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Date: May 29, 2008
Refer To: EP2008-0232

James P. Bearzi, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303



Subject: Review of April 2008 Groundwater Data

Dear Mr. Bearzi:

The Los Alamos National Laboratory (LANL) Water Stewardship Project (LWSP) met on May 14, 2008, to review new groundwater data received in April 2008. At that time, several groundwater samples were identified with contaminant concentrations above the New Mexico or federal water quality standards. Because of database issues, this report includes new data received by LANL from about January to March, 2008. Remaining new data will be reviewed and sent to the New Mexico Environment Department (NMED) in a subsequent report.

The LWSP program manager notified the NMED Hazardous Waste Bureau about these findings by telephone on May 14, 2008, and followed up with an email on the same day. The 46 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. Many of the samples collected at these locations before June 14, 2007, also contained the same contaminants at concentrations above a standard, with the following 19 exceptions:

- Chloride was detected at 266 mg/L in Sandia Canyon alluvial well SCA-2; the New Mexico groundwater standard is 250 mg/L.
- Beryllium was detected at 4.6 µg/L in an unfiltered sample at Sandia Canyon alluvial well SCA-2; the U. S. Environmental Protection Agency (EPA) maximum contaminant level (MCL) is 4 µg/L.
- Lead was detected at 30.1 µg/L in an unfiltered sample at Sandia Canyon alluvial well SCA-2; the EPA drinking water system screening level is 15 µg/L.
- Bis(2-ethylhexyl)phthalate was detected at 51.2 µg/L in Sandia Canyon alluvial well SCA-4; the EPA MCL is 6 µg/L.

- Chloride, total dissolved solids (TDS), and barium were detected at 2180 mg/L, 3800 mg/L, and 1960 µg/L, respectively, at Mortandad Canyon alluvial well MCO-2; the New Mexico groundwater standards are 250 mg/L, 1000 mg/L, and 1000 µg/L, respectively.

- Nitrate-nitrite (as nitrogen) was detected at 10 mg/L in Mortandad Canyon alluvial well MCO-7; the New Mexico groundwater standard is 10 mg/L.

- Beryllium was detected at 4.5 µg/L in an unfiltered sample at Mortandad Canyon alluvial well CDBO-6; the EPA MCL is 4 µg/L.

- Bis(2-ethylhexyl)phthalate was detected at 7.23 µg/L in Mortandad Canyon alluvial well CDBO-6; the EPA MCL is 6 µg/L.

- Ammonia (as nitrogen) was detected at 0.24 mg/L at Mortandad Canyon water supply well PM-4; the EPA tap water screening level is 0.21 mg/L.

- RDX (research department explosive or hexahydro-1,3,5-trinitro-1,3,5-triazine) was detected at 6.42 µg/L in Pajarito Canyon Bulldog Spring; the EPA tap water screening level is 6.11 µg/L.

- TDS was detected at 1200 mg/L in Pajarito Canyon intermediate well 03-B-10; the New Mexico groundwater standard is 1000 mg/L.

- Chloride was detected at 610 mg/L in Pajarito Canyon intermediate well 03-B-13; the New Mexico groundwater standard is 250 mg/L.

- Bis(2-ethylhexyl)phthalate was detected at 33.2 µg/L in Water Canyon alluvial well CDV-16-02658; the EPA MCL is 6 µg/L.

- Iron and manganese were detected at 2770 µg/L and 1030 µg/L, respectively, in Water Canyon alluvial well FLC-16-25279; the New Mexico groundwater standards are 1000 µg/L and 200 µg/L, respectively. This was the first sampling event for this well.

- Iron and manganese were detected at 2520 µg/L and 1370 µg/L, respectively, in Water Canyon alluvial well FLC-16-25278; the New Mexico groundwater standards are 1000 µg/L and 200 µg/L, respectively. This was the first sampling event for this well.

This letter is our written submission that indicates in the accompanying report and tables the chemical constituents that meet the seven screening criteria laid out in the Settlement Agreement and Stipulated Final Order signed by NMED, the U.S. Department of Energy, and Los Alamos National Security, LLC, on June 14, 2007. The report identifies data collected since June 14, 2007, that meet these criteria.

If you have questions, please contact Ardyth Simmons at (505) 665-3935 (asimmons@lanl.gov) or Mat Johansen at (505) 665-5046 (mjohansen@doeal.gov).

Sincerely,

for Susan G. Stiger, Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,

David R. Gregory, Project Director
Environmental Operations
Los Alamos Site Office

SS/DR/PH/DR:sm

Enclosure: Report and accompanying tables: "Summary of New Los Alamos National Laboratory Groundwater Data Loaded in April 2008" (EP2008-0232)

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