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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

October 20, 2017

Colonel Stewart A. Hammons
Commander, 27th Special Operations Wing
110 E. Alison Avenue, Suite 1098
Cannon Air Force Base
New Mexico 88103

**RE: DISAPPROAVL
2016 ANNUAL GROUNDWATER MONITORING REPORT
MELROSE AIR FORCE RANGE
EPA ID NO. NM5572124456-1
HWB-MELR-17-001**

Dear Colonel Hammons:

The New Mexico Environment Department (NMED) has received the *2016 Annual Groundwater Monitoring Report, Melrose Air Force Range* (Report), dated March 23, 2017. NMED has reviewed the Report and hereby issues this Disapproval. The following comments must be addressed.

GENERAL COMMENT

1. Organization of Report Information Included as Figures, Tables, and Charts

NMED Comment: The Report includes tables and charts which are not numbered, and in the case of tables included in Sections 1 through 4 of the Report, do not have titles. Additionally, various figures have been included in the Report sections. The revised Report must be restructured to include specific tables, figures, and graphs sections at the end of each Report text section or separate figure, table, and chart sections, which support the Report text, but come before the appendices. All tables, figures, and charts must be clearly labeled and numbered, and must include respective page numbers which reference their order in each

Report section or appendix. Revise the Report accordingly.

SPECIFIC COMMENTS

2. Section 2.3, Investigation Derived Waste, Page 21

NMED Comment: Provide additional information regarding the disposal of the collected purge and decontamination water in the revised Report. Provide any waste disposal manifest documentation as an additional appendix to the Report.

3. Section 4.2.1, SWMU-114, Page 25

Permittee Statement: “Due to shipping delays, the groundwater sample for M114MW004 was received outside of the 24 hour hold time for hexavalent chromium.”

NMED Comment: Provide additional details regarding the exceedance of the hold time for the sample collected for hexavalent chromium at monitoring well M114MW004. In the revised Report, discuss which sampling period the hold time exceedance was recorded for and the implications to the acceptability of the analytical data and Report conclusions.

4. Section 4.2.3, SWMU-131, Page 26

NMED Comment: In the Report, vinyl chloride was screened against the NMED Tap Water screening level (0.000201 milligrams per liter (mg/L)). The NMED Tap Water screening level is only appropriate to use for screening groundwater concentration data in the absence of a New Mexico Water Quality Control Commission (WQCC) groundwater quality standard, 20.6.2.3103 New Mexico Administrative Code or an Environmental Protection Agency (EPA) maximum contaminant level (MCL). When an EPA MCL or WQCC standard for groundwater is available, the most conservative screening level must be applied during chemical of concern (COC) concentration data evaluation. Additionally, remove the reference to NMED’s soil screening levels (i.e., SSLs) from the Section 4.2.3 table and any other Report tables.

5. Section 4.2.4, Vinyl Chloride, Page 27

Permittee Statement: “Vinyl Chloride (VC) has been detected in MW-.”

NMED Comment: Complete the statement for clarity. Additionally, there appears to be a discrepancy in the cited units (e.g., micrograms per liter ($\mu\text{g/L}$)) utilized for documentation of the reported exceedance of the vinyl chloride concentrations and its cleanup level in the table included in Section 4.2.4 and the table documenting the exceedances of the cleanup level for vinyl chloride in Section 4.2.3, SWMU-131, which notes milligrams per liter as the concentration and cleanup level units. Revise the Report to correct all concentration unit discrepancies. Concentration units for reporting of cleanup levels and COC concentration data must be consistently applied and accurately noted in all Report sections and appendices.

6. Section 4.2.6, Background Monitoring Well, Page 27

Permittee Statement: “Due to shipping delays, the April 2016 sampling event groundwater sample for MWQ24 was received outside of the 24 hour hold time for hexavalent chromium.”

NMED Comment: Revise the Report to discuss any implications of the holding time exceedance with respect to the acceptability of the analytical results and the Report conclusions.

7. Section, 4.3, Quality Control, Page 27

NMED Comment: The following quality control documentation must be included in the Report:

- a. Review of the information provided in Report Appendix E, Analytical Data Validation, does not include the data validation report for samples collected during the October 2016 semiannual groundwater sampling event. Data validation must be conducted for all groundwater samples collected during all sampling events. Provide the October 2016 sample analysis data validation report in the revised Report. Discuss the results of data validation for the April and October 2016 sampling events in the revised Report.
- b. To support quality control reporting requirements, provide the results of all laboratory split samples, field duplicate samples, and trip blank samples for the April and October 2016 groundwater sampling events as additional Report tables. Include a discussion of the results in the revised Report.

8. Tables 5a and 5b, Summary of Analytical Results, April and October 2016

NMED Comment: The following discrepancies associated with Tables 5a and 5b, Summary of Analytical Results, must be addressed:

- a. Remove the EPA Maximum Contaminant Level Goal screening value listed in the tables for lead.
- b. The tables cite May 2009 EPA MCLs. The most current state and federal cleanup levels must be utilized for screening and evaluation of COC concentration data. Revise the tables and reevaluate all concentration data accordingly.
- c. The units utilized for reporting COC concentrations and screening level values must be revised for consistency, accuracy, and conformance with supporting Report sections. As an example, the units cited for metals concentrations in groundwater in Tables 5a and 5b for cleanup level and concentration data

information is in milligrams per liter. However, the metals concentration in groundwater information reported in Tables 6a through 6z for historical COC concentration information is reported in micrograms per liter. Revise Tables 5a and 5b and all other Report sections to reflect use of consistent concentration units for cleanup levels and COC concentration information.

- d. The NMED Tap Water screening level for hexavalent chromium has been listed in the tables as 0.25 mg/L. However, the screening level concentration unit conversion from micrograms per liter, as listed in NMED's July 2015 Risk Assessment Guidance for Site Investigations and Remediation, to milligrams per liter, as listed in Table 5a and 5b, is incorrect. The correct screening level unit conversion for the hexavalent chromium tap water screening level is 0.00025 mg/L. Revise the cited NMED hexavalent chromium screening level for accuracy in Tables 5a and 5b. Review all cited screening levels for unit conversion accuracy, as necessary, revise the Report tables.
- e. Reported hexavalent chromium concentrations must be evaluated against the New Mexico WQCC groundwater quality standard for chromium. Revise the table and reevaluate the reported hexavalent chromium concentration data. Revise the Report conclusions accordingly.
- f. Review all reported table data and, as necessary, revise the tables for accuracy, completeness, and consistency.

9. Tables 6a through 6z, Historical Concentration Tables and Charts

NMED Comment: The notes for Tables 6a through 6z indicate the COC concentration data are reported in grams per liter. However, review of the data and comparison to previously submitted groundwater reporting information appears to indicate the concentration data reported in Tables 6a through 6z is in micrograms per liter. Revise the table notes to reflect the correct units utilized for the reporting of COC concentration data in Tables 6a through 6z, Historical Concentration tables, and charts. The units utilized in Tables 6a through 6z must conform with the concentration units utilized in other supporting sections of the Report and information provided in prior groundwater monitoring report submittals for Melrose Air Force Range.

Table 6l, Historical Iron Concentrations graph for MWQ22, has been mislabeled as MWQ24 and the cumulative concentration information has been omitted from the chart for all historical groundwater iron concentration data for all monitoring wells. Revise the charts accordingly.

10. Appendix G, Tables and Charts-Excel Format Digital Document

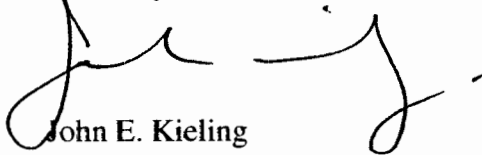
NMED Comment: Table 5b, Summary of Analytical Results for October 2016, was not included in the provided Excel file tables. Revise the Excel file to include all analytical data.

Colonel Hammons
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The Permittee must submit a revised Report that addresses all comments contained in this Disapproval. In addition, the Permittee must include a response letter that cross-references where NMED's numbered comments were addressed. The Permittee must also submit an electronic redline-strikeout version of the revised Report showing where all changes have been made to the Report. The revised Report must be submitted on or before **December 29, 2017**.

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

Sincerely,



John E. Kieling
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
B. Wear, NMED HWB
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