

1R - 475

**GENERAL
CORRESPONDENCE**

YEAR(S):
2007-2006

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Monday, March 05, 2007 8:41 AM
To: 'dfoster@HeardRobins.com'
Subject: FW: 1R0475, Chesapeake Energy Corporation, Ollie J. Boyd Tank Battery Remediation Progress Report, Unit C (NE/4, NW/4), Section 23, Township 22 South, Range 37 East, Lea County, New Mexico

Darin,
F.Y.I.

From: Hansen, Edward J., EMNRD
Sent: Monday, March 05, 2007 8:29 AM
To: 'Mark Larson'
Cc: Price, Wayne, EMNRD; Johnson, Larry, EMNRD; 'Harlan Brown'; phagameier@chkenergy.com; 'Earl E. DeBrine'
Subject: RE: 1R0475, Chesapeake Energy Corporation, Ollie J. Boyd Tank Battery Remediation Progress Report, Unit C (NE/4, NW/4), Section 23, Township 22 South, Range 37 East, Lea County, New Mexico

Dear Mr. Larson and Mr. Brown:

The New Mexico Oil Conservation Division (NMOCD) has reviewed your progress report of March 1, 2007, regarding the above referenced site. Per our telephone conversation of the March 1, 2007, item #9 of the report should read March 6, 2007. The NMOCD hereby approves your request to proceed with the installation of the polyethylene liners (20-mil) in the bottoms of the excavations at the old pit and boring BH-3 areas and proceed with the filling of the excavations.

Please be advised that NMOCD approval of this action does not relieve the owner/operator of responsibility should operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve the owner/operator of responsibility for compliance with any NMOCD, federal, state, or local laws and/or regulations.

If you have any questions regarding this matter, please contact me a 505-476-3489.

Edward J. Hansen
Hydrologist
Environmental Bureau
NMOCD

From: Mark Larson [mailto:mark@laenvironmental.com]
Sent: Thursday, March 01, 2007 5:09 AM
To: Hansen, Edward J., EMNRD
Cc: Price, Wayne, EMNRD; Johnson, Larry, EMNRD; 'Harlan Brown'; phagameier@chkenergy.com; 'Earl E. DeBrine'
Subject: Re: 1R0475, Chesapeake Energy Corporation, Ollie J. Boyd Tank Battery Remediation Progress Report, Unit C (NE/4, NW/4), Section 23, Township 22 South, Range 37 East, Lea County, New Mexico

Dear Mr. Hansen:

Per the remediation plan approval for the above-referenced location (1R0475) Larson and Associates, Inc., on behalf of Chesapeake Energy Corporation, submits this progress report:

1. Timely notification was provided to the New Mexico Oil Conservation Division (NMOCD) and landowners before remediation commenced on January 29, 2007;
2. Areas remediated according to the NMOCD approved remediation plan include the old pit area (BH-5 and BH-6) located

3/5/2007

northeast of the active battery, old battery (BH-2) located north of the active battery and area of concentrated benzene and BTEX (BH-3) located north of the old battery;

3. Soil has been excavated to approximately 15 feet below ground surface (bgs) from the old pit area, where approximately 10,000 cubic yards was removed and transported to Sundance Disposal Services;
4. Four (4) additional borings (BH-7, BH-8, BH-9 and BH-10) were drilled to approximately thirty (30) feet bgs south, north, west and east of boring BH-3 and soil samples recorded no headspace readings above 100 parts per million (ppm) using a calibrated photoionization detector (PID);
5. Soil has been excavated to approximately 15 feet bgs from an area measuring approximately 10 x 20 feet around boring BH-3;
6. No PID readings of soil samples from the sides of the excavation at the BH-3 area exceeded 100 ppm using a calibrated PID;
7. Soil has been excavate to approximately 4 feet bgs from the old battery area located between the active battery and boring BH-3;
8. Remediation of a crude oil spill that occurred at the active battery on May 2, 2006 (between the battery and separation equipment on the adjoining landowner's property) has commenced according to a NMOCD District 1 remediation plan that called for this remediation to be conducted concurrent with the remediation of the historic contamination. The NMOCD (District 1 and Santa Fe) will be notified before final samples are collected from the recent spill remediation area;
9. Remediation of the historic contamination northwest of the active battery on property owned by Mr. Irvin Boyd will commence after the recent spill is remediated. The approximate date for remediation in this area is 6, 2007;
10. Remediation of historic hydrocarbons immediately east of the active battery will commence after the remediation is completed on the adjoining landowner's property;
11. Photographs of the remediation will be sent separately.
12. **Chesapeake requests NMOCD begin installing polyethylene liners in the bottoms of the excavations at the old pit and boring BH-3 areas and begin filling the excavations.**

Please contact me if you have questions.

Mark J. Larson
Sr. Project Manager / President
Larson and Associates, Inc.
507 N. Marienfeld Street, Suite 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)
mark@laenvironmental.com

This inbound email has been scanned by the MessageLabs Email Security System.

3/5/2007

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Monday, March 05, 2007 8:29 AM
To: 'Mark Larson'
Cc: Price, Wayne, EMNRD; Johnson, Larry, EMNRD; 'Harlan Brown'; phagameier@chkenergy.com; 'Earl E. DeBrine'
Subject: RE: 1R0475, Chesapeake Energy Corporation, Ollie J. Boyd Tank Battery Remediation Progress Report, Unit C (NE/4, NW/4), Section 23, Township 22 South, Range 37 East, Lea County, New Mexico

Dear Mr. Larson and Mr. Brown:

The New Mexico Oil Conservation Division (NMOCD) has reviewed your progress report of March 1, 2007, regarding the above referenced site. Per our telephone conversation of the March 1, 2007, item #9 of the report should read March 6, 2007. The NMOCD hereby approves your request to proceed with the installation of the polyethylene liners (20-mil) in the bottoms of the excavations at the old pit and boring BH-3 areas and proceed with the filling of the excavations.

Please be advised that NMOCD approval of this action does not relieve the owner/operator of responsibility should operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve the owner/operator of responsibility for compliance with any NMOCD, federal, state, or local laws and/or regulations.

If you have any questions regarding this matter, please contact me a 505-476-3489.

Edward J. Hansen
Hydrologist
Environmental Bureau
NMOCD

From: Mark Larson [mailto:mark@laenvironmental.com]
Sent: Thursday, March 01, 2007 5:09 AM
To: Hansen, Edward J., EMNRD
Cc: Price, Wayne, EMNRD; Johnson, Larry, EMNRD; 'Harlan Brown'; phagameier@chkenergy.com; 'Earl E. DeBrine'
Subject: Re: 1R0475, Chesapeake Energy Corporation, Ollie J. Boyd Tank Battery Remediation Progress Report, Unit C (NE/4, NW/4), Section 23, Township 22 South, Range 37 East, Lea County, New Mexico

Dear Mr. Hansen:

Per the remediation plan approval for the above-referenced location (1R0475) Larson and Associates, Inc., on behalf of Chesapeake Energy Corporation, submits this progress report:

1. Timely notification was provided to the New Mexico Oil Conservation Division (NMOCD) and landowners before remediation commenced on January 29, 2007;
2. Areas remediated according to the NMOCD approved remediation plan include the old pit area (BH-5 and BH-6) located northeast of the active battery, old battery (BH-2) located north of the active battery and area of concentrated benzene and BTEX (BH-3) located north of the old battery;
3. Soil has been excavated to approximately 15 feet below ground surface (bgs) from the old pit area, where approximately 10,000 cubic yards was removed and transported to Sundance Disposal Services;
4. Four (4) additional borings (BH-7, BH-8, BH-9 and BH-10) were drilled to approximately thirty (30) feet bgs south, north, west and east of boring BH-3 and soil samples recorded no headspace readings above 100 parts per million (ppm) using a calibrated photoionization detector (PID);
5. Soil has been excavated to approximately 15 feet bgs from an area measuring approximately 10 x 20 feet around boring BH-3;

3/5/2007

6. No PID readings of soil samples from the sides of the excavation at the BH-3 area exceeded 100 ppm using a calibrated PID;
7. Soil has been excavate to approximately 4 feet bgs from the old battery area located between the active battery and boring BH-3;
8. Remediation of a crude oil spill that occurred at the active battery on May 2, 2006 (between the battery and separation equipment on the adjoining landowner's property) has commenced according to a NMOCD District 1 remediation plan that called for this remediation to be conducted concurrent with the remediation of the historic contamination. The NMOCD (District 1 and Santa Fe) will be notified before final samples are collected from the recent spill remediation area;
9. Remediation of the historic contamination northwest of the active battery on property owned by Mr. Irvin Boyd will commence after the recent spill is remediated. The approximate date for remediation in this area is 6, 2007;
10. Remediation of historic hydrocarbons immediately east of the active battery will commence after the remediation is completed on the adjoining landowner's property;
11. Photographs of the remediation will be sent separately.
12. **Chesapeake requests NMOCD begin installing polyethylene liners in the bottoms of the excavations at the old pit and boring BH-3 areas and begin filling the excavations.**

Please contact me if you have questions.

Mark J. Larson
Sr. Project Manager / President
Larson and Associates, Inc.
507 N. Marienfeld Street, Suite 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)
mark@laenvironmental.com

This inbound email has been scanned by the MessageLabs Email Security System.

3/5/2007

Hansen, Edward J., EMNRD

From: Mark Larson [mark@laenvironmental.com]
Sent: Thursday, March 01, 2007 5:09 AM
To: Hansen, Edward J., EMNRD
Cc: Price, Wayne, EMNRD; Johnson, Larry, EMNRD; 'Harlan Brown'; phagameier@chkenergy.com; 'Earl E. DeBrine'
Subject: Re: 1R0475, Chesapeake Energy Corporation, Ollie J. Boyd Tank Battery Remediation Progress Report, Unit C (NE/4, NW/4), Section 23, Township 22 South, Range 37 East, Lea County, New Mexico

Dear Mr. Hansen:

Per the remediation plan approval for the above-referenced location (1R0475) Larson and Associates, Inc., on behalf of Chesapeake Energy Corporation, submits this progress report:

1. Timely notification was provided to the New Mexico Oil Conservation Division (NMOCD) and landowners before remediation commenced on January 29, 2007;
2. Areas remediated according to the NMOCD approved remediation plan include the old pit area (BH-5 and BH-6) located northeast of the active battery, old battery (BH-2) located north of the active battery and area of concentrated benzene and BTEX (BH-3) located north of the old battery;
3. Soil has been excavated to approximately 15 feet below ground surface (bgs) from the old pit area, where approximately 10,000 cubic yards was removed and transported to Sundance Disposal Services;
4. Four (4) additional borings (BH-7, BH-8, BH-9 and BH-10) were drilled to approximately thirty (30) feet bgs south, north, west and east of boring BH-3 and soil samples recorded no headspace readings above 100 parts per million (ppm) using a calibrated photoionization detector (PID);
5. Soil has been excavated to approximately 15 feet bgs from an area measuring approximately 10 x 20 feet around boring BH-3;
6. No PID readings of soil samples from the sides of the excavation at the BH-3 area exceeded 100 ppm using a calibrated PID;
7. Soil has been excavate to approximately 4 feet bgs from the old battery area located between the active battery and boring BH-3;
8. Remediation of a crude oil spill that occurred at the active battery on May 2, 2006 (between the battery and separation equipment on the adjoining landowner's property) has commenced according to a NMOCD District 1 remediation plan that called for this remediation to be conducted concurrent with the remediation of the historic contamination. The NMOCD (District 1 and Santa Fe) will be notified before final samples are collected from the recent spill remediation area;
9. Remediation of the historic contamination northwest of the active battery on property owned by Mr. Irvin Boyd will commence after the recent spill is remediated. The approximate date for remediation in this area is 6, 2007;
10. Remediation of historic hydrocarbons immediately east of the active battery will commence after the remediation is completed on the adjoining landowner's property;
11. Photographs of the remediation will be sent separately.
12. **Chesapeake requests NMOCD begin installing polyethylene liners in the bottoms of the excavations at the old pit and boring BH-3 areas and begin filling the excavations.**

Please contact me if you have questions.

Mark J. Larson
Sr. Project Manager / President
Larson and Associates, Inc.
507 N. Marienfeld Street, Suite 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)

3/1/2007

mark@laenvironmental.com

This inbound email has been scanned by the MessageLabs Email Security System.

3/1/2007

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Wednesday, February 07, 2007 9:35 AM
To: 'dfoster@heardrobins.com'
Subject: FW: 1R0475, Notification of Pending Sample Collection, Chesapeake Energy Corporation, Ollie J. Boyd Battery, Unit C, Section 23, Township 22 South, Range 37 East, Lea County, New Mexico

Darin,
F.Y.I.

From: Mark Larson [<mailto:mark@laenvironmental.com>]
Sent: Tuesday, February 06, 2007 10:24 AM
To: Hansen, Edward J., EMNRD
Cc: Price, Wayne, EMNRD; Johnson, Larry, EMNRD; Caperton, Patricia, EMNRD; Harlan Brown
Subject: Re: 1R0475, Notification of Pending Sample Collection, Chesapeake Energy Corporation, Ollie J. Boyd Battery, Unit C, Section 23, Township 22 South, Range 37 East, Lea County, New Mexico

Dear Mr. Hansen: This message is submitted to the New Mexico Oil Conservation Division (NMOCD) on behalf of Chesapeake Energy Corporation (Chesapeake) by Larson and Associates, Inc. (LA), its consultant, to confirm our telephone conversation this morning that LA personnel intend to collect soil samples from borings at the above-referenced location on February 8 and 9, 2007. Please contact me if you have questions.. I'll provide additional notification if this schedule changes.

Mark J. Larson
Sr. Project Manager / President
Larson and Associates, Inc.
507 N. Marienfeld Street, Suite 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)
mark@laenvironmental.com

Hansen, Edward J., EMNRD

From: Mark Larson [mark@laenvironmental.com]
Sent: Tuesday, February 06, 2007 10:24 AM
To: Hansen, Edward J., EMNRD
Cc: Price, Wayne, EMNRD; Johnson, Larry, EMNRD; Caperton, Patricia, EMNRD; Harlan Brown
Subject: Re: MR0475, Notification of Pending Sample Collection, Chesapeake Energy Corporation, Ollie J. Boyd Battery, Unit C, Section 23, Township 22 South, Range 37 East, Lea County, New Mexico

Dear Mr. Hansen: This message is submitted to the New Mexico Oil Conservation Division (NMOCD) on behalf of Chesapeake Energy Corporation (Chesapeake) by Larson and Associates, Inc. (LA), its consultant, to confirm our telephone conversation this morning that LA personnel intend to collect soil samples from borings at the above-referenced location on February 8 and 9, 2007. Please contact me if you have questions.. I'll provide additional notification if this schedule changes.

Mark J. Larson
Sr. Project Manager / President
Larson and Associates, Inc.
507 N. Marienfeld Street, Suite 202
Midland, Texas 79701
(432) 687-0901 (office)
(432) 687-0456 (fax)
(432) 556-8656 (cell)
mark@laenvironmental.com

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Tuesday, January 30, 2007 2:35 PM
To: 'dfoster@heardrobins.com'
Subject: 1R0475

Dear Mr. Foster:

Per our telephone conversation today, the New Mexico Oil Conservation Division will send copies of correspondence to you (and notify you of reports submitted) regarding the Remediation Plan (1R0475)(Ollie J. Boyd site) from this date forward to the following address:

Darin Foster
Heard, Robins, Cloud, and Luebel, LLC
300 Paseo de Peralta
Santa Fe, New Mexico 87501

Phone: 986-0600

If you have any questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen
Hydrologist
Environmental Bureau

1/30/2007



August 24, 2006

VIA CERTIFIED MAIL

Mr. Wayne Price, Chief
Environmental Bureau
Oil Conservation Division
State of New Mexico
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

180 475

Re: Investigation Report and Remediation Work Plan, Chesapeake Energy Corporation, Ollie J. Boyd Tank Battery, Unit Letter C (NE/4, NW/4), Section 23, Township 22 South, Range 37 East, Lea County, New Mexico, August 23, 2006

Dear Mr. Price:

Per our meeting on July 25, 2006, please find the above-referenced report, which is submitted to the New Mexico Oil Conservation Division on behalf of Chesapeake Energy Corporation by Larson and Associates, Inc., its agent. Please call me to discuss any questions you may have.

Sincerely,

Larson and Associates, Inc.

A handwritten signature in black ink, appearing to read 'M. Larson', is written over a horizontal line.

Mark J. Larson
Sr. Project Manager/President

Encl.

cc: Harlan Brown/Chesapeake
Jace Marshall/Chesapeake
Paul Hagemeyer/Chesapeake
Chris Williams/OCD – District 1

Price, Wayne, EMNRD

From: Price, Wayne, EMNRD
Sent: Friday, October 27, 2006 1:39 PM
To: 'Mark Larson'
Cc: HBrown@chkenergy.com; Hansen, Edward J., EMNRD; VonGonten, Glenn, EMNRD; Johnson, Larry, EMNRD; boyds_enm@zianet.com.; Leo V. Sims (Flap) (Business Fax); Jones, Brad A., EMNRD
Subject: RE: Chesapeake Energy Corporation, Ollie J. Boyd Tank Battery, Unit Letter C (NE/4, NW/4), Section 23, Township 22 South, Range 37 East, Lea County, New Mexico

Dear Mr. Larson:

OCD is in receipt of the Investigation and Remediation plan dated August 24, 2006 for the above subject site and hereby approves of the plan with the following conditions:

1. Please include OCD's case # 1R0475 on all future submittals.
2. Please notify all landowners before starting work.
3. All excavated areas shall not be backfilled until OCD Santa Fe Environmental Bureau approves.
4. Chesapeake must determine the vertical delineation of any contaminant that exceeds the following numerical limits:
 1. TPH > 100 mg/kg.
 2. BTEX > 100 ppm using PID or 50 mg/kg lab analysis.
 3. Chlorides 250 mg/kg.
5. All contaminated soils must be disposed at an approved OCD site. Special note: Some OCD landfarms may not be able to accept certain soils with high chloride limits.
6. Area around BH-3 shall be part of the clean-up activity.
7. A progress report shall be submitted by December 15, 2006.

Please be advised that NMOCD approval of this plan does not relieve the owner/operator of responsibility should operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

-----Original Message-----

From: Mark Larson [mailto:mark@laenvironmental.com]
Sent: Monday, October 09, 2006 9:25 AM
To: Price, Wayne, EMNRD
Cc: HBrown@chkenergy.com
Subject: Re: Chesapeake Energy Corporation, Ollie J. Boyd Tank Battery, Unit Letter C (NE/4, NW/4), Section 23, Township 22 South, Range 37 East, Lea County, New Mexico

Dear Wayne: This message is submitted to the New Mexico Oil Conservation Division ("NMOCD") on behalf of Chesapeake Energy Corporation ("Chesapeake") by Larson and Associates, Inc. ("LA"), its agent, as a follow-up to our discussions on October 3 and 5, 2006, regarding the investigation report and remediation work plan for the above-referenced facility that was submitted to your office on August 24, 2006. The report and work plan was submitted following a meeting with Mr. Glenn von Gonten, yourself and myself on July 25, 2006, that concluded with a verbal understanding that Chesapeake would submit a report that included a geological cross-section and remediation plan that proposed to 1) excavate soil in the vicinity of borings AH-1, BH-1, BH-2 and BH-4 to about 2 feet below ground surface ("BGS") to reduce the concentration of total petroleum hydrocarbons ("TPH") below the NMOCD recommended remediation action level ("RRAL") of 1,000 milligrams per kilogram ("mg/Kg") and to 2) excavate soil to approximately 15 feet BGS in the vicinity of a former pit (BH-15 and BH-16) and install a barrier consisting of approximately 2 feet of compacted clay. The compacted clay will be an upper barrier and shale encountered at approximately 44 feet BGS in boring BH-3 will be a lower barrier. No groundwater was

observed above the shale. Boring BH-3 was drilled north of the former battery location and encountered benzene and BTEX (sum of benzene, toluene, ethyl benzene and xylene) in soil that exceeded the RRAL. Chesapeake contends that the benzene and BTEX did not originate from the battery but from natural gas pipelines that are located north and northeast of the former battery.

Chesapeake does not propose any remediation of the benzene or BTEX, which decreased below the RRAL in the shale encountered at approximately 44 feet BGS. Your approval of the investigation report and remediation work plan is requested. A remediation project ("RP") number is also requested for this site. Please contact Mr. Harlan Brown with Chesapeake at (405)

767-4446 or email hbrown@chkenergy.com. I may be reached with questions at the contact information presented below.

Mark J. Larson
Sr. Project Manager / President
Larson and Associates, Inc.
507 N. Marienfeld Street, Suite 202
Midland, Texas 79701
(432) 687-0901 (Office)
(432) 687-0456 (Fax)
(432) 556-8656 (Cell)
mark@laenvironmental.com

Price, Wayne, EMNRD

From: Price, Wayne, EMNRD
Sent: Friday, October 27, 2006 3:17 PM
To: 'Mark Larson'
Subject: RE: Chesapeake Energy Corporation, Ollie J. Boyd Tank Battery, Unit Letter C (NE/4, NW/4), Section 23, Township 22 South, Range 37 East, Lea County, New Mexico

The OCD approval is contingent upon Chesapeake removing the contamination at BH-3 or providing sufficient data to demonstrate it was not part of or on the Chesapeake lease.

-----Original Message-----

From: Mark Larson [mailto:mark@laenvironmental.com]
Sent: Friday, October 27, 2006 2:57 PM
To: Price, Wayne, EMNRD
Cc: hbrown@chkenergy.com
Subject: RE: Chesapeake Energy Corporation, Ollie J. Boyd Tank Battery, Unit Letter C (NE/4, NW/4), Section 23, Township 22 South, Range 37 East, Lea County, New Mexico

OWayne: This message is submitted to the New Mexico Oil Conservation Division ("OCD") on behalf of Chesapeake Energy Corporation ("Chesapeake") in response to Item 6 of the above-referenced approval dated October 27, 2006, Chesapeake contends that the BTEX contamination at boring BH-3 is from natural gas pipelines located north of the boring. No BTEX nearing the concentrations encountered in boring BH-3 were observed in samples from the remaining borings and, where BTEX was detected, the concentrations decreased below RRAL. During our meeting in July 2006, I understood that OCD would request the pipeline companies to determine if a release(s) had occurred from their pipelines? Also, I would like to give notice that as early as October 30, 2006, Larson and Associates, Inc., plans to use a rotary rig to collect additional soil samples from locations BH-5 and BH-6 for chloride analysis. I will let you know as early as possible if there is a change in the sample schedule. The borings will be advanced to approximately 45 - 50 feet below ground surface ("bgs") and soil samples will be collected at approximately 35, 40 and 45 feet to encounter the shale unit observed at boring BH-3. Please contact me in response.

Mark J. Larson
Sr. Project Manager / President
Larson and Associates, Inc.
507 N. Marienfeld Street, Suite 202
Midland, Texas 79701
(432) 687-0901 Office)
(432) 687-0456 (Fax)
(432)556=8656 (Cell)
mark@laenvironmental.com