

# R. T. HICKS CONSULTANTS, LTD.

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

April 27, 2015

Dr. Tomáš Oberding  
NMOCD District 1  
1625 French Drive  
Hobbs, NM 88240  
*VIA EMAIL*

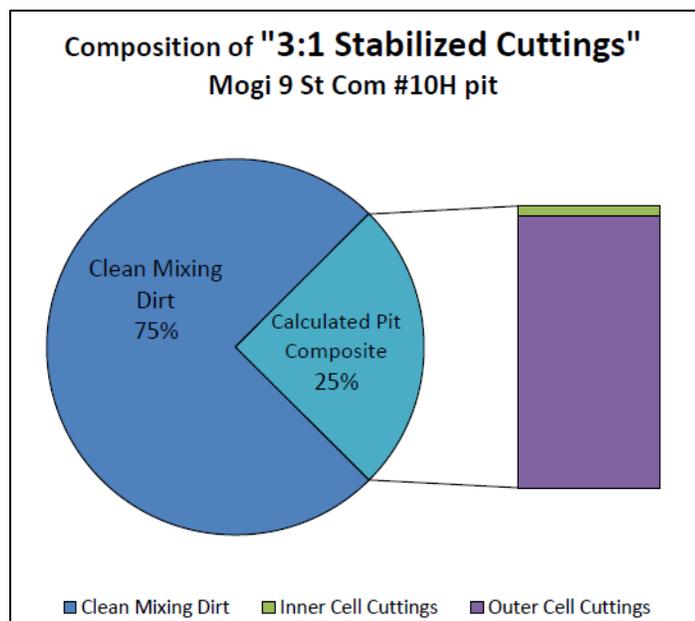
RE: Murchison – Mogi 9 State Com #10H Temporary Pit  
Extension Request/Notice of Closure  
Unit O, Section 9, T24S, R33E, API #30-025-41973, Pit Permit #P1-06561

Dear Dr. Oberding:

On behalf of Murchison Oil and Gas, R.T. Hicks Consultants respectfully requests a 14-day extension for the closure of the above-referenced temporary pit. The rig was released from the well on October 22, 2014 and the pit was then used to contain flow-back fluids to complete the well. On November 26, 2014, NMOCD approved a variance request to use the pit to contain drilling wastes from a second well (Jackson Unit #33H) that shares the same pad. The second well was completed on December 18, 2014.

The unavailability of excavation machinery caused a minor delay but the closure process is now scheduled to begin on **Thursday, April 30, 2015**. Please consider this submission a notice of closure. As notice to the surface owner, we are also providing a copy of this submission to the State Land Office (email, as approved on 1/7/2015). Closure will follow the "In-place Burial" plan that was submitted with the C-144 application and approved by NMOCD on March 4, 2015

Composite samples from the entire contents of the inner and outer cells of the pit were collected on March 4, 2015 for laboratory analyses in accordance with the Pit Rule. To simulate stabilization of drilling waste for in-place burial, our calculated value mathematically mixes 3 parts clean soil from the pit berms beneath the liner (mixing dirt) with 1 part of the weighted pit composite, as depicted in the adjacent chart. The majority of the cuttings were placed in the outer cell and so the calculated pit composite consists of 3.7% solids from the inner cell of the drilling pit and 96.3% of solids from the outer cell (1:26 ratio), obtained by measuring the



volume of cuttings in each cell after those from both wells were deposited in the pit.

On December 18, 2014, NMOCD approved a variance to substitute GRO+DRO+MRO (Method 8015D) analysis for TPH 418.1. As shown in the table below, these analyses and calculations “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 listed in Table II of 19.15.17.13 NMAC.”

| Mogi 9 St Com #10H pit<br>Sample Name  | Sample Type | Sample Date | Chloride<br>80,000 | Benzene<br>10 | BTEX<br>50  | GRO+<br>DRO<br>1000 | GRO+<br>DRO+MRO<br>2500 |
|--|-------------|-------------|--------------------|---------------|-------------|---------------------|-------------------------|
| Inner Composite  | Field comp. | 3/4/2015    | 33,000             | ND            | 0.277       | 439                 | 1,039                   |
| Outer Composite  | Field comp. | 3/4/2015    | 30,000             | 0.35          | 7.01        | 3,664               | 4,264                   |
| Mixing Dirt  | Field comp. | 3/4/2015    | ND                 | ND            | ND          | ND                  | ND                      |
| <b>3:1 Stabilized Cuttings CALCULATED *</b><br>(3 parts mixing dirt, 1 part weighted pit cuttings) |             |             | <b>7,527.75</b>    | <b>0.08</b>   | <b>1.69</b> | <b>886.17</b>       | <b>1,036.17</b>         |

\* = $[(\text{Inner} \times 0.037) + (\text{Outer} \times .963) + (\text{Mixing} \times 3)] / 4$

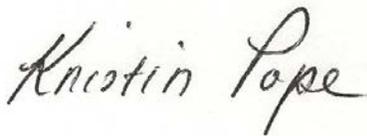
ND = Not detected at the laboratory's reporting limit

all values are mg/kg

Please consider our phone conversation on April 24, 2015 verbal notice of closure, as required by the Pit Rule. Thank you for your attention to this project.

Sincerely,

R.T. Hicks Consultants



Kristin Pope  
Project Geologist

Enclosures: Variance approval for email to SLO, variance approval for TPH substitution

Copy: Murchison Oil and Gas, NM State Land Office (Ed Martin)

**From:** [Oberding, Tomas, EMNRD](mailto:Oberding.Tomas.EMNRD)  
**To:** [Kristin Pope](mailto:Kristin.Pope)  
**Cc:** [ccottrell@jdmii.com](mailto:ccottrell@jdmii.com); [Randy Hicks](mailto:Randy.Hicks); [gboans@jdmii.com](mailto:gboans@jdmii.com); [Chace Walls](mailto:Chace.Walls); [Martin, Ed](mailto:Martin.Ed)  
**Subject:** RE: VARIANCE REQUEST: Email substitution for pit closure notices  
**Date:** Wednesday, January 07, 2015 10:13:08 AM

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Ms. Pope,

This email is fine for OCD documentation, for the current site closure.

Mahalo

-Doc

Tomáš 'Doc' Oberding, PhD  
Senior Environmental Specialist  
New Mexico Oil Conservation Division, District 1  
Energy, Minerals and Natural Resources Department  
(575) 393-6161 ext 111  
E-Mail: [tomas.oberding@state.nm.us](mailto:tomas.oberding@state.nm.us)

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, and for notification, please contact me.

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**From:** Kristin Pope [<mailto:kristin@rthicksconsult.com>]  
**Sent:** Wednesday, December 31, 2014 1:35 PM  
**To:** Oberding, Tomas, EMNRD  
**Cc:** [ccottrell@jdmii.com](mailto:ccottrell@jdmii.com); [Randy Hicks](mailto:Randy.Hicks); [gboans@jdmii.com](mailto:gboans@jdmii.com); [Chace Walls](mailto:Chace.Walls); [Martin, Ed](mailto:Martin.Ed)  
**Subject:** VARIANCE REQUEST: Email substitution for pit closure notices

Dr. Oberding:

Please find the attached variance request for a substitution of email to SLO in lieu of temporary pit closure notices submitted via US Mail, return receipt requested. It is referenced for the Murchison – Jackson Unit #14H but I also submitted a closure report for the Jackson Unit #16H.

Please contact me with any questions about this upon your return to work. Thank you.

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

**From:** [Oberding, Tomas, EMNRD](#)  
**To:** [Kristin Pope](#)  
**Cc:** [ccottrell@jdmii.com](#); [Chace Walls](#); [gboans@jdmii.com](#); [Randy Hicks](#); [Griswold, Jim, EMNRD](#)  
**Subject:** RE: VARIANCE REQUEST: Murchison - Jackson Unit #17H  
**Date:** Thursday, December 18, 2014 8:16:05 AM

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Aloha Ms. Pope et al,

Thank you for sending in this variance request.

After discussions, OCD approves the substitution of 8015 B, C, or D for 418.1. Hydrocarbons between C6 and C36 must be included in the results.

As 8015M appears to cover GRO+DRO+MRO- this too is an appropriate alternate methodology.

Thank you for continuing to work with the OCD.

Please let me know if you have any questions.

-Doc

Tomáš 'Doc' Oberding, PhD  
Senior Environmental Specialist  
New Mexico Oil Conservation Division, District 1  
Energy, Minerals and Natural Resources Department  
(575) 393-6161 ext 111  
E-Mail: [tomas.oberding@state.nm.us](mailto:tomas.oberding@state.nm.us)

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If you have any questions or concerns, and for notification, please contact me.

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**From:** Kristin Pope [mailto:[kristin@rthicksconsult.com](mailto:kristin@rthicksconsult.com)]  
**Sent:** Tuesday, December 16, 2014 7:51 AM  
**To:** Oberding, Tomas, EMNRD  
**Cc:** [ccottrell@jdmii.com](#); [Chace Walls](#); [gboans@jdmii.com](#); [Randy Hicks](#); [Griswold, Jim, EMNRD](#)  
**Subject:** VARIANCE REQUEST: Murchison - Jackson Unit #17H

Dr. Oberding:

Please find the attached variance request we discussed over the phone last week. During our phone call, I was mistaken on the closure deadline for this site; the closure deadline for this is January 14, 2015. Per our discussion, note that I've copied Jim Griswold on this submission.

Please let me know if we can assist NMOCD's review in any way. Thank you.

**Kristin Pope**  
**R.T. Hicks Consultants**

**From:** [Andy Freeman](#)  
**To:** ["Kristin Pope" \(kristin@rthicksconsult.com\)](mailto:kristin@rthicksconsult.com)  
**Subject:** Hydrocarbon Ranges  
**Date:** Monday, December 29, 2014 1:31:31 PM

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Hi Kristin,

I have the hydrocarbon ranges listed below.

GRO C6-C10  
DRO C10-C28  
MRO C28-C36

Have a great New Year.

Thanks

andy