



Environmental Protection & Compliance Division
Environmental Compliance Programs (EPC-CP)
PO Box 1663, K490
Los Alamos, New Mexico 87545
(505) 667-0666

National Nuclear Security Administration
Los Alamos Field Office, A316
3747 West Jemez Road
Los Alamos, New Mexico, 87545
(505) 667-5105/Fax (505) 667-5948

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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, Fourth 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 fourth 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 fourth 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 well MCO-7 during the fourth quarter of 2016. No samples were collected from alluvial wells MCO-4B and MCO-6 because there was insufficient water in the wells 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. A sample and duplicate sample from monitoring well 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>).



Ms. Michelle Hunter
EPC-DO-17-003

- 2 -

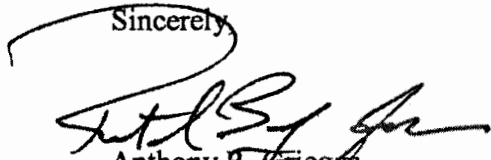
TA-50 RLWTF Effluent Monitoring Results

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

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

Please contact Karen E. Armijo by telephone at (505) 665-7314 or by email at Karen.Armijo@nnsa.doe.gov, or Robert S. Beers by telephone at (505) 667-7969 or by email at bbeers@lanl.gov if you have questions regarding this report.

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

ARG:KEA:MTS:RSB/

Cy: Shelly Lemon, NMED/SWQB, Santa Fe, NM, (E-File)
John E. Kieling, NMED/HWB, Santa Fe, NM, (E-File)
Stephen M. Yanicak, NMED/DOE/OB, (E-File)
Jody M. Pugh, NA-LA, (E-File)
Karen E. Armijo, NA-LA, (E-File)
Craig S. Leasure, PADOPS, (E-File)
William R. Mairson, PADOPS, (E-File)
Michael T. Brandt, ADESH, (E-File)
Raeanna Sharp-Geiger, ADESH, (E-File)
Randal S. Johnson, DESHF-TA55, (E-File)
Stephen G. Cossey, DESHF-TA55, (E-File)
Hugh A. McGovern, ADNHHO, (E-File)
John C. Del Signore, TA-55-RLW, (E-File)
Michael T. Saladen, EPC-CP, (E-File)
Robert S. Beers, EPC-CP, (E-File)
Ellena I. Martinez, EPC-CP, (E-File)
lasomailbox@nnsa.doe.gov, (E-File)
locatesteam@lanl.gov, (E-File)
epc-correspondence@lanl.gov, (E-File)

*Discharge Plan DP-1132 Quarterly Report
4th Quarter, 2016*

Table 1.0. Mortandad Canyon Alluvial Well Sampling, 4th Quarter 2016.

Sampling Location	Sample Field Prep (F/UF) ¹	Sample Date	Perchlorate (µg/L)	NO ₃ +NO ₂ -N (mg/L)	TKN (mg/L)	NH ₃ -N (mg/L)	TDS (mg/L)	F (mg/L)
MCO-3		Damaged ⁴	Damaged ⁴	Damaged ⁴	Damaged ⁴	Damaged ⁴	Damaged ⁴	Damaged ⁴
MCO-4B	F	Dry ⁵	Dry ⁵	Dry ⁵	Dry ⁵	Dry ⁵	Dry ⁵	Dry ⁵
MCO-6	F	Dry ⁵	Dry ⁵	Dry ⁵	Dry ⁵	Dry ⁵	Dry ⁵	Dry ⁵
MCO-7	F	11/10/2016	6.20	0.74	0.10U	0.08	277	0.98
MCO-7 duplicate sample	F	11/10/2016	6.29	1.1	0.10U	0.07	264	1.1
NM WQCC 3103 Groundwater Standards			NA²	10 mg/L³	NA²	NA²	1000 mg/L	1.6 mg/L

Notes:

¹F means the sample was filtered. UF means the sampled was not filtered.

²NA means that there is no NM WQCC 3103 standard for this analyte.

³The NM WQCC 3103 Groundwater Standard is for NO₃-N.

⁴Damaged means that the well was damaged beyond repair during a flood event in Mortandad Canyon in September 2013.

⁵Dry 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).