

APPROVED

By Kristen Lynch at 7:39 am, Nov 14, 2016



Coogan Federal Battery #1 & #3

CLOSURE REPORT

API No. 30-025-30338

Release Date: Unknown

Unit Letter K, Section 1, Township 21 South, Range 37 East

NMOCD Case #: 1R-4385

October 19, 2016

Prepared by:

Laura Flores

Environmental Department

Diversified Field Service, Inc.

206 W. Snyder

Hobbs, NM 88240

Phone: (575)964-8394

Fax: (575)393-8396

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Coogan Federal Battery #1 and #3

1 INTRODUCTION

Sheridan Production Company, LLC (Sheridan) has retained Diversified Environmental (DFSI) to address environmental issues for the site detailed herein.

The site is located northeast of Eunice, NM, in Lea County. The spill site resulted from a hole in the oil storage tank. A total of approximately 20 barrels of oil was released with 15 barrels of recovered. An initial C-141 was submitted to NMOCD on August 1, 2016 and approved on August 2, 2016 (Appendix I).

2 SITE ACTIVITIES

On September 13, 2016 DFSI personnel were on site to obtain samples within the leak area (Figure 1). Three samples were obtained and field sampled for chloride levels, as well as BTEX. The BTEX samples were performed using a Mini Rae Photoionization Detector (PID). Clean field samples were submitted for laboratory analysis at Cardinal Laboratory of Hobbs, NM to obtain confirmation (Appendix II).

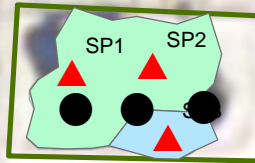
Beginning October 6, 2016, the area around SP3 was excavated to a depth of 2' bgs. The areas around SP1 and SP2 were excavated to a depth of 1.5' bgs. The excavation and scraped areas were backfilled with clean, imported soil to ground surface and contoured to the surrounding area. Seeding of the site was not warranted (Appendix III).

3 CONCLUSION

According to the U.S. Geological Survey and the NM Office of the State Engineer, the average depth to groundwater is approximately 45' bgs (Appendix IV). Any remaining constituents will be addressed during the site abandonment activities and reclamation; therefore, DFSI, on behalf of Sheridan, submits the final C-141 (Appendix V) and respectfully requests the closure of this regulatory file.

Site Diagram

| SP1 | | | | | | | | | | SP2 | | | | | | | | | | SP3 | | |
|-------|-----|------|---------|-----|-----|-------|-------|-------|-------|-------|-----|-------|---------|-----|-----|-------|-------|-------|-------|-------|-----|-------|
| Depth | Cl- | PID | Lab Cl- | GRO | DRO | B | T | E | X | Depth | Cl- | PID | Lab Cl- | GRO | DRO | B | T | E | X | Depth | Cl- | PID |
| SS | 299 | 89.9 | | | | | | | | SS | 374 | 89.9 | | | | | | | | SS | 374 | 157.7 |
| 1' | 299 | 89.9 | | | | | | | | 1' | 499 | 80.6 | | | | | | | | 1' | 449 | 211.6 |
| 2' | 199 | 74.9 | | | | | | | | 2' | 199 | 214.6 | | | | | | | | 2' | 199 | 301.2 |
| 3' | 150 | 92 | | | | | | | | 3' | 274 | 153.6 | | | | | | | | 3' | 424 | 227.3 |
| 4' | 224 | 42.6 | | | | | | | | 4' | 349 | 23.3 | 144 | <10 | 137 | <0.05 | <0.05 | 0.05 | <0.15 | 4' | 249 | 29.8 |
| 5' | 224 | 33.6 | | | | | | | | 5' | 224 | 11 | 32 | <10 | <10 | <0.05 | <0.05 | <0.05 | <0.15 | 5' | 249 | 115.5 |
| 6' | 349 | 6.1 | 112 | <10 | <10 | <0.05 | <0.05 | <0.05 | <0.15 | | | | | | | | | | | 6' | 249 | 12.1 |
| 7' | 349 | 0.4 | 96 | <10 | <10 | <0.05 | <0.05 | <0.05 | <0.15 | | | | | | | | | | | 7' | 374 | 80.6 |
| | | | | | | | | | | | | | | | | | | | | 8' | 449 | 35.4 |
| | | | | | | | | | | | | | | | | | | | | 9' | 349 | 113.5 |
| | | | | | | | | | | | | | | | | | | | | 10' | 499 | 42.9 |
| | | | | | | | | | | | | | | | | | | | | 11' | 524 | 54.4 |
| | | | | | | | | | | | | | | | | | | | | 12' | 399 | 23.1 |
| | | | | | | | | | | | | | | | | | | | | 13' | 249 | 107.7 |
| | | | | | | | | | | | | | | | | | | | | 14' | 324 | 49.9 |
| | | | | | | | | | | | | | | | | | | | | 15' | 249 | 31.9 |
| | | | | | | | | | | | | | | | | | | | | 16' | 474 | 78.6 |
| | | | | | | | | | | | | | | | | | | | | 17' | 474 | 78.5 |



Legend

- Tanks
- Sample Points
- Battery Containment
- Caliche Pad
- Caliche Pile
- Oil (1606 sq ft)

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Sheridan
Coogan Federal Battery #1
Unit Letter K, Section 1, T21S, R37E
API #: 30-025-30338
NMOCD Case: 1R-4385



Drafted by: L Flores
 Date: 09/15/2016
 0 12.525 50 75 100
 Feet

Appendix I

INITIAL C-141

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

| | | |
|---|--|-----------------------|
| Name of Company: Sheridan Production Company, LLC | Contact: Ed Hamblin | |
| Address: | Telephone No.: 432.813.4831 | |
| Facility Name: Coogan Federal Battery #1 & #3 | Facility Type: Oil Storage Battery | |
| Surface Owner: To Be Provided On Final | Mineral Owner: To Be Provided On Final | API No.: NMLC-0655525 |

LOCATION OF RELEASE

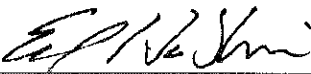
| | | | | | | | | |
|----------------------|--------------|-----------------|--------------|---------------|------------------|---------------|----------------|---------------|
| Unit Letter NE SW | Section 1 | Township 21S | Range 37E | Feet from the | North/South Line | Feet from the | East/West Line | County Lea |
|----------------------|--------------|-----------------|--------------|---------------|------------------|---------------|----------------|---------------|

Latitude 32.5140915 Longitude -103.1173477

NATURE OF RELEASE

| | | |
|--|---|--|
| Type of Release: Crude Oil | Volume of Release: 20 BBL | Volume Recovered: 15 BBL |
| Source of Release: Oil Storage Tank | Date and Hour of Occurrence: 7/27/2016 8:15 AM | Date and Hour of Discovery: 7/27/2016 8:15 AM |
| Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required | If YES, To Whom? Jim Amos (BLM) | |
| By Whom? Ed Hamblin | Date and Hour 7/28/2016 4:44 PM | |
| 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.* N/A | | |
| Describe Cause of Problem and Remedial Action Taken.* Oil storage tank developed a hole in the bottom along the seam. A vacuum truck was mobilized upon discovery and recovered freestanding fluid. | | |
| Describe Area Affected and Cleanup Action Taken.* The area affected was contained inside of the berm. Vertical & horizontal delineation will be determined and a cleanup plan of action will be prepared. | | |

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:  | | OIL CONSERVATION DIVISION | |
| Printed Name: Ed Hamblin | | Approved by Environmental Specialist: | |
| Title: EHS Coordinator | | Approval Date: 08/02/2016 | Expiration Date: 10/02/2016 |
| E-mail Address: ed.hamblin@sheridanproduction.com | | Conditions of Approval: Discrete samples only. Delineate and remediate per NMOCD guidelines. | Attached <input type="checkbox"/> IRP 4385 |
| Date: 8/1/2016 | Phone: 432.813.4831 | | |

* Attach Additional Sheets If Necessary

nJXK1621554732
pJXK1621554788

Appendix II

LABORATORY ANALYSIS

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

September 20, 2016

ED HAMBLIN

SHERIDAN PRODUCTION COMPANY,LLC

1602 W. BROADWAY

ANDREWS, TX 79714

RE: COOGAN 1 & 3 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 09/15/16 10:15.

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/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

SHERIDAN PRODUCTION COMPANY,LLC
ED HAMBLIN
1602 W. BROADWAY
ANDREWS TX, 79714
Fax To: (432) 523-1099

| | | | |
|-------------------|----------------------|---------------------|---------------|
| Received: | 09/15/2016 | Sampling Date: | 09/13/2016 |
| Reported: | 09/20/2016 | Sampling Type: | Soil |
| Project Name: | COOGAN 1 & 3 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Jodi Henson |
| Project Location: | NOT GIVEN | | |

Sample ID: SP 1 @ 6' (H602072-01)

| BTX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 09/16/2016 | ND | 2.17 | 109 | 2.00 | 1.46 | |
| Toluene* | <0.050 | 0.050 | 09/16/2016 | ND | 2.22 | 111 | 2.00 | 1.09 | |
| Ethylbenzene* | <0.050 | 0.050 | 09/16/2016 | ND | 2.13 | 106 | 2.00 | 1.02 | |
| Total Xylenes* | <0.150 | 0.150 | 09/16/2016 | ND | 6.39 | 107 | 6.00 | 0.838 | |
| Total BTX | <0.300 | 0.300 | 09/16/2016 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 73.6-140

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 112 | 16.0 | 09/15/2016 | ND | 432 | 108 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 09/16/2016 | ND | 182 | 91.0 | 200 | 5.31 | |
| DRO >C10-C28 | <10.0 | 10.0 | 09/16/2016 | ND | 192 | 95.8 | 200 | 7.89 | |

Surrogate: 1-Chlorooctane 96.3 % 35-147

Surrogate: 1-Chlorooctadecane 104 % 28-171

Cardinal Laboratories

*=Accredited Analyte

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ED HAMBLIN
1602 W. BROADWAY
ANDREWS TX, 79714
Fax To: (432) 523-1099

| | | | |
|-------------------|----------------------|---------------------|---------------|
| Received: | 09/15/2016 | Sampling Date: | 09/13/2016 |
| Reported: | 09/20/2016 | Sampling Type: | Soil |
| Project Name: | COOGAN 1 & 3 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Jodi Henson |
| Project Location: | NOT GIVEN | | |

Sample ID: SP 1 @ 7' (H602072-02)

| BTEx 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 09/16/2016 | ND | 2.17 | 109 | 2.00 | 1.46 | |
| Toluene* | <0.050 | 0.050 | 09/16/2016 | ND | 2.22 | 111 | 2.00 | 1.09 | |
| Ethylbenzene* | <0.050 | 0.050 | 09/16/2016 | ND | 2.13 | 106 | 2.00 | 1.02 | |
| Total Xylenes* | <0.150 | 0.150 | 09/16/2016 | ND | 6.39 | 107 | 6.00 | 0.838 | |
| Total BTEX | <0.300 | 0.300 | 09/16/2016 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 73.6-140

| Chloride, SM4500Cl-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 96.0 | 16.0 | 09/15/2016 | ND | 432 | 108 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 09/16/2016 | ND | 182 | 91.0 | 200 | 5.31 | |
| DRO >C10-C28 | <10.0 | 10.0 | 09/16/2016 | ND | 192 | 95.8 | 200 | 7.89 | |

Surrogate: 1-Chlorooctane 94.2 % 35-147

Surrogate: 1-Chlorooctadecane 105 % 28-171

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ED HAMBLIN
1602 W. BROADWAY
ANDREWS TX, 79714
Fax To: (432) 523-1099

| | | | |
|-------------------|----------------------|---------------------|---------------|
| Received: | 09/15/2016 | Sampling Date: | 09/13/2016 |
| Reported: | 09/20/2016 | Sampling Type: | Soil |
| Project Name: | COOGAN 1 & 3 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Jodi Henson |
| Project Location: | NOT GIVEN | | |

Sample ID: SP 2 @ 4' (H602072-03)

| BTEx 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 09/16/2016 | ND | 2.17 | 109 | 2.00 | 1.46 | |
| Toluene* | <0.050 | 0.050 | 09/16/2016 | ND | 2.22 | 111 | 2.00 | 1.09 | |
| Ethylbenzene* | 0.050 | 0.050 | 09/16/2016 | ND | 2.13 | 106 | 2.00 | 1.02 | |
| Total Xylenes* | <0.150 | 0.150 | 09/16/2016 | ND | 6.39 | 107 | 6.00 | 0.838 | |
| Total BTEx | <0.300 | 0.300 | 09/16/2016 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.6-140

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 144 | 16.0 | 09/15/2016 | ND | 432 | 108 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 09/16/2016 | ND | 182 | 91.0 | 200 | 5.31 | |
| DRO >C10-C28 | 137 | 10.0 | 09/16/2016 | ND | 192 | 95.8 | 200 | 7.89 | |

Surrogate: 1-Chlorooctane 97.5 % 35-147

Surrogate: 1-Chlorooctadecane 111 % 28-171

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*=Accredited Analyte

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Analytical Results For:

SHERIDAN PRODUCTION COMPANY,LLC
ED HAMBLIN
1602 W. BROADWAY
ANDREWS TX, 79714
Fax To: (432) 523-1099

| | | | |
|-------------------|----------------------|---------------------|---------------|
| Received: | 09/15/2016 | Sampling Date: | 09/13/2016 |
| Reported: | 09/20/2016 | Sampling Type: | Soil |
| Project Name: | COOGAN 1 & 3 BATTERY | Sampling Condition: | Cool & Intact |
| Project Number: | NONE GIVEN | Sample Received By: | Jodi Henson |
| Project Location: | NOT GIVEN | | |

Sample ID: SP 2 @ 5' (H602072-04)

| BTX 8021B | | mg/kg | | Analyzed By: MS | | | | | |
|----------------|--------|-----------------|------------|-----------------|------|------------|---------------|-------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Benzene* | <0.050 | 0.050 | 09/16/2016 | ND | 2.17 | 109 | 2.00 | 1.46 | |
| Toluene* | <0.050 | 0.050 | 09/16/2016 | ND | 2.22 | 111 | 2.00 | 1.09 | |
| Ethylbenzene* | <0.050 | 0.050 | 09/16/2016 | ND | 2.13 | 106 | 2.00 | 1.02 | |
| Total Xylenes* | <0.150 | 0.150 | 09/16/2016 | ND | 6.39 | 107 | 6.00 | 0.838 | |
| Total BTX | <0.300 | 0.300 | 09/16/2016 | ND | | | | | |

Surrogate: 4-Bromofluorobenzene (PID) 98.5 % 73.6-140

| Chloride, SM4500CI-B | | mg/kg | | Analyzed By: AC | | | | | |
|----------------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| Chloride | 32.0 | 16.0 | 09/15/2016 | ND | 432 | 108 | 400 | 0.00 | |

| TPH 8015M | | mg/kg | | Analyzed By: MS | | | | | |
|--------------|--------|-----------------|------------|-----------------|-----|------------|---------------|------|-----------|
| Analyte | Result | Reporting Limit | Analyzed | Method Blank | BS | % Recovery | True Value QC | RPD | Qualifier |
| GRO C6-C10 | <10.0 | 10.0 | 09/16/2016 | ND | 182 | 91.0 | 200 | 5.31 | |
| DRO >C10-C28 | <10.0 | 10.0 | 09/16/2016 | ND | 192 | 95.8 | 200 | 7.89 | |

Surrogate: 1-Chlorooctane 95.0 % 35-147

Surrogate: 1-Chlorooctadecane 105 % 28-171

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

| | |
|-------|---|
| S-06 | The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's. |
| QR-03 | The RPD value for the sample duplicate or MS/MSD was outside if QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values. |
| QM-07 | The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery. |
| 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 Samples reported on an as received basis (wet) unless otherwise noted on report |

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------|--------------------------|-------------------------|-------------------------|------------|----------|-----|----------|-------|-----------|------------|-------|----------------|-------------|-----------|------------|--------------|--|--|--|--|--|--|--|--|--|--|
| Company Name: <u>Sheridan</u> | | BILL TO | | ANALYSIS REQUEST | | | | | | | | | | | | | | | | | | | | | | | |
| Project Manager: <u>Ed Hamblin</u> | | P.O. #: | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address: | | Company: <u>Sheridan</u> | | | | | | | | | | | | | | | | | | | | | | | | | |
| City: | State: | Zip: | Attn: <u>Ed Hamblin</u> | | | | | | | | | | | | | | | | | | | | | | | | |
| Phone #: | Fax #: | | Address: | | | | | | | | | | | | | | | | | | | | | | | | |
| Project #: | Project Owner: | | City: | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Name: | | | State: | | | | | | | | | | | | | Zip: | | | | | | | | | | | |
| Project Location: <u>Coolman - 1+3 Bat</u> | | | Phone #: | | | | | | | | | | | | | | | | | | | | | | | | |
| Sampler Name: <u>Rulay Alvarez</u> | | | Fax #: | | | | | | | | | | | | | | | | | | | | | | | | |
| FOR LAB USE ONLY | | | | MATRIX | | PRESERV. | | SAMPLING | | | | | | | | | | | | | | | | | | | |
| Lab I.D. | Sample I.D. | (GRAB OR COMPOUND) | # CONTAINERS | GROUNDWATER | WASTEWATER | SOIL | OIL | SLUDGE | OTHER | ACID/BASE | ICE / COOL | OTHER | DATE | TIME | | | | | | | | | | | | | |
| <u>H602072</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <u>1</u> | <u>SP2@6'</u> | <u>1</u> | <u>1</u> | | | <u>X</u> | | | | <u>X</u> | | | <u>9-13-14</u> | <u>2:06</u> | <u>CL</u> | <u>Tph</u> | <u>B.Tex</u> | | | | | | | | | | |
| <u>2</u> | <u>SP2@7'</u> | <u>1</u> | <u>1</u> | | | <u>X</u> | | | | <u>X</u> | | | <u>9-13-14</u> | <u>2:19</u> | <u>CL</u> | <u>Tph</u> | <u>B.Tex</u> | | | | | | | | | | |
| <u>3</u> | <u>SP2@4'</u> | <u>1</u> | <u>1</u> | | | <u>X</u> | | | | <u>X</u> | | | <u>9-13-14</u> | <u>2:48</u> | <u>CL</u> | <u>Tph</u> | <u>B.Tex</u> | | | | | | | | | | |
| <u>4</u> | <u>SP2@5'</u> | <u>1</u> | <u>1</u> | | | <u>X</u> | | | | <u>X</u> | | | <u>9-13-14</u> | <u>3:26</u> | <u>CL</u> | <u>Tph</u> | <u>B.Tex</u> | | | | | | | | | | |

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal regardless of whether such claim is based upon any of the above stated reasons or otherwise.

| | | | | |
|---------------------------------------|----------------------|--|--|----------------|
| Relinquished By: <u>Rulay Alvarez</u> | Date: <u>9/15/16</u> | Received By: <u>Jodi Benson</u> | Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No | Add'l Phone #: |
| Relinquished By: | Time: <u>10:15</u> | Received By: | Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No | Add'l Fax #: |
| Delivered By: (Circle One) | Date: | Sample Condition | REMARKS: | |
| Sampler - UPS - Bus - Other: | Time: | Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Email to: <u>eflores@diversifiedcsi.com</u> <u>m alves</u> <u>m burton</u> <u>m patterson</u> | |
| | | CHECKED BY: <u>[Signature]</u> | | |

Appendix III

PHOTO DOCUMENTATION

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

COOGAN FEDERAL BATTERY #1 AND #3

PHOTO PAGE



Site prior, facing south

09/13/2016



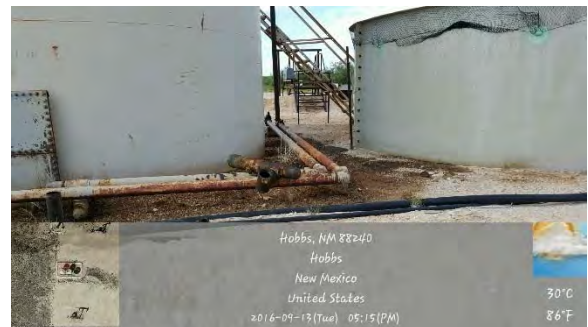
Site prior, facing north

09/13/2016



Site prior, facing east

09/13/2016



Site prior, facing north

09/13/2016



Handshoveling site



Exporting contaminated soil



Excavation completed



Excavation completed



Site backfilled



Site completed



Site completed



Site completed

Appendix IV

GROUNDWATER STUDY

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394



New Mexico Office of the State Engineer **Water Column/Average Depth to Water**

No records found.

PLSS Search:

Section(s): 25, 26, 27, 34, 35, 36 **Township:** 20S **Range:** 37E



New Mexico Office of the State Engineer **Water Column/Average Depth to Water**

No records found.

PLSS Search:

Section(s): 30, 29, 31, 32 **Township:** 20S **Range:** 38E



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 |
|-------------------------------|--------------|-------|--------|------|------|-----|-----|-----|-----|--------|----------|------------|-------------|--------------|
| CP 00137 | | | LE | 2 | 2 | 1 | 13 | 21S | 37E | 676862 | 3595783* | 65 | | |
| CP 00197 | O | | LE | 1 | 4 | 1 | 01 | 21S | 37E | 676611 | 3598599* | 85 | | |
| CP 00197 POD1 | | CP | LE | 1 | 4 | 1 | 01 | 21S | 37E | 676611 | 3598599* | 85 | | |
| CP 01141 POD2 | | | LE | 3 | 4 | 3 | 15 | 21S | 37E | 673541 | 3594250 | 40 | | |
| CP 01141 POD3 | | | LE | 3 | 4 | 3 | 15 | 21S | 37E | 673541 | 3594250 | 40 | | |
| CP 01141 POD4 | | | LE | 3 | 4 | 3 | 15 | 21S | 37E | 673541 | 3594250 | 45 | | |
| CP 01185 POD1 | | | LE | | 1 | 3 | 14 | 21S | 37E | 674598 | 3594689 | 70 | | |
| CP 01185 POD2 | | | LE | | 1 | 3 | 14 | 21S | 37E | 674623 | 3594674 | 70 | | |
| CP 01185 POD3 | | | LE | | 1 | 3 | 14 | 21S | 37E | 674592 | 3594620 | 70 | | |
| CP 01185 POD4 | | | LE | | 1 | 3 | 14 | 21S | 37E | 674633 | 3594610 | 70 | | |
| CP 01221 POD1 | | | LE | 4 | 4 | 4 | 11 | 21S | 37E | 676254 | 3588506 | 75 | 60 | 15 |
| CP 01574 POD1 | | CP | LE | 2 | 4 | 4 | 15 | 21S | 37E | 674563 | 3594599 | 68 | 57 | 11 |
| CP 01574 POD2 | | CP | LE | 1 | 3 | 3 | 14 | 21S | 37E | 674654 | 3594594 | 68 | 57 | 11 |

Average Depth to Water: **58 feet**

Minimum Depth: **57 feet**

Maximum Depth: **60 feet**

Record Count: 13

PLSS Search:

Section(s): 1, 2, 3, 10, 11, 12, 13, 14, 15 Township: 21S Range: 37E

*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.



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 |
|--------------------------|--------------|-------|--------|------|------|-----|-----|-----|-----|--------|----------|------------|-------------|--------------|
| CP 00442 | | | ED | | 4 | 05 | 21S | 38E | | 680550 | 3597966* | 532 | 17 | 515 |
| CP 00678 | | | ED | | 3 | 17 | 21S | 38E | | 679802 | 3594732* | 125 | 37 | 88 |
| CP 00705 | | | ED | 1 | 4 | 3 | 17 | 21S | 38E | 679903 | 3594637* | 160 | | |

Average Depth to Water: **27 feet**

Minimum Depth: **17 feet**

Maximum Depth: **37 feet**

Record Count: 3

PLSS Search:

Section(s): 5, 6, 7, 8, 17, 18 **Township:** 21S **Range:** 38E

*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 V

FINAL C-141

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

| | | |
|---|------------------------------------|----------------------|
| Name of Company: Sheridan Production Company, LLC | Contact: Ed Hamblin | |
| Address: 1602 W Broadway, Andrews, TX 79714 | Telephone No.: 432-813-4831 | |
| Facility Name: Coogan Federal Battery #1 & #3 | Facility Type: Oil Storage Battery | |
| Surface Owner: Federal | Mineral Owner: Federal | API No. 30-025-30338 |

LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|--------|
| K | I | 21S | 37E | 2875 | North | 2310 | West | Lea |

Latitude 32.514064 Longitude -103.118170

NATURE OF RELEASE

| | | |
|--|---|--|
| Type of Release Spill: Crude Oil | Volume of Release: 20 bbls | Volume Recovered: 15 bbls |
| Source of Release: Oil Storage Tank | Date and Hour of Occurrence 07/27/2016 8:15 am | Date and Hour of Discovery 07/27/2016 8:15 am |
| Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required | If YES, To Whom? Jim Amos (BLM) | |
| By Whom? Ed Hamblin | Date and Hour: 7/28/2016 4:45 pm | |
| 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.*

Oil storage tank developed a hole in the bottom along the seam. A vacuum truck was mobilized upon discovery and recovered freestanding fluid. The area affected was contained inside of the berm.

Describe Area Affected and Cleanup Action Taken.*

On September 13, 2016 DFSI personnel were on site to obtain samples within the leak area. Three samples were obtained and field sampled for chloride levels, as well as BTEX. The BTEX samples were performed using a Mini Rae Photoionization Detector (PID). Clean field samples were submitted for laboratory analysis at Cardinal Laboratory of Hobbs, NM to obtain confirmation. Beginning October 6, 2016, the area around SP3 was excavated to a depth of 2' bgs. The areas around SP1 and SP2 were excavated to a depth of 1.5' bgs. The excavation and scraped areas were backfilled with clean, imported soil to ground surface and contoured to the surrounding area. Seeding of the site was not warranted.

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:  | OIL CONSERVATION DIVISION | |
| Printed Name: Ed Hamblin | Approved by Environmental Specialist:  | |
| Title: EHS Coordinator | Approval Date: 11/14/2016 | Expiration Date: N/A |
| E-mail Address: ed.hamblin@sheridanproduction.com | Conditions of Approval: N/A | Attached <input type="checkbox"/> |
| Date: 10/17/2016 | Phone: 432-813-4831 | |

* Attach Additional Sheets If Necessary

pJXK1621554788