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*Site Information*

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**Closure Report**  
**Tomahawk 20 CTB (08.12.21)**  
**Eddy County, New Mexico**  
**Unit O Sec 20 T24S R28E**  
**32.197641°, -104.108884°**

**Crude Oil Release**  
**Source: Flare Fire**  
**Release Date: 08/12/2021**  
**Volume Released: 0.5 bbls/Crude Oil**  
**Volume Recovered: 0 bbls/Crude Oil**

**Prepared for:**  
**ConocoPhillips Resources**  
**15 West London Rd**  
**Loving, NM 88256**

**Prepared by:**  
**NTG Environmental**  
**701 Tradewinds Blvd**  
**Suite C**  
**Midland, TX 79706**



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APPENDIX C	LABORATORY ANALYTICAL REPORTS



701 Tradewinds Boulevard, Suite C  
Midland, Texas 79706  
Tel. 432.685.3898  
www.ntglobal.com

November 5, 2021

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

**Re: Closure Report  
Tomahawk 20 CTB (08.12.21)  
Concho Operating, LLC  
Site Location: Unit O, S20, T24S, R28E  
(Lat 32.197641°, Long -104.108884°)  
Eddy County, New Mexico**

To whom it may concern:

On behalf of Concho Operating, LLC (COG), New Tech Global Environmental, LLC (NTGE) has prepared this letter to document remediation activities for Tomahawk 20 CTB (08.12.21). The site is located at 32.197641°, -104.108884° within Unit O, S20, T24S, R28E, and approximately 2.87 miles Southwest of Malaga, New Mexico, in Eddy County (Figures 1 and 2).

### **Background**

Based on the initial C-141 obtained from the New Mexico Oil Conservation Division (NMOCD), the leak was discovered on August 12, 2021. It resulted in the release of approximately half a barrel (0.5) of crude oil, and zero (0) barrels of crude oil were recovered. The impacted area measured approximately 25' x 20', as shown on Figure 3. The initial C-141 form is attached in Appendix A.

### **Site Characterization**

The site is located within a high karst area. Based on a review of the New Mexico Office of State Engineers and USGS databases, there is no known water source within a ½ mile radius of the location. The nearest identified well is located approximately 0.91 miles Northeast of the site in S20, T24S, R28E. The well has a reported depth to groundwater of 48 feet below ground surface (ft bgs). A copy of the associated *Point of Diversion Summary* report is attached in Appendix B.

### **Regulatory Criteria**

In accordance with the NMOCD regulatory criteria established in 19.15.29.12 NMAC, the following criteria were utilized in assessing the site.

- Benzene: 10 milligrams per kilogram (mg/kg).
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg.
- TPH: 100 mg/kg (GRO + DRO + MRO).
- Chloride: 600 mg/kg

### **Confirmation Sampling**

New Tech Global Environmental personnel were onsite on September 9, 2021, to conduct site assessment activities and collect confirmation soil samples of the impacted area resulting from the release. Before NTGE collected confirmation samples, a third-party contractor conducted a 0.5' surface scrape of the impacted area. A total of three (3) confirmation samples were collected (CS-1, CS-2, and CS-3), and four (4) sidewall samples (SW-1, SW-2, SW-3, and SW-4) were collected every 200 square feet to ensure proper removal of the contaminated soils. All collected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The results of the sampling are summarized in Table 1. The excavation depths and confirmation sample locations are shown in Figure 3.

All the final confirmation samples were below the 19.15.29.12 NMAC criteria. Refer to Table 1.

Once the remediation activities were completed, the excavated areas were backfilled with clean material to surface grade. Approximately 11 cubic yards of material were excavated and transported offsite for proper disposal.

### **Conclusions**

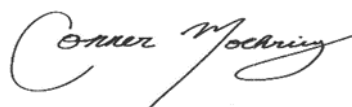
Based on the assessment finding and the analytical results, no further actions are required at the site. The final C-141 is attached, and Concho Resources formally requests closure of the spill. If you have any questions regarding this report or need additional information, please contact us at 432-813-0263.

Sincerely,

**NTG Environmental**



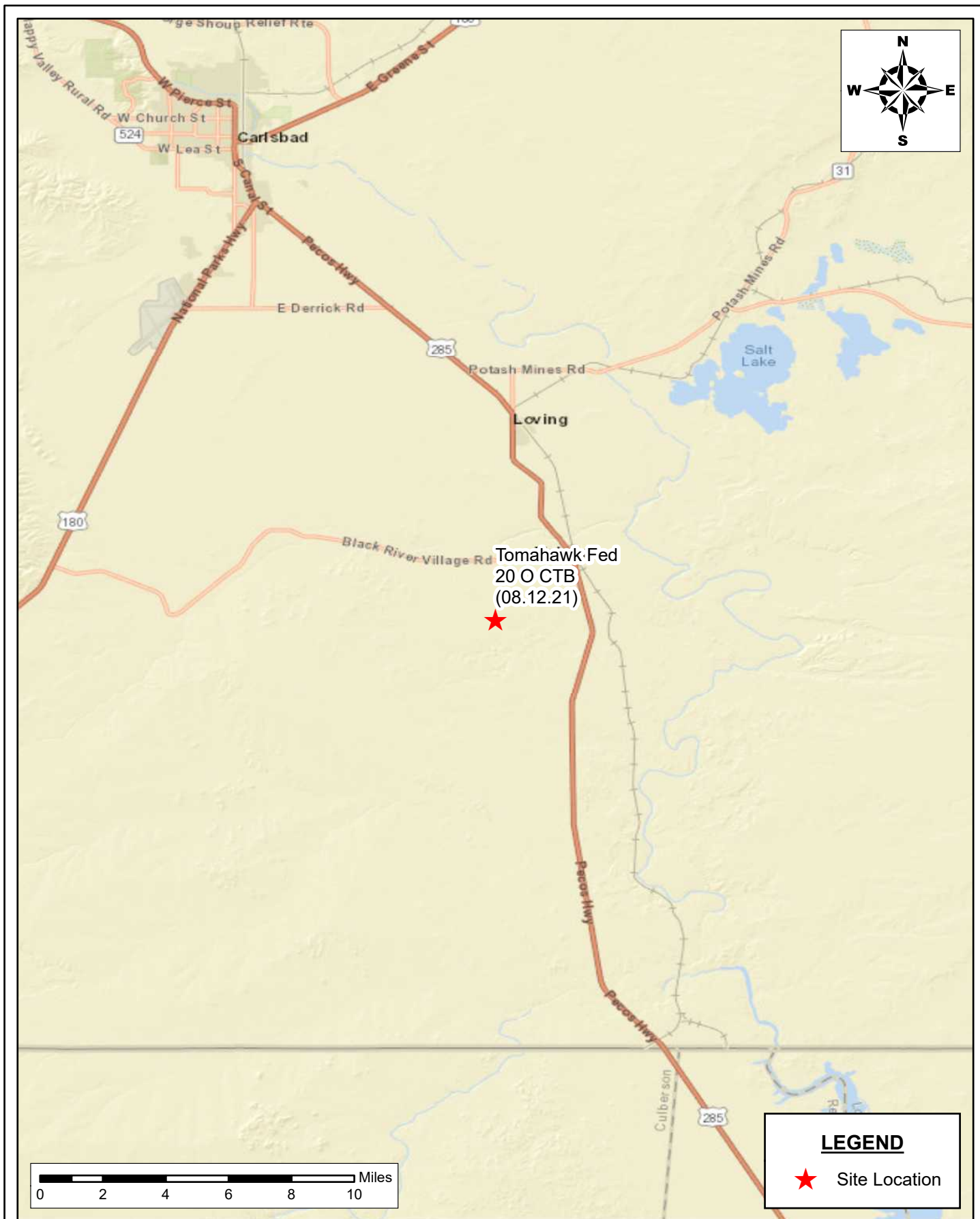
Mike Carmona  
Senior Project Manager



Conner Moehring  
Project Manager



## *Figures*



**SITE LOCATION MAP**  
**COG OPERATING, LLC**  
 TOMAHAWK FED 20 O CTB (08.12.21)  
 EDDY COUNTY, NEW MEXICO  
 32.197641, -104.108884

SCALE: As Shown      08/23/2021      PROJECT #: 214637

**New Tech Global Environmental, LLC**  
 911 Regional Park Drive  
 Houston, Texas 77060  
 T - 281.872.9300  
 F - 281.872.4521  
 Web: www.ntglobal.com



**NOTES:**

1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983 UTM Zone 13N

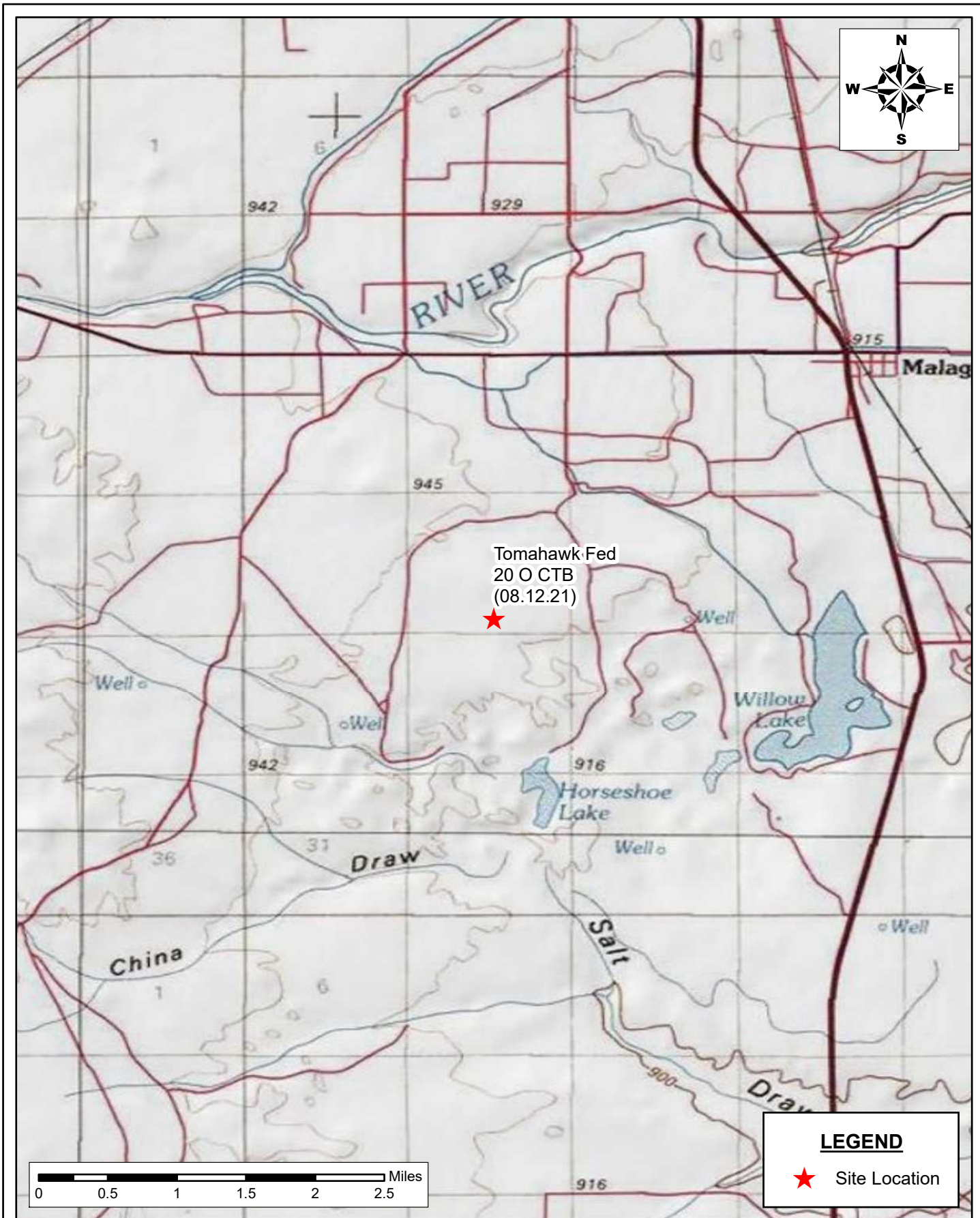
DRAWING NUMBER:

**FIGURE 1**


SHEET NUMBER:

**1 of 1**



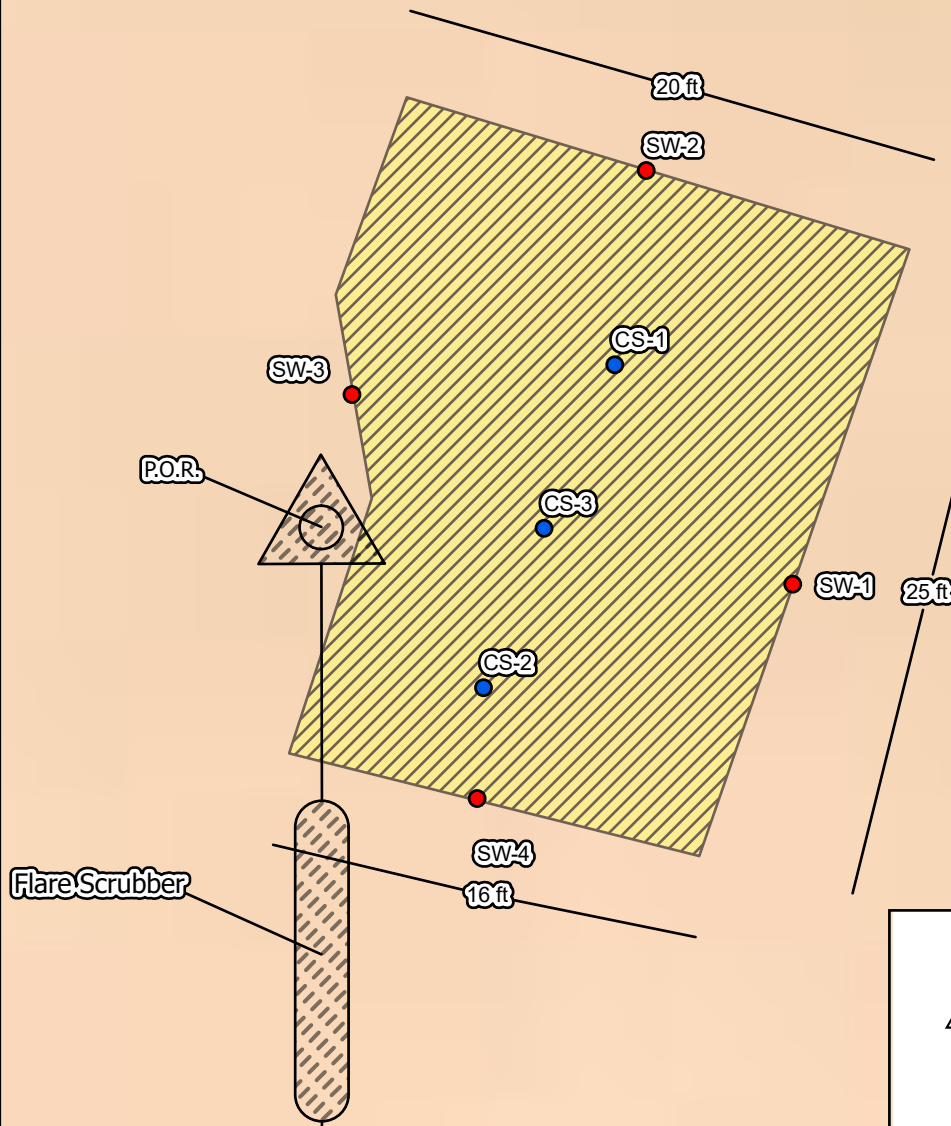
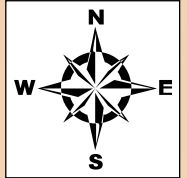
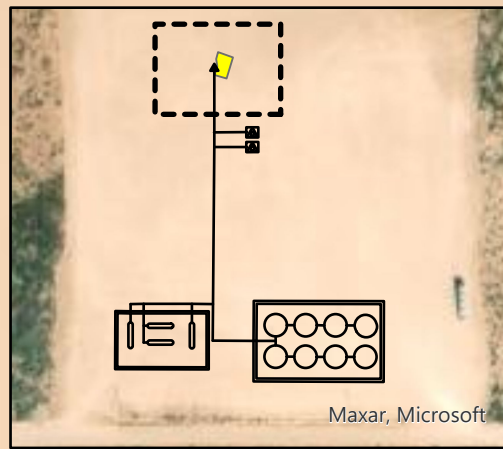


<b>AREA MAP</b> <b>COG OPERATING, LLC</b> <b>TOMAHAWK FED 20 O CTB (08.12.21)</b> <b>EDDY COUNTY, NEW MEXICO</b> <b>32.197641, -104.108884</b>		
SCALE: As Shown	08/23/2021	PROJECT #: 214637

 <b>New Tech Global Environmental, LLC</b> 911 Regional Park Drive Houston, Texas 77060 T - 281.872.9300 F - 281.872.4521 Web: www.ntglobal.com
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<b>NOTES:</b> 1. Base Image: ESRI Maps & Data 2013 2. Map Projection: NAD 1983 UTM Zone 13N
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DRAWING NUMBER:
<b>FIGURE 2</b>
SHEET NUMBER:
<b>1 of 1</b>



### LEGEND

- Point of Release
- Confirmation Samples
- Sidewall Samples
- 0.5 ft Excavation Depth
- (Not to Scale) Site Reference

#### EXCAVATION DEPTH MAP

COG OPERATING, LLC  
TOMAHAWK FED 20 O CTB (08.12.21)  
EDDY COUNTY, NEW MEXICO  
32.197641, -104.108884

SCALE: As Shown

Date: 9/30/2021

PROJECT #: 214637



New Tech Global Environmental, LLC  
911 Regional Park Drive  
Houston, Texas 77060  
T - 281.872.9300  
F - 281.872.4521  
Web: www.ntglobal.com

#### NOTES:

1. Base Image: ESRI Maps & Data 2013
2. Map Projection: NAD 1983 UTM Zone 13N

DRAWING NUMBER:

**FIGURE 3**

SHEET NUMBER:

**1 of 1**





## *Tables*

**Table 1**  
**COG Operating**  
**Tomahawk Fed 20 O CTB (08.12.21)**  
**Eddy County, New Mexico**

Sample ID	Date	Sample Depth (ft)	TPH (mg/kg)				Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			DRO	GRO	MRO	Total						
<b>CS-1</b>	9/9/2021	0-0.5'	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	0.00313	<0.00399	<0.00399	46.8
<b>CS-2</b>	9/9/2021	0-0.5'	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	<0.00200	<0.00400	<0.00400	341
<b>CS-3</b>	9/9/2021	0-0.5'	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	82.9
<b>SW-1</b>	9/9/2021	-	<49.7	<49.7	<49.7	<49.7	<0.00200	<0.00200	<0.00200	<0.00401	<0.00401	38.4
<b>SW-2</b>	9/9/2021	-	<49.8	<49.8	<49.8	<49.8	0.00221	<0.00202	<0.00202	<0.00404	<0.00404	13.0
<b>SW-3</b>	9/9/2021	-	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<0.00202	<0.00403	<0.00403	304
<b>SW-4</b>	9/9/2021	-	<49.9	<49.9	<49.9	<49.9	<0.00201	<0.00201	<0.00201	<0.00402	<0.00402	51.6
<b>Regulatory Limits <sup>A</sup></b>						<b>100 mg/kg</b>	<b>10 mg/kg</b>				<b>50 mg/kg</b>	<b>600 mg/kg</b>

(-) Not Analyzed

<sup>A</sup> – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH- Total Petroleum Hydrocarbons

ft-feet



## *Photo Log*

# PHOTOGRAPHIC LOG

## Concho Operating, LLC

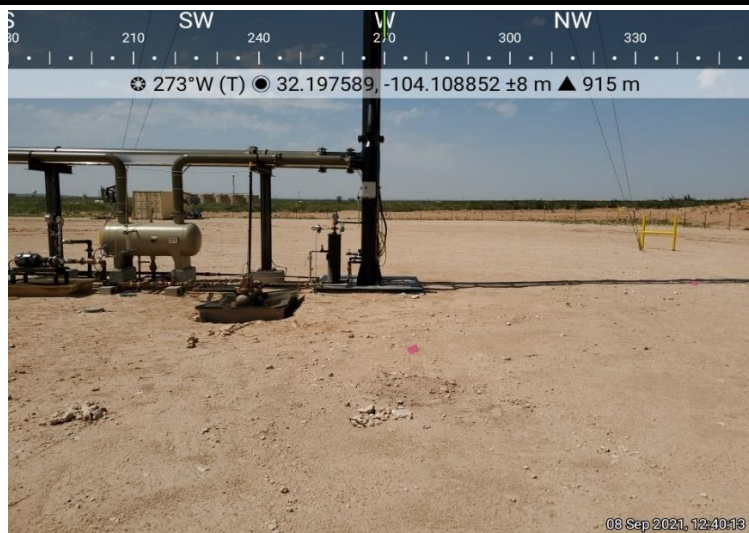
### Photograph No. 1

**Facility:** Tomahawk Fed 20 O CTB  
(08.12.21)

**County:** Eddy County, New Mexico

**Description:**

View West, area of confirmation samples (1-2).



### Photograph No. 2

**Facility:** Tomahawk Fed 20 O CTB  
(08.12.21)

**County:** Eddy County, New Mexico

**Description:**

View Southeast, area of confirmation samples (2-3).



### Photograph No. 3

**Facility:** Tomahawk Fed 20 O CTB  
(08.12.21)

**County:** Eddy County, New Mexico

**Description:**

View Northwest, area of confirmation sample (3).





## *Appendix A*

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

State of New Mexico  
Energy Minerals and Natural  
Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

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

### Location of Release Source

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

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

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls) 0.5	Volume Recovered (bbls) 0.0
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> 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?  <input type="checkbox"/> Yes <input type="checkbox"/> 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*

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: _____	Title: _____
Signature: <u>Patricia Zapanta</u>	Date: _____
email: _____	Telephone: _____
<b><u>OCD Only</u></b>	
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?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input type="checkbox"/> 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?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: Jaques Hovio 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: Jacqueline Harris 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: Jennifer Nobui Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_



## *Appendix B*

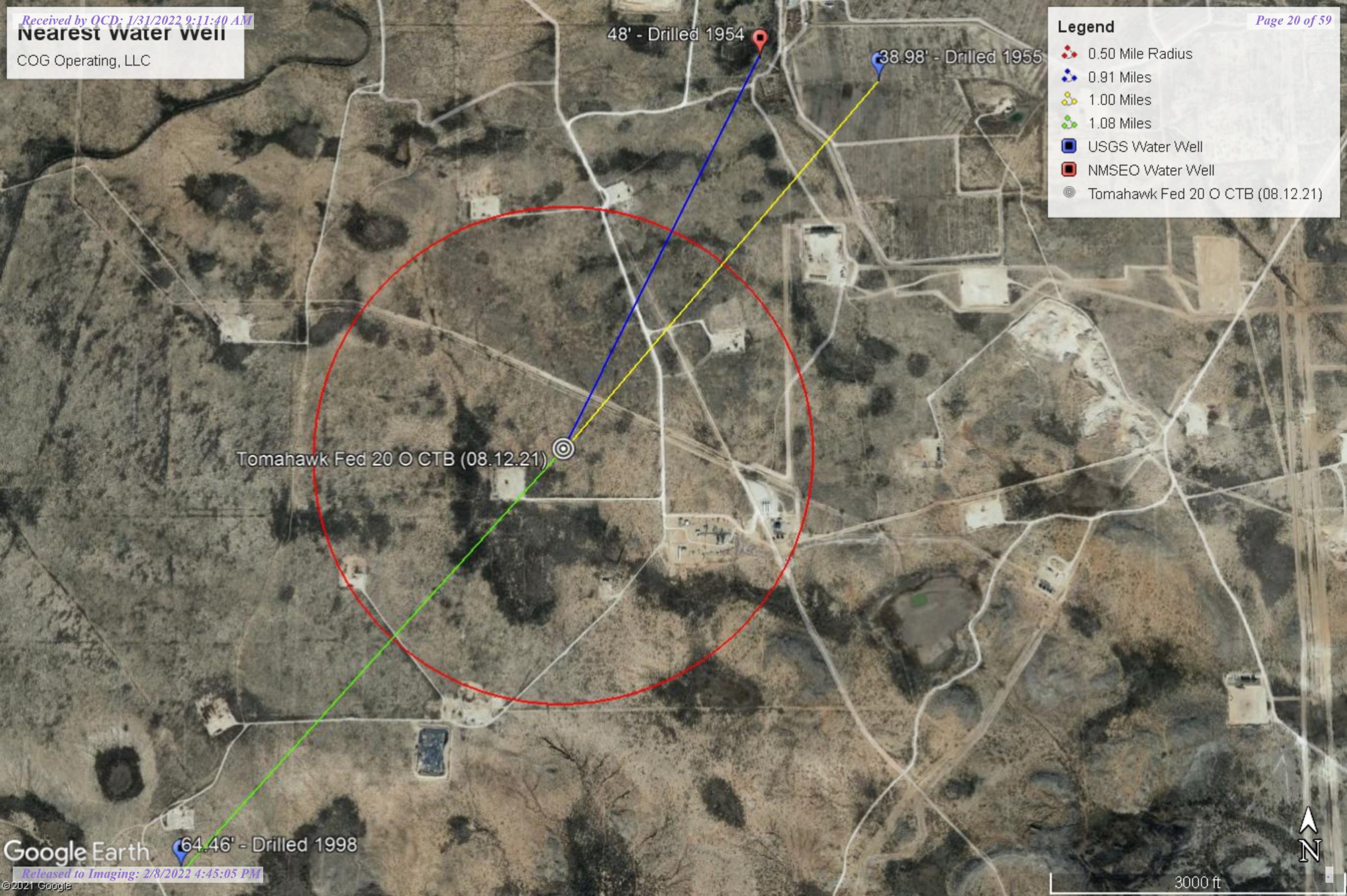


**Nearest water well**

COG Operating, LLC

**Legend**

- 0.50 Mile Radius
- 0.91 Miles
- 1.00 Miles
- 1.08 Miles
- USGS Water Well
- NMSEO Water Well
- Tomahawk Fed 20 O CTB (08.12.21)



Tomahawk Fed 20 O CTB (08.12.21)

48' - Drilled 1954

38.98' - Drilled 1955

64.46' - Drilled 1998








# High Karst


COG Operating, LLC

Legend

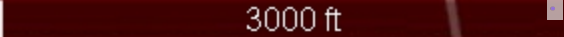
 CRIT

 HIGH

 Tomahawk Fed 20 O CTB (08.12.21)

 Tomahawk Fed 20 O CTB (08.12.21)

  
N

  
3000 ft



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water



























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

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

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	Code	POD	County	Q	Q	Q	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column	
		Sub-basin		64	16	4									
<a href="#">C 00232</a>		CUB	ED	1	3	2	07	24S	28E	582362	3566826*		160		
<a href="#">C 00329</a>		C	ED	2	1	2	13	24S	28E	590682	3565677*		95	30	65
<a href="#">C 00346</a>		C	ED	2	2	15	24S	28E	587715	3565591*		90	32	58	
<a href="#">C 00353</a>	C	CUB	ED	3	4	13	24S	28E	590603	3564367*		2726			
<a href="#">C 00354</a>	C	CUB	ED	4	4	13	24S	28E	591005	3564367*		2739			
<a href="#">C 00361</a>	C	CUB	ED	3	3	08	24S	28E	583283	3565926*		2575			
<a href="#">C 00365</a>		CUB	ED	2	4	1	17	24S	28E	583791	3565226*		238	26	212
<a href="#">C 00406</a>		C	ED	1	1	08	24S	28E	583270	3567142*		78	50	28	
<a href="#">C 00464</a>		CUB	ED	2	2	1	13	24S	28E	590277	3565674*		111	28	83
<a href="#">C 00488</a>		C	ED	2	1	2	15	24S	28E	587412	3565688*		64	8	56
<a href="#">C 00511</a>		C	ED	2	3	02	24S	28E	588518	3568001*		268	140	128	
<a href="#">C 00513</a>		CUB	ED	2	2	2	20	24S	28E	584605	3564020		212	48	164
<a href="#">C 00513 S</a>		CUB	ED	1	3	3	16	24S	28E	584801	3564431		161	42	119
<a href="#">C 00570</a>		CUB	ED	1	1	10	24S	28E	586490	3567195*		100	28	72	
<a href="#">C 00573</a>		CUB	ED	2	2	4	04	24S	28E	586188	3568087*		250	35	215
<a href="#">C 00574</a>		CUB	ED	2	4	4	11	24S	28E	589452	3566081*		200	20	180
<a href="#">C 00618</a>		C	ED	3	4	4	12	24S	28E	590880	3565885*		80	40	40
<a href="#">C 00648</a>		C	ED	2	2	2	17	24S	28E	584593	3565644*		96	58	38
<a href="#">C 00684</a>		CUB	ED	2	1	2	13	24S	28E	590682	3565677*		95	40	55
<a href="#">C 00709</a>		C	ED	3	3	3	16	24S	28E	584802	3564232*				
<a href="#">C 00738</a>		CUB	ED	3	1	1	13	24S	28E	589673	3565472*		125	12	113
<a href="#">C 00750</a>		CUB	ED	1	2	4	13	24S	28E	590898	3564871*		110		
<a href="#">C 00764</a>		CUB	ED	3	1	3	10	24S	28E	586399	3566292*		118	25	93
<a href="#">C 00890</a>		CUB	ED	3	3	4	10	24S	28E	587211	3565897*		50		
<a href="#">C 00903</a>		C	ED	2	1	13	24S	28E	590178	3565575*		57	30	27	
<a href="#">C 00962</a>		C	ED	3	3	10	24S	28E	586505	3565992*		63	9	54	

\*UTM location was derived from PLSS - see Help

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

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

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
<a href="#">C 00983</a>	C	ED		4	4	4	12	24S	28E	591080	3565885*	92	40	52
<a href="#">C 01082</a>	CUB	ED		3	3	2	11	24S	28E	588832	3566693*	120		
<a href="#">C 01154</a>	C	ED		2	1	2	13	24S	28E	590682	3565677*	95	50	45
<a href="#">C 01237</a>	C	ED		1	1	2	10	24S	28E	587197	3567298*	123		
<a href="#">C 01244</a>	C	ED		4	4	06		24S	28E	582860	3567543*	109	70	39
<a href="#">C 01442</a>	C	ED		1	2	10		24S	28E	587298	3567199*	100		
<a href="#">C 01731</a>	C	ED		4	2	05		24S	28E	584483	3568367*	80	30	50
<a href="#">C 01747</a>	CUB	ED					12	24S	28E	590367	3566577*	176	139	37
<a href="#">C 02057</a>	C	ED		1	4	14		24S	28E	588956	3564774*	126	52	74
<a href="#">C 02184</a>	C	ED		2	4	3	01	24S	28E	590248	3567700*	87	60	27
<a href="#">C 02186</a>	C	ED			2	02		24S	28E	589128	3568606*	100	55	45
<a href="#">C 02198</a>	C	ED			1	01		24S	28E	589940	3568611*	78		
<a href="#">C 02244</a>	C	LE		3	1	2	22	24S	28E	587224	3563865*	260		
<a href="#">C 02306</a>	C	ED		3	2	04		24S	28E	585690	3568382*	75	25	50
<a href="#">C 02524 POD2</a>	C	ED		2	2	2	15	24S	28E	587814	3565690*	90	11	79
<a href="#">C 02836</a>	C	ED		2	2	2	16	24S	28E	586203	3565676*		15	
<a href="#">C 03132</a>	C	ED		1	2	4	15	24S	28E	587616	3564877*	90	19	71
<a href="#">C 03358 POD1</a>	CUB	ED		1	4	1	26	24S	28E	588416	3562116	135		
<a href="#">C 03423</a>	CUB	ED		2	4	1	26	24S	28E	588786	3561952	126		
<a href="#">C 03604 POD1</a>	CUB	ED		2	4	3	10	24S	28E	526534	3565712	38	24	14
<a href="#">C 03703 POD1</a>	C	ED		1	2	1	09	24S	28E	585259	3567225	74	15	59
<a href="#">C 03824 POD1</a>	CUB	ED		4	1	2	16	24S	28E	585770	3565578	290	60	230
<a href="#">C 03833 POD1</a>	C	ED		2	1	2	26	24S	28E	589014	3562545	96	55	41
<a href="#">C 03862 POD1</a>	CUB	ED		3	3	3	01	24S	28E	589672	3567505	17	10	7
<a href="#">C 03862 POD2</a>	CUB	ED		3	3	3	01	24S	28E	589665	3567507	30	10	20
<a href="#">C 03862 POD3</a>	CUB	ED		3	3	3	01	24S	28E	589685	3567500	60	10	50
<a href="#">C 03862 POD4</a>	CUB	ED		3	3	3	01	24S	28E	589705	3567490	30	10	20
<a href="#">C 03862 POD5</a>	CUB	ED		4	3	3	01	24S	28E	589785	3567458	17	10	7
<a href="#">C 03986 POD1</a>	CUB	ED		3	4	2	22	24S	28E	587505	3563502	170	120	50

\*UTM location was derived from PLSS - see Help

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

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

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Sub- Code	basin	County	Q 6	Q 4	Q 16	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
<a href="#">C 03988 POD1</a>	CUB	ED	4	4	4	28	24S	28E	586303	3561087		110	95	15
<a href="#">C 03989 POD1</a>	CUB	ED	4	2	2	33	24S	28E	586342	3560573		100	70	30
<a href="#">C 04025 POD1</a>	CUB	ED	4	3	3	27	24S	28E	586700	3560964		190	90	100
<a href="#">C 04026 POD1</a>	CUB	ED	3	2	1	25	24S	28E	590148	3562290		190	90	100
<a href="#">C 04151 POD1</a>	CUB	ED	4	2	1	26	24S	28E	588584	3562192		280	65	215
<a href="#">C 04180 POD1</a>	CUB	ED	2	1	2	26	24S	28E	589055	3562502		160	58	102
<a href="#">C 04181 POD1</a>	CUB	ED	3	2	1	26	24S	28E	588450	3562146		280	56	224
<a href="#">C 04181 POD2</a>	C	ED	3	2	1	26	24S	28E	588393	3562212		80	56	24
<a href="#">C 04222 POD1</a>	CUB	ED	1	3	3	27	24S	28E	586406	3561228		140	35	105
<a href="#">C 04222 POD2</a>	CUB	ED	1	2	4	22	24S	28E	587707	3563255		100	40	60
<a href="#">C 04263 POD1</a>	CUB	ED	3	1	1	23	24S	28E	588026	3563915		390	370	20
<a href="#">C 04294 POD1</a>	CUB	ED	4	3	3	23	24S	28E	588169	3562646		60		
<a href="#">C 04337 POD1</a>	CUB	ED	4	1	4	03	24S	28E	587317	3567907		60		
<a href="#">C 04382 POD1</a>	CUB	ED	2	1	2	15	24S	28E	587401	3565647		48	35	13
<a href="#">C 04383 POD1</a>	CUB	ED	4	1	2	15	24S	28E	587389	3565499		34	19	15
<a href="#">C 04501 POD1</a>	CUB	ED	3	4	1	29	24S	28E	583580	3561778		80		

Average Depth to Water: **49 feet**

Minimum Depth: **8 feet**

Maximum Depth: **370 feet**

Record Count: 71

PLSS Search:

Township: 24S

Range: 28E

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9/8/21 11:18 AM

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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
NA	C 00513	2	2	2	20	24S	28E	584605	3564020

x

**Driller License:****Driller Company:****Driller Name:** HOWARD HEMLER**Drill Start Date:** 03/30/1954**Drill Finish Date:** 03/30/1954**Plug Date:****Log File Date:** 06/24/1954**PCW Rev Date:** 09/22/1954**Source:** Shallow**Pump Type:** TURBIN**Pipe Discharge Size:****Estimated Yield:** 900 GPM**Casing Size:** 14.00**Depth Well:** 212 feet**Depth Water:** 48 feet

x

**Water Bearing Stratifications:****Top Bottom Description**

84 135 Limestone/Dolomite/Chalk

178 212 Limestone/Dolomite/Chalk

x

**Casing Perforations:****Top Bottom**

80 140

180 212

x

**Meter Number:** 560**Meter Make:** WATER SPEC**Meter Serial Number:** 934685**Meter Multiplier:** 1.0000**Number of Dials:** 3**Meter Type:** Diversion**Unit of Measure:** Acre-Feet**Return Flow Percent:****Usage Multiplier:****Reading Frequency:****Meter Readings (in Acre-Feet)**

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount Online
12/29/1998	1999	0	A	ms		0
04/01/1999	1999	0	A	ms		0
06/15/1999	1999	0	A	ms		0
09/29/1999	1999	0	A	ms		0
04/06/2000	2000	0	A	mb		0
07/07/2000	2000	0	A	mb		0
10/19/2000	2000	0	A	mb		0
01/05/2001	2000	0	A	ms		0
04/20/2001	2001	0	A	ms		0
07/20/2001	2001	0	A	ms	No Electric	0
04/01/2003	2002	6	A	MB		6.293
06/03/2003	2003	6	A	ms		0
08/20/2003	2003	6	A	ab		0
10/22/2003	2003	8	A	TW		1.374
01/06/2004	2003	8	A	ab		0
04/28/2004	2004	12	A	TW		4.051
07/14/2004	2004	12	A	ms		0
10/20/2004	2004	12	A	TW		0

01/03/2005	2004	12	A	TW	0
03/30/2005	2005	12	A	JW	0
07/06/2005	2005	12	A	JW	0
01/05/2006	2005	12	A	TW	0
04/05/2006	2006	12	A	tw	0.353
07/06/2006	2006	14	A	tw	2.000
01/04/2007	2006	15	A	tw	1.073
04/27/2007	2007	15	A	tw	0
07/03/2007	2007	15	A	tw	0
10/10/2007	2007	15	A	tw	0
01/02/2008	2007	15	A	tw	0
04/15/2008	2008	15	A	tw	0
10/02/2008	2008	15	A	tw	0
01/13/2009	2008	15	A	tw	0
04/15/2009	2009	15	A	tw	0
06/07/2009	2009	15	A	tw	0
01/06/2010	2009	15	A	tw	0
05/13/2010	2010	15	A	tw	0
01/12/2011	2010	15	A	tw	0
09/20/2011	2011	15	A	tw	0
01/23/2012	2011	15	A	tw	0
03/02/2012	2012	15	A	tw	0
07/02/2012	2012	15	A	tw	0
10/19/2012	2012	15	A	tw	0
02/12/2013	2013	15	A	tw	0
11/05/2013	2013	15	A	tw	0
06/10/2014	2014	15	A	tw	0
01/27/2015	2014	15	A	tw	0
03/04/2016	2016	15	A	tw	0
Pump pulled PVACD purchased					0

\*
\*\*YTD Meter Amounts:

Year	Amount
1999	0
2000	0
2001	0
2002	6.293
2003	1.374
2004	4.051
2005	0
2006	3.426
2007	0
2008	0
2009	0
2010	0
2011	0
2012	0
2013	0
2014	0
2016	0

Meter Number:
564
Meter Make:
WATER SPEC



Meter Serial Number: 924685

Meter Multiplier: 1.0000

Number of Dials: 4

Meter Type: Diversion

Unit of Measure: Acre-Feet

Return Flow Percent:

Usage Multiplier:

Reading Frequency:

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount Online
12/29/1998	1999	0	A	ms		0
04/01/1999	1999	0	A	ms		0
06/15/1999	1999	0	A	ms		0
09/29/1999	1999	0	A	ms		0
04/06/2000	2000	0	A	MB		0
07/07/2000	2000	0	A	MB		0
10/19/2000	2000	0	A	MB		0
01/03/2001	2000	0	A	ms		0

**YTD Meter Amounts:	Year	Amount
	1999	0
	2000	0

Meter Number: 1408

Meter Make:

Meter Serial Number: 62 074 251

Meter Multiplier: 1.0000

Number of Dials: 5

Meter Type: Power Child

Unit of Measure: Kilowatt Hours

Return Flow Percent:

Usage Multiplier:

Reading Frequency:

Meter Readings in (Kilowatt Hours)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount Online
04/06/2000	2000	30830	A	mb		0
07/07/2000	2000	30830	A	mb		0

**YTD Meter Amounts:	Year	Amount
	2000	0

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## National Water Information System: Web Interface

USGS Water Resources

Data Category:  Geographic Area:

Click to hide News Bulletins

- Explore the *NEW* [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.
- [Full News](#)

Groundwater levels for New Mexico

Click to hide state-specific text

Important: [Next Generation Monitoring Location Page](#)

### Search Results -- 1 sites found

Agency code = usgs

site\_no list = 

- 321232104055301

Minimum number of levels = 1

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

### USGS 321232104055301 24S.28E.20.22244

Eddy County, New Mexico

Latitude 32°12'32", Longitude 104°05'53" NAD27

Land-surface elevation 3,039 feet above NAVD88

The depth of the well is 212 feet below land surface.

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

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

#### Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

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 measur
1954-09-20			D 62610		2983.41	NGVD29	1		Z	
1954-09-20			D 62611		2985.00	NAVD88	1		Z	
1954-09-20			D 72019	54.00			1		Z	
1955-07-13			D 62610		2998.43	NGVD29	1		Z	
1955-07-13			D 62611		3000.02	NAVD88	1		Z	
1955-07-13			D 72019	38.98			1		Z	

#### 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

9/8/21, 12:15 PM

Section	Code	Description
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.

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## National Water Information System: Web Interface

USGS Water Resources

Data Category:  Geographic Area:

Click to hide News Bulletins

- Explore the *NEW* [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.
- [Full News](#) 

Groundwater levels for New Mexico

Click to hide state-specific text

 Important: [Next Generation Monitoring Location Page](#)

### Search Results -- 1 sites found

Agency code = usgs

site\_no list =

- 321110104071701

Minimum number of levels = 1

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

### USGS 321110104071701 24S.28E.30.413242

Eddy County, New Mexico

Latitude 32°11'10", Longitude 104°07'17" NAD27

Land-surface elevation 3,055 feet above NAVD88

The depth of the well is 201 feet below land surface.

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Castile Formation (312CSTL) local aquifer.

#### Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

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 measur
1983-01-31			D	62610	2989.68	NGVD29	1		Z	
1983-01-31			D	62611	2991.29	NAVD88	1		Z	
1983-01-31			D	72019	63.71		1		Z	
1988-02-10			D	62610	2991.52	NGVD29	1		Z	
1988-02-10			D	62611	2993.13	NAVD88	1		Z	
1988-02-10			D	72019	61.87		1		Z	
1992-11-04			D	62610	2990.33	NGVD29	1		S	
1992-11-04			D	62611	2991.94	NAVD88	1		S	
1992-11-04			D	72019	63.06		1		S	
1998-01-23			D	62610	2988.93	NGVD29	1		S	
1998-01-23			D	62611	2990.54	NAVD88	1		S	
1998-01-23			D	72019	64.46		1		S	

## 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.

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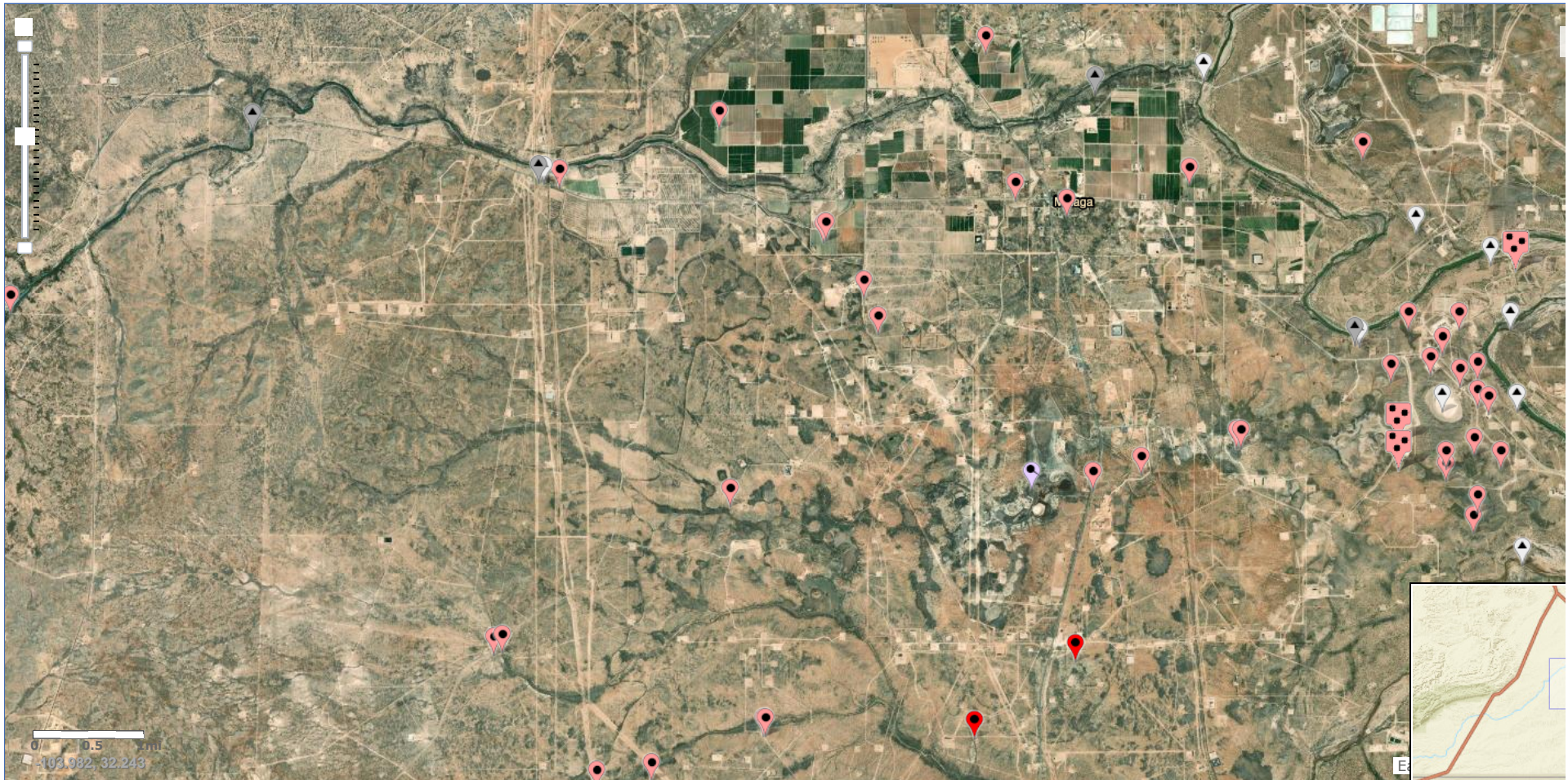
Page Last Modified: 2021-09-08 13:14:31 EDT

0.27 0.24 nadww01



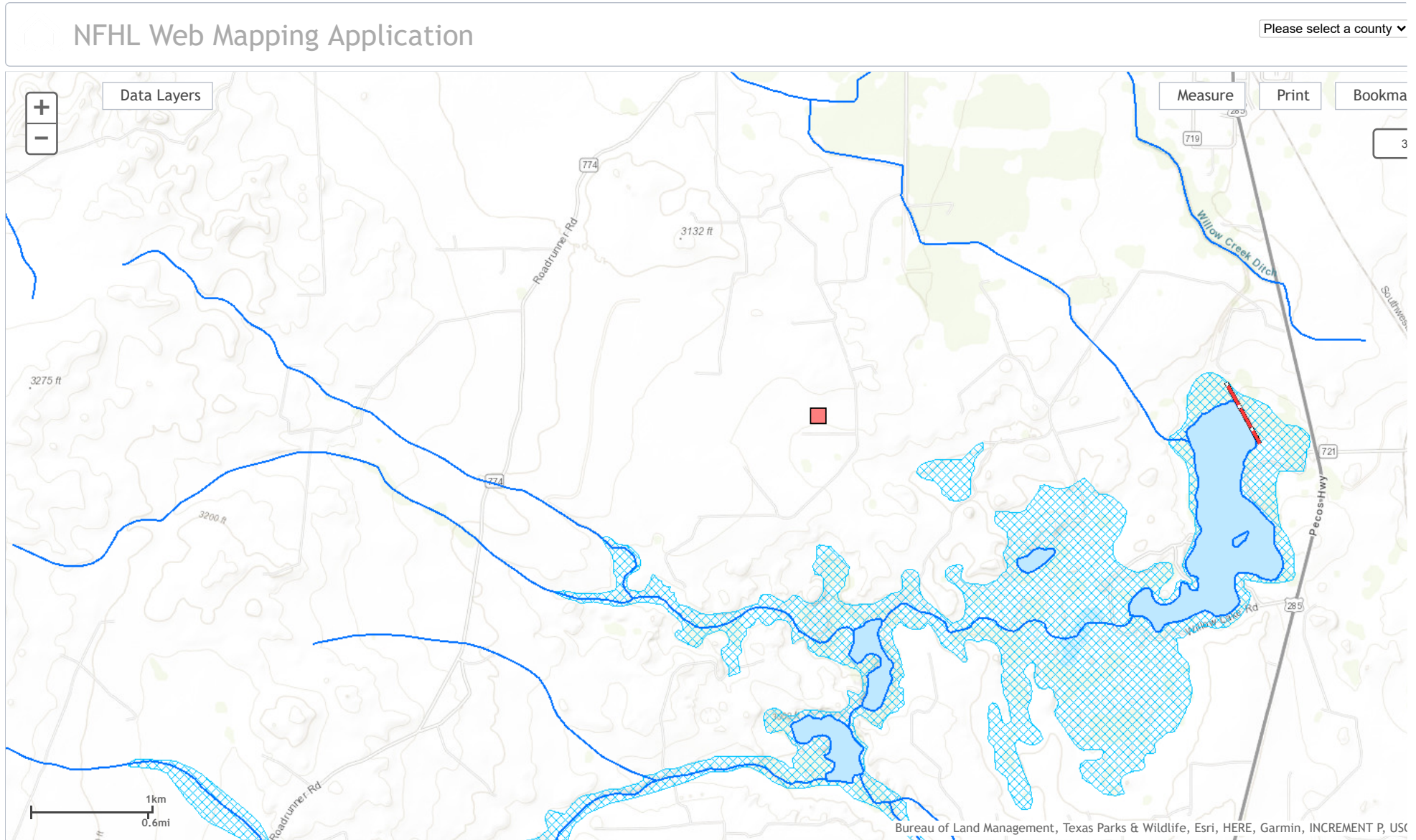


National Water Information System: Mapper



Site Information







## *Appendix C*



## Environment Testing America

### ANALYTICAL REPORT

Eurofins Xenco, Midland  
1211 W. Florida Ave  
Midland, TX 79701  
Tel: (432)704-5440

Laboratory Job ID: 880-5966-1

Laboratory Sample Delivery Group: 214637

Client Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

For:

NT Global  
701 Tradewinds Blvd  
Midland, Texas 79706

Attn: Mike Carmona

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

Authorized for release by:  
9/14/2021 11:52:56 AM

Jessica Kramer, Project Manager  
(432)704-5440  
[jessica.kramer@eurofinset.com](mailto:jessica.kramer@eurofinset.com)

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*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

Client: NT Global  
Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

Laboratory Job ID: 880-5966-1  
SDG: 214637

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## Definitions/Glossary

Client: NT Global

Job ID: 880-5966-1

Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

SDG: 214637

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: NT Global  
Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

Job ID: 880-5966-1  
SDG: 214637

**Job ID: 880-5966-1**

**Laboratory: Eurofins Xenco, Midland**

**Narrative**

**Job Narrative  
880-5966-1**

**Receipt**

The samples were received on 9/10/2021 11:31 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.1°C

**GC VOA**

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-7752 and analytical batch 880-7777 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**GC Semi VOA**

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-7733 and analytical batch 880-7794 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD\_NM: Surrogate recovery for the following samples were outside control limits: CS-1 (0.5') (880-5966-1), CS-2 (0.5') (880-5966-2), CS-3 (0.5') (880-5966-3), SW-1 (880-5966-4), SW-2 (880-5966-5), SW-3 (880-5966-6), SW-4 (880-5966-7), (LCS 880-7733/2-A), (LCSD 880-7733/3-A), (MB 880-7733/1-A) and (880-5966-A-1-D MS). Evidence of matrix interferences is not obvious.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**HPLC/IC**

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

## Client Sample Results

Client: NT Global

Job ID: 880-5966-1

Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

SDG: 214637

Client Sample ID: CS-1 (0.5')

Lab Sample ID: 880-5966-1

Date Collected: 09/09/21 00:00

Matrix: Solid

Date Received: 09/10/21 11:31

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:05	09/11/21 11:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:05	09/11/21 11:01	1
Ethylbenzene	0.00313		0.00200		mg/Kg		09/10/21 13:05	09/11/21 11:01	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/10/21 13:05	09/11/21 11:01	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:05	09/11/21 11:01	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/10/21 13:05	09/11/21 11:01	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		09/10/21 13:05	09/11/21 11:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130	09/10/21 13:05	09/11/21 11:01	1
1,4-Difluorobenzene (Surr)	94		70 - 130	09/10/21 13:05	09/11/21 11:01	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		09/10/21 16:00	09/13/21 13:33	1
Diesel Range Organics (Over C10-C28)	<49.8	U F1	49.8		mg/Kg		09/10/21 16:00	09/13/21 13:33	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		09/10/21 16:00	09/13/21 13:33	1
Total TPH	<49.8	U	49.8		mg/Kg		09/10/21 16:00	09/13/21 13:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	149	S1+	70 - 130	09/10/21 16:00	09/13/21 13:33	1
o-Terphenyl	162	S1+	70 - 130	09/10/21 16:00	09/13/21 13:33	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	46.8		4.95		mg/Kg			09/14/21 09:29	1

Client Sample ID: CS-2 (0.5')

Lab Sample ID: 880-5966-2

Date Collected: 09/09/21 00:00

Matrix: Solid

Date Received: 09/10/21 11:31

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:05	09/11/21 11:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:05	09/11/21 11:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:05	09/11/21 11:22	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/10/21 13:05	09/11/21 11:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:05	09/11/21 11:22	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/10/21 13:05	09/11/21 11:22	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/10/21 13:05	09/11/21 11:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	09/10/21 13:05	09/11/21 11:22	1
1,4-Difluorobenzene (Surr)	99		70 - 130	09/10/21 13:05	09/11/21 11:22	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		09/10/21 16:00	09/13/21 14:59	1

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## Client Sample Results

Client: NT Global

Job ID: 880-5966-1

Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

SDG: 214637

## Client Sample ID: CS-2 (0.5')

## Lab Sample ID: 880-5966-2

Date Collected: 09/09/21 00:00

Matrix: Solid

Date Received: 09/10/21 11:31

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		09/10/21 16:00	09/13/21 14:59	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		09/10/21 16:00	09/13/21 14:59	1
Total TPH	<49.7	U	49.7		mg/Kg		09/10/21 16:00	09/13/21 14:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	127		70 - 130				09/10/21 16:00	09/13/21 14:59	1
o-Terphenyl	140	S1+	70 - 130				09/10/21 16:00	09/13/21 14:59	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	341		5.00		mg/Kg			09/14/21 09:34	1

## Client Sample ID: CS-3 (0.5')

## Lab Sample ID: 880-5966-3

Date Collected: 09/09/21 00:00

Matrix: Solid

Date Received: 09/10/21 11:31

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/10/21 13:05	09/11/21 13:11	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/10/21 13:05	09/11/21 13:11	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/10/21 13:05	09/11/21 13:11	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/10/21 13:05	09/11/21 13:11	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/10/21 13:05	09/11/21 13:11	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/10/21 13:05	09/11/21 13:11	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		09/10/21 13:05	09/11/21 13:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130				09/10/21 13:05	09/11/21 13:11	1
1,4-Difluorobenzene (Surr)	103		70 - 130				09/10/21 13:05	09/11/21 13:11	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/10/21 16:00	09/13/21 15:20	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/10/21 16:00	09/13/21 15:20	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/10/21 16:00	09/13/21 15:20	1
Total TPH	<49.9	U	49.9		mg/Kg		09/10/21 16:00	09/13/21 15:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	129		70 - 130				09/10/21 16:00	09/13/21 15:20	1
o-Terphenyl	140	S1+	70 - 130				09/10/21 16:00	09/13/21 15:20	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	82.9		4.98		mg/Kg			09/14/21 09:40	1

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## Client Sample Results

Client: NT Global

Job ID: 880-5966-1

Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

SDG: 214637

Client Sample ID: SW-1

Lab Sample ID: 880-5966-4

Date Collected: 09/09/21 00:00

Matrix: Solid

Date Received: 09/10/21 11:31

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:05	09/11/21 13:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:05	09/11/21 13:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:05	09/11/21 13:32	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		09/10/21 13:05	09/11/21 13:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:05	09/11/21 13:32	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		09/10/21 13:05	09/11/21 13:32	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		09/10/21 13:05	09/11/21 13:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	09/10/21 13:05	09/11/21 13:32	1
1,4-Difluorobenzene (Surr)	100		70 - 130	09/10/21 13:05	09/11/21 13:32	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		09/10/21 16:00	09/13/21 15:42	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		09/10/21 16:00	09/13/21 15:42	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		09/10/21 16:00	09/13/21 15:42	1
Total TPH	<49.7	U	49.7		mg/Kg		09/10/21 16:00	09/13/21 15:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	141	S1+	70 - 130	09/10/21 16:00	09/13/21 15:42	1
o-Terphenyl	152	S1+	70 - 130	09/10/21 16:00	09/13/21 15:42	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	38.4		5.00		mg/Kg			09/14/21 09:57	1

Client Sample ID: SW-2

Lab Sample ID: 880-5966-5

Date Collected: 09/09/21 00:00

Matrix: Solid

Date Received: 09/10/21 11:31

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00221		0.00202		mg/Kg		09/10/21 13:05	09/11/21 13:52	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/10/21 13:05	09/11/21 13:52	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/10/21 13:05	09/11/21 13:52	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		09/10/21 13:05	09/11/21 13:52	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/10/21 13:05	09/11/21 13:52	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		09/10/21 13:05	09/11/21 13:52	1
Total BTEX	<0.00404	U	0.00404		mg/Kg		09/10/21 13:05	09/11/21 13:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	158	S1+	70 - 130	09/10/21 13:05	09/11/21 13:52	1
1,4-Difluorobenzene (Surr)	94		70 - 130	09/10/21 13:05	09/11/21 13:52	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		09/10/21 16:00	09/13/21 16:03	1

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## Client Sample Results

Client: NT Global

Job ID: 880-5966-1

Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

SDG: 214637

## Client Sample ID: SW-2

## Lab Sample ID: 880-5966-5

Date Collected: 09/09/21 00:00

Matrix: Solid

Date Received: 09/10/21 11:31

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		09/10/21 16:00	09/13/21 16:03	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		09/10/21 16:00	09/13/21 16:03	1
Total TPH	<49.8	U	49.8		mg/Kg		09/10/21 16:00	09/13/21 16:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	145	S1+	70 - 130				09/10/21 16:00	09/13/21 16:03	1
o-Terphenyl	159	S1+	70 - 130				09/10/21 16:00	09/13/21 16:03	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.0		4.98		mg/Kg			09/14/21 10:13	1

## Client Sample ID: SW-3

## Lab Sample ID: 880-5966-6

Date Collected: 09/09/21 00:00

Matrix: Solid

Date Received: 09/10/21 11:31

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		09/10/21 13:05	09/11/21 14:13	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/10/21 13:05	09/11/21 14:13	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/10/21 13:05	09/11/21 14:13	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		09/10/21 13:05	09/11/21 14:13	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/10/21 13:05	09/11/21 14:13	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		09/10/21 13:05	09/11/21 14:13	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		09/10/21 13:05	09/11/21 14:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130				09/10/21 13:05	09/11/21 14:13	1
1,4-Difluorobenzene (Surr)	106		70 - 130				09/10/21 13:05	09/11/21 14:13	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/10/21 16:00	09/13/21 16:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/10/21 16:00	09/13/21 16:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/10/21 16:00	09/13/21 16:25	1
Total TPH	<50.0	U	50.0		mg/Kg		09/10/21 16:00	09/13/21 16:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	143	S1+	70 - 130				09/10/21 16:00	09/13/21 16:25	1
o-Terphenyl	156	S1+	70 - 130				09/10/21 16:00	09/13/21 16:25	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	304		4.97		mg/Kg			09/14/21 10:19	1

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## Client Sample Results

Client: NT Global

Job ID: 880-5966-1

Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

SDG: 214637

Client Sample ID: SW-4

Lab Sample ID: 880-5966-7

Date Collected: 09/09/21 00:00

Matrix: Solid

Date Received: 09/10/21 11:31

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/10/21 13:05	09/11/21 14:33	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/10/21 13:05	09/11/21 14:33	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/10/21 13:05	09/11/21 14:33	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/10/21 13:05	09/11/21 14:33	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/10/21 13:05	09/11/21 14:33	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/10/21 13:05	09/11/21 14:33	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		09/10/21 13:05	09/11/21 14:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	158	S1+	70 - 130	09/10/21 13:05	09/11/21 14:33	1
1,4-Difluorobenzene (Surr)	104		70 - 130	09/10/21 13:05	09/11/21 14:33	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/10/21 16:00	09/13/21 16:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/10/21 16:00	09/13/21 16:46	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/10/21 16:00	09/13/21 16:46	1
Total TPH	<49.9	U	49.9		mg/Kg		09/10/21 16:00	09/13/21 16:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	137	S1+	70 - 130	09/10/21 16:00	09/13/21 16:46	1
o-Terphenyl	152	S1+	70 - 130	09/10/21 16:00	09/13/21 16:46	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	51.6		4.95		mg/Kg			09/14/21 10:24	1

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## Surrogate Summary

Client: NT Global  
Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

Job ID: 880-5966-1  
SDG: 214637

## Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-5961-A-1-B MS	Matrix Spike	101	82
880-5961-A-1-C MSD	Matrix Spike Duplicate	107	93
880-5966-1	CS-1 (0.5')	127	94
880-5966-2	CS-2 (0.5')	111	99
880-5966-3	CS-3 (0.5')	104	103
880-5966-4	SW-1	113	100
880-5966-5	SW-2	158 S1+	94
880-5966-6	SW-3	110	106
880-5966-7	SW-4	158 S1+	104
LCS 880-7752/1-A	Lab Control Sample	106	92
LCSD 880-7752/2-A	Lab Control Sample Dup	106	84
MB 880-7751/5-A	Method Blank	124	102
MB 880-7752/5-A	Method Blank	133 S1+	97
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-5966-1	CS-1 (0.5')	149 S1+	162 S1+
880-5966-1 MS	CS-1 (0.5')	139 S1+	131 S1+
880-5966-1 MSD	CS-1 (0.5')	125	118
880-5966-2	CS-2 (0.5')	127	140 S1+
880-5966-3	CS-3 (0.5')	129	140 S1+
880-5966-4	SW-1	141 S1+	152 S1+
880-5966-5	SW-2	145 S1+	159 S1+
880-5966-6	SW-3	143 S1+	156 S1+
880-5966-7	SW-4	137 S1+	152 S1+
LCS 880-7733/2-A	Lab Control Sample	142 S1+	139 S1+
LCSD 880-7733/3-A	Lab Control Sample Dup	145 S1+	142 S1+
MB 880-7733/1-A	Method Blank	129	145 S1+
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Midland

## QC Sample Results

Client: NT Global

Job ID: 880-5966-1

Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

SDG: 214637

## Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-7751/5-A

Matrix: Solid

Analysis Batch: 7777

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7751

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:01	09/10/21 20:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:01	09/10/21 20:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:01	09/10/21 20:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/10/21 13:01	09/10/21 20:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:01	09/10/21 20:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/10/21 13:01	09/10/21 20:16	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/10/21 13:01	09/10/21 20:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	09/10/21 13:01	09/10/21 20:16	1
1,4-Difluorobenzene (Surr)	102		70 - 130	09/10/21 13:01	09/10/21 20:16	1

Lab Sample ID: MB 880-7752/5-A

Matrix: Solid

Analysis Batch: 7777

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7752

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:05	09/11/21 07:50	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:05	09/11/21 07:50	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:05	09/11/21 07:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/10/21 13:05	09/11/21 07:50	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/10/21 13:05	09/11/21 07:50	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/10/21 13:05	09/11/21 07:50	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/10/21 13:05	09/11/21 07:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130	09/10/21 13:05	09/11/21 07:50	1
1,4-Difluorobenzene (Surr)	97		70 - 130	09/10/21 13:05	09/11/21 07:50	1

Lab Sample ID: LCS 880-7752/1-A

Matrix: Solid

Analysis Batch: 7777

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 7752

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08673		mg/Kg		87	70 - 130
Toluene	0.100	0.1011		mg/Kg		101	70 - 130
Ethylbenzene	0.100	0.1055		mg/Kg		106	70 - 130
m-Xylene & p-Xylene	0.200	0.1947		mg/Kg		97	70 - 130
o-Xylene	0.100	0.09827		mg/Kg		98	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

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## QC Sample Results

Client: NT Global

Job ID: 880-5966-1

Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

SDG: 214637

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-7752/2-A

Matrix: Solid

Analysis Batch: 7777

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 7752

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.07396		mg/Kg		74	70 - 130	16	35
Toluene	0.100	0.09523		mg/Kg		95	70 - 130	6	35
Ethylbenzene	0.100	0.09929		mg/Kg		99	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.1879		mg/Kg		94	70 - 130	4	35
o-Xylene	0.100	0.09651		mg/Kg		97	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	84		70 - 130

Lab Sample ID: 880-5961-A-1-B MS

Matrix: Solid

Analysis Batch: 7777

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 7752

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U F1 F2	0.100	0.04441	F1	mg/Kg		44	70 - 130		
Toluene	0.0197	F1	0.100	0.1738	F1	mg/Kg		154	70 - 130		
Ethylbenzene	0.0108		0.100	0.08367		mg/Kg		73	70 - 130		
m-Xylene & p-Xylene	0.0465		0.201	0.2824		mg/Kg		117	70 - 130		
o-Xylene	0.0195		0.100	0.1069		mg/Kg		87	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	82		70 - 130

Lab Sample ID: 880-5961-A-1-C MSD

Matrix: Solid

Analysis Batch: 7777

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 7752

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U F1 F2	0.0994	0.07520	F2	mg/Kg		75	70 - 130	51	35
Toluene	0.0197	F1	0.0994	0.1947	F1	mg/Kg		176	70 - 130	11	35
Ethylbenzene	0.0108		0.0994	0.1076		mg/Kg		97	70 - 130	25	35
m-Xylene & p-Xylene	0.0465		0.199	0.2969		mg/Kg		126	70 - 130	5	35
o-Xylene	0.0195		0.0994	0.1155		mg/Kg		97	70 - 130	8	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

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## QC Sample Results

Client: NT Global

Job ID: 880-5966-1

Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

SDG: 214637

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-7733/1-A

Matrix: Solid

Analysis Batch: 7794

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 7733

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/10/21 09:17	09/13/21 12:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/10/21 09:17	09/13/21 12:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/10/21 09:17	09/13/21 12:28	1
Total TPH	<50.0	U	50.0		mg/Kg		09/10/21 09:17	09/13/21 12:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	129		70 - 130	09/10/21 09:17	09/13/21 12:28	1
o-Terphenyl	145	S1+	70 - 130	09/10/21 09:17	09/13/21 12:28	1

Lab Sample ID: LCS 880-7733/2-A

Matrix: Solid

Analysis Batch: 7794

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 7733

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	967.2		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1178		mg/Kg		118	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	142	S1+	70 - 130
o-Terphenyl	139	S1+	70 - 130

Lab Sample ID: LCSD 880-7733/3-A

Matrix: Solid

Analysis Batch: 7794

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 7733

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	965.2		mg/Kg		97	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	1000	1193		mg/Kg		119	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	145	S1+	70 - 130
o-Terphenyl	142	S1+	70 - 130

Lab Sample ID: 880-5966-1 MS

Matrix: Solid

Analysis Batch: 7794

Client Sample ID: CS-1 (0.5')

Prep Type: Total/NA

Prep Batch: 7733

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	997	1047		mg/Kg		104	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U F1	997	1312	F1	mg/Kg		132	70 - 130

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## QC Sample Results

Client: NT Global

Job ID: 880-5966-1

Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

SDG: 214637

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-5966-1 MS

Matrix: Solid

Analysis Batch: 7794

Client Sample ID: CS-1 (0.5')

Prep Type: Total/NA

Prep Batch: 7733

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	139	S1+	70 - 130
o-Terphenyl	131	S1+	70 - 130

Lab Sample ID: 880-5966-1 MSD

Matrix: Solid

Analysis Batch: 7794

Client Sample ID: CS-1 (0.5')

Prep Type: Total/NA

Prep Batch: 7733

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	999	913.6		mg/Kg		90	70 - 130	14	20
Diesel Range Organics (Over C10-C28)	<49.8	U F1	999	1182		mg/Kg		118	70 - 130	10	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	125		70 - 130								
o-Terphenyl	118		70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-7766/1-A

Matrix: Solid

Analysis Batch: 7828

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			09/13/21 18:32	1

Lab Sample ID: LCS 880-7766/2-A

Matrix: Solid

Analysis Batch: 7828

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	239.8		mg/Kg		96	90 - 110

Lab Sample ID: LCSD 880-7766/3-A

Matrix: Solid

Analysis Batch: 7828

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	242.1		mg/Kg		97	90 - 110	1	20

Lab Sample ID: 880-5966-4 MS

Matrix: Solid

Analysis Batch: 7828

Client Sample ID: SW-1

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	38.4		250	294.5		mg/Kg		102	90 - 110

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QC Sample Results

Client: NT Global  
Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

Job ID: 880-5966-1  
SDG: 214637

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-5966-4 MSD					Client Sample ID: SW-1							
Matrix: Solid					Prep Type: Soluble							
Analysis Batch: 7828												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit	
Chloride	38.4		250	283.7		mg/Kg		98	90 - 110	4	20	

## QC Association Summary

Client: NT Global

Job ID: 880-5966-1

Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

SDG: 214637

## GC VOA

## Prep Batch: 7751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-7751/5-A	Method Blank	Total/NA	Solid	5035	

## Prep Batch: 7752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-5966-1	CS-1 (0.5')	Total/NA	Solid	5035	
880-5966-2	CS-2 (0.5')	Total/NA	Solid	5035	
880-5966-3	CS-3 (0.5')	Total/NA	Solid	5035	
880-5966-4	SW-1	Total/NA	Solid	5035	
880-5966-5	SW-2	Total/NA	Solid	5035	
880-5966-6	SW-3	Total/NA	Solid	5035	
880-5966-7	SW-4	Total/NA	Solid	5035	
MB 880-7752/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-7752/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-7752/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-5961-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-5961-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 7777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-5966-1	CS-1 (0.5')	Total/NA	Solid	8021B	7752
880-5966-2	CS-2 (0.5')	Total/NA	Solid	8021B	7752
880-5966-3	CS-3 (0.5')	Total/NA	Solid	8021B	7752
880-5966-4	SW-1	Total/NA	Solid	8021B	7752
880-5966-5	SW-2	Total/NA	Solid	8021B	7752
880-5966-6	SW-3	Total/NA	Solid	8021B	7752
880-5966-7	SW-4	Total/NA	Solid	8021B	7752
MB 880-7751/5-A	Method Blank	Total/NA	Solid	8021B	7751
MB 880-7752/5-A	Method Blank	Total/NA	Solid	8021B	7752
LCS 880-7752/1-A	Lab Control Sample	Total/NA	Solid	8021B	7752
LCSD 880-7752/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	7752
880-5961-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	7752
880-5961-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	7752

## GC Semi VOA

## Prep Batch: 7733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-5966-1	CS-1 (0.5')	Total/NA	Solid	8015NM Prep	
880-5966-2	CS-2 (0.5')	Total/NA	Solid	8015NM Prep	
880-5966-3	CS-3 (0.5')	Total/NA	Solid	8015NM Prep	
880-5966-4	SW-1	Total/NA	Solid	8015NM Prep	
880-5966-5	SW-2	Total/NA	Solid	8015NM Prep	
880-5966-6	SW-3	Total/NA	Solid	8015NM Prep	
880-5966-7	SW-4	Total/NA	Solid	8015NM Prep	
MB 880-7733/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-7733/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-7733/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-5966-1 MS	CS-1 (0.5')	Total/NA	Solid	8015NM Prep	
880-5966-1 MSD	CS-1 (0.5')	Total/NA	Solid	8015NM Prep	

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## QC Association Summary

Client: NT Global  
Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

Job ID: 880-5966-1  
SDG: 214637

## GC Semi VOA

## Analysis Batch: 7794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-5966-1	CS-1 (0.5')	Total/NA	Solid	8015B NM	7733
880-5966-2	CS-2 (0.5')	Total/NA	Solid	8015B NM	7733
880-5966-3	CS-3 (0.5')	Total/NA	Solid	8015B NM	7733
880-5966-4	SW-1	Total/NA	Solid	8015B NM	7733
880-5966-5	SW-2	Total/NA	Solid	8015B NM	7733
880-5966-6	SW-3	Total/NA	Solid	8015B NM	7733
880-5966-7	SW-4	Total/NA	Solid	8015B NM	7733
MB 880-7733/1-A	Method Blank	Total/NA	Solid	8015B NM	7733
LCS 880-7733/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	7733
LCSD 880-7733/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	7733
880-5966-1 MS	CS-1 (0.5')	Total/NA	Solid	8015B NM	7733
880-5966-1 MSD	CS-1 (0.5')	Total/NA	Solid	8015B NM	7733

## HPLC/IC

## Leach Batch: 7766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-5966-1	CS-1 (0.5')	Soluble	Solid	DI Leach	
880-5966-2	CS-2 (0.5')	Soluble	Solid	DI Leach	
880-5966-3	CS-3 (0.5')	Soluble	Solid	DI Leach	
880-5966-4	SW-1	Soluble	Solid	DI Leach	
880-5966-5	SW-2	Soluble	Solid	DI Leach	
880-5966-6	SW-3	Soluble	Solid	DI Leach	
880-5966-7	SW-4	Soluble	Solid	DI Leach	
MB 880-7766/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-7766/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-7766/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-5966-4 MS	SW-1	Soluble	Solid	DI Leach	
880-5966-4 MSD	SW-1	Soluble	Solid	DI Leach	

## Analysis Batch: 7828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-5966-1	CS-1 (0.5')	Soluble	Solid	300.0	7766
880-5966-2	CS-2 (0.5')	Soluble	Solid	300.0	7766
880-5966-3	CS-3 (0.5')	Soluble	Solid	300.0	7766
880-5966-4	SW-1	Soluble	Solid	300.0	7766
880-5966-5	SW-2	Soluble	Solid	300.0	7766
880-5966-6	SW-3	Soluble	Solid	300.0	7766
880-5966-7	SW-4	Soluble	Solid	300.0	7766
MB 880-7766/1-A	Method Blank	Soluble	Solid	300.0	7766
LCS 880-7766/2-A	Lab Control Sample	Soluble	Solid	300.0	7766
LCSD 880-7766/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	7766
880-5966-4 MS	SW-1	Soluble	Solid	300.0	7766
880-5966-4 MSD	SW-1	Soluble	Solid	300.0	7766

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## Lab Chronicle

Client: NT Global

Job ID: 880-5966-1

Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

SDG: 214637

## Client Sample ID: CS-1 (0.5')

## Lab Sample ID: 880-5966-1

Date Collected: 09/09/21 00:00

Matrix: Solid

Date Received: 09/10/21 11:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	7752	09/10/21 13:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7777	09/11/21 11:01	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	7733	09/10/21 16:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7794	09/13/21 13:33	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	7766	09/10/21 14:22	CH	XEN MID
Soluble	Analysis	300.0		1			7828	09/14/21 09:29	CH	XEN MID

## Client Sample ID: CS-2 (0.5')

## Lab Sample ID: 880-5966-2

Date Collected: 09/09/21 00:00

Matrix: Solid

Date Received: 09/10/21 11:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	7752	09/10/21 13:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7777	09/11/21 11:22	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	7733	09/10/21 16:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7794	09/13/21 14:59	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	7766	09/10/21 14:22	CH	XEN MID
Soluble	Analysis	300.0		1			7828	09/14/21 09:34	CH	XEN MID

## Client Sample ID: CS-3 (0.5')

## Lab Sample ID: 880-5966-3

Date Collected: 09/09/21 00:00

Matrix: Solid

Date Received: 09/10/21 11:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	7752	09/10/21 13:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7777	09/11/21 13:11	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	7733	09/10/21 16:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7794	09/13/21 15:20	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	7766	09/10/21 14:22	CH	XEN MID
Soluble	Analysis	300.0		1			7828	09/14/21 09:40	CH	XEN MID

## Client Sample ID: SW-1

## Lab Sample ID: 880-5966-4

Date Collected: 09/09/21 00:00

Matrix: Solid

Date Received: 09/10/21 11:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	7752	09/10/21 13:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7777	09/11/21 13:32	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	7733	09/10/21 16:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7794	09/13/21 15:42	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	7766	09/10/21 14:22	CH	XEN MID
Soluble	Analysis	300.0		1			7828	09/14/21 09:57	CH	XEN MID

Eurofins Xenco, Midland

## Lab Chronicle

Client: NT Global

Job ID: 880-5966-1

Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

SDG: 214637

## Client Sample ID: SW-2

## Lab Sample ID: 880-5966-5

Date Collected: 09/09/21 00:00

Matrix: Solid

Date Received: 09/10/21 11:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	7752	09/10/21 13:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7777	09/11/21 13:52	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	7733	09/10/21 16:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7794	09/13/21 16:03	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	7766	09/10/21 14:22	CH	XEN MID
Soluble	Analysis	300.0		1			7828	09/14/21 10:13	CH	XEN MID

## Client Sample ID: SW-3

## Lab Sample ID: 880-5966-6

Date Collected: 09/09/21 00:00

Matrix: Solid

Date Received: 09/10/21 11:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	7752	09/10/21 13:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7777	09/11/21 14:13	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	7733	09/10/21 16:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7794	09/13/21 16:25	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	7766	09/10/21 14:22	CH	XEN MID
Soluble	Analysis	300.0		1			7828	09/14/21 10:19	CH	XEN MID

## Client Sample ID: SW-4

## Lab Sample ID: 880-5966-7

Date Collected: 09/09/21 00:00

Matrix: Solid

Date Received: 09/10/21 11:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	7752	09/10/21 13:05	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	7777	09/11/21 14:33	MR	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	7733	09/10/21 16:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			7794	09/13/21 16:46	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	7766	09/10/21 14:22	CH	XEN MID
Soluble	Analysis	300.0		1			7828	09/14/21 10:24	CH	XEN MID

## Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Xenco, Midland

Accreditation/Certification Summary

Client: NT Global  
Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

Job ID: 880-5966-1  
SDG: 214637

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

## Method Summary

Client: NT Global

Job ID: 880-5966-1

Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

SDG: 214637

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

**Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Xenco, Midland

## Sample Summary

Client: NT Global

Job ID: 880-5966-1

Project/Site: Tomahawk Fed 20 O CTB (8.12.21)

SDG: 214637

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-5966-1	CS-1 (0.5')	Solid	09/09/21 00:00	09/10/21 11:31
880-5966-2	CS-2 (0.5')	Solid	09/09/21 00:00	09/10/21 11:31
880-5966-3	CS-3 (0.5')	Solid	09/09/21 00:00	09/10/21 11:31
880-5966-4	SW-1	Solid	09/09/21 00:00	09/10/21 11:31
880-5966-5	SW-2	Solid	09/09/21 00:00	09/10/21 11:31
880-5966-6	SW-3	Solid	09/09/21 00:00	09/10/21 11:31
880-5966-7	SW-4	Solid	09/09/21 00:00	09/10/21 11:31





Chain of Custody



der No: 5966

9/14/2021

Page 1 of 1

Project Manager	Mike Carmona	Bill to: (if different)	Jacqui Harris
Company Name	NTG Environmental	Company Name	COG Operating, LLC
Address:	701 Tradewinds Blvd	Address:	15 W. Loving Rd
City, State ZIP	Midland TX 79706	City, State ZIP	Loving, NM 88256
Phone:	432-813-0263	Email:	jacqui.harris@conocophillips.com

Work Order Comments	
Program: UST/PST	<input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund
State of Project:	
Reporting Level II	<input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV
Deliverables	EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other

Project Name:	Tomahawk Fed 20 O CTB (8 12 21)		<input type="checkbox"/> Routine <input checked="" type="checkbox"/> Rush		Due Date	72 hrs
Project Number	214637		TAT starts the day received by the lab if received by 4:30pm			
Project Location	Eddy Co. NM					
Sampler's Name	NH					
PO #:						
SAMPLE RECEIPT			Temp Blank	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Thermometer ID	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Received Intact:			Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor	10.8	
Cooler Custody Seals:			Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Temperature Reading	3.4	
Sample Custody Seals:			Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Corrected Temperature	4.1	
Total Containers						
Parameters						
BTEX 8021B						
TPH 8015M (GRO + DRO + MRO)						
Chloride 300 0						
ANALYSIS REQUEST						
PRESERVATIVE CODES						
None NO DI Water H <sub>2</sub> O						
Cool Cool MeOH Me						
HCL HC HNO <sub>3</sub> HN						
H <sub>2</sub> SO <sub>4</sub> H <sub>2</sub> NaOH Na						
H <sub>3</sub> PO <sub>4</sub> HP						
NaHSO <sub>4</sub> NABIS						
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> NaSO <sub>3</sub>						
Zn Acetate+NaOH Zn						
NaOH+Ascorbic Acid SAPC						
Sample Comments						

Additional Comments:

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	9/10/21 11:31			

## Login Sample Receipt Checklist

Client: NT Global

Job Number: 880-5966-1

SDG Number: 214637

Login Number: 5966

List Source: Eurofins Xenco, Midland

List Number: 1

Creator: Phillips, Kerianna

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	False	No time on COC or sample containers
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico  
Energy, Minerals and Natural Resources  
Oil Conservation Division  
1220 S. St Francis Dr.  
Santa Fe, NM 87505

CONDITIONS  
  
Action 76793

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 76793
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	None	2/8/2022