

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): Kristin Pope Title: Agent for Murchison Oil and Gas
 Signature: *Kristin Pope* Date: November 26, 2013
 e-mail address: kristin@rthicksconsult.com Telephone: (575) 302-6755

approved

Jeffrey Sekins

Environmental Specialist

NMOC0-DIST 1

7/02/14

JUL 02 2014

R. T. HICKS CONSULTANTS, LTD.

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

November 26, 2013

HOBBS OCD

Mr. Geoffrey Leking
NMOCD District 1
1625 French Drive
Hobbs, NM 88240
Via E-Mail and US Mail

DEC 02 2013

RECEIVED

RE: Temporary Pit Closure Report
Jackson Unit No. 18H, API #30-025-40974
Unit M, Section 21, T24S, R33E, Lea County

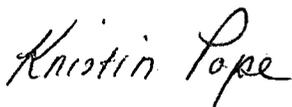
Dear Mr. Leking:

On behalf of Murchison Oil and Gas, R.T. Hicks Consultants submits this closure report for the above-referenced temporary pit in accordance with the approved C-144 closure plan. This report includes the following information listed in Part 21 of the C-144 form:

| Requirements | Location in this Submission |
|---------------------------------------------------------------------------|--------------------------------------|
| Proof of Closure Notice (to surface owner and Division) | Attachment 1 |
| Proof of Deed Notice (on-site closure on private land only) | Not applicable; State Land (no deed) |
| Plot Plan, C-105 form (for on-site closures and temporary pits) | Attachment 2 |
| Confirmation Sampling Analytical Results | Not applicable |
| Waste Material Sampling Analytical Results (required for on-site closure) | Attachment 3 |
| Disposal Facility Name and Permit Number | Not applicable; on-site closure |
| Soil Backfilling and Cover Installation | Attachment 4 |
| Re-vegetation Application Rates and Seeding Technique | Attachment 5 |
| Site Reclamation (photo documentation) | To follow |
| Updated C-144 form | Attachment 6 |

R.T. Hicks Consultants will notify NMOCD and provide photo-documentation when re-vegetation obligations described in subsection H of 19.15.17.13 NMAC are met.

Sincerely,
R.T. Hicks Consultants



Kristin Pope
Project Geologist

Copy: Murchison Oil and Gas
NM State Land Office, Terry Warnell

ATTACHMENT 1

R. T. HICKS CONSULTANTS, LTD.

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

September 6, 2013

Mr. Geoffrey Leking
NMOCD District 1
1625 French Drive
Hobbs, New Mexico 88240
Via E-mail

HOBBS OCD

DEC 02 2013

RECEIVED

RE: Murchison Jackson Unit 18H, In-place Burial Notice
Unit M, Section 21, T24S, R33E, API # 30-025-40974

Dear Mr. Leking:

On behalf of Murchison Oil and Gas, R. T. Hicks Consultants is providing this notice to NMOCD with a copy to the State Land Office (certified, return receipt request). The above- referenced pit will begin closure operations on Thursday, September 12. The closure process should require about a week.

The "In-place Burial" closure plan for the above-referenced pit was approved on March 26, 2013 by the NMOCD, prior to the establishment of the June 2013 pit rule. Construction and operation of the temporary pit has been conducted to satisfy the rule under which it was approved as well as the June 2013 rule. In conformance with the 2013 Pit Rule, a five-point composite sample that is fully representative of the solids in the pit was recovered and stabilized with the available mixing soil at a 3:1 ratio¹.

Laboratory analyses demonstrate that the concentrations of the parameters listed in Table II of 19.15.17.13 NMAC (June 2013 pit rule) are below the limits that allow in-place burial. The summary table below shows results from two un-stabilized composite samples taken from the pit's outer horseshoe cell (brine and cut brine drilling fluids) and inner horseshoe cell (fresh water drilling fluid) and three samples for chloride that were stabilized by mixing one part pit solids with 3 parts of the soil to be used for stabilization. While the un-stabilized inner horseshoe composite sample exceeded the TPH limit, the stabilized 3:1 complete pit composite (inner horseshoe, outer horseshoe, mixing soil) yields TPH below the Table II limit.

| Table II Limits (mg/kg) | Sample Date | Chloride 80,000 | Benzene 10 | BTEX 50 | GRO+DROext 1000 | TPH 2500 |
|------------------------------------------|-------------|--------------------|---------------|------------|--------------------|-------------|
| Outer Horseshoe Composite (unstabilized) | 8/8/2013 | 81600 | 0.319 | 7.7 | 124.4 | 561 |
| Inner Horseshoe Composite (unstabilized) | 8/8/2013 | 2040 | ND | 0.576 | 620.8 | 6390 |
| Stabilized 3:1 Inner Composite | 8/8/2013 | 528 | | | | |
| Stabilized 3:1 Outer Composite | 8/8/2013 | 26000 | | | | |
| Stabilized 3:1 Complete Pit Composite | 8/8/2013 | 13000 | | | | 443 |

¹ (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.

September 6, 2013

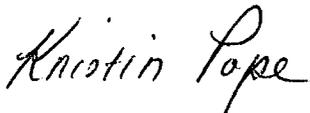
Page 2

R.T. Hicks Consultants is concerned that TPH by 418.1 method may not be an accurate representation of petroleum hydrocarbons in the pit solids because several drilling mud additives and/or lost circulation materials, such as cotton seed hulls and cedar fiber, become part of the result when using EPA method 418.1. We do not believe that the Rule intends to measure the concentration of non-petroleum organic material. Therefore, we asked the laboratory to analyze the samples by EPA method 8015B extended to included carbon numbers up to C35 (GRO+DRO+DROext). This analysis should include a complete range of purge-able and extractable hydrocarbons without also including the non-petroleum hydrocarbons that are measured by method 418.1. The order of magnitude difference between petroleum hydrocarbons analyzed by 8015B and 418.1 is not surprising, based upon some limited research we have done and the nature of non-petroleum organic material in drilling fluids, such as biopolymer drilling fluid additives and cellulose.

We will proceed with closure pursuant to the current Rule. Because there are no meaningful differences, we believe it best to comply with the closure protocols approved under the new Rule. As always, we appreciate your work to keep us on schedule.

Sincerely,

R.T. Hicks Consultants

A handwritten signature in cursive script that reads "Kristin Pope".

Kristin Pope

Enclosure: Laboratory report

Copy: Murchison Oil and Gas

Terry Warnell, State Land Office
New Mexico State Land Office
PO Box 1148
Santa Fe, NM 87504-1148
CERTIFIED MAIL – RETURN RECIEPT REQUEST

August 27, 2013

RANDALL HICKS

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: JACKSON UNIT 18 H

HOBBS OCD

DEC 02 2013

RECEIVED

Enclosed are the results of analyses for samples received by the laboratory on 08/09/13 7:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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:

| | | |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------|
| R T HICKS CONSULTANTS 901 RIO GRANDE BLVD SUITE F-142 ALBUQUERQUE NM, 87104 | Project: JACKSON UNIT 18 H Project Number: NONE GIVEN Project Manager: RANDALL HICKS Fax To: NONE | Reported: 27-Aug-13 14:01 |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------|

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|--------------------|---------------|--------|-----------------|-----------------|
| OUTER PIT COMP | H301880-01 | Soil | 08-Aug-13 13:03 | 09-Aug-13 07:00 |
| INNER PIT COMP | H301880-02 | Soil | 08-Aug-13 13:54 | 09-Aug-13 07:00 |
| MIXING DIRT | H301880-03 | Soil | 08-Aug-13 14:15 | 09-Aug-13 07:00 |
| INNER PIT 1:3 COMP | H301880-04 | Soil | 08-Aug-13 00:00 | 09-Aug-13 07:00 |
| OUTER PIT 1:3 COMP | H301880-05 | Soil | 08-Aug-13 00:00 | 09-Aug-13 07:00 |
| COMPLETE PIT COMP | H301880-06 | Soil | 08-Aug-13 00:00 | 09-Aug-13 07:00 |

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 R T HICKS CONSULTANTS
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104

 Project: JACKSON UNIT 18 H
 Project Number: NONE GIVEN
 Project Manager: RANDALL HICKS
 Fax To: NONE

 Reported:
 27-Aug-13 14:01

OUTER PIT COMP
H301880-01 (Soil)

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

Cardinal Laboratories
Inorganic Compounds

| | | | | | | | | | |
|-----------------|--------------|------|-------|---|---------|----|-----------|-----------|--|
| Chloride | 81600 | 16.0 | mg/kg | 4 | 3081506 | AP | 15-Aug-13 | 4500-Cl-B | |
|-----------------|--------------|------|-------|---|---------|----|-----------|-----------|--|

Organic Compounds

| | | | | | | | | | |
|------------------|------------|-----|-------|----|---------|----|-----------|-------|--|
| TPH 418.1 | 561 | 100 | mg/kg | 10 | 3081609 | CK | 16-Aug-13 | 418.1 | |
|------------------|------------|-----|-------|----|---------|----|-----------|-------|--|

Petroleum Hydrocarbons by GC FID

| | | | | | | | | | |
|----------------------------|-------------|------|-------|---|---------|----|-----------|-------|--|
| GRO C6-C10 | 11.7 | 10.0 | mg/kg | 1 | 3081211 | DW | 13-Aug-13 | 8015B | |
| DRO >C10-C28 | 98.1 | 10.0 | mg/kg | 1 | 3081211 | DW | 13-Aug-13 | 8015B | |
| EXT DRO >C28-C35 | 14.6 | 10.0 | mg/kg | 1 | 3081211 | DW | 13-Aug-13 | 8015B | |

| | | | | | | | | | |
|--------------------------------------|--|--------|--|----------|---------|----|-----------|-------|--|
| <i>Surrogate: 1-Chlorooctane</i> | | 96.3 % | | 65.2-140 | 3081211 | DW | 13-Aug-13 | 8015B | |
| <i>Surrogate: 1-Chlorooctadecane</i> | | 114 % | | 63.6-154 | 3081211 | DW | 13-Aug-13 | 8015B | |

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | | |
|-----------------------|--------------|-------|-------|----|---------|----|-----------|-------|--|
| Benzene* | 0.319 | 0.050 | mg/kg | 50 | 3081407 | MS | 15-Aug-13 | 8260B | |
| Toluene* | 2.56 | 0.050 | mg/kg | 50 | 3081407 | MS | 15-Aug-13 | 8260B | |
| Ethylbenzene* | 0.832 | 0.050 | mg/kg | 50 | 3081407 | MS | 15-Aug-13 | 8260B | |
| Total Xylenes* | 3.98 | 0.150 | mg/kg | 50 | 3081407 | MS | 15-Aug-13 | 8260B | |
| Total BTEX | 7.70 | 0.300 | mg/kg | 50 | 3081407 | MS | 15-Aug-13 | 8260B | |

| | | | | | | | | | |
|----------------------------------------|--|--------|--|----------|---------|----|-----------|-------|--|
| <i>Surrogate: Dibromofluoromethane</i> | | 95.0 % | | 61.3-142 | 3081407 | MS | 15-Aug-13 | 8260B | |
| <i>Surrogate: Toluene-d8</i> | | 109 % | | 71.3-129 | 3081407 | MS | 15-Aug-13 | 8260B | |
| <i>Surrogate: 4-Bromofluorobenzene</i> | | 136 % | | 65.7-141 | 3081407 | MS | 15-Aug-13 | 8260B | |

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 R T HICKS CONSULTANTS
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE, NM, 87104

 Project: JACKSON UNIT 18 H
 Project Number: NONE GIVEN
 Project Manager: RANDALL HICKS
 Fax To: NONE

 Reported:
 27-Aug-13 14:01

INNER PIT COMP
H301880-02 (Soil)

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

Cardinal Laboratories
Inorganic Compounds

| | | | | | | | | | |
|-----------------|-------------|------|-------|---|---------|----|-----------|-----------|--|
| Chloride | 2040 | 16.0 | mg/kg | 4 | 3081506 | AP | 15-Aug-13 | 4500-Cl-B | |
|-----------------|-------------|------|-------|---|---------|----|-----------|-----------|--|

Organic Compounds

| | | | | | | | | | |
|------------------|-------------|-----|-------|----|---------|----|-----------|-------|--|
| TPH 418.1 | 6390 | 100 | mg/kg | 10 | 3081609 | CK | 16-Aug-13 | 418.1 | |
|------------------|-------------|-----|-------|----|---------|----|-----------|-------|--|

Petroleum Hydrocarbons by GC FID

| | | | | | | | | | |
|-------------------|-------------|------|-------|---|---------|----|-----------|-------|--|
| GRO C6-C10 | 14.8 | 10.0 | mg/kg | 1 | 3081211 | DW | 13-Aug-13 | 8015B | |
|-------------------|-------------|------|-------|---|---------|----|-----------|-------|--|

| | | | | | | | | | |
|------------------------|------------|------|-------|---|---------|----|-----------|-------|--|
| DRO >C10-C28 | 487 | 10.0 | mg/kg | 1 | 3081211 | DW | 13-Aug-13 | 8015B | |
|------------------------|------------|------|-------|---|---------|----|-----------|-------|--|

| | | | | | | | | | |
|----------------------------|------------|------|-------|---|---------|----|-----------|-------|--|
| EXT DRO >C28-C35 | 119 | 10.0 | mg/kg | 1 | 3081211 | DW | 13-Aug-13 | 8015B | |
|----------------------------|------------|------|-------|---|---------|----|-----------|-------|--|

| | | | | | | | | | |
|----------------------------------|--|--------|--|----------|---------|----|-----------|-------|--|
| <i>Surrogate: 1-Chlorooctane</i> | | 94.8 % | | 65.2-140 | 3081211 | DW | 13-Aug-13 | 8015B | |
|----------------------------------|--|--------|--|----------|---------|----|-----------|-------|--|

| | | | | | | | | | |
|--------------------------------------|--|-------|--|----------|---------|----|-----------|-------|--|
| <i>Surrogate: 1-Chlorooctadecane</i> | | 119 % | | 63.6-154 | 3081211 | DW | 13-Aug-13 | 8015B | |
|--------------------------------------|--|-------|--|----------|---------|----|-----------|-------|--|

Volatile Organic Compounds by EPA Method 8260B

| | | | | | | | | | |
|-----------------|----|-------|-------|----|---------|----|-----------|-------|--|
| Benzene* | ND | 0.050 | mg/kg | 50 | 3081407 | MS | 15-Aug-13 | 8260B | |
|-----------------|----|-------|-------|----|---------|----|-----------|-------|--|

| | | | | | | | | | |
|-----------------|--------------|-------|-------|----|---------|----|-----------|-------|--|
| Toluene* | 0.056 | 0.050 | mg/kg | 50 | 3081407 | MS | 15-Aug-13 | 8260B | |
|-----------------|--------------|-------|-------|----|---------|----|-----------|-------|--|

| | | | | | | | | | |
|----------------------|----|-------|-------|----|---------|----|-----------|-------|--|
| Ethylbenzene* | ND | 0.050 | mg/kg | 50 | 3081407 | MS | 15-Aug-13 | 8260B | |
|----------------------|----|-------|-------|----|---------|----|-----------|-------|--|

| | | | | | | | | | |
|-----------------------|--------------|-------|-------|----|---------|----|-----------|-------|--|
| Total Xylenes* | 0.520 | 0.150 | mg/kg | 50 | 3081407 | MS | 15-Aug-13 | 8260B | |
|-----------------------|--------------|-------|-------|----|---------|----|-----------|-------|--|

| | | | | | | | | | |
|-------------------|--------------|-------|-------|----|---------|----|-----------|-------|--|
| Total BTEX | 0.576 | 0.300 | mg/kg | 50 | 3081407 | MS | 15-Aug-13 | 8260B | |
|-------------------|--------------|-------|-------|----|---------|----|-----------|-------|--|

| | | | | | | | | | |
|----------------------------------------|--|---|--|----------|---------|----|-----------|-------|--|
| <i>Surrogate: Dibromofluoromethane</i> | | % | | 61.3-142 | 3081407 | MS | 15-Aug-13 | 8260B | |
|----------------------------------------|--|---|--|----------|---------|----|-----------|-------|--|

| | | | | | | | | | |
|------------------------------|--|-------|--|----------|---------|----|-----------|-------|--|
| <i>Surrogate: Toluene-d8</i> | | 172 % | | 71.3-129 | 3081407 | MS | 15-Aug-13 | 8260B | |
|------------------------------|--|-------|--|----------|---------|----|-----------|-------|--|

| | | | | | | | | | |
|----------------------------------------|--|-------|--|----------|---------|----|-----------|-------|--|
| <i>Surrogate: 4-Bromofluorobenzene</i> | | 104 % | | 65.7-141 | 3081407 | MS | 15-Aug-13 | 8260B | |
|----------------------------------------|--|-------|--|----------|---------|----|-----------|-------|--|

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 R T HICKS CONSULTANTS
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104

 Project: JACKSON UNIT 18 H
 Project Number: NONE GIVEN
 Project Manager: RANDALL HICKS
 Fax To: NONE

 Reported:
 27-Aug-13 14:01

MIXING DIRT
H301880-03 (Soil)

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

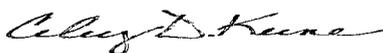
Cardinal Laboratories
Inorganic Compounds

| | | | | | | | | | |
|----------|------|------|-------|---|---------|----|-----------|-----------|--|
| Chloride | 16.0 | 16.0 | mg/kg | 4 | 3081506 | AP | 15-Aug-13 | 4500-Cl-B | |
|----------|------|------|-------|---|---------|----|-----------|-----------|--|

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 R T HICKS CONSULTANTS
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104

 Project: JACKSON UNIT 18 H
 Project Number: NONE GIVEN
 Project Manager: RANDALL HICKS
 Fax To: NONE

 Reported:
 27-Aug-13 14:01

INNER PIT 1:3 COMP
H301880-04 (Soil)

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

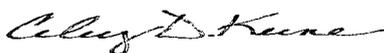
Cardinal Laboratories
Inorganic Compounds

| | | | | | | | | | |
|----------|-----|------|-------|---|---------|----|-----------|-----------|--|
| Chloride | 528 | 16.0 | mg/kg | 4 | 3082204 | AP | 22-Aug-13 | 4500-Cl-B | |
|----------|-----|------|-------|---|---------|----|-----------|-----------|--|

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 R T HICKS CONSULTANTS
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104

 Project: JACKSON UNIT 18 H
 Project Number: NONE GIVEN
 Project Manager: RANDALL HICKS
 Fax To: NONE

 Reported:
 27-Aug-13 14:01

OUTER PIT 1:3 COMP
H301880-05 (Soil)

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

Cardinal Laboratories
Inorganic Compounds

| | | | | | | | | | |
|----------|-------|------|-------|---|---------|----|-----------|-----------|--|
| Chloride | 26000 | 16.0 | mg/kg | 4 | 3082204 | AP | 22-Aug-13 | 4500-CI-B | |
|----------|-------|------|-------|---|---------|----|-----------|-----------|--|

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 R T HICKS CONSULTANTS
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104

 Project: JACKSON UNIT 18 H
 Project Number: NONE GIVEN
 Project Manager: RANDALL HICKS
 Fax To: NONE

 Reported:
 27-Aug-13 14:01

COMPLETE PIT COMP
H301880-06 (Soil)

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

Cardinal Laboratories
Inorganic Compounds

| | | | | | | | | | |
|-----------------|--------------|------|-------|---|---------|----|-----------|-----------|--|
| Chloride | 13000 | 16.0 | mg/kg | 4 | 3082204 | AP | 22-Aug-13 | 4500-Cl-B | |
|-----------------|--------------|------|-------|---|---------|----|-----------|-----------|--|

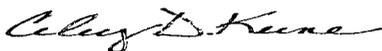
Organic Compounds

| | | | | | | | | | |
|------------------|------------|-----|-------|----|---------|----|-----------|-------|--|
| TPH 418.1 | 443 | 100 | mg/kg | 10 | 3082404 | CK | 27-Aug-13 | 418.1 | |
|------------------|------------|-----|-------|----|---------|----|-----------|-------|--|

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 R T HICKS CONSULTANTS
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104

 Project: JACKSON UNIT 18 H
 Project Number: NONE GIVEN
 Project Manager: RANDALL HICKS
 Fax To: NONE

 Reported:
 27-Aug-13 14:01

Inorganic Compounds - Quality Control
Cardinal Laboratories

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|-------------------------------------|--------|-----------------|-------|-------------|---------------|------|-------------|------|-----------|-------|
| Batch 3081506 - 1:4 DI Water | | | | | | | | | | |
| Blank (3081506-BLK1) | | | | | | | | | | |
| Prepared & Analyzed: 15-Aug-13 | | | | | | | | | | |
| Chloride | ND | 16.0 | mg/kg | | | | | | | |
| LCS (3081506-BS1) | | | | | | | | | | |
| Prepared & Analyzed: 15-Aug-13 | | | | | | | | | | |
| Chloride | 400 | 16.0 | mg/kg | 400 | | 100 | 80-120 | | | |
| LCS Dup (3081506-BSD1) | | | | | | | | | | |
| Prepared & Analyzed: 15-Aug-13 | | | | | | | | | | |
| Chloride | 432 | 16.0 | mg/kg | 400 | | 108 | 80-120 | 7.69 | 20 | |
| Batch 3082204 - 1:4 DI Water | | | | | | | | | | |
| Blank (3082204-BLK1) | | | | | | | | | | |
| Prepared & Analyzed: 22-Aug-13 | | | | | | | | | | |
| Chloride | ND | 16.0 | mg/kg | | | | | | | |
| LCS (3082204-BS1) | | | | | | | | | | |
| Prepared & Analyzed: 22-Aug-13 | | | | | | | | | | |
| Chloride | 416 | 16.0 | mg/kg | 400 | | 104 | 80-120 | | | |
| LCS Dup (3082204-BSD1) | | | | | | | | | | |
| Prepared & Analyzed: 22-Aug-13 | | | | | | | | | | |
| Chloride | 416 | 16.0 | mg/kg | 400 | | 104 | 80-120 | 0.00 | 20 | |

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 R T HICKS CONSULTANTS
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104

 Project: JACKSON UNIT 18 H
 Project Number: NONE GIVEN
 Project Manager: RANDALL HICKS
 Fax To: NONE

 Reported:
 27-Aug-13 14:01

Organic Compounds - Quality Control
Cardinal Laboratories

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

Batch 3081609 - Solvent Extraction
Blank (3081609-BLK1)

Prepared & Analyzed: 16-Aug-13

TPH 418.1 ND 100 mg/kg

LCS (3081609-BS1)

Prepared & Analyzed: 16-Aug-13

TPH 418.1 5200 100 mg/kg 5000 104 80-120

LCS Dup (3081609-BSD1)

Prepared & Analyzed: 16-Aug-13

TPH 418.1 5700 100 mg/kg 5000 114 80-120 9.17 20

Batch 3082404 - Solvent Extraction
Blank (3082404-BLK1)

Prepared & Analyzed: 27-Aug-13

TPH 418.1 ND 100 mg/kg

LCS (3082404-BS1)

Prepared & Analyzed: 27-Aug-13

TPH 418.1 5390 100 mg/kg 5000 108 80-120

LCS Dup (3082404-BSD1)

Prepared & Analyzed: 27-Aug-13

TPH 418.1 5520 100 mg/kg 5000 110 80-120 2.46 20

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 R T HICKS CONSULTANTS
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104

 Project: JACKSON UNIT 18 H
 Project Number: NONE GIVEN
 Project Manager: RANDALL HICKS
 Fax To: NONE

 Reported:
 27-Aug-13 14:01

Petroleum Hydrocarbons by GC FID - Quality Control
Cardinal Laboratories

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

Batch 3081211 - General Prep - Organics

| Blank (3081211-BLK1) | | | | Prepared: 12-Aug-13 Analyzed: 13-Aug-13 | | | | | | |
|-------------------------------|------|------|-------|-----------------------------------------|--|------|----------|--|--|--|
| GRO C6-C10 | ND | 10.0 | mg/kg | | | | | | | |
| DRO >C10-C28 | ND | 10.0 | mg/kg | | | | | | | |
| EXT DRO >C28-C35 | ND | 10.0 | mg/kg | | | | | | | |
| Total TPH C6-C28 | ND | 10.0 | mg/kg | | | | | | | |
| Surrogate: 1-Chlorooctane | 47.4 | | mg/kg | 50.0 | | 94.8 | 65.2-140 | | | |
| Surrogate: 1-Chlorooctadecane | 53.4 | | mg/kg | 50.0 | | 107 | 63.6-154 | | | |

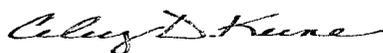
| LCS (3081211-BS1) | | | | Prepared: 12-Aug-13 Analyzed: 13-Aug-13 | | | | | | |
|-------------------------------|------|------|-------|-----------------------------------------|--|------|----------|--|--|--|
| GRO C6-C10 | 176 | 10.0 | mg/kg | 200 | | 88.0 | 66.4-124 | | | |
| DRO >C10-C28 | 186 | 10.0 | mg/kg | 200 | | 93.0 | 61.6-132 | | | |
| Total TPH C6-C28 | 362 | 10.0 | mg/kg | 400 | | 90.5 | 69.7-122 | | | |
| Surrogate: 1-Chlorooctane | 48.2 | | mg/kg | 50.0 | | 96.5 | 65.2-140 | | | |
| Surrogate: 1-Chlorooctadecane | 52.6 | | mg/kg | 50.0 | | 105 | 63.6-154 | | | |

| LCS Dup (3081211-BSD1) | | | | Prepared: 12-Aug-13 Analyzed: 13-Aug-13 | | | | | | |
|-------------------------------|------|------|-------|-----------------------------------------|--|------|----------|------|------|--|
| GRO C6-C10 | 183 | 10.0 | mg/kg | 200 | | 91.3 | 66.4-124 | 3.63 | 23.4 | |
| DRO >C10-C28 | 192 | 10.0 | mg/kg | 200 | | 95.8 | 61.6-132 | 2.90 | 23.1 | |
| Total TPH C6-C28 | 374 | 10.0 | mg/kg | 400 | | 93.5 | 69.7-122 | 3.26 | 20.6 | |
| Surrogate: 1-Chlorooctane | 50.5 | | mg/kg | 50.0 | | 101 | 65.2-140 | | | |
| Surrogate: 1-Chlorooctadecane | 55.1 | | mg/kg | 50.0 | | 110 | 63.6-154 | | | |

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 R T HICKS CONSULTANTS
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104

 Project: JACKSON UNIT 18 H
 Project Number: NONE GIVEN
 Project Manager: RANDALL HICKS
 Fax To: NONE

 Reported:
 27-Aug-13 14:01

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Cardinal Laboratories

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

Batch 3081407 - Volatiles
Blank (3081407-BLK1)

Prepared: 14-Aug-13 Analyzed: 15-Aug-13

| | | | | | | | | | | |
|---------------------------------|-------|-------|-------|-------|--|------|----------|--|--|--|
| Benzene | ND | 0.050 | mg/kg | | | | | | | |
| Toluene | ND | 0.050 | mg/kg | | | | | | | |
| Ethylbenzene | ND | 0.050 | mg/kg | | | | | | | |
| Total Xylenes | ND | 0.150 | mg/kg | | | | | | | |
| Total BTEX | ND | 0.300 | mg/kg | | | | | | | |
| Surrogate: Dibromofluoromethane | 0.471 | | mg/kg | 0.500 | | 94.3 | 61.3-142 | | | |
| Surrogate: Toluene-d8 | 0.499 | | mg/kg | 0.500 | | 99.8 | 71.3-129 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.511 | | mg/kg | 0.500 | | 102 | 65.7-141 | | | |

LCS (3081407-BS1)

Prepared: 14-Aug-13 Analyzed: 15-Aug-13

| | | | | | | | | | | |
|---------------------------------|-------|-------|-------|-------|--|------|----------|--|--|--|
| Benzene | 2.15 | 0.050 | mg/kg | 2.00 | | 108 | 76.8-122 | | | |
| Toluene | 2.16 | 0.050 | mg/kg | 2.00 | | 108 | 73.1-129 | | | |
| Ethylbenzene | 2.10 | 0.050 | mg/kg | 2.00 | | 105 | 72.8-128 | | | |
| m+p - Xylene | 4.16 | 0.100 | mg/kg | | | | 69.4-129 | | | |
| Total Xylenes | 6.24 | 0.150 | mg/kg | 6.00 | | 104 | 72-127 | | | |
| o-Xylene | 2.08 | 0.050 | mg/kg | 2.00 | | 104 | 70.3-126 | | | |
| Surrogate: Dibromofluoromethane | 0.476 | | mg/kg | 0.500 | | 95.3 | 61.3-142 | | | |
| Surrogate: Toluene-d8 | 0.504 | | mg/kg | 0.500 | | 101 | 71.3-129 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.504 | | mg/kg | 0.500 | | 101 | 65.7-141 | | | |

LCS Dup (3081407-BSD1)

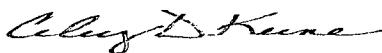
Prepared: 14-Aug-13 Analyzed: 15-Aug-13

| | | | | | | | | | | |
|---------------------------------|-------|-------|-------|-------|--|------|----------|------|------|--|
| Benzene | 2.23 | 0.050 | mg/kg | 2.00 | | 112 | 76.8-122 | 3.67 | 18.7 | |
| Toluene | 2.27 | 0.050 | mg/kg | 2.00 | | 113 | 73.1-129 | 4.83 | 19.4 | |
| Ethylbenzene | 2.20 | 0.050 | mg/kg | 2.00 | | 110 | 72.8-128 | 4.57 | 21.8 | |
| m+p - Xylene | 4.38 | 0.100 | mg/kg | | | | 69.4-129 | 5.01 | 25.3 | |
| o-Xylene | 2.17 | 0.050 | mg/kg | 2.00 | | 109 | 70.3-126 | 4.41 | 23.6 | |
| Total Xylenes | 6.55 | 0.150 | mg/kg | 6.00 | | 109 | 72-127 | 4.81 | 23.2 | |
| Surrogate: Dibromofluoromethane | 0.472 | | mg/kg | 0.500 | | 94.5 | 61.3-142 | | | |
| Surrogate: Toluene-d8 | 0.508 | | mg/kg | 0.500 | | 102 | 71.3-129 | | | |
| Surrogate: 4-Bromofluorobenzene | 0.518 | | mg/kg | 0.500 | | 104 | 65.7-141 | | | |

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

R T HICKS CONSULTANTS
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104

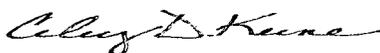
Project: JACKSON UNIT 18 H
Project Number: NONE GIVEN
Project Manager: RANDALL HICKS
Fax To: NONE

Reported:
27-Aug-13 14:01

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

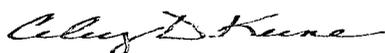
Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT OF THE RETURN ADDRESS, FOLD AT DOTTED LINE

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

TERRY WARNEK
 SLD
 PO Box 1148
 SANTA FE NM
 87504-1148

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent
 Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

SANTA FE NM 87507
 SEP 10 2013

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

2. Article Number 7012 0470 0001 5974 5899
 (Transfer from service lab)

From: [Leking, Geoffrey R, EMNRD](#)
To: [Kristin Pope](#)
Cc: ccottrell@jdmii.com; "Greg Boans"; [Warnell, Terry G.](#); "Chace Walls"; "Randy Hicks"
Subject: RE: Murchison - Brininstool 4 State 3H temporary pit
Date: Tuesday, September 10, 2013 1:15:04 PM

Kristin

The Permit Modification C-144 Applications for the Murchison Brininstool 4 State 3H temporary pit and the Murchison Jackson Unit #18H temporary pit are approved. The approved applications fulfill the requirements for closing the pits under the revised NMAC Rule 19.15.17 effective 6/28/2013. Please contact me if you have any questions. Thank you.

Geoffrey Leking
Environmental Specialist
NMOCD-Hobbs
1625 N. French Drive
Hobbs, NM 88240
Office: (575) 393-6161 Ext. 113
Cell: (575) 399-2990
email: geoffreyr.leking@state.nm.us

From: Kristin Pope [<mailto:kristin@rthicksconsult.com>]
Sent: Tuesday, September 10, 2013 7:37 AM
To: Leking, Geoffrey R, EMNRD
Cc: ccottrell@jdmii.com; 'Greg Boans'; Warnell, Terry G.; 'Chace Walls'; 'Randy Hicks'
Subject: Murchison - Brininstool 4 State 3H temporary pit

Mr. Leking:

The attached plan is submitted as a modification according to the June 2013 Pit Rule from the one you approved on March 19, 2013 under the previous Rule. The changes from the previous application include the Cover (change date), Transmittal Letter, C-144 Application Form, and the Closure plan. All of the site specific text, figures, and plates are unchanged. A hard copy will follow by regular mail.

As you have seen in our 9/6/2013 closure notification letter, we have sampled the pit following the 2013 Rule and it appears to be in compliance. We plan to begin closure activities on Thursday, September 12.

Thank you,

Kristin Pope
R.T. Hicks Consultants
Carlsbad Field Office

575.302.6755

From: Leking, Geoffrey R, EMNRD [<mailto:GeoffreyR.Leking@state.nm.us>]
Sent: Monday, September 09, 2013 10:55 AM
To: Kristin Pope
Cc: ccottrell@jdmii.com; Greg Boans; Warnell, Terry G.; Chace Walls; Randy Hicks
Subject: RE: CLOSURE NOTICE: Brininstool 4 State 3H temporary pit and Jackson Unit 8H

Kristin

The chloride concentrations fail the rules under which the Brinninstool 4 State 3H and Jackson Unit 8H were permitted. Before proceeding with field work, submit a modification to close under the new rule. I am still looking at the TPH situation. But you have to submit the mod to cover the chlorides. Thank you.

Geoffrey Leking
Environmental Specialist
NMOCD-Hobbs
1625 N. French Drive
Hobbs, NM 88240
Office: (575) 393-6161 Ext. 113
Cell: (575) 399-2990
email: geoffreyr.leving@state.nm.us

From: Kristin Pope [<mailto:kristin@rthicksconsult.com>]
Sent: Friday, September 06, 2013 2:45 PM
To: Leking, Geoffrey R, EMNRD
Cc: ccottrell@jdmii.com; Greg Boans; Warnell, Terry G.; Chace Walls; Randy Hicks
Subject: CLOSURE NOTICE: Brininstool 4 State 3H temporary pit

Mr. Leking,

In addition to our phone conversation earlier today, please find the attached written closure notice for the Brininstool 4 State 3H temporary pit. As stated on the phone and in the letter, Murchison will begin closure of this site next Thursday.

Please contact me or Randy with any questions. Thank you.

Kristin Pope
R.T. Hicks Consultants
Carlsbad Field Office
575.302.6755

ATTACHMENT 2

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.
 30-025-40974

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
 JACKSON UNIT

6. Well Number:
 018H

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

8. Name of Operator
 MURCHISON OIL & GAS, INC.

9. OGRID
 15363

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: | | | | | | | | | | |
| BH: | | | | | | | | | | |

13. Date Spudded 14. Date T.D. Reached 15. Date Rig Released
 7/4/2013

16. Date Completed (Ready to Produce) 17. Elevations (DF and RKB, RT, GR, etc.)

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 | | | | 25. TUBING RECORD | | | |
|------------------|-----|--------|--------------|-------------------|------|-----------|------------|
| SIZE | TOP | BOTTOM | SACKS CEMENT | SCREEN | 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 - (<i>Corr.</i>) | |

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.
 PLATE I ATTACHED

33. If an on-site burial was used at the well, report the exact location of the on-site burial:

Latitude N 32.1967° Longitude W 103.5837° 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 *Kristin Pope* Printed Name KRISTIN POPE Title PROJECT GEOLOGIST, AGENT FOR MUCHISON Date 11/26/2013

E-mail Address kristin@rthicksconsult.com

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, fromto..... No. 3, from.....to.....
 No. 2, fromto..... No. 4, from.....to.....

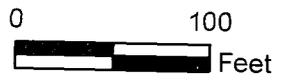
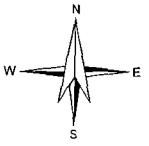
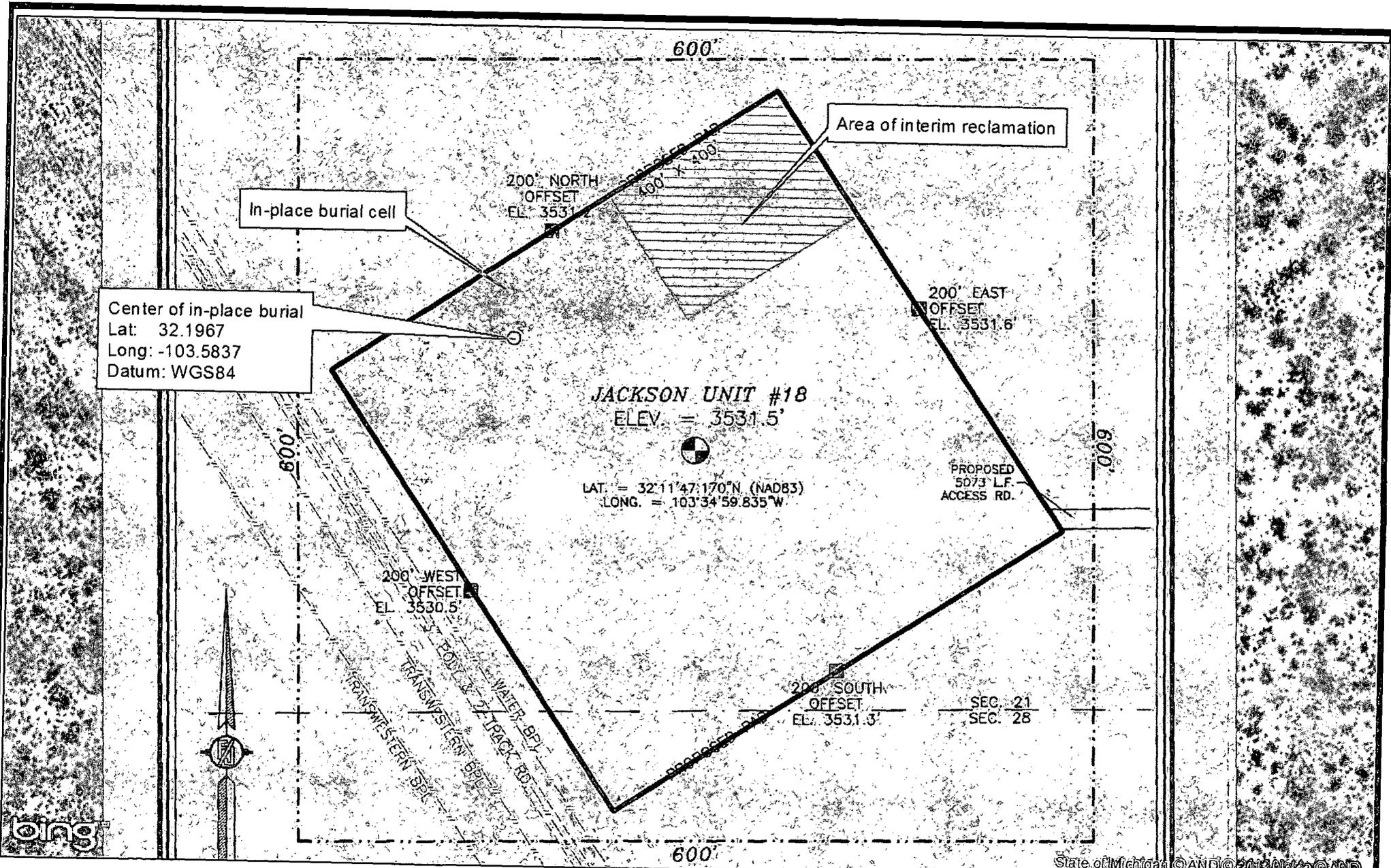
IMPORTANT WATER SANDS

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

No. 1, fromto..... feet.....
 No. 2, fromto..... feet.....
 No. 3, fromto..... 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
 901 Rio Grande Blvd NW Suite F-142
 Albuquerque, NM 87104
 Ph: 505.266.5004

On-Site Burial Location of Temporary Pit
 in relation to well pad

Murchison - Jackson Unit 18H

Plate 1
 of C-105 form
 Nov 2013

ATTACHMENT 3

Waste Material Sampling Analytical Results

On August 8, 2013, five-point composite samples were collected from the temporary pit location and submitted to Cardinal Laboratories in Hobbs, New Mexico for BTEX (8260B), GRO/GRO (8015M), TPH (418.1), and Chloride (SM4500) analyses.

The table below depicts the samples collected from the cuttings in this pit and their concentrations of the parameters listed in Table II of 19.15.17.13 NMAC (June 2013 Pit Rule). These analyses demonstrate that this site meets the criteria for in-place closure. The full laboratory report is included in Attachment 1 of this report.

| Table II Limits (mg/kg) | Sample Date | Chloride 80,000 | Benzene 10 | BTEX 50 | GRO+DROext 1000 | TPH 2500 |
|------------------------------------------|--------------------|---------------------------|----------------------|-------------------|---------------------------|--------------------|
| Outer Horseshoe Composite (unstabilized) | 8/8/2013 | 81600 | 0.319 | 7.7 | 124.4 | 561 |
| Inner Horseshoe Composite (unstabilized) | 8/8/2013 | 2040 | ND | 0.576 | 620.8 | 6390 |
| Mixing Dirt Composite | 8/8/2013 | 16 | -- | -- | -- | -- |
| Stabilized 1:3 Inner Composite | 8/8/2013 | 528 | -- | -- | -- | -- |
| Stabilized 1:3 Outer Composite | 8/8/2013 | 26000 | -- | -- | -- | -- |
| Stabilized 1:3 Complete Pit Composite | 8/8/2013 | 13000 | -- | -- | -- | 443 |

The composite samples from the unstabilized cuttings in the outer horseshoe cell (used for brine and cut brine drilling fluids) and the inner horseshoe cell (fresh water drilling fluids) were analyzed for all Table II constituents before mixing with stabilizing dirt. The unstabilized sample from the outer cell independently met Table II limits for each constituent except chloride. The unstabilized sample from the inner cell independently met Table II limits for each constituent except TPH. Whereas the concentration of 81,600 mg/kg chloride was expected for the unstabilized sample from the outer cell, the 6,390 mg/kg for TPH 418.1 was surprising. The high concentration is especially confounding when one totals the TPH concentration using GC FID methods (EPA 8015B) as 620.8 mg/kg (results are shown at right).

| <u>Petroleum Hydrocarbons by GC FID</u> | |
|-----------------------------------------|------|
| GRO C6-C10 | 14.8 |
| DRO >C10-C28 | 487 |
| EXT DRO >C28-C35 | 119 |

The material for stabilizing and cover above the liner (“mixing dirt composite”) was collected from the berms of the pit under the liner and from material stockpiled on site. Laboratory analysis for chloride confirm that the material is less than 600 mg/kg as required by Paragraph (3) of Subsection H of 19.15.17.13 NMAC. The outer and inner composite samples were mixed in a ratio that reflects the volume of cuttings in each cell and then mixed with the “mixing dirt” at a ratio of 1:3 for the “Stabilized 1:3 Complete Pit Composite” sample which was analyzed for chloride (result is 13,000 mg/kg) and TPH (result is 443 mg/kg).

ATTACHMENT 4

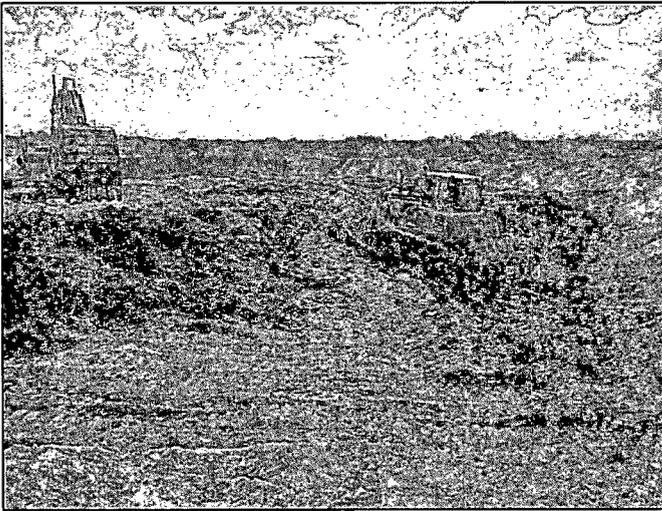
SOIL BACKFILLING & COVER INSTALLATION

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

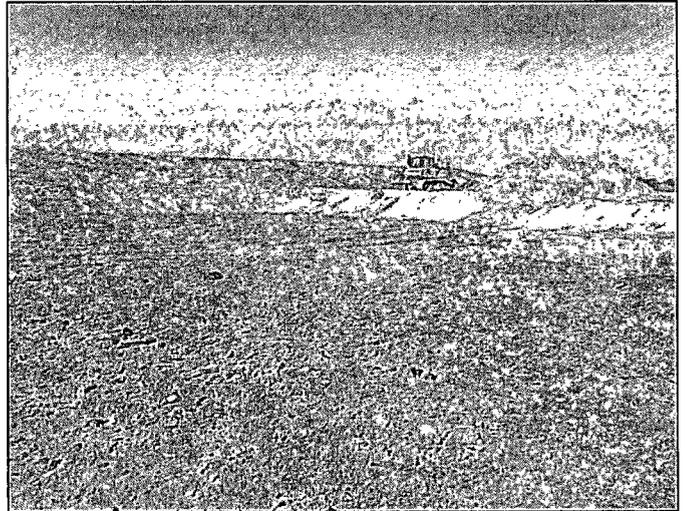
1. The on-site burial location and its depth is in compliance with the siting criteria presented in the C-144 application and the Pit Rule under which it was submitted to the NMOCD on March 21, 2013 and approved on March 26, 2013. After the rig was released on July 4, 2013, fluid contents in the pit were removed to be recycled for the drilling of other wells while the cuttings were allowed to dry.
2. On August 8, 2013, 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. These were mixed in a ratio of 1 part cuttings to 3 parts clean soil and were analyzed for Chloride, TPH, GRO, DRO, MRO, Benzene, and BTEX at Cardinal Laboratories in Hobbs, New Mexico. The results, as noted in the subsequent closure notice, demonstrate that the stabilized pit contents would not exceed the parameter limits listed in Table II of the new Pit Rule (June 2013).
3. On September 6, 2013, a closure notice was submitted to the NMOCD, District 1 office in Hobbs and to the State Land Office. On September 9, NMOCD requested a modification to the C-144 permit to meet the closure criteria of the new Pit Rule. On September 10, R.T. Hicks Consultants submitted a modification request to the C-144 permit along with a closure plan that satisfied the new Pit Rule and NMOCD granted approval on the same day.
4. On September 12, 2013, closure activities commenced and stabilization of the pit contents was achieved by mixing the pit contents with the dry soil beneath the liner of the pit. The liner material was cut off above the cuttings level and the large panels were reserved for later. Stabilization continued until September 22 when 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.
5. Following the September 22, 2013 inspection, having achieved all applicable stabilization requirements associated with in-place burial, the reserved liner material was arranged on top of the stabilized cuttings. Additional liner was required and overlapped to completely cover the stabilized cuttings. The pit contents and liner were shaped to shed infiltrating water, slightly higher in the middle.

6. Once the geomembrane cover was in place, at least 4 feet of non-waste contained, uncontaminated earthen material and 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 is equal to the background thickness at least one foot.

7. The surface was contoured to blend with the surrounding topography and to prevent erosion and the ponding of water over the on-site closure. This work was completed on September 27, 2013.



Stabilizing Cuttings 9-18-2013



Stabilized Cuttings 9-22-2013



Paint Filter Test on Stabilized Cuttings 9-22-2013



Spreading topsoil 9-27-2013

ATTACHMENT 5

RE-VEGETATION PROCEDURES

There were no road or surface drainage features nearby that required restoration or preservation, however, interim reclamation was initiated on an area of the well pad east of the pit area as shown on plate 1 of Attachment 2. The caliche pad was removed from this area and replaced with topsoil and seeded at the same time as the on-site pit closure in the manner described below.

1. On November 20, 2013, Morgan Tools of Artesia seeded the topsoil on the on-site burial and interim reclamation areas using a seed drill pulled by a tractor that prepared the seedbed in the same pass using discs. The seed furrows were oriented perpendicular to the prevailing western wind to minimize erosion.
2. Approximately 15 pounds of BLM #2 seed mixture and 20 pounds of Homesteader's Choice blend were applied in accordance with the supplier's instructions to approximately 2 acres of the pit closure and interim reclamation areas. Species constituents of each blend are listed below and are appropriate for the soil type and conditions at this site. Note that Plains Bristlegrass, a majority component of the BLM #2 assortment, was unavailable so appropriate substitute species approved by the BLM were used.

BLM #2

Sideoats Grama
Little Bluestem
Sand Dropseed
Indian Ricegrass
Plains Coreopsis

Homesteader's Choice

Blue Grama
Buffalograss
Sideoats Grama
Western Wheatgrass
Sand Dropseed

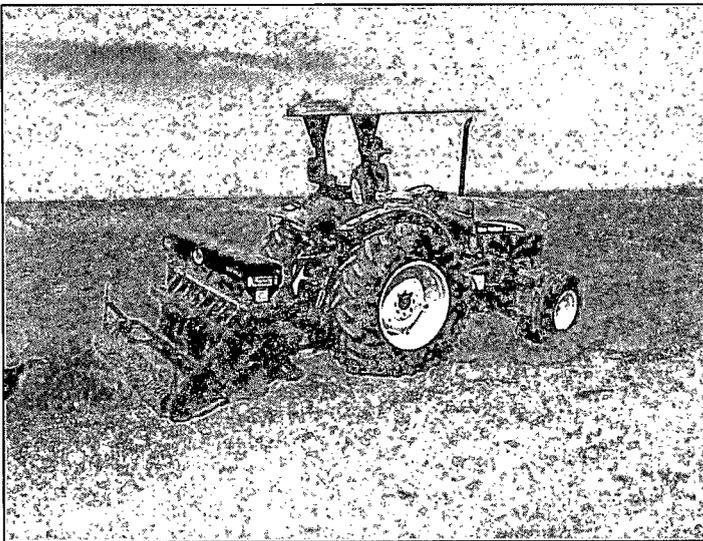
3. The seeded area will be monitored for growth and the operator will repeat seeding until a successful vegetative cover is achieved as outlined in Subsection (5) of Paragraph H of 19.15.17.13 NMAC.
4. If conditions are not favorable for the establishment of vegetation, such as periods of drought, the operator may request that the division allow a delay in additional seeding until soil moisture conditions become favorable. The operator will notify the division and provide photo-documentation when it successful re-vegetation is achieved.

A table with multiple columns and rows, containing text that is mostly illegible due to low resolution. The title "BLM #2 seed composition" is visible at the top.

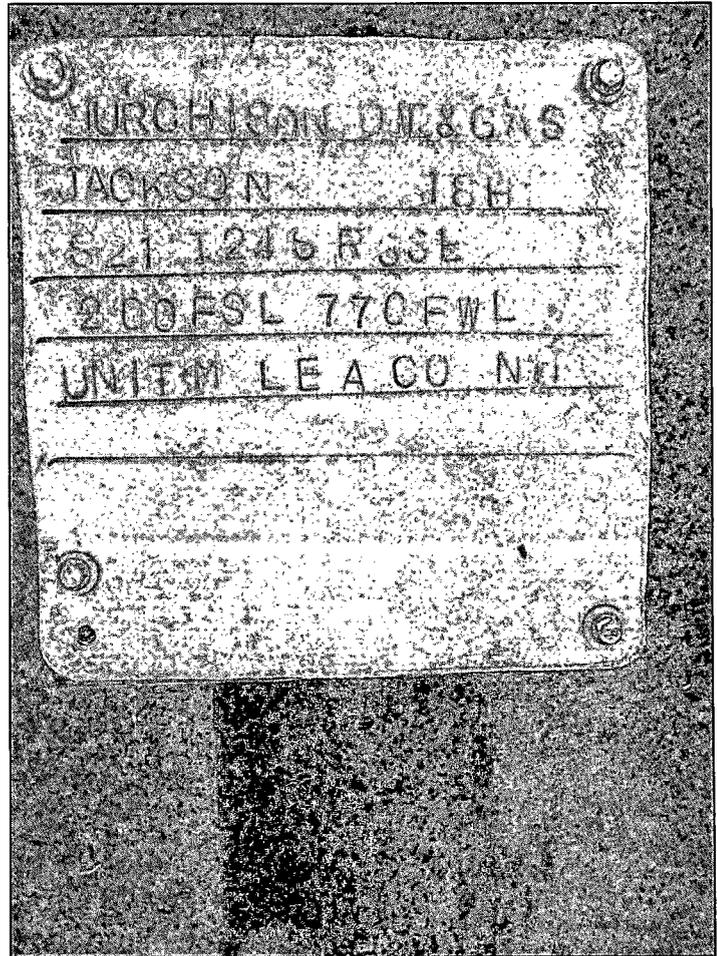
BLM #2 seed composition

A table with multiple columns and rows, containing text that is mostly illegible due to low resolution. The title "Homesteader's Choice seed composition" is visible at the top.

Homesteader's Choice seed composition



Seeding 11-20-2013



Steel marker plate
to be placed on surface of on-site burial

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

HOBBS OCD
DEC 02 2013
RECEIVED

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

HOBBS OCD
SEP 12 2013
RECEIVED

- 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: Murchison Oil & Gas, Inc. OGRID #: 15363
Address: 1100 Mira Vista Blvd., Plano, TX 75093-4698
Facility or well name: Jackson Unit No. 18H
API Number: 30-025-40974 OCD Permit Number: PI-05707
U/L or Qtr/Qtr M Section 21 Township 24S Range 33E County: Lea
Center of Proposed Design: Latitude 32° 11' 47.170" N Longitude 103° 34' 59.835" 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: 36,726 bbl Dimensions: L 309 x W 112 x D 7-12 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.

Variations 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.

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

Yes No
 NA

Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.

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

Yes No
 NA

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**

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

Yes No

Within the area overlying a subsurface mine. **(Does not apply to below grade tanks) See Figure 7**

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

Yes No

Within an unstable area. **(Does not apply to below grade tanks) See Figure 8**

- 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. **(Does not apply to below grade tanks) See Figure 9**

- FEMA map

Yes No

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).

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

Yes No

Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;

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

Yes No

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.)

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

Yes No

Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application.

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

Yes No

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.

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

Yes No

Within 100 feet of a wetland.

- 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**

- 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.

- 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;

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site **See Figures 1 & 2**

Yes No

Within 300 feet of a wetland. **See Figure 6**

- 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).

- 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.

- 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.

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

Yes No

Within 500 feet of a wetland.

- 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 H₂S, 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. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA |
| Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA |
| Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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). - Topographic map; Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Written confirmation or verification from the municipality; Written approval obtained from the municipality | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.

- Written confirmation or verification from the municipality; Written approval obtained from the municipality Yes No

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division Yes No

Within an unstable area.

- 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.

- 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

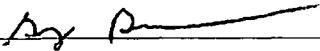
Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17. **Operator Application Certification:**

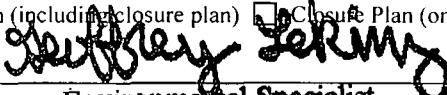
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): Greg Boans Title: Production Superintendent

Signature:  Date: September 10, 2013

e-mail address: gboans@jdmii.com Telephone: (575) 361-4962

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

OCD Representative Signature:  Approval Date: 9/13/13

Title: Environmental Specialist OCD Permit Number: P1-05707

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: September 27, 2013

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) n/a (State Land)

Plot Plan (for on-site closures and temporary pits)

Confirmation Sampling Analytical Results (if applicable) n/a (in-place burial)

Waste Material Sampling Analytical Results (required for on-site closure)

Disposal Facility Name and Permit Number n/a (in-place burial)

Soil Backfilling and Cover Installation

Re-vegetation Application Rates and Seeding Technique

Site Reclamation (Photo Documentation) to follow

On-site Closure Location: Latitude N 32.1967° Longitude W 103.5837° NAD: 1927 1983

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): Kristin Pope Title: Agent for Murchison Oil and Gas

Signature: *Kristin Pope* Date: November 26, 2013

e-mail address: kristin@rthicksconsult.com Telephone: (575) 302-6755

approved

Stephany Sekins

Environmental Specialist

NMOC-DIST 1

7/02/14