

General

LANL Groundwater
2014 IFWGWMP

Cobrain, Dave, NMENV

ENTERED

From: Longmire, Patrick, NMENV
Sent: Monday, August 26, 2013 10:40 AM
To: Dale, Michael, NMENV; Cobrain, Dave, NMENV
Subject: FW: DOE OB Review of 2014 Interim Facility-Wide Groundwater Monitoring Plan

Guys,

For your information.

Pat

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Aqueous Geochemist

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From: Longmire, Patrick, NMENV
Sent: Monday, August 26, 2013 10:35 AM
To: Steve Paris
Cc: Yanicak, Steve; Skibitski, Thomas, NMENV; Arturo Duran; Danny Katzman; Longmire, Patrick, NMENV
Subject: DOE OB Review of 2014 Interim Facility-Wide Groundwater Monitoring Plan

Hello Steve,

The DOE Oversight Bureau (OB) has initially reviewed the LANL document entitled "Interim Facility-Wide Groundwater Monitoring Plan for the 2014 Monitoring Year, October 2013–September 2014" (EP2013-0080). The DOE OB's review is summarized below and focuses on deleting several of the sampling events at specific locations. These include Westbay wells and other multiscreen wells that do not completely provide representative or technically defensible groundwater samples due to presence of residual drilling fluids. Field parameters collected at Westbay wells are not representative of aquifer conditions, as the measurements are exposed to atmospheric conditions without using a flow-through cell. This technical response also recommends adding sampling events at specific locations, including the White Rock Canyon springs. Recommendations provided by the DOE-OB include the following modifications to the LANL document.

Groundwater sampling stations that should be deleted and decreased in sampling frequency for the IFGMP 2014 monitoring year are listed below.

- Reduce quarterly sampling at monitoring wells R-28 and R-42 to semiannual sampling;
- Delete semiannual sampling at Westbay well screens R-25 S1, R-25 S2, and R-25 S4;
- Delete quarterly sampling at non-RCRA compliant monitoring well R-61 S1 and S2;
- Delete semiannual sampling at non-RCRA compliant monitoring well R-40i; and
- Delete annual sampling at Westbay well screens R-5 S2, S3, and S4; R-8 S 1; R-9i S1 and S2; R-19 S2, S3, and S4; R-25 S5, S6, and S7; and R-31 S4 and S5.

Sampling frequencies at several groundwater stations provided below should be increased to adequately detect and monitor potential contaminant releases from upgradient sources within the LANL boundary, and to provide technically defensible monitoring data at sampling stations hydrologically downgradient from LANL. Documented contaminant releases upgradient of these monitoring stations and the presence of known contamination in the vadose zone and regional aquifer beneath or near sources justify including several groundwater sampling stations. Specific areas of monitoring include:

1. Technical Area(TA) 21-MDAs T and U, TA 49-MDA AB, TA 50-MDA C, and TA 54-MDAs H, L, and G,



2. Specific monitoring stations beneath Mortandad and Sandia Canyons within and near the perimeter of the chromate plume,
3. Sentinel wells near LANL and Los Alamos County supply wells,
4. Far field zones along contaminated groundwater-flow paths, and
5. Regional aquifer and perched-intermediate springs discharging within White Rock Canyon downgradient of known liquid- and solid-waste release sites at TA 33 and TA 39, and Water Canyon.

Groundwater sampling stations recommended for increasing sampling frequency include the following locations.

- Regional aquifer wells R-6, R-10a, R-18, R-64, and R-66 should be changed from annual to semiannual sampling;
- Regional aquifer wells R-23, R-32, R-35a, R-35b, R-44 S1, R-44 S2, R-49 S1, R-52 S1, R-53 S1, R-54 S2, and R-55 S1 should be changed from from semiannual to quarterly sampling; and
- Regional aquifer springs Ancho, 1, 3A, 3AA, 5, 5B, 6, 9, and 9A should be changed from biennial to annual groundwater sampling.

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