



MAIL CERTIFIED-RETURN RECEIPT

February 2, 2024

Arturo Duran, Designated Agency Manager  
U.S. Department of Energy  
Environmental Management  
Los Alamos Field Office  
1200 Trinity Drive, Suite 400  
Los Alamos, NM 87544

**RE: REVIEW**  
**2023 ANNUAL PERIODIC MONITORING REPORT FOR BASE-FLOW SAMPLING: LOS ALAMOS CANYON, WATER CANYON, WHITE ROCK CANYON, AND PAJARITO CANYON WATERSHEDS**  
**LOS ALAMOS NATIONAL LABORATORY**  
**EPA ID#NM0890010515**  
**LANL-23-082**

Dear Mr. Duran:

The New Mexico Environment Department (NMED) has received the United States Department of Energy (DOE) *2023 Annual Periodic Monitoring Report for Base-Flow Sampling: Los Alamos Canyon, Sandia Canyon, Water Canyon, White Rock Canyon, and Pajarito Canyon Watersheds* (Report), dated November 30, 2023, and received on December 1, 2023, and referenced by EM2023-0747.

NMED notes that in monitoring year (MY) 2023, DOE was only able to collect a total of 12 samples out of the 18 baseflow samples attempted for the base-flow monitoring locations due to sites being dry or having insufficient water to sample (see Table 1.0 in the Report). NMED notes that in MY2023, DOE was not able to collect either semi-annual sample for Los Alamos Canyon and was only able to collect one-third of the planned samples for Water Canyon. NMED also notes this is the first time Aroclor-1254 (0.148 µg/L) has been detected at the Sandia Right Fork at Power Plant location and exceeded the NMED screening level for aquatic life (0.014µg/L).

NMED has completed its review and has the following comments:

**1. Section 5.2.1, Rio Grande at Frijoles, page 8.**

**DOE Statements:** “For the October 4, 2022, sampling event at Rio Grande at Frijoles, unfiltered aluminum was detected at 11,100 µg/L, which is above both the NMAC Aquatic Life Chronic total recoverable aluminum standard of 1679.3 µg/L and the NMAC Aquatic Life Acute total recoverable aluminum standard of 4191.6 µg/L (both based on 116-mg/L hardness).”

“For the October 4, 2022, sampling event at Rio Grande at Frijoles, unfiltered iron was detected at 7320 µg/L, which is above the NMAC Aquatic Life Chronic standard of 1000 µg/L.”

**NMED Comment:** According to Tables C-1, Analytical Results from the Periodic Monitoring Events Reported in this Periodic Monitoring Report, and C-2, samples collected on October 4, 2022 had an analytical detection of 13,000 µg/L for unfiltered aluminum and unfiltered iron was detected at 8,560 µg/L. Revise the descriptions and associated tables to reference the maximum values for unfiltered aluminum and iron.

**2. Tables 2.1-1 and 2.1-2, pages 16-17.**

**NMED Comment:** Table 2.1-1 Base-Flow Sampling PME Observations, indicates that the sample at Two Mile Canyon Below TA-59 in the Pajarito Watershed (Q3, 2023) was canceled due to “insufficient water to sample”. However, this information is not reflected in Table 2.1-2 Base-Flow Sampling Deviations. Please review and revise the tables accordingly.

**3. Table 4.2-1, Target Analytes with MDLs Equal to or Above Screening Values, page 20.**

**NMED Comment:** Several target analytes continue to have method detection limits (MDLs) above screening levels. DOE must evaluate implementing another analytical method(s) with an MDL lower than the appropriate screening levels, if available, for the following constituents as part of revisions in the MY2025 Interim Facility-Wide Groundwater Monitoring Plan: Benzidine, Benzo(a)anthracene, Benzo(a)pyrene, Bis(2-chloroethyl)ether, Chloraniline[4-], Dibenz(a,h,)anthracene, Dinitro-2-methylphenol[4,6-], Dinitrotoluene [2,4-], Dinitrotoluene[2,6], Hexachlorobenzene, Hexachlorobutadiene, Hexachloroethane, Nitrobenzene, Nitroso-di-n-butylamine[N-], Pentachlorobenzene, Pentachlorophenol, Tetrachlorobenzene[1,2,4,5], Acrolein, Acrylonitrile, Chloro-1,3-butadiene[2-], Dibromoethane[1,2-], Trichloropropane[1,2,3-].

Provide replacement tables and the revised language for Section 5.2.1 to NMED within 60 days of receipt of this letter.

If you have any questions regarding this letter, please contact Siona Briley at (505) 690-5160.

Sincerely,

Digitally signed by  
**Rick Shean**  
Rick Shean  
Date: 2024.02.02  
10:38:06 -07'00'

Rick Shean  
Designated Agency Manager  
Director, Resource Protection Division  
New Mexico Environment Department

cc:

N. Dhawan, NMED HWB  
S. Briley, NMED HWB  
M. Petersen, NMED HWB  
L. King EPA Region 6, TX  
C. Rodriguez, EM-LA  
C. Maupin, N3B  
H. Shen, EM-LA  
[N3Brecords.docs@em.doe.gov](mailto:N3Brecords.docs@em.doe.gov)  
[emla.docs@em.doe.gov](mailto:emla.docs@em.doe.gov)  
[RegDocs@EM-LA.DOE.GOV](mailto:RegDocs@EM-LA.DOE.GOV)

File: 2024 LANL, Review, 2023 Annual Periodic Monitoring Report for Base-Flow Sampling:  
Los Alamos Canyon, Sandia Canyon, Water Canyon, White Rock Canyon, and Pajarito  
Canyon Watersheds  
LANL-23-082

