Certified Mail - Return Receipt Requested

April 25, 2022

Brian D. Knight
Environmental Division (Building 163)
U.S. Army White Sands Missile Range
White Sands Missile Range, NM 88002-5000

RE: **DISAPPROVAL**
2017 GROUNDWATER FREQUENT MONITORING REPORT
SWMU 198 LC-38 DIESEL FUEL OIL RELEASE
WHITE SANDS MISSILE RANGE, NEW MEXICO
DONA ANA COUNTY, WHITE SANDS MISSILE RANGE, NEW MEXICO
EPA ID #NM 2750211235
HWB-WSMR-20-015

Dear Mr. Knight,

The New Mexico Environment Department (NMED) has received the U.S. Army White Sands Missile Range (the Permittee, WSMR) *2017 Groundwater Frequent Monitoring Report SWMU 198, LC-38 Diesel Fuel Oil Release* (Report), dated October 2020 and received December 16, 2020. NMED has reviewed the Report and hereby issues this Disapproval with the following comments.

1. **Section 3, Regulatory Criteria, page 3-1:**

   Permittee Statement: "If the criterion is below the achievable laboratory limit of detection, then the screening level is considered to be the laboratory limit of quantitation."

   NMED Comment: Screening levels are not subject to change based on laboratory reporting limits. Analyses conducted with detection limits that are greater than applicable background, screening, and regulatory cleanup levels are considered data quality exceptions and the reasons for the elevated detection limits shall be reported to the NMED in accordance with Permit Appendix 5, Section 5.3. Data quality exceptions that could potentially mask detections must be reported in the analytical data summary tables as specified by Permit Appendix 7, Section 7.4.11 and the limit of quantitation be

the reported value for the sample. Revise the statement for accuracy. In addition, the Permittee must use a contract analytical laboratory that possesses the capability to achieve reporting limits that are less than the applicable screening levels.

2. **Section 5, Analytical Data Results, page 5-1:**

   Permittee Statement: Hexavalent chromium was not detected in 2017. It has been detected only on two occasions: once in 2010 and once in 2015, both in LC38-MW-04. Both detections (0.008 and 0.0039 mg/L) were "J-flagged" as estimated values due to their relatively low concentrations.

   NMED Comment: The Permittee analyzed for hexavalent chromium in groundwater using analytical test method E218.6. United States Environmental Protection Agency (EPA) documentation for method E218.6 states that overloading of the analytical column capacity with high concentrations of anionic species, especially chloride and sulfate, will cause a loss of hexavalent chromium in the analytical sample (Method 218.6: Determination of Dissolved Hexavalent Chromium in Drinking Water, Groundwater, and Industrial Wastewater Effluents by Ion Chromatography, Rev. 3.3. EPA, 1994). Historic groundwater data for the LC-38 site demonstrate that both chloride and sulfate are present at high concentrations. As a result, it is likely that the reported hexavalent chromium data are not representative of the actual concentrations in groundwater at this site. The Permittee must demonstrate that analytical method E218.6 is appropriate given the groundwater conditions at LC-38 or consider hexavalent chromium concentrations to be equivalent to total chromium concentrations.

3. **Appendix B, Analytical Program, page Appendix B-2:**

   Permittee Statement: "The data validator completed a data usability assessment for each data package. The validator's summary of data quality exceptions and their effects on the acceptability of the analytical data regarding each monitoring event are attached. There were no rejections of data for this year's monitoring events. Overall, the data were determined to be acceptable for the intended purpose."

   a) **NMED Comment:** The data validator's summary of data quality exceptions is not included in the Report. Provide a copy of the data validator's summary.

   b) **NMED Comment:** The Appendix C Eurofins Data Analysis Report states: "Regulations require that analysis for hexavalent chromium be filtered within 15 minutes (immediately) from sample collection. Since the filtration occurred after receipt in the laboratory, the 15 minute criteria was exceeded." The Permittee did not address this data quality exception. Revise the Report to address the

failure of the field staff to filter the samples within the required time and discuss the impact this may have had on sample integrity and data quality.

c) **NMED Comment:** The Appendix C Eurofins Sample Administration Receipt Documentation Log reports that sample LC38-MW04-A-201708 was received by the lab with a broken container lid and that the sample was contaminated. The Permittee did not address this data quality exception in the data validator's summary. Revise the Report to discuss the impact the broken sample container may have had on sample integrity and data quality.

The Permittee must address all comments contained in this Disapproval and submit a revised Report no later than **June 29, 2022**. The revised Report must include a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments. In addition, an electronic version of the revised Report must be submitted on a CD/DVD that identifies where all changes have been made in red-line strikeout format.

Should you have any questions, please contact Robert Murphy of my staff at (505) 690-5660.

Sincerely,

Rick Shean Digitally signed by Rick Shean
Date: 2022.04.25 08:52:03
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Rick Shean
Bureau Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
R. Murphy, NMED HWB
L. Tsinnajinnie, NMED HWB
B. Avalos, WSMR
J. Smith, WSMR
L. King EPA Region 6 (6LCRRC)

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