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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

May 2, 2013

Colonel David C. Piech, Commander
27th Special Operations Mission Support Group
110 E. Sextant Avenue, Building 600, Suite 1098
Cannon Air Force Base, New Mexico 88103

**RE: APPROVAL
ANNUAL GROUND WATER MONITORING REPORT DECEMBER 2011
MELROSE AIR FORCE RANGE
ROOSEVELT AND CURRY COUNTIES, NEW MEXICO
EPA ID #NM7572124454
HWB-MELR-12-001**

Dear Col. Piech:

The New Mexico Environment Department (NMED) has received the Melrose Air Force Range (Permittee) *Annual Ground Water Monitoring Report December 2011, Melrose Air Force Range Roosevelt and Curry Counties, New Mexico* (PMR), dated February 2013 and received March 1, 2013. NMED has completed review of the document and provides the following comments.

Comments:

1. Section 1.1.3, Well Installation History, Agricultural Wells, first paragraph, page 1-13:

NMED Comment: The unnumbered table entry directly above the paragraph does not seem to match the discussion in the paragraph for MWL-3 in that the Permittee indicates the well has never been inspected nor have water levels been measured by the Permittee's current consultant.

Add a footnote for MWL-3 in future PMRs that recognizes this situation.

2. Section 2.1.1, Monitoring Well Network – Groundwater Sampling, page 2-3, sixth paragraph, second line:

Permittee's Statement: "Preservation ensures a temperature of $4^{\circ} \pm 2^{\circ}$ Celsius ($^{\circ}$ C) upon receipt by the contract laboratory."

NMED Comment: Placing samples on ice controls the sample temperature and has nothing to do with adding preservative materials to the sample.

Remove the statement from future PMRs or revise the statement to clarify this distinction in future PMRs.

3. Section 2.1.6, Geophysical Logging Activities, page 2-11:

NMED Comment: Although general discussion of gamma logging and electromagnetic induction resistivity logging techniques is provided in the PMR and the collected geophysical data is provided in Appendix D, the results and conclusions of the specific logging activity outcomes for wells MWQ-2, MWQ-20, MWQ-22, M117MW001, and M117MW004 are not discussed in the PMR, aside from the cross-section presented in Figure 10 (*Generalized Cross Sections*).

Provide that discussion in the 2012 PMR.

4. Section 3.0, Regulatory Criteria, Numbered Item 2.:

NMED Comment: The PMR references NMED soil screening level guidance that was developed in 2009. The *2012 NMED Risk Assessment Guidance for Site Investigations and Remediation* replaces and supersedes the following documents:

Technical Background Document for Development of Soil Screening Levels,
Revision 5.0, 2009,

New Mexico Environment Department TPH Screening Guidelines, October 2006,
and,

Risk-Based Remediation of Polychlorinated Biphenyls at RCRA Corrective Action Sites, NMED Position Paper, March 2000.

This guidance is available at <http://www.nmenv.state.nm.us/HWB/guidance.html>.

In future PMRs, the Permittee must consult the most recent NMED guidance for use in text, tables, and figures as appropriate.

5. Section 6.0, Summary, fourth bulleted item, pages 6-1 and 6-2:

NMED Comment: Provide a firm date for submittal of a Well Installation Work Plan for a new background monitoring well to be located upgradient of the Solid Waste Management Units adjacent to MWQ-10. This may be accomplished electronically via email and must be completed by no later than **May 17, 2013**. If desired by the Permittee, NMED can provide an example of an abbreviated Drilling Work Plan that meets current NMED requirements. The example is a tabular format consisting of text, a proposed location map, and a proposed well construction diagram.

6. Table 2, page 3 of 5:

NMED Comment: The graphs presented on this page are of little value in terms of identifying changes in groundwater levels over time.

Remove the graph in future PMRs.

7. Table 4a and the two figures for specific conductance that follow it:

NMED Comment: The conductivity measurement for MWL-6 in May 2011 (9.811 micro Siemens per centimeter [mS/cm]) is over an order of magnitude higher than previously reported at this location. Historically, values at this location have ranged from 0.979 to 0.566 mS/cm according to the PMR. There are no indications noted on the Groundwater Sampling Log of unusual conditions at the well during sampling on May 18, 2011.

During future sampling events, the Permittee must ensure that field technicians have access to previous data from all wells as a point of reference to check readings against historical data and to eliminate or minimize reporting or possible field instrument calibration issues.

8. Table 5a, Summary of Recent (Spring 2011) Groundwater Chemical Analytical Data, Annual Sampling:

NMED Comment: While NMED assumes the notation "NT" probably means "not tested", there is no footnote in the table that verifies NMED's assumption. In addition, the table row for explosives indicates they were not detected but the result columns for all of the wells that were sampled has the "NT" notation.

Review the information presented in all future PMR tables and figures for accuracy and completeness prior to submittal to the Air Force and NMED.

9. Table 5a, Summary of Recent (Fall 2011) Groundwater Chemical Analytical Data, Semiannual Sampling:

NMED Comment: NMED noted that the results for acetone and methylene chloride at well MA01MW003 are coded "U" but the code is in a red font. According to the table footnotes, a red coded designation indicates an exceedance of one or more water quality standards.

Review the information presented in all future PMR tables and figures for accuracy and completeness prior to submittal to the Air Force and NMED.

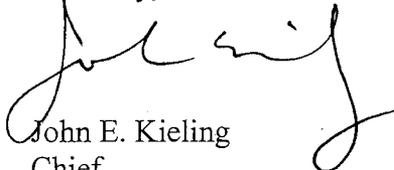
10. Table 6y, Vanadium:

NMED Comment: Wells MWQ-2 through MWQ-7, MWQ-10, MWQ-14, MWQ-18 through MWQ-22, and MWL-6 all showed significant increases in vanadium concentrations in both total and dissolved samples during the spring 2011 sampling event. No analytical issues concerning vanadium were identified in the data validation reports located in Appendix F. Samples obtained from wells M114MW001 through M114MW004, MAO1MW001 through MAO1MW004, MAO2MW001D, MWQ-23, and MWQ-2 also contained elevated total and dissolved vanadium concentrations during the spring 2011 sampling event but then showed significant concentration decreases during the fall 2011 sampling event. Neither phenomenon is discussed in the PMR.

As indicated in the Groundwater Monitoring Results section of the February 2003 *General Reporting Requirements for Routine Groundwater Monitoring at RCRA Sites*, this information must be presented and discussed in future PMRs.

If you have any questions regarding this letter, please contact Daniel Comeau at (505) 476-6043.

Sincerely,



John E. Kieling
Chief
Hazardous Waste Bureau

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File: CAFB 2013; Acceptance; MELR 2011 Annual Groundwater Rpt.