



State of New Mexico
ENVIRONMENT DEPARTMENT
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January 28, 1998

Mat Johansen, AIP POC
 U.S. Department of Energy
 Los Alamos Area Office
 528 35th Street, MS A316
 Los Alamos, NM 87544

RE: LANL's Environmental Restoration Work Plan for Los Alamos and Pueblo Canyons

Dear Mr. Johansen:

The DOE OB has several recommendations concerning continued investigation/characterization activities specific to the implementation of the Los Alamos and Pueblo Canyons Work Plan:

- 1 - Characterization activities in DP Canyon targeting ground water, surface water, soils and sediments should be implemented by the Canyons Group; a Work Plan or Sampling and Analysis Plan should be developed and submitted to NMED as soon as possible.
- 2 - All Environmental Restoration (ER) and Environmental Surveillance (ES) wells and surface-water stations should be permanently marked from the outset of monitoring. Those in Los Alamos, Pueblo and DP Canyons should be so marked before any future field activities are initiated. In addition, all ES and ER wells and surface-water stations which have not been accurately located should be surveyed in order to be entered into the FIMAD database.
- 3 - All ER ground- and surface-water data for Los Alamos, DP and Pueblo Canyons should be compiled into a usable format, including associated illustrations (well and sampling location maps, water-level maps, cross-sections, etc.). LANL and NMED should evaluate these data before LANL conducts any additional field work.
- 4 - LANL should sample wells LAO-B, LAO-0.3, LAO-0.6, LAO-0.8, LAO-0.91, LLAO-1.6(g), LLAO-1(B), LLAO-2, LLAO-3, LLAO-4, LLAO-5, LAUZ-1, LAUZ-2, PAO-1, LADP-3, LAOI(A)-1.1, POI-4 as well as DP, LA and Basalt Springs. Samples should be collected during a short time period (4-5 days). At least two sampling events should be performed: one during the spring snowmelt-runoff season or during high-head conditions and one during low-head conditions. Samples should be collected at these stations in conjunction with LANL's ESH-18 ground- and surface-water monitoring activities. Water levels should be measured at all alluvium wells in Los Alamos Canyon, including the NM State Highway Department wells near Totavi.
- 5 - If streams are flowing, surface-water samples should be collected during the ground-water sampling events. Samples should be collected at the following locations: LAO-B, LAO-0.3, LAO-1, LLAO-1.6(g), LAO-5, LLAO-1(B), LLAO-5, Los Alamos Canyon at the Rio Grande, DP Canyon at Los Alamos Canyon (DPS-4), Acid Weir, Bayo Sanitary Treatment Facility outfall and gaging station E060 in Pueblo.

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- 6 - During 1998, samples of storm water from at least two runoff events (high and low flow) should be collected in DP, Los Alamos, Pueblo and Acid Canyons; in addition, ground-water samples should be collected at a select number of wells in these canyons during peak aquifer recharge (highest heads).
- 7 - All ER wells in Los Alamos, DP and Pueblo Canyons that have already been developed using the bailer method, and continue to produce turbid samples, should be re-developed using the surge-block method.
- 8 - Underflow in DP Canyon near its confluence with Los Alamos Canyon should be investigated/characterized. Two to three hand- or pneumatic-augered wells, screened at the alluvium/tuff contact, near the active channel should suffice.
- 9 - Several unknowns (e.g., the existence of perched ground water near Acid and Pueblo Canyons, recharge, etc.) in upper Pueblo Canyon near its confluence with Acid Canyon should be addressed.

DOE OB personnel are available to discuss these recommendations with LANL ER/ES personnel, if requested. Please contact Chris Hanlon-Meyer at 827-1536 or Michael Dale at 672-0449 if you have any questions concerning this matter.

Sincerely,



Steve Yanicak, LANL POC
Department of Energy Oversight Bureau

SY:mrd

cc:

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