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NEW MEXICO ENTERED  
ENVIRONMENT DEPARTMENT

*Hazardous Waste Bureau*

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DAVE MARTIN  
Cabinet Secretary

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

January 12, 2011

George J. Rael, Assistant Manager  
Environmental Projects Office  
Department of Energy / National  
Nuclear Security Administration  
Los Alamos Site Office  
Los Alamos, NM 87544

Michael J. Graham, Associate Director  
Environmental Programs  
Los Alamos National Security, LLC  
P.O. Box 1663, MS M991  
Los Alamos, NM 87545

**RE: NOTICE OF APPROVAL  
WORK PLAN TO DETERMINE BACKGROUND CONCENTRATIONS  
IN UNIT 4 OF THE BANDELIER TUFF  
LOS ALAMOS NATIONAL LABORATORY  
EPA ID #NM0890010515  
HWB-LANL-10-097**

Dear Messrs. Rael and Graham:

The New Mexico Environment Department (NMED) has received the United States Department of Energy (DOE) and the Los Alamos National Security, LLC (LANS) (collectively, the Permittees) *Work Plan for Determining Background Concentrations of Inorganic Chemicals in Unit 4 of the Bandelier Tuff*, dated December 2010 and referenced by LA-UR-10-8111/EP2010-0529. NMED hereby issues this notice of approval with following comments.

1. The title of the document indicates that the work plan is to determine background concentrations of inorganic chemicals in unit 4 of the Bandelier tuff. However, the work plan indicates that background values will be developed for both inorganic chemicals and naturally-occurring radionuclides.

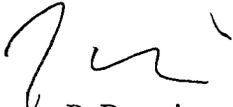
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2. Various sample preparation methods and techniques are mentioned in the 1998 report and proposed work plan, e.g., 3050A, 3050B, grinding, HF digestion. For solid matrices in particular, changes in the types of acid used during digestion may have an impact on the amount of leaching of the metals from the sample. For example, a stronger acid or combination of acids may induce greater leaching, and thus result in higher reported concentrations. Care should be taken to ensure that the sample preparation techniques used to collect the proposed background data are consistent with laboratory sample preparation methods used during site investigations at the Facility.

The Permittees must submit the background study report for unit 4 of the Bandelier tuff by September 11, 2011. Please contact Neelam Dhawan of my staff at (505) 476-6042 should you have any questions.

Sincerely,



James P. Bearzi  
Chief  
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB  
D. Cobrain, NMED HWB  
N. Dhawan, NMED HWB  
S. Yanicak, NMED DOE OB, MS J993  
T. Skibitski, NMED DOE OB  
L. King, EPA 6PD-N  
S. Schulman, DOE-LASO, MS A316  
S. Fuller, EP-CAP, MS M992

File: LANL, Work Plan to Determine Background for Qbt 4, 2011