State of New Mexico
ENVIRONMENT DEPARTMENT

DOE/LANL OVERSIGHT PROGRAM
TECHNICAL AREA 52, BUILDING 1, ROOM 109
MAIL STOP K-571

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Summary of Discussion
Groundwater Protection Management Program Plan
June 11, 1993

The list of attendees is attached to this document. These included LANL and LANL subcontractor personnel, permitting and enforcement staff from the Hazardous and Radioactive Materials Bureau (**HRMB**) and AIP staff from the HRMB as well as from the Ground Water Protection and Remediation Bureau (**GWPRB**). DOE was advised of the purpose, location and time of this meeting and was unable to attend.

The Groundwater Protection Management Program Plan (**GPMPP**) is required by DOE Order 5400.1. The order requires the GPMPP be revised every three years. The current revision is being driven not only by the order but by 1) non-Agreement in Principle (**AIP**) State program concerns, 2) the Tiger Team report, 3) external reviews done by USGS and Oak Ridge (Dan Stevens Blue Ribbon report) and 4) AIP staff comments.

LANL staff identified the documents which would contain related subject matter:

1. The general description of site geohydrology will remain in the Installation Work Plan.

2. The design and implementation of the groundwater monitoring plan will be in the GPMPP and the Environmental Monitoring Plan.

3. The management program for groundwater protection and remediation, should groundwater remediation be found necessary at some point, would be in specific Environmental Restoration documents, e.g., RFI/CMS documents.

4. Strategies for controlling groundwater contamination would also be located in RFI/CMS documents, should groundwater contamination be identified.

DOE/AL has provided guidance to the effect that the GPMPP should include current data needs/data gaps in the groundwater monitoring program at the Lab as well as specific problems which require attention.

General information: All test wells now have automatic transducers

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for generation of data which can be used to produce a more accurate potentiometric surface map. Steve McLin is studying barometric and earth tide effects. Wells 1A and 2A are the only wells screened in the intermediate perched aquifer (Pueblo Canyon).

During the meeting several subject areas were identified and the attempt was made to seek consensus regarding the overall goals or priorities which should be expressed in the GPMPP. Specific projects/subject areas identified were as follows:

1. Delineation of intermediate perched aquifers.

2. Databases: a) Compilation of existing EES, ER and ES data in the FIMAD database, and 2) Well locations, well completion elevations, well construction elements, etc.

3. New aquifer characteristics studies should be performed with adequate design and QA/QC.

4. Studies of the unsaturated zone: 1) tuff permeability, 2) fracture density, 3) recharge to the saturated zone.

5. Determine if recharge to intermediate and main aquifers is occurring from the saturated canyon bottoms. Determine the mechanisms and sources of recharge for the intermediate and main aquifers.

6. Install monitoring wells screened in the main aquifer in locations shown to be downgradient of the tritium-contaminated saturated alluvial aquifers in Los Alamos and Mortandad canyons.

7. In view of the presence of transducers in all test wells, generate a new site-wide groundwater potentiometric map, and using new aquifer test data from item 3, above, construct a site-wide groundwater model.

8. Determine the adequacy of the alluvial monitoring well system in general and install alluvial aquifer monitoring wells in lower Los Alamos Canyon as well as elsewhere as the determination indicates is necessary.

It was generally agreed:

a. Possible recharge of the main aquifer from the saturated

canyon bottom alluvial aquifers was a priority over studies of recharge through the mesa tops.

b. The GPMPP should indicate that installation of main aquifer wells, located using information from items 1, 3, 5, and 7, above, is a necessary long-term goal of the Lab's groundwater monitoring program.

c. The addition to the FIMAD database indicated in item 2, above, is a necessary short-term goal together with compilation of well geohydrological and engineering data.

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LANL Red 93 File
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