021 21:00		01.27.2021 21:17					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		365	49.8	285	49.6	65.7	10.0	85.2	9.96				
TPH by SW8015 Mod SUB: T104704400-20-21	***Extracted:***	01.31.2021 10:00		01.31.2021 10:00		01.31.2021 10:00		01.31.2021 10:00					
	Analyzed:	01.31.2021 15:39		01.31.2021 16:42		01.31.2021 17:03		01.31.2021 17:24					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.9	49.9	<49.8	49.8	<49.9	49.9				
Diesel Range Organics (DRO)		<50.0	50.0	<49.9	49.9	<49.8	49.8	<49.9	49.9				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<49.8	49.8	<49.9	49.9				
Total TPH		<50.0	50.0	<49.9	49.9	<49.8	49.8	<49.9	49.9				

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 686304

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

Huckleberry St. Com 507

13460

02.01.2021

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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02.01.2021

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

Reference: Eurofins Xenco, LLC Report No(s): **686304**
Huckleberry St. Com 507
Project Address:

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) 686304. 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. 686304 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,

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 686304

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Etech Environmental & Safety Solution, Inc, Midland, TX

Huckleberry St. Com 507

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
B1	S	01.27.2021 10:50	1.6 ft	686304-001
B4	S	01.27.2021 08:22		686304-002
B6	S	01.27.2021 08:30		686304-003
SW 2	S	01.27.2021 11:15	1.6 ft	686304-004

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CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: Huckleberry St. Com 507

Project ID: *13460*
Work Order Number(s): *686304*

Report Date: *02.01.2021*
Date Received: *01.27.2021*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 686304

Etech Environmental & Safety Solution, Inc, Midland, TX

Huckleberry St. Com 507

Sample Id:	**B1**	Matrix:	Soil	Date Received:	01.27.2021 14:22
Lab Sample Id:	686304-001	Date Collected:	01.27.2021 10:50	Sample Depth:	1.6 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.27.2021 16:00	% Moisture:	
Seq Number:	3149215			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**365**	49.8	mg/kg	01.27.2021 20:48		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	ARM	Date Prep:	01.31.2021 10:00	% Moisture:	
Seq Number:	3149619			Basis:	Wet Weight
				SUB:	T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.31.2021 15:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.31.2021 15:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.31.2021 15:39	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.31.2021 15:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	01.31.2021 15:39	
o-Terphenyl	84-15-1	105	%	70-130	01.31.2021 15:39	

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Certificate of Analytical Results 686304

Etech Environmental & Safety Solution, Inc, Midland, TX

Huckleberry St. Com 507

Sample Id:	**B1**	Matrix:	Soil	Date Received:	01.27.2021 14:22
Lab Sample Id:	686304-001	Date Collected:	01.27.2021 10:50	Sample Depth:	1.6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.29.2021 10:33	% Moisture:	
Seq Number:	3149409			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.29.2021 13:47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.29.2021 13:47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.29.2021 13:47	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.29.2021 13:47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.29.2021 13:47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.29.2021 13:47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.29.2021 13:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	124	%	70-130	01.29.2021 13:47	
1,4-Difluorobenzene	540-36-3	93	%	70-130	01.29.2021 13:47	

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Certificate of Analytical Results 686304

Etech Environmental & Safety Solution, Inc, Midland, TX

Huckleberry St. Com 507

Sample Id: **B4** Matrix: Soil Date Received:01.27.2021 14:22

Lab Sample Id: 686304-002 Date Collected: 01.27.2021 08:22

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 01.27.2021 16:00 % Moisture:

Seq Number: 3149215 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**285**	49.6	mg/kg	01.27.2021 20:54		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.31.2021 10:00 % Moisture:

Seq Number: 3149619 Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.31.2021 16:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.31.2021 16:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.31.2021 16:42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.31.2021 16:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	01.31.2021 16:42	
o-Terphenyl	84-15-1	104	%	70-130	01.31.2021 16:42	

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Certificate of Analytical Results 686304

Etech Environmental & Safety Solution, Inc, Midland, TX

Huckleberry St. Com 507

Sample Id:	**B4**	Matrix:	Soil	Date Received:	01.27.2021 14:22
Lab Sample Id:	686304-002	Date Collected:	01.27.2021 08:22		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.29.2021 10:33	% Moisture:	
Seq Number:	3149409			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.29.2021 14:10	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.29.2021 14:10	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.29.2021 14:10	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.29.2021 14:10	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.29.2021 14:10	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.29.2021 14:10	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.29.2021 14:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	130	%	70-130	01.29.2021 14:10	
1,4-Difluorobenzene	540-36-3	92	%	70-130	01.29.2021 14:10	

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Certificate of Analytical Results 686304

Etech Environmental & Safety Solution, Inc, Midland, TX

Huckleberry St. Com 507

Sample Id: **B6** Matrix: Soil Date Received:01.27.2021 14:22

Lab Sample Id: 686304-003 Date Collected: 01.27.2021 08:30

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 01.27.2021 16:00 % Moisture:

Seq Number: 3149215 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**65.7**	10.0	mg/kg	01.27.2021 21:00		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.31.2021 10:00 % Moisture:

Seq Number: 3149619 Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.31.2021 17:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.31.2021 17:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.31.2021 17:03	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.31.2021 17:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	01.31.2021 17:03	
o-Terphenyl	84-15-1	106	%	70-130	01.31.2021 17:03	

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Certificate of Analytical Results 686304

Etech Environmental & Safety Solution, Inc, Midland, TX

Huckleberry St. Com 507

Sample Id:	**B6**	Matrix:	Soil	Date Received:	01.27.2021 14:22
Lab Sample Id:	686304-003	Date Collected:	01.27.2021 08:30		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.29.2021 10:33	% Moisture:	
Seq Number:	3149409			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.29.2021 14:32	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.29.2021 14:32	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.29.2021 14:32	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.29.2021 14:32	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.29.2021 14:32	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.29.2021 14:32	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.29.2021 14:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	124	%	70-130	01.29.2021 14:32	
1,4-Difluorobenzene	540-36-3	91	%	70-130	01.29.2021 14:32	

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Certificate of Analytical Results 686304

Etech Environmental & Safety Solution, Inc, Midland, TX

Huckleberry St. Com 507

Sample Id: **SW 2** Matrix: Soil Date Received:01.27.2021 14:22

Lab Sample Id: 686304-004 Date Collected: 01.27.2021 11:15 Sample Depth: 1.6 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: MAB

Analyst: MAB Date Prep: 01.27.2021 16:00 % Moisture:

Seq Number: 3149215 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**85.2**	9.96	mg/kg	01.27.2021 21:17		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.31.2021 10:00 % Moisture:

Seq Number: 3149619 Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.31.2021 17:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.31.2021 17:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.31.2021 17:24	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.31.2021 17:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	01.31.2021 17:24	
o-Terphenyl	84-15-1	105	%	70-130	01.31.2021 17:24	

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Certificate of Analytical Results 686304

Etech Environmental & Safety Solution, Inc, Midland, TX

Huckleberry St. Com 507

Sample Id:	**SW 2**	Matrix:	Soil	Date Received:	01.27.2021 14:22
Lab Sample Id:	686304-004	Date Collected:	01.27.2021 11:15	Sample Depth:	1.6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.29.2021 10:33	% Moisture:	
Seq Number:	3149409			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.29.2021 14:54	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.29.2021 14:54	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.29.2021 14:54	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.29.2021 14:54	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.29.2021 14:54	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.29.2021 14:54	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.29.2021 14:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	01.29.2021 14:54	
4-Bromofluorobenzene	460-00-4	122	%	70-130	01.29.2021 14:54	

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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 686304

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Etech Environmental & Safety Solution, Inc

Huckleberry St. Com 507

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3149215 — Matrix: Solid — Date Prep: 01.27.2021
MB Sample Id: 7720212-1-BLK — LCS Sample Id: 7720212-1-BKS — LCSD Sample Id: 7720212-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	200	214	107	211	106	90-110	1	20	mg/kg	01.27.2021 19:29	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3149215 — Matrix: Soil — Date Prep: 01.27.2021
Parent Sample Id: 686300-001 — MS Sample Id: 686300-001 S — MSD Sample Id: 686300-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	65.8	200	259	97	262	98	90-110	1	20	mg/kg	01.27.2021 19:46	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3149215 — Matrix: Soil — Date Prep: 01.27.2021
Parent Sample Id: 686304-003 — MS Sample Id: 686304-003 S — MSD Sample Id: 686304-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	65.7	199	279	107	280	107	90-110	0	20	mg/kg	01.27.2021 21:05	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3149619 — Matrix: Solid — Date Prep: 01.31.2021
MB Sample Id: 7720503-1-BLK — LCS Sample Id: 7720503-1-BKS — LCSD Sample Id: 7720503-1-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	913	91	889	89	70-130	3	20	mg/kg	01.31.2021 14:57	
Diesel Range Organics (DRO)	<50.0	1000	952	95	962	96	70-130	1	20	mg/kg	01.31.2021 14:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	86		105		102		70-130	%	01.31.2021 14:57
o-Terphenyl	94		109		110		70-130	%	01.31.2021 14:57

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3149619 — Matrix: Solid — Date Prep: 01.31.2021
MB Sample Id: 7720503-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.31.2021 14:36	

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 686304

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Etech Environmental & Safety Solution, Inc

Huckleberry St. Com 507

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3149619 Matrix: Soil Date Prep: 01.31.2021
Parent Sample Id: 686304-001 MS Sample Id: 686304-001 S MSD Sample Id: 686304-001 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)	<49.8	996	923	93	1000	100	70-130	8	20	mg/kg	01.31.2021 16:00	
Diesel Range Organics (DRO)	<49.8	996	944	95	944	95	70-130	0	20	mg/kg	01.31.2021 16:00	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		102		70-130	%	01.31.2021 16:00
o-Terphenyl	109		106		70-130	%	01.31.2021 16:00

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3149409 Matrix: Solid Date Prep: 01.29.2021
MB Sample Id: 7720299-1-BLK LCS Sample Id: 7720299-1-BKS LCSD Sample Id: 7720299-1-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	0.0772	77	0.0702	70	70-130	9	35	mg/kg	01.29.2021 11:45	
Toluene	<0.00200	0.100	0.0950	95	0.0874	87	70-130	8	35	mg/kg	01.29.2021 11:45	
Ethylbenzene	<0.00200	0.100	0.106	106	0.0977	98	71-129	8	35	mg/kg	01.29.2021 11:45	
m,p-Xylenes	<0.00400	0.200	0.232	116	0.213	107	70-135	9	35	mg/kg	01.29.2021 11:45	
o-Xylene	<0.00200	0.100	0.115	115	0.105	105	71-133	9	35	mg/kg	01.29.2021 11:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	91		90		88		70-130	%	01.29.2021 11:45
4-Bromofluorobenzene	120		125		120		70-130	%	01.29.2021 11:45

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3149409 Matrix: Soil Date Prep: 01.29.2021
Parent Sample Id: 686304-001 MS Sample Id: 686304-001 S MSD Sample Id: 686304-001 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	0.0809	81	0.0873	86	70-130	8	35	mg/kg	01.29.2021 12:29	
Toluene	<0.00200	0.100	0.0875	88	0.0958	95	70-130	9	35	mg/kg	01.29.2021 12:29	
Ethylbenzene	<0.00200	0.100	0.0768	77	0.0896	89	71-129	15	35	mg/kg	01.29.2021 12:29	
m,p-Xylenes	<0.00401	0.200	0.160	80	0.186	92	70-135	15	35	mg/kg	01.29.2021 12:29	
o-Xylene	<0.00200	0.100	0.0814	81	0.0958	95	71-133	16	35	mg/kg	01.29.2021 12:29	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	88		90		70-130	%	01.29.2021 12:29
4-Bromofluorobenzene	119		124		70-130	%	01.29.2021 12:29

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: 6861304

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 _____ of _____

Project Manager:	Joel Lowry	Bill to: (if different)	Sheldon Hitchcock
Company Name:	Etech Environmental & Safety	Company Name:	COG
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 ☐ Brownfield ☐ RRC ☐ Superfund ☐
State of Project:
Reporting:Level ☐ Level ☐ PST/US ☐ TRP ☐ Level ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Huckleberry St. com 507	Turn Around	
Project Number:	13460	Routine:	☐
Project Location		Rush:	☑ 48
Sampler's Name:	Spencer Blackwood	Due Date:	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	4.0/3.8	Thermometer ID	TWM-007
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	4

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
B1		1/27/21	10:50Am	1'6"		✓	✓	✓	✓	
B4		1/27/21	8:22Am	Surface		✓	✓	✓	✓	
B6		1/27/21	8:30Am	Surface		✓	✓	✓	✓	
SW2		1/27/21	11:15Am	6"		✓	✓	✓	✓	

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 Spencer Blackwood	Joe Cuff	1-27-21 1422	2		
3			4		
5			6		

Revised Date101419 Rev. 2019.1

Inter-Office Shipment

IOS Number : 77186

Date/Time: 01.27.2021
Lab# From: **Carlsbad**
Lab# To: **Midland**

Created by: Cloe Clifton
Delivery Priority:
Air Bill No.:

Please send report to: Jessica Kramer
Address: 1089 N Canal Street
E-Mail: jessica.kramer@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
686304-001	S	B1	01.27.2021 10:50	SW8015MOD_NM	TPH by SW8015 Mod	01.29.2021	02.10.2021	JKR	PHCC10C28 PHCC28C3	
686304-002	S	B4	01.27.2021 08:22	SW8015MOD_NM	TPH by SW8015 Mod	01.29.2021	02.10.2021	JKR	PHCC10C28 PHCC28C3	
686304-003	S	B6	01.27.2021 08:30	SW8015MOD_NM	TPH by SW8015 Mod	01.29.2021	02.10.2021	JKR	PHCC10C28 PHCC28C3	
686304-004	S	SW 2	01.27.2021 11:15	SW8015MOD_NM	TPH by SW8015 Mod	01.29.2021	02.10.2021	JKR	PHCC10C28 PHCC28C3	

Inter Office Shipment or Sample Comments:

Relinquished By: Cloe Clifton

Date Relinquished: 01.27.2021

Received By: Jessica Kramer

Date Received: 01.28.2021

Cooler Temperature: 0.6

Environment Testing Xenco

Eurofins Xenco, LLC

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 77186

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

Sent By: Cloe Clifton **Date Sent:** 01.27.2021 03.35 PM

Received By: Jessica Kramer **Date Received:** 01.28.2021 10.53 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.6	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Jessica Kramer Date: 01.28.2021

Jessica Kramer

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 01.27.2021 02.22.00 PM

Work Order #: 686304

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

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3.8	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 Custody Seals intact on sample bottles?	**Yes**	
#6*Custody Seals Signed and dated?	**Yes**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	Samples received in bulk containers.
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	TPH sent to Midland.
#18 Water VOC samples have zero headspace?	**N/A**	

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

Analyst: PH Device/Lot#:

Checklist completed by: Cloe Clifton Date: 01.27.2021

Cloe Clifton

Checklist reviewed by: Jessica Kramer Date: 01.28.2021

Jessica Kramer

Appendix D
Photographic Log

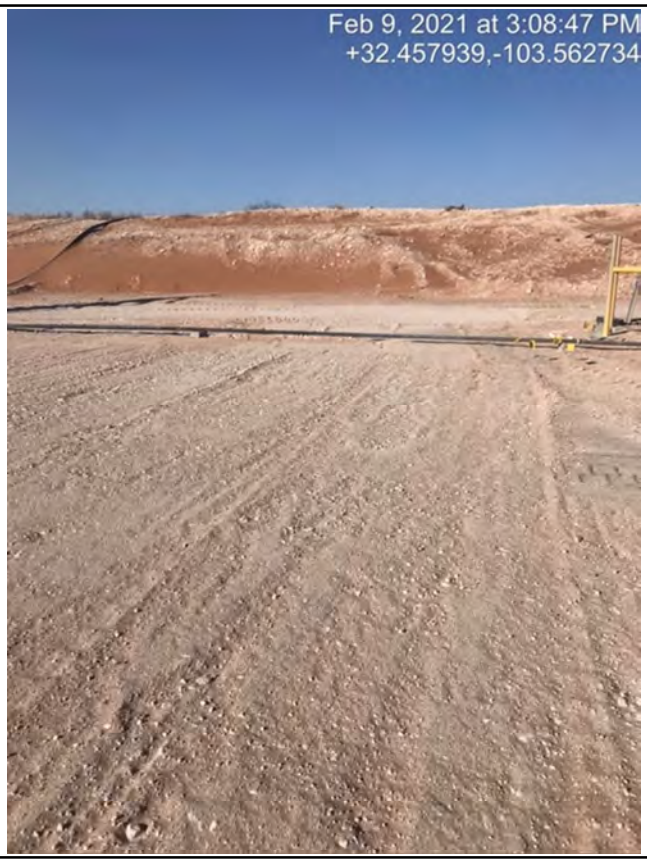
Photographic Log

Photo Number: 1	
Photo Direction: Northeast	
Photo Description: Excavation	

Photo Number: 2	
Photo Direction: East-Southeast	
Photo Description: Excavation	

Photographic Log

Photo Number: 3	
Photo Direction: Northeast	
Photo Description: Excavation	

Photo Number: 4	
Photo Direction: North	
Photo Description: Remediated Area (After Backfilling & Regrading)	

Photographic Log

Photo Number: 5 **Photo Direction:** West-Northwest **Photo Description:** Remediated Area (After Backfilling & Regrading)	

Photo Number: 6 **Photo Direction:** North **Photo Description:** Remediated Area (After Backfilling & Regrading)	

Photographic Log

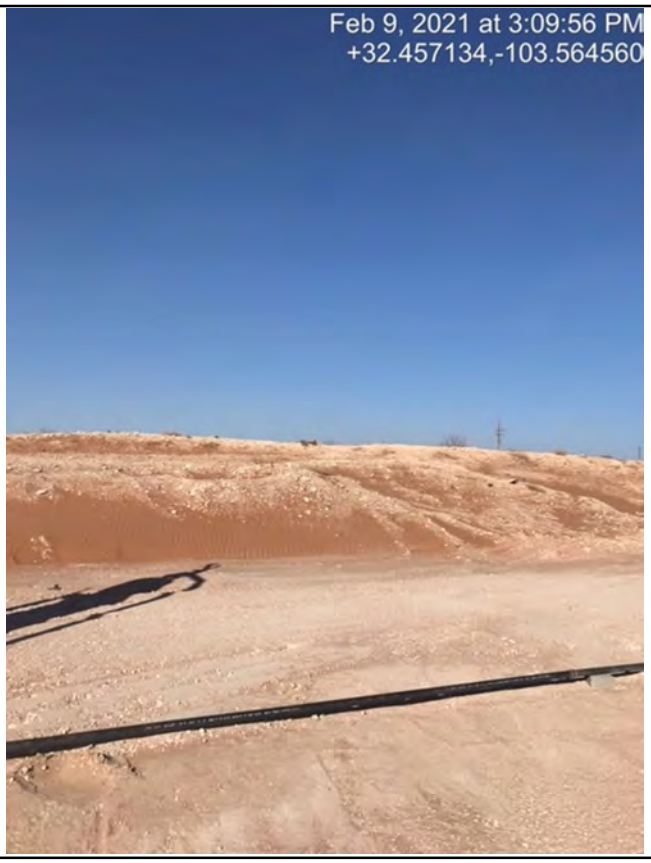
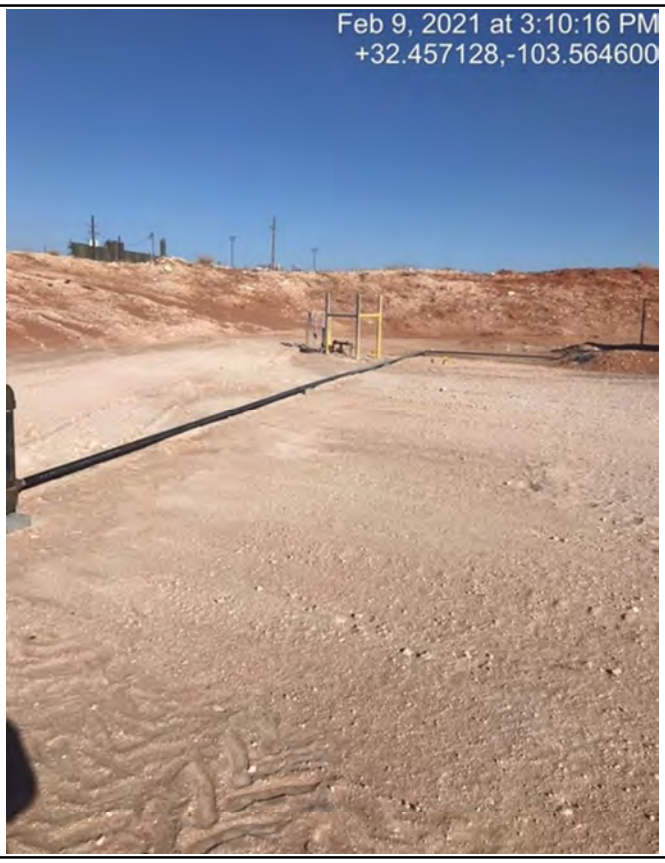
Photo Number: 7 **Photo Direction:** North-Northeast **Photo Description:** Remediated Area (After Backfilling & Regrading)	

Photo Number: 8 **Photo Direction:** Northeast **Photo Description:** Remediated Area (After Backfilling & Regrading)	

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

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 22943
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
ceads	None	7/22/2021