



IRM-RMMSO Official Correspondence Form

Name:	U1200558			
Title:	Approval with Modification Completion Report for Regional Aquifer Well R-64 LANL EPA ID NM0890010515 HWB-LANL-11-090			
Date Received:	4/2/2012			
Addressee Name:	M. Graham, ADEP			
Originator:	J. Kieling			
Action Item Description:	Corrective action work plan containing proposed actions to rehabilitate the well.			
Action Due Date:	5/31/2012			
Responsible for Action:	Search <input type="text" value="Graham, Michael J"/>			
Responsible Office:	PADCAP			
Distribution:	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> Michael J. Graham Elizabeth D. Sellers Richard A. Marquez David J. McInroy Phoebe K. Suina William Z. Alexander Tina M. Sandoval </td> <td style="width: 50%; vertical-align: top;"> Charles F. McMillan Scotty Jones C. A. Beard Michael T. Brandt Anthony R. Grieggs Paul Henry Deborah K. Woitte </td> </tr> </table>		Michael J. Graham Elizabeth D. Sellers Richard A. Marquez David J. McInroy Phoebe K. Suina William Z. Alexander Tina M. Sandoval	Charles F. McMillan Scotty Jones C. A. Beard Michael T. Brandt Anthony R. Grieggs Paul Henry Deborah K. Woitte
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Hazardous Waste Bureau

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Deputy Secretary

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EP2012-5075

March 30, 2012

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Michael J. Graham
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Los Alamos, NM 87545

**RE: APPROVAL WITH MODIFICATION
COMPLETION REPORT FOR REGIONAL AQUIFER WELL R-64
LOS ALAMOS NATIONAL LABORATORY
EPA ID#NM0890010515
HWB-LANL-11-090**

Dear Messrs Maggiore and Graham:

The New Mexico Environment Department (NMED) is in receipt of the United States Department of Energy (DOE) and Los Alamos National Security, L.L.C.'s (collectively, the Permittees) document entitled *Completion Report for Regional Aquifer Well R-64* (Report) dated December, 2011 and referenced by EP2011-0334. NMED has reviewed the Permittees' Report and hereby approves the Report with the following modification.

Purge water extracted in excess of six casing volumes from R-64 during the last two sampling events, conducted on December 8, 2011 and March 26, 2012, contained significant amounts of fine-grained solid material. An aliquot of the solid material collected during the December sampling event was analyzed by the Permittees using x-ray diffraction. X-ray analysis indicated that the solid material was bentonite, indicative of backfill-sealant material used at R-64 (David T. Vaniman e-mail correspondence dated December 21, 2011). The contact between the top of the lower bentonite seal and the bottom of the 10/20 silica filter pack is located at 1310.8 ft below ground surface (bgs). The base of the screen is set at 1305.5 ft (bgs) or a distance of 5.3 ft from the top of the lower bentonite seal. A finer-grained (e.g., 20/40) sand interval was not emplaced at the

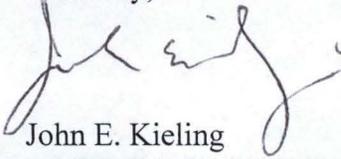
Messrs. Maggiore and Graham
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base of the filter pack. It is probable that bentonite from the lower seal is infiltrating into the screened interval during well purging.

The presence of bentonite sealant in groundwater withdrawn from R-64 indicates that the integrity of well is compromised. Therefore, the Permittees must conduct corrective actions at R-64 in order to repair the well. A corrective-action work plan containing proposed actions to rehabilitate the well must be submitted to NMED by **May 31, 2012**.

Please contact Michael Dale at (505) 661-2673 if you have questions.

Sincerely,



John E. Kieling
Acting Chief
Hazardous Waste Bureau

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File: Reading and LANL 2012 – Approval R-64 Well Completion Report

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