

# Data Validation Package

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**October 2011  
Groundwater and Surface  
Water Sampling at the  
Monticello, Utah, Mill Tailings Site**

**January 2012**

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# Sampling Event Summary

**Site:** Monticello, Utah, Mill Tailings Site

**Sampling Period:** October 10-12, 2011

This semiannual event includes sampling groundwater and surface water at the Monticello Mill Tailings Site. Sampling and analysis were conducted as specified in the 2004 *Monticello Mill Tailings Site Operable Unit III Post-Record of Decision Monitoring Plan*, Draft Final and *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites* (LMS/PLN/S04351, continually updated).

Samples were collected from 59 locations (34 monitoring wells, 9 downgradient PeRT wells, 7 seeps and wetlands, and 9 surface water locations). Surface location SW00-01 and well MW00-07 were not sampled because of insufficient water available. All samples were filtered as specified in the monitoring plan. Duplicate samples were collected from locations 0200, R1-M3, and T01-01. Water levels were measured at each sampled well and an additional set of wells.

The contaminants of concern (COCs) for the Monticello Mill Tailings Site are arsenic, manganese, molybdenum, nitrate + nitrite as nitrogen (N), selenium, uranium, and vanadium. Time-concentration graphs of the COCs for all groundwater and surface water locations are included in this report. Wells with COCs that exceeded remediation goals are listed in Table 1.

*Table 1. Monticello Groundwater Locations that Exceed Remediation Goals*

Analyte	Remediation Goal <sup>a</sup> (mg/L)	Location	Concentration (mg/L)
Arsenic	0.01	88-85	0.013
Arsenic	0.01	92-11	0.017
Arsenic	0.01	R1-M3	0.014
Arsenic	0.01	T00-04	0.01
Arsenic	0.01	T01-01	0.011
Arsenic	0.01	T01-02	0.021
Arsenic	0.01	T01-04	0.016
Arsenic	0.01	T01-05	0.015
Arsenic	0.01	T01-13	0.011
Arsenic	0.01	T01-25	0.012
Manganese	0.88	R6-M3	1.2
Manganese	0.88	T01-13	4.5
Manganese	0.88	T01-18	1.9
Manganese	0.88	T01-19	6.7
Manganese	0.88	T01-20	11
Manganese	0.88	T01-25	3.7
Molybdenum	0.1	PW-17	0.11
Nitrate + Nitrite as N	10	T01-18	11
Uranium	0.03	0200	0.23
Uranium	0.03	0202	0.22
Uranium	0.03	82-08	0.031
Uranium	0.03	88-85	0.24

Table 1 (continued). Monticello Groundwater Locations that Exceed Remediation Goals

Analyte	Remediation Goal <sup>a</sup> (mg/L)	Location	Concentration (mg/L)
Uranium	0.03	92-07	0.97
Uranium	0.03	92-08	0.32
Uranium	0.03	92-09	0.36
Uranium	0.03	92-11	0.15
Uranium	0.03	MW00-06	0.72
Uranium	0.03	P92-06	0.47
Uranium	0.03	PW-10	1.1
Uranium	0.03	PW-17	1.2
Uranium	0.03	PW-28	0.18
Uranium	0.03	R1-M3	0.45
Uranium	0.03	R1-M4	0.64
Uranium	0.03	R3-M2	0.64
Uranium	0.03	R3-M3	0.34
Uranium	0.03	R6-M3	0.042
Uranium	0.03	T00-01	0.066
Uranium	0.03	T00-04	0.18
Uranium	0.03	T01-01	0.059
Uranium	0.03	T01-02	0.17
Uranium	0.03	T01-04	0.13
Uranium	0.03	T01-05	0.13
Uranium	0.03	T01-07	0.14
Uranium	0.03	T01-12	0.16
Uranium	0.03	T01-13	0.17
Uranium	0.03	T01-18	0.45
Uranium	0.03	T01-19	0.06
Uranium	0.03	T01-20	0.38
Uranium	0.03	T01-23	0.038
Uranium	0.03	T01-35	0.093
Vanadium	0.33	88-85	0.36
Vanadium	0.33	92-07	0.34
Vanadium	0.33	92-11	0.39
Vanadium	0.33	R1-M3	0.40
Vanadium	0.33	T01-02	0.42
Vanadium	0.33	T01-04	0.34

<sup>a</sup>Remediation Goal is from the 2004 *Monticello Mill Tailings Site Operable Unit III Post-Record of Decision Monitoring Plan*, Draft Final. Concentrations are expressed in milligrams per liter (mg/L).

Surface water locations with COCs that exceeded Utah surface water standards are listed in Table 2.

Table 2. Monticello Surface Water Locations that Exceed Utah Surface Water Standards

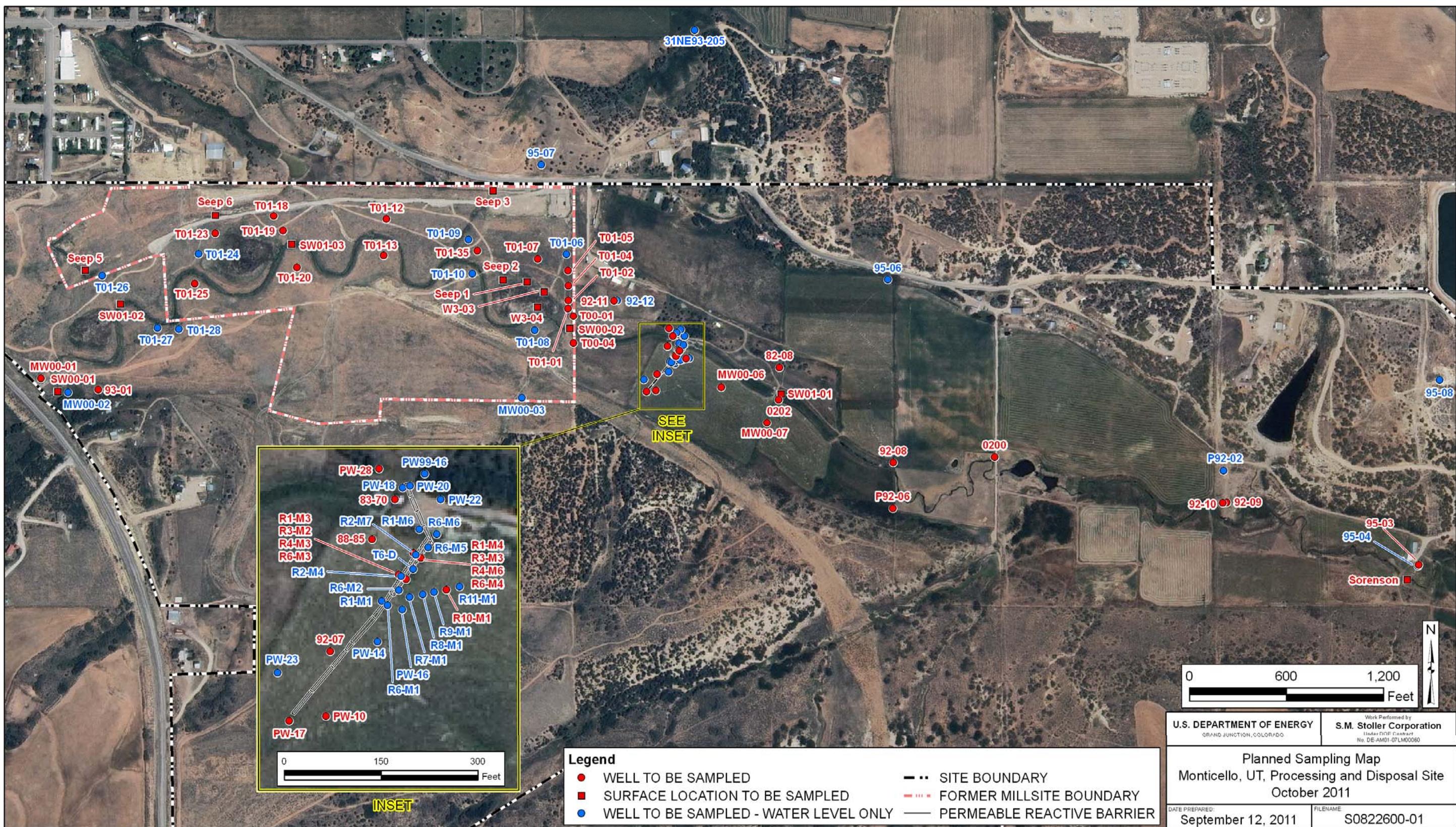
Analyte	Standard <sup>a</sup> (mg/L)	Location	Concentration (mg/L)
Arsenic	0.01	Seep 1	0.017
Nitrate + Nitrite as N	4	Seep 3	36
Nitrate + Nitrite as N	4	Seep 5	4.7
Nitrate + Nitrite as N	4	Seep 6	4.0
Selenium	0.005	Seep 1	0.02
Selenium	0.005	Seep 3	0.085
Selenium	0.005	Seep 6	0.014
Selenium	0.005	Sorenson	0.009
Selenium	0.005	SW00-04	0.0069
Selenium	0.005	SW92-08	0.0057
Selenium	0.005	SW92-09	0.0054
Selenium	0.005	SW94-01	0.0057
Uranium	0.044	Seep 1	0.26
Uranium	0.044	Seep 2	0.16
Uranium	0.044	Seep 6	1.5
Uranium	0.044	Sorenson	0.16
Uranium	0.044	SW00-04	0.14
Uranium	0.044	SW92-08	0.14
Uranium	0.044	SW92-09	0.13
Uranium	0.044	SW94-01	0.13
Uranium	0.044	W3-03	0.16

<sup>a</sup> Standard is from the 2004 Monticello Mill Tailings Site Operable Unit III Post-Record of Decision Monitoring Plan, Draft Final. Concentrations are expressed in mg/L.

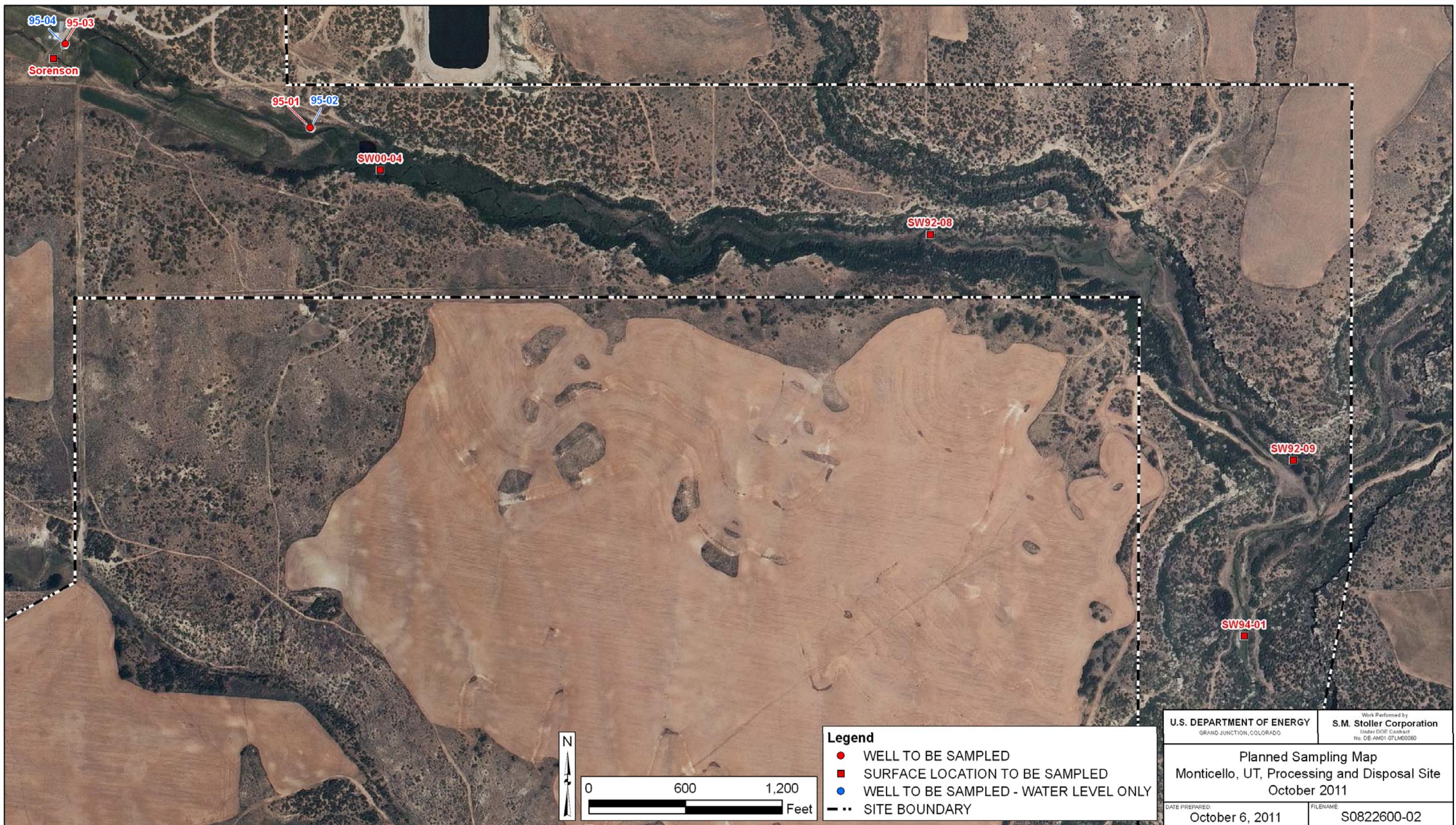
TR Bartlett  
Tim Bartlett  
Site Hydrologist, S.M. Stoller Corporation

12/6/12 /6/12  
Date TB

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*Sample Location Map*



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Sample Location Map (continued)

# **Data Assessment Summary**

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## Water Sampling Field Activities Verification Checklist

Project	Monticello, Utah	Date(s) of Water Sampling	October 10-12, 2011
Date(s) of Verification	December 28, 2011	Name of Verifier	Gretchen Baer
		Response (Yes, No, NA)	Comments
1. Is the SAP the primary document directing field procedures?		Yes	<i>Monticello Mill Tailings Site Operable Unit III Post-Record of Decision Monitoring Plan, Draft Final. Work Order Letter dated September 13, 2011.</i>
List other documents, SOPs, instructions.		No	Well MW00-07 was purged dry and did not recover for sample collection; SW00-01 was dry.
2. Were the sampling locations specified in the planning documents sampled?		Yes	Pre-trip calibrations were performed on October 6 & 7, 2011.
3. Was a pre-trip calibration conducted as specified in the above-named documents?		Yes	Checks were performed twice a day, as required at this site.
4. Was an operational check of the field equipment conducted daily?  Did the operational checks meet criteria?		Yes	
5. Were the number and types (alkalinity, temperature, specific conductance, pH, turbidity, DO, ORP) of field measurements taken as specified?		Yes	
6. Was the category of the well documented?		Yes	
7. Were the following conditions met when purging a Category I well:  Was one pump/tubing volume purged prior to sampling?  Did the water level stabilize prior to sampling?  Did pH, specific conductance, and turbidity measurements stabilize prior to sampling?  Was the flow rate less than 500 mL/min?  If a portable pump was used, was there a 4-hour delay between pump installation and sampling?		Yes	
		NA	

## Water Sampling Field Activities Verification Checklist (continued)

	<u>Response (Yes, No, NA)</u>	<u>Comments</u>
8. Were the following conditions met when purging a Category II well:		
Was the flow rate less than 500 mL/min?	Yes	
Was one pump/tubing volume removed prior to sampling?	Yes	
9. Were duplicates taken at a frequency of one per 20 samples?	Yes	Duplicate samples were collected at locations 0200, R1-M3, and T01-01.
10. Were equipment blanks taken at a frequency of one per 20 samples that were collected with nondedicated equipment?	Yes	
11. Were trip blanks prepared and included with each shipment of VOC samples?	NA	
12. Were QC samples assigned a fictitious site identification number?	Yes	
Was the true identity of the samples recorded on the Quality Assurance Sample Log or in the Field Data Collection System (FDCS) report?	Yes	
13. Were samples collected in the containers specified?	Yes	
14. Were samples filtered and preserved as specified?	Yes	
15. Were the number and types of samples collected as specified?	Yes	There was insufficient water volume at T01-13 and T01-19 for all analyses.
16. Were chain of custody records completed and was sample custody maintained?	Yes	
17. Are field data sheets signed and dated by both team members (hardcopies) or are dates present for the "Date Signed" fields (FDCS)?	Yes	
18. Was all other pertinent information documented on the field data sheets?	Yes	
19. Was the presence or absence of ice in the cooler documented at every sample location?	Yes	
20. Were water levels measured at the locations specified in the planning documents?	Yes	

## Laboratory Performance Assessment

### General Information

Report Number (RIN): 11104114  
Sample Event: October 10-12, 2011  
Site(s): Monticello, Utah  
Laboratory: ALS Laboratory Group, Fort Collins, Colorado  
Work Order No.: 1110194  
Analysis: Metals and Wet Chemistry  
Validator: Gretchen Baer  
Review Date: December 28, 2011

This validation was performed according to the *Environmental Procedures Catalog*, (LMS/PRO/S04325, continually updated) “Standard Practice for Validation of Laboratory Data.” The procedure was applied at Level 3, Data Validation. See attached Data Validation Worksheets for supporting documentation on the data review and validation. All analyses were successfully completed. The samples were prepared and analyzed using accepted procedures based on methods specified by line item code, which are listed in Table 3.

*Table 3. Analytes and Methods*

Analyte	Line Item Code	Prep Method	Analytical Method
Arsenic, Selenium, Uranium, Vanadium	LMM-02	SW-846 3005A	SW-846 6020A
Calcium, Iron, Magnesium, Manganese, Molybdenum, Potassium, Sodium	LMM-01	SW-846 3005A	SW-846 6010B
Chloride	MIS-A-045	SW-846 9056	SW-846 9056
Fluoride	MIS-A-045	SW-846 9056	SW-846 9056
Nitrate + Nitrite as N	WCH-A-022	EPA 353.2 R2.0	EPA 353.2 R2.0
Sulfate	MIS-A-045	SW-846 9056	SW-846 9056
Total Dissolved Solids	WCH-A-033	EPA 160.1	EPA 160.1

### Data Qualifier Summary

Analytical results were qualified as listed in Table 4. Refer to the sections below for an explanation of the data qualifiers applied.

*Table 4. Data Qualifier Summary*

Sample Number	Location	Analyte(s)	Flag	Reason
1110194-1, -2, -5, -6, -8, -10, -11, -12, -13, -15, -17, -18, -19, -20, -21, -22, -23, -27, -28, -29, -30, -34, -35, -37, -38, -40, -41, -43, -54, -56, -58, -59	Various	Arsenic	J	Reporting limit verification failure
1110194-1, -2, -3, -4, -5, -6, -7, -9, -10, -11, -14, -18, -19, -20, -21, -22, -23, -24, -25, -26, -29, -30, -33, -35, -36, -37, -38, -39, -40, -41, -42, -43, -44, -46, -47, -48, -49, -50, -51, -52, -53, -54, -61, -62	Various	Iron	J	Negative method blank
1110194-6, -15, -24, -49	Various	Iron	U	Less than 5 times the calibration blank
1110194-6	Equip Blank, 2918	Magnesium	J	Negative method blank
1110194-36	Seep 5	Manganese	J	Less than 5 times the equipment blank
1110194-4, -5, -7, -9, -14, -18, -19, -20, -21, -22, -23, -25, -48, -50, -51, -52, -53, -54, -61	Various	Manganese	J	Negative method blank
1110194-1, -2, -5, -6, -7, -8, -9, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -23, -24, -31, -33, -34, -35, -36, -37, -39, -42, -43, -52, -53, -54, -56, -57, -58, -59, -60, -61, -62, -63	Various	Molybdenum	J	Negative method blank
1110194-6, -12, -36, -58	Various	Potassium	J	Negative method blank
1110194-27, -28, -29, -30, -31, -34, -39, -55, -57, -58, -59, -60, -63	Various	Selenium	J	Reporting limit verification failure
1110194-12, -13, -15, -17	92-09	Selenium	U	Less than 5 times the method blank
1110194-1, -27, -32, -36, -39, -57, -58	Various	Vanadium	J	Reporting limit verification failure
1110194-5, -6, -8, -11, -12, -13, -15, -16, -17, -18, -20, -28, -29, -30, -34, -35, -38, -40, -43, -44, -55, -56, -59, -60, -63	Various	Vanadium	U	Less than 5 times the calibration blank

#### Sample Shipping/Receiving

ALS Laboratory Group in Fort Collins, Colorado, received 63 water samples on October 14, 2011, accompanied by a Chain of Custody form. Copies of the four air bills were included in the receiving documentation. The Chain of Custody form was checked to confirm that all of the samples were listed with sample collection dates and times, and that signatures and dates were present indicating sample relinquishment and receipt. The Chain of Custody form was complete with no errors or omissions.

## Preservation and Holding Times

The sample shipment was received intact with the temperature inside the iced coolers at 0.8 °C and 2.4 °C, which complies with requirements. All samples were received in the correct container types and had been preserved correctly for the requested analyses with one exception: the nitrate + nitrite as N bottle for sample SW94-01 was received with a pH outside of the acceptance range. The laboratory adjusted the pH of the sample upon receipt. For this project, the holding time for total dissolved solids is 14 days. All samples were analyzed within the applicable holding times.

## Laboratory Instrument Calibration

Compliance requirements for satisfactory instrument calibration are established to ensure that the instrument is capable of producing acceptable qualitative and quantitative data for all analytes. Initial calibration demonstrates that the instrument is capable of acceptable performance in the beginning of the analytical run and of producing a linear curve. Compliance requirements for continuing calibration checks are established to ensure that the instrument continues to be capable of producing acceptable qualitative and quantitative data. All laboratory instrument calibrations were performed correctly in accordance with the cited methods. All calibration and laboratory spike standards were prepared from independent sources.

### *Method EPA 160.1*

There are no initial or continuing calibration requirements associated with the determination of total dissolved solids.

### *Method EPA 353.2*

Calibrations for nitrate + nitrite as N were performed using seven calibration standards on November 1, 4, and 7, 2011. The calibration curve correlation coefficient values were greater than 0.995 and the absolute values of the intercepts were less than 3 times the method detection limit (MDL). Initial and continuing calibration verification checks were made at the required frequency resulting in 11 verification checks. All calibration checks met the acceptance criteria.

### *Method SW-846 6010B*

Calibrations for calcium, iron, magnesium, manganese, molybdenum, potassium, and sodium were performed on November 1 and 2, 2011, using three calibration standards. The correlation coefficient values were greater than 0.995. The absolute values of the intercepts were less than or only slightly above 3 times the MDL, with the exception of the intercepts for calcium, potassium, and sodium. These intercepts were less than 3 times the reporting limits and all results were above the reporting limits. Calibration and laboratory spike standards were prepared from independent sources. Initial and continuing calibration verification checks were made at the required frequency resulting in 48 verification checks. All calibration checks met the acceptance criteria. Reporting limit verification checks were made at the required frequency to verify the linearity of the calibration curve near the practical quantitation limit (PQL) and all results were within the acceptance range.

#### *Method SW-846 6020A*

Calibrations for arsenic, selenium, uranium, and vanadium were performed on November 3 and 4, 2011, using four calibration standards. The correlation coefficient values were greater than 0.995. The absolute values of the intercepts were less than 3 times the MDL, with the exception of the intercepts for vanadium. These intercepts were less than 3 times the reporting limits. Initial and continuing calibration verification checks were made at the required frequency resulting in 15 verification checks. All calibration checks met the acceptance criteria. Reporting limit verification checks were made at the required frequency to verify the linearity of the calibration curve near the PQL and all results were within the acceptance range, with the following exceptions. Some arsenic, selenium, and vanadium check results were above the acceptance range. The affected results that were less than 5 times the PQL and above the detection limit were qualified with a “J” flag (estimated). Mass calibration and resolution verifications were performed at the beginning of each analytical run in accordance with the analytical procedure. Internal standard recoveries associated with requested analytes were stable and within acceptable ranges.

#### *Method SW-846 9056*

Calibrations for chloride, fluoride, and sulfate were performed using five calibration standards on November 1, 2011. The calibration curve correlation coefficient values were greater than 0.995 and the absolute values of the intercepts were less than 3 times the MDL. Initial and continuing calibration verification checks were made at the required frequency resulting in 22 verification checks. All calibration checks met the acceptance criteria.

#### Method and Calibration Blanks

Method blanks are analyzed to assess any contamination that may have occurred during sample preparation. Calibration blanks are analyzed to assess instrument contamination prior to and during sample analysis.

#### *Metals*

All method blank and calibration blank results were below the PQL for all analytes with the exception of some calibration blanks for uranium and vanadium. The associated samples had concentrations greater than 10 times the blanks, so no further qualification is necessary. In cases where a blank concentration exceeds the MDL, the associated sample results are qualified with a “U” flag (not detected) when the sample result is greater than the MDL but less than 5 times the blank concentration. For the method 6010B analyses, some blank results were negative and the absolute values were greater than the MDL. The associated results less than 5 times the MDL are flagged with a “J” as estimated values.

#### *Wet Chemistry*

All blank results were below the PQL with the exception of one sulfate calibration blank. The samples bracketing this blank had analyte concentrations greater than 10 times the blank concentration.

## Inductively Coupled Plasma (ICP) Interference Check Sample (ICS) Analysis

ICP interference check samples ICSA and ICSAB were analyzed at the required frequency to verify the instrumental interelement and background correction factors. All check sample results met the acceptance criteria.

## Matrix Spike Analysis

Matrix spike and matrix spike duplicate (MS/MSD) samples are used to measure method performance in the sample matrix. The MS/MSD data are not evaluated when the concentration of the unspiked sample is greater than 4 times the spike. The spike recoveries met the acceptance criteria for all analytes evaluated.

## Laboratory Replicate Analysis

Laboratory replicate analyses are used to determine laboratory precision for each sample matrix. The relative percent difference for replicate results that are greater than 5 times the PQL should be less than 20 percent. For results that are less than 5 times the PQL, the range should be no greater than the PQL. The replicate results met these criteria, demonstrating acceptable laboratory precision.

## Laboratory Control Sample

Laboratory control samples were analyzed at the correct frequency to provide information on the accuracy of the analytical method and the overall laboratory performance, including sample preparation. All control sample results were acceptable.

## Metals Serial Dilution

Serial dilutions were prepared and analyzed for the metals analyses to monitor chemical or physical interferences in the sample matrix. Serial dilution data are evaluated when the concentration of the undiluted sample is greater than 50 times the PQL for method 6010B or greater than 100 times the PQL for method 6020A. All evaluated serial dilution data were acceptable. (The laboratory flagged some selenium, sodium, and vanadium results for serial dilution failure, but the sample concentrations were less than 50 times the PQL, so no further qualification is necessary.)

## Detection Limits/Dilutions

Samples were diluted in a consistent and acceptable manner when required. The required detection limits were met for all analytes.

## Completeness

Results were reported in the correct units for all analytes requested using contract-required laboratory qualifiers.

## Chromatography Peak Integration

The integration of analyte peaks was reviewed for all ion chromatography data. All peak integrations were satisfactory.

## Anion/Cation Balance

The anion/cation balance is used to determine if major ion concentrations have been quantified correctly. The total anions should balance with (be equal to) the total cations when expressed in milliequivalents per liter. Table 5 shows the total anion and cation results from this event and the charge balance, which is a relative percent difference calculation. Typically, a charge balance difference of 10 percent is considered acceptable.

*Table 5. Cation/Anion Balance*

Location	Cations (meq/L)	Anions (meq/L)	Charge Balance (%)
0200	29.99	31.38	2.3
0202	27.81	25.88	3.6
82-08	33.62	35.08	2.1
83-70	5.40	5.73	2.9
88-85	25.26	26.02	1.5
92-07	23.48	23.72	0.5
92-08	24.54	24.08	1.0
92-09	32.72	33.93	1.8
92-10	10.38	11.02	3.0
92-11	25.61	22.93	5.5
93-01	7.20	7.90	4.7
95-01	5.95	6.29	2.8
95-03	16.82	17.21	1.2
MW00-01	23.11	21.31	4.0
MW00-06	16.42	22.98	16.7
P92-06	28.83	28.40	0.8
PW-10	23.12	24.46	2.8
PW-17	23.74	23.76	0.0
PW-28	29.35	29.32	0.1
R10-M1	13.51	22.73	25.4
R1-M3	25.19	25.34	0.3
R1-M4	25.30	25.92	1.2
R3-M2	23.54	24.46	1.9
R3-M3	21.33	22.77	3.3
R4-M3	8.30	9.59	7.2
R4-M6	7.03	7.77	5.0
R6-M3	20.90	21.36	1.1
R6-M4	11.94	13.30	5.4
Seep 1	25.09	24.62	1.0
Seep 2	22.41	25.94	7.3
Seep 3	45.56	44.57	1.1
Seep 5	13.55	13.76	0.8

Table 5 (continued). Cation/Anion Balance

Location	Cations (meq/L)	Anions (meq/L)	Charge Balance (%)
Seep 6	40.93	41.34	0.5
Sorenson	21.39	21.45	0.2
SW00-02	24.95	23.89	2.2
SW00-04	20.30	20.34	0.1
SW01-01	22.23	22.19	0.1
SW01-02	25.92	25.91	0.0
SW01-03	22.28	20.98	3.0
SW92-08	19.64	18.53	2.9
SW92-09	19.06	18.16	2.4
SW94-01	19.56	18.97	1.5
T00-01	18.97	17.70	3.5
T00-04	24.26	22.42	4.0
T01-01	19.72	18.66	2.8
T01-02	25.22	23.00	4.6
T01-04	26.57	24.04	5.0
T01-05	26.05	24.11	3.9
T01-07	33.56	32.22	2.0
T01-12	27.26	24.78	4.8
T01-13	44.05	10.06	NA
T01-18	50.68	59.94	8.4
T01-19	24.42	9.26	NA
T01-20	46.39	59.57	12.4
T01-23	17.51	16.37	3.4
T01-25	35.75	38.15	3.3
T01-35	23.49	24.00	1.1
W3-03	35.92	34.86	1.5
W3-04	23.12	22.03	2.4

NA: Samples for nitrate + nitrite as N, chloride, fluoride, and sulfate were not collected.

meq/L = milliequivalents per liter

At three locations, the charge balances were above 10 percent. The alkalinity measurement made at location R10-M1 is anomalously high and impacts the charge balance. There were no laboratory analytical errors identified during the review of the data.

#### Electronic Data Deliverable (EDD) File

The EDD file arrived on November 12, 2011, and the data were loaded into SEEPro on December 13, 2011. The Sample Management System EDD validation module was used to verify that the EDD file was complete and in compliance with requirements. The module compares the contents of the file to the requested analyses to ensure all and only the requested data are delivered. The contents of the EDD were manually examined to verify that the sample results accurately reflect the data contained in the sample data package.

## SAMPLE MANAGEMENT SYSTEM

### General Data Validation Report

RIN: 11104114 Lab Code: PAR Validator: Gretchen Baer Validation Date: 12/29/2011

Project: Monticello Monitoring Analysis Type:  Metals  General Chem  Rad  Organics

# of Samples: 63 Matrix: WATER Requested Analysis Completed: Yes

#### Chain of Custody

Present: OK Signed: OK Dated: OK

#### Sample

Integrity: OK Preservation: OK Temperature: OK

#### Select Quality Parameters

- Holding Times
- Detection Limits
- Field/Trip Blanks
- Field Duplicates

There are 0 holding time failures.

The reported detection limits are equal to or below contract requirements.

There was 1 trip/equipment blank evaluated.

There were 3 duplicates evaluated.

## SAMPLE MANAGEMENT SYSTEM

### Metals Data Validation Worksheet

RIN: 11104114

Lab Code: PAR

Date Due: 11/11/2011

Matrix: Water

Site Code: MNT

Date Completed: 11/14/2011

Analyte	Method Type	Date Analyzed	CALIBRATION						Method	LCS %R	MS %R	MSD %R	Dup. RPD	ICSAB %R	Serial Dil. %R	CRI %R
			Int.	R^2	ICV	CCV	ICB	CCB								
Calcium	ICP/ES	11/01/2011	-0.1250	0.9996	OK	OK	OK	OK	OK	105.0	115.0	112.0	0.0	103.0	0.0	103.0
Calcium	ICP/ES	11/01/2011							OK	96.0	97.0	94.0	0.0	105.0	2.0	101.0
Calcium	ICP/ES	11/02/2011	-0.0620	0.9999	OK	OK	OK	OK	OK	99.0	114.0	113.0	0.0	107.0	3.0	105.0
Calcium	ICP/ES	11/01/2011							OK	98.0			0.0	101.0	4.0	101.0
Iron	ICP/ES	11/01/2011							OK	95.0	93.0	93.0	0.0	102.0		98.0
Iron	ICP/ES	11/01/2011	-0.0140	1.0000	OK	OK	OK	OK	OK	94.0	92.0	90.0	2.0	105.0		104.0
Iron	ICP/ES	11/02/2011	-0.0110	1.0000	OK	OK	OK	OK	OK	97.0	97.0	94.0	3.0	107.0		103.0
Iron	ICP/ES	11/01/2011							OK	98.0	91.0	91.0	0.0	105.0		101.0
Magnesium	ICP/ES	11/02/2011	-0.0440	0.9999	OK	OK	OK	OK	OK	100.0	100.0	100.0	0.0	107.0	0.0	105.0
Magnesium	ICP/ES	11/01/2011	-0.0540	0.9999	OK	OK	OK	OK	OK	99.0	99.0	100.0	0.0	105.0	2.0	104.0
Magnesium	ICP/ES	11/01/2011							OK	99.0	102.0	102.0	0.0	104.0	2.0	103.0
Magnesium	ICP/ES	11/01/2011							OK	98.0	96.0	97.0	0.0	104.0	1.0	103.0
Manganese	ICP/ES	11/01/2011	-0.0010	1.0000	OK	OK	OK	OK	OK	94.0	95.0	94.0	1.0	94.0		104.0
Manganese	ICP/ES	11/01/2011							OK	96.0	94.0	94.0	0.0	93.0		104.0
Manganese	ICP/ES	11/01/2011							OK	95.0	95.0	95.0	1.0	94.0	5.0	106.0
Manganese	ICP/ES	11/02/2011	-0.0010	1.0000	OK	OK	OK	OK	OK	97.0	97.0	97.0	0.0	95.0		106.0
Molybdenum	ICP/ES	11/01/2011	-0.0030	1.0000	OK	OK	OK	OK	OK	97.0	97.0	98.0	0.0	98.0		96.0

## SAMPLE MANAGEMENT SYSTEM

## Metals Data Validation Worksheet

RIN: 11104114Lab Code: PARDate Due: 11/11/2011Matrix: WaterSite Code: MNTDate Completed: 11/14/2011

Analyte	Method Type	Date Analyzed	CALIBRATION						Method	LCS %R	MS %R	MSD %R	Dup. RPD	ICSAB %R	Serial Dil. %R	CRI %R
			Int.	R^2	ICV	CCV	ICB	CCB								
Molybdenum	ICP/ES	11/02/2011	-0.0030	1.0000	OK	OK	OK	OK	OK	98.0	99.0	99.0	1.0	93.0		92.0
Molybdenum	ICP/ES	11/01/2011							OK	97.0	98.0	98.0	0.0	96.0		93.0
Molybdenum	ICP/ES	11/01/2011							OK	98.0	97.0	97.0	0.0	94.0		94.0
Potassium	ICP/ES	11/01/2011	-1.3040	1.0000	OK	OK	OK	OK	OK	102.0	104.0	105.0	1.0			80.0
Potassium	ICP/ES	11/01/2011							OK	95.0	96.0	98.0	1.0			78.0
Potassium	ICP/ES	11/01/2011							OK	96.0	116.0	116.0	0.0			78.0
Potassium	ICP/ES	11/02/2011	-1.3870	1.0000	OK	OK	OK	OK	OK	93.0	95.0	95.0	0.0			79.0
Sodium	ICP/ES	11/01/2011	-0.1050	1.0000	OK	OK	OK	OK	OK	119.0	97.0	103.0	1.0		9.0	86.0
Sodium	ICP/ES	11/01/2011							OK	92.0	91.0	96.0	1.0			84.0
Sodium	ICP/ES	11/01/2011							OK	93.0	98.0	99.0	0.0		10.0	83.0
Sodium	ICP/ES	11/02/2011	-0.0800	1.0000	OK	OK	OK	OK	OK	86.0	88.0	89.0	0.0			86.0
Arsenic	ICP/MS	11/04/2011	-0.0110	1.0000	OK	OK	OK	OK		101.0	103.0	2.0				93.0
Arsenic	ICP/MS	11/03/2011	-0.0110	1.0000	OK	OK	OK	OK	OK	94.0	103.0	100.0	2.0	112.0		95.0
Arsenic	ICP/MS	11/03/2011							OK	95.0	98.0	97.0	1.0	107.0		148.0
Arsenic	ICP/MS	11/03/2011							OK	95.0					0.0	94.0
Arsenic	ICP/MS	11/03/2011							OK	98.0	100.0	103.0	3.0			
Selenium	ICP/MS	11/04/2011	-0.0220	1.0000	OK	OK	OK	OK								

## SAMPLE MANAGEMENT SYSTEM

### Metals Data Validation Worksheet

RIN: 11104114

Lab Code: PAR

Date Due: 11/11/2011

Matrix: Water

Site Code: MNT

Date Completed: 11/14/2011

Analyte	Method Type	Date Analyzed	CALIBRATION						Method	LCS %R	MS %R	MSD %R	Dup. RPD	ICSAB %R	Serial Dil. %R	CRI %R
			Int.	R^2	ICV	CCV	ICB	CCB								
Selenium	ICP/MS	11/03/2011	-0.0200	1.0000	OK	OK	OK	OK	OK	100.0	105.0	102.0	2.0			145.0
Selenium	ICP/MS	11/03/2011							OK	101.0	99.0	102.0	2.0		6.0	121.0
Selenium	ICP/MS	11/03/2011							OK	103.0	105.0	97.0	7.0	116.0	0.0	78.0
Selenium	ICP/MS	11/03/2011							OK	102.0	97.0	106.0	6.0	112.0	6.0	72.0
Uranium	ICP/MS	11/04/2011	0.0000	1.0000	OK	OK	OK	OK								
Uranium	ICP/MS	11/03/2011	-0.0010	1.0000	OK	OK	OK	OK	OK	95.0			4.0		3.0	120.0
Uranium	ICP/MS	11/03/2011							OK	102.0			4.0		2.0	110.0
Uranium	ICP/MS	11/03/2011							OK	97.0	82.0	90.0	2.0	110.0	5.0	100.0
Uranium	ICP/MS	11/03/2011							OK	95.0			1.0	106.0	2.0	120.0
Vanadium	ICP/MS	11/03/2011	-0.5650	1.0000	OK	OK	OK	OK	OK	95.0	96.0	79.0	5.0			215.0
Vanadium	ICP/MS	11/03/2011							OK	97.0	97.0	99.0	3.0		0.0	141.0
Vanadium	ICP/MS	11/03/2011							OK	94.0	97.0	97.0	0.0			98.0
Vanadium	ICP/MS	11/03/2011							OK	91.0				108.0	3.0	118.0
Vanadium	ICP/MS	11/04/2011	-0.7900	1.0000	OK	OK	OK	OK		100.0	99.0	1.0	106.0			

# SAMPLE MANAGEMENT SYSTEM

## Wet Chemistry Data Validation Worksheet

RIN: 11104114

Lab Code: PAR

Date Due: 11/11/2011

Matrix: Water

Site Code: MNT

Date Completed: 11/14/2011

Analyte	Date Analyzed	CALIBRATION					Method	LCS %R	MS %R	MSD %R	DUP RPD	Serial Dil. %R
		Int.	R^2	ICV	CCV	ICB	CCB	Blank				
CHLORIDE	11/01/2011	0.002	1.0000	OK	OK	OK	OK	OK	95.00			
CHLORIDE	11/02/2011			OK		OK	OK	OK	93.00			
CHLORIDE	11/03/2011			OK		OK	OK	OK	95.00			
CHLORIDE	11/04/2011			OK		OK	OK	OK	96.00	103.0		
CHLORIDE	11/07/2011			OK		OK						
Fluoride	11/01/2011								114.0			
Fluoride	11/01/2011	0.024	1.0000	OK	OK	OK	OK	OK	94.00	108.0	109.0	1.00
Fluoride	11/02/2011								96.0			
Fluoride	11/02/2011			OK		OK	OK	OK	95.00	104.0	103.0	1.00
Fluoride	11/03/2011			OK		OK	OK	OK	97.00	101.0	103.0	2.00
Fluoride	11/04/2011								97.0			
Fluoride	11/04/2011			OK		OK	OK	OK	98.00	99.0	98.0	1.00
Fluoride	11/07/2011			OK		OK						
Nitrate+Nitrite as N	11/01/2011	0.000	0.9998	OK	OK	OK	OK	OK	102.00	109.0	108.0	0
Nitrate+Nitrite as N	11/04/2011						OK	OK	108.00	99.0	102.0	1.00

**SAMPLE MANAGEMENT SYSTEM****Wet Chemistry Data Validation Worksheet**

RIN: 11104114

Lab Code: PAR

Date Due: 11/11/2011

Matrix: Water

Site Code: MNT

Date Completed: 11/14/2011

Analyte	Date Analyzed	CALIBRATION						Method	LCS %R	MS %R	MSD %R	DUP RPD	Serial Dil. %R
		Int.	R^2	ICV	CCV	ICB	CCB						
Nitrate+Nitrite as N	11/04/2011	0.000	0.9999	OK	OK	OK	OK	OK	103.00	105.0	108.0	1.00	
Nitrate+Nitrite as N	11/04/2011							OK	110.00				
Nitrate+Nitrite as N	11/07/2011	0.000	0.9989	OK	OK	OK	OK						
SULFATE	11/01/2011	0.414	0.9999	OK	OK	OK	OK	OK	95.00				
SULFATE	11/02/2011				OK			OK	93.00				
SULFATE	11/03/2011				OK			OK	94.00				
SULFATE	11/04/2011				OK			OK	96.00				
SULFATE	11/07/2011				OK			OK					
TOTAL DISSOLVED SOLIDS	10/20/2011							OK	100.00		0		

## **Sampling Quality Control Assessment**

The following information summarizes and assesses quality control for this sampling event.

### **Sampling Protocol**

Samples were collected as specified in the *Monticello Mill Tailings Site Operable Unit III Post-Record of Decision Monitoring Plan*, Draft Final. All samples were filtered. The purge stability criteria specified in the monitoring plan were used, including:

Temperature:  $\pm 10$  percent over the last three consecutive readings and

Turbidity:  $\leq 5$  nephelometric turbidity units for the final reading.

Wells were sampled with a peristaltic pump and dedicated tubing or a dedicated bladder pump. Surface waters and seeps were sampled using container immersion or a peristaltic pump and tubing. Wells R1-M3, R1-M4, R3-M2, R3-M3, R4-M3, R4-M6, R6-M3, R6-M4, and R10-M1 are permeable reactive barrier wells, which are not sampled using low-flow criteria. All other wells were purged and sampled using low-flow sampling techniques.

Sample results are not flagged based on sampling technique according to the *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites* because the samples were collected using the *Monticello Mill Tailings Site Operable Unit III Post-Record of Decision Monitoring Plan*, Draft Final (August 2004).

### **Equipment Blank Assessment**

Equipment blanks are prepared and analyzed to document contamination attributable to the sample collection process. An equipment blank (field ID 2918) was collected after decontamination of the tubing reel used to collect some surface water samples. Arsenic, calcium, manganese, sodium, and uranium were detected in the equipment blank. Sample results that are less than 5 times the equipment blank concentration are qualified with a "J" flag (estimated). Iron and vanadium were detected in the blank by the laboratory, but these analytes were qualified during data validation with a "U" flag as not detected. The equipment blank results indicate adequate decontamination of the sampling equipment.

### **Field Duplicate Analysis**

Field duplicate samples are collected and analyzed as an indication of overall precision of the measurement process. The precision observed includes both field and laboratory precision and has more variability than laboratory duplicates, which measure only laboratory performance. The relative percent difference for duplicate results that are greater than 5 times the PQL should be less than 20 percent. For results that are less than 5 times the PQL, the range should be no greater than the PQL. Duplicate samples were collected from locations 0200, R1-M3, and T01-01 (field duplicate IDs 2586, 2585, and 2583, respectively). The duplicate results met the criteria, demonstrating acceptable overall precision.

**SAMPLE MANAGEMENT SYSTEM**  
**Validation Report: Equipment/Trip Blanks**

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RIN: 11104114 Lab Code: PAR Project: Monticello Monitoring Validation Date: 12/22/2011

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**Blank Data**

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1110194-6	SW6010	Calcium	1300		12	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1110194-33	JLY 125	Seep 1	300000	5		
1110194-34	JLY 110	Seep 2	210000	5		
1110194-35	JLY 111	Seep 3	450000	5		
1110194-36	JLY 112	Seep 5	110000	1		
1110194-37	JLY 131	Seep 6	410000	5		
1110194-39	JLY 114	SW00-02	340000	1		
1110194-62	JLY 127	W3-03	360000	5		
1110194-63	JLY 113	W3-04	320000	1		

**Blank Data**

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1110194-6	SW6010	Iron	18	B	4.9	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1110194-33	JLY 125	Seep 1	33	5	B	J
1110194-34	JLY 110	Seep 2	270	5	B	
1110194-35	JLY 111	Seep 3	25	5	U	
1110194-36	JLY 112	Seep 5	4.9	1	U	
1110194-37	JLY 131	Seep 6	25	5	U	
1110194-39	JLY 114	SW00-02	4.9	1	U	
1110194-62	JLY 127	W3-03	25	5	U	
1110194-63	JLY 113	W3-04	2400	1		

**Blank Data**

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1110194-6	SW6010	Manganese	1.1	B	0.11	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1110194-33	JLY 125	Seep 1	120	5		
1110194-34	JLY 110	Seep 2	240	5		
1110194-35	JLY 111	Seep 3	11	5	B	
1110194-36	JLY 112	Seep 5	0.97	1	B	J

**SAMPLE MANAGEMENT SYSTEM**  
**Validation Report: Equipment/Trip Blanks**

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RIN: 11104114 Lab Code: PAR Project: Monticello Monitoring Validation Date: 12/22/2011

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**Blank Data**

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1110194-6		Manganese				

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1110194-37	JLY 131	Seep 6	300	5		
1110194-39	JLY 114	SW00-02	1000	1		
1110194-62	JLY 127	W3-03	210	5		
1110194-63	JLY 113	W3-04	3500	1		

**—Blank Data**

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1110194-6	SW6010	Sodium	380	B	6.6	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1110194-33	JLY 125	Seep 1	110000	5		
1110194-34	JLY 110	Seep 2	180000	5		
1110194-35	JLY 111	Seep 3	280000	5		
1110194-36	JLY 112	Seep 5	100000	1		
1110194-37	JLY 131	Seep 6	220000	5		
1110194-39	JLY 114	SW00-02	70000	1		
1110194-62	JLY 127	W3-03	220000	5		
1110194-63	JLY 113	W3-04	60000	1		

**Blank Data**

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1110194-6	SW6020	Arsenic	0.028	B	0.015	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1110194-33	JLY 125	Seep 1	17	5		
1110194-34	JLY 110	Seep 2	1	5		
1110194-35	JLY 111	Seep 3	0.31	1		
1110194-36	JLY 112	Seep 5	0.6	1		
1110194-37	JLY 131	Seep 6	0.76	5		
1110194-39	JLY 114	SW00-02	0.68	1		
1110194-62	JLY 127	W3-03	3.2	1		

**SAMPLE MANAGEMENT SYSTEM**  
**Validation Report: Equipment/Trip Blanks**

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RIN: 11104114 Lab Code: PAR Project: Monticello Monitoring Validation Date: 12/22/2011

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**Blank Data**

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1110194-6		Arsenic				

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1110194-63	JLY 113	W3-04	2.7	1		

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**Blank Data**

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1110194-6	SW6020	Vanadium	0.21	B	0.015	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1110194-33	JLY 125	Seep 1	410	5		
1110194-34	JLY 110	Seep 2	2.3	5		
1110194-35	JLY 111	Seep 3	0.51	1		J
1110194-36	JLY 112	Seep 5	1.3	1		
1110194-37	JLY 131	Seep 6	89	20		
1110194-39	JLY 114	SW00-02	1	1		J
1110194-62	JLY 127	W3-03	7.4	1		
1110194-63	JLY 113	W3-04	0.3	1	B	J

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**Blank Data**

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1110194-6	SW6020	Uranium	0.048		0.0029	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1110194-33	JLY 125	Seep 1	260	5		
1110194-34	JLY 110	Seep 2	160	5		
1110194-35	JLY 111	Seep 3	40	1		
1110194-36	JLY 112	Seep 5	33	1		
1110194-37	JLY 131	Seep 6	1500	20		
1110194-39	JLY 114	SW00-02	39	1		
1110194-62	JLY 127	W3-03	160	100		
1110194-63	JLY 113	W3-04	40	1		

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**SAMPLE MANAGEMENT SYSTEM**  
**Validation Report: Field Duplicates**

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RIN: 11104114 Lab Code: PAR Project: Monticello Monitoring Validation Date: 12/22/2011

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Duplicate: 2583

Sample: T01-01

Analyte	Sample				Duplicate				RPD	RER	Units
	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution			
Arsenic	11			10	12			10	8.70		UG/L
Calcium	240000			1	230000			1	4.26		UG/L
CHLORIDE	47			20	48			20	2.11		MG/L
Fluoride	0.25			2	0.28			2			MG/L
Iron	5.3	B		1	4.9	U		1			UG/L
Magnesium	44000			1	43000			1	2.30		UG/L
Manganese	37			1	35			1	5.56		UG/L
Molybdenum	6.1	B		1	5.9	B		1	3.33		UG/L
Nitrate+Nitrite as N	0.34			1	0.32			1	6.06		MG/L
Potassium	10000			1	9800			1	2.02		UG/L
Selenium	32			10	33			10	3.08		UG/L
Sodium	89000			1	87000			1	2.27		UG/L
SULFATE	620			20	630			20	1.60		MG/L
TOTAL DISSOLVED SOLIDS	1300			1	1300			1	0		MG/L
Uranium	59			10	58			10	1.71		UG/L
Vanadium	150			10	150			10	0		UG/L

Duplicate: 2585

Sample: R1-M3

Analyte	Sample				Duplicate				RPD	RER	Units
	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution			
Arsenic	14			10	15			10	6.90		UG/L
Calcium	300000			5	290000			5	3.39		UG/L
CHLORIDE	110			20	110			50	0		MG/L
Fluoride	0.53			2	0.53			5			MG/L
Iron	25	U		5	25	U		5			UG/L
Magnesium	63000			5	62000			5	1.60		UG/L
Manganese	0.57	U		5	0.57	U		5			UG/L
Molybdenum	36	B		5	35	B		5	2.82		UG/L
Nitrate+Nitrite as N	3.9			2	3.9			5	0		MG/L
Potassium	10000			5	9800			5	2.02		UG/L
Selenium	36			10	36			10	0		UG/L
Sodium	110000			5	110000			5	0		UG/L
SULFATE	700			20	680			50	2.90		MG/L
Uranium	450			10	460			10	2.20		UG/L
Vanadium	400			10	420			10	4.88		UG/L

**SAMPLE MANAGEMENT SYSTEM**  
**Validation Report: Field Duplicates**

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RIN: 11104114 Lab Code: PAR Project: Monticello Monitoring Validation Date: 12/22/2011

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Duplicate: 2586		Sample: 0200									
Analyte	Sample				Duplicate						
	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution	RPD	RER	Units
Arsenic	0.32			1	0.37			1	14.49		UG/L
Calcium	280000			5	290000			5	3.51		UG/L
CHLORIDE	160			50	160			50	0		MG/L
Fluoride	0.5	U		5	0.52			5			MG/L
Iron	25	U		5	25	U		5			UG/L
Magnesium	87000			5	89000			5	2.27		UG/L
Manganese	3.4	B		5	1.8	B		5			UG/L
Molybdenum	15	B		5	14	B		5			UG/L
Nitrate+Nitrite as N	0.42			1	0.43			1	2.35		MG/L
Potassium	6300			5	6300			5	0		UG/L
Selenium	8.3	E		5	6.9			5	18.42		UG/L
Sodium	200000			5	210000			5	4.88		UG/L
SULFATE	900			50	900			50	0		MG/L
Uranium	230			5	230			5	0		UG/L
Vanadium	0.31			1	0.33			1	6.25		UG/L

## Certification

All laboratory analytical quality control criteria were met except as qualified in this report. The data qualifiers listed on the SEEPro database reports are defined on the last page of each report. All data in this package are considered validated and available for use.

Laboratory Coordinator:

Steve Donivan

Steve Donivan

1-5-2012

Date

Data Validation Lead:

Gretchen Baer

Gretchen Baer

1/5/12

Date

## **Attachment 1**

### **Assessment of Anomalous Data**

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## **Potential Outliers Report**

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## Potential Outliers Report

Potential outliers are measurements that are extremely large or small relative to the rest of the data and, therefore, are suspected of misrepresenting the population from which they were collected. Potential outliers may result from transcription errors, data-coding errors, or measurement system problems. However, outliers may also represent true extreme values of a distribution and indicate more variability in the population than was expected.

Statistical outlier tests give probabilistic evidence that an extreme value does not "fit" with the distribution of the remainder of the data and is therefore a statistical outlier. These tests should only be used to identify data points that require further investigation. The tests alone cannot determine whether a statistical outlier should be discarded or corrected within a data set.

There are three steps involved in identifying extreme values or outliers:

1. Identify extreme values that may be potential outliers by generating the Outliers Report using the Sample Management System from data in the SEEPro database. The application compares the new data set with historical data and lists the new data that fall outside the historical data range. A determination is also made if the data are normally distributed using the Shapiro-Wilk Test.
2. Apply the appropriate statistical test. Dixon's Extreme Value test is used to test for statistical outliers when the sample size is less than or equal to 25. This test considers both extreme values that are much smaller than the rest of the data (case 1) and extreme values that are much larger than the rest of the data (case 2). This test is valid only if the data without the suspected outlier are normally distributed. Rosner's Test is a parametric test that is used to detect outliers for sample sizes of 25 or more. This test also assumes that the data without the suspected outliers are normally distributed.
3. Scientifically review statistical outliers and decide on their disposition.

Data identified as potentially anomalous are generally from locations where analyte concentrations are trending upward or downward. There were no laboratory data errors indicated from the review of these potential outliers and the data from this event are acceptable as qualified.

The field measurement for alkalinity at location R10-M1 was identified as a high outlier. This result requires further review and is listed on the Anomalous Data Review Checksheet.

There were no anomalies identified in the previous reports (October 2010 and April 2011) that required further review.

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**Data Validation Outliers Report - No Field Parameters**

**Comparison: All Historical Data for Filtered Samples**

Laboratory: ALS Laboratory Group

RIN: 11104114

Report Date: 12/29/2011

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current Qualifiers			Historical Maximum Qualifiers			Historical Minimum Qualifiers			Number of Data Points		Statistical Outlier
					Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
MNT01	0202	0001	10/12/2011	Molybdenum	0.011	B	J	0.063			0.016	F		13	0	No
MNT01	83-70	0001	10/12/2011	Manganese	0.14			265			0.2			25	2	No
MNT01	83-70	0001	10/12/2011	Sulfate	80			110			92			38	0	No
MNT01	83-70	0001	10/12/2011	Vanadium	0.000015	B	U	0.05	U		0.000036	B		27	23	No
MNT01	88-85	0001	10/11/2011	Potassium	6.3			18.9			6.39			43	0	No
MNT01	92-08	0001	10/12/2011	Potassium	7.3			17			8.32			34	0	Yes
MNT01	92-09	0001	10/12/2011	Vanadium	0.000015	B	U	0.003	U		0.000065	B	J	32	25	No
MNT01	92-10	0001	10/12/2011	Chloride	44			40			5.47	E		29	0	Yes
MNT01	92-10	0001	10/12/2011	Iron	0.75			0.68			0.0031	U	FQ	15	1	No
MNT01	92-10	0001	10/12/2011	Magnesium	21			20			11			17	0	No
MNT01	92-10	0001	10/12/2011	Manganese	0.53			0.51	N	JFQ	0.303			17	0	No
MNT01	92-10	0001	10/12/2011	Sodium	59			58			43	F		17	0	No
MNT01	92-10	0001	10/12/2011	Sulfate	270			240			105			29	0	No
MNT01	92-10	0001	10/12/2011	Vanadium	0.000015	B	U	0.002	U		0.000019	B		17	15	No
MNT01	92-11	0001	10/12/2011	Potassium	6.2			37.5			6.29			39	0	No
MNT01	95-01	0001	10/12/2011	Manganese	0.17			0.354			0.18	F		19	0	No
MNT01	95-01	0001	10/12/2011	Vanadium	0.000015	B	U	0.0036	B		0.000066	B		19	12	No
MNT01	95-03	0001	10/12/2011	Molybdenum	0.0012	B	J	0.0067	J		0.0024	B		21	0	Yes

**Data Validation Outliers Report - No Field Parameters**

**Comparison: All Historical Data for Filtered Samples**

Laboratory: ALS Laboratory Group

RIN: 11104114

Report Date: 12/29/2011

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current Qualifiers			Historical Maximum Qualifiers			Historical Minimum Qualifiers			Number of Data Points		Statistical Outlier
					Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
MNT01	95-03	0001	10/12/2011	Vanadium	0.000015	B	U	0.002	U		0.000024	B		21	20	No
MNT01	MW00-06	0001	10/12/2011	Potassium	8.4			20		F	11		F	32	0	Yes
MNT01	MW00-06	0001	10/12/2011	Sodium	81			330			90		F	32	0	No
MNT01	P92-06	0001	10/12/2011	Nitrate + Nitrite as Nitrogen	1.5			29.9			1.9			36	0	No
MNT01	P92-06	0001	10/12/2011	Sodium	170			579			210		F	36	0	No
MNT01	PW-10	0001	10/11/2011	Manganese	0.00057	U	J	0.199			0.0056	B		16	0	Yes
MNT01	PW-10	0001	10/11/2011	Sodium	100	E		371			130		J	16	0	No
MNT01	PW-10	0001	10/11/2011	Vanadium	0.28			0.266			0.0086	B		16	0	No
MNT01	PW-17	0001	10/11/2011	Sodium	110			485			120			28	0	No
MNT01	PW-28	0001	10/11/2011	Molybdenum	0.0054	U	J	0.0224	B		0.009		F	26	0	Yes
MNT01	PW-28	0001	10/11/2011	Potassium	4.4	B		13.5			5.57			26	0	No
MNT01	R1-M3	0001	10/10/2011	Manganese	0.00057	U	J	0.608			0.0045	B		38	0	No
MNT01	R1-M3	0002	10/10/2011	Manganese	0.00057	U	J	0.608			0.0045	B		38	0	No
MNT01	R1-M3	0001	10/10/2011	Potassium	10			22			10.4			38	0	No
MNT01	R1-M3	0002	10/10/2011	Potassium	9.8			22			10.4			38	0	No
MNT01	R1-M4	0001	10/10/2011	Uranium	0.64			0.62			0.3			37	0	No
MNT01	R3-M3	0001	10/10/2011	Vanadium	0.000015	B	U	0.053			0.000094	B	J	27	8	No
MNT01	R4-M3	0001	10/11/2011	Manganese	0.003	B		1.07			0.0092			32	0	No

**Data Validation Outliers Report - No Field Parameters**

**Comparison: All Historical Data for Filtered Samples**

Laboratory: ALS Laboratory Group

RIN: 11104114

Report Date: 12/29/2011

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current Qualifiers			Historical Maximum Qualifiers			Historical Minimum Qualifiers			Number of Data Points		Statistical Outlier
					Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
MNT01	R4-M3	0001	10/11/2011	Vanadium	0.000015	B	U	0.003	UN		0.000066	B		31	28	No
MNT01	R4-M6	0001	10/10/2011	Vanadium	0.000015	B	U	0.003	UN		0.000024	B		34	28	No
MNT01	Seep 1	0001	10/10/2011	Sodium	110			410			120			12	0	No
MNT01	Seep 2	0001	10/10/2011	Fluoride	0.93			0.75			0.0251	UN	J	19	1	Yes
MNT01	Seep 2	0001	10/10/2011	Iron	0.27	B		0.25			0.0008	B	U	24	16	No
MNT01	Seep 2	0001	10/10/2011	Manganese	0.24			0.16			0.000077	B	U	24	6	No
MNT01	Seep 2	0001	10/10/2011	Nitrate + Nitrite as Nitrogen	0.01	U		11			0.0248	B		21	0	No
MNT01	Seep 2	0001	10/10/2011	Selenium	0.00024		J	0.144			0.002	B		24	0	No
MNT01	Seep 2	0001	10/10/2011	Sodium	180			164			60			20	0	No
MNT01	Seep 2	0001	10/10/2011	Total Dissolved Solids	810			1900			890			13	0	No
MNT01	Seep 2	0001	10/10/2011	Vanadium	0.000076		U	0.59			0.0053	B		24	0	No
MNT01	Seep 5	0001	10/12/2011	Molybdenum	0.0011	U	J	0.0049	B		0.0018	B		17	0	No
MNT01	Seep 5	0001	10/12/2011	Nitrate + Nitrite as Nitrogen	4.7			4			0.0045	U		16	4	No
MNT01	Seep 6	0001	10/12/2011	Chloride	200			360			210			14	0	No
MNT01	Seep 6	0001	10/12/2011	Molybdenum	0.0054	U	J	0.024			0.0068	B		15	0	No
MNT01	Seep 6	0001	10/12/2011	Uranium	1.5			2.9	J	1.6				15	0	No
MNT01	Sorenson	0001	10/11/2011	Vanadium	0.000076		U	0.22			0.00096			80	23	No
MNT01	SW00-02	0001	10/10/2011	Manganese	1			0.67			0.0126	B		32	0	Yes

**Data Validation Outliers Report - No Field Parameters**

**Comparison: All Historical Data for Filtered Samples**

Laboratory: ALS Laboratory Group

RIN: 11104114

Report Date: 12/29/2011

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current Qualifiers			Historical Maximum Qualifiers			Historical Minimum Qualifiers			Number of Data Points		Statistical Outlier	
					Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect		
MNT01	SW01-01	0001	10/11/2011	Manganese	0.36			0.11			0.0031	B		24	0	No	
MNT01	SW01-02	0001	10/11/2011	Molybdenum	0.0011	U	J	0.0037	B		0.0013		J	22	5	No	
MNT01	SW92-09	0001	10/11/2011	Iron	0.029	B		0.015	B		0.001600 0000000 000001		B	U	8	5	Yes
MNT01	T00-01	0001	10/11/2011	Molybdenum	0.013			0.167			0.018	F		25	0	Yes	
MNT01	T00-04	0001	10/11/2011	Arsenic	0.01			0.0099	F		0.0044	B		20	0	No	
MNT01	T00-04	0001	10/11/2011	Molybdenum	0.072			0.389			0.089			20	0	No	
MNT01	T00-04	0001	10/11/2011	Potassium	5.8			13			6.9	J		20	0	No	
MNT01	T00-04	0001	10/11/2011	Uranium	0.18			3.69			0.23			20	0	No	
MNT01	T01-01	0002	10/11/2011	Molybdenum	0.0059	B		0.106			0.0088			27	0	No	
MNT01	T01-01	0001	10/11/2011	Molybdenum	0.0061	B		0.106			0.0088			27	0	No	
MNT01	T01-04	0001	10/11/2011	Molybdenum	0.0074	B		0.018			0.008	B		23	0	No	
MNT01	T01-04	0001	10/11/2011	Uranium	0.13			0.282			0.14	F		23	0	No	
MNT01	T01-05	0001	10/11/2011	Molybdenum	0.0053	B	J	0.014	F		0.0066	B		23	0	No	
MNT01	T01-07	0001	10/11/2011	Potassium	4.1	B		11	J		4.42	B		24	0	No	
MNT01	T01-13	0001	10/11/2011	Molybdenum	0.0073	B		0.0743			0.013	FQ		10	0	No	
MNT01	T01-13	0001	10/11/2011	Vanadium	0.000076	U		0.233			0.00038	FQ		10	0	No	
MNT01	T01-18	0001	10/11/2011	Calcium	590			570			322			14	0	No	

**Data Validation Outliers Report - No Field Parameters**

**Comparison: All Historical Data for Filtered Samples**

Laboratory: ALS Laboratory Group

RIN: 11104114

Report Date: 12/29/2011

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current Qualifiers			Historical Maximum Qualifiers			Historical Minimum Qualifiers			Number of Data Points		Statistical Outlier	
					Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect		
MNT01	T01-18	0001	10/11/2011	Sodium	240			220			150			FQ	14	0	No
MNT01	T01-19	0001	10/12/2011	Uranium	0.06			0.13			Q	0.07		FQ	23	0	No
MNT01	T01-20	0001	10/11/2011	Arsenic	0.0024	J		0.0014			0.00016	B		16	2	Yes	
MNT01	T01-20	0001	10/11/2011	Iron	0.66	B		0.47			0.0008	B	U	16	4	No	
MNT01	T01-20	0001	10/11/2011	Manganese	11			9.3			2.18			16	0	No	
MNT01	T01-20	0001	10/11/2011	Molybdenum	0.011	U	J	0.04			0.019			16	0	No	
MNT01	T01-20	0001	10/11/2011	Sulfate	2000			1950			1200			12	0	No	
MNT01	T01-23	0001	10/12/2011	Manganese	0.49			0.902			0.52			20	0	No	
MNT01	T01-25	0001	10/11/2011	Arsenic	0.012			0.011			0.00026	B		15	0	No	
MNT01	T01-25	0001	10/11/2011	Potassium	11			20.5			12.8			15	0	No	
MNT01	T01-35	0001	10/11/2011	Potassium	2.9	B		8.3			3.66	B		27	0	No	
MNT01	W3-03	0001	10/10/2011	Chloride	180			150			32			17	0	No	
MNT01	W3-03	0001	10/10/2011	Sodium	220			200			43			17	0	No	
MNT01	W3-04	0001	10/10/2011	Manganese	3.5			2.3			0.031			18	0	No	

**STATISTICAL TESTS:**

The distribution of the data is tested for normality or lognormality using the Shapiro-Wilk Test

Outliers are identified using Dixon's Test when there are 25 or fewer data points.

Outliers are identified using Rosner's Test when there are 26 or more data points.

See Data Quality Assessment: Statistical Methods for Practitioners, EPA QC/G-9S, February 2006.

## Data Validation Outliers Report - Field Parameters Only

Comparison: All Historical Data

Laboratory: Field Measurements

RIN: 11104114

Report Date: 12/29/2011

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current Qualifiers			Historical Maximum Qualifiers			Historical Minimum Qualifiers			Number of Data Points		Statistical Outlier
					Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
MNT01	0202	N001	10/12/2011	Specific Conductance	2336			2329		F	1532		F	14	0	No
MNT01	83-70	N001	10/12/2011	pH	6.65			8.16			6.8			37	0	No
MNT01	92-09	0001	10/12/2011	Alkalinity, Total (as CaCO <sub>3</sub> )	470			450			212			40	0	No
MNT01	92-10	N001	10/12/2011	Specific Conductance	1025			975			466			27	0	Yes
MNT01	92-10	N001	10/12/2011	Temperature	12.46			11.98		FQ	9.3			27	0	No
MNT01	MW00-06	0001	10/12/2011	Alkalinity, Total (as CaCO <sub>3</sub> )	344			318			75			28	0	No
MNT01	P92-06	N001	10/12/2011	Specific Conductance	2371			6124			2414			32	0	No
MNT01	PW-10	0001	10/11/2011	Alkalinity, Total (as CaCO <sub>3</sub> )	367			360			269			14	0	No
MNT01	R10-M1	N001	10/11/2011	Alkalinity, Total (as CaCO <sub>3</sub> )	572			356			52			36	0	Yes
MNT01	R3-M2	N001	10/10/2011	Turbidity	1.99			126			2.46			28	0	No
MNT01	R3-M3	N001	10/10/2011	Turbidity	1.18			33.3			1.55			28	0	No
MNT01	R4-M3	N001	10/11/2011	Oxidation Reduction Potential	-15.1			-18.1			-423			32	0	No
MNT01	R6-M4	N001	10/10/2011	Dissolved Oxygen	6.9			5.22			0.34			31	0	Yes
MNT01	R6-M4	N001	10/10/2011	Turbidity	3.27			529			4			33	0	No
MNT01	T01-13	N001	10/11/2011	Specific Conductance	1890			6376			3269			8	0	No
MNT01	T01-18	N001	10/11/2011	Specific Conductance	3647			3547			1860			10	0	No
MNT01	T01-20	N001	10/11/2011	Alkalinity, Total (as CaCO <sub>3</sub> )	572			567			340			9	0	No

**Data Validation Outliers Report - Field Parameters Only****Comparison: All Historical Data**

Laboratory: Field Measurements

RIN: 11104114

Report Date: 12/29/2011

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current Qualifiers			Historical Maximum Qualifiers			Historical Minimum Qualifiers			Number of Data Points		Statistical Outlier
					Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
MNT01	T01-25	N001	10/11/2011	Specific Conductance	2828			6825			2862			15	0	No
MNT01	W3-03	N001	10/10/2011	Specific Conductance	3171			3080			16.53			19	0	No
MNT01	W3-04	N001	10/10/2011	pH	7.08			8.3			7.09			18	0	No

**STATISTICAL TESTS:**

The distribution of the data is tested for normality or lognormality using the Shapiro-Wilk Test

Outliers are identified using Dixon's Test when there are 25 or fewer data points.

Outliers are identified using Rosner's Test when there are 26 or more data points.

See Data Quality Assessment: Statistical Methods for Practitioners, EPA QC/G-9S, February 2006.

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## **Anomalous Data Review Checksheet**

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## Anomalous Data Review Checksheet

**Site:** Monticello, Utah, Mill Tailings Site

## **Sampling Data: Water**

**Reviewer:** Gretchen Baer  
Name (print)

John Signature

Date

Site Hydrologist: Tim Bartlett  
Name (print)

Signature

Date

Date of Review: December 28, 2011

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## **Attachment 2**

### **Data Presentation**

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## **Groundwater Quality Data**

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**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: 0200 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/12/2011	0001	5.32	-	10.26	405		#			
Arsenic	mg/L	10/12/2011	0001	5.32	-	10.26	0.00032	J	#	0.000015		
Arsenic	mg/L	10/12/2011	0002	5.32	-	10.26	0.00037	J	#	0.000015		
Calcium	mg/L	10/12/2011	0001	5.32	-	10.26	280		#	0.06		
Calcium	mg/L	10/12/2011	0002	5.32	-	10.26	290		#	0.06		
Chloride	mg/L	10/12/2011	0001	5.32	-	10.26	160		#	10		
Chloride	mg/L	10/12/2011	0002	5.32	-	10.26	160		#	10		
Dissolved Oxygen	mg/L	10/12/2011	N001	5.32	-	10.26	0.44		#			
Fluoride	mg/L	10/12/2011	0001	5.32	-	10.26	0.5	U	#	0.5		
Fluoride	mg/L	10/12/2011	0002	5.32	-	10.26	0.52		#	0.5		
Iron	mg/L	10/12/2011	0001	5.32	-	10.26	0.025	U	J	#	0.025	
Iron	mg/L	10/12/2011	0002	5.32	-	10.26	0.025	U	J	#	0.025	
Magnesium	mg/L	10/12/2011	0001	5.32	-	10.26	87		#	0.065		
Magnesium	mg/L	10/12/2011	0002	5.32	-	10.26	89		#	0.065		
Manganese	mg/L	10/12/2011	0001	5.32	-	10.26	0.0034	B	#	0.00057		
Manganese	mg/L	10/12/2011	0002	5.32	-	10.26	0.0018	B	J	#	0.00057	
Molybdenum	mg/L	10/12/2011	0001	5.32	-	10.26	0.015	B	J	#	0.0054	
Molybdenum	mg/L	10/12/2011	0002	5.32	-	10.26	0.014	B	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2011	0001	5.32	-	10.26	0.42		#	0.01		
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2011	0002	5.32	-	10.26	0.43		#	0.01		
Oxidation Reduction Potential	mV	10/12/2011	N001	5.32	-	10.26	158.6		#			
pH	s.u.	10/12/2011	N001	5.32	-	10.26	6.84		#			
Potassium	mg/L	10/12/2011	0001	5.32	-	10.26	6.3		#	0.54		
Potassium	mg/L	10/12/2011	0002	5.32	-	10.26	6.3		#	0.54		
Selenium	mg/L	10/12/2011	0001	5.32	-	10.26	0.0083	E	#	0.00016		

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**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: 0200 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Selenium	mg/L	10/12/2011	0002	5.32	-	10.26	0.0069		#	0.00016		
Sodium	mg/L	10/12/2011	0001	5.32	-	10.26	200		#	0.033		
Sodium	mg/L	10/12/2011	0002	5.32	-	10.26	210		#	0.033		
Specific Conductance	umhos /cm	10/12/2011	N001	5.32	-	10.26	2628		#			
Sulfate	mg/L	10/12/2011	0001	5.32	-	10.26	900		#	25		
Sulfate	mg/L	10/12/2011	0002	5.32	-	10.26	900		#	25		
Temperature	C	10/12/2011	N001	5.32	-	10.26	13.35		#			
Turbidity	NTU	10/12/2011	N001	5.32	-	10.26	3.09		#			
Uranium	mg/L	10/12/2011	0001	5.32	-	10.26	0.23		#	0.000015		
Uranium	mg/L	10/12/2011	0002	5.32	-	10.26	0.23		#	0.000015		
Vanadium	mg/L	10/12/2011	0001	5.32	-	10.26	0.00031	J	#	0.000015		
Vanadium	mg/L	10/12/2011	0002	5.32	-	10.26	0.000015	U	#	0.000015		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: 0202 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/12/2011	N001	10.32	-	15.26	279		#			
Arsenic	mg/L	10/12/2011	0001	10.32	-	15.26	0.0017	J	#	0.000074		
Calcium	mg/L	10/12/2011	0001	10.32	-	15.26	310		#	0.06		
Chloride	mg/L	10/12/2011	0001	10.32	-	15.26	120		#	10		
Dissolved Oxygen	mg/L	10/12/2011	N001	10.32	-	15.26	3.48		#			
Fluoride	mg/L	10/12/2011	0001	10.32	-	15.26	0.63		#	0.5		
Iron	mg/L	10/12/2011	0001	10.32	-	15.26	0.025	U	J	#	0.025	
Magnesium	mg/L	10/12/2011	0001	10.32	-	15.26	74		#	0.065		
Manganese	mg/L	10/12/2011	0001	10.32	-	15.26	0.0056	B	#	0.00057		
Molybdenum	mg/L	10/12/2011	0001	10.32	-	15.26	0.011	B	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2011	0001	10.32	-	15.26	3.7		#	0.05		
Oxidation Reduction Potential	mV	10/12/2011	N001	10.32	-	15.26	159.1		#			
pH	s.u.	10/12/2011	N001	10.32	-	15.26	6.56		#			
Potassium	mg/L	10/12/2011	0001	10.32	-	15.26	6.5		#	0.54		
Selenium	mg/L	10/12/2011	0001	10.32	-	15.26	0.029		#	0.00016		
Sodium	mg/L	10/12/2011	0001	10.32	-	15.26	140		#	0.033		
Specific Conductance	umhos /cm	10/12/2011	N001	10.32	-	15.26	2336		#			
Sulfate	mg/L	10/12/2011	0001	10.32	-	15.26	800		#	25		
Temperature	C	10/12/2011	N001	10.32	-	15.26	13.24		#			
Turbidity	NTU	10/12/2011	N001	10.32	-	15.26	36.1		#			
Uranium	mg/L	10/12/2011	0001	10.32	-	15.26	0.22		#	0.000015		
Vanadium	mg/L	10/12/2011	0001	10.32	-	15.26	0.034		#	0.000076		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: 82-08 WELL Original 82-08 destroyed during excavation before 1/28/1999. Replacement well installed on 2/23/1999 and also called 82-08.

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	12	-	17	228			#		
Arsenic	mg/L	10/11/2011	0001	12	-	17	0.00059			#	0.000015	
Calcium	mg/L	10/11/2011	0001	12	-	17	350			#	0.06	
Chloride	mg/L	10/11/2011	0001	12	-	17	190			#	10	
Dissolved Oxygen	mg/L	10/11/2011	N001	12	-	17	1.48			#		
Fluoride	mg/L	10/11/2011	0001	12	-	17	0.97			#	0.5	
Iron	mg/L	10/11/2011	0001	12	-	17	0.025	U	J	#	0.025	
Magnesium	mg/L	10/11/2011	0001	12	-	17	110			#	0.065	
Manganese	mg/L	10/11/2011	0001	12	-	17	0.00057	U	J	#	0.00057	
Molybdenum	mg/L	10/11/2011	0001	12	-	17	0.0054	U	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	12	-	17	2.5			#	0.05	
Oxidation Reduction Potential	mV	10/11/2011	N001	12	-	17	165.4			#		
pH	s.u.	10/11/2011	N001	12	-	17	6.05			#		
Potassium	mg/L	10/11/2011	0001	12	-	17	5.9			#	0.54	
Selenium	mg/L	10/11/2011	0001	12	-	17	0.018			#	0.000032	
Sodium	mg/L	10/11/2011	0001	12	-	17	160			#	0.033	
Specific Conductance	umhos /cm	10/11/2011	N001	12	-	17	2867			#		
Sulfate	mg/L	10/11/2011	0001	12	-	17	1200			#	25	
Temperature	C	10/11/2011	N001	12	-	17	13.52			#		
Total Dissolved Solids	mg/L	10/11/2011	0001	12	-	17	2300			#	80	
Turbidity	NTU	10/11/2011	N001	12	-	17	0.66			#		
Uranium	mg/L	10/11/2011	0001	12	-	17	0.031			#	0.0000029	
Vanadium	mg/L	10/11/2011	0001	12	-	17	0.0051			#	0.000015	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: 83-70 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/12/2011	N001	50.4	-	170.4	199		#			
Arsenic	mg/L	10/12/2011	0001	50.4	-	170.4	0.000043	B	J	#	0.000015	
Calcium	mg/L	10/12/2011	0001	50.4	-	170.4	45		#		0.012	
Chloride	mg/L	10/12/2011	0001	50.4	-	170.4	2.8		#		0.2	
Dissolved Oxygen	mg/L	10/12/2011	N001	50.4	-	170.4	4.64		#			
Fluoride	mg/L	10/12/2011	0001	50.4	-	170.4	0.15		#		0.1	
Iron	mg/L	10/12/2011	0001	50.4	-	170.4	0.17		#		0.0049	
Magnesium	mg/L	10/12/2011	0001	50.4	-	170.4	9.5		#		0.013	
Manganese	mg/L	10/12/2011	0001	50.4	-	170.4	0.14		#		0.00011	
Molybdenum	mg/L	10/12/2011	0001	50.4	-	170.4	0.0011	U	J	#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2011	0001	50.4	-	170.4	0.01	U		#	0.01	
Oxidation Reduction Potential	mV	10/12/2011	N001	50.4	-	170.4	161.7			#		
pH	s.u.	10/12/2011	N001	50.4	-	170.4	6.65			#		
Potassium	mg/L	10/12/2011	0001	50.4	-	170.4	2.8		#		0.11	
Selenium	mg/L	10/12/2011	0001	50.4	-	170.4	0.000032	U		#	0.000032	
Sodium	mg/L	10/12/2011	0001	50.4	-	170.4	53		#		0.0066	
Specific Conductance	umhos /cm	10/12/2011	N001	50.4	-	170.4	553			#		
Sulfate	mg/L	10/12/2011	0001	50.4	-	170.4	80		#		0.5	
Temperature	C	10/12/2011	N001	50.4	-	170.4	9.25			#		
Turbidity	NTU	10/12/2011	N001	50.4	-	170.4	4.71			#		
Uranium	mg/L	10/12/2011	0001	50.4	-	170.4	0.000022			#	0.0000029	
Vanadium	mg/L	10/12/2011	0001	50.4	-	170.4	0.000015	B	U	#	0.000015	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: 88-85 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	6.71	-	11.71	376		#			
Arsenic	mg/L	10/11/2011	0001	6.71	-	11.71	0.013		#	0.000074		
Calcium	mg/L	10/11/2011	0001	6.71	-	11.71	300		#	0.06		
Chloride	mg/L	10/11/2011	0001	6.71	-	11.71	120		#	10		
Dissolved Oxygen	mg/L	10/11/2011	N001	6.71	-	11.71	1.28		#			
Fluoride	mg/L	10/11/2011	0001	6.71	-	11.71	0.52		#	0.5		
Iron	mg/L	10/11/2011	0001	6.71	-	11.71	0.025	U	J	#	0.025	
Magnesium	mg/L	10/11/2011	0001	6.71	-	11.71	65		#	0.065		
Manganese	mg/L	10/11/2011	0001	6.71	-	11.71	0.00057	U	J	#	0.00057	
Molybdenum	mg/L	10/11/2011	0001	6.71	-	11.71	0.019	B	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	6.71	-	11.71	4.7		#	0.05		
Oxidation Reduction Potential	mV	10/11/2011	N001	6.71	-	11.71	-53.3		#			
pH	s.u.	10/11/2011	N001	6.71	-	11.71	6.74		#			
Potassium	mg/L	10/11/2011	0001	6.71	-	11.71	6.3		#	0.54		
Selenium	mg/L	10/11/2011	0001	6.71	-	11.71	0.032		#	0.00016		
Sodium	mg/L	10/11/2011	0001	6.71	-	11.71	110		#	0.033		
Specific Conductance	umhos /cm	10/11/2011	N001	6.71	-	11.71	2201		#			
Sulfate	mg/L	10/11/2011	0001	6.71	-	11.71	710		#	25		
Temperature	C	10/11/2011	N001	6.71	-	11.71	12.82		#			
Total Dissolved Solids	mg/L	10/11/2011	0001	6.71	-	11.71	1700		#	80		
Turbidity	NTU	10/11/2011	N001	6.71	-	11.71	1.18		#			
Uranium	mg/L	10/11/2011	0001	6.71	-	11.71	0.24		#	0.000015		
Vanadium	mg/L	10/11/2011	0001	6.71	-	11.71	0.36		#	0.000076		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: 92-07 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	15.6	-	20.6	368		#			
Arsenic	mg/L	10/11/2011	0001	15.6	-	20.6	0.009		J	#	0.0003	
Calcium	mg/L	10/11/2011	0001	15.6	-	20.6	280		#		0.06	
Chloride	mg/L	10/11/2011	0001	15.6	-	20.6	81		#		1	
Dissolved Oxygen	mg/L	10/11/2011	N001	15.6	-	20.6	0.53		#			
Fluoride	mg/L	10/11/2011	0001	15.6	-	20.6	0.62		#		0.5	
Iron	mg/L	10/11/2011	0001	15.6	-	20.6	0.025	U	J	#	0.025	
Magnesium	mg/L	10/11/2011	0001	15.6	-	20.6	60		#		0.065	
Manganese	mg/L	10/11/2011	0001	15.6	-	20.6	0.042		#		0.00057	
Molybdenum	mg/L	10/11/2011	0001	15.6	-	20.6	0.081		#		0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	15.6	-	20.6	1.7		#		0.01	
Oxidation Reduction Potential	mV	10/11/2011	N001	15.6	-	20.6	-8.8		#			
pH	s.u.	10/11/2011	N001	15.6	-	20.6	6.71		#			
Potassium	mg/L	10/11/2011	0001	15.6	-	20.6	14		#		0.54	
Selenium	mg/L	10/11/2011	0001	15.6	-	20.6	0.043		#		0.00065	
Sodium	mg/L	10/11/2011	0001	15.6	-	20.6	97		#		0.033	
Specific Conductance	umhos /cm	10/11/2011	N001	15.6	-	20.6	1973		#			
Sulfate	mg/L	10/11/2011	0001	15.6	-	20.6	670		#		25	
Temperature	C	10/11/2011	N001	15.6	-	20.6	12.57		#			
Turbidity	NTU	10/11/2011	N001	15.6	-	20.6	0.68		#			
Uranium	mg/L	10/11/2011	0001	15.6	-	20.6	0.97		#		0.000058	
Vanadium	mg/L	10/11/2011	0001	15.6	-	20.6	0.34		#		0.0003	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: 92-08 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/12/2011	0001	12.9	-	17.9	344		#			
Arsenic	mg/L	10/12/2011	0001	12.9	-	17.9	0.00038	J	#	0.00003		
Calcium	mg/L	10/12/2011	0001	12.9	-	17.9	290		#	0.06		
Chloride	mg/L	10/12/2011	0001	12.9	-	17.9	82		#	1		
Fluoride	mg/L	10/12/2011	0001	12.9	-	17.9	0.5	U	#	0.5		
Iron	mg/L	10/12/2011	0001	12.9	-	17.9	0.025	U	J	#	0.025	
Magnesium	mg/L	10/12/2011	0001	12.9	-	17.9	62		#	0.065		
Manganese	mg/L	10/12/2011	0001	12.9	-	17.9	0.057		#	0.00057		
Molybdenum	mg/L	10/12/2011	0001	12.9	-	17.9	0.02	B	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2011	0001	12.9	-	17.9	1.4		#	0.01		
pH	s.u.	10/12/2011	N001	12.9	-	17.9	6.74		#			
Potassium	mg/L	10/12/2011	0001	12.9	-	17.9	7.3		#	0.54		
Selenium	mg/L	10/12/2011	0001	12.9	-	17.9	0.03		#	0.00016		
Sodium	mg/L	10/12/2011	0001	12.9	-	17.9	110		#	0.033		
Specific Conductance	umhos /cm	10/12/2011	N001	12.9	-	17.9	2042		#			
Sulfate	mg/L	10/12/2011	0001	12.9	-	17.9	710		#	25		
Temperature	C	10/12/2011	N001	12.9	-	17.9	11.42		#			
Turbidity	NTU	10/12/2011	N001	12.9	-	17.9	2.13		#			
Uranium	mg/L	10/12/2011	0001	12.9	-	17.9	0.32		#	0.000015		
Vanadium	mg/L	10/12/2011	0001	12.9	-	17.9	0.000076	U	#	0.000076		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: 92-09 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/12/2011	0001	10.9	-	16	470		#			
Arsenic	mg/L	10/12/2011	0001	10.9	-	16	0.001	J	#	0.000074		
Calcium	mg/L	10/12/2011	0001	10.9	-	16	340		#	0.06		
Chloride	mg/L	10/12/2011	0001	10.9	-	16	220		#	10		
Dissolved Oxygen	mg/L	10/12/2011	N001	10.9	-	16	0.67		#			
Fluoride	mg/L	10/12/2011	0001	10.9	-	16	0.5	U	#	0.5		
Iron	mg/L	10/12/2011	0001	10.9	-	16	1.5		#	0.025		
Magnesium	mg/L	10/12/2011	0001	10.9	-	16	80		#	0.065		
Manganese	mg/L	10/12/2011	0001	10.9	-	16	0.18		#	0.00057		
Molybdenum	mg/L	10/12/2011	0001	10.9	-	16	0.0054	U	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2011	0001	10.9	-	16	0.01	U	#	0.01		
Oxidation Reduction Potential	mV	10/12/2011	N001	10.9	-	16	48.4		#			
pH	s.u.	10/12/2011	N001	10.9	-	16	6.74		#			
Potassium	mg/L	10/12/2011	0001	10.9	-	16	1.6	B	J	#	0.54	
Selenium	mg/L	10/12/2011	0001	10.9	-	16	0.000032	U	#	0.000032		
Sodium	mg/L	10/12/2011	0001	10.9	-	16	210		#	0.033		
Specific Conductance	umhos /cm	10/12/2011	N001	10.9	-	16	2779		#			
Sulfate	mg/L	10/12/2011	0001	10.9	-	16	880		#	25		
Temperature	C	10/12/2011	N001	10.9	-	16	12.56		#			
Turbidity	NTU	10/12/2011	N001	10.9	-	16	2.96		#			
Uranium	mg/L	10/12/2011	0001	10.9	-	16	0.36		#	0.000015		
Vanadium	mg/L	10/12/2011	0001	10.9	-	16	0.000015	B	U	#	0.000015	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: 92-10 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/12/2011	0001	34.4	-	64.4	208			#		
Arsenic	mg/L	10/12/2011	0001	34.4	-	64.4	0.000085	B	J	#	0.000015	
Calcium	mg/L	10/12/2011	0001	34.4	-	64.4	120			#	0.012	
Chloride	mg/L	10/12/2011	0001	34.4	-	64.4	44			#	4	
Dissolved Oxygen	mg/L	10/12/2011	N001	34.4	-	64.4	0.71			#		
Fluoride	mg/L	10/12/2011	0001	34.4	-	64.4	0.12			#	0.1	
Iron	mg/L	10/12/2011	0001	34.4	-	64.4	0.75			#	0.0049	
Magnesium	mg/L	10/12/2011	0001	34.4	-	64.4	21			#	0.013	
Manganese	mg/L	10/12/2011	0001	34.4	-	64.4	0.53			#	0.00011	
Molybdenum	mg/L	10/12/2011	0001	34.4	-	64.4	0.0011	U	J	#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2011	0001	34.4	-	64.4	0.01	U		#	0.01	
Oxidation Reduction Potential	mV	10/12/2011	N001	34.4	-	64.4	-48.6			#		
pH	s.u.	10/12/2011	N001	34.4	-	64.4	7.15			#		
Potassium	mg/L	10/12/2011	0001	34.4	-	64.4	3.9			#	0.11	
Selenium	mg/L	10/12/2011	0001	34.4	-	64.4	0.000032	B	U	#	0.000032	
Sodium	mg/L	10/12/2011	0001	34.4	-	64.4	59			#	0.0066	
Specific Conductance	umhos /cm	10/12/2011	N001	34.4	-	64.4	1025			#		
Sulfate	mg/L	10/12/2011	0001	34.4	-	64.4	270			#	10	
Temperature	C	10/12/2011	N001	34.4	-	64.4	12.46			#		
Turbidity	NTU	10/12/2011	N001	34.4	-	64.4	110			#		
Uranium	mg/L	10/12/2011	0001	34.4	-	64.4	0.000058			#	0.0000029	
Vanadium	mg/L	10/12/2011	0001	34.4	-	64.4	0.000015	B	U	#	0.000015	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: 92-11 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/12/2011	0001	9.5	-	13.9	257		#			
Arsenic	mg/L	10/12/2011	0001	9.5	-	13.9	0.017		#	0.00015		
Calcium	mg/L	10/12/2011	0001	9.5	-	13.9	300		#	0.06		
Chloride	mg/L	10/12/2011	0001	9.5	-	13.9	110		#	10		
Dissolved Oxygen	mg/L	10/12/2011	N001	9.5	-	13.9	2.26		#			
Fluoride	mg/L	10/12/2011	0001	9.5	-	13.9	0.5	U	#	0.5		
Iron	mg/L	10/12/2011	0001	9.5	-	13.9	0.025	U	J	#	0.025	
Magnesium	mg/L	10/12/2011	0001	9.5	-	13.9	64		#	0.065		
Manganese	mg/L	10/12/2011	0001	9.5	-	13.9	0.00057	U	J	#	0.00057	
Molybdenum	mg/L	10/12/2011	0001	9.5	-	13.9	0.0054	U	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2011	0001	9.5	-	13.9	4.5		#	0.05		
Oxidation Reduction Potential	mV	10/12/2011	N001	9.5	-	13.9	163.9		#			
pH	s.u.	10/12/2011	N001	9.5	-	13.9	6.77		#			
Potassium	mg/L	10/12/2011	0001	9.5	-	13.9	6.2		#	0.54		
Selenium	mg/L	10/12/2011	0001	9.5	-	13.9	0.03		#	0.00032		
Sodium	mg/L	10/12/2011	0001	9.5	-	13.9	120		#	0.033		
Specific Conductance	umhos /cm	10/12/2011	N001	9.5	-	13.9	2142		#			
Sulfate	mg/L	10/12/2011	0001	9.5	-	13.9	690		#	25		
Temperature	C	10/12/2011	N001	9.5	-	13.9	12.25		#			
Turbidity	NTU	10/12/2011	N001	9.5	-	13.9	1.87		#			
Uranium	mg/L	10/12/2011	0001	9.5	-	13.9	0.15		#	0.000029		
Vanadium	mg/L	10/12/2011	0001	9.5	-	13.9	0.39		#	0.00015		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: 93-01 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	119	-	179	375		#			
Arsenic	mg/L	10/11/2011	0001	119	-	179	0.00045		J	#	0.000015	
Calcium	mg/L	10/11/2011	0001	119	-	179	33		#		0.012	
Chloride	mg/L	10/11/2011	0001	119	-	179	4.6		#		0.2	
Fluoride	mg/L	10/11/2011	0001	119	-	179	0.53		#		0.1	
Iron	mg/L	10/11/2011	0001	119	-	179	0.0049	B	U	#	0.0049	
Magnesium	mg/L	10/11/2011	0001	119	-	179	8		#		0.013	
Manganese	mg/L	10/11/2011	0001	119	-	179	0.094		#		0.00011	
Molybdenum	mg/L	10/11/2011	0001	119	-	179	0.0011	U	J	#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	119	-	179	0.01	U		#	0.01	
pH	s.u.	10/11/2011	N001	119	-	179	7.52		#			
Potassium	mg/L	10/11/2011	0001	119	-	179	4.2		#		0.11	
Selenium	mg/L	10/11/2011	0001	119	-	179	0.000032	B	U	#	0.000032	
Sodium	mg/L	10/11/2011	0001	119	-	179	110		#		0.0066	
Specific Conductance	umhos /cm	10/11/2011	N001	119	-	179	708		#			
Sulfate	mg/L	10/11/2011	0001	119	-	179	13		#		0.5	
Temperature	C	10/11/2011	N001	119	-	179	9.36		#			
Turbidity	NTU	10/11/2011	N001	119	-	179	2.22		#			
Uranium	mg/L	10/11/2011	0001	119	-	179	0.000098		#		0.0000029	
Vanadium	mg/L	10/11/2011	0001	119	-	179	0.000015	B	U	#	0.000015	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: 95-01 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/12/2011	0001	3.5	-	8.5	190		#			
Arsenic	mg/L	10/12/2011	0001	3.5	-	8.5	0.0022		#	0.000015		
Calcium	mg/L	10/12/2011	0001	3.5	-	8.5	39		#	0.012		
Chloride	mg/L	10/12/2011	0001	3.5	-	8.5	7		#	0.2		
Dissolved Oxygen	mg/L	10/12/2011	N001	3.5	-	8.5	0.47		#			
Fluoride	mg/L	10/12/2011	0001	3.5	-	8.5	0.26		#	0.1		
Iron	mg/L	10/12/2011	0001	3.5	-	8.5	0.57		#	0.0049		
Magnesium	mg/L	10/12/2011	0001	3.5	-	8.5	11		#	0.013		
Manganese	mg/L	10/12/2011	0001	3.5	-	8.5	0.17		#	0.00011		
Molybdenum	mg/L	10/12/2011	0001	3.5	-	8.5	0.0011	U	J	#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2011	0001	3.5	-	8.5	0.01		#	0.01		
Oxidation Reduction Potential	mV	10/12/2011	N001	3.5	-	8.5	-45.7		#			
pH	s.u.	10/12/2011	N001	3.5	-	8.5	7.01		#			
Potassium	mg/L	10/12/2011	0001	3.5	-	8.5	3.8		#	0.11		
Selenium	mg/L	10/12/2011	0001	3.5	-	8.5	0.000032	U		#	0.000032	
Sodium	mg/L	10/12/2011	0001	3.5	-	8.5	69		#	0.0066		
Specific Conductance	umhos /cm	10/12/2011	N001	3.5	-	8.5	600		#			
Sulfate	mg/L	10/12/2011	0001	3.5	-	8.5	110		#	5		
Temperature	C	10/12/2011	N001	3.5	-	8.5	12.94		#			
Turbidity	NTU	10/12/2011	N001	3.5	-	8.5	4.44		#			
Uranium	mg/L	10/12/2011	0001	3.5	-	8.5	0.00046		#	0.0000029		
Vanadium	mg/L	10/12/2011	0001	3.5	-	8.5	0.000015	B	U	#	0.000015	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: 95-03 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/12/2011	0001	5.56	-	10.56	252		#			
Arsenic	mg/L	10/12/2011	0001	5.56	-	10.56	0.00015	J	#	0.000015		
Calcium	mg/L	10/12/2011	0001	5.56	-	10.56	160		#	0.012		
Chloride	mg/L	10/12/2011	0001	5.56	-	10.56	77		#	4		
Dissolved Oxygen	mg/L	10/12/2011	N001	5.56	-	10.56	0.64		#			
Fluoride	mg/L	10/12/2011	0001	5.56	-	10.56	0.23		#	0.2		
Iron	mg/L	10/12/2011	0001	5.56	-	10.56	1.2		#	0.0049		
Magnesium	mg/L	10/12/2011	0001	5.56	-	10.56	53		#	0.013		
Manganese	mg/L	10/12/2011	0001	5.56	-	10.56	0.35		#	0.00011		
Molybdenum	mg/L	10/12/2011	0001	5.56	-	10.56	0.0012	B	J	#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2011	0001	5.56	-	10.56	0.01	U	#	0.01		
Oxidation Reduction Potential	mV	10/12/2011	N001	5.56	-	10.56	-45.1		#			
pH	s.u.	10/12/2011	N001	5.56	-	10.56	6.98		#			
Potassium	mg/L	10/12/2011	0001	5.56	-	10.56	4.8		#	0.11		
Selenium	mg/L	10/12/2011	0001	5.56	-	10.56	0.000032	B	U	#	0.000032	
Sodium	mg/L	10/12/2011	0001	5.56	-	10.56	100		#	0.0066		
Specific Conductance	umhos /cm	10/12/2011	N001	5.56	-	10.56	1520		#			
Sulfate	mg/L	10/12/2011	0001	5.56	-	10.56	480		#	10		
Temperature	C	10/12/2011	N001	5.56	-	10.56	13.26		#			
Turbidity	NTU	10/12/2011	N001	5.56	-	10.56	1.03		#			
Uranium	mg/L	10/12/2011	0001	5.56	-	10.56	0.0075		#	0.0000029		
Vanadium	mg/L	10/12/2011	0001	5.56	-	10.56	0.000015	B	U	#	0.000015	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: MW00-01 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	7.37	-	13.4	304			#		
Arsenic	mg/L	10/11/2011	0001	7.37	-	13.4	0.0003		J	#	0.000015	
Calcium	mg/L	10/11/2011	0001	7.37	-	13.4	340			#	0.012	
Chloride	mg/L	10/11/2011	0001	7.37	-	13.4	8.4			#	0.4	
Fluoride	mg/L	10/11/2011	0001	7.37	-	13.4	0.21			#	0.2	
Iron	mg/L	10/11/2011	0001	7.37	-	13.4	0.0049	U	J	#	0.0049	
Magnesium	mg/L	10/11/2011	0001	7.37	-	13.4	52			#	0.013	
Manganese	mg/L	10/11/2011	0001	7.37	-	13.4	0.00011	U	J	#	0.00011	
Molybdenum	mg/L	10/11/2011	0001	7.37	-	13.4	0.0011	U	J	#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	7.37	-	13.4	0.083			#	0.01	
pH	s.u.	10/11/2011	N001	7.37	-	13.4	6.72			#		
Potassium	mg/L	10/11/2011	0001	7.37	-	13.4	3.3			#	0.11	
Selenium	mg/L	10/11/2011	0001	7.37	-	13.4	0.00094			#	0.000032	
Sodium	mg/L	10/11/2011	0001	7.37	-	13.4	41			#	0.0066	
Specific Conductance	umhos /cm	10/11/2011	N001	7.37	-	13.4	1730			#		
Sulfate	mg/L	10/11/2011	0001	7.37	-	13.4	720			#	10	
Temperature	C	10/11/2011	N001	7.37	-	13.4	9.35			#		
Turbidity	NTU	10/11/2011	N001	7.37	-	13.4	1.28			#		
Uranium	mg/L	10/11/2011	0001	7.37	-	13.4	0.0059			#	0.0000029	
Vanadium	mg/L	10/11/2011	0001	7.37	-	13.4	0.000015	U		#	0.000015	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: MW00-06 WELL Erroneously labeled as Somerville.

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/12/2011	0001	14.08	-	19.11	344		#			
Arsenic	mg/L	10/12/2011	0001	14.08	-	19.11	0.0032	J	#	0.00015		
Calcium	mg/L	10/12/2011	0001	14.08	-	19.11	180		#	0.06		
Chloride	mg/L	10/12/2011	0001	14.08	-	19.11	87		#	1		
Dissolved Oxygen	mg/L	10/12/2011	N001	14.08	-	19.11	3.49		#			
Fluoride	mg/L	10/12/2011	0001	14.08	-	19.11	0.5	U	#	0.5		
Iron	mg/L	10/12/2011	0001	14.08	-	19.11	0.025	U	J	#	0.025	
Magnesium	mg/L	10/12/2011	0001	14.08	-	19.11	45		#	0.065		
Manganese	mg/L	10/12/2011	0001	14.08	-	19.11	0.00057	U	J	#	0.00057	
Molybdenum	mg/L	10/12/2011	0001	14.08	-	19.11	0.024	B	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2011	0001	14.08	-	19.11	1.6		#	0.01		
Oxidation Reduction Potential	mV	10/12/2011	N001	14.08	-	19.11	155.5		#			
pH	s.u.	10/12/2011	N001	14.08	-	19.11	6.49		#			
Potassium	mg/L	10/12/2011	0001	14.08	-	19.11	8.4		#	0.54		
Selenium	mg/L	10/12/2011	0001	14.08	-	19.11	0.043		#	0.00032		
Sodium	mg/L	10/12/2011	0001	14.08	-	19.11	81		#	0.033		
Specific Conductance	umhos /cm	10/12/2011	N001	14.08	-	19.11	1912		#			
Sulfate	mg/L	10/12/2011	0001	14.08	-	19.11	650		#	25		
Temperature	C	10/12/2011	N001	14.08	-	19.11	10.83		#			
Total Dissolved Solids	mg/L	10/12/2011	0001	14.08	-	19.11	1500		#	40		
Turbidity	NTU	10/12/2011	N001	14.08	-	19.11	1.3		#			
Uranium	mg/L	10/12/2011	0001	14.08	-	19.11	0.72		#	0.000029		
Vanadium	mg/L	10/12/2011	0001	14.08	-	19.11	0.12		#	0.00015		

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**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: MW00-07 WELL Erroneously labeled as Somerville.

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/12/2011	0001	17.17	-	22.2	365			#		
Dissolved Oxygen	mg/L	10/12/2011	N001	17.17	-	22.2	1.82			#		
Oxidation Reduction Potential	mV	10/12/2011	N001	17.17	-	22.2	159.4			#		
pH	s.u.	10/12/2011	N001	17.17	-	22.2	6.62			#		
Specific Conductance	umhos /cm	10/12/2011	N001	17.17	-	22.2	2067			#		
Temperature	C	10/12/2011	N001	17.17	-	22.2	10.85			#		
Turbidity	NTU	10/12/2011	N001	17.17	-	22.2	46			#		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: P92-06 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/12/2011	0001	11.7	-	14.2	340			#		
Arsenic	mg/L	10/12/2011	0001	11.7	-	14.2	0.0003		J	#	0.000015	
Calcium	mg/L	10/12/2011	0001	11.7	-	14.2	280			#	0.06	
Chloride	mg/L	10/12/2011	0001	11.7	-	14.2	83			#	1	
Fluoride	mg/L	10/12/2011	0001	11.7	-	14.2	0.5	U		#	0.5	
Iron	mg/L	10/12/2011	0001	11.7	-	14.2	0.025	U	J	#	0.025	
Magnesium	mg/L	10/12/2011	0001	11.7	-	14.2	88			#	0.065	
Manganese	mg/L	10/12/2011	0001	11.7	-	14.2	0.00057	U	J	#	0.00057	
Molybdenum	mg/L	10/12/2011	0001	11.7	-	14.2	0.0088	B	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2011	0001	11.7	-	14.2	1.5			#	0.01	
pH	s.u.	10/12/2011	N001	11.7	-	14.2	6.82			#		
Potassium	mg/L	10/12/2011	0001	11.7	-	14.2	8.9			#	0.54	
Selenium	mg/L	10/12/2011	0001	11.7	-	14.2	0.015			#	0.00032	
Sodium	mg/L	10/12/2011	0001	11.7	-	14.2	170			#	0.033	
Specific Conductance	umhos /cm	10/12/2011	N001	11.7	-	14.2	2371			#		
Sulfate	mg/L	10/12/2011	0001	11.7	-	14.2	920			#	25	
Temperature	C	10/12/2011	N001	11.7	-	14.2	11.66			#		
Turbidity	NTU	10/12/2011	N001	11.7	-	14.2	2.63			#		
Uranium	mg/L	10/12/2011	0001	11.7	-	14.2	0.47			#	0.000029	
Vanadium	mg/L	10/12/2011	0001	11.7	-	14.2	0.000015	U		#	0.000015	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: PW-10 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	27.91	-	32.91	367		#			
Arsenic	mg/L	10/11/2011	0001	27.91	-	32.91	0.0084		J	#	0.0003	
Calcium	mg/L	10/11/2011	0001	27.91	-	32.91	270		#		0.06	
Chloride	mg/L	10/11/2011	0001	27.91	-	32.91	79		#		4	
Dissolved Oxygen	mg/L	10/11/2011	N001	27.91	-	32.91	3		#			
Fluoride	mg/L	10/11/2011	0001	27.91	-	32.91	0.52		#		0.2	
Iron	mg/L	10/11/2011	0001	27.91	-	32.91	0.025	U	J	#	0.025	
Magnesium	mg/L	10/11/2011	0001	27.91	-	32.91	60		#		0.065	
Manganese	mg/L	10/11/2011	0001	27.91	-	32.91	0.00057	U	J	#	0.00057	
Molybdenum	mg/L	10/11/2011	0001	27.91	-	32.91	0.094		#		0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	27.91	-	32.91	1.6		#		0.01	
Oxidation Reduction Potential	mV	10/11/2011	N001	27.91	-	32.91	56.6		#			
pH	s.u.	10/11/2011	N001	27.91	-	32.91	6.66		#			
Potassium	mg/L	10/11/2011	0001	27.91	-	32.91	14		#		0.54	
Selenium	mg/L	10/11/2011	0001	27.91	-	32.91	0.047		#		0.00065	
Sodium	mg/L	10/11/2011	0001	27.91	-	32.91	100	E	#		0.033	
Specific Conductance	umhos /cm	10/11/2011	N001	27.91	-	32.91	1987		#			
Sulfate	mg/L	10/11/2011	0001	27.91	-	32.91	710		#		10	
Temperature	C	10/11/2011	N001	27.91	-	32.91	11.87		#			
Turbidity	NTU	10/11/2011	N001	27.91	-	32.91	2.37		#			
Uranium	mg/L	10/11/2011	0001	27.91	-	32.91	1.1		#		0.000058	
Vanadium	mg/L	10/11/2011	0001	27.91	-	32.91	0.28		#		0.0003	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: PW-17 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	30.47	-	35.47	330		#			
Arsenic	mg/L	10/11/2011	0001	30.47	-	35.47	0.0094	J	#	0.0003		
Calcium	mg/L	10/11/2011	0001	30.47	-	35.47	270		#	0.06		
Chloride	mg/L	10/11/2011	0001	30.47	-	35.47	73		#	4		
Dissolved Oxygen	mg/L	10/11/2011	N001	30.47	-	35.47	2.5		#			
Fluoride	mg/L	10/11/2011	0001	30.47	-	35.47	0.62		#	0.2		
Iron	mg/L	10/11/2011	0001	30.47	-	35.47	0.025	U	J	#	0.025	
Magnesium	mg/L	10/11/2011	0001	30.47	-	35.47	62		#	0.065		
Manganese	mg/L	10/11/2011	0001	30.47	-	35.47	0.00057	U	J	#	0.00057	
Molybdenum	mg/L	10/11/2011	0001	30.47	-	35.47	0.11		#	0.0054		
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	30.47	-	35.47	1.5		#	0.01		
Oxidation Reduction Potential	mV	10/11/2011	N001	30.47	-	35.47	29.8		#			
pH	s.u.	10/11/2011	N001	30.47	-	35.47	6.69		#			
Potassium	mg/L	10/11/2011	0001	30.47	-	35.47	15		#	0.54		
Selenium	mg/L	10/11/2011	0001	30.47	-	35.47	0.044		#	0.00065		
Sodium	mg/L	10/11/2011	0001	30.47	-	35.47	110		#	0.033		
Specific Conductance	umhos /cm	10/11/2011	N001	30.47	-	35.47	1998		#			
Sulfate	mg/L	10/11/2011	0001	30.47	-	35.47	720		#	10		
Temperature	C	10/11/2011	N001	30.47	-	35.47	13.06		#			
Turbidity	NTU	10/11/2011	N001	30.47	-	35.47	1.78		#			
Uranium	mg/L	10/11/2011	0001	30.47	-	35.47	1.2		#	0.000058		
Vanadium	mg/L	10/11/2011	0001	30.47	-	35.47	0.3		#	0.0003		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: PW-28 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	-	377			#		
Arsenic	mg/L	10/11/2011	0001	-	0.0024		J	#	0.000074	
Calcium	mg/L	10/11/2011	0001	-	320			#	0.06	
Chloride	mg/L	10/11/2011	0001	-	150			#	10	
Dissolved Oxygen	mg/L	10/11/2011	N001	-	2.71			#		
Fluoride	mg/L	10/11/2011	0001	-	0.63			#	0.5	
Iron	mg/L	10/11/2011	0001	-	0.025	U	J	#	0.025	
Magnesium	mg/L	10/11/2011	0001	-	82			#	0.065	
Manganese	mg/L	10/11/2011	0001	-	0.00057	U	J	#	0.00057	
Molybdenum	mg/L	10/11/2011	0001	-	0.0054	U	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	-	6.6			#	0.05	
Oxidation Reduction Potential	mV	10/11/2011	N001	-	174.2			#		
pH	s.u.	10/11/2011	N001	-	6.59			#		
Potassium	mg/L	10/11/2011	0001	-	4.4	B		#	0.54	
Selenium	mg/L	10/11/2011	0001	-	0.03			#	0.00016	
Sodium	mg/L	10/11/2011	0001	-	150			#	0.033	
Specific Conductance	umhos /cm	10/11/2011	N001	-	2458			#		
Sulfate	mg/L	10/11/2011	0001	-	820			#	25	
Temperature	C	10/11/2011	N001	-	12.51			#		
Turbidity	NTU	10/11/2011	N001	-	4.53			#		
Uranium	mg/L	10/11/2011	0001	-	0.18			#	0.000015	
Vanadium	mg/L	10/11/2011	0001	-	0.18			#	0.000076	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: R1-M3 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/10/2011	0001	8.5	-	13.5	369		#			
Arsenic	mg/L	10/10/2011	0001	8.5	-	13.5	0.014		#	0.00015		
Arsenic	mg/L	10/10/2011	0002	8.5	-	13.5	0.015		#	0.00015		
Calcium	mg/L	10/10/2011	0001	8.5	-	13.5	300		#	0.06		
Calcium	mg/L	10/10/2011	0002	8.5	-	13.5	290		#	0.06		
Chloride	mg/L	10/10/2011	0001	8.5	-	13.5	110		#	4		
Chloride	mg/L	10/10/2011	0002	8.5	-	13.5	110		#	10		
Dissolved Oxygen	mg/L	10/10/2011	N001	8.5	-	13.5	1.19		#			
Fluoride	mg/L	10/10/2011	0001	8.5	-	13.5	0.53		#	0.2		
Fluoride	mg/L	10/10/2011	0002	8.5	-	13.5	0.53		#	0.5		
Iron	mg/L	10/10/2011	0001	8.5	-	13.5	0.025	U	J	#	0.025	
Iron	mg/L	10/10/2011	0002	8.5	-	13.5	0.025	U	J	#	0.025	
Magnesium	mg/L	10/10/2011	0001	8.5	-	13.5	63		#	0.065		
Magnesium	mg/L	10/10/2011	0002	8.5	-	13.5	62		#	0.065		
Manganese	mg/L	10/10/2011	0001	8.5	-	13.5	0.00057	U	J	#	0.00057	
Manganese	mg/L	10/10/2011	0002	8.5	-	13.5	0.00057	U	J	#	0.00057	
Molybdenum	mg/L	10/10/2011	0001	8.5	-	13.5	0.036	B		#	0.0054	
Molybdenum	mg/L	10/10/2011	0002	8.5	-	13.5	0.035	B		#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2011	0001	8.5	-	13.5	3.9		#	0.02		
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2011	0002	8.5	-	13.5	3.9		#	0.05		
Oxidation Reduction Potential	mV	10/10/2011	N001	8.5	-	13.5	13.6		#			
pH	s.u.	10/10/2011	N001	8.5	-	13.5	6.75		#			
Potassium	mg/L	10/10/2011	0001	8.5	-	13.5	10		#	0.54		
Potassium	mg/L	10/10/2011	0002	8.5	-	13.5	9.8		#	0.54		
Selenium	mg/L	10/10/2011	0001	8.5	-	13.5	0.036		#	0.00032		

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**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: R1-M3 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Selenium	mg/L	10/10/2011	0002	8.5	-	13.5	0.036		#	0.00032		
Sodium	mg/L	10/10/2011	0001	8.5	-	13.5	110		#	0.033		
Sodium	mg/L	10/10/2011	0002	8.5	-	13.5	110		#	0.033		
Specific Conductance	umhos /cm	10/10/2011	N001	8.5	-	13.5	2110		#			
Sulfate	mg/L	10/10/2011	0001	8.5	-	13.5	700		#	10		
Sulfate	mg/L	10/10/2011	0002	8.5	-	13.5	680		#	25		
Temperature	C	10/10/2011	N001	8.5	-	13.5	11.8		#			
Turbidity	NTU	10/10/2011	N001	8.5	-	13.5	4.06		#			
Uranium	mg/L	10/10/2011	0001	8.5	-	13.5	0.45		#	0.000029		
Uranium	mg/L	10/10/2011	0002	8.5	-	13.5	0.46		#	0.000029		
Vanadium	mg/L	10/10/2011	0001	8.5	-	13.5	0.4		#	0.00015		
Vanadium	mg/L	10/10/2011	0002	8.5	-	13.5	0.42		#	0.00015		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: R1-M4 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/10/2011	0001	8.49	-	13.49	414		#			
Arsenic	mg/L	10/10/2011	0001	8.49	-	13.49	0.0093		#	0.00015		
Calcium	mg/L	10/10/2011	0001	8.49	-	13.49	300		#	0.06		
Chloride	mg/L	10/10/2011	0001	8.49	-	13.49	100		#	4		
Dissolved Oxygen	mg/L	10/10/2011	N001	8.49	-	13.49	0.79		#			
Fluoride	mg/L	10/10/2011	0001	8.49	-	13.49	0.54		#	0.2		
Iron	mg/L	10/10/2011	0001	8.49	-	13.49	0.025	U	J	#	0.025	
Magnesium	mg/L	10/10/2011	0001	8.49	-	13.49	64		#	0.065		
Manganese	mg/L	10/10/2011	0001	8.49	-	13.49	0.02	B	#	0.00057		
Molybdenum	mg/L	10/10/2011	0001	8.49	-	13.49	0.042	B	#	0.0054		
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2011	0001	8.49	-	13.49	3.4		#	0.02		
Oxidation Reduction Potential	mV	10/10/2011	N001	8.49	-	13.49	125.7		#			
pH	s.u.	10/10/2011	N001	8.49	-	13.49	6.71		#			
Potassium	mg/L	10/10/2011	0001	8.49	-	13.49	11		#	0.54		
Selenium	mg/L	10/10/2011	0001	8.49	-	13.49	0.045		#	0.00032		
Sodium	mg/L	10/10/2011	0001	8.49	-	13.49	110		#	0.033		
Specific Conductance	umhos /cm	10/10/2011	N001	8.49	-	13.49	2089		#			
Sulfate	mg/L	10/10/2011	0001	8.49	-	13.49	700		#	10		
Temperature	C	10/10/2011	N001	8.49	-	13.49	12.29		#			
Turbidity	NTU	10/10/2011	N001	8.49	-	13.49	1.41		#			
Uranium	mg/L	10/10/2011	0001	8.49	-	13.49	0.64		#	0.000029		
Vanadium	mg/L	10/10/2011	0001	8.49	-	13.49	0.28		#	0.00015		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: R10-M1 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	N001	10.25	-	15.25	572		#			
Arsenic	mg/L	10/11/2011	0001	10.25	-	15.25	0.00082		#	0.000015		
Calcium	mg/L	10/11/2011	0001	10.25	-	15.25	120		#	0.012		
Chloride	mg/L	10/11/2011	0001	10.25	-	15.25	75		#	4		
Dissolved Oxygen	mg/L	10/11/2011	N001	10.25	-	15.25	1.43		#			
Fluoride	mg/L	10/11/2011	0001	10.25	-	15.25	0.23		#	0.2		
Iron	mg/L	10/11/2011	0001	10.25	-	15.25	0.0049	B	UJ	#	0.0049	
Magnesium	mg/L	10/11/2011	0001	10.25	-	15.25	38		#	0.013		
Manganese	mg/L	10/11/2011	0001	10.25	-	15.25	0.032		#	0.00011		
Molybdenum	mg/L	10/11/2011	0001	10.25	-	15.25	0.0011	U	J	#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	10.25	-	15.25	0.18		#	0.01		
Oxidation Reduction Potential	mV	10/11/2011	N001	10.25	-	15.25	-22.7		#			
pH	s.u.	10/11/2011	N001	10.25	-	15.25	6.83		#			
Potassium	mg/L	10/11/2011	0001	10.25	-	15.25	12		#	0.11		
Selenium	mg/L	10/11/2011	0001	10.25	-	15.25	0.0014		#	0.000032		
Sodium	mg/L	10/11/2011	0001	10.25	-	15.25	94		#	0.0066		
Specific Conductance	umhos /cm	10/11/2011	N001	10.25	-	15.25	1338		#			
Sulfate	mg/L	10/11/2011	0001	10.25	-	15.25	440		#	10		
Temperature	C	10/11/2011	N001	10.25	-	15.25	12.28		#			
Turbidity	NTU	10/11/2011	N001	10.25	-	15.25	7.42		#			
Uranium	mg/L	10/11/2011	0001	10.25	-	15.25	0.0033		#	0.0000029		
Vanadium	mg/L	10/11/2011	0001	10.25	-	15.25	0.021		#	0.000015		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: R3-M2 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/10/2011	0001	9.16	-	14.16	390		#			
Arsenic	mg/L	10/10/2011	0001	9.16	-	14.16	0.00027	J	#	0.00003		
Calcium	mg/L	10/10/2011	0001	9.16	-	14.16	280		#	0.06		
Chloride	mg/L	10/10/2011	0001	9.16	-	14.16	96		#	4		
Dissolved Oxygen	mg/L	10/10/2011	N001	9.16	-	14.16	0.47		#			
Fluoride	mg/L	10/10/2011	0001	9.16	-	14.16	0.52		#	0.2		
Iron	mg/L	10/10/2011	0001	9.16	-	14.16	4.7		#	0.025		
Magnesium	mg/L	10/10/2011	0001	9.16	-	14.16	60		#	0.065		
Manganese	mg/L	10/10/2011	0001	9.16	-	14.16	0.19		#	0.00057		
Molybdenum	mg/L	10/10/2011	0001	9.16	-	14.16	0.07		#	0.0054		
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2011	0001	9.16	-	14.16	0.08		#	0.01		
Oxidation Reduction Potential	mV	10/10/2011	N001	9.16	-	14.16	-83.4		#			
pH	s.u.	10/10/2011	N001	9.16	-	14.16	7		#			
Potassium	mg/L	10/10/2011	0001	9.16	-	14.16	11		#	0.54		
Selenium	mg/L	10/10/2011	0001	9.16	-	14.16	0.0029	J	#	0.00032		
Sodium	mg/L	10/10/2011	0001	9.16	-	14.16	100		#	0.033		
Specific Conductance	umhos /cm	10/10/2011	N001	9.16	-	14.16	2009		#			
Sulfate	mg/L	10/10/2011	0001	9.16	-	14.16	670		#	10		
Temperature	C	10/10/2011	N001	9.16	-	14.16	11.57		#			
Turbidity	NTU	10/10/2011	N001	9.16	-	14.16	1.99		#			
Uranium	mg/L	10/10/2011	0001	9.16	-	14.16	0.64		#	0.000029		
Vanadium	mg/L	10/10/2011	0001	9.16	-	14.16	0.0016	J	#	0.00003		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: R3-M3 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/10/2011	0001	8.43	-	13.43	354		#			
Arsenic	mg/L	10/10/2011	0001	8.43	-	13.43	0.00031	J	#	0.000015		
Calcium	mg/L	10/10/2011	0001	8.43	-	13.43	240		#	0.06		
Chloride	mg/L	10/10/2011	0001	8.43	-	13.43	91		#	4		
Dissolved Oxygen	mg/L	10/10/2011	N001	8.43	-	13.43	0.53		#			
Fluoride	mg/L	10/10/2011	0001	8.43	-	13.43	0.47		#	0.2		
Iron	mg/L	10/10/2011	0001	8.43	-	13.43	8.5		#	0.025		
Magnesium	mg/L	10/10/2011	0001	8.43	-	13.43	58		#	0.065		
Manganese	mg/L	10/10/2011	0001	8.43	-	13.43	0.2		#	0.00057		
Molybdenum	mg/L	10/10/2011	0001	8.43	-	13.43	0.045	B	#	0.0054		
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2011	0001	8.43	-	13.43	0.02		#	0.01		
Oxidation Reduction Potential	mV	10/10/2011	N001	8.43	-	13.43	-137.6		#			
pH	s.u.	10/10/2011	N001	8.43	-	13.43	7.26		#			
Potassium	mg/L	10/10/2011	0001	8.43	-	13.43	11		#	0.54		
Selenium	mg/L	10/10/2011	0001	8.43	-	13.43	0.00022	J	#	0.000032		
Sodium	mg/L	10/10/2011	0001	8.43	-	13.43	99		#	0.033		
Specific Conductance	umhos /cm	10/10/2011	N001	8.43	-	13.43	1906		#			
Sulfate	mg/L	10/10/2011	0001	8.43	-	13.43	630		#	10		
Temperature	C	10/10/2011	N001	8.43	-	13.43	12.72		#			
Turbidity	NTU	10/10/2011	N001	8.43	-	13.43	1.18		#			
Uranium	mg/L	10/10/2011	0001	8.43	-	13.43	0.34		#	0.000015		
Vanadium	mg/L	10/10/2011	0001	8.43	-	13.43	0.000015	B	U	#	0.000015	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: R4-M3 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	N001	9.04	-	14.04	74		#			
Arsenic	mg/L	10/11/2011	0001	9.04	-	14.04	0.00013	J	#	0.000015		
Calcium	mg/L	10/11/2011	0001	9.04	-	14.04	20		#	0.012		
Chloride	mg/L	10/11/2011	0001	9.04	-	14.04	66		#	4		
Dissolved Oxygen	mg/L	10/11/2011	N001	9.04	-	14.04	0		#			
Fluoride	mg/L	10/11/2011	0001	9.04	-	14.04	0.1		#	0.1		
Iron	mg/L	10/11/2011	0001	9.04	-	14.04	0.0049	U	J	#	0.0049	
Magnesium	mg/L	10/11/2011	0001	9.04	-	14.04	34		#	0.013		
Manganese	mg/L	10/11/2011	0001	9.04	-	14.04	0.003	B	#	0.00011		
Molybdenum	mg/L	10/11/2011	0001	9.04	-	14.04	0.051		#	0.0011		
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	9.04	-	14.04	0.01	U	#	0.01		
Oxidation Reduction Potential	mV	10/11/2011	N001	9.04	-	14.04	-15.1		#			
pH	s.u.	10/11/2011	N001	9.04	-	14.04	8.7		#			
Potassium	mg/L	10/11/2011	0001	9.04	-	14.04	13		#	0.11		
Selenium	mg/L	10/11/2011	0001	9.04	-	14.04	0.00022	J	#	0.000032		
Sodium	mg/L	10/11/2011	0001	9.04	-	14.04	96		#	0.0066		
Specific Conductance	umhos /cm	10/11/2011	N001	9.04	-	14.04	857		#			
Sulfate	mg/L	10/11/2011	0001	9.04	-	14.04	300		#	10		
Temperature	C	10/11/2011	N001	9.04	-	14.04	9.93		#			
Turbidity	NTU	10/11/2011	N001	9.04	-	14.04	11.7		#			
Uranium	mg/L	10/11/2011	0001	9.04	-	14.04	0.00011		#	0.0000029		
Vanadium	mg/L	10/11/2011	0001	9.04	-	14.04	0.000015	B	U	#	0.000015	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: R4-M6 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/10/2011	0001	8.47	-	13.47	117		#			
Arsenic	mg/L	10/10/2011	0001	8.47	-	13.47	0.00015	J	#	0.000015		
Calcium	mg/L	10/10/2011	0001	8.47	-	13.47	17		#	0.012		
Chloride	mg/L	10/10/2011	0001	8.47	-	13.47	67		#	2		
Dissolved Oxygen	mg/L	10/10/2011	N001	8.47	-	13.47	1.51		#			
Fluoride	mg/L	10/10/2011	0001	8.47	-	13.47	0.12		#	0.1		
Iron	mg/L	10/10/2011	0001	8.47	-	13.47	0.0049	U	J	#	0.0049	
Magnesium	mg/L	10/10/2011	0001	8.47	-	13.47	24		#	0.013		
Manganese	mg/L	10/10/2011	0001	8.47	-	13.47	0.016		#	0.00011		
Molybdenum	mg/L	10/10/2011	0001	8.47	-	13.47	0.044		#	0.0011		
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2011	0001	8.47	-	13.47	0.01	U	#	0.01		
Oxidation Reduction Potential	mV	10/10/2011	N001	8.47	-	13.47	-76.8		#			
pH	s.u.	10/10/2011	N001	8.47	-	13.47	9.45		#			
Potassium	mg/L	10/10/2011	0001	8.47	-	13.47	13		#	0.11		
Selenium	mg/L	10/10/2011	0001	8.47	-	13.47	0.000092	B	J	#	0.000032	
Sodium	mg/L	10/10/2011	0001	8.47	-	13.47	89		#	0.0066		
Specific Conductance	umhos /cm	10/10/2011	N001	8.47	-	13.47	879		#			
Sulfate	mg/L	10/10/2011	0001	8.47	-	13.47	170		#	5		
Temperature	C	10/10/2011	N001	8.47	-	13.47	12.77		#			
Turbidity	NTU	10/10/2011	N001	8.47	-	13.47	5.71		#			
Uranium	mg/L	10/10/2011	0001	8.47	-	13.47	0.000023		#	0.0000029		
Vanadium	mg/L	10/10/2011	0001	8.47	-	13.47	0.000015	B	U	#	0.000015	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: R6-M3 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	N001	7.72	-	12.72	384		#			
Arsenic	mg/L	10/11/2011	0001	7.72	-	12.72	0.0061		#	0.000015		
Calcium	mg/L	10/11/2011	0001	7.72	-	12.72	220		#	0.06		
Chloride	mg/L	10/11/2011	0001	7.72	-	12.72	79		#	4		
Dissolved Oxygen	mg/L	10/11/2011	N001	7.72	-	12.72	1.68		#			
Fluoride	mg/L	10/11/2011	0001	7.72	-	12.72	0.37		#	0.2		
Iron	mg/L	10/11/2011	0001	7.72	-	12.72	2.3		#	0.025		
Magnesium	mg/L	10/11/2011	0001	7.72	-	12.72	49		#	0.065		
Manganese	mg/L	10/11/2011	0001	7.72	-	12.72	1.2		#	0.00057		
Molybdenum	mg/L	10/11/2011	0001	7.72	-	12.72	0.0054	U	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	7.72	-	12.72	0.012		#	0.01		
Oxidation Reduction Potential	mV	10/11/2011	N001	7.72	-	12.72	-4.8		#			
pH	s.u.	10/11/2011	N001	7.72	-	12.72	6.54		#			
Potassium	mg/L	10/11/2011	0001	7.72	-	12.72	9.1		#	0.54		
Selenium	mg/L	10/11/2011	0001	7.72	-	12.72	0.0002	J	#	0.000032		
Sodium	mg/L	10/11/2011	0001	7.72	-	12.72	130		#	0.033		
Specific Conductance	umhos /cm	10/11/2011	N001	7.72	-	12.72	1819		#			
Sulfate	mg/L	10/11/2011	0001	7.72	-	12.72	550		#	10		
Temperature	C	10/11/2011	N001	7.72	-	12.72	11.82		#			
Turbidity	NTU	10/11/2011	N001	7.72	-	12.72	13.8		#			
Uranium	mg/L	10/11/2011	0001	7.72	-	12.72	0.042		#	0.0000029		
Vanadium	mg/L	10/11/2011	0001	7.72	-	12.72	0.0048		#	0.000015		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: R6-M4 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/10/2011	0001	7.96	-	12.96	83		#			
Arsenic	mg/L	10/10/2011	0001	7.96	-	12.96	0.0024		#	0.000015		
Calcium	mg/L	10/10/2011	0001	7.96	-	12.96	58		#	0.012		
Chloride	mg/L	10/10/2011	0001	7.96	-	12.96	88		#	4		
Dissolved Oxygen	mg/L	10/10/2011	N001	7.96	-	12.96	6.9		#			
Fluoride	mg/L	10/10/2011	0001	7.96	-	12.96	0.2	U	#	0.2		
Iron	mg/L	10/10/2011	0001	7.96	-	12.96	0.96		#	0.0049		
Magnesium	mg/L	10/10/2011	0001	7.96	-	12.96	53		#	0.013		
Manganese	mg/L	10/10/2011	0001	7.96	-	12.96	0.13		#	0.00011		
Molybdenum	mg/L	10/10/2011	0001	7.96	-	12.96	0.039		#	0.0011		
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2011	0001	7.96	-	12.96	0.01	U	#	0.01		
Oxidation Reduction Potential	mV	10/10/2011	N001	7.96	-	12.96	-12		#			
pH	s.u.	10/10/2011	N001	7.96	-	12.96	6.58		#			
Potassium	mg/L	10/10/2011	0001	7.96	-	12.96	15		#	0.11		
Selenium	mg/L	10/10/2011	0001	7.96	-	12.96	0.00079		#	0.000032		
Sodium	mg/L	10/10/2011	0001	7.96	-	12.96	99		#	0.0066		
Specific Conductance	umhos /cm	10/10/2011	N001	7.96	-	12.96	1238		#			
Sulfate	mg/L	10/10/2011	0001	7.96	-	12.96	440		#	10		
Temperature	C	10/10/2011	N001	7.96	-	12.96	14.07		#			
Turbidity	NTU	10/10/2011	N001	7.96	-	12.96	3.27		#			
Uranium	mg/L	10/10/2011	0001	7.96	-	12.96	0.0037		#	0.0000029		
Vanadium	mg/L	10/10/2011	0001	7.96	-	12.96	0.0014	J	#	0.000015		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: T00-01 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	7.2	-	12.2	235		#			
Arsenic	mg/L	10/11/2011	0001	7.2	-	12.2	0.0092		#	0.00015		
Calcium	mg/L	10/11/2011	0001	7.2	-	12.2	230		#	0.012		
Chloride	mg/L	10/11/2011	0001	7.2	-	12.2	39		#	0.4		
Fluoride	mg/L	10/11/2011	0001	7.2	-	12.2	0.3		#	0.2		
Iron	mg/L	10/11/2011	0001	7.2	-	12.2	0.0049	U	J	#	0.0049	
Magnesium	mg/L	10/11/2011	0001	7.2	-	12.2	42		#	0.013		
Manganese	mg/L	10/11/2011	0001	7.2	-	12.2	0.11		#	0.00011		
Molybdenum	mg/L	10/11/2011	0001	7.2	-	12.2	0.013		#	0.0011		
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	7.2	-	12.2	0.38		#	0.01		
pH	s.u.	10/11/2011	N001	7.2	-	12.2	6.89		#			
Potassium	mg/L	10/11/2011	0001	7.2	-	12.2	9.8		#	0.11		
Selenium	mg/L	10/11/2011	0001	7.2	-	12.2	0.035		#	0.00032		
Sodium	mg/L	10/11/2011	0001	7.2	-	12.2	87		#	0.0066		
Specific Conductance	umhos /cm	10/11/2011	N001	7.2	-	12.2	1587		#			
Sulfate	mg/L	10/11/2011	0001	7.2	-	12.2	570		#	10		
Temperature	C	10/11/2011	N001	7.2	-	12.2	15.77		#			
Turbidity	NTU	10/11/2011	N001	7.2	-	12.2	1.44		#			
Uranium	mg/L	10/11/2011	0001	7.2	-	12.2	0.066		#	0.000029		
Vanadium	mg/L	10/11/2011	0001	7.2	-	12.2	0.24		#	0.00015		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: T00-04 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	2.7	-	7.7	299		#			
Arsenic	mg/L	10/11/2011	0001	2.7	-	7.7	0.01		#	0.00015		
Calcium	mg/L	10/11/2011	0001	2.7	-	7.7	330		#	0.012		
Chloride	mg/L	10/11/2011	0001	2.7	-	7.7	28		#	0.4		
Fluoride	mg/L	10/11/2011	0001	2.7	-	7.7	0.35		#	0.2		
Iron	mg/L	10/11/2011	0001	2.7	-	7.7	0.0049	U	J	#	0.0049	
Magnesium	mg/L	10/11/2011	0001	2.7	-	7.7	57		#	0.013		
Manganese	mg/L	10/11/2011	0001	2.7	-	7.7	0.00011	U	J	#	0.00011	
Molybdenum	mg/L	10/11/2011	0001	2.7	-	7.7	0.072		#	0.0011		
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	2.7	-	7.7	0.43		#	0.01		
pH	s.u.	10/11/2011	N001	2.7	-	7.7	6.91		#			
Potassium	mg/L	10/11/2011	0001	2.7	-	7.7	5.8		#	0.11		
Selenium	mg/L	10/11/2011	0001	2.7	-	7.7	0.013		#	0.00032		
Sodium	mg/L	10/11/2011	0001	2.7	-	7.7	68		#	0.0066		
Specific Conductance	umhos /cm	10/11/2011	N001	2.7	-	7.7	1808		#			
Sulfate	mg/L	10/11/2011	0001	2.7	-	7.7	750		#	10		
Temperature	C	10/11/2011	N001	2.7	-	7.7	15.81		#			
Turbidity	NTU	10/11/2011	N001	2.7	-	7.7	1.07		#			
Uranium	mg/L	10/11/2011	0001	2.7	-	7.7	0.18		#	0.000029		
Vanadium	mg/L	10/11/2011	0001	2.7	-	7.7	0.19		#	0.00015		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: T01-01 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	5.01	-	10.01	220			#		
Arsenic	mg/L	10/11/2011	0001	5.01	-	10.01	0.011			#	0.00015	
Arsenic	mg/L	10/11/2011	0002	5.01	-	10.01	0.012			#	0.00015	
Calcium	mg/L	10/11/2011	0001	5.01	-	10.01	240			#	0.012	
Calcium	mg/L	10/11/2011	0002	5.01	-	10.01	230			#	0.012	
Chloride	mg/L	10/11/2011	0001	5.01	-	10.01	47			#	4	
Chloride	mg/L	10/11/2011	0002	5.01	-	10.01	48			#	4	
Fluoride	mg/L	10/11/2011	0001	5.01	-	10.01	0.25			#	0.2	
Fluoride	mg/L	10/11/2011	0002	5.01	-	10.01	0.28			#	0.2	
Iron	mg/L	10/11/2011	0001	5.01	-	10.01	0.0049	B	UJ	#	0.0049	
Iron	mg/L	10/11/2011	0002	5.01	-	10.01	0.0049	U	J	#	0.0049	
Magnesium	mg/L	10/11/2011	0001	5.01	-	10.01	44			#	0.013	
Magnesium	mg/L	10/11/2011	0002	5.01	-	10.01	43			#	0.013	
Manganese	mg/L	10/11/2011	0001	5.01	-	10.01	0.037			#	0.00011	
Manganese	mg/L	10/11/2011	0002	5.01	-	10.01	0.035			#	0.00011	
Molybdenum	mg/L	10/11/2011	0001	5.01	-	10.01	0.0061	B		#	0.0011	
Molybdenum	mg/L	10/11/2011	0002	5.01	-	10.01	0.0059	B		#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	5.01	-	10.01	0.34			#	0.01	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0002	5.01	-	10.01	0.32			#	0.01	
pH	s.u.	10/11/2011	N001	5.01	-	10.01	6.89			#		
Potassium	mg/L	10/11/2011	0001	5.01	-	10.01	10			#	0.11	
Potassium	mg/L	10/11/2011	0002	5.01	-	10.01	9.8			#	0.11	
Selenium	mg/L	10/11/2011	0001	5.01	-	10.01	0.032			#	0.00032	
Selenium	mg/L	10/11/2011	0002	5.01	-	10.01	0.033			#	0.00032	
Sodium	mg/L	10/11/2011	0001	5.01	-	10.01	89			#	0.0066	

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**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: T01-01 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Sodium	mg/L	10/11/2011	0002	5.01	-	10.01	87		#	0.0066		
Specific Conductance	umhos /cm	10/11/2011	N001	5.01	-	10.01	1611		#			
Sulfate	mg/L	10/11/2011	0001	5.01	-	10.01	620		#	10		
Sulfate	mg/L	10/11/2011	0002	5.01	-	10.01	630		#	10		
Temperature	C	10/11/2011	N001	5.01	-	10.01	15.6		#			
Total Dissolved Solids	mg/L	10/11/2011	0001	5.01	-	10.01	1300		#	40		
Total Dissolved Solids	mg/L	10/11/2011	0002	5.01	-	10.01	1300		#	40		
Turbidity	NTU	10/11/2011	N001	5.01	-	10.01	0.96		#			
Uranium	mg/L	10/11/2011	0001	5.01	-	10.01	0.059		#	0.000029		
Uranium	mg/L	10/11/2011	0002	5.01	-	10.01	0.058		#	0.000029		
Vanadium	mg/L	10/11/2011	0001	5.01	-	10.01	0.15		#	0.00015		
Vanadium	mg/L	10/11/2011	0002	5.01	-	10.01	0.15		#	0.00015		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: T01-02 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	6.43	-	11.43	338		#			
Arsenic	mg/L	10/11/2011	0001	6.43	-	11.43	0.021		#	0.00015		
Calcium	mg/L	10/11/2011	0001	6.43	-	11.43	310		#	0.012		
Chloride	mg/L	10/11/2011	0001	6.43	-	11.43	84		#	1		
Fluoride	mg/L	10/11/2011	0001	6.43	-	11.43	0.5	U	#	0.5		
Iron	mg/L	10/11/2011	0001	6.43	-	11.43	0.0049	U	J	#	0.0049	
Magnesium	mg/L	10/11/2011	0001	6.43	-	11.43	57		#	0.013		
Manganese	mg/L	10/11/2011	0001	6.43	-	11.43	0.00011	U	J	#	0.00011	
Molybdenum	mg/L	10/11/2011	0001	6.43	-	11.43	0.018		#	0.0011		
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	6.43	-	11.43	1.8		#	0.01		
pH	s.u.	10/11/2011	N001	6.43	-	11.43	6.99		#			
Potassium	mg/L	10/11/2011	0001	6.43	-	11.43	11		#	0.11		
Selenium	mg/L	10/11/2011	0001	6.43	-	11.43	0.031		#	0.00032		
Sodium	mg/L	10/11/2011	0001	6.43	-	11.43	110		#	0.0066		
Specific Conductance	umhos /cm	10/11/2011	N001	6.43	-	11.43	1991		#			
Sulfate	mg/L	10/11/2011	0001	6.43	-	11.43	660		#	25		
Temperature	C	10/11/2011	N001	6.43	-	11.43	14.67		#			
Turbidity	NTU	10/11/2011	N001	6.43	-	11.43	4.18		#			
Uranium	mg/L	10/11/2011	0001	6.43	-	11.43	0.17		#	0.000029		
Vanadium	mg/L	10/11/2011	0001	6.43	-	11.43	0.42		#	0.00015		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: T01-04 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	11.72	-	16.72	342		#			
Arsenic	mg/L	10/11/2011	0001	11.72	-	16.72	0.016		#	0.00015		
Calcium	mg/L	10/11/2011	0001	11.72	-	16.72	320		#	0.012		
Chloride	mg/L	10/11/2011	0001	11.72	-	16.72	97		#	1		
Fluoride	mg/L	10/11/2011	0001	11.72	-	16.72	0.5	U	#	0.5		
Iron	mg/L	10/11/2011	0001	11.72	-	16.72	0.0049	U	J	#	0.0049	
Magnesium	mg/L	10/11/2011	0001	11.72	-	16.72	63		#	0.013		
Manganese	mg/L	10/11/2011	0001	11.72	-	16.72	0.00011	U	J	#	0.00011	
Molybdenum	mg/L	10/11/2011	0001	11.72	-	16.72	0.0074	B	#	0.0011		
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	11.72	-	16.72	4.3		#	0.05		
pH	s.u.	10/11/2011	N001	11.72	-	16.72	6.97		#			
Potassium	mg/L	10/11/2011	0001	11.72	-	16.72	7.9		#	0.11		
Selenium	mg/L	10/11/2011	0001	11.72	-	16.72	0.028		#	0.00032		
Sodium	mg/L	10/11/2011	0001	11.72	-	16.72	120		#	0.0066		
Specific Conductance	umhos /cm	10/11/2011	N001	11.72	-	16.72	2087		#			
Sulfate	mg/L	10/11/2011	0001	11.72	-	16.72	680		#	25		
Temperature	C	10/11/2011	N001	11.72	-	16.72	13.65		#			
Turbidity	NTU	10/11/2011	N001	11.72	-	16.72	3.03		#			
Uranium	mg/L	10/11/2011	0001	11.72	-	16.72	0.13		#	0.000029		
Vanadium	mg/L	10/11/2011	0001	11.72	-	16.72	0.34		#	0.00015		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: T01-05 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	18.56	-	23.56	353		#			
Arsenic	mg/L	10/11/2011	0001	18.56	-	23.56	0.015		#	0.00015		
Calcium	mg/L	10/11/2011	0001	18.56	-	23.56	310		#	0.012		
Chloride	mg/L	10/11/2011	0001	18.56	-	23.56	98		#	1		
Fluoride	mg/L	10/11/2011	0001	18.56	-	23.56	0.5	U	#	0.5		
Iron	mg/L	10/11/2011	0001	18.56	-	23.56	0.0049	U	J	#	0.0049	
Magnesium	mg/L	10/11/2011	0001	18.56	-	23.56	63		#	0.013		
Manganese	mg/L	10/11/2011	0001	18.56	-	23.56	0.00011	U	J	#	0.00011	
Molybdenum	mg/L	10/11/2011	0001	18.56	-	23.56	0.0053	B	J	#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	18.56	-	23.56	4.7		#	0.05		
pH	s.u.	10/11/2011	N001	18.56	-	23.56	6.92		#			
Potassium	mg/L	10/11/2011	0001	18.56	-	23.56	7.1		#	0.11		
Selenium	mg/L	10/11/2011	0001	18.56	-	23.56	0.025		#	0.00032		
Sodium	mg/L	10/11/2011	0001	18.56	-	23.56	120		#	0.0066		
Specific Conductance	umhos /cm	10/11/2011	N001	18.56	-	23.56	2101		#			
Sulfate	mg/L	10/11/2011	0001	18.56	-	23.56	670		#	25		
Temperature	C	10/11/2011	N001	18.56	-	23.56	14.58		#			
Turbidity	NTU	10/11/2011	N001	18.56	-	23.56	0.87		#			
Uranium	mg/L	10/11/2011	0001	18.56	-	23.56	0.13		#	0.000029		
Vanadium	mg/L	10/11/2011	0001	18.56	-	23.56	0.31		#	0.00015		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: T01-07 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	17.25	-	22.2	375		#			
Arsenic	mg/L	10/11/2011	0001	17.25	-	22.2	0.0044		#	0.000015		
Calcium	mg/L	10/11/2011	0001	17.25	-	22.2	340		#	0.06		
Chloride	mg/L	10/11/2011	0001	17.25	-	22.2	160		#	10		
Fluoride	mg/L	10/11/2011	0001	17.25	-	22.2	0.51		#	0.5		
Iron	mg/L	10/11/2011	0001	17.25	-	22.2	0.025	U	J	#	0.025	
Magnesium	mg/L	10/11/2011	0001	17.25	-	22.2	100		#	0.065		
Manganese	mg/L	10/11/2011	0001	17.25	-	22.2	0.00057	U	J	#	0.00057	
Molybdenum	mg/L	10/11/2011	0001	17.25	-	22.2	0.0054	U	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	17.25	-	22.2	8.9		#	0.1		
pH	s.u.	10/11/2011	N001	17.25	-	22.2	6.69		#			
Potassium	mg/L	10/11/2011	0001	17.25	-	22.2	4.1	B	#	0.54		
Selenium	mg/L	10/11/2011	0001	17.25	-	22.2	0.031		#	0.000032		
Sodium	mg/L	10/11/2011	0001	17.25	-	22.2	190		#	0.033		
Specific Conductance	umhos /cm	10/11/2011	N001	17.25	-	22.2	2792		#			
Sulfate	mg/L	10/11/2011	0001	17.25	-	22.2	940		#	25		
Temperature	C	10/11/2011	N001	17.25	-	22.2	12.71		#			
Turbidity	NTU	10/11/2011	N001	17.25	-	22.2	0.78		#			
Uranium	mg/L	10/11/2011	0001	17.25	-	22.2	0.14		#	0.00029		
Vanadium	mg/L	10/11/2011	0001	17.25	-	22.2	0.087		#	0.000015		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: T01-12 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	18.5	-	23.4	325		#			
Arsenic	mg/L	10/11/2011	0001	18.5	-	23.4	0.0022	J	#	0.000074		
Calcium	mg/L	10/11/2011	0001	18.5	-	23.4	300		#	0.012		
Chloride	mg/L	10/11/2011	0001	18.5	-	23.4	140		#	10		
Fluoride	mg/L	10/11/2011	0001	18.5	-	23.4	0.51		#	0.5		
Iron	mg/L	10/11/2011	0001	18.5	-	23.4	0.0049	U	J	#	0.0049	
Magnesium	mg/L	10/11/2011	0001	18.5	-	23.4	68		#	0.013		
Manganese	mg/L	10/11/2011	0001	18.5	-	23.4	0.00011	U	J	#	0.00011	
Molybdenum	mg/L	10/11/2011	0001	18.5	-	23.4	0.0011	U	J	#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	18.5	-	23.4	8.3		#	0.1		
pH	s.u.	10/11/2011	N001	18.5	-	23.4	6.86		#			
Potassium	mg/L	10/11/2011	0001	18.5	-	23.4	6.6		#	0.11		
Selenium	mg/L	10/11/2011	0001	18.5	-	23.4	0.029		#	0.00016		
Sodium	mg/L	10/11/2011	0001	18.5	-	23.4	150		#	0.0066		
Specific Conductance	umhos /cm	10/11/2011	N001	18.5	-	23.4	2248		#			
Sulfate	mg/L	10/11/2011	0001	18.5	-	23.4	660		#	25		
Temperature	C	10/11/2011	N001	18.5	-	23.4	14.74		#			
Total Dissolved Solids	mg/L	10/11/2011	0001	18.5	-	23.4	1700		#	40		
Turbidity	NTU	10/11/2011	N001	18.5	-	23.4	1.08		#			
Uranium	mg/L	10/11/2011	0001	18.5	-	23.4	0.16		#	0.000015		
Vanadium	mg/L	10/11/2011	0001	18.5	-	23.4	0.027		#	0.000076		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: T01-13 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	N001	6.05	-	10.95	503			#		
Arsenic	mg/L	10/11/2011	0001	6.05	-	10.95	0.011			#	0.000074	
Calcium	mg/L	10/11/2011	0001	6.05	-	10.95	500			#	0.012	
Iron	mg/L	10/11/2011	0001	6.05	-	10.95	2.1			#	0.0049	
Magnesium	mg/L	10/11/2011	0001	6.05	-	10.95	68			#	0.013	
Manganese	mg/L	10/11/2011	0001	6.05	-	10.95	4.5			#	0.00011	
Molybdenum	mg/L	10/11/2011	0001	6.05	-	10.95	0.0073	B		#	0.0011	
pH	s.u.	10/11/2011	N001	6.05	-	10.95	6.9			#		
Potassium	mg/L	10/11/2011	0001	6.05	-	10.95	18			#	0.11	
Selenium	mg/L	10/11/2011	0001	6.05	-	10.95	0.0002	J		#	0.000032	
Sodium	mg/L	10/11/2011	0001	6.05	-	10.95	300			#	0.066	
Specific Conductance	umhos /cm	10/11/2011	N001	6.05	-	10.95	1890			#		
Temperature	C	10/11/2011	N001	6.05	-	10.95	15.7			#		
Turbidity	NTU	10/11/2011	N001	6.05	-	10.95	20.02			#		
Uranium	mg/L	10/11/2011	0001	6.05	-	10.95	0.17			#	0.000015	
Vanadium	mg/L	10/11/2011	0001	6.05	-	10.95	0.000076	U		#	0.000076	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: T01-18 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	N001	16.3	-	21.2	982		#			
Arsenic	mg/L	10/11/2011	0001	16.3	-	21.2	0.0018	J	#	0.000074		
Calcium	mg/L	10/11/2011	0001	16.3	-	21.2	590		#	0.06		
Chloride	mg/L	10/11/2011	0001	16.3	-	21.2	220		#	10		
Fluoride	mg/L	10/11/2011	0001	16.3	-	21.2	0.5	U	#	0.5		
Iron	mg/L	10/11/2011	0001	16.3	-	21.2	0.91		#	0.025		
Magnesium	mg/L	10/11/2011	0001	16.3	-	21.2	130		#	0.065		
Manganese	mg/L	10/11/2011	0001	16.3	-	21.2	1.9		#	0.00057		
Molybdenum	mg/L	10/11/2011	0001	16.3	-	21.2	0.0054	U	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	16.3	-	21.2	11		#	0.2		
pH	s.u.	10/11/2011	N001	16.3	-	21.2	6.87		#			
Potassium	mg/L	10/11/2011	0001	16.3	-	21.2	4.3	B	#	0.54		
Selenium	mg/L	10/11/2011	0001	16.3	-	21.2	0.028		#	0.00016		
Sodium	mg/L	10/11/2011	0001	16.3	-	21.2	240		#	0.033		
Specific Conductance	umhos /cm	10/11/2011	N001	16.3	-	21.2	3647		#			
Sulfate	mg/L	10/11/2011	0001	16.3	-	21.2	1600		#	25		
Temperature	C	10/11/2011	N001	16.3	-	21.2	14.27		#			
Turbidity	NTU	10/11/2011	N001	16.3	-	21.2	12.7		#			
Uranium	mg/L	10/11/2011	0001	16.3	-	21.2	0.45		#	0.000015		
Vanadium	mg/L	10/11/2011	0001	16.3	-	21.2	0.000076	U	#	0.000076		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: T01-19 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/12/2011	N001	7	-	11.9	463		#			
Arsenic	mg/L	10/12/2011	0001	7	-	11.9	0.003		#	0.000015		
Calcium	mg/L	10/12/2011	0001	7	-	11.9	310		#	0.012		
Iron	mg/L	10/12/2011	0001	7	-	11.9	0.17		#	0.0049		
Magnesium	mg/L	10/12/2011	0001	7	-	11.9	49		#	0.013		
Manganese	mg/L	10/12/2011	0001	7	-	11.9	6.7		#	0.00011		
Molybdenum	mg/L	10/12/2011	0001	7	-	11.9	0.0028	B	J	#	0.0011	
pH	s.u.	10/12/2011	N001	7	-	11.9	7.01		#			
Potassium	mg/L	10/12/2011	0001	7	-	11.9	5.5		#	0.11		
Selenium	mg/L	10/12/2011	0001	7	-	11.9	0.00022		J	#	0.000032	
Sodium	mg/L	10/12/2011	0001	7	-	11.9	110		#	0.0066		
Specific Conductance	umhos /cm	10/12/2011	N001	7	-	11.9	2090		#			
Temperature	C	10/12/2011	N001	7	-	11.9	11.49		#			
Turbidity	NTU	10/12/2011	N001	7	-	11.9	25.1		#			
Uranium	mg/L	10/12/2011	0001	7	-	11.9	0.06		#	0.0000029		
Vanadium	mg/L	10/12/2011	0001	7	-	11.9	0.0014		J	#	0.000015	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: T01-20 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	N001	10.85	-	15.75	572		#			
Arsenic	mg/L	10/11/2011	0001	10.85	-	15.75	0.0024	J	#	0.000074		
Calcium	mg/L	10/11/2011	0001	10.85	-	15.75	460		#	0.12		
Chloride	mg/L	10/11/2011	0001	10.85	-	15.75	230		#	10		
Fluoride	mg/L	10/11/2011	0001	10.85	-	15.75	0.5	U	#	0.5		
Iron	mg/L	10/11/2011	0001	10.85	-	15.75	0.66	B	#	0.049		
Magnesium	mg/L	10/11/2011	0001	10.85	-	15.75	93		#	0.13		
Manganese	mg/L	10/11/2011	0001	10.85	-	15.75	11		#	0.0011		
Molybdenum	mg/L	10/11/2011	0001	10.85	-	15.75	0.011	U	J	#	0.011	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	10.85	-	15.75	0.022		#	0.01		
pH	s.u.	10/11/2011	N001	10.85	-	15.75	6.87		#			
Potassium	mg/L	10/11/2011	0001	10.85	-	15.75	5.1	B	J	#	1.1	
Selenium	mg/L	10/11/2011	0001	10.85	-	15.75	0.00026	J	#	0.000032		
Sodium	mg/L	10/11/2011	0001	10.85	-	15.75	360		#	0.066		
Specific Conductance	umhos /cm	10/11/2011	N001	10.85	-	15.75	3491		#			
Sulfate	mg/L	10/11/2011	0001	10.85	-	15.75	2000		#	25		
Temperature	C	10/11/2011	N001	10.85	-	15.75	14.59		#			
Turbidity	NTU	10/11/2011	N001	10.85	-	15.75	23.7		#			
Uranium	mg/L	10/11/2011	0001	10.85	-	15.75	0.38		#	0.000015		
Vanadium	mg/L	10/11/2011	0001	10.85	-	15.75	0.00036	J	#	0.000015		

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: T01-23 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/12/2011	0001	8.4	-	13.3	381			#		
Arsenic	mg/L	10/12/2011	0001	8.4	-	13.3	0.00012		J	#	0.000015	
Calcium	mg/L	10/12/2011	0001	8.4	-	13.3	230			#	0.012	
Chloride	mg/L	10/12/2011	0001	8.4	-	13.3	37			#	0.4	
Fluoride	mg/L	10/12/2011	0001	8.4	-	13.3	0.23			#	0.2	
Iron	mg/L	10/12/2011	0001	8.4	-	13.3	2.2			#	0.0049	
Magnesium	mg/L	10/12/2011	0001	8.4	-	13.3	39			#	0.013	
Manganese	mg/L	10/12/2011	0001	8.4	-	13.3	0.49			#	0.00011	
Molybdenum	mg/L	10/12/2011	0001	8.4	-	13.3	0.0011	U	J	#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2011	0001	8.4	-	13.3	0.01	U		#	0.01	
pH	s.u.	10/12/2011	N001	8.4	-	13.3	6.91			#		
Potassium	mg/L	10/12/2011	0001	8.4	-	13.3	3.3			#	0.11	
Selenium	mg/L	10/12/2011	0001	8.4	-	13.3	0.000071	B	J	#	0.000032	
Sodium	mg/L	10/12/2011	0001	8.4	-	13.3	63			#	0.0066	
Specific Conductance	umhos /cm	10/12/2011	N001	8.4	-	13.3	1450			#		
Sulfate	mg/L	10/12/2011	0001	8.4	-	13.3	370			#	10	
Temperature	C	10/12/2011	N001	8.4	-	13.3	10.56			#		
Turbidity	NTU	10/12/2011	N001	8.4	-	13.3	0.75			#		
Uranium	mg/L	10/12/2011	0001	8.4	-	13.3	0.038			#	0.0000029	
Vanadium	mg/L	10/12/2011	0001	8.4	-	13.3	0.000015	U		#	0.000015	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: T01-25 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)			Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	8.75	-	13.65	592		#			
Arsenic	mg/L	10/11/2011	0001	8.75	-	13.65	0.012		#	0.000015		
Calcium	mg/L	10/11/2011	0001	8.75	-	13.65	430		#	0.06		
Chloride	mg/L	10/11/2011	0001	8.75	-	13.65	47		#	1		
Fluoride	mg/L	10/11/2011	0001	8.75	-	13.65	0.5	U	#	0.5		
Iron	mg/L	10/11/2011	0001	8.75	-	13.65	19		#	0.025		
Magnesium	mg/L	10/11/2011	0001	8.75	-	13.65	91		#	0.065		
Manganese	mg/L	10/11/2011	0001	8.75	-	13.65	3.7		#	0.00057		
Molybdenum	mg/L	10/11/2011	0001	8.75	-	13.65	0.0054	U	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	8.75	-	13.65	0.017		#	0.01		
pH	s.u.	10/11/2011	N001	8.75	-	13.65	6.6		#			
Potassium	mg/L	10/11/2011	0001	8.75	-	13.65	11		#	0.54		
Selenium	mg/L	10/11/2011	0001	8.75	-	13.65	0.00043	J	#	0.000032		
Sodium	mg/L	10/11/2011	0001	8.75	-	13.65	150		#	0.033		
Specific Conductance	umhos /cm	10/11/2011	N001	8.75	-	13.65	2828		#			
Sulfate	mg/L	10/11/2011	0001	8.75	-	13.65	1200		#	25		
Temperature	C	10/11/2011	N001	8.75	-	13.65	14.12		#			
Turbidity	NTU	10/11/2011	N001	8.75	-	13.65	10.5		#			
Uranium	mg/L	10/11/2011	0001	8.75	-	13.65	0.022		#	0.0000029		
Vanadium	mg/L	10/11/2011	0001	8.75	-	13.65	0.000015	B	U	#	0.000015	

**Groundwater Quality Data by Location (USEE100) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: T01-35 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	-	352		#			
Arsenic	mg/L	10/11/2011	0001	-	0.0097		#	0.000015		
Calcium	mg/L	10/11/2011	0001	-	280		#	0.06		
Chloride	mg/L	10/11/2011	0001	-	100		#	10		
Fluoride	mg/L	10/11/2011	0001	-	0.5	U	#	0.5		
Iron	mg/L	10/11/2011	0001	-	0.025	U	J	#	0.025	
Magnesium	mg/L	10/11/2011	0001	-	62		#	0.065		
Manganese	mg/L	10/11/2011	0001	-	0.00057	U	J	#	0.00057	
Molybdenum	mg/L	10/11/2011	0001	-	0.0054	U	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	-	5.5		#	0.1		
pH	s.u.	10/11/2011	N001	-	6.89		#			
Potassium	mg/L	10/11/2011	0001	-	2.9	B	#	0.54		
Selenium	mg/L	10/11/2011	0001	-	0.02		#	0.000032		
Sodium	mg/L	10/11/2011	0001	-	100	E	#	0.033		
Specific Conductance	umhos /cm	10/11/2011	N001	-	2088		#			
Sulfate	mg/L	10/11/2011	0001	-	660		#	25		
Temperature	C	10/11/2011	N001	-	12.44		#			
Turbidity	NTU	10/11/2011	N001	-	1.66		#			
Uranium	mg/L	10/11/2011	0001	-	0.093		#	0.0000029		
Vanadium	mg/L	10/11/2011	0001	-	0.16		#	0.000015		

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- \* Replicate analysis not within control limits.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.

C Pesticide result confirmed by GC-MS.  
D Analyte determined in diluted sample.  
E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.  
H Holding time expired, value suspect.  
I Increased detection limit due to required dilution.  
J Estimated  
N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).  
P > 25% difference in detected pesticide or Aroclor concentrations between 2 columns.  
U Analytical result below detection limit.  
W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.  
X,Y,Z Laboratory defined qualifier, see case narrative.

DATA QUALIFIERS:

F Low flow sampling method used.	G Possible grout contamination, pH > 9.	J Estimated value.
L Less than 3 bore volumes purged prior to sampling.	Q Qualitative result due to sampling technique.	R Unusable result.
U Parameter analyzed for but was not detected.	X Location is undefined.	

QA QUALIFIER:

# Validated according to quality assurance guidelines.

## **Surface Water Quality Data**

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**Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: SW00-02 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/10/2011	0001	290			#		
Arsenic	mg/L	10/10/2011	0001	0.00068			#	0.000015	
Calcium	mg/L	10/10/2011	0001	340			#	0.012	
Chloride	mg/L	10/10/2011	0001	36			#	0.4	
Fluoride	mg/L	10/10/2011	0001	0.2	U		#	0.2	
Iron	mg/L	10/10/2011	0001	0.0049	U	J	#	0.0049	
Magnesium	mg/L	10/10/2011	0001	59			#	0.013	
Manganese	mg/L	10/10/2011	0001	1			#	0.00011	
Molybdenum	mg/L	10/10/2011	0001	0.0011	U	J	#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2011	0001	0.01	U		#	0.01	
pH	s.u.	10/10/2011	N001	7.81			#		
Potassium	mg/L	10/10/2011	0001	3.6			#	0.11	
Selenium	mg/L	10/10/2011	0001	0.0004		J	#	0.000032	
Sodium	mg/L	10/10/2011	0001	70			#	0.0066	
Specific Conductance	umhos/cm	10/10/2011	N001	1932			#		
Sulfate	mg/L	10/10/2011	0001	820			#	10	
Temperature	C	10/10/2011	N001	12.12			#		
Total Dissolved Solids	mg/L	10/10/2011	0001	1600			#	40	
Uranium	mg/L	10/10/2011	0001	0.039			#	0.0000029	
Vanadium	mg/L	10/10/2011	0001	0.001		J	#	0.000015	

**Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: SW00-04 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	296			#		
Arsenic	mg/L	10/11/2011	0001	0.0011		J	#	0.000074	
Calcium	mg/L	10/11/2011	0001	230			#	0.012	
Chloride	mg/L	10/11/2011	0001	68			#	4	
Fluoride	mg/L	10/11/2011	0001	0.22			#	0.2	
Iron	mg/L	10/11/2011	0001	0.0049	U	J	#	0.0049	
Magnesium	mg/L	10/11/2011	0001	54			#	0.013	
Manganese	mg/L	10/11/2011	0001	0.17			#	0.00011	
Molybdenum	mg/L	10/11/2011	0001	0.0097	B		#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	0.2			#	0.01	
pH	s.u.	10/11/2011	N001	7.85			#		
Potassium	mg/L	10/11/2011	0001	6.5			#	0.11	
Selenium	mg/L	10/11/2011	0001	0.0069			#	0.00016	
Sodium	mg/L	10/11/2011	0001	97			#	0.0066	
Specific Conductance	umhos/cm	10/11/2011	N001	1696			#		
Sulfate	mg/L	10/11/2011	0001	600			#	10	
Uranium	mg/L	10/11/2011	0001	0.14			#	0.000015	
Vanadium	mg/L	10/11/2011	0001	0.000076	U		#	0.000076	

**Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: SW01-01 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	332			#		
Arsenic	mg/L	10/11/2011	0001	0.00046		J	#	0.000015	
Calcium	mg/L	10/11/2011	0001	300			#	0.012	
Chloride	mg/L	10/11/2011	0001	33			#	0.4	
Dissolved Oxygen	mg/L	10/11/2011	N001	11.73			#		
Fluoride	mg/L	10/11/2011	0001	0.21			#	0.2	
Iron	mg/L	10/11/2011	0001	0.0049	U	J	#	0.0049	
Magnesium	mg/L	10/11/2011	0001	53			#	0.013	
Manganese	mg/L	10/11/2011	0001	0.36			#	0.00011	
Molybdenum	mg/L	10/11/2011	0001	0.0079	B		#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	0.59			#	0.01	
Oxidation Reduction Potential	mV	10/11/2011	N001	147			#		
pH	s.u.	10/11/2011	N001	7.72			#		
Potassium	mg/L	10/11/2011	0001	4.5			#	0.11	
Selenium	mg/L	10/11/2011	0001	0.0038			#	0.000032	
Sodium	mg/L	10/11/2011	0001	64			#	0.0066	
Specific Conductance	umhos/cm	10/11/2011	N001	1762			#		
Sulfate	mg/L	10/11/2011	0001	700			#	10	
Temperature	C	10/11/2011	N001	11.05			#		
Total Dissolved Solids	mg/L	10/11/2011	0001	1400			#	40	
Turbidity	NTU	10/11/2011	N001	17.2			#		
Uranium	mg/L	10/11/2011	0001	0.04			#	0.0000029	
Vanadium	mg/L	10/11/2011	0001	0.003	E		#	0.000015	

**Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: SW01-02 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	242			#		
Arsenic	mg/L	10/11/2011	0001	0.00081			#	0.000015	
Calcium	mg/L	10/11/2011	0001	360			#	0.012	
Chloride	mg/L	10/11/2011	0001	8.5			#	0.4	
Fluoride	mg/L	10/11/2011	0001	0.24			#	0.2	
Iron	mg/L	10/11/2011	0001	0.0052	B	J	#	0.0049	
Magnesium	mg/L	10/11/2011	0001	69			#	0.013	
Manganese	mg/L	10/11/2011	0001	0.022			#	0.00011	
Molybdenum	mg/L	10/11/2011	0001	0.0011	U	J	#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	0.17			#	0.01	
pH	s.u.	10/11/2011	N001	7.25			#		
Potassium	mg/L	10/11/2011	0001	4.2			#	0.11	
Selenium	mg/L	10/11/2011	0001	0.0026			#	0.000032	
Sodium	mg/L	10/11/2011	0001	50			#	0.0066	
Specific Conductance	umhos/cm	10/11/2011	N001	1850			#		
Sulfate	mg/L	10/11/2011	0001	1000			#	10	
Total Dissolved Solids	mg/L	10/11/2011	0001	1700			#	40	
Uranium	mg/L	10/11/2011	0001	0.0071			#	0.0000029	
Vanadium	mg/L	10/11/2011	0001	0.0015			#	0.000015	

**Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: SW01-03 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	310			#		
Arsenic	mg/L	10/11/2011	0001	0.00049		J	#	0.000015	
Calcium	mg/L	10/11/2011	0001	310			#	0.012	
Chloride	mg/L	10/11/2011	0001	22			#	0.4	
Fluoride	mg/L	10/11/2011	0001	0.2	U		#	0.2	
Iron	mg/L	10/11/2011	0001	0.0061	B	J	#	0.0049	
Magnesium	mg/L	10/11/2011	0001	52			#	0.013	
Manganese	mg/L	10/11/2011	0001	0.12			#	0.00011	
Molybdenum	mg/L	10/11/2011	0001	0.0011	U	J	#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	0.01	U		#	0.01	
pH	s.u.	10/11/2011	N001	7.35			#		
Potassium	mg/L	10/11/2011	0001	3.9			#	0.11	
Selenium	mg/L	10/11/2011	0001	0.0006			#	0.000032	
Sodium	mg/L	10/11/2011	0001	56			#	0.0066	
Specific Conductance	umhos/cm	10/11/2011	N001	1695			#		
Sulfate	mg/L	10/11/2011	0001	680			#	10	
Uranium	mg/L	10/11/2011	0001	0.027			#	0.0000029	
Vanadium	mg/L	10/11/2011	0001	0.000015	U		#	0.000015	

**Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: SW92-08 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	283			#		
Arsenic	mg/L	10/11/2011	0001	0.0012			#	0.00003	
Calcium	mg/L	10/11/2011	0001	220			#	0.012	
Chloride	mg/L	10/11/2011	0001	65			#	4	
Fluoride	mg/L	10/11/2011	0001	0.22			#	0.2	
Iron	mg/L	10/11/2011	0001	0.0049	U	J	#	0.0049	
Magnesium	mg/L	10/11/2011	0001	52			#	0.013	
Manganese	mg/L	10/11/2011	0001	0.12			#	0.00011	
Molybdenum	mg/L	10/11/2011	0001	0.0079	B		#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	0.01	U		#	0.01	
pH	s.u.	10/11/2011	N001	7.84			#		
Potassium	mg/L	10/11/2011	0001	6.5			#	0.11	
Selenium	mg/L	10/11/2011	0001	0.0057			#	0.000065	
Sodium	mg/L	10/11/2011	0001	97			#	0.0066	
Specific Conductance	umhos/cm	10/11/2011	N001	1621			#		
Sulfate	mg/L	10/11/2011	0001	530			#	10	
Uranium	mg/L	10/11/2011	0001	0.14			#	0.0000058	
Vanadium	mg/L	10/11/2011	0001	0.00003	U		#	0.00003	

**Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: SW92-09 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	275		#			
Arsenic	mg/L	10/11/2011	0001	0.0014		#	0.00003		
Calcium	mg/L	10/11/2011	0001	210		#	0.012		
Chloride	mg/L	10/11/2011	0001	65		#	4		
Fluoride	mg/L	10/11/2011	0001	0.23		#	0.2		
Iron	mg/L	10/11/2011	0001	0.029	B	#	0.0049		
Magnesium	mg/L	10/11/2011	0001	51		#	0.013		
Manganese	mg/L	10/11/2011	0001	0.074		#	0.00011		
Molybdenum	mg/L	10/11/2011	0001	0.0083	B	#	0.0011		
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	0.049		#	0.01		
pH	s.u.	10/11/2011	N001	7.95		#			
Potassium	mg/L	10/11/2011	0001	6.5		#	0.11		
Selenium	mg/L	10/11/2011	0001	0.0054		#	0.000065		
Sodium	mg/L	10/11/2011	0001	97		#	0.0066		
Specific Conductance	umhos/cm	10/11/2011	N001	1611		#			
Sulfate	mg/L	10/11/2011	0001	520		#	10		
Uranium	mg/L	10/11/2011	0001	0.13		#	0.0000058		
Vanadium	mg/L	10/11/2011	0001	0.0036		#	0.00003		

**Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: SW94-01 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	292			#		
Arsenic	mg/L	10/11/2011	0001	0.0013			#	0.00003	
Calcium	mg/L	10/11/2011	0001	220			#	0.012	
Chloride	mg/L	10/11/2011	0001	67			#	4	
Fluoride	mg/L	10/11/2011	0001	0.22			#	0.2	
Iron	mg/L	10/11/2011	0001	0.0049	U	J	#	0.0049	
Magnesium	mg/L	10/11/2011	0001	51			#	0.013	
Manganese	mg/L	10/11/2011	0001	0.056			#	0.00011	
Molybdenum	mg/L	10/11/2011	0001	0.0083	B		#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	0.017			#	0.01	
pH	s.u.	10/11/2011	N001	7.74			#		
Potassium	mg/L	10/11/2011	0001	6.6			#	0.11	
Selenium	mg/L	10/11/2011	0001	0.0057			#	0.000065	
Sodium	mg/L	10/11/2011	0001	97			#	0.0066	
Specific Conductance	umhos/cm	10/11/2011	N001	1223			#		
Sulfate	mg/L	10/11/2011	0001	540			#	10	
Uranium	mg/L	10/11/2011	0001	0.13			#	0.0000058	
Vanadium	mg/L	10/11/2011	0001	0.0039			#	0.00003	

**Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: Seep 1 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/10/2011	0001	335			#		
Arsenic	mg/L	10/10/2011	0001	0.017			#	0.000074	
Calcium	mg/L	10/10/2011	0001	300			#	0.06	
Chloride	mg/L	10/10/2011	0001	88			#	1	
Fluoride	mg/L	10/10/2011	0001	0.52			#	0.5	
Iron	mg/L	10/10/2011	0001	0.033	B	J	#	0.025	
Magnesium	mg/L	10/10/2011	0001	62			#	0.065	
Manganese	mg/L	10/10/2011	0001	0.12			#	0.00057	
Molybdenum	mg/L	10/10/2011	0001	0.0071	B	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2011	0001	0.37			#	0.01	
pH	s.u.	10/10/2011	N001	7.35			#		
Potassium	mg/L	10/10/2011	0001	9.4			#	0.54	
Selenium	mg/L	10/10/2011	0001	0.02			#	0.00016	
Sodium	mg/L	10/10/2011	0001	110			#	0.033	
Specific Conductance	umhos/cm	10/10/2011	N001	2135			#		
Sulfate	mg/L	10/10/2011	0001	740			#	25	
Temperature	C	10/10/2011	N001	11.77			#		
Uranium	mg/L	10/10/2011	0001	0.26			#	0.000015	
Vanadium	mg/L	10/10/2011	0001	0.41			#	0.000076	

**Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: Seep 2 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/10/2011	0001	377			#		
Arsenic	mg/L	10/10/2011	0001	0.001		J	#	0.000074	
Calcium	mg/L	10/10/2011	0001	210			#	0.06	
Chloride	mg/L	10/10/2011	0001	84			#	4	
Fluoride	mg/L	10/10/2011	0001	0.93			#	0.2	
Iron	mg/L	10/10/2011	0001	0.27	B		#	0.025	
Magnesium	mg/L	10/10/2011	0001	47			#	0.065	
Manganese	mg/L	10/10/2011	0001	0.24			#	0.00057	
Molybdenum	mg/L	10/10/2011	0001	0.0054	U	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2011	0001	0.01	U		#	0.01	
pH	s.u.	10/10/2011	N001	7.03			#		
Potassium	mg/L	10/10/2011	0001	9.1			#	0.54	
Selenium	mg/L	10/10/2011	0001	0.00024		J	#	0.000032	
Sodium	mg/L	10/10/2011	0001	180			#	0.033	
Specific Conductance	umhos/cm	10/10/2011	N001	2084			#		
Sulfate	mg/L	10/10/2011	0001	770			#	10	
Temperature	C	10/10/2011	N001	12.35			#		
Total Dissolved Solids	mg/L	10/10/2011	0001	810			#	40	
Uranium	mg/L	10/10/2011	0001	0.16			#	0.000015	
Vanadium	mg/L	10/10/2011	0001	0.000076	U		#	0.000076	

**Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: Seep 3 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/10/2011	0001	366			#		
Arsenic	mg/L	10/10/2011	0001	0.00031		J	#	0.000015	
Calcium	mg/L	10/10/2011	0001	450			#	0.06	
Chloride	mg/L	10/10/2011	0001	270			#	10	
Fluoride	mg/L	10/10/2011	0001	0.54			#	0.5	
Iron	mg/L	10/10/2011	0001	0.025	U	J	#	0.025	
Magnesium	mg/L	10/10/2011	0001	130			#	0.065	
Manganese	mg/L	10/10/2011	0001	0.011	B		#	0.00057	
Molybdenum	mg/L	10/10/2011	0001	0.0054	U	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2011	0001	36			#	0.2	
pH	s.u.	10/10/2011	N001	7.62			#		
Potassium	mg/L	10/10/2011	0001	9.1			#	0.54	
Selenium	mg/L	10/10/2011	0001	0.085			#	0.000032	
Sodium	mg/L	10/10/2011	0001	280			#	0.033	
Specific Conductance	umhos/cm	10/10/2011	N001	3665			#		
Sulfate	mg/L	10/10/2011	0001	1300			#	25	
Temperature	C	10/10/2011	N001	14.15			#		
Uranium	mg/L	10/10/2011	0001	0.04			#	0.0000029	
Vanadium	mg/L	10/10/2011	0001	0.000015	U		#	0.000015	

**Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: Seep 5 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/12/2011	0001	250			#		
Arsenic	mg/L	10/12/2011	0001	0.0006			#	0.000015	
Calcium	mg/L	10/12/2011	0001	110			#	0.012	
Chloride	mg/L	10/12/2011	0001	210			#	4	
Fluoride	mg/L	10/12/2011	0001	0.27			#	0.2	
Iron	mg/L	10/12/2011	0001	0.0049	U	J	#	0.0049	
Magnesium	mg/L	10/12/2011	0001	45			#	0.013	
Manganese	mg/L	10/12/2011	0001	0.00097	B	J	#	0.00011	
Molybdenum	mg/L	10/12/2011	0001	0.0011	U	J	#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2011	0001	4.7			#	0.05	
pH	s.u.	10/12/2011	N001	8.15			#		
Potassium	mg/L	10/12/2011	0001	0.42	B	J	#	0.11	
Selenium	mg/L	10/12/2011	0001	0.0018			#	0.000032	
Sodium	mg/L	10/12/2011	0001	100			#	0.0066	
Specific Conductance	umhos/cm	10/12/2011	N001	1353			#		
Sulfate	mg/L	10/12/2011	0001	120			#	1	
Temperature	C	10/12/2011	N001	8.38			#		
Turbidity	NTU	10/12/2011	N001	37.4			#		
Uranium	mg/L	10/12/2011	0001	0.033			#	0.0000029	
Vanadium	mg/L	10/12/2011	0001	0.0013		J	#	0.000015	

**Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: Seep 6 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/12/2011	0001	313			#		
Arsenic	mg/L	10/12/2011	0001	0.00076		J	#	0.000074	
Calcium	mg/L	10/12/2011	0001	410			#	0.06	
Chloride	mg/L	10/12/2011	0001	200			#	10	
Fluoride	mg/L	10/12/2011	0001	0.57			#	0.5	
Iron	mg/L	10/12/2011	0001	0.025	U	J	#	0.025	
Magnesium	mg/L	10/12/2011	0001	130			#	0.065	
Manganese	mg/L	10/12/2011	0001	0.3			#	0.00057	
Molybdenum	mg/L	10/12/2011	0001	0.0054	U	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/12/2011	0001	4			#	0.05	
pH	s.u.	10/12/2011	N001	7.84			#		
Potassium	mg/L	10/12/2011	0001	8.3			#	0.54	
Selenium	mg/L	10/12/2011	0001	0.014			#	0.00065	
Sodium	mg/L	10/12/2011	0001	220			#	0.033	
Specific Conductance	umhos/cm	10/12/2011	N001	3252			#		
Sulfate	mg/L	10/12/2011	0001	1400			#	25	
Temperature	C	10/12/2011	N001	9.51			#		
Uranium	mg/L	10/12/2011	0001	1.5			#	0.000058	
Vanadium	mg/L	10/12/2011	0001	0.089			#	0.0003	

**Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: Sorenson SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/11/2011	0001	308			#		
Arsenic	mg/L	10/11/2011	0001	0.00096		J	#	0.000074	
Calcium	mg/L	10/11/2011	0001	250			#	0.012	
Chloride	mg/L	10/11/2011	0001	69			#	4	
Fluoride	mg/L	10/11/2011	0001	0.35			#	0.2	
Iron	mg/L	10/11/2011	0001	0.0052	B	J	#	0.0049	
Magnesium	mg/L	10/11/2011	0001	56			#	0.013	
Manganese	mg/L	10/11/2011	0001	0.099			#	0.00011	
Molybdenum	mg/L	10/11/2011	0001	0.01			#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/11/2011	0001	0.33			#	0.01	
pH	s.u.	10/11/2011	N001	7.53			#		
Potassium	mg/L	10/11/2011	0001	6.8			#	0.11	
Selenium	mg/L	10/11/2011	0001	0.009			#	0.00016	
Sodium	mg/L	10/11/2011	0001	95			#	0.0066	
Specific Conductance	umhos/cm	10/11/2011	N001	1698			#		
Sulfate	mg/L	10/11/2011	0001	640			#	10	
Total Dissolved Solids	mg/L	10/11/2011	0001	1400			#	40	
Uranium	mg/L	10/11/2011	0001	0.16			#	0.000015	
Vanadium	mg/L	10/11/2011	0001	0.000076	U		#	0.000076	

**Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: W3-03 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/10/2011	0001	240			#		
Arsenic	mg/L	10/10/2011	0001	0.0032			#	0.000015	
Calcium	mg/L	10/10/2011	0001	360			#	0.06	
Chloride	mg/L	10/10/2011	0001	180			#	10	
Fluoride	mg/L	10/10/2011	0001	0.5	U		#	0.5	
Iron	mg/L	10/10/2011	0001	0.025	U	J	#	0.025	
Magnesium	mg/L	10/10/2011	0001	97			#	0.065	
Manganese	mg/L	10/10/2011	0001	0.21			#	0.00057	
Molybdenum	mg/L	10/10/2011	0001	0.015	B	J	#	0.0054	
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2011	0001	0.01	U		#	0.01	
pH	s.u.	10/10/2011	N001	7.87			#		
Potassium	mg/L	10/10/2011	0001	16			#	0.54	
Selenium	mg/L	10/10/2011	0001	0.0032			#	0.000032	
Sodium	mg/L	10/10/2011	0001	220			#	0.033	
Specific Conductance	umhos/cm	10/10/2011	N001	3171			#		
Sulfate	mg/L	10/10/2011	0001	1200			#	25	
Temperature	C	10/10/2011	N001	11.36			#		
Uranium	mg/L	10/10/2011	0001	0.16			#	0.00029	
Vanadium	mg/L	10/10/2011	0001	0.0074			#	0.000015	

**Surface Water Quality Data by Location (USEE102) FOR SITE MNT01, Monticello Disposal & Process Sites**

REPORT DATE: 12/29/2011

Location: W3-04 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	10/10/2011	0001	329			#		
Arsenic	mg/L	10/10/2011	0001	0.0027			#	0.000015	
Calcium	mg/L	10/10/2011	0001	320			#	0.012	
Chloride	mg/L	10/10/2011	0001	31			#	0.4	
Fluoride	mg/L	10/10/2011	0001	0.23			#	0.2	
Iron	mg/L	10/10/2011	0001	2.4			#	0.0049	
Magnesium	mg/L	10/10/2011	0001	54			#	0.013	
Manganese	mg/L	10/10/2011	0001	3.5			#	0.00011	
Molybdenum	mg/L	10/10/2011	0001	0.0027	B	J	#	0.0011	
Nitrate + Nitrite as Nitrogen	mg/L	10/10/2011	0001	0.01	U		#	0.01	
pH	s.u.	10/10/2011	N001	7.08			#		
Potassium	mg/L	10/10/2011	0001	3.9			#	0.11	
Selenium	mg/L	10/10/2011	0001	0.0002		J	#	0.000032	
Sodium	mg/L	10/10/2011	0001	60			#	0.0066	
Specific Conductance	umhos/cm	10/10/2011	N001	1809			#		
Sulfate	mg/L	10/10/2011	0001	700			#	10	
Temperature	C	10/10/2011	N001	13.12			#		
Uranium	mg/L	10/10/2011	0001	0.04			#	0.0000029	
Vanadium	mg/L	10/10/2011	0001	0.000015	B	U	#	0.000015	

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

## LAB QUALIFIERS:

- \* Replicate analysis not within control limits.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.

E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.  
H Holding time expired, value suspect.  
I Increased detection limit due to required dilution.  
J Estimated  
N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).  
P > 25% difference in detected pesticide or Aroclor concentrations between 2 columns.  
U Analytical result below detection limit.  
W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.  
X,Y,Z Laboratory defined qualifier, see case narrative.

DATA QUALIFIERS:

F Low flow sampling method used. G Possible grout contamination, pH > 9. J Estimated value.  
L Less than 3 bore volumes purged prior to sampling. Q Qualitative result due to sampling technique. R Unusable result.  
U Parameter analyzed for but was not detected. X Location is undefined.

QA QUALIFIER:

# Validated according to quality assurance guidelines.

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## **Equipment Blank Data**

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**BLANKS REPORT**

LAB: PARAGON/ALS LABORATORY GROUP (Fort Collins, CO)

RIN: 11104114

Report Date: 12/29/2011

Parameter	Site Code	Location ID	Sample Date	ID	Units	Result	Qualifiers	Lab Data	Detection Limit	Uncertainty	Sample Type
Arsenic	MNT01	0999	10/12/2011	N001	mg/L	0.000028	B	J	0.000015		E
Calcium	MNT01	0999	10/12/2011	N001	mg/L	1.3			0.012		E
Chloride	MNT01	0999	10/12/2011	N001	mg/L	0.2	U		0.2		E
Fluoride	MNT01	0999	10/12/2011	N001	mg/L	0.1	U		0.1		E
Iron	MNT01	0999	10/12/2011	N001	mg/L	0.0049	B	UJ	0.0049		E
Magnesium	MNT01	0999	10/12/2011	N001	mg/L	0.013	U	J	0.013		E
Manganese	MNT01	0999	10/12/2011	N001	mg/L	0.0011	B		0.00011		E
Molybdenum	MNT01	0999	10/12/2011	N001	mg/L	0.0011	U	J	0.0011		E
Nitrate + Nitrite as Nitrogen	MNT01	0999	10/12/2011	N001	mg/L	0.01	U		0.01		E
Potassium	MNT01	0999	10/12/2011	N001	mg/L	0.11	U	J	0.11		E
Selenium	MNT01	0999	10/12/2011	N001	mg/L	0.000032	U		0.000032		E
Sodium	MNT01	0999	10/12/2011	N001	mg/L	0.38	B		0.0066		E
Sulfate	MNT01	0999	10/12/2011	N001	mg/L	0.5	U		0.5		E
Total Dissolved Solids	MNT01	0999	10/12/2011	N001	mg/L	22	U		22		E
Uranium	MNT01	0999	10/12/2011	N001	mg/L	0.000048			0.0000029		E
Vanadium	MNT01	0999	10/12/2011	N001	mg/L	0.000015	B	U	0.000015		E

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

## LAB QUALIFIERS:

- \* Replicate analysis not within control limits.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.

D Analyte determined in diluted sample.  
E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.  
H Holding time expired, value suspect.  
I Increased detection limit due to required dilution.  
J Estimated  
N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).  
P > 25% difference in detected pesticide or Aroclor concentrations between 2 columns.  
U Analytical result below detection limit.  
W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.  
X,Y,Z Laboratory defined qualifier, see case narrative.

DATA QUALIFIERS:

F Low flow sampling method used.	G Possible grout contamination, pH > 9.	J Estimated value.
L Less than 3 bore volumes purged prior to sampling.	Q Qualitative result due to sampling technique.	R Unusable result.
U Parameter analyzed for but was not detected.	X Location is undefined.	

SAMPLE TYPES:

E Equipment Blank.

## **Static Water Level Data**

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**STATIC WATER LEVELS (USEE700) FOR SITE MNT01, Monticello Disposal & Process Sites**  
**REPORT DATE: 12/29/2011**

Location Code	Flow Code	Top of Casing Elevation (Ft)	Measurement Date	Time	Depth From Top of Casing (Ft)	Water Elevation (Ft)	Water Level Flag
0200	D	6762.69	10/12/2011	11:22:42	6.54	6756.15	
0202	D	6785.81	10/12/2011	09:22:38	15.68	6770.13	
31NE93-205	C	6940.62	10/12/2011	15:00:00	179.45	6761.17	
82-08	D	6787.4	10/11/2011	15:47:18	13.1	6774.3	
88-85	D	6797.09	10/11/2011	10:27:16	3.83	6793.26	
92-07	D	6804.02	10/11/2011	11:11:53	16.83	6787.19	
92-08	D	6775.68	10/12/2011	11:45:33	12.3	6763.38	
92-09	D	6733.29	10/12/2011	14:16:20	11.24	6722.05	
92-10	D	6733.8	10/12/2011	14:40:43	12.47	6721.33	
92-11	D	6813.73	10/12/2011	09:05:21	18.19	6795.54	
92-12	D	6815.05	10/12/2011	08:00:00	52.51	6762.54	
93-01	O	6889.98	10/11/2011	08:45:59	108.62	6781.36	
95-01	D	6675.83	10/12/2011	15:36:15	4.86	6670.97	
95-02	D	6678.99	10/12/2011	14:40:00	3.05	6675.94	
95-03	D	6704.78	10/12/2011	15:05:23	2.19	6702.59	
95-04	D	6706.24	10/12/2011	14:30:00	3	6703.24	
95-06	D	6824.91	10/12/2011	14:10:00	70.8	6754.11	
95-07	C	6883.34	10/12/2011	15:10:00	70.27	6813.07	
95-08	D	6841.51	10/12/2011	14:50:00	127.87	6713.64	
MW00-01	U	6882.77	10/11/2011	09:15:54	11.64	6871.13	
MW00-02	U	6883.26	10/12/2011	08:15:00	9.12	6874.14	
MW00-03	O	6853.15	10/10/2011	14:40:00	10.95	6842.2	
MW00-06	D	6793.14	10/12/2011	09:55:04	15.91	6777.23	
MW00-07	D	6790.85	10/12/2011	13:30:00	20.9	6769.95	
P92-02	D	6737.02	10/12/2011	14:20:00	12.71	6724.31	
P92-06	D	6774.73	10/12/2011	11:05:04	11.81	6762.92	
PW-10	D	6813.94	10/11/2011	13:13:22			B
PW-14	N	6800.44	10/10/2011	16:54:00	17.95	6782.49	

**STATIC WATER LEVELS (USEE700) FOR SITE MNT01, Monticello Disposal & Process Sites**  
**REPORT DATE: 12/29/2011**

Location Code	Flow Code	Top of Casing Elevation (Ft)	Date	Measurement Time	Depth From Top of Casing (Ft)	Water Elevation (Ft)	Water Level Flag
PW-16	D	6796.72	10/10/2011	16:03:00	12.42	6784.3	
PW-17	D	6817.35	10/11/2011	12:11:31			B
PW-18	D	6799.73	10/10/2011	14:20:00	7.82	6791.91	
PW-20	D	6799.57	10/10/2011	16:04:00	12.11	6787.46	
PW-22	D	6797.45	10/10/2011	18:02:00	10.88	6786.57	
PW-23	D	6809.15	10/10/2011	16:45:00	23.55	6785.6	
PW-28	D	6799.93	10/11/2011	15:15:15	8.23	6791.7	
PW99-16	D	6799.76	10/10/2011	18:06:00	12.5	6787.26	
R1-M1	D	6797.77	10/10/2011	16:12:00	4.51	6793.26	
R1-M3	D	6795.91	10/10/2011	16:53:19	2.61	6793.3	
R1-M4	D	6795.85	10/10/2011	14:33:06	2.77	6793.08	
R1-M6	D	6798.16	10/10/2011	17:48:00	5.19	6792.97	
R10-M1	D	6795.11	10/11/2011	09:36:05	13.32	6781.79	
R11-M1	D	6794.79	10/10/2011	16:22:00	13.11	6781.68	
R2-M4	D	6795.84	10/10/2011	15:15:00	3.39	6792.45	
R2-M7	D	6795.8	10/10/2011	14:00:00	2.73	6793.07	
R3-M2	D	6795.8	10/10/2011	17:10:20	2.66	6793.14	
R3-M3	D	6795.76	10/10/2011	14:50:54	2.68	6793.08	
R4-M3	D	6795.76	10/11/2011	08:12:02	6.96	6788.8	
R4-M6	D	6795.71	10/10/2011	15:08:23	6.48	6789.23	
R6-M1	D	6797.41	10/10/2011	16:14:00	12.85	6784.56	
R6-M2	D	6796.18	10/10/2011	16:00:00	7.79	6788.39	
R6-M3	D	6795.71	10/11/2011	08:48:56	8.96	6786.75	
R6-M4	D	6795.53	10/10/2011	16:12:02	8.88	6786.65	
R6-M5	D	6795.54	10/10/2011	14:03:00	8.96	6786.58	
R6-M6	D	6797.22	10/10/2011	17:53:00	11.45	6785.77	
R7-M1	D	6796	10/10/2011	14:08:00	11.58	6784.42	
R8-M1	D	6795.6	10/10/2011	16:15:00	12.31	6783.29	

**STATIC WATER LEVELS (USEE700) FOR SITE MNT01, Monticello Disposal & Process Sites**  
**REPORT DATE: 12/29/2011**

Location Code	Flow Code	Top of Casing Elevation (Ft)	Date	Measurement Time	Depth From Top of Casing (Ft)	Water Elevation (Ft)	Water Level Flag
R9-M1	D	6795.21	10/10/2011	16:20:00	13.01	6782.2	
T00-01	O	6806.52	10/11/2011	13:45:22	8.84	6797.68	
T00-04	O	6804.31	10/11/2011	13:25:00	7.05	6797.26	
T01-01	O	6806.09	10/11/2011	14:10:10	8.17	6797.92	
T01-02	O	6807.66	10/11/2011	14:30:03	9.2	6798.46	
T01-04	O	6814.15	10/11/2011	14:50:54	14.33	6799.82	
T01-05	O	6822.21	10/11/2011	15:20:46	20.55	6801.66	
T01-06	O	6828.41	10/12/2011	09:15:00	24.86	6803.55	
T01-07	O	6823.29	10/11/2011	15:45:16	19.65	6803.64	
T01-08	O	6808.11	10/10/2011	15:00:00	6.56	6801.55	
T01-09	O	6832.8	10/12/2011	08:55:00			D
T01-10	O	6817.45	10/12/2011	09:45:00	8.73	6808.72	
T01-12	O	6844.34	10/11/2011	16:15:06	20.7	6823.64	
T01-13	O	6829.67	10/11/2011	10:30:37	8.08	6821.59	
T01-18	O	6860.49	10/11/2011	16:45:50	18.14	6842.35	
T01-19	O	6848.64	10/12/2011	08:25:31	7.2	6841.44	
T01-20	O	6845.4	10/11/2011	10:05:28	11.14	6834.26	
T01-23	O	6858.89	10/12/2011	09:00:27	6.79	6852.1	
T01-24	O	6858.83	10/12/2011	08:45:00	5.3	6853.53	
T01-25	O	6856.33	10/11/2011	09:45:52	7.25	6849.08	
T01-26	O	6878.24	10/12/2011	08:30:00	15.82	6862.42	
T01-27	O	6864.71	10/12/2011	09:15:00	1.29	6863.42	
T01-28	O	6869.2	10/10/2011	14:30:00	3.96	6865.24	
T01-35	O	6824.26	10/11/2011	11:00:57	12.05	6812.21	
T6-D	D	6795.66	10/10/2011	14:13:00	10.21	6785.45	

FLOW CODES: B BACKGROUND  
N UNKNOWN

C CROSS GRADIENT  
O ON SITE

D DOWN GRADIENT  
U UPGRADE

F OFF SITE

WATER LEVEL FLAGS: D Dry

F Flowing

B Below Top of Pump

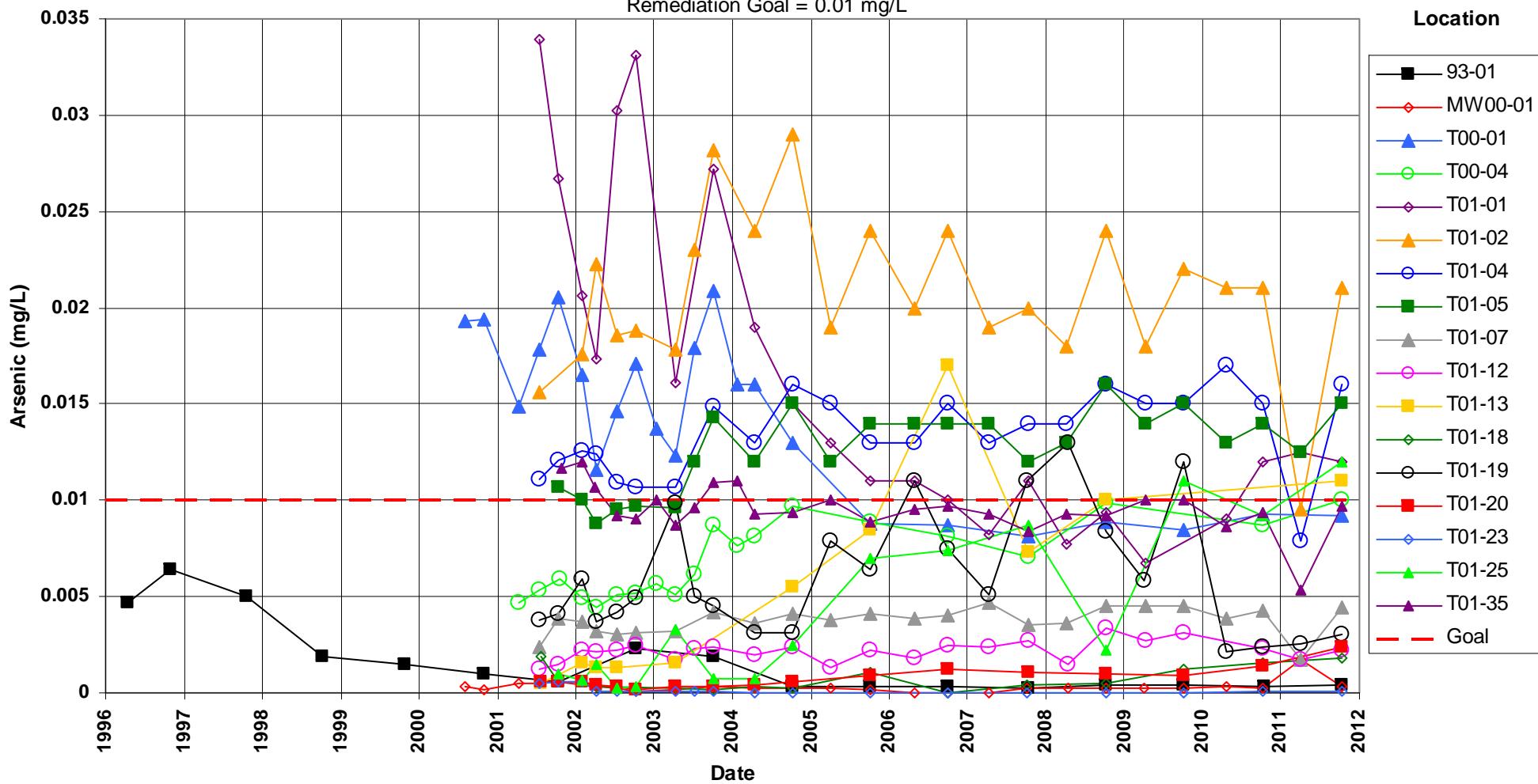
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## **Time-Concentration Graphs Groundwater**

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**Monticello Mill Tailings Site**  
**Former Mill Site Wells**  
**Arsenic Concentration**

Remediation Goal = 0.01 mg/L



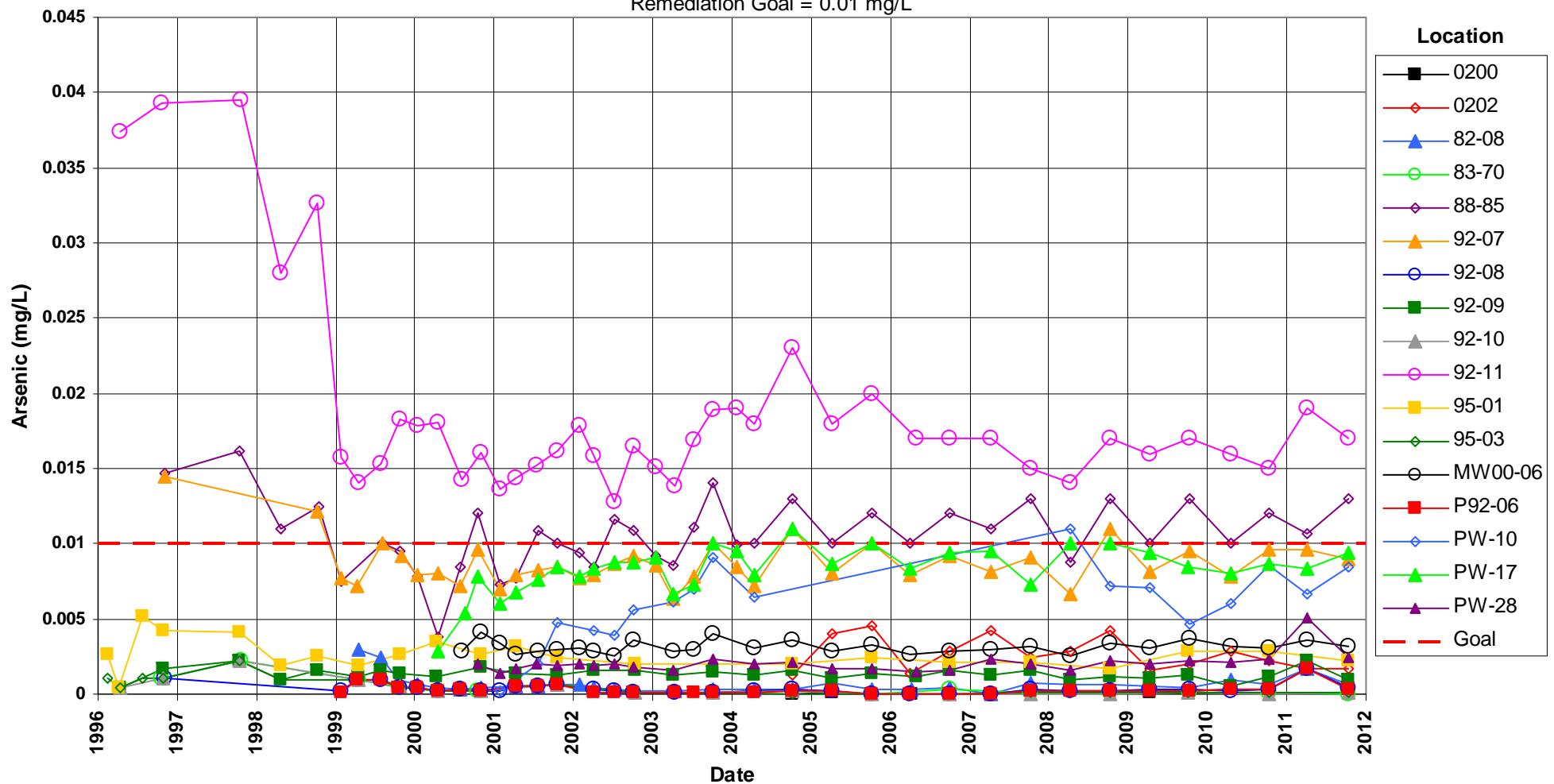
# **Monticello Mill Tailings Site**

## **Downgradient Wells**

### **Arsenic Concentration**

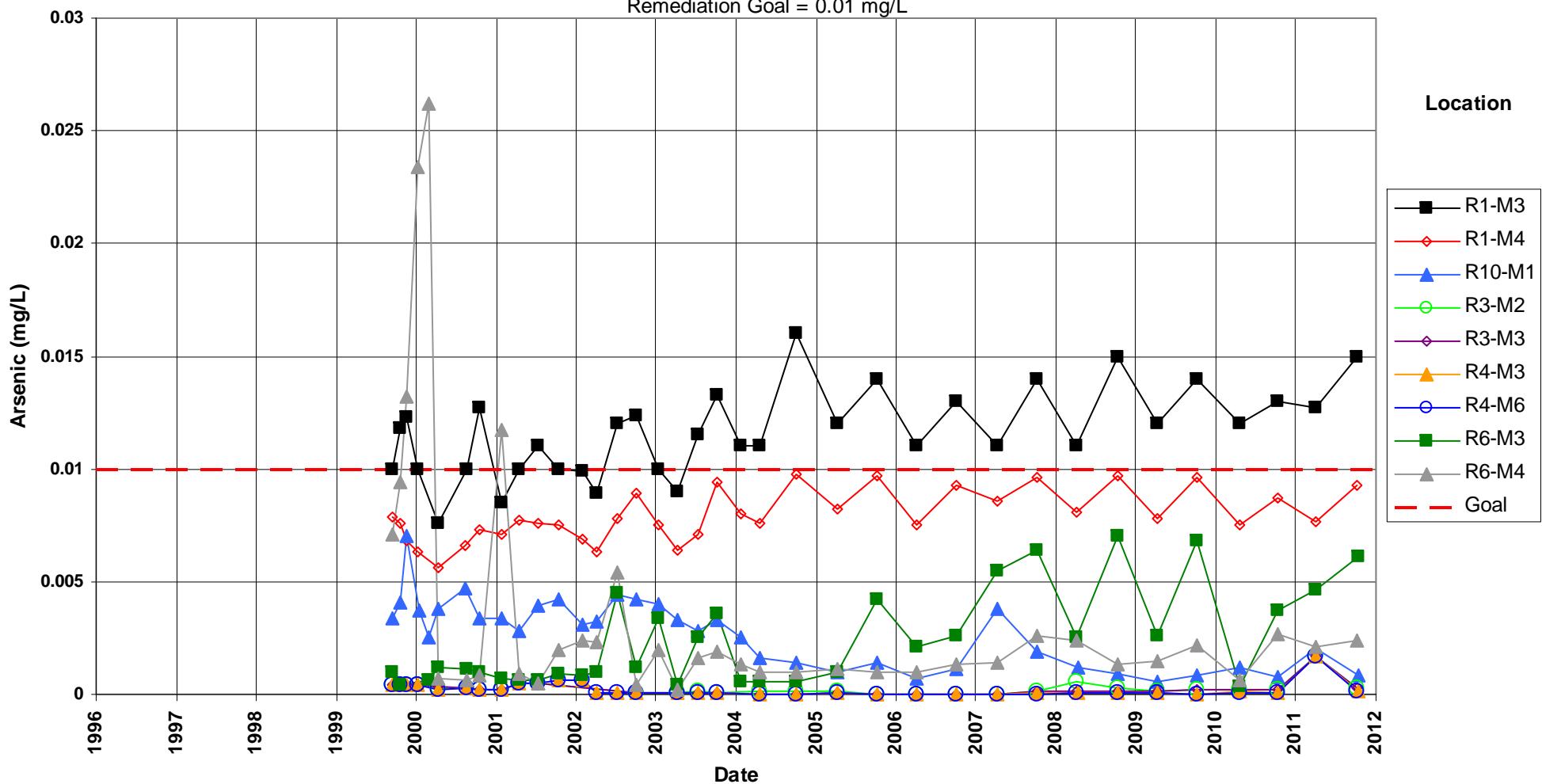
Remediation Goal = 0.01 mg/L

Remediation Goal = 0.01 mg/L



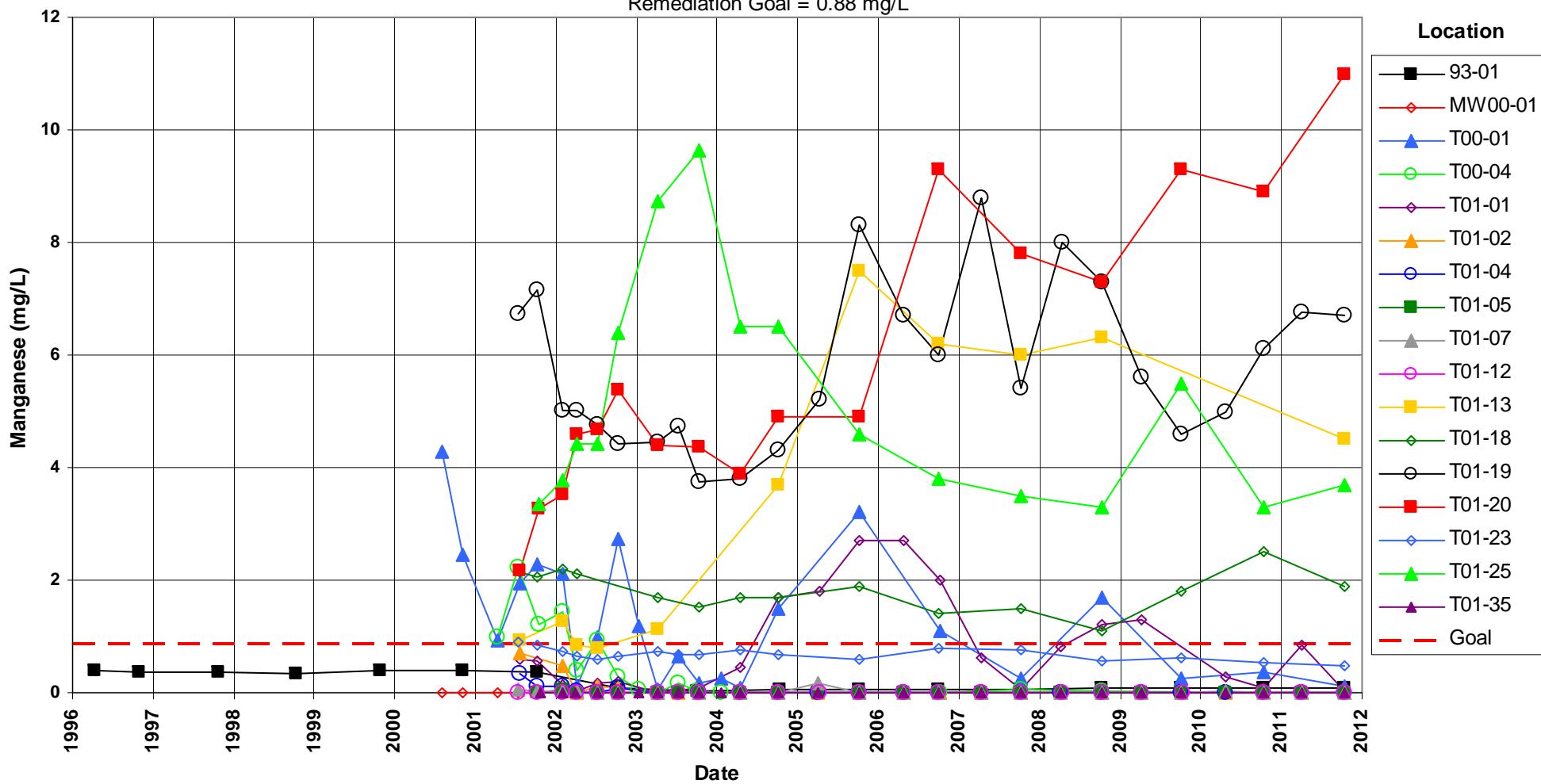
**Monticello Mill Tailings Site**  
**Downgradient PRB Wells**  
**Arsenic Concentration**

Remediation Goal = 0.01 mg/L



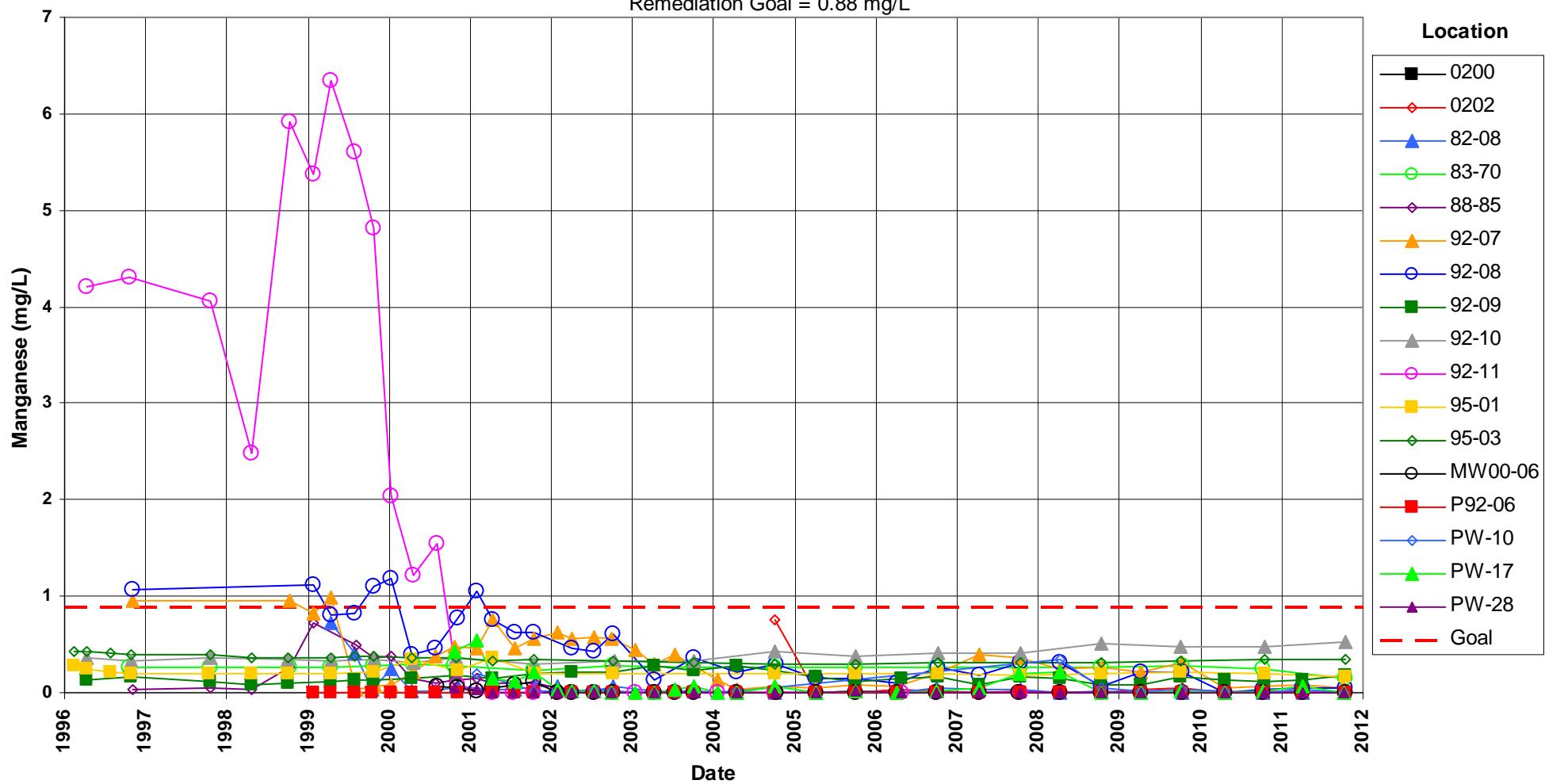
**Monticello Mill Tailings Site**  
**Former Mill Site Wells**  
**Manganese Concentration**

Remediation Goal = 0.88 mg/L



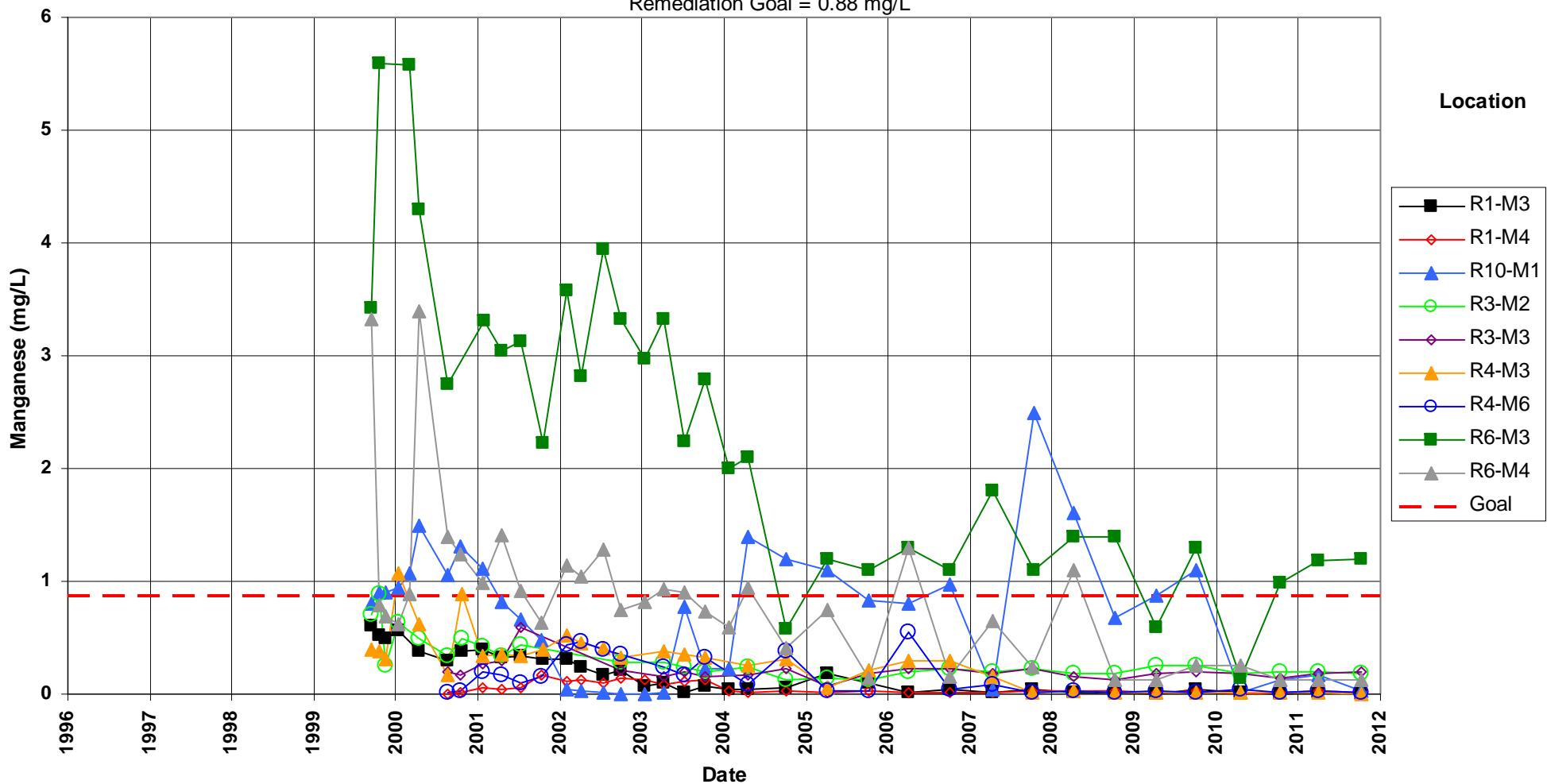
# **Monticello Mill Tailings Site Downgradient Wells Manganese Concentration**

Remediation Goal = 0.88 mg/L



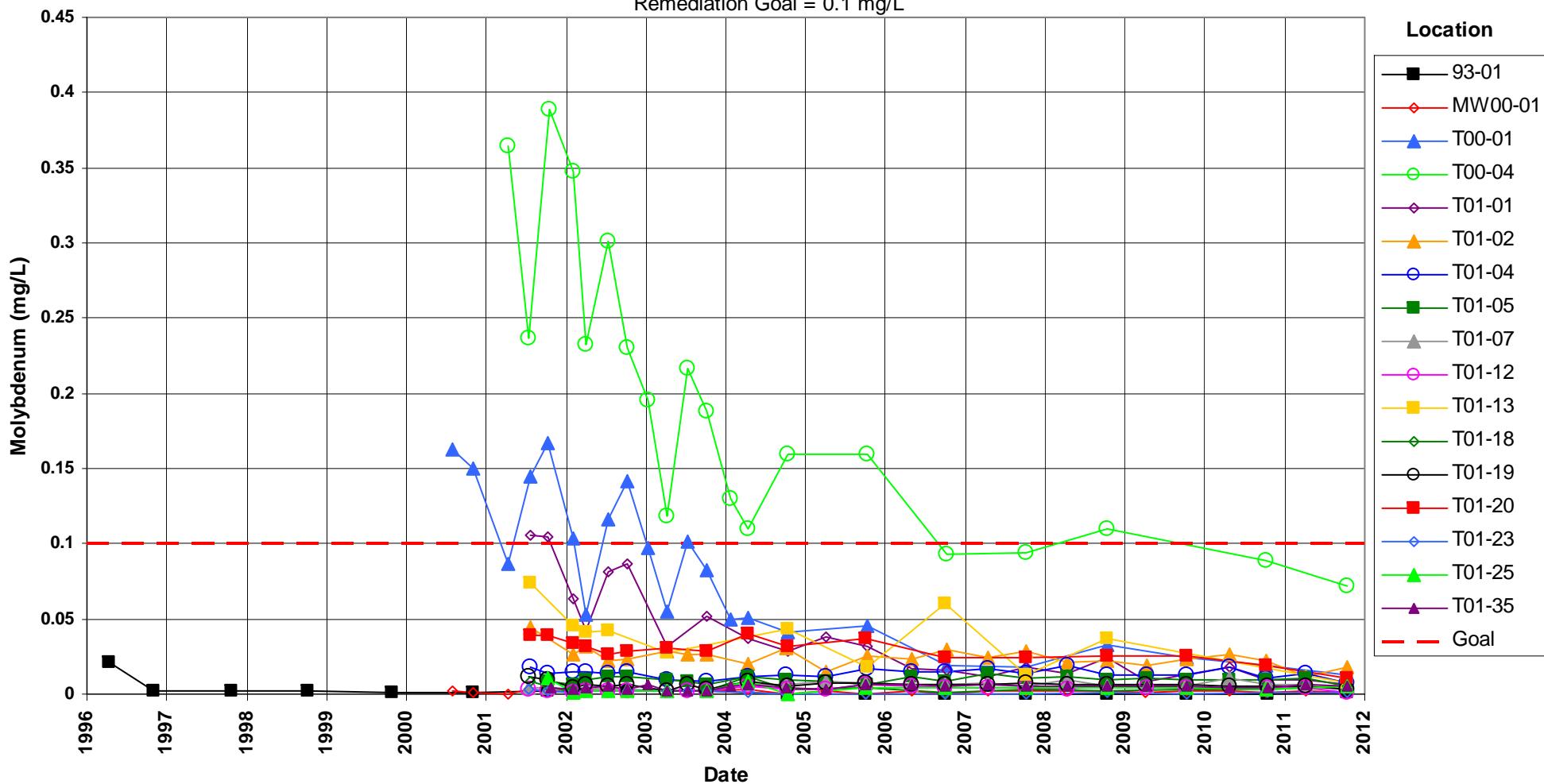
**Monticello Mill Tailings Site**  
**Downgradient PRB Wells**  
**Manganese Concentration**

Remediation Goal = 0.88 mg/L



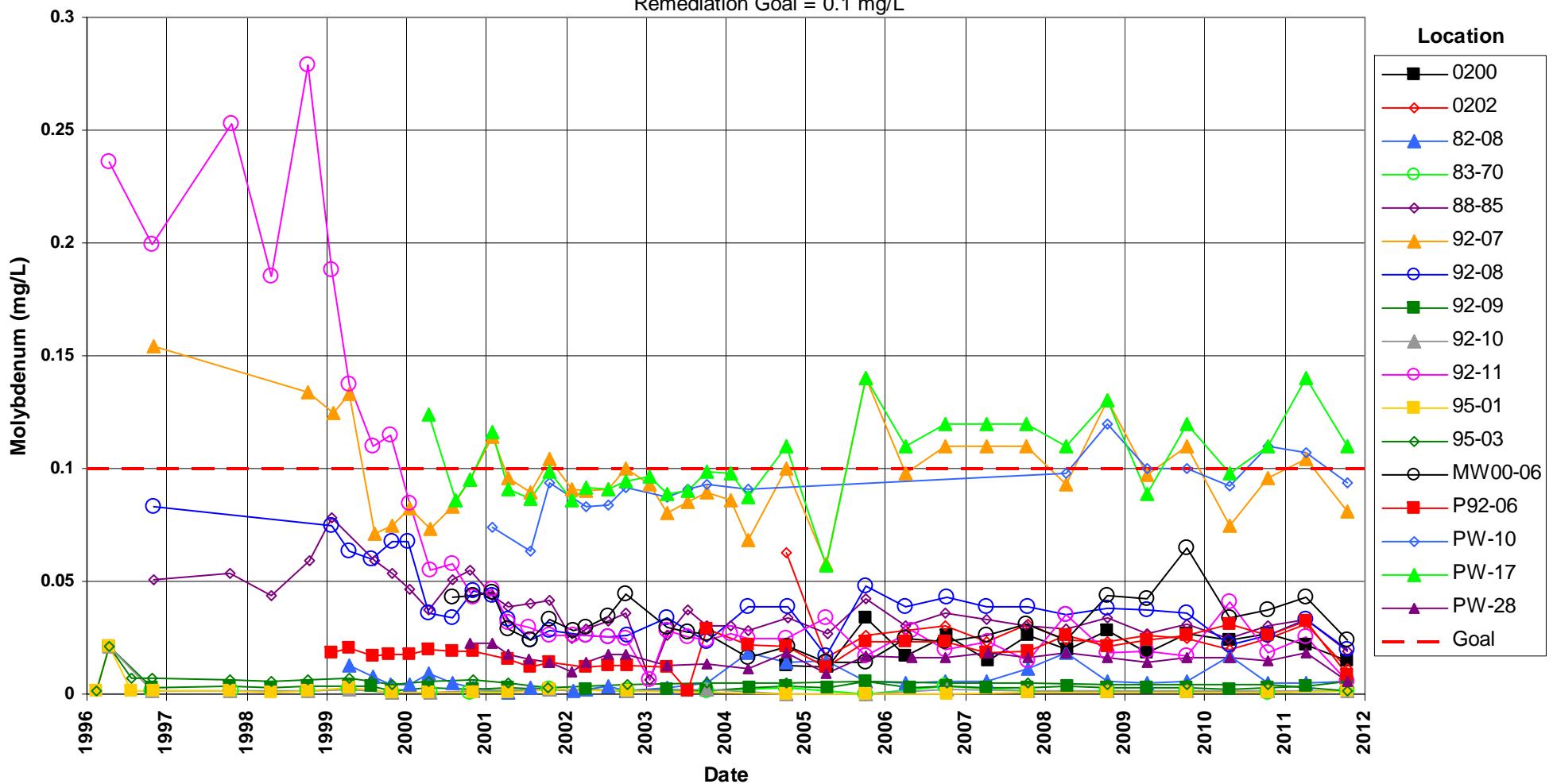
**Monticello Mill Tailings Site**  
**Former Mill Site Wells**  
**Molybdenum Concentration**

Remediation Goal = 0.1 mg/L



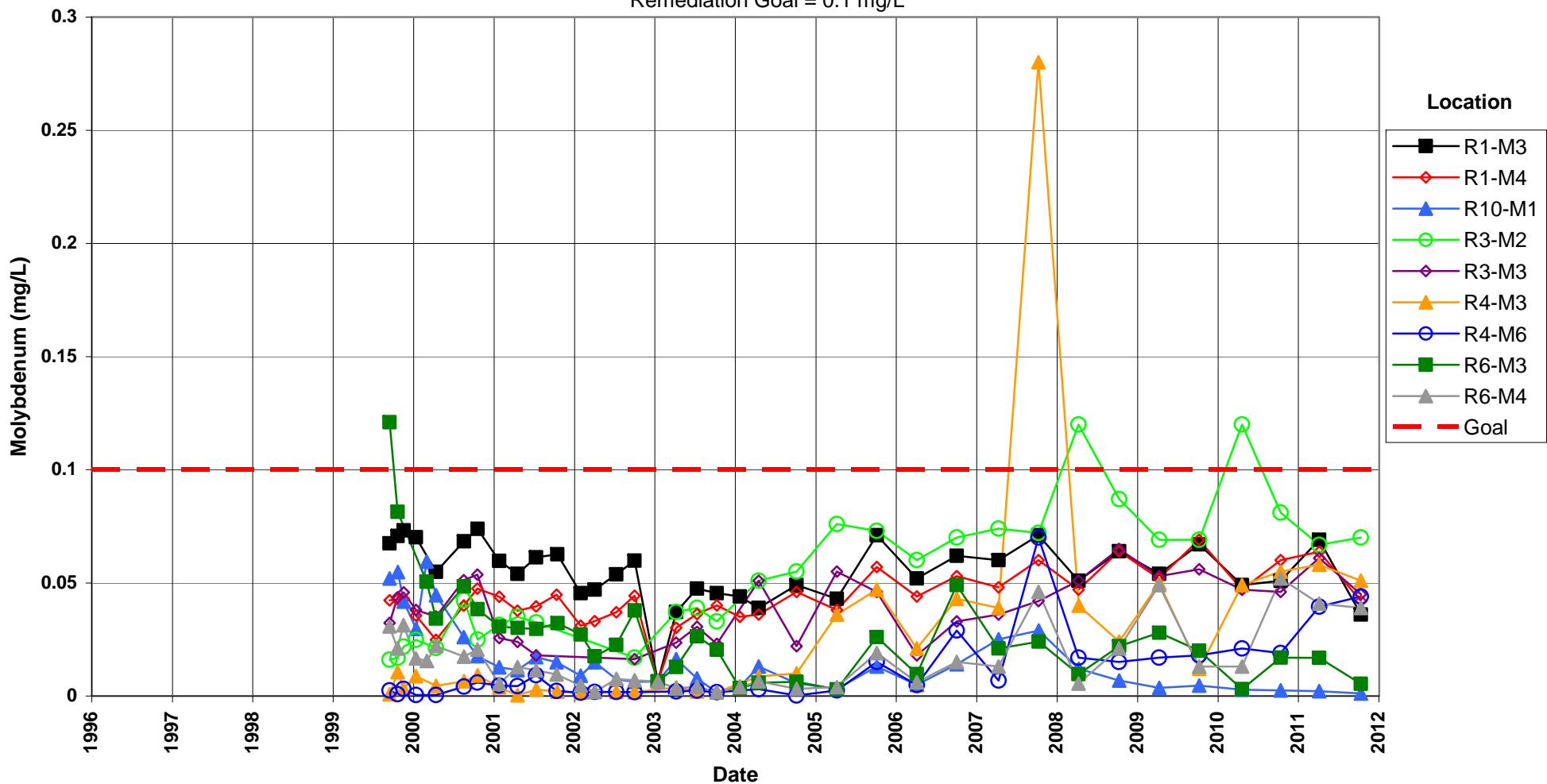
**Monticello Mill Tailings Site**  
**Downgradient Wells**  
**Molybdenum Concentration**

Remediation Goal = 0.1 mg/L



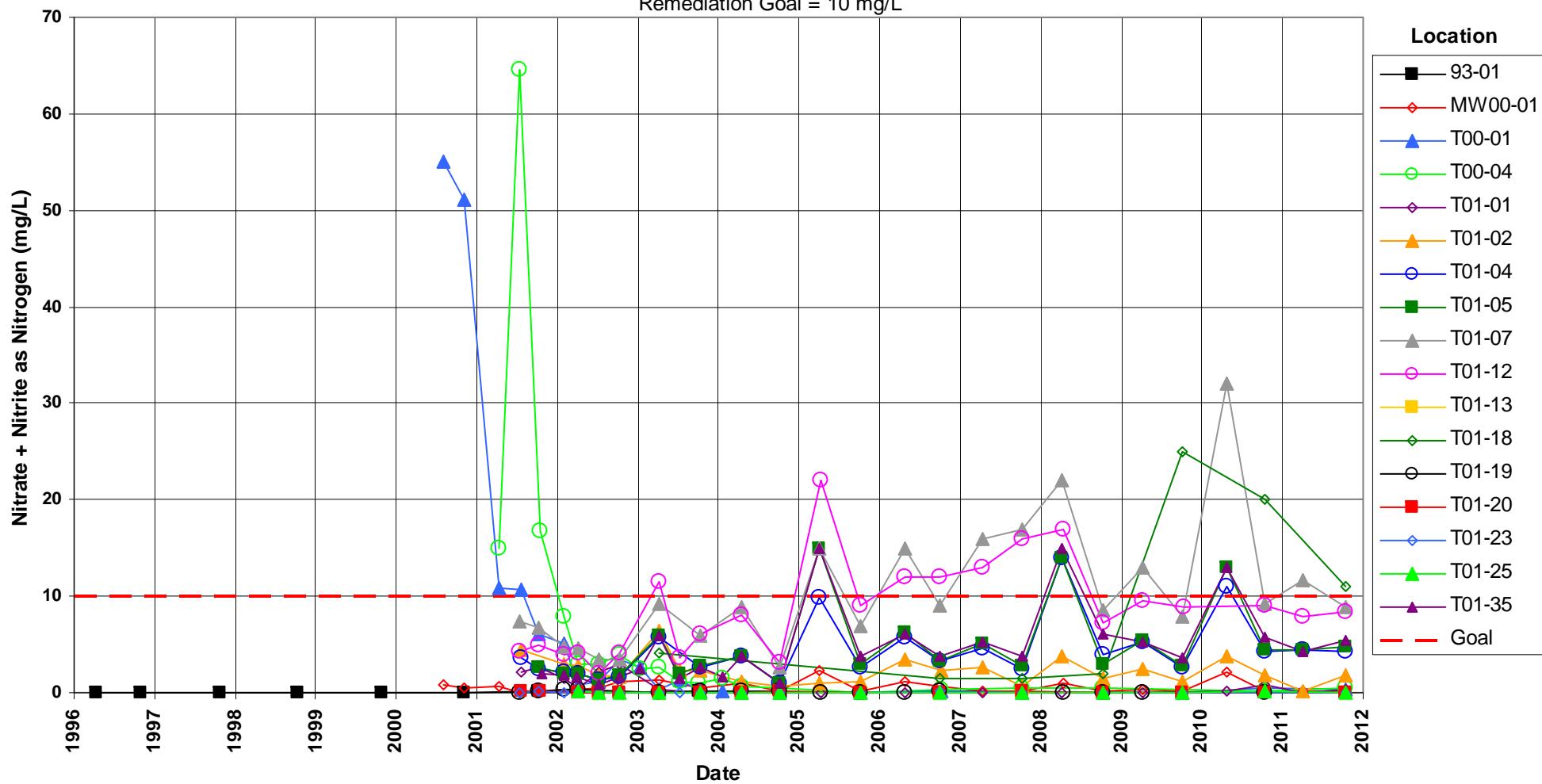
**Monticello Mill Tailings Site**  
**Downgradient PRB Wells**  
**Molybdenum Concentration**

Remediation Goal = 0.1 mg/L



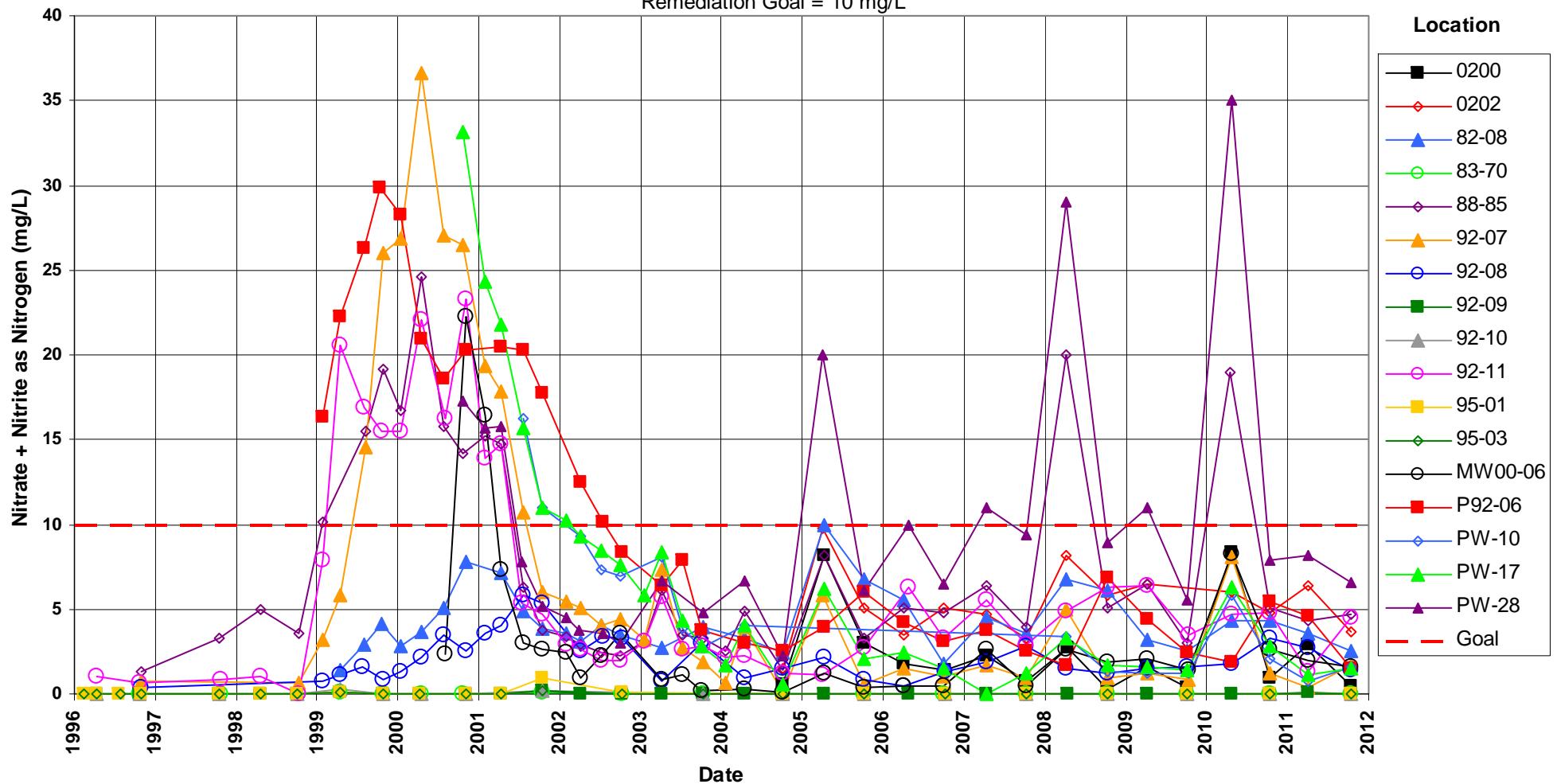
**Monticello Mill Tailings Site**  
**Former Mill Site Wells**  
**Nitrate + Nitrite as N Concentration**

Remediation Goal = 10 mg/L



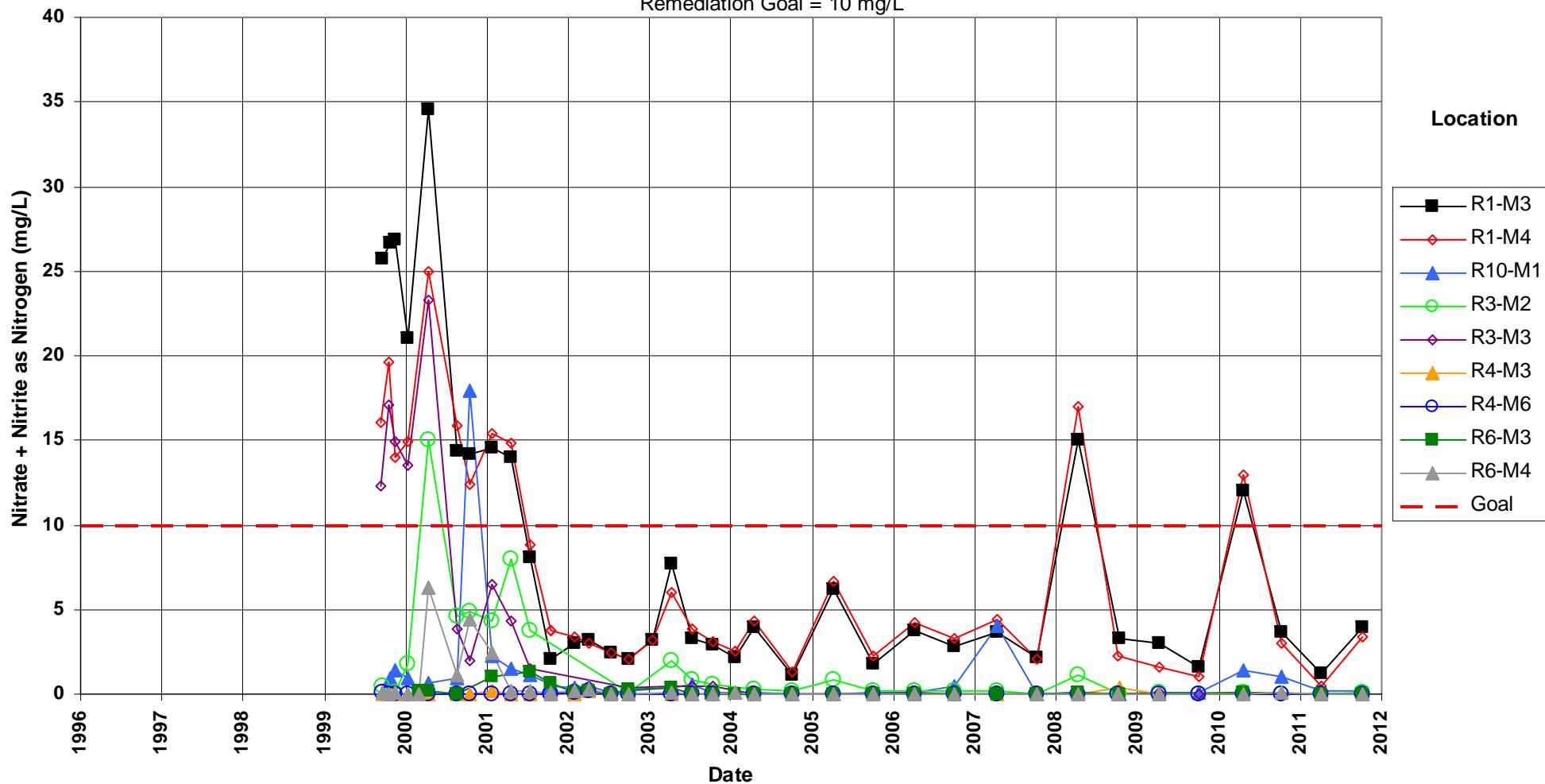
**Monticello Mill Tailings Site**  
**Downgradient Wells**  
**Nitrate + Nitrite as N Concentration**

Remediation Goal = 10 mg/L



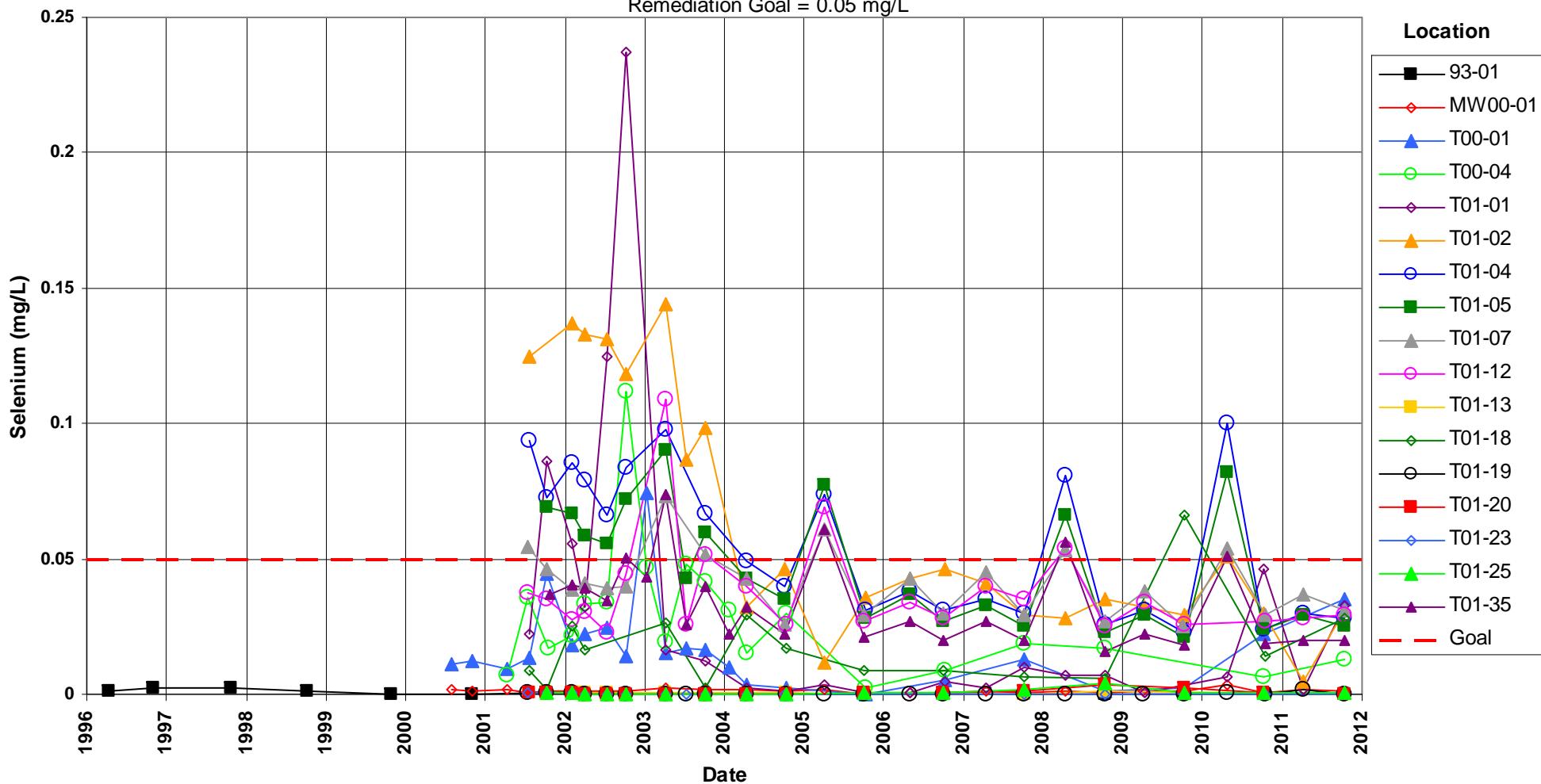
**Monticello Mill Tailings Site**  
**Downgradient PRB Wells**  
**Nitrate + Nitrite as N Concentration**

Remediation Goal = 10 mg/L

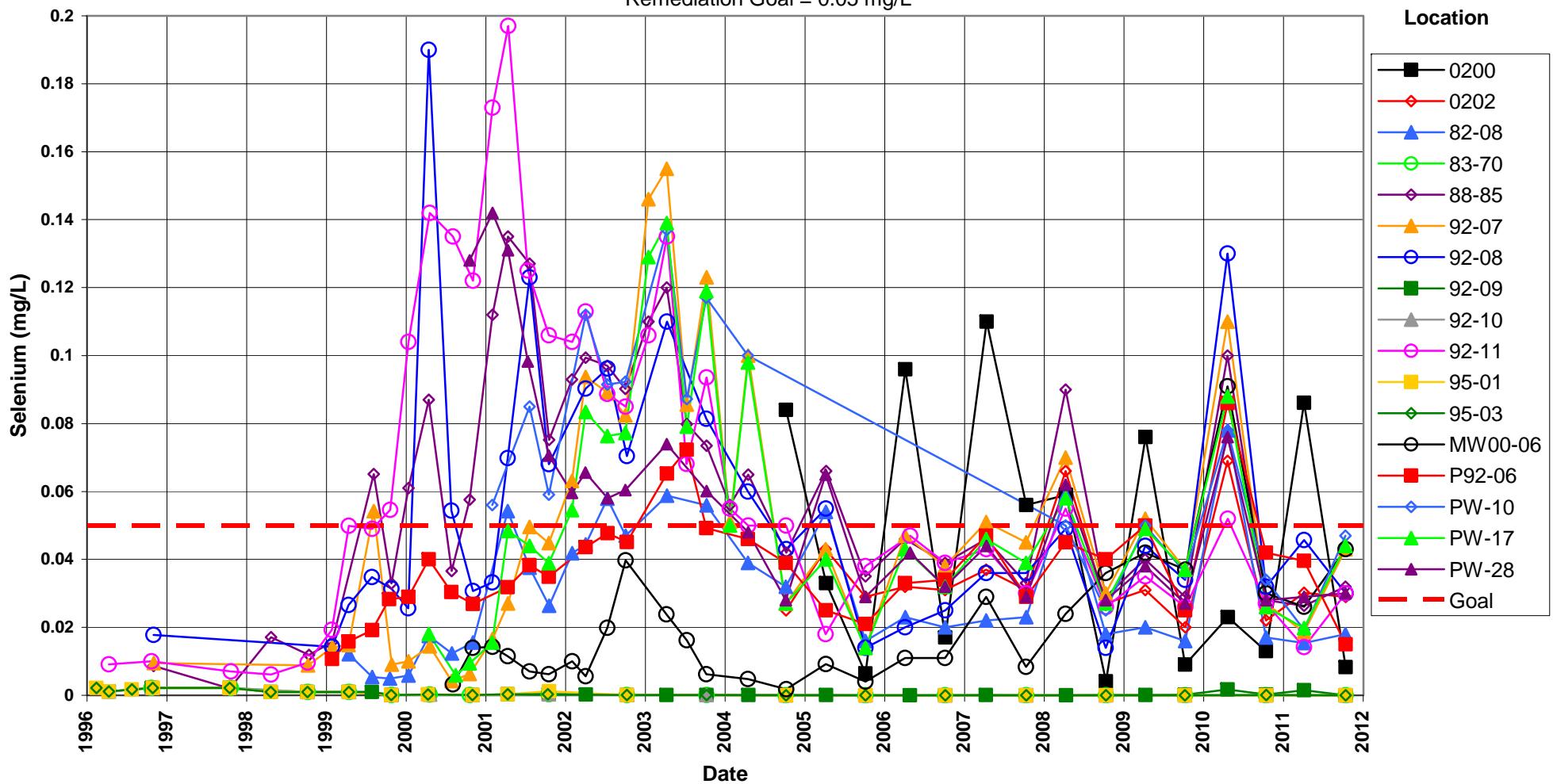


**Monticello Mill Tailings Site**  
**Former Mill Site Wells**  
**Selenium Concentration**

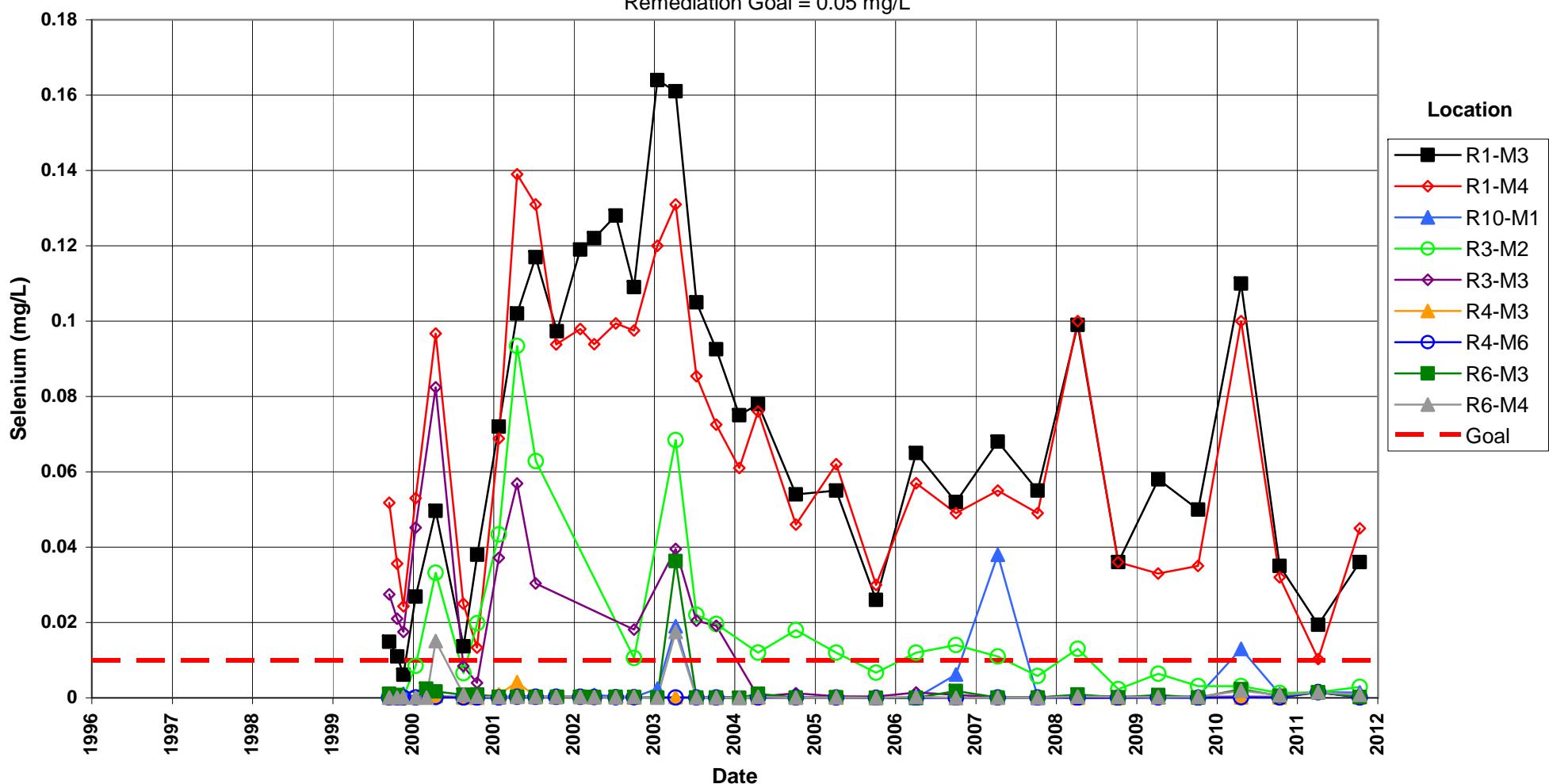
Remediation Goal = 0.05 mg/L



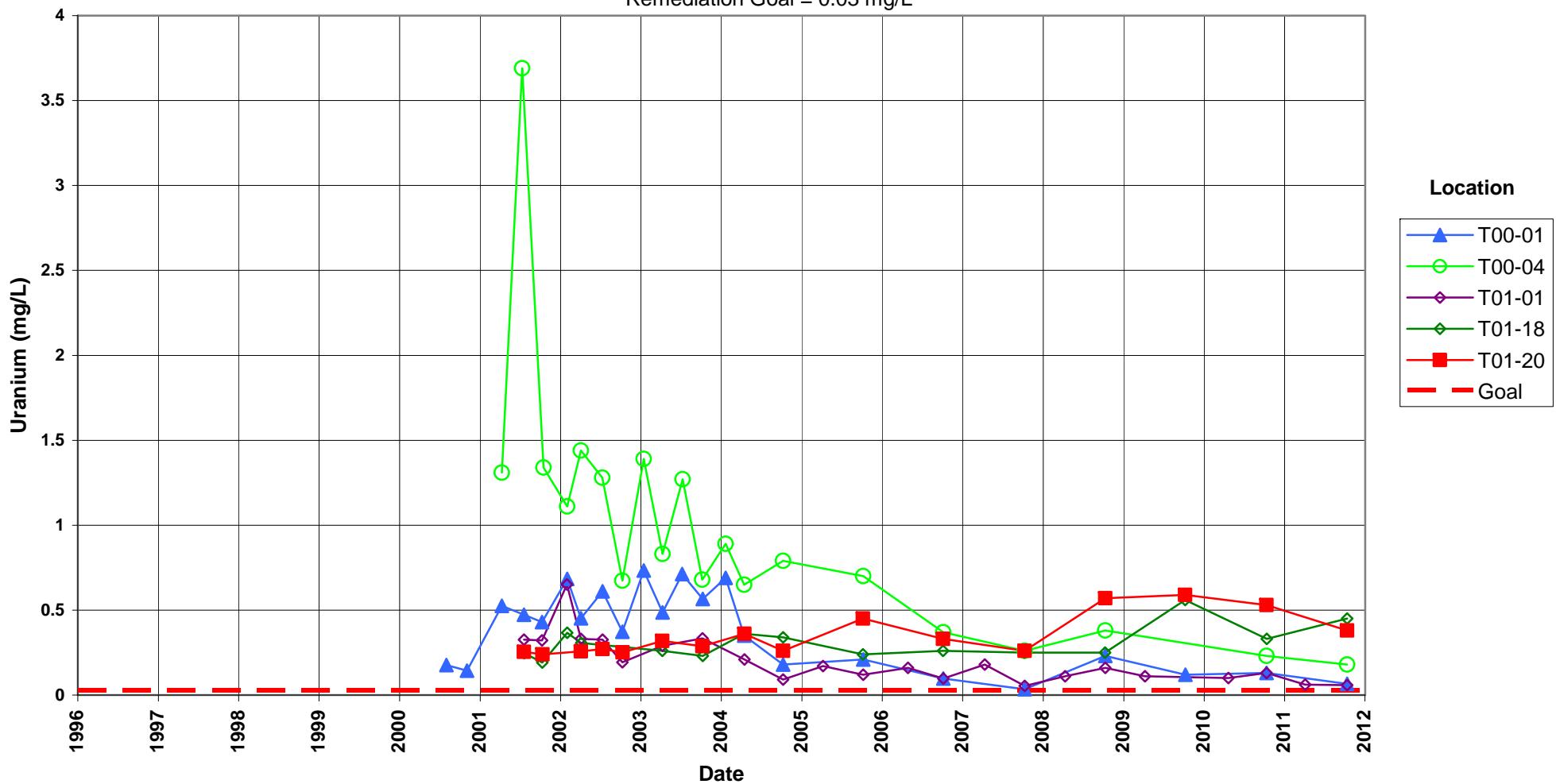
**Monticello Mill Tailings Site**  
**Downgradient Wells**  
**Selenium Concentration**  
 Remediation Goal = 0.05 mg/L



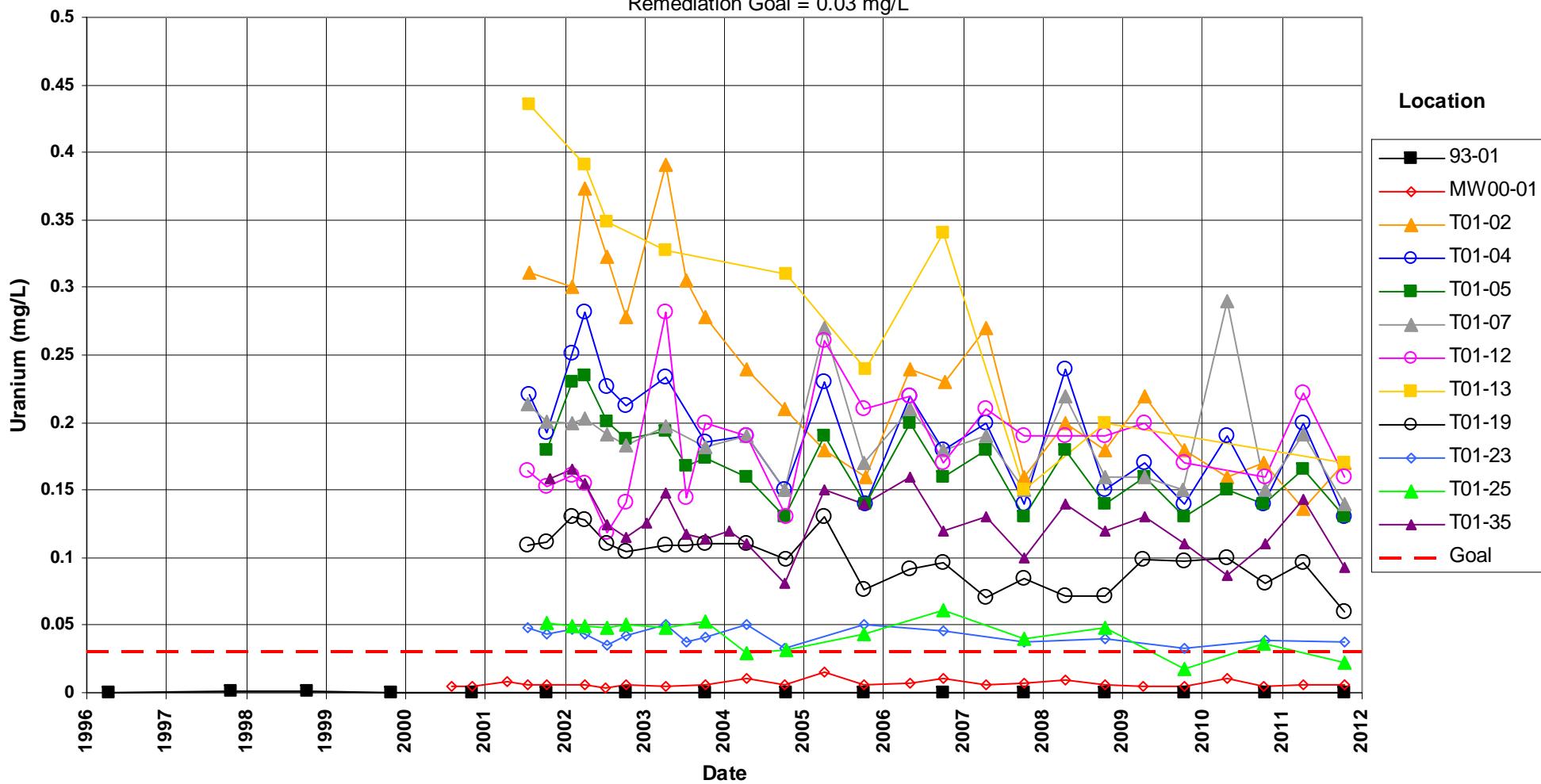
**Monticello Mill Tailings Site**  
**Downgradient PRB Wells**  
**Selenium Concentration**  
 Remediation Goal = 0.05 mg/L



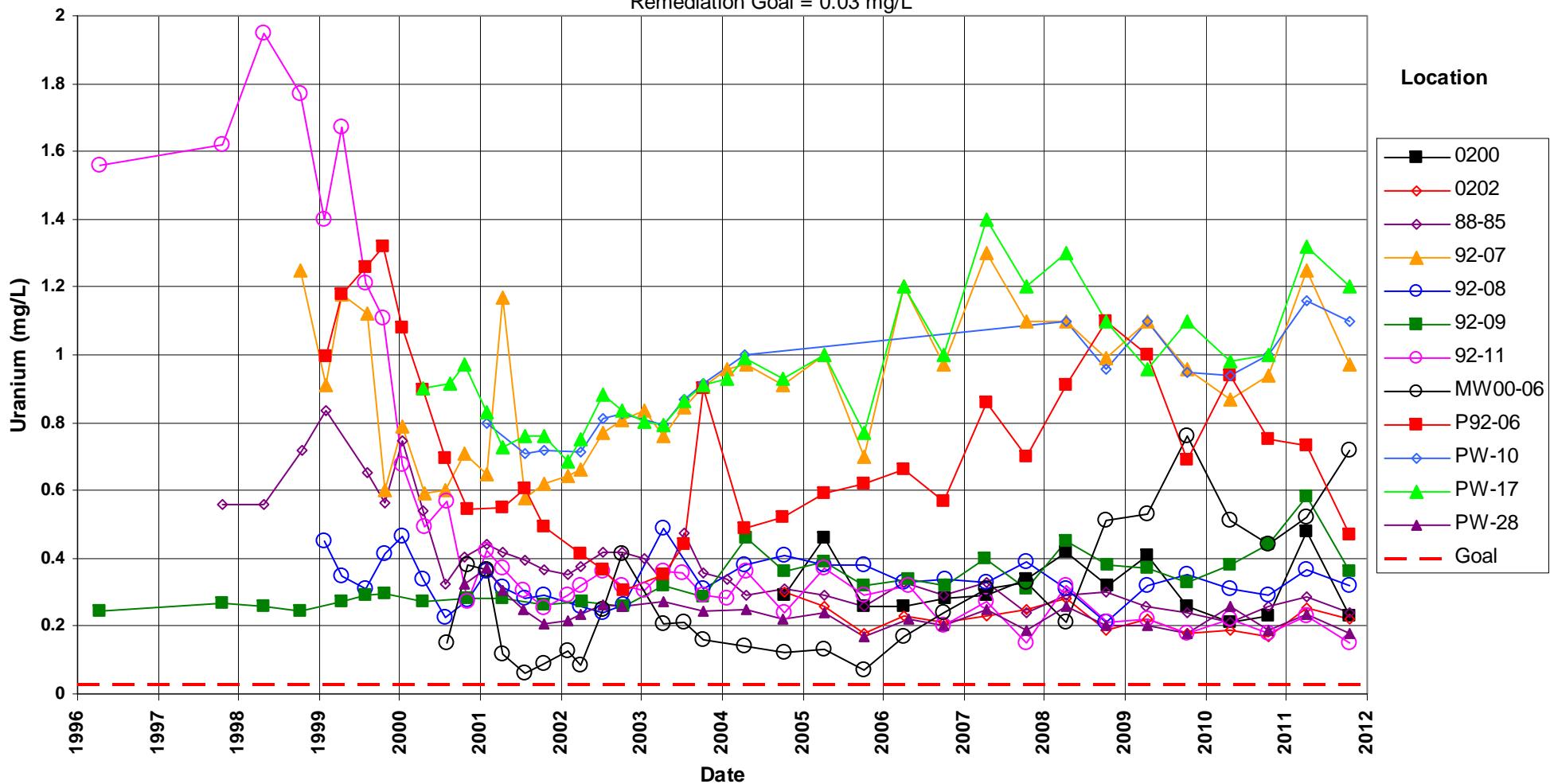
**Monticello Mill Tailings Site**  
**Former Mill Site Wells**  
**Uranium Concentration**  
Remediation Goal = 0.03 mg/L



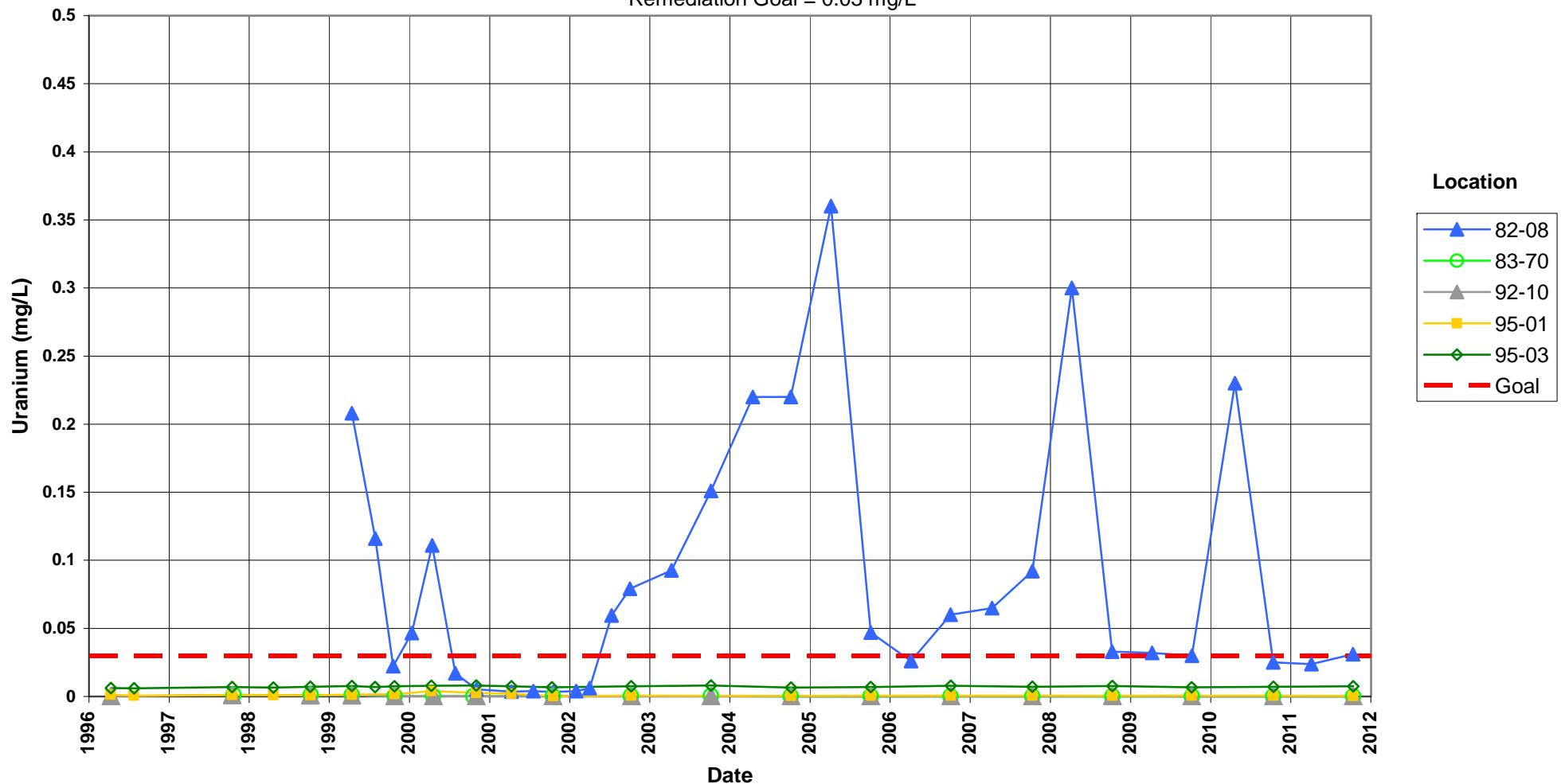
**Monticello Mill Tailings Site**  
**Former Mill Site Wells**  
**Uranium Concentration**  
 Remediation Goal = 0.03 mg/L



**Monticello Mill Tailings Site**  
**Downgradient Wells**  
**Uranium Concentration**  
 Remediation Goal = 0.03 mg/L

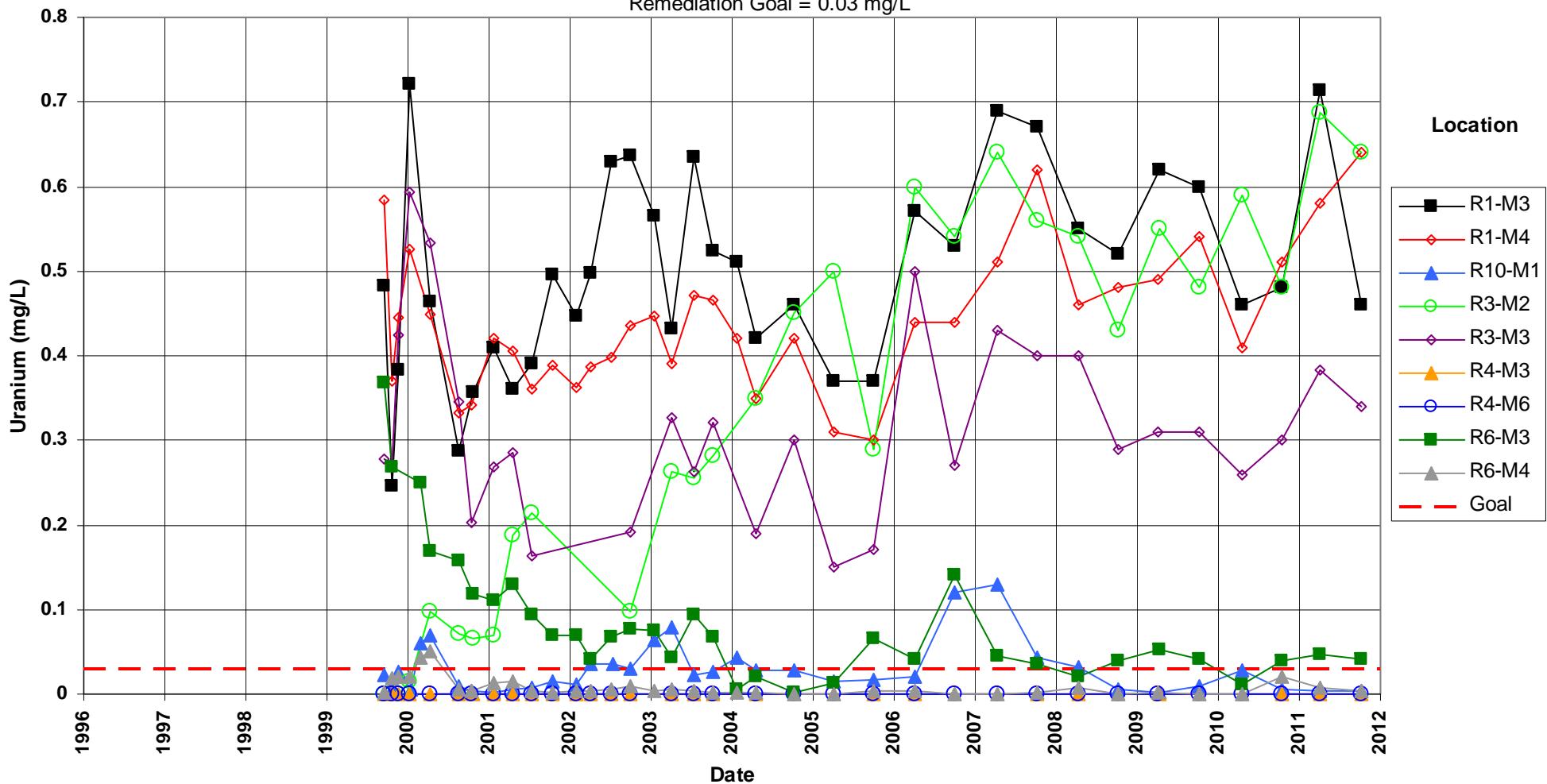


**Monticello Mill Tailings Site**  
**Downgradient Wells**  
**Uranium Concentration**  
Remediation Goal = 0.03 mg/L



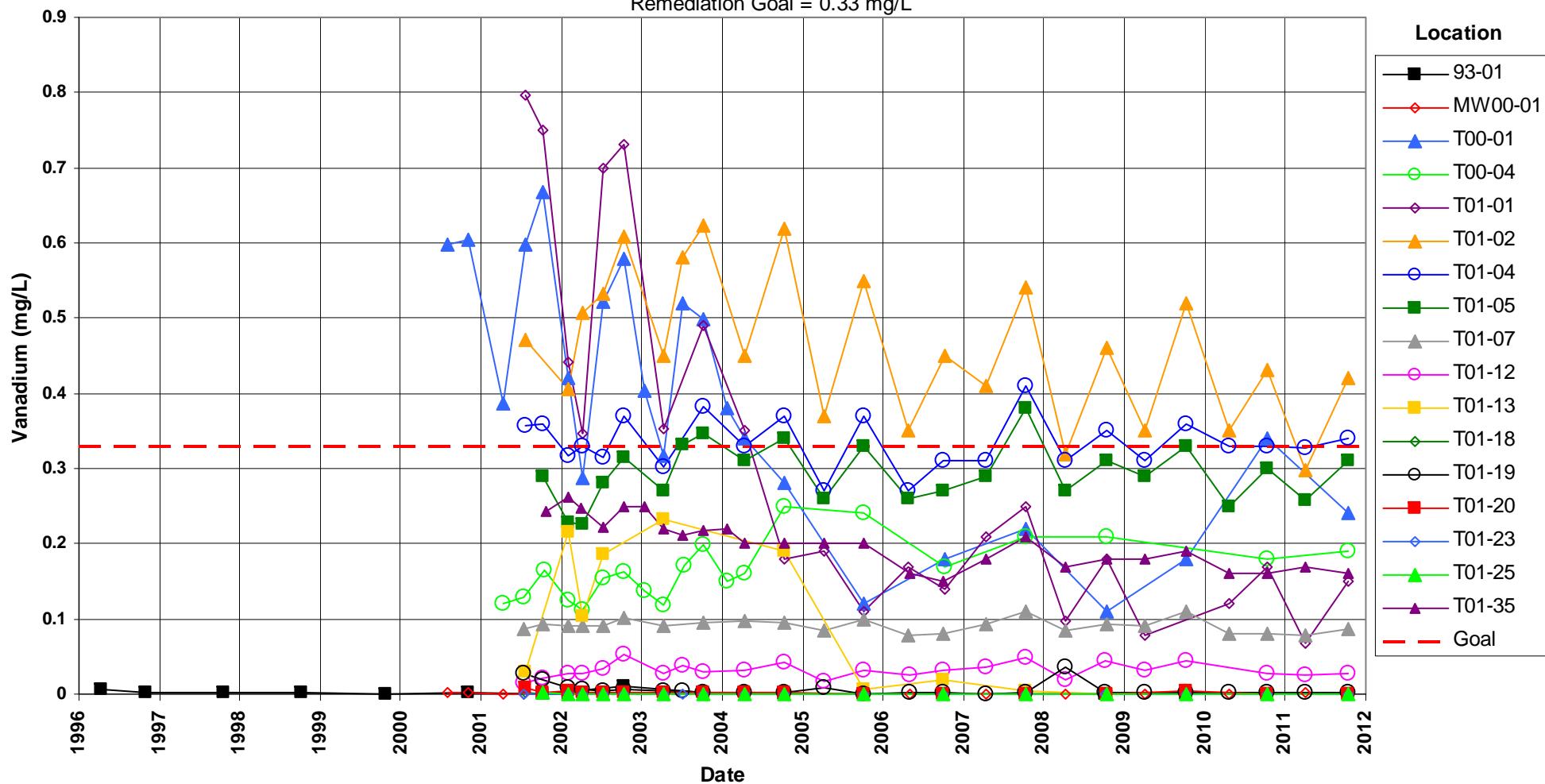
**Monticello Mill Tailings Site**  
**Downgradient PRB Wells**  
**Uranium Concentration**

Remediation Goal = 0.03 mg/L



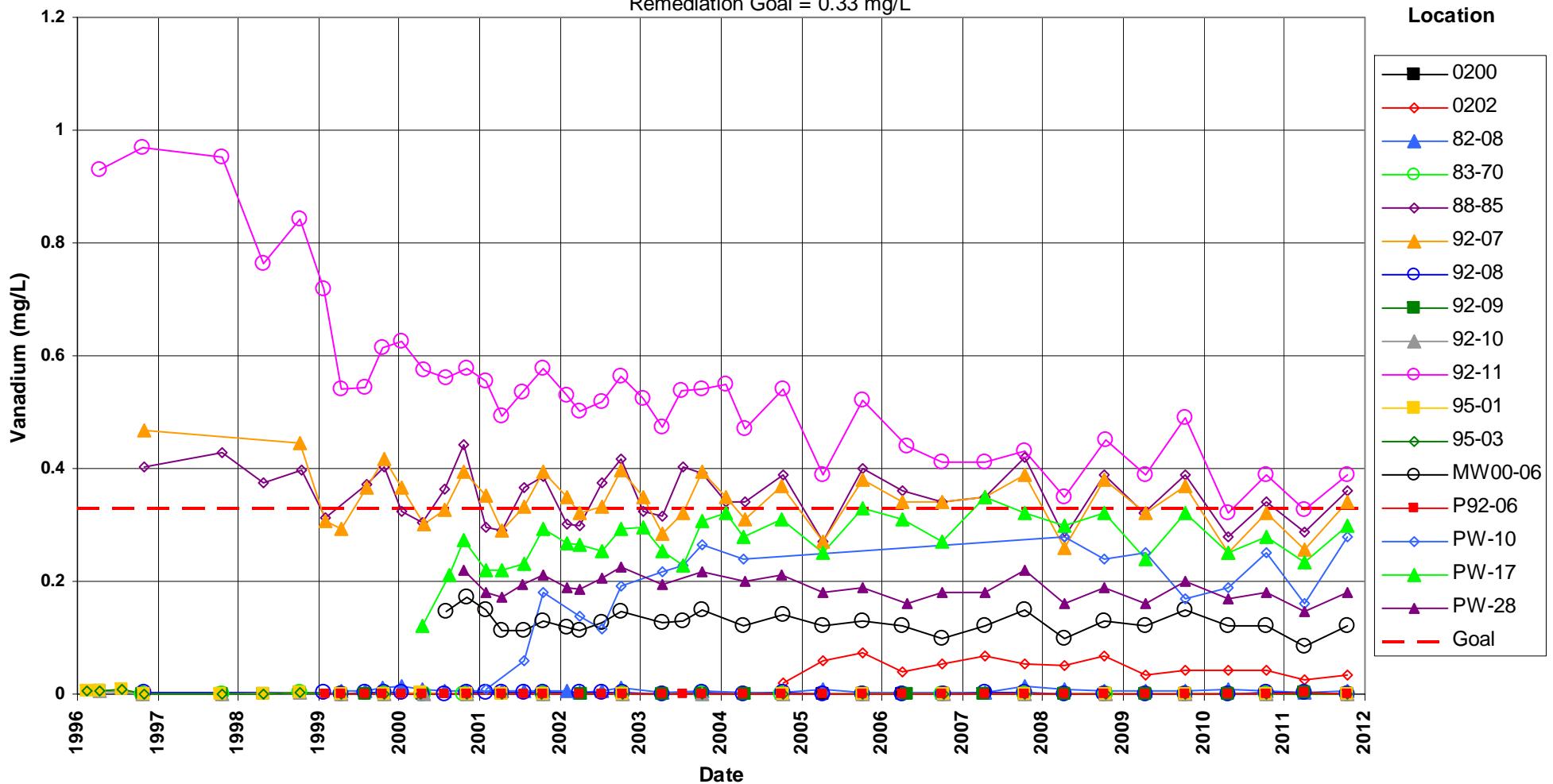
**Monticello Mill Tailings Site**  
**Former Mill Site Wells**  
**Vanadium Concentration**

Remediation Goal = 0.33 mg/L



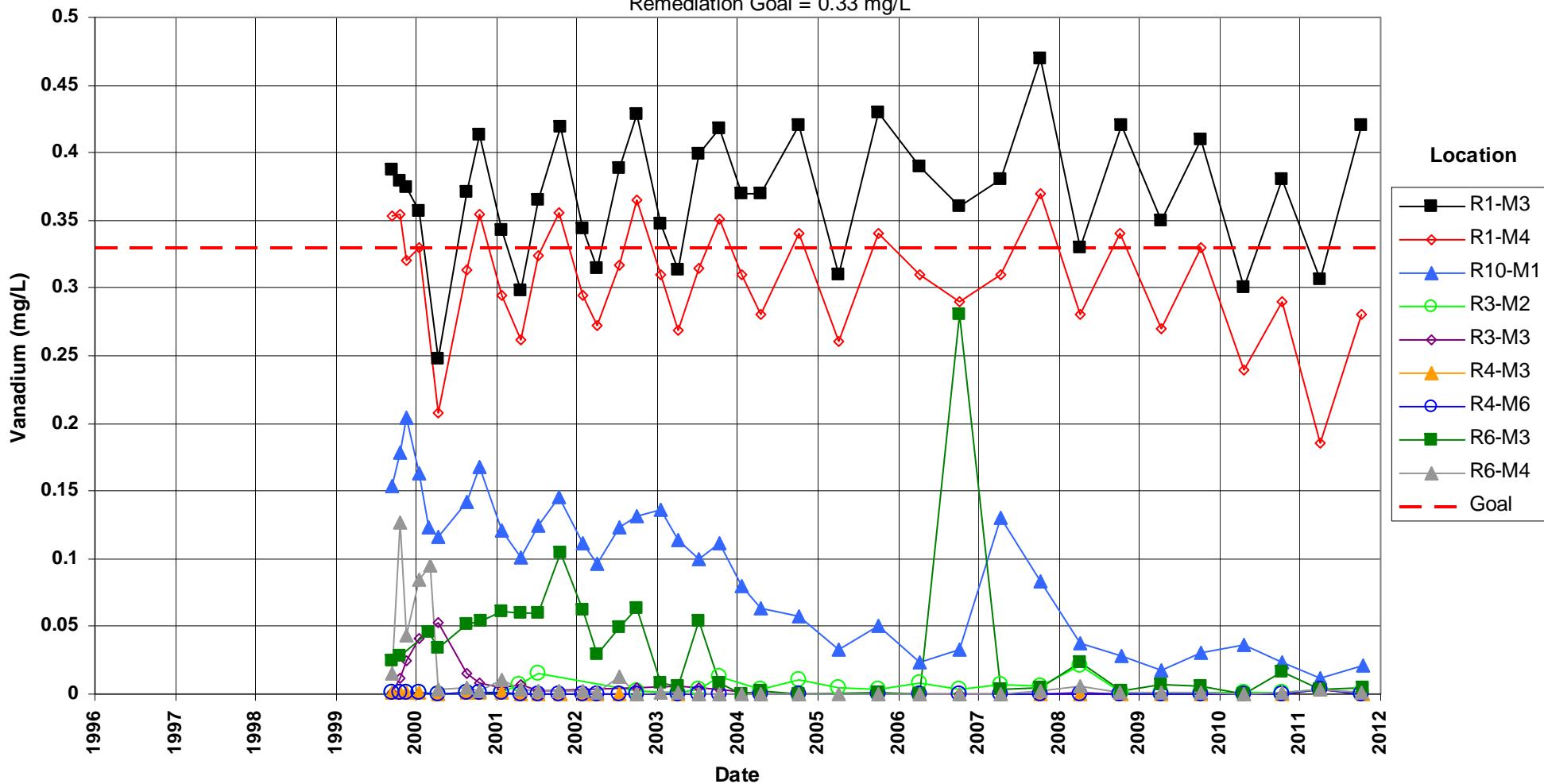
**Monticello Mill Tailings Site**  
**Downdgradient Wells**  
**Vanadium Concentration**

Remediation Goal = 0.33 mg/L



**Monticello Mill Tailings Site**  
**Downgradient PRB Wells**  
**Vanadium Concentration**

Remediation Goal = 0.33 mg/L



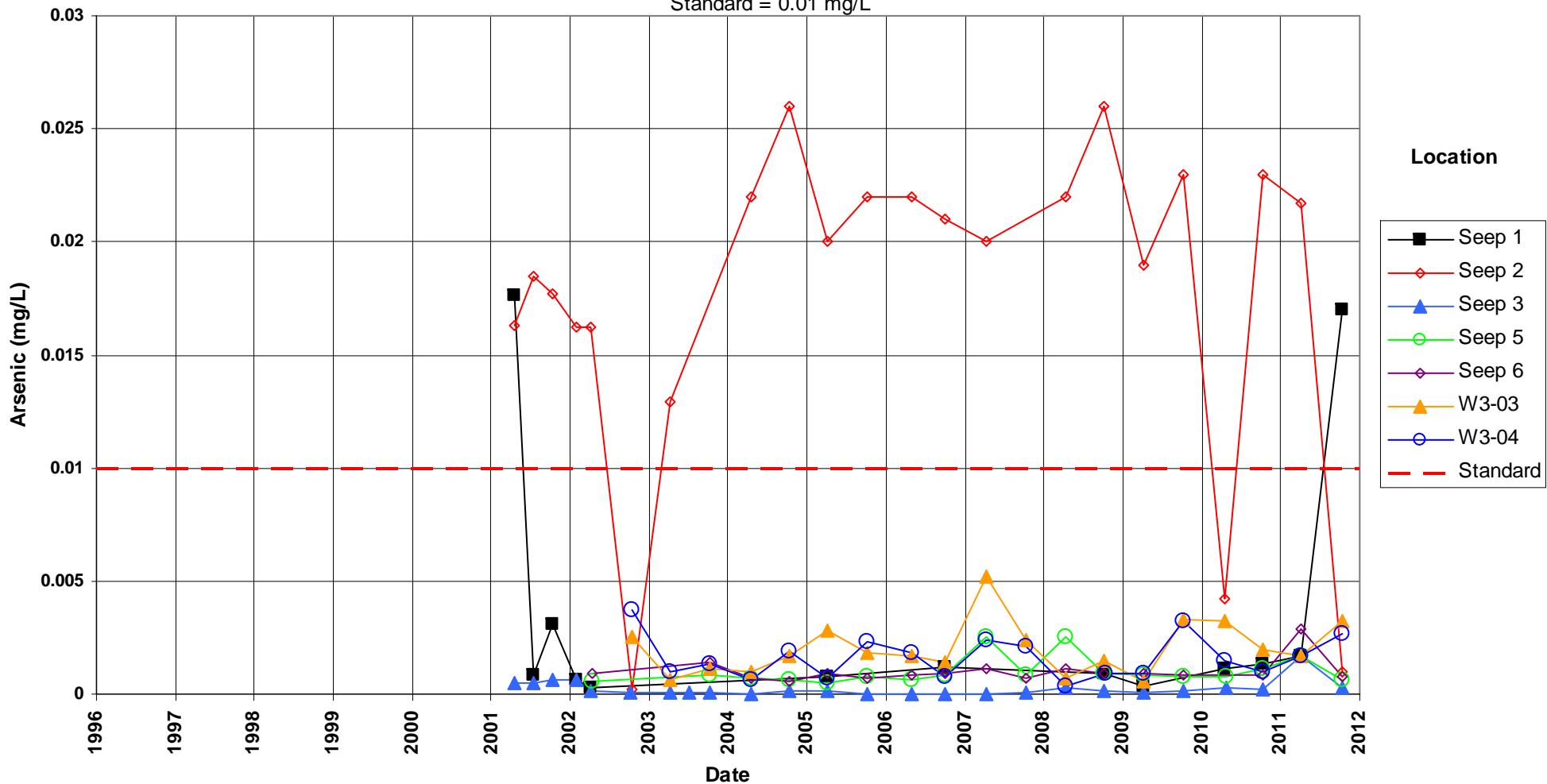
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## **Time-Concentration Graphs Surface Water**

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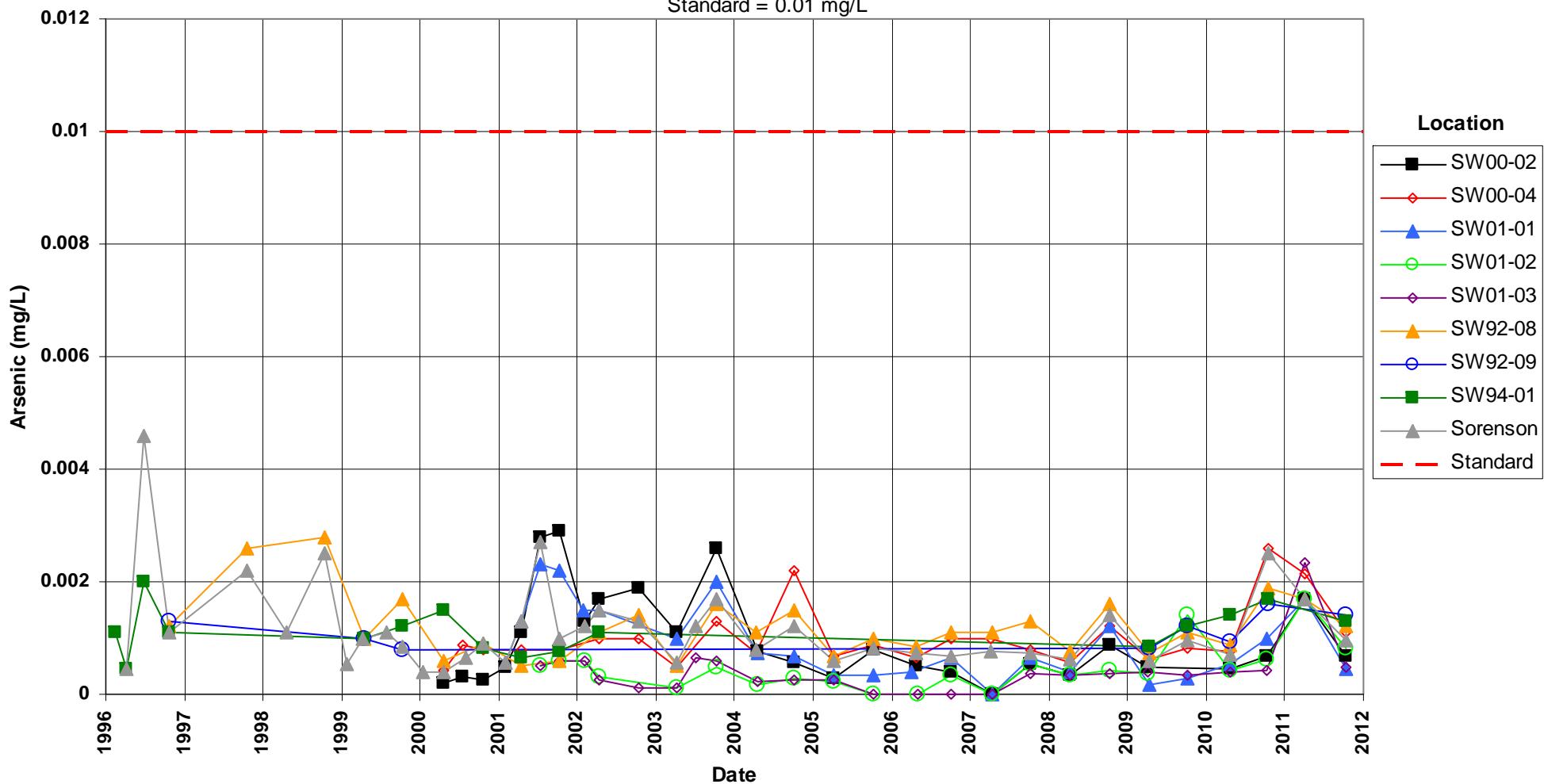
**Monticello Mill Tailings Site**  
**Former Mill Site Seeps and Wetlands**  
**Arsenic Concentration**

Standard = 0.01 mg/L

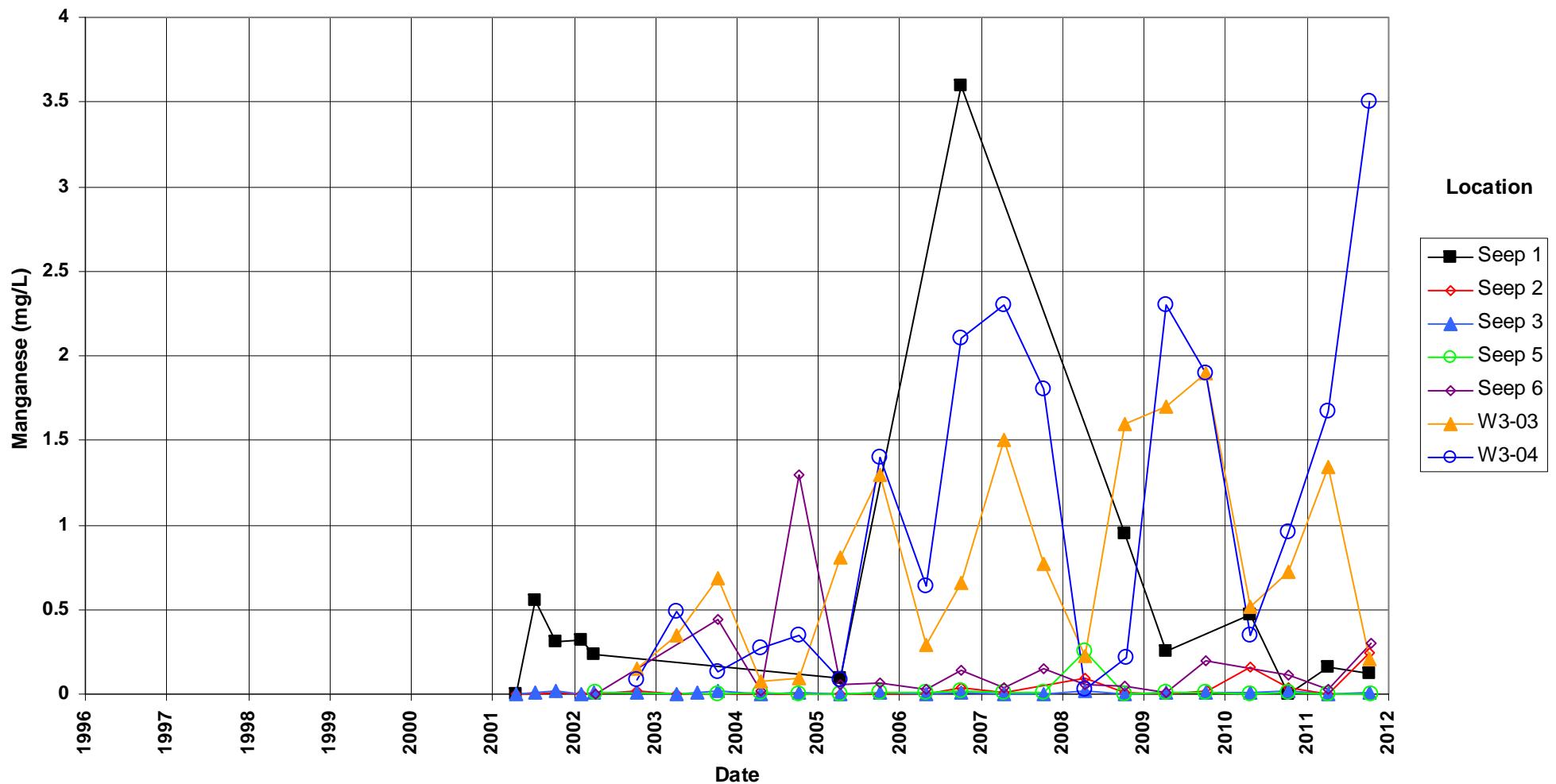


**Monticello Mill Tailings Site**  
**Montezuma Creek Locations**  
**Arsenic Concentration**

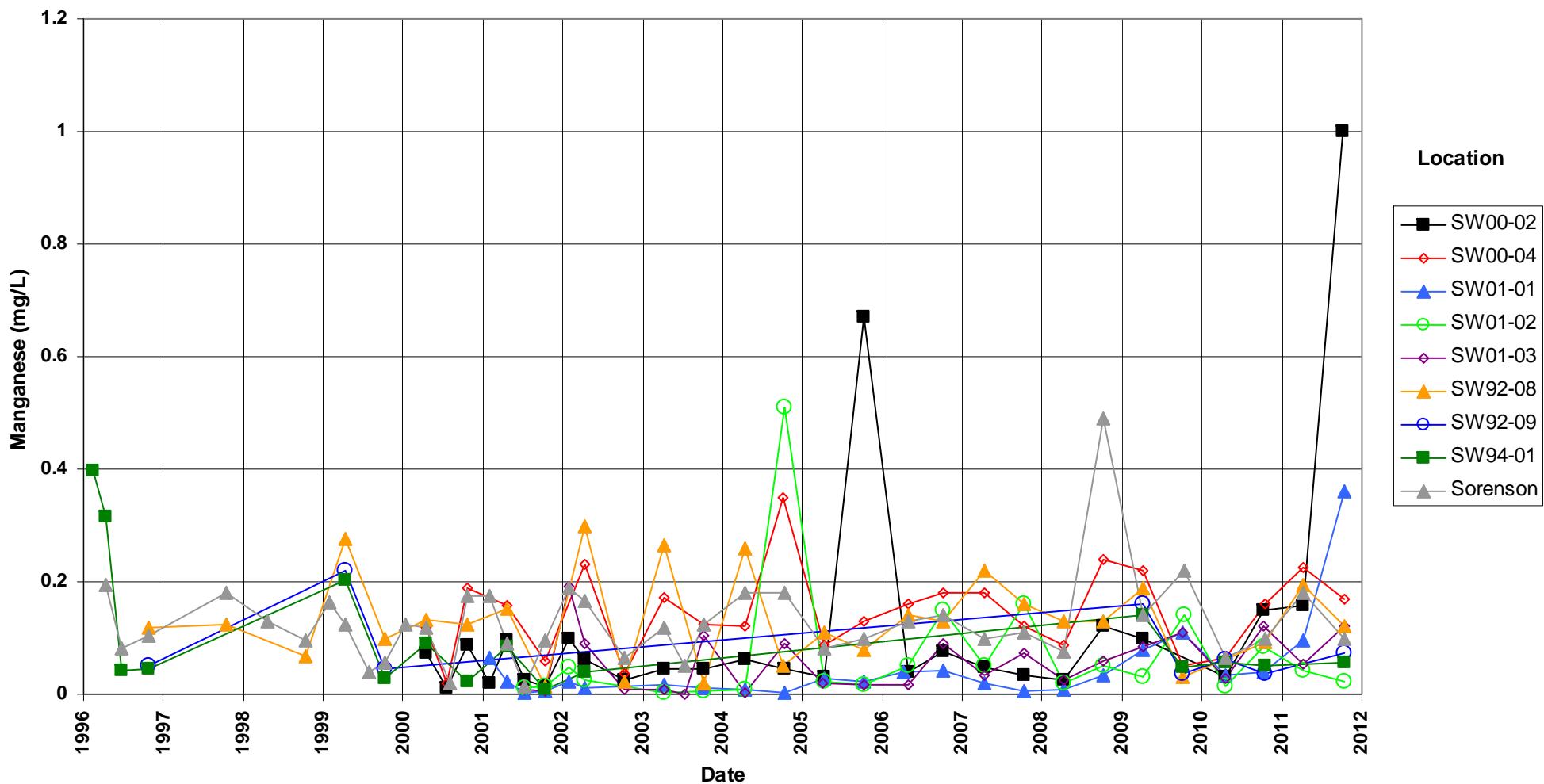
Standard = 0.01 mg/L



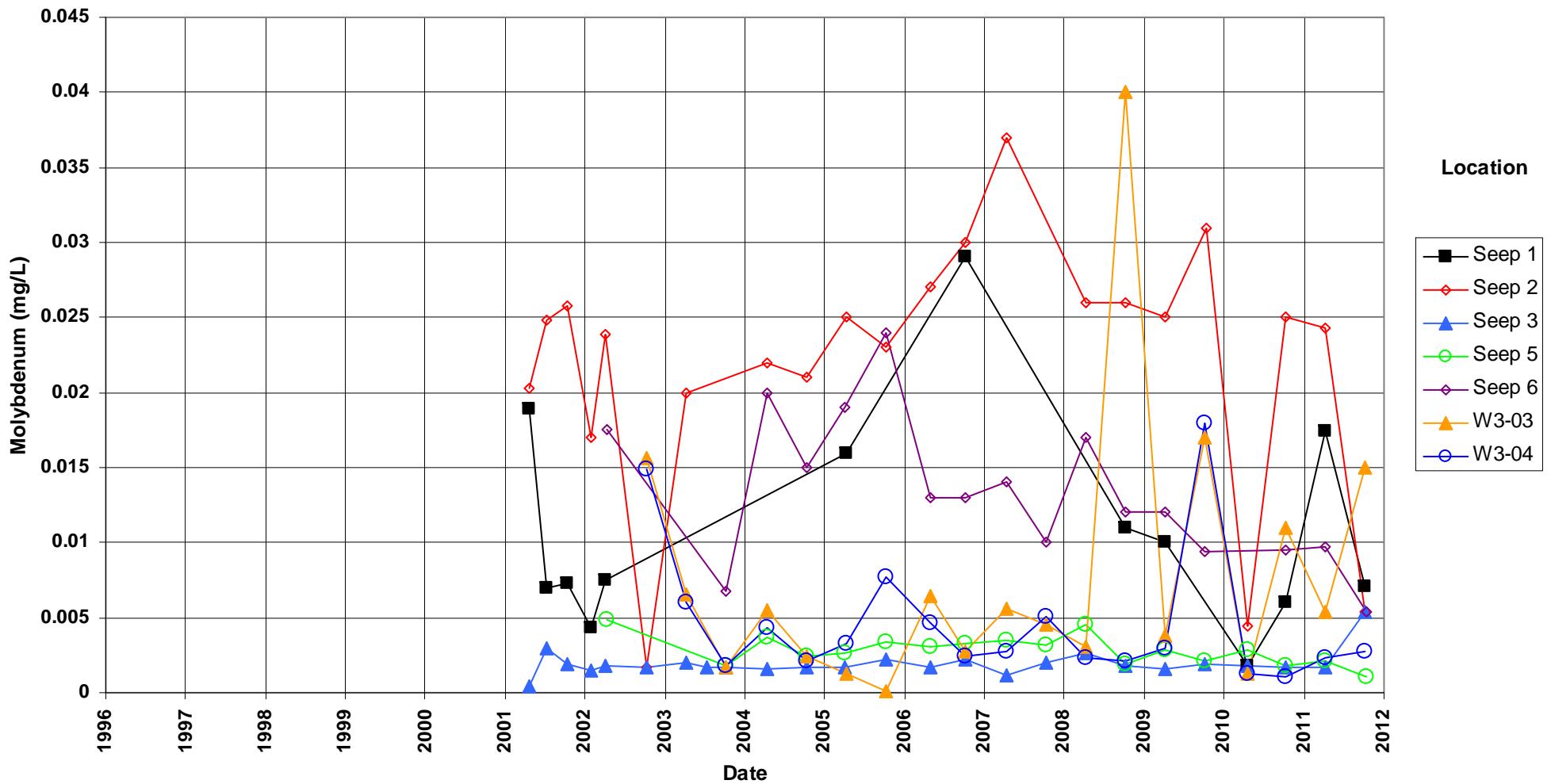
**Monticello Mill Tailings Site**  
**Former Mill Site Seeps and Wetlands**  
**Manganese Concentration**



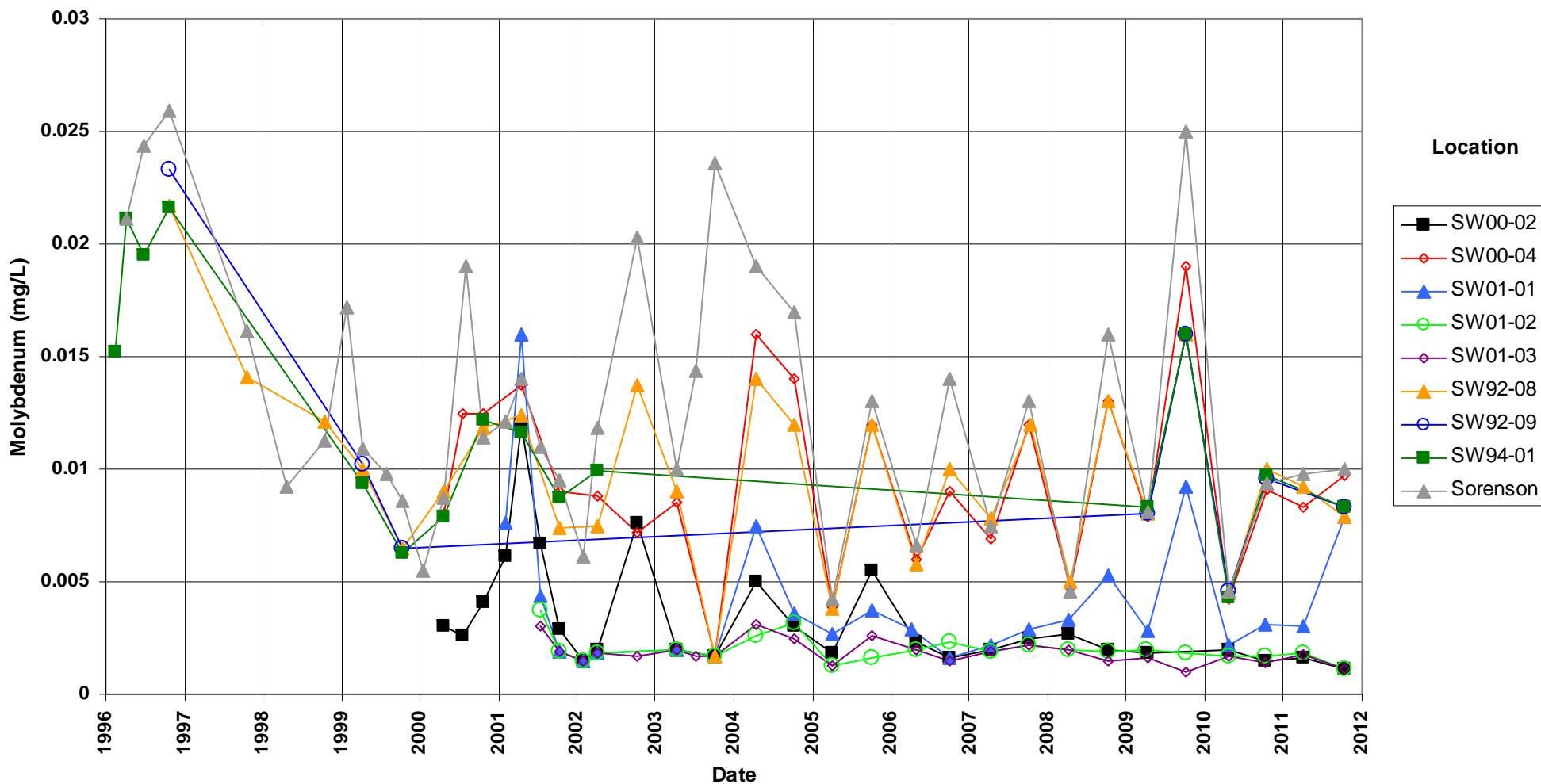
**Monticello Mill Tailings Site  
Montezuma Creek Locations  
Manganese Concentration**



**Monticello Mill Tailings Site  
Former Mill Site Seeps and Wetlands  
Molybdenum Concentration**

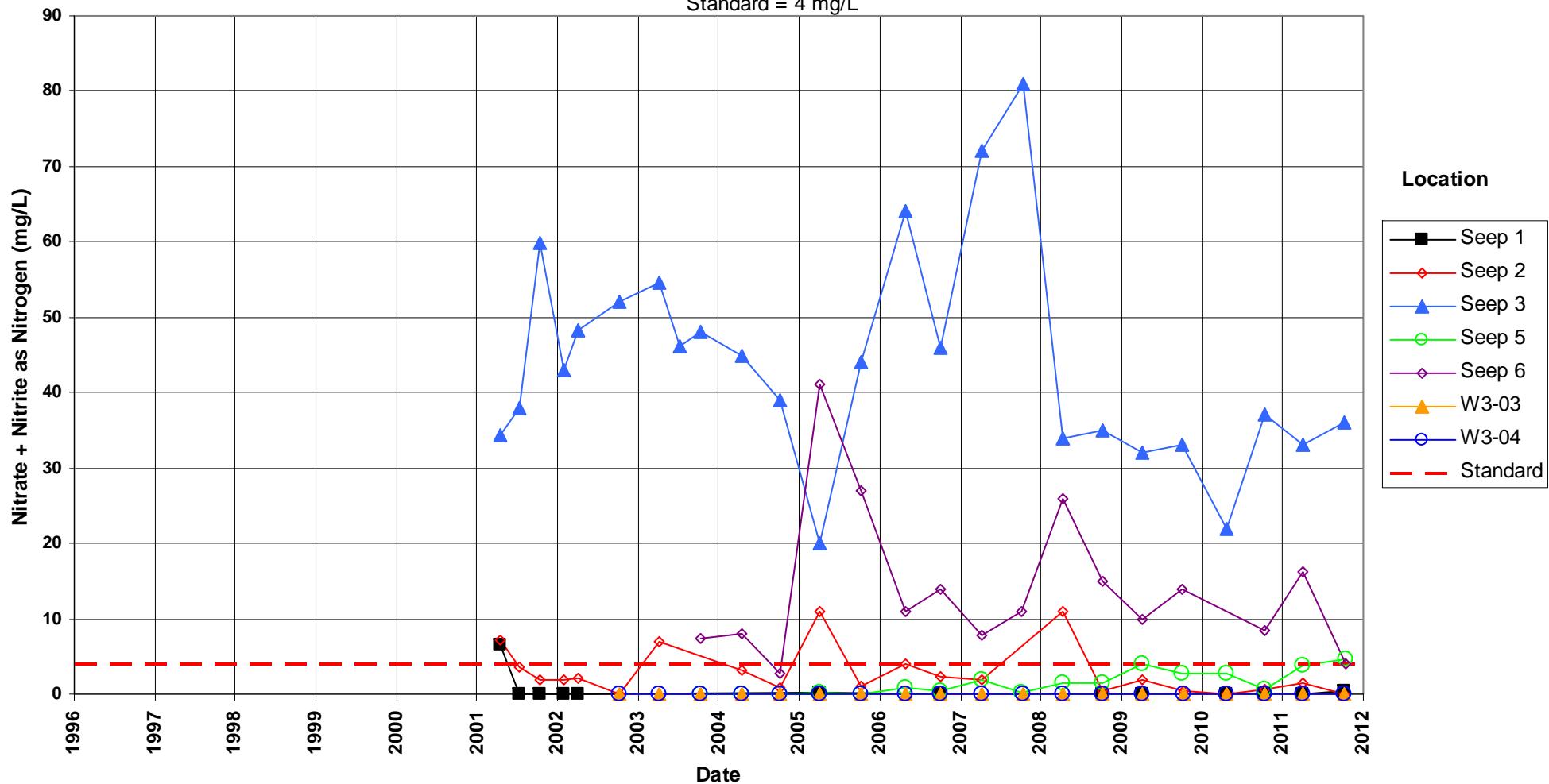


**Monticello Mill Tailings Site**  
**Montezuma Creek Locations**  
**Molybdenum Concentration**



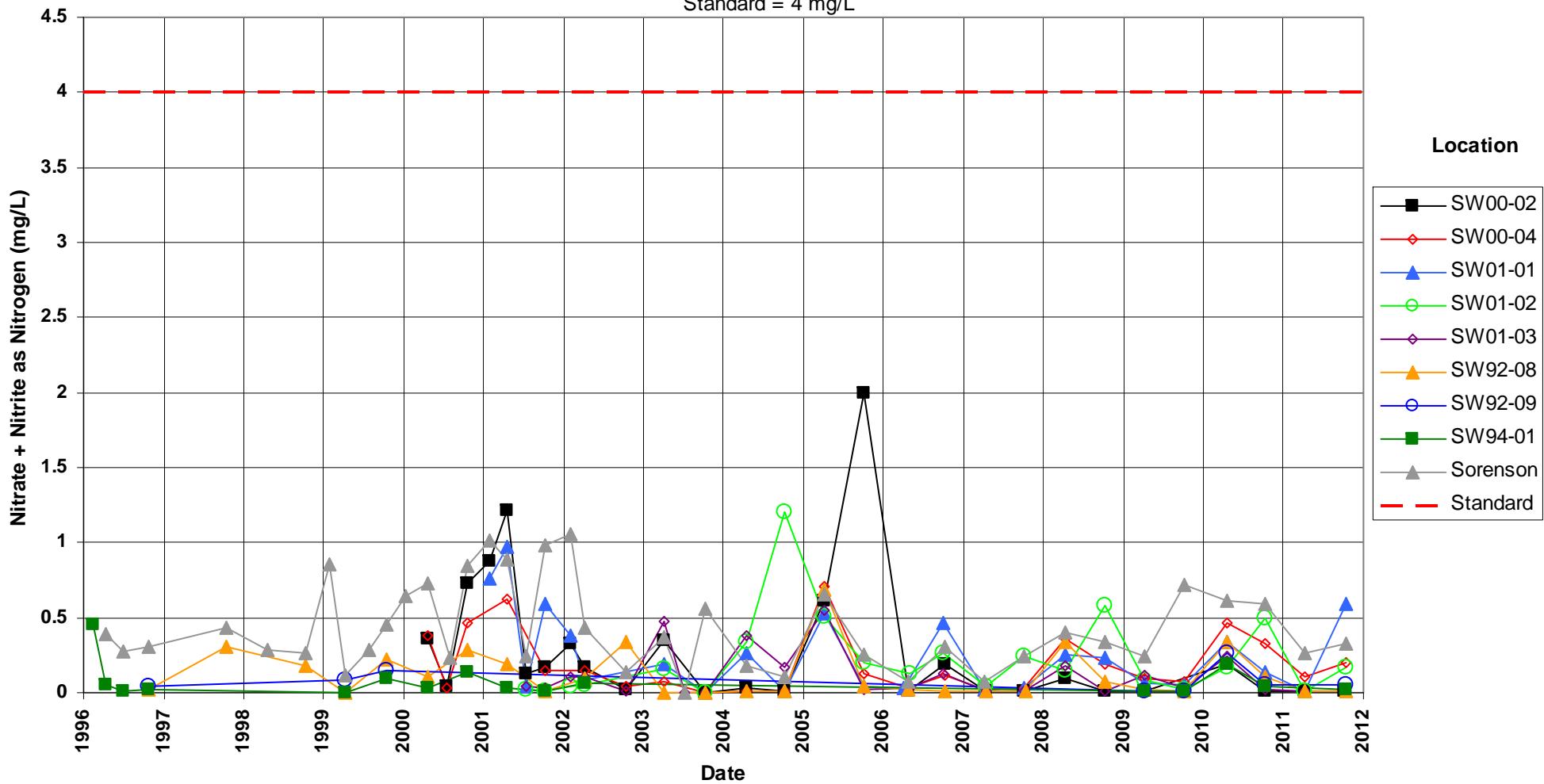
**Monticello Mill Tailings Site**  
**Former Mill Site Seeps and Wetlands**  
**Nitrate + Nitrite as N Concentration**

Standard = 4 mg/L



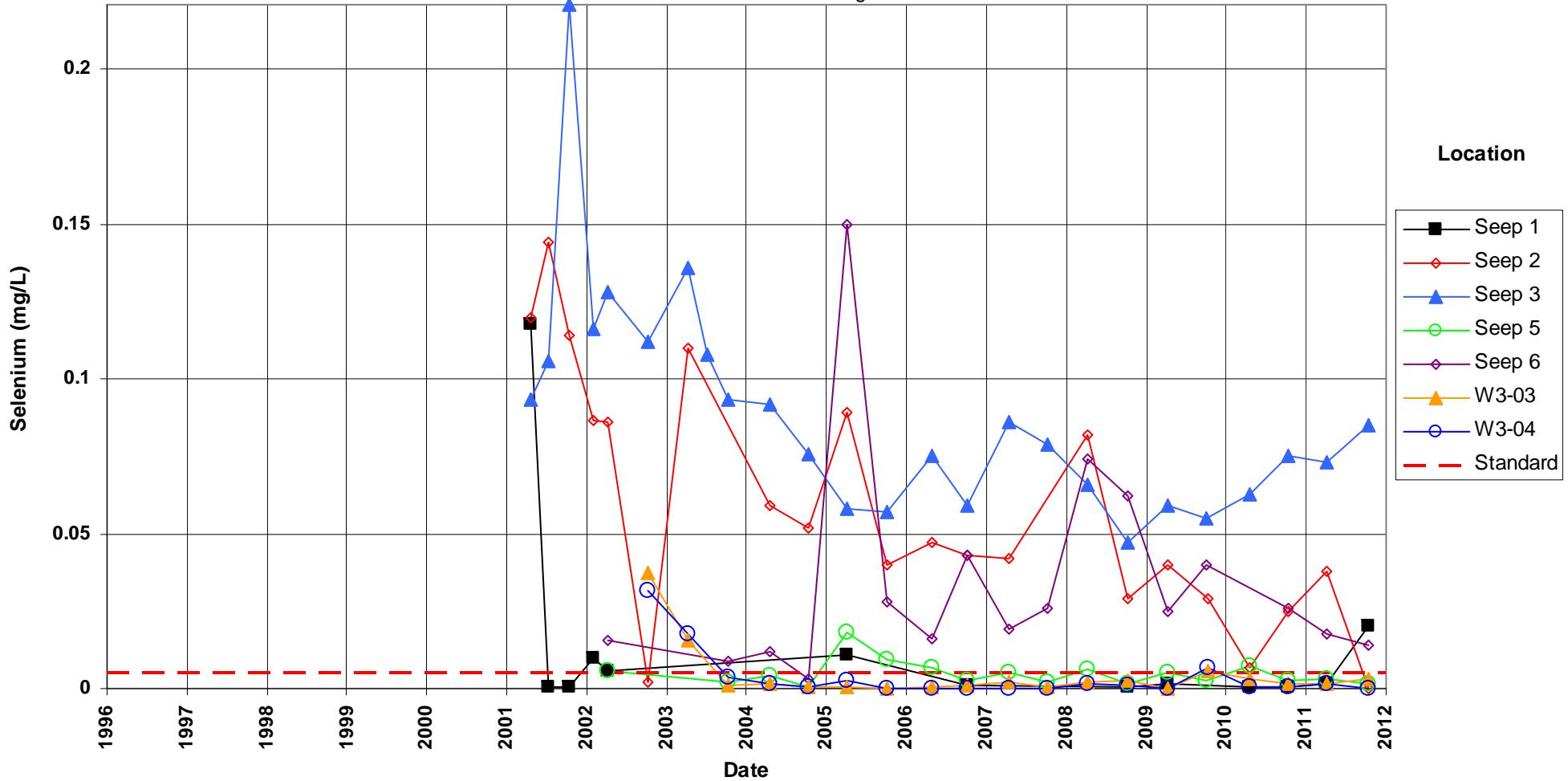
**Monticello Mill Tailings Site  
Montezuma Creek Locations  
Nitrate + Nitrite as N Concentration**

Standard = 4 mg/L



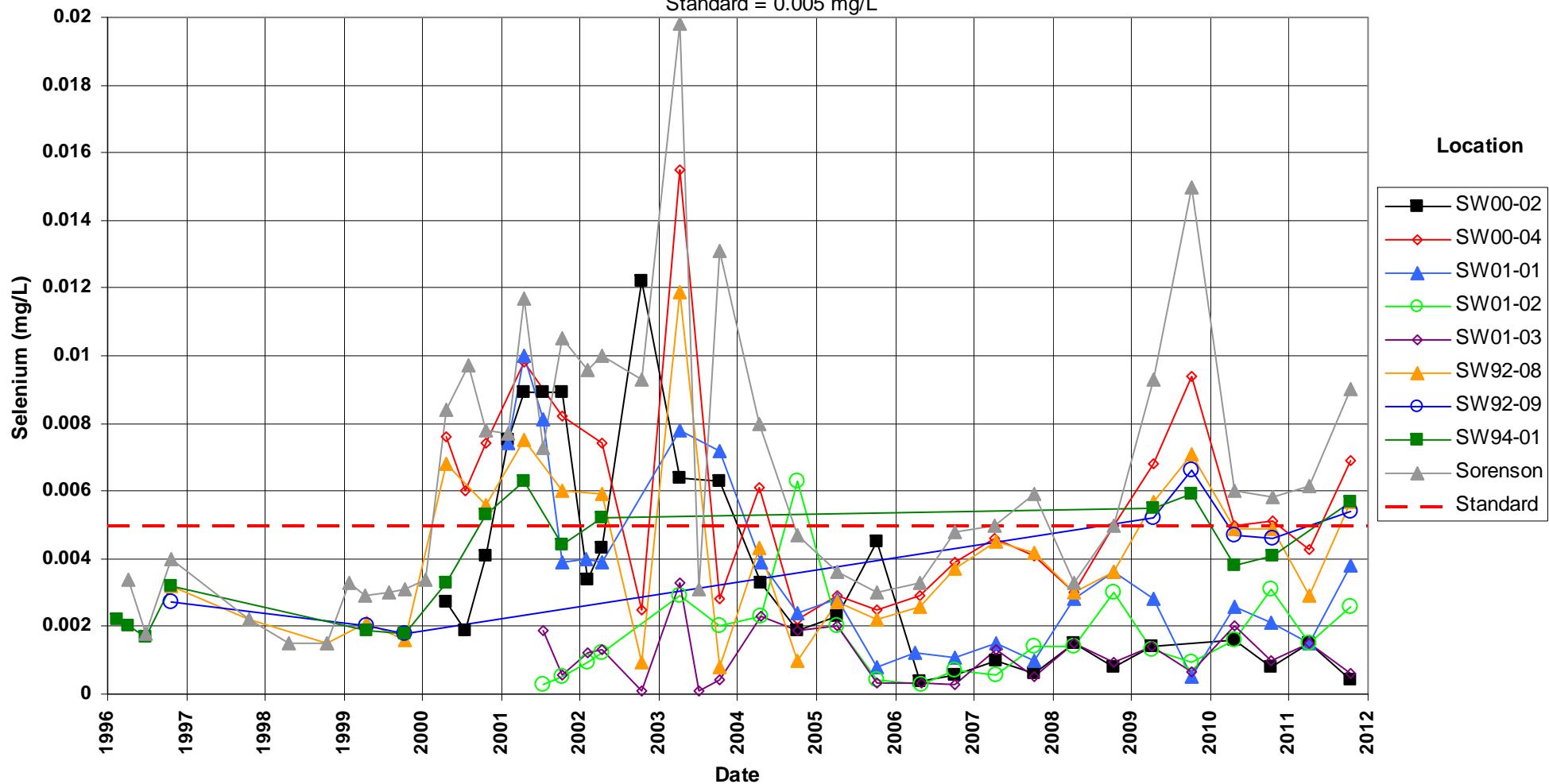
**Monticello Mill Tailings Site**  
**Former Mill Site Seeps and Wetlands**  
**Selenium Concentration**

Standard = 0.005 mg/L



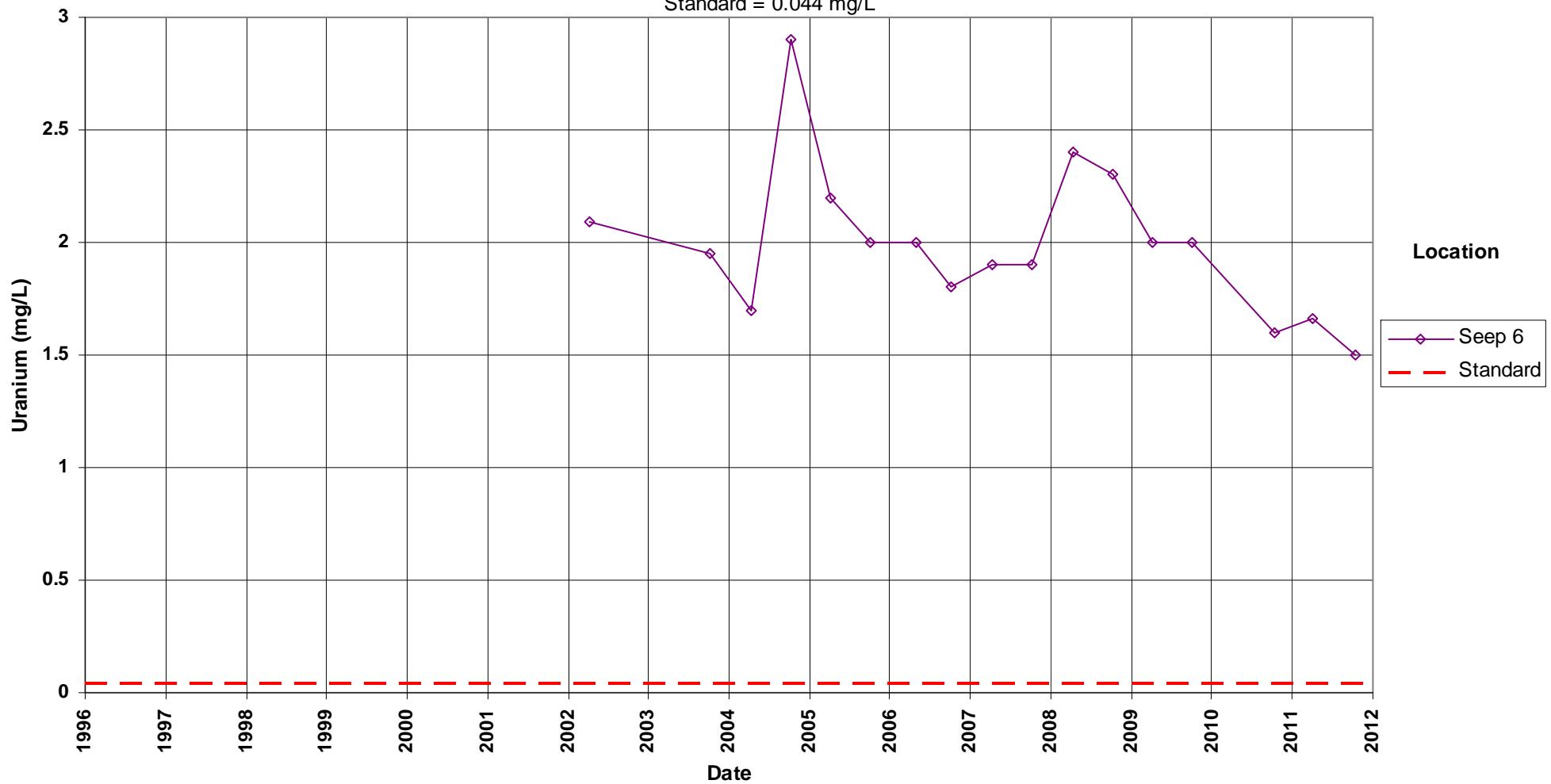
**Monticello Mill Tailings Site**  
**Montezuma Creek Locations**  
**Selenium Concentration**

Standard = 0.005 mg/L



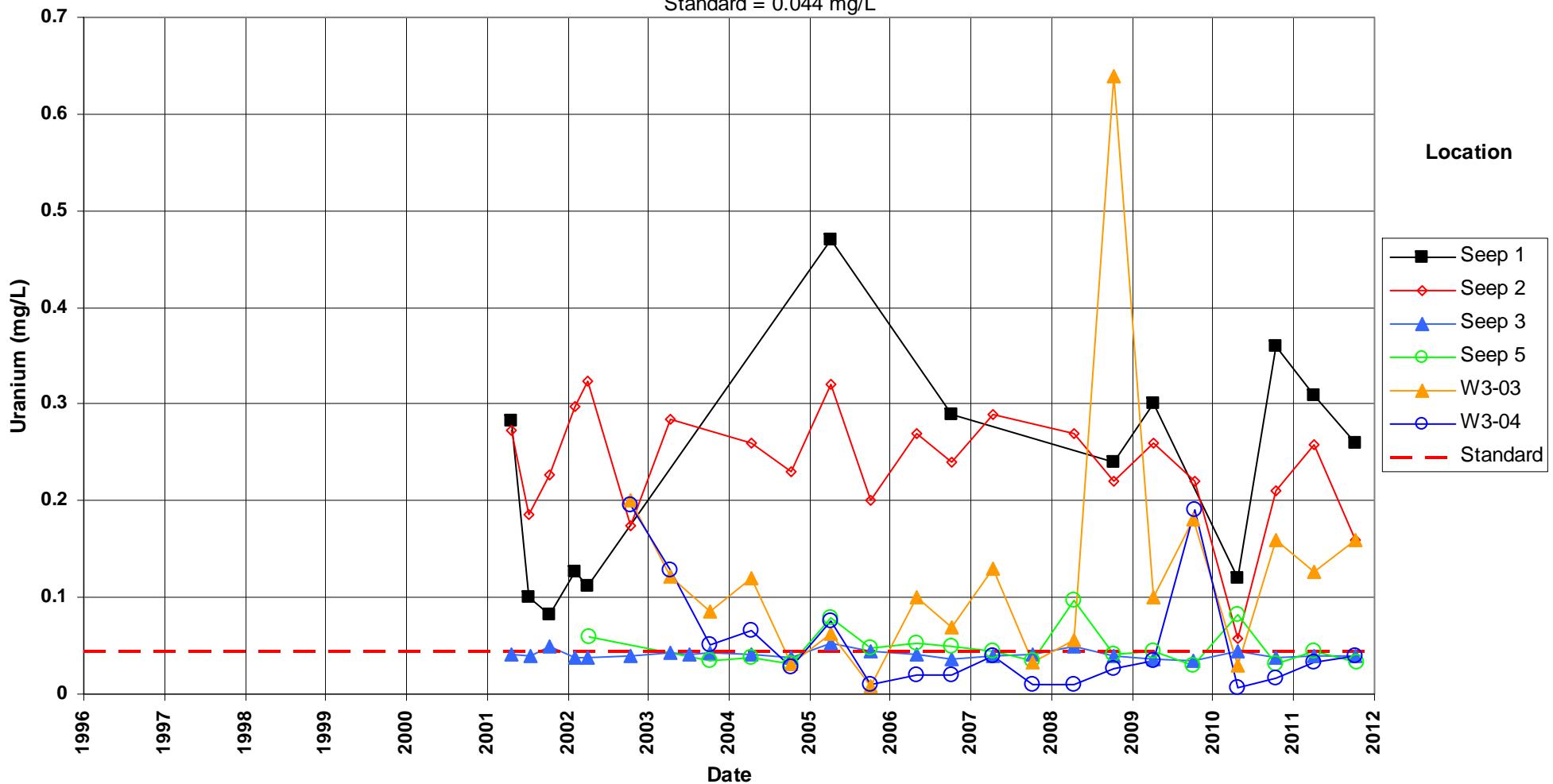
**Monticello Mill Tailings Site  
Former Mill Site Seeps and Wetlands  
Uranium Concentration**

Standard = 0.044 mg/L



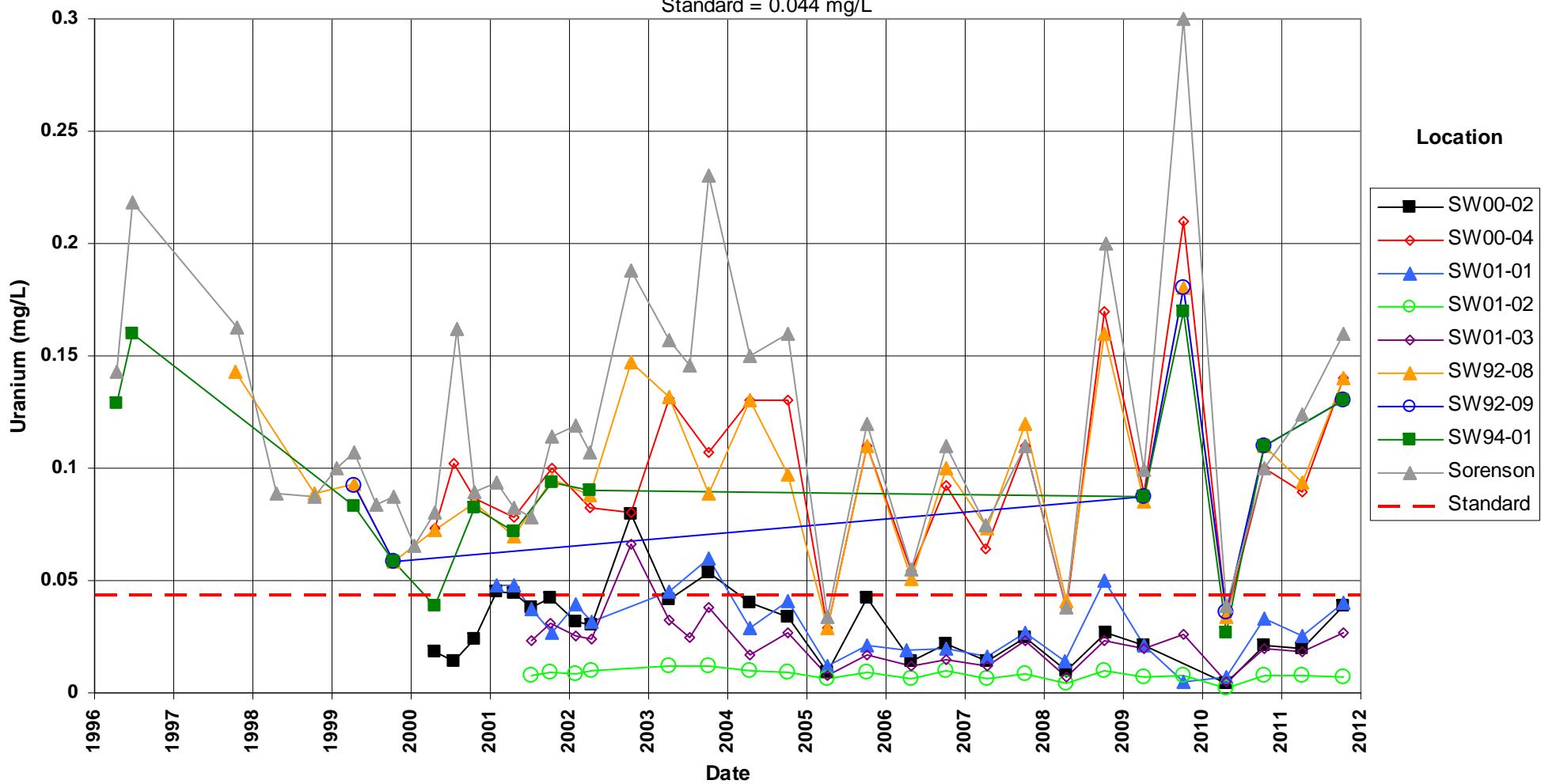
**Monticello Mill Tailings Site**  
**Former Mill Site Seeps and Wetlands**  
**Uranium Concentration**

Standard = 0.044 mg/L

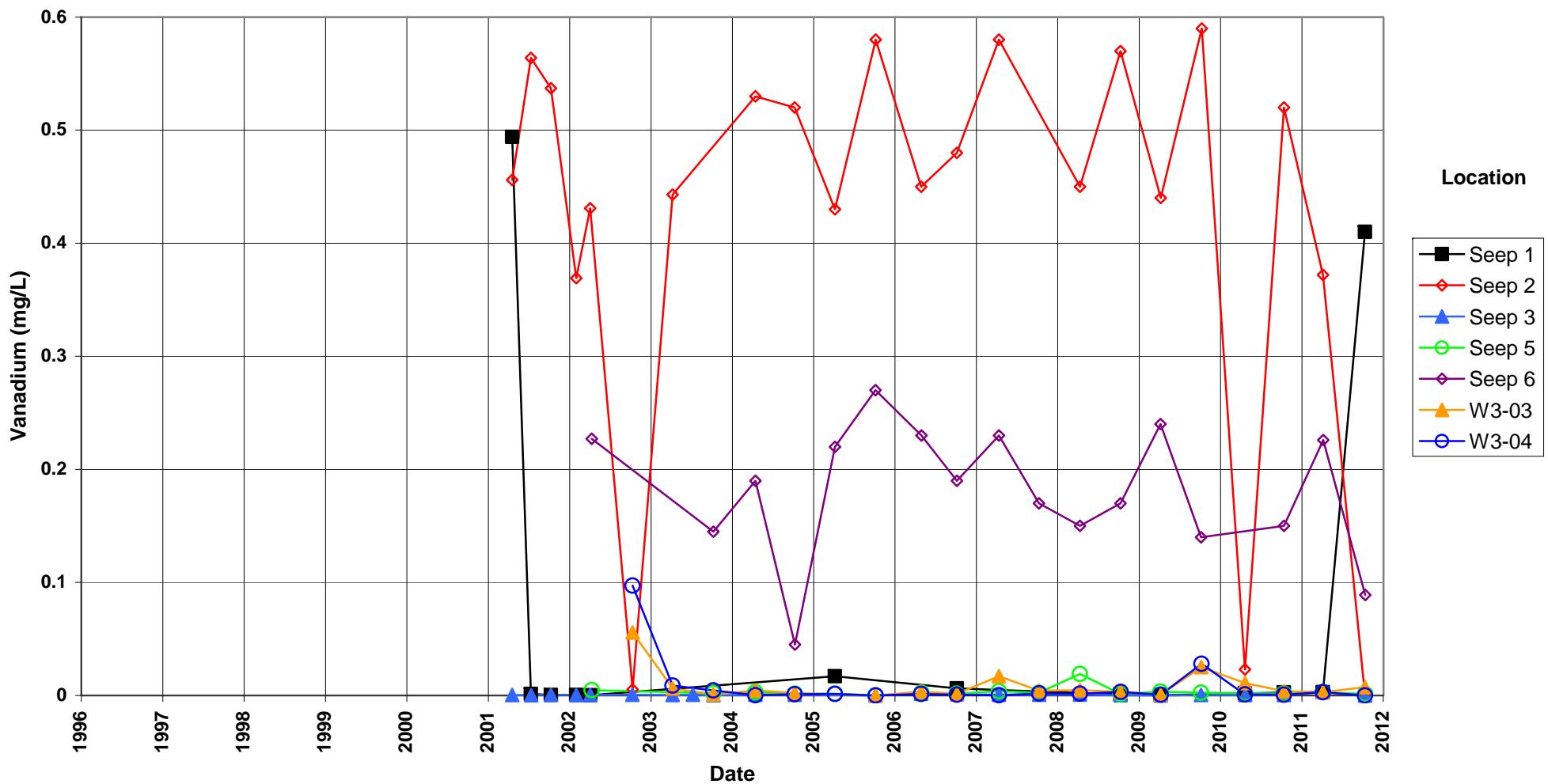


**Monticello Mill Tailings Site**  
**Montezuma Creek Locations**  
**Uranium Concentration**

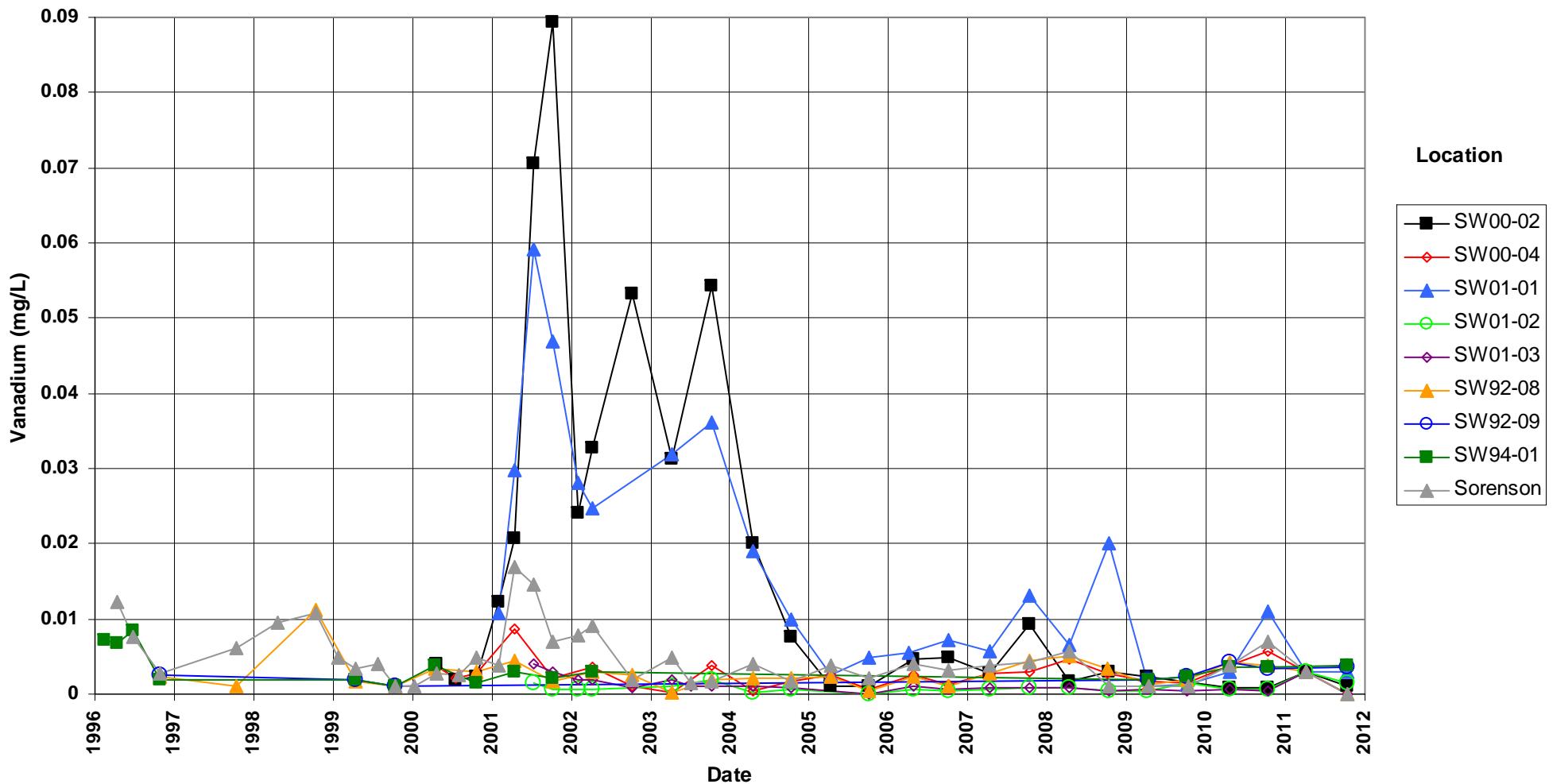
Standard = 0.044 mg/L



**Monticello Mill Tailings Site  
Former Mill Site Seeps and Wetlands  
Vanadium Concentration**



**Monticello Mill Tailings Site**  
**Montezuma Creek Locations**  
**Vanadium Concentration**



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**Attachment 3**  
**Sampling and Analysis Work Order**

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*established 1959*

Task Order LM00-501  
Control Number 11-1031

September 13, 2011

U.S. Department of Energy  
Office of Legacy Management  
ATTN: Jalena Dayvault  
Site Manager  
2597 Legacy Way  
Grand Junction, CO 81503

SUBJECT: Contract No. DE-AM01-07LM00060, S.M. Stoller Corporation (Stoller)  
October 2011 Environmental Sampling at Monticello, Utah

REFERENCE: Task Order LM00-501-06-502-402, Monticello, UT, Site

Dear Ms. Dayvault:

The purpose of this letter is to inform you of the upcoming sampling event at Monticello, UT. Enclosed are the map and tables specifying sample locations and analytes for monitoring at the processing and disposal sites. Water quality data will be collected at these sites as part of the routine environmental sampling currently scheduled to begin the week of October 10, 2011.

The following lists show the monitoring wells and surface locations scheduled for sampling during this event.

**Locations**

*Former Mill Site Wells*

93-01	T00-04	T01-04	T01-12	T01-18	T01-20	T01-25
MW00-01	T01-01	T01-05	T01-13	T01-19	T01-23	T01-35
T00-01	T01-02	T01-07				

*Downgradient Wells*

82-08	92-07	92-10	95-03	MW00-06	P92-06	PW-17
83-70	92-08	92-11	0200	MW00-07	PW-10	PW-28
88-85	92-09	95-01	0202			

*Downgradient PeRT Wells*

R1-M3	R3-M2	R4-M3	R4-M6	R6-M3	R6-M4	R10-M1
R1-M4	R3-M3					

*Former Millsite Seeps and Wetlands*

Seep1	Seep 2	Seep 3	Seep 5	Seep 6	W3-03	W3-04
-------	--------	--------	--------	--------	-------	-------

Jalena Dayvault  
Control Number 11-1031  
Page 2

Surface Water Locations

SW00-01	SW00-04	SW01-01	SW01-02	SW01-03	Sorensen	SW92-08
SW00-02						

All samples will be collected as directed in the *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites*. Access agreements are under review and are expected to be complete by the beginning of fieldwork.

A draft of this letter is also being provided to DOE Support for distribution to stakeholders.

Please contact me at (970) 248-6568 if you have any questions.

Sincerely,



Carl L. Jacobson  
Site Lead

CLJ/lcg/lb

Enclosures (3)

cc: (electronic)

Karl Stoeckle, DOE  
Tim Bartlett, Stoller  
Steve Donivan, Stoller  
Bev Gallagher, Stoller  
Lauren Goodknight, Stoller  
Carl Jacobson, Stoller  
EDD Delivery  
rc-grandjunction  
File: MNT 410.02(A)

**Sampling Frequencies for Locations at  
Monticello, Utah**

Location ID	Quarterly	Semi-annually	Annually	Every 5 Years	Not Sampled	Notes
<b>North Off-Site Wells</b>						
31NE93-205				X <sup>a</sup>		Water Level (WL) Semi-annually
95-07				X <sup>a</sup>		WL Semi-annually
<b>Former Millsite Wells</b>						
93-01			X			WL Semi-annually
MW00-01		X				WL Semi-annually
MW00-02					X	WL Semi-annually
MW00-03					X	WL Semi-annually
T00-01			X			WL Semi-annually
T00-04			X			WL Semi-annually
T01-01		X				
T01-02		X				
T01-04		X				
T01-05		X				
T01-06					X	WL Semi-annually
T01-07		X				
T01-08					X	WL Semi-annually
T01-09					X	WL Semi-annually
T01-10					X	WL Semi-annually
T01-12		X				
T01-13			X			WL Semi-annually
T01-18			X			WL Semi-annually
T01-19		X				
T01-20			X			WL Semi-annually
T01-23			X			WL Semi-annually
T01-24					X	WL Semi-annually
T01-25			X			WL Semi-annually
T01-26					X	WL Semi-annually
T01-27					X	WL Semi-annually
T01-28					X	WL Semi-annually
T01-35		X				
<b>Downgradient Wells</b>						
82-08		X				
83-70			X			WL Semi-annually
88-85		X				Datalogger
92-07		X				
92-08		X				
92-09		X				
92-10			X			WL Semi-annually
92-11		X				
92-12					X	WL Semi-annually
95-01			X			WL Semi-annually
95-02					X	WL Semi-annually
95-03			X			WL Semi-annually
95-04					X	WL Semi-annually
95-06				X <sup>a</sup>		WL Semi-annually
95-08					X	WL Semi-annually
0200		X				

**Sampling Frequencies for Locations at  
Monticello, Utah**

Location ID	Quarterly	Semi-annually	Annually	Every 5 Years	Not Sampled	Notes
<b>Downgradient Wells (continued)</b>						
202		X				
MW00-06		X				
MW00-07			X			WL Semi-annually
P92-02					X	WL Semi-annually
P92-06		X				
PW-10		X				WL Semi-annually
PW-14					X	WL Semi-annually
PW-16					X	WL Semi-annually
PW99-16					X	WL Semi-annually
PW-17		X				
PW-18					X	WL Semi-annually
PW-20					X	WL Semi-annually
PW-22					X	WL Semi-annually
PW-23					X	WL Semi-annually
PW-28		X				
<b>Downgradient PeRT Wells</b>						
R1-M1					X	WL Semi-annually
R1-M3		X				
R1-M4		X				
R1-M6					X	WL Semi-annually
R2-M4					X	WL Semi-annually
R2-M7					X	WL Semi-annually
R3-M2		X				
R3-M3		X				
R4-M3		X				
R4-M6		X				
R6-M1					X	WL Semi-annually
R6-M2					X	WL Semi-annually
R6-M3		X				
T6-D					X	WL Semi-annually
R6-M4		X				
R6-M5					X	WL Semi-annually
R6-M6					X	WL Semi-annually
R7-M1					X	WL Semi-annually
R8-M1					X	WL Semi-annually
R9-M1					X	WL Semi-annually
R10-M1		X				
R11-M1					X	WL Semi-annually
<b>Former Millsite Seeps and Wetland (W3) Locations</b>						
Seep 1		X				
Seep 2		X				
Seep 3		X				
Seep 5		X				
Seep 6		X				
W3-03		X				
W3-04		X				

**Sampling Frequencies for Locations at  
Monticello, Utah**

Location ID	Quarterly	Semi-annually	Annually	Every 5 Years	Not Sampled	Notes
<b>Surface Water Locations</b> (stream flow is measured semi-annually at each SW location)						
SW00-01		X				
SW00-02		X				
SW01-02		X				
SW01-03		X				
SW01-01		X				
Sorenson		X				
SW00-04		X				
SW92-08		X				

Semi-annual sampling occurs the first week of April and October

Annual sampling occurs the first week of October

<sup>a</sup> 5-year sample frequency next in October 2016

The wells listed below are inactive and are not included in the monitoring program (water level measurements or sampling). These wells are inspected for surface component integrity during the Annual LTSM Site Inspection, which typically occurs in September.

**Former Millsite Wells**

T00-02	T00-03	T00-05	T00-06	T00-07
--------	--------	--------	--------	--------

**Downgradient PeRT Wells**

R1-M2	R2-M9	R4-M7	R5-M7	T2-S	T7-D	TW-08
R1-M5	R2-M10	R4-M8	R5-M8	T3-D	TW-01	TW-09
R2-M1	R3-M1	R5-M1	R5-M9	T3-S	TW-02	TW-10
R2-M2	R3-M4	R5-M2	R5-M10	T4-S	TW-03	TW-11
R2-M3	R4-M1	R5-M3	R7-M2	T4-D	TW-04	TW-12
R2-M5	R4-M2	R5-M4	T1-D	T5-D	TW-05	TW-13
R2-M6	R4-M4	R5-M5	T1-S	T5-S	TW-06	TW-14
R2-M8	R4-M5	R5-M6	T2-D	T6-S	TW-07	

### Constituent Sampling Breakdown

Site	Monticello				Required Detection Limit (mg/L)	Analytical Method	Line Item Code
	Groundwater	PeRT Wells	Surface Water	Seeps			
Analyte							
Approx. No. Samples/yr	57	18	16	14			
<b>Field Measurements</b>							
Alkalinity	X	X	X	X			
Dissolved Oxygen	88-85, 92-07, and 92-11 only	X					
Redox Potential	88-85, 92-07, and 92-11 only	X					
pH	X	X	X	X			
Specific Conductance	X	X	X	X			
Turbidity	X	X					
Temperature	X	X	X	X			
<b>Laboratory Measurements</b>							
Aluminum							
Ammonia as N (NH3-N)							
Arsenic	X	X	X	X	0.0001	SW-846 6020	LMM-02
Calcium	X	X	X	X	5	SW-846 6010	LMM-01
Chloride	X	X	X	X	0.5	SW-846 9056	WCH-A-039
Chromium							
Fluoride	X	X	X	X	0.5	SW-846 9056	MIS-A-040
Gross Alpha							
Gross Beta							
Iron	X	X	X	X	0.05	SW-846 6020	LMM-02
Lead							
Magnesium	X	X	X	X	5	SW-846 6010	LMM-01
Manganese	X	X	X	X	0.005	SW-846 6010	LMM-01
Molybdenum	X	X	X	X	0.003	SW-846 6020	LMM-02
Nickel							
Nickel-63							
Nitrate + Nitrite as N (NO3+NO2)-N	X	X	X	X	0.05	EPA 353.1	WCH-A-022
Potassium	X	X	X	X	1	SW-846 6010	LMM-01
Selenium	X	X	X	X	0.0001	SW-846 6020	LMM-02
Silica							
Sodium	X	X	X	X	1	SW-846 6010	LMM-01
Strontium							
Sulfate	X	X	X	X	0.5	SW-846 9056	MIS-A-044
Sulfide							
Total Dissolved Solids	T01-01, T01-12, 88-85, 82-06, and MW00-06 only		SW01-02, SW00-02, SW01-01, and Sorenson only	Seep 2 only	10	SM2540 C	WCH-A-033
Total Organic Carbon							
Uranium	X	X	X	X	0.0001	SW-846 6020	LMM-02
Vanadium	X	X	X	X	0.0003	SW-846 6020	LMM-02
Zinc							
<b>Total No. of Analytes</b>	<b>16</b>	<b>15</b>	<b>16</b>	<b>16</b>			

Note: All private well samples are to be unfiltered. The total number of analytes does not include field parameters.

## **Attachment 4**

### **Trip Report**

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*established 1959*

## **Memorandum**

DATE: October 27, 2011

TO: Carl Jacobson

FROM: Gretchen Baer

SUBJECT: Trip Report

**Site:** Monticello, Utah, Site

**Dates of Sampling Event:** October 10-12, 2011

**Team Members:** Gretchen Baer, Kent Moe, Joe Trevino, Jeff Walters, and David Atkinson. Other personnel (DOE, Stoller, and other subcontractors) were on-site for maintenance at the Treatment System.

**Number of Locations Sampled:** Water samples for metals (including cations), anions, nitrate + nitrite as N, and total dissolved solids (at selected locations) were collected from 59 of 61 planned locations as summarized in the following table. Note that 8 surface water locations were identified on the sampling notification letter, but 2 locations (SW92-09 and SW94-01) were inadvertently not included in the letter. These 2 locations were added to the sampling field documents shortly before the event.

	<b>Locations That Were Sampled</b>	<b>Planned Locations</b>
Former Mill Site Wells	17	17
Downgradient Wells	17	18
Downgradient PeRT Wells	9	9
Former Millsite Seeps and Wetlands	7	7
Surface Water Locations	9	10 (8 on the notification letter)

Samples were collected as specified in the *Monticello Mill Tailings Site Operable Unit III Post-Record of Decision Monitoring Plan*. The sampling criteria in that document are summarized in the "Monticello Sampling Event Deviations from Normal Protocol" instructions (see attached).

Carl Jacobson  
October 27, 2011  
Page 2

Stream flow measurements were recorded at Monticello Creek surface water sample locations:

Location IDs	Stream Flow Measured?(Yes/No/Reason)	Date
Sorenson	No (not enough flow)	10/12/2011
SW00-01	No (not enough flow)	10/12/2011
SW00-02	No (not enough flow)	10/12/2011
SW00-04	Yes	10/11/2011
SW01-01	No (too much undergrowth)	10/12/2011
SW01-02	No (not enough flow)	10/12/2011
SW01-03	Yes	10/11/2011
SW92-08	Yes	10/11/2011
SW92-09	Yes	10/11/2011
SW94-01	Yes	10/11/2011

**Locations Not Sampled/Reason:** Two locations were not sampled. Surface water location SW00-01 was dry. Downgradient well MW00-07 had only enough water for the field parameters; no samples could be collected.

#### Location Specific Information:

Location IDs	Comments
PW-10, PW-17	A dedicated bladder pump was installed the day before samples were collected.
83-70	Alkalinity not filtered.
T00-01, T00-04	Flush mount. Had to bail out rusty water from around the inside casing, but the inside casing cap was in place and seemed to be watertight.
T01-25	Well was purged dry. One set of field parameters was taken.
0202, R4-M3, R6-M3, R10-M1, T01-18, T01-20	Well was purged dry. One set of field parameters was taken. Alkalinity taken not filtered from the flow cell.
T01-13, T01-19	Well was purged dry. One set of field parameters was taken. Alkalinity taken not filtered from the flow cell. Well did not recover $\geq 75\%$ in $\geq 2$ hours. Only metals were collected.
MW00-07	Well was purged dry. One set of field parameters was taken. Well did not recover $\geq 75\%$ in $\geq 2$ hours. Did not sample.
95-06, MW00-06, T01-27	Wells are difficult to find. 95-06 was located with a metal detector. MW00-06 is ~126 feet south of fence and across from gate used to access the PeRT wells. T01-27 is in the willows; a cairn was built near the edge of the willows to indicate location.
92-10, PW-28	Wells need to be redeveloped. 92-10: orange bio slime in water and high turbidity. PW-28: it took 45 minutes for turbidity to drop below 5NTU.

**Quality Control Sample Cross Reference:** The following are the false identifications assigned to the quality control samples.

False ID	True ID	Ticket Number	Sample Type	Associated Matrix
2583	T01-01	JLY 121	Duplicate	Groundwater
2585	R1-M3	JLY 122	Duplicate	Groundwater
2586	0200	JLY 123	Duplicate	Groundwater
2918	Associated with all Seep locations and SW00-02, W3-03, W3-04	JLY 128	Equipment Blank	Water

Carl Jacobson  
October 27, 2011  
Page 3

**Report Identification Number (RIN) Assigned:** 11104114.  
Field data sheets can be found in Condor\sms\11104114 in the FieldData folder.

**Sample Shipment:** Samples were shipped from Grand Junction to ALS Laboratory Group on October 13, 2011.

**Water Level Measurements:** Water levels were measured in all sampled wells and in 38 additional wells. A water level data report for these 38 wells (MNT01\_10312011.pdf) can be found in Condor\sms\FDCS\WATER LEVELS.

**Well Inspection Summary:** Well inspections were conducted at all sampled wells plus additional wells where only water levels were measured. All wells were in acceptable condition.

**Field Variance:**

Location IDs	Comments
83-70, 0202, R4-M3, R6-M3, R10-M1, T01-13, T01-18, T01-19, T01-20	Alkalinity reading is from unfiltered water due to limited available volumes.
92-10	Groundwater location had turbidity >5 NTUs because well needs to be redeveloped.
0202, MW00-07, T01-13, T01-18, T01-19, T01-20, T01-25	Groundwater location had turbidity >5 NTUs because well purged dry before purge criteria could be met.
R4-M3, R6-M3, R10-M1 (PeRT Wells)	Wells went to dryness during purge. Wells R6-M3, R10-M1: There was insufficient water available to collect the minimum 1 liter purge volume.
PW-10, PW-17	The WL could not be monitored during the purge because it was below the top of the pump.

**Equipment:** Wells were sampled with either a peristaltic pump and dedicated tubing or a dedicated bladder pump. Surface waters were sampled either by using a peristaltic pump and non-dedicated tubing or by container immersion. An equipment blank was collected after decontamination of the non-dedicated tubing. All other equipment was dedicated or disposable.

**Stakeholder/Regulatory:** Nothing to note.

**Institutional Controls:** There was one landowner gate leading to the treatment system that was kept closed when used by the sampling teams. This gate was used frequently by the other personnel who were working at the treatment system, but the samplers did not observe that this gate was left open inadvertently.

**Fences, Gates, and Locks:** All gates were in good condition.

**Signs:** N/A

**Trespassing/Site Disturbances:** None observed.

**Site Issues:**

**Disposal Cell/Drainage Structure Integrity:** N/A

**Vegetation/Noxious Weed Concerns:** None observed.

**Maintenance Requirements:** None. The lid for well MW00-01 used to be mislabeled. It was observed that the erroneous location number has been covered.

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**Safety Issues:** None.

**Access Issues:** Regarding the three easternmost surface water locations on Montezuma Creek—(SW92-08, SW92-09, and SW94-01)—a team attempted to drive to the confluence below location SW92-09 from the north using the county road, rather than walking down the creek from location SW00-04. They were unsuccessful in finding that road.

**Corrective Action Required/Taken:** N/A

**Instructions to the Sampling Team Members:**

**Monticello Sampling Event  
Deviations from Normal Protocol**

- Operational checks twice a day.
- Dissolved oxygen measured at PeRT wall and other selected wells.
- Purge criteria for monitor wells:
  - Temperature within 10 % over last 3 readings.
  - Turbidity  $\leq$  5 NTUs on last reading.
  - No Cat II or III wells – if water level won't stabilize within 2 feet of drawdown at 100 mL/min flow rate, then pump well dry and sample upon recovery.
- Purge criteria for PeRT wall wells:
  - Place tubing 2-3 feet off the bottom
  - Purge 1 liter
  - Fill the flow cell after the one purge and take readings
  - Fill bottles after field measurements
- If a well is pumped dry, it must recover at least 75% within 2 hours. If it does not meet the recovery criteria, do not collect a sample.
- If a well is purged dry and water is limited, collect samples in this order: metals, nitrate, anions, gross alpha/beta.
- All samples are filtered, regardless of turbidity.

(GB/lcg)

cc: (electronic)  
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