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**NEW MEXICO
ENVIRONMENT DEPARTMENT**
Hazardous Waste Bureau

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EP2013-5116

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

May 28, 2013

Peter Maggiore
Assistant Manager, Env. Projects Office
Los Alamos Site Office, DOE
3747 West Jemez Rd, MS A316
Los Alamos, NM 87544

Jeffrey D. Mousseau, Associate Director
Environmental Programs
Los Alamos National Security, L.L.C.
P.O. Box 1663, MS M991
Los Alamos, NM 87545

**RE: EVALUATION TO DETERMINE THE CAUSE OF REDUCING CONDITIONS
OBSERVED IN REGIONAL AQUIFER MONITORING WELLS R-54 AND R-61
LOS ALAMOS NATIONAL LABORATORY
EPA ID#NM0890010515
HWB-LANL-GW-MISC**

Dear Messrs. Maggiore and Mousseau:

The New Mexico Environment Department (NMED) is in receipt of the United States Department of Energy (DOE) and the Los Alamos National Security, L.L.C.'s (collectively, the Permittees) document entitled *Evaluation to Determine the Cause of Reducing Conditions Observed in Regional Aquifer Monitoring Wells R-54 and R-61* (Evaluation) dated April 11, 2013 and referenced by EP2013-0068. NMED has reviewed the Evaluation along with additional data and information pertinent to the reliability of regional aquifer well R-54 screen 1 (S1) and well R-61, and perched intermediate well R-55i. Based on the condition of regional aquifer well R-61, NMED has required the Permittees to submit a work plan and propose a schedule to replace R-61, including a proposed schedule for completion of the replacement well. The R-61 well-replacement work plan is due **June 14, 2013**.

Similar to well R-61, an extensive water-quality data set collected by the Permittees and NMED indicate that wells R-54 S1 and R-55i are significantly impacted by the presence of hammer oil. The hammer oil was introduced during drilling to the regional aquifer water-table at R-54 and to the perched aquifer at R-55i. Like R-61, the wells do not produce representative groundwater

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samples. The negative impacts to these wells are irreversible, and therefore, wells R-54 S1 and R-55i are not useful as detection monitoring wells as part of the Technical Area 54 groundwater monitoring network.

The Permittees must replace R-54 S1 and R-55i. The Permittees must submit drilling work plans for the installation of the replacement wells to NMED by **July 15, 2013**. The work plans must include schedules for well completion.

Should you have any questions, please contact Michael Dale of my staff at (505) 661-2673.

Sincerely,



John E. Kieling
Chief
Hazardous Waste Bureau

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File: Reading and LANL 2013, Evaluation Reducing Conditions Wells R-54 and R-61

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**State of New Mexico
ENVIRONMENT DEPARTMENT**

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