

LANL General 2002



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JOHN R. D'ANTONIO, Jr.
SECRETARY

September 19, 2002

Steve Gilrein, RCRA Associate Director
United States Environmental Protection
Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

**RE: REQUEST FOR SAMPLING RESOURCES FOR LOS ALAMOS NATIONAL
LABORATORY, 0890010515**

Dear Mr. Gilrein:

Over the course of the past several years, the Environmental Protection Agency (EPA) has been performing independent monitoring at and near Los Alamos National Laboratory (LANL). EPA's presence has helped promote confidence from the general public as well as the local citizen groups in the reliability of environmental data collection and reporting. In light of these benefits, the New Mexico Environment Department (NMED) requests that EPA continue its monitoring efforts at LANL and its concomitant assistance to NMED.

NMED recommends that EPA direct resources at groundwater, surface water and sediment-transport monitoring as potential projects. Specifically, NMED suggests the following projects:

1. Determine the presence and distribution of perchlorate at LANL, in both deep and shallow ground water. NMED suggests collecting approximately 100 samples would need to be collected from alluvial, perched intermediate and regional aquifers via the sampling of wells and springs. Total analytical cost using the High Pressure Liquid Chromatography Mass Spectrometry-Mass Spectrometry (HPLC-MS-MS) method would be about \$20,000. The sampling could be conducted anytime during the year. In terms of personnel, we estimate it will take 2 EPA staff/contractors two weeks to complete the project.



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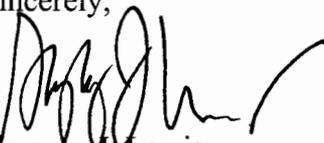
2. Monitor springs and surface waters in White Rock Canyon. Fifteen to 20 springs and 4 surface-water samples would need to be collected and analyzed for metals, radionuclides, organics, non-metallic inorganics and major ions (including perchlorate). These locations are considered the end point for ground- and surface-water discharge of potential LANL releases, known contaminant plumes, etc. Total cost for such a project would be approximately \$40,000 for analytical services and \$4,000 (4 nights for 5 staff) for the transportation service. Sampling would need to be conducted in October or November. In terms of personnel, it will take 4 to 5 EPA staff/contractors one week to complete the project.
3. Additional groundwater monitoring of the Mortandad Canyon alluvial, intermediate and regional aquifers is needed. For the past several years, EPA has monitored this aquifer as well as the TA-50 Radioactive Liquid Waste Treatment Facility (RLWTF) outfall effluent which is, considered the primary aquifer-recharge component and contaminant source within Mortandad Canyon. EPA's spatial and temporal data have already contributed greatly to our understanding of the hydrogeologic system at LANL. Earlier this year the Laboratory updated its treatment technologies at the RLWTF and as a consequence the contaminant concentrations in the effluent have apparently decreased. Hence, an additional monitoring would help document the impact of changes in the RLWTF effluent chemistry on the aquifer. EPA's data would also be used for the purpose of trend analyses, modeling, etc. NMED recommends sampling approximately 13 wells (deep, intermediate and shallow wells) in addition to collecting two to three effluent samples. In addition, 2-4 samples of influent and effluent within the RLWTF should be collected. Total analytical cost for the project includes volatile organic compounds, semi-volatile organic compounds, metals, radionuclides, organics, non-metallic inorganics and major ions including perchlorate would be about \$21,000. In terms of personnel, we estimate it will take 2 EPA staff/contractors one week to complete the project.
4. Monitor storm-water in the main watersheds that dissect LANL and in sub-basins downstream of high-profile or highly contaminated solid waste management units and areas of concern/contamination. NMED estimates that approximately 30 samples should be collected at an analytical cost of about \$4,000 per sample or \$120,000 for the total project. NMED DOE OB will collect all samples, track, and report the results.

We feel that the above projects would benefit the Laboratory, NMED, EPA as well as the general public. The data and information gathered from these projects can be utilized in many ways including such applications as contaminant fate, transport and groundwater flow modeling, trend analyses, natural attenuation, and compliance purposes.

Mr. Steve Gilrein
September 19, 2002
Page 3 of 3

Thank you for your assistance in this matter. If you have any questions please contact me at (505) 827-1758 or John Young or Michael Dale of my staff at (505) 428-2538 or (505) 672-0449, respectively.

Sincerely,



Gregory J. Lewis
Director

GJL:jry

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