

SITE INFORMATION

Report Type: Work Plan

General Site Information:

| | | | | | | |
|------------------------------------|---|-------|------|--------------|--|--|
| Site: | Willow "A" State Tank Battery | | | | | |
| Company: | COG Operating LLC | | | | | |
| Section, Township and Range | Unit J | Sec 3 | T25S | R28E | | |
| Lease Number: | API-30-015-33012 | | | | | |
| County: | Eddy County | | | | | |
| GPS: | 32.15751° N | | | 104.07456° W | | |
| Surface Owner: | State | | | | | |
| Mineral Owner: | | | | | | |
| Directions: | Starting in Malaga on Hwy 285, travel south on Hwy 285 for 4.6 miles site is on west side of the highway. | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Release Data:

| | |
|---------------------------------|------------------|
| Date Released: | 1/31/2011 |
| Type Release: | Oil |
| Source of Contamination: | Circulating Pump |
| Fluid Released: | 24 bbls |
| Fluids Recovered: | 23 bbls |

Official Communication:

| | | | |
|----------------------|-----------------------------|--|----------------------------|
| Name: | Pat Ellis | | Ike Tavaréz |
| Company: | COG Operating, LLC | | Tetra Tech |
| Address: | 550 W. Texas Ave. Ste. 1300 | | 1910 N. Big Spring |
| P.O. Box | | | |
| City: | Midland Texas, 79701 | | Midland, Texas |
| Phone number: | (432) 686-3023 | | (432) 425-3878 |
| Fax: | (432) 684-7137 | | |
| Email: | pellis@conchoresources.com | | ike.tavaréz@tetrattech.com |

Ranking Criteria

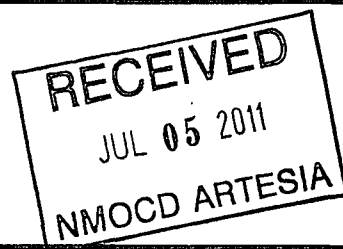
| Depth to Groundwater: | Ranking Score | Site Data |
|-----------------------|---------------|-----------|
| <50 ft | 20 | 20 |
| 50-99 ft | 10 | |
| >100 ft. | 0 | |

| 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 |

| | |
|-----------------------------|----|
| Total Ranking Score: | 20 |
|-----------------------------|----|

| Acceptable Soil RRAL (mg/kg) | | |
|------------------------------|------------|-----|
| Benzene | Total BTEX | TPH |
| 10 | 50 | 100 |





TETRA TECH

June 1, 2011

Mr. Mike Bratcher
Environmental Engineer Specialist
Oil Conservation Division, District 2
1301 West Grand Avenue
Artesia, New Mexico 88210

Re: Work Plan for the COG Operating LLC., Willow "A" State Tank Battery, Unit J, Section 3, Township 25 South, Range 28 East, Eddy County, New Mexico.

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill from the Willow "A" State Tank Battery located in Unit J, Section 3, Township 25 South, Range 28 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.15751°, W 104.07456°. 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 January 31, 2011, and released approximately twenty four (24) barrels of oil from the circulating pump. To alleviate the problem, COG personnel repaired the pump. Twenty three (23) barrels of standing fluids were recovered. The spill was contained inside of the tank battery affecting an area of approximately 45' x 140'. The initial C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 3. The New Mexico State Engineer Well Reports showed one well in Section 4, with a groundwater depth of 35' below surface. According to the NMOCD groundwater map, the average depth to groundwater in this area is less than 50' below surface. The average depth to water map is shown in Appendix B.

Tetra Tech

1910 North Big Spring, Midland, TX 79705

Tel 432.682.4559

Fax 432.682.3946

www.tetratech.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 100 mg/kg.

Soil Assessment and Analytical Results

On February 15, 2011, Tetra Tech personnel inspected and sampled the spill area. A total of five (5) auger holes (AH-1 through AH-4 and a background auger hole) were installed using a stainless steel hand auger to assess the impacted soils. Select 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 auger hole locations are shown on Figure 3.

Referring to Table 1, auger holes (AH-1, AH-2 and AH-3) were below the RRAL for TPH and BTEX. Auger hole (AH-4) had a total TPH concentration of 131 mg/kg (0-1') and declined below the RRAL at (1-1.5').

Auger holes (AH-1, AH-2 and AH-3) showed chloride concentrations ranging from 425 mg/kg to 1,650 mg/kg. The chloride concentrations declined with depth and showed bottom samples (auger holes) of AH-1 (<200 mg/kg at 5-5.5'), AH-2 (465 mg/kg at 4-4.5') and AH-3 (878 mg/kg at 2.5'-3.0'). The background auger hole showed a chloride high of 352 mg/kg at 3-3.5' below surface. The remaining auger hole (AH-4) did not show a chloride impact to the area.



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Work Plan

COG proposes to remove impacted material as highlighted (green) in Table 1. The proposed areas are shown on Figure 4. In the area of auger hole (AH-3), a backhoe trench will be installed to define the vertical extent of the chloride impact. The impacted soil around oil and gas equipment, structures or lines may not be feasible or practicable to be removed due to safety concerns. As such, Tetra Tech will excavate the soils to the maximum extent practicable. Once the areas are excavated to the appropriate depths, the excavation will be backfilled with clean soil.

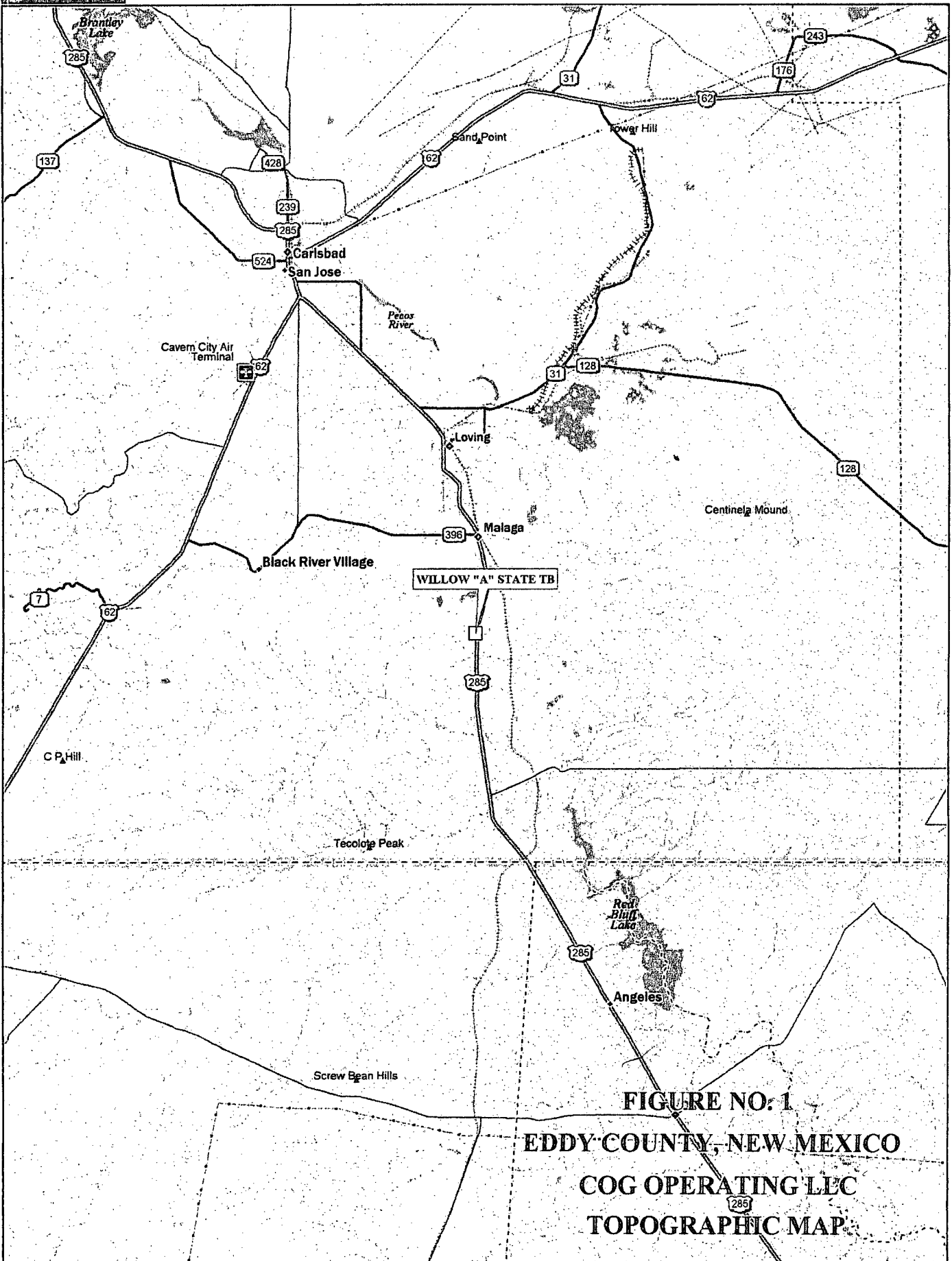
Once completed, a final report will be submitted to the NMOCD for review. If you have any questions or comments concerning the assessment, please call me at (432) 682-4559.

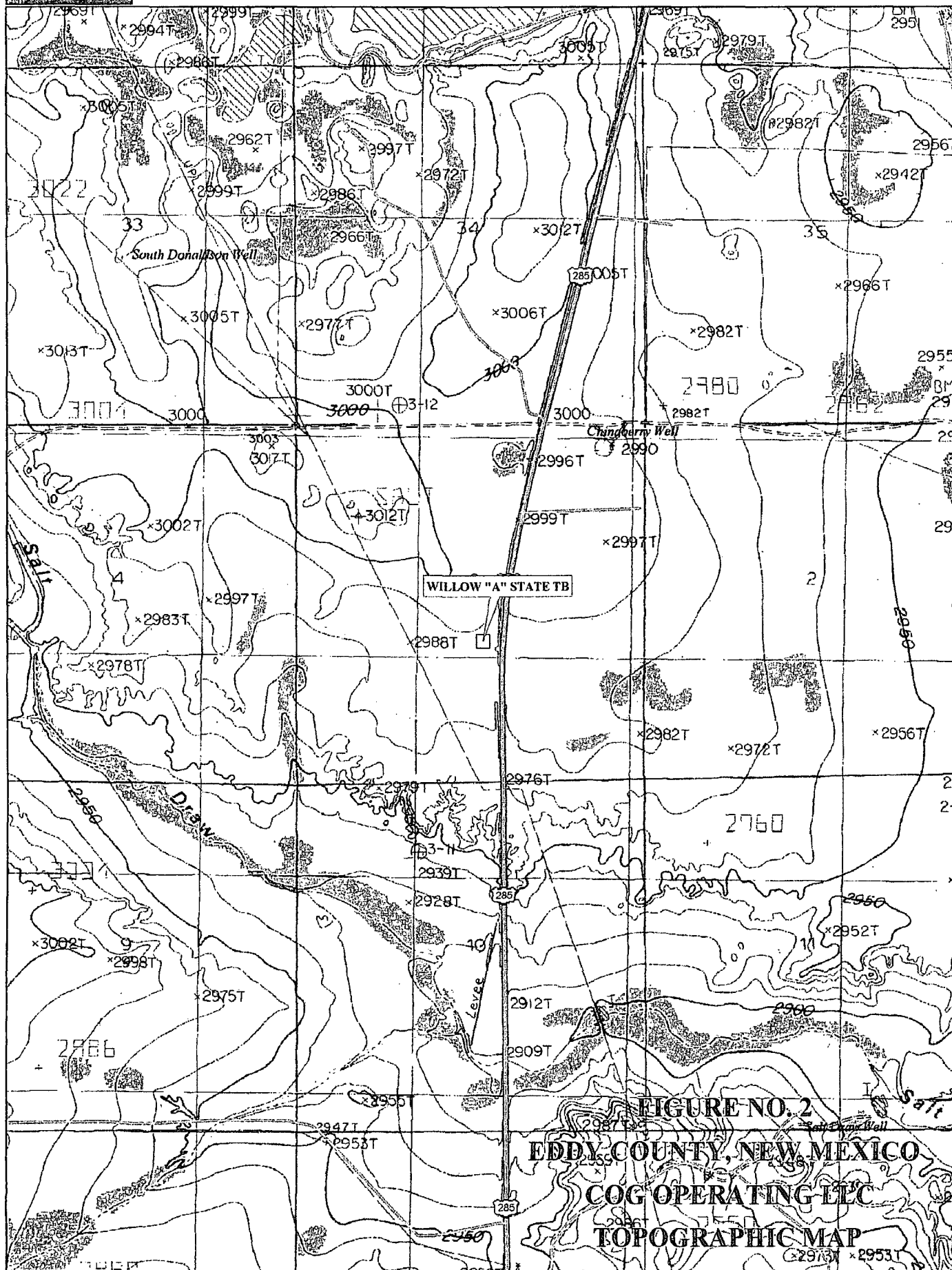
Respectfully submitted,
TETRA TECH

Ike Tavaréz
Project Manager

cc: Pat Ellis – COG

Figures

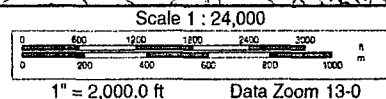


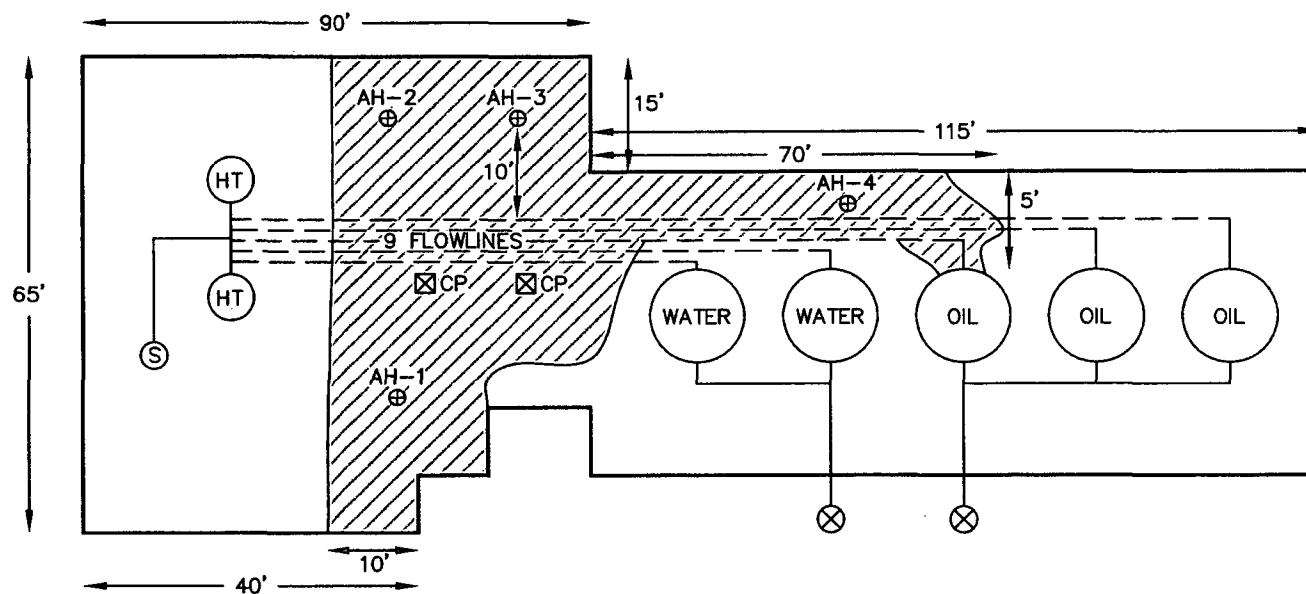


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www.delorme.com





DATE:
2/15/11

DWN. BY:
JJ

FILE:
H:\COG\8400817
WILLOW A STATE TB

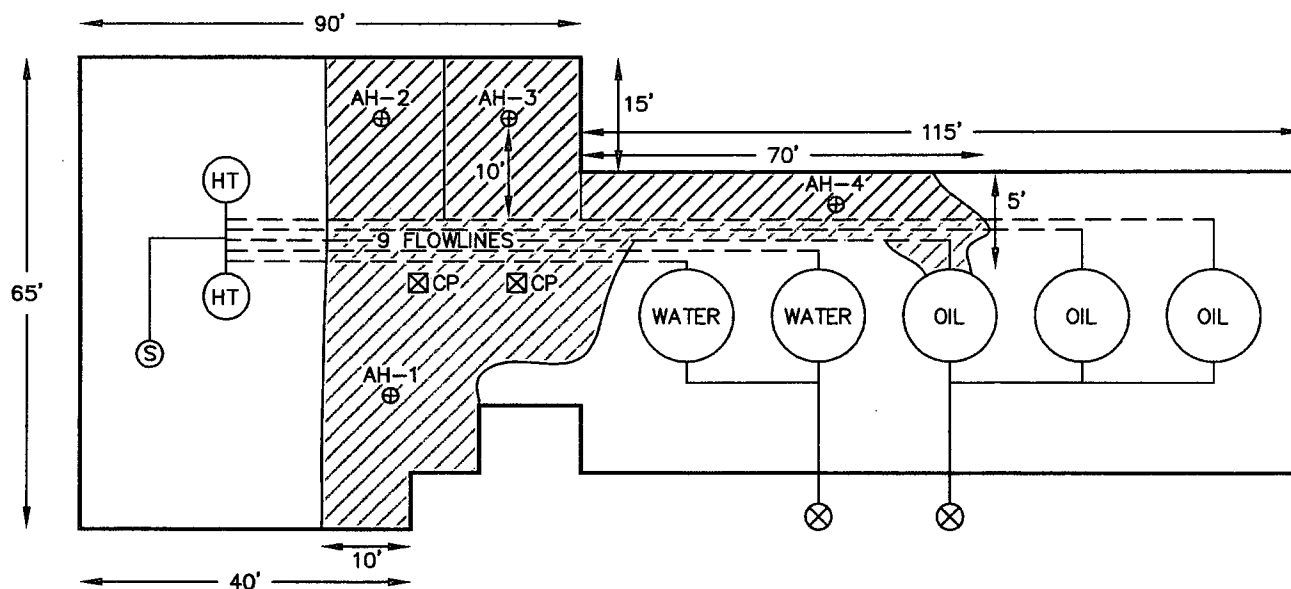
FIGURE NO. 3

EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

WILLOW "A" STATE TB

TETRA TECH, INC.
MIDLAND, TEXAS



- SPILL AREA
- EXCAVATION AREA (1.0' DEEP)
- EXCAVATION AREA (2.5' TO 3.0' DEEP)
- EXCAVATION AREA (3.0' DEEP)
- SAMPLE LOCATIONS

NOT TO SCALE

FIGURE NO. 4

EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

WILLOW "A" STATE TB
PROPOSED EXCAVATION MAP

TETRA TECH, INC.
MIDLAND, TEXAS

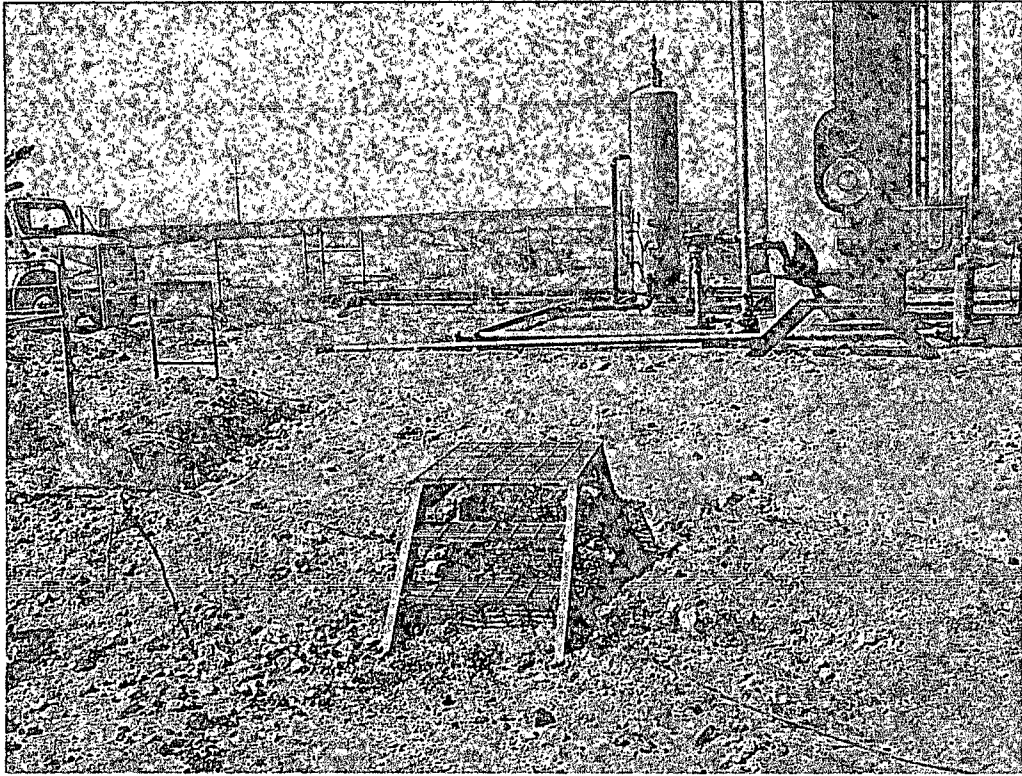
DATE:
2/15/11
DWN. BY:
JJ
FILE:
H:\COG\8400817
WILLOW A STATE TB

Photos

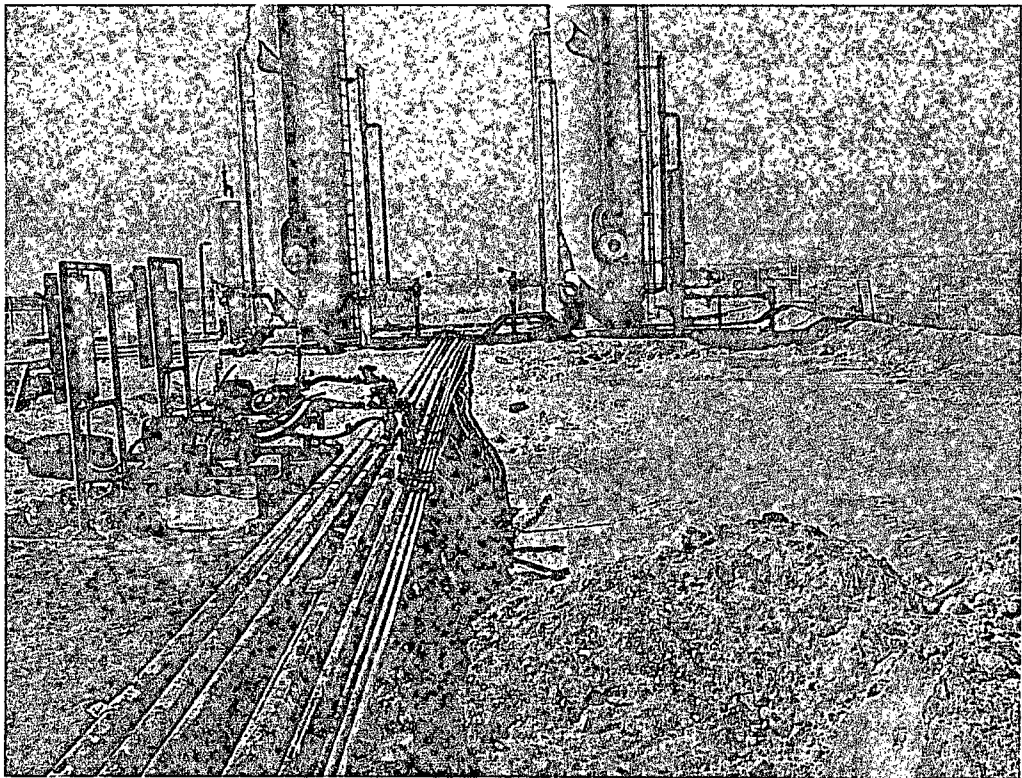
COG Operating LLC
Willow "A" State TB
Eddy County, New Mexico



TETRA TECH

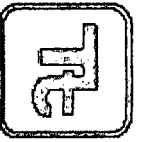


View West – AH-1

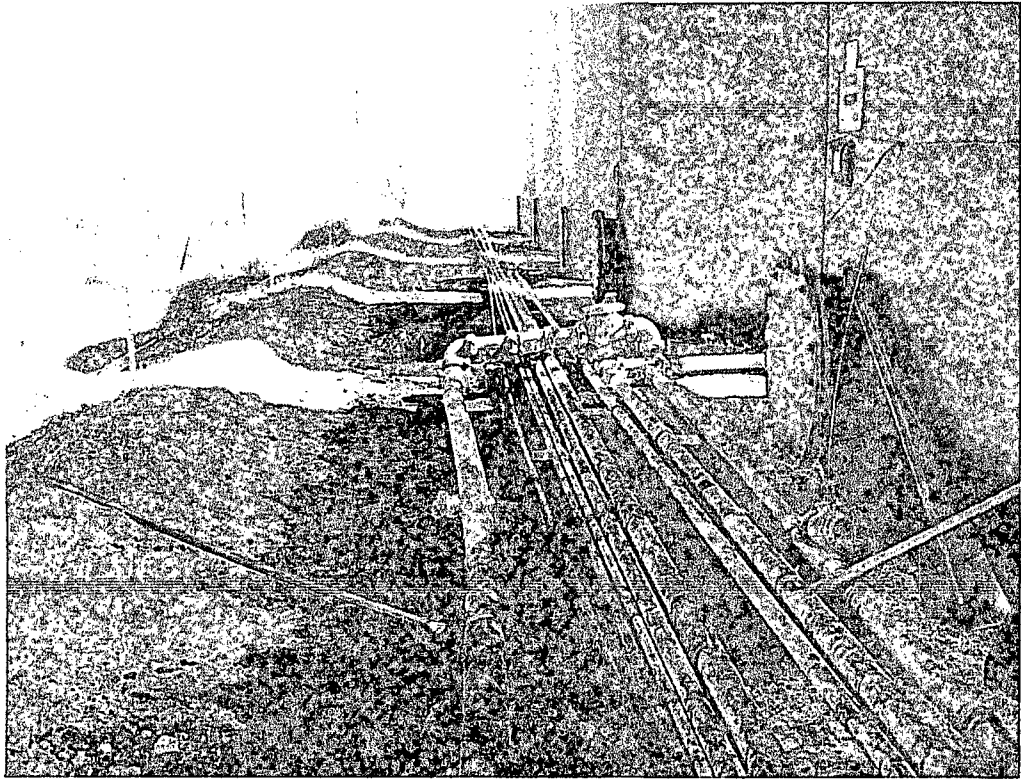


View West – AH-2 and 3

COG Operating LLC
Willow "A" State TB
Eddy County, New Mexico



TETRA TECH



View East – AH-4

Site info and picture details

Tables

Table 1
COG Operating LLC.
WILLOW "A" TANK BATTERY
Eddy County, New Mexico

| Sample ID | Sample Date | Sample Depth (ft) | Depth (BEB) | Soil Status | | TPH (mg/kg) | | | Benzene (mg/kg) | Toluene (mg/kg) | Ethlybenzene (mg/kg) | Xylene (mg/kg) | Chloride (mg/kg) |
|-------------|-------------|-------------------|-------------|-------------|---------|-------------|-------|-------|-----------------|-----------------|----------------------|----------------|------------------|
| | | | | In-Situ | Removed | GRO | DRO | Total | | | | | |
| AH-1 | 2/15/2011 | 0-1' | 1' | X | | 22.7 | <50.0 | 22.7 | <0.0200 | <0.0200 | <0.0200 | 0.477 | 518 |
| | " | 1-1.5' | 1' | X | | - | - | - | - | - | - | - | 735 |
| | " | 2-2.5' | 1' | X | | - | - | - | - | - | - | - | 953 |
| | " | 3-3.5' | 1' | X | | - | - | - | - | - | - | - | 1,020 |
| | " | 4-4.5' | 1' | X | | - | - | - | - | - | - | - | 425 |
| | " | 5-5.5' | 1' | x | | - | - | - | - | - | - | - | <200 |
| AH-2 | 2/15/2011 | 0-1' | 1' | X | | 3.03 | <50.0 | 3.03 | <0.0200 | <0.0200 | <0.0200 | 0.379 | 1,130 |
| | " | 1-1.5' | 1' | X | | - | - | - | - | - | - | - | 1,350 |
| | " | 2-2.5' | 1' | X | | - | - | - | - | - | - | - | 1,650 |
| | " | 3-3.5' | 1' | X | | - | - | - | - | - | - | - | 1,120 |
| | " | 4-4.5' | 1' | X | | - | - | - | - | - | - | - | 465 |

Table 1
COG Operating LLC.
WILLOW "A" TANK BATTERY
Eddy County, New Mexico

| Sample ID | Sample Date | Sample Depth (ft) | Depth (BEB) | Soil Status | | TPH (mg/kg) | | | Benzene (mg/kg) | Toluene (mg/kg) | Ethlybenzene (mg/kg) | Xylene (mg/kg) | Chloride (mg/kg) |
|-------------|-------------|-------------------|-------------|-------------|---------|-------------|-------|-------|-----------------|-----------------|----------------------|----------------|------------------|
| | | | | In-Situ | Removed | GRO | DRO | Total | | | | | |
| AH-3 | 2/15/2011 | 0-1' | 1' | X | | <2.00 | <50.0 | <50.0 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | 981 |
| | " | 1-1.5' | 1' | X | | - | - | - | - | - | - | - | 1,630 |
| | " | 2-2.5' | 1' | X | | - | - | - | - | - | - | - | 1,570 |
| | " | 2.5-3' | 1' | X | | - | - | - | - | - | - | - | 878 |
| AH-4 | 2/15/2011 | 0-1' | 1' | X | | 131 | <50.0 | 131 | <0.0200 | 0.236 | 0.346 | 1.22 | <200 |
| | " | 1-1.5' | 1' | X | | <2.00 | <50.0 | <50.0 | - | - | - | - | <200 |
| | " | 2-2.5' | 1' | X | | - | - | - | - | - | - | - | <200 |
| | " | 3-3.5' | 1' | X | | - | - | - | - | - | - | - | <200 |
| BG | 4/14/2011 | 0-1' | | X | | - | - | - | - | - | - | - | <200 |
| | " | 1-1.5' | | X | | - | - | - | - | - | - | - | <200 |
| | " | 2-2.5' | | X | | - | - | - | - | - | - | - | <200 |
| | " | 3-3.5' | | X | | - | - | - | - | - | - | - | 352 |

BEB Below Excavation Bottom

(--) Not Analyzed

☐ Proposed excavation depths

Appendix A

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 100, Midland, TX 79701 | Telephone No. | 432-230-0077 |
| Facility Name | Willow "A" State | Facility Type | Tank Battery |

| | | |
|---------------------|---------------|-------------------------------|
| Surface Owner State | Mineral Owner | Lease No. (API#) 30-015-33012 |
|---------------------|---------------|-------------------------------|

LOCATION OF RELEASE

| | | | | | | | | |
|------------------|--------------|-----------------|--------------|---------------|------------------|---------------|----------------|----------------|
| Unit Letter J | Section 3 | Township 25S | Range 28E | Feet from the | North/South Line | Feet from the | East/West Line | County Eddy |
|------------------|--------------|-----------------|--------------|---------------|------------------|---------------|----------------|----------------|

Latitude 32 09.454 Longitude 104 04.456

NATURE OF RELEASE

| | | |
|---|---|---|
| Type of Release Oil | Volume of Release 24bbls | Volume Recovered 23bbls |
| Source of Release Circulating pump | Date and Hour of Occurrence 01/31/2011 | Date and Hour of Discovery 01/31/2011 5:00a.m. |
| Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" 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.*

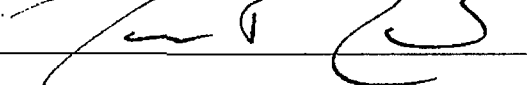
¼" nipple on circulating pump started leaking when the pump was turned on, due to worn out threads. The nipple and valves have been replaced and the circulating pump has been put back into service.

Describe Area Affected and Cleanup Action Taken.*

Initially 24bbls was released from the circulating pump and we were able to recover 23bbls with a vacuum truck. All released oil was completely contained inside the dike walls of the facility. The facility will be scraped and the contaminated soil will be disposed of appropriately. Tetra Tech will sample the spill site area 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.

OIL CONSERVATION DIVISION

| | | |
|--|-----------------------------------|------------------|
| Signature:  | Approved by District Supervisor: | |
| Printed Name: Josh Russo | Approval Date: | Expiration Date: |
| Title: HSE Coordinator | Conditions of Approval: | |
| E-mail Address: jrusso@conchoresources.com | Attached <input type="checkbox"/> | |
| Date: 02/04/2011 Phone: 432-212-2399 | | |

* Attach Additional Sheets If Necessary

Appendix B

Water Well Data
Average Depth to Groundwater (ft)
COG - Willow "A" State
Eddy County, New Mexico

| 24 South | | | 27 East | | |
|----------|----|----|---------|----|----|
| 6 | 5 | 4 | 3 | 2 | 1 |
| 7 | 8 | 26 | 9 | 10 | 11 |
| 18 | 17 | 43 | 16 | 15 | 14 |
| 34 | | | 22 | 23 | 24 |
| 19 | 20 | 21 | 70 | 26 | 25 |
| 30 | 29 | 28 | 34 | 35 | 36 |
| 31 | 32 | 33 | | | |

| 24 South | | | 28 East | | |
|----------|----|----|---------|----|----|
| 6 | 70 | 5 | 30 | 4 | 30 |
| 7 | 8 | 50 | 9 | 10 | 11 |
| 18 | 17 | 16 | 15 | 14 | 13 |
| 19 | 20 | 21 | 22 | 23 | 24 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 | 34 | 35 | 36 |

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

| 25 South | | | 27 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 |





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

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

| 26 South | | | 27 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 |

| 26 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 |

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

-  New Mexico State Engineers Well Reports
-  USGS Well Reports
-  Geology and Groundwater Conditions in Southern Eddy, County, NM
-  NMOCD - Groundwater Data

Appendix C

Summary Report

Tom Franklin
Tetra Tech
1910 N. Big Spring Street
Midland, TX 79705

Report Date: February 28, 2011

Work Order: 11021807



Project Location: Eddy Co., NM
Project Name: COG/Willow A TB
Project Number: 114-6400817

| Sample | Description | Matrix | Date Taken | Time Taken | Date Received |
|--------|--------------------|--------|------------|------------|---------------|
| 257838 | AH-1 0-1' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |
| 257839 | AH-1 1-1.5' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |
| 257840 | AH-1 2-2.5' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |
| 257841 | AH-1 3-3.5' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |
| 257842 | AH-1 4-4.5' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |
| 257843 | AH-1 5-5.5' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |
| 257844 | AH-2 0-1' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |
| 257845 | AH-2 1-1.5' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |
| 257846 | AH-2 2-2.5' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |
| 257847 | AH-2 3-3.5' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |
| 257848 | AH-2 4-4.5' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |
| 257849 | AH-3 0-1' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |
| 257850 | AH-3 1-1.5' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |
| 257851 | AH-3 2-2.5' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |
| 257852 | AH-3 2.5-3' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |
| 257853 | AH-4 0-1' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |
| 257854 | AH-4 1-1.5' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |
| 257855 | AH-4 2-2.5' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |
| 257856 | AH-4 3-3.5' 1' BEB | soil | 2011-02-15 | 00:00 | 2011-02-17 |

| Sample - Field Code | BTEX | | | | TPH DRO - NEW | TPH GRO |
|-----------------------------|--------------------|--------------------|-------------------------|-------------------|----------------|----------------|
| | Benzene (mg/Kg) | Toluene (mg/Kg) | Ethylbenzene (mg/Kg) | Xylene (mg/Kg) | DRO (mg/Kg) | GRO (mg/Kg) |
| 257838 - AH-1 0-1' 1' BEB | <0.0200 | <0.0200 | <0.0200 | 0.477 | <50.0 | 22.7 |
| 257844 - AH-2 0-1' 1' BEB | <0.0200 | <0.0200 | <0.0200 | 0.379 | <50.0 | 3.03 |
| 257849 - AH-3 0-1' 1' BEB | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <50.0 | <2.00 |
| 257853 - AH-4 0-1' 1' BEB | <0.0200 | 0.236 | 0.346 | 1.22 | <50.0 | 131 |
| 257854 - AH-4 1-1.5' 1' BEB | | | | | <50.0 | <2.00 |

Sample: 257838 - AH-1 0-1' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | 518 | mg/Kg | 4.00 |

Sample: 257839 - AH-1 1-1.5' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | 735 | mg/Kg | 4.00 |

Sample: 257840 - AH-1 2-2.5' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | 953 | mg/Kg | 4.00 |

Sample: 257841 - AH-1 3-3.5' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | 1020 | mg/Kg | 4.00 |

Sample: 257842 - AH-1 4-4.5' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | 425 | mg/Kg | 4.00 |

Sample: 257843 - AH-1 5-5.5' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | <200 | mg/Kg | 4.00 |

Sample: 257844 - AH-2 0-1' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | 1130 | mg/Kg | 4.00 |

Sample: 257845 - AH-2 1-1.5' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | 1350 | mg/Kg | 4.00 |

Sample: 257846 - AH-2 2-2.5' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | 1650 | mg/Kg | 4.00 |

Sample: 257847 - AH-2 3-3.5' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | 1120 | mg/Kg | 4.00 |

Sample: 257848 - AH-2 4-4.5' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | 465 | mg/Kg | 4.00 |

Sample: 257849 - AH-3 0-1' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | 981 | mg/Kg | 4.00 |

Sample: 257850 - AH-3 1-1.5' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | 1630 | mg/Kg | 4.00 |

Sample: 257851 - AH-3 2-2.5' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | 1570 | mg/Kg | 4.00 |

Sample: 257852 - AH-3 2.5-3' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | 878 | mg/Kg | 4.00 |

Sample: 257853 - AH-4 0-1' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | <200 | mg/Kg | 4.00 |

Sample: 257854 - AH-4 1-1.5' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | <200 | mg/Kg | 4.00 |

Sample: 257855 - AH-4 2-2.5' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | <200 | mg/Kg | 4.00 |

Sample: 257856 - AH-4 3-3.5' 1' BEB

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | <200 | mg/Kg | 4.00 |

Summary Report

Tom Franklin
Tetra Tech
1910 N. Big Spring Street
Midland, TX 79705

Report Date: April 27, 2011

Work Order: 11041532

Project Location: Eddy Co, NM
Project Name: COG/Willow A State Tank Battery

| Sample | Description | Matrix | Date Taken | Time Taken | Date Received |
|--------|-------------|--------|------------|------------|---------------|
| 263933 | BG 0-1' | soil | 2011-04-14 | 00:00 | 2011-04-15 |
| 263934 | BG 1-1.5' | soil | 2011-04-14 | 00:00 | 2011-04-15 |
| 263935 | BG 2-2.5' | soil | 2011-04-14 | 00:00 | 2011-04-15 |
| 263936 | BG 3-3.5' | soil | 2011-04-14 | 00:00 | 2011-04-15 |

Sample: 263933 - BG 0-1'

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | <200 | mg/Kg | 4.00 |

Sample: 263934 - BG 1-1.5'

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | <200 | mg/Kg | 4.00 |

Sample: 263935 - BG 2-2.5'

| Param | Flag | Result | Units | RL |
|----------|------|--------|-------|------|
| Chloride | | <200 | mg/Kg | 4.00 |

Sample: 263936 - BG 3-3.5'

| Param | Flag | Result | Units | RL |
|----------|------|------------|-------|------|
| Chloride | | 352 | mg/Kg | 4.00 |
