

## SITE INFORMATION

**Report Type: Deferment Report 2RP-3964**

### General Site Information:

Site:	Folk Federal Tank Battery					
Company:	COG Operating LLC					
Section, Township and Range	Unit H	Sec. 17	T 17S	R 29E		
Lease Number:	API No. 30-015-20198					
County:	Eddy County					
GPS:	32.8361122° N			104.090549° W		
Surface Owner:	Federal					
Mineral Owner:						
Directions:	From the intersection of Lovington Hwy and CR 211 in rural Eddy county, travel north on CR 211 for 1.4 mi, to northeast onto a lease road for 0.45 mi to the location on the north side of the lease road.					

### Release Data:

<b>Date Released:</b>	10/14/2016
<b>Type Release:</b>	Oil
<b>Source of Contamination:</b>	Tank
<b>Fluid Released:</b>	18 bbls
<b>Fluids Recovered:</b>	16 bbls

### Official Communication:

<b>Name:</b>	Robert McNeil		Ike Tavaréz
<b>Company:</b>	COG Operating, LLC		Tetra Tech
<b>Address:</b>	One Concho Center		4000 N. Big Spring
	600 W. Illinois Ave.		Ste 401
<b>City:</b>	Midland Texas, 79701		Midland, Texas
<b>Phone number:</b>	(432) 686-3023		(432) 682-4559
<b>Fax:</b>	(432) 684-7137		
<b>Email:</b>	<a href="mailto:rmcneil@conchoresources.com">rmcneil@conchoresources.com</a>		<a href="mailto:Ike.Tavaréz@tetrattech.com">Ike.Tavaréz@tetrattech.com</a>

### Ranking Criteria

<b>Depth to Groundwater:</b>	<b>Ranking Score</b>	<b>Site Data</b>
<50 ft	20	
50-99 ft	10	75'-100'
>100 ft.	0	
<b>WellHead Protection:</b>	<b>Ranking Score</b>	<b>Site Data</b>
Water Source <1,000 ft., Private <200 ft.	20	
Water Source >1,000 ft., Private >200 ft.	0	0
<b>Surface Body of Water:</b>	<b>Ranking Score</b>	<b>Site Data</b>
<200 ft.	20	
200 ft - 1,000 ft.	10	
>1,000 ft.	0	0
<b>Total Ranking Score:</b>		<b>10</b>

Acceptable Soil RRAL (mg/kg)		
Benzene	Total BTEX	TPH
10	50	1,000



March 9, 2017

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

**Re: Deferment Report for the COG Operating LLC., Folk Federal Tank Battery, Unit H, Section 17, Township 17 South, Range 29 East, Eddy County, New Mexico. 2RP-3964**

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC., (COG) to assess a spill from the Folk Federal Tank Battery, Unit H, Section 17, Township 17 South, Range 29 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.8361122°, W 104.090549. The site location is shown on Figures 1 and 2.

### **Background**

According to the State of New Mexico C-141 Initial Report, the leak was discovered on October 14, 2016, and released approximately eighteen (18) barrels of oil due to a hole in an oil tank. Approximately sixteen (16) barrels of oil were recovered. Additionally, COG removed the impacted surface gravel. The spill occurred inside the of the firewalls facility and measured approximately 30' x 100'. The initial C-141 form is included in Appendix A. The release area is shown on Figure 3.

### **Groundwater**

No water wells were listed within Section 17 on the New Mexico Office of the State Engineer's website. However, one (1) well is listed in Section 22 and has a reported depth to groundwater of 76' below surface. Two (2) water wells are listed in Township 17 South, Range 29 East according to the Geology and Groundwater Resources of Eddy County, NM (Report 3). The nearest well listed is in Section 22 and shows a depth to groundwater of 80' below surface. According to the Chevron Texaco Groundwater Trend map, the average depth to groundwater in the area of Section 17 is between 75' to 100' below surface. The groundwater data is shown in Appendix B.

**Tetra Tech**

4000 North Big Spring, Suite 401, Midland, TX 79705  
Tel 432.682.4559 Fax 432.682.3946 [www.tetrattech.com](http://www.tetrattech.com)

**Regulatory**

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 1,000 mg/kg.

**Spill Inspection**

On January 26, 2017, Tetra Tech personnel inspected the release area for access and safety concerns. Based on the inspection, backhoe trenches or boreholes cannot be installed due to access issues with the facility equipment and active lines located inside and outside the facility firewalls. In 2009, Tetra Tech performed a spill assessment at the facility and installed hand augers inside the facility firewalls. Only one sample was collected from 0-1' and deeper samples could not be obtained due the shallow dense formation at the site. At that time, boreholes were installed and access at the facility was not an issue on the west side of the facility.

**Conclusion**

Based on the inspection, numerous underground and above ground lines, as well as equipment inside and outside the battery pose safety and access issues with sampling. Also, due to the geology in the area, which consists of shallow rock formations, the installation of hand augers would not properly evaluate or define extents of the impact. Additionally, backhoe or drilling sampling techniques cannot be safely employed due to the limited access and lines in the area.

Due to the access issues and limited hydrocarbon impact, COG proposes to defer spill area until abandonment. However, COG will hand dig the top six inches (6") of the release area to remove the heavily impacted soils. The area will then be treated by adding a Micro-Blaze product to remediate and naturally attenuate the hydrocarbon impact to the soils. If you have any questions or comments concerning the assessment activities for this site, please call me at (432) 682-4559.

Respectfully submitted,  
TETRA TECH

Ike Tavarez, PG  
Senior Project Manager

Clair Gonzales,  
Geologist I

cc: Robert McNeill – COG  
Dakota Neel  
Shelly Tucker – BLM

## Figures

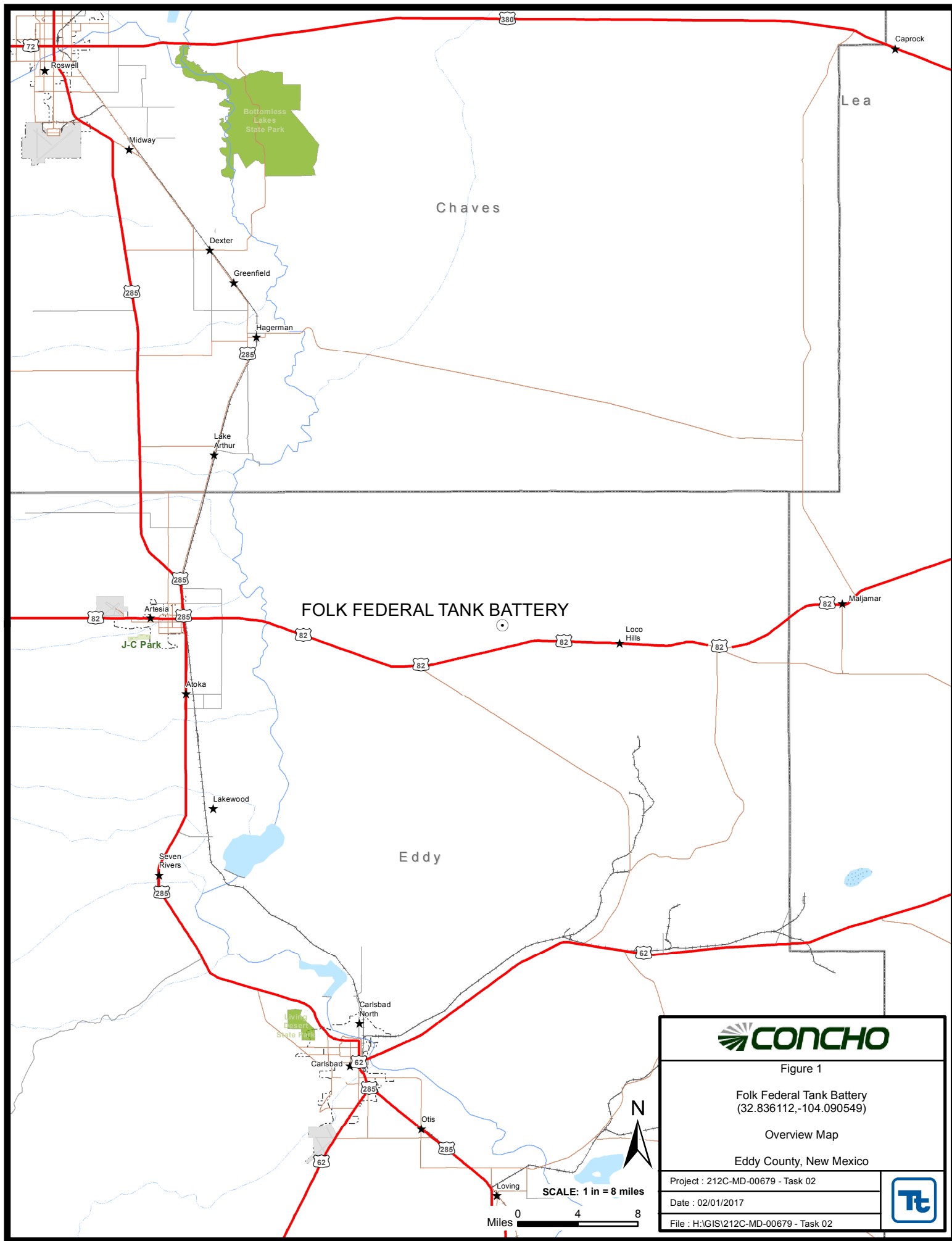


Figure 1

Folk Federal Tank Battery  
(32.836112,-104.090549)

Overview Map

Eddy County, New Mexico

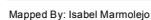
Project : 212C-MD-00679 - Task 02

Date : 02/01/2017

File : H:\GIS\212C-MD-00679 - Task 02




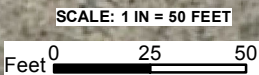










EXPLANATION	
	SPILL AREA



	
Figure 3	
Folk Federal Tank Battery (32.836112,-104.090549)	
Spill Assessment Map	
Eddy County, New Mexico	
Project : 212C-MD-00679 - Task 02	
Date : 02/01/2017	
File : H:\GIS\212C-MD-00679 - Task 02	

Photos



COG Operating LLC  
Folk Federal Tank Battery  
Eddy County, New Mexico



TETRA TECH



View North of release area



View West of release area



COG Operating LLC  
Folk Federal Tank Battery  
Eddy County, New Mexico



TETRA TECH



View North of release area



View West of release area

COG Operating LLC  
Folk Federal Tank Battery  
Eddy County, New Mexico



TETRA TECH



View South of release area



View South of release area



## 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

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

Received 10/25/2016  
NMOCD Artesia

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**OPERATOR**

☒ Initial Report ☐ Final Report

Name of Company: COG Operating LLC	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No. 432-230-0077
Facility Name: FOLK FEDERAL TANK BATTERY	Facility Type: Battery

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-20198
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**LOCATION OF RELEASE**

Unit Letter L	Section 17	Township 17S	Range 29E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
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Latitude 32.836062 Longitude -104.090789

**NATURE OF RELEASE**

Type of Release: Oil	Volume of Release: 18 bbls of Oil	Volume Recovered: 16 bbls of Oil
Source of Release: Hole in Tank	Date and Hour of Occurrence: 10/14/2016 unknown	Date and Hour of Discovery: 10/14/2016 12:00 PM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

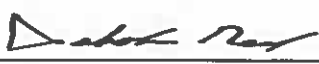
Describe Cause of Problem and Remedial Action Taken.\*

This release was caused by a hole in the bottom of the oil tank. The tank was taken out of service and the valves going to it were closed. Vacuum trucks were immediately dispatched to recover all standing fluid.

Describe Area Affected and Cleanup Action Taken.\*

This release occurred and remained within the bermed area of the facility. The contaminated gravel has been removed and replaced with fresh gravel. Concho will have the spill site sampled to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation work.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: 	<b>OIL CONSERVATION DIVISION</b>		
Printed Name: Dakota Neel	Approved by Environmental Specialist:		
Title: Environmental Coordinator	Approval Date: 10/26/2016	Expiration Date: N/A	
E-mail Address: dneel2@concho.com	Conditions of Approval: see attached		Attached <input checked="" type="checkbox"/>
Date: October 24, 2016	Phone: 575-748-6933		

\* Attach Additional Sheets If Necessary

2RP-3964

## Appendix B



**Water Well Data**  
**Average Depth to Groundwater (ft)**  
**COG - Folk Federal Tank Battery**  
**Eddy County, New Mexico**

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

16 South			29 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14 220	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

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

17 South			28 East		
6	5	4	3	2 28	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22 45	23	24
30	29	28	27	26	25
31	32	33	34	35	36

17 South			29 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22 76	23	24
30	29 210	28	27	26	25
31	32	33	34	35	36

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

18 South			28 East		
6	5	4	3	2 55	1
7	49	8 81	9	10	12
18	17	16	15 80	14	13
19	20	21	22	23	24
30	137	29	28	27	25
31	32	33	34	35	36

18 South			29 East		
6	5	4	3	2	1
7	8	9	10 95	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

18 South			30 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23 44	24
30	29	28	27	26	25
31	32	33	34	35	36

**88** New Mexico State Engineers Well Reports

**105** USGS Well Reports

**90** Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)

**90** Geology and Groundwater Resources of Eddy County, NM (Report 3)

**34** NMOCD - Groundwater Data

123 Tetra Tech installed temporary wells and field water level

**143** NMOCD Groundwater map well location



## 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	Sub-basin	County	Q Q Q	Sec	Tws	Rng	X	Y	DepthWell	DepthWater	Water Column
<a href="#">RA 11807 POD1</a>			ED	1 2 3	22	17S	29E	587360	3631585	131	76	55

Average Depth to Water: **76 feet**

Minimum Depth: **76 feet**

Maximum Depth: **76 feet**

**Record Count:** 1

**PLSS Search:**

**Township:** 17S

**Range:** 29E

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

1/27/17 10:43 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER