

# APPROVED



## SITE INFORMATION

Report Type: Closure Report 1RP-4309

### General Site Information:

|                             |   |         |       |              |  |  |
|-----------------------------|---|---------|-------|--------------|--|--|
| Site:                       | Red Bull 35 Federal #001H   |         |       |              |  |  |
| Company:                    | COG Operating LLC   |         |       |              |  |  |
| Section, Township and Range | Unit K  | Sec. 35 | T 25S | R 33E        |  |  |
| Lease Number:               | API No. 30-025-34015  |         |       |              |  |  |
| County:                     | Lea County  |         |       |              |  |  |
| GPS:                        | 32.08510° N   |         |       | 103.54515° W |  |  |
| Surface Owner:              | Federal   |         |       |              |  |  |
| Mineral Owner:              |   |         |       |              |  |  |
| Directions:                 | From the intersection of HWY 128 & CR 2 in rural Lea County, travel south on CR 2 for 0.3 mi, turn west onto Battle Axe Rd for 2.6 mi, turn west to stay on Battle Axe Rd and continue for 10.3 mi, turn north onto lease road for 1.6 miles to the location. |         |       |              |  |  |
|                             |   |         |       |              |  |  |
|                             |   |         |       |              |  |  |
|                             |   |         |       |              |  |  |
|                             |   |         |       |              |  |  |

### Release Data:

|                          |                            |
|--------------------------|----------------------------|
| Date Released:           | 6/3/2016                   |
| Type Release:            | Oil & Produced Water       |
| Source of Contamination: | Stuffing box leak          |
| Fluid Released:          | 5 bbls oil & 10 bbls water |
| Fluids Recovered:        | 4 bbls oil & 8 bbls water  |

### Official Communication:

|               |  |  |
|---------------|--|--|
| Name:         | Robert McNeil  | Ike Tavaréz  |
| Company:      | COG Operating, LLC   | Tetra Tech   |
| Address:      | One Concho Center<br>600 W. Illinois Ave.                                    | 4000 N. Big Spring<br>Ste 401  |
| City:         | Midland Texas, 79701   | Midland, Texas   |
| Phone number: | (432) 686-3023   | (432) 687-8110   |
| Fax:          | (432) 684-7137   |  |
| Email:        | <a href="mailto:rmcneil@conchoresources.com">rmcneil@conchoresources.com</a> | <a href="mailto:Ike.Tavaréz@tetratech.com">Ike.Tavaréz@tetratech.com</a> |

### Ranking Criteria

| Depth to Groundwater:                     | Ranking Score | Site Data |
|---|---------------|-----------|
| <50 ft                                    | 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:                      |               | 0         |

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

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



August 31, 2016

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

**Re: Closure Report for the COG Operating LLC., Red Bull 35 Federal #001H, Unit K, Section 35, Township 25 South, Range 33 East, Lea County, New Mexico.**

Mr. Keyes:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC., (COG) to assess a spill from the Red Bull 35 Federal #001H, Unit K, Section 35, Township 25 South, Range 33 East, Lea County, New Mexico (Site). The spill site coordinates are N 32.08510°, W 103.54515°. 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 June 3, 2016, and released approximately five (5) bbls of oil and ten (10) bbls of produced water due to a stuffing box leak. Approximately four (4) bbls of oil and eight (8) bbls of produced water were recovered. The spill is located on the pad and measures approximately 50'x 80'. The initial C-141 form is included in Appendix A.

## **Groundwater**

No water wells were listed within Section 35. According to the NMOCD groundwater map, the average depth to groundwater in this area is between 125' to 150' below surface. The groundwater data is shown in Appendix B.

## **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

**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)



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 August 15, 2016, Tetra Tech personnel were onsite to evaluate and sample the release area. Two (2) auger holes (AH-1 and AH-2) 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 results of the sampling are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, none of the auger hole samples exceeded the RRAL's for TPH and BTEX. Additionally, the areas of auger holes (AH-1 and AH-2) did not show a significant chloride impact to the soils, with concentration highs of 64.0 mg/kg and 320 mg/kg at 0-1' below surface.

### **Conclusion**

Based on the laboratory results, COG requests closure of this spill issue. The final C-141 is enclosed in Appendix A. 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

A handwritten signature in blue ink, appearing to read 'Ike Tavarez'.

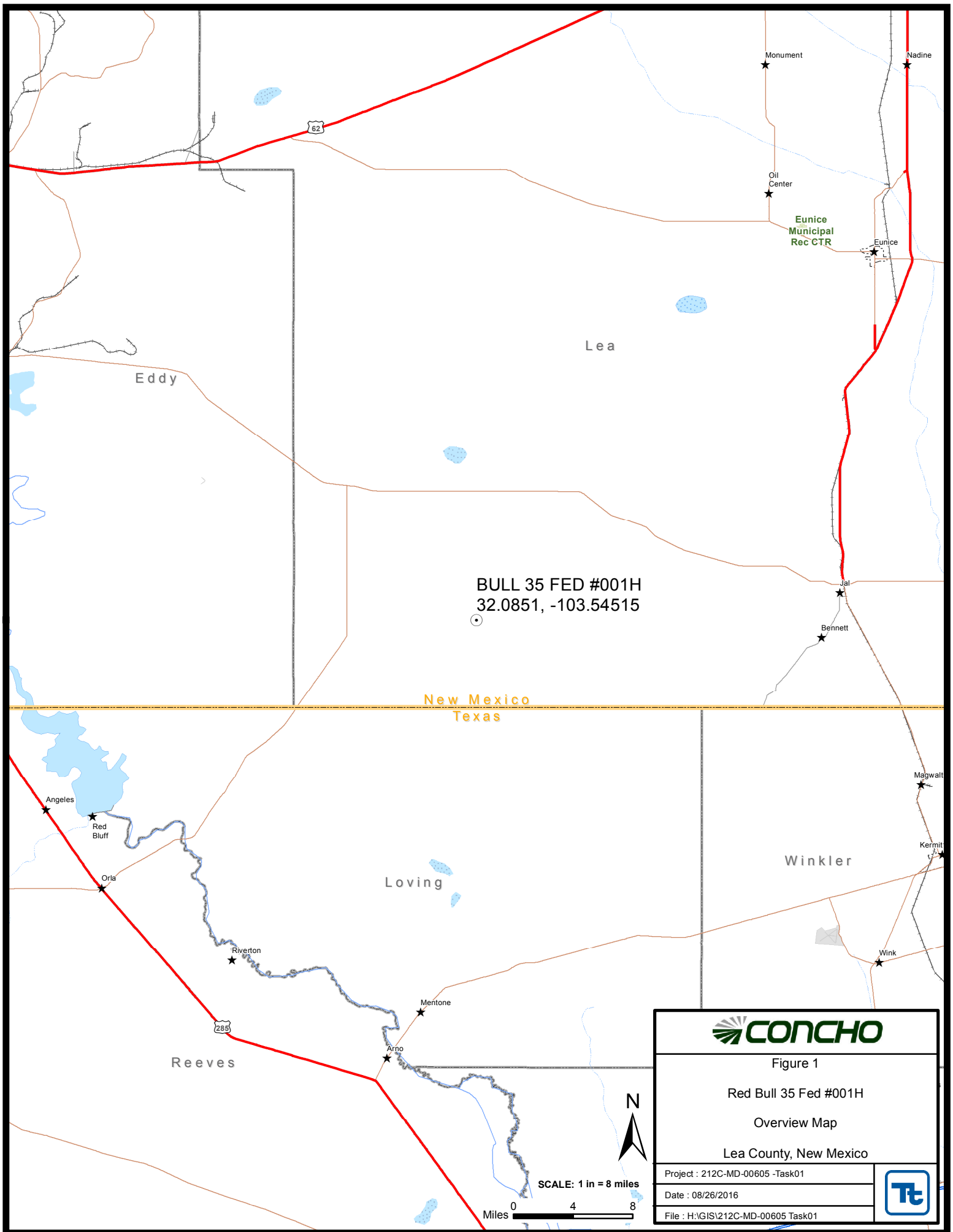
Ike Tavarez, PG  
Senior Project Manager

A handwritten signature in blue ink, appearing to read 'Clair Gonzales'.

Clair Gonzales,  
Geologist I

cc: Robert McNeill – COG  
Dakota Neel - COG

## Figures



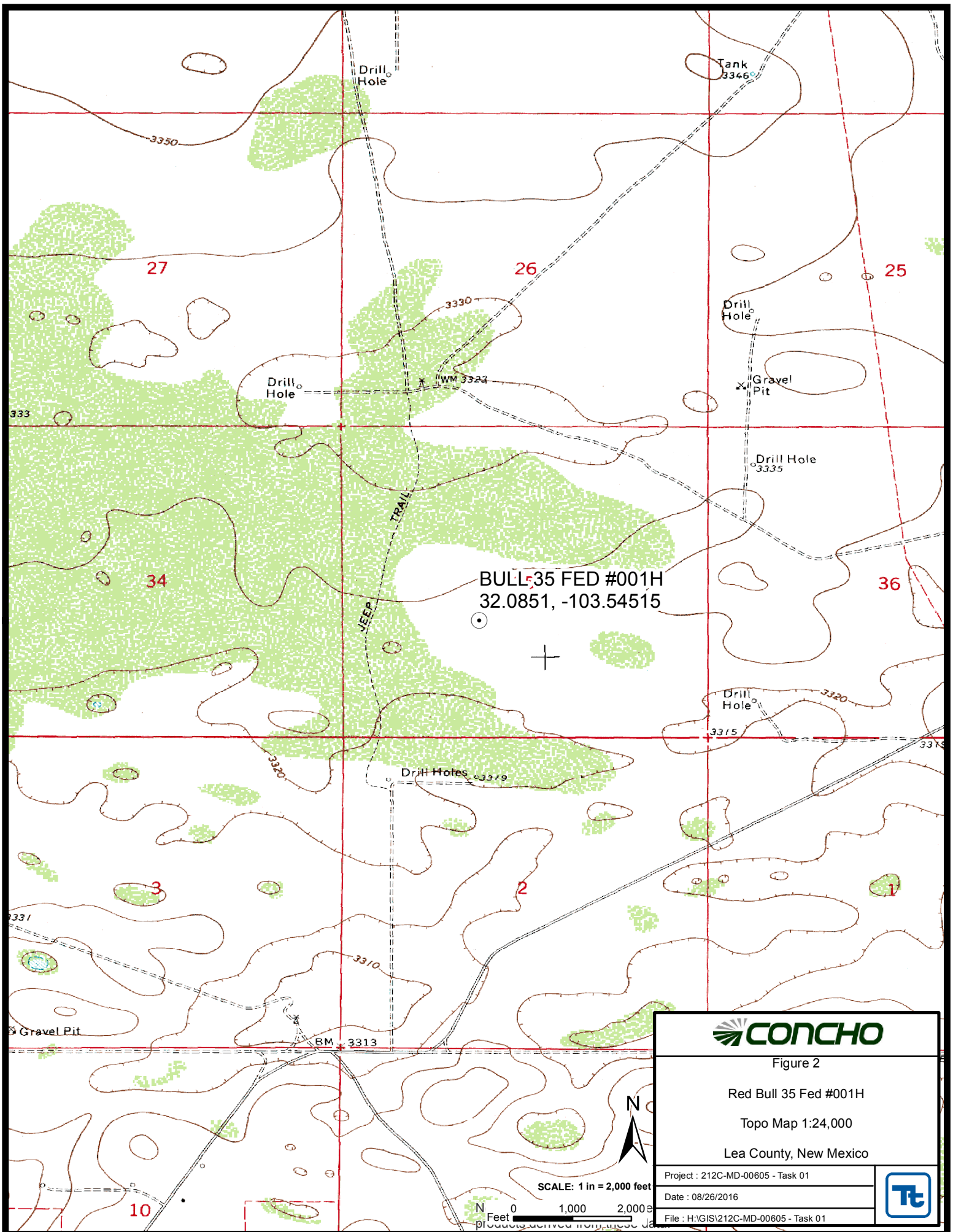


Figure 2

Red Bull 35 Fed #001H

Topo Map 1:24,000

Lea County, New Mexico

Project : 212C-MD-00605 - Task 01

Date : 08/26/2016

File : H:\GIS\212C-MD-00605 - Task 01







**EXPLANATION**

- AUGER HOLE SAMPLE LOCATIONS
- LEAK SOURCE
- SPILL AREA



Source: Esri, DigitalGlobe, GeoEye, **SCALE: 1 IN = 83 FEET**  
Feet 0 50 100



Figure 3

Red Bull 35 Fed #001H

Spill Assessment Map

Lea County, New Mexico

Project : 212C-MD-00605 - Task 01

Date : 08/26/2016

File : H:\GIS\212C-MD-00605 - Task 01



## Tables



**Table 1**  
**COG Operating LLC.**  
**Red Bull 35 Federal #001H**  
**Lea County, New Mexico**

| Sample ID | Sample Date | Sample Depth (ft) | Soil Status |         | TPH (mg/kg) |       |       | Benzene (mg/kg) | Toluene (mg/kg) | Ethlybenzene (mg/kg) | Xylene (mg/kg) | Total BTEX (mg/kg) | Chloride (mg/kg) |
|-----------|-------------|-------------------|-------------|---------|-------------|-------|-------|-----------------|-----------------|----------------------|----------------|--------------------|------------------|
|           |             |                   | In-Situ     | Removed | GRO         | DRO   | Total |                 |                 |                      |                |                    |                  |
| AH-1      | 8/15/2016   | 0-1               | X           |         | 348         | 3,460 | 3,810 | <0.050          | <0.050          | <0.050               | 4.17           | 4.17               | 64.0             |
|           | "           | 1-1.5             | X           |         | -           | -     | -     | -               | -               | -                    | -              | -                  | <16.0            |
| AH-2      | 8/15/2016   | 0-1               | X           |         | 21.5        | 1,170 | 1,190 | <0.050          | <0.050          | <0.050               | <0.150         | <0.300             | 320              |
|           | "           | 1-1.5             | X           |         | -           | -     | -     | -               | -               | -                    | -              | -                  | 48.0             |

( - ) Not Analyzed

# 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**

By JKeyes at 10:56 am, Jun 13, 2016

Form C-141  
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. 432-683-7443 |                      |
| Facility Name: RED BULL 35 FEDERAL #001H            | Facility Type: Well        |                      |
| Surface Owner: Federal                              | Mineral Owner: Federal     | API No. 30-025-34015 |

### LOCATION OF RELEASE

|                  |               |                 |              |                        |                           |                        |                        |                               |
|------------------|---------------|-----------------|--------------|------------------------|---------------------------|------------------------|------------------------|-------------------------------|
| Unit Letter<br>K | Section<br>35 | Township<br>25S | Range<br>33E | Feet from the<br>1980' | North/South Line<br>South | Feet from the<br>1980' | East/West Line<br>West | County<br><del>Eddy</del> Lea |
|------------------|---------------|-----------------|--------------|------------------------|---------------------------|------------------------|------------------------|-------------------------------|

Latitude 32.0851822 Longitude -103.5452042

### NATURE OF RELEASE

|  |  |  |
|--|--|--|
| Type of Release:<br>Oil and Produced Water   | Volume of Release:<br>5 bbls Oil ; 10 bbls PW    | Volume Recovered:<br>4 bbls Oil ; 8 bbls PW      |
| Source of Release:<br>Stuffing Box   | Date and Hour of Occurrence:<br>6/3/2016 unknown | Date and Hour of Discovery:<br>6/3/2016 11:00 am |
| Was Immediate Notice Given?<br><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?<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.\*

This release was caused by a stuffing box leak. Vacuum trucks were dispatched to recover standing fluid and the pad area was scraped to pick up impacted material. The material was disposed of at an NMOCD approved facility.

Describe Area Affected and Cleanup Action Taken.\*

This release remained on the pad area at the wellhead. 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: <i>Amanda T. Davis</i>       | <b>OIL CONSERVATION DIVISION</b>   |  |
| Printed Name: Amanda Trujillo Davis     | Approved by Environmental Specialist: <i>Jamie Keyes</i>   |  |
| Title: Senior Environmental Coordinator | Approval Date: 06/13/2016  | Expiration Date: 08/13/2016                |
| E-mail Address: atrujillo@concho.com    | Conditions of Approval:<br>Discrete samples only. Delineate and remediate per NMOCD guidelines. Ensure BLM | Attached <input type="checkbox"/> IRP 4309 |
| Date: June 10, 2016 Phone: 575-748-6940 |  |  |

\* Attach Additional Sheets If Necessary

concurrency/approval.

nJXK1616539232  
pJXK1616539316

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 <b>COG Operating LLC</b>                 | Contact <b>Robert McNeil</b>        |
| Address <b>600 West Illinois Ave., Midland, TX 79701</b> | Telephone No. <b>(432) 683-7443</b> |
| Facility Name <b>Red Bull 35 Federal #001H</b>           | Facility Type <b>Well</b>           |

|                        |               |                      |
|------------------------|---------------|----------------------|
| Surface Owner: Federal | Mineral Owner | API No. 30-025-34015 |
|------------------------|---------------|----------------------|

### LOCATION OF RELEASE

|                  |               |                 |              |               |                  |               |                |               |
|------------------|---------------|-----------------|--------------|---------------|------------------|---------------|----------------|---------------|
| Unit Letter<br>K | Section<br>35 | Township<br>25S | Range<br>33E | Feet from the | North/South Line | Feet from the | East/West Line | County<br>Lea |
|------------------|---------------|-----------------|--------------|---------------|------------------|---------------|----------------|---------------|

Latitude N 32.08510° Longitude W 103.54515°

### NATURE OF RELEASE

|  |   |   |
|--|---|---|
| Type of Release: Oil & Produced Water  | Volume of Release 5 bbls oil & 10 bbls produced water | Volume Recovered 4 bbls oil & 8 bbls produced water |
| Source of Release: Stuffing box  | Date and Hour of Occurrence<br>06/03/2016 unknown     | Date and Hour of Discovery<br>06/03/2016 11:00 am   |
| Was Immediate Notice Given?<br><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required | If YES, To Whom?                                      |   |
| By Whom?   | Date and Hour 3/15/10 4:59 p.m.                       |   |
| Was a Watercourse Reached?<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  | If YES, Volume Impacting the Watercourse.<br>N/A      |   |

If a Watercourse was Impacted, Describe Fully.\*

N/A


Describe Cause of Problem and Remedial Action Taken.\*

The release was caused by a stuffing box leak. All standing fluid was recovered with vacuum trucks and the area was scraped to remove the impacted material. The material was then disposed of at an NMOCD approved facility.

Describe Area Affected and Cleanup Action Taken.\*

Tetra Tech inspected site and collected samples to define spills extent. None of the samples collected showed impact above the RRAL's. Tetra Tech prepared closure report and submitted 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><u>OIL CONSERVATION DIVISION</u></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: 08/25/16 Phone: (432) 682-4559   |   |                  |                                   |

\* Attach Additional Sheets If Necessary

## Appendix B



**Water Well Data**  
**Average Depth to Groundwater (ft)**  
**COG - Red Bull 35 Federal #001H - Lea County, New Mexico**

| 24 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 |
|          |    | 290 |         |    |    |

| 24 South |    |      | 33 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 |
|          |    | 93.2 |         |    |    |

| 24 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 |
|          |    |    |         |    |    |

| 25 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 |
| 290      |    |    |         |    |    |

| 25 South |    |    | 33 East |      |    |
|----------|----|----|---------|------|----|
| 6        | 5  | 4  | 3       | 172  | 2  |
| 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 |
| 257      |    |    |         | SITE |    |

| 25 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 |
|          |    |    |         |    |    |

| 26 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 |
| 295      |    |    |         |    |    |

| 26 South |    |    | 33 East |     |    |
|----------|----|----|---------|-----|----|
| 6        | 5  | 4  | 3       | 180 | 2  |
| 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 |    |    | 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 |
|          |    |    |         |    |    |

- 88 New Mexico State Engineers Well Reports
- 105 USGS Well Reports
- 90 Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)
- Geology and Groundwater Resources of Eddy County, NM (Report 3)
- 34 NMOCD - Groundwater Data
- 121 Abandoned Waterwell (recently measured)



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

| POD Number                        | POD Sub-Code | basin | County | Q 64 | Q 16 | Q 4 | Sec | Tws | Rng | X      | Y        | Depth Well | Depth Water | Water Column |
|-----------------------------------|--------------|-------|--------|------|------|-----|-----|-----|-----|--------|----------|------------|-------------|--------------|
| <a href="#">C 02312</a>           |              | LE    |        | 1    | 2    | 1   | 05  | 25S | 33E | 632241 | 3559687* | 150        | 90          | 60           |
| <a href="#">C 02313</a>           |              | LE    |        | 2    | 3    | 3   | 26  | 25S | 33E | 636971 | 3552098* | 150        | 110         | 40           |
| <a href="#">C 02373 CLW317846</a> | O            | LE    |        | 2    | 1    | 1   | 13  | 25S | 33E | 638518 | 3556544* | 625        | 185         | 440          |
| <a href="#">C 02373 S</a>         |              | LE    |        | 1    | 2    | 1   | 13  | 25S | 33E | 638721 | 3556549* | 625        | 185         | 440          |

Average Depth to Water: **142 feet**

Minimum Depth: **90 feet**

Maximum Depth: **185 feet**

Record Count: 4

PLSS Search:

**Township:** 25S

**Range:** 33E

\*UTM location was derived from PLSS - see Help

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.

## Appendix C



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

August 23, 2016

DAKOTA NEEL

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: RED BULL 35 FED #001H

Enclosed are the results of analyses for samples received by the laboratory on 08/16/16 16:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

|                  |                                |
|------------------|--------------------------------|
| Method EPA 552.2 | Total Haloacetic Acids (HAA-5) |
| Method EPA 524.2 | Total Trihalomethanes (TTHM)   |
| Method EPA 524.4 | Regulated VOCs (V1, V2, V3)    |

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

|                  |   |
|------------------|---|
| Method SM 9223-B | Total Coliform and E. coli (Colilert MMO-MUG)   |
| Method EPA 524.2 | Regulated VOCs and Total Trihalomethanes (TTHM) |
| Method EPA 552.2 | Total Haloacetic Acids (HAA-5)                  |

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**COG OPERATING  
P. O. BOX 1630  
ARTESIA NM, 88210Project: RED BULL 35 FED #001H  
Project Number: NONE GIVEN  
Project Manager: DAKOTA NEEL  
Fax To: NONEReported:  
23-Aug-16 11:21

| Sample ID     | Laboratory ID | Matrix | Date Sampled    | Date Received   |
|---------------|---------------|--------|-----------------|-----------------|
| AH-1 (0-1')   | H601833-01    | Soil   | 15-Aug-16 00:00 | 16-Aug-16 16:45 |
| AH-1 (1-1.5') | H601833-02    | Soil   | 15-Aug-16 00:00 | 16-Aug-16 16:45 |
| AH-2 (0-1')   | H601833-03    | Soil   | 15-Aug-16 00:00 | 16-Aug-16 16:45 |
| AH-2 (1-1.5') | H601833-04    | Soil   | 15-Aug-16 00:00 | 16-Aug-16 16:45 |

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\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



### Analytical Results For:

COG OPERATING  
P. O. BOX 1630  
ARTESIA NM, 88210

Project: RED BULL 35 FED #001H  
Project Number: NONE GIVEN  
Project Manager: DAKOTA NEEL  
Fax To: NONE

Reported:  
23-Aug-16 11:21

### AH-1 (0-1') H601833-01 (Soil)

| Analyte | Result | MDL | Reporting Limit | Units | Dilution | Batch | Analyst | Analyzed | Method | Notes |
|---------|--------|-----|-----------------|-------|----------|-------|---------|----------|--------|-------|
|---------|--------|-----|-----------------|-------|----------|-------|---------|----------|--------|-------|

### Cardinal Laboratories

#### Inorganic Compounds

|                 |             |  |      |       |   |         |    |           |           |  |
|-----------------|-------------|--|------|-------|---|---------|----|-----------|-----------|--|
| <b>Chloride</b> | <b>64.0</b> |  | 16.0 | mg/kg | 4 | 6081706 | AC | 18-Aug-16 | 4500-Cl-B |  |
|-----------------|-------------|--|------|-------|---|---------|----|-----------|-----------|--|

#### Volatile Organic Compounds by EPA Method 8021

|                       |             |       |       |    |         |    |           |       |  |
|-----------------------|-------------|-------|-------|----|---------|----|-----------|-------|--|
| Benzene*              | <0.050      | 0.050 | mg/kg | 50 | 6081701 | MS | 17-Aug-16 | 8021B |  |
| Toluene*              | <0.050      | 0.050 | mg/kg | 50 | 6081701 | MS | 17-Aug-16 | 8021B |  |
| Ethylbenzene*         | <0.050      | 0.050 | mg/kg | 50 | 6081701 | MS | 17-Aug-16 | 8021B |  |
| <b>Total Xylenes*</b> | <b>4.17</b> | 0.150 | mg/kg | 50 | 6081701 | MS | 17-Aug-16 | 8021B |  |
| <b>Total BTEX</b>     | <b>4.17</b> | 0.300 | mg/kg | 50 | 6081701 | MS | 17-Aug-16 | 8021B |  |

|  |  |        |  |          |         |    |           |       |  |
|--|--|--------|--|----------|---------|----|-----------|-------|--|
| <i>Surrogate: 4-Bromofluorobenzene (PID)</i> |  | 90.3 % |  | 73.6-140 | 6081701 | MS | 17-Aug-16 | 8021B |  |
|--|--|--------|--|----------|---------|----|-----------|-------|--|

#### Petroleum Hydrocarbons by GC FID

|                        |             |      |       |   |         |    |           |       |  |
|------------------------|-------------|------|-------|---|---------|----|-----------|-------|--|
| <b>GRO C6-C10</b>      | <b>348</b>  | 10.0 | mg/kg | 1 | 6081702 | MS | 17-Aug-16 | 8015B |  |
| <b>DRO &gt;C10-C28</b> | <b>3460</b> | 10.0 | mg/kg | 1 | 6081702 | MS | 17-Aug-16 | 8015B |  |

|                                  |  |       |  |        |         |    |           |       |  |
|----------------------------------|--|-------|--|--------|---------|----|-----------|-------|--|
| <i>Surrogate: 1-Chlorooctane</i> |  | 125 % |  | 35-147 | 6081702 | MS | 17-Aug-16 | 8015B |  |
|----------------------------------|--|-------|--|--------|---------|----|-----------|-------|--|

|                                      |  |       |  |        |         |    |           |       |  |
|--------------------------------------|--|-------|--|--------|---------|----|-----------|-------|--|
| <i>Surrogate: 1-Chlorooctadecane</i> |  | 127 % |  | 28-171 | 6081702 | MS | 17-Aug-16 | 8015B |  |
|--------------------------------------|--|-------|--|--------|---------|----|-----------|-------|--|

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**COG OPERATING  
P. O. BOX 1630  
ARTESIA NM, 88210Project: RED BULL 35 FED #001H  
Project Number: NONE GIVEN  
Project Manager: DAKOTA NEEL  
Fax To: NONEReported:  
23-Aug-16 11:21**AH-1 (1-1.5')  
H601833-02 (Soil)**

| Analyte | Result | MDL | Reporting<br>Limit | Units | Dilution | Batch | Analyst | Analyzed | Method | Notes |
|---------|--------|-----|--------------------|-------|----------|-------|---------|----------|--------|-------|
|---------|--------|-----|--------------------|-------|----------|-------|---------|----------|--------|-------|

**Cardinal Laboratories****Inorganic Compounds**

|          |       |  |      |       |   |         |    |           |           |  |
|----------|-------|--|------|-------|---|---------|----|-----------|-----------|--|
| Chloride | <16.0 |  | 16.0 | mg/kg | 4 | 6081706 | AC | 18-Aug-16 | 4500-Cl-B |  |
|----------|-------|--|------|-------|---|---------|----|-----------|-----------|--|

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

COG OPERATING  
P. O. BOX 1630  
ARTESIA NM, 88210

Project: RED BULL 35 FED #001H  
Project Number: NONE GIVEN  
Project Manager: DAKOTA NEEL  
Fax To: NONE

Reported:  
23-Aug-16 11:21

### AH-2 (0-1') H601833-03 (Soil)

| Analyte | Result | MDL | Reporting Limit | Units | Dilution | Batch | Analyst | Analyzed | Method | Notes |
|---------|--------|-----|-----------------|-------|----------|-------|---------|----------|--------|-------|
|---------|--------|-----|-----------------|-------|----------|-------|---------|----------|--------|-------|

#### Cardinal Laboratories

#### Inorganic Compounds

|          |     |  |      |       |   |         |    |           |           |  |
|----------|-----|--|------|-------|---|---------|----|-----------|-----------|--|
| Chloride | 320 |  | 16.0 | mg/kg | 4 | 6081706 | AC | 18-Aug-16 | 4500-Cl-B |  |
|----------|-----|--|------|-------|---|---------|----|-----------|-----------|--|

#### Volatile Organic Compounds by EPA Method 8021

|                |        |  |       |       |    |         |    |           |       |  |
|----------------|--------|--|-------|-------|----|---------|----|-----------|-------|--|
| Benzene*       | <0.050 |  | 0.050 | mg/kg | 50 | 6081802 | MS | 18-Aug-16 | 8021B |  |
| Toluene*       | <0.050 |  | 0.050 | mg/kg | 50 | 6081802 | MS | 18-Aug-16 | 8021B |  |
| Ethylbenzene*  | <0.050 |  | 0.050 | mg/kg | 50 | 6081802 | MS | 18-Aug-16 | 8021B |  |
| Total Xylenes* | <0.150 |  | 0.150 | mg/kg | 50 | 6081802 | MS | 18-Aug-16 | 8021B |  |
| Total BTEX     | <0.300 |  | 0.300 | mg/kg | 50 | 6081802 | MS | 18-Aug-16 | 8021B |  |

Surrogate: 4-Bromofluorobenzene (PID) 115 % 73.6-140 6081802 MS 18-Aug-16 8021B

#### Petroleum Hydrocarbons by GC FID

|              |      |  |      |       |   |         |    |           |       |  |
|--------------|------|--|------|-------|---|---------|----|-----------|-------|--|
| GRO C6-C10   | 21.5 |  | 10.0 | mg/kg | 1 | 6081702 | MS | 17-Aug-16 | 8015B |  |
| DRO >C10-C28 | 1170 |  | 10.0 | mg/kg | 1 | 6081702 | MS | 17-Aug-16 | 8015B |  |

Surrogate: 1-Chlorooctane 93.9 % 35-147 6081702 MS 17-Aug-16 8015B

Surrogate: 1-Chlorooctadecane 130 % 28-171 6081702 MS 17-Aug-16 8015B

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**COG OPERATING  
P. O. BOX 1630  
ARTESIA NM, 88210Project: RED BULL 35 FED #001H  
Project Number: NONE GIVEN  
Project Manager: DAKOTA NEEL  
Fax To: NONEReported:  
23-Aug-16 11:21**AH-2 (1-1.5')  
H601833-04 (Soil)**

| Analyte | Result | MDL | Reporting<br>Limit | Units | Dilution | Batch | Analyst | Analyzed | Method | Notes |
|---------|--------|-----|--------------------|-------|----------|-------|---------|----------|--------|-------|
|---------|--------|-----|--------------------|-------|----------|-------|---------|----------|--------|-------|

**Cardinal Laboratories****Inorganic Compounds**

|                 |             |  |      |       |   |         |    |           |           |  |
|-----------------|-------------|--|------|-------|---|---------|----|-----------|-----------|--|
| <b>Chloride</b> | <b>48.0</b> |  | 16.0 | mg/kg | 4 | 6081707 | AC | 19-Aug-16 | 4500-Cl-B |  |
|-----------------|-------------|--|------|-------|---|---------|----|-----------|-----------|--|

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

COG OPERATING  
P. O. BOX 1630  
ARTESIA NM, 88210

Project: RED BULL 35 FED #001H  
Project Number: NONE GIVEN  
Project Manager: DAKOTA NEEL  
Fax To: NONE

Reported:  
23-Aug-16 11:21

### Inorganic Compounds - Quality Control

#### Cardinal Laboratories

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

#### Batch 6081706 - 1:4 DI Water

##### Blank (6081706-BLK1)

Prepared: 17-Aug-16 Analyzed: 18-Aug-16

Chloride ND 16.0 mg/kg

##### LCS (6081706-BS1)

Prepared: 17-Aug-16 Analyzed: 18-Aug-16

Chloride 400 16.0 mg/kg 400 100 80-120

##### LCS Dup (6081706-BSD1)

Prepared: 17-Aug-16 Analyzed: 18-Aug-16

Chloride 400 16.0 mg/kg 400 100 80-120 0.00 20

#### Batch 6081707 - 1:4 DI Water

##### Blank (6081707-BLK1)

Prepared: 17-Aug-16 Analyzed: 18-Aug-16

Chloride ND 16.0 mg/kg

##### LCS (6081707-BS1)

Prepared: 17-Aug-16 Analyzed: 18-Aug-16

Chloride 432 16.0 mg/kg 400 108 80-120

##### LCS Dup (6081707-BSD1)

Prepared: 17-Aug-16 Analyzed: 18-Aug-16

Chloride 448 16.0 mg/kg 400 112 80-120 3.64 20

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



### Analytical Results For:

COG OPERATING  
P. O. BOX 1630  
ARTESIA NM, 88210

Project: RED BULL 35 FED #001H  
Project Number: NONE GIVEN  
Project Manager: DAKOTA NEEL  
Fax To: NONE

Reported:  
23-Aug-16 11:21

### Volatile Organic Compounds by EPA Method 8021 - Quality Control

#### Cardinal Laboratories

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

#### Batch 6081701 - Volatiles

##### Blank (6081701-BLK1)

Prepared & Analyzed: 17-Aug-16

|                                       |        |       |       |        |  |     |          |  |  |  |
|---------------------------------------|--------|-------|-------|--------|--|-----|----------|--|--|--|
| Benzene                               | ND     | 0.050 | mg/kg |        |  |     |          |  |  |  |
| Toluene                               | ND     | 0.050 | mg/kg |        |  |     |          |  |  |  |
| Ethylbenzene                          | ND     | 0.050 | mg/kg |        |  |     |          |  |  |  |
| Total Xylenes                         | ND     | 0.150 | mg/kg |        |  |     |          |  |  |  |
| Total BTEX                            | ND     | 0.300 | mg/kg |        |  |     |          |  |  |  |
| Surrogate: 4-Bromofluorobenzene (PID) | 0.0537 |       | mg/kg | 0.0500 |  | 107 | 73.6-140 |  |  |  |

##### LCS (6081701-BS1)

Prepared & Analyzed: 17-Aug-16

|                                       |        |       |       |        |  |     |          |  |  |  |
|---------------------------------------|--------|-------|-------|--------|--|-----|----------|--|--|--|
| Benzene                               | 2.32   | 0.050 | mg/kg | 2.00   |  | 116 | 82.6-122 |  |  |  |
| Toluene                               | 2.37   | 0.050 | mg/kg | 2.00   |  | 119 | 72.9-122 |  |  |  |
| Ethylbenzene                          | 2.29   | 0.050 | mg/kg | 2.00   |  | 114 | 65.4-131 |  |  |  |
| Total Xylenes                         | 6.90   | 0.150 | mg/kg | 6.00   |  | 115 | 73.8-125 |  |  |  |
| Surrogate: 4-Bromofluorobenzene (PID) | 0.0538 |       | mg/kg | 0.0500 |  | 108 | 73.6-140 |  |  |  |

##### LCS Dup (6081701-BSD1)

Prepared & Analyzed: 17-Aug-16

|                                       |        |       |       |        |  |     |          |      |      |  |
|---------------------------------------|--------|-------|-------|--------|--|-----|----------|------|------|--|
| Benzene                               | 2.35   | 0.050 | mg/kg | 2.00   |  | 117 | 82.6-122 | 1.22 | 8.23 |  |
| Toluene                               | 2.41   | 0.050 | mg/kg | 2.00   |  | 120 | 72.9-122 | 1.57 | 8.71 |  |
| Ethylbenzene                          | 2.33   | 0.050 | mg/kg | 2.00   |  | 116 | 65.4-131 | 1.73 | 9.46 |  |
| Total Xylenes                         | 7.00   | 0.150 | mg/kg | 6.00   |  | 117 | 73.8-125 | 1.52 | 8.66 |  |
| Surrogate: 4-Bromofluorobenzene (PID) | 0.0530 |       | mg/kg | 0.0500 |  | 106 | 73.6-140 |      |      |  |

#### Batch 6081802 - Volatiles

##### Blank (6081802-BLK1)

Prepared & Analyzed: 18-Aug-16

|                                       |        |       |       |        |  |     |          |  |  |  |
|---------------------------------------|--------|-------|-------|--------|--|-----|----------|--|--|--|
| Benzene                               | ND     | 0.050 | mg/kg |        |  |     |          |  |  |  |
| Toluene                               | ND     | 0.050 | mg/kg |        |  |     |          |  |  |  |
| Ethylbenzene                          | ND     | 0.050 | mg/kg |        |  |     |          |  |  |  |
| Total Xylenes                         | ND     | 0.150 | mg/kg |        |  |     |          |  |  |  |
| Total BTEX                            | ND     | 0.300 | mg/kg |        |  |     |          |  |  |  |
| Surrogate: 4-Bromofluorobenzene (PID) | 0.0536 |       | mg/kg | 0.0500 |  | 107 | 73.6-140 |  |  |  |

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

COG OPERATING  
P. O. BOX 1630  
ARTESIA NM, 88210

Project: RED BULL 35 FED #001H  
Project Number: NONE GIVEN  
Project Manager: DAKOTA NEEL  
Fax To: NONE

Reported:  
23-Aug-16 11:21

**Volatile Organic Compounds by EPA Method 8021 - Quality Control**
**Cardinal Laboratories**

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

**Batch 6081802 - Volatiles**
**LCS (6081802-BS1)**

Prepared &amp; Analyzed: 18-Aug-16

|                                       |        |       |       |        |  |     |          |  |  |  |
|---------------------------------------|--------|-------|-------|--------|--|-----|----------|--|--|--|
| Benzene                               | 2.30   | 0.050 | mg/kg | 2.00   |  | 115 | 82.6-122 |  |  |  |
| Toluene                               | 2.35   | 0.050 | mg/kg | 2.00   |  | 117 | 72.9-122 |  |  |  |
| Ethylbenzene                          | 2.25   | 0.050 | mg/kg | 2.00   |  | 113 | 65.4-131 |  |  |  |
| Total Xylenes                         | 6.81   | 0.150 | mg/kg | 6.00   |  | 113 | 73.8-125 |  |  |  |
| Surrogate: 4-Bromofluorobenzene (PID) | 0.0535 |       | mg/kg | 0.0500 |  | 107 | 73.6-140 |  |  |  |

**LCS Dup (6081802-BS1)**

Prepared &amp; Analyzed: 18-Aug-16

|                                       |        |       |       |        |  |     |          |      |      |  |
|---------------------------------------|--------|-------|-------|--------|--|-----|----------|------|------|--|
| Benzene                               | 2.34   | 0.050 | mg/kg | 2.00   |  | 117 | 82.6-122 | 1.39 | 8.23 |  |
| Toluene                               | 2.38   | 0.050 | mg/kg | 2.00   |  | 119 | 72.9-122 | 1.25 | 8.71 |  |
| Ethylbenzene                          | 2.29   | 0.050 | mg/kg | 2.00   |  | 115 | 65.4-131 | 1.81 | 9.46 |  |
| Total Xylenes                         | 6.94   | 0.150 | mg/kg | 6.00   |  | 116 | 73.8-125 | 1.86 | 8.66 |  |
| Surrogate: 4-Bromofluorobenzene (PID) | 0.0530 |       | mg/kg | 0.0500 |  | 106 | 73.6-140 |      |      |  |

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

COG OPERATING  
P. O. BOX 1630  
ARTESIA NM, 88210

Project: RED BULL 35 FED #001H  
Project Number: NONE GIVEN  
Project Manager: DAKOTA NEEL  
Fax To: NONE

Reported:  
23-Aug-16 11:21

### Petroleum Hydrocarbons by GC FID - Quality Control

#### Cardinal Laboratories

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

#### Batch 6081702 - General Prep - Organics

##### Blank (6081702-BLK1)

Prepared & Analyzed: 17-Aug-16

|                               |      |      |       |      |  |      |        |  |  |  |
|-------------------------------|------|------|-------|------|--|------|--------|--|--|--|
| GRO C6-C10                    | ND   | 10.0 | mg/kg |      |  |      |        |  |  |  |
| DRO >C10-C28                  | ND   | 10.0 | mg/kg |      |  |      |        |  |  |  |
| EXT DRO >C28-C35              | ND   | 10.0 | mg/kg |      |  |      |        |  |  |  |
| Total TPH C6-C28              | ND   | 10.0 | mg/kg |      |  |      |        |  |  |  |
| Surrogate: 1-Chlorooctane     | 47.6 |      | mg/kg | 50.0 |  | 95.1 | 35-147 |  |  |  |
| Surrogate: 1-Chlorooctadecane | 52.0 |      | mg/kg | 50.0 |  | 104  | 28-171 |  |  |  |

##### LCS (6081702-BS1)

Prepared & Analyzed: 17-Aug-16

|                               |      |      |       |      |  |      |          |  |  |  |
|-------------------------------|------|------|-------|------|--|------|----------|--|--|--|
| GRO C6-C10                    | 189  | 10.0 | mg/kg | 200  |  | 94.3 | 76.7-115 |  |  |  |
| DRO >C10-C28                  | 198  | 10.0 | mg/kg | 200  |  | 98.9 | 78.3-122 |  |  |  |
| Total TPH C6-C28              | 386  | 10.0 | mg/kg | 400  |  | 96.6 | 79.8-117 |  |  |  |
| Surrogate: 1-Chlorooctane     | 49.3 |      | mg/kg | 50.0 |  | 98.6 | 35-147   |  |  |  |
| Surrogate: 1-Chlorooctadecane | 52.8 |      | mg/kg | 50.0 |  | 106  | 28-171   |  |  |  |

##### LCS Dup (6081702-BSD1)

Prepared & Analyzed: 17-Aug-16

|                               |      |      |       |      |  |     |          |      |      |  |
|-------------------------------|------|------|-------|------|--|-----|----------|------|------|--|
| GRO C6-C10                    | 204  | 10.0 | mg/kg | 200  |  | 102 | 76.7-115 | 7.74 | 9.42 |  |
| DRO >C10-C28                  | 212  | 10.0 | mg/kg | 200  |  | 106 | 78.3-122 | 7.06 | 13.2 |  |
| Total TPH C6-C28              | 416  | 10.0 | mg/kg | 400  |  | 104 | 79.8-117 | 7.39 | 10.7 |  |
| Surrogate: 1-Chlorooctane     | 51.7 |      | mg/kg | 50.0 |  | 103 | 35-147   |      |      |  |
| Surrogate: 1-Chlorooctadecane | 56.1 |      | mg/kg | 50.0 |  | 112 | 28-171   |      |      |  |

Cardinal Laboratories

\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

|     |  |
|-----|--|
| ND  | Analyte NOT DETECTED at or above the reporting limit   |
| RPD | Relative Percent Difference  |
| **  | Samples not received at proper temperature of 6°C or below.  |
| *** | Insufficient time to reach temperature.  |
| -   | Chloride by SM4500Cl-B does not require samples be received at or below 6°C<br>Samples reported on an as received basis (wet) unless otherwise noted on report |

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

# Analysis Request of Chain of Custody Record



**TETRA TECH**

1910 N. Big Spring St.  
Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

**H1601833**

CLIENT NAME:

**COX**

SITE MANAGER:

**Adrian Garcia**

PROJECT NO.:

**dlc-M-0605**

PROJECT NAME:

**COX - Red Bull 25 Fed #001 H**

LAB I.D. NUMBER

DATE

TIME

MATRIX

COMP.

GRAB

SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

FILTERED (Y/N)

HCL

HNO3

ICE

NONE

PRESERVATIVE METHOD

**STEX 8021B**

**TPH 8015 MOD. TX1005 (Ext. to C35)**

PAH 8270

RCRA Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Metals Ag As Ba Cd Vr Pd Hg Se

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC.MS Vol. 8240/8260/624

GC.MS Semi. Vol. 8270/625

PCB's 8080/608

Pest. 808/608

**Chloride**

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

PAGE:

OF:

ANALYSIS REQUEST  
(Circle or Specify Method No.)

|                                 |                |                              |                |
|---------------------------------|----------------|------------------------------|----------------|
| RELINQUISHED BY: (Signature)    | Date:          | RELINQUISHED BY: (Signature) | Date:          |
| <b>Adrian Garcia</b>            | <b>8/14/15</b> | <b>Adrian Garcia</b>         | <b>8/14/15</b> |
| RELINQUISHED BY: (Signature)    | Date:          | RELINQUISHED BY: (Signature) | Date:          |
|                                 |                |                              |                |
| RELINQUISHED BY: (Signature)    | Date:          | RELINQUISHED BY: (Signature) | Date:          |
|                                 |                |                              |                |
| RECEIVING LABORATORY:           | State:         | RECEIVED BY: (Signature)     | Date:          |
| <b>Cardinal</b>                 | <b>NM</b>      | <b>Adrian Garcia</b>         | <b>8/14/15</b> |
| ADDRESS:                        | CITY:          | STATE:                       | ZIP:           |
|                                 |                |                              |                |
| CONTACT:                        | PHONE:         | DATE:                        | TIME:          |
|                                 |                |                              |                |
| SAMPLE CONDITION WHEN RECEIVED: | REMARKS:       |                              |                |
| <b>3.5e</b>                     | <b>#75</b>     |                              |                |