

# **Monticello, Utah, National Priorities List (NPL) Sites Federal Facility Agreement (FFA) Quarterly Report:**

**January 1–March 31, 2023**

**April 2023**



U.S. DEPARTMENT OF  
**ENERGY**

Legacy  
Management

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## Abbreviations

3D	three-dimensional
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
MNA	monitored natural attenuation
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 January 1 through March 31, 2023. 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* (LMS/MNT/S00387), 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 Reviews.

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 contingency remedy optimization 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 (3D) numerical fate and transport model to assess remedial time frames.

Project milestones and guiding documents are further described in the *Monticello Site Management Plan* (GJO-2003-493-TAC). 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 Groundwater Remedy Optimization (GRO) system operated as planned during this quarter (maintenance was performed on the system that necessitated shutting the system down for brief periods during the reporting period) and pumped approximately 149,000 gallons of water from the AOA.
- The previous period's Federal Facility Agreement (FFA) quarterly report was sent to EPA and UDEQ in March 2023.

- 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. Due to deep snow and snow drifts, some inspections were made from line of sight and from a distance.
- 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 note any anomalous conditions for the surface features of the disposal cell and Pond 4, the engineered solar evaporation pond.
- Routine surveillance noted no operational deficiencies for the Temporary Storage Facility (TSF).
- The site was closed on February 15, 22, 23, 24, and March 1, 2023, due to a power outage, extreme weather conditions, and heavy snowfall. The Watch Office was notified and notifications were sent.

## 2.0 MVP

LTS&M for the MVP consists of providing radiological control at excavations in Monticello 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:

- No 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.
- One excavation occurred in a city street this quarter. Site personnel radiologically surveyed the removed soils from the excavation, and no radiologically contaminated materials were found.
- Neither excessive erosion nor unauthorized excavations were observed at the U.S. Highway 191 embankment at Montezuma Creek (a supplemental standards property).
- A surveillance of property MS-00176-VL identified no excessive erosion of supplemental standards material or violation of the land-use restriction on building construction.

## 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- 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 consist 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 or Pond 4. Surveillance checklists for this quarter are attached as Appendix A. No further 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 950 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 period are as follows:
  - Water collection at the Pond 4 LCRS continued but did not exceed the action level this quarter (see Appendix B).

- Due to a power outage, the LCRS pump was inoperable after power was restored. An electrician determined that the pump/motor starter switch had tripped and needed to be reset. After resetting the LCRS pump/motor starter switch, the LCRS pump is now back to normal operations.
- Water collection in 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 cubic yards of soil excavated from the city streets is 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- and land-use restrictions.

## 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- and groundwater-use restrictions was observed.
- **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 and October. The next semiannual sampling event is scheduled for April 2023.

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 (MNA) 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) treatment by a zero-valent iron (ZVI) in situ 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.

#### 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).

#### 3.3.2.1 GRO System Quarterly Performance Summary

The GRO system performance for the quarter is summarized below.

- Groundwater extraction during the quarter was approximately 149,000 gallons, equivalent to an average flow rate of 1.15 gallons per minute (gpm). Assuming the uranium concentration in groundwater extracted throughout the quarter was equal to the uranium concentration of the tank effluent on August 2, 2022 (the date of the most recent sample collected), approximately 0.6 pound of uranium was removed during this quarter.
- During the quarter, the volume of water stored in Pond 4 increased by approximately 1,000,000 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 system.
- Cumulatively, the system has removed 28,900,000 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 8.8 and 12.0 pore volumes since system startup.
- From January 2015 through August 2, 2022, the GRO system removed approximately 142 pounds of uranium from the AOA aquifer (Table 2). Estimates of 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*

<b>Calendar Month</b>	<b>Approximate Volume Pumped (millions of gallons)</b>	<b>Effective Pumping Rate (gpm)</b>	<b>Approximate Cumulative Volume<sup>a</sup> (millions of gallons)</b>
January 2023	0.07	1.64	28.8
February 2023	0.03	0.80	28.9
March 2023	0.04	0.96	28.9

**Note:**

<sup>a</sup> 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*

<b>Tank Effluent Sample Date<sup>a</sup></b>	<b>Effluent Tank Uranium Concentration (µg/L)</b>	<b>Volume Removed Between Tank Samples (millions of gallons)</b>	<b>Uranium Removed (pounds)<sup>b</sup></b>	<b>Cumulative Mass of Uranium Removed<sup>c</sup> (pounds)</b>
March 2, 2022	510	1.03	4.7	138
August 2, 2022	480	1.03	4.3	142

**Notes:**

<sup>a</sup> Sampling occurs following the extraction of approximately 1,000,000 gallons.

<sup>b</sup> Uranium removed since last sampling event. Estimate is based on the median concentration between sampling dates.

<sup>c</sup> 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**

Several scenarios are being evaluated to develop a closure strategy for OU III, and these are detailed in the *OU III Closure Strategy for the Monticello Mill Tailings Site, Monticello, Utah* (DOE 2018). These scenarios include MNA and ICs, with remedy transition, decommissioning, and long-term monitoring (Scenario 1); GRO system termination based on asymptotic trends before transitioning to MNA and ICs (Scenario 2); and evaluation of alternative technologies and a technical impracticability waiver (Scenario 3). Efforts to determine the best possible closure strategy include hydrogeologic and geochemical characterization, along with 3D numerical fate and transport modeling to forecast remedial time frames.

Regarding the OU III closure strategy, LM continued to develop the draft Feasibility Study for OU III during this quarter. Work focused on additional follow-up actions from the Sixth Five-Year Review that will support the Feasibility Study, including an ecological risk evaluation of Montezuma Creek and an assessment of IC options for restricting the use of Montezuma Creek as a drinking water source. Note that one action from these follow-up actions resulted in a reissue of the Monticello LTSP. It is anticipated that this will take place following finalization of the Feasibility Study.

## 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
Revising the <i>Quality Assurance Project Plan, Monticello, Utah, Disposal and Processing Sites</i> (LM-Plan-3-21-1.0, LMS/MNT/S27252)	Draft response to comments sent to EPA and UDEQ on December 20, 2021. A second revision was submitted on November 8, 2022. Additional comments were received from EPA and UDEQ on January 17, 2023. Comments were addressed and resubmitted. The final Quality Assurance Project Plan was submitted to regulators on March 30, 2023.
<i>Monticello, Utah, National Priorities List (NPL) Sites Federal Facility Agreement (FFA) Quarterly Report: October 1–December 31, 2022</i>	Submitted to EPA and UDEQ on March 30, 2023
Sixth CERCLA Five-Year Reviews for the MVP and MMTS:  <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:  <ul style="list-style-type: none"> <li>• Errata sheets were resolved and submitted on April 6, 2023</li> <li>• The LTSP clarification letter was sent regarding Table 7 on March 2, 2023</li> <li>• DOE to create and send an informational letter to landowners with deed restrictions that clearly explains restrictions on their property</li> <li>• DOE to update the Uniform Federal Policy-Quality Assurance Project Plan, Sampling and Analysis Plan, Program Directive 2021-10-MNT, and the LTS&amp;M Plan to be consistent with regard to monitoring well network</li> <li>• DOE to complete a Feasibility Study to evaluate remedial alternatives for achieving the water quality restoration Remedial Action Objectives</li> </ul>	Proposed dates for addendum documents:  <ul style="list-style-type: none"> <li>• Informational letters submitted on December 22, 2022</li> <li>• The final Quality Assurance Project Plan update was submitted to regulators on March 30, 2023</li> <li>• Draft Feasibility Study due July 27, 2023</li> <li>• Final Risk Evaluation due May 31, 2023</li> <li>• IC Evaluation due May 31, 2023</li> </ul>

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

Activity or Deliverable	Schedule
<ul style="list-style-type: none"> <li>DOE to evaluate risk to aquatic organisms using current Utah water quality standards</li> <li>DOE to evaluate whether ICs are required to prevent human consumption of surface water for a domestic drinking water source</li> </ul>	

## 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), 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. *Monticello, Utah, National Priorities List (NPL) Sites Federal Facility Agreement (FFA) Quarterly Report: October 1–December 31, 2022*, LMS/MNT/42768, Office of Legacy Management, January.

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.

*Long-Term Surveillance and Maintenance Plan for Monticello NPL Sites*, LMS/MNT/S00387, continually updated, prepared by the LMS contractor for the U.S. Department of Energy Office of Legacy Management.

*Monticello Site Management Plan*, GJO-2003-493-TAC, continually updated, prepared by the LMS contractor for the U.S. Department of Energy Office of Legacy Management.

*Quality Assurance Project Plan, Monticello, Utah, Disposal and Processing Sites*, LM-Plan-3-21-1.0, LMS/MNT/S27252, continually updated, prepared by the LMS contractor for the U.S. Department of Energy Office of Legacy Management.

## **Appendix A**

### **Monthly and Quarterly Surveillance Checklists**

## 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	
<b>Condition of:</b>			
Fences, gates, and locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Roads <sup>a</sup>	<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 <sup>a</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Manholes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>Evidence of erosion of:</b>			
Top of disposal cell <sup>a</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Disposal cell sideslopes <sup>a</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Ditches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>Evidence of:</b>			
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.

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

**Additional comments:** Things appear to be in good condition. Several feet of snow on site.

Signature: \_\_\_\_\_ Date: 01/31/2023  
 \_\_\_\_\_ Representative

<sup>a</sup>Inspections required following a significant storm event

<sup>b</sup>Open to inspect quarterly

## Monthly Pond 4 Surveillance Checklist

Level of water in Pond 4 6.86

Inspection Item	Acceptable		Comments and Recommendation
	Yes	No	
<b>Condition of:</b>			
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.
<b>Evidence of erosion of:</b>			
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"/>	
<b>Evidence of:</b>			
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:** Several feet of snow on site. Things appear to be good.

Monticello LM Representative: [Redacted]

Date: 01/31/2023



## MONTHLY CLIMATOLOGICAL SUMMARY for JAN. 2023

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	33.6	35.7	12:30a	32.1	7:00p	31.4	0.0	0.17	8.1	32.0	5:00a	SSE
2	27.9	32.3	12:30a	25.4	11:00p	37.1	0.0	0.00	0.0	0.0	---	---
3	24.1	30.0	1:00p	17.7	6:00p	40.9	0.0	0.01	0.0	0.0	---	---
4	21.8	32.2	2:00p	16.1	3:00a	43.2	0.0	0.01	0.0	0.0	---	---
5	27.8	31.9	3:00p	18.0	12:30a	37.2	0.0	0.00	0.0	0.0	---	---
6	29.1	36.7	12:30p	18.9	10:30p	35.9	0.0	0.05	0.5	15.0	12:00p	SE
7	27.7	37.1	2:30p	18.9	8:00a	37.3	0.0	0.32	0.1	17.0	12:00m	WSW
8	32.6	37.1	2:00p	29.9	6:00a	32.4	0.0	0.01	2.9	20.0	12:00p	S
9	33.2	36.1	2:00p	27.9	1:30a	31.8	0.0	0.00	4.5	27.0	11:00a	S
10	36.2	40.6	4:30p	32.0	12:00m	28.8	0.0	0.02	7.0	42.0	11:30p	S
11	29.1	36.0	3:00p	22.0	11:30p	35.9	0.0	0.00	6.2	32.0	3:00a	WNW
12	28.1	41.3	4:00p	19.1	5:00a	36.9	0.0	0.00	0.0	1.0	10:00p	WNW
13	31.7	40.2	2:00p	24.2	1:30a	33.3	0.0	0.00	1.4	15.0	2:30p	SE
14	35.2	39.2	9:00p	28.3	1:30a	29.8	0.0	0.00	2.2	30.0	12:00m	SSE
15	29.8	31.8	3:00p	27.8	7:00p	35.2	0.0	0.02	11.7	34.0	3:30a	SSE
16	28.4	31.4	9:30p	25.9	4:00a	36.6	0.0	0.00	8.6	34.0	11:00p	SSE
17	27.5	30.4	1:00a	24.5	8:30p	37.5	0.0	0.00	3.0	26.0	1:00a	SSE
18	23.1	27.1	1:30p	12.1	10:30p	41.9	0.0	0.00	6.8	28.0	10:30a	WNW
19	18.8	25.0	2:00p	8.5	4:30a	46.2	0.0	0.00	1.8	23.0	12:00p	SSE
20	22.6	26.9	2:00p	18.8	1:00a	42.4	0.0	0.00	5.8	33.0	10:30p	WNW
21	20.4	26.1	3:00p	12.5	11:00p	44.6	0.0	0.00	11.3	33.0	2:00a	NW
22	17.7	22.9	3:00p	10.6	6:00a	47.3	0.0	0.00	4.7	24.0	11:00a	SSE
23	22.2	29.2	3:30p	15.0	9:30p	42.8	0.0	0.00	4.1	25.0	5:30p	NW
24	21.0	25.7	2:00p	12.1	6:00a	44.0	0.0	0.00	7.3	29.0	5:00p	NW
25	19.4	23.5	12:30a	10.8	11:00p	45.6	0.0	0.00	9.5	26.0	7:00a	WNW
26	16.3	24.8	4:30p	8.2	5:30a	48.7	0.0	0.00	5.9	22.0	9:30a	WNW
27	18.4	25.8	8:30p	7.6	10:30p	46.6	0.0	0.00	6.3	32.0	7:00p	SE
28	24.6	29.1	5:00p	19.1	12:30a	40.4	0.0	0.00	7.7	19.0	1:00a	SSE
29	25.3	31.9	4:30p	18.5	12:00m	39.7	0.0	0.00	9.4	27.0	9:00a	S
30	25.1	31.6	4:00p	16.2	2:30a	39.9	0.0	0.01	6.3	21.0	11:30p	SSE
31	17.2	24.1	1:00a	9.2	8:00p	47.8	0.0	0.00	9.3	25.0	6:30a	NW
<hr/>												
	25.7	41.3	12	7.6	27	1219.1	0.0	0.62	4.9	42.0	10	SSE

Max &gt;= 90.0: 0

Max &lt;= 32.0: 19

Min &lt;= 32.0: 30

Min &lt;= 0.0: 0

Max Rain: 0.32 ON 01/07/23

Days of Rain: 5 (&gt;.01 in) 2 (&gt;.1 in) 0 (&gt;1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

## 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	
<b>Condition of:</b>			
Fences, gates, and locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Roads <sup>a</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Snow packed.
Signs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Site monuments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Drainage ditches <sup>a</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Manholes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>Evidence of erosion of:</b>			
Top of disposal cell <sup>a</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Disposal cell sideslopes <sup>a</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Ditches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>Evidence of:</b>			
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.

<b>Condition of:</b>			
Settlement plate structures	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Manholes <sup>b</sup>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Unable to access due to deep snow and safety concerns.
Sediment ponds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>Evidence of:</b>			
Structural instability	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Additional comments:** There is a couple of feet of snow on the ground most of this inspection was completed by visual and from a distance (due to deep snow and safety concerns). But things appear to be in good condition.

Signature: \_\_\_\_\_

Monticello LM Representative

Date: 2/28/2023

<sup>a</sup>Inspections required following a significant storm event

<sup>b</sup>Open to inspect quarterly

## Monthly Pond 4 Surveillance Checklist

Level of water in Pond 4 6.81

Inspection Item	Acceptable		Comments and Recommendation
	Yes	No	
<b>Condition of:</b>			
Fences, gates, and locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Roads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Plowed and snow packed.
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.
<b>Evidence of erosion of:</b>			
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"/>	
<b>Evidence of:</b>			
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:** The is a couple of feet of snow on the ground the pond is still frozen over but things appear to be in good condition. Electrical issues with LCRS pump on 2-22-2023.

Monticello LM Representative: [REDACTED]

Date: 2/28/2023

## MONTHLY CLIMATOLOGICAL SUMMARY for FEB. 2023

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	18.6	29.9	2:00p	7.7	5:00a	46.4	0.0	0.00	5.8	17.0	2:30p	NW
2	28.0	37.5	2:30p	18.4	12:30a	37.0	0.0	0.00	5.4	16.0	4:00a	WNW
3	27.4	35.4	1:30p	16.5	6:00a	37.6	0.0	0.00	5.4	21.0	11:30p	SW
4	31.7	41.8	3:30p	22.2	7:30a	33.3	0.0	0.00	3.6	18.0	4:00a	SE
5	34.0	41.0	4:30p	28.1	12:00m	31.0	0.0	0.00	11.6	35.0	12:00m	S
6	26.9	29.7	3:30p	23.4	12:00m	38.1	0.0	0.00	14.9	31.0	12:30a	NW
7	25.6	32.0	2:00p	21.2	6:30a	39.4	0.0	0.00	10.6	23.0	5:00a	NW
8	29.6	40.9	3:30p	17.6	6:00a	35.4	0.0	0.00	6.4	30.0	11:00p	NW
9	20.7	26.1	3:30p	16.1	7:00a	44.3	0.0	0.00	14.1	32.0	3:30a	NW
10	23.1	34.3	5:00p	13.7	1:30a	41.9	0.0	0.00	3.7	11.0	12:30a	WNW
11	31.7	40.5	3:00p	17.7	12:30a	33.3	0.0	0.00	7.0	22.0	11:30a	S
12	33.6	43.4	3:30p	24.8	7:00a	31.4	0.0	0.00	3.8	10.0	3:30a	WSW
13	31.8	37.6	1:00p	25.9	12:00m	33.2	0.0	0.13	3.2	14.0	4:00p	W
14	23.3	28.5	3:00p	17.9	6:00a	41.7	0.0	0.00	5.3	23.0	12:30p	NNW
15	14.7	20.7	2:30a	8.4	9:30p	50.3	0.0	0.00	8.8	27.0	1:30p	SSE
16	13.3	21.0	3:00p	6.1	4:30a	51.7	0.0	0.00	9.6	25.0	5:00a	NW
17	17.4	30.1	2:30p	-1.4	2:30a	47.6	0.0	0.01	3.4	10.0	12:00p	SE
18	26.9	32.0	12:00m	22.8	6:30a	38.1	0.0	0.00	10.4	28.0	12:00p	SSE
19	32.2	43.9	3:00p	22.8	5:30a	32.8	0.0	0.00	4.6	19.0	1:30a	S
20	33.8	42.8	4:30p	22.6	7:00a	31.2	0.0	0.00	5.1	20.0	4:00a	SE
21	34.7	41.4	4:30p	25.8	7:30a	30.3	0.0	0.00	11.1	33.0	11:00a	SSE
22	24.7	33.5	12:30a	16.1	11:30p	40.3	0.0	0.00	16.9	44.0	7:00a	SSW
23	19.9	24.2	3:30p	13.7	4:00a	45.1	0.0	0.00	12.6	36.0	11:00a	SSE
24	25.6	31.5	12:00m	18.9	7:00p	39.4	0.0	0.00	9.8	29.0	6:30a	S
25	35.2	42.8	5:00p	24.3	7:00a	29.8	0.0	0.00	10.0	27.0	2:30p	S
26	28.0	36.3	3:00a	18.4	9:30p	37.0	0.0	0.01	8.6	30.0	12:00p	S
27	24.3	31.9	3:30p	17.9	6:00a	40.7	0.0	0.00	12.5	30.0	10:30p	S
28	26.4	33.2	2:00p	23.2	9:30p	38.6	0.0	0.00	7.9	29.0	7:00a	S
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	26.5	43.9	19	-1.4	17	1076.9	0.0	0.15	8.3	44.0	22	SSE

Max &gt;= 90.0: 0

Max &lt;= 32.0: 12

Min &lt;= 32.0: 28

Min &lt;= 0.0: 1

Max Rain: 0.13 ON 02/13/23

Days of Rain: 1 (&gt;.01 in) 1 (&gt;.1 in) 0 (&gt;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

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

### Comments:

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

Due to snow depth in and around the TSF and the inability to open the gate, the TSF was inspected from the site parking lot.

Signature of Monticello LM Representative

2/28/2023  
Date of Inspection

## 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	
<b>Condition of:</b>			
Fences, gates, and locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Roads <sup>a</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Snow packed.
Signs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Site monuments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Drainage ditches <sup>a</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Manholes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>Evidence of erosion of:</b>			
Top of disposal cell <sup>a</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Disposal cell sideslopes <sup>a</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Ditches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>Evidence of:</b>			
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.

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

**Additional comments:** There is approximately one foot of snow on the ground with several two to three foot snow drifts. But things appear to be in good condition.

Signature: \_\_\_\_\_

Monticello LM Representative

Date: 3/30/2023

<sup>a</sup>Inspections required following a significant storm event

<sup>b</sup>Open to inspect quarterly



## Monthly Pond 4 Surveillance Checklist

Level of water in Pond 4 7.60

Inspection Item	Acceptable		Comments and Recommendation
	Yes	No	
<b>Condition of:</b>			
Fences, gates, and locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Roads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Snow packed.
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.
<b>Evidence of erosion of:</b>			
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"/>	
<b>Evidence of:</b>			
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:** The is approxitaley one foot of snow on the ground the pond is still frozen over but things appear to be in good condition.

Monticello LM Representative: [REDACTED] Date: 3/30/2023

## MONTHLY CLIMATOLOGICAL SUMMARY for MAR. 2023

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

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

	MEAN					HEAT	COOL		AVG			DOM
DAY	TEMP	HIGH	TIME	LOW	TIME	DEG	DEG	RAIN	WIND	HIGH	TIME	DIR
						DAYS	DAYS		SPEED			
1	27.1	31.3	3:00p	22.8	1:00a	37.9	0.0	0.00	10.1	33.0	1:00p	SSE
2	26.6	31.4	3:30p	18.4	11:30p	38.4	0.0	0.01	11.4	29.0	12:00p	NW
3	25.7	38.7	2:00p	15.8	2:30a	39.3	0.0	0.02	4.2	23.0	9:30a	WSW
4	29.9	35.9	5:30p	20.0	5:30a	35.1	0.0	0.01	10.7	33.0	7:00p	S
5	33.9	41.6	4:30p	26.8	6:30a	31.1	0.0	0.00	14.0	32.0	12:30p	S
6	36.3	45.1	5:00p	28.2	7:00a	28.7	0.0	0.00	15.6	33.0	9:00a	S
7	35.3	42.9	4:00p	28.8	6:00a	29.7	0.0	0.00	6.9	25.0	1:00a	SSW
8	35.6	41.5	4:00p	30.1	8:00a	29.4	0.0	0.00	10.4	31.0	10:00p	S
9	32.1	42.0	3:00p	19.2	5:30a	32.9	0.0	0.00	4.2	19.0	12:30a	ESE
10	35.6	37.8	11:00a	32.7	8:00a	29.4	0.0	0.30	12.4	34.0	11:00a	S
11	36.1	43.9	1:30p	31.9	12:00m	28.9	0.0	0.30	4.8	24.0	12:30a	NNW
12	32.9	39.5	5:00p	27.0	7:30a	30.8	0.0	0.13	4.1	23.0	7:00p	SSE
13	31.5	41.1	6:00p	23.4	3:00a	33.5	0.0	0.05	3.0	13.0	3:00p	W
14	35.6	42.3	5:30p	27.8	1:30a	29.4	0.0	0.01	8.5	24.0	11:00a	SSE
15	36.3	38.8	12:30a	33.5	10:00p	28.7	0.0	0.78	8.7	30.0	6:00a	SSE
16	30.1	34.7	12:30a	20.8	11:30p	34.9	0.0	0.01	15.7	35.0	1:00p	NW
17	25.2	32.2	5:00p	19.0	7:30a	39.8	0.0	0.00	11.3	22.0	5:00a	NW
18	28.4	39.8	6:30p	20.2	7:30a	36.6	0.0	0.00	5.5	15.0	2:00a	NNW
19	31.1	38.0	3:30p	21.8	3:00a	33.9	0.0	0.00	8.2	26.0	10:30p	SSE
20	32.3	35.3	5:00p	30.2	11:00p	32.7	0.0	0.25	11.5	31.0	11:00a	S
21	30.8	34.0	12:00m	27.8	4:30a	34.2	0.0	0.25	8.4	30.0	3:30p	S
22	33.7	37.0	4:30p	26.6	12:00m	31.3	0.0	0.77	14.0	36.0	9:30a	SSE
23	29.1	34.7	6:00p	22.4	12:00m	35.9	0.0	0.00	7.0	23.0	9:30p	S
24	26.7	36.3	3:30p	17.1	12:00m	38.3	0.0	0.01	6.3	31.0	5:00p	SSW
25	21.0	30.9	2:30p	9.4	7:00a	44.0	0.0	0.00	3.7	22.0	1:00a	NNW
26	22.1	31.3	4:30p	13.9	1:30a	42.9	0.0	0.00	6.3	25.0	5:00p	W
27	20.7	30.1	3:30p	11.7	4:30a	44.3	0.0	0.00	7.6	20.0	1:00a	NW
28	27.9	40.5	5:00p	12.9	7:00a	37.2	0.0	0.00	8.1	24.0	11:30a	SSE
29	40.1	46.7	4:30p	32.4	2:00a	24.9	0.0	0.00	10.2	30.0	3:00p	S
30	33.2	40.6	12:30a	25.6	11:30p	31.8	0.0	0.00	10.6	40.0	11:00a	S
31	31.8	43.4	6:00p	20.4	3:30a	33.2	0.0	0.01	4.0	24.0	12:30a	WSW
	30.8	46.7	29	9.4	25	1059.1	0.0	2.91	8.6	40.0	30	S

Max &gt;= 90.0: 0

Max &lt;= 32.0: 5

Min &lt;= 32.0: 28

Min &lt;= 0.0: 0

Max Rain: 0.78 ON 03/15/23

Days of Rain: 9 (&gt;.01 in) 7 (&gt;.1 in) 0 (&gt;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

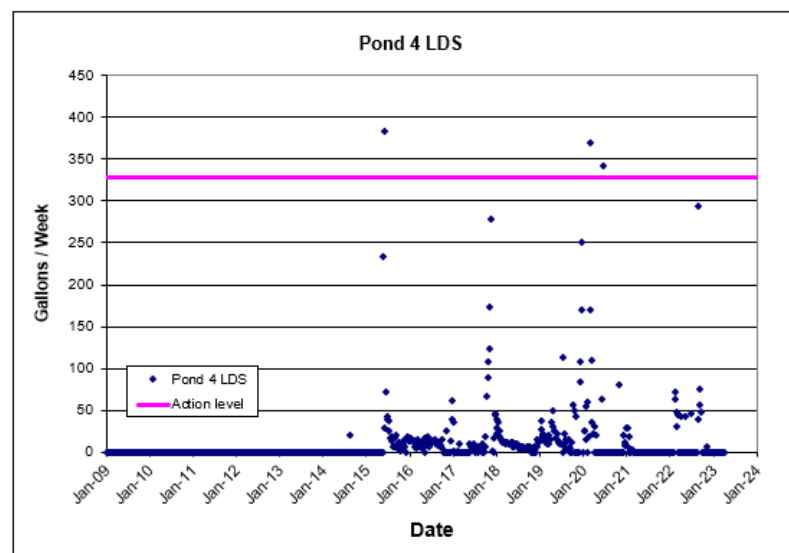
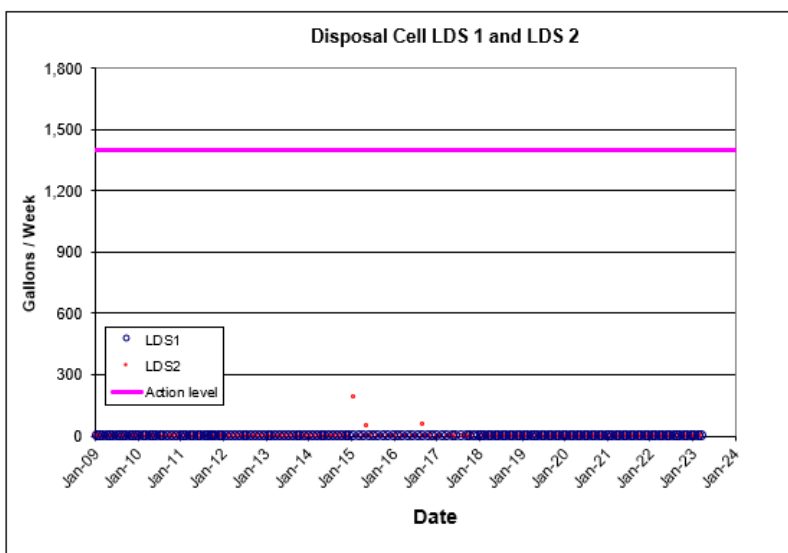
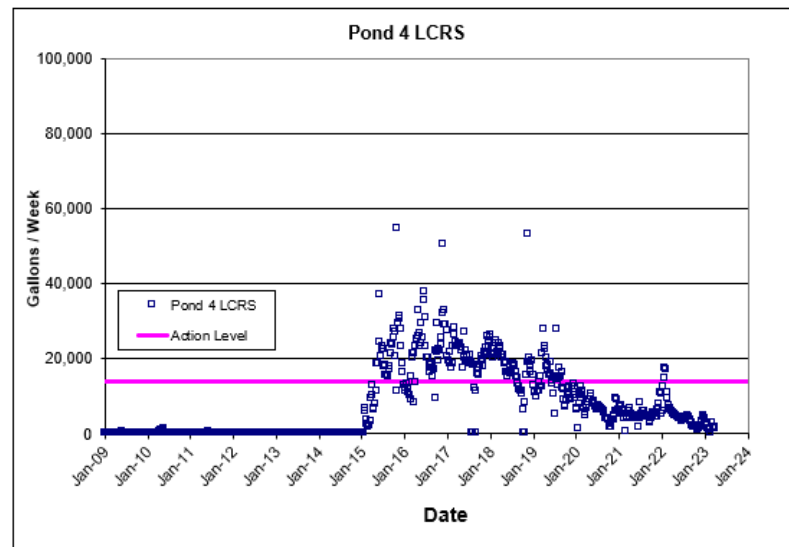
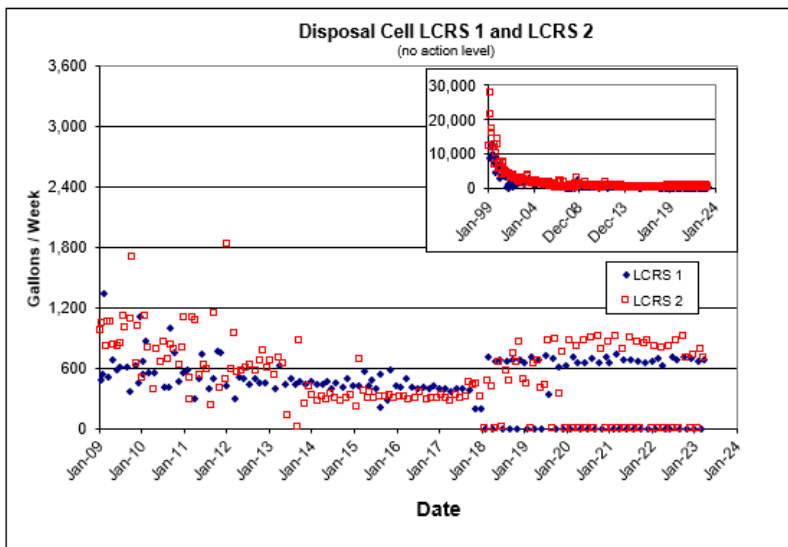


Figure B-1. Graphs Showing Performance History for Disposal Cell and Pond 4 LCRS and LDS