

**Environmental Compliance Programs Group**

Los Alamos National Laboratory
 P.O. Box 1663, K490
 Los Alamos, NM 87545
 505-667-0666

National Nuclear Security Administration

Los Alamos Field Office
 3747 West Jemez Road, A316
 Los Alamos, NM 87544
 505-665-7314/Fax 505-667-5948

Symbol: EPC-DO: 24-098

Date: April 29, 2024

LA-UR: 24-23266

Locates Action No.: U2200542

Justin Ball, Chief
 Ground Water Quality Bureau
 New Mexico Environment Department
 Harold Runnels Building, Room N2261
 Santa Fe, NM 87502

Subject: DP-1132, Monitoring Report, Radioactive Liquid Waste Treatment Facility, First Quarter 2024

Dear Mr. Ball:

On May 5, 2022, the New Mexico Environment Department (NMED) issued Discharge Permit DP-1132 to the U.S. Department of Energy, National Nuclear Security Administration (NNSA) and Triad National Security, LLC (Triad) for discharges of treated effluent from the Technical Area 50 Radioactive Liquid Waste Treatment Facility (RLWTF). Pursuant to Permit Condition Number (No.) 24, NNSA and Triad are required to submit a quarterly monitoring report by May 1, 2024. The following permit conditions are addressed in Attachments 1 through 6 of this report.

- Condition No.13: Maintenance and Repair
- Condition No. 14: Damage to Structural Integrity
- Condition Nos. 25 and 26: RLWTF Influent Volumes
- Condition No. 27: Discharge Volumes
- Condition No. 29: Effluent Sampling
- Condition No. 30: Soil Moisture Monitoring System for the Solar Evaporative Tank System
- Condition No. 36: Groundwater Monitoring
- Condition No. 41: Stabilization of Specific Units and Systems that have Ceased

Please contact Robert A. Gallegos at (505) 901-3824 or robert.gallegos@nnsa.doe.gov or contact Brian M. Iacona at (505) 500-6038 or biacona@lanl.gov if you have questions regarding this monitoring report.

Sincerely,

**SARAH
HOLCOMB
(Affiliate)**

Digitally signed by
SARAH HOLCOMB
(Affiliate)
Date: 2024.04.23
07:44:48 -06'00'

Sarah S. Holcomb
Group Leader
Environmental Compliance Programs
Triad National Security, LLC

Sincerely,

**ROBERT
GALLEGOS**

Digitally signed by
ROBERT GALLEGOS
Date: 2024.04.26
11:14:30 -06'00'

Robert A. Gallegos
Permitting and Compliance Program Manager
National Nuclear Security Administration
U.S. Department of Energy

Attachment: Attachment 1 RLWTF Monitoring Report – First Quarter 2024
Attachment 2 Quarterly Summary of Maintenance and Repair Activities Conducted at the RLWTF
Attachment 3 RLWTF Daily Influent and Effluent Volumes
Attachment 4 Treated Effluent Sampling Results
Attachment 5 Groundwater Monitoring Report – First Quarter 2024
Attachment 6 Monitoring Well Location Map

Copy: Jason Herman, NMED-GWQB, jason.herman@env.nm.gov
Melanie Sandoval, NMED-GWQB, melanie.sandoval2@env.nm.gov
Andrew Romero, NMED-GWQB, andrewc.romero@env.nm.gov
Karen E. Armijo, NA-LA, karen.armijo@nnsa.doe.gov
Robert A. Gallegos, NA-LA, robert.gallegos@nnsa.doe.gov
Stephen G. Hoffman, NA-LA, stephen.hoffman@nnsa.doe.gov
Stephen Jochem, NA-LA, stephen.jochem@nnsa.doe.gov
William H. Schwetzmman, Triad, IPM, bills@lanl.gov
Stephen C. Karpi, Triad-TA55-CWF, stephenkarpi@lanl.gov
Alvin M. Aragon, Triad, TA-55-RLW, alaragon@lanl.gov
Raelynn Romero, Triad, TA-55 RLW, raelynn@lanl.gov
Jose P. Hernandez-Quintero, Triad, TA-55-RLW, jpherna@lanl.gov
Steven A. Coleman, Triad, ALDESHQ, scoleman@lanl.gov
Jennifer E. Payne, Triad, ALDESHQ, jpayne@lanl.gov
Randal S. Johnson, Triad, ESHQ-INT, randyj@lanl.gov
Jeannette T. Hyatt, Triad, EWP, jhyatt@lanl.gov
Steven L. Story, Triad, EPC-DO, story@lanl.gov
Deepika Saikrishnan, Triad, EPC-DO, deepika@lanl.gov
Sarah S. Holcomb, Triad, EPC-CP, sholcomb@lanl.gov
Jennifer K. Griffin, Triad, EPC-CP, jkg@lanl.gov
Timothy J. Goering, Triad, EPC-CP, goering@lanl.gov
Brian M. Iacona, Triad, EPC-CP, biacona@lanl.gov
Christopher C. Stoneback, Triad, GC-ESH, stoneback@lanl.gov
Andrew G. Thiros, Triad, GC-ESH, thiros@lanl.gov
epccorrespondence@lanl.gov
eshq-dcrm@lanl.gov
gc-esh@lanl.gov
lasomailbox@nnsa.doe.gov

Attachment 1

RLWTF Monitoring Report – First Quarter 2024

EPC-DO: 24-098

LA-UR-24-23266

Date: April 29, 2024

Condition No. 24: Monitoring Reports

Pursuant to Permit Condition Number (No.) 24, the U.S. Department of Energy, National Nuclear Security Administration (NNSA) and Triad National Security, LLC (Triad) are required to submit a quarterly monitoring report by May 1, 2024, for the monitoring period of January 1, 2024, through March 31, 2024 (first quarter). The following permit conditions are addressed in Attachments 1 through 6 of this report.

- Quarterly Monitoring Report
 - Condition No.13: Maintenance and Repair
 - Condition No. 14: Damage to Structural Integrity
 - Condition Nos. 25 and 26: RLWTF Influent Volumes
 - Condition No. 27: Discharge Volumes
 - Condition No. 29: Effluent Sampling
 - Condition No. 30: Soil Moisture Monitoring System for the Solar Evaporative Tank System
 - Condition No. 36: Groundwater Monitoring
 - Condition No. 41: Stabilization of Specific Units and Systems that have Ceased

Condition No. 13: Maintenance and Repair

The Permittees shall submit to NMED a summary and description of the maintenance and repair activities performed on the Facility as part of the quarterly monitoring reports.

- **Attachment 2** provides a summary of the maintenance and repair activities conducted at the Radioactive Liquid Waste Treatment Facility (RLWTF) during the first quarter 2024 monitoring period.

Condition No. 14: Damage to Structural Integrity

- On August 31, 2022, NMED was notified that the south treated effluent tank at the RLWTF was taken out of service when treated effluent was discovered to have wept onto the exterior surface of the tank. Corrective Action Plans were submitted to NMED on September 30, 2022 (EPC-DO:22-264), and November 21, 2022 (EPC-DO: 22-315). A Corrective Action Plan Implementation Extension Request (EPC-DO: 23-274) was submitted to NMED on August 30, 2023. NMED approved this request on October 3, 2023.
- An epoxy resin patch and an additional welded patch were applied to the thinning area of the tank in January and February 2023.
- During this reporting period, the facility continued efforts to procure the replacement effluent tanks.

Condition No. 25: Influent Volumes: Low-Level Radioactive Wastewater

The total daily and monthly volumes of RLW influent conveyed to the Facility shall be submitted to NMED in the quarterly monitoring reports.

- **Attachment 3** provides the total daily and monthly volumes of low-level radioactive wastewater (RLW) received by the RLWTF during the first quarter 2024 monitoring period.
-

Condition No. 26: Influent Volumes: Transuranic Wastewater

The total daily and monthly volumes of TRU influent received by the Facility shall be submitted to NMED in the quarterly monitoring reports.

- **Attachment 3** provides the total daily and monthly volumes of transuranic (TRU) influent wastewater received by the RLWTF during the first quarter 2024 monitoring period.
-

Condition No. 27: Discharge Volumes

The Permittees shall measure and record the volume of treated wastewater discharged to the SET, MES, and Outfall 051 on a daily basis.

- **Attachment 3** provides the daily volume of treated effluent discharged to the Mechanical Evaporator System (MES) during the first quarter 2024 monitoring period.
 - No treated effluent was discharged to National Pollutant Discharge Elimination System (NPDES) Outfall 051 or the Solar Evaporative Tank System (SET) during the first quarter 2024 monitoring period.
-

Condition No. 29: Effluent Sampling

The Permittees shall sample and analyze effluent waste streams discharged to Outfall 051, the SET, and the MES.

- **MES Sampling.** Treated effluent from the RLWTF was discharged to the MES this quarter during the months of January, February, and March. Quarterly sampling for all water contaminants listed in 20.6.2.3103 NMAC, all toxic pollutants as defined in 20.6.2.7.T(2) NMAC, and total kjeldahl nitrogen (TKN) was completed on January 17th, 2024. These analytical results are provided in **Attachment 4, Table 1**.
- Monthly sampling for TKN, nitrate (NO₃-N), total dissolved solids (TDS), chloride (Cl), fluoride (F), and perchlorate (ClO₄) was completed on February 14th and March 7th, 2024. Analytical results from these discharges are provided in **Attachment 4, Tables 2 and 3**.

All sample results from the MES this quarter were either not detected or less than 20.6.2.3103 NMAC standards and tap water screening levels for 20.6.2.7.T(2) NMAC analytes.

- **NPDES Outfall 051 Sampling.** No treated effluent from the RLWTF was discharged to NPDES Outfall 051 this reporting period. Therefore, no effluent sampling from NPDES Outfall 051 was completed during the first quarter 2024 monitoring period.
- **SET Sampling.** No treated effluent was discharged to the SET during the reporting period. Therefore, no effluent sampling from the SET was completed during the first quarter 2024 monitoring period.

Condition No. 30: Soil Moisture Monitoring System for the SET

The permittees shall perform quarterly soil moisture monitoring in the moisture monitoring boreholes and shall provide this information in the quarterly reports.

- No treated effluent was discharged to the SET during the first quarter 2024 monitoring period.
- In accordance with Permit Condition No. 30, the SET-Soil Moisture Monitoring System Completion Report (EPC-DO: 22-132) was submitted to NMED on June 29, 2022. NMED approved the report on May 18, 2023.
- Baseline monitoring of all SET moisture monitoring boreholes continued in the first quarter with quarterly monitoring completed in January 2024.

Condition No. 36: Ground Water Monitoring

The Permittees shall collect ground water samples from the following ground water monitoring wells: MCA-RLW-1, MCA-RLW-2, and MCOI-6 on a quarterly basis and analyze the samples for TKN, NO₃-N, TDS, Cl, F, and perchlorate.

- **Attachment 5** provides the complete ground water monitoring report from the quarterly sampling of perched/intermediate ground water monitoring well MCOI-6 on January 24, 2024.

Sample results from MCOI-6 for TKN, NO₃+NO₂-N, TDS, Cl, F, and ClO₄ are provided in **Attachment 5, Table 1**. These samples were submitted to GEL Laboratories, LLC for analysis. All results from the January 24, 2024, sampling event at MCOI-6 were below 20.6.2.3103 NMAC standards and 20.6.2.7.T NMAC screening levels, with the exception of the following:

- NO₃+NO₂-N was detected at a concentration of 14.9 mg/L. The 20.6.2.3103 NMAC standard for NO₃-N is 10 mg/L. The average NO₃+NO₂-N concentration at MCOI-6 during the 5-yr period from 2019 through 2023 was 13.6 mg/L with multiple exceedances of the 10 mg/L standard. Detections of NO₃+NO₂-N at MCOI-6 at concentrations greater than the ground water standard were previously identified and reported to NMED. Monitoring well MCOI-6 will continue to be routinely sampled for NO₃+NO₂-N in accordance with DP-1132 and pursuant to the Compliance Order on Consent, June 2016 (Consent Order).

- ClO₄ was detected at a concentration of 124 µg/L. The 20.6.2.7.T NMAC guidance for ClO₄ is 13.8 µg/L. The average ClO₄ concentration at MCOI-6 during the 5-yr period from 2017 through 2022 was 97 µg/L. Detections of ClO₄ at MCOI-6 at concentrations greater than the 20.6.2.7.T NMAC guidance screening levels were previously identified and reported to NMED. Monitoring well MCOI-6 will continue to be routinely sampled for ClO₄ in accordance with DP-1132 and pursuant to the Consent Order.

Quarterly samples were not collected from alluvial monitoring wells MCA-RLW-1 or MCA-RLW-2 during this period due to insufficient water in the wells. **Attachment 5** provides the ground water monitoring report for these alluvial wells collected on January 24th and 17th, 2023.

A map showing the location of ground water monitoring wells MCA-RLW-1, MCA-RLW-2, MCOI-6, R-1, R-14, R-46 and R-60 is provided in **Attachment 6**.

Condition No. 41: Stabilization of Specific Units and Systems That Have Ceased

The Permittees shall provide NMED quarterly progress reports describing stabilization activities for each quarter in accordance with the time periods and submittal dates required for monitoring reports in Condition 24.

On September 26, 2023, a Revised Integrated Schedule of Stabilization Activities at the RLWTF (EPC-DO: 23-294) was submitted to NMED for review.

The current status of each unit and system listed in Permit Condition No. 41 is listed below.

Clarifier #1

- Stabilization activities for Clarifier #1 are being completed under the Stabilization Plan for the Low-Level Clarifier #1 submitted to NMED on December 4, 2018 (EPC-DO: 18-428). This workplan was approved by NMED on December 27, 2018.
- Removal of excess chemicals and process solids was completed in 2019.
- The chemical feed system was dismantled in May 2021.
- Removal of metal components from within the clarifier was completed in the fourth quarter of 2023.
- During this reporting period, the clarifier was cleaned and flushed with rinse water until the Stabilization Plan criteria of less than 20 nCi/L concentration of radioactivity in the rinse water was met. The process of sealing the interior clarifier surfaces is underway and will continue until the Stabilization Plan criteria of less than 20 dpm per 100 square centimeters is met.

Clarifier #2

- Stabilization activities for Clarifier #2 are being completed under the Stabilization Plan for Low-Level Clarifier #2 Tank submitted to NMED on January 25, 2019 (EPC-DO: 19-007). This workplan was approved by NMED on April 25, 2019.
- Removal of excess chemicals was completed in 2019.
- The chemical feed system was dismantled in May 2021.
- No additional stabilization milestones were completed during the reporting period for this unit.

75K Tank

- Stabilization activities for the 75K Tank are being completed under the Stabilization Plan for 75K Tank submitted to NMED on January 25, 2019 (EPC-DO: 19-007). This workplan was approved by NMED on April 25, 2019.
- The 75K Tank was operationally emptied in 2019.
- The 75K Tank will remain available for use as emergency storage.
- A Request for an Extension of Time to complete stabilization activities was submitted to NMED on September 28, 2020 (EPC-DO: 20-255). Details related to the extension request were provided in that submittal. NMED approved the request for extension on November 13, 2020.
- No additional stabilization milestones were completed during the reporting period for this unit.

100K Tank

- Stabilization activities for the 100K Tank are being completed under the Stabilization Plan for the 100K Tank submitted to NMED on December 4, 2018 (EPC-DO: 18-428). This workplan was approved by NMED on December 27, 2018. Requests for Extensions of Time to complete mobilization for 100K Tank Stabilization (EPC-DO: 19-372 and EPC-DO: 19-470) were previously submitted to and approved by NMED as previously reported.
- The 100K Tank was emptied of all process liquids in 2019.
- A Request for an Extension of Time to complete stabilization activities was submitted to NMED on September 28, 2020 (EPC-DO: 20-255). Details related to the extension request were provided in that submittal. NMED approved the request for extension on November 13, 2020.
- No additional stabilization milestones were completed during the reporting period for this unit.

Gravity Filter

- Stabilization activities for the Gravity Filter are being completed under the Stabilization Plan for Gravity Filter submitted to NMED on January 25, 2019 (EPC-DO: 19-007). This workplan was approved by NMED on April 25, 2019.
- A Request for an Extension of Time to complete stabilization activities was submitted to NMED on September 28, 2020 (EPC-DO: 20-255). NMED approved the request for extension on November 13, 2020.
- Stabilization of the Gravity Filter has been initiated with the removal of unused chemicals and the chemical feed system.
- No additional stabilization milestones were completed during the reporting period for this unit.

WM2-North/South Tanks

- Stabilization activities for the WM2-North/South Tanks are being completed under the Stabilization Plan for the Low-Level WM2-North/South Tanks submitted to NMED on January 25, 2019 (EPC-DO: 19-007). This workplan was approved by NMED on April 25, 2019.
 - A Request for an Extension of Time to complete stabilization activities was submitted to NMED on September 28, 2020 (EPC-DO: 20-255). Details related to the extension request were provided in that submittal. NMED approved the request for extension on November 13, 2020.
 - Stabilization activities were initiated for the WM2-North/South Tanks on October 12, 2020.
 - During this reporting period, the subcontractor continued project planning and site preparation for future stabilization activities on this unit.
-

Attachment 2

Quarterly Summary of Maintenance and Repair Activities Conducted at the RLWTF

EPC-DO: 24-098

LA-UR-24-23266

Date: April 29, 2024

DP-1132 Report: First Quarter 2024 RLWTF Maintenance

Structures	Description	Built	Task Type					Total
			PM	CO	MD	SR	UP	
Building 1	Original treatment bldg.	1963	40	8	3	1	0	52
Building 2	Original influent storage bldg.	1963	2	0	0	0	0	2
Building 66	TRU influent storage	1982						0
Building 90	100K Influent Storage tank	1982						0
Building 248	Low-level bottoms storage	1996	3	0	0	0	0	3
Building 250	Low-level influent storage	2009	20	1	1	0	0	22
Building 257	Mechanical Evaporator System	2010	3	0	0	0	0	3
TA52	Solar Evaporation Tank	2011	12	0	0	0	0	12
Totals			80	9	4	1	0	94

Task Types: PM - preventive maintenance MD - modification UP= Unplanned
CO - corrective maintenance SR - service request

DP-1132 Report: First Quarter 2024 RLWTF Maintenance

TA-50-0001 Work Completion Report (01-01-2024 to 03-31-2024)

Unit	Work Order	WO	WO Type	Task Title
500001	00734531	01	CO	500001 REPLACE BALLAST IN ROOM 10
500001	00776677	01	CO	500001 REPAIR LIGHTING IN RESTROOMS 7A & 7B
500001	00710650	01	CO	500001 REPAIR/REPLACEMENT OF CORRODED PIPING
500001	00694375	01	CO	500001 REPAIR/REPLACE TK-8 MIXER MOTOR
500001	00656028	01	CO	500001 HUE REPAIRS
500001	00745451	01	CO	500001 VERFY ROOM 34B SLAB THICKNESS
500001	00719803	01	CO	500001 REMOVE AND REPLACE PCW-001 IN ROOM 16
500001	00782021	01	CO	50-0001 TROUBLE SHOOT/REPAIR PV-2 AND CONTROLLER
500001	00768118	01	MD	500001 REPIPE EB-6 DP GAUGE
500001	00759887	01	MD	500001 PROVIDE POWER TO THE NEW CUBICLES IN ROOM 125
500001	00768119	01	MD	500001 CORRECT EB-25 DP GAUGE PIPING
500001	00756018	01	PM	500001 ASE 3MO PM, EXHAUST STACK PUMP (3 EA)
500001	00776307	01	PM	50-0001 (M) AED
500001	00772858	01	PM	500001 LTE 1YR PM
500001	00769074	01	PM	50-0001 TRITIUM EXIT LIGHTS (M) PM
500001	00771522	01	PM	500001 LUBE 6MO PM, HEATING & VENTILATION (MECHANICAL) 5 EA
500001	00770127	01	PM	50-1 T-21 PH TRANSMITTERS (6 MO) CALIBRATION
500001	00769688	01	PM	500001 MICROFILTER 3 MONTH PUMP MAINTENANCE
500001	00769093	01	PM	50-0001 BHW 1MO PM (2 EA)
500001	00769031	01	PM	500001 PERFORM WEEKLY EYEWASH/ SAFETY SHOWER TESTING
500001	00769063	01	PM	50-1 FEXT (1M) PM
500001	00776373	01	PM	50-0001 (M) AED
500001	00772358	01	PM	50-0001 EMERGENCY LIGHTS (M) PM
500001	00772356	01	PM	50-0001 TRITIUM EXIT LIGHTS (M) PM
500001	00771904	01	PM	50-1 RM 36 ANNUAL PRO/HWE CIRCULATION HEATER
500001	00763858	01	PM	500001 PERFORM WEEKLY EYEWASH/ SAFETY SHOWER TESTING
500001	00776374	01	PM	50-0001 (M) AED
500001	00767313	01	PM	500001 EH-001 1YR PM, ELEVATOR MECH/ELECT THYSEN-KRUPP
500001	00774671	01	PM	50-1 FIRE DOORS: 1-YR PM
500001	00767074	01	PM	500001 LADR 2YR PM OSHA STD INSPECTION
500001	00750356	01	PM	TA-50 FCP 1YR PM, FUNCTIONALITY TESTING PM
500001	00772289	01	PM	500001 ASE 3MO PM, EXHAUST STACK PUMP (3 EA)
500001	00772342	01	PM	50-1 FEXT (1M) PM
500001	00772297	01	PM	50-0001 BHW 1MO PM (2 EA)
500001	00772287	01	PM	500001 CA-4 (3 MONTH) AIR COMPRESSOR PM

DP-1132 Report: First Quarter 2024 RLWTF Maintenance

TA-50-0001 Work Completion Report (01-01-2024 to 03-31-2024)

Unit	Work Order	WO	WO Type	Task Title
500001	00772302	01	PM	500001 PERFORM WEEKLY EYEWASH/ SAFETY SHOWER TESTING
500001	00772857	01	PM	50-1 PDI (A) CAL VERIFICATION
500001	00772266	01	PM	50-1 RIGGING EQUIPMENT/HARDWARE: 1-YR PM (CERTIFICATION)
500001	00772243	01	PM	500001 HWG 1YR PM, HOT WATER HEATERS, 3 EA
500001	00774519	01	PM	50-0001 TRITIUM EXIT LIGHTS (M) PM
500001	00775482	01	PM	50-1 DRUM TUMBLER (A) PM
500001	00777727	01	PM	50-1 SPW/SPH (6M) FIRE SUPPRESSION SYSTEMS PM
500001	00775103	01	PM	500001 PV-008 6MO PM, (MECHANICAL)
500001	00774502	01	PM	50-1 FEXT (1M) PM
500001	00774566	01	PM	500001 PERFORM WEEKLY EYEWASH/ SAFETY SHOWER TESTING
500001	00776375	01	PM	50-0001 (M) AED
500001	00775473	01	PM	500001 FRKLFT 1YR PM, FORKLIFT (INSPECTIONS)
500001	00774563	01	PM	50-0001 BHW 1MO PM (2 EA)
500001	00774521	01	PM	50-0001 EMERGENCY LIGHTS (M) PM
500001	00771903	01	PM	500001 (A) MANLIFT JGL/GENIE INSPECTION
500001	00776846	01	PM	500001 3MO ELEVATOR ELECT/MECH MAINT, THYSSEN-KRUPP
500001	00710295	01	SR	500001 THYSSEN KRUPP SERVICE CONTRACT

DP-1132 Report: First Quarter 2024 RLWTF Maintenance

TA-50-0250 Work Completion Report (01-01-2024 to 03-31-2024)

Unit	Work Order	WO	WO Type	Task Title
500250	00724666	01	CO	500250 ELECTRICIANS TO TROUBLESHOOT/REPAIR OF RLW-MX-006
500250	00651327	01	MD	500250 INSTALL EFFLUENT PUMP MODIFICATIONS
500250	00770128	01	PM	50-250 GFCI (6M) SERVICE INSPECTIONS
500250	00769692	01	PM	500250 SHS 3MO PM, SAFETY SHOWER
500250	00769080	01	PM	500250 LTE (M) PM, EMERGENCY WALL MOUNTED LIGHTING UNITS
500250	00769079	01	PM	500250 LTET (M) PM, TRITIUM EMERGENCY EXIT LIGHT
500250	00769042	01	PM	500250 LTNT (M) PM, NON-TRITIUM EMERGENCY EXIT LIGHT
500250	00769057	01	PM	500250 FEXT (M), FIRE EXTINGUISHERS PM
500250	00772338	01	PM	500250 FEXT (M), FIRE EXTINGUISHERS PM
500250	00772367	01	PM	500250 LTE (M) PM, EMERGENCY WALL MOUNTED LIGHTING UNITS
500250	00772365	01	PM	500250 LTET (M) PM, TRITIUM EMERGENCY EXIT LIGHT
500250	00772322	01	PM	500250 LTNT (M) PM, NON-TRITIUM EMERGENCY EXIT LIGHT
500250	00766527	01	PM	500250 LTE (M) PM, EMERGENCY WALL MOUNTED LIGHTING UNITS
500250	00766525	01	PM	500250 LTET (M) PM, TRITIUM EMERGENCY EXIT LIGHT
500250	00753883	01	PM	50-250 GFCI (6M) SERVICE INSPECTIONS
500250	00766483	01	PM	500250 LTNT (M) PM, NON-TRITIUM EMERGENCY EXIT LIGHT
500250	00777724	01	PM	50-250 SPW (6M) PM
500250	00774498	01	PM	500250 FEXT (M), FIRE EXTINGUISHERS PM
500250	00750605	01	PM	500250 LTE (M) PM, EMERGENCY WALL MOUNTED LIGHTING UNITS
500250	00774541	01	PM	500250 LTNT (M) PM, NON-TRITIUM EMERGENCY EXIT LIGHT
500250	00774529	01	PM	500250 LTE (M) PM, EMERGENCY WALL MOUNTED LIGHTING UNITS
500250	00774527	01	PM	500250 LTET (M) PM, TRITIUM EMERGENCY EXIT LIGHT

DP-1132 Report: First Quarter 2024 RLWTF Maintenance**TA-52-0181 Work Completion Report (01-01-2024 to 03-31-2024)**

Unit	Work Order	WO	WO Type	Task Title
				*** NO DATA TO REPORT FOR LISTED PERIOD.

TA-52-0182 Work Completion Report (01-01-2024 to 03-31-2024)

Unit	Work Order	WO	WO Type	Task Title
520182	00769030	01	PM	520182 (M) FEXT PM
520182	00769013	01	PM	520182 (M) NON TRITIUM LIGHTS PM
520182	00769012	01	PM	520182 (M) EMERGENCY LIGHTS PM
520182	00772384	01	PM	520182 (M) NON TRITIUM LIGHTS PM
520182	00772383	01	PM	520182 (M) FEXT PM
520182	00772301	01	PM	520182 (M) EMERGENCY LIGHTS PM
520182	00772296	01	PM	520182 (3M) SIGNAGE VERIFICATION FOR FENCE LINE
520182	00772295	01	PM	520182 (3M) FENCE LINE VERIFICATION
520182	00755712	01	PM	520182 (A) EMERGENCY LIGHTS PM
520182	00774565	01	PM	520182 (M) EMERGENCY LIGHTS PM
520182	00774560	01	PM	520182 (M) NON TRITIUM LIGHTS PM
520182	00774559	01	PM	520182 (M) FEXT PM

TA-52-0183 Work Completion Report (01-01-2024 to 03-31-2024)

Unit	Work Order	WO	WO Type	Task Title
				*** NO DATA TO REPORT FOR LISTED PERIOD.

DP-1132 Report: First Quarter 2024 RLWTF Maintenance**TA-50-0002 Work Completion Report (01-01-2024 to 03-31-2024)**

Unit	Work Order	WO	WO Type	Task Title
500002	00772279	01	PM	50-2 TCA (6M) AUTO DUMP PM
500002	00772273	01	PM	50-2 CA (6M) MECHANICAL PM

TA-50-0090 Work Completion Report (01-01-2024 to 03-31-2024)

Unit	Work Order	WO	WO Type	Task Title
				*** NO DATA TO REPORT FOR LISTED PERIOD.

TA-50-0066 Work Completion Report (01-01-2024 to 03-31-2024)

Unit	Work Order	WO	WO Type	Task Title
				*** NO DATA TO REPORT FOR LISTED PERIOD.

TA-50-0201 Work Completion Report (01-01-2024 to 03-31-2024)

Unit	Work Order	WO	WO Type	Task Title
				*** NO DATA TO REPORT FOR LISTED PERIOD.

TA-50-0248 Work Completion Report (01-01-2024 to 03-31-2024)

Unit	Work Order	WO	WO Type	Task Title
500248	00771521	01	PM	50-248 MIXERS: 6-MO PM (LUBRICATION)
500248	00772282	01	PM	500248 PUMPS 3MO PM
500248	00777728	01	PM	50-248 TK-3: 1-YR PM (VISUAL INSPECTION)

TA-50-0257 Work Completion Report (01-01-2024 to 03-31-2024)

Unit	Work Order	WO	WO Type	Task Title
500257	00766930	01	PM	50-257 EVAP BOILER (3M) PM
500257	00777726	01	PM	50-257 6MO EVAP FAN MECHANICAL PM
500257	00775115	01	PM	50-257 EVAP BOILER (3M) PM

DP-1132 Report: First Quarter 2024 RLWTF Maintenance

Acronyms used by LANL Maintenance:

ASE	air sampler, exhaust	LPT	lightning protection
BHW	boiler, hot water	LTE	lights, emergency
CA	compressed air	LTET	lights, emergency, tritium
DAD	dessicant air dryer	LTNT	lights, non-tritium
EB	exhaust bank	PRV	pressure reducing valve
EH	exhaust heater	PV	pump, vacuum
FAR	filter, air replaceable	RCA	radiological control area
FE	fan, exhaust	SHS	shower, safety
FEXT	fire extinguisher	SPH	sprinkler pipe, dry
HEPA	high-efficiency particulate air	SPW	sprinkler pipe, wet
HUE	heater unit, electric	TCA	tank, compressed air

Attachment 3

RLWTF Daily Influent and Effluent Volumes

EPC-DO: 24-098

LA-UR-24-23266

Date: April 29, 2024

DP-1132 Report: First Quarter 2024
RLWTF Daily Influent and Effluent

Date	Low-level Influent	Effluent MES	Effluent Outfall 051	Effluent SET	Transuranic Influent
Totals, 2024-Q1	521,740	369,393	0	0	97
Sub-total, Jan.	128,955	89,099	0	0	0
Sub-total, Feb.	188,243	98,255	0	0	0
Sub-total, Mar.	204,541	182,040	0	0	97

All flows are in Liters.

1-Jan	38	0	0	0	0
2-Jan	1,400	0	0	0	0
3-Jan	1,779	0	0	0	0
4-Jan	1,098	0	0	0	0
5-Jan	3,142	0	0	0	0
6-Jan	719	0	0	0	0
7-Jan	454	0	0	0	0
8-Jan	2,233	0	0	0	0
9-Jan	3,444	0	0	0	0
10-Jan	1,476	0	0	0	0
11-Jan	2,271	0	0	0	0
12-Jan	1,249	0	0	0	0
13-Jan	833	0	0	0	0
14-Jan	984	0	0	0	0
15-Jan	1,022	0	0	0	0
16-Jan	3,785	6,484	0	0	0
17-Jan	3,520	14,765	0	0	0
18-Jan	6,851	18,592	0	0	0
19-Jan	7,419	14,807	0	0	0
20-Jan	8,592	4,194	0	0	0
21-Jan	3,974	0	0	0	0
22-Jan	5,791	0	0	0	0
23-Jan	6,321	0	0	0	0
24-Jan	6,094	0	0	0	0
25-Jan	6,737	5,136	0	0	0
26-Jan	4,504	13,986	0	0	0
27-Jan	4,504	11,135	0	0	0
28-Jan	5,337	0	0	0	0
29-Jan	10,371	0	0	0	0
30-Jan	10,409	0	0	0	0
31-Jan	12,604	0	0	0	0

DP-1132 Report: First Quarter 2024
RLWTF Daily Influent and Effluent

Date	Low-level Influent	Effluent MES	Effluent Outfall 051	Effluent SET	Transuranic Influent
1-Feb	4,126	0	0	0	0
2-Feb	6,737	0	0	0	0
3-Feb	4,883	0	0	0	0
4-Feb	4,618	0	0	0	0
5-Feb	6,586	0	0	0	0
6-Feb	7,116	0	0	0	0
7-Feb	10,901	0	0	0	0
8-Feb	8,138	0	0	0	0
9-Feb	7,040	0	0	0	0
10-Feb	8,456	0	0	0	0
11-Feb	5,223	0	0	0	0
12-Feb	7,229	0	0	0	0
13-Feb	8,441	0	0	0	0
14-Feb	7,419	10,802	0	0	0
15-Feb	6,132	16,688	0	0	0
16-Feb	5,678	10,980	0	0	0
17-Feb	4,656	0	0	0	0
18-Feb	4,126	0	0	0	0
19-Feb	4,164	0	0	0	0
20-Feb	7,419	14,114	0	0	0
21-Feb	7,684	4,705	0	0	0
22-Feb	6,283	0	0	0	0
23-Feb	5,413	0	0	0	0
24-Feb	4,580	0	0	0	0
25-Feb	4,126	0	0	0	0
26-Feb	6,207	0	0	0	0
27-Feb	8,441	10,753	0	0	0
28-Feb	7,570	18,437	0	0	0
29-Feb	8,857	11,775	0	0	0

DP-1132 Report: First Quarter 2024
RLWTF Daily Influent and Effluent

Date	Low-level Influent	Effluent MES	Effluent Outfall 051	Effluent SET	Transuranic Influent
1-Mar	6,283	0	0	0	0
2-Mar	4,883	0	0	0	0
3-Mar	4,958	0	0	0	0
4-Mar	6,435	0	0	0	0
5-Mar	7,456	0	0	0	0
6-Mar	6,245	0	0	0	0
7-Mar	9,008	10,780	0	0	0
8-Mar	7,040	14,576	0	0	0
9-Mar	4,921	12,570	0	0	0
10-Mar	4,466	14,122	0	0	0
11-Mar	7,078	5,511	0	0	0
12-Mar	7,192	0	0	0	0
13-Mar	8,478	0	0	0	0
14-Mar	9,046	9,572	0	0	0
15-Mar	4,731	14,716	0	0	0
16-Mar	5,526	14,731	0	0	0
17-Mar	5,337	14,735	0	0	0
18-Mar	8,630	8,891	0	0	0
19-Mar	8,478	0	0	0	97
20-Mar	6,927	0	0	0	0
21-Mar	6,964	0	0	0	0
22-Mar	5,905	0	0	0	0
23-Mar	5,375	0	0	0	0
24-Mar	4,996	0	0	0	0
25-Mar	7,343	7,668	0	0	0
26-Mar	9,387	14,542	0	0	0
27-Mar	6,018	14,746	0	0	0
28-Mar	8,592	14,459	0	0	0
29-Mar	6,207	10,420	0	0	0
30-Mar	5,261	0	0	0	0
31-Mar	5,375	0	0	0	0

Attachment 4

Treated Effluent Sampling Results

EPC-DO: 24-098

LA-UR-24-23266

Date: April 29, 2024

Attachment 4

Table 1. Analytical Results from Quarterly Sampling of RLWTF Treated Effluent Discharged to the Mechanical Evaporator System on January 17, 2024. Permit Condition No. 29.

Field Sample ID	Location ID	Sample Date	Parameter Code	Parameter Name	Report Result	Report Units ¹	Validation Qualifier ²	Detected ³	Field Preparation Code ⁴	COC #	Sample Purpose ⁵	Lab Method	Report Method Detection Limit ⁶	Groundwater Limit ⁷
RLWTF-24-300572	RLWTF_MES	01/17/2024	107-02-8	Acrolein	1.67	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	1.67	0.042
RLWTF-24-300572	RLWTF_MES	01/17/2024	107-13-1	Acrylonitrile	1.67	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	1.67	0.523
RLWTF-24-300572	RLWTF_MES	01/17/2024	309-00-2	Aldrin	0.00665	ug/L	U	N	UF	2024-336	REG	SW-846:8081B	0.00665	0.00198
RLWTF-24-300577	RLWTF_MES	01/17/2024	Al	Aluminum	19.3	ug/L	U	N	F	2024-336	REG	EPA:200.8	19.3	5,000
RLWTF-24-300572	RLWTF_MES	01/17/2024	120-12-7	Anthracene	0.3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	0.3	1,721.28
RLWTF-24-300577	RLWTF_MES	01/17/2024	Sb	Antimony	1	ug/L	U	N	F	2024-336	REG	EPA:200.8	1	6
RLWTF-24-300572	RLWTF_MES	01/17/2024	12674-11-2	Aroclor-1016	0.0338	ug/L	U	N	UF	2024-336	REG	SW-846:8082A	0.0338	0.5
RLWTF-24-300572	RLWTF_MES	01/17/2024	11104-28-2	Aroclor-1221	0.0338	ug/L	U	N	UF	2024-336	REG	SW-846:8082A	0.0338	0.5
RLWTF-24-300572	RLWTF_MES	01/17/2024	11141-16-5	Aroclor-1232	0.0338	ug/L	U	N	UF	2024-336	REG	SW-846:8082A	0.0338	0.5
RLWTF-24-300572	RLWTF_MES	01/17/2024	53469-21-9	Aroclor-1242	0.0338	ug/L	U	N	UF	2024-336	REG	SW-846:8082A	0.0338	0.5
RLWTF-24-300572	RLWTF_MES	01/17/2024	12672-29-6	Aroclor-1248	0.0338	ug/L	U	N	UF	2024-336	REG	SW-846:8082A	0.0338	0.5
RLWTF-24-300572	RLWTF_MES	01/17/2024	11097-69-1	Aroclor-1254	0.0338	ug/L	U	N	UF	2024-336	REG	SW-846:8082A	0.0338	0.5
RLWTF-24-300572	RLWTF_MES	01/17/2024	11096-82-5	Aroclor-1260	0.0338	ug/L	U	N	UF	2024-336	REG	SW-846:8082A	0.0338	0.5
RLWTF-24-300577	RLWTF_MES	01/17/2024	As	Arsenic	2	ug/L	U	N	F	2024-336	REG	EPA:200.8	2	10
RLWTF-24-300572	RLWTF_MES	01/17/2024	1912-24-9	Atrazine	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	3
RLWTF-24-300572	RLWTF_MES	01/17/2024	103-33-3	Azobenzene	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	0.78
RLWTF-24-300577	RLWTF_MES	01/17/2024	Ba	Barium	0.67	ug/L	U	N	F	2024-336	REG	EPA:200.8	0.67	2,000
RLWTF-24-300572	RLWTF_MES	01/17/2024	71-43-2	Benzene	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	5
RLWTF-24-300572	RLWTF_MES	01/17/2024	92-87-5	Benididine	3.9	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3.9	0.001
RLWTF-24-300572	RLWTF_MES	01/17/2024	50-32-8	Benzo(a)pyrene	0.3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	0.3	0.2
RLWTF-24-300572	RLWTF_MES	01/17/2024	205-99-2	Benzo(b)fluoranthene	0.3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	0.3	0.343
RLWTF-24-300572	RLWTF_MES	01/17/2024	207-08-9	Benzo(k)fluoranthene	0.3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	0.3	3.432
RLWTF-24-300577	RLWTF_MES	01/17/2024	Be	Beryllium	0.2	ug/L	U	N	F	2024-336	REG	EPA:200.8	0.2	4
RLWTF-24-300572	RLWTF_MES	01/17/2024	319-84-6	BHC[alpha-]	0.00665	ug/L	U	N	UF	2024-336	REG	SW-846:8081B	0.00665	0.069
RLWTF-24-300572	RLWTF_MES	01/17/2024	319-85-7	BHC[beta-]	0.00665	ug/L	U	N	UF	2024-336	REG	SW-846:8081B	0.00665	0.243
RLWTF-24-300572	RLWTF_MES	01/17/2024	58-89-9	BHC[gamma-]	0.00665	ug/L	U	N	UF	2024-336	REG	SW-846:8081B	0.00665	0.415
RLWTF-24-300572	RLWTF_MES	01/17/2024	111-44-4	Bis(2-chloroethyl)ether	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	0.14
RLWTF-24-300572	RLWTF_MES	01/17/2024	117-81-7	Bis(2-ethylhexyl)phthalate	0.3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	0.3	55.64
RLWTF-24-300577	RLWTF_MES	01/17/2024	B	Boron	15	ug/L	U	N	F	2024-336	REG	EPA:200.7	15	750
RLWTF-24-300572	RLWTF_MES	01/17/2024	75-27-4	Bromodichloromethane	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	1.34
RLWTF-24-300572	RLWTF_MES	01/17/2024	75-25-2	Bromoform	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	32.85
RLWTF-24-300572	RLWTF_MES	01/17/2024	74-83-9	Bromomethane	0.337	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.337	7.54
RLWTF-24-300577	RLWTF_MES	01/17/2024	Cd	Cadmium	0.3	ug/L	U	N	F	2024-336	REG	EPA:200.8	0.3	5
RLWTF-24-300572	RLWTF_MES	01/17/2024	56-23-5	Carbon Tetrachloride	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	5
RLWTF-24-300572	RLWTF_MES	01/17/2024	57-74-9	Chlordane(alpha/gamma)	0.0765	ug/L	U	N	UF	2024-336	REG	SW-846:8081B	0.0765	0.45
RLWTF-24-300577	RLWTF_MES	01/17/2024	Cl(-1)	Chloride	0.164	mg/L	U	N	F	2024-336	REG	EPA:300.0	0.067	250
RLWTF-24-300572	RLWTF_MES	01/17/2024	108-90-7	Chlorobenzene	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	77.57
RLWTF-24-300572	RLWTF_MES	01/17/2024	67-66-3	Chloroform	1.91	ug/L	NQ	Y	UF	2024-336	REG	SW-846:8260D	0.333	100
RLWTF-24-300572	RLWTF_MES	01/17/2024	74-87-3	Chloromethane	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	20.32
RLWTF-24-300577	RLWTF_MES	01/17/2024	Cr	Chromium	3	ug/L	U	N	F	2024-336	REG	EPA:200.8	3	50
RLWTF-24-300577	RLWTF_MES	01/17/2024	Co	Cobalt	0.348	ug/L	J	Y	F	2024-336	REG	EPA:200.8	0.3	50
RLWTF-24-300577	RLWTF_MES	01/17/2024	Cu	Copper	2.53	ug/L	NQ	Y	F	2024-336	REG	EPA:200.8	0.3	1,000
RLWTF-24-300577	RLWTF_MES	01/17/2024	CN(TOTAL)	Cyanide (Total)	0.00704	mg/L	NQ	Y	F	2024-336	REG	EPA:335.4	0.00167	0.2
RLWTF-24-300572	RLWTF_MES	01/17/2024	50-29-3	DDT[4,4'-]	0.01	ug/L	U	N	UF	2024-336	REG	SW-846:8081B	0.01	2.29
RLWTF-24-300572	RLWTF_MES	01/17/2024	106-93-4	Dibromoethane[1,2-]	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	0.05
RLWTF-24-300572	RLWTF_MES	01/17/2024	74-95-3	Dibromomethane	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	7.997
RLWTF-24-300572	RLWTF_MES	01/17/2024	95-50-1	Dichlorobenzene[1,2-]	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	600
RLWTF-24-300572	RLWTF_MES	01/17/2024	106-46-7	Dichlorobenzene[1,4-]	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	75
RLWTF-24-300572	RLWTF_MES	01/17/2024	91-94-1	Dichlorobenzidine[3,3'-]	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	1.25
RLWTF-24-300572	RLWTF_MES	01/17/2024	75-71-8	Dichlorodifluoromethane	0.355	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.355	197.2
RLWTF-24-300572	RLWTF_MES	01/17/2024	75-34-3	Dichloroethane[1,1-]	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	25
RLWTF-24-300572	RLWTF_MES	01/17/2024	107-06-2	Dichloroethane[1,2-]	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	5
RLWTF-24-300572	RLWTF_MES	01/17/2024	75-35-4	Dichloroethene[1,1-]	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	7
RLWTF-24-300572	RLWTF_MES	01/17/2024	156-59-2	Dichloroethene[cis-1,2-]	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	70
RLWTF-24-300572	RLWTF_MES	01/17/2024	156-60-5	Dichloroethene[trans-1,2-]	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	100

Attachment 4

Table 1. Analytical Results from Quarterly Sampling of RLWTF Treated Effluent Discharged to the Mechanical Evaporator System on January 17, 2024. Permit Condition No. 29.

Field Sample ID	Location ID	Sample Date	Parameter Code	Parameter Name	Report Result	Report Units ¹	Validation Qualifier ²	Detected ³	Field Preparation Code ⁴	COC #	Sample Purpose ⁵	Lab Method	Report Method Detection Limit ⁶	Groundwater Limit ⁷
RLWTF-24-300572	RLWTF_MES	01/17/2024	120-83-2	Dichlorophenol[2,4-]	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	45.3
RLWTF-24-300572	RLWTF_MES	01/17/2024	78-87-5	Dichloropropane[1,2-]	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	5
RLWTF-24-300572	RLWTF_MES	01/17/2024	542-75-6	Dichloropropene[cis/trans-1,3-]	0.5	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.5	4.71
RLWTF-24-300572	RLWTF_MES	01/17/2024	60-57-1	Dieldrin	0.01	ug/L	U	N	UF	2024-336	REG	SW-846:8081B	0.01	0.0175
RLWTF-24-300572	RLWTF_MES	01/17/2024	84-66-2	Diethylphthalate	0.3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	0.3	14,800.5
RLWTF-24-300572	RLWTF_MES	01/17/2024	131-11-3	Dimethyl Phthalate	0.3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	0.3	611.56
RLWTF-24-300572	RLWTF_MES	01/17/2024	84-74-2	Di-n-butylphthalate	0.3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	0.3	884.799
RLWTF-24-300572	RLWTF_MES	01/17/2024	534-52-1	Dinitro-2-methylphenol[4,6-]	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	1.52
RLWTF-24-300572	RLWTF_MES	01/17/2024	51-28-5	Dinitrophenol[2,4-]	5	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	5	38.67
RLWTF-24-300572	RLWTF_MES	01/17/2024	121-14-2	Dinitrotoluene[2,4-]	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	2.37
RLWTF-24-300572	RLWTF_MES	01/17/2024	606-20-2	Dinitrotoluene[2,6-]	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	0.49
RLWTF-24-300572	RLWTF_MES	01/17/2024	123-91-1	Dioxane[1,4-]	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	4.59
RLWTF-24-300572	RLWTF_MES	01/17/2024	122-39-4	Diphenylamine	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	122
RLWTF-24-300572	RLWTF_MES	01/17/2024	959-98-8	Endosulfan I	0.00665	ug/L	U	N	UF	2024-336	REG	SW-846:8081B	0.00665	98.7
RLWTF-24-300572	RLWTF_MES	01/17/2024	33213-65-9	Endosulfan II	0.01	ug/L	U	N	UF	2024-336	REG	SW-846:8081B	0.01	98.7
RLWTF-24-300572	RLWTF_MES	01/17/2024	72-20-8	Endrin	0.01	ug/L	U	N	UF	2024-336	REG	SW-846:8081B	0.01	2.23
RLWTF-24-300572	RLWTF_MES	01/17/2024	100-41-4	Ethylbenzene	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	700
RLWTF-24-300572	RLWTF_MES	01/17/2024	206-44-0	Fluoranthene	0.3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	0.3	802.2
RLWTF-24-300572	RLWTF_MES	01/17/2024	86-73-7	Fluorene	0.3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	0.3	287.6
RLWTF-24-300577	RLWTF_MES	01/17/2024	F(-1)	Fluoride	0.033	mg/L	U	N	F	2024-336	REG	EPA:300.0	0.033	1.6
RLWTF-24-300572	RLWTF_MES	01/17/2024	76-44-8	Heptachlor	0.00665	ug/L	U	N	UF	2024-336	REG	SW-846:8081B	0.00665	0.022
RLWTF-24-300572	RLWTF_MES	01/17/2024	118-74-1	Hexachlorobenzene	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	0.1
RLWTF-24-300572	RLWTF_MES	01/17/2024	87-68-3	Hexachlorobutadiene	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	1.39
RLWTF-24-300572	RLWTF_MES	01/17/2024	77-47-4	Hexachlorocyclopentadiene	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	0.41
RLWTF-24-300572	RLWTF_MES	01/17/2024	67-72-1	Hexachloroethane	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	3.28
RLWTF-24-300572	RLWTF_MES	01/17/2024	2691-41-0	HMX	0.0819	ug/L	U	N	UF	2024-336	REG	SW-846:8330B	0.0819	1,001.1
RLWTF-24-300577	RLWTF_MES	01/17/2024	Fe	Iron	30	ug/L	U	N	F	2024-336	REG	EPA:200.7	30	1,000
RLWTF-24-300572	RLWTF_MES	01/17/2024	78-59-1	Isophorone	3.5	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3.5	780.63
RLWTF-24-300577	RLWTF_MES	01/17/2024	Pb	Lead	0.5	ug/L	U	N	F	2024-336	REG	EPA:200.8	0.5	15
RLWTF-24-300577	RLWTF_MES	01/17/2024	Mn	Manganese	2	ug/L	U	N	F	2024-336	REG	EPA:200.7	2	200
RLWTF-24-300565	RLWTF_MES	01/17/2024	Hg	Mercury	0.067	ug/L	U	N	UF	2024-336	FD	EPA:245.2	0.067	2
RLWTF-24-300572	RLWTF_MES	01/17/2024	Hg	Mercury	0.067	ug/L	U	N	UF	2024-336	REG	EPA:245.2	0.067	2
RLWTF-24-300577	RLWTF_MES	01/17/2024	Hg	Mercury	0.067	ug/L	U	N	F	2024-336	REG	EPA:245.2	0.067	2
RLWTF-24-300572	RLWTF_MES	01/17/2024	1634-04-4	Methyl tert-Butyl Ether	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	100
RLWTF-24-300572	RLWTF_MES	01/17/2024	75-09-2	Methylene Chloride	0.86	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.5	5
RLWTF-24-300572	RLWTF_MES	01/17/2024	90-12-0	Methylnaphthalene[1-]	0.3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	0.3	11.375
RLWTF-24-300572	RLWTF_MES	01/17/2024	91-57-6	Methylnaphthalene[2-]	0.3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	0.3	35.115
RLWTF-24-300577	RLWTF_MES	01/17/2024	Mo	Molybdenum	0.2	ug/L	U	N	F	2024-336	REG	EPA:200.8	0.2	1,000
RLWTF-24-300572	RLWTF_MES	01/17/2024	91-20-3	Naphthalene	0.3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	0.3	30
RLWTF-24-300577	RLWTF_MES	01/17/2024	Ni	Nickel	0.6	ug/L	U	N	F	2024-336	REG	EPA:200.8	0.6	200
RLWTF-24-300577	RLWTF_MES	01/17/2024	NO3+NO2-N	Nitrate-Nitrite as Nitrogen	0.604	mg/L	NQ	Y	F	2024-336	REG	EPA:353.2	0.017	10
RLWTF-24-300575	RLWTF_MES	01/17/2024	NO2-N	Nitrite as Nitrogen	0.0987	mg/L	J	Y	F	2024-322	REG	EPA:300.0	0.033	1
RLWTF-24-300572	RLWTF_MES	01/17/2024	98-95-3	Nitrobenzene	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	1.4
RLWTF-24-300572	RLWTF_MES	01/17/2024	55-18-5	Nitrosodiethylamine[N-]	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	0.0017
RLWTF-24-300572	RLWTF_MES	01/17/2024	62-75-9	Nitrosodimethylamine[N-]	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	0.0049
RLWTF-24-300572	RLWTF_MES	01/17/2024	924-16-3	Nitroso-di-n-butylamine[N-]	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	0.03
RLWTF-24-300572	RLWTF_MES	01/17/2024	930-55-2	Nitrosopyrrolidine[N-]	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	0.37
RLWTF-24-300572	RLWTF_MES	01/17/2024	108-60-1	Oxybis(1-chloropropane)[2,2'-]	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	9.81
RLWTF-24-300572	RLWTF_MES	01/17/2024	608-93-5	Pentachlorobenzene	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	3.07
RLWTF-24-300572	RLWTF_MES	01/17/2024	87-86-5	Pentachlorophenol	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	1
RLWTF-24-300572	RLWTF_MES	01/17/2024	ClO4	Perchlorate	0.05	ug/L	U	N	UF	2024-336	REG	SW-846:6850	0.05	13.8
RLWTF-24-300572	RLWTF_MES	01/17/2024	355-46-4	Perfluorohexanesulfonic acid	0.663	ng/L	U	N	UF	2024-336	REG	EPA:537M	0.663	401.1
RLWTF-24-300572	RLWTF_MES	01/17/2024	1763-23-1	Perfluorooctanesulfonic acid	0.803	ng/L	U	N	UF	2024-336	REG	EPA:537M	0.803	60.16
RLWTF-24-300572	RLWTF_MES	01/17/2024	335-67-1	Perfluorooctanoic acid	0.803	ng/L	U	N	UF	2024-336	REG	EPA:537M	0.803	60.16
	RLWTF_MES	01/17/2024	pH	pH	7.4	SU								6-9

Attachment 4

Table 1. Analytical Results from Quarterly Sampling of RLWTF Treated Effluent Discharged to the Mechanical Evaporator System on January 17, 2024. Permit Condition No. 29.

Field Sample ID	Location ID	Sample Date	Parameter Code	Parameter Name	Report Result	Report Units ¹	Validation Qualifier ²	Detected ³	Field Preparation Code ⁴	COC #	Sample Purpose ⁵	Lab Method	Report Method Detection Limit ⁶	Groundwater Limit ⁷
RLWTF-24-300572	RLWTF_MES	01/17/2024	85-01-8	Phenanthrene	0.3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	0.3	170.41
RLWTF-24-300572	RLWTF_MES	01/17/2024	108-95-2	Phenol	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	5
RLWTF-24-300572	RLWTF_MES	01/17/2024	1610-18-0	Prometon	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	249.93
RLWTF-24-300572	RLWTF_MES	01/17/2024	129-00-0	Pyrene	0.3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	0.3	117.42
RLWTF-24-300572	RLWTF_MES	01/17/2024	Ra-226+228	Radium-226 and Radium-228	1.19	pCi/L	J	Y	UF	2024-336	REG	Generic:Radium by Calculation	-	5
RLWTF-24-300572	RLWTF_MES	01/17/2024	121-82-4	RDX	0.0819	ug/L	U	N	UF	2024-336	REG	SW-846:8330B	0.0819	9.66
RLWTF-24-300577	RLWTF_MES	01/17/2024	Se	Selenium	1.5	ug/L	U	N	F	2024-336	REG	EPA:200.8	1.5	50
RLWTF-24-300577	RLWTF_MES	01/17/2024	Ag	Silver	0.3	ug/L	U	N	F	2024-336	REG	EPA:200.8	0.3	50
RLWTF-24-300572	RLWTF_MES	01/17/2024	100-42-5	Styrene	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	100
RLWTF-24-300577	RLWTF_MES	01/17/2024	504(-2)	Sulfate	0.133	mg/L	U	N	F	2024-336	REG	EPA:300.0	0.133	600
RLWTF-24-300572	RLWTF_MES	01/17/2024	126-33-0	Sulfolane	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	20.03
RLWTF-24-300572	RLWTF_MES	01/17/2024	95-94-3	Tetrachlorobenzene[1,2,4,5]	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	1.66
RLWTF-24-300572	RLWTF_MES	01/17/2024	79-34-5	Tetrachloroethane[1,1,2,2-]	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	10
RLWTF-24-300572	RLWTF_MES	01/17/2024	127-18-4	Tetrachloroethene	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	5
RLWTF-24-300577	RLWTF_MES	01/17/2024	TI	Thallium	0.6	ug/L	U	N	F	2024-336	REG	EPA:200.8	0.6	2
RLWTF-24-300572	RLWTF_MES	01/17/2024	108-88-3	Toluene	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	1,000
RLWTF-24-300577	RLWTF_MES	01/17/2024	TDS	Total Dissolved Solids	22	mg/L	NQ	Y	F	2024-336	REG	EPA:160.1	2.38	1,000
RLWTF-24-300577	RLWTF_MES	01/17/2024	TKN	Total Kjeldahl Nitrogen	1.87	mg/L	J+	Y	F	2024-336	REG	EPA:351.2	0.033	-
RLWTF-24-300572	RLWTF_MES	01/17/2024	8001-35-2	Toxaphene (Technical Grade)	0.15	ug/L	U	N	UF	2024-336	REG	SW-846:8081B	0.15	0.158
RLWTF-24-300572	RLWTF_MES	01/17/2024	120-82-1	Trichlorobenzene[1,2,4-]	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	70
RLWTF-24-300572	RLWTF_MES	01/17/2024	71-55-6	Trichloroethane[1,1,1-]	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	200
RLWTF-24-300572	RLWTF_MES	01/17/2024	79-00-5	Trichloroethane[1,1,2-]	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	5
RLWTF-24-300572	RLWTF_MES	01/17/2024	79-01-6	Trichloroethene	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	5
RLWTF-24-300572	RLWTF_MES	01/17/2024	75-69-4	Trichlorofluoromethane	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	1,136.82
RLWTF-24-300572	RLWTF_MES	01/17/2024	95-95-4	Trichlorophenol[2,4,5-]	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	1,165.98
RLWTF-24-300572	RLWTF_MES	01/17/2024	88-06-2	Trichlorophenol[2,4,6-]	3	ug/L	U	N	UF	2024-336	REG	SW-846:8270E	3	11.88
RLWTF-24-300572	RLWTF_MES	01/17/2024	118-96-7	Trinitrotoluene[2,4,6-]	0.0819	ug/L	U	N	UF	2024-336	REG	SW-846:8330B	0.0819	9.8
RLWTF-24-300577	RLWTF_MES	01/17/2024	U	Uranium	0.067	ug/L	U	N	F	2024-336	REG	EPA:200.8	0.067	30
RLWTF-24-300572	RLWTF_MES	01/17/2024	75-01-4	Vinyl Chloride	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	2
RLWTF-24-300572	RLWTF_MES	01/17/2024	1330-20-7	Xylene (Total)	1	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	1	620
RLWTF-24-300572	RLWTF_MES	01/17/2024	95-47-6	Xylene[1,2-]	0.333	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.333	192.995
RLWTF-24-300572	RLWTF_MES	01/17/2024	Xylene[m+p]	Xylene[1,3-]+Xylene[1,4-]	0.5	ug/L	U	N	UF	2024-336	REG	SW-846:8260D	0.5	396
RLWTF-24-300577	RLWTF_MES	01/17/2024	Zn	Zinc	3.42	ug/L	J	Y	F	2024-336	REG	EPA:200.7	3.3	10,000

Notes:

¹ug/L - micrograms per liter.

mg/L - milligrams per liter.

ng/L - nanograms per liter.

SU - standard units.

pCi/L - picocuries per liter.

²U - The analyte is classified as not detected.

NQ - No validation qualifier flag is associated with this result, and the analyte is classified as detected.

J - The analyte is classified as detected but the reported concentration value is expected to be more uncertain than usual.

J+ - The analyte is classified as detected but the reported concentration value is expected to be more uncertain than usual with a potential positive bias.

³N - In the Detected column means the analyte was not detected.

Y - In the Detected column means the analyte was detected.

⁴UF - In the Field Preparation Code column means the sample was not filtered.

F - In the Field Preparation Code column means the sample was filtered.

⁵REG - In the Sample Purpose column means the sample was a regular sample.

FD - In the Sample Purpose column means the sample was a field duplicate.

⁶ There is not a Report Detection Limit for Radium-226 and Radium-228 since this result is calculated.⁷ Groundwater Limit represents standards for groundwater as identified in 20.6.2.3103 NMAC where available, otherwise the value represents NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

Groundwater Limit for diphenylhydrazine reported as azobenzene, which represents NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

Groundwater Limit for N-nitrosodiphenylamine reported as diphenylamine, which represents NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

Groundwater Limit for combined Endosulfan I and Endosulfan II is 98.7 µg/L, which represents NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

Attachment 4

Table 1. Analytical Results from Quarterly Sampling of RLWTF Treated Effluent Discharged to the Mechanical Evaporator System on January 17, 2024. Permit Condition No. 29.

Field Sample ID	Location ID	Sample Date	Parameter Code	Parameter Name	Report Result	Report Units ¹	Validation Qualifier ²	Detected ³	Field Preparation Code ⁴	COC #	Sample Purpose ⁵	Lab Method	Report Method Detection Limit ⁶	Groundwater Limit ⁷
-----------------	-------------	-------------	----------------	----------------	---------------	---------------------------	-----------------------------------	-----------------------	-------------------------------------	-------	-----------------------------	------------	--	--------------------------------

Total Kjeldahl Nitrogen does not contain either a 20.6.2.3103 NMAC standard or NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.
Groundwater Limit for combined Naphthalene plus monomethylnaphthalenes is 30 µg/L, which represents the NMAC 20.6.2.3103 Groundwater Standard.

Attachment 4

Table 2. Analytical Results from Monthly Sampling of RLWTF Treated Effluent Discharged to the Mechanical Evaporator System on February 14, 2024. Permit Condition No. 29.

Field Sample ID	Location ID	Sample Date	Parameter Code	Parameter Name	Report Result	Report Units ¹	Validation Qualifier ²	Detected ³	Field Preparation Code ⁴	COC #	Sample Purpose ⁵	Lab Method	Report Method Detection Limit	Groundwater Limit ⁶
RLWTF-24-300439	RLWTF_MES	02/14/2024	Cl(-1)	Chloride	0.067	mg/L	U	N	F	2024-418	REG	EPA:300.0	0.067	250
RLWTF-24-300439	RLWTF_MES	02/14/2024	F(-1)	Fluoride	0.033	mg/L	U	N	F	2024-418	REG	EPA:300.0	0.033	1.6
RLWTF-24-300439	RLWTF_MES	02/14/2024	NO3+NO2-N	Nitrate-Nitrite as Nitrogen	0.281	mg/L	NQ	Y	F	2024-418	REG	EPA:353.2	0.017	10
RLWTF-24-300441	RLWTF_MES	02/14/2024	ClO4	Perchlorate	0.05	ug/L	U	N	UF	2024-418	REG	SW-846:6850	0.05	13.8
RLWTF-24-300439	RLWTF_MES	02/14/2024	TDS	Total Dissolved Solids	4	mg/L	J	Y	F	2024-418	REG	EPA:160.1	2.38	1,000
RLWTF-24-300439	RLWTF_MES	02/14/2024	TKN	Total Kjeldahl Nitrogen	1.63	mg/L	J-	Y	F	2024-418	REG	EPA:351.2	0.033	-

Notes:

¹mg/L - milligrams per liter.

ug/L - micrograms per liter.

²U - The analyte is classified as not detected.

NQ - No validation qualifier flag is associated with this result, and the analyte is classified as detected.

J - The analyte is classified as detected but the reported concentration value is expected to be more uncertain than usual.

J- - The analyte is classified as detected but the reported concentration value is expected to be more uncertain than usual with a negative positive bias.

³N - In the Detected column means the analyte was not detected.

Y - In the Detected column means the analyte was detected.

⁴F - In the Field Preparation Code column means the sample was filtered.

UF - In the Field Preparation Code column means the sample was not filtered.

⁵REG - In the Sample Purpose column means the sample was a regular sample.

⁶Groundwater Limit represents standards for groundwater as identified in 20.6.2.3103 NMAC where available, otherwise the value represents NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

Total Kjeldahl Nitrogen does not contain either a 20.6.2.3103 NMAC standard or NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

Attachment 4

Table 3. Analytical Results from Monthly Sampling of RLWTF Treated Effluent Discharged to the Mechanical Evaporator System on March 7, 2024. Permit Condition No. 29.

Field Sample ID	Location ID	Sample Date	Parameter Code	Parameter Name	Report Result	Report Units ¹	Validation Qualifier ²	Detected ³	Field Preparation Code ⁴	COC #	Sample Purpose ⁵	Lab Method	Report Method Detection Limit	Groundwater Limit ⁶
RLWTF-24-300456	RLWTF_MES	03/07/2024	Cl(-1)	Chloride	0.155	mg/L	J	Y	F	2024-652	REG	EPA:300.0	0.067	250
RLWTF-24-300456	RLWTF_MES	03/07/2024	F(-1)	Fluoride	0.033	mg/L	U	N	F	2024-652	REG	EPA:300.0	0.033	1.6
RLWTF-24-300456	RLWTF_MES	03/07/2024	NO3+NO2-N	Nitrate-Nitrite as Nitrogen	0.154	mg/L	NQ	Y	F	2024-652	REG	EPA:353.2	0.017	10
RLWTF-24-300454	RLWTF_MES	03/07/2024	ClO4	Perchlorate	0.05	ug/L	U	N	UF	2024-652	REG	SW-846:6850	0.05	13.8
RLWTF-24-300456	RLWTF_MES	03/07/2024	TDS	Total Dissolved Solids	35	mg/L	J	Y	F	2024-652	REG	EPA:160.1	2.38	1,000
RLWTF-24-300456	RLWTF_MES	03/07/2024	TKN	Total Kjeldahl Nitrogen	1.55	mg/L	NQ	Y	F	2024-652	REG	EPA:351.2	0.033	-

Notes:

¹mg/L - milligrams per liter.

ug/L - micrograms per liter.

²J - The analyte is classified as detected but the reported concentration value is expected to be more uncertain than usual.

U - The analyte is classified as not detected.

NQ - No validation qualifier flag is associated with this result, and the analyte is classified as detected.

³Y - In the Detected column means the analyte was detected.

N - In the Detected column means the analyte was not detected.

⁴F - In the Field Preparation Code column means the sample was filtered.

UF - In the Field Preparation Code column means the sample was not filtered.

⁵REG - In the Sample Purpose column means the sample was a regular sample.

⁶Groundwater Limit represents standards for groundwater as identified in 20.6.2.3103 NMAC where available, otherwise the value represents NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

Total Kjeldahl Nitrogen does not contain either a 20.6.2.3103 NMAC standard or NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

Attachment 5
Groundwater Monitoring Report -
First Quarter 2024

EPC-DO: 24-098

LA-UR-24-23266

Date: April 29, 2024

Quarterly Groundwater Monitoring Report – First Quarter 2024

TABLE OF CONTENTS

MCA-RLW-1, First Quarter 2024..... 2

MCA-RLW-2, First Quarter 2024..... 3

MCOI-6, First Quarter 2024..... 4

MCA-RLW-1, First Quarter 2024

a	Sample Date	1/24/2024
b	Sample Time	1430
c	Individuals collecting sample	N3B Staff
d	Monitoring well identification	MCA-RLW-1
e	Physical description of monitoring well location	See Location Map, Attachment 6
f	Ground-water surface elevation (ft above mean sea level (msl))	6,864.4
g	Total depth of the well (ft below ground surface (bgs))	22.2
h	Total volume of water in the monitoring well prior to sample collection (gal)	N/A
i	Total volume of water purged prior to sample collection (gal)	N/A
j	Physical parameters including temperature, conductivity, pH, oxidation/reduction potential	DO (mg/L): N/A Oxidation/Reduction Potential (MV): N/A Temp (deg C): N/A pH (SU): N/A Turbidity (NTU): N/A Specific Conductance (µS/cm): N/A
k	Description of sample methods	N/A
l	Chain-of-Custody	N/A
m	Location Map	Attachment 6
	Analytical Results	N/A

Notes:

N/A – Not applicable. Well was not sampled when visited on January 24, 2024, due to insufficient water in the well. The well only contained 0.13 ft of standing water.

MCA-RLW-2, First Quarter 2024

a	Sample Date	1/17/2024
b	Sample Time	1114
c	Individuals collecting sample	N3B Staff
d	Monitoring well identification	MCA-RLW-2
e	Physical description of monitoring well location	See Location Map, Attachment 6
f	Ground-water surface elevation (ft above mean sea level (msl))	6,806.3
g	Total depth of the well (ft below ground surface (bgs))	40.4
h	Total volume of water in the monitoring well prior to sample collection (gal)	N/A
i	Total volume of water purged prior to sample collection (gal)	N/A
j	Physical parameters including temperature, conductivity, pH, oxidation/reduction potential	DO (mg/L): N/A Oxidation/Reduction Potential (MV): N/A Temp (deg C): N/A pH (SU): N/A Turbidity (NTU): N/A Specific Conductance (μ S/cm): N/A
k	Description of sample methods	N/A
l	Chain-of-Custody	N/A
m	Location Map	Attachment 6
	Analytical Results	N/A

Notes:

N/A – Not applicable. Well was not sampled when visited on January 17, 2024, due to insufficient water in the well. The well only contained 0.40 ft of standing water.

MCOI-6, First Quarter 2024

a	Sample Date	1/25/2024
b	Sample Time	1209
c	Individuals collecting sample	N3B Staff
d	Monitoring well identification	MCOI-6
e	Physical description of monitoring well location	See Location Map, Attachment 6
f	Ground-water surface elevation (ft above mean sea level (msl))	6,139.36
g	Total depth of the well (ft below ground surface (bgs))	712.6
h	Total volume of water in the monitoring well prior to sample collection (gal)	33.75
i	Total volume of water purged prior to sample collection (gal)	105
j	Physical parameters including temperature, conductivity, pH, oxidation/reduction potential	DO (mg/L): 7.46 Oxidation/Reduction Potential (MV): 196.2 Temp (deg C): 15.5 pH (SU): 7.25 Turbidity (NTU): 0.49 Specific Conductance (µS/cm): 530
k	Description of sample methods	Attachment 5 Page 5
l	Chain-of-Custody	Attachment 5 Page 5
m	Location Map	Attachment 6
	Analytical Results	Attachment 5 Page 6, Table 1

LA-UR-24-23266

Attachment 5

Table 1. Analytical Results from First Quarter 2024 Groundwater Sampling of Perched/Intermediate Monitoring Well MCOI-6. Permit Condition No. 36.

Field Sample ID	Location ID	Sample Date	Parameter Code	Parameter Name	Report Result	Report Units ¹	Validation Qualifier ²	Detected ³	Field Preparation Code ⁴	COC #	Sample Purpose ⁵	Lab Method	Report Method Detection Limit	Groundwater Limit ⁶
CAMO-24-305073	MCOI-6	01/25/2024	Cl(-1)	Chloride	47.5	mg/L	NQ	Y	F	N3B-2024-1443	REG	SW-846:9056A	0.67	250
CAMO-24-305073	MCOI-6	01/25/2024	F(-1)	Fluoride	0.682	mg/L	NQ	Y	F	N3B-2024-1443	REG	SW-846:9056A	0.033	1.6
CAMO-24-305073	MCOI-6	01/25/2024	NO3+NO2-N	Nitrate-Nitrite as Nitrogen	14.9	mg/L	NQ	Y	F	N3B-2024-1443	REG	EPA:353.2	0.425	10
CAMO-24-305073	MCOI-6	01/25/2024	ClO4	Perchlorate	124	ug/L	NQ	Y	F	N3B-2024-1443	REG	SW-846:6850	1	13.8
CAMO-24-305073	MCOI-6	01/25/2024	TDS	Total Dissolved Solids	393	mg/L	NQ	Y	F	N3B-2024-1443	REG	EPA:160.1	2.38	1,000
CAMO-24-305072	MCOI-6	01/25/2024	TKN	Total Kjeldahl Nitrogen	0.033	mg/L	U	N	UF	N3B-2024-1443	REG	EPA:351.2	0.033	-

Notes:

¹mg/L - milligrams per liter.

ug/L - micrograms per liter.

²NQ - No validation qualifier flag is associated with this result, and the analyte is classified as detected.

U - The analyte is classified as not detected.

³Y - In the detected column means the analyte was detected.

N - In the detected column means the analyte was not detected.

⁴F - In the Field Preparation Code column means the sample was filtered.

UF - In the Field Preparation Code column means the sample was not filtered.

⁵REG - In the sample purpose column means the sample was a regular sample.

⁶Groundwater Limit represents standards for groundwater as identified in NMAC 20.6.2.3103 where available, otherwise the value represents NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

Total Kjeldahl Nitrogen does not contain either a 20.6.2.3103 NMAC standard or NMED Risk Assessment Guidance, Table A-1, Tap Water Limit.

Attachment 6

Monitoring Well Location Map

EPC-DO: 24-098

LA-UR-24-23266

Date: April 29, 2024

