

Monticello National Priorities List Sites Federal Facilities Agreement (FFA) Quarterly Report: July 1–September 30, 2009

This report summarizes project status and activities implemented July through September 2009, and provides a schedule of near-term activities for the Monticello Mill Tailings Site (MMTS) and the Monticello Vicinity Properties (MVP) sites. This report also includes disposal cell and Pond 4 leachate collection data, quarterly site inspection reports, site meteorological data, and a performance summary for the ex situ groundwater treatment system.

Additional information on project status and recent and planned activities is provided in the proceedings of the FFA meeting held in Monticello on September 10, 2009. The proceedings will be provided to the Utah Department of Environmental Quality (UDEQ) and the U.S. Environmental Protection Agency (EPA) by e-mail in October 2009 for comment. The annual site inspection was held on September 8 through 10, 2009. Site inspection findings were discussed among the U.S. Department of Energy (DOE), UDEQ, and EPA during the FFA meeting.

1.0 MMTS Activities/Status

1.1 Disposal Cell and Pond 4

- Monthly and quarterly inspections of the repository site (including Pond 4) and the vegetated cover identified no abnormalities or unacceptable conditions (see attached inspection reports).
- Repository leachate collection in the upper sumps (Leachate Collection and Recovery System [LCRS]) was normal for the quarter. Leachate continues to decrease in quantity from approximately 30,000 gallons per week in 2000 to current values of about 1,000 gallons per week per sump (see attached graph).
- LCRS 1 requires replacement of the water level transducer. The transducer will be replaced this fall pending completion of health and safety evaluations. The LCRS 1 pump will be operated manually until the transducer is replaced. All remaining repository and Pond 4 telemetry components are functional.
- Pond 4 LCRS operation was normal (no water collected during the quarter).
- Disposal cell and Pond 4 leachate collection in the lower sumps (Leachate Detection System [LDS]) remains at zero (see attached graphs).

1.2 Former Millsite

- No land use or groundwater use compliance issues to report.
- A municipal water line break on property at the northwest corner of the mill site in early September 2009 caused localized erosion on the mills site. Radiological scanning completed by the on-site radiological control technician indicted no transport or exposure of radiological contaminated soil. Erosion was repaired by municipal maintenance employees.

1.3 Peripheral Properties (Private and City-Owned)

- No land use/supplemental standards compliance issues to report.
- DOE, UDEQ, and EPA continue to evaluate land use change at property MP-00990-CS regarding new irrigation practices using water from Montezuma Creek (FFA meeting topic of discussion).
- DOE continues with activities to excess property MP-01080-VL.

1.4 Temporary Storage Facility (TSF)

- Approximately 50 cubic yards of radiologically contaminated material are present in the TSF. DOE will initiate the process of transferring TSF materials to the Grand Junction, Colorado, Disposal Site for permanent disposal when TSF contents approach 75 cubic yards.

1.5 Operable Unit III (Surface Water and Groundwater)

- No land use or groundwater use compliance issues to report.

1.6 Ex Situ Groundwater Treatment System

- The ex situ treatment system operated continuously for the quarter at an average rate of 7.3 gallons per minute (gpm). Adjustments are ongoing to maximize the treatment rate and divert all effluent in excess of 10 gpm to the infiltration trench. Currently all treated water is discharged to Montezuma Creek.
- Treatment system performance is summarized in Table 1. Flow information is from the LM Systems Operations and Analysis at Remote Sites telemetry system. Uranium concentrations are from inflow and outflow water samples collected monthly. Prior to June 2008, water samples were analyzed at the LM Environmental Sciences Laboratory (ESL) in Grand Junction. Since then, the samples have been analyzed at the LM contract laboratory Paragon Analytics in Ft. Collins, Colorado. DOE continues to analyze a split of each sample at the ESL for operational purposes.
- Monthly results of total iron and pH (discharge allowances specified by the Utah Division of Water Quality) for the combined effluent of the two treatment cells are provided in Table 2. Iron concentration and pH for this quarter are within the discharge allowances.
- The latest change out of the treatment media occurred on March 18, 2009. Uranium removal from the influent groundwater remained highly effective through the quarter.
- Maintenance is underway to replace a failed flow meter discovered at the end of September 2009.

Table 1. Ex Situ Treatment System Performance

Treatment Parameter	June 2009	July 2009	August 2009	September 2009
Gallons treated	334,239	337,097	334,030	315,360
Average treatment rate, gpm	8.3	7.6	7.5	7.3
Uranium influent, µg/L	310	310	340	350
Uranium outfall, µg/L	8.3	7.1	4.2	3.3
Uranium mass removed, pounds	0.84	0.85	0.93	0.91
Cumulative uranium mass removed, pounds	25.5	26.4	27.3	28.2
Cumulative volume treated, gallons	10,815,182	11,152,279	11,486,309	11,801,669

Table 2. Ex Situ Treatment System Discharge Monitoring

Outfall to Creek	June 2009	July 2009	August 2009	September 2009
pH ^a	7.47	7.39	7.26	7.19
Iron (total, micrograms per liter) ^b	34	34	30	26

^aDischarge allowance range = 6.5 – 9 standard units

^bDischarge limit = 45.4 micrograms per liter at outfall to creek

2.0 MVP Activities/Status

2.1 City Streets and Utilities & Utah Department of Transportation (UDOT) Rights-of-Way

- Major construction activities continue on Highways 191 and 491 through town for infrastructure upgrades.
- On-site LTSM personnel continue to coordinate with City, UDOT, and utility company officials regarding radiological control at the highway excavations.

3.0 Deliverables and Schedule

- The FFA quarterly report for April through June 2009 was submitted to EPA and UDEQ via e-mail on July 8, 2009.
- The Monticello Site Management Plan, fiscal year 2009 update, was submitted in hard copy to EPA and UDEQ on September 21, 2009, following final comment resolution at the FFA meeting.
- Proceedings of the April 29, 2009, FFA meeting held in Monticello are in preparation for submittal to UDEQ and EPA. A formal review and comment resolution process is not required for the proceeding by agreement at the FFA; however, EPA and UDEQ may provide comments for inclusion in the final document.

- DOE received the latest review comments on the Water Quality Compliance Strategy from UDEQ and EPA during the FFA meeting. DOE responses to comments are in progress.
- Scheduled upcoming activities and deliverables are listed in Table 3.

Table 3. Near-Term Activities and Deliverables

Activity/Deliverable	Status/Schedule
OU III annual water quality report	In preparation for October 2009 submittal. No EPA or UDEQ review.
Formalize operational parameters for groundwater treatment system	In preparation for EPA and UDEQ review in fall 2009.
Annual site inspection report	Winter 2009 submittal. EPA and UDEQ reviewable document.
OU III groundwater and surface water monitoring	On schedule for first week of October 2009.

Repository Area Surveillance Checklist

Monthly Surveillance Quarterly Surveillance (Feb., May, Aug., Nov.)

Storm Event Triggered Surveillance due to inches of rainfall over the past 24 hours.

Inspection Item	Acceptable (Yes/No)	Comments and Recommendations
Condition of:		
Fences and gates	yes	_____
Roads ^a	yes	_____
Signs	yes	_____
Site monuments	yes	_____
Drainage ditches ^a	yes	_____
Manholes	yes	_____
Vegetation	yes	_____
Evidence of erosion of:		
Top of disposal cell ^a	NO	_____
Disposal cell sideslopes ^a	NO	_____
Ditches	NO	_____
Surrounding area	NO	_____
Evidence of:		
Vandalism	NO	_____
Intrusion by livestock	NO	_____
Burrowing animal damage	NO	_____
Intrusion by humans	NO	_____
Accumulation of trash	NO	_____

Additional Quarterly Surveillance Requirements

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

Condition of:		
Settlement plate structures	_____	_____
Manholes ^b	_____	_____
Sediment Ponds	_____	_____
Evidence of:		
Structural Instability	_____	_____

Additional Comments _____

Signature Todd Moon
 Monticello LM Representative

Date 7-2-09

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

Repository Area Surveillance Checklist

___ Monthly Surveillance Quarterly Surveillance (Feb., May, Aug., Nov.)

___ Storm Event Triggered Surveillance due to ___ inches of rainfall over the past 24 hours.

Inspection Item	Acceptable (Yes/No)	Comments and Recommendations
Condition of:		
Fences and gates	_____	_____
Roads ^a	_____	_____
Signs	_____	_____
Site monuments	_____	_____
Drainage ditches ^a	_____	_____
Manholes	_____	_____
Vegetation	_____	_____
Evidence of erosion of:		
Top of disposal cell ^a	_____	_____
Disposal cell sideslopes ^a	_____	_____
Ditches	_____	_____
Surrounding area	_____	_____
Evidence of:		
Vandalism	_____	_____
Intrusion by livestock	_____	_____
Burrowing animal damage	_____	_____
Intrusion by humans	_____	_____
Accumulation of trash	_____	_____

Additional Quarterly Surveillance Requirements

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

Condition of:		
Settlement plate structures	_____	_____
Manholes ^b	_____	_____
Sediment Ponds	_____	_____
Evidence of:		
Structural Instability	_____	_____

Additional Comments _____

Signature Judd Mann
 Monticello LM Representative

Date 8-15-09

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

Repository Area Surveillance Checklist

Monthly Surveillance Quarterly Surveillance (Feb., May, Aug., Nov.)

Storm Event Triggered Surveillance due to inches of rainfall over the past 24 hours.

Inspection Item	Acceptable (Yes/No)	Comments and Recommendations
Condition of:		
Fences and gates	yes	
Roads ^a	yes	
Signs	yes	
Site monuments	yes	
Drainage ditches ^a	yes	
Manholes	yes	
Vegetation	yes	
Evidence of erosion of:		
Top of disposal cell ^a	no	
Disposal cell sideslopes ^a	no	
Ditches	no	
Surrounding area	no	
Evidence of:		
Vandalism	no	
Intrusion by livestock	no	
Burrowing animal damage	no	
Intrusion by humans	no	
Accumulation of trash	no	

Additional Quarterly Surveillance Requirements

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

Condition of:		
Settlement plate structures		
Manholes ^b		
Sediment Ponds		
Evidence of:		
Structural Instability		

Additional Comments

Signature Jared Mccorm
Monticello LM Representative

Date 9-2-2009

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

Repository Area Surveillance Checklist

____ Monthly Surveillance ____ Quarterly Surveillance (Feb., May, Aug., Nov.)

____ Storm Event Triggered Surveillance due to ____ inches of rainfall over the past 24 hours.

Inspection Item	Acceptable (Yes/No)	Comments and Recommendations
Condition of:		
Fences and gates	yes	_____
Roads ^a	yes	_____
Signs	yes	_____
Site monuments	yes	_____
Drainage ditches ^a	yes	_____
Manholes	yes	_____
Vegetation	yes	_____
Evidence of erosion of:		
Top of disposal cell ^a	no	_____
Disposal cell sideslopes ^a	no	_____
Ditches	no	_____
Surrounding area	no	_____
Evidence of:		
Vandalism	no	_____
Intrusion by livestock	no	_____
Burrowing animal damage	no	_____
Intrusion by humans	no	_____
Accumulation of trash	no	_____

Additional Quarterly Surveillance Requirements

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

Condition of:		
Settlement plate structures	_____	_____
Manholes ^b	_____	_____
Sediment Ponds	_____	_____
Evidence of:		
Structural Instability	_____	_____

Additional Comments _____

Signature Jedd Mann
 Monticello LM Representative

Date 09-28-2009

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

Monthly Pond 4 Surveillance Checklist

Level of Water in Pond 4 1.6

Inspection Item	Acceptable (Yes/No)	Comments & Recommendation
Condition of:		
Fences, gates, and locks	<u>YES</u>	_____
Roads	<u>YES</u>	_____
Signs	<u>YES</u>	_____
Visible piping	<u>YES</u>	_____
Visible liner and anchors	<u>YES</u>	_____
Rescue equipment	<u>YES</u>	_____

Evidence of erosion of:		
Top of Pond 4 berm	<u>NO</u>	_____
Pond 4 sideslopes	<u>NO</u>	_____
Ditches	<u>NO</u>	_____
Surrounding area	<u>NO</u>	_____
Seepage from Pond 4	<u>NO</u>	_____
Overtopping of Pond 4	<u>NO</u>	_____

Evidence of:		
Vandalism	<u>NO</u>	_____
Intrusion by wildlife	<u>NO</u>	_____
Intrusion by humans	<u>NO</u>	_____
Accumulation of trash	<u>NO</u>	_____

Additional Comments _____

Monticello LM Representative Jedd Moon Date 7-2-09

Monthly Pond 4 Surveillance Checklist

Level of Water in Pond 4 1.1

Inspection Item	Acceptable (Yes/No)	Comments & Recommendation
Condition of:		
Fences, gates, and locks	<u>yes</u>	_____
Roads	<u>yes</u>	_____
Signs	<u>yes</u>	_____
Visible piping	<u>yes</u>	_____
Visible liner and anchors	<u>yes</u>	_____
Rescue equipment	<u>yes</u>	_____
 Evidence of erosion of:		
Top of Pond 4 berm	<u>no</u>	_____
Pond 4 sideslopes	<u>no</u>	_____
Ditches	<u>no</u>	_____
Surrounding area	<u>no</u>	_____
Seepage from Pond 4	<u>no</u>	_____
Overtopping of Pond 4	<u>no</u>	_____
 Evidence of:		
Vandalism	<u>no</u>	_____
Intrusion by wildlife	<u>no</u>	_____
Intrusion by humans	<u>no</u>	_____
Accumulation of trash	<u>no</u>	_____

Additional Comments _____

Monticello LM Representative Judd Moon Date 08-05-09

Monthly Pond 4 Surveillance Checklist

Level of Water in Pond 4 0.7

Inspection Item	Acceptable (Yes/No)	Comments & Recommendation
Condition of:		
Fences, gates, and locks	<u>yes</u>	_____
Roads	<u>yes</u>	_____
Signs	<u>yes</u>	_____
Visible piping	<u>yes</u>	_____
Visible liner and anchors	<u>yes</u>	_____
Rescue equipment	<u>yes</u>	_____
 Evidence of erosion of:		
Top of Pond 4 berm	<u>NO</u>	_____
Pond 4 sideslopes	<u>NO</u>	_____
Ditches	<u>NO</u>	_____
Surrounding area	<u>NO</u>	_____
Seepage from Pond 4	<u>NO</u>	_____
Overtopping of Pond 4	<u>NO</u>	_____
 Evidence of:		
Vandalism	<u>NO</u>	_____
Intrusion by wildlife	<u>NO</u>	_____
Intrusion by humans	<u>NO</u>	_____
Accumulation of trash	<u>NO</u>	_____

Additional Comments

Monticello LM Representative Jed Olson Date 09-02-2009

Monthly Pond 4 Surveillance Checklist

Level of Water in Pond 4 0.6

Inspection Item	Acceptable (Yes/No)	Comments & Recommendation
Condition of:		
Fences, gates, and locks	<u>yes</u>	_____
Roads	<u>yes</u>	_____
Signs	<u>yes</u>	_____
Visible piping	<u>yes</u>	_____
Visible liner and anchors	<u>yes</u>	_____
Rescue equipment	<u>yes</u>	_____
 Evidence of erosion of:		
Top of Pond 4 berm	<u>NO</u>	_____
Pond 4 sideslopes	<u>NO</u>	_____
Ditches	<u>NO</u>	_____
Surrounding area	<u>NO</u>	_____
Seepage from Pond 4	<u>NO</u>	_____
Overtopping of Pond 4	<u>NO</u>	_____
 Evidence of:		
Vandalism	<u>NO</u>	_____
Intrusion by wildlife	<u>yes</u>	<u>Deer was chased out has not returned in two weeks</u>
Intrusion by humans	<u>NO</u>	_____
Accumulation of trash	<u>NO</u>	_____

Additional Comments _____

Monticello LM Representative Judd Moon Date 09-28-2009

MONTHLY CLIMATOLOGICAL SUMMARY for JUL. 2009

NAME: Monticello CITY: STATE:
 ELEV: 7000 ft LAT: 37° 36' 00" N LONG: 122° 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	78.7	86.5	5:30p	68.8	11:00p	0.0	7.7	0.00	7.1	28.0	7:00p	SW
2	67.0	79.7	2:00p	58.6	12:00m	1.2	3.2	0.04	5.2	33.0	3:30p	SSW
3	66.7	78.5	6:30p	55.7	2:30a	2.3	4.0	0.00	5.7	18.0	11:30a	SSW
4	70.5	81.1	4:30p	63.1	5:30a	0.1	5.6	0.00	6.5	31.0	8:00p	NW
5	70.4	82.8	5:30p	55.7	6:00a	1.1	6.5	0.00	5.8	21.0	7:00a	NNW
6	72.3	85.0	5:00p	59.8	6:00a	0.9	8.2	0.00	6.2	30.0	3:00p	W
7	72.5	83.5	4:00p	57.2	6:30a	0.7	8.2	0.00	8.2	40.0	4:30p	WSW
8	72.7	84.5	4:30p	56.6	6:00a	0.5	8.2	0.00	8.3	26.0	4:00p	W
9	72.3	84.6	5:30p	58.0	5:00a	0.8	8.1	0.00	6.9	26.0	2:00p	SSW
10	73.0	86.1	5:30p	55.1	2:30a	1.0	9.1	0.00	6.7	25.0	3:30p	WSW
11	73.9	86.2	3:30p	66.0	6:00a	0.0	8.9	0.40	6.9	42.0	5:00p	SW
12	74.5	86.8	5:00p	61.9	6:00a	0.3	9.8	0.56	5.3	22.0	4:30p	NW
13	74.4	86.1	4:30p	61.7	6:00a	0.4	9.8	0.02	6.0	30.0	1:30p	W
14	75.8	86.7	5:00p	63.5	6:30a	0.0	10.9	0.00	6.7	25.0	2:00p	W
15	75.5	86.9	3:30p	64.3	3:00a	0.0	10.5	0.00	6.1	24.0	11:00a	N
16	76.1	87.8	4:00p	64.8	4:30a	0.0	11.1	0.00	7.0	23.0	1:30p	NW
17	77.5	90.1	5:30p	64.9	6:30a	0.0	12.5	0.00	6.0	26.0	2:30p	W
18	78.5	91.5	4:30p	64.1	6:00a	0.0	13.5	0.00	6.6	20.0	11:30a	W
19	76.9	88.9	5:30p	61.2	7:00a	0.1	12.0	0.00	5.3	36.0	3:00p	W
20	76.4	87.8	4:30p	67.2	3:00a	0.0	11.4	0.00	6.0	28.0	5:00a	NW
21	72.7	84.1	4:00p	61.3	7:00a	0.3	8.0	0.00	6.3	25.0	5:00p	NNW
22	71.8	85.2	5:30p	58.5	6:30a	1.3	8.1	0.00	6.5	23.0	1:30p	SSW
23	75.3	88.9	6:30p	59.3	6:00a	0.2	10.6	0.00	6.7	31.0	3:00p	W
24	73.9	86.0	1:30p	58.9	6:00a	0.5	9.3	0.00	6.9	24.0	2:30p	W
25	75.0	85.6	4:30p	65.6	7:30a	0.0	10.0	0.01	5.8	28.0	6:30p	NW
26	67.3	77.8	7:00p	59.4	12:30p	1.0	3.3	0.76	5.6	34.0	12:30p	SSW
27	70.9	84.7	5:30p	56.4	6:30a	1.8	7.8	0.00	5.5	18.0	4:00p	NW
28	69.9	81.5	11:30a	58.8	12:00m	0.9	5.8	0.00	7.8	32.0	5:00p	W
29	64.1	79.7	2:00p	54.8	2:30a	3.2	2.3	0.19	7.8	43.0	4:30p	SW
30	64.0	79.8	4:00p	51.7	2:30a	3.9	3.0	0.01	5.5	29.0	6:00p	S
31	67.6	80.3	5:00p	56.3	5:00a	2.1	4.7	0.00	6.7	24.0	5:00p	SSW

	72.5	91.5	18	51.7	30	24.6	252.1	1.99	6.4	43.0	29	W

Max >= 90.0: 2
 Max <= 32.0: 0
 Min <= 32.0: 0
 Min <= 0.0: 0
 Max Rain: 0.76 ON 07/26/09
 Days of Rain: 6 (>.01 in) 4 (>.1 in) 0 (>1 in)
 Heat Base: 65.0 Cool Base: 65.0 Method: Integration

MONTHLY CLIMATOLOGICAL SUMMARY for AUG. 2009

NAME: Monticello CITY: STATE:
 ELEV: 7000 ft LAT: 37° 36' 00" N LONG: 122° 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	71.8	82.4	5:30p	58.9	4:00a	1.0	7.8	0.00	7.5	28.0	3:00p	NW
2	74.0	85.7	4:30p	63.5	6:00a	0.0	9.0	0.00	5.6	20.0	12:30p	W
3	75.5	87.0	3:30p	64.4	2:00a	0.0	10.5	0.00	7.1	28.0	1:00p	W
4	76.3	87.2	4:30p	62.8	7:00a	0.1	11.4	0.00	5.1	23.0	2:30a	W
5	76.1	87.7	1:30p	65.3	3:00a	0.0	11.1	0.00	5.8	35.0	6:30a	W
6	70.5	78.5	5:00p	62.9	12:00m	0.1	5.5	0.01	8.8	30.0	7:00a	SW
7	68.0	79.1	5:00p	58.2	1:30a	1.6	4.6	0.00	11.8	42.0	1:30p	SW
8	62.6	74.0	5:00p	46.7	5:00a	4.7	2.3	0.00	7.2	26.0	4:00p	S
9	65.2	78.8	5:00p	55.5	4:00a	3.5	3.6	0.00	7.1	19.0	2:00a	NNW
10	68.4	81.4	3:00p	54.2	4:30a	2.8	6.2	0.00	6.1	27.0	12:30p	W
11	72.2	84.9	5:00p	59.3	6:30a	1.2	8.3	0.00	5.6	22.0	12:30p	W
12	73.5	86.4	3:00p	61.8	7:00a	0.5	9.0	0.00	7.9	29.0	6:00p	W
13	70.0	77.8	1:30p	57.7	12:00m	0.4	5.4	0.01	5.5	27.0	9:00p	SW
14	60.5	72.4	1:30p	54.2	4:00a	5.3	0.8	0.57	6.6	28.0	2:00a	SSW
15	65.3	78.4	5:30p	51.5	7:00a	3.5	3.8	0.00	8.5	31.0	3:00p	SSW
16	65.2	77.3	5:30p	49.0	5:30a	3.6	3.8	0.00	7.3	26.0	3:30p	WSW
17	67.5	80.2	5:00p	51.5	6:30a	2.7	5.2	0.00	6.6	43.0	3:30p	NW
18	67.9	80.1	2:30p	54.4	7:00a	2.2	5.1	0.00	6.9	35.0	2:30p	NNW
19	68.5	79.5	4:30p	56.5	2:30a	1.7	5.1	0.00	8.6	28.0	1:00p	NNW
20	72.5	85.0	4:00p	59.5	6:00a	0.8	8.2	0.00	6.3	20.0	6:30p	NW
21	73.7	87.1	5:00p	58.6	7:00a	0.6	9.4	0.00	5.5	16.0	12:30p	W
22	73.7	85.5	5:00p	62.3	4:00a	0.1	8.8	0.00	9.6	26.0	8:30a	SSW
23	66.9	77.6	5:00p	60.0	3:30a	1.4	3.3	0.00	8.3	26.0	2:30p	N
24	65.9	78.1	4:00p	55.7	8:00a	2.5	3.4	0.04	6.6	33.0	4:00p	N
25	61.6	73.5	12:30p	55.2	3:00p	4.4	1.0	0.18	6.9	32.0	4:00p	N
26	66.0	78.5	4:30p	52.7	6:00a	3.3	4.3	0.00	5.8	25.0	2:30p	NNW
27	70.0	83.0	4:00p	57.2	4:00a	1.9	6.9	0.00	6.6	22.0	3:30p	N
28	71.2	83.1	5:00p	59.0	6:00a	0.8	7.1	0.00	5.8	19.0	11:00a	WSW
29	72.3	82.6	5:00p	62.2	6:30a	0.2	7.6	0.00	7.0	29.0	11:00p	W
30	73.2	84.7	5:30p	62.4	3:00a	0.1	8.2	0.00	6.4	26.0	2:30p	WSW
31	71.6	81.7	5:00p	63.0	6:30a	0.2	6.7	0.00	8.6	26.0	6:00p	N

	69.6	87.7	5	46.7	8	51.2	193.4	0.81	7.1	43.0	17	W

Max >= 90.0: 0
 Max <= 32.0: 0
 Min <= 32.0: 0
 Min <= 0.0: 0
 Max Rain: 0.57 ON 08/14/09
 Days of Rain: 3 (>.01 in) 2 (>.1 in) 0 (>1 in)
 Heat Base: 65.0 Cool Base: 65.0 Method: Integration

MONTHLY CLIMATOLOGICAL SUMMARY for SEP. 2009

NAME: Monticello CITY: STATE:
 ELEV: 7000 ft LAT: 37° 36' 00" N LONG: 122° 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	69.7	79.4	3:30p	62.1	7:00a	0.4	5.1	0.00	5.1	21.0	2:00a	SSW
2	68.2	80.0	5:00p	59.6	1:00a	0.9	4.1	0.01	5.6	24.0	1:00p	SSW
3	67.7	80.0	4:30p	57.1	6:00a	2.0	4.7	0.00	4.3	25.0	5:00p	W
4	67.0	80.3	3:30p	58.8	11:30p	1.7	3.6	0.00	5.3	24.0	6:30p	SW
5	64.2	73.3	4:30p	55.3	6:00a	2.8	2.0	0.00	5.7	21.0	2:00p	SW
6	61.4	71.0	6:00p	54.4	7:00a	4.5	0.9	0.06	6.0	20.0	11:30a	N
7	65.9	77.9	4:30p	52.8	6:00a	2.9	3.8	0.00	7.2	26.0	4:00p	N
8	65.9	78.9	2:00p	53.3	3:30a	2.9	3.8	0.01	4.5	30.0	12:00p	W
9	67.2	79.6	5:00p	51.9	6:30a	2.2	4.3	0.00	5.6	22.0	1:30p	SW
10	65.0	73.4	2:00p	58.9	12:00m	1.9	1.9	0.00	7.7	31.0	4:00p	N
11	66.8	78.4	4:00p	56.9	1:30a	2.2	4.0	0.00	4.8	24.0	6:30p	N
12	65.7	76.3	4:00p	55.5	6:30a	2.6	3.3	0.00	10.1	28.0	10:00a	N
13	62.5	73.6	4:30p	52.5	11:30p	4.3	1.7	0.05	9.8	31.0	6:30p	N
14	62.0	72.3	3:00p	53.8	12:30a	4.4	1.4	0.01	6.0	21.0	1:00p	N
15	55.0	67.7	2:00p	49.9	9:30p	10.0	0.1	0.04	6.9	29.0	2:00p	NNW
16	56.1	66.7	12:30p	49.6	1:00a	9.0	0.1	0.03	5.3	22.0	2:30p	NW
17	56.4	66.1	1:30p	45.2	6:00a	8.6	0.0	0.01	4.4	20.0	12:30p	WSW
18	58.3	71.7	4:00p	49.0	4:30a	7.6	0.9	0.08	4.8	23.0	5:00p	SW
19	56.4	67.2	6:00p	49.9	4:00a	8.8	0.2	0.30	4.1	21.0	9:00a	W
20	59.4	71.0	5:00p	48.0	7:30a	6.5	0.9	0.00	4.9	26.0	7:00p	NNW
21	51.6	57.2	12:00p	40.6	11:00p	13.4	0.0	0.00	12.5	43.0	12:30p	N
22	47.8	57.1	3:30p	37.3	6:30a	17.2	0.0	0.00	10.2	30.0	4:00p	N
23	53.8	63.6	4:00p	44.8	6:30a	11.2	0.0	0.00	12.4	31.0	3:30p	NNW
24	53.3	64.7	4:30p	39.3	7:30a	11.7	0.0	0.00	6.6	30.0	5:30p	NW
25	58.8	72.4	4:30p	45.0	6:30a	7.9	1.6	0.00	7.2	30.0	5:00p	W
26	63.2	76.4	3:30p	49.7	7:00a	5.1	3.3	0.00	6.0	26.0	1:30p	WNW
27	66.2	79.0	5:00p	52.7	7:00a	3.3	4.5	0.00	7.5	23.0	2:30p	W
28	63.3	76.6	3:00p	51.5	7:30a	2.7	1.7	0.00	7.7	26.0	2:30p	W
29												
30												

	61.4	80.3	4	37.3	22	158.7	57.9	0.60	6.7	43.0	21	N

Max >= 90.0: 0
 Max <= 32.0: 0
 Min <= 32.0: 0
 Min <= 0.0: 0
 Max Rain: 0.30 ON 09/19/09
 Days of Rain: 6 (>.01 in) 1 (>.1 in) 0 (>1 in)
 Heat Base: 65.0 Cool Base: 65.0 Method: Integration

Graphs Showing Performance History for Repository and Pond 4 Leachate Collection and Recovery System (LCRS) and Leak Detection System (LDS)

