# R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745


RECEIVED
By OCD; Dr. Oberding at 11:37 am, May 18, 2015

April 24, 2015

APPROVED Conditionally
By OCD; Dr. Oberding at 11:37 am, May 18, 2015
Please provide photodocumentation for final release.

Dr. Tomas Oberding
NMOCD District 1
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Via E-Mail

RE: Harris #1, CML Exploration LLC.
Closure Report, API Number 30-025-41365

Dear Dr. Oberding:

R.T. Hicks Consultants, Ltd. is pleased to submit this Closure Report for the above referenced site. f you have any questions or concerns, please contact us at 505-266-5004. Thank you for your time and attention.

Sincerely,
R.T. Hicks Consultants

David J. Hamilton

David Hamilton
Project Scientist

# R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745


April 24, 2015

Dr. Tomas Oberding
NMOCD District 1
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Via E-Mail and Mail

RE: Harris #1, CML Exploration LLC. Closure Report

Dear Dr. Oberding:

In keeping with the requirements of the approved C-144 closure plan for the temporary pit, this report includes the following information listed in Part 24 of the C-144 form.

| **Required Information** | **Location in Submission** |
|---|---|
| Proof of Closure Notice (to surface owner and Division | Attachment 1 |
| Proof of Deed Notice (required for on-site closure) | Attachment 2 |
| Plot Plan (for on-site closures and temporary pits) | Attachment 3 (C-105 and Plate 1) |
| Confirmation Sampling Analytical Results | Not Applicable with in-place burial |
| Waste Material Sampling Analytical Results (required for on-site closure) | Attachment 4 |
| Disposal Facility Name and Permit Number | Not Applicable |
| Soil Backfilling and Cover Installation | Attachment 5 |
| Re-vegetation Application and Seeding Technique | |
| Updated C-144 Form | Attachment 6 |
| Site Reclamation (Photo Documentation) | To follow later |

Center of On Site Closure Location:
Latitude: N 33.458487 Longitude: W -103.075197 WGS 84 (Google Earth)

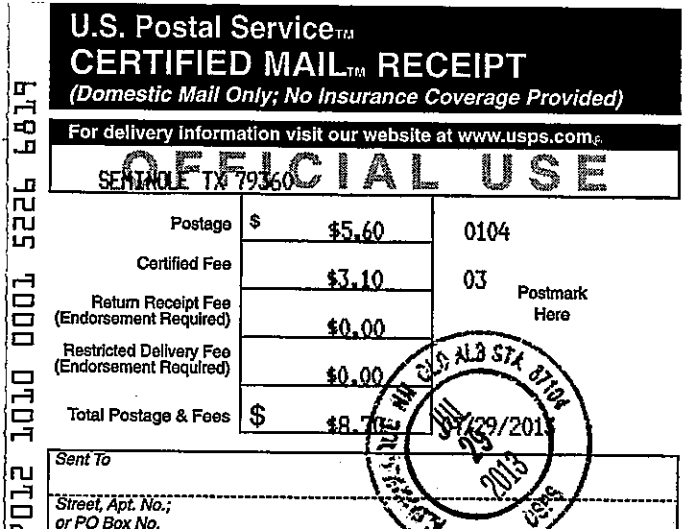
We understand that OCD cannot formally release the site under the current Rule until we document re-vegetation. As mentioned above, please expect documentation of re-vegetation when it is established in accordance with subsection I of 19.15.17.13 NMAC.

Sincerely,
R.T. Hicks Consultants, Ltd.

David J. Hamilton

David Hamilton
Project Manager

# *Attachment 1*


U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com®
OFFICIAL USE
SEMINOLE TX 79360
Postage $ $5.60 0104
Certified Fee $3.10 03
Return Receipt Fee (Endorsement Required) $0.00
Restricted Delivery Fee (Endorsement Required) $0.00
Total Postage & Fees $ $8.70
Postmark Here
JUL 29/2013
Sent To
Street, Apt. No.; or PO Box No.
7012 1010 0001 5226 6819

# *Attachment 2*

32264

STATE OF NEW MEXICO §
§
COUNTY OF LEA §

This Notice is filed to provide information concerning certain environmental conditions and/or use limitations pursuant to the New Mexico Oil Conservation Division (NMOCD) Rule found in Title 19 of the New Mexico Administrative Code (NMAC), Chapter 15, and affects the real property (the Property) described as follows:

Unit E of Section 8, Township 10 South, Range 38 East

As the siting criteria in Paragraph (4) of Subsection C of 19.15.17.10 NMAC (effective date of June 16, 2008), were met, CML Exploration LLC elected to use burial in place closure of the temporary pit used for drilling Harris #1 (API Number 30-025-41365). The waste met the criteria in Subparagraph (c) of Paragraph (3) of Subsection F of 19.15.17.13 NMAC. CML Exploration LLC notified the surface owner, David Bergen, on July 29, 2013 of the use of this closure method (see Attachment A).

The location of the burial in place is as follows:

***Being*** 0.603 acres of land

and said 0.603 acre tract being more particularly described as follows;

***Commencing*** at a point with coordinates of (WGS 84 coordinate system):
Latitude 33.458311°
Longitude -103.074927°

***Thence*** Notthwards a distance of 156.0 feet to a point with the coordinates of :
Latitude 33.458720°
Longitude -103.074974°

***Thence*** Westwards a distance of 167.0 feet to a point with the coordinates of :
Latitude 33.458661°
Longitude -103.075499°

***Thence*** Southwards a distance of 149.0 feet to a point with the coordinates of :
Latitude 33.458255°
Longitude -103.075438°

***Thence*** Eastwards a distance of 169.0 feet to the point of beginning and containing 0.603 acres.

See Plate 1 attached hereto and incorporated herein by reference.



BOOK 1946 PAGE 585

This notice is required because the Property described immediately above currently meets NMOCD requirements for In Place Burial Closure of a Temporary Drilling Pit. Based on the reports, the constituents of concern pose no significant present or future risk to humans or the environment based on the land use. No further remediation of the Property is required by the NMOCD as long as a person shall not build permanent structures over a burial in place closure without the appropriate division district office's written approval.

As of the date of this Notice, the record owner of title to the Property is David Bergen with an address of P.O. Box 1314, Seminole Texas 79360.

For additional information, contact:

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

This Notice may be rendered of no further force or effect only by a superseding deed notice executed by the NMOCD or its successor agencies and filed with the County Clerk of Lea County, NM in the same Real Property Records as those in which this Deed Notice is filed.

Executed this 2 day of March, 2015.

By: David Hamilton

Name: David Hamilton

Title: Agent for CML Exploration, LLC

STATE OF NEW MEXICO

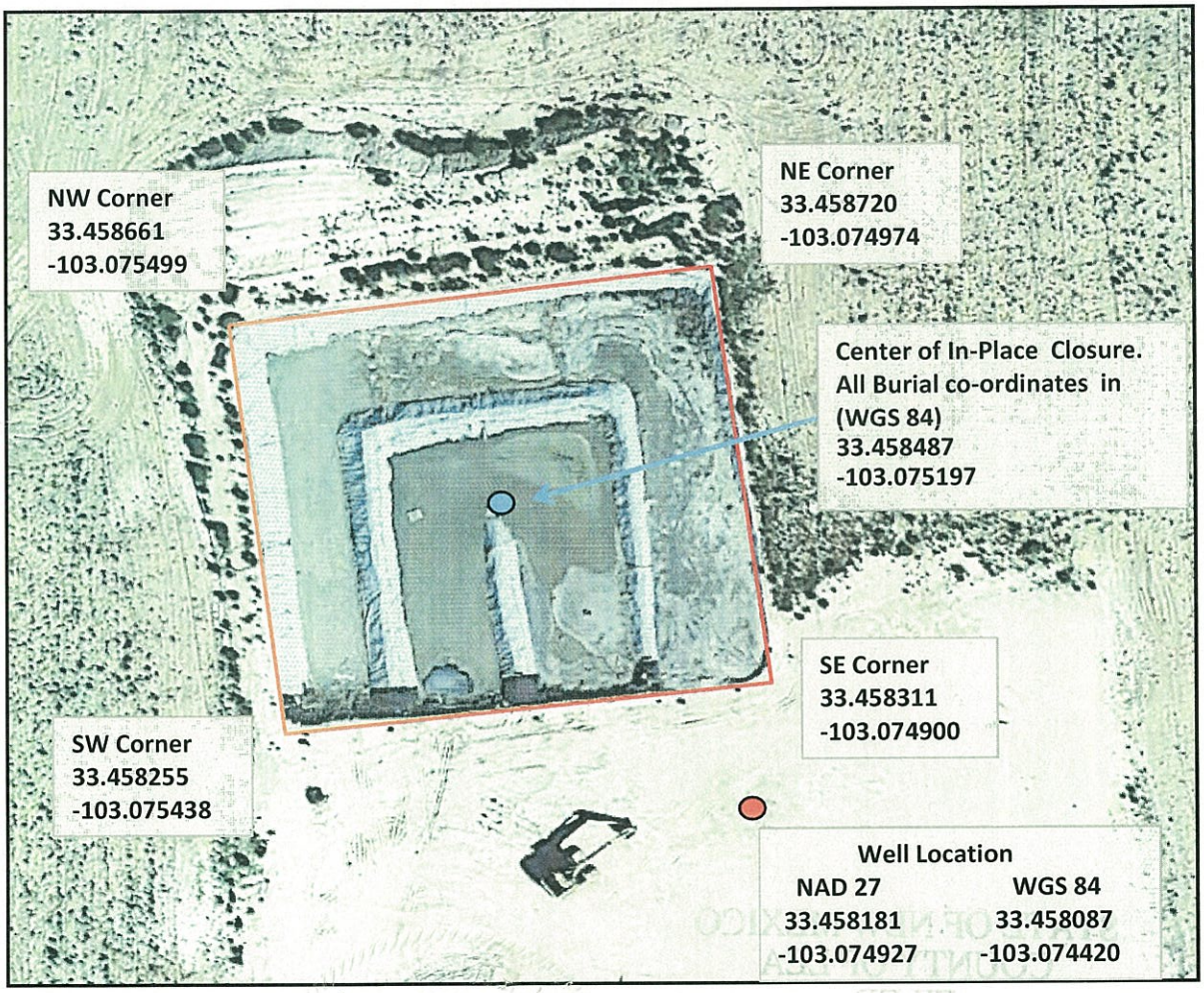
( Bernalillo ) COUNTY

BEFORE ME, on this the 2nd (date) day of March, 2015 (month and year), personally appeared David Hamilton (name), Agent (title), of CML Exploration (company), Known to me to be the person whose name is subscribed to the foregoing instrument, and they Acknowledge to me that they executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 2nd day of March, 2015.

Notary Public in and for the State of New Mexico,
County of

My Commission Expires: March 21, 2015




| | | |
|---|---|---|
| R.T. Hicks Consultants, Ltd<br>901 Rio Grande Blvd NW<br>Suite F-142<br>Albuquerque, NM 87104<br>505-266-5004 | In-Place Closure Location at Harris # 1 Site<br>Unit E, Section 8, T10S, R 38E. | Plate 1 |
| | CML Exploration, LLC | March, 2015 |

32264

STATE OF NEW MEXICO
COUNTY OF LEA
FILED

MAR 06 2015

at 11:28 o'clock A M
and recorded in Book 1946
Page 585
Pat Chappelle, Lea County Clerk
By MC Deputy

# *Attachment 3*

Submit To Appropriate District Office
Two Copies
District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., 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-105
Revised August 1, 2011

1. WELL API NO.
30-025-41365

2. Type of Lease
☐ STATE ☒ FEE ☐ FED/INDIAN

3. State Oil & Gas Lease No.

# WELL COMPLETION OR RECOMPLETION REPORT AND LOG

4. Reason for filing:

☐ **COMPLETION REPORT** (Fill in boxes #1 through #31 for State and Fee wells only)

☒ **C-144 CLOSURE ATTACHMENT** (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)

5. Lease Name or Unit Agreement Name
Harris

6. Well Number:
# 1

7. Type of Completion:
☒ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER _____

8. Name of Operator
CML Exploration LLC

9. OGRID
256512

10. Address of Operator

11. Pool name or Wildcat

| 12. Location | Unit Ltr | Section | Township | Range | Lot | Feet from the | N/S Line | Feet from the | E/W Line | County |
|---|---|---|---|---|---|---|---|---|---|---|
| **Surface:** | K | 8 | 10 S | 38 E | | | | | | |
| **BH:** | | | | | | | | | | |

| 13. Date Spudded | 14. Date T.D. Reached | 15. Date Rig Released | 16. Date Completed (Ready to Produce) | 17. Elevations (DF and RKB, RT, GR, etc.) |
|---|---|---|---|---|
| | | December 12, 2013 | | |

| 18. Total Measured Depth of Well | 19. Plug Back Measured Depth | 20. Was Directional Survey Made? | 21. Type Electric and Other Logs Run |
|---|---|---|---|
| | | | |

22. Producing Interval(s), of this completion - Top, Bottom, Name

23. **CASING RECORD** (Report all strings set in well)

| CASING SIZE | WEIGHT LB./FT. | DEPTH SET | HOLE SIZE | CEMENTING RECORD | AMOUNT PULLED |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

24. LINER RECORD

| SIZE | TOP | BOTTOM | SACKS CEMENT | SCREEN |
|---|---|---|---|---|
| | | | | |
| | | | | |

25. TUBING RECORD

| SIZE | DEPTH SET | PACKER SET |
|---|---|---|
| | | |
| | | |

26. Perforation record (interval, size, and number)

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

| DEPTH INTERVAL | AMOUNT AND KIND MATERIAL USED |
|---|---|
| | |
| | |
| | |

28. **PRODUCTION**

| Date First Production | Production Method *(Flowing, gas lift, pumping - Size and type pump)* | Well Status *(Prod. or Shut-in)* |
|---|---|---|
| | | |

| Date of Test | Hours Tested | Choke Size | Prod'n For Test Period | Oil - Bbl | Gas - MCF | Water - Bbl. | Gas - Oil Ratio |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

| Flow Tubing Press. | Casing Pressure | Calculated 24-Hour Rate | Oil - Bbl. | Gas - MCF | Water - Bbl. | Oil Gravity - API - *(Corr.)* |
|---|---|---|---|---|---|---|
| | | | | | | |

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*

30. Test Witnessed By

31. List Attachments

32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit. See Plate 1

33. If an on-site burial was used at the well, report the exact location of the on-site burial: The temporary pit was the location for the on-site burial. See Plate 1

Co-ordinates in WGS 84 Latitude __33.458487_____Longitude ____-103.075197_____ NAD 1927 1983

*I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief*

Signature | Printed Name | Title | Date

E-mail Address

# INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

| Southeastern New Mexico | | Northwestern New Mexico | |
|---|---|---|---|
| T. Anhy_____ | T. Canyon_____ | T. Ojo Alamo_____ | T. Penn A"_____ |
| T. Salt_____ | T. Strawn_____ | T. Kirtland _____ | T. Penn. "B"_____ |
| B. Salt_____ | T. Atoka_____ | T. Fruitland_____ | T. Penn. "C"_____ |
| T. Yates_____ | T. Miss_____ | T. Pictured Cliffs_____ | T. Penn. "D"_____ |
| T. 7 Rivers_____ | T. Devonian_____ | T. Cliff House_____ | T. Leadville_____ |
| T. Queen_____ | T. Silurian_____ | T. Menefee_____ | T. Madison_____ |
| T. Grayburg_____ | T. Montoya_____ | T. Point Lookout_____ | T. Elbert_____ |
| T. San Andres_____ | T. Simpson_____ | T. Mancos_____ | T. McCracken_____ |
| T. Glorieta_____ | T. McKee_____ | T. Gallup_____ | T. Ignacio Otzte_____ |
| T. Paddock_____ | T. Ellenburger_____ | Base Greenhorn_____ | T.Granite _____ |
| T. Blinebry_____ | T. Gr. Wash_____ | T. Dakota_____ | |
| T.Tubb_____ | T. Delaware Sand_____ | T. Morrison_____ | |
| T. Drinkard_____ | T. Bone Springs_____ | T.Todilto_____ | |
| T. Abo_____ | T._____ | T. Entrada_____ | |
| T. Wolfcamp_____ | T._____ | T. Wingate_____ | |
| T. Penn_____ | T._____ | T. Chinle_____ | |
| T. Cisco (Bough C)_____ | T._____ | T. Permian_____ | |

**OIL OR GAS SANDS OR ZONES**

No. 1, from……..……..….to……. No. 3, from……to…….……

No. 2, from……to.…… No. 4, from……to…….

**IMPORTANT WATER SANDS**

Include data on rate of water inflow and elevation to which water rose in hole.

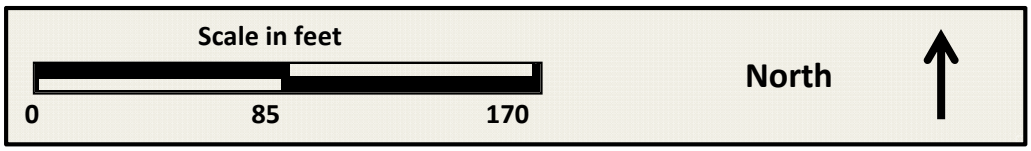
No. 1, from…….to……feet……

No. 2, from…….to……feet……

No. 3, from…….to……feet……

LITHOLOGY RECORD (Attach additional sheet if necessary)

| From | To | Thickness In Feet | Lithology | | From | To | Thickness In Feet | Lithology |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |


| | | |
|---|---|---|
| **R.T. Hicks Consultants, Ltd**<br>901 Rio Grande Blvd NW<br>Suite F-142<br>Albuquerque, NM 87104<br>505-266-5004 | **In-Place Closure Location at Harris # 1 Site**<br>**Unit E, Section 8, T10S, R 38E.** | **Plate 1** |
| | **CML Exploration, LLC** | **March, 2015** |

# *Attachment 4*

# R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745


September 11, 2014

Mr. Tomas Oberding
NMOCD District
1625 French Drive
Hobbs, NM 88240
Via E-Mail

RE: CML Harris # 1 Temporary Pit
In Place Burial Notice,
Section 8 (K), T-10-S, R-38-E, Lea County, New Mexico (API: 30-025-41365)

Dear Mr. Oberding:

On behalf of CML Exploration, R.T. Hicks Consultants is providing this closure notice to NMOCD with a copy to the landowner. Closure activities will begin no earlier than Wednesday, September 17, 2014. Depending on equipment availability amongst other variables, the closure process should require about two weeks. The "In Place Burial" closure plan with the C-144 temporary pit application was approved by NMOCD on September 16, 2013.

Hicks Consultants obtained samples on July 17, 2014. In conformance with the Pit Rule*, these samples were collected with a 5 point composite sample from the inner horseshoe and a five-point composite sample from the outer horseshoe. These samples were mixed at the proportion that they represent of the total cuttings (46% inner cuttings and 54% outer cuttings). This proportional sample was mixed with clean fill material at a ratio of 3 parts clean fill material to I part cuttings. The laboratory results are below in Table 1 and attached at the end of the letter.

* (5) The operator shall collect, at a minimum, a five point composite of the contents of the temporary pit or drying pad/tank associated with a closed-loop system to demonstrate that, after the waste is solidified or stabilized with soil or other non-waste material at a ratio of no more than 3:1 soil or other non-waste material to waste, the concentration of any contaminant in the stabilized waste is not higher than the parameters in Table II of 19.15.17.13 NMAC.

**Table 1:** *Laboratory Results from July 17, 2014 sample*

| Closure Criteria Temporary Pits, GW > 100 feet | | | Harris Inner, Outer Stabilized 3:1 sample | | |
|---|---|---|---|---|---|
| | | | July 17,2014 | | [mg/kg] |
| Chloride | EPA Method 300.0 | 80,000 mg/kg | Method 300.0 | Chloride | 6100 |
| TPH | EPA SW-846 Method 418.1 | 2,500 mg/kg | Method 418.1 | TPH | 64 |
| | | | Method 8015D | GRO | ND |
| | | | | DRO | 55 |
| | | | | MRO | ND |
| GRO+DRO | EPA SW-846 Method 8015M | 1,000 mg/kg | | GRO + DRO | 55 |
| Benzene | EPA SW-846 Method 8021B or 8015M | 10 mg/kg | Method 8021B | Benzene | 0.11 |
| | | | | Toluene | 0.27 |
| | | | | Ethylbenzene | 0.097 |
| | | | | Xylene | 0.24 |
| BTEX | EPA SW-846 Method 8021B or 8260B | 50 mg/kg | | Total BTEX | 0.717 |

As can be seen in Table 1, concentrations of the materials listed in Table II of 19.15.17.13 NMAC (Pit Rule) are such that in-place burial of the stabilized cuttings is allowed.

We will follow up this notice with a phone call as required by the Pit Rule. As always, we appreciate your work and attention to detail.

Sincerely,
R.T. Hicks Consultants

David J. Hamilton

David Hamilton
Project Hydrologist

cc:: CML Exploration, David Bergen, landowner

HALL ENVIRONMENTAL ANALYSIS LABORATORY

*Hall Environmental Analysis Laboratory*
*4901 Hawkins NE*
*Albuquerque, NM 87109*
*TEL: 505-345-3975 FAX: 505-345-4107*
*Website: www.hallenvironmental.com*

July 30, 2014

David Hamilton

R.T. Hicks Consultants, LTD
901 Rio Grande Blvd. NW
Suite F-142
Albuquerque, NM 87104
TEL: (505) 266-5004
FAX (505) 266-0745

RE: Harris OrderNo.: 1407A23

Dear David Hamilton:

Hall Environmental Analysis Laboratory received 1 sample(s) on 7/17/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** R.T. Hicks Consultants, LTD
**Client Sample ID:** Stabilized Solids
**Project:** Harris
**Collection Date:** 7/17/2014 3:00:00 PM
**Lab ID:** 1407A23-001 **Matrix:** SOIL **Received Date:** 7/17/2014 3:29:00 PM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|---|---|---|---|---|---|---|---|
| **EPA METHOD 8015D: DIESEL RANGE ORGANICS** | | | | | | Analyst: **BCN** | |
| Diesel Range Organics (DRO) | 55 | 10 | | mg/Kg | 1 | 7/25/2014 2:55:28 AM | 14374 |
| Motor Oil Range Organics (MRO) | ND | 50 | | mg/Kg | 1 | 7/25/2014 2:55:28 AM | 14374 |
| Surr: DNOP | 89.1 | 57.9-140 | | %REC | 1 | 7/25/2014 2:55:28 AM | 14374 |
| **EPA METHOD 8015D: GASOLINE RANGE** | | | | | | Analyst: **DJF** | |
| Gasoline Range Organics (GRO) | ND | 5.0 | | mg/Kg | 1 | 7/29/2014 12:31:54 AM | 14359 |
| Surr: BFB | 91.7 | 80-120 | | %REC | 1 | 7/29/2014 12:31:54 AM | 14359 |
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **DJF** | |
| Methyl tert-butyl ether (MTBE) | ND | 0.099 | | mg/Kg | 1 | 7/29/2014 12:31:54 AM | 14359 |
| Benzene | 0.11 | 0.050 | | mg/Kg | 1 | 7/29/2014 12:31:54 AM | 14359 |
| Toluene | 0.27 | 0.050 | | mg/Kg | 1 | 7/29/2014 12:31:54 AM | 14359 |
| Ethylbenzene | 0.097 | 0.050 | | mg/Kg | 1 | 7/29/2014 12:31:54 AM | 14359 |
| Xylenes, Total | 0.24 | 0.099 | | mg/Kg | 1 | 7/29/2014 12:31:54 AM | 14359 |
| Surr: 4-Bromofluorobenzene | 90.5 | 80-120 | | %REC | 1 | 7/29/2014 12:31:54 AM | 14359 |
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **JRR** | |
| Chloride | 6100 | 300 | | mg/Kg | 200 | 7/23/2014 5:37:14 PM | 14378 |
| **EPA METHOD 418.1: TPH** | | | | | | Analyst: **JME** | |
| Petroleum Hydrocarbons, TR | 64 | 50 | | mg/Kg | 1 | 7/24/2014 12:00:00 PM | 14377 |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

| | |
|---|---|
| * | Value exceeds Maximum Contaminant Level. |
| E | Value above quantitation range |
| J | Analyte detected below quantitation limits |
| O | RSD is greater than RSDlimit |
| R | RPD outside accepted recovery limits |
| S | Spike Recovery outside accepted recovery limits |
| B | Analyte detected in the associated Method Blank |
| H | Holding times for preparation or analysis exceeded |
| ND | Not Detected at the Reporting Limit |
| P | Sample pH greater than 2. |
| RL | Reporting Detection Limit |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A23**

***30-Jul-14***

**Client:** R.T. Hicks Consultants, LTD

**Project:** Harris

| Sample ID | **MB-14378** | SampType: | **MBLK** | TestCode: | **EPA Method 300.0: Anions** | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: | **PBS** | Batch ID: | **14378** | RunNo: | **20105** | | | | | |
| Prep Date: | **7/23/2014** | Analysis Date: | **7/23/2014** | SeqNo: | **584505** | Units: | **mg/Kg** | | | |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | 1.5 | | | | | | | | |

| Sample ID | **LCS-14378** | SampType: | **LCS** | TestCode: | **EPA Method 300.0: Anions** | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: | **LCSS** | Batch ID: | **14378** | RunNo: | **20105** | | | | | |
| Prep Date: | **7/23/2014** | Analysis Date: | **7/23/2014** | SeqNo: | **584506** | Units: | **mg/Kg** | | | |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 14 | 1.5 | 15.00 | 0 | 91.8 | 90 | 110 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| O | RSD is greater than RSDlimit | P | Sample pH greater than 2. |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | Spike Recovery outside accepted recovery limits | | |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A23**

***30-Jul-14***

**Client:** R.T. Hicks Consultants, LTD

**Project:** Harris

| Sample ID | **MB-14377** | SampType: | **MBLK** | TestCode: | **EPA Method 418.1: TPH** | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: | **PBS** | Batch ID: | **14377** | RunNo: | **20092** | | | | | |
| Prep Date: | **7/23/2014** | Analysis Date: | **7/24/2014** | SeqNo: | **584013** | Units: | **mg/Kg** | | | |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Petroleum Hydrocarbons, TR | ND | 20 | | | | | | | | |

| Sample ID | **LCS-14377** | SampType: | **LCS** | TestCode: | **EPA Method 418.1: TPH** | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: | **LCSS** | Batch ID: | **14377** | RunNo: | **20092** | | | | | |
| Prep Date: | **7/23/2014** | Analysis Date: | **7/24/2014** | SeqNo: | **584014** | Units: | **mg/Kg** | | | |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Petroleum Hydrocarbons, TR | 84 | 20 | 100.0 | 0 | 83.7 | 80 | 120 | | | |

| Sample ID | **LCSD-14377** | SampType: | **LCSD** | TestCode: | **EPA Method 418.1: TPH** | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: | **LCSS02** | Batch ID: | **14377** | RunNo: | **20092** | | | | | |
| Prep Date: | **7/23/2014** | Analysis Date: | **7/24/2014** | SeqNo: | **584015** | Units: | **mg/Kg** | | | |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Petroleum Hydrocarbons, TR | 86 | 20 | 100.0 | 0 | 86.3 | 80 | 120 | 3.08 | 20 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| O | RSD is greater than RSDlimit | P | Sample pH greater than 2. |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | Spike Recovery outside accepted recovery limits | | |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A23**

***30-Jul-14***

**Client:** R.T. Hicks Consultants, LTD

**Project:** Harris

| Sample ID **MB-14374** | SampType: **MBLK** | TestCode: **EPA Method 8015D: Diesel Range Organics** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **14374** | RunNo: **20083** |
| Prep Date: **7/23/2014** | Analysis Date: **7/23/2014** | SeqNo: **583900** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | ND | 10 | | | | | | | | |
| Motor Oil Range Organics (MRO) | ND | 50 | | | | | | | | |
| Surr: DNOP | 8.0 | | 10.00 | | 80.4 | 57.9 | 140 | | | |

| Sample ID **LCS-14374** | SampType: **LCS** | TestCode: **EPA Method 8015D: Diesel Range Organics** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **14374** | RunNo: **20083** |
| Prep Date: **7/23/2014** | Analysis Date: **7/23/2014** | SeqNo: **583901** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics (DRO) | 47 | 10 | 50.00 | 0 | 93.8 | 68.6 | 130 | | | |
| Surr: DNOP | 3.8 | | 5.000 | | 77.0 | 57.9 | 140 | | | |

| Sample ID **MB-14414** | SampType: **MBLK** | TestCode: **EPA Method 8015D: Diesel Range Organics** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **14414** | RunNo: **20106** |
| Prep Date: **7/24/2014** | Analysis Date: **7/24/2014** | SeqNo: **584672** Units: **%REC** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Surr: DNOP | 8.9 | | 10.00 | | 89.1 | 57.9 | 140 | | | |

| Sample ID **LCS-14414** | SampType: **LCS** | TestCode: **EPA Method 8015D: Diesel Range Organics** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **14414** | RunNo: **20106** |
| Prep Date: **7/24/2014** | Analysis Date: **7/24/2014** | SeqNo: **584673** Units: **%REC** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Surr: DNOP | 4.6 | | 5.000 | | 91.5 | 57.9 | 140 | | | |

**Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A23**

***30-Jul-14***

**Client:** R.T. Hicks Consultants, LTD

**Project:** Harris

| Sample ID **MB-14359** | SampType: **MBLK** | TestCode: **EPA Method 8015D: Gasoline Range** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **14359** | RunNo: **20101** |
| Prep Date: **7/22/2014** | Analysis Date: **7/23/2014** | SeqNo: **584291** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | ND | 5.0 | | | | | | | | |
| Surr: BFB | 860 | | 1000 | | 86.3 | 80 | 120 | | | |

| Sample ID **LCS-14359** | SampType: **LCS** | TestCode: **EPA Method 8015D: Gasoline Range** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **14359** | RunNo: **20101** |
| Prep Date: **7/22/2014** | Analysis Date: **7/23/2014** | SeqNo: **584293** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics (GRO) | 28 | 5.0 | 25.00 | 0 | 111 | 71.7 | 134 | | | |
| Surr: BFB | 940 | | 1000 | | 93.9 | 80 | 120 | | | |

**Qualifiers:**

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A23**

***30-Jul-14***

**Client:** R.T. Hicks Consultants, LTD

**Project:** Harris

| Sample ID **MB-14359** | SampType: **MBLK** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **PBS** | Batch ID: **14359** | RunNo: **20101** |
| Prep Date: **7/22/2014** | Analysis Date: **7/23/2014** | SeqNo: **584466** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-butyl ether (MTBE) | ND | 0.10 | | | | | | | | |
| Benzene | ND | 0.050 | | | | | | | | |
| Toluene | ND | 0.050 | | | | | | | | |
| Ethylbenzene | ND | 0.050 | | | | | | | | |
| Xylenes, Total | ND | 0.10 | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 0.96 | | 1.000 | | 95.6 | 80 | 120 | | | |

| Sample ID **LCS-14359** | SampType: **LCS** | TestCode: **EPA Method 8021B: Volatiles** |
|---|---|---|
| Client ID: **LCSS** | Batch ID: **14359** | RunNo: **20101** |
| Prep Date: **7/22/2014** | Analysis Date: **7/23/2014** | SeqNo: **584467** Units: **mg/Kg** |

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-butyl ether (MTBE) | 1.2 | 0.10 | 1.000 | 0 | 117 | 80 | 120 | | | |
| Benzene | 1.3 | 0.050 | 1.000 | 0 | 125 | 80 | 120 | | | S |
| Toluene | 1.1 | 0.050 | 1.000 | 0 | 110 | 80 | 120 | | | |
| Ethylbenzene | 1.0 | 0.050 | 1.000 | 0 | 104 | 80 | 120 | | | |
| Xylenes, Total | 3.1 | 0.10 | 3.000 | 0 | 103 | 80 | 120 | | | |
| Surr: 4-Bromofluorobenzene | 0.97 | | 1.000 | | 96.6 | 80 | 120 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| O | RSD is greater than RSDlimit | P | Sample pH greater than 2. |
| R | RPD outside accepted recovery limits | RL | Reporting Detection Limit |
| S | Spike Recovery outside accepted recovery limits | | |

HALL ENVIRONMENTAL ANALYSIS LABORATORY

*Hall Environmental Analysis Laboratory*
*4901 Hawkins NE*
*Albuquerque, NM 87109*
*TEL: 505-345-3975 FAX: 505-345-4107*
*Website: www.hallenvironmental.com*

# Sample Log-In Check List

Client Name: RT HICKS Work Order Number: 1407A23 RcptNo: 1

Received by/date: AT 07/17/14

Logged By: **Anne Thorne** 7/17/2014 3:29:00 PM Anne Thorne

Completed By: **Anne Thorne** 7/22/2014 Anne Thorne

Reviewed By: AT 07/22/14

## Chain of Custody

| | | | |
|---|---|---|---|
| 1. Custody seals intact on sample bottles? | Yes ☐ | No ☐ | Not Present ☑ |
| 2. Is Chain of Custody complete? | Yes ☑ | No ☐ | Not Present ☐ |
| 3. How was the sample delivered? | Client | | |

## Log In

| | | | |
|---|---|---|---|
| 4. Was an attempt made to cool the samples? | Yes ☑ | No ☐ | NA ☐ |
| 5. Were all samples received at a temperature of >0° C to 6.0°C | Yes ☑ | No ☐ | NA ☐ |
| 6. Sample(s) in proper container(s)? | Yes ☑ | No ☐ | |
| 7. Sufficient sample volume for indicated test(s)? | Yes ☑ | No ☐ | |
| 8. Are samples (except VOA and ONG) properly preserved? | Yes ☑ | No ☐ | |
| 9. Was preservative added to bottles? | Yes ☐ | No ☑ | NA ☐ |
| 10. VOA vials have zero headspace? | Yes ☐ | No ☐ | No VOA Vials ☑ |
| 11. Were any sample containers received broken? | Yes ☐ | No ☑ | |
| 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) | Yes ☑ | No ☐ | |
| 13. Are matrices correctly identified on Chain of Custody? | Yes ☑ | No ☐ | |
| 14. Is it clear what analyses were requested? | Yes ☑ | No ☐ | |
| 15. Were all holding times able to be met? (If no, notify customer for authorization.) | Yes ☑ | No ☐ | |

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

## Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|---|---|---|---|---|---|---|
| 1 | 5.2 | Good | Not Present | | | |

# Chain-of-Custody Record

Client: RT Hicks Consultants
901 Rio Grande NW
Mailing Address: Suite F-142
Alb. N.M. 87104
Phone #: 266 5004
email or Fax#: david@rthicksconsult.com
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☐ Rush _____
Project Name: Harris
Project #:
Project Manager: D. Hamilton
Sampler: D. Hamilton
On Ice: X Yes ☐ No
Sample Temperature: 5.2


**HALL ENVIRONMENTAL ANALYSIS LABORATORY**
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107


**Analysis Request**

| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL No. | BTEX + MTBE + TMB's (8021) | BTEX + MTBE + TPH (Gas only) | TPH 8015B (GRO / DRO / MRO) | TPH (Method 418.1) | EDB (Method 504.1) | PAH's (8310 or 8270 SIMS) | RCRA 8 Metals | Anions (F,Cl,NO3,NO2,PO4,SO4) | 8081 Pesticides / 8082 PCB's | 8260B (VOA) | 8270 (Semi-VOA) | BTEX | | | | Air Bubbles (Y or N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7-17-14 | 15:00 | soil | Stabilized Solids | | | 1407A23cd | | | X | X | | | | X | | | | X | | | | |

Date: 7/29/17 Time: 15:29 Relinquished by: David Hamilton
Received by: [signature] Date: 07/17/14 Time: 529
Date: Time: Relinquished by:
Received by: Date: Time:

Remarks: [2 4oz composite pit
2 4oz Mixing Bin]
Stabilized solids is made by mixing 3 parts mi
1 part

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

# *Attachment 5*

## *Protocols and Procedures used for the In-Place Burial*

In accordance with the requirements listed in paragraph D of 19.15.17.13 NMAC, the operator employed the following steps to meet requirements for in-place burial of the waste material from the temporary pit:

1. The in-place burial location is in compliance with the siting criteria. This information was presented in the C-144 application submitted to the NMOCD on July 21, 2013 and approved on September 16, 2013. The plugging rig was released on December 12, 2013.

2. In February, low chloride concentration fluid was moved from the outer horseshoe to the inner horseshoe. At that time an intermittent pump was set to remove higher chloride concentration fluid from the drainage system installed in the bottom of the inner horseshoe during lining of the temporary pit. This fluid was moved to a frac tank adjacent to the temporary pit and later disposed of in an approved manner. This technique was employed to "rinse" the inner cuttings resulting in lower chloride concentrations.

3. Intermittent pumping continued between mid-February and mid-May. Large summer rainfall events resulted in additional water within the pits on several occasions, As such, fluids had to be removed on two separate occasions with some time allowance for the cuttings to dry.

4. On July 17, 2014, prior to the initiation of closure activities, composite samples from the inner and outer cells and clean soil from the berms of the pit below the liner were recovered from the pit. Samples were analyzed for Chloride, TPH, GRO, DRO, MRO, Benzene, and BTEX at Hall Environmental Analysis Laboratory in Albuquerque, New Mexico. The results, as noted in the subsequent closure notice (Attachment 5), demonstrate that the mathematically mixed pit contents would not exceed the parameter limits listed in Table II of the current Pit Rule (June 2013).

5. On September 11, 2014, R.T. Hicks Consultants submitted a C-144 form and closure plan to NMOCD under the June 2013 Pit Rule. NMOCD granted approval to proceed on September 12, 2014.

6. Hicks Consultants met with Price Construction to review closure procedures on October 2, 2014. As a note, numerous large rainfall events in southeastern New Mexico in August and September resulted in many delays for earth moving work. This situation persisted through the fall and winter of 2014 as contractors gradually caught up with scheduled work. By

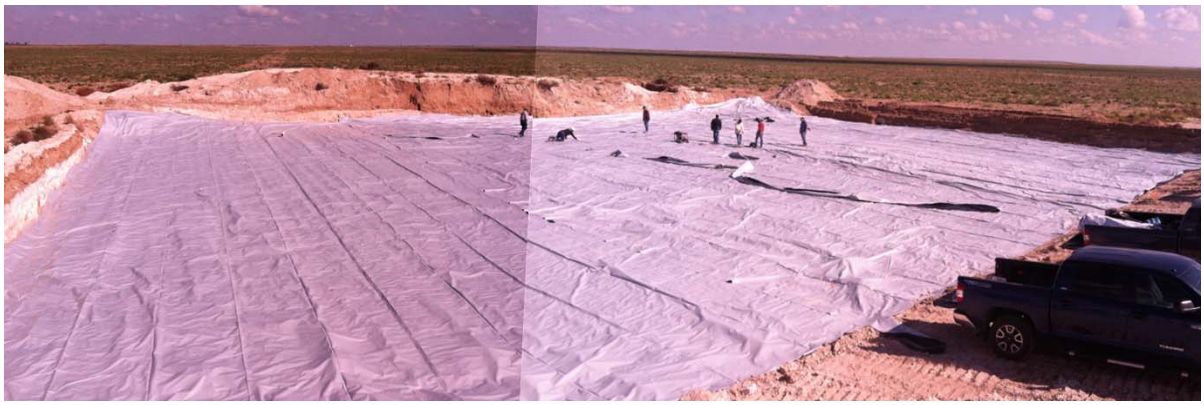
October 14, 2014 stabilization of the pit contents was achieved by mixing the pit contents with the dry soil beneath the liner of the pit. A paint filter test was performed by R.T. Hicks Consultants that confirmed that the process was complete and that the resultant floor of the excavation was at least 4 feet deep. Additional smoothing and shaping of the materials followed.

**Figure 1:** *View to northwest and northeast of stabilized material on October 14, 2014. Surface of stabilized material is 4-feet below ground surface.*

**Figure 2 :** *Paint Filter Test at Harris #1, October 14, 2014.*

7. On October 29, 2014, a 20 Mil. geomembrane liner was installed to completely cover the stabilized cuttings. The pit contents were shaped to shed infiltrating water from the center outward

**Figure 3:** *View to north and northeast of installed geomembrane liner. October 29, 2014*



## *Soil Cover Activities*

8. Once the geomembrane cover was in place, 4 feet or more of non-waste containing, uncontaminated, earthen material and the reserved topsoil were replaced to their relative positions in accordance with Subsection (3) of Paragraph H of 19.15.17.13 NMAC. The soil cover consists of at least four feet of compacted, non-waste containing, earthen material. The uppermost topsoil of one foot is greater than or equal to the background thickness. It was necessary to import some topsoil to finish the soil cover.

9. The top soil surface was completed two days before our site visit of January 17, 2015. Final contours were blended with the surrounding topography to prevent erosion and ponding of surface water.

**Figure 4:** *View to north and east of completed top soil surface. January, 17, 2015.*

10. The site is to be reseeded in the spring of 2015 in accordance with the landowner's request to return the land to its previous use. Formerly, the site was part of an irrigated, agricultural field. As such, the landowner will specify application rates and schedules. It is expected that vegetative cover will attain 70% of pre-disturbance levels this growing season. If conditions or circumstances are such that the landowner elects not to plant this spring, the operator will inform the division of the delay in seeding. The operator will provide photo-documentation when successful re-vegetation is achieved.

.

# *Attachment 6*

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

Form C-144
Revised June 6, 2013

**For temporary pits, below-grade tanks, and multi-well fluid management pits**, submit to the appropriate NMOCD District Office.
**For permanent pits** submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

# Pit, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action:
- ☐ Below grade tank registration
- ☐ Permit of a pit or proposed alternative method
- ☒ Closure of a pit, below-grade tank, or proposed alternative method
- ☐ Modification to an existing permit/or registration
- ☐ Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method

***Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request***

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

**1.**

Operator: CML Exploration, LLC OGRID #: 256512

Address: PO Box 890, Snyder, Texas 79550

Facility or well name: Harris #1

API Number: 30-025-41365 OCD Permit Number:

U/L or Qtr/Qtr K Section 8 Township 10S Range 38E County: Lea

Center of Proposed Design: Latitude 33.458087° N Longitude 103.074420° W NAD: ☒1927 ☐ 1983

Surface Owner: ☐ Federal ☐ State ☒ Private ☐ Tribal Trust or Indian Allotment

**2.**

☒ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC

Temporary: ☒ Drilling ☐ Workover

☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☒ no

☒ Lined ☐ Unlined Liner type: Thickness 20 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other

☒ String-Reinforced

Liner Seams: ☒ Welded ☐ Factory ☐ Other Volume: 19,666 bbl Dimensions: L 150 x W 155 x D 6-8 ft

**3.**

☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC

Volume: bbl Type of fluid:

Tank Construction material:

☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off

☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other

Liner type: Thickness mil ☐ HDPE ☐ PVC ☐ Other

**4.**

☐ **Alternative Method:**

Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

**5.**

**Fencing:** Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*

☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*

☒ Four foot height, four strands of barbed wire evenly spaced between one and four feet

☐ Alternate. Please specify

6.

**Netting:** Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☐ Other_____

☐ Monthly inspections (If netting or screening is not physically feasible)

7.

**Signs:** Subsection C of 19.15.17.11 NMAC

☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☒ Signed in compliance with 19.15.16.8 NMAC

8.

**Variances and Exceptions:**

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

***Please check a box if one or more of the following is requested, if not leave blank:***

☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

9.

**Siting Criteria (regarding permitting):** 19.15.17.10 NMAC

***Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below.*** **Siting criteria does not apply to drying pads or above-grade tanks.**

## General siting

**Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.** ☐ Yes ☒ No ☐ NA

- ☒ NM Office of the State Engineer - iWATERS database search; ☒ USGS; ☒ Data obtained from nearby wells

**Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit .** ☐ Yes ☒ No ☐ NA

NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells **See Figures 1 & 2**

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. **(Does not apply to below grade tanks)** **See Figure 5** ☐ Yes ☒ No

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

Within the area overlying a subsurface mine. **(Does not apply to below grade tanks)** **See Figure 7** ☐ Yes ☒ No

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

Within an unstable area. **(Does not apply to below grade tanks)** **See Figure 8** ☐ Yes ☒ No

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

Within a 100-year floodplain. **(Does not apply to below grade tanks)** **See Figure 9** ☐ Yes ☒ No

- FEMA map

## Below Grade Tanks

Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark). ☐ Yes ☐ No

- Topographic map; Visual inspection (certification) of the proposed site

Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;. ☐ Yes ☐ No

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

## Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)

Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) ☐ Yes ☐ No

- Topographic map; Visual inspection (certification) of the proposed site

Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application. ☐ Yes ☐ No

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. ☐ Yes ☐ No

NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

| | |
|---|---|
| Within 100 feet of a wetland.<br>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |
| **Temporary Pit Non-low chloride drilling fluid** | |
| Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). **See Figure 3**<br>- Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☒ No |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.<br>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image. **See Figure 4** | ☐ Yes ☒ No |
| Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;<br>- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site<br>**See Figures 1 & 2** | ☐ Yes ☒ No |
| Within 300 feet of a wetland. **See Figure 6**<br>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☒ No |
| **Permanent Pit or Multi-Well Fluid Management Pit** | |
| Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).<br>- Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |
| Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.<br>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image | ☐ Yes ☐ No |
| Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.<br>- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |
| Within 500 feet of a wetland.<br>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |

**10.**

**Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC

***Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.***

☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☒ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☒ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

**11.**

**Multi-Well Fluid Management Pit Checklist:** Subsection B of 19.15.17.9 NMAC

***Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.***

☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ A List of wells with approved application for permit to drill associated with the pit.
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.

**Permanent Pits Permit Application Checklist:** Subsection B of 19.15.17.9 NMAC

***Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including $H_2S$, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

13.

**Proposed Closure:** 19.15.17.13 NMAC

***Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.***

Type: ☒ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Multi-well Fluid Management Pit ☐ Alternative

Proposed Closure Method: ☐ Waste Excavation and Removal
☐ Waste Removal (Closed-loop systems only)
☒ On-site Closure Method (Only for temporary pits and closed-loop systems)
☒ In-place Burial ☐ On-site Trench Burial
☐ Alternative Closure Method

14.

**Waste Excavation and Removal Closure Plan Checklist:** (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15.

**Siting Criteria (regarding on-site closure methods only):** 19.15.17.10 NMAC

***Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.***

| | |
|---|---|
| Ground water is less than 25 feet below the bottom of the buried waste.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells | ☐ Yes ☒ No<br>☐ NA |
| Ground water is between 25-50 feet below the bottom of the buried waste<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells | ☐ Yes ☒ No<br>☐ NA |
| Ground water is more than 100 feet below the bottom of the buried waste.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells | ☒ Yes ☐ No<br>☐ NA |
| Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).<br>- Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☒ No |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.<br>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image | ☐ Yes ☒ No |
| Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application.<br>- NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site | ☐ Yes ☒ No |
| Written confirmation or verification from the municipality; Written approval obtained from the municipality | ☐ Yes ☒ No |
| Within 300 feet of a wetland.<br>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☒ No |
| Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance | |

| | |
|---|---|
| adopted pursuant to NMSA 1978, Section 3-27-3, as amended.<br>- Written confirmation or verification from the municipality; Written approval obtained from the municipality | ☐ Yes ☒ No |
| Within the area overlying a subsurface mine.<br>- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division | ☐ Yes ☒ No |
| Within an unstable area.<br>- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map | ☐ Yes ☒ No |
| Within a 100-year floodplain.<br>- FEMA map | ☐ Yes ☒ No |

16.
**On-Site Closure Plan Checklist:** (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☒ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC
- ☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC
- ☒ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☒ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☒ Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
- ☒ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☒ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17.
**Operator Application Certification:**

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): Jordan Owens Title: Petroleum Engineer

Signature: Date: February 25, 2015

e-mail address: owensj@cmlexp.com Telephone: (325) 573-0750

18.
**OCD Approval:** ☐ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

**OCD Representative Signature:** _____ **Approval Date:** _____

**Title:** _____ **OCD Permit Number:** _____

19.
**Closure Report (required within 60 days of closure completion):** 19.15.17.13 NMAC

***Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.***

☐ **Closure Completion Date:** _____

20.
**Closure Method:**

☐ Waste Excavation and Removal ☒ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
☐ If different from approved plan, please explain.

21.
**Closure Report Attachment Checklist:** ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

- ☒ Proof of Closure Notice (surface owner and division)
- ☒ Proof of Deed Notice (required for on-site closure for private land only)
- ☒ Plot Plan (for on-site closures and temporary pits)
- ☐ Confirmation Sampling Analytical Results (if applicable)
- ☒ Waste Material Sampling Analytical Results (required for on-site closure)
- ☐ Disposal Facility Name and Permit Number
- ☒ Soil Backfilling and Cover Installation
- ☒ Re-vegetation Application Rates and Seeding Technique
- ☐ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude 33.458487 Longitude -103.075197 (WGS 84 co-ordinates) NAD: ☐1927 ☐ 1983

22.

**Operator Closure Certification:**

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Jordan Owens Title: Petroleum Engineer

Signature:  Date: February 25, 2015

e-mail address: owensj@cmlexp.com Telephone: (325) 573-0750