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**Date:** OCT 19 2016  
**Symbol:** EPC-DO-16-287  
**LA-UR:** 16-27384  
**Locates Action No.:** N/A

Ms. Michelle Hunter, Chief  
Ground Water Quality Bureau  
New Mexico Environment Department  
Harold Runnels Building, Room N2261  
1190 St. Francis Drive  
P.O. Box 26110  
Santa Fe, NM 87502

Dear Ms. Hunter:

**Subject: Discharge Plan DP-1132 Quarterly Report, Third Quarter 2016, 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 2016 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 2016, no effluent was discharged to either National Pollutant Discharge Elimination System (NPDES) Outfall 051 or to the solar evaporative tank system (SET) at TA-52; all effluent was evaporated on-site at the mechanical evaporator system (MES).

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 2016. No sample was collected from alluvial well MCO-4B because there was insufficient water in the well for sampling. No sample was collected from alluvial well MCO-3 because the well was damaged beyond repair during a flood event in September 2013. Samples from wells MCO-6 and MCO-7 were submitted to GEL Laboratories LLC for analysis. 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>).



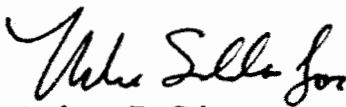
TA-50 RLWTF Effluent Monitoring Results

No final weekly composite (FWC) samples were collected during the third quarter of 2016 because no effluent was discharged to Mortandad Canyon.

No final monthly composite (FMC) samples were collected during the third quarter of 2016 because no effluent was discharged to Mortandad Canyon.

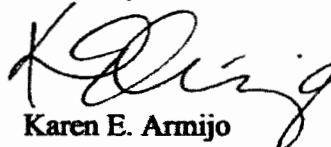
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Sincerely,



**Anthony R. Grieggs**  
**Group Leader**  
**Environmental Compliance Programs**  
**Los Alamos National Security, LLC**

Sincerely,



**Karen E. Armijo**  
**Permitting and Compliance Program Manager**  
**National Nuclear Security Administration**  
**Los Alamos Field Office**  
**U.S. Department of Energy**

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GROUND WATER

OCT 19 2016

BUREAU



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Quarterly Monitoring Results, Mortandad Canyon Alluvial Groundwater Wells

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Discharge Plan DP-1132 Quarterly Report  
3rd Quarter, 2016

Table 1.0. Mortandad Canyon Alluvial Well Sampling, 3rd Quarter 2016.

Sampling Location	Sample Field Prep (F/UF) <sup>1</sup>	Sample Date	Perchlorate (µg/L)	NO <sub>3</sub> +NO <sub>2</sub> -N (mg/L)	TKN (mg/L)	NH <sub>3</sub> -N (mg/L)	TDS (mg/L)	F (mg/L)
MCO-3		Damaged <sup>4</sup>	Damaged <sup>4</sup>	Damaged <sup>4</sup>	Damaged <sup>4</sup>	Damaged <sup>4</sup>	Damaged <sup>4</sup>	Damaged <sup>4</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	7/28/2016	4.58	0.78	0.0345J	0.07	331	0.86
MCO-7	F	7/28/2016	7.55	1.1	0.10U	0.08	310	0.90
MCO-7 duplicate sample	F	7/28/2016	7.61	0.73		0.12	306	0.93
MCO-7 duplicate sample	UF	7/28/2016			0.1U			
<b>NM WQCC 3103 Groundwater Standards</b>			<b>NA<sup>2</sup></b>	<b>10 mg/L<sup>3</sup></b>	<b>NA<sup>2</sup></b>	<b>NA<sup>2</sup></b>	<b>1000 mg/L</b>	<b>1.6 mg/L</b>

**Notes:**

<sup>1</sup>F means the sample was filtered. UF means the sampled was not 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>Damaged means that the well was damaged beyond repair during a flood event in Mortandad Canyon in September 2013.

<sup>5</sup>Dry means there was not sufficient water for sampling.

J flag indicates an estimated value.

U flag means the result was less than the analytical laboratory's Method Detection Limit (MDL).