

R. T. HICKS CONSULTANTS, LTD.

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January 6, 2015

Mr. Tomas Oberding
NMOCD District 1
1625 French Drive
Hobbs, New Mexico 88240
VIA EMAIL

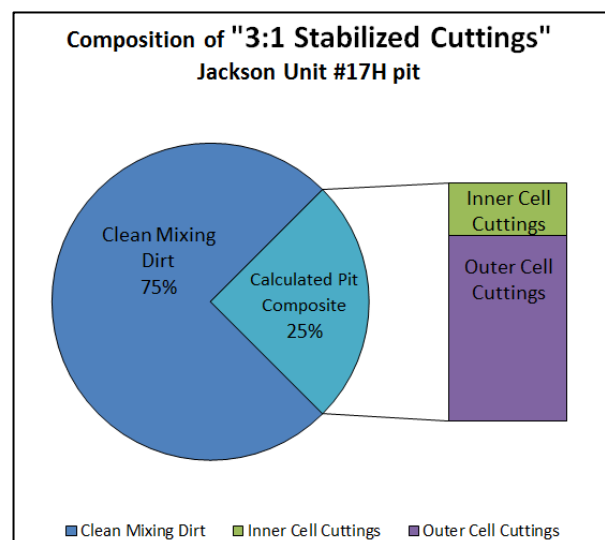
RE: Jackson Unit #17H Temporary Pit, In-place Burial Notice
API #30-025-41087, Pit Permit #P1-05981

Dear Mr. Oberding:

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 mail, return receipt request) that closure operations at the above- referenced pit will begin on **Friday, January 9, 2015** around 1:00 pm local time. Depending on the availability of machinery and weather conditions, the closure process should require about two weeks. The "In-place Burial" closure plan for the pit was submitted on January 6, 2014 with the C-144 temporary pit application and approved by NMOCD on January 16, 2014. The rig was released from the Jackson Unit #17H well on April 14, 2014.

On August 12, 2014, NMOCD approved a variance request to transfer drilling waste from the nearby Brininstool 4 State Com#4H well, which was drilled using a closed loop system, to the Jackson Unit #17H temporary pit. The rig was released from the Brininstool 4 State Com #4H well on September 21, 2014 but heavy rains received in the area did not allow the immediate sampling of the contents of the Jackson Unit #17H pit. On October 14, 2014, NMOCD granted a 3-month extension for the closure of the pit, creating of new deadline of January 14, 2015.

Composite samples from the entire contents of the inner and outer cells of the pit were collected on October 28, 2014 for laboratory analyses in accordance with the Pit Rule. To simulate stabilization of drilling waste for in-place burial, the 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 calculated pit composite consists of 22.2% solids from the inner cell of the drilling pit and 77.7% of the solids from the outer cell (1:3.5 ratio), calculated by measuring the volume of cuttings in each cell after those



from both wells were deposited in the pit. The formula use in the table below is:

$$3:1 \text{ Stabilized Solids} = \frac{[(\text{Outer Composite} * 0.777) + (0.222 * \text{Inner Composite}) + (\text{Mixing Dirt} * 3)]}{4}$$

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."

Jackson Unit #17H pit Sample Name	Sample Type	Sample Date	Chloride 80,000	Benzene 10	BTEX 50	GRO+ DRO 1000	GRO+ DRO+MRO 2500
Inner Composite	Field comp.	10/28/2014	10,000	ND	ND	31	31
Outer Composite	Field comp.	10/28/2014	34,000	1.3	16.2	3,140	3,770
Mixing Dirt	Field comp.	10/28/2014	180	ND	ND	ND	ND
3:1 Stabilized Cuttings CALCULATED * (3 parts mixing dirt, 1 part weighted pit cuttings)			7,301.67	0.25	3.15	612.28	734.78

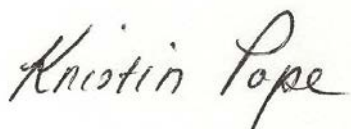
ND = Not detected at the laboratory's reporting limit

all values are mg/kg

I will follow up this notice to you with a phone call today as required by the Pit Rule.

Sincerely,

R.T. Hicks Consultants



Kristin Pope

Enclosure: Variance approval, statement of laboratory's carbon ranges for 8015D

Copy: Murchison Oil and Gas

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

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

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

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.

From: Kristin Pope [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

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