NEW MEXICO
ENVIRONMENT DEPARTMENT

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Phone (505) 476-6000 Fax (505) 476-6030
www.env.nm.gov

SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

RYAN FLYNN
Cabinet Secretary
BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

May 23, 2016

Doug Hintze
Manager
Environmental Management
Los Alamos Field Office
3747 West Jemez Rd, MS A316
Los Alamos, NM 87544

Michael T. Brandt
Associate Director
Environment, Safety, Health
Los Alamos National Laboratory
P.O. Box 1663, MS M991
Los Alamos, NM 87545

U1601314

RE: APPROVAL
COMPLETION REPORT FOR REGIONAL AQUIFER WELL R-58
LOS ALAMOS NATIONAL LABORATORY
EPA ID#NM0890010515
HWB-LANL-16-016

Dear Messrs. Hintze and Brandt:

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 titled *Completion Report for Regional Aquifer Well R-58* (Report) dated April 2016 and referenced by EP2016-0032. The Report was received on March 28, 2016. NMED has reviewed the Report and hereby issues this approval with following comment.

The review of the Plan and subsequent characterization and water-quality results collected at R-58 on January 19, 2016 and March 21, 2016, indicate that the well may not be producing representative samples. For example, both sampling events produced elevated concentrations of dissolved iron, molybdenum, and uranium at levels ranging from 71 – 112 µg/L, 3.37 – 3.61 µg/L, and 1.44 – 1.51 µg/L, respectively. These results may indicate that groundwater is contaminated and/or impacted from drilling and well construction. Additionally, dissolved oxygen measurements obtained during sample collection on January 19, 2016 and March 21, 2016 produced what appear to be abnormally low concentrations at 3.83 mg/L and 5.87 mg/L,

respectively. These data collectively suggest that unstable hydrochemical conditions may be present at the R-58 screened interval and that re-development (e.g., extended pumping) actions may be warranted with the objective of re-conditioning the well so that representative water-quality and contaminant characterization data can be obtained.

Please contact Michael Dale at (505) 476-3078 if you have questions.

Sincerely,

John E. Kieling
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
N. Dhawan, NMED HWB
B. Wear, NMED HWB
M. Dale, NMED HWB
M. Hunter, NMED GWQB
S. Yanicak, NMED DOE OB, MS M894
L. King, EPA 6PD-N
R. Martinez, San Ildefonso Pueblo
D. Chavarria, Santa Clara Pueblo
H. Shen, DOE-EM-LA, MS A316
C. Rodriguez, DOE-EM-LA, MS A316
J. Buckley, LANL ENV-CP, MS K490
S. Swickley, LANL ADEP ER Program, MS M992

File: Reading and LANL 2016, Groundwater, R-58, LANL-16-016