

FINAL
Monticello, Utah, National
Priorities List (NPL) Sites
Federal Facility Agreement
(FFA) Quarterly Report:
July 1–September 30, 2024

January 2025



U.S. DEPARTMENT OF
ENERGY

Legacy
Management

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Abbreviations

AOA	Area of Attainment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
FFA	Federal Facility Agreement
gpad	gallons per acre per day
gpm	gallons per minute
GRO	Groundwater Remedy Optimization
IC	institutional control
LCRS	Leachate Collection and Removal System
LDS	Leak Detection System
LM	Office of Legacy Management
LTS&M	long-term surveillance and maintenance
LTS&M Plan	Long-Term Surveillance and Maintenance Plan
MMTS	Monticello Mill Tailings Site
MVP	Monticello Vicinity Properties
NPL	National Priorities List
OU	Operable Unit
PRB	permeable reactive barrier
P&T	pump-and-treat
TSF	Temporary Storage Facility
UDEQ	Utah Department of Environmental Quality
UDOT	Utah Department of Transportation
ZVI	zero-valent iron

1.0 Introduction

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) submits this quarterly report to inform the U.S. Environmental Protection Agency (EPA) and the Utah Department of Environmental Quality (UDEQ) of the status of the Monticello Vicinity Properties (MVP) and the Monticello Mill Tailings Site (MMTS), collectively called the LM Monticello, Utah, Disposal and Processing Sites, for July 1 through September 30, 2024. The MVP and MMTS are National Priorities List (NPL) sites regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as described in Title 42 *United States Code* Section 9601 et seq. (42 USC 9601 et seq.). Quarterly reports are submitted to EPA and UDEQ in February (for October through December), May (for January through March), August (for April through June), and November (for July through September).

LM assesses MVP and MMTS conditions and remedy protectiveness through (1) monthly, quarterly, and annual inspections of site infrastructure and operations as specified under the *Long-Term Surveillance and Maintenance Plan for Monticello NPL Sites* (DOE 2022a), also called the Long-Term Surveillance and Maintenance Plan (LTS&M Plan); (2) semiannual monitoring of groundwater and surface water under the *Record of Decision for the Monticello Mill Tailings (USDOE) Site Operable Unit III, Surface Water and Ground Water, Monticello, Utah* (DOE 2004); and (3) CERCLA Five-Year Review reports.

The primary long-term surveillance and maintenance (LTS&M) activities at the MVP and MMTS are conducted to (1) provide radiological control at properties where residual soil contamination from uranium mill tailings remains in place (supplemental standards properties), (2) operate and maintain the mill tailings repository, (3) ensure that institutional controls (ICs) restricting the use of land and water remain effective, (4) monitor water quality restoration progress, and (5) operate the Operable Unit (OU) III pump-and-treat (P&T) Groundwater Remedy Optimization (GRO) system. This system, implemented in January 2015, focuses on groundwater remediation within a specified region of the alluvial aquifer called the Area of Attainment (AOA).

Annual groundwater reports present comprehensive data evaluation for the groundwater and surface water OU III remedy. LM has utilized the data presented in the most recent annual groundwater report to update the conceptual site model and develop a three-dimensional numerical fate and transport model to assess remedial time frames.

Project milestones and guiding documents are further described in the *Monticello Site Management Plan* (DOE 2003). Section 5.0 of that document is updated annually.

1.1 Quarterly Site Status

In summary, the activities and observations for this quarter consist of the following:

- The GRO system operated from July 1 to September 30 this quarter. The system pumped approximately 870,000 gallons of water from the AOA.
- The previous period's Federal Facility Agreement (FFA) quarterly report was sent to EPA and UDEQ in August 2024.

- Weekly site inspections were performed by site personnel to verify the integrity of the site's systems and monitor activities that might occur in supplemental standards properties (e.g., City of Monticello streets and utility corridors).
- Site personnel performed monthly and quarterly site inspections in accordance with the LTS&M Plan.
- Routine surveillance did not note any anomalous conditions for the MVP remedy.
- Routine surveillance did not note any violations of MMTS ICs that restrict land and groundwater use.
- Routine surveillance did not identify any anomalous conditions on the surface features of the disposal cell. However, on September 26, during the 2024 Annual Inspection, a tear was discovered in the liner of Pond 4, the engineered solar evaporation pond. LM is currently exploring inspection and repair options.
- Routine surveillance did not note any operational deficiencies for the Temporary Storage Facility (TSF).

2.0 MVP

LTS&M activities for the MVP consist of providing radiological control at excavations in Monticello site roadway and utility corridors, in Utah Department of Transportation (UDOT) rights-of-way within city limits, and at property MS-00176-VL (a privately owned supplemental standards property).

Surveillance results for this quarter are as follows:

- Anomalous conditions for the MVP remedy were noted.
- LM representatives continued to coordinate with city and UDOT officials via telecommunications regarding construction and excavation activities by the city, UDOT, and utility companies in roadway and utility corridors. LM follows the normal LTS&M protocol to provide radiological control in the affected roadways.
- A small amount of erosion was noticed during the 2023 Annual Inspection on the east side of the U.S. Highway 191 embankment at Montezuma Creek (a supplemental standards property). The erosion is near the top of the embankment near the highway right-of-way. The erosion area was scanned by the site Safety and Health technician for radiological contamination. No radiologically contaminated material was found. UDOT is aware of the erosion issue and has stabilized the erosion on the embankment until permanent repairs can be performed. Site personnel continue to monitor for excessive erosion.
- Eight excavations occurred in city streets this quarter. A small amount of radiologically contaminated material was discovered during an excavation at 397 S 200 E, Monticello, Utah, 84535. Less than 0.5 cubic foot of contaminated material was transferred to the TSF.
- A surveillance of property MS-00176-VL identified no excessive erosion of supplemental standards material or violation on building construction. However, on May 21, Monticello site personnel discovered that the property owner had excavated on the property and relocated the material to a flower bed in front of his residence at 1033 E. Eldridge Drive,

violating the land use restriction IC. A scan of the flower bed identified a hot spot approximately 3 feet wide × 3 feet long × 6 inches deep. Readings in the hot spot exceeded the action levels, so permission was obtained from the property owner to remove the material from the area. On May 23, less than 0.5 cubic yard of contaminated material was removed and transported to the TSF. The property owner has been notified of the situation and received formal notification via certified mail on September 27 outlining the details regarding the ICs applicable to property MS-00176-VL.

3.0 MMTS

LTS&M activities for the MMTS consist of (1) maintaining the onsite repository and operating the associated Leachate Collection and Removal System (LCRS) and Leak Detection System (LDS) for the disposal cell and Pond 4, (2) surveillance of properties affected by groundwater-use and land-use ICs on the former Monticello mill (mill site) and peripheral properties, and (3) operation and maintenance of the OU III GRO system.

3.1 OU I

OU I consists of the properties that contain the mill site and repository. Radioactively contaminated materials were removed from the MVP, the mill site, and peripheral properties (OU II) and encapsulated at the repository as a remedial action completed in 1999. LM owns and manages the repository, and the city owns the former mill site and manages it as a public park.

3.1.1 Repository and Pond 4

Monthly, quarterly, and annual inspections of the repository ensure that remedy controls remain intact and the waste remains isolated from the environment.

Inspection observations and maintenance activities for the quarter consisted of the following:

- No area of the repository cover showed settling, slumping, fracturing, seepage, ponding, or significant erosion.
- No anomalous surface feature conditions were observed at the disposal cell. However, an anomalous condition was observed at Pond 4, the engineered solar evaporation pond. During the 2024 Annual Inspection on September 26, 2024, a tear was discovered in the liner above the water level. LM is actively monitoring the tear and exploring repair options. Surveillance checklists for this quarter are attached as Appendix A. No additional minor burrowing by voles and small ground squirrels was observed this quarter on the disposal cell and Pond 4 berm.
- The disposal cell LCRS and LDS were operated in accordance with the requirements specified in the LTS&M Plan. Findings for the disposal cell LCRS and LDS this quarter include the following:
 - Leachate production from the disposal cell was approximately 622 gallons per week combined for sumps LCRS 1 and LCRS 2. There is no action level for the disposal cell LCRS. See Appendix B for a graphical depiction of leachate production history.

- The disposal cell LDS continues to receive no water; therefore, the disposal cell LDS action level was not exceeded.
- Operation of the OU III GRO system resulted in increased water collection in the Pond 4 LCRS. Pond 4 LCRS and LDS action levels, approved by EPA and UDEQ, were formally developed in the *Repository and Pond 4 Groundwater Contingency Plan-Final* (DOE 1998) and are also found in Appendix D, Section 5.0 of the LTS&M Plan. The leakage rate action level established for the Pond 4 LCRS is 851 gallons per acre per day (gpad) (2000 gallons per day), and the leakage rate action level for the LDS is 20 gpad (47 gallons per day), which is averaged over a 7-day period. These leakage rates are based on the area of the floor of Pond 4, which is 2.35 acres. Currently, the LCRS and LDS monitoring and pumping systems are functioning as designed to recirculate water back into Pond 4.
- Findings for the Pond 4 LCRS and LDS for this quarter are as follows:
 - Water collection at the Pond 4 LCRS continued but did not exceed the action level this quarter (Appendix B)
 - Water collection at the Pond 4 LDS remained below the action level (Appendix B)

3.1.2 TSF

Routine surveillance of the TSF ensures that the maintenance and radiological controls that govern the access to and placement, storage, and transfer of contaminated material in the TSF are current and effective. Surveillance this quarter (see the surveillance checklists in Appendix A) revealed that:

- The TSF cover, fencing, radiological controls, and signs have been maintained in accordance with the LTS&M Plan, and the TSF has been inspected and verified as being ready to receive contaminated materials.

LM is required to initiate the transfer of TSF materials for permanent disposal at the Grand Junction, Colorado, Disposal Site when the contents reach a volume of approximately 75 cubic yards. Recent TSF activity consists of the following:

- Approximately 6.5 cubic yards of soil excavated from the city streets is currently stored in the TSF

3.1.3 Mill Site

LM conducts surveillance of the mill site (properties MP-00181-VL and MS-00893-OT) to ensure compliance with ICs implemented to preserve the OU I remedy for soil and groundwater. ICs applicable to the mill site include prohibitions on installing domestic-use wells in the alluvial aquifer, using the property for residential purposes, constructing habitable structures, and overnight camping, as well as preserving the property for day use as a public park.

Surveillance results for this quarter revealed:

- No nonconformance with water-use and land-use restrictions.
- Significant erosion was observed on the walking paths in the Mill Site Recreational Area. Site personnel notified City of Monticello employees about this issue on October 17, 2024. City employees confirmed they were already aware of the erosion and plan to perform

repairs in spring or summer 2025. All repairs on city-owned properties are the responsibility of the City of Monticello and are outside the jurisdiction and authority of LM.

3.2 OU II

OU II consists of private and city-owned properties peripheral to the mill site. LM conducts surveillance of OU II properties to verify compliance with ICs implemented to preserve the OU II remedy for soil and groundwater.

Surveillance results for this quarter are summarized below for the different components of OU II.

- **Montezuma Creek Restrictive Easement Area (supplemental standards properties, both city-owned and privately owned):** No evidence of nonconformance with land-use restrictions (e.g., prohibitions on soil removal and construction of habitable structures in supplemental standards properties) was observed.
- **Groundwater-Use Restrictions:** These were applied to several OU II properties under the 2000 quitclaim deed by which DOE transferred selected properties to the city. No evidence of nonconformance with these restrictions (e.g., prohibition on installing domestic-use wells in the alluvial aquifer) was observed.
- **Property MP-00211-VL (city-owned):** No evidence of nonconformance with the land-use restriction on building construction was observed.
- **Pinyon-Juniper Supplemental Standards Properties (city-owned):** No evidence of nonconformance with land-use and groundwater-use restrictions was observed. A small amount of erosion was observed near the GRO building during the 2024 Annual Inspection. Additionally, a small amount of radiologically contaminated material was detected, and site personnel are monitoring the area for any worsening conditions.
- **Excessive Erosion:** No storm events resulted in more than 2.8 inches of precipitation in 24 hours, which would require surveillance of supplemental standards cleanup properties for excessive erosion.

3.3 OU III

OU III consists of groundwater and surface water contamination resulting from operation of the mill site. Routine monitoring of OU III (water quality and water level) is normally performed semiannually in April (spring) and October (fall).

The contaminated groundwater is within the alluvial aquifer beneath the valley of Montezuma Creek, some sections of which are contaminated by the influent of contaminated groundwater. A portion of the aquifer is subject to ICs restricting use. Montezuma Creek is used for limited irrigation and livestock watering. There are no ICs restricting surface water use.

The current groundwater remedy includes (1) monitored natural attenuation with ICs and (2) P&T remediation by evaporation that was implemented as the GRO system in January 2015. Operation and performance of the groundwater remedy are reported annually. Previous remediation efforts have included (1) in situ treatment by zero-valent iron (ZVI) within a permeable reactive barrier (PRB) and (2) P&T remediation that used ex situ ZVI treatment. The ex situ ZVI treatment system was deactivated in December 2014 and replaced by the GRO

system, which is described in greater detail in Section 3.3.2. The PRB remains a component of the GRO system as a groundwater flow barrier.

LM sent certified letters to property owners on September 26, 2024, informing them of existing ICs, restrictions, and other conditions applicable to privately owned parcels. The notification addressed EPA's request to evaluate the use of Montezuma Creek surface water and assess the potential need for additional protections for domestic use of surface water in the area, ensuring the long-term protection of human health and the environment.

3.3.1 Groundwater Restricted Area

During spring and fall, LM conducts surveillance of properties where groundwater contamination is present to ensure compliance with the groundwater-use restriction (i.e., no installation of domestic-use wells in the alluvial aquifer). The affected OU III properties constitute the Monticello Groundwater Restricted Area as defined and administered by the State of Utah Division of Water Rights. Surveillance found:

- No evidence of nonconformance with the groundwater-use restriction since its implementation in May 1999.

3.3.2 OU III GRO System

The GRO system includes eight vertical extraction wells strategically placed in the AOA to extract contaminated groundwater and an associated monitoring system. The water from the extraction wells is transmitted in buried pipelines to an aboveground holding tank in the Groundwater Transfer Building; from there, it is pumped through a buried water transmission line for about 1 mile to Pond 4 for evaporation.

The associated monitoring system consists of 22 wells installed in the AOA. Sixteen of the 22 wells were installed south of Montezuma Creek in 2014, and 6 wells were installed north of Montezuma Creek in 2017. These 22 monitoring wells are sampled recurrently following the extraction of approximately 1,000,000 gallons of water from the GRO system as stated in Section 1.5 of the *Remedial Action Completion Report for Operable Unit III Groundwater Contingency Remedy Optimization System, Monticello Mill Tailings Site, Monticello, Utah* (DOE 2016). A sampling event of 1,000,000 gallons was performed on July 1, 2024.

On August 7, 2023, a water transmission line leak was identified approximately 1360 feet southeast of the Groundwater Transfer Building on City of Monticello property. The leak was attributed to mechanical failure caused by ground subsidence. On October 25, 2023, site personnel conducted construction activities to repair the transmission line. On July 2, 2024, all soil samples were collected in accordance with the *Soil Sampling and Analysis Plan for Groundwater Transmission Line Leak Monticello, Utah, Disposal and Processing Sites* (LMS/PRO/46277) (DOE 2024d) and the *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites*, (LMS/PRO/S04351) (DOE 2024c). LM is currently preparing a letter to summarize analytical results from data validated on November 26, 2024, with an estimated completion date of February 14, 2025.

3.3.2.1 GRO System Quarterly Performance Summary

The GRO system performance for the quarter is summarized here.

- Groundwater extraction during the quarter was approximately 870,000 gallons, equivalent to an average flow rate of 6.54 gallons per minute (gpm). Assuming the uranium concentration in groundwater extracted throughout the quarter was equal to the uranium concentration of the holding tank effluent on July 1, 2024 (the date of the most recent sample collected), approximately 2.2 pounds of uranium were removed during this quarter.
- During the quarter, the volume of water stored in Pond 4 decreased by approximately 380,000 gallons. The GRO system operates by balancing the extraction rate and the Pond 4 evaporation rate while maintaining the Pond 4 storage volume between 5,000,000 and 8,000,000 gallons (the maximum storage volume of Pond 4 is approximately 15,600,000 gallons).
- Water-level monitoring during the quarter consisted of:
 - Continuous water-level monitoring in AOA extraction and monitoring wells using pressure transducers and dataloggers (programmed to record at 5-minute intervals) connected to the LM System Operation and Analysis at Remote Sites (SOARS) system.
- Cumulatively, the system has removed 34,100,000 gallons of contaminated groundwater from the aquifer since system startup in January 2015 (Table 1).
- Assuming a minimum AOA uranium plume pore volume of 2,400,000 gallons and a maximum pore volume of 3,300,000 gallons, the GRO system has removed between 10.3 and 14.2 pore volumes since system startup.
- From January 2015 through July 1, 2024, the GRO system removed approximately 161 pounds of uranium from the AOA aquifer (Table 2). Estimates of the cumulative uranium mass removed are updated only at sampling events.

Table 1. GRO System Treatment: Monthly Volumes and Rates for This Quarter and Cumulative Volumes Since January 2015

Calendar Month	Approximate Volume Pumped (millions of gallons)	Effective Pumping Rate (gpm)	Approximate Cumulative Volume (millions of gallons)^a
July 2024	0.29	6.60	33.5
August 2024	0.26	5.84	33.7
September 2024	0.31	7.21	34.1

Note:

^a Cumulative volume is based on the volume of groundwater extracted by the GRO system since system startup in January 2015.

Table 2. Uranium Mass Removal from Groundwater in the AOA

Tank Effluent Sample Date ^a	Effluent Tank Uranium Concentration (µg/L)	Volume Removed Between Tank Samples (millions of gallons)	Uranium Removed (pounds) ^b	Cumulative Mass of Uranium Removed (pounds) ^c
April 16, 2024	349	1.05	4.1	159
July 1, 2024	304	0.81	2.2	161

Notes:

^a Sampling occurs following the extraction of approximately 1,000,000 gallons.

^b Uranium removed since last sampling event. Estimate is based on the median concentration between sampling dates.

^c Since GRO system startup in January 2015. Estimates of cumulative mass removed are updated every sampling event.

Abbreviation:

µg/L = micrograms per liter

Monitoring and reporting guidelines for the GRO system are described in the *Final Groundwater Contingency Remedy Optimization Remedial Design/Remedial Action Work Plan for the Monticello Mill Tailings Site Operable Unit III, Monticello, Utah* (DOE 2014). Evaluation of water quality trends and whether remediation goals are being met, in the AOA and sitewide, is beyond the scope of this FFA quarterly report but is provided in annual groundwater reports submitted to EPA and UDEQ.

3.3.3 OU III Closure Strategy

Regarding the OU III closure strategy, LM submitted the draft Feasibility Study for OU III to EPA and UDEQ on August 7, 2024, and it is currently undergoing regulatory review. Several scenarios are being evaluated to develop a closure strategy for OU III; these are detailed in the *OU III Closure Strategy for the Monticello Mill Tailings Site, Monticello, Utah* (DOE 2018).

4.0 Schedule of Activities and Deliverables

Table 3 summarizes the completion dates of recently completed and near-term planned activities and deliverables for the Monticello NPL sites.

Table 3. Monticello Sites' Recent and Near-Term Activities and Deliverables

Activity or Deliverable	Schedule
<i>Monticello, Utah, National Priorities List (NPL) Sites Federal Facility Agreement (FFA) Quarterly Report: April 1–June 30, 2024</i> (DOE 2024b)	Submitted to EPA and UDEQ on August 27, 2024. LM received approval from UDEQ on October 2, 2024, and EPA on October 7, 2024.
<i>Monticello Site Management Plan, Section 5.0, "Project Schedules and Milestones (FY 2024–FY 2026)"</i> (DOE 2024a)	Submitted to regulators on August 1, 2024. LM received approval via acceptance letters from UDEQ on October 3, 2024, and EPA on September 26, 2024.

Table 3. Monticello Sites' Recent and Near-Term Activities and Deliverables (continued)

Activity or Deliverable	Schedule
CERCLA Sixth Five-Year Review reports for the MVP and MMTS: <ul style="list-style-type: none"> • <i>Sixth Five-Year Review Report for Monticello Mill Tailings (USDOE) Site, San Juan County, Monticello, Utah</i> (DOE 2022b) • <i>Sixth Five-Year Review Report for Monticello Radioactively Contaminated Properties Superfund Site, San Juan County, Monticello, Utah</i> (DOE 2022c) 	Submitted to EPA and UDEQ on May 2, 2022.
Five-Year Review addendum activities include the following:	Submittal and proposed dates for Five-Year Review addendum documents:
Submittal and resolution of errata sheets	Errata sheets were resolved and submitted on April 6, 2023.
DOE to confirm human health risk evaluation using EPA Preliminary Remediation Goals calculator	Submitted on July 29, 2022.
LTS&M Plan clarification letter regarding Table 7	Letter submitted on March 2, 2023.
DOE to create and send an informational letter to landowners with deed restrictions that clearly explains the restrictions on their property	Letters were sent to landowners on December 19, 2022.
DOE to update the Uniform Federal Policy for the Quality Assurance Project Plan (DOE 2023), Sampling and Analysis Plan, Program Directive 2021-10-MNT, and the LTS&M Plan to be consistent regarding the monitoring well network	Update was submitted on April 5, 2023.
DOE to evaluate ecological risk to aquatic organisms and terrestrial wildlife using current Utah water quality standards	Ecological Risk Evaluation response to EPA and UDEQ comments was submitted to EPA and UDEQ on December 31, 2023. DOE received approval from EPA and UDEQ via email on February 1, 2024, requesting inclusion in the Feasibility Study.
Five-Year Review addendum activities include the following (continued)	Submittal and proposed dates for Five-Year Review addendum documents (continued)
DOE to evaluate risk to human health and environment using current Utah water quality standards	Submitted on December 31, 2023.
DOE to complete a Feasibility Study to evaluate the following: <ul style="list-style-type: none"> • IC options to prevent human consumption of water from Montezuma Creek as a domestic drinking water source against the nine criteria of the National Contingency Plan • Remedial alternatives for achieving the water quality restoration Remedial Action Objectives 	Draft Feasibility Study was submitted on August 7, 2024.
DOE to complete a vulnerability and resilience assessment for Monticello sites, provide the assessment to EPA and UDEQ, and schedule a meeting to discuss findings	Assessment will be submitted by December 31, 2025.
Near-Term Activities and Deliverables	Schedule
Revising the <i>Quality Assurance Project Plan, Monticello, Utah, Disposal and Processing Sites</i> (DOE 2023)	The updated Quality Assurance Project Plan will be submitted to EPA and UDEQ by December 31, 2024.
Fall semiannual groundwater and surface water sampling event	Completed on October 14–17, 2024.
1,000,000-gallon sampling event (AOA wells and Pond 4)	Completed on October 14–17, 2024.
<i>Monticello Mill Tailings Site Operable Unit III Annual Groundwater Report, May 2023–April 2024</i>	Submitted on October 29, 2024.

5.0 References

42 USC 9601 et seq. “Comprehensive Environmental Response, Compensation, and Liability Act” as amended, *United States Code*.

DOE (U.S. Department of Energy), 1998. *Repository and Pond 4 Groundwater Contingency Plan-Final*, MAC-MRAP 3.5.8, February.

DOE (U.S. Department of Energy), 2003. *Monticello Site Management Plan*, GJO-2003-493-TAC, E0399101, Office of Legacy Management, October.

DOE (U.S. Department of Energy), 2004. *Record of Decision for the Monticello Mill Tailings (USDOE) Site Operable Unit III, Surface Water and Ground Water, Monticello, Utah*, DOE-LM/GJ629-2004, Office of Legacy Management, May.

DOE (U.S. Department of Energy), 2014. *Final Groundwater Contingency Remedy Optimization Remedial Design/Remedial Action Work Plan for the Monticello Mill Tailings Site Operable Unit III, Monticello, Utah*, LMS/MNT/S10629, Office of Legacy Management, May.

DOE (U.S. Department of Energy), 2016. *Remedial Action Completion Report for Operable Unit III Groundwater Contingency Remedy Optimization System, Monticello Mill Tailings Site, Monticello, Utah*, LMS/MNT/S13373, Office of Legacy Management, May.

DOE (U.S. Department of Energy), 2018. *OU III Closure Strategy for the Monticello Mill Tailings Site, Monticello, Utah*, LMS/MNT/S18146, Office of Legacy Management, May.

DOE (U.S. Department of Energy), 2022a. *Long-Term Surveillance and Maintenance Plan for Monticello NPL Sites*, LMS/MNT/S00387-0.1, Office of Legacy Management, December.

DOE (U.S. Department of Energy), 2022b. *Sixth Five-Year Review Report for Monticello Mill Tailings (USDOE) Site, San Juan County, Monticello, Utah*, LMS/MNT/S35986, Office of Legacy Management, July.

DOE (U.S. Department of Energy), 2022c. *Sixth Five-Year Review Report for Monticello Radioactively Contaminated Properties Superfund Site, San Juan County, Monticello, Utah*, LMS/MNT/S36208, Office of Legacy Management, June.

DOE (U.S. Department of Energy), 2023. *Quality Assurance Project Plan, Monticello, Utah, Disposal and Processing Sites*, LM-Plan-3-21-1.0-1.0, LMS/MNT/S27252-1.0, Office of Legacy Management, August.

DOE (U.S. Department of Energy), 2024a. *Monticello Site Management Plan*, Section 5.0, “Project Schedules and Milestones (FY 2024–FY 2026),” Office of Legacy Management, August.

DOE (U.S. Department of Energy), 2024b. *Monticello, Utah, National Priorities List (NPL) Sites Federal Facility Agreement (FFA) Quarterly Report: April 1–June 30, 2024*, LMS/MNT/48450, Office of Legacy Management, March.

DOE (U.S. Department of Energy), 2024c. *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites*, LMS/PRO/S04351, Office of Legacy Management, December.

DOE (U.S. Department of Energy), 2024d. *Soil Sampling and Analysis Plan for Groundwater Transmission Line Leak Monticello, Utah, Disposal and Processing Sites*, LMS/MNT/46277, Office of Legacy Management, April.

Appendix A

Monthly and Quarterly Surveillance Checklists

Monthly Pond 4 Surveillance Checklist

Level of water in Pond 4 6.80 ft

Inspection Item	Acceptable		Comments and Recommendation
	Yes	No	
Condition of:			
Fences, gates, and locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Roads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Signs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Visible piping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Visible liner and anchors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Rescue equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Boat remains at pond.
Evidence of erosion of:			
Top of Pond 4 berm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Pond 4 sideslopes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Ditches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Seepage from Pond 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Overtopping of Pond 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Evidence of:			
Vandalism	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Intrusion by wildlife	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Intrusion by humans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation of trash	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Additional comments:			

Monticello LM Representative: Bailey, Caleb Digitally signed by Bailey, Caleb Date: 2024.07.31 11:20:17 -06'00' Date: 7/31/2024

Repository Area Surveillance Checklist

- Monthly surveillance
 Quarterly surveillance:
 February
 May
 August
 November
 Storm event triggered surveillance due to _____ inches of rainfall over the past 24 hours.

Inspection Item	Acceptable		Comments and Recommendation
	Yes	No	
Condition of:			
Fences, gates, and locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Replaced one fence stay on perimeter fence East of marker P18.
Roads ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Signs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Replaced caution signage on 6 Vaults.
Site monuments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Drainage ditches ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Manholes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Evidence of erosion of:			
Top of disposal cell ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Disposal cell sideslopes ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Ditches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Evidence of:			
Vandalism	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Intrusion by livestock	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Burrowing animal damage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Intrusion by humans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation of trash	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Additional Quarterly Surveillance Requirements

Note: All transects, shown in Figure 3-1, must be walked during this inspection.

Condition of:			
Settlement plate structures	<input type="checkbox"/>	<input type="checkbox"/>	
Manholes ^b	<input type="checkbox"/>	<input type="checkbox"/>	
Sediment ponds	<input type="checkbox"/>	<input type="checkbox"/>	
Evidence of:			
Structural instability	<input type="checkbox"/>	<input type="checkbox"/>	

Additional comments:

Signature: Bailey, Caleb
 Digitally signed by Bailey, Caleb
 Date: 2024.07.31 11:17:51 -06'00'
 Date: 7/31/2024
 Monticello LM Representative

^aInspections required following a significant storm event

^bOpen to inspect quarterly

MONTHLY CLIMATOLOGICAL SUMMARY for JUL. 2024

NAME: Monticello CITY: STATE:
 ELEV: 7070 ft LAT: 37° 48' 00" N LONG: 109° 18' 00" W

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN TEMP	HIGH	TIME	LOW	TIME	HEAT DEG DAYS	COOL DEG DAYS	RAIN	AVG WIND SPEED	HIGH	TIME	DOM DIR
1	68.9	78.6	6:30p	60.6	7:00a	0.7	4.6	0.00	10.4	30.0	11:30a	S
2	70.4	81.6	5:00p	59.8	5:30a	1.0	6.3	0.00	6.4	23.0	3:30p	S
3	73.0	85.4	4:30p	58.4	6:30a	0.8	8.8	0.00	6.6	22.0	2:30p	WNW
4	71.4	82.7	4:30p	59.6	12:00m	0.8	7.2	0.00	9.4	26.0	3:30p	NW
5	70.4	82.0	3:30p	59.0	12:30a	1.0	6.4	0.00	9.3	23.0	1:00p	WNW
6	73.5	84.4	5:00p	60.4	3:00a	0.6	9.1	0.00	9.4	27.0	12:30p	WNW
7	74.7	86.4	3:00p	61.9	4:30a	0.3	10.1	0.00	9.7	32.0	12:30p	WNW
8	73.0	83.7	4:30p	59.6	6:30a	0.5	8.5	0.00	7.4	22.0	12:30a	WNW
9	73.2	86.5	4:30p	55.2	6:30a	1.0	9.3	0.00	6.7	22.0	6:30p	SSE
10	76.4	89.6	4:00p	62.6	4:00a	0.0	11.4	0.00	7.6	22.0	4:00p	SSE
11	77.4	91.8	4:00p	63.6	1:00a	0.0	12.4	0.00	6.7	23.0	5:00a	NNW
12	78.6	89.1	5:30p	68.1	12:30a	0.0	13.6	0.00	8.4	45.0	10:00p	SSE
13	76.5	89.7	2:00p	63.7	6:30a	0.0	11.6	0.00	6.4	22.0	7:00p	SSE
14	77.3	89.4	1:00p	61.4	6:30a	0.2	12.5	0.06	6.7	39.0	8:30p	WNW
15	75.1	86.7	5:00p	64.8	6:30a	0.0	10.1	0.00	5.8	27.0	2:00p	WNW
16	74.9	84.3	6:00p	61.8	6:30a	0.1	10.0	0.01	6.2	24.0	6:30p	WNW
17	74.6	87.1	4:00p	61.8	5:00a	0.3	9.9	0.00	4.4	16.0	2:00p	WSW
18	73.5	86.3	5:30p	65.7	2:00a	0.0	8.5	0.00	7.3	23.0	8:00a	S
19	73.5	83.4	7:00p	63.4	4:30a	0.1	8.6	0.54	5.5	26.0	1:00p	SSW
20	72.5	82.4	2:00p	64.4	6:30a	0.0	7.5	0.00	5.3	25.0	2:30p	SSE
21	70.7	82.2	6:30p	61.4	5:30a	0.1	5.9	0.12	6.2	20.0	8:30a	S
22	70.1	83.3	4:00p	55.9	6:30a	1.5	6.6	0.00	6.5	23.0	5:30p	S
23	72.7	87.8	5:30p	56.2	5:30a	1.3	9.0	0.00	5.9	19.0	10:00a	SSE
24	75.7	90.9	6:00p	58.5	5:00a	0.7	11.3	0.00	5.5	17.0	1:00p	SE
25	73.6	85.5	1:30p	62.2	10:30p	0.1	8.7	0.03	9.2	32.0	6:00p	SSE
26	72.7	83.2	5:30p	61.0	7:00a	0.3	8.1	0.02	4.8	18.0	12:30a	SE
27	74.6	87.2	5:00p	64.1	2:30a	0.0	9.6	0.00	9.7	31.0	4:30p	S
28	74.4	85.8	4:30p	60.1	6:00a	0.4	9.8	0.00	7.1	29.0	12:00p	SSE
29	73.9	85.9	4:30p	57.0	7:00a	0.6	9.5	0.00	7.2	27.0	1:30p	SSE
30	74.3	86.8	4:30p	60.7	7:00a	0.4	9.8	0.00	7.2	25.0	1:30p	WSW
31	77.7	89.9	3:30p	64.9	5:30a	0.0	12.7	0.00	5.5	25.0	4:30p	WSW
	73.8	91.8	11	55.2	9	12.8	287.4	0.78	7.1	45.0	12	S

Max >= 90.0: 2
 Max <= 32.0: 0
 Min <= 32.0: 0
 Min <= 0.0: 0

Max Rain: 0.54 ON 07/19/24

Days of Rain: 5 (>.01 in) 2 (>.1 in) 0 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

Monthly Pond 4 Surveillance Checklist

Level of water in Pond 4 6.95 ft

Inspection Item	Acceptable		Comments and Recommendation
	Yes	No	
Condition of:			
Fences, gates, and locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Roads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Signs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Visible piping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Visible liner and anchors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Rescue equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Boat remains at pond.
Evidence of erosion of:			
Top of Pond 4 berm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Pond 4 sideslopes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Ditches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Seepage from Pond 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Overtopping of Pond 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Evidence of:			
Vandalism	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Intrusion by wildlife	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Intrusion by humans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation of trash	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Additional comments: Pond 4 RAD Rope changed to rubber coated steel cable this month.

Monticello LM Representative: CALEB BAILEY (Affiliate) Digitally signed by CALEB BAILEY (Affiliate)
Date: 2024.08.29 09:01:51 -06'00' Date: 8/29/2024

Repository Area Surveillance Checklist

- Monthly surveillance
 Quarterly surveillance:
 February
 May
 August
 November
 Storm event triggered surveillance due to _____ inches of rainfall over the past 24 hours.

Inspection Item	Acceptable		Comments and Recommendation
	Yes	No	
Condition of:			
Fences, gates, and locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Fixed top wire on perimeter fence near marker P5 and also near P29.</u>
Roads ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Signs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Site monuments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Drainage ditches ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Manholes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Evidence of erosion of:			
Top of disposal cell ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Disposal cell sideslopes ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Ditches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Surrounding area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Evidence of:			
Vandalism	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Intrusion by livestock	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Burrowing animal damage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Intrusion by humans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Accumulation of trash	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

Additional Quarterly Surveillance Requirements

Note: All transects, shown in Figure 3-1, must be walked during this inspection.

Condition of:			
Settlement plate structures	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Manholes ^b	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Sediment ponds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Minimal water in ponds from recent rainfall.</u>
Evidence of:			
Structural instability	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

Additional comments: Road maintenance and repairs done this month by BOA contractor due to rainfall caused erosion.

Signature: _____ **CALEB BAILEY (Affiliate)** Digitally signed by CALEB BAILEY (Affiliate)
Monticello LM Representative Date: 2024.08.29 08:58:57 -06'00' Date: 8/29/2024

^aInspections required following a significant storm event

^bOpen to inspect quarterly

MONTHLY CLIMATOLOGICAL SUMMARY for AUG. 2024

NAME: OFFICE CITY: STATE:
 ELEV: 0 ft LAT: LONG:

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN TEMP	HIGH	TIME	LOW	TIME	HEAT DEG DAYS	COOL DEG DAYS	RAIN	AVG WIND SPEED	HIGH	TIME	DOM DIR
1	79.7	92.9	2:30p	64.5	6:30a	0.0	14.7	0.00	4.7	26.0	1:30p	WSW
2	77.0	89.4	3:00p	69.8	4:00a	0.0	12.0	0.04	8.0	29.0	8:30p	S
3	76.0	89.9	4:00p	60.5	5:30a	0.4	11.4	0.00	6.5	26.0	6:30p	SSE
4	74.1	85.6	1:30p	65.8	7:30a	0.0	9.1	0.03	6.8	22.0	11:30a	S
5	75.8	89.1	3:30p	63.2	6:00a	0.1	10.9	0.00	6.0	26.0	6:00p	WSW
6	74.8	87.1	3:00p	62.3	5:00a	0.2	10.0	0.00	5.0	23.0	8:30p	SW
7	74.5	88.5	4:30p	60.3	7:00a	0.3	9.7	0.00	6.1	24.0	8:00p	SE
8	73.8	86.3	6:00p	59.5	6:30a	0.5	9.3	0.00	6.1	26.0	6:00p	S
9	69.1	79.6	4:30p	60.7	4:30a	0.9	5.0	0.00	8.3	23.0	9:00a	SSE
10	64.8	79.2	5:00p	57.7	3:00a	3.1	2.9	0.27	6.8	32.0	7:00p	SSE
11	66.7	78.7	6:00p	58.7	12:00m	2.2	3.9	0.17	7.2	27.0	10:30p	SSE
12	63.1	75.2	1:00p	53.9	3:00p	3.7	1.8	1.78	5.2	32.0	3:00p	WSW
13	61.9	76.6	5:30p	55.7	12:00m	4.5	1.4	0.56	4.9	35.0	6:30p	S
14	65.0	78.3	5:00p	53.8	6:30a	3.7	3.6	0.00	8.1	25.0	1:30p	SSE
15	70.4	81.6	5:30p	58.0	3:30a	1.0	6.4	0.00	6.6	23.0	5:00p	SSE
16	73.1	84.8	4:00p	59.8	7:00a	0.5	8.6	0.00	5.7	27.0	6:00p	SW
17	69.5	82.0	5:30p	58.9	11:30p	0.8	5.3	0.12	6.8	33.0	8:30p	S
18	66.7	78.0	2:30p	58.2	3:00a	1.9	3.6	0.00	4.6	22.0	12:00p	NW
19	70.3	84.1	6:00p	59.2	4:00a	1.2	6.5	0.00	3.3	19.0	1:30p	WNW
20	74.6	85.6	5:00p	63.2	7:00a	0.1	9.7	0.01	5.7	40.0	11:30p	WSW
21	68.3	82.7	3:30p	58.0	3:30a	2.0	5.4	0.04	8.6	44.0	8:00p	S
22	63.6	72.5	5:00p	57.3	6:30a	2.8	1.3	0.00	7.2	24.0	2:30p	SSE
23	61.8	75.3	4:00p	54.9	6:30p	4.8	1.6	0.53	8.3	34.0	6:00p	SSE
24	62.9	77.2	4:30p	55.5	7:30a	4.2	2.1	0.01	7.1	33.0	4:00p	SSE
25	60.9	73.1	5:30p	53.4	8:00a	5.5	1.3	0.24	6.1	31.0	3:00p	S
26	64.5	76.7	6:00p	53.5	6:00a	3.6	3.2	0.00	6.2	21.0	2:30p	SW
27	67.3	79.8	6:00p	54.6	6:30a	2.6	4.9	0.00	6.4	22.0	1:00p	WSW
28	69.5	80.9	4:00p	56.5	5:30a	1.2	5.7	0.00	8.0	23.0	11:30a	SSW
29	67.8	81.0	3:30p	57.2	7:00a	1.9	4.7	0.00	7.1	22.0	12:30a	S
30	69.1	81.0	4:00p	58.6	6:00a	1.3	5.4	0.00	5.2	18.0	2:30p	WSW
31	69.4	81.9	2:30p	56.5	5:00a	1.4	5.8	0.00	6.4	20.0	8:30a	SSE
	69.2	92.9	1	53.4	25	56.4	187.2	3.80	6.4	44.0	21	SSE

Max >= 90.0: 1

Max <= 32.0: 0

Min <= 32.0: 0

Min <= 0.0: 0

Max Rain: 1.78 ON 08/12/24

Days of Rain: 10 (>.01 in) 7 (>.1 in) 1 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

Monticello Long-Term Surveillance and Maintenance Temporary Storage Facility (TSF) Record Book Inspection Report

Are these areas acceptable?

Yes	No	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Was the gate locked upon arrival?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are signs posted in accordance with 10 CFR 835.602[a]?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are all postings legible?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are enclosures on the concrete bin and stored drum containers tight?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are containers in good physical condition (no rust, no holes, no bulges, etc.)?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	How much radiologically-contaminated material is in the concrete bin? <i>Note: the material should be shipped when the volume in storage approaches 75 percent of the storage capacity.</i>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is the surface area of the TSF in good physical condition (no erosion, no flood damage, no excessive vegetation growth, etc.)?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Has radiological monitoring been conducted in accordance with 10 CFR 835.405[d]?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Is the security fence in good condition?

Comments:

The concrete bin contains 6 cubic yards of radiologically contaminated material.

WILLIAM CARY (Affiliate) Digitally signed by WILLIAM CARY (Affiliate)
Date: 2024.08.28 14:12:16 -06'00'

Signature of Monticello LM Representative

8/28/2024
Date of Inspection

Monthly Pond 4 Surveillance Checklist

Level of water in Pond 4 6.71 ft

Inspection Item	Acceptable		Comments and Recommendation
	Yes	No	
Condition of:			
Fences, gates, and locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Roads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Signs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Visible piping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Visible liner and anchors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Rescue equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Boat remains at pond.
Evidence of erosion of:			
Top of Pond 4 berm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Pond 4 sideslopes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Ditches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Seepage from Pond 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Overtopping of Pond 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Evidence of:			
Vandalism	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Intrusion by wildlife	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Intrusion by humans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation of trash	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Additional comments: Found split in seam of pond liner on East wall of pond appx 6ft in length. Repaired hinges on North Safety Cabinet.

Monticello LM Representative: CALEB BAILEY (Affiliate) Digitally signed by CALEB BAILEY (Affiliate) Date: 2024.09.30 12:52:46 -06'00' Date: 9/30/2024

Repository Area Surveillance Checklist

- Monthly surveillance
 Quarterly surveillance:
 February
 May
 August
 November
 Storm event triggered surveillance due to _____ inches of rainfall over the past 24 hours.

Inspection Item	Acceptable		Comments and Recommendation
	Yes	No	
Condition of:			
Fences, gates, and locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Reattached middle wire to post on perimeter fence near marker P1 and also near P11.
Roads ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Signs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Site monuments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Drainage ditches ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Manholes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Evidence of erosion of:			
Top of disposal cell ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Disposal cell sideslopes ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Ditches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Surrounding area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Evidence of:			
Vandalism	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Intrusion by livestock	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Burrowing animal damage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Intrusion by humans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Accumulation of trash	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

Additional Quarterly Surveillance Requirements

Note: All transects, shown in Figure 3-1, must be walked during this inspection.

Condition of:			
Settlement plate structures	<input type="checkbox"/>	<input type="checkbox"/>	_____
Manholes ^b	<input type="checkbox"/>	<input type="checkbox"/>	_____
Sediment ponds	<input type="checkbox"/>	<input type="checkbox"/>	_____
Evidence of:			
Structural instability	<input type="checkbox"/>	<input type="checkbox"/>	_____

Additional comments:

Signature: _____ **CALEB BAILEY (Affiliate)** Digitally signed by CALEB BAILEY (Affiliate)
Monticello LM Representative Date: 2024.09.30 12:59:27 -06'00' Date: 9/30/2024

^aInspections required following a significant storm event
^bOpen to inspect quarterly

MONTHLY CLIMATOLOGICAL SUMMARY for SEP. 2024

NAME: OFFICE CITY: STATE:
 ELEV: 0 ft LAT: LONG:

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN TEMP	HIGH	TIME	LOW	TIME	HEAT DEG DAYS	COOL DEG DAYS	RAIN	AVG WIND SPEED	HIGH	TIME	DOM DIR
1	68.5	81.5	4:00p	59.6	11:30p	1.0	4.6	0.00	6.2	24.0	5:30p	S
2	66.7	79.6	4:00p	56.3	4:00a	2.1	3.8	0.00	6.4	21.0	10:00a	SW
3	69.2	81.6	4:00p	57.7	4:30a	1.5	5.8	0.00	6.0	19.0	10:30a	SSE
4	70.1	81.1	7:00p	58.8	4:00a	0.9	6.0	0.00	4.4	19.0	2:30p	WNW
5	67.4	76.2	4:30p	59.5	7:30a	1.0	3.4	0.00	12.7	29.0	4:30a	WNW
6	65.7	78.0	5:00p	52.7	7:30a	2.8	3.5	0.00	5.8	21.0	11:00a	SSE
7	66.8	80.2	4:00p	54.2	6:30a	2.5	4.3	0.00	6.3	23.0	12:00p	SSE
8	68.5	81.6	4:30p	58.2	11:00p	1.4	4.9	0.00	6.0	19.0	9:30a	SSW
9	67.7	78.3	4:30p	60.2	7:00a	1.0	3.6	0.00	8.0	28.0	2:00p	S
10	65.8	77.8	4:30p	55.8	7:30a	2.4	3.2	0.04	5.0	21.0	12:30p	WNW
11	67.3	78.8	5:00p	55.2	4:30a	2.1	4.4	0.00	7.7	33.0	4:00p	S
12	65.2	77.5	4:00p	49.0	6:30a	3.6	3.8	0.00	9.1	33.0	12:00p	SSE
13	62.9	75.8	4:30p	48.3	6:30a	5.0	2.9	0.00	6.5	30.0	4:00p	WSW
14	65.1	78.0	3:00p	54.0	7:00a	3.9	3.9	0.00	6.5	25.0	1:30p	SSE
15	65.5	76.6	5:00p	54.7	8:30a	3.1	3.6	0.00	7.2	29.0	2:00p	SSE
16	61.2	69.5	12:30p	53.5	3:30a	4.3	0.5	0.00	11.1	35.0	12:00p	SSE
17	59.4	68.4	5:00p	51.4	12:00m	5.9	0.4	0.00	11.4	39.0	3:00p	SSE
18	56.1	68.3	5:00p	40.3	7:00a	9.2	0.3	0.00	6.1	23.0	1:30p	S
19	59.3	71.1	4:00p	46.0	7:30a	6.9	1.2	0.00	6.9	29.0	2:00p	SSE
20	60.8	73.6	3:30p	45.4	8:00a	6.3	2.1	0.00	6.2	25.0	3:00p	WSW
21	55.4	66.5	1:30p	48.0	9:00p	9.6	0.1	0.08	6.8	24.0	2:30p	WSW
22	55.1	66.8	5:30p	43.9	7:30a	10.1	0.2	0.00	4.5	20.0	2:30p	WSW
23	59.7	72.8	4:30p	47.7	5:30a	7.0	1.7	0.00	5.3	18.0	3:00p	W
24	63.2	76.4	3:30p	50.9	7:30a	4.8	3.0	0.00	5.1	16.0	3:00p	W
25	66.0	79.1	3:00p	51.0	7:30a	3.3	4.3	0.00	7.1	22.0	1:00p	WSW
26	68.0	81.0	3:00p	55.2	5:30a	2.3	5.3	0.00	6.1	21.0	12:30p	SSE
27	68.6	81.7	3:30p	56.6	6:30a	2.0	5.7	0.00	5.7	17.0	5:00p	WSW
28	68.6	81.9	4:00p	56.0	4:30a	2.0	5.5	0.00	5.7	18.0	10:30a	SSE
29	66.7	81.3	2:30p	55.6	5:30a	2.0	3.7	0.02	6.1	23.0	12:30p	SSE
30	70.1	80.9	2:30p	57.2	7:30a	0.8	5.9	0.00	7.4	24.0	4:00a	WNW

	64.7	81.9	28	40.3	18	110.8	101.6	0.14	6.8	39.0	17	SSE

Max >= 90.0: 0
 Max <= 32.0: 0
 Min <= 32.0: 0
 Min <= 0.0: 0

Max Rain: 0.08 ON 09/21/24

Days of Rain: 3 (>.01 in) 0 (>.1 in) 0 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

Appendix B

Graphs Showing Performance History for Disposal Cell and Pond 4 LCRS and LDS

Graphs Showing Performance History for Disposal Cell and Pond 4 LCRS and LDS

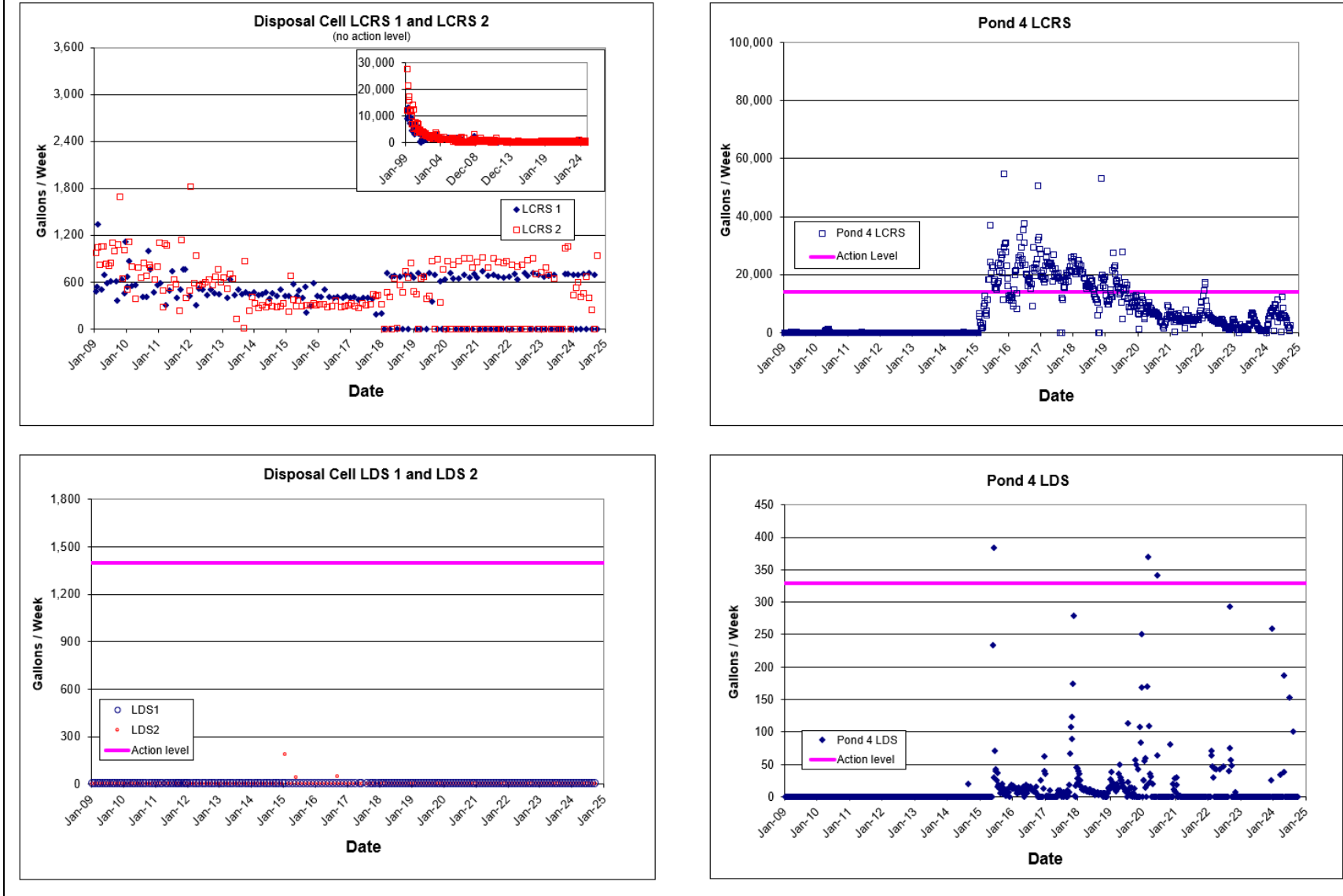


Figure B-1. Graphs Showing Performance History for Disposal Cell and Pond 4 LCRS and LDS