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Official Correspondence Form

Name:	U1200349
Title:	Response to Notice of Intent to Discharge; Discharge Permit Not Required for Untreated Well Development and Pump Test Ground Water Discharge at Regional Monitoring Well R-66, AI:856 (PRD20120001)
Date Received:	2/22/2012
Addressee Name:	Michael Graham/Michael Brandt/Carl Beard, ADEP/ADESH/PADO
Originator:	Clint Marshall, NMED Santa Fe, NM
Action Item Description:	
Action Due Date:	
Responsible for Action:	Search
Responsible Office:	
Distribution:	Michael Graham Charles McMillan Elizabeth Sellers Richard Marquez Paul Henry Michael Brandt Carl Beard Deborah K. Woitte William Alexander Phoebe K. Suina Anthony R. Grieggs Tina Sandoval Scotty Jones

NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

Harold Runnels Building
1190 St. Francis Drive
PO Box 5469, Santa Fe, NM 87502-5469
Phone (505) 827-2918 Fax (505) 827-2965
www.nmenv.state.nm.us

DAVE MARTIN
Secretary
BUTCH TONGATE
Deputy Secretary

NMED
ltr

EP2012-5045

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

February 24, 2012

Michael Graham
Associate Director, Environmental Programs
Los Alamos National Laboratory
PO Box 1663, MS-K490
Los Alamos, NM 87544

Michael Brandt
Acting Associate Director ESH
Los Alamos National Laboratory
PO Box 1663, MS-K490
Los Alamos, NM 87544

RE: Response to Notice of Intent to Discharge; Discharge Permit Not Required for Untreated Well Development and Pump Test Ground Water Discharge at Regional Monitoring Well R-66, AI:856 (PRD20120001)

Dear Messrs. Graham and Brandt:

The New Mexico Environment Department (NMED) received a Notice of Intent on January 11, 2012 (copy enclosed) for a one-time discharge of approximately 75,000 gallons of pump test water, from monitoring well R-66, to approximately four miles of dirt road within Los Alamos Canyon. The ground water from monitoring well R-66 is not believed to present any toxic pollutant(s) as defined under Subsection WW of 20.6.2.7 NMAC nor exceed any ground water quality standard listed under 20.6.2.3103 NMAC. The notice satisfies the requirements of Subsection A of 20.6.2.1201 NMAC of the New Mexico Water Quality Control Commission (WQCC) Regulations (20.6.2 NMAC). The proposed discharge is located in Los Alamos Canyon, approximately two miles east of Los Alamos, in Section 13, Township 19N, Range 06E, within the boundaries of Los Alamos National Laboratory, Los Alamos County.

Based on the information provided in the Notice of Intent, NMED has determined that a Discharge Permit is not required as long as the discharge is as described. The Notice of Intent states all pump test water shall be containerized and sampled to ensure no toxic pollutants are present or exceedances in ground water are detected in accordance with 20.6.2.3103 NMAC. **Within 30 days following the conclusion of the pump test, Los Alamos National Laboratory shall submit a final report to NMED which includes the total volumes discharged, locations**

of discharges and analytical results for the discharges. A Discharge Permit is not required at this time because the information provided indicates it is unlikely that the discharge will adversely affect ground water quality.

Although a Discharge Permit is not being required for this discharge at this time, LANL is not relieved of liability should this operation result in actual pollution of surface or ground waters. Further, this decision by NMED does not relieve LANL of the responsibility to comply with any other applicable federal, state, and/or local laws and regulations, such as zoning requirements, plumbing codes and nuisance ordinances.

If at some time in the future you intend to change the amount, character or location of your discharge changes, or if observation or monitoring shows that the discharge is not as described in the Notice of Intent, a revised Notice of Intent must be filed with the Ground Water Quality Bureau.

If you have any questions, please contact either Jennifer Fullam at (505) 827-2909 or me at (505) 827-0027.

Sincerely,

Clint Marshall, Program Manager
Pollution Prevention Section
Ground Water Quality Bureau

CM:JF

Enc: Notice of Intent dated January 9, 2012

Cc: Robert Italiano, District Manager, NMED District II
NMED Santa Fe Field Office
County File
James Bearzi, NMED SWQB
Richard Powell, NMED SWQB
John Kieling, NMED HWB
Steven Yanicak, NMED-DOE-Oversight Bureau
Hai Shen, LASO-EO, Los Alamos National Laboratory, A316, Los Alamos, NM 87545 (w/o enclosures)
Gene Turner, LASO-EO, Los Alamos National Laboratory, A316, Los Alamos, NM 87545
Carl Beard, PADOPS, Los Alamos National Laboratory, A102, Los Alamos, NM 87545
Michael Saladen ENV-RCRA, Los Alamos National Laboratory, K490, Los Alamos, NM 87545

Victoria George, REG-DO, Los Alamos National Laboratory, M991, Los Alamos, NM 87545
Kate Lynnes, REG-COM, Los Alamos National Laboratory, M991, Los Alamos, NM 87545
Craig Douglass, CAP, Los Alamos National Laboratory, M992, Los Alamos, NM 87545
Ted Ball, PMF-FUNCT, Los Alamos National Laboratory, M996, Los Alamos, NM 87545
Mark Everett, ET-EI, Los Alamos National Laboratory, M992, Los Alamos, NM 87545
Mike Alexander, CAP-FS, Los Alamos National Laboratory, K497, Los Alamos, NM 87545
Bob Beers, ENV-RCRA, Los Alamos National Laboratory, K490, Los Alamso NM, 87545

Los Alamos
NATIONAL LABORATORY
EST.1943

Environmental Protection Division
Water Quality & RCRA Group (ENV-RCRA)
P.O. Box 1663, Mail Stop K490
Los Alamos, New Mexico 87545
(505) 667-7969/FAX: (505) 665-9344

Date: January 9, 2012
Refer To: ENV-RCRA-11-0260
LAUR: 11-12011

Mr. Jerry Schoeppner, Acting Chief
Ground Water Quality Bureau
New Mexico Environment Department
Harold Runnels Building, Room N2250
1190 St. Francis Drive
P.O. Box 26110
Santa Fe, NM 87502

Dear Mr. Schoeppner:

SUBJECT: NOTICE OF INTENT TO DISCHARGE GROUNDWATER FROM A PUMPING TEST AT REGIONAL AQUIFER MONITORING WELL R-66

In accordance with Subsection A of 20.6.2.1201 New Mexico Administrative Code (NMAC), Los Alamos National Security, LLC (the Laboratory) is filing this notice of intent (NOI) to discharge up to 75,000 gallons of regional aquifer groundwater produced during a pumping test at monitoring well R-66. The Laboratory proposes to (1) containerize all produced groundwater at the R-66 well site, (2) submit representative samples of the stored water for water quality analysis, and (3) land apply the produced groundwater if the analytical results meet the criteria for land application in the NMED-approved *Decision Tree for the Land Application of Drilling, Development, Rehabilitation, and Sampling Purge Water* (Decision Tree). If the produced groundwater fails to meet the Decision Tree criteria for land application then an alternate disposal plan will be developed in coordination with your agency.

A new regional aquifer monitoring well, R-66, was recently constructed in Los Alamos Canyon near monitoring well TW-3 and Los Alamos County's drinking water supply well O-4. The new well was designed to detect any contamination in the shallow section of the regional aquifer near water supply well O-4. The NMED-approved *Work Plan for Hydrologic Testing of R-66* describes a cross-hole constant rate pumping test at R-66 during which pressure responses will be monitored in the pumping well and at TW-3. The pumping test will be conducted for up to 3 days at a pumping rate of approximately 17 gallons per minute. Accordingly, the volume of groundwater produced during the pumping test will be approximately 75,000 gallons.

The land application of groundwater from monitoring well R-66 will be conducted in accordance with the terms and conditions of the Laboratory's standard operating procedure, ENV-RCRA-QP-010.2, *Land Application of Groundwater*. Criteria for land application include, but are not limited to, the following:

- land application site cannot be located in a watercourse
- land application cannot result in runoff to a watercourse
- land application cannot create ponds or pools
- land application must be conducted in a manner that maximizes infiltration

Because of the accelerated schedule for this activity, the Laboratory respectfully requests that the Ground Water Quality Bureau respond to this NOI at its earliest convenience. Please contact me at (505) 667-7969 if I can be of assistance.

Sincerely,

Robert Beers
Water Quality & RCRA Group (ENV-RCRA)

BB/lm

Enclosures: a/s

Cy: John Keiling, NMED/HWB, Santa Fe, NM, w/enc.
James Bearzi, NMED/SWQB, Santa Fe, NM, w/enc.
Hai Shen, LASO-EO, w/enc., A316
Gene Turner, LASO-EO, w/ enc., A316
Steve Yanicak, LASO-GOV, w/enc., M894
Carl A. Beard, PADOPS, w/o enc., A102
Michael T. Brandt, ADESH, w/o enc., K491
Mike Saladen, ENV-RCRA, w/o enc., K490, (E-File)
Tori George, REG-DO, w/enc., M991
Kate Lynnes, REG-DO, w/enc., M991
Craig Douglass, CAP, w/enc., M992
Ted Ball, MNGRFCT-DO, w/enc., M996
Mark Everett, ET-EI, w/enc., M992
Mike Alexander, CAP-FS, w/o enc., K497
ENV-RCRA File, w/enc., K490
IRM-RMMSO, w/enc., A150

New Mexico Environment Department
Ground Water Quality Bureau

Ground Water Quality Bureau – Pollution Prevention Section Notice of Intent

1. **Name and mailing address of person proposing to discharge:**
   Michael Graham, Associate Director, Environmental Programs
   Michael Brandt, Acting Associate Director, ESH
   Los Alamos National Laboratory, PO Box 1663, MS K490, Los Alamos, New Mexico 87545
   Regulatory Point of Contact: Robert Beers, ENV-RCRA
   Phone: 505-667-7969 FAX: 505-665-9344 Email: bbeers@lanl.gov

2. **Name of facility:** Los Alamos National Laboratory (LANL or the Laboratory)

3. **Physical location of discharge (if applicable, give street address, township, range, section, distance from closest town or landmark, directions to facility, location map):**
   Monitoring well R-66 is located in Los Alamos Canyon near Los Alamos County's drinking water supply well O-4. See Enclosure 1 for a location map. R-66 is located in T19N R06E S13. Groundwater produced from R-66 will be land applied to approximately 4 miles of dirt road and road shoulders in Los Alamos Canyon.

4. **Type of operation generating the discharge (e.g., truck wash, food processing plant, restaurant, etc.):**
   Newly constructed regional aquifer monitoring well R-66 is located near regional aquifer monitoring well TW-3 and water supply well O-4. R-66 was designed to detect any contamination in the shallow section of the regional aquifer near well O-4. The new well will have a screen 20–30 ft below the regional water table.

   The NMED-approved *Work Plan for Hydrologic Testing of R-66* (See Enclosure 2) describes a cross-hole constant rate pumping test at R-66 during which pressure responses will be monitored in the pumping well and TW-3. The pumping test will be conducted for up to 3 days at a pumping rate of approximately 17 gallons per minute (gpm).

5. **Source(s) of the discharge. Describe how the wastewater, sludge, or other discharges processed and/or disposed at your facility are generated. Identify all sources. Attach additional pages if needed:**
   The source of the discharge is regional aquifer groundwater produced during the cross-hole pumping test at monitoring well R-66.

6. **Expected contaminants in the discharge (e.g., nitrate-nitrogen, metals, organic compounds, salts, etc.)**
   The quality of the produced water is expected to meet all of the criteria for land application set forth in the NMED-approved *Decision Tree for the Land Application of Drilling, Development, Rehabilitation, and Sampling Purge Water* (See Enclosure 3). The Laboratory proposes to containerize all groundwater produced during the constant rate pumping test in frac tanks at the well site. Samples representative of the water in storage will be collected and submitted for full-suite analysis at an independent, external, analytical laboratory. Once received, the analytical results will be evaluated against the *Decision Tree* criteria for land application. If the water in storage fails to meets the *Decision Tree* criteria then an alternate disposal plan will be developed in coordination with the NMED GWQB. Water meeting the criteria for land application will be discharged in accordance with the Laboratory's Standard Operating Procedure, ENV-RCRA-QP-010.2, *Land Application of Groundwater*.

7. **Include estimated concentration if known, and copies of results of laboratory analyses, if available:**
   Analytical results will be submitted to the NMED as soon as they become available for distribution.

8. **Describe all components of wastewater processing, treatment, storage, and disposal system (e.g., grease interceptor, lagoon, septic tank/leachfield, etc.) Include sizes, site layout map, plans and specifications, etc. if available:** NA

9. **Estimated maximum daily discharge volume in gallons per day (or other units):**
   The pumping test will be conducted for up to 3 days at a pumping rate of approximately 17 gallons per minute (gpm). Accordingly, the maximum daily volume will be approximately 25,000 gallons per day (1,440 min/day * 17 gal/min= 24,480 gal/day).

10. **Estimated depth to ground water (ft):** The depth to alluvial groundwater Los Alamos Canyon ranges from approximately 5 – 17 ft below ground surface.

Signature: Theodore T Ball **Date:** 1/9/12

Printed name: Theodore T. Ball **Title:** Project Manager

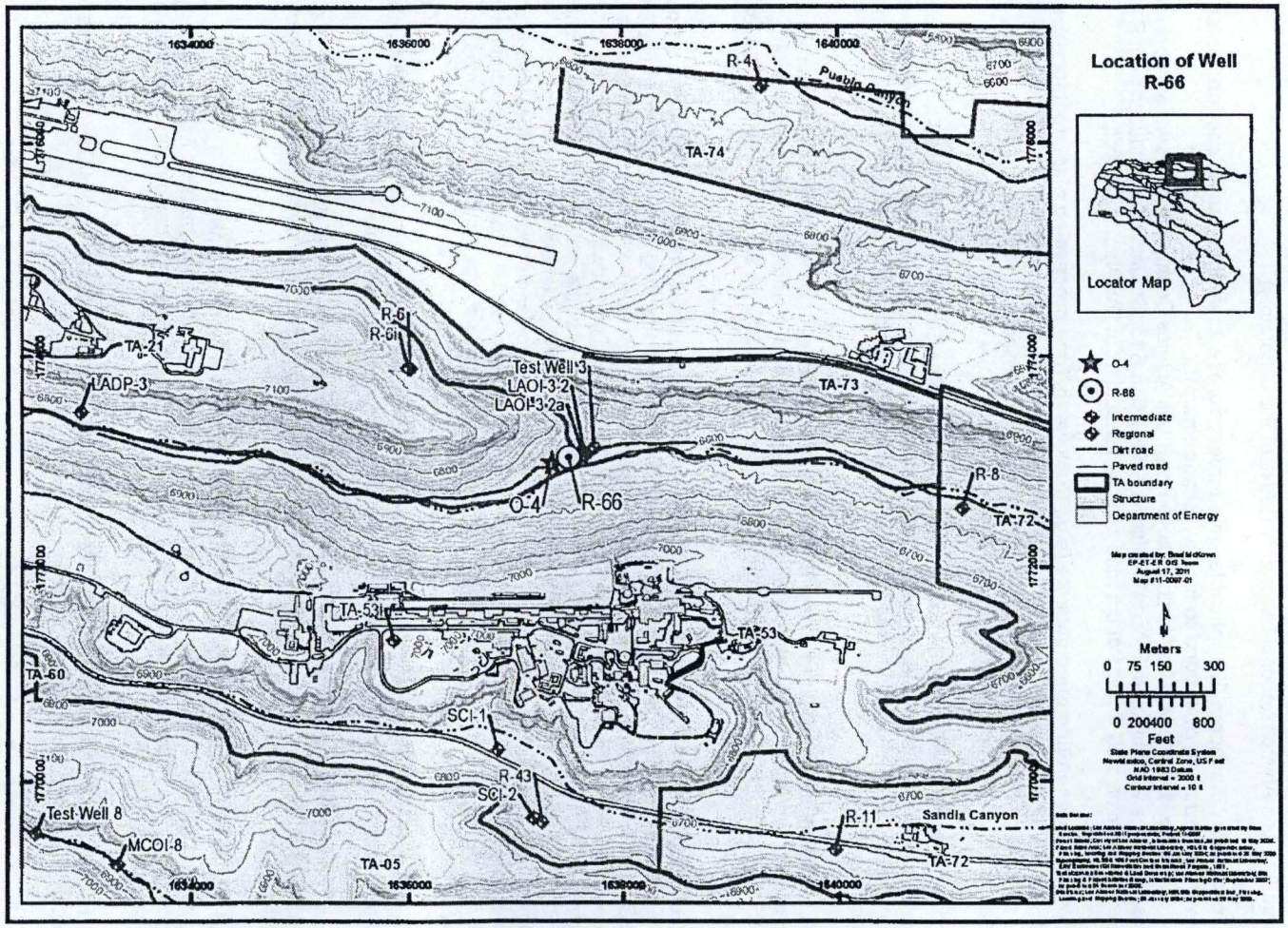

Figure 1.0-1 Location of regional water-supply well O-4 and nearby monitoring wells, including TW-3, and proposed location for well R-66

NMED / GROUND WATER BUREAU
HAROLD RUNNELS BLDG.
1190 ST. FRANCIS DRIVE
PO BOX 5469
SANTA FE, NEW MEXICO 87502-5469

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02/21/2012

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Michael T. Brandt, Acting Associate
Director
LANL-ESH
PO Box 1663, K~~490~~ A150
Los Alamos, NM 87545

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NAME
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DATE 2/22/2012

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HAROLD RUNNELS BLDG.
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Los Alamos National Lab
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Los Alamos, NM 87544

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