

1R - 488

# WORKPLANS

Date:

5-14-13

**Hansen, Edward J., EMNRD**

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**From:** Hansen, Edward J., EMNRD  
**Sent:** Tuesday, May 21, 2013 9:40 AM  
**To:** Hack Conder (hconder@riceswd.com)  
**Cc:** Leking, Geoffrey R, EMNRD; Katie Jones <kjones@riceswd.com> (kjones@riceswd.com); Laura Pena (lpena@riceswd.com); Lara Weinheimer (lweinheimer@rice-ecs.com)  
**Subject:** Remediation Plan (1R-488) Additional Delineation Approved - Vanguard Abo SWD F-31 Site

**RE: "Further Delineation Request"  
for the Vanguard Natural Resources, LLC's  
Abo SWD F-31 Site  
Unit Letter F, Section 31, T16S, R37E, NMPM, Lea County, New Mexico  
Remediation Plan (1R-488) Additional Delineation Approved**

Dear Mr. Conder:

The New Mexico Oil Conservation Division (OCD) has received the Further Delineation Request for the Abo SWD F-31 Site, dated May 14, 2013, and has conducted a review of the request. The above-referenced request, submitted in fulfillment of 19.15.29 NMAC (Rule 29, formally, Rule 116), indicates that Vanguard Natural Resources, LLC (Vanguard) has partially met the requirements of 19.15.29 NMAC for this site. Therefore, the OCD hereby conditionally approves the proposed recommendations for this site:

Vanguard must submit to the OCD a corrective action plan within 90 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

Rice Environmental Consulting & Safety

P.O. Box 2948, Hobbs, NM 88241

Phone 575.393.2967

May 14<sup>th</sup>, 2013

**Mr. Edward Hansen**

New Mexico Energy, Minerals, & Natural Resources

Oil Conservation Division, Environmental Bureau

1220 S. St. Francis Drive

Santa Fe, New Mexico 87505

RECEIVED

MAY 20 2013

RE: **Further Delineation Request**

**Vanguard Natural Resources, LLC**

**Abo F-31 SWD (1R488): UL/F sec. 31 T16S R37E**

Oil Conservation Division

1220 S. St. Francis Drive

Santa Fe, NM 87505

Mr. Hansen:

Vanguard Natural Resources (Vanguard) has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the above-referenced site. The site is situated in UL/F sec. 31 T16S R37E and groundwater at the site is located at +/- 102 ft.

An ICP to address the site was submitted to NMOCD on August 22<sup>nd</sup>, 2007 and approved on May 6<sup>th</sup>, 2008.

On October 20<sup>th</sup> and 21<sup>st</sup>, 2008, ten soil bores were installed to determine the extent of the impact at the site. On October 16<sup>th</sup>, 2009, an ICP Report and CAP was submitted to NMOCD. On April 19<sup>th</sup>, 2010, two monitor wells were installed (source and down gradient) along with SB-11 and SB-12. Once installed, the monitor wells were sampled quarterly. On June 10<sup>th</sup>, 2010 the 'CAP - Preliminary Report' was sent to NMOCD. The City of Lovington replied to the CAP with their concerns on July 16<sup>th</sup>, 2010. On August 25<sup>th</sup>, 2010, NMOCD required 'Further Delineation' of the site. On November 16<sup>th</sup>, 2010, SB-13 and MW-3 were installed, and three surface samples were taken beyond the perimeter of the facility to the west of SB-8 and to the west and south of SB-7. The locations of the sampling were approved by NMOCD on October 27<sup>th</sup>, 2010. On February 14<sup>th</sup>, 2011, a 'Further Delineation Report' was sent to NMOCD.

**Recommendations**

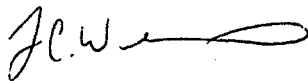
Per a conversation with the City of Lovington conducted on March 18<sup>th</sup>, 2013, concerns were raised over the level of chlorides associated with SB-11. These concerns were discussed with NMOCD on April 18<sup>th</sup>, 2013. Based on these conversations, RECS recommends the installation of verticals northwest of SB-11 (Figure 1). Verticals will be installed vertically and laterally to delineate residual chlorides from samples taken using a backhoe. Vertical sampling will be conducted until three samples occur in which the chloride concentration decreases and the third sample has a chloride concentration of  $\leq$  250 ppm or until vertical sampling is unfeasible given the range of the backhoe. Lateral sampling will be conducted to the northwest until a decrease is observed in chloride

concentrations between lateral verticals at similar depths or safety concerns impede further lateral delineation. Representative samples from each vertical will be taken to a laboratory for confirmatory analyses of chlorides.

Once the vertical installations have been conducted, RECS will submit a Corrective Action Plan (CAP) to address vadose zone and groundwater remedies.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-9174 or Marty Bloodworth at Vanguard (432) 362-2209 if you have any questions or wish to discuss the site.

Sincerely,



Lara Weinheimer  
Project Scientist  
RECS  
(575) 441-0431

Attachments:

Figure 1 – Proposed Vertical Map

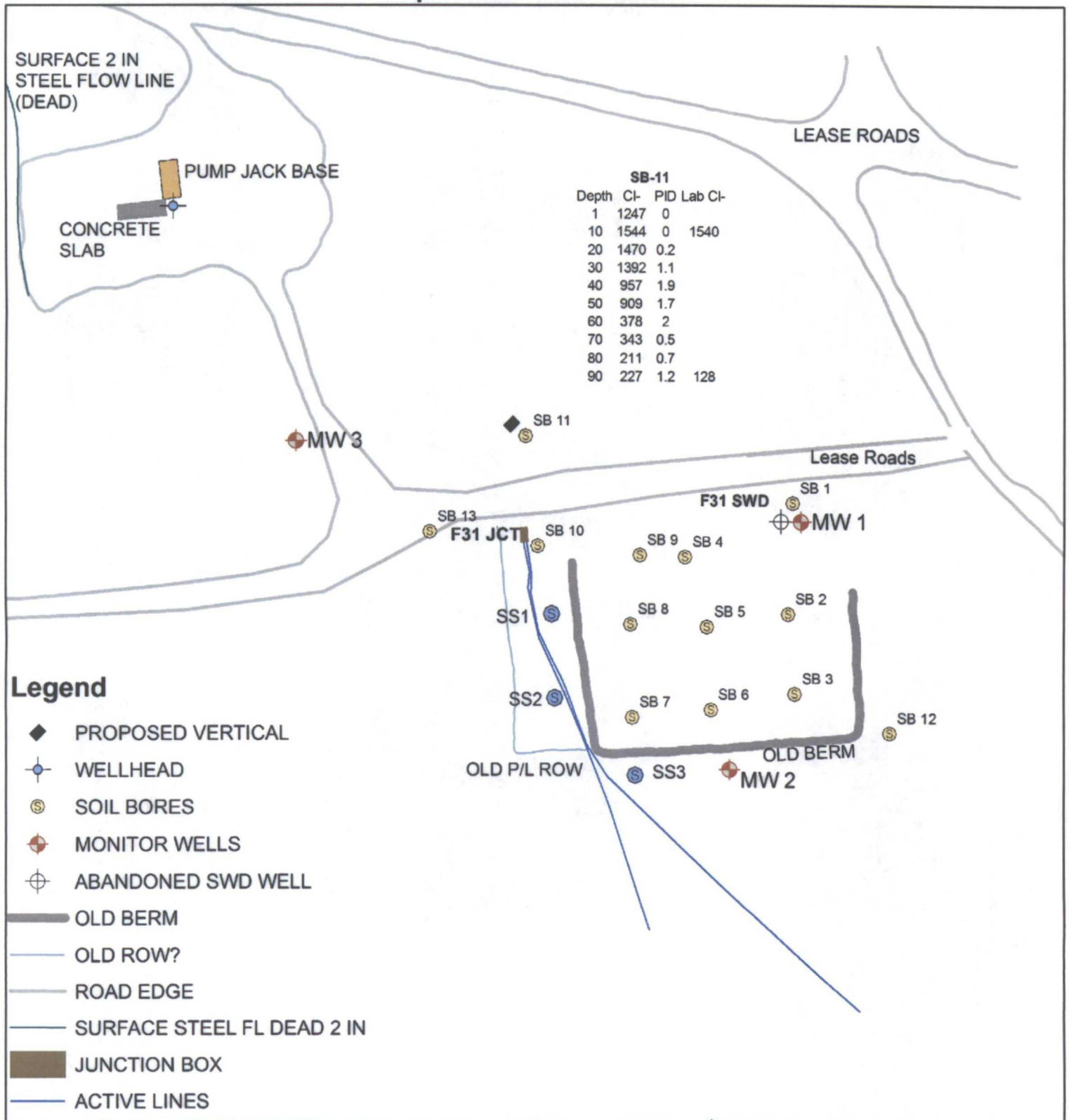
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2013 MAY 17 P 2:26



# Figures

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 2948, Hobbs, NM 88241  
Phone 575.393.2967

# Proposed Verticals

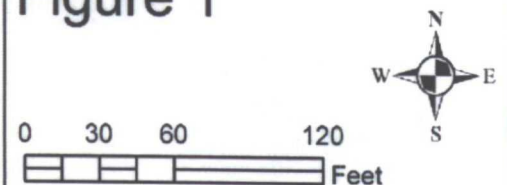


## ABO F-31 SWD

Legals: UL/F SEC 31  
T16S R37E

NMOCD Case #: 1R488

## Figure 1



Drawing date: 5/9/13  
Drafted by: L. Weinheimer

