

2R - _____ 56 _____

APPROVALS

YEAR(S):

_____ 2011 _____

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Tuesday, December 20, 2011 4:08 PM
To: 'wayne price'
Cc: VonGonten, Glenn, EMNRD; Bratcher, Mike, EMNRD; Mike Griffin
Subject: Devon MW-1 Remediation Work Plan 2R-56 Approval

**RE: MW-1 Remediation Plan for the Devon's
Avalon Hills 7 Fed Com #3 Release Site (2R-56)
Section 7, T21S, R27E, NMPM, Eddy County, New Mexico
Proposed Workplan Approval**

Dear Mr. Price:

The New Mexico Oil Conservation Division (OCD) has received Devon Energy Operating Corporation's (Devon) proposed workplan for the above-referenced site: (dated December 19, 2011). The Oil Conservation Division (OCD) hereby conditionally approves the proposed workplan:

The PAHs analyzed must include the following eleven compounds as listed in the 20.6.2 NMAC:

- (40) polynuclear aromatic hydrocarbons (PAH)
 - (a) anthracene
 - (b) 3,4-benzofluoranthene *{a.k.a.: benzo[b]fluoranthene}*
 - (c) benzo (k) fluoranthene
 - (d) fluoranthene
 - (e) fluorene
 - (f) phenanthrene
 - (g) pyrene

- (51) naphthalene
- (52) 1-methylnaphthalene
- (53) 2-methylnaphthalene

- (54) benzo-a-pyrene *[standard of 0.0007 mg/L]*

Devon must submit to the OCD by **April 1, 2013**, an annual report for the proposed workplan for MW-1.

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

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

Edward J. Hansen
Hydrologist
Environmental Bureau

From: wayne price [<mailto:wayneprice77@earthlink.net>]
Sent: Monday, December 19, 2011 10:05 PM
To: Hansen, Edward J., EMNRD
Subject: Devon MW-1 Remediation Work Plan 2R0056

Dear Ed,

Please find attached a letter outlining the work plan and a schematic of the vapor system and specifications for your approval. I also included a photo of the site.

If you have any questions please do not hesitate to call or E-mail.

Happy Holidays!

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Wednesday, May 25, 2011 2:11 PM
To: 'wayne price'
Subject: RE: Devon Avalon Hills Fed com 3 MW Plugging Report OCD Case # 2R-0056

Dear Mr. Price:

The New Mexico Oil Conservation Division (OCD) has reviewed the groundwater monitoring well plugging report, dated May 24, 2011, for the above-referenced site. The OCD hereby approves the report as partial fulfillment of the Remediation Plan, 2R-56.

Also, please be advised that OCD approval of this report does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

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

Edward J. Hansen
Hydrologist
Environmental Bureau

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

From: wayne price [<mailto:wayneprice77@earthlink.net>]
Sent: Wednesday, May 25, 2011 1:08 PM
To: Hansen, Edward J., EMNRD; wayne price
Subject: Re: Devon Avalon Hills Fed com 3 MW Plugging Report OCD Case # 2R-0056

Ed, good catch, your right MW-3 does not exist, so the list of wells should be 2,4,5,6 and 7.

Thanks!

On May 24, 2011, at 11:22 PM, wayne price wrote:

> Dear Ed,
>
> Please find attached the plugging procedure and selected photos for
> plugging MW's 2,3,4,5,6 and 7. If you have any questions or
> concerns please do not hesitate to call or E-mail.
> If approvable, we would like to receive an E-mail response of your
> approval for our records.
>
> Thank You for your time and consideration in this matter.
>
> <Devon Plugging.pdf>

May 24, 2011

To: Ed Hanson-Oil Conservation Division
From: Wayne Price-Price LLC. for Devon Energy

Reference: Devon Avalon Hills 7 Fed Com#3 OCD Case # 2R0056
Subject: Monitor Well Plugging Procedure

Devon Energy's contractor Whole Earth Environmental and MMX Inc plugged and abandoned monitor wells 2,4,5,6 and 7 during the first week of May, 2011, at the Avalon Hills 7 Fed Com#3 OCD Case # 2R0056 site. The agency agreed to a pressure grouting method, which actually forces grout into the pipe perforations. The following procedure was used for each monitor well.

Pumped up to 2 barrels of cement grout consisting of Type I-II API Class B (Sulfate Resistant) Portland cement and Barad-38, a cement additive to enhance flow properties and improved bonding characteristics. The mixture was pursuant to the product specifications.

A gravity retaining float shoe type method was used to ensure the grout was retained in the perforation area during set time. A minimum of 24 hours passed before additional work was performed. For each well the first pour "top of cement" was tagged and verified before next pour was completed. Tagging was to ensure that the proper levels were set and for calculating remaining pour.

The maximum surface pump pressure did not exceed 30 psig in order to protect plastic piping and the final minimum grout compressive strength was 3000 psi or greater. (calculated per mixing specifications)

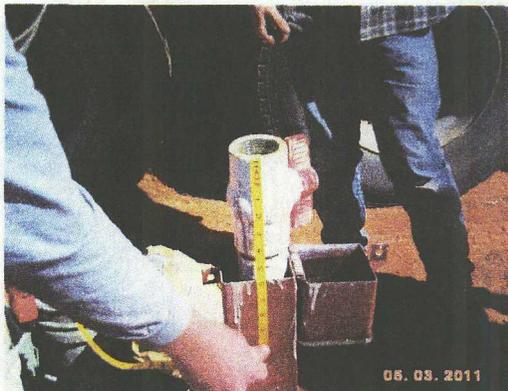
A second grout consisting of Type I-II Portland cement with 2% bentonite was placed in the hole and filled to surface. The final minimum grout compressive strength was 3000 psi or greater.

MMX Inc., a licensed drilling contractor, provided all manpower, rig-up equipment, plugging materials, pumps, hoses, piping, valves, tanks, and tools. Contractor was responsible for all license and permits required to perform the work. All work was pursuant to current Federal, State, and Local regulations and laws.

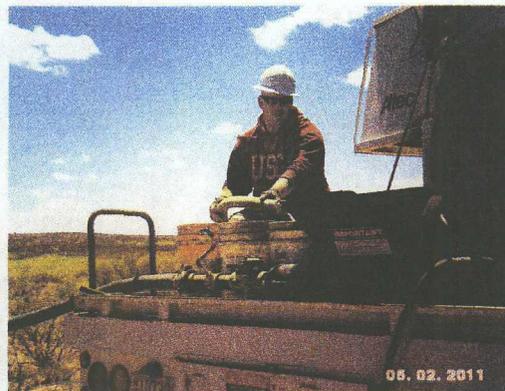
A site tailgate safety meeting was conducted daily.

Once all wells were grouted, the contractor cut well protector and casing off 6 inches below ground level, removed all waste materials from the site, and disposed of at contractors yard, in their waste management dumpster. Each monitor well area was then covered with native soils.

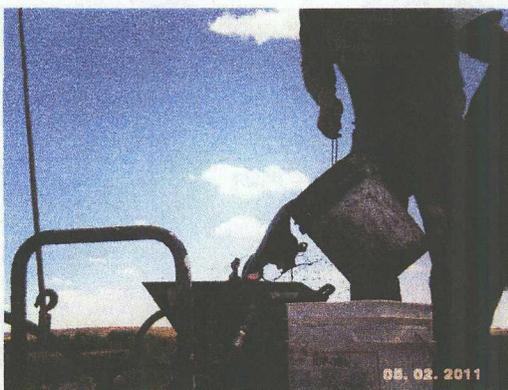
Price LLC- Wayne Price Jr., a mechanical engineer with oil and gas experience, performed as a third party witness of activities. The following photos documented selected site activities.



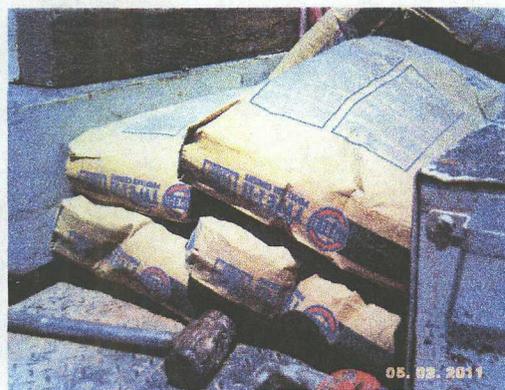
Tagging TOC



Adding Fresh Water



Cement Hopper



Cement Type

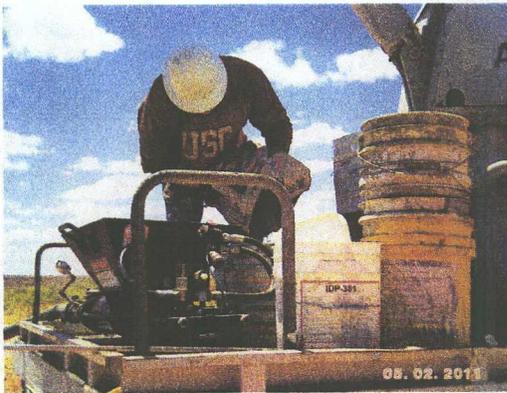


Pressure gage on Cement Pump



Installing Piping for Pressure Hose

Devon Avalon Hills Photos OCD Case # 2R0056



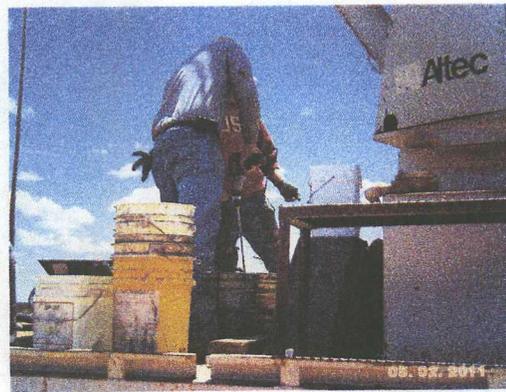
Adding cement



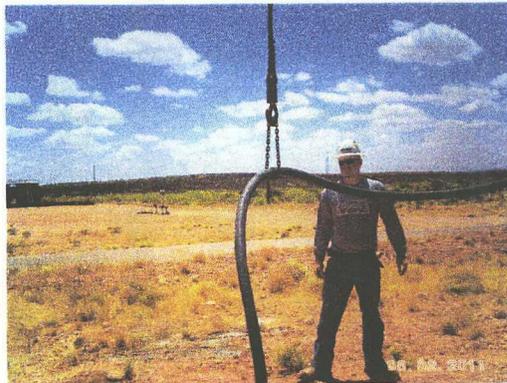
Removing wellhead protector



Pressure hose connected to well



Blending cement additive



Pumping Cement



Wellhead protector removal

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Monday, April 18, 2011 12:08 PM
To: 'wayne price'
Cc: VonGonten, Glenn, EMNRD; Bratcher, Mike, EMNRD; Mike Griffin
Subject: RE: Devon Avalon Hills 7 Fed Com#3 Blowout June 2006 Reference: OCD Case # 2R0056

**RE: Oil Removal Workplan for the Devon's
Avalon Hills 7 Fed Com #3 Release Site (2R-56)
Section 7, T21S, R27E, NMPM, Eddy County, New Mexico
Proposed Workplan Approval**

Dear Mr. Price:

The New Mexico Oil Conservation Division (OCD) has received Devon Energy Operating Corporation's (Devon) proposed workplan for the above-referenced site: (dated April 17, 2011). The Oil Conservation Division (OCD) hereby conditionally approves the proposed workplan:

Devon must submit to the OCD within 120 days a quarterly report for the oil removal and ground water well level status for MW-1.

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

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

Edward J. Hansen
Hydrologist
Environmental Bureau

From: wayne price [<mailto:wayneprice77@earthlink.net>]
Sent: Sunday, April 17, 2011 12:41 PM
To: Hansen, Edward J., EMNRD; Bratcher, Mike, EMNRD
Cc: Mike Griffin
Subject: Re: Devon Avalon Hills 7 Fed Com#3 Blowout June 2006 Reference: OCD Case # 2R0056

Dear Ed,

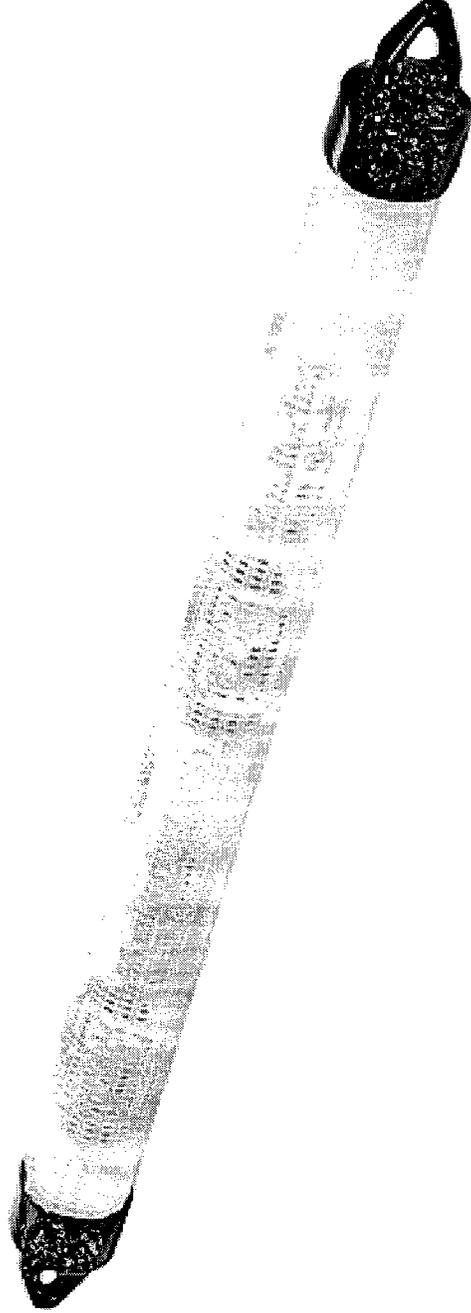
Pursuant to your requirements as listed below, Devon is submitting for your approval a remediation plan for MW-1.

It appears that the water level has dropped in the well to a point that a pump may not work very well. What we would like to do is to drop a special monitor well absorbent sock (details attached) into the well and try to collect as much oil as possible. This particular sock does not absorb water. We will replace the sock once a month until we feel like we have removed the oil. After that, we would like to resample to determine what

levels of contamination that we are dealing with. I think we should know after 3 months what direction we need to go.

Thank you for your consideration.

x



PIG® Rigid Monitoring Well Sock #SKM415



New Pig

(1-800-NOT-A-SOCKS) • (1-800-663-77)

Product Data Sheet

Item Number: SKM415

Item Name: PIG® Rigid Monitoring Well Sock

Absorbency:

- 1.7 gal./box (6.4 L/box)
- 18 oz./sock (532.3 mL/sock)

Options Available:

Item #	Size	Color	Misc. Features	Amount	Length	Width	Height	Depth	Int. Dia.	Ext. Dia.	Weight	Qty/Pallet
SKM415	—	—	—	12 socks/box	23" (58.4cm)	—	—	—	—	1.5" (3.8cm)	4.5lbs. (2kg)	30

Color: Sock - White; End Caps - Black

Product Features:

Keep your monitoring wells, tanks and sumps oil free with an easy-to-retrieve Well Sock. A rigid case eliminates bunching or bending when lowering into or retrieving from tight spots, and the polypropylene filler soaks up oils without taking in water.

- Polypropylene case keeps small-diameter Sock in direct contact with liquids at all times for maximum efficiency; rigid to prevent bunching or bending when lowered into spaces as tight as 2" wide
- Large apertures in casing allow oil to easily pass through to the absorbent sock without blinding like smaller-aperture cases
- Perforated poly case with large openings maximizes liquid penetration for fast, efficient absorption
- End caps feature tie-off eyelets for rope and weight (not included); use Sock, then attach rope to other eyelet and reuse to take advantage of full capacity before discarding
- Perfect for soaking up unwanted oil-based fluids that collect in monitoring wells, tanks, bilges, underground substations, stormwater drains and other limited-access applications
- Contained absorbent makes cleanup quick and easy
- Polypropylene filler is chemical-resistant and hydrophobic for containing and absorbing oil-based spills in a variety of environments; holds in liquid, even when fully saturated
- Polypropylene Sock skin is chemical and tear resistant
- Absorbs and retains oils and oil-based liquids—including lubricants, fuels and cleaning agents—without absorbing a drop of water
- Bright white color makes absorbed oil easier to see; clearly shows saturation level
- Can be incinerated after use to reduce waste or for fuels blending

Composition:

- Tube - Polypropylene
- Cap - PVC
- Clip - Nylon



SAFETY DATA SHEET

Oil-Only PIG® Absorbents (MSD-016)

Page 1 of 2

1. Product And Company Identification

Product Identifier: Oil-Only PIG® Absorbents
General Use: Oil-Only PIG® Absorbents are designed to confine and absorb oil-based chemicals such as oil, gasoline, kerosene, diesel fuel, vegetable oil, etc., while repelling water and water-based products from machinery, leaks, drips, over-spray and spills.

Specific Product Identifier: Skimming PIG®: Mat, Pulp, Sock and Sweep, PIG® Coolant Skimming Pad, Oil-Only Heavy Fluids Mat, Outdoor PIG® Pan, PIG® 4-in-1 Skimming Pad, PIG® Printers Pillow, PIG® Spaghetti: Boom, Sock, Pillow and Sump Skimmer, Strips, PIG® Oil Only: Pillow, Mat, Wipe, Sock, Boom, Monitoring Well Sock, Valve Bib, Valve Mat, Rail Roll, Leaktrapper™ Absorbent Pillow, PIG® SunSafe™ UV-Resistant Mat, PIG® Pom-Pom Oil-Mops, PIG® Oil-Only UV Resistant: Mat, Boom & Poly-Back Mat.

Product Description: These white, yellow, blue, green or black absorbents are provided in many forms such as a mat (pad or rolls), spaghetti strips (pads cut into thin strips), pom-pom, pulp (mat ground into a particulate) or may come in a pan.

COMPANY PROFILE: New Pig Corporation
One Pork Avenue
Tipton, PA 16684-0304
Information Number 1-800-468-4647
Website: www.newpig.com
EMERGENCY TELEPHONE: INFOTRAC
200 North Palmetto Street
Leesburg, FL 34748
24 hrs, 7 days/week
1-800-535-5053

Email: hothogs@newpig.com

2. Hazards Identification

POTENTIAL HEALTH EFFECTS:

Eye Contact: May cause irritation
Ingestion: No hazard in normal use of product
Inhalation: No hazard in normal use of product
Skin Contact: Not applicable
Chronic: Not applicable

3. Composition/Information on Ingredients

Components	wt. %	CAS Registry #
Polypropylene	100	9003-07-0

May contain one or more of the following:

Zelec-Anti Static Agent		
Polypropylene: Film, Clips, Rope, Mesh		9003-07-0
Polyethylene Film, Cord		9002-88-4
Grommets		Not available
Steel Wire Tie		Not available
Polyester Fleece or Mesh		25038-59-9

Used to contain the following:

Mesh: Nylon		63428-83-1
Mesh: Polyethylene		9002-88-4

4. First Aid Measures

Eye Contact: Flush with water for 15 minutes. Consult a physician.

Ingestion: Not applicable

Inhalation: Not applicable

Skin Contact: Not applicable

5. Fire Fighting Measures

Extinguishing Media: Unused form: Not applicable Used form: that which is compatible to liquid(s) absorbed.

Special Fire Fighting Procedures: Wear a self-contained breathing apparatus and refer to absorbed liquid(s) MSDS(s).

Hazardous Combustion Products: When heated above the melting point: carbon monoxide, carbon dioxide, acrolein, ketones, aldehydes and other unidentified organic compounds.

Unusual Hazards: Refer to absorbed liquid(s) MSDS(s). The Oil-Only PIG® Absorbents do not render liquids nonflammable, neutral or less hazardous.

6. Accidental Release Measures

Spill or Leak Procedures: If material is unused, sweep or pick up and dispose of as a non-hazardous material.

7. Handling and Storage

Handling Precautions: None

Storage Precautions: Store in a cool, dry place. Shelf Life: Indefinitely - as long as product is kept in a clean, dry place away from direct sunlight.

General: Refer to absorbed liquid(s) MSDS(s). The Oil-Only PIG® Absorbents do not render liquids nonflammable, neutral or less hazardous. The container can be hazardous when empty. Follow label cautions even after the container is empty. Do not re-use empty containers for food, clothing or products for human or animal consumption, or where skin contact can occur.

8. Exposure Controls/Personal Protection

Engineering Controls: None required

PERSONAL PROTECTION

Eyes: Safety glasses with side shields is a good industrial practice

Respirator: Not required.

Gloves: Not normally required. However, use of cloth, canvas or leather gloves is a good industrial practice.

Other: None required.

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

EXPOSURE LIMITS 8 hrs. TWA (ppm)

OSHA PEL ACGIH TLV

None



SAFETY DATA SHEET

Oil-Only PIG® Absorbents (MSD-016)

Page 2 of 2

9. Physical and Chemical Properties

Appearance: White, yellow, blue, green or black polymer material in a variety of shapes, may also be in a black pan. Interior color may vary.

Odor: No odor **Odor Threshold:** Not applicable

pH: Not applicable

MELTING POINT/Freezing Point: >320° F (>160° C)

Initial Boiling Point and Range: Not applicable

Flash Point: Not applicable **Method:** Not applicable

Evaporation Rate: Not applicable

Flammable Limits: Not applicable

Conditions of Flammability: Not established

Explosive Properties: Not applicable

Vapor Pressure: Not applicable

Vapor Density: Not applicable

Relative Density (H₂O = 1): 0.9

Solubility in Water: Insoluble

Auto Ignition Temperature: 675° F (357° C)

Coefficient of Water/Oil Distribution: Not available

10. Stability and Reactivity

General: This is a stable material.

Conditions of Reactivity: Not established

Incompatible Materials: Strong oxidizing agents may degrade product over an extended period of time.

Conditions to Avoid: Not applicable

Hazardous Decomposition: When heated, it may emit toxic fumes.

Hazardous Polymerization: Will not occur

11. Toxicological Information

LD50: Not available

LC50: Not available

Carcinogenicity: IARC: Not established

National Toxicology Program: Not established

OSHA: Not established

California Prop 65: No listed ingredient

Reproduction Toxicity: Not available

Teratogenicity: Not available

Mutagenicity: Not available

Synergistic Products: Not available

Irritancy of Product: See Section 2.

Sensitization to Product: Not available

12. Ecological Information

No data available

13. Disposal Considerations

Waste Disposal Method: If unused, no special precautions are necessary. Dispose of in accordance with federal, state and local regulations. In certain types of cleanup applications the nature of the material recovered will classify the resulting spent material as a hazardous component. In such instances the material should be disposed of via an approved hazardous waste disposal service and the appropriate manifesting obtained.

14. Transport Information

DOT (Department of Transportation):

Proper Shipping Name: Not regulated

Hazard Class: Not regulated

Identification Number: Not applicable

15. Regulatory Information

CERCLA (Comprehensive Environmental Response Compensation and Liability Act): No Reportable Quantity
OSHA Hazard Communication Standard, 29 CFR 1910.1200: No listed ingredient
SARA Title III (Superfund Amendments and Reauthorization Act): No listed ingredient
TSCA (Toxic Substances Control Act): Ingredients of this product are on the Inventory list.

16. Other Information

NFPA Hazard Ratings: **Health - 0**
none → extreme **Fire - 1**
0 → 4 **Reactivity - 0**

Reason for Issue: Reviewed, added and moved information in multiple sections in preparation for the new GHS format. Addition to Sections 1 & 3.

Prepared by: Dale Gatehouse, Entreprises Krenda Inc.

Approved by: Lisa Baxter, New Pig Corporation

Previous Date of Issue: 06/14/2010

Revised Date: 02/25/2011

MSDS Number: MSD-016

The following is in lieu of all warranties, expressed or implied: All information provided is based on testing and data believed to be accurate. PIG® is a registered trademark of New Pig Corporation. All New Pig Corporation trademarks are protected by U.S. and International law.

Revised Date: 02/25/2011

OCD/ROC Meeting

AGENDA

April 21, 2011 Santa Fe, NM

9:00 am

A. Investigation and Characterization Plan

1. EME Jct. K-8-1 (1R427-316): ICP submitted 4/8/2011.

B. Corrective Action Plan

1. BD B-29 (1R426-169): CAP submitted 4/13/2011.

C. Termination Request

1. Hobbs Jct. F-31-1 (1R428-55): Termination Request submitted 4/13/2011.
2. Hobbs Jct. F-31-2 (1R428-56): Termination Request submitted 4/13/2011.

D. Other Discussion

1. BD N-18 BGT
2. EME G-8 BGT
3. Pump Sites – EME A-20
4. EME Jct. K-8-2 (1R427-317): ICP

Hansen, Edward J., EMNRD

To: ghh@att.net
Cc: Duran-Saenz, Theresa, EMNRD; Chavez, Carl J, EMNRD
Subject: RE: Proposed and new Oil and Gas Proposed and new environmental Rules

Dear Mr. Holliday:

I have attached a link below to the Oil Conservation Division's "Rules" webpage. Currently, there are no pending proposed rules before the Oil Conservation Commission (OCC). However, the latest environmental rule adopted by the OCC was the "Pit Rule" (19.15.17 NMAC). You may view a complete set of the OCC Rules from the "Rules" webpage.

<http://www.emnrd.state.nm.us/ocd/Rules.htm>

If you have any further questions regarding the environmental rules, please contact Carl Chavez at the email address above.

Edward J. Hansen
Hydrologist
Environmental Bureau
505-476-3489

From: Duran-Saenz, Theresa, EMNRD
Sent: Thursday, April 14, 2011 1:18 PM
To: Hansen, Edward J., EMNRD
Cc: ghh@att.net
Subject: FW: Proposed and new Oil and Gas Proposed and new environmental Rules

Good afternoon Ed.

Would you be so kind as to respond to Mr. Holliday's request for information. Thank you!

From: george [<mailto:ghh@att.net>]
Sent: Thursday, April 14, 2011 8:52 AM
To: Duran-Saenz, Theresa, EMNRD
Subject: Proposed and new Oil and Gas Proposed and new environmental Rules

Does NM provide a link to Proposed and new Oil and Gas environmental Rules?

Regards

George Holliday
ghh@att.net

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Wednesday, March 23, 2011 9:01 AM
To: 'wayne price'
Cc: Bratcher, Mike, EMNRD
Subject: RE: Devon Avalon Hills 7 Fed Com#3 Blowout June 2006 Reference: OCD Case # 2R0056

**RE: Groundwater Monitoring Wells Plugging Request for the Devon's
Avalon Hills 7 Fed Com #3 Release Site (2R-56)
Section 7, T21S, R27E, NMPM, Eddy County, New Mexico
Groundwater Monitoring Wells Plugging Approval**

Dear Mr. Price:

The New Mexico Oil Conservation Division (OCD) has received Devon Energy Operating Corporation's (Devon) request to plug five groundwater monitoring wells at the above-referenced site (dated March 8, 2011) and amendment of March 22, 2011. The OCD hereby conditionally approves the request to plug the groundwater monitoring wells (MW-2, MW-4, MW-5, MW-6 and MW-7) at the Avalon Hills 7 Fed Com #3 Release Site:

Devon must submit to the OCD a final plugging report within 90 days.

Devon must submit to the OCD a plan for ground water recovery from ground water monitoring well, MW-1, within 30 days.

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

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

Edward J. Hansen
Hydrologist
Environmental Bureau

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

From: wayne price [<mailto:wayneprice77@earthlink.net>]
Sent: Tuesday, March 22, 2011 6:13 PM
To: Hansen, Edward J., EMNRD
Subject: Devon Avalon Hills 7 Fed Com#3 Blowout June 2006 Reference: OCD Case # 2R0056

Dear Mr. Hansen:

Pursuant to our technical meeting on March 22, 2011, Devon is confirming it would like to modify the previous submittal dated March 08, 2011. The submittal dated March 08, 2011 set forth reasons why monitor wells MW-4, MW-5 and MW-7 should be closed. Today's meeting confirmed, that

in addition to those wells, monitor wells MW-2 and MW-6 may also be closed. Therefore, Devon is requesting approval to plug and abandoned monitor wells MW-2,4,5,6 and 7.

As discussed, all monitor wells will initially be plugged using a light class A cement with a viscosity reducer under pressure. Once the open perforations and formation have been properly sealed, then a class A cement will be used with 2% bentonite. All surface equipment extending above grade will be removed. Once plugged, Devon will submit a closure report.

If you have any questions please do not hesitate to call write.