

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, 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

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

**OPERATOR**

☐ Initial Report ☒ Final Report

|                 |   |               |                |
|-----------------|---|---------------|----------------|
| Name of Company | COG Operating LLC                             | Contact       | Pat Ellis      |
| Address         | 550 W. Texas, Suite 1300 Midland, Texas 79701 | Telephone No. | (432) 230-0077 |
| Facility Name   | Federal 11 20 34 #1                           | Facility Type | Tank Battery   |

|                        |               |  |
|------------------------|---------------|--|
| Surface Owner: Federal | Mineral Owner | Lease No. (API#) 30-025-02426<br>Closest well location |
|------------------------|---------------|--|

**LOCATION OF RELEASE**

|                  |               |                 |              |               |                  |               |                |               |
|------------------|---------------|-----------------|--------------|---------------|------------------|---------------|----------------|---------------|
| Unit Letter<br>F | Section<br>11 | Township<br>20S | Range<br>34E | Feet from the | North/South Line | Feet from the | East/West Line | County<br>Lea |
|------------------|---------------|-----------------|--------------|---------------|------------------|---------------|----------------|---------------|

Latitude 32.58926 Longitude 103.53169

**NATURE OF RELEASE**

|  |   |  |
|--|---|--|
| Type of Release: Produced Water / Crude Oil  | Volume of Release 700 bbls oil  | Volume Recovered 620 bbls                          |
| Source of Release: Oil Tank  | Date and Hour of Occurrence<br>11/20/2012                                   | Date and Hour of Discovery<br>11/20/2012 5:00 p.m. |
| Was Immediate Notice Given?<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required | If YES, To Whom?<br>Mike Bratcher-OCD<br>Jim Amos-BLM<br>Terry Gregston-BLM |  |
| By Whom? Michelle Mullins  | Date and Hour 11/07/12 12:12 p.m.   |  |
| Was a Watercourse Reached?<br><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.\*

The oil tank overflowed at the Federal 11 20 34 #1 tank battery location. The spill event was caused by an increased volume of produced fluids due to the nearby completion activities on the Tiger Federal 11 #1H well.

Describe Area Affected and Cleanup Action Taken.\*

Tetra Tech personnel inspected the site and collected samples to define the spills extent. Soil that exceeded RRAL was removed and hauled away for proper disposal. The site was then brought up to surface grade with clean backfill material. Tetra Tech prepared a closure report and submitted it to NMOCD for review.

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: Ike Tavarez (agent for COG)  | Approved by District Supervisor: |                                   |
| Title: Project Manager   | Approval Date:                   | Expiration Date:                  |
| E-mail Address: Ike.Tavarez@TetraTech.com  | Conditions of Approval:          | Attached <input type="checkbox"/> |
| Date: 5-17-13 Phone: (432) 682-4559  |                                  |                                   |

\* Attach Additional Sheets If Necessary



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side of form

PJXK1401129036  
4095

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

|                 |   |                  |              |
|-----------------|---|------------------|--------------|
| Name of Company | COG OPERATING LLC                           | Contact          | Pat Ellis    |
| Address         | 600 West Illinois Avenue, Midland, TX 79701 | Telephone No.    | 432-230-0077 |
| Facility Name   | Federal 11 20 34 #1                         | Facility Type    | Tank Battery |
| Surface Owner   | Federal                                     | Mineral Owner    |              |
|                 |   | Lease No. (API#) | 30-025-02426 |

LOCATION OF RELEASE

|             |         |          |       |               |                  |               |                |        |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|--------|
| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
| F           | 11      | 20S      | 34E   |               |                  |               |                | Lea    |

Latitude 32.5895 Longitude 103.5320

NATURE OF RELEASE

|                             |   |   |   |                            |                      |
|-----------------------------|---|---|---|----------------------------|----------------------|
| Type of Release             | Produced water / Crude oil  | Volume of Release                         | 700bbls   | Volume Recovered           | 620bbls              |
| Source of Release           | Oil tank  | Date and Hour of Occurrence               | 11/20/2012  | Date and Hour of Discovery | 11/20/2012 5:00 p.m. |
| Was Immediate Notice Given? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required | If YES, To Whom?                          | Geoffrey Leking-OCD<br>Jim Amos-BLM<br>Terry Gregston-BLM |                            |                      |
| By Whom?                    | Michelle Mullins  | Date and Hour                             | 11/23/2012 12:40 p.m.                                     |                            |                      |
| 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.\*

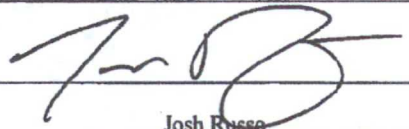
The oil tank overflowed at the Federal 11 20 34 #1 tank battery location. This spill event was caused by an increased volume of produced fluid due to the nearby completion activities on the Tiger Federal 11 #1H well.

Describe Area Affected and Cleanup Action Taken.\*

Initially 700bbls were released from the oil tank at the Federal 11 20 34 #1 tank battery and we were able to recover 620bbls with vacuum trucks. The released fluid was completely contained inside the facility firewall. Tetra Tech will sample the spill site area inside the tank battery to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD/BLM 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.

OIL CONSERVATION DIVISION

|                 |   |                                  |                                   |
|-----------------|---|----------------------------------|-----------------------------------|
| Signature:      |  |                                  |                                   |
| Printed Name:   | Josh Russo  | Approved by District Supervisor: |                                   |
| Title:          | Senior Environmental Coordinator  | Approval Date:                   | Expiration Date:                  |
| E-mail Address: | jrusso@concho.com   | Conditions of Approval:          | Attached <input type="checkbox"/> |
| Date:           | 12/04/2012  | Phone:                           | 432-212-2399                      |

\* Attach Additional Sheets If Necessary



## SITE INFORMATION

Report Type: Closure Report

HOBBS OCD

### General Site Information:

|                             |   |        |      |              |             |
|-----------------------------|---|--------|------|--------------|-------------|
| Site:                       | Federal 11 20 34 #1 Tank Battery  |        |      |              | AUG 23 2013 |
| Company:                    | COG Operating LLC   |        |      |              |             |
| Section, Township and Range | Unit F  | Sec 11 | T20S | R34E         |             |
| Lease Number:               | API # 30-025-02426  |        |      |              | RECEIVED    |
| County:                     | Lea County  |        |      |              |             |
| GPS:                        | 32.58926° N   |        |      | 103.53169° W |             |
| Surface Owner:              | Federal   |        |      |              |             |
| Mineral Owner:              |   |        |      |              |             |
| Directions:                 | From the intersection of Hwy 529 and Hwy 82 travel west from Hobbs to Marathon road. Turn South on Marathon Road for approximately 3 miles and turn to the east and travel 0.8 miles to the site. |        |      |              |             |
|                             |   |        |      |              |             |
|                             |   |        |      |              |             |

### Release Data:

|                          |                            |
|--------------------------|----------------------------|
| Date Released:           | 11/20/2012                 |
| Type Release:            | Produced Water / Crude Oil |
| Source of Contamination: | Oil Tank                   |
| Fluid Released:          | 700 bbls                   |
| Fluids Recovered:        | 620 bbls                   |

### Official Communication:

|               |                            |                            |
|---------------|----------------------------|----------------------------|
| Name:         | Pat Ellis                  | Ike Tavaréz                |
| Company:      | COG Operating, LLC         | Tetra Tech                 |
| Address:      | One Concho Center          | 1910 N. Big Spring         |
| P.O. Box      | 600 W. Illinois            |                            |
| City:         | Midland Texas, 79701       | Midland, Texas             |
| Phone number: | (432) 686-3023             | (432) 682-4559             |
| Fax:          | (432) 684-7137             |                            |
| Email:        | pellis@conchoresources.com | ike.tavaréz@tetrattech.com |

### Ranking Criteria

| Depth to Groundwater: | Ranking Score | Site Data |
|-----------------------|---------------|-----------|
| <50 ft                | 20            |           |
| 50-99 ft              | 10            |           |
| >100 ft.              | 0             | 0         |

| WellHead Protection:                      | Ranking Score | Site Data |
|---|---------------|-----------|
| Water Source <1,000 ft., Private <200 ft. | 20            |           |
| Water Source >1,000 ft., Private >200 ft. | 0             | 0         |

| Surface Body of Water: | Ranking Score | Site Data |
|------------------------|---------------|-----------|
| <200 ft.               | 20            |           |
| 200 ft - 1,000 ft.     | 10            |           |
| >1,000 ft.             | 0             | 0         |

|                             |   |
|-----------------------------|---|
| <b>Total Ranking Score:</b> | 0 |
|-----------------------------|---|

#### Acceptable Soil RRAL (mg/kg)

| Benzene | Total BTEX | TPH   |
|---------|------------|-------|
| 10      | 50         | 5,000 |



**TETRA TECH**

May 17, 2013

Mr. Geoffrey Leking  
Environmental Engineer Specialist  
Oil Conservation Division, District 1  
1625 North French Drive  
Hobbs, New Mexico 88240

**Re: Closure Report for the COG Operating LLC., Federal 11 20 34 #1  
Tank Battery, Unit F, Section 11, Township 20 South, Range 34  
East, Lea County, New Mexico.**

Mr. Leking:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill from the Federal 11 20 34 #1 Tank Battery located in Unit F, Section 11, Township 20 South, Range 34 East, Lea County, New Mexico (Site). The spill site coordinates are N 32.58929°, W 103.53169°. 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 November 20, 2012 and released approximately 700 barrels of produced water and crude oil from an overflow of an oil tank. The leak was caused by an increase in produced fluids from the nearby completion of the Tiger Federal 11 #1H well. The spill was contained within the berm of the tank battery. The initial C-141 form is enclosed in Appendix A.

### **Groundwater**

No water wells were listed within Section 11. According to the NMOCD groundwater map, the average depth to groundwater in this area is approximately 145' below surface. The groundwater data is shown in Appendix B.

**Tetra Tech**

1910 North Big Spring, 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 5,000 mg/kg.

## **Soil Assessment and Analytical Results**

On December 10, 2012, Tetra Tech personnel inspected and sampled the spill area. Six (6) auger holes (AH-1 through AH-6) were installed using a stainless steel hand auger to assess the impacted soils. Selected 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 sampling results are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, the auger hole samples showed a shallow hydrocarbon impact to the subsurface soils. In the areas of AH-1, AH-3 and AH-5, BTEX and TPH concentrations were detected above the RRAL to depth of approximately 2.0' to 3.0' below surface. In addition, AH-2, AH-4 and AH-6 samples either exceeded the RRAL for TPH or BTEX at 0-1', but declined below the RRAL at 1-1.5' below surface.

The highest total BTEX concentration of 1,325 mg/kg was detected in AH-1 at 2-2.5' and decreased to <0.0400 mg/kg at 3-3.5' below surface. The highest TPH concentration of 23,270 mg/kg was also detected in AH-1 at 2-2.5' and decreased to 9.90 mg/kg at 3-3.5' below surface. All BTEX and TPH concentrations decreased with depths and the spill was vertically defined.





**TETRA TECH**

The auger hole samples did not show any elevated chloride to the soils. The highest chloride concentrations of 459 mg/kg was detected in AH-3 at 0-1' and decreased to 161 mg/kg at 1-1.5' below surface. No other auger hole samples exhibited elevated chloride concentrations.

#### **Remediation and Conclusion**

From May 1 through 6, 2013, Tetra Tech personnel supervised the remediation at the site. The excavation area and depths were achieved as stated in the approved work plan. The excavated areas and depths are highlighted in Table 1 and shown on Figure 4. Once excavated to the appropriate depths, the excavations were then backfilled with clean soil to grade. Approximately 140 cubic yards of soil were excavated and transported to the R360 facility for proper disposal.

Based on the remedial activities performed, COG request closure of the site. A copy of the C-141 (Final) is included in Appendix A. If you have any questions or comments concerning the remedial activities, please call at (432) 682-4559.

Respectfully submitted,  
TETRA TECH



Ike Tavaréz, PG  
Senior Project Manager

cc: Pat Ellis - COG  
James Amos - BLM



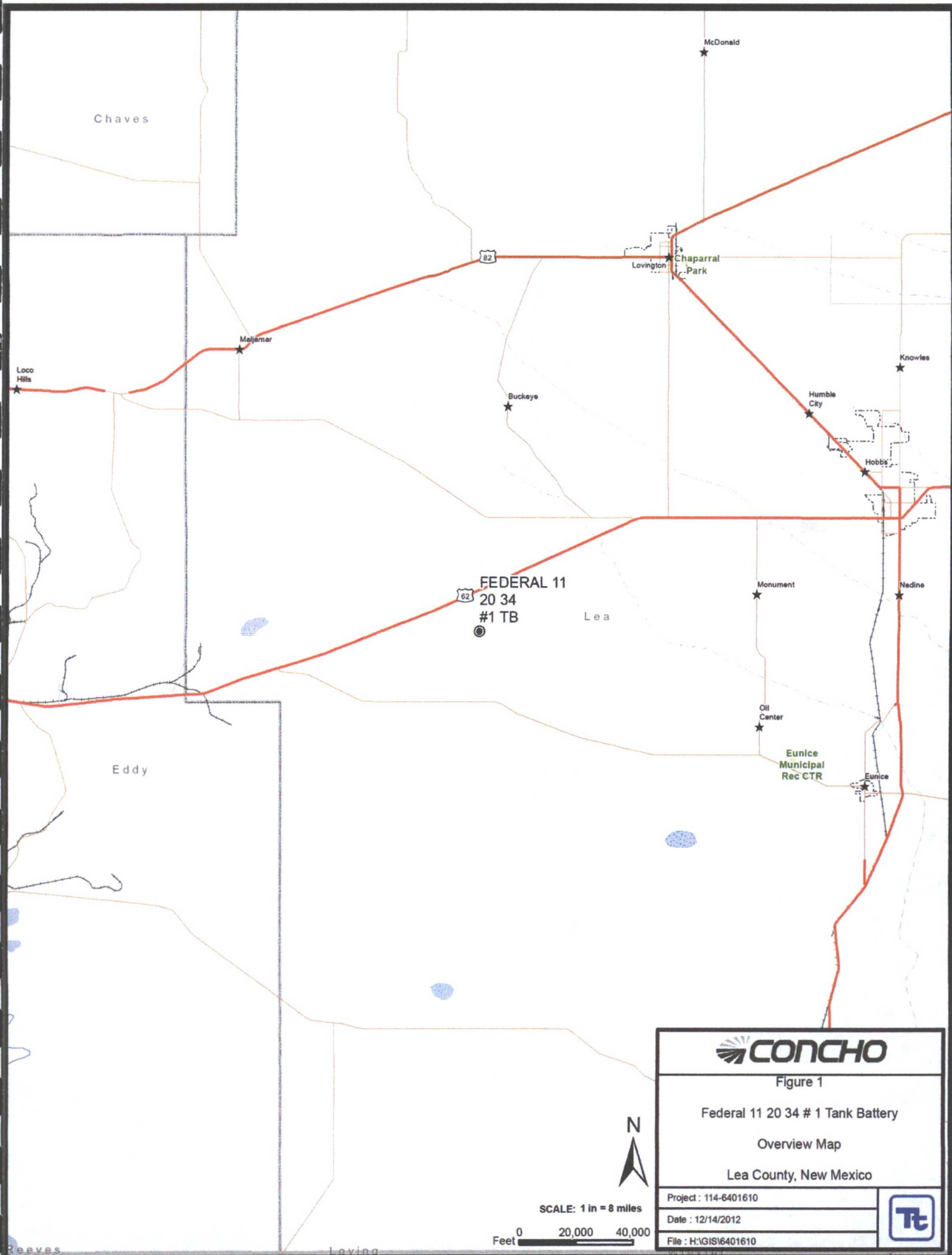


Figure 1

Federal 11 20 34 # 1 Tank Battery

Overview Map

Lea County, New Mexico

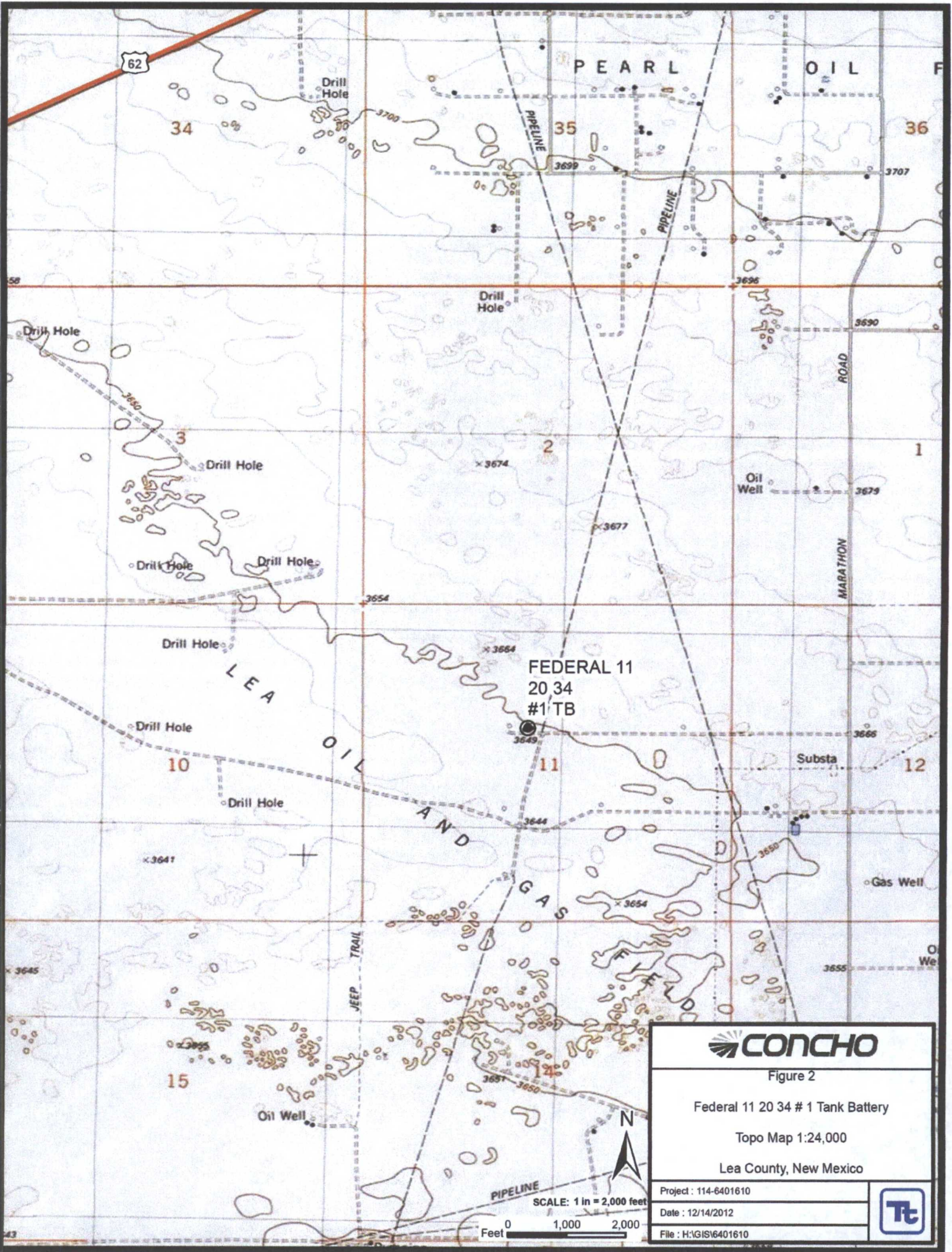
Project : 114-6401610

Date : 12/14/2012

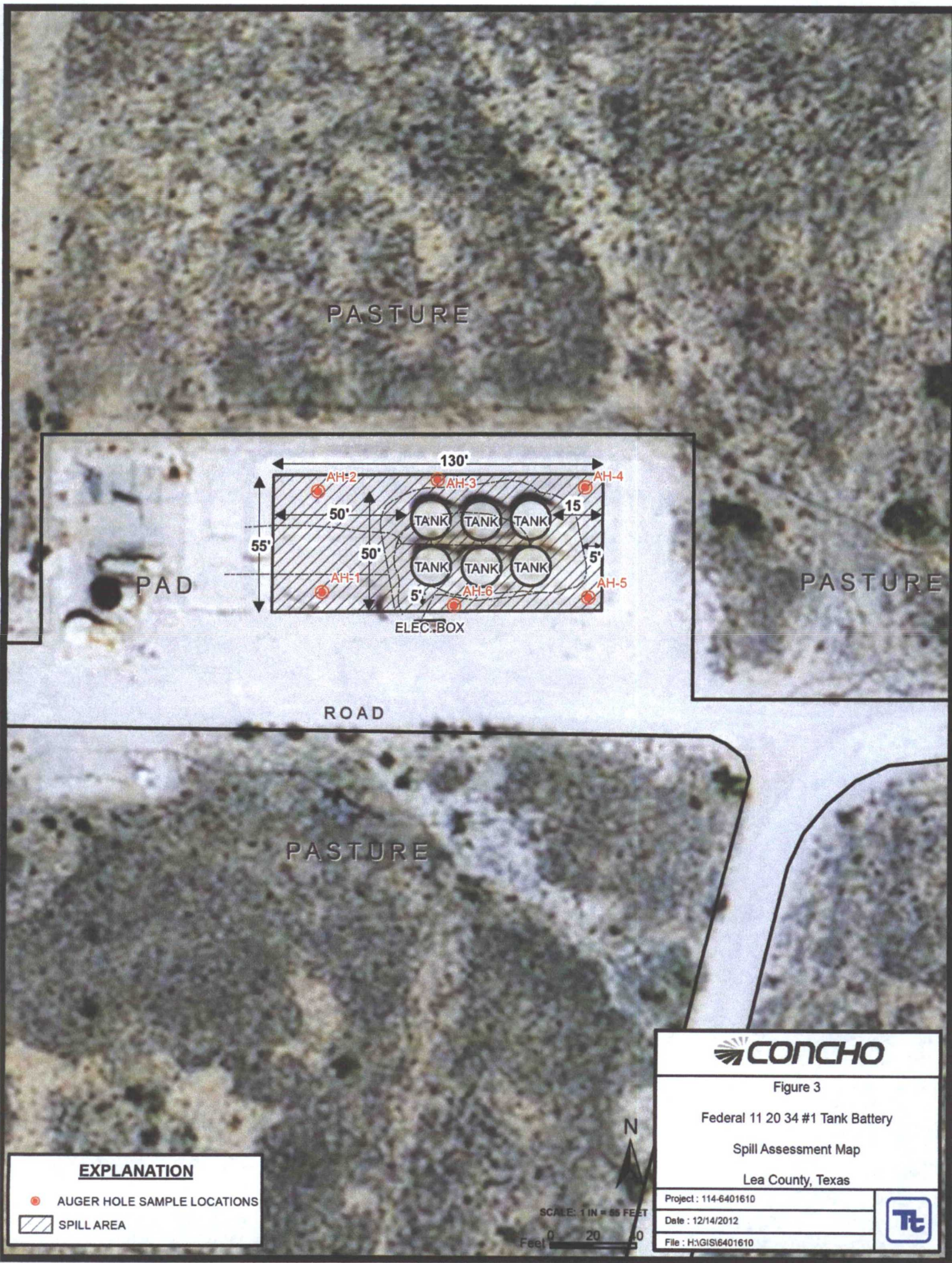
File : H:\GIS\6401610











PASTURE

PAD

PASTURE

ROAD

PASTURE

ELEC BOX

**EXPLANATION**

● AUGER HOLE SAMPLE LOCATIONS

▨ SPILL AREA

**CONCHO**

Figure 3

Federal 11 20 34 #1 Tank Battery

Spill Assessment Map

Lea County, Texas

Project : 114-6401610

Date : 12/14/2012

File : H:\GIS\6401610

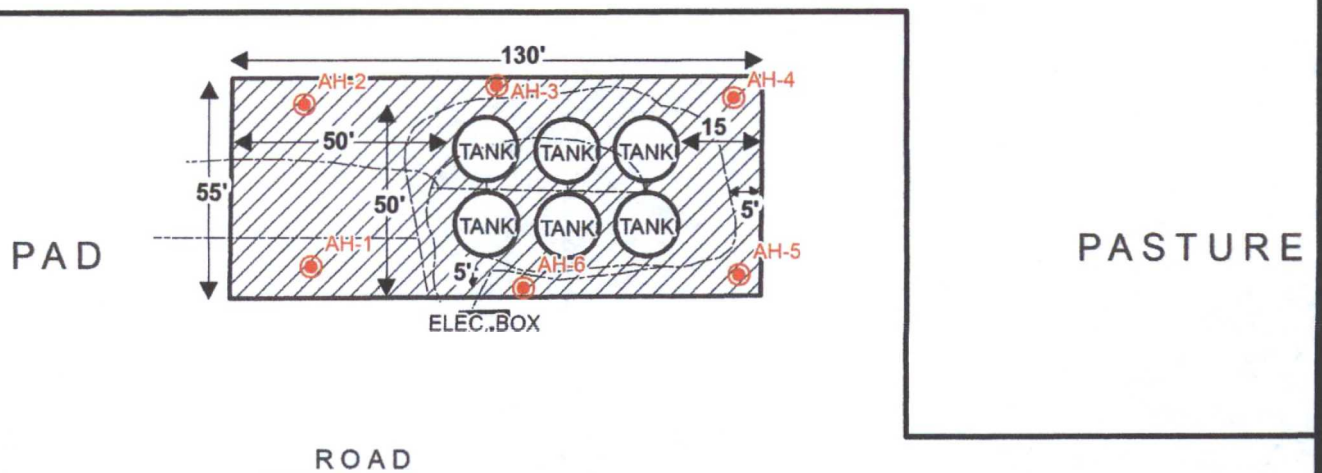


SCALE: 1 IN = 65 FEET

Feet 0 20 40



PASTURE



PASTURE

**EXPLANATION**

● AUGER HOLE SAMPLE LOCATIONS

▨ SPILL AREA

SCALE: 1 IN = 55 FEET

Feet 0 20 40



Figure 3

Federal 11 20 34 #1 Tank Battery

Spill Assessment Map

Lea County, Texas

Project : 114-6401610

Date : 12/14/2012

File : H:\GIS\6401610





ROAD

PAD

## PASTURE

2' DEEP

1' DEEP

3' DEEP

1' DEEP

2' DFFF

ELEC. BOX



 AUGER HOLE SAMPLE LOCATIONS  
 EXCAVATED AREAS



Figure 4

Federal 11 20 34 #1 Tank Battery

### Excavation Areas & Depths Map

Lea County, Texas

Project : 114-6401610

Date : 5/17/2013

File : H:\GIS\6401610



**SCALE: 1 IN = 43 FEET**

Feet 0 20 40



**Table 1**  
**COG Operating LLC.**  
**Federal 11 20 34 #1**  
**Lea County, New Mexico**

[illegible]



**Table 1**  
**COG Operating LLC.**  
**Federal 11 20 34 #1**  
**Lea County, New Mexico**

[illegible]

Table 1  
COG Operating LLC.  
Federal 11 20 34 #1  
Lea County, New Mexico

| Sample ID | Sample Date | Sample Depth (ft) | Soil Status |         | TPH (mg/kg) |       |        | Benzene (mg/kg) | Toluene (mg/kg) | Ethylbenzene (mg/kg) | Xylene (mg/kg) | Total BTEX (mg/kg) | Chloride (mg/kg) |
|-----------|-------------|-------------------|-------------|---------|-------------|-------|--------|-----------------|-----------------|----------------------|----------------|--------------------|------------------|
|           |             |                   | In-Situ     | Removed | GRO         | DRO   | Total  |                 |                 |                      |                |                    |                  |
| AH-5      | 12/10/2012  | 0-1               |             | X       | 8,100       | 938   | 9,038  | 86.6            | 357             | 116                  | 265            | 825                | 44.6             |
|           | "           | 1-1.5             |             | X       | 4,840       | 8,850 | 13,690 | 14.6            | 111             | 65.3                 | 146            | 337                | <20.0            |
|           | "           | 2-2.5             | X           |         | <8.00       | <250  | <250   | <0.0400         | <0.0400         | <0.0400              | <0.0400        | <0.0400            | <20.0            |
|           | "           | 3-3.5             | X           |         | -           | -     | -      | -               | -               | -                    | -              | -                  | 891              |
|           | "           | 4-4.5             | X           |         | -           | -     | -      | -               | -               | -                    | -              | -                  | 31.2             |
|           | "           | 5-5.5             | X           |         | -           | -     | -      | -               | -               | -                    | -              | -                  | <20.0            |
|           | "           | 6-6.5             | X           |         | -           | -     | -      | -               | -               | -                    | -              | -                  | <20.0            |
|           | "           | 7-7.5             | X           |         | -           | -     | -      | -               | -               | -                    | -              | -                  | <20.0            |
| AH-6      | 12/10/2012  | 0-1               |             | X       | 4,160       | 502   | 4,662  | 12.2            | 106             | 53.4                 | 132            | 304                | 58.2             |
|           | "           | 1-1.5             | X           |         | -           | -     | -      | <0.0400         | <0.0400         | <0.0400              | 1.24           | 1.24               | <20.0            |
|           | "           | 2-2.5             | X           |         | -           | -     | -      | -               | -               | -                    | -              | -                  | 49.2             |
|           | "           | 3-3.5             | X           |         | -           | -     | -      | -               | -               | -                    | -              | -                  | 98.4             |
|           | "           | 4-4.5             | X           |         | -           | -     | -      | -               | -               | -                    | -              | -                  | 40.3             |
|           | "           | 5-5.5             | X           |         | -           | -     | -      | -               | -               | -                    | -              | -                  | <20.0            |
|           | "           | 6-6.5             | X           |         | -           | -     | -      | -               | -               | -                    | -              | -                  | <20.0            |
|           | "           | 7-7.5             | X           |         | -           | -     | -      | -               | -               | -                    | -              | -                  | <20.0            |
|           | "           | 8-8.5             | X           |         | -           | -     | -      | -               | -               | -                    | -              | -                  | 26.9             |
|           | "           | 9-9.5             | X           |         | -           | -     | -      | -               | -               | -                    | -              | -                  | 31.3             |

(-) Not Analyzed

Excavation areas and depths



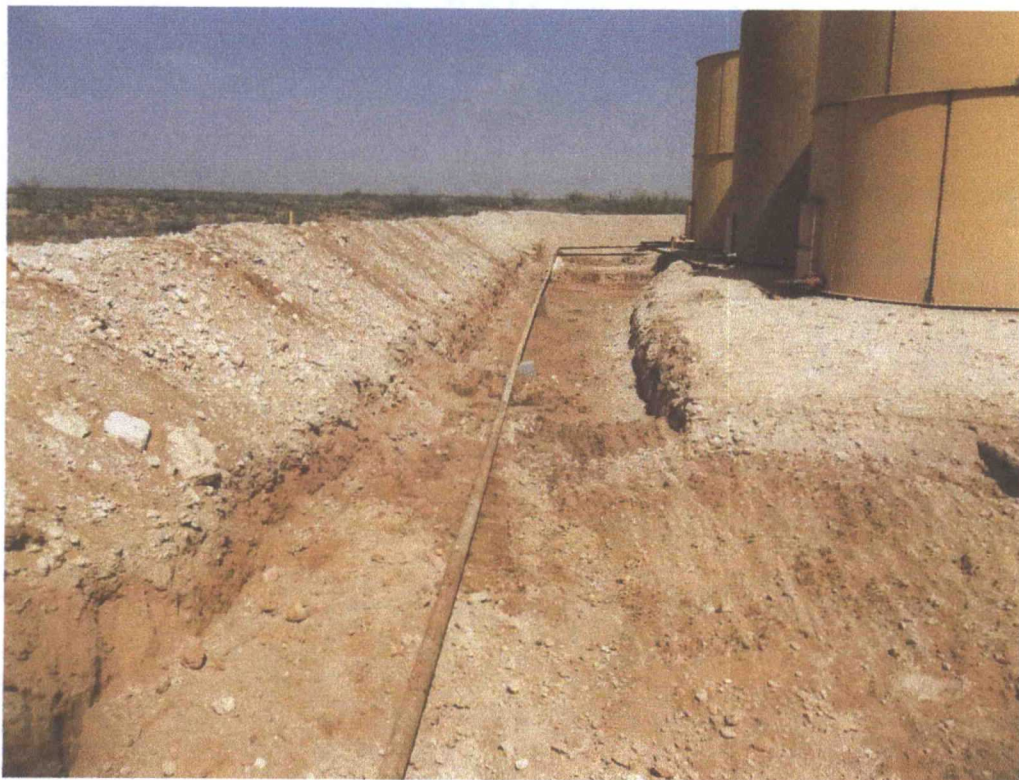
COG Operating LLC  
Federal 11 20 34 #1  
Lea County, New Mexico



TETRA TECH



View Southeast – Area of AH-1 and AH-2.



View East – Area of AH-3.



COG Operating LLC  
Federal 11 20 34 #1  
Lea County, New Mexico



TETRA TECH



View South – Area of AH-4.



View West – Area of AH-4 and AH-5.



COG Operating LLC  
Federal 11 20 34 #1  
Lea County, New Mexico



TETRA TECH



View West- Area of AH-5 and AH-6.

**Water Well Data**  
**Average Depth to Groundwater (ft)**  
**COG-Federal 11 20 34 #1 Tank Battery**  
**Lea County, New Mexico**

| 19 South 33 East |     |        |    |       |    |
|------------------|-----|--------|----|-------|----|
| 6                | 5   | 4      | 3  | 2     | 1  |
| 7                | 8   | 9      | 10 | 11    | 12 |
| 18               | 17  | 16     | 15 | 14    | 13 |
| 340              | 116 |        |    |       |    |
| 19               | 20  | 21     | 22 | 23    | 24 |
| 30               | 29  | 28 130 | 27 | 26 92 | 25 |
| 31               | 32  | dry    | 34 | 35 85 | 36 |
|                  | 185 |        |    |       |    |

| 19 South 34 East |    |    |      |       |          |
|------------------|----|----|------|-------|----------|
| 6                | 5  | 4  | 3    | 2 100 | 1        |
| 244              | 7  | 8  | 9 29 | 10    | 11 12 60 |
|                  |    |    | 28.6 | 123   |          |
| 18               | 17 | 16 | 15   | 14    | 13       |
| 19               | 20 | 21 | 22   | 23    | 24       |
| 30               | 29 | 28 | 27   | 26    | 25       |
| 31               | 32 | 33 | 34   | 35    | 28 36    |
| 65               |    |    |      |       |          |

| 19 South 35 East |       |      |       |       |       |
|------------------|-------|------|-------|-------|-------|
| 6 61             | 5     | 4    | 3     | 2     | 1     |
| 58               | 63    | 70   |       |       | 63    |
| 7                | 8     | 9 20 | 10    | 11    | 12    |
| 51               | 18    |      | 53    |       |       |
| 18               | 17 26 | 16   | 15    | 14    | 13    |
| 19               | 20    | 21   | 22 26 | 23 27 | 24 27 |
| 30               | 29    | 28   | 27    | 26    | 25    |
| 31               | 32    | 33   | 34    | 35    | 20 36 |

| 20 South 33 East |    |    |    |    |         |
|------------------|----|----|----|----|---------|
| 6                | 5  | 4  | 3  | 2  | 1       |
| 278              | 7  | 8  | 9  | 10 | 11      |
| 18               | 17 | 16 | 15 | 14 | 13      |
| 19               | 20 | 21 | 22 | 23 | 24      |
| 30               | 29 | 28 | 27 | 26 | +300 25 |
| 31               | 32 | 33 | 34 | 35 | 36      |

| 20 South 34 East |        |       |       |     |        |
|------------------|--------|-------|-------|-----|--------|
| 6                | 5      | 4 125 | 3     | 2   | 1      |
| 7                | 8      | 9     | 10    | 11  | 12     |
| 18               | 17 128 | 16    | 15    | 14  | 13     |
|                  | 140    |       |       | 150 |        |
| 19               | 20     | 21    | 22    | 23  | 24     |
| 30               | 29     | 28    | 27    | 26  | 270 25 |
| 31               | 32     | 33    | 34 82 | 35  | 36     |

| 20 South 35 East |      |    |    |    |       |
|------------------|------|----|----|----|-------|
| 6 56             | 5 64 | 4  | 3  | 2  | 1     |
| 64               | 7    | 8  | 9  | 10 | 11    |
| 18               | 17   | 16 | 15 | 14 | 12 49 |
| 19               | 20   | 21 | 22 | 23 | 24    |
| 30               | 29   | 28 | 27 | 26 | 25    |
| 31               | 65   | 32 | 33 | 34 | 35 36 |
|                  |      |    | 89 |    |       |

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

| 21 South 33 East |    |     |    |      |    |
|------------------|----|-----|----|------|----|
| 6                | 5  | 4   | 3  | 2 79 | 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 | 179 | 34 | 35   | 36 |

| 21 South 34 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 |

- New Mexico State Engineers Well Reports
- USGS Well Reports
- Geology and Groundwater Conditions in Southern Eddy, County, NM
- NMOCD - Groundwater Data
- Field water level
- New Mexico Water and Infrastructure Data System





## New Mexico Office of the State Engineer

# Wells with Well Log Information

**LSS Search:**

**Section(s):** 11

**Township:** 20S

**Range:** 34E

No wells found.

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8:33 AM

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WELLS WITH WELL LOG INFORMATION

## Summary Report

Ike Tavarez  
Tetra Tech  
1910 N. Big Spring Street  
Midland, TX 79705

Report Date: December 21, 2012

Work Order: 12121340



Project Location: Lea Co., NM  
Project Name: COG/Fed. 11 20 34 #1  
Project Number: 114-6401610

| Sample | Description | Matrix | Date Taken | Time Taken | Date Received |
|--------|-------------|--------|------------|------------|---------------|
| 316621 | AH-1 0-1'   | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316622 | AH-1 1-1.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316623 | AH-1 2-2.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316624 | AH-1 3-3.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316625 | AH-1 4-4.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316626 | AH-1 5-5.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316627 | AH-1 6-6.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316628 | AH-1 7-7.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316629 | AH-1 8-8.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316630 | AH-1 9-9.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316631 | AH-2 0-1'   | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316632 | AH-2 1-1.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316633 | AH-2 2-2.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316634 | AH-2 3-3.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316635 | AH-2 4-4.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316636 | AH-2 5-5.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316637 | AH-2 6-6.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316638 | AH-2 7-7.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316639 | AH-2 8-8.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316640 | AH-2 9-9.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316641 | AH-3 0-1'   | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316642 | AH-3 1-1.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316643 | AH-3 2-2.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316644 | AH-3 3-3.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316645 | AH-3 4-4.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316646 | AH-3 5-5.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316647 | AH-3 6-6.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316648 | AH-3 7-7.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316649 | AH-3 8-8.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316650 | AH-3 9-9.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |



| Sample | Description | Matrix | Date Taken | Time Taken | Date Received |
|--------|-------------|--------|------------|------------|---------------|
| 316651 | AH-4 0-1'   | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316652 | AH-4 1-1.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316653 | AH-4 2-2.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316654 | AH-4 3-3.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316655 | AH-4 4-4.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316656 | AH-4 5-5.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316657 | AH-4 6-6.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316658 | AH-4 7-7.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316659 | AH-4 8-8.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316660 | AH-4 9-9.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316661 | AH-5 0-1'   | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316662 | AH-5 1-1.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316663 | AH-5 2-2.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316664 | AH-5 3-3.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316665 | AH-5 4-4.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316666 | AH-5 5-5.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316667 | AH-5 6-6.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316668 | AH-5 7-7.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316669 | AH-5 8-8.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316670 | AH-5 9-9.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316671 | AH-6 0-1'   | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316672 | AH-6 1-1.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316673 | AH-6 2-2.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316674 | AH-6 3-3.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316675 | AH-6 4-4.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316676 | AH-6 5-5.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316677 | AH-6 6-6.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316678 | AH-6 7-7.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316679 | AH-6 8-8.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |
| 316680 | AH-6 9-9.5' | soil   | 2012-12-10 | 00:00      | 2012-12-13    |

| Sample - Field Code  | BTEx                        |                    |                         |                   | TPH DRO - NEW  | TPH GRO        |
|----------------------|-----------------------------|--------------------|-------------------------|-------------------|----------------|----------------|
|                      | Benzene<br>(mg/Kg)          | Toluene<br>(mg/Kg) | Ethylbenzene<br>(mg/Kg) | Xylene<br>(mg/Kg) | DRO<br>(mg/Kg) | GRO<br>(mg/Kg) |
| 316621 - AH-1 0-1'   | 36.1                        | 220                | 83.6                    | 187               | 10400 Qs       | 6370           |
| 316622 - AH-1 1-1.5' | 15.3                        | 178                | 80.6                    | 182               | 8740 Qs        | 6120           |
| 316623 - AH-1 2-2.5' | 145 Qr, Qs                  | 559 Qr, Qs         | 190 Qr, Qs              | 431 Qr, Qs        | 8270 Qs        | 15000          |
| 316624 - AH-1 3-3.5' | <0.0400 <sup>1</sup> Qr, Qs | <0.0400 Qr, Qs     | <0.0400 Qr, Qs          | <0.0400 Qr, Qs    | <50.0 Qs       | 9.90           |
| 316631 - AH-2 0-1'   | 18.1                        | 129                | 54.1                    | 127               | 1000 Qs        | 4700           |
| 316632 - AH-2 1-1.5' | <0.0200 Qr, Qs              | <0.0200 Qr, Qs     | <0.0200 Qr, Qs          | <0.0200 Qr, Qs    | <50.0 Qs       | 13.7           |
| 316641 - AH-3 0-1'   | 53.9                        | 280                | 90.0                    | 235               | 8800 Qs        | 7910           |
| 316642 - AH-3 1-1.5' | 11.7 <sup>2</sup>           | 130                | <1.00                   | 141               | 10800 Qs       | 4740           |
| 316643 - AH-3 2-2.5' | <0.0400 <sup>3</sup> Qr, Qs | 3.44 Qr, Qs        | 2.35 Qr, Qs             | 10.1 Qr, Qs       | 714 Qs         | 221            |
| 316651 - AH-4 0-1'   | 10.4                        | 59.8               | 31.0                    | 58.0              | 9390 Qs        | 3320           |
| 316652 - AH-4 1-1.5' | <0.100 <sup>4</sup>         | 1.75               | 2.03                    | 6.02              | <500 Qs        | 114            |

continued ...

<sup>1</sup>Dilution due to hydrocarbons.<sup>2</sup>Dilution due to hydrocarbons.<sup>3</sup>Dilution due to hydrocarbons.<sup>4</sup>Dilution due to Hydrocarbons.

... continued

| Sample - Field Code  | BTEX                                   |                           |                           |                           | TPH DRO - NEW      | TPH GRO            |
|----------------------|--|---------------------------|---------------------------|---------------------------|--------------------|--------------------|
|                      | Benzene<br>(mg/Kg)                     | Toluene<br>(mg/Kg)        | Ethylbenzene<br>(mg/Kg)   | Xylene<br>(mg/Kg)         | DRO<br>(mg/Kg)     | GRO<br>(mg/Kg)     |
| 316661 - AH-5 0-1'   | 86.6                                   | 357                       | 116                       | 265                       | 938 <sup>Qs</sup>  | 8100               |
| 316662 - AH-5 1-1.5' | 14.6 <sup>Qr, Qs</sup>                 | 111 <sup>Qr, Qs</sup>     | 65.3 <sup>Qr, Qs</sup>    | 146 <sup>Qr, Qs</sup>     | 8850 <sup>Qs</sup> | 4840               |
| 316663 - AH-5 2-2.5' | <0.0400 <sup>5</sup> <sup>Qr, Qs</sup> | <0.0400 <sup>Qr, Qs</sup> | <0.0400 <sup>Qr, Qs</sup> | <0.0400 <sup>Qr, Qs</sup> | <250 <sup>Qs</sup> | <8.00 <sup>6</sup> |
| 316671 - AH-6 0-1'   | 12.2                                   | 106                       | 53.4                      | 132                       | 502 <sup>Qs</sup>  | 4160               |
| 316672 - AH-6 1-1.5' | <0.0400 <sup>7</sup> <sup>Qr, Qs</sup> | <0.0400 <sup>Qr, Qs</sup> | <0.0400 <sup>Qr, Qs</sup> | 1.24 <sup>Qr, Qs</sup>    |                    |                    |

## Sample: 316621 - AH-1 0-1'

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 124    | mg/Kg | 4  |

## Sample: 316622 - AH-1 1-1.5'

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 27.5   | mg/Kg | 4  |

## Sample: 316623 - AH-1 2-2.5'

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 55.0   | mg/Kg | 4  |

## Sample: 316624 - AH-1 3-3.5'

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 110    | mg/Kg | 4  |

## Sample: 316625 - AH-1 4-4.5'

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 73.3   | mg/Kg | 4  |

## Sample: 316626 - AH-1 5-5.5'

continued ...

<sup>5</sup>Dilution due to surfactants.<sup>6</sup>Dilution due to surfactants.<sup>7</sup>Dilution due to hydrocarbons.



*sample 316626 continued ...*

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Param    | Flag | Result | Units | RL |
| Chloride |      | 50.4   | mg/Kg | 4  |

**Sample: 316627 - AH-1 6-6.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316628 - AH-1 7-7.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 96.2   | mg/Kg | 4  |

**Sample: 316629 - AH-1 8-8.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 36.7   | mg/Kg | 4  |

**Sample: 316630 - AH-1 9-9.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316631 - AH-2 0-1'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 261    | mg/Kg | 4  |

**Sample: 316632 - AH-2 1-1.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316633 - AH-2 2-2.5'**

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| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 41.2   | mg/Kg | 4  |

**Sample: 316634 - AH-2 3-3.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 27.4   | mg/Kg | 4  |

**Sample: 316635 - AH-2 4-4.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 50.3   | mg/Kg | 4  |

**Sample: 316636 - AH-2 5-5.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 54.9   | mg/Kg | 4  |

**Sample: 316637 - AH-2 6-6.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 27.4   | mg/Kg | 4  |

**Sample: 316638 - AH-2 7-7.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 64.0   | mg/Kg | 4  |

**Sample: 316639 - AH-2 8-8.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 22.9   | mg/Kg | 4  |

**Sample: 316640 - AH-2 9-9.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 41.2   | mg/Kg | 4  |



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**Sample: 316641 - AH-3 0-1'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 459    | mg/Kg | 4  |

**Sample: 316642 - AH-3 1-1.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 161    | mg/Kg | 4  |

**Sample: 316643 - AH-3 2-2.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 55.1   | mg/Kg | 4  |

**Sample: 316644 - AH-3 3-3.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 36.7   | mg/Kg | 4  |

**Sample: 316645 - AH-3 4-4.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 64.3   | mg/Kg | 4  |

**Sample: 316646 - AH-3 5-5.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316647 - AH-3 6-6.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316648 - AH-3 7-7.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316649 - AH-3 8-8.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316650 - AH-3 9-9.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316651 - AH-4 0-1'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 46.1   | mg/Kg | 4  |

**Sample: 316652 - AH-4 1-1.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 41.5   | mg/Kg | 4  |

**Sample: 316653 - AH-4 2-2.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316654 - AH-4 3-3.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 96.8   | mg/Kg | 4  |

**Sample: 316655 - AH-4 4-4.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 78.3   | mg/Kg | 4  |

**Sample: 316656 - AH-4 5-5.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 50.7   | mg/Kg | 4  |



**Sample: 316657 - AH-4 6-6.5'**

| Param    | Flag | Result      | Units | RL |
|----------|------|-------------|-------|----|
| Chloride |      | <b>78.3</b> | mg/Kg | 4  |

**Sample: 316658 - AH-4 7-7.5'**

| Param    | Flag | Result     | Units | RL |
|----------|------|------------|-------|----|
| Chloride |      | <b>157</b> | mg/Kg | 4  |

**Sample: 316659 - AH-4 8-8.5'**

| Param    | Flag | Result      | Units | RL |
|----------|------|-------------|-------|----|
| Chloride |      | <b>36.9</b> | mg/Kg | 4  |

**Sample: 316660 - AH-4 9-9.5'**

| Param    | Flag | Result      | Units | RL |
|----------|------|-------------|-------|----|
| Chloride |      | <b>83.0</b> | mg/Kg | 4  |

**Sample: 316661 - AH-5 0-1'**

| Param    | Flag | Result      | Units | RL |
|----------|------|-------------|-------|----|
| Chloride |      | <b>44.6</b> | mg/Kg | 4  |

**Sample: 316662 - AH-5 1-1.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316663 - AH-5 2-2.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316664 - AH-5 3-3.5'**

| Param    | Flag | Result     | Units | RL |
|----------|------|------------|-------|----|
| Chloride |      | <b>891</b> | mg/Kg | 4  |

**Sample: 316665 - AH-5 4-4.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 31.2   | mg/Kg | 4  |

**Sample: 316666 - AH-5 5-5.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316667 - AH-5 6-6.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316668 - AH-5 7-7.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316669 - AH-5 8-8.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316670 - AH-5 9-9.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316671 - AH-6 0-1'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 58.2   | mg/Kg | 4  |

**Sample: 316672 - AH-6 1-1.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |



**Sample: 316673 - AH-6 2-2.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 49.2   | mg/Kg | 4  |

**Sample: 316674 - AH-6 3-3.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 98.4   | mg/Kg | 4  |

**Sample: 316675 - AH-6 4-4.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 40.3   | mg/Kg | 4  |

**Sample: 316676 - AH-6 5-5.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316677 - AH-6 6-6.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316678 - AH-6 7-7.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | <20.0  | mg/Kg | 4  |

**Sample: 316679 - AH-6 8-8.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 26.9   | mg/Kg | 4  |

**Sample: 316680 - AH-6 9-9.5'**

| Param    | Flag | Result | Units | RL |
|----------|------|--------|-------|----|
| Chloride |      | 31.3   | mg/Kg | 4  |