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**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

February 7, 2017

Mr. Adam Kusmak  
Chief, Installation Management Flight  
49<sup>th</sup> CES/CEI  
550 Tabosa Avenue  
Holloman AFB, NM 88330

**RE: APPROVAL WITH MODIFICATIONS  
FISCAL YEAR 2015 GROUNDWATER MONITORING REPORT, SS-018 –  
CHROMIC ACID SPILL SITE (AOC-H), MAY 2016  
HOLLOMAN AIR FORCE BASE, EPA ID# NM6572124422  
HWB-HAFB-16-012**

Dear Mr. Kusmak:

The New Mexico Environment Department (NMED) has reviewed the above referenced document (the Report) submitted by Holloman Air Force Base on June 1, 2016. The Report is approved with the following modifications.

Section 2.1 of the Report, *Groundwater Contamination*, states that “groundwater contamination identified comprised of chlorinated VOCs...”. While this is true, it does not state that groundwater contaminants also included inorganics (metals) and 1,4-dioxane.

Regarding metals, Section 5.0, *Groundwater Monitoring Analytical Results*, indicates that ten different metals with varying concentrations above groundwater standards are present in all 39 monitoring wells at the site. Section 8.2, *Conclusion and Recommendations*, states that “inorganic concentrations may be attributed to the high concentrations of TDS (total dissolved solids) experienced across the site”. The Report makes no further conclusions or recommendations regarding the presence of metals contamination in the groundwater at the site. Furthermore, the assertion that the high concentrations of metals may be attributed to high TDS concentrations does

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not appear to be valid. Only eight of the site's 39 monitoring wells contained TDS concentrations in excess of 10,000 milligrams per liter, the limit established by the NMWQCC for the applicability of the numeric groundwater cleanup standards listed in 2.6.2.3103 NMAC.

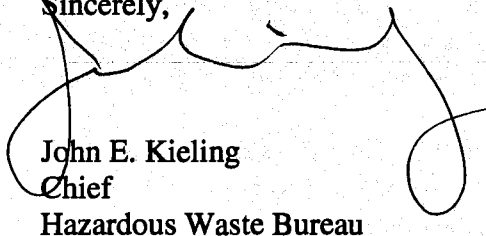
Regarding 1,4-dioxane, Section 8.1.2, *Data Evaluation, 1,4-Dioxane*, states that it was detected in groundwater samples from eight monitoring wells at concentrations below the NMED Risk Based Screening Level (RBSL) for tap water (7.76 micrograms per liter [ $\mu\text{g/L}$ ]) with concentrations ranging from 0.84  $\mu\text{g/L}$  to 7.5  $\mu\text{g/L}$ . One monitoring well (MW), SS18-MW19, contained a 1,4-dioxane concentration of 180  $\mu\text{g/L}$ . The Section states that this concentration "may be considered anomalous and monitoring of 1,4-dioxane should be continued in and around the vicinity of SS18-MW19". The southern-most detection (MW S51-MW3 at 7.5  $\mu\text{g/L}$ ) is located approximately 480 feet from MW SS18-MW19 and the northern-most detection (MW SS18-MW06 at 5.1  $\mu\text{g/L}$ ) is located approximately 540 feet from MW SS18-MW19. NMED does not consider the elevated detection of 1,4-dioxane in MW SS18-MW19 to be anomalous and requires that testing for 1,4-dioxane continue in future sampling events for all MWs, not just those in the vicinity of MW SS18-MW19.

All future investigation and monitoring reports must address the following:

- Provide figures showing the results of elevated levels of metals in groundwater at the site and a discussion of the extent and fate of this contamination.
- Continue to include 1,4-dioxane in the analytical suite for all MWs until further notice and provide detection isoconcentration maps and comparisons similar to the method used to present VOCs in the Report.
- Soil and groundwater analytical results tables must include applicable screening levels/standards and exceedances must be bolded or otherwise highlighted.
- All Figures shall present New Mexico State Plane coordinates.

If you have any questions regarding this letter, please contact Mr. David Strasser of my staff at (505) 222-9526.

Sincerely,



John E. Kieling  
Chief  
Hazardous Waste Bureau

**Mr. Adam Kusmak**

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**File: HAFB 2017 and Reading  
HAFB-16-012**