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Environmental Protection Division  
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Date: February 16, 2009  
Refer To: ENV-RCRA-10-037

Mr. James Bearzi  
Hazardous Waste Bureau  
New Mexico Environment Department  
2905 Rodeo Drive East, Building 1  
Santa Fe, NM 87505-6303



Dear Mr. Bearzi:

**SUBJECT: REQUEST FOR "CONTAINED-IN" DETERMINATION FOR DEVELOPMENT WATER, PURGE WATER, AND CONTACT WASTE GENERATED FROM INTERMEDIATE WELL CdV-37-1i**

The purpose of this letter is to request that the New Mexico Environment Department (NMED) Hazardous Waste Bureau use its authority to determine that development water, purge water, and associated contact waste generated from development, monitoring, and sampling activities at intermediate perched aquifer monitoring well CdV-37-1i do not warrant management as F-listed hazardous waste, pursuant to the requirements in 20.4.1.200 NMAC and 40 CFR §261.31, as long as contaminants are below the limits in the NMED-approved *NOI Decision Tree for Land Application of Drilling, Development, Rehabilitation, and Sampling Purge Water* (November 2006).

Intermediate well CdV-37-1i is located in Water Canyon at the convergence of Water and Cañon de Valle. Well CdV-37-1i was installed at a depth of 657 feet below ground surface (ft. bgs) to provide a sampling point for a possible perched zone near the confluence of the two canyons. Approximately 2,000 gallons of development water was generated from well CdV-37-1i, and toluene was detected in the waste development water at a maximum concentration of 0.881ug/l. The waste development water is currently being stored in a 22,000-gallon FRAC tank at the well location and managed in a less than 90-day accumulation area as a hazardous waste. Purge water from future sampling activities at this well would also be expected to be contaminated with similar concentrations of toluene. It is estimated that 1000 gallons of purge water and ten gallons of contact waste will be generated annually from sampling activities at this well.

Documentation regarding the possible source of toluene contamination at well CdV-37-1i has been reviewed. Based upon the document review, F-listed spent solvents (e.g., acetone, toluene, 2-butanone, etc.) were historically discharged from TA-16 facilities and have been detected in groundwater in the vicinity of TA-16 at depths less than 710 ft. bgs. Historical documentation



did not identify disposal or spills of P-or U-listed wastes or any K-listed processes; therefore only toluene regulated as a spent solvent (F005) is covered under this contained-in request.

LANL compared the maximum detected concentration of toluene from the development water from well CdV-37-1i to:

- Human health standards for groundwater listed in 20.6.2.3103 NMAC, issued by the New Mexico Water Quality Control Commission (WQCC)
- Environmental Protection Agency (EPA) Safe Drinking Water Act Maximum Contaminant Levels (MCLs) (40 CFR §141.61)
- EPA Regional Screening Levels for Residential Tapwater
- Land Disposal Restriction (LDR) Treatment Standards (40 CFR §268.40)

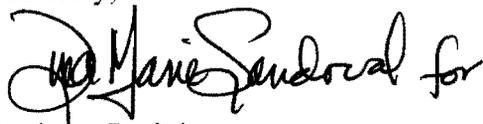
This comparison is shown in Table 1. The maximum contaminant concentration of toluene was less than these limits and, therefore, the development water from well CdV-37-1i met the criteria for requesting a “contained-in” determination in accordance with the NOI Decision Tree. LANL is requesting to manage the development and purge water as non-hazardous waste in accordance with the NMED-approved *NOI Decision Tree for Land Application of Drilling, Development, Rehabilitation, and Sampling Purge Water* (November 2006). Associated contact waste would be disposed of as industrial waste.

According to EPA documents and associated guidance, the authorized state may also make a determination on a case-specific basis as to how LDRs apply to the waste when a contained-in determination has been made. Because the maximum detected concentration of toluene shown in Table 1 is below the respective LDR treatment standards in 40 CFR §268.40, LANL requests the development water, purge water, and contact waste from well CdV-37-1i be managed as nonhazardous.

LANL believes that a “contained-in” determination for the organic constituent shown in Table 1 is appropriate. Management of the development water, future purge water, and associated contact waste as non-hazardous waste would be protective of human health and the environment and would allow for more cost-effective disposition of these wastes.

Please contact Jocelyn Buckley at (505) 665-5209 of the Water Quality and RCRA Group (ENV-RCRA) or Gene Turner at (505) 667-5794, if you have questions.

Sincerely,



Anthony R. Grieggs *GL*  
Group Leader  
Water Quality & RCRA Group (ENV-RCRA)

ARG:JB/lm

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EP-CAP Project File, M992  
ENV-RCRA File, w/enc., K490  
IRM-RMMSO, A150

**Table 1.** Comparison of Potential F-Listed Organic Constituent in CdV-37-18 Development Water

<b>Contaminant</b>	<b>Location ID</b>	<b>Matrix</b>	<b>Maximum Concentration (ug/l)</b>	<b>NMWQCC Standards (ug/l)</b>	<b>EPA SDWA MCLs (ug/l)</b>	<b>Tap Water RSLs (ug/l)</b>	<b>LDR Treatment Standard (ug/l)</b>
Toluene	CdV-37-1i	Development Water	0.881	750	1000	2,281	80

ug/l = micrograms per liter

NMWQCC = New Mexico Water Quality Control Commission

EPA = Environmental Protection Agency

SDWA = Safe Drinking Water Act

MCLs = Maximum Contaminant Levels

RSLs = Regional Screening Levels

LDR = Land Disposal Restrictions (LDR Treatment Standards for Hazardous Wastes, Wastewater, as provided in 40 CFR §268.40 and incorporated by 20.4.800 NMAC)