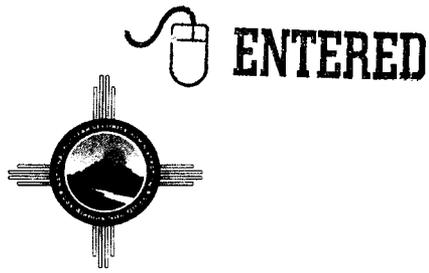


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NOV 2012



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Date: **OCT 29 2012**  
Refer To: ENV-RCRA-12-0240  
LAUR: 12-25671

Mr. Jerry Schoeppner, 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: DISCHARGE PLAN DP-1132 QUARTERLY REPORT, THIRD QUARTER 2012,  
TA-50 RADIOACTIVE LIQUID WASTE TREATMENT FACILITY**

This letter from the U.S. Department of Energy and Los Alamos National Security LLC (DOE/LANS) is the third quarter 2012 Discharge Plan DP-1132 report for the Technical Area (TA)-50 Radioactive Liquid Waste Treatment Facility (RLWTF). Since the first quarter of 1999, DOE/LANS have provided the New Mexico Environment Department (NMED) with voluntary quarterly reports containing analytical results from effluent and groundwater monitoring.

During the third quarter of 2012, no effluent was discharged by the TA-50 RLWTF through National Pollutant Discharge Elimination System (NPDES) Outfall 051 to Mortandad Canyon; all effluent was evaporated on-site at the effluent evaporator.

Quarterly Monitoring Results, Mortandad Canyon Alluvial Groundwater Wells  
Table 1.0 presents the analytical results from sampling conducted at Mortandad Canyon alluvial wells MCO-6 and MCO-7 during the third quarter of 2012. No samples were collected from alluvial wells MCO-3 and MCO-4B because there was insufficient water present. Samples from MCO-6 and MCO-7 were submitted to GEL Laboratories LLC (GEL) for analysis. All of the analytical results



were below the New Mexico Water Quality Control Commission (NMWQCC) 3103 standards for nitrate-nitrogen (NO<sub>3</sub>-N), fluoride (F), and total dissolved solids (TDS). Analytical results from the sampling of intermediate and regional aquifer wells in Mortandad Canyon can be accessed online at the Intellus New Mexico environmental monitoring data web site (<http://www.intellusnmdata.com>).

#### TA-50 RLWTF Effluent Monitoring Results

Table 2.0 reports the analytical results from the weekly composite sampling of RLWTF effluent discharged through NPDES Outfall 051 to Mortandad Canyon. The final weekly composite (FWC) samples are flow-proportioned composite samples prepared from each tank of effluent discharged to Mortandad Canyon during a 7-day period. Samples are submitted to GEL for analysis. No FWC samples were collected during the third quarter of 2012 because no RLWTF effluent was discharged to Mortandad Canyon.

Table 3.0 reports the final monthly composite (FMC) sample results for NO<sub>3</sub>-N, perchlorate (ClO<sub>4</sub>), F, and TDS for the third quarter of 2012. No FMC samples were collected during the third quarter of 2012 because no effluent was discharged to Mortandad Canyon.

Please contact Robert S. Beers by telephone at (505) 667-7969 or by email at [bbeers@lanl.gov](mailto:bbeers@lanl.gov) if you have questions regarding this report.

Sincerely,



Alison M. Dorries  
Division Leader  
Environmental Protection Division  
Los Alamos National Security, LLC

AMD:GET:RSB/lm

Sincerely,



Gene E. Turner  
Environmental Permitting Manager  
Environmental Projects Office  
Los Alamos Site Office  
U.S. Department of Energy

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Michael T. Brandt, ADESH, (E-File)  
Alison M. Dorries, ENV-DO, (E-File)

Mr. Jerry Schoeppner  
ENV-RCRA-12-0240

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Cy (continued):

Randall S. Johnson, ENV-ES, (E-File)  
Michael T. Saladen, ENV-RCRA, (E-File)  
Robert S. Beers, ENV-RCRA, K490  
Robert C. Mason, TA55-DO, (E-File)  
Clifford W. Kirkland, TA-55 RLW, (E-File)  
John C. Del Signore, TA-55 RLW, (E-File)  
Taylor Valdez, ENV-DO, (E-File)  
Linda Salazar, ADESH, (E-File)  
IRM-RMMSO File, (E-File)  
ENV-RCRA Correspondence File, K490

*Discharge Plan DP-1132 Quarterly Report  
3rd Quarter, 2012*

**Table 1.0. Mortandad Canyon Alluvial Well Sampling, 3rd Quarter, 2012.**

<b>Sampling Location</b>	<b>Sample Field Prep (F/UF)<sup>1</sup></b>	<b>Sample Date</b>	<b>Perchlorate (ug/L)</b>	<b>NO<sub>3</sub>+NO<sub>2</sub>-N (mg/L)</b>	<b>TKN (mg/L)</b>	<b>NH<sub>3</sub>-N (mg/L)</b>	<b>TDS (mg/L)</b>	<b>F (mg/L)</b>
MCO-3	F	Dry <sup>5</sup>	Dry <sup>5</sup>	Dry <sup>5</sup>	Dry <sup>5</sup>	Dry <sup>5</sup>	Dry <sup>5</sup>	Dry <sup>5</sup>
MCO-4B	F	Dry <sup>5</sup>	Dry <sup>5</sup>	Dry <sup>5</sup>	Dry <sup>5</sup>	Dry <sup>5</sup>	Dry <sup>5</sup>	Dry <sup>5</sup>
MCO-6	F	8/15/2012	4.4	1.2	0.05	0.04	271	0.88
MCO-7	F	8/14/2012	6.2	1.4	0.04	0.08	257	0.98
<i>NM WQCC 3103 Groundwater Standards</i>			<i>NA<sup>2</sup></i>	<i>10 mg/L<sup>3</sup></i>	<i>NA<sup>2</sup></i>	<i>NA<sup>2</sup></i>	<i>1000 mg/L</i>	<i>1.6 mg/L</i>

**Notes:**

<sup>1</sup>All samples filtered.

<sup>2</sup>NA means that there is no NM WQCC 3103 standard for this analyte.

<sup>3</sup>The NM WQCC 3103 Groundwater Standard is for NO<sub>3</sub>-N.

<sup>4</sup>Ice means that ice and snow blocked safe access to the well.

<sup>5</sup>Dry means that there was insufficient water in the well for sampling.

J- means that the reported value is expected to be more uncertain than usual with a potential negative bias.

J+ means that the reported value is expected to be more uncertain than usual with a potential positive bias.

J means the reported value is greater than the Method Detection Limit (MDL) but less than the Reporting Limit (RL).

Discharge Plan DP-1132 Quarterly Report  
3rd Quarter, 2012

Table 2.0. RLWTF Final Weekly Composite (FWC) Effluent Sampling, 3rd Quarter, 2012.

Monitoring Period	Sample Composite Date	Sample ID#	Analysis by RLWTF <sup>1</sup>		Analysis by General Engineering Laboratories, Inc.			
			NO <sub>3</sub> -N (mg/L)	NO <sub>2</sub> -N (mg/L)	NO <sub>3</sub> +NO <sub>2</sub> -N (mg/L)	Perchlorate (ug/L)	Fluoride (mg/L)	TDS (mg/L)
July	7/2/12	No Discharge <sup>2</sup>	----	----	----	----	----	----
	7/9/12	No Discharge	----	----	----	----	----	----
	7/16/12	No Discharge	----	----	----	----	----	----
	7/23/12	No Discharge	----	----	----	----	----	----
	7/30/12							
August	8/6/12	No Discharge	----	----	----	----	----	----
	8/13/12	No Discharge	----	----	----	----	----	----
	8/20/12	No Discharge	----	----	----	----	----	----
	8/27/12	No Discharge	----	----	----	----	----	----
September	9/3/12	No Discharge	----	----	----	----	----	----
	9/10/12	No Discharge	----	----	----	----	----	----
	9/17/12	No Discharge	----	----	----	----	----	----
	9/24/12	No Discharge	----	----	----	----	----	----
3rd Quarter 2012 Averages <sup>3</sup>			----	----	----	----	----	----
NMWQCC 3103 Groundwater Standards			10 mg/L	NA <sup>5</sup>	10 mg/L <sup>4</sup>	NA <sup>5</sup>	1.6 mg/L	1000 mg/L

Notes:

<sup>1</sup>Analysis by the TA-50 Radioactive Liquid Waste Treatment Facility's analytical laboratory.

<sup>2</sup>No Discharge means the RLWTF did not discharge effluent through NPDES Outfall 051 during the 7-day period preceding the composite date.

<sup>4</sup>The NMWQCC Regulation 3103 groundwater standard is for nitrate (NO<sub>3</sub>-N).

<sup>5</sup>NA means that there is no NMWQCC 3103 groundwater standard for this analyte.

*Discharge Plan DP-1132 Quarterly Report  
3rd Quarter, 2012*

Table 3.0. RLWTF Final Monthly Composite (FMC) Effluent Sampling, 3rd Quarter, 2012.

Monitoring Period	RLWTF FMC Results <sup>1</sup>			
	NO <sub>3</sub> -N (mg/L)	Perchlorate by IC <sup>2</sup> (ug/L)	TDS (mg/L)	F (mg/L)
July 2012	---- No Discharges ----			
August 2012	---- No Discharges ----			
September 2012	---- No Discharges ----			
NMWQCC 3103 Groundwater Standards	10 mg/L	NA <sup>3</sup>	1000 mg/L	1.6 mg/L

Notes:

<sup>1</sup>Analysis by the TA-50 Radioactive Liquid Waste Treatment Facility's analytical laboratory.

<sup>2</sup>IC means EPA Method 314.0, perchlorate analysis by Ion Chromatography.

<sup>3</sup>NA means that there is no NM WQCC 3103 standard for this analyte.