

**Monticello, Utah, National  
Priorities List Sites  
Federal Facility Agreement  
(FFA) Quarterly Report:  
April 1–June 30, 2018**

**August 2018**



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                                            |
| gpm    | gallons per minute                                                    |
| GRO    | groundwater remedy optimization                                       |
| ICs    | institutional controls                                                |
| LCRS   | Leachate Collection and Removal System                                |
| LDS    | Leak Detection System                                                 |
| LM     | Office of Legacy Management                                           |
| LMS    | Legacy Management Support                                             |
| LTS&M  | long-term surveillance and maintenance                                |
| MMS    | Monticello Mill Tailings Site                                         |
| MVP    | Monticello Vicinity Properties                                        |
| NPL    | National Priorities List                                              |
| OU     | Operable Unit                                                         |
| PRB    | permeable reactive barrier                                            |
| 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) (the LM Monticello, Utah, Disposal and Processing Sites) for the period of April through June 2018. The MVP and MMTS are regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Quarterly reports are submitted to EPA and UDEQ in February (for October through December), May (January through March), August (April through June), and November (July through September).

LM assesses MVP and MMTS conditions and remedy protectiveness through (1) inspections (monthly, quarterly, and annually) of site infrastructure and operations as specified under the *Long-Term Surveillance and Maintenance Plan for the Monticello NPL Sites* (DOE 2018b) (referred to herein as the “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 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 groundwater contingency remedy optimization system. This system, implemented in January 2015, focuses on groundwater remediation within a specified region of the alluvial aquifer that is referred to as the Area of Attainment (AOA).

Project milestones and guiding documents are further described in the *Monticello Site Management Plan* (GJO-2003-493-TAC). Annual groundwater reports present comprehensive data evaluation for the groundwater and surface water OU III remedy.

### 1.1 Quarterly Site Status

- The groundwater remedy optimization (GRO) system operated as planned during the current period.
- Water samples were collected from the monitoring and extraction wells in the AOA on a monthly schedule this quarter. The water samples were analyzed for uranium concentrations in each well.
- The spring semiannual sampling event occurred the week of April 20, 2018.
- Routine surveillance noted no anomalous conditions for the MVP remedy.
- Routine surveillance noted no violations of MMTS ICs regarding land- and groundwater-use restrictions.

- Land surveys of the OU III area was initiated in the field in June. The scope of the surveys is to determine the horizontal and vertical coordinates of the:
  - Top of the well casings (which is a reference point for depth to water measurements)
  - Centerline of Montezuma Creek at prescribed intervals
  - Water diversions located in Montezuma Creek (e. culverts, head gates)
 The survey begins at U.S. Highway 191 and terminates at the sediment pond to the east.
- Site road maintenance activities were conducted in June.
- Routine surveillance noted no anomalous conditions for the surface features of the disposal cell and Pond 4.
- Water collection in the Pond 4 Leachate Collection and Removal System (LCRS) continued to exceed the action level. LM has previously notified EPA and UDEQ of this Pond 4 action level exceedance.
- Routine surveillance noted no operating deficiencies for the temporary storage facility (TSF). Minor maintenance of the TSF fence and cover was completed this spring.
- The *Groundwater Remedy Optimization System Extraction Well Ranking Test Report, Monticello Mill Tailings Site Operable Unit III, Monticello, Utah* (DOE 2018a), was transmitted to EPA and UDEQ in June.
- The spring FFA meeting was held on June 7, 2018.
- The *OU III Closure Strategy for the Monticello Mill Tailings Site, Monticello, Utah*, (DOE 2018c), was submitted to EPA and UDEQ in June.
- Diné College students traveled twice to the Monticello Disposal and Processing Sites during this quarter. Legacy Management Support (LMS) personnel gave educational lectures about the site history, the repository soil cover, the embedded lysimeter, groundwater and surface water contamination and remediation at OU III, and current site operations.
- Drought was prevalent in the Monticello area this quarter.

## **2.0 Monticello Vicinity Properties**

The 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 the city limits, and at property MS-00176-VL (privately owned supplemental standards property). Surveillance results for this quarter are:

- No anomalous conditions for the MVP remedy were noted.
- LM representatives continued to coordinate with City of Monticello (City) officials in planning meetings regarding construction and excavation activities by the City, UDOT, and utility companies in roadway and utility corridors. LM has followed and will continue to follow normal LTS&M protocol to provide radiological control in the affected roadways.
- There were no planned or unplanned excavations in city streets or utility corridors where radiologically contaminated material was encountered that required LM management.

- Neither excessive erosion nor unauthorized excavations were observed at the Highway 191 embankment at Montezuma Creek (supplemental standards property).
- Surveillance of property MS-00176-VL identified no excessive erosion of supplemental standards material or violation of the land-use restriction.

### **3.0 Monticello Mill Tailings Site**

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

#### **3.1 Operable Unit I**

OU I consists of the property of the former Monticello mill (mill site) and the 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 that was completed in 1999. LM owns and manages the repository; the City owns the former mill site and manages it as a public park.

##### **3.1.1 Repository**

Monthly, quarterly, and annual inspections of the repository ensure that remedy controls remain intact and that the waste remains isolated from the environment. Inspection observations and maintenance activities for the quarter are:

- No area of the cover indicated settling, slumping, fracturing, seepage, ponding, or significant erosion.
- No anomalous surface feature conditions were observed at the disposal cell and Pond 4. Surveillance checklists for this quarter are attached as Appendix A.
- Minor burrowing on the disposal cell and the Pond 4 berm by voles and small ground squirrels continue to be observed. These burrows are not deep and do not pose a concern.
- The disposal cell LCRS and LDS were operated in accordance with the requirements specified in the LTS&M Plan. Findings include:
  - Leachate production from the disposal cell was approximately 1300 gallons per week combined for LCRS sumps LCRS 1 and LCRS 2. This collection rate is nearly twice that recorded over the past several years. The change in volume occurred after a new pump was installed in LCRS 2. There is no action level for the disposal cell LCRS. See Appendix B for a graphical depiction of leachate production history.
  - A new pump was installed in LCRS 2 due to the failure of the check valve on the existing pump. The new pump was installed in June.

- The disposal cell LDS continues to receive no water; therefore, the disposal cell LDS action level was not exceeded. See Appendix B for a graphical depiction of leachate production history.
- Operation of the GRO system has resulted in increased water collection in the Pond 4 LCRS and LDS. The Pond 4 LCRS and LDS monitoring and pumping systems are functioning as intended to circulate water back to the pond.
  - Water collection at the Pond 4 LCRS exceeded the action level during the quarter (see Appendix B). LM has previously notified EPA and UDEQ of this Pond 4 action level exceedance.
  - Water collection in the Pond 4 LDS remained below the action level (see Appendix B). Although the quantity of water is well below the action level, LM has previously notified EPA and UDEQ of water collection and removal in the Pond 4 LDS.

### **3.1.2 Temporary Storage Facility**

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

- Minor maintenance items that were identified for the TSF in the previous inspection have been corrected.

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

- The removed pump and piping from LCRS 2 was placed in the TSF.
- The volume of waste stored in the TSF is approximately 1.5 cubic yards.

### **3.1.3 Former Mill Site**

LM conducts surveillance of the former mill site (properties MP-00181-VL and MS-00893-VL) to ensure compliance with ICs that were implemented to preserve the OU I remedy for soil and groundwater. The ICs applicable to the former mill site are no installation of domestic-use wells in the alluvial aquifer, no construction of habitable structures, no camping, and preserving the properties as a public park for day-use recreation.

Surveillance results for this quarter are:

- No nonconformance with water- and land-use restrictions was observed.

## **3.2 Operable Unit II**

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



Surveillance results for this quarter are:

- Montezuma Creek Restrictive Easement Area (supplemental standards properties, both City-owned and privately owned). No evidence of nonconformance with land-use restrictions (no soil removal or construction of habitable structures in supplemental standards areas) was observed.
- Groundwater-use restrictions (i.e., no installation of domestic-use wells in the alluvial aquifer). These were applied to several OU II properties under the 2004 covenant by which DOE transferred selected properties to the City. No evidence of nonconformance with this restriction was observed during the quarter.
- Property MS-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.
- No storm events exceeding 2.8 inches of precipitation in a 24-hour period occurred to require surveillance of supplemental standards cleanup properties for excessive erosion.

### **3.3 Operable Unit III**

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

The contaminated groundwater is within the alluvial aquifer beneath the valley of Montezuma Creek; some sections of Montezuma Creek are contaminated by the discharge of contaminated groundwater. The alluvial aquifer has no record of past or present use; however, a portion of the aquifer is subject to ICs to restrict use. Montezuma Creek is used for limited irrigation and livestock watering. There are no ICs that affect surface water use.

The groundwater remedy includes (1) monitored natural attenuation with ICs, and (2) pump-and-treat remediation by evaporation that was implemented as the GRO system in January 2015. Previous remediation efforts included (1) treatment by a zero-valent iron (ZVI) in situ permeable reactive barrier (PRB), and (2) pump-and-treat remediation that used ex situ ZVI treatment. Operation and performance of these are reported annually. The ex situ system was deactivated in December 2014 and replaced by the GRO system, which is described in greater detail in Section 3.3.2 herein. The PRB remains a component of the GRO as a groundwater flow barrier.

#### **3.3.1 Groundwater Restricted Area/Institutional Controls**

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 Utah Department of Natural Resources, 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 Groundwater Contingency Remedy Optimization System

The GRO system began full operation in January 2015. Eight vertical extraction wells are strategically placed in the AOA to extract contaminated groundwater. The water 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 that were installed in the AOA. Sixteen active wells were installed south of Montezuma Creek in 2014 and 6 were installed north of Montezuma Creek in 2017. The monitoring wells were sampled for uranium concentration on a monthly basis during the quarter.

#### 3.3.2.1 Quarterly Performance Summary

- Groundwater extraction was approximately 0.92 million gallons, equivalent to a net flow rate of 7 gallons per minute (gpm).
- During the quarter, the volume of water stored in Pond 4 decreased by 1 million gallons, from approximately 6.9 to 5.9 million gallons. The GRO system is operated to maintain a relatively constant inflow of 8 gpm to balance annual evaporation at the Pond 4 operating storage volume of 8 million gallons (the maximum storage volume of Pond 4 is approximately 15.6 million gallons).
- Cumulatively, the system has removed approximately 17.1 million gallons of contaminated groundwater from the aquifer since system startup in January 2015 (Table 1), equivalent to about 8.6 pore volumes in the AOA.
- Water monitoring during the quarter consisted of:
  - Monthly sampling from the monitoring and extraction wells for uranium concentration.
  - Monthly sampling from the transfer tank (see Table 2 for recent tank sample uranium concentrations).
  - Water-level monitoring in AOA extraction and monitoring wells on 5-minute intervals with the LM System Operation and Analysis at Remote Site (SOARS) system.

The GRO system has removed approximately 96.3 pounds of uranium from the aquifer in the AOA through June 30, 2018.

*Table 1. GRO System Treatment Volumes and Rates: Monthly and Cumulative Volumes (since January 2015)*

| Calendar Month         | Approximate Volume Pumped (million gallons) | Effective Pumping Rate (gpm) | Approximate Cumulative Volume <sup>a</sup> (million gallons) |
|------------------------|---------------------------------------------|------------------------------|--------------------------------------------------------------|
| April 2018             | 0.31                                        | 7.2                          | 16.5                                                         |
| May 2018               | 0.34                                        | 7.5                          | 16.8                                                         |
| June 2018 <sup>b</sup> | 0.27                                        | 6.3                          | 17.1                                                         |

**Notes:**

<sup>a</sup> Cumulative volume is based on the volume of groundwater extracted by the GRO system since system startup in January 2015.

<sup>b</sup> Reporting end date is June 30, 2018.

Table 2. Uranium Mass Removal from Groundwater in the AOA

| Tank Effluent Sample Date | Uranium Concentration (µg/L) | Volume Removed Between Tank Samples (million gallons) | Uranium Removed (pounds) <sup>a</sup> | Cumulative Mass Uranium Removed <sup>b</sup> (pounds) |
|---------------------------|------------------------------|-------------------------------------------------------|---------------------------------------|-------------------------------------------------------|
| March 15, 2018            | 560                          | Not applicable                                        | Not applicable                        | 91.6                                                  |
| April 19, 2018            | 561                          | 0.42                                                  | 2.0                                   | 93.6                                                  |
| May 14, 2018              | 563                          | 0.26                                                  | 1.2                                   | 94.8                                                  |
| June 14, 2018             | 560 <sup>c</sup>             | 0.31                                                  | 1.5                                   | 96.3                                                  |

**Notes:**

<sup>a</sup> Based on median concentration between sampling dates.

<sup>b</sup> Since GRO system startup in January 2015.

<sup>c</sup> Assumed value: sample results not available as of July 20, 2018.

**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). Analysis of water quality trends and whether remediation goals are being met, in the AOA and sitewide, is beyond the scope of this Federal Facility Agreement (FFA) quarterly report but is provided in annual groundwater reports that are submitted to EPA and UDEQ, typically in October.

## 4.0 Schedule of Activities and Deliverables

Table 3 summarizes the completion of recent and planned near-term activities and deliverables for the Monticello National Priorities List (NPL) sites.

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

| Activity or Deliverable                                                                                                                                           | Schedule                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <b>Recent</b>                                                                                                                                                     |                                                                                      |
| Semiannual OU III groundwater and surface water monitoring                                                                                                        | Completed the week of April 20, 2018                                                 |
| <i>Monticello, Utah, National Priorities List Sites Federal Facility Agreement (FFA) Quarterly Report: January 1–March 31, 2018</i>                               | Submitted to EPA and UDEQ April 30, 2018 (not subject to review)                     |
| <i>Groundwater Remedy Optimization System Extraction Well Ranking Test Report Monticello Mill Tailing Site Operable Unit III Monticello, Utah, dated May 2018</i> | Submitted to EPA and UDEQ June 5, 2018                                               |
| Semiannual FFA meeting                                                                                                                                            | Held June 7, 2018                                                                    |
| <i>OU III Closure Strategy for the Monticello Mill Tailings Site, Monticello, Utah, dated May 2018</i>                                                            | Submitted to EPA and UDEQ June 7, 2018                                               |
| <i>Long-Term Surveillance and Maintenance Plan for the Monticello NPL Sites, dated June 2018</i>                                                                  | Latest revision implemented June 2018                                                |
| <b>Near-Term</b>                                                                                                                                                  |                                                                                      |
| Fiscal year 2018 revision of Section 5.0 of the Site Management Plan                                                                                              | Submit to EPA and UDEQ July 31, 2018; comments and approval required by EPA and UDEQ |

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

| Activity or Deliverable                                                                               | Schedule                                     |
|-------------------------------------------------------------------------------------------------------|----------------------------------------------|
| LM submittal of FFA quarterly report, April–June 2018                                                 | Submit to EPA and UDEQ August 15, 2018       |
| Annual site inspection                                                                                | Scheduled for the week of September 10, 2018 |
| Semiannual FFA meeting                                                                                | Fall 2018, date to be determined             |
| <i>Monticello Mill Tailings Site Operable Unit III Annual Groundwater Report, May 2017–April 2018</i> | Submit to EPA and UDEQ in October 2018       |
| Semiannual OU III groundwater and surface water monitoring                                            | October 2018, date to be determined          |

## 5.0 References

DOE (U.S. Department of Energy), 2003. *Monticello Site Management Plan*, GJO-2003-493-TAC, Section 5 (this section is continually updated), 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, 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), 2018. *Monticello, Utah, National Priorities List Sites Federal Facility Agreement (FFA) Quarterly Report: January 1–March 31, 2018*, LMS/MNT/S18941, Office of Legacy Management.

DOE (U.S. Department of Energy), 2018a. *Groundwater Remedy Optimization System Extraction Well Ranking Test Report, Monticello Mill Tailings Site Operable Unit III, Monticello, Utah*, LMS/MNT/S18275, Office of Legacy Management, May.

DOE (U.S. Department of Energy), 2018b. *Long-Term Surveillance and Maintenance Plan for the Monticello NPL Sites*, LMS/MNT/S00387, Office of Legacy Management, June.

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

## **Appendix A**

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

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## Monthly Pond 4 Surveillance Checklist

Level of water in Pond 4 8.799

| 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 the 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:** Things appear to be in good shape.

Monticello LM Representative: *Jay mtk*

Date: 4/26/2018

## 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>         | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Structural instability      | <input type="checkbox"/> | <input type="checkbox"/> | _____ |

**Additional comments:** The site appears to be in good condition with a small amount of green annuals starting to grow.

Signature: Day m/k  
Monticello LM Representative

Date: 4/26/2018

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

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



MONTHLY CLIMATOLOGICAL SUMMARY for APR. 2018

NAME: UT Monticello CITY: STATE:  
 ELEV: 7069 ft LAT: 37° 06' 00" N LONG: 109° 06' 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     | 56.2      | 65.4 | 4:00p  | 45.5 | 7:00a  | 8.8           | 0.0           | 0.00 | 8.0            | 28.0 | 2:30a  | SSW     |
| 2     | 54.1      | 66.0 | 3:30p  | 40.7 | 5:30a  | 10.9          | 0.0           | 0.00 | 10.9           | 33.0 | 11:00a | S       |
| 3     | 39.2      | 49.3 | 4:00p  | 29.1 | 7:30a  | 25.8          | 0.0           | 0.00 | 11.2           | 28.0 | 10:00a | NNW     |
| 4     | 45.6      | 59.6 | 4:00p  | 30.7 | 12:30a | 19.4          | 0.0           | 0.00 | 6.5            | 21.0 | 11:00a | SE      |
| 5     | 49.0      | 60.4 | 5:00p  | 37.1 | 5:30a  | 16.0          | 0.0           | 0.00 | 4.8            | 23.0 | 3:00p  | WSW     |
| 6     | 52.4      | 63.1 | 3:30p  | 40.9 | 1:00a  | 12.6          | 0.0           | 0.00 | 6.5            | 27.0 | 3:00p  | SSW     |
| 7     | 55.7      | 70.6 | 4:00p  | 45.1 | 4:00a  | 9.9           | 0.6           | 0.18 | 8.2            | 35.0 | 5:30p  | SW      |
| 8     | 48.6      | 55.3 | 5:00p  | 40.1 | 10:00p | 16.4          | 0.0           | 0.03 | 11.7           | 31.0 | 6:00a  | WNW     |
| 9     | 42.6      | 53.6 | 5:30p  | 30.0 | 7:30a  | 22.4          | 0.0           | 0.00 | 6.2            | 22.0 | 1:00p  | NW      |
| 10    | 50.2      | 64.0 | 3:30p  | 34.6 | 5:30a  | 14.8          | 0.0           | 0.00 | 5.6            | 19.0 | 5:00p  | SE      |
| 11    | 57.2      | 70.3 | 4:30p  | 44.9 | 5:00a  | 8.7           | 0.9           | 0.00 | 9.5            | 32.0 | 5:30p  | S       |
| 12    | 50.3      | 63.9 | 2:00p  | 30.2 | 12:00m | 14.7          | 0.0           | 0.00 | 15.7           | 46.0 | 2:30p  | S       |
| 13    | 32.6      | 42.3 | 4:00p  | 24.8 | 6:00a  | 32.4          | 0.0           | 0.00 | 20.8           | 40.0 | 10:00a | NW      |
| 14    | 38.8      | 51.2 | 6:00p  | 26.9 | 6:30a  | 26.2          | 0.0           | 0.00 | 11.9           | 28.0 | 3:00p  | NW      |
| 15    | 48.7      | 61.4 | 3:30p  | 32.7 | 5:30a  | 16.3          | 0.0           | 0.00 | 5.9            | 26.0 | 3:00p  | S       |
| 16    | 53.6      | 65.0 | 3:00p  | 42.4 | 5:30a  | 11.4          | 0.0           | 0.00 | 13.0           | 44.0 | 3:30p  | SSE     |
| 17    | 41.5      | 50.4 | 12:30a | 29.1 | 10:00p | 23.5          | 0.0           | 0.00 | 14.3           | 39.0 | 9:00a  | WNW     |
| 18    | 39.8      | 55.1 | 3:30p  | 25.6 | 6:30a  | 25.2          | 0.0           | 0.00 | 6.6            | 24.0 | 3:30p  | NW      |
| 19    | 49.9      | 62.5 | 5:00p  | 33.8 | 6:30a  | 15.1          | 0.0           | 0.00 | 12.1           | 38.0 | 10:00a | SSW     |
| 20    | 39.6      | 47.2 | 2:30p  | 27.2 | 6:30a  | 25.4          | 0.0           | 0.00 | 7.1            | 23.0 | 11:00p | SSE     |
| 21    | 47.2      | 59.7 | 6:00p  | 36.3 | 12:30a | 17.8          | 0.0           | 0.01 | 13.0           | 34.0 | 9:00a  | NW      |
| 22    | 52.6      | 65.2 | 2:00p  | 38.6 | 5:30a  | 12.4          | 0.0           | 0.00 | 4.1            | 18.0 | 2:00p  | WSW     |
| 23    | 60.0      | 72.7 | 3:30p  | 43.6 | 6:00a  | 6.5           | 1.5           | 0.00 | 6.8            | 27.0 | 11:00a | SW      |
| 24    | 55.4      | 66.0 | 5:00p  | 44.8 | 7:00a  | 9.6           | 0.0           | 0.00 | 10.0           | 29.0 | 4:30p  | NW      |
| 25    | 51.3      | 64.9 | 6:00p  | 35.9 | 6:30a  | 13.7          | 0.0           | 0.00 | 8.2            | 28.0 | 12:30a | NW      |
| 26    | 56.0      | 68.1 | 4:00p  | 43.0 | 4:30a  | 9.4           | 0.4           | 0.00 | 8.5            | 28.0 | 11:00a | NW      |
| 27    | 57.7      | 73.6 | 3:00p  | 39.1 | 7:00a  | 8.8           | 1.5           | 0.00 | 7.5            | 25.0 | 9:30a  | WSW     |
| 28    | 58.3      | 69.0 | 4:30p  | 44.3 | 6:30a  | 7.1           | 0.4           | 0.00 | 10.7           | 50.0 | 12:30p | WNW     |
| 29    | 54.6      | 65.3 | 6:00p  | 42.4 | 6:30a  | 10.4          | 0.0           | 0.00 | 13.4           | 50.0 | 1:30p  | WNW     |
| 30    | 51.0      | 59.1 | 4:00p  | 40.4 | 6:30a  | 14.1          | 0.0           | 0.00 | 12.4           | 42.0 | 1:30p  | NW      |
| ----- |           |      |        |      |        |               |               |      |                |      |        |         |
|       | 49.7      | 73.6 | 27     | 24.8 | 13     | 465.7         | 5.3           | 0.22 | 9.7            | 50.0 | 28     | NW      |

Max >= 90.0: 0

Max <= 32.0: 0

Min <= 32.0: 9

Min <= 0.0: 0

Max Rain: 0.18 ON 04/07/18

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

## Acceptable?

Yes No

- Was the gate locked upon arrival?
- Are signs posted in accordance with Section 3.4.4?
- Are all posting 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 Section 3.4.5?
- Is the security fence in good condition?

Comments: There is no contaminated material in the concrete bin.

Repairs have been made to the concrete bin cover, and the gate.

*Bill Cary / Bill Cary*  
Signature of Monticello LM Representative

5/25/2018  
Date of Inspection

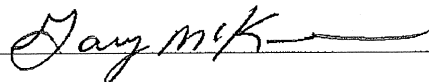
## Monthly Pond 4 Surveillance Checklist

Level of water in Pond 4 8.46

| 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 the 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:** Things appear to be in good shape.

Monticello LM Representative: \_\_\_\_\_



Date: 5/31/2018



MONTHLY CLIMATOLOGICAL SUMMARY for MAY. 2018

NAME: UT Monticello CITY: STATE:  
 ELEV: 7069 ft LAT: 37° 06' 00" N LONG: 109° 06' 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     | 45.5      | 52.1 | 3:30p  | 37.5 | 7:00a  | 19.5          | 0.0           | 0.00 | 12.4           | 41.0 | 9:30p  | WNW     |
| 2     | 35.9      | 46.3 | 4:30p  | 31.6 | 7:00a  | 29.1          | 0.0           | 0.40 | 8.0            | 44.0 | 12:30a | SSE     |
| 3     | 41.2      | 52.6 | 2:00p  | 32.8 | 2:30a  | 23.8          | 0.0           | 0.03 | 4.7            | 19.0 | 1:00p  | WNW     |
| 4     | 51.2      | 64.7 | 5:00p  | 37.0 | 5:30a  | 13.8          | 0.0           | 0.00 | 4.7            | 19.0 | 4:00p  | WNW     |
| 5     | 58.0      | 71.1 | 4:30p  | 43.9 | 5:00a  | 8.0           | 1.0           | 0.00 | 6.6            | 23.0 | 4:00p  | WSW     |
| 6     | 61.9      | 74.4 | 2:00p  | 47.2 | 6:30a  | 5.7           | 2.6           | 0.00 | 6.6            | 25.0 | 2:00p  | WSW     |
| 7     | 65.3      | 77.3 | 3:30p  | 53.5 | 4:30a  | 3.5           | 3.8           | 0.00 | 7.7            | 27.0 | 1:00p  | SW      |
| 8     | 66.4      | 77.3 | 2:30p  | 54.2 | 7:00a  | 3.3           | 4.7           | 0.00 | 8.7            | 30.0 | 2:30p  | WSW     |
| 9     | 69.2      | 81.1 | 4:30p  | 55.0 | 6:30a  | 2.4           | 6.6           | 0.00 | 8.1            | 24.0 | 3:30p  | WSW     |
| 10    | 69.7      | 80.5 | 3:30p  | 56.5 | 6:00a  | 1.1           | 5.8           | 0.00 | 9.8            | 39.0 | 3:30p  | S       |
| 11    | 64.8      | 75.3 | 5:00p  | 52.4 | 5:30a  | 3.1           | 2.9           | 0.00 | 13.2           | 40.0 | 11:30a | SSE     |
| 12    | 59.5      | 68.7 | 4:00p  | 49.5 | 12:00m | 5.9           | 0.4           | 0.00 | 16.3           | 48.0 | 1:30p  | SSE     |
| 13    | 55.3      | 66.5 | 4:30p  | 40.9 | 6:30a  | 9.8           | 0.1           | 0.00 | 8.9            | 31.0 | 12:30p | S       |
| 14    | 55.0      | 68.0 | 4:00p  | 38.2 | 6:00a  | 10.4          | 0.4           | 0.00 | 7.6            | 28.0 | 4:00p  | SSE     |
| 15    | 58.2      | 71.1 | 5:00p  | 40.9 | 5:30a  | 8.1           | 1.2           | 0.00 | 8.2            | 36.0 | 1:30p  | SSE     |
| 16    | 62.4      | 74.7 | 4:00p  | 45.8 | 6:00a  | 5.6           | 2.9           | 0.00 | 7.2            | 32.0 | 2:00p  | SW      |
| 17    | 61.3      | 73.5 | 4:30p  | 45.3 | 6:30a  | 5.8           | 2.2           | 0.00 | 7.4            | 31.0 | 2:30p  | SW      |
| 18    | 61.3      | 72.3 | 3:30p  | 47.2 | 6:30a  | 5.2           | 1.5           | 0.00 | 7.8            | 28.0 | 6:00p  | S       |
| 19    | 58.8      | 69.2 | 6:00p  | 47.7 | 6:30a  | 6.5           | 0.3           | 0.02 | 5.3            | 20.0 | 3:00p  | WNW     |
| 20    | 61.6      | 75.3 | 4:30p  | 47.6 | 6:00a  | 5.9           | 2.5           | 0.00 | 7.3            | 32.0 | 4:00p  | WNW     |
| 21    | 61.4      | 75.3 | 5:30p  | 45.1 | 5:30a  | 6.1           | 2.5           | 0.00 | 7.4            | 28.0 | 12:30p | SE      |
| 22    | 59.7      | 70.4 | 2:30p  | 49.8 | 1:30a  | 6.2           | 0.9           | 0.00 | 9.1            | 34.0 | 12:00p | S       |
| 23    | 59.1      | 71.1 | 3:30p  | 43.2 | 5:30a  | 7.4           | 1.4           | 0.00 | 7.2            | 26.0 | 2:30p  | SSE     |
| 24    | 65.3      | 77.8 | 3:30p  | 47.6 | 5:00a  | 4.0           | 4.3           | 0.00 | 6.7            | 23.0 | 1:00p  | WSW     |
| 25    | 65.0      | 78.5 | 4:30p  | 50.1 | 6:00a  | 4.2           | 4.2           | 0.00 | 8.3            | 27.0 | 1:30p  | S       |
| 26    | 65.2      | 79.3 | 5:00p  | 48.9 | 3:30a  | 4.4           | 4.6           | 0.00 | 12.6           | 39.0 | 2:00p  | SSE     |
| 27    | 58.4      | 71.1 | 4:30p  | 40.9 | 5:00a  | 7.8           | 1.2           | 0.00 | 7.6            | 29.0 | 11:00a | SSE     |
| 28    | 58.5      | 68.7 | 4:00p  | 47.0 | 6:30a  | 6.8           | 0.3           | 0.00 | 7.1            | 34.0 | 5:00p  | WNW     |
| 29    | 60.7      | 73.7 | 5:00p  | 46.5 | 6:30a  | 6.2           | 1.9           | 0.00 | 6.0            | 19.0 | 5:00p  | W       |
| 30    | 64.5      | 76.2 | 12:30p | 50.8 | 5:00a  | 3.9           | 3.4           | 0.00 | 5.5            | 24.0 | 11:00a | WSW     |
| 31    | 66.9      | 79.1 | 4:30p  | 52.0 | 3:30a  | 3.1           | 5.0           | 0.00 | 11.6           | 40.0 | 3:00p  | S       |
| ----- |           |      |        |      |        |               |               |      |                |      |        |         |
|       | 59.6      | 81.1 | 9      | 31.6 | 2      | 236.6         | 68.6          | 0.45 | 8.2            | 48.0 | 12     | SSE     |

Max >= 90.0: 0  
 Max <= 32.0: 0  
 Min <= 32.0: 1  
 Min <= 0.0: 0

Max Rain: 0.40 ON 05/02/18

Days of Rain: 3 (>.01 in) 1 (>.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 7.9058

| 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 the 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"/> |                             |
| <b>Additional comments:</b>    | Things appear to be in good shape.  |                          |                             |

Monticello LM Representative: Jay MK

Date: 6/28/2018

## 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:** The site appears to be dry but in good condition.

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

  
 Monticello LM Representative

Date: 6/28/2018

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

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

MONTHLY CLIMATOLOGICAL SUMMARY for JUN. 2018

NAME: Monticello Office CITY: STATE:  
 ELEV: 7069 ft LAT: 37° 54' 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   | 64.5      | 76.7 | 6:00p  | 48.8 | 5:00a  | 3.9           | 3.4           | 0.00 | 8.5            | 26.0 | 12:00p | S       |
| 2   | 66.8      | 80.5 | 6:00p  | 47.6 | 6:30a  | 3.1           | 4.8           | 0.00 | 8.1            | 23.0 | 4:00a  | WNW     |
| 3   | 66.9      | 80.0 | 1:30p  | 56.2 | 5:00a  | 2.1           | 4.1           | 0.00 | 6.8            | 35.0 | 3:00p  | NE      |
| 4   | 70.2      | 82.8 | 1:30p  | 52.0 | 6:00a  | 1.9           | 7.0           | 0.00 | 8.2            | 39.0 | 2:30p  | S       |
| 5   | 71.3      | 84.4 | 5:30p  | 53.5 | 6:30a  | 1.3           | 7.7           | 0.00 | 7.3            | 26.0 | 12:30p | SSE     |
| 6   | 69.1      | 81.9 | 3:30p  | 52.4 | 6:00a  | 2.2           | 6.3           | 0.00 | 7.3            | 27.0 | 4:30p  | SSE     |
| 7   | 70.0      | 82.5 | 5:00p  | 57.1 | 6:30a  | 1.5           | 6.5           | 0.00 | 9.1            | 27.0 | 12:00p | S       |
| 8   | 70.3      | 83.0 | 5:00p  | 56.9 | 2:30a  | 1.8           | 7.0           | 0.00 | 8.1            | 31.0 | 2:00p  | SSE     |
| 9   | 71.7      | 84.5 | 4:30p  | 55.6 | 6:30a  | 1.4           | 8.1           | 0.00 | 8.8            | 32.0 | 3:30p  | S       |
| 10  | 70.2      | 81.8 | 5:30p  | 54.0 | 5:00a  | 1.3           | 6.5           | 0.00 | 10.5           | 40.0 | 3:30p  | S       |
| 11  | 70.1      | 83.4 | 4:30p  | 56.5 | 6:30a  | 1.4           | 6.5           | 0.00 | 6.4            | 22.0 | 10:00a | NNW     |
| 12  | 74.8      | 88.4 | 4:30p  | 58.8 | 5:00a  | 0.9           | 10.8          | 0.00 | 7.4            | 27.0 | 2:30p  | W       |
| 13  | 76.5      | 89.0 | 3:30p  | 62.7 | 6:00a  | 0.1           | 11.6          | 0.00 | 8.3            | 28.0 | 3:00p  | S       |
| 14  | 72.8      | 85.4 | 5:00p  | 60.5 | 6:30a  | 0.4           | 8.2           | 0.00 | 10.3           | 29.0 | 6:00p  | S       |
| 15  | 72.2      | 85.1 | 4:00p  | 57.4 | 6:00a  | 0.9           | 8.2           | 0.00 | 7.8            | 46.0 | 2:00p  | S       |
| 16  | 62.0      | 69.0 | 12:30a | 54.9 | 10:30p | 3.2           | 0.2           | 0.00 | 8.4            | 27.0 | 10:00a | SSE     |
| 17  | 63.6      | 75.6 | 5:30p  | 55.0 | 6:30a  | 3.9           | 2.6           | 0.00 | 12.3           | 33.0 | 4:30p  | SSE     |
| 18  | 64.8      | 77.5 | 6:00p  | 48.2 | 6:30a  | 4.2           | 3.9           | 0.00 | 8.5            | 30.0 | 3:30p  | S       |
| 19  | 68.5      | 81.7 | 3:30p  | 52.9 | 6:00a  | 2.5           | 6.0           | 0.00 | 7.7            | 34.0 | 3:30p  | SSE     |
| 20  | 69.2      | 81.5 | 4:30p  | 54.3 | 6:00a  | 1.8           | 6.0           | 0.00 | 11.6           | 31.0 | 1:00p  | NW      |
| 21  | 76.3      | 89.6 | 5:00p  | 58.1 | 6:30a  | 1.1           | 12.3          | 0.00 | 7.8            | 31.0 | 2:30p  | SSW     |
| 22  | 75.9      | 84.1 | 4:30p  | 62.2 | 11:30p | 0.1           | 11.0          | 0.00 | 10.0           | 27.0 | 2:30p  | NW      |
| 23  | 74.2      | 87.2 | 5:00p  | 57.7 | 5:30a  | 0.9           | 10.1          | 0.00 | 8.4            | 34.0 | 4:30p  | WNW     |
| 24  | 69.8      | 78.4 | 5:00p  | 59.6 | 11:00p | 0.6           | 5.4           | 0.00 | 10.5           | 26.0 | 2:30a  | NW      |
| 25  | 72.2      | 86.4 | 4:00p  | 54.7 | 6:00a  | 2.0           | 9.2           | 0.00 | 6.2            | 24.0 | 2:30p  | W       |
| 26  | 78.8      | 91.9 | 4:30p  | 63.0 | 5:00a  | 0.0           | 13.9          | 0.00 | 6.3            | 25.0 | 3:00p  | SSW     |
| 27  | 80.2      | 92.2 | 2:00p  | 63.6 | 7:00a  | 0.0           | 15.2          | 0.00 | 7.2            | 35.0 | 2:30p  | S       |
| 28  | 75.8      | 89.0 | 3:30p  | 57.0 | 6:00a  | 0.5           | 11.3          | 0.00 | 8.1            | 33.0 | 3:30p  | WSW     |
| 29  | 72.6      | 83.6 | 3:00p  | 60.9 | 6:30a  | 0.5           | 8.1           | 0.00 | 7.9            | 31.0 | 1:00p  | S       |
| 30  | 70.7      | 83.8 | 4:30p  | 51.7 | 6:30a  | 2.0           | 7.7           | 0.00 | 7.1            | 31.0 | 4:00p  | WNW     |
|     | 71.1      | 92.2 | 27     | 47.6 | 2      | 47.5          | 229.6         | 0.00 | 8.4            | 46.0 | 15     | S       |

Max >= 90.0: 2

Max <= 32.0: 0

Min <= 32.0: 0

Min <= 0.0: 0

Max Rain: 0.00 ON 06/01/18

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

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

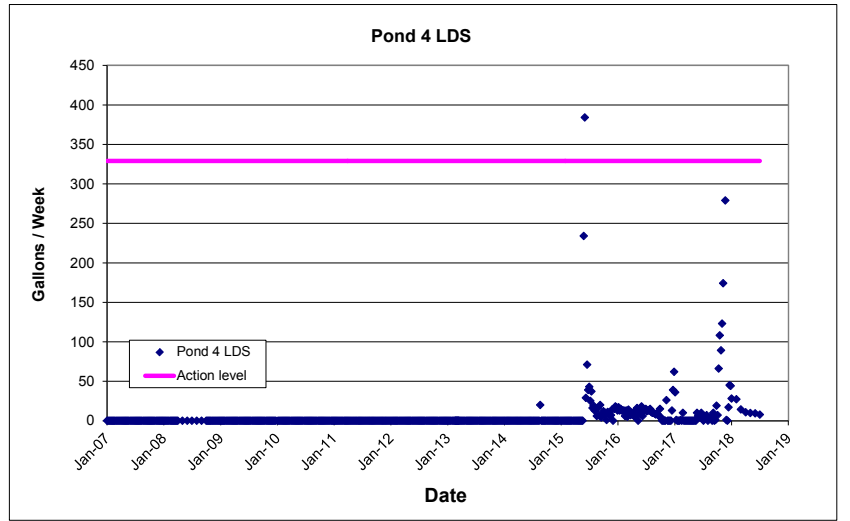
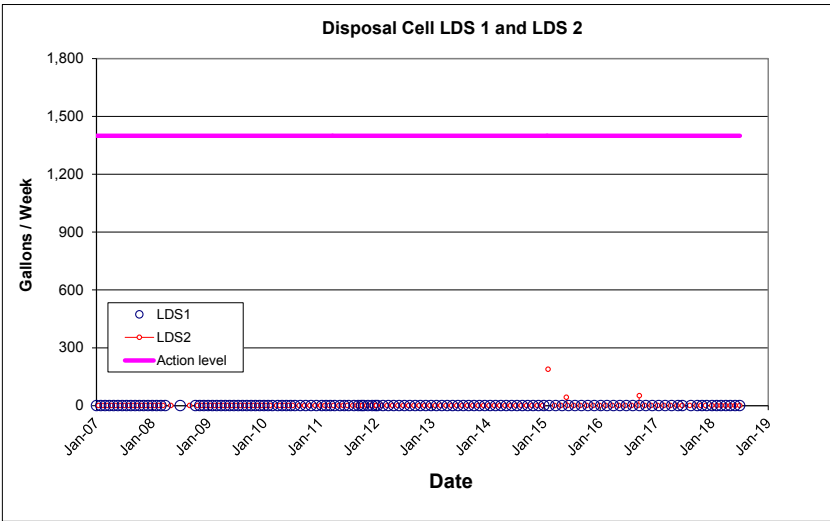
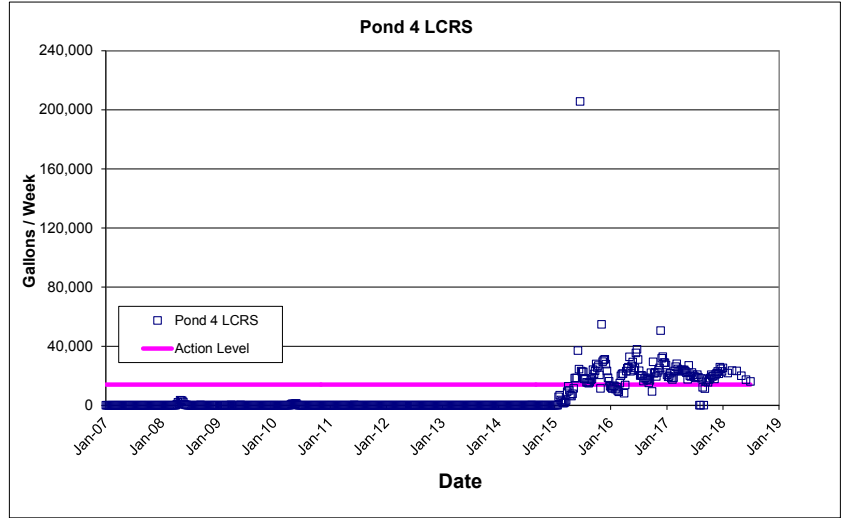
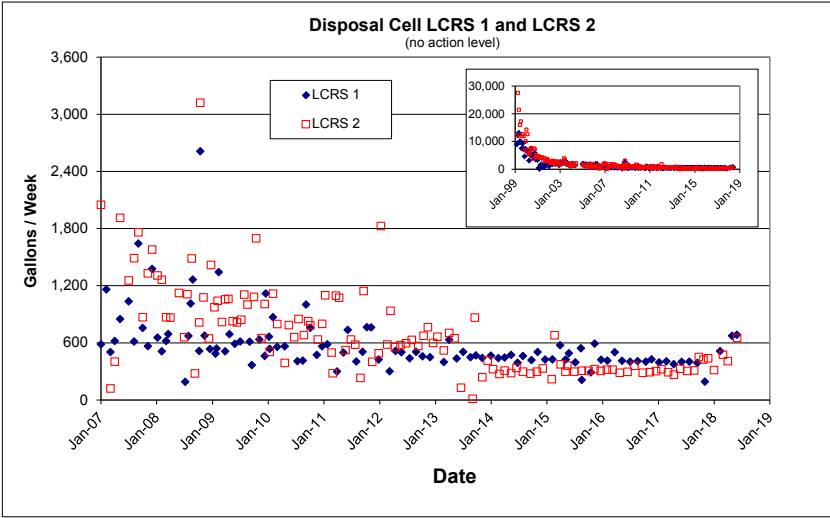


## **Appendix B**

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

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



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