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*Environmental Protection Division*  
*Water Quality & RCRA Group (ENV-RCRA)*  
P.O. Box 1663, Mail Stop K490  
Los Alamos, New Mexico 87545  
(505) 667-0666/FAX: (505) 667-5224

Date: March 8, 2010  
Refer To: ENV-RCRA-10-050  
LA-UR: 10-01244

Mr. William Olson, 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. Olson:

**SUBJECT: REQUEST FOR TEMPORARY PERMISSION TO DISCHARGE R-49 DEVELOPMENT WATER TO THE TA-46 SWWS PLANT**

In accordance with Subsection B of 20.6.2.3106 NMAC, Los Alamos National Laboratory (Laboratory) requests temporary permission to discharge development water from monitoring well R-49 to the Technical Area (TA)-46 Sanitary Wastewater Systems (SWWS) Plant. Approximately 60,000 gallons of regional aquifer groundwater were produced during the well development stage of constructing monitoring well R-49. The produced water, presently in storage at the well site, did not meet the water quality criteria for land application under the NMED-approved NOI Decision Tree (Revised-7/26/2006) due to elevated concentrations of iron (1260 µg/L). An October 13, 2009, request by the Laboratory for a one-time variance from the NOI Decision Tree limit for iron (900 µg/L) was denied by your agency on January 22, 2010. Accordingly, the Laboratory is seeking your authorization to discharge this water to the TA-46 SWWS Plant for treatment and subsequent discharge through National Pollutant Discharge Elimination System (NPDES) permitted outfall 13S. Additional information on this request is provided below.

- 1. Source of Discharge: Groundwater produced during the development of regional aquifer monitoring well R-49, located in Pajarito Canyon.
- 2. Quantity of Water: 60,000 gallons.
- 3. Duration of Discharge: Approximately 3 to 12 weeks.
- 4. Rate of Discharge: Approximately 5,000 to 20,000 gallons per week.



5. Method of Discharge: Water will be trucked from the R-49 well site to a 3000-gal temporary tank sited adjacent to a SWWS Plant collection system manhole. Discharges from the temporary tank into the manhole will be controlled by the SWWS Plant's operators.
6. Quality of Discharge: See Enclosure 1 for water quality data.
7. Filing Fee: The \$150.00 filing fee required by regulation is provided in Enclosure 2.

Please contact me at (505) 667-7969 if you have questions regarding this request.

Sincerely,



Robert Beers  
Water Quality & RCRA Group

Enclosures: a/s

Cy: Glenn Saums, NMED/SWQB, Santa Fe, NM, w/enc.  
James Bearzi, NMED/HWB, Santa Fe, NM, w/enc.  
Gene Turner, LASO-EO, w/enc., A316  
Hai Shen, LASO-EO, w/enc., A316  
Steve Yanicak, LASO-GOV, w/enc., M894  
Michael B. Mallory, PADOPS, w/o enc., A102  
J. Chris Cantwell, ADESHQ, w/o enc., K491  
Michael Graham, ADEP, w/o enc., M991  
Bennie Martinez, EES-14, w/enc., J966  
Victoria George, ENV-COMPLY, w/o enc., M991  
Mike Saladen, ENV-RCRA, w/enc., K490  
Kate Lynnes, ET-DO, w/enc., M991  
Mike Alexander, PMFS, w/enc., K497  
Ted Ball, PMF-SEC, w/enc., M992  
Charles Barnett, UI-DO, w/enc., J972  
ENV-RCRA File, w/enc., K490  
IRM-RMMSO, w/enc., A150

# ENCLOSURE 1

**Request for Temporary Permission to Discharge  
R-49 Development Water  
Summary of All Analytical Detections**

Location Name	Sample Name	Analytical Suite Code	Analyte Description	Lab Result	Units	Lab Result (mg/L)	Standard	Standard Source
R-49 Development	RC54-09-5732	ANION	Chloride	2.61	mg/L		250 mg/L	20.6.2.3103
R-49 Development	RC54-09-5732	ANION	Fluoride	0.31	mg/L		1.6 mg/L	20.6.2.3103
R-49 Development	RC54-09-5732	ANION	Sulfate	7.9	mg/L		600 mg/L	20.6.2.3103
R-49 Development	RC54-09-5731	METALS	Aluminum	901	ug/L	0.90 mg/L	5 mg/L	20.6.2.3103
R-49 Development	RC54-09-5731	METALS	Barium	72.7	ug/L	0.073 mg/L	1.0 mg/L	20.6.2.3103
R-49 Development	RC54-09-5731	METALS	Iron	1260	ug/L	1.26 mg/L	1.0 mg/L	20.6.2.3103
R-49 Development	RC54-09-5731	METALS	Lead	0.6	ug/L	0.0006 mg/L	0.05 mg/L	20.6.2.3103
R-49 Development	RC54-09-5731	METALS	Manganese	10.0	ug/L	0.01 mg/L	0.2 mg/L	20.6.2.3103
R-49 Development	RC54-09-5732	METALS	Molybdenum	1.8	ug/L	0.0018 mg/L	1.0 mg/L	20.6.2.3103
R-49 Development	RC54-09-5731	METALS	Nickel	1.0	ug/L	0.001 mg/L	0.2 mg/L	20.6.2.3103
R-49 Development	RC54-09-5731	METALS	Thallium	0.34	ug/L	0.0003 mg/L	0.002 mg/L	SDWA MCL
R-49 Development	RC54-09-5731	METALS	Uranium	1.03	ug/L	0.001 mg/L	0.03 mg/L	20.6.2.3103
R-49 Development	RC54-09-5731	METALS	Zinc	7.7	ug/L	0.008 mg/L	10 mg/L	20.6.2.3103
R-49 Development	RC54-09-5732	PERCHLORATE	Perchlorate	0.33	ug/L		4 ug/L	Consent Order
R-49 Development	RC54-09-5733	VOC	Chloromethane	0.49	ug/L		187.7 ug/L	EPA Regional Screening Level
R-49 Development	RC54-09-5732	WET_CHEM	Nitrate-Nitrite as N	0.50	mg/L		10 mg/L	20.6.2.3103
R-49 Development	RC54-09-5732	WET_CHEM	pH	8.04	SU		between 6 and 9	20.6.2.3103
R-49 Development	RC54-09-5732	WET_CHEM	Total Dissolved Solids	147	mg/L		1000 mg/L	20.6.2.3103