R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745 × Durango, CO × Carlsbad, NM × Hobbs, NM×

July 9, 2020

Robert J Hamlet State of New Mexico Energy, Minerals, and Natural Resources Oil Conservation Division 811 S. First St., Artesia NM 88210 NMOCD District District 1 - HOBBS 1625 N. French Drive Hobbs, New Mexico 88240 Electronic Submittal via Portal

Dear Mr. Hamlet,

Thank you for your review of Wool Head 20 St Com #703 (#NRM2003454039).

In response to the closure denial, we present a plan for further testing of hydrocarbon constituents to ensure this site closure meets the goal of NMOCD to protect fresh water, the environment and human health and safety.

The remediation process removed approximately 900 cubic yards of impacted soil, which was delineated vertically and horizontally for Chlorides, in order to meet or exceed closure criteria for this constituent. In the setting of a produced water release, most, if not all hydrocarbons (if present) would also be removed in the excavation of chloride impacted soil. The base and wall samples tested for hydrocarbon constituents were near the two (2) release sources where hydrocarbon impact is likely to be greatest. Confirmation sample results demonstrate that hydrocarbons are below laboratory detection levels.

Since the excavated material is no longer present, we propose testing native soil along the periphery of the release extent for hydrocarbons (0-2 ft with hand auger), as well as an additional base sample (5.2 ft with hand auger) at the confluence of the two release sources where the base chloride concentration was the highest.

Attached to this email is a map (Plate 11) showing prior soil sample locations (including those testing non-detect for hydrocarbons) and the proposed "wall" testing to demonstrate the vertical delineation of any hydrocarbon soil impact. I have also attached a copy of our sampling data for your convenience in review of this plan.

9 July 2020 Page **2**

Proposed Additional Sample Areas:

- S-08 Base at native soil hand auger to 5.2 ft (highest base chloride at confluence of 2 source flow paths)
- Vertical delineation of native soil 0-2 ft with hand auger
 - o E wall of S-03
 - o SW wall of S-05
 - o SW wall of S-07
 - o SW wall of S-02
 - o SW wall of S-12
 - o NE wall of S-11

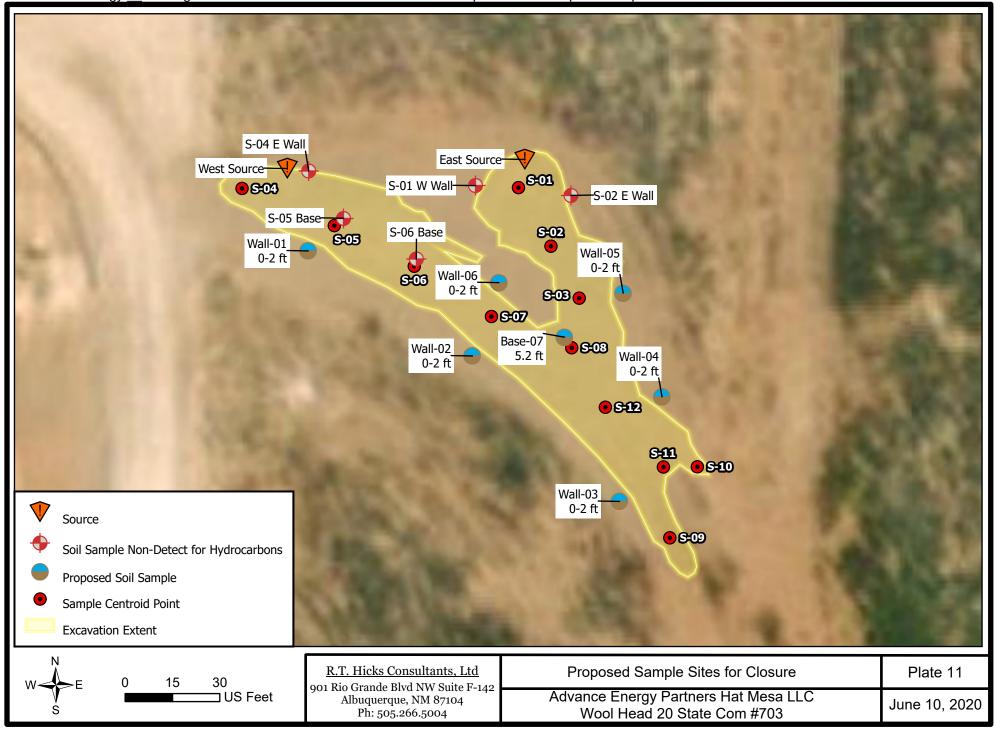
I look forward to your response. We are eager to facilitate closure of this site and are committed to working with NMOCD towards this goal.

Sincerely,

Andrew Parker

R.T. Hicks Consultants

M:\Advance Energy__Pending NMOCD\Wool Head 703H PW Release\arcGISpro703H\arcGISpro703H.aprx



Sample ID	Date	Matrix (Soil/Water)	Discrete Depth (Feet)	Top Depth (Feet)	Bottom Depth (Feet)	In Use (Yes/No)	EC (Hanna)	Chloride (PPM)	GRO+DRO (PPM)	TPH Ext. (PPM)	Benzene (PPM)	BTEX (PPM)	Comments
NMOCD Limits		(3011) Water)	(reet)	(reet)	(reet)	(163/110)	us/iii	(FFIVI)	(FFIVI)	(FFIVI)	(PPIVI)	(PPIVI)	
0 - 4 feet & "not in-use"								600		2 500	10	50	
										2,500			
> 4 ft or "in-use"								20,000	1,000	2,500	10	50	
HA-01	9/3/2019	Soil	5.5			No	0.06	48					Grid S-05
HA-02	9/3/2019	Soil	3.5			No	0.07	NS					Between Grid S-07 & S-08 Not Sampled
HA-03	9/3/2019	Soil	4.0			No	0.02	NS					Between Grid S-08 and S-12 Not Sampled
HA-04	9/3/2019	Soil	5.5			No	0.06	160					Grid S-03
S-01 Base	9/5/2019	Soil	5.5			No	0.01	48					
S-01 N. Wall	9/5/2019	Soil		0.0	4.0	No	0.01	48					
S-01 S. Wall	9/5/2019	Soil		0.0	4.0	No	0.03	48					
S-01 W. Wall	9/3/2019	Soil		0.0	4.0	No	0.05	48	<20	<30	<0.050	<0.3	
S-01 Trench Base	9/3/2019	Soil	8.0			No	0.04	32					
S-01 Trench Wall	9/3/2019	Soil	6.0			No	0.04	32					
S-02 Base	9/5/2019	Soil	5.0			No	0.01	32					
S-02 N. Wall	9/5/2019	Soil		0.0	4.0	No	0.11	160	<20	<30	<0.05	<0.3	
S-02 S. Wall	9/5/2019	Soil		0.0	4.0	No	0.02	48					
S-03 Base	9/5/2019	Soil	5.5			No	0.01	48					
S-03 N. Wall	9/5/2019	Soil		0.0	4.0	No	0.01	48					
S-03 S. Wall	9/5/2019	Soil		0.0	4.0	No	0.01	48					
S-04 Base	9/9/2019	Soil	3.0	0.0		No	0.02	64					
S-04 N. Wall	9/9/2019	Soil	5.0	0.0	3.0	No	0.02	16					
S-04 S. Wall	9/9/2019	Soil		0.0	3.0	No	0.04	32					
S-04 E. Wall	9/9/2019	Soil		0.0	3.0	No	0.05	32	<20	<30	<0.05	<0.3	
S-05 Base	9/9/2019	Soil		4.0	5.0	No	0.15	128	<20	<30	<0.05	<0.3	
S-05 N. Wall	9/9/2019	Soil		0.0	4.0	No	0.02	32	-20	.50	10.05	10.0	
S-05 S. Wall	9/9/2019	Soil		0.0	4.0	No	0.04	48					
S-06 Base	9/5/2019	Soil	4.5	0.0	4.0	No	0.34	448	<20	<30	<0.05	<0.3	
S-06 N. Wall	9/9/2019	Soil	4.5	0.0	4.0	No	0.02	16	\20	\30	V0.03	₹0.5	
S-06 S. Wall	9/5/2019	Soil		0.0	4.0	No	0.02	80					
S-07 Base	9/5/2019	Soil	4.5	0.0	4.0	No	0.05	80					
S-07 N. Wall	9/5/2019	Soil	4.5	0.0	4.0	No	0.03	64					
S-07 S. Wall	9/5/2019	Soil		0.0	4.0	No	0.04	32					
S-08 Base	9/9/2019	Soil	5.0	0.0	7.0	No	0.8	704					
S-08 N. Wall	9/9/2019	Soil	3.0	0.0	4.0	No	0.02	32					
S-08 S. Wall	9/9/2019	Soil		0.0	4.0	No	0.02	16					
S-09 Base	9/5/2019	Soil	2.5	0.0	7.0	No	0.02	32					
S-09 E. Wall	9/5/2019	Soil	2.3	0.0	2.0	No	0.01	144					
S-09 N. Wall	9/5/2019	Soil		0.0	2.5	No	0.04	48					
S-09 N. Wall	9/5/2019	Soil		0.0	2.5	No	0.04	32					
S-10 Base	9/9/2019	Soil	4.5	0.0	2.3	No	0.01	48					
S-10 Base S-10 E. Wall		Soil	4.5	0.0	4.0		0.05	16		-			
S-10 E. Wall	9/9/2019 9/9/2019	Soil		0.0	4.0 4.0	No No	0.01	32					
S-10 N. Wall				0.0	4.0		0.01	<16					
	9/9/2019	Soil	1.0	0.0	4.0	No							
S-11 Base	9/5/2019	Soil	1.0			No	0.01	48					
S-12 Base	9/9/2019	Soil	5.0	0.0	4.0	No	0.06	64					
S-12 N. Wall	9/9/2019	Soil		0.0	4.0	No	0.07	16					
S-12 S. Wall	9/9/2019	Soil		0.0	4.0	No	0.06	48					

From: <u>Hamlet, Robert, EMNRD</u>

To: <u>laura@rthicksconsult.com</u>

Cc: "Debbie Moughon": "David Harwell": Bratcher, Mike, EMNRD: Venegas, Victoria, EMNRD: Eads, Cristina, EMNRD:

"Kristin Pope"; RBlack@advanceenergypartners.com: jacob@rthicksconsult.com; andrew@rthicksconsult.com
RE: [EXT] RE: Closure Denied - Advance Energy - Wool Head 20 St Com #703H - (Incident #NRM2003454039)

Date: Tuesday, June 16, 2020 8:19:38 AM

Laura,

Subject:

Please make a formal proposal and load your report onto the payment portal. Once submitted, the report goes into a cue and is assigned and reviewed in the order it is received.

Thanks,

Robert J Hamlet
State of New Mexico
Energy, Minerals, and Natural Resources
Oil Conservation Division
811 S. First St., Artesia NM 88210
(575) 748-1283
Robert.Hamlet@state.nm.us

From: laura@rthicksconsult.com < laura@rthicksconsult.com >

Sent: Thursday, June 11, 2020 1:43 PM

To: Hamlet, Robert, EMNRD < Robert. Hamlet@state.nm.us>

Cc: 'Debbie Moughon' <dmoughon@advanceenergypartners.com>; 'David Harwell'

<DHarwell@advanceenergypartners.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>;

Venegas, Victoria, EMNRD < Victoria. Venegas @state.nm.us >; Eads, Cristina, EMNRD

<Cristina.Eads@state.nm.us>; 'Kristin Pope' <kristin@rthicksconsult.com>;

RBlack@advanceenergypartners.com; jacob@rthicksconsult.com; andrew@rthicksconsult.com

Subject: RE: [EXT] RE: Closure Denied - Advance Energy - Wool Head 20 St Com #703H - (Incident #NRM2003454039)

Dear Mr. Hamlet,

Thank you for your review of Wool Head 20 St Com #703 (#NRM2003454039).

In response to the closure denial, we present a plan for further testing of hydrocarbon constituents to ensure this site closure meets the goal of NMOCD to protect fresh water, the environment and human health and safety.

The remediation process removed approximately 900 cubic yards of impacted soil, which was delineated vertically and horizontally for Chlorides, in order to meet and exceed closure criteria for this constituent. In the setting of a produced water release, most, if not all hydrocarbons (if present) would also be removed in the excavation of chloride impacted soil. The base and wall samples tested for hydrocarbon constituents were near the two (2) release sources where hydrocarbon impact is likely to be greatest. Confirmation sample results demonstrate that hydrocarbons are below laboratory detection levels.

Since the excavated material is no longer present, we propose testing native soil along the periphery of the release extent for hydrocarbons (0-2 ft with hand auger), as well as an additional base sample

(5.2 ft with hand auger) at the confluence of the two release sources where the base chloride concentration was the highest.

Attached to this email is a map (Plate 11) showing prior soil sample locations (including those testing non-detect for hydrocarbons) and the proposed "wall" testing to demonstrate the vertical delineation of any hydrocarbon soil impact. I have also attached a copy of our sampling data for your convenience in review of this plan.

Sample areas

S-08 Base at native soil – 5.2 ft (highest base chloride – at confluence of 2 source flow paths)

Vertical delineation of native soil 0-2 ft with hand auger

E wall of S-03

SW wall of S-05

SW wall of S-07

SW wall of S-02

SW wall of S-12

NE wall of S-11

I look forward to your response. We are eager to facilitate closure of this site and are committed to working with NMOCD towards this goal.

Sincerely,

Laura Parker R T Hicks Consultants Durango Office 505-270-8647

From: Hamlet, Robert, EMNRD < Robert. Hamlet@state.nm.us >

Sent: Friday, May 29, 2020 7:21 AM **To:** andrew@rthicksconsult.com

Cc: 'Debbie Moughon' <<u>dmoughon@advanceenergypartners.com</u>>; 'David Harwell'

<DHarwell@advanceenergypartners.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>;

Venegas, Victoria, EMNRD < <u>Victoria.Venegas@state.nm.us</u>>; Eads, Cristina, EMNRD < <u>Cristina.Eads@state.nm.us</u>>; 'Mann, Ryan' < <u>rmann@slo.state.nm.us</u>>; 'Kristin Pope'

kristin@rthicksconsult.com; laura@rthicksconsult.com

Subject: RE: [EXT] RE: Closure Denied - Advance Energy - Wool Head 20 St Com #703H - (Incident #NRM2003454039)

Andrew.

The OCD does not accept EC for closure criteria. The rule says, "The samples must be analyzed for the constituents listed in Table I of 19.15.29.12 NMAC or constituents from other applicable remediation standards". This requires all samples to be tested for Chlorides, TPH, BTEX, and Benzene. Very few of your samples were tested for TPH, BTEX, and Benzene. The OCD cannot rely on the environmental consultant/operator presumption of there being no hydrocarbons, we need evidence through lab analyzed samples. There is no gray area as far as this is concerned.

Let me know if you have any questions.

Thank you,

Robert J Hamlet
State of New Mexico
Energy, Minerals, and Natural Resources
Oil Conservation Division
811 S. First St., Artesia NM 88210
(575) 748-1283
Robert.Hamlet@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 groundwater, 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, or local laws and/or regulations.

From: andrew@rthicksconsult.com <andrew@rthicksconsult.com>

Sent: Thursday, May 28, 2020 5:52 PM

To: Hamlet, Robert, EMNRD < Robert.Hamlet@state.nm.us>

Cc: 'Debbie Moughon' <<u>dmoughon@advanceenergypartners.com</u>>; 'David Harwell'

<DHarwell@advanceenergypartners.com>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>;

Venegas, Victoria, EMNRD < <u>Victoria. Venegas@state.nm.us</u> >; Eads, Cristina, EMNRD

<<u>Cristina.Eads@state.nm.us</u>>; 'Mann, Ryan' <<u>rmann@slo.state.nm.us</u>>; 'Kristin Pope'

kristin@rthicksconsult.com; laura@rthicksconsult.com;

Subject: [EXT] RE: Closure Denied - Advance Energy - Wool Head 20 St Com #703H - (Incident #NRM2003454039)

Mr. Hamlet:

Please clarify your denial of the above referenced location. Section III of the closure report discusses obtaining 5-point soil composite samples and submitting soil samples to the laboratory for confirmation. Laboratory analytical is included in the closure report. Table 2 summarizes the confirmation sample results.

Per the Rule, we used electrical conductiity (EC) to characterize the soil during excavation activites.

Andrew Parker R.T. Hicks Consultants Durango Field Office Cell: (970) 570-9535

From: Debbie Moughon dmoughon@advanceenergypartners.com>

Sent: Thursday, May 28, 2020 5:14 PM

To: David Harwell < <u>DHarwell@advanceenergypartners.com</u>>; <u>andrew@rthicksconsult.com</u> **Subject:** Fwd: Closure Denied - Advance Energy - Wool Head 20 St Com #703H - (Incident

#NRM2003454039)

IMPORTANT FYI see below

Debbie Moughon

Begin forwarded message:

From: "Hamlet, Robert, EMNRD" < Robert.Hamlet@state.nm.us>

Date: May 28, 2020 at 4:12:26 PM CDT

To: Debbie Moughon dmoughon@advanceenergypartners.com>

Cc: "Bratcher, Mike, EMNRD" < mike.bratcher@state.nm.us >, "Venegas, Victoria,

EMNRD" < <u>Victoria.Venegas@state.nm.us</u>>, "Eads, Cristina, EMNRD" < <u>Cristina.Eads@state.nm.us</u>>, "<u>rmann@slo.state.nm.us</u>" < <u>rmann@slo.state.nm.us</u>>

Subject: Closure Denied - Advance Energy - Wool Head 20 St Com #703H - (Incident #NRM2003454039)

Debbie.

We have received your closure report and final C-141 for Incident #NRM2003454039 Wool Head 20 St Com #703H, thank you. This closure is denied.

• The OCD cannot accept field screening results from Petro FLAG Analyzer Systems, PID Meters, and Ground Conductivity Meters for closure criteria sampling determination.

19.15.29.12 **REMEDIATION AND CLOSURE:**

Closure requirements. The responsible party must take the following action for any major or minor release containing liquids.

> The responsible party must test the remediated areas for contamination with representative five-point composite samples from the walls and base, and individual grab samples from any wet or discolored areas. The samples must be analyzed for the constituents listed in Table I of 19.15.29.12 NMAC or constituents from other applicable remediation standards.

Please let me know if you have any further questions.

Regards,

Robert J Hamlet State of New Mexico Energy, Minerals, and Natural Resources Oil Conservation Division 811 S. First St., Artesia NM 88210 (575) 748-1283

Robert.Hamlet@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 groundwater, 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, or local laws and/or regulations.