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Date: **JUL 08 2011**
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John Kieling, Acting Bureau Chief
 Hazardous Waste Bureau
 New Mexico Environment Department
 2905 Rodeo Park Drive East, Building 1
 Santa Fe, NM 87505-6303

Subject: Review of May 2011 Groundwater Data

Dear Mr. Kieling:

Members of the Los Alamos National Laboratory Environmental Programs staff met on June 15, 2011, to review new groundwater data received in May 2011. At that time, several groundwater samples were identified with contaminant concentrations above the New Mexico or federal water quality standards.

An Environmental Programs staff member notified the New Mexico Environment Department Hazardous Waste Bureau about these findings by email on June 15, 2011, and followed up with a phone call on the same day.

The four instances of a contaminant above a standard for the first time (based on samples collected since June 14, 2007) are tabulated in the attached report. These instances are the following:

- Arsenic was found in a filtered field duplicate sample collected on March 9, 2011, from Pueblo Canyon regional well R-2 at 10.2 $\mu\text{g/L}$; the U.S. Environmental Protection Agency maximum contaminant level is 10 $\mu\text{g/L}$. Arsenic concentrations show variability this close to the 5 $\mu\text{g/L}$ practical quantitation limit; the primary sample result was 3.2 $\mu\text{g/L}$, close to the detection limit and estimated. Two unfiltered sample results (a primary and field duplicate) for the same sample event were 4.7 $\mu\text{g/L}$ and 2.9 $\mu\text{g/L}$, also estimated.
- The filtered chloride result in a sample collected on March 14, 2011, from Los Alamos Canyon alluvial well LAUZ-1 was 341 mg/L; the New Mexico Groundwater Standard is 250 mg/L. This result is likely the result of road-salt runoff from nearby urban areas; a sample from this well in April 2007 had a chloride concentration of 506 mg/L.
- The filtered iron result was 1110 $\mu\text{g/L}$ in a sample collected on March 18, 2011, from Los Alamos Canyon intermediate well R-9i at 278 ft; the New Mexico Groundwater Standard is 1000 $\mu\text{g/L}$. The iron result in the unfiltered sample from the current sampling event was 32 $\mu\text{g/L}$. Filtered zinc and manganese concentrations were also higher than

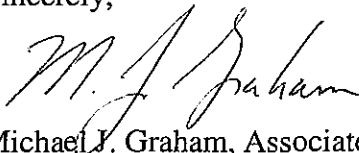
unfiltered concentrations so the two bottles may have been switched during data collection. Several samples taken in 2000–2001 had filtered iron concentrations near or above the standard.

- Manganese was found in the first filtered sample collected on March 23, 2011, from newly constructed Mortandad Canyon intermediate well R-55i at 435 $\mu\text{g/L}$; the New Mexico Groundwater Standard is 200 $\mu\text{g/L}$.

This letter is our written submission that meets notification requirements laid out in Section IV.A.3.g of the Compliance Order on Consent, modified on May 13, 2008. The required information for the chemical constituents that meet the seven screening criteria contained in that section is given in the accompanying report and tables.


If you have questions, please contact Steve Paris at (505) 606-0915 (smparis@lanl.gov) or Hai Shen at (505) 665-5046 (hshen@doeal.gov).

Sincerely,



Michael J. Graham, Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,



George J. Rael, Manager
Environmental Projects Office
Los Alamos Site Office

MG/GR/CD/SP/DR:sm

Enclosure: Two hard copies with electronic files – Summary of New Los Alamos National Laboratory Groundwater Data Loaded in May 2011 (LA-UR-11-3014)

Cy: (w/enc.)

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