

Data Validation Package

April 2016
Groundwater and Surface Water
Sampling at the
Monticello, Utah, Disposal and
Processing Sites

August 2016



U.S. DEPARTMENT OF
ENERGY

Legacy
Management

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Contents

Sampling Event Summary	1
Data Assessment Summary.....	5
Water Sampling Field Activities Verification Checklist	7
Laboratory Performance Assessment	9
Sampling Quality Control Assessment	19
Certification	22
Monticello, Utah, Disposal and Processing Sites Sample Location Map.....	29

Attachment 1—Sampling and Analysis Work Order

Attachment 2—Trip Report

Attachment 3—Data Presentation

Groundwater Quality Data
Surface Water Quality Data
Static Water Level Data
Time-Concentration Graphs—Groundwater
Time-Concentration Graphs—Surface Water

Attachment 4—Assessment of Anomalous Data

Potential Outliers Report

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Sampling Event Summary

Site: Monticello, Utah, Disposal and Processing Sites

Sampling Period: April 11–13, 2016

This semiannual event includes sampling groundwater and surface water at the Monticello Disposal and Processing Sites. Sampling and analyses were conducted as specified in the *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites* (LMS/PRO/S04351, continually updated) and *Program Directive MNT-2016-01*.

Complete sample sets were collected from 42 of 48 planned locations (9 of 9 former mill site wells, 13 of 13 downgradient wells, 7 of 9 downgradient permeable reactive barrier wells, 4 of 7 seeps and wetlands, and 9 of 10 surface water locations). Planned monitoring locations are shown in Attachment 1, Sampling and Analysis Work Order.

Locations R6-M3, SW00-01, Seep 1, Seep 2, and Seep 5 were not sampled due to insufficient water availability. A partial sample was collected at location R4-M3 due to insufficient water. All samples from the permeable reactive barrier wells were filtered as specified in the program directive. Duplicate samples were collected from surface water location Sorenson and from monitoring wells 92-07 and R10-M1. Water levels were measured at all sampled wells and an additional set of wells. See Attachment2, Trip Report for additional details.

The contaminants of concern (COCs) for the Monticello sites are arsenic, manganese, molybdenum, nitrate + nitrite as nitrogen (nitrate + nitrite as N), selenium, uranium, and vanadium. Locations with COCs that exceeded remediation goals are listed in Table 1 and Table 2. Time-concentration graphs of the COCs for all groundwater and surface water locations are included in Attachment 3, Data Presentation. An assessment of anomalous data is included in Attachment 4.

Table 1. Monticello Groundwater Locations that Exceed Remediation Goal

Contaminant of Concern	Remediation Goal^a (mg/L)	Location	Concentration (mg/L)
Arsenic	0.01	88-85	0.012
Arsenic	0.01	T01-02	0.012
Arsenic	0.01	R1-M3	0.014
Arsenic	0.01	T01-05	0.014
Arsenic	0.01	T01-04	0.014
Arsenic	0.01	92-11	0.017
Manganese	0.88	T01-01	1.1
Manganese	0.88	T01-19	4.3
Molybdenum	0.1	R3-M2	0.11
Nitrate + Nitrite as N	10	None	-----
Selenium	0.05	None	-----

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

Contaminant of Concern	Remediation Goal ^a (mg/L)	Location	Concentration (mg/L)
Uranium	0.03	R10-M1	0.04
Uranium	0.03	T01-01	0.04
Uranium	0.03	T01-19	0.05
Uranium	0.03	T01-02	0.06
Uranium	0.03	82-08	0.08
Uranium	0.03	T01-07	0.11
Uranium	0.03	T01-35	0.11
Uranium	0.03	T01-05	0.12
Uranium	0.03	T01-04	0.13
Uranium	0.03	0202	0.16
Uranium	0.03	92-11	0.16
Uranium	0.03	PW-28	0.16
Uranium	0.03	T01-12	0.16
Uranium	0.03	88-85	0.18
Uranium	0.03	92-08	0.2
Uranium	0.03	R3-M3	0.24
Uranium	0.03	0200	0.27
Uranium	0.03	R1-M3	0.29
Uranium	0.03	R1-M4	0.33
Uranium	0.03	R3-M2	0.33
Uranium	0.03	MW00-06	0.35
Uranium	0.03	92-09	0.4
Uranium	0.03	P92-06	0.45
Uranium	0.03	92-07	0.52
Uranium	0.03	PW-10	0.64
Uranium	0.03	PW-17	0.7
Vanadium	0.33	R1-M3	0.35
Vanadium	0.33	92-11	0.36

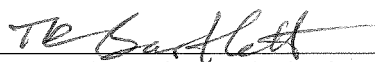
^a Remediation Goal is from Table 1-2 of the *Long-Term Surveillance and Maintenance Plan for the Monticello NPL Sites*, DOE-LM/1465-2007. Concentrations are expressed in milligrams per liter (mg/L).

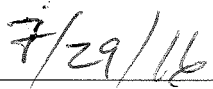
Table 2. Monticello Surface Water Locations that Exceed Remediation Goal

Contaminant of Concern	Remediation Goal ^a (mg/L)	Location	Concentration (mg/L)
Arsenic	0.01	None	-----
Nitrate + Nitrite as N	4	Seep 6	5.5
Nitrate + Nitrite as N	4	Seep 3	37
Selenium	0.005	Seep 3	0.066
Uranium	0.044 ^b	W3-03	0.061
Uranium	0.044 ^b	SW92-08	0.075
Uranium	0.044 ^b	SW00-04	0.077
Uranium	0.044 ^b	SW92-09	0.08
Uranium	0.044 ^b	SW94-01	0.08
Uranium	0.044 ^b	Sorenson	0.089
Uranium	0.044 ^b	Seep 6	2.5

^a Remediation Goal is from Table 1-3 of the *Long-Term Surveillance and Maintenance Plan for the Monticello NPL Sites*, DOE-LM/1465-2007. Concentrations are expressed in milligrams per liter (mg/L).

^b The 30 pCi/L surface water standard for uranium-234/238 converts to approximately 0.044 mg/L uranium.


 Tim Bartlett, Site Hydrologist
 Navarro Research and Engineering, Inc.


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Data Assessment Summary

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Water Sampling Field Activities Verification Checklist

Project	Monticello, Utah	Date(s) of Water Sampling	April 11–13, 2016
Date(s) of Verification	June 15, 2016	Name of Verifier	Samantha Tigar

	Response (Yes, No, NA)	Comments
1. Is the SAP the primary document directing field procedures?	Yes	
List any Program Directives or other documents, SOPs, instructions.		<i>Program Directive MNT-2016-01.</i> Work Order letter dated March 23, 2016.
2. Were the sampling locations specified in the planning documents sampled?	Yes	With the exception of 1 well, 3 seeps, and 1 surface water location that were dry or had insufficient water.
3. Were field equipment calibrations conducted as specified in the above-named documents?	Yes	Pre-trip calibrations were performed on April 11, 2016.
4. Was an operational check of the field equipment conducted daily?	Yes	
Did the operational checks meet criteria?	No	Dissolved oxygen was out of range on sondes "A" and "E". There was no documentation of recalibration on sonde "E" during the sampling event.
5. Were the number and types (alkalinity, temperature, specific conductance, pH, turbidity, DO, ORP) of field measurements taken as specified?	No	Insufficient volume was available for some field parameters at R4-M3 and R6-M3. Phenolphthalein alkalinity was not recorded at R6-M4.
6. Were wells categorized correctly?	Yes	PRB wells do not follow low-flow sampling and are exempt from categorizing.
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 meet criteria prior to sampling? Was the flow rate less than 500 mL/min?	Yes Yes Yes Yes	

Water Sampling Field Activities Verification Checklist (continued)

	Response (Yes, No, NA)	Comments
8. Were the following conditions met when purging a Category II well: Was the flow rate less than 500 mL/min? Was one pump/tubing volume removed prior to sampling?	Yes Yes	
9. Were duplicates taken at a frequency of one per 20 samples?	Yes	Duplicate samples were collected from surface water location Sorenson and from monitoring wells 92-07 and R10-M1.
10. Were equipment blanks taken at a frequency of one per 20 samples that were collected with non-dedicated equipment?	NA	All samples were collected using dedicated equipment.
11. Were trip blanks prepared and included with each shipment of VOC samples?	NA	
12. Were the true identities of the QC samples documented?	Yes	QC samples are recorded in the field notes and in the trip report.
13. Were samples collected in the containers specified?	Yes	
14. Were samples filtered and preserved as specified?	Yes	All PRB wells were filtered as specified in the program directive.
15. Were the number and types of samples collected as specified?	No	At location R4-M3, the well purged dry before all sample bottles could be collected. Only the nitrate + nitrite as N sample was collected. At R6-M3, the well purged dry before any samples could be collected.
16. Were chain of custody records completed and was sample custody maintained?	Yes	With the exception of location Seep 5 inadvertently not being lined through (indicating no sample collected) on the chain of custody record when it had not been sampled.
17. Was all pertinent information documented on the field data sheets?	Yes	
18. Was the presence or absence of ice in the cooler documented at every sample location?	Yes	The presence of ice was unintentionally not documented at locations R4-M3, R6-M3, and R6-M4.
19. Were water levels measured at the locations specified in the planning documents?	No	Water levels were not collected at locations PW99-16, R1-M1, T00-01, T00-04, and TW-11.

Laboratory Performance Assessment

General Information

Report Number (RIN): 16047728
Sample Event: April 11–13, 2016
Site(s): Monticello, Utah, Disposal and Processing Sites
Laboratory: ALS Laboratory Group, Fort Collins, Colorado
Work Order No.: 1604285
Analysis: Metals and Wet Chemistry
Validator: Samantha Tigar
Review Date: June 15, 2016

This validation was performed according “Standard Practice for Validation of Environmental Data” found in Appendix A of *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites* (LMS/ PRO/S04351, continually updated, <http://energy.gov/lm/downloads/sampling-and-analysis-plan-us-department-energy-office-legacy-management-sites>). The procedure was applied at Level 3, Data Validation.

This validation includes the evaluation of data quality indicators (DQIs) associated with the data. DQIs are the quantitative and qualitative descriptors that are used to interpret the degree of acceptability or utility of data. Indicators of data quality include the analysis of laboratory control samples to assess accuracy; duplicates and replicates to assess precision; and interference check samples to assess bias (see Figures 1, 2, 3, and 4, Data Validation Worksheets). The DQIs comparability, completeness, and sensitivity are also evaluated in the sections to follow.

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, Molybdenum, Selenium, Uranium, Vanadium	LMM-02	SW-846 3005A	SW-846 6020A
Calcium, Iron, Magnesium, Manganese, Potassium, Sodium	LMM-01	SW-846 3005A	SW-846 6010B
Chloride, Fluoride, Sulfate	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
Total Dissolved Solids (TDS)	WCH-A-033	EPA 160.1	EPA 160.1

Data Qualifier Summary

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

Table 4. Data Qualifier Summary

Sample Number	Location	Analyte(s)	Flag	Reason
1604285-5	92-07 duplicate	Manganese	J	Duplicate range > PQL
1604285-8	92-07	Manganese	J	Duplicate range > PQL
1604285-5	92-07 duplicate	Nitrate + Nitrite as N	J	Duplicate RPD > 20%
1604285-8	92-07	Nitrate + Nitrite as N	J	Duplicate RPD > 20%
1604285-41	T01-07	Nitrate + Nitrite as N	J	MS/MSD recovery > 120%
1604285-24	R4-M6	Iron	U	Less than 5x the CCB
1604285-26	Seep 3	Iron	U	Less than 5x the CCB
1604285-30	SW00-04	Iron	U	Less than 5x the CCB
1604285-35	SW92-09	Iron	U	Less than 5x the CCB
1604285-36	SW94-01	Iron	U	Less than 5x the CCB
1604285-42	T01-12	Iron	U	Less than 5x the CCB
1604285-44	T01-35	Iron	U	Less than 5x the CCB
1604285-21	R3-M2	Arsenic	J	Less than 5x the MDL
1604285-22	R3-M3	Arsenic	J	Less than 5x the MDL
1604285-24	R4-M6	Arsenic	J	Less than 5x the MDL
1604285-25	R6-M4	Arsenic	J	Less than 5x the MDL
1604285-26	Seep 3	Arsenic	J	Less than 5x the MDL
1604285-31	SW01-01	Arsenic	J	Less than 5x the MDL
1604285-32	SW01-02	Arsenic	J	Less than 5x the MDL
1604285-33	SW01-03	Arsenic	J	Less than 5x the MDL

Sample Shipping/Receiving

ALS Laboratory Group in Fort Collins, Colorado, received 46 water samples on April 15, 2016, accompanied by Chain of Custody forms. The Chain of Custody forms were checked to confirm that all of the samples were listed on the forms and that signatures and dates were present indicating sample relinquishment and receipt. Sample containers for Seep 5 were listed on the Chain of Custody forms but had not been lined through (indicating no sample collected) for that location. Copies of the air waybill labels were included with the receiving documentation.

Preservation and Holding Times

The sample shipments were received intact with the temperatures inside the iced coolers between 2.2 °C and 3.2 °C and a cooler at ambient temperature, which complies with requirements. All samples were received in the correct container types and had been preserved correctly for the requested analyses. All samples were analyzed within the applicable holding times.

Detection and Quantitation Limits

A method detection limit (MDL) is defined in 40 CFR 136 as the minimum concentration of an analyte that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero. The MDLs reported by the laboratory were compared to the

required MDLs to assess the sensitivity of the analyses and found to be in compliance with contractual requirements.

The practical quantitation limit (PQL) for an analyte, defined as 5 times the MDL, is the lowest concentration that can be quantitatively measured, and is used when evaluating laboratory method performance in the sections below.

Laboratory Instrument Calibration

Method requirements for satisfactory instrument calibration are established to ensure that the instrument is capable of producing acceptable qualitative and quantitative data for the analytes of interest. Initial Calibration Verification (ICV) demonstrates that the instrument is capable of acceptable performance at the beginning of the analytical run. Continuing Calibration Verification (CCV) demonstrates that the initial calibration is still valid by checking the performance of the instrument on a continuing basis. Initial and continuing calibration standards must be prepared from independent sources to ensure the validity of the calibration. All laboratory instrument calibrations and calibration verifications were performed correctly in accordance with the cited methods.

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 April 29 and May 2, 2016. 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. The ICV and CCV checks were made at the required frequency. All calibration checks met the acceptance criteria.

Method SW-846 6010B

Calibrations for calcium, iron, magnesium, manganese, potassium, and sodium were performed on April 29, 2016, using three calibration standards. 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. The ICV and CCV checks were made at the required frequency. 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.

Method SW-846 6020A

Calibrations for arsenic, molybdenum, selenium, uranium, and vanadium were performed on April 28 and 29, 2016, using four calibration standards. The calibration curve correlation coefficient values were greater than 0.995 and the absolute values of the intercepts were less than or only slightly greater than 3 times the MDL. The ICV and CCV checks were made at the required frequency. All calibration checks associated with reported results 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. 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 six calibration standards on March 17, 2016. 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. The ICV and CCV checks were made at the required frequency. 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. All method and calibration blank results were below the PQL for all analytes with the exception of vanadium. 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. In cases where the absolute value of a negative blank concentration exceeds the MDL, the associated sample results are qualified with a “J” flag (estimated) when the sample result is greater than the MDL but less than 5 times the MDL.

Inductively Coupled Plasma Interference Check Sample Analysis

Interference check samples are analyzed to verify the instrumental interelement and background correction factors and assess any bias due to interelement interferences. Interference check samples were analyzed at the required frequency with all results meeting the acceptance criteria.

Matrix Spike Analysis

Matrix spikes are aliquots of environmental samples to which a known concentration of analyte has been added before analysis. Matrix-spike and matrix-spike duplicate (MS/MSD) analysis is used to assess the performance of the method by measuring the effects of interferences caused by the sample matrix and reflects the bias of the method for the particular matrix in question. The MS/MSD data are not evaluated when the concentration of the unspiked sample is greater than 4 times the spike concentration. Some spike recoveries for nitrate + nitrite as N were above the acceptance criteria and were flagged with a “J” as an estimated value.

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. All replicate results met these criteria, demonstrating acceptable precision.

Laboratory Control Sample

Laboratory control samples (LCS) 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 LCS results were acceptable for all analyses.

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 to assess bias when the concentration of the undiluted sample is greater than 50 times the MDL. All evaluated serial dilution data were acceptable.

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 (meq/L). 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. Comparison of Major Anions and Cations

Location	Cations (meq/L)	Anions (meq/L)	Charge Balance (%)
0200	30.7	26.8	6.7
0202	21.4	22.7	2.8
82-08	22.7	23.2	1.1
88-85	25.0	24.0	2.0
92-07	23.2	21.8	3.2
92-08	17.5	18.0	1.4
92-09	29.4	29.4	0.0
92-11	23.6	23.7	0.2
MW00-01	19.6	20.2	1.6
MW00-06	22.3	22.1	0.4
P92-06	20.4	21.6	2.8
PW-10	22.0	22.0	0.0
PW-17	21.5	22.5	2.2
PW-28	30.6	30.5	0.0
R10-M1	15.6	15.8	0.5
R1-M3	23.8	24.5	1.4
R1-M4	23.7	24.1	0.81 (13.8)
R3-M2	21.0	21.7	1.6
R3-M3	19.9	21.3	3.4

Table 5 (continued). Comparison of Major Anions and Cations

Location	Cations (meq/L)	Anions (meq/L)	Charge Balance (%)
R4-M3	NA	0.006	NA
R4-M6	8.6	9.0	2.4
R6-M4	9.0	8.6	2.6
Seep 3	42.3	44.9	3.1
Seep 6	42.6	44.8	2.6
Sorenson	19.7	20.3	1.4
SW00-02	18.8	18.9	0.3
SW00-04	19.3	19.4	0.3
SW01-01	18.3	18.6	0.9
SW01-02	19.7	19.7	0.0
SW01-03	19.2	19.2	0.0
SW92-08	18.6	18.9	0.9
SW92-09	18.8	19.1	0.8
SW94-01	19.0	19.2	0.5
T01-01	18.6	19.7	2.9
T01-02	18.9	19.3	1.1
T01-04	24.8	25.5	1.3
T01-05	25.5	25.5	0.0
T01-07	35.0	36.2	1.6
T01-12	29.1	30.3	2.0
T01-19	18.5	19.7	3.2
T01-35	25.5	26.6	2.1
W3-03	23.6	24.4	1.6
W3-04	19.3	19.5	0.5

Sample R1-M4 had a charge balance of 13.8 percent; an error in the field data was identified and corrected with a resulting charge balance of 0.81 percent. Due to limited water in the well, location R4-M3 did not have sufficient data to allow calculation of the charge balance.

Electronic Data Deliverable (EDD) File

A revised EDD file arrived on May 20, 2016. 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: 16047728 Lab Code: PAR Validator: Samantha Tigar Validation Date: 6/10/2016
Project: Monticello Monitoring Analysis Type: ☒ Metals ☒ General Chem ☐ Rad ☐ Organics
of Samples: 46 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

All analyses were completed within the applicable holding times.

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

There were 3 duplicates evaluated.

Figure 1. Data Validation Worksheet

SAMPLE MANAGEMENT SYSTEM

Wet Chemistry Data Validation Worksheet

RIN: 16047728

Lab Code: PAR

Date Due: 5/13/2016

Matrix: Water

Site Code: MNT01

Date Completed: 5/19/2016

Analyte	Date Analyzed	CALIBRATION			Method	LCS %R	MS %R	MSD %R	DUP RPD	Serial Dil. %R
		Int.	R ²	CCV/CCB						
CHLORIDE	04/20/2016				OK	101.00	97.0	98.0	0	
CHLORIDE	04/20/2016				OK	105.00	96.0	96.0	0	
CHLORIDE	04/20/2016	0.000	1.0000	OK	OK	101.00	94.0	95.0	0	
Fluoride	04/20/2016				OK	96.00	99.0	100.0	0	
Fluoride	04/20/2016				OK	99.00	101.0	101.0	0	
Fluoride	04/20/2016	0.000	1.0000	OK	OK	96.00	101.0	101.0	0	
Nitrate+Nitrite as N	04/29/2016	0.000	1.0000	OK	OK	96.00	140.0	133.0	2.00	
Nitrate+Nitrite as N	04/29/2016	0.000	1.0000	OK	OK	96.00	114.0	113.0	0	
Nitrate+Nitrite as N	04/29/2016	0.000	1.0000	OK	OK	96.00	81.0	94.0	9.00	
SULFATE	04/20/2016				OK	103.00	95.0	96.0	0	
SULFATE	04/20/2016				OK	107.00	96.0	97.0	0	
SULFATE	04/20/2016	0.000	1.0000	OK	OK	103.00	106.0	107.0	0	
TOTAL DISSOLVED SOLIDS	04/19/2016				OK	102.00			3.00	
TOTAL DISSOLVED SOLIDS	04/20/2016				OK	99.00			1.00	

Figure 2. Wet Chemistry Worksheet

SAMPLE MANAGEMENT SYSTEM **Metals Data Validation Worksheet**

RIN: 16047728 Lab Code: PAR Date Due: 5/13/2016
 Matrix: Water Site Code: MNT01 Date Completed: 5/19/2016

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	CCV/CCB								
Arsenic	ICP/MS	04/28/2016	0.0000	1.0000	OK	OK	104.0	109.0	110.0	0.0	103.0		103.0
Arsenic	ICP/MS	04/29/2016	0.0000	1.0000	OK	OK	104.0	103.0	103.0	1.0	99.0		89.0
Arsenic	ICP/MS	04/29/2016	0.0000	1.0000	OK	OK	108.0	108.0	108.0	0.0	102.0		111.0
Calcium	ICP/ES	04/29/2016	0.0000	1.0000	OK	OK	103.0			1.0	101.0	2.0	103.0
Calcium	ICP/ES	04/29/2016				OK	102.0			1.0	102.0	1.0	99.0
Calcium	ICP/ES	04/29/2016				OK	104.0			1.0		2.0	
Iron	ICP/ES	04/29/2016	0.0000	1.0000	OK	OK	101.0	96.0	99.0	2.0	103.0	0.0	97.0
Iron	ICP/ES	04/29/2016				OK	104.0	96.0	92.0	0.0	104.0		91.0
Iron	ICP/ES	04/29/2016				OK	102.0	104.0	95.0	8.0			
Magnesium	ICP/ES	04/29/2016				OK	102.0	103.0	106.0	0.0		0.0	
Magnesium	ICP/ES	04/29/2016				OK	102.0	101.0	100.0	1.0	107.0	1.0	105.0
Magnesium	ICP/ES	04/29/2016	0.0000	1.0000	OK	OK	103.0	102.0	102.0	0.0	108.0	1.0	106.0
Manganese	ICP/ES	04/29/2016				OK	95.0	90.0	89.0	3.0		4.0	
Manganese	ICP/ES	04/29/2016				OK	103.0	87.0	85.0	3.0	89.0	8.0	103.0
Manganese	ICP/ES	04/29/2016	0.0000	1.0000	OK	OK	99.0			1.0	86.0	9.0	105.0
Molybdenum	ICP/MS	04/28/2016	0.0000	1.0000	OK	OK	98.0	102.0	107.0	3.0	106.0	3.0	113.0
Molybdenum	ICP/MS	04/28/2016	0.0000	1.0000	OK	OK	104.0	104.0	107.0	1.0	107.0	8.0	93.0

Figure 3. Metals Worksheet

SAMPLE MANAGEMENT SYSTEM **Metals Data Validation Worksheet**

RIN: 16047728 Lab Code: PAR Date Due: 5/13/2016
 Matrix: Water Site Code: MNT01 Date Completed: 5/19/2016

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	CCV/CCB								
Molybdenum	ICP/MS	04/29/2016				OK	99.0	103.0	100.0	3.0			
Potassium	ICP/ES	04/29/2016				OK	105.0	105.0	107.0	3.0		3.0	99.0
Potassium	ICP/ES	04/29/2016	0.0000	1.0000	OK	OK	102.0	107.0	106.0	0.0		2.0	109.0
Potassium	ICP/ES	04/29/2016				OK	104.0	100.0	101.0	1.0		2.0	
Selenium	ICP/MS	04/28/2016	0.0000	1.0000	OK	OK	103.0	104.0	103.0	1.0	100.0		90.0
Selenium	ICP/MS	04/28/2016	0.0000	1.0000	OK	OK	109.0	106.0	102.0	14.0	100.0		107.0
Selenium	ICP/MS	04/29/2016				OK	108.0	109.0	105.0	10.0			
Sodium	ICP/ES	04/29/2016	0.0000	1.0000	OK	OK	106.0			2.0		3.0	100.0
Sodium	ICP/ES	04/29/2016				OK	104.0	113.0	119.0	0.0		1.0	95.0
Sodium	ICP/ES	04/29/2016	0.0000	1.0000	OK	OK	106.0	106.0	108.0	3.0		2.0	111.0
Uranium	ICP/MS	04/28/2016	0.0000	1.0000	OK	OK	100.0			2.0	103.0	4.0	130.0
Uranium	ICP/MS	04/28/2016	0.0000	1.0000	OK	OK	96.0			3.0	98.0	0.0	130.0
Uranium	ICP/MS	04/29/2016	0.0000	1.0000	OK	OK	110.0			1.0	103.0	1.0	130.0
Vanadium	ICP/MS	04/28/2016	0.0000	1.0000	OK	OK	104.0	104.0	104.0	1.0	100.0	2.0	122.0
Vanadium	ICP/MS	04/28/2016	0.0000	1.0000	OK	OK	106.0	105.0	106.0	1.0	96.0	0.0	97.0
Vanadium	ICP/MS	04/29/2016				OK	100.0	102.0	99.0	2.0			

Figure 3 (continued). Metals Worksheet

Sampling Quality Control Assessment

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

Sampling Protocol

Sample results for all monitoring wells met the Category I, II, or III low-flow sampling criteria and were qualified with an “F” flag in the database, indicating the wells were purged and sampled using the low-flow sampling method. The groundwater sample results for wells 0202, PW-10, PW-17, and T01-19 were further qualified with a “Q” flag in the database indicating the data are considered qualitative because these are Category II or III wells.

Locations R1-M3, R1-M4, R3-M2, R3-M3, R4-M3, R4-M6, R6-M4, and R10-M1 are permeable reactive barrier (PRB) wells and were sampled according to *Program Directive MNT-2016-01*. The sample results for these locations were not qualified since they were not purged and sampled using the low-flow sampling method.

Calibration sheets for this event had the precalibration readings for specific conductivity recorded with the incorrect units (mS/cm instead of $\mu\text{mhos/cm}$). A turbidimeter calibration expiration date was accidentally entered into the date of primary calibration column.

Dissolved oxygen operational checks were out of range for sonde “E” on April 11 and 13, 2016. Sonde “A” was out of range for dissolved oxygen the morning of April 13, 2016, and was recalibrated with acceptable results. Readings at locations 0200, 0202, 82-08, 88-85, 92-07, 92-08, 92-09, 92-11, P92-06, PW-10, PW-17, PW-28, T01-01, T01-02, T01-04, T01-05, T01-07, SW00-02, SW01-01, W3-03, and W3-04 were flagged with a “J” as an estimated value.

Equipment Blank Assessment

Dedicated sampling equipment was used at all locations and an equipment blank was not required.

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 (RPD) for duplicate results that are greater than 5 times the PQL should be less than 20 percent. The RPD is not used to evaluate results that are less than 5 times the PQL. For these results (RPD is ‘NA’ on Figure 4), the range should be no greater than the PQL. Duplicate samples were collected from surface water location Sorenson and from monitoring wells 92-07 and R10-M1. The duplicate results met the criteria, with the exception of manganese and nitrate + nitrite as N at location 92-07. The results were flagged with a “J” as an estimated value.

SAMPLE MANAGEMENT SYSTEM

Validation Report: Field Duplicates

Page 1 of 2

RIN: 16047728 Lab Code: PAR Project: Monticello Monitoring Validation Date: 6/10/2016

Duplicate: 2477

Sample: R10-M1

Analyte	Sample				Duplicate				RPD	RER	Units
	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution			
Arsenic	0.82	J		10	0.92	J		10	NA		UG/L
Calcium	140000			1	140000			1	0		UG/L
CHLORIDE	87			10	81			10	7.14		MG/L
Fluoride	1	U		10	1	U		10	NA		MG/L
Iron	6.7	U		1	6.7	U		1	NA		UG/L
Magnesium	49000			1	49000			1	0		UG/L
Manganese	0.26	J		1	0.24	U		1	NA		UG/L
Molybdenum	3.9			10	4.2			10	NA		UG/L
Nitrate+Nitrite as N	0.27			1	0.25			1	7.69		MG/L
Potassium	9600			1	10000			1	4.08		UG/L
Selenium	4.1			10	4.9			10	NA		UG/L
Sodium	100000			1	110000			1	9.52		UG/L
SULFATE	500			10	470			10	6.19		MG/L
Uranium	41			10	40			10	2.47		UG/L
Vanadium	23			10	22			10	4.44		UG/L

Duplicate: 2583

Sample: Sorenson

Analyte	Sample				Duplicate				RPD	RER	Units
	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution			
Arsenic	1.2			10	1.2			10	NA		UG/L
Calcium	230000			1	230000			1	0		UG/L
CHLORIDE	77			10	77			10	0		MG/L
Fluoride	1	U		10	1	U		10	NA		MG/L
Iron	57	J		1	88	J		1	NA		UG/L
Magnesium	51000			1	53000			1	3.85		UG/L
Manganese	210			1	240			1	13.33		UG/L
Molybdenum	9.3			10	9.8			10	5.24		UG/L
Nitrate+Nitrite as N	0.044			1	0.037			1	NA		MG/L
Potassium	4500			1	4700			1	4.35		UG/L
Selenium	3.5			10	3.7			10	NA		UG/L
Sodium	91000			1	97000			1	6.38		UG/L
SULFATE	620			10	610			10	1.63		MG/L
TOTAL DISSOLVED SOLIDS	1300			1	1400			1	7.41		MG/L
Uranium	89			10	91			10	2.22		UG/L
Vanadium	2	J		10	2.2	J		10	NA		UG/L

Figure 4. Duplicates Worksheet

SAMPLE MANAGEMENT SYSTEM

Validation Report: Field Duplicates

Page 2 of 2

RIN: 16047728 Lab Code: PAR Project: Monticello Monitoring Validation Date: 6/10/2016

Duplicate: 2918		Sample: 92-07		Duplicate									
		Sample											
Analyte	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution	RPD	RER	Units		
Arsenic	9.8			10	10			10	2.02		UG/L		
Calcium	280000			1	280000			1	0		UG/L		
CHLORIDE	98			10	99			10	1.02		MG/L		
Fluoride	1	U		10	1	U		10	NA		MG/L		
Iron	21	J		1	6.7	U		1	NA		UG/L		
Magnesium	57000			1	57000			1	0		UG/L		
Manganese	2	J		1	0.79	J		1	>PQL		UG/L		
Molybdenum	51			10	50			10	1.98		UG/L		
Nitrate+Nitrite as N	2.9			10	4.2			10	36.62		MG/L		
Potassium	9800			1	9800			1	0		UG/L		
Selenium	42			10	42			10	0		UG/L		
Sodium	99000			1	99000			1	0		UG/L		
SULFATE	650			10	650			10	0		MG/L		
Uranium	520			10	520			10	0		UG/L		
Vanadium	300			10	300			10	0		UG/L		

Figure 5 (continued). Duplicates Worksheet

Certification

All laboratory analytical quality control criteria were met except as qualified in this report. The data qualifiers listed on the environmental 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:

Stephen Donovan
Stephen Donovan

7-29-2016
Date

Data Validation Lead:

Samantha Tigar
Samantha Tigar

7-29-16
Date

Attachment 1

Sampling and Analysis Work Order

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March 23, 2016

Task Assignment 104
Control Number 16-0425

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

SUBJECT: Contract No. DE-LM0000421, Navarro Research & Engineering, Inc. (Navarro)
Task Assignment 104 LTS&M-Nevada Off Sites and Monticello Site
April 2016 Environmental Sampling at the Monticello, Utah, Site

REFERENCE: Task Assignment 104, 1-104-1-06-502, Monticello, Utah, Site

Dear Mr. Nguyen:

The purpose of this letter is to inform you of the upcoming sampling event at the Monticello, Utah, site. Enclosed are the map and tables specifying sample locations and analytes for monitoring at the site. Water quality data will be collected at this site as part of the routine Operable Unit III semiannual environmental sampling currently scheduled to begin the week of April 11, 2016.

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

MONITORING WELLS

Former Mill Site Wells

MW00-01	T01-02	T01-04	T01-05	T01-07	T01-12	T01-19	T01-35
T01-01							

Downgradient Wells

82-08	92-07	92-09	0200	MW00-06	PW-10	PW-17	PW-28
88-85	92-08	92-11	0202	P92-06			

PRB Wells

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

SURFACE LOCATIONS

Former Mill Site Seeps and Wetlands

Seep 1	Seep 2	Seep 3	Seep 5	Seep 6	W3-03	W3-04
--------	--------	--------	--------	--------	-------	-------

Surface Water Locations

SW00-01 SW00-04 SW01-01 SW01-02 SW01-03 SW92-08 SW92-09 Sorensen
SW00-02 SW94-01

All samples will be collected as directed in the *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites*, which supersedes the *Monticello Mill Tailings Site Operable Unit III Post-Record of Decision Monitoring Plan*. Private landowners will be pre-notified of planned fieldwork on their property.

In addition to the above sampling locations, water levels will be obtained from the following locations:

83-70	P92-02	R2-M2	R4-M5	R6-M2	T01-06	T1-S	TW-02
92-10	PW-14	R2-M3	R4-M7	R6-M5	T01-08	T2-D	TW-03
92-12	PW-16	R2-M4	R4-M8	R6-M6	T01-09	T2-S	TW-04
93-01	PW-18	R2-M5	R5-M1	R7-M1	T01-10	T3-D	TW-05
95-01	PW-20	R2-M6	R5-M2	R7-M2	T01-13	T3-S	TW-06
95-02	PW-22	R2-M7	R5-M3	R8-M1	T01-18	T4-S	TW-07
95-03	PW-23	R2-M8	R5-M4	R9-M1	T01-20	T4-D	TW-08
95-04	PW99-16	R2-M9	R5-M5	T00-01	T01-23	T5-D	TW-09
95-06	R11-M1	R2-M10	R5-M6	T00-02	T01-24	T5-S	TW-10
95-07	R1-M1	R3-M1	R5-M7	T00-03	T01-25	T6-S	TW-11
95-08	R1-M2	R3-M4	R5-M8	T00-04	T01-26	T6-D	TW-12
MW00-02	R1-M5	R4-M1	R5-M9	T00-05	T01-27	T7-D	TW-13
MW00-03	R1-M6	R4-M2	R5-M10	T00-06	T01-28	TW-01	TW-14
MW00-07	R2-M1	R4-M4	R6-M1	T00-07	T1-D	31NE93-205	

Please contact me at (970) 248-6579 or Tim Bartlett at (970) 248-7741 if you have any questions.

Sincerely,



Ann Houska
Site Manager

AH/lcg/bkb

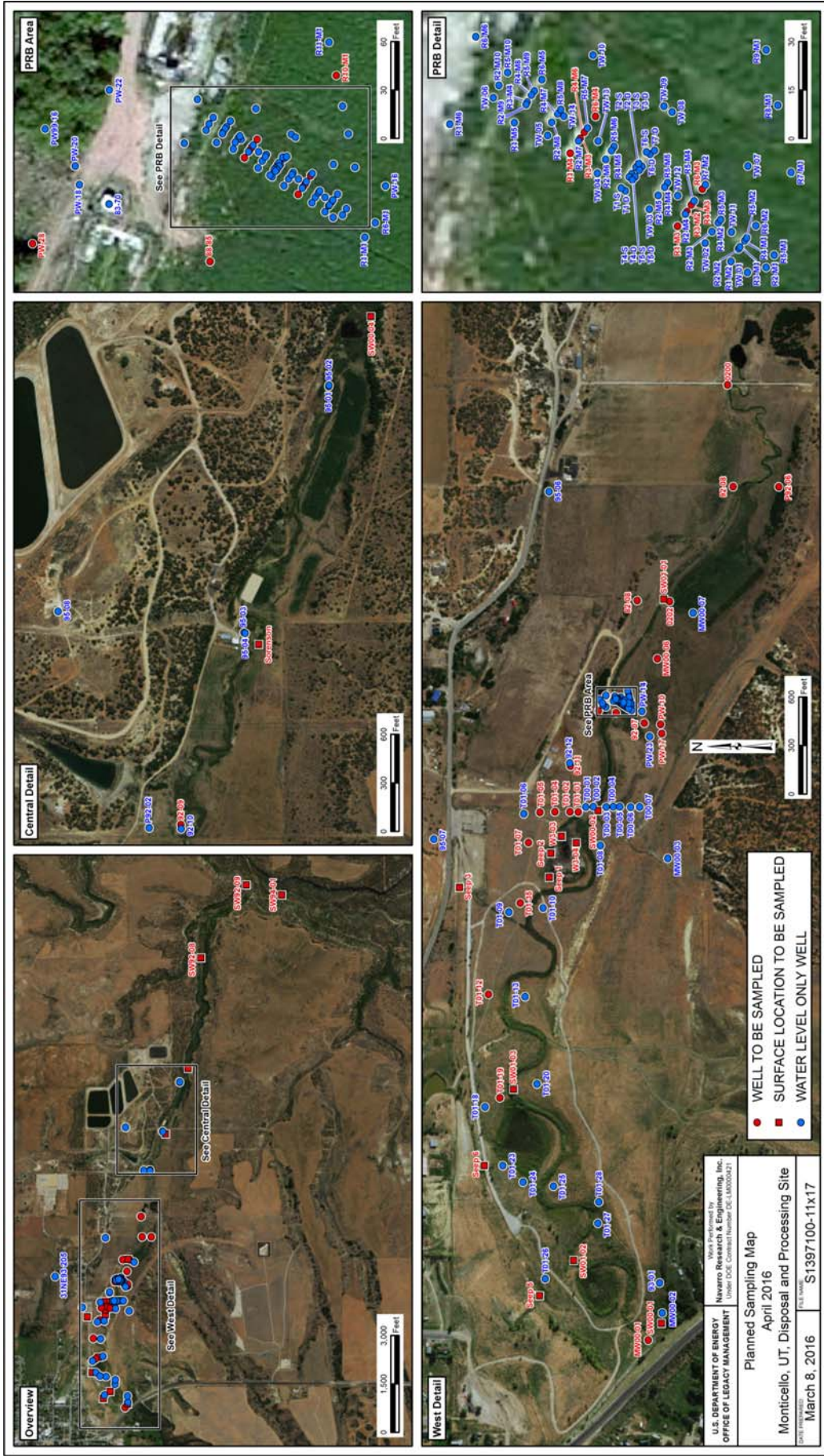
Enclosures (3)

Jason Nguyen
Control Number 16-0425
Page 3

cc: (electronic)

Christina Pennal, DOE
Timothy Bartlett, Navarro
Beverly Cook, Navarro
Steve Donovan, Navarro
Lauren Goodknight, Navarro
Ann Houska, Navarro
Kenneth Karp, Navarro
Sam Marutzky, Navarro
Diana Osborne, Navarro
EDD Delivery
rc-grand.junction
File: MNT 400.02

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Monticello, Utah, Disposal and Processing Sites Sample Location Map

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Constituent Sampling Breakdown

Site	Monticello				Required Detection Limit (mg/L)	Analytical Method	Line Item Code
Analyte	Groundwater	PRB Wells	Surface Water	Seeps and Wetlands			
Approx. No. Samples/Yr	57	18	20	14			
Field Measurements							
Alkalinity	X	X	X	X			
Dissolved Oxygen	X	X	X	X			
Redox Potential	X	X	X	X			
pH	X	X	X	X			
Specific Conductance	X	X	X	X			
Turbidity	X	X	X	X			
Temperature	X	X	X	X			
Laboratory Measurements							
Aluminum							
Ammonia as N (NH ₃ -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 (NO ₃ +NO ₂)-N	X	X	X	X	0.05	EPA 353.1	WCH-A-022
Potassium	X	X	X	X	1	SW-846 6010	LMM-01
Radium-226							
Radium-228							
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, 82-08, 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							
Total No. of Analytes	16	15	16	16			

Note: The total number of analytes does not include field parameters.

Sampling Frequencies for Locations at Monticello, Utah

Location ID	Quarterly	Semiannually ^a	Annually ^b	Every 5 Years	Not Sampled	Notes
North Off-Site Wells						
31NE93-205				X ^c		Water Level (WL) Semiannually; next sample in October 2016
95-07				X ^c		WL Semiannually; next sample in October 2016
Former Mill Site Wells						
93-01			X			WL Semiannually
MW00-01		X				
T00-01			X			WL Semiannually
T00-04			X			WL Semiannually
T01-01		X				
T01-02		X				
T01-04		X				
T01-05		X				
T01-07		X				
T01-12		X				
T01-13			X			WL Semiannually
T01-18			X			WL Semiannually
T01-19		X				
T01-20			X			WL Semiannually
T01-23			X			WL Semiannually
T01-25			X			WL Semiannually
T01-35		X				
Downgradient Wells						
82-08		X				
83-70			X			WL Semiannually
88-85		X				Datalogger
92-07		X				
92-08		X				
92-09		X				
92-10			X			WL Semiannually
92-11		X				
95-01			X			WL Semiannually
95-03			X			WL Semiannually
95-06				X ^c		WL Semiannually
0200		X				
0202		X				
MW00-06		X				
MW00-07			X			WL Semiannually
P92-06		X				
PW-10		X				
PW-17		X				
PW-28		X				
PRB Wells						
R1-M3		X				

Sampling Frequencies for Locations at Monticello, Utah

Location ID	Quarterly	Semiannually ^a	Annually ^b	Every 5 Years	Not Sampled	Notes
R1-M4		X				
R3-M2		X				
R3-M3		X				
R4-M3		X				
R4-M6		X				
R6-M3		X				
R6-M4		X				
R10-M1		X				
Former Mill Site Seeps and Wetland (W3) Locations						
Seep 1		X				
Seep 2		X				
Seep 3		X				
Seep 5		X				
Seep 6		X				
W3-03		X				
W3-04		X				
Surface Water Locations (stream flow is measured Semiannually 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				
SW92-09		X				
SW94-01		X				

^aSemiannual sampling occurs in April and October.

^bAnnual sampling occurs in October.

^c5-year sample frequency next in October 2016.

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Attachment 2

Trip Report

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Navarro Research and Engineering

To: Ann Houska
From: Rob Rice
Date: 5/9/2016
CC: Jason Nguyen, DOE
Tim Bartlett, Navarro
Steve Donovan, Navarro
Ann Houska, Navarro
EDD Delivery
rc-grand.junction
File: MNT 0045.20(A)

Re: Sampling Trip Report

Site: Monticello, Utah, Processing and Disposal Site

Dates of Sampling Event: April 11-13, 2016

Team Members: Dan Sellers, Rob Rice, Jennifer Graham, and Samantha Tigar.

Number of Locations Sampled: Samples were collected from 42 of the 48 locations identified on the sampling notification letter.

Locations Not Sampled/Reason: Six locations produced insufficient water to collect all samples.

Type	Location	Comment
Well	R6-M3	Purged dry after field measurements, no recovery.
Surface	SW00-01	Dry
Surface	Seep 1	Dry
Surface	Seep 2	Dry
Surface	Seep 5	Dry
Well	R4-M3	Partial sample, insufficient recovery for complete sample.

Location Specific Information: Wells PW-10 and PW-17 have had bladder pumps removed, and were bailed. They are now Cat III wells. Well R4-M3 produced only enough water for field measurements and nitrates. Metals were not collected due to insufficient water quantity.

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

False ID	Ticket Number	True ID	Sample Type	Associated Matrix
2477	OFZ 280	R10-M1	Duplicate	Groundwater
2583	OFZ 272	Sorenson	Duplicate	Surface Water
2918	OFZ 276	92-07	Duplicate	Groundwater

Requisition Index Number (RIN) Assigned: Samples were assigned to RIN 16047728. Field data sheets can be found in \\crow\SMS\16047728\FieldData.

Sample Shipment: Samples were shipped overnight via FedEx from Grand Junction, CO, to ALS Laboratory in Fort Collins, CO, on April 14, 2016.

Water Level Measurements: Water levels were measured in all sampled wells. In addition, water levels were recorded via PDA at 111 locations.

Well Inspection Summary: Nothing to note.

Sampling Method: Samples were collected according to the *Sampling and Analysis Plan (SAP) for the U.S. Department of Energy Office of Legacy Management Sites* (LMS/PRO/S04351, continually updated), and the *Program Directive MNT-2016-01*, effective through 10/12/2018.

Field Variance: None. Samples were collected according to the SAP and Program Directive.

Equipment: All equipment functioned properly.

Dataloggers: Transducers were downloaded at 4 well locations.

Stakeholder/Regulatory/DOE: Nothing to note.

Institutional Controls:

Fences, Gates, and Locks: All gates and locks were left as found, no issues were observed.

Signs: No issues were observed.

Trespassing/Site Disturbances: None observed.

Disposal Cell/Drainage Structure Integrity: N/A.

Safety Issues: None.

Access Issues: None.

General Information: Nothing to note.

Immediate Actions Taken: None.

Future Actions Required or Suggested: None.

Attachment 3

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: 6/20/2016

Location: 0200 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/13/2016	N001	5.32 - 10.26	189	F	#		
Arsenic	mg/L	04/13/2016	N001	5.32 - 10.26	0.00051	J F	#	0.00012	
Calcium	mg/L	04/13/2016	N001	5.32 - 10.26	290	F	#	0.024	
Chloride	mg/L	04/13/2016	N001	5.32 - 10.26	270	F	#	5	
Dissolved Oxygen	mg/L	04/13/2016	N001	5.32 - 10.26	0.46	FJ	#		
Fluoride	mg/L	04/13/2016	N001	5.32 - 10.26	1	U F	#	1	
Iron	mg/L	04/13/2016	N001	5.32 - 10.26	0.11	F	#	0.0067	
Magnesium	mg/L	04/13/2016	N001	5.32 - 10.26	78	F	#	0.03	
Manganese	mg/L	04/13/2016	N001	5.32 - 10.26	0.073	F	#	0.00024	
Molybdenum	mg/L	04/13/2016	N001	5.32 - 10.26	0.02	F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/13/2016	N001	5.32 - 10.26	0.25	F	#	0.01	
Oxidation Reduction Potential	mV	04/13/2016	N001	5.32 - 10.26	-67.7	F	#		
pH	s.u.	04/13/2016	N001	5.32 - 10.26	6.88	F	#		
Potassium	mg/L	04/13/2016	N001	5.32 - 10.26	7.8	F	#	0.052	
Selenium	mg/L	04/13/2016	N001	5.32 - 10.26	0.009	F	#	0.00066	
Sodium	mg/L	04/13/2016	N001	5.32 - 10.26	220	F	#	0.047	
Specific Conductance	umhos /cm	04/13/2016	N001	5.32 - 10.26	2547	F	#		
Sulfate	mg/L	04/13/2016	N001	5.32 - 10.26	740	F	#	5	

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

REPORT DATE: 6/20/2016

Location: 0200 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/13/2016	N001	5.32	- 10.26	6.83		F	#		
Turbidity	NTU	04/13/2016	N001	5.32	- 10.26	8.45		F	#		
Uranium	mg/L	04/13/2016	N001	5.32	- 10.26	0.27		F	#	0.000012	
Vanadium	mg/L	04/13/2016	N001	5.32	- 10.26	0.00081	J	F	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: 0202 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	10.32 - 15.26	358		QF	#		
Arsenic	mg/L	04/12/2016	0001	10.32 - 15.26	0.0025		QF	#	0.00012	
Calcium	mg/L	04/12/2016	0001	10.32 - 15.26	240		QF	#	0.024	
Chloride	mg/L	04/12/2016	0001	10.32 - 15.26	80		QF	#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	10.32 - 15.26	9.49		QFJ	#		
Fluoride	mg/L	04/12/2016	0001	10.32 - 15.26	1	U	QF	#	1	
Iron	mg/L	04/12/2016	0001	10.32 - 15.26	0.2		QF	#	0.0067	
Magnesium	mg/L	04/12/2016	0001	10.32 - 15.26	55		QF	#	0.03	
Manganese	mg/L	04/12/2016	0001	10.32 - 15.26	0.028		QF	#	0.00024	
Molybdenum	mg/L	04/12/2016	0001	10.32 - 15.26	0.029		QF	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	0001	10.32 - 15.26	1.8		QF	#	0.01	
Oxidation Reduction Potential	mV	04/12/2016	N001	10.32 - 15.26	50.4		QF	#		
pH	s.u.	04/12/2016	N001	10.32 - 15.26	6.8		QF	#		
Potassium	mg/L	04/12/2016	0001	10.32 - 15.26	5.8		QF	#	0.052	
Selenium	mg/L	04/12/2016	0001	10.32 - 15.26	0.019		QF	#	0.00066	
Sodium	mg/L	04/12/2016	0001	10.32 - 15.26	110		QF	#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	10.32 - 15.26	1972		QF	#		
Sulfate	mg/L	04/12/2016	0001	10.32 - 15.26	630		QF	#	5	

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

REPORT DATE: 6/20/2016

Location: 0202 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	10.32 - 15.26	9.11		QF	#		
Turbidity	NTU	04/12/2016	N001	10.32 - 15.26	11.1		QF	#		
Uranium	mg/L	04/12/2016	0001	10.32 - 15.26	0.16		QF	#	0.000012	
Vanadium	mg/L	04/12/2016	0001	10.32 - 15.26	0.032		QF	#	0.00058	

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

REPORT DATE: 6/20/2016

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	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	12 - 17	185	F	#		
Arsenic	mg/L	04/12/2016	N001	12 - 17	0.00026	J F	#	0.00012	
Calcium	mg/L	04/12/2016	N001	12 - 17	240	F	#	0.024	
Chloride	mg/L	04/12/2016	N001	12 - 17	99	F	#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	12 - 17	2.03	FJ	#		
Fluoride	mg/L	04/12/2016	N001	12 - 17	1.1	F	#	1	
Iron	mg/L	04/12/2016	N001	12 - 17	0.06	J F	#	0.0067	
Magnesium	mg/L	04/12/2016	N001	12 - 17	66	F	#	0.03	
Manganese	mg/L	04/12/2016	N001	12 - 17	0.0028	J F	#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	12 - 17	0.011	F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	12 - 17	1.3	F	#	0.01	
Oxidation Reduction Potential	mV	04/12/2016	N001	12 - 17	100.5	F	#		
pH	s.u.	04/12/2016	N001	12 - 17	6.5	F	#		
Potassium	mg/L	04/12/2016	N001	12 - 17	3.9	F	#	0.052	
Selenium	mg/L	04/12/2016	N001	12 - 17	0.014	F	#	0.00066	
Sodium	mg/L	04/12/2016	N001	12 - 17	120	F	#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	12 - 17	1839	F	#		
Sulfate	mg/L	04/12/2016	N001	12 - 17	800	F	#	5	

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

REPORT DATE: 6/20/2016

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	Sample ID	Depth Range (Ft BLS)	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	12 - 17	9.26	F	#		
Total Dissolved Solids	mg/L	04/12/2016	N001	12 - 17	1500	F	#	40	
Turbidity	NTU	04/12/2016	N001	12 - 17	2.28	F	#		
Uranium	mg/L	04/12/2016	N001	12 - 17	0.088	F	#	0.000012	
Vanadium	mg/L	04/12/2016	N001	12 - 17	0.0045	F	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: 88-85 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	6.71	- 11.71	255		F	#		
Arsenic	mg/L	04/12/2016	N001	6.71	- 11.71	0.012		F	#	0.00012	
Calcium	mg/L	04/12/2016	N001	6.71	- 11.71	290		F	#	0.024	
Chloride	mg/L	04/12/2016	N001	6.71	- 11.71	120		F	#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	6.71	- 11.71	3.54		FJ	#		
Fluoride	mg/L	04/12/2016	N001	6.71	- 11.71	1	U	F	#	1	
Iron	mg/L	04/12/2016	N001	6.71	- 11.71	0.038	J	F	#	0.0067	
Magnesium	mg/L	04/12/2016	N001	6.71	- 11.71	62		F	#	0.03	
Manganese	mg/L	04/12/2016	N001	6.71	- 11.71	0.0008	J	F	#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	6.71	- 11.71	0.021		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	6.71	- 11.71	4.2		F	#	0.1	
Oxidation Reduction Potential	mV	04/12/2016	N001	6.71	- 11.71	94.8		F	#		
pH	s.u.	04/12/2016	N001	6.71	- 11.71	7.01		F	#		
Potassium	mg/L	04/12/2016	N001	6.71	- 11.71	6.3		F	#	0.052	
Selenium	mg/L	04/12/2016	N001	6.71	- 11.71	0.029		F	#	0.00066	
Sodium	mg/L	04/12/2016	N001	6.71	- 11.71	120		F	#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	6.71	- 11.71	2025		F	#		
Sulfate	mg/L	04/12/2016	N001	6.71	- 11.71	730		F	#	5	

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

REPORT DATE: 6/20/2016

Location: 88-85 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	6.71	- 11.71	7.7		F	#		
Total Dissolved Solids	mg/L	04/12/2016	N001	6.71	- 11.71	1600		F	#	40	
Turbidity	NTU	04/12/2016	N001	6.71	- 11.71	1.92		F	#		
Uranium	mg/L	04/12/2016	N001	6.71	- 11.71	0.18		F	#	0.000012	
Vanadium	mg/L	04/12/2016	N001	6.71	- 11.71	0.3		F	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: 92-07 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	15.6 - 20.6	263		F	#		
Arsenic	mg/L	04/12/2016	N001	15.6 - 20.6	0.0098		F	#	0.00012	
Arsenic	mg/L	04/12/2016	N002	15.6 - 20.6	0.01		F	#	0.00012	
Calcium	mg/L	04/12/2016	N001	15.6 - 20.6	280		F	#	0.024	
Calcium	mg/L	04/12/2016	N002	15.6 - 20.6	280		F	#	0.024	
Chloride	mg/L	04/12/2016	N001	15.6 - 20.6	98		F	#	2	
Chloride	mg/L	04/12/2016	N002	15.6 - 20.6	99		F	#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	15.6 - 20.6	2.05		FJ	#		
Fluoride	mg/L	04/12/2016	N001	15.6 - 20.6	1	U	F	#	1	
Fluoride	mg/L	04/12/2016	N002	15.6 - 20.6	1	U	F	#	1	
Iron	mg/L	04/12/2016	N001	15.6 - 20.6	0.021	J	F	#	0.0067	
Iron	mg/L	04/12/2016	N002	15.6 - 20.6	0.0067	U	F	#	0.0067	
Magnesium	mg/L	04/12/2016	N001	15.6 - 20.6	57		F	#	0.03	
Magnesium	mg/L	04/12/2016	N002	15.6 - 20.6	57		F	#	0.03	
Manganese	mg/L	04/12/2016	N001	15.6 - 20.6	0.002	J	JF	#	0.00024	
Manganese	mg/L	04/12/2016	N002	15.6 - 20.6	0.00079	J	JF	#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	15.6 - 20.6	0.051		F	#	0.00032	
Molybdenum	mg/L	04/12/2016	N002	15.6 - 20.6	0.05		F	#	0.00032	

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

REPORT DATE: 6/20/2016

Location: 92-07 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	15.6 - 20.6	2.9		JF	#	0.1	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N002	15.6 - 20.6	4.2		JF	#	0.1	
Oxidation Reduction Potential	mV	04/12/2016	N001	15.6 - 20.6	109.2		F	#		
pH	s.u.	04/12/2016	N001	15.6 - 20.6	7.04		F	#		
Potassium	mg/L	04/12/2016	N001	15.6 - 20.6	9.8		F	#	0.052	
Potassium	mg/L	04/12/2016	N002	15.6 - 20.6	9.8		F	#	0.052	
Selenium	mg/L	04/12/2016	N001	15.6 - 20.6	0.042		F	#	0.00066	
Selenium	mg/L	04/12/2016	N002	15.6 - 20.6	0.042		F	#	0.00066	
Sodium	mg/L	04/12/2016	N001	15.6 - 20.6	99		F	#	0.047	
Sodium	mg/L	04/12/2016	N002	15.6 - 20.6	99		F	#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	15.6 - 20.6	1845		F	#		
Sulfate	mg/L	04/12/2016	N001	15.6 - 20.6	650		F	#	5	
Sulfate	mg/L	04/12/2016	N002	15.6 - 20.6	650		F	#	5	
Temperature	C	04/12/2016	N001	15.6 - 20.6	7.61		F	#		
Turbidity	NTU	04/12/2016	N001	15.6 - 20.6	2.43		F	#		
Uranium	mg/L	04/12/2016	N001	15.6 - 20.6	0.52		F	#	0.000012	

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

REPORT DATE: 6/20/2016

Location: 92-07 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Uranium	mg/L	04/12/2016	N002	15.6	- 20.6	0.52		F	#	0.000012	
Vanadium	mg/L	04/12/2016	N001	15.6	- 20.6	0.3		F	#	0.00058	
Vanadium	mg/L	04/12/2016	N002	15.6	- 20.6	0.3		F	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: 92-08 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	12.9 - 17.9	262		F	#		
Arsenic	mg/L	04/12/2016	N001	12.9 - 17.9	0.00024	J	F	#	0.00012	
Calcium	mg/L	04/12/2016	N001	12.9 - 17.9	210		F	#	0.024	
Chloride	mg/L	04/12/2016	N001	12.9 - 17.9	59		F	#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	12.9 - 17.9	0.92		FJ	#		
Fluoride	mg/L	04/12/2016	N001	12.9 - 17.9	1	U	F	#	1	
Iron	mg/L	04/12/2016	N001	12.9 - 17.9	0.01	J	F	#	0.0067	
Magnesium	mg/L	04/12/2016	N001	12.9 - 17.9	45		F	#	0.03	
Manganese	mg/L	04/12/2016	N001	12.9 - 17.9	0.076		F	#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	12.9 - 17.9	0.029		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	12.9 - 17.9	0.41		F	#	0.01	
Oxidation Reduction Potential	mV	04/12/2016	N001	12.9 - 17.9	100.1		F	#		
pH	s.u.	04/12/2016	N001	12.9 - 17.9	6.88		F	#		
Potassium	mg/L	04/12/2016	N001	12.9 - 17.9	6.1		F	#	0.052	
Selenium	mg/L	04/12/2016	N001	12.9 - 17.9	0.033		F	#	0.00066	
Sodium	mg/L	04/12/2016	N001	12.9 - 17.9	72		F	#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	12.9 - 17.9	1518		F	#		
Sulfate	mg/L	04/12/2016	N001	12.9 - 17.9	530		F	#	5	

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

REPORT DATE: 6/20/2016

Location: 92-08 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	12.9 - 17.9	8.36		F	#		
Turbidity	NTU	04/12/2016	N001	12.9 - 17.9	1.5		F	#		
Uranium	mg/L	04/12/2016	N001	12.9 - 17.9	0.2		F	#	0.000012	
Vanadium	mg/L	04/12/2016	N001	12.9 - 17.9	0.0015	J	F	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: 92-09 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	10.9 - 16	303		F	#		
Arsenic	mg/L	04/12/2016	N001	10.9 - 16	0.0017		F	#	0.00012	
Calcium	mg/L	04/12/2016	N001	10.9 - 16	300		F	#	0.024	
Chloride	mg/L	04/12/2016	N001	10.9 - 16	140		F	#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	10.9 - 16	0.61		FJ	#		
Fluoride	mg/L	04/12/2016	N001	10.9 - 16	1	U	F	#	1	
Iron	mg/L	04/12/2016	N001	10.9 - 16	1.4		F	#	0.0067	
Magnesium	mg/L	04/12/2016	N001	10.9 - 16	74		F	#	0.03	
Manganese	mg/L	04/12/2016	N001	10.9 - 16	0.12		F	#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	10.9 - 16	0.0038		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	10.9 - 16	0.01	U	F	#	0.01	
Oxidation Reduction Potential	mV	04/12/2016	N001	10.9 - 16	-31.7		F	#		
pH	s.u.	04/12/2016	N001	10.9 - 16	7.12		F	#		
Potassium	mg/L	04/12/2016	N001	10.9 - 16	1.9		F	#	0.052	
Selenium	mg/L	04/12/2016	N001	10.9 - 16	0.00066	U	F	#	0.00066	
Sodium	mg/L	04/12/2016	N001	10.9 - 16	190		F	#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	10.9 - 16	2358		F	#		
Sulfate	mg/L	04/12/2016	N001	10.9 - 16	930		F	#	5	

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

REPORT DATE: 6/20/2016

Location: 92-09 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	10.9 - 16	8.74		F	#		
Turbidity	NTU	04/12/2016	N001	10.9 - 16	7.51		F	#		
Uranium	mg/L	04/12/2016	N001	10.9 - 16	0.4		F	#	0.000012	
Vanadium	mg/L	04/12/2016	N001	10.9 - 16	0.00058	U	F	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: 92-11 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Data QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	9.5 - 13.9	280		F #		
Arsenic	mg/L	04/12/2016	N001	9.5 - 13.9	0.017		F #	0.00012	
Calcium	mg/L	04/12/2016	N001	9.5 - 13.9	280		F #	0.024	
Chloride	mg/L	04/12/2016	N001	9.5 - 13.9	110		F #	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	9.5 - 13.9	5.57		FJ #		
Fluoride	mg/L	04/12/2016	N001	9.5 - 13.9	1	U	F #	1	
Iron	mg/L	04/12/2016	N001	9.5 - 13.9	0.014	J	F #	0.0067	
Magnesium	mg/L	04/12/2016	N001	9.5 - 13.9	57		F #	0.03	
Manganese	mg/L	04/12/2016	N001	9.5 - 13.9	0.00036	J	F #	0.00024	
Molybdenum	mg/L	04/12/2016	N001	9.5 - 13.9	0.018		F #	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	9.5 - 13.9	2.9		F #	0.1	
Oxidation Reduction Potential	mV	04/12/2016	N001	9.5 - 13.9	57.6		F #		
pH	s.u.	04/12/2016	N001	9.5 - 13.9	7.15		F #		
Potassium	mg/L	04/12/2016	N001	9.5 - 13.9	5.7		F #	0.052	
Selenium	mg/L	04/12/2016	N001	9.5 - 13.9	0.033		F #	0.00066	
Sodium	mg/L	04/12/2016	N001	9.5 - 13.9	110		F #	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	9.5 - 13.9	1879		F #		
Sulfate	mg/L	04/12/2016	N001	9.5 - 13.9	710		F #	5	

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

REPORT DATE: 6/20/2016

Location: 92-11 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	9.5 - 13.9	10.16		F	#		
Turbidity	NTU	04/12/2016	N001	9.5 - 13.9	1.16		F	#		
Uranium	mg/L	04/12/2016	N001	9.5 - 13.9	0.16		F	#	0.000012	
Vanadium	mg/L	04/12/2016	N001	9.5 - 13.9	0.36		F	#	0.00058	

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

REPORT DATE: 6/20/2016

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 ₃)	mg/L	04/12/2016	N001	7.37 - 13.4	279		F	#		
Arsenic	mg/L	04/12/2016	N001	7.37 - 13.4	0.00032	J	F	#	0.00012	
Calcium	mg/L	04/12/2016	N001	7.37 - 13.4	280		F	#	0.024	
Chloride	mg/L	04/12/2016	N001	7.37 - 13.4	16		F	#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	7.37 - 13.4	3.43		F	#		
Fluoride	mg/L	04/12/2016	N001	7.37 - 13.4	1	U	F	#	1	
Iron	mg/L	04/12/2016	N001	7.37 - 13.4	0.067	J	F	#	0.0067	
Magnesium	mg/L	04/12/2016	N001	7.37 - 13.4	45		F	#	0.03	
Manganese	mg/L	04/12/2016	N001	7.37 - 13.4	0.0021	J	F	#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	7.37 - 13.4	0.0018	J	F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	7.37 - 13.4	0.18		F	#	0.01	
Oxidation Reduction Potential	mV	04/12/2016	N001	7.37 - 13.4	-28.7		F	#		
pH	s.u.	04/12/2016	N001	7.37 - 13.4	6.69		F	#		
Potassium	mg/L	04/12/2016	N001	7.37 - 13.4	2.9		F	#	0.052	
Selenium	mg/L	04/12/2016	N001	7.37 - 13.4	0.0014		F	#	0.00066	
Sodium	mg/L	04/12/2016	N001	7.37 - 13.4	42		F	#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	7.37 - 13.4	1579		F	#		
Sulfate	mg/L	04/12/2016	N001	7.37 - 13.4	680		F	#	5	

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

REPORT DATE: 6/20/2016

Location: MW00-01 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	7.37 - 13.4	9.24		F	#		
Turbidity	NTU	04/12/2016	N001	7.37 - 13.4	9.62		F	#		
Uranium	mg/L	04/12/2016	N001	7.37 - 13.4	0.0086		F	#	0.000012	
Vanadium	mg/L	04/12/2016	N001	7.37 - 13.4	0.00087	J	F	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: MW00-06 WELL Erroneously labeled as Somerville.

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	14.08 - 19.11	265		F	#		
Arsenic	mg/L	04/12/2016	N001	14.08 - 19.11	0.004		F	#	0.00012	
Calcium	mg/L	04/12/2016	N001	14.08 - 19.11	260		F	#	0.024	
Chloride	mg/L	04/12/2016	N001	14.08 - 19.11	96		F	#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	14.08 - 19.11	1.1		F	#		
Fluoride	mg/L	04/12/2016	N001	14.08 - 19.11	1	U	F	#	1	
Iron	mg/L	04/12/2016	N001	14.08 - 19.11	0.024	J	F	#	0.0067	
Magnesium	mg/L	04/12/2016	N001	14.08 - 19.11	58		F	#	0.03	
Manganese	mg/L	04/12/2016	N001	14.08 - 19.11	0.0011	J	F	#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	14.08 - 19.11	0.042		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	14.08 - 19.11	2.6		F	#	0.1	
Oxidation Reduction Potential	mV	04/12/2016	N001	14.08 - 19.11	-14.9		F	#		
pH	s.u.	04/12/2016	N001	14.08 - 19.11	7.04		F	#		
Potassium	mg/L	04/12/2016	N001	14.08 - 19.11	8.3		F	#	0.052	
Selenium	mg/L	04/12/2016	N001	14.08 - 19.11	0.032		F	#	0.00066	
Sodium	mg/L	04/12/2016	N001	14.08 - 19.11	100		F	#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	14.08 - 19.11	1895		F	#		
Sulfate	mg/L	04/12/2016	N001	14.08 - 19.11	670		F	#	5	

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

REPORT DATE: 6/20/2016

Location: MW00-06 WELL Erroneously labeled as Somerville.

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	14.08 - 19.11	10.36		F	#		
Total Dissolved Solids	mg/L	04/12/2016	N001	14.08 - 19.11	1400		F	#	40	
Turbidity	NTU	04/12/2016	N001	14.08 - 19.11	1.51		F	#		
Uranium	mg/L	04/12/2016	N001	14.08 - 19.11	0.35		F	#	0.000012	
Vanadium	mg/L	04/12/2016	N001	14.08 - 19.11	0.14		F	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: P92-06 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	11.7 - 14.2	321	F	#		
Arsenic	mg/L	04/12/2016	N001	11.7 - 14.2	0.00029	J F	#	0.00012	
Calcium	mg/L	04/12/2016	N001	11.7 - 14.2	210	F	#	0.024	
Chloride	mg/L	04/12/2016	N001	11.7 - 14.2	72	F	#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	11.7 - 14.2	5	FJ	#		
Fluoride	mg/L	04/12/2016	N001	11.7 - 14.2	1	U F	#	1	
Iron	mg/L	04/12/2016	N001	11.7 - 14.2	0.029	J F	#	0.0067	
Magnesium	mg/L	04/12/2016	N001	11.7 - 14.2	61	F	#	0.03	
Manganese	mg/L	04/12/2016	N001	11.7 - 14.2	0.0008	J F	#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	11.7 - 14.2	0.037	F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	11.7 - 14.2	0.64	F	#	0.01	
Oxidation Reduction Potential	mV	04/12/2016	N001	11.7 - 14.2	96.7	F	#		
pH	s.u.	04/12/2016	N001	11.7 - 14.2	6.96	F	#		
Potassium	mg/L	04/12/2016	N001	11.7 - 14.2	6.1	F	#	0.052	
Selenium	mg/L	04/12/2016	N001	11.7 - 14.2	0.033	F	#	0.00066	
Sodium	mg/L	04/12/2016	N001	11.7 - 14.2	110	F	#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	11.7 - 14.2	1735	F	#		
Sulfate	mg/L	04/12/2016	N001	11.7 - 14.2	630	F	#	5	

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

REPORT DATE: 6/20/2016

Location: P92-06 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	11.7 - 14.2	8.19		F	#		
Turbidity	NTU	04/12/2016	N001	11.7 - 14.2	1.47		F	#		
Uranium	mg/L	04/12/2016	N001	11.7 - 14.2	0.45		F	#	0.000012	
Vanadium	mg/L	04/12/2016	N001	11.7 - 14.2	0.00058	J	F	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: PW-10 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/11/2016	N001	27.91 - 32.91	267		QF	#		
Arsenic	mg/L	04/11/2016	0001	27.91 - 32.91	0.0052		QF	#	0.00012	
Calcium	mg/L	04/11/2016	0001	27.91 - 32.91	260		QF	#	0.024	
Chloride	mg/L	04/11/2016	0001	27.91 - 32.91	95		QF	#	2	
Dissolved Oxygen	mg/L	04/11/2016	N001	27.91 - 32.91	6.31		QFJ	#		
Fluoride	mg/L	04/11/2016	0001	27.91 - 32.91	1	U	QF	#	1	
Iron	mg/L	04/11/2016	0001	27.91 - 32.91	0.077	J	QF	#	0.0067	
Magnesium	mg/L	04/11/2016	0001	27.91 - 32.91	53		QF	#	0.03	
Manganese	mg/L	04/11/2016	0001	27.91 - 32.91	0.026		QF	#	0.00024	
Molybdenum	mg/L	04/11/2016	0001	27.91 - 32.91	0.074		QF	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/11/2016	0001	27.91 - 32.91	2.7		QF	#	0.1	
Oxidation Reduction Potential	mV	04/11/2016	N001	27.91 - 32.91	44.2		QF	#		
pH	s.u.	04/11/2016	N001	27.91 - 32.91	6.71		QF	#		
Potassium	mg/L	04/11/2016	0001	27.91 - 32.91	12		QF	#	0.052	
Selenium	mg/L	04/11/2016	0001	27.91 - 32.91	0.043		QF	#	0.00066	
Sodium	mg/L	04/11/2016	0001	27.91 - 32.91	100		QF	#	0.047	
Specific Conductance	umhos /cm	04/11/2016	N001	27.91 - 32.91	1990		QF	#		
Sulfate	mg/L	04/11/2016	0001	27.91 - 32.91	660		QF	#	5	

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

REPORT DATE: 6/20/2016

Location: PW-10 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/11/2016	N001	27.91 - 32.91	10.64		QF	#		
Turbidity	NTU	04/11/2016	N001	27.91 - 32.91	98.7		QF	#		
Uranium	mg/L	04/11/2016	0001	27.91 - 32.91	0.64		QF	#	0.000012	
Vanadium	mg/L	04/11/2016	0001	27.91 - 32.91	0.17		QF	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: PW-17 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/11/2016	N001	30.47 - 35.47	324	QF	#		
Arsenic	mg/L	04/11/2016	0001	30.47 - 35.47	0.0092	QF	#	0.00012	
Calcium	mg/L	04/11/2016	0001	30.47 - 35.47	260	QF	#	0.024	
Chloride	mg/L	04/11/2016	0001	30.47 - 35.47	89	QF	#	2	
Dissolved Oxygen	mg/L	04/11/2016	N001	30.47 - 35.47	6.93	QFJ	#		
Fluoride	mg/L	04/11/2016	0001	30.47 - 35.47	1	U	#	1	
Iron	mg/L	04/11/2016	0001	30.47 - 35.47	0.017	J	#	0.0067	
Magnesium	mg/L	04/11/2016	0001	30.47 - 35.47	54	QF	#	0.03	
Manganese	mg/L	04/11/2016	0001	30.47 - 35.47	0.0033	J	#	0.00024	
Molybdenum	mg/L	04/11/2016	0001	30.47 - 35.47	0.078	QF	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/11/2016	0001	30.47 - 35.47	2	QF	#	0.01	
Oxidation Reduction Potential	mV	04/11/2016	N001	30.47 - 35.47	197.2	QF	#		
pH	s.u.	04/11/2016	N001	30.47 - 35.47	6.76	QF	#		
Potassium	mg/L	04/11/2016	0001	30.47 - 35.47	11	QF	#	0.052	
Selenium	mg/L	04/11/2016	0001	30.47 - 35.47	0.046	QF	#	0.00066	
Sodium	mg/L	04/11/2016	0001	30.47 - 35.47	87	QF	#	0.047	
Specific Conductance	umhos /cm	04/11/2016	N001	30.47 - 35.47	1678	QF	#		
Sulfate	mg/L	04/11/2016	0001	30.47 - 35.47	640	QF	#	5	

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

REPORT DATE: 6/20/2016

Location: PW-17 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/11/2016	N001	30.47 - 35.47	10.78		QF	#		
Turbidity	NTU	04/11/2016	N001	30.47 - 35.47	293		QF	#		
Uranium	mg/L	04/11/2016	0001	30.47 - 35.47	0.7		QF	#	0.000012	
Vanadium	mg/L	04/11/2016	0001	30.47 - 35.47	0.27		QF	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: PW-28 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	-	231		F	#		
Arsenic	mg/L	04/12/2016	N001	-	0.0024		F	#	0.00012	
Calcium	mg/L	04/12/2016	N001	-	330		F	#	0.024	
Chloride	mg/L	04/12/2016	N001	-	170		F	#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	-	3.49		FJ	#		
Fluoride	mg/L	04/12/2016	N001	-	1	U	F	#	1	
Iron	mg/L	04/12/2016	N001	-	0.13		F	#	0.0067	
Magnesium	mg/L	04/12/2016	N001	-	85		F	#	0.03	
Manganese	mg/L	04/12/2016	N001	-	0.00079	J	F	#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	-	0.014		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	-	10		F	#	0.1	
Oxidation Reduction Potential	mV	04/12/2016	N001	-	119.2		F	#		
pH	s.u.	04/12/2016	N001	-	6.83		F	#		
Potassium	mg/L	04/12/2016	N001	-	5.3		F	#	0.052	
Selenium	mg/L	04/12/2016	N001	-	0.031		F	#	0.00066	
Sodium	mg/L	04/12/2016	N001	-	160		F	#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	-	2416		F	#		
Sulfate	mg/L	04/12/2016	N001	-	980		F	#	5	

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

REPORT DATE: 6/20/2016

Location: PW-28 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	-	9.37		F	#		
Turbidity	NTU	04/12/2016	N001	-	8.05		F	#		
Uranium	mg/L	04/12/2016	N001	-	0.16		F	#	0.000012	
Vanadium	mg/L	04/12/2016	N001	-	0.17		F	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: R1-M3 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Data QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	8.5 - 13.5	296		#		
Arsenic	mg/L	04/12/2016	0001	8.5 - 13.5	0.014		#	0.00012	
Calcium	mg/L	04/12/2016	0001	8.5 - 13.5	280		#	0.024	
Chloride	mg/L	04/12/2016	0001	8.5 - 13.5	110		#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	8.5 - 13.5	2.81		#		
Fluoride	mg/L	04/12/2016	0001	8.5 - 13.5	1	U	#	1	
Iron	mg/L	04/12/2016	0001	8.5 - 13.5	0.037	J	#	0.0067	
Magnesium	mg/L	04/12/2016	0001	8.5 - 13.5	59		#	0.03	
Manganese	mg/L	04/12/2016	0001	8.5 - 13.5	0.0013	J	#	0.00024	
Molybdenum	mg/L	04/12/2016	0001	8.5 - 13.5	0.033		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	0001	8.5 - 13.5	3.5		#	0.1	
Oxidation Reduction Potential	mV	04/12/2016	N001	8.5 - 13.5	-40.1		#		
pH	s.u.	04/12/2016	N001	8.5 - 13.5	7.07		#		
Potassium	mg/L	04/12/2016	0001	8.5 - 13.5	7.5		#	0.052	
Selenium	mg/L	04/12/2016	0001	8.5 - 13.5	0.035		#	0.00066	
Sodium	mg/L	04/12/2016	0001	8.5 - 13.5	110		#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	8.5 - 13.5	1898		#		
Sulfate	mg/L	04/12/2016	0001	8.5 - 13.5	730		#	5	

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

REPORT DATE: 6/20/2016

Location: R1-M3 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	8.5 - 13.5	8.97		#		
Turbidity	NTU	04/12/2016	N001	8.5 - 13.5	15.6		#		
Uranium	mg/L	04/12/2016	0001	8.5 - 13.5	0.29		#	0.000012	
Vanadium	mg/L	04/12/2016	0001	8.5 - 13.5	0.35		#	0.00058	

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

REPORT DATE: 6/20/2016

Location: R1-M4 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	8.49 - 13.49	311			#		
Arsenic	mg/L	04/12/2016	0001	8.49 - 13.49	0.009			#	0.00012	
Calcium	mg/L	04/12/2016	0001	8.49 - 13.49	280			#	0.024	
Chloride	mg/L	04/12/2016	0001	8.49 - 13.49	110			#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	8.49 - 13.49	1.19			#		
Fluoride	mg/L	04/12/2016	0001	8.49 - 13.49	1	U		#	1	
Iron	mg/L	04/12/2016	0001	8.49 - 13.49	0.0067	U		#	0.0067	
Magnesium	mg/L	04/12/2016	0001	8.49 - 13.49	58			#	0.03	
Manganese	mg/L	04/12/2016	0001	8.49 - 13.49	0.0004	J		#	0.00024	
Molybdenum	mg/L	04/12/2016	0001	8.49 - 13.49	0.04			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	0001	8.49 - 13.49	3.3			#	0.1	
Oxidation Reduction Potential	mV	04/12/2016	N001	8.49 - 13.49	-28			#		
pH	s.u.	04/12/2016	N001	8.49 - 13.49	7.08			#		
Potassium	mg/L	04/12/2016	0001	8.49 - 13.49	8.5			#	0.052	
Selenium	mg/L	04/12/2016	0001	8.49 - 13.49	0.038			#	0.00066	
Sodium	mg/L	04/12/2016	0001	8.49 - 13.49	110			#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	8.49 - 13.49	1905			#		
Sulfate	mg/L	04/12/2016	0001	8.49 - 13.49	700			#	5	

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

REPORT DATE: 6/20/2016

Location: R1-M4 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	8.49	- 13.49	9.23			#		
Turbidity	NTU	04/12/2016	N001	8.49	- 13.49	6.02			#		
Uranium	mg/L	04/12/2016	0001	8.49	- 13.49	0.33			#	0.000012	
Vanadium	mg/L	04/12/2016	0001	8.49	- 13.49	0.26			#	0.00058	

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

REPORT DATE: 6/20/2016

Location: R10-M1 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	10.25 - 15.25	145			#		
Arsenic	mg/L	04/12/2016	0001	10.25 - 15.25	0.00082	J		#	0.00012	
Arsenic	mg/L	04/12/2016	0002	10.25 - 15.25	0.00092	J		#	0.00012	
Calcium	mg/L	04/12/2016	0001	10.25 - 15.25	140			#	0.024	
Calcium	mg/L	04/12/2016	0002	10.25 - 15.25	140			#	0.024	
Chloride	mg/L	04/12/2016	0001	10.25 - 15.25	87			#	2	
Chloride	mg/L	04/12/2016	0002	10.25 - 15.25	81			#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	10.25 - 15.25	1.13			#		
Fluoride	mg/L	04/12/2016	0001	10.25 - 15.25	1	U		#	1	
Fluoride	mg/L	04/12/2016	0002	10.25 - 15.25	1	U		#	1	
Iron	mg/L	04/12/2016	0001	10.25 - 15.25	0.0067	U		#	0.0067	
Iron	mg/L	04/12/2016	0002	10.25 - 15.25	0.0067	U		#	0.0067	
Magnesium	mg/L	04/12/2016	0001	10.25 - 15.25	49			#	0.03	
Magnesium	mg/L	04/12/2016	0002	10.25 - 15.25	49			#	0.03	
Manganese	mg/L	04/12/2016	0001	10.25 - 15.25	0.00026	J		#	0.00024	
Manganese	mg/L	04/12/2016	0002	10.25 - 15.25	0.00024	U		#	0.00024	

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

REPORT DATE: 6/20/2016

Location: R10-M1 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Molybdenum	mg/L	04/12/2016	0001	10.25 - 15.25	0.0039			#	0.00032	
Molybdenum	mg/L	04/12/2016	0002	10.25 - 15.25	0.0042			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	0001	10.25 - 15.25	0.27			#	0.01	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	0002	10.25 - 15.25	0.25			#	0.01	
Oxidation Reduction Potential	mV	04/12/2016	N001	10.25 - 15.25	-14.2			#		
pH	s.u.	04/12/2016	N001	10.25 - 15.25	7.05			#		
Potassium	mg/L	04/12/2016	0001	10.25 - 15.25	9.6			#	0.052	
Potassium	mg/L	04/12/2016	0002	10.25 - 15.25	10			#	0.052	
Selenium	mg/L	04/12/2016	0001	10.25 - 15.25	0.0041			#	0.00066	
Selenium	mg/L	04/12/2016	0002	10.25 - 15.25	0.0049			#	0.00066	
Sodium	mg/L	04/12/2016	0001	10.25 - 15.25	100			#	0.047	
Sodium	mg/L	04/12/2016	0002	10.25 - 15.25	110			#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	10.25 - 15.25	1893			#		
Sulfate	mg/L	04/12/2016	0001	10.25 - 15.25	500			#	5	
Sulfate	mg/L	04/12/2016	0002	10.25 - 15.25	470			#	5	
Temperature	C	04/12/2016	N001	10.25 - 15.25	10.87			#		
Turbidity	NTU	04/12/2016	N001	10.25 - 15.25	4.87			#		
Uranium	mg/L	04/12/2016	0001	10.25 - 15.25	0.041			#	0.000012	

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

REPORT DATE: 6/20/2016

Location: R10-M1 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Uranium	mg/L	04/12/2016	0002	10.25 - 15.25	0.04		#	0.000012	
Vanadium	mg/L	04/12/2016	0001	10.25 - 15.25	0.023		#	0.00058	
Vanadium	mg/L	04/12/2016	0002	10.25 - 15.25	0.022		#	0.00058	

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

REPORT DATE: 6/20/2016

Location: R3-M2 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	9.16 - 14.16	312			#		
Arsenic	mg/L	04/12/2016	0001	9.16 - 14.16	0.00032	J	J	#	0.00012	
Calcium	mg/L	04/12/2016	0001	9.16 - 14.16	240			#	0.024	
Chloride	mg/L	04/12/2016	0001	9.16 - 14.16	97			#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	9.16 - 14.16	1.56			#		
Fluoride	mg/L	04/12/2016	0001	9.16 - 14.16	1	U		#	1	
Iron	mg/L	04/12/2016	0001	9.16 - 14.16	3.5			#	0.0067	
Magnesium	mg/L	04/12/2016	0001	9.16 - 14.16	54			#	0.03	
Manganese	mg/L	04/12/2016	0001	9.16 - 14.16	0.13			#	0.00024	
Molybdenum	mg/L	04/12/2016	0001	9.16 - 14.16	0.11			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	0001	9.16 - 14.16	0.01	U		#	0.01	
Oxidation Reduction Potential	mV	04/12/2016	N001	9.16 - 14.16	-116.1			#		
pH	s.u.	04/12/2016	N001	9.16 - 14.16	7.66			#		
Potassium	mg/L	04/12/2016	0001	9.16 - 14.16	8.5			#	0.052	
Selenium	mg/L	04/12/2016	0001	9.16 - 14.16	0.00066	U		#	0.00066	
Sodium	mg/L	04/12/2016	0001	9.16 - 14.16	100			#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	9.16 - 14.16	1743			#		
Sulfate	mg/L	04/12/2016	0001	9.16 - 14.16	610			#	5	

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

REPORT DATE: 6/20/2016

Location: R3-M2 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	9.16	- 14.16	9.33			#		
Turbidity	NTU	04/12/2016	N001	9.16	- 14.16	29			#		
Uranium	mg/L	04/12/2016	0001	9.16	- 14.16	0.33			#	0.000012	
Vanadium	mg/L	04/12/2016	0001	9.16	- 14.16	0.00077	J		#	0.00058	

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

REPORT DATE: 6/20/2016

Location: R3-M3 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	8.43 - 13.43	321			#		
Arsenic	mg/L	04/12/2016	0001	8.43 - 13.43	0.00013	J	J	#	0.00012	
Calcium	mg/L	04/12/2016	0001	8.43 - 13.43	220			#	0.024	
Chloride	mg/L	04/12/2016	0001	8.43 - 13.43	93			#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	8.43 - 13.43	0.63			#		
Fluoride	mg/L	04/12/2016	0001	8.43 - 13.43	1	U		#	1	
Iron	mg/L	04/12/2016	0001	8.43 - 13.43	9.4			#	0.0067	
Magnesium	mg/L	04/12/2016	0001	8.43 - 13.43	53			#	0.03	
Manganese	mg/L	04/12/2016	0001	8.43 - 13.43	0.21			#	0.00024	
Molybdenum	mg/L	04/12/2016	0001	8.43 - 13.43	0.055			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	0001	8.43 - 13.43	0.01	U		#	0.01	
Oxidation Reduction Potential	mV	04/12/2016	N001	8.43 - 13.43	-186.4			#		
pH	s.u.	04/12/2016	N001	8.43 - 13.43	7.74			#		
Potassium	mg/L	04/12/2016	0001	8.43 - 13.43	8.8			#	0.052	
Selenium	mg/L	04/12/2016	0001	8.43 - 13.43	0.00066	U		#	0.00066	
Sodium	mg/L	04/12/2016	0001	8.43 - 13.43	100			#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	8.43 - 13.43	1683			#		
Sulfate	mg/L	04/12/2016	0001	8.43 - 13.43	590			#	5	

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

REPORT DATE: 6/20/2016

Location: R3-M3 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	8.43 - 13.43	9.81		#		
Turbidity	NTU	04/12/2016	N001	8.43 - 13.43	20.6		#		
Uranium	mg/L	04/12/2016	0001	8.43 - 13.43	0.24		#	0.000012	
Vanadium	mg/L	04/12/2016	0001	8.43 - 13.43	0.00058	U	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: R4-M3 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Dissolved Oxygen	mg/L	04/12/2016	N001	9.04 - 14.04	5.97		#		
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	0001	9.04 - 14.04	0.078		#	0.01	
Oxidation Reduction Potential	mV	04/12/2016	N001	9.04 - 14.04	42		#		
pH	s.u.	04/12/2016	N001	9.04 - 14.04	9.78		#		
Specific Conductance	umhos /cm	04/12/2016	N001	9.04 - 14.04	551		#		
Temperature	C	04/12/2016	N001	9.04 - 14.04	8.72		#		
Turbidity	NTU	04/12/2016	N001	9.04 - 14.04	16.4		#		

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

REPORT DATE: 6/20/2016

Location: R4-M6 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	8.47 - 13.47	38			#		
Arsenic	mg/L	04/12/2016	0001	8.47 - 13.47	0.00012	U	J	#	0.00012	
Calcium	mg/L	04/12/2016	0001	8.47 - 13.47	12			#	0.024	
Chloride	mg/L	04/12/2016	0001	8.47 - 13.47	85			#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	8.47 - 13.47	4.42			#		
Fluoride	mg/L	04/12/2016	0001	8.47 - 13.47	1	U		#	1	
Iron	mg/L	04/12/2016	0001	8.47 - 13.47	0.0067	J	U	#	0.0067	
Magnesium	mg/L	04/12/2016	0001	8.47 - 13.47	44			#	0.03	
Manganese	mg/L	04/12/2016	0001	8.47 - 13.47	0.011			#	0.00024	
Molybdenum	mg/L	04/12/2016	0001	8.47 - 13.47	0.013			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	0001	8.47 - 13.47	0.1			#	0.01	
Oxidation Reduction Potential	mV	04/12/2016	N001	8.47 - 13.47	97.4			#		
pH	s.u.	04/12/2016	N001	8.47 - 13.47	9.74			#		
Potassium	mg/L	04/12/2016	0001	8.47 - 13.47	9.1			#	0.052	
Selenium	mg/L	04/12/2016	0001	8.47 - 13.47	0.00066	U		#	0.00066	
Sodium	mg/L	04/12/2016	0001	8.47 - 13.47	95			#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	8.47 - 13.47	854			#		
Sulfate	mg/L	04/12/2016	0001	8.47 - 13.47	280			#	5	

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

REPORT DATE: 6/20/2016

Location: R4-M6 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Qualifiers Lab Data QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	8.47 - 13.47	10.36	#		
Turbidity	NTU	04/12/2016	N001	8.47 - 13.47	47.6	#		
Uranium	mg/L	04/12/2016	0001	8.47 - 13.47	0.00023	#	0.000012	
Vanadium	mg/L	04/12/2016	0001	8.47 - 13.47	0.00058	U #	0.00058	

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

REPORT DATE: 6/20/2016

Location: R6-M3 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Dissolved Oxygen	mg/L	04/12/2016	N001	7.72 - 12.72	4.63		#		
Oxidation Reduction Potential	mV	04/12/2016	N001	7.72 - 12.72	73.2		#		
pH	s.u.	04/12/2016	N001	7.72 - 12.72	6.5		#		
Specific Conductance	umhos /cm	04/12/2016	N001	7.72 - 12.72	1962		#		
Temperature	C	04/12/2016	N001	7.72 - 12.72	8.93		#		
Turbidity	NTU	04/12/2016	N001	7.72 - 12.72	82.4		#		

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

REPORT DATE: 6/20/2016

Location: R6-M4 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	7.96 - 12.96	58			#		
Arsenic	mg/L	04/12/2016	0001	7.96 - 12.96	0.00018	J	J	#	0.00012	
Calcium	mg/L	04/12/2016	0001	7.96 - 12.96	59			#	0.024	
Chloride	mg/L	04/12/2016	0001	7.96 - 12.96	78			#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	7.96 - 12.96	8.05			#		
Fluoride	mg/L	04/12/2016	0001	7.96 - 12.96	1	U		#	1	
Iron	mg/L	04/12/2016	0001	7.96 - 12.96	0.068	J		#	0.0067	
Magnesium	mg/L	04/12/2016	0001	7.96 - 12.96	23			#	0.03	
Manganese	mg/L	04/12/2016	0001	7.96 - 12.96	0.12			#	0.00024	
Molybdenum	mg/L	04/12/2016	0001	7.96 - 12.96	0.0088			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	0001	7.96 - 12.96	0.11			#	0.01	
Oxidation Reduction Potential	mV	04/12/2016	N001	7.96 - 12.96	87.9			#		
pH	s.u.	04/12/2016	N001	7.96 - 12.96	8.75			#		
Potassium	mg/L	04/12/2016	0001	7.96 - 12.96	7.3			#	0.052	
Selenium	mg/L	04/12/2016	0001	7.96 - 12.96	0.0014			#	0.00066	
Sodium	mg/L	04/12/2016	0001	7.96 - 12.96	92			#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	7.96 - 12.96	937			#		
Sulfate	mg/L	04/12/2016	0001	7.96 - 12.96	250			#	5	

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

REPORT DATE: 6/20/2016

Location: R6-M4 WELL Pert Wall

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	7.96	- 12.96	9.73			#		
Turbidity	NTU	04/12/2016	N001	7.96	- 12.96	13.3			#		
Uranium	mg/L	04/12/2016	0001	7.96	- 12.96	0.0092			#	0.000012	
Vanadium	mg/L	04/12/2016	0001	7.96	- 12.96	0.00058	U		#	0.00058	

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

REPORT DATE: 6/20/2016

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 ₃)	mg/L	04/13/2016	N001	5.01	- 10.01	319		F	#		
Arsenic	mg/L	04/13/2016	N001	5.01	- 10.01	0.0074		F	#	0.00012	
Calcium	mg/L	04/13/2016	N001	5.01	- 10.01	230		F	#	0.024	
Chloride	mg/L	04/13/2016	N001	5.01	- 10.01	52		F	#	2	
Dissolved Oxygen	mg/L	04/13/2016	N001	5.01	- 10.01	1.72		FJ	#		
Fluoride	mg/L	04/13/2016	N001	5.01	- 10.01	1	U	F	#	1	
Iron	mg/L	04/13/2016	N001	5.01	- 10.01	0.13		F	#	0.0067	
Magnesium	mg/L	04/13/2016	N001	5.01	- 10.01	47		F	#	0.03	
Manganese	mg/L	04/13/2016	N001	5.01	- 10.01	1.1		F	#	0.00024	
Molybdenum	mg/L	04/13/2016	N001	5.01	- 10.01	0.0085		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/13/2016	N001	5.01	- 10.01	0.014		F	#	0.01	
Oxidation Reduction Potential	mV	04/13/2016	N001	5.01	- 10.01	-4.6		F	#		
pH	s.u.	04/13/2016	N001	5.01	- 10.01	7.2		F	#		
Potassium	mg/L	04/13/2016	N001	5.01	- 10.01	5.6		F	#	0.052	
Selenium	mg/L	04/13/2016	N001	5.01	- 10.01	0.00066	U	F	#	0.00066	
Sodium	mg/L	04/13/2016	N001	5.01	- 10.01	72		F	#	0.047	
Specific Conductance	umhos /cm	04/13/2016	N001	5.01	- 10.01	1519		F	#		
Sulfate	mg/L	04/13/2016	N001	5.01	- 10.01	570		F	#	5	

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

REPORT DATE: 6/20/2016

Location: T01-01 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/13/2016	N001	5.01	- 10.01	8.43		F	#		
Total Dissolved Solids	mg/L	04/13/2016	N001	5.01	- 10.01	1200		F	#	40	
Turbidity	NTU	04/13/2016	N001	5.01	- 10.01	1.98		F	#		
Uranium	mg/L	04/13/2016	N001	5.01	- 10.01	0.048		F	#	0.000012	
Vanadium	mg/L	04/13/2016	N001	5.01	- 10.01	0.05		F	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: T01-02 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/13/2016	N001	6.43 - 11.43	299		F	#		
Arsenic	mg/L	04/13/2016	N001	6.43 - 11.43	0.012		F	#	0.00012	
Calcium	mg/L	04/13/2016	N001	6.43 - 11.43	220		F	#	0.024	
Chloride	mg/L	04/13/2016	N001	6.43 - 11.43	67		F	#	2	
Dissolved Oxygen	mg/L	04/13/2016	N001	6.43 - 11.43	1.91		FJ	#		
Fluoride	mg/L	04/13/2016	N001	6.43 - 11.43	1	U	F	#	1	
Iron	mg/L	04/13/2016	N001	6.43 - 11.43	0.0067	U	F	#	0.0067	
Magnesium	mg/L	04/13/2016	N001	6.43 - 11.43	47		F	#	0.03	
Manganese	mg/L	04/13/2016	N001	6.43 - 11.43	0.0005	J	F	#	0.00024	
Molybdenum	mg/L	04/13/2016	N001	6.43 - 11.43	0.0094		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/13/2016	N001	6.43 - 11.43	0.18		F	#	0.01	
Oxidation Reduction Potential	mV	04/13/2016	N001	6.43 - 11.43	47.4		F	#		
pH	s.u.	04/13/2016	N001	6.43 - 11.43	7.16		F	#		
Potassium	mg/L	04/13/2016	N001	6.43 - 11.43	5.6		F	#	0.052	
Selenium	mg/L	04/13/2016	N001	6.43 - 11.43	0.0044		F	#	0.00066	
Sodium	mg/L	04/13/2016	N001	6.43 - 11.43	90		F	#	0.047	
Specific Conductance	umhos /cm	04/13/2016	N001	6.43 - 11.43	1551		F	#		
Sulfate	mg/L	04/13/2016	N001	6.43 - 11.43	550		F	#	5	

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

REPORT DATE: 6/20/2016

Location: T01-02 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/13/2016	N001	6.43 - 11.43	8.09		F	#		
Turbidity	NTU	04/13/2016	N001	6.43 - 11.43	6.17		F	#		
Uranium	mg/L	04/13/2016	N001	6.43 - 11.43	0.068		F	#	0.000012	
Vanadium	mg/L	04/13/2016	N001	6.43 - 11.43	0.25		F	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: T01-04 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/13/2016	N001	11.72 - 16.72	359		F	#		
Arsenic	mg/L	04/13/2016	N001	11.72 - 16.72	0.014		F	#	0.00012	
Calcium	mg/L	04/13/2016	N001	11.72 - 16.72	300		F	#	0.024	
Chloride	mg/L	04/13/2016	N001	11.72 - 16.72	110		F	#	2	
Dissolved Oxygen	mg/L	04/13/2016	N001	11.72 - 16.72	7.23		FJ	#		
Fluoride	mg/L	04/13/2016	N001	11.72 - 16.72	1	U	F	#	1	
Iron	mg/L	04/13/2016	N001	11.72 - 16.72	0.0067	U	F	#	0.0067	
Magnesium	mg/L	04/13/2016	N001	11.72 - 16.72	60		F	#	0.03	
Manganese	mg/L	04/13/2016	N001	11.72 - 16.72	0.00074	J	F	#	0.00024	
Molybdenum	mg/L	04/13/2016	N001	11.72 - 16.72	0.012		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/13/2016	N001	11.72 - 16.72	2.5		F	#	0.1	
Oxidation Reduction Potential	mV	04/13/2016	N001	11.72 - 16.72	78.3		F	#		
pH	s.u.	04/13/2016	N001	11.72 - 16.72	7.34		F	#		
Potassium	mg/L	04/13/2016	N001	11.72 - 16.72	4.9		F	#	0.052	
Selenium	mg/L	04/13/2016	N001	11.72 - 16.72	0.027		F	#	0.00066	
Sodium	mg/L	04/13/2016	N001	11.72 - 16.72	110		F	#	0.047	
Specific Conductance	umhos /cm	04/13/2016	N001	11.72 - 16.72	1957		F	#		
Sulfate	mg/L	04/13/2016	N001	11.72 - 16.72	720		F	#	5	

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

REPORT DATE: 6/20/2016

Location: T01-04 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/13/2016	N001	11.72 - 16.72	11.85		F	#		
Turbidity	NTU	04/13/2016	N001	11.72 - 16.72	3.45		F	#		
Uranium	mg/L	04/13/2016	N001	11.72 - 16.72	0.13		F	#	0.000012	
Vanadium	mg/L	04/13/2016	N001	11.72 - 16.72	0.28		F	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: T01-05 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/13/2016	N001	18.56 - 23.56	348		F	#		
Arsenic	mg/L	04/13/2016	N001	18.56 - 23.56	0.014		F	#	0.00012	
Calcium	mg/L	04/13/2016	N001	18.56 - 23.56	310		F	#	0.024	
Chloride	mg/L	04/13/2016	N001	18.56 - 23.56	110		F	#	2	
Dissolved Oxygen	mg/L	04/13/2016	N001	18.56 - 23.56	5.91		FJ	#		
Fluoride	mg/L	04/13/2016	N001	18.56 - 23.56	1	U	F	#	1	
Iron	mg/L	04/13/2016	N001	18.56 - 23.56	0.0067	U	F	#	0.0067	
Magnesium	mg/L	04/13/2016	N001	18.56 - 23.56	62		F	#	0.03	
Manganese	mg/L	04/13/2016	N001	18.56 - 23.56	0.00024	U	F	#	0.00024	
Molybdenum	mg/L	04/13/2016	N001	18.56 - 23.56	0.011		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/13/2016	N001	18.56 - 23.56	3		F	#	0.1	
Oxidation Reduction Potential	mV	04/13/2016	N001	18.56 - 23.56	97.9		F	#		
pH	s.u.	04/13/2016	N001	18.56 - 23.56	7.21		F	#		
Potassium	mg/L	04/13/2016	N001	18.56 - 23.56	4.8		F	#	0.052	
Selenium	mg/L	04/13/2016	N001	18.56 - 23.56	0.023		F	#	0.00066	
Sodium	mg/L	04/13/2016	N001	18.56 - 23.56	110		F	#	0.047	
Specific Conductance	umhos /cm	04/13/2016	N001	18.56 - 23.56	2001		F	#		
Sulfate	mg/L	04/13/2016	N001	18.56 - 23.56	730		F	#	5	

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

REPORT DATE: 6/20/2016

Location: T01-05 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/13/2016	N001	18.56 - 23.56	10.26		F	#		
Turbidity	NTU	04/13/2016	N001	18.56 - 23.56	0.76		F	#		
Uranium	mg/L	04/13/2016	N001	18.56 - 23.56	0.12		F	#	0.000012	
Vanadium	mg/L	04/13/2016	N001	18.56 - 23.56	0.25		F	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: T01-07 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	17.25 - 22.2	368		F	#		
Arsenic	mg/L	04/12/2016	N001	17.25 - 22.2	0.0044		F	#	0.00012	
Calcium	mg/L	04/12/2016	N001	17.25 - 22.2	360		F	#	0.024	
Chloride	mg/L	04/12/2016	N001	17.25 - 22.2	190		F	#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	17.25 - 22.2	3.88		FJ	#		
Fluoride	mg/L	04/12/2016	N001	17.25 - 22.2	1	U	F	#	1	
Iron	mg/L	04/12/2016	N001	17.25 - 22.2	0.0067	U	F	#	0.0067	
Magnesium	mg/L	04/12/2016	N001	17.25 - 22.2	100		F	#	0.03	
Manganese	mg/L	04/12/2016	N001	17.25 - 22.2	0.00024	U	F	#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	17.25 - 22.2	0.0058		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	17.25 - 22.2	7.7	N	JF	#	0.1	
Oxidation Reduction Potential	mV	04/12/2016	N001	17.25 - 22.2	98.1		F	#		
pH	s.u.	04/12/2016	N001	17.25 - 22.2	6.75		F	#		
Potassium	mg/L	04/12/2016	N001	17.25 - 22.2	4.6		F	#	0.052	
Selenium	mg/L	04/12/2016	N001	17.25 - 22.2	0.035		F	#	0.00066	
Sodium	mg/L	04/12/2016	N001	17.25 - 22.2	200		F	#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	17.25 - 22.2	2904		F	#		
Sulfate	mg/L	04/12/2016	N001	17.25 - 22.2	1100		F	#	25	

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

REPORT DATE: 6/20/2016

Location: T01-07 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	17.25 - 22.2	10.49		F	#		
Turbidity	NTU	04/12/2016	N001	17.25 - 22.2	1.93		F	#		
Uranium	mg/L	04/12/2016	N001	17.25 - 22.2	0.11		F	#	0.000012	
Vanadium	mg/L	04/12/2016	N001	17.25 - 22.2	0.084		F	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: T01-12 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	18.5 - 23.4	385		F	#		
Arsenic	mg/L	04/12/2016	N001	18.5 - 23.4	0.003		F	#	0.00012	
Calcium	mg/L	04/12/2016	N001	18.5 - 23.4	330		F	#	0.024	
Chloride	mg/L	04/12/2016	N001	18.5 - 23.4	170		F	#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	18.5 - 23.4	6.22		F	#		
Fluoride	mg/L	04/12/2016	N001	18.5 - 23.4	1	U	F	#	1	
Iron	mg/L	04/12/2016	N001	18.5 - 23.4	0.0067	J	UF	#	0.0067	
Magnesium	mg/L	04/12/2016	N001	18.5 - 23.4	73		F	#	0.03	
Manganese	mg/L	04/12/2016	N001	18.5 - 23.4	0.00071	J	F	#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	18.5 - 23.4	0.003		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	18.5 - 23.4	7		F	#	0.1	
Oxidation Reduction Potential	mV	04/12/2016	N001	18.5 - 23.4	83.3		F	#		
pH	s.u.	04/12/2016	N001	18.5 - 23.4	6.95		F	#		
Potassium	mg/L	04/12/2016	N001	18.5 - 23.4	4.3		F	#	0.052	
Selenium	mg/L	04/12/2016	N001	18.5 - 23.4	0.025		F	#	0.00066	
Sodium	mg/L	04/12/2016	N001	18.5 - 23.4	150		F	#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	18.5 - 23.4	2427		F	#		
Sulfate	mg/L	04/12/2016	N001	18.5 - 23.4	830		F	#	5	

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

REPORT DATE: 6/20/2016

Location: T01-12 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	18.5 - 23.4	10.46		F	#		
Total Dissolved Solids	mg/L	04/12/2016	N001	18.5 - 23.4	2000		F	#	40	
Turbidity	NTU	04/12/2016	N001	18.5 - 23.4	9.56		F	#		
Uranium	mg/L	04/12/2016	N001	18.5 - 23.4	0.16		F	#	0.000012	
Vanadium	mg/L	04/12/2016	N001	18.5 - 23.4	0.034		F	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: T01-19 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	7 - 11.9	385		QF	#		
Arsenic	mg/L	04/12/2016	0001	7 - 11.9	0.0022		QF	#	0.00012	
Calcium	mg/L	04/12/2016	0001	7 - 11.9	220		QF	#	0.024	
Chloride	mg/L	04/12/2016	0001	7 - 11.9	100		QF	#	2	
Fluoride	mg/L	04/12/2016	0001	7 - 11.9	1	U	QF	#	1	
Iron	mg/L	04/12/2016	0001	7 - 11.9	0.23		QF	#	0.0067	
Magnesium	mg/L	04/12/2016	0001	7 - 11.9	37		QF	#	0.03	
Manganese	mg/L	04/12/2016	0001	7 - 11.9	4.3		QF	#	0.00024	
Molybdenum	mg/L	04/12/2016	0001	7 - 11.9	0.0046		QF	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	0001	7 - 11.9	0.15		QF	#	0.01	
Oxidation Reduction Potential	mV	04/12/2016	N001	7 - 11.9	49.7		QF	#		
pH	s.u.	04/12/2016	N001	7 - 11.9	7.49		QF	#		
Potassium	mg/L	04/12/2016	0001	7 - 11.9	3.4		QF	#	0.052	
Selenium	mg/L	04/12/2016	0001	7 - 11.9	0.00066	U	QF	#	0.00066	
Sodium	mg/L	04/12/2016	0001	7 - 11.9	100		QF	#	0.0066	
Specific Conductance	umhos /cm	04/12/2016	N001	7 - 11.9	1878		QF	#		
Sulfate	mg/L	04/12/2016	0001	7 - 11.9	440		QF	#	5	
Temperature	C	04/12/2016	N001	7 - 11.9	9.25		QF	#		

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

REPORT DATE: 6/20/2016

Location: T01-19 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Turbidity	NTU	04/12/2016	N001	7 - 11.9	37.3		QF	#		
Uranium	mg/L	04/12/2016	0001	7 - 11.9	0.058		QF	#	0.000012	
Vanadium	mg/L	04/12/2016	0001	7 - 11.9	0.0013	J	QF	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: T01-35 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Qualifiers Lab	Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	-	370		F	#		
Arsenic	mg/L	04/12/2016	N001	-	0.0098		F	#	0.00012	
Calcium	mg/L	04/12/2016	N001	-	310		F	#	0.024	
Chloride	mg/L	04/12/2016	N001	-	120		F	#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	-	6.58		F	#		
Fluoride	mg/L	04/12/2016	N001	-	1	U	F	#	1	
Iron	mg/L	04/12/2016	N001	-	0.0067	J	UF	#	0.0067	
Magnesium	mg/L	04/12/2016	N001	-	63		F	#	0.03	
Manganese	mg/L	04/12/2016	N001	-	0.00067	J	F	#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	-	0.0048		F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	-	3.1		F	#	0.1	
Oxidation Reduction Potential	mV	04/12/2016	N001	-	89.8		F	#		
pH	s.u.	04/12/2016	N001	-	7		F	#		
Potassium	mg/L	04/12/2016	N001	-	3.9		F	#	0.052	
Selenium	mg/L	04/12/2016	N001	-	0.016		F	#	0.00066	
Sodium	mg/L	04/12/2016	N001	-	110		F	#	0.047	
Specific Conductance	umhos /cm	04/12/2016	N001	-	2124		F	#		
Sulfate	mg/L	04/12/2016	N001	-	750		F	#	5	

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

REPORT DATE: 6/20/2016

Location: T01-35 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	-	10.87		F	#		
Turbidity	NTU	04/12/2016	N001	-	2.19		F	#		
Uranium	mg/L	04/12/2016	N001	-	0.11		F	#	0.000012	
Vanadium	mg/L	04/12/2016	N001	-	0.16		F	#	0.00058	

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

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: 6/20/2016

Location: SW00-02 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	290		#		
Arsenic	mg/L	04/12/2016	N001	0.0006	J	#	0.00012	
Calcium	mg/L	04/12/2016	N001	250		#	0.024	
Chloride	mg/L	04/12/2016	N001	43		#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	9.6	J	#		
Fluoride	mg/L	04/12/2016	N001	1	U	#	1	
Iron	mg/L	04/12/2016	N001	0.18		#	0.0067	
Magnesium	mg/L	04/12/2016	N001	44		#	0.03	
Manganese	mg/L	04/12/2016	N001	0.22		#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	0.0019	J	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	0.01	U	#	0.01	
Oxidation Reduction Potential	mV	04/12/2016	N001	27.8		#		
pH	s.u.	04/12/2016	N001	8.12		#		
Potassium	mg/L	04/12/2016	N001	3		#	0.052	
Selenium	mg/L	04/12/2016	N001	0.00066	U	#	0.00066	
Sodium	mg/L	04/12/2016	N001	60		#	0.047	
Specific Conductance	umhos/cm	04/12/2016	N001	1548		#		
Sulfate	mg/L	04/12/2016	N001	570		#	5	

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

REPORT DATE: 6/20/2016

Location: SW00-02 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	10.43		#		
Total Dissolved Solids	mg/L	04/12/2016	N001	1200		#	40	
Turbidity	NTU	04/12/2016	N001	5.49		#		
Uranium	mg/L	04/12/2016	N001	0.014		#	0.000012	
Vanadium	mg/L	04/12/2016	N001	0.00075	J	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: SW00-04 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/11/2016	N001	252		#		
Arsenic	mg/L	04/11/2016	0001	0.001		#	0.00012	
Calcium	mg/L	04/11/2016	0001	220		#	0.024	
Chloride	mg/L	04/11/2016	0001	75		#	2	
Dissolved Oxygen	mg/L	04/11/2016	N001	10.1		#		
Fluoride	mg/L	04/11/2016	0001	1	U	#	1	
Iron	mg/L	04/11/2016	0001	0.0067	J U	#	0.0067	
Magnesium	mg/L	04/11/2016	0001	51		#	0.03	
Manganese	mg/L	04/11/2016	0001	0.23		#	0.00024	
Molybdenum	mg/L	04/11/2016	0001	0.0077		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/11/2016	0001	0.018		#	0.01	
Oxidation Reduction Potential	mV	04/11/2016	N001	111.9		#		
pH	s.u.	04/11/2016	N001	7.7		#		
Potassium	mg/L	04/11/2016	0001	4.4		#	0.052	
Selenium	mg/L	04/11/2016	0001	0.0033		#	0.00066	
Sodium	mg/L	04/11/2016	0001	93		#	0.047	
Specific Conductance	umhos/cm	04/11/2016	N001	1626		#		
Sulfate	mg/L	04/11/2016	0001	590		#	5	

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

REPORT DATE: 6/20/2016

Location: SW00-04 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/11/2016	N001	13.81			#		
Turbidity	NTU	04/11/2016	N001	12.5			#		
Uranium	mg/L	04/11/2016	0001	0.077			#	0.000012	
Vanadium	mg/L	04/11/2016	0001	0.002	J		#	0.00058	

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

REPORT DATE: 6/20/2016

Location: SW01-01 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	278		#		
Arsenic	mg/L	04/12/2016	N001	0.00036	J	J	#	0.00012
Calcium	mg/L	04/12/2016	N001	240		#	0.024	
Chloride	mg/L	04/12/2016	N001	43		#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	7.43	J	#		
Fluoride	mg/L	04/12/2016	N001	1	U	#	1	
Iron	mg/L	04/12/2016	N001	0.2		#	0.0067	
Magnesium	mg/L	04/12/2016	N001	45		#	0.03	
Manganese	mg/L	04/12/2016	N001	0.075		#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	0.0019	J	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	0.01	U	#	0.01	
Oxidation Reduction Potential	mV	04/12/2016	N001	15.4		#		
pH	s.u.	04/12/2016	N001	8.03		#		
Potassium	mg/L	04/12/2016	N001	3		#	0.052	
Selenium	mg/L	04/12/2016	N001	0.00066	U	#	0.00066	
Sodium	mg/L	04/12/2016	N001	59		#	0.047	
Specific Conductance	umhos/cm	04/12/2016	N001	1515		#		
Sulfate	mg/L	04/12/2016	N001	570		#	5	

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

REPORT DATE: 6/20/2016

Location: SW01-01 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	11.92			#		
Total Dissolved Solids	mg/L	04/12/2016	N001	1200			#	40	
Turbidity	NTU	04/12/2016	N001	3.62			#		
Uranium	mg/L	04/12/2016	N001	0.014			#	0.000012	
Vanadium	mg/L	04/12/2016	N001	0.0017	J		#	0.00058	

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

REPORT DATE: 6/20/2016

Location: SW01-02 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	283		#		
Arsenic	mg/L	04/12/2016	N001	0.00036	J	J	0.00012	
Calcium	mg/L	04/12/2016	N001	270		#	0.024	
Chloride	mg/L	04/12/2016	N001	26		#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	6.48		#		
Fluoride	mg/L	04/12/2016	N001	1	U	#	1	
Iron	mg/L	04/12/2016	N001	0.22		#	0.0067	
Magnesium	mg/L	04/12/2016	N001	45		#	0.03	
Manganese	mg/L	04/12/2016	N001	0.094		#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	0.0017	J	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	0.046		#	0.01	
Oxidation Reduction Potential	mV	04/12/2016	N001	0.1		#		
pH	s.u.	04/12/2016	N001	7.37		#		
Potassium	mg/L	04/12/2016	N001	2.7		#	0.052	
Selenium	mg/L	04/12/2016	N001	0.00086	J	#	0.00066	
Sodium	mg/L	04/12/2016	N001	57		#	0.047	
Specific Conductance	umhos/cm	04/12/2016	N001	1617		#		
Sulfate	mg/L	04/12/2016	N001	640		#	5	

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

REPORT DATE: 6/20/2016

Location: SW01-02 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	5.23		#		
Total Dissolved Solids	mg/L	04/12/2016	N001	1300		#	40	
Turbidity	NTU	04/12/2016	N001	2.31		#		
Uranium	mg/L	04/12/2016	N001	0.0076		#	0.000012	
Vanadium	mg/L	04/12/2016	N001	0.00058	U	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: SW01-03 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	306		#		
Arsenic	mg/L	04/12/2016	N001	0.00034	J	J	0.00012	
Calcium	mg/L	04/12/2016	N001	260		#	0.024	
Chloride	mg/L	04/12/2016	N001	43		#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	7.8		#		
Fluoride	mg/L	04/12/2016	N001	1	U	#	1	
Iron	mg/L	04/12/2016	N001	0.13		#	0.0067	
Magnesium	mg/L	04/12/2016	N001	44		#	0.03	
Manganese	mg/L	04/12/2016	N001	0.22		#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	0.0018	J	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	0.02		#	0.01	
Oxidation Reduction Potential	mV	04/12/2016	N001	29.6		#		
pH	s.u.	04/12/2016	N001	7.64		#		
Potassium	mg/L	04/12/2016	N001	2.9		#	0.052	
Selenium	mg/L	04/12/2016	N001	0.00078	J	#	0.00066	
Sodium	mg/L	04/12/2016	N001	59		#	0.047	
Specific Conductance	umhos/cm	04/12/2016	N001	1573		#		
Sulfate	mg/L	04/12/2016	N001	570		#	5	

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

REPORT DATE: 6/20/2016

Location: SW01-03 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	6.69			#		
Turbidity	NTU	04/12/2016	N001	6.78			#		
Uranium	mg/L	04/12/2016	N001	0.013			#	0.000012	
Vanadium	mg/L	04/12/2016	N001	0.00058	U		#	0.00058	

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

REPORT DATE: 6/20/2016

Location: SW92-08 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/13/2016	N001	269		#		
Arsenic	mg/L	04/13/2016	N001	0.0015		#	0.00012	
Calcium	mg/L	04/13/2016	N001	210		#	0.024	
Chloride	mg/L	04/13/2016	N001	74		#	2	
Dissolved Oxygen	mg/L	04/13/2016	N001	9.12		#		
Fluoride	mg/L	04/13/2016	N001	1	U	#	1	
Iron	mg/L	04/13/2016	N001	0.32		#	0.0067	
Magnesium	mg/L	04/13/2016	N001	49		#	0.03	
Manganese	mg/L	04/13/2016	N001	0.25		#	0.00024	
Molybdenum	mg/L	04/13/2016	N001	0.0077		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/13/2016	N001	0.01	U	#	0.01	
Oxidation Reduction Potential	mV	04/13/2016	N001	180.2		#		
pH	s.u.	04/13/2016	N001	8.05		#		
Potassium	mg/L	04/13/2016	N001	4.2		#	0.052	
Selenium	mg/L	04/13/2016	N001	0.0026		#	0.00066	
Sodium	mg/L	04/13/2016	N001	91		#	0.047	
Specific Conductance	umhos/cm	04/13/2016	N001	1580		#		
Sulfate	mg/L	04/13/2016	N001	550		#	5	

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

REPORT DATE: 6/20/2016

Location: SW92-08 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/13/2016	N001	7.75			#		
Turbidity	NTU	04/13/2016	N001	9.2			#		
Uranium	mg/L	04/13/2016	N001	0.075			#	0.000012	
Vanadium	mg/L	04/13/2016	N001	0.0027	J		#	0.00058	

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

REPORT DATE: 6/20/2016

Location: SW92-09 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/13/2016	N001	261		#		
Arsenic	mg/L	04/13/2016	0001	0.0015		#	0.00012	
Calcium	mg/L	04/13/2016	0001	210		#	0.024	
Chloride	mg/L	04/13/2016	0001	78		#	2	
Dissolved Oxygen	mg/L	04/13/2016	N001	9.31		#		
Fluoride	mg/L	04/13/2016	0001	1	U	#	1	
Iron	mg/L	04/13/2016	0001	0.0067	J U	#	0.0067	
Magnesium	mg/L	04/13/2016	0001	49		#	0.03	
Manganese	mg/L	04/13/2016	0001	0.19		#	0.00024	
Molybdenum	mg/L	04/13/2016	0001	0.0082		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/13/2016	0001	0.015		#	0.01	
Oxidation Reduction Potential	mV	04/13/2016	N001	137.9		#		
pH	s.u.	04/13/2016	N001	8.04		#		
Potassium	mg/L	04/13/2016	0001	4.3		#	0.052	
Selenium	mg/L	04/13/2016	0001	0.0021		#	0.00066	
Sodium	mg/L	04/13/2016	0001	96		#	0.047	
Specific Conductance	umhos/cm	04/13/2016	N001	1603		#		
Sulfate	mg/L	04/13/2016	0001	560		#	5	

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

REPORT DATE: 6/20/2016

Location: SW92-09 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/13/2016	N001	6.41			#		
Turbidity	NTU	04/13/2016	N001	18.7			#		
Uranium	mg/L	04/13/2016	0001	0.08			#	0.000012	
Vanadium	mg/L	04/13/2016	0001	0.0024	J		#	0.00058	

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

REPORT DATE: 6/20/2016

Location: SW94-01 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/13/2016	N001	272		#		
Arsenic	mg/L	04/13/2016	0001	0.0016		#	0.00012	
Calcium	mg/L	04/13/2016	0001	210		#	0.024	
Chloride	mg/L	04/13/2016	0001	81		#	2	
Dissolved Oxygen	mg/L	04/13/2016	N001	9.28		#		
Fluoride	mg/L	04/13/2016	0001	1	U	#	1	
Iron	mg/L	04/13/2016	0001	0.0067	J U	#	0.0067	
Magnesium	mg/L	04/13/2016	0001	49		#	0.03	
Manganese	mg/L	04/13/2016	0001	0.19		#	0.00024	
Molybdenum	mg/L	04/13/2016	0001	0.008		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/13/2016	0001	0.01	U	#	0.01	
Oxidation Reduction Potential	mV	04/13/2016	N001	131		#		
pH	s.u.	04/13/2016	N001	7.99		#		
Potassium	mg/L	04/13/2016	0001	4.4		#	0.052	
Selenium	mg/L	04/13/2016	0001	0.0016		#	0.00066	
Sodium	mg/L	04/13/2016	0001	100		#	0.047	
Specific Conductance	umhos/cm	04/13/2016	N001	1617		#		
Sulfate	mg/L	04/13/2016	0001	550		#	5	

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

REPORT DATE: 6/20/2016

Location: SW94-01 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/13/2016	N001	5.89			#		
Turbidity	NTU	04/13/2016	N001	24.9			#		
Uranium	mg/L	04/13/2016	0001	0.08			#	0.000012	
Vanadium	mg/L	04/13/2016	0001	0.0029	J		#	0.00058	

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

REPORT DATE: 6/20/2016

Location: Seep 3 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	323		#		
Arsenic	mg/L	04/12/2016	N001	0.00012	U	J	#	0.00012
Calcium	mg/L	04/12/2016	N001	400		#	0.024	
Chloride	mg/L	04/12/2016	N001	310		#	10	
Fluoride	mg/L	04/12/2016	N001	1	U	#	1	
Iron	mg/L	04/12/2016	N001	0.0067	J	U	#	0.0067
Magnesium	mg/L	04/12/2016	N001	120		#	0.03	
Manganese	mg/L	04/12/2016	N001	0.0039	J	#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	0.0013	J	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	37		#	1	
Oxidation Reduction Potential	mV	04/12/2016	N001	106.4		#		
pH	s.u.	04/12/2016	N001	7.48		#		
Potassium	mg/L	04/12/2016	N001	9.8		#	0.052	
Selenium	mg/L	04/12/2016	N001	0.066		#	0.00066	
Sodium	mg/L	04/12/2016	N001	280		#	0.047	
Specific Conductance	umhos/cm	04/12/2016	N001	3641		#		
Sulfate	mg/L	04/12/2016	N001	1300		#	25	
Temperature	C	04/12/2016	N001	15.89		#		

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

REPORT DATE: 6/20/2016

Location: Seep 3 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Turbidity	NTU	04/12/2016	N001	4.58		#		
Uranium	mg/L	04/12/2016	N001	0.032		#	0.000012	
Vanadium	mg/L	04/12/2016	N001	0.00058	J	#	0.00058	

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

REPORT DATE: 6/20/2016

Location: Seep 6 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	354		#		
Arsenic	mg/L	04/12/2016	N001	0.00062	J	#	0.00012	
Calcium	mg/L	04/12/2016	N001	390		#	0.024	
Chloride	mg/L	04/12/2016	N001	290		#	10	
Fluoride	mg/L	04/12/2016	N001	1	U	#	1	
Iron	mg/L	04/12/2016	N001	0.25		#	0.0067	
Magnesium	mg/L	04/12/2016	N001	120		#	0.03	
Manganese	mg/L	04/12/2016	N001	0.019		#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	0.013		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	5.5		#	0.1	
Oxidation Reduction Potential	mV	04/12/2016	N001	42		#		
pH	s.u.	04/12/2016	N001	7.75		#		
Potassium	mg/L	04/12/2016	N001	7.6		#	0.052	
Selenium	mg/L	04/12/2016	N001	0.0026		#	0.00066	
Sodium	mg/L	04/12/2016	N001	300		#	0.047	
Specific Conductance	umhos/cm	04/12/2016	N001	3503		#		
Sulfate	mg/L	04/12/2016	N001	1400		#	25	
Temperature	C	04/12/2016	N001	8.49		#		

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

REPORT DATE: 6/20/2016

Location: Seep 6 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Turbidity	NTU	04/12/2016	N001	3.23		#		
Uranium	mg/L	04/12/2016	N001	2.5		#	0.00012	
Vanadium	mg/L	04/12/2016	N001	0.016		#	0.00058	

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

REPORT DATE: 6/20/2016

Location: Sorenson SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/11/2016	N001	260		#		
Arsenic	mg/L	04/11/2016	0001	0.0012		#	0.00012	
Arsenic	mg/L	04/11/2016	0002	0.0012		#	0.00012	
Calcium	mg/L	04/11/2016	0001	230		#	0.024	
Calcium	mg/L	04/11/2016	0002	230		#	0.024	
Chloride	mg/L	04/11/2016	0001	77		#	2	
Chloride	mg/L	04/11/2016	0002	77		#	2	
Dissolved Oxygen	mg/L	04/11/2016	N001	8.37		#		
Fluoride	mg/L	04/11/2016	0001	1	U	#	1	
Fluoride	mg/L	04/11/2016	0002	1	U	#	1	
Iron	mg/L	04/11/2016	0001	0.057	J	#	0.0067	
Iron	mg/L	04/11/2016	0002	0.088	J	#	0.0067	
Magnesium	mg/L	04/11/2016	0001	51		#	0.03	
Magnesium	mg/L	04/11/2016	0002	53		#	0.03	
Manganese	mg/L	04/11/2016	0001	0.21		#	0.00024	
Manganese	mg/L	04/11/2016	0002	0.24		#	0.00024	
Molybdenum	mg/L	04/11/2016	0001	0.0093		#	0.00032	
Molybdenum	mg/L	04/11/2016	0002	0.0098		#	0.00032	

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

REPORT DATE: 6/20/2016

Location: Sorenson SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Nitrate + Nitrite as Nitrogen	mg/L	04/11/2016	0001	0.044		#	0.01	
Nitrate + Nitrite as Nitrogen	mg/L	04/11/2016	0002	0.037		#	0.01	
Oxidation Reduction Potential	mV	04/11/2016	N001	87		#		
pH	s.u.	04/11/2016	N001	8.05		#		
Potassium	mg/L	04/11/2016	0001	4.5		#	0.052	
Potassium	mg/L	04/11/2016	0002	4.7		#	0.052	
Selenium	mg/L	04/11/2016	0001	0.0035		#	0.00066	
Selenium	mg/L	04/11/2016	0002	0.0037		#	0.00066	
Sodium	mg/L	04/11/2016	0001	91		#	0.047	
Sodium	mg/L	04/11/2016	0002	97		#	0.047	
Specific Conductance	umhos/cm	04/11/2016	N001	1653		#		
Sulfate	mg/L	04/11/2016	0001	620		#	5	
Sulfate	mg/L	04/11/2016	0002	610		#	5	
Temperature	C	04/11/2016	N001	15.03		#		
Total Dissolved Solids	mg/L	04/11/2016	0001	1300		#	40	
Total Dissolved Solids	mg/L	04/11/2016	0002	1400		#	40	
Turbidity	NTU	04/11/2016	N001	12.6		#		
Uranium	mg/L	04/11/2016	0001	0.089		#	0.000012	

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

REPORT DATE: 6/20/2016

Location: Sorenson SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Uranium	mg/L	04/11/2016	0002	0.091			#	0.000012	
Vanadium	mg/L	04/11/2016	0001	0.002	J		#	0.00058	
Vanadium	mg/L	04/11/2016	0002	0.0022	J		#	0.00058	

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

REPORT DATE: 6/20/2016

Location: W3-03 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	335		#		
Arsenic	mg/L	04/12/2016	N001	0.0024		#	0.00012	
Calcium	mg/L	04/12/2016	N001	260		#	0.024	
Chloride	mg/L	04/12/2016	N001	110		#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	3.65	J	#		
Fluoride	mg/L	04/12/2016	N001	1	U	#	1	
Iron	mg/L	04/12/2016	N001	0.37		#	0.0067	
Magnesium	mg/L	04/12/2016	N001	63		#	0.03	
Manganese	mg/L	04/12/2016	N001	0.26		#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	0.0028		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	0.014		#	0.01	
Oxidation Reduction Potential	mV	04/12/2016	N001	9.1		#		
pH	s.u.	04/12/2016	N001	7.42		#		
Potassium	mg/L	04/12/2016	N001	8.9		#	0.052	
Selenium	mg/L	04/12/2016	N001	0.00066	U	#	0.00066	
Sodium	mg/L	04/12/2016	N001	120		#	0.047	
Specific Conductance	umhos/cm	04/12/2016	N001	1656		#		
Sulfate	mg/L	04/12/2016	N001	700		#	5	

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

REPORT DATE: 6/20/2016

Location: W3-03 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	10.11			#		
Turbidity	NTU	04/12/2016	N001	7.64			#		
Uranium	mg/L	04/12/2016	N001	0.061			#	0.000012	
Vanadium	mg/L	04/12/2016	N001	0.0016	J		#	0.00058	

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

REPORT DATE: 6/20/2016

Location: W3-04 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	04/12/2016	N001	299	#		
Arsenic	mg/L	04/12/2016	N001	0.00062	J	#	0.00012
Calcium	mg/L	04/12/2016	N001	260	#	0.024	
Chloride	mg/L	04/12/2016	N001	43	#	2	
Dissolved Oxygen	mg/L	04/12/2016	N001	9.53	J	#	
Fluoride	mg/L	04/12/2016	N001	1	U	#	1
Iron	mg/L	04/12/2016	N001	0.34	#	0.0067	
Magnesium	mg/L	04/12/2016	N001	45	#	0.03	
Manganese	mg/L	04/12/2016	N001	0.23	#	0.00024	
Molybdenum	mg/L	04/12/2016	N001	0.0017	J	#	0.00032
Nitrate + Nitrite as Nitrogen	mg/L	04/12/2016	N001	0.01	U	#	0.01
Oxidation Reduction Potential	mV	04/12/2016	N001	47.8	#		
pH	s.u.	04/12/2016	N001	8.08	#		
Potassium	mg/L	04/12/2016	N001	2.9	#	0.052	
Selenium	mg/L	04/12/2016	N001	0.00066	U	#	0.00066
Sodium	mg/L	04/12/2016	N001	58	#	0.047	
Specific Conductance	umhos/cm	04/12/2016	N001	1436	#		
Sulfate	mg/L	04/12/2016	N001	590	#	5	

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

REPORT DATE: 6/20/2016

Location: W3-04 SURFACE LOCATION

Parameter	Units	Sample Date	ID	Result	Qualifiers Lab Data	QA	Detection Limit	Uncertainty
Temperature	C	04/12/2016	N001	10.11		#		
Turbidity	NTU	04/12/2016	N001	5.19		#		
Uranium	mg/L	04/12/2016	N001	0.016		#	0.000012	
Vanadium	mg/L	04/12/2016	N001	0.00083	J	#	0.00058	

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

QA QUALIFIER:

- # Validated according to quality assurance guidelines.

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Static Water Level Data

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STATIC WATER LEVELS (USEE700) FOR SITE MNT01, Monticello Disposal & Process Sites
REPORT DATE: 6/20/2016

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	04/13/2016	08:35:34	6.1	6756.59	
0202	D	6785.81	04/12/2016	15:15:50	15.44	6770.37	
31NE93-205	C	6940.62	04/11/2016	18:45:00	181.82	6758.8	
82-08	D	6787.4	04/12/2016	16:15:13	13.09	6774.31	
83-70	D	6800.91	04/11/2016	15:38:00			B
88-85	D	6797.09	04/12/2016	14:40:54	4.71	6792.38	
92-07	D	6804.02	04/12/2016	14:15:03	17.05	6786.97	
92-08	D	6775.68	04/12/2016	14:45:23	11.66	6764.02	
92-09	D	6733.29	04/12/2016	16:50:53	10.2	6723.09	
92-10	D	6733.8	04/12/2016	16:50:00	12.52	6721.28	
92-11	D	6813.73	04/12/2016	13:25:12	18.74	6794.99	
92-12	D	6815.05	04/12/2016	08:35:00	55.09	6759.96	
93-01	O	6889.98	04/11/2016	17:02:00	112.02	6777.96	
95-01	D	6675.83	04/11/2016	15:20:00	3.7	6672.13	
95-01	D	6675.83	04/11/2016	15:21:00	3.7	6672.13	
95-02	D	6678.99	04/11/2016	15:21:00	2.15	6676.84	
95-03	D	6704.78	04/11/2016	15:29:00	1.81	6702.97	
95-04	D	6706.24	04/11/2016	15:22:00	2.5	6703.74	
95-06	D	6824.91	04/11/2016	19:00:00	72.8	6752.11	
95-07	C	6883.34	04/11/2016	19:18:00	70.31	6813.03	
95-08	D	6841.51	04/11/2016	14:13:00	128.19	6713.32	
MW00-01	U	6882.77	04/12/2016	09:00:33	8.63	6874.14	
MW00-02	U	6883.26	04/11/2016	16:57:00	5.78	6877.48	
MW00-03	O	6853.15	04/11/2016	15:30:00			D
MW00-06	D	6793.14	04/12/2016	11:35:32	15.9	6777.24	
MW00-07	D	6790.85	04/12/2016	15:22:00	20.81	6770.04	
P92-02	D	6737.02	04/12/2016	16:55:00	12.44	6724.58	
P92-06	D	6774.73	04/12/2016	14:20:27	11.32	6763.41	
PW-10	D	6813.94	04/11/2016	15:50:35	31.69	6782.25	

STATIC WATER LEVELS (USEE700) FOR SITE MNT01, Monticello Disposal & Process Sites
REPORT DATE: 6/20/2016

Location Code	Flow Code	Top of Casing Elevation (Ft)	Measurement Date	Time	Depth From Top of Casing (Ft)	Water Elevation (Ft)	Water Level Flag
PW-14	D	6800.44	04/12/2016	09:44:00	18.42	6782.02	
PW-16	D	6796.72	04/11/2016	18:18:00	13.13	6783.59	
PW-17	D	6817.35	04/11/2016	15:10:08	32.9	6784.45	
PW-18	D	6799.73	04/12/2016	17:01:00	8.47	6791.26	
PW-20	D	6799.57	04/12/2016	17:02:00	12.34	6787.23	
PW-22	D	6797.45	04/12/2016	16:03:00	11	6786.45	
PW-23	D	6809.15	04/12/2016	10:35:00	23.75	6785.4	
PW-28	D	6799.93	04/12/2016	15:10:41	8.86	6791.07	
R1-M2	D	6796.6	04/11/2016	18:22:00	4.52	6792.08	
R1-M3	D	6795.91	04/12/2016	10:20:48	3.83	6792.08	
R1-M4	D	6795.85	04/11/2016	15:41:00	5.9	6789.95	
R1-M4	D	6795.85	04/12/2016	10:45:02	3.81	6792.04	
R1-M5	D	6795.61	04/12/2016	08:19:00	3.78	6791.83	
R1-M6	D	6798.16	04/12/2016	17:03:00	6.05	6792.11	
R10-M1	D	6795.11	04/12/2016	11:00:10	13.64	6781.47	
R11-M1	D	6794.79	04/12/2016	07:55:00	13.18	6781.61	
R2-M1	D	6796.94	04/11/2016	18:22:00	4.95	6791.99	
R2-M10	D	6795.56	04/12/2016	08:25:00	.2	6795.36	
R2-M2	D	6796.43	04/11/2016	18:23:00	4.41	6792.02	
R2-M3	D	6796.03	04/11/2016	18:28:00	4	6792.03	
R2-M4	D	6795.84	04/11/2016	18:28:00	3.59	6792.25	
R2-M5	D	6795.71	04/11/2016	18:33:00	3.66	6792.05	
R2-M6	D	6795.71	04/12/2016	08:11:00	3.7	6792.01	
R2-M7	D	6795.8	04/12/2016	08:15:00	3.8	6792	
R2-M8	D	6795.76	04/12/2016	08:18:00	3.81	6791.95	
R2-M9	D	6795.58	04/12/2016	08:21:00	3.59	6791.99	
R3-M1	D	6796.42	04/11/2016	18:24:00	4.39	6792.03	
R3-M2	D	6795.8	04/12/2016	10:05:50	3.74	6792.06	
R3-M3	D	6795.76	04/12/2016	10:35:55	3.78	6791.98	

STATIC WATER LEVELS (USEE700) FOR SITE MNT01, Monticello Disposal & Process Sites
REPORT DATE: 6/20/2016

Location Code	Flow Code	Top of Casing Elevation (Ft)	Measurement Date	Time	Depth From Top of Casing (Ft)	Water Elevation (Ft)	Water Level Flag
R3-M4	D	6795.55	04/12/2016	08:21:00	3.59	6791.96	
R4-M1	D	6796.41	04/11/2016	18:24:00	9.37	6787.04	
R4-M2	D	6795.97	04/11/2016	18:27:00	9.1	6786.87	
R4-M3	D	6795.76	04/12/2016	09:15:09	9.45	6786.31	
R4-M4	D	6795.66	04/11/2016	18:33:00	8.71	6786.95	
R4-M5	D	6795.72	04/12/2016	08:12:00	8.42	6787.29	
R4-M6	D	6795.71	04/12/2016	09:35:23	9.06	6786.65	
R4-M7	D	6795.58	04/12/2016	08:18:00	8.74	6786.84	
R4-M8	D	6795.67	04/12/2016	08:22:00	9.33	6786.34	
R5-M1	D	6796.84	04/11/2016	18:20:00	10	6786.84	
R5-M10	D	6795.63	04/12/2016	08:27:00	8.75	6786.88	
R5-M2	D	6796.39	04/11/2016	18:25:00	9.52	6786.87	
R5-M3	D	6795.98	04/11/2016	18:26:00	9.1	6786.88	
R5-M4	D	6795.76	04/11/2016	18:30:00	8.89	6786.87	
R5-M5	D	6795.63	04/11/2016	18:31:00	8.75	6786.88	
R5-M6	D	6795.7	04/12/2016	08:12:00	8.9	6786.8	
R5-M7	D	6795.7	04/12/2016	08:14:00	8.87	6786.83	
R5-M8	D	6795.52	04/12/2016	08:17:00	8.68	6786.84	
R5-M9	D	6795.66	04/12/2016	08:23:00	8.82	6786.84	
R6-M1	D	6797.41	04/11/2016	18:17:00	13.63	6783.78	
R6-M2	D	6796.18	04/11/2016	18:25:00	9.54	6786.64	
R6-M3	D	6795.71	04/12/2016	08:45:49	10.83	6784.88	
R6-M4	D	6795.53	04/12/2016	10:00:41	9.89	6785.64	
R6-M5	D	6795.54	04/12/2016	08:24:00	10	6785.54	
R6-M6	D	6797.22	04/12/2016	16:00:00	11.58	6785.64	
R7-M1	D	6796	04/11/2016	18:19:00	12.43	6783.57	
R7-M2	D	6795.78	04/11/2016	18:30:00	12.04	6783.74	
R8-M1	D	6795.6	04/12/2016	08:06:00	13.09	6782.51	
R9-M1	D	6795.21	04/12/2016	08:08:00	13.4	6781.81	

STATIC WATER LEVELS (USEE700) FOR SITE MNT01, Monticello Disposal & Process Sites
REPORT DATE: 6/20/2016

Location Code	Flow Code	Top of Casing Elevation (Ft)	Measurement Date	Time	Depth From Top of Casing (Ft)	Water Elevation (Ft)	Water Level Flag
T00-02	O	6806.77	04/11/2016	16:20:00	9.27	6797.5	
T00-03	O	6805.27	04/11/2016	16:16:00	7.38	6797.89	
T00-05	O	6809.45	04/11/2016	16:14:00	12.1	6797.35	
T00-06	O	6820.77	04/11/2016	16:13:00			D
T00-07	O	6823.09	04/11/2016	16:08:00			D
T01-01	O	6806.09	04/13/2016	09:55:55	7.68	6798.41	
T01-02	O	6807.66	04/13/2016	10:25:07	8.95	6798.71	
T01-04	O	6814.15	04/13/2016	10:50:53	14.45	6799.7	
T01-05	O	6822.21	04/13/2016	11:15:10	20.77	6801.44	
T01-06	O	6828.41	04/11/2016	16:23:00	23.88	6804.53	
T01-07	O	6823.29	04/12/2016	13:35:06	19.78	6803.51	
T01-08	O	6808.11	04/11/2016	16:18:00	4.67	6803.44	
T01-09	O	6832.8	04/11/2016	16:27:00			D
T01-10	O	6817.45	04/11/2016	17:26:00	6.22	6811.23	
T01-12	O	6844.34	04/12/2016	10:55:48	21.32	6823.02	
T01-13	O	6829.67	04/11/2016	17:19:00	6.46	6823.21	
T01-18	O	6860.49	04/11/2016	16:47:00	17.67	6842.82	
T01-19	O	6848.64	04/12/2016	09:55:58	6.81	6841.83	
T01-20	O	6845.4	04/11/2016	17:15:00	10.88	6834.52	
T01-20	O	6845.4	04/11/2016	17:19:00	10.88	6834.52	
T01-23	O	6858.89	04/11/2016	16:48:00	6.44	6852.45	
T01-23	O	6858.89	04/11/2016	16:51:00	6.44	6852.45	
T01-24	O	6858.83	04/11/2016	16:51:00	4.93	6853.9	
T01-25	O	6856.33	04/11/2016	17:12:00	6.26	6850.07	
T01-26	O	6878.24	04/11/2016	16:53:00	14.24	6864	
T01-27	O	6864.71	04/11/2016	17:04:00	1.12	6863.59	
T01-28	O	6869.2	04/11/2016	17:09:00	4.04	6865.16	
T01-35	O	6824.26	04/12/2016	11:20:17	12.4	6811.86	
T1-D	D	6795.82	04/11/2016	18:43:00	3.77	6792.05	

STATIC WATER LEVELS (USEE700) FOR SITE MNT01, Monticello Disposal & Process Sites
REPORT DATE: 6/20/2016

Location Code	Flow Code	Top of Casing Elevation (Ft)	Measurement Date	Time	Depth From Top of Casing (Ft)	Water Elevation (Ft)	Water Level Flag
T1-S	D	6795.84	04/11/2016	18:44:00	3.77	6792.07	
T2-D	D	6795.75	04/12/2016	08:09:00	3.74	6792.01	
T2-S	D	6795.71	04/11/2016	18:41:00	3.71	6792	
T3-D	D	6795.73	04/11/2016	18:40:00	3.71	6792.02	
T3-S	D	6795.77	04/11/2016	18:41:00	3.79	6791.98	
T4-D	D	6795.73	04/11/2016	18:39:00	8.84	6786.89	
T4-S	D	6795.57	04/11/2016	18:38:00	8.37	6787.2	
T5-D	D	6795.71	04/11/2016	18:36:00	8.8	6786.91	
T5-S	D	6795.7	04/11/2016	18:38:00	8.6	6787.1	
T6-D	D	6795.66	04/11/2016	18:35:00	11.43	6784.23	
T6-S	D	6795.64	04/11/2016	18:36:00			D
T7-D	D	6795.73	04/11/2016	18:34:00	11.84	6783.89	
TW-01	D	6796.54	04/12/2016	07:31:00	4.56	6791.98	
TW-02	D	6795.82	04/12/2016	07:03:00	3.8	6792.02	
TW-03	D	6795.61	04/12/2016	07:58:00	3.6	6792.01	
TW-04	D	6795.53	04/12/2016	08:10:00	3.51	6792.02	
TW-05	D	6795.29	04/12/2016	08:19:00	3.3	6791.99	
TW-06	D	6795.45	04/12/2016	08:28:00	8.49	6786.96	
TW-07	D	6795.46	04/12/2016	08:29:00	11.94	6783.52	
TW-08	D	6795.2	04/12/2016	07:36:00	11.55	6783.65	
TW-09	D	6795.24	04/12/2016	07:42:00	7.18	6788.06	
TW-10	D	6794.94	04/12/2016	08:25:00	10.58	6784.36	
TW-12	D	6795.68	04/12/2016	08:06:00	8.15	6787.53	
TW-13	D	6795.61	04/12/2016	08:13:00	8.55	6787.06	
TW-14	D	6795.5	04/12/2016	08:16:00	8.65	6786.85	

FLOW CODES: C CROSS GRADIENT D DOWNGRADIENT O ONSITE U UPGRADIENT

WATER LEVEL FLAGS: D Dry B Below top of pump

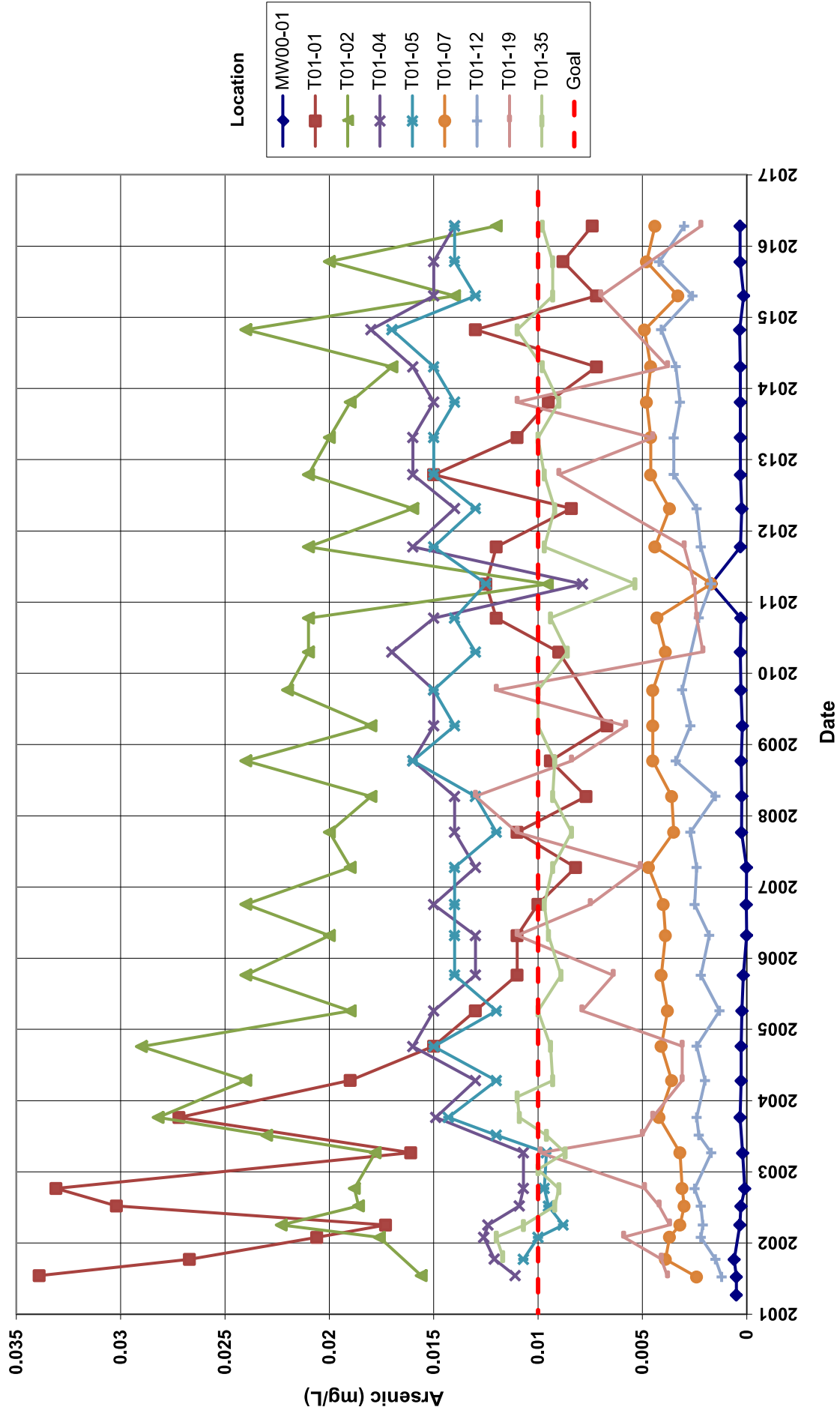
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Time-Concentration Graphs

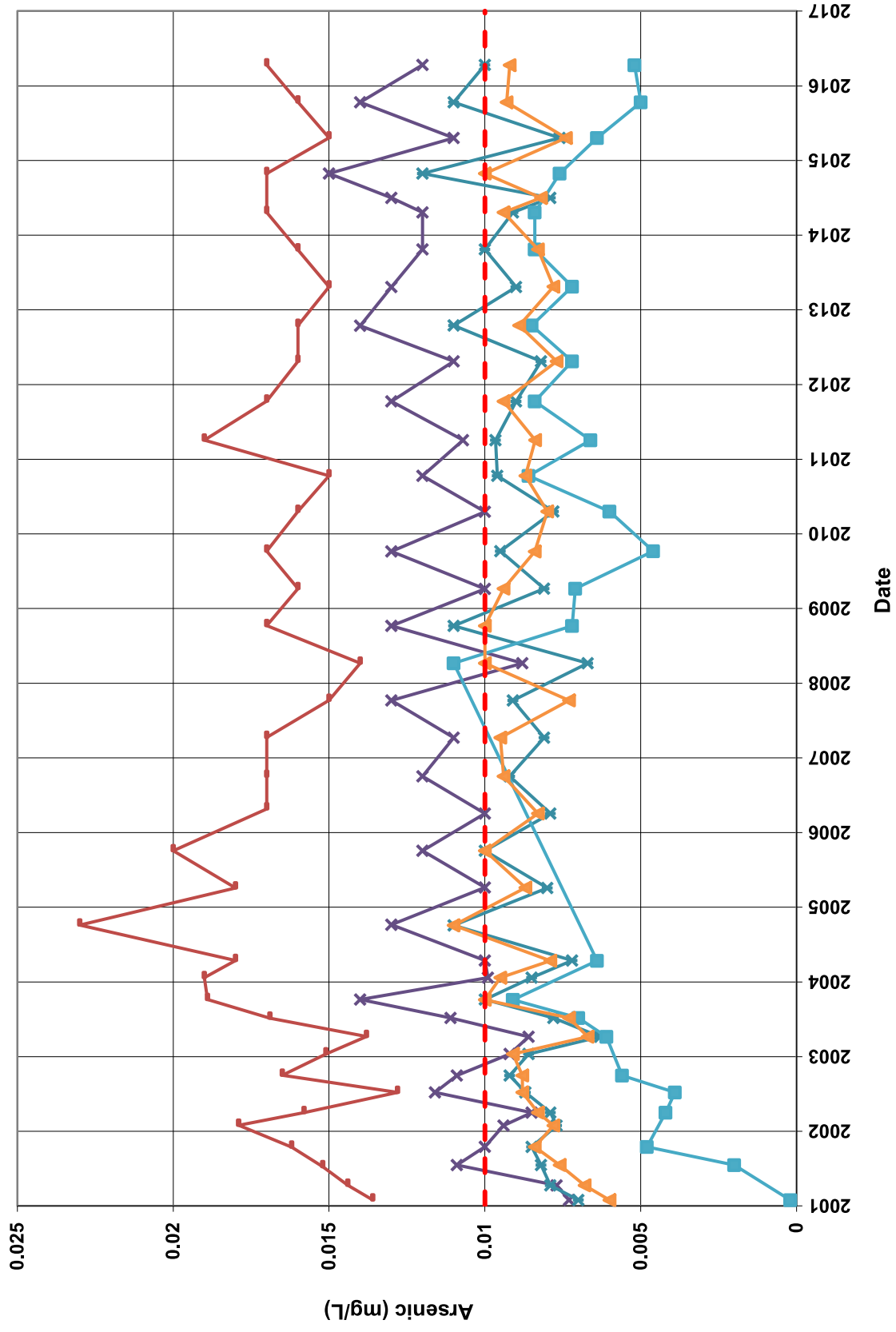
Groundwater

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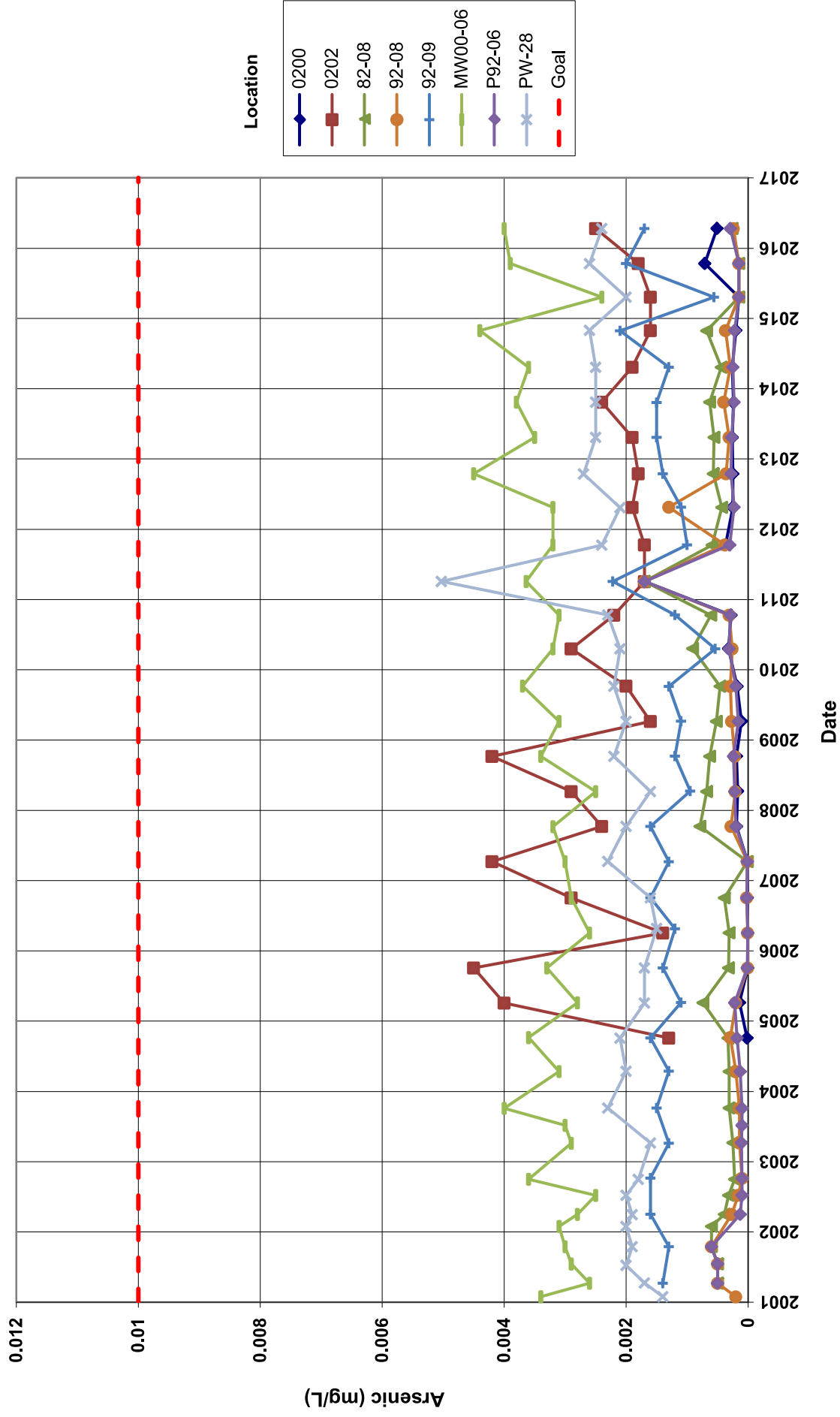
Monticello Disposal & Processing Sites
Former Mill Site Wells
Arsenic Concentration
Remediation Goal = 0.01 mg/L



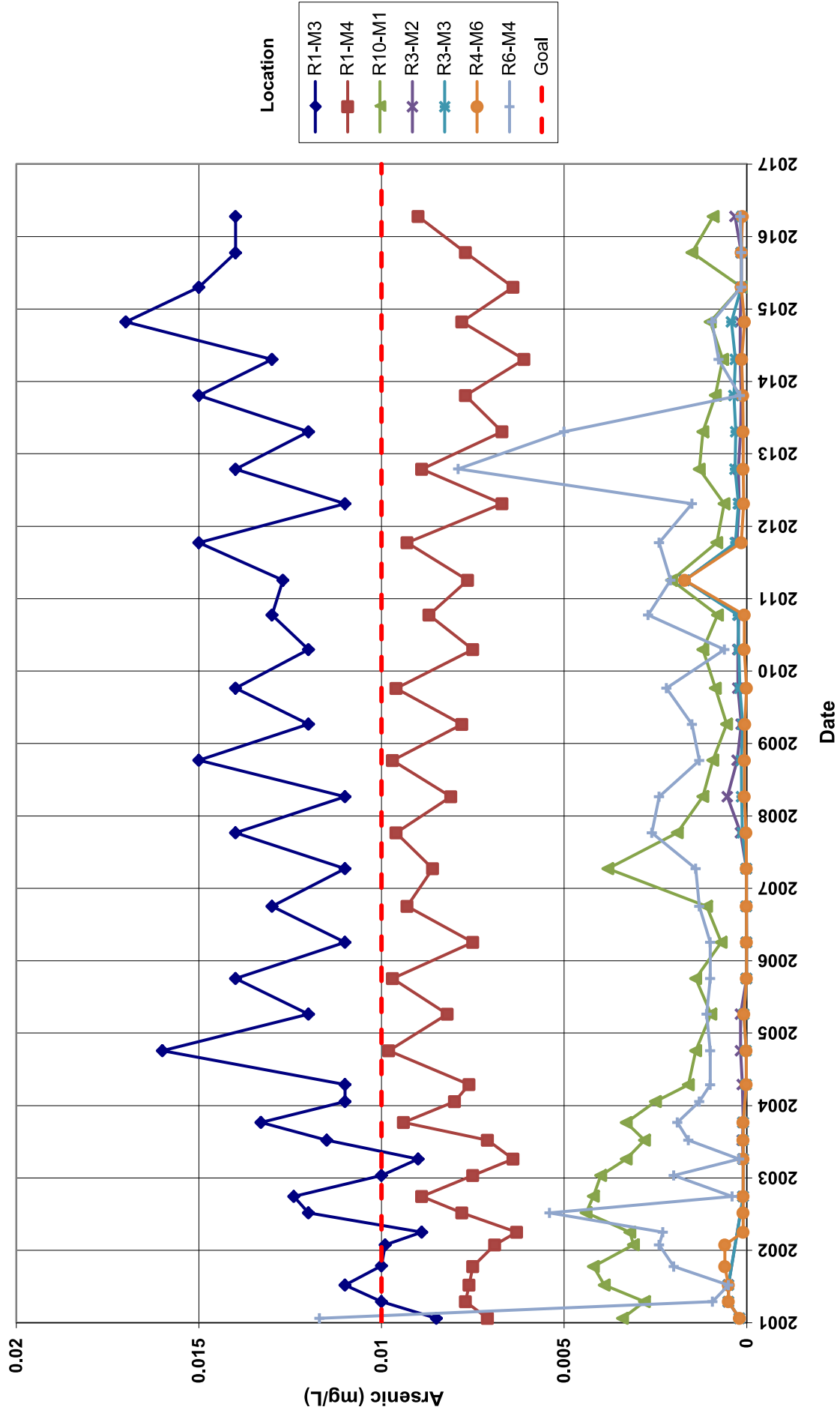
Monticello Disposal & Processing Sites
Downgradient Wells
Arsenic Concentration
Remediation Goal = 0.01 mg/L



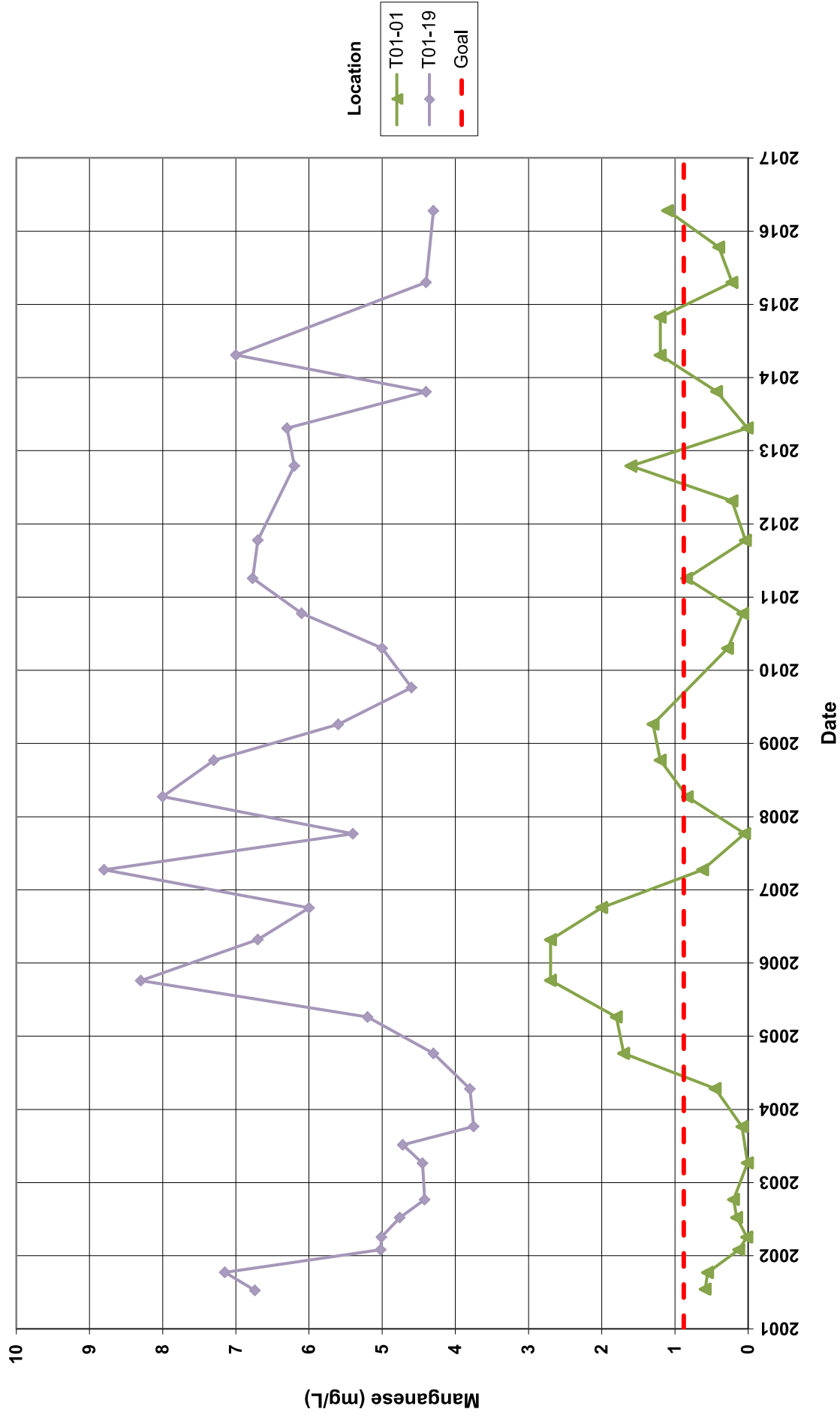
Monticello Disposal & Processing Sites
Downgradient Wells
Arsenic Concentration
Remediation Goal = 0.01 mg/L



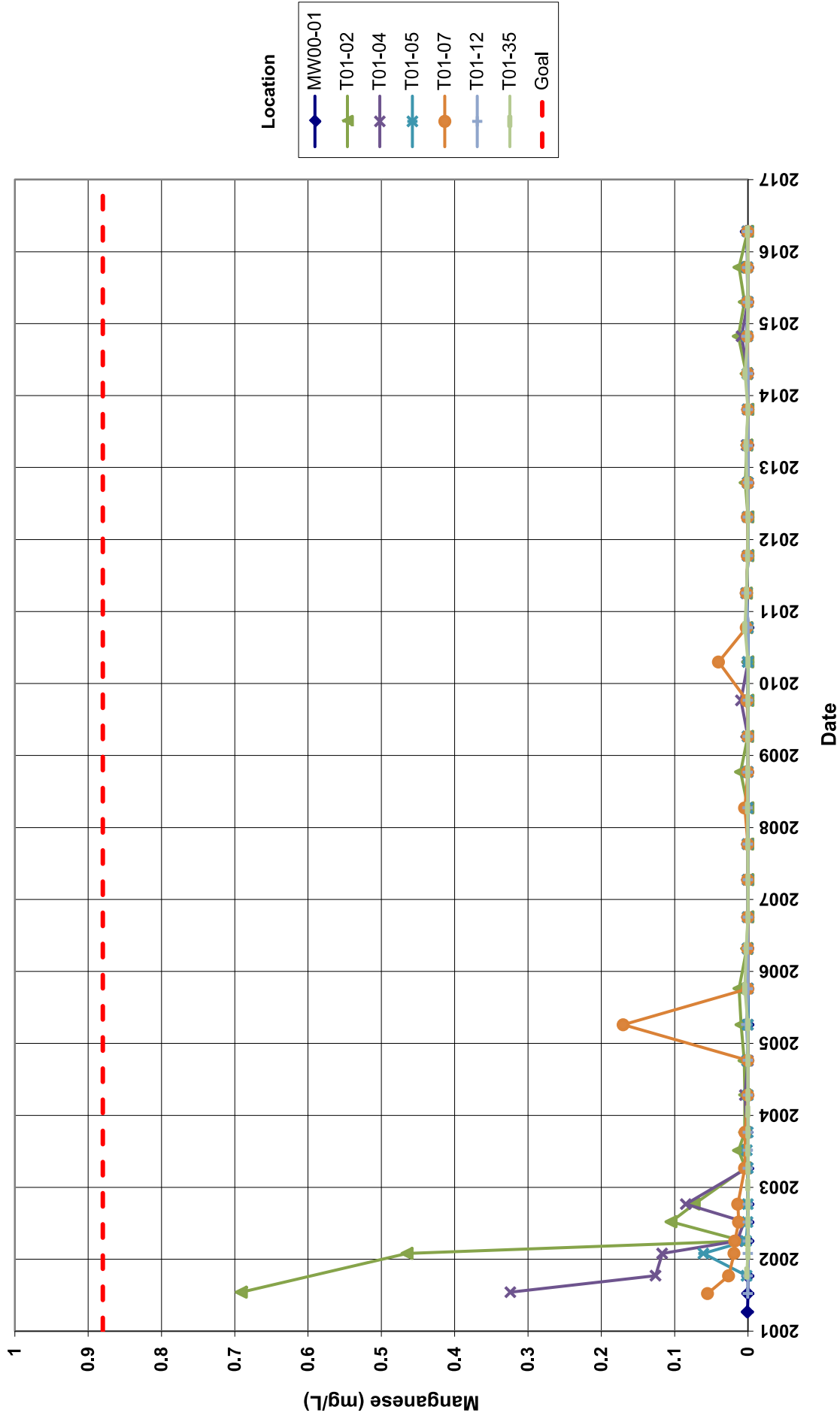
Monticello Disposal & Processing Sites
Downgradient PRB Wells
Arsenic Concentration
Remediation Goal = 0.01 mg/L



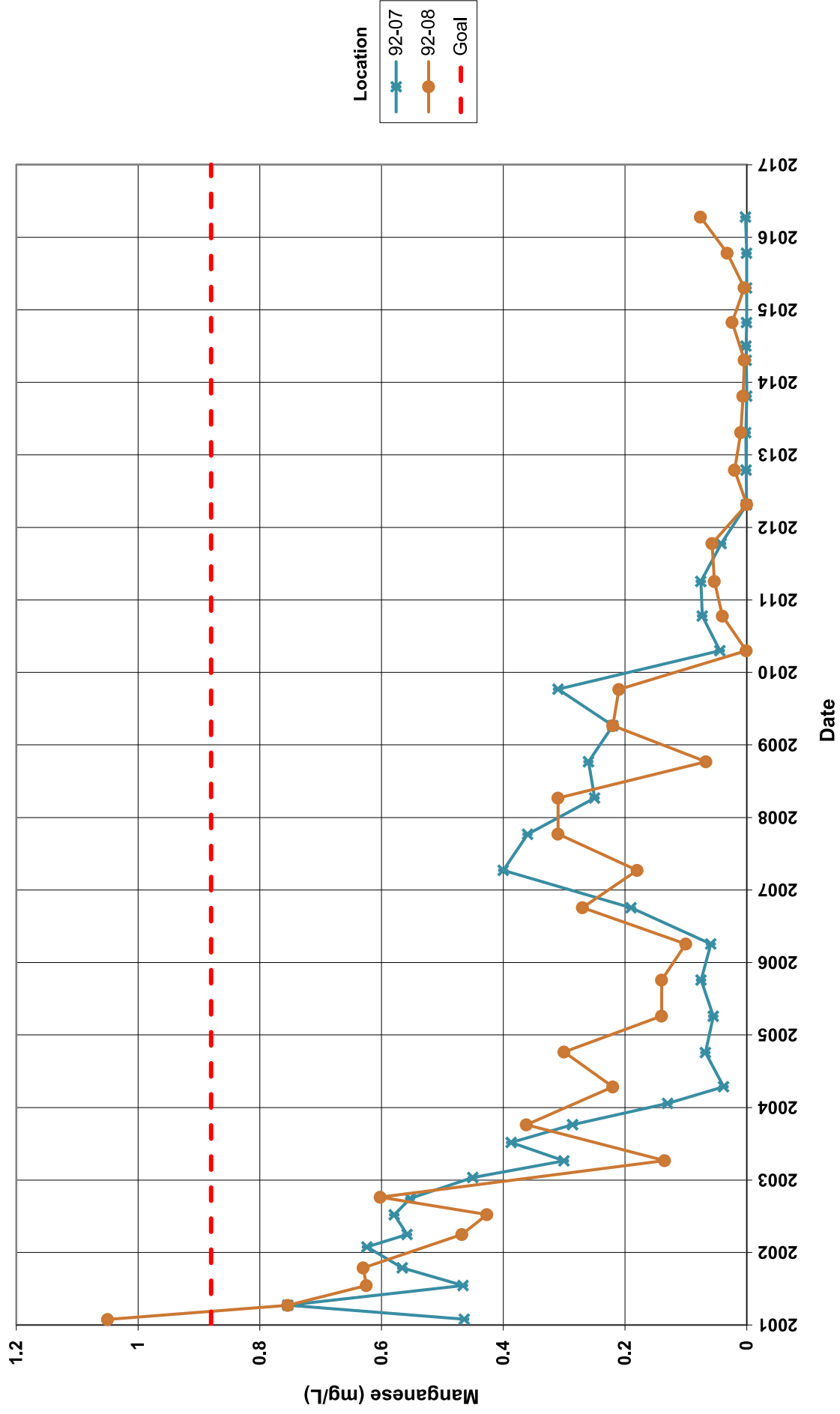
Monticello Disposal & Processing Sites
Former Mill Site Wells
Manganese Concentration
Remediation Goal = 0.88 mg/L



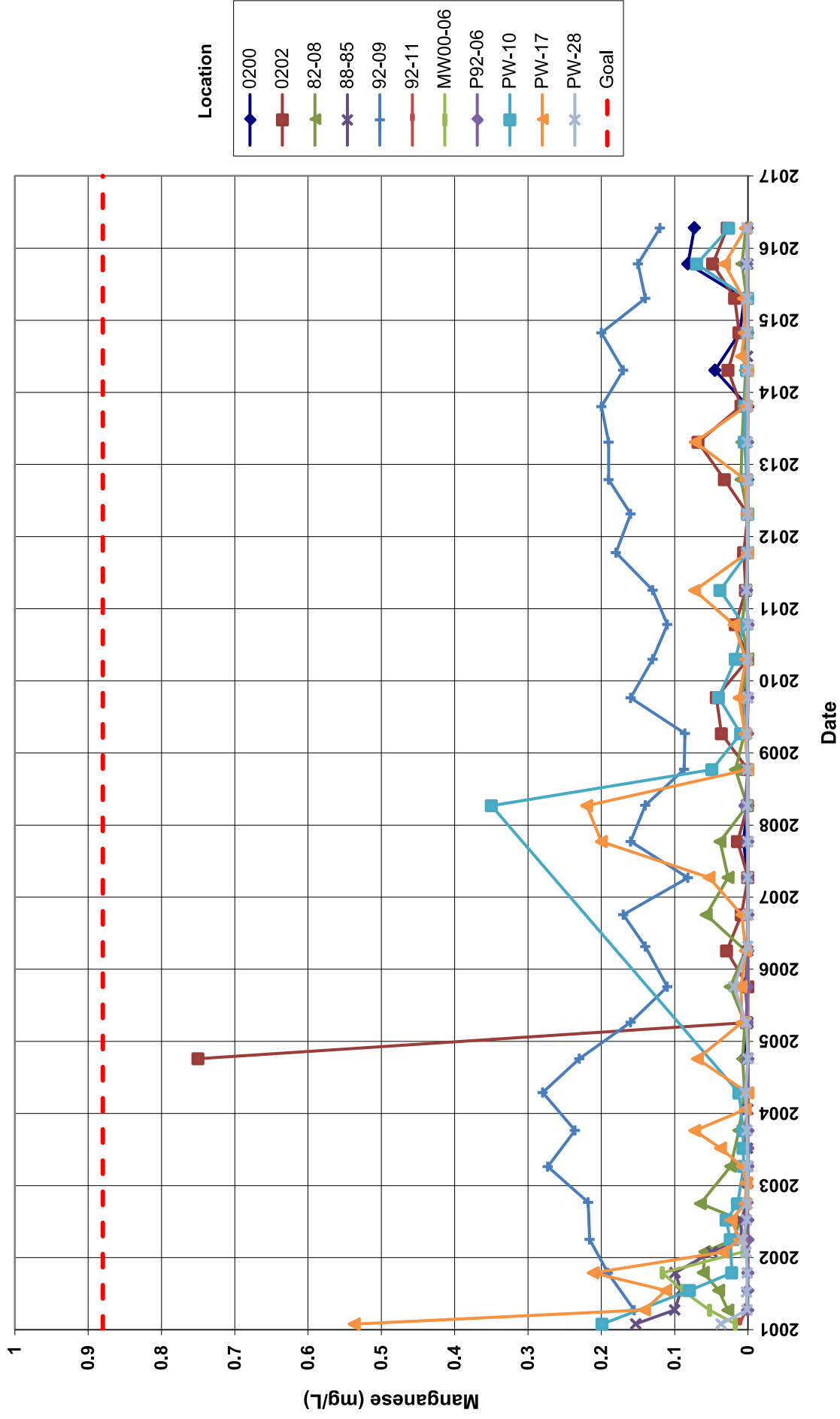
Monticello Disposal & Processing Sites
Former Mill Site Wells
Manganese Concentration
Remediation Goal = 0.88 mg/L



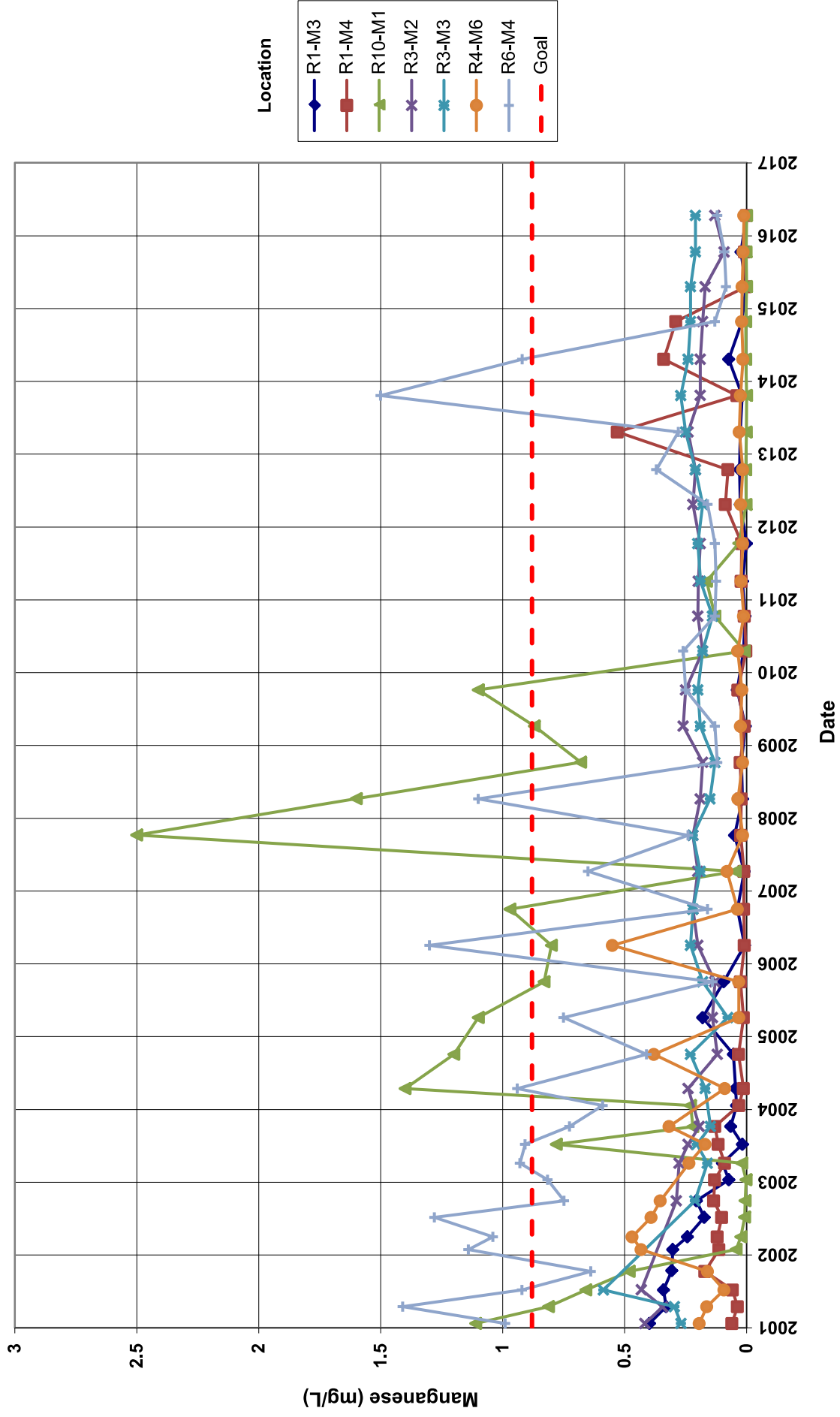
Monticello Disposal & Processing Sites
Downgradient Wells
Manganese Concentration
Remediation Goal = 0.88 mg/L



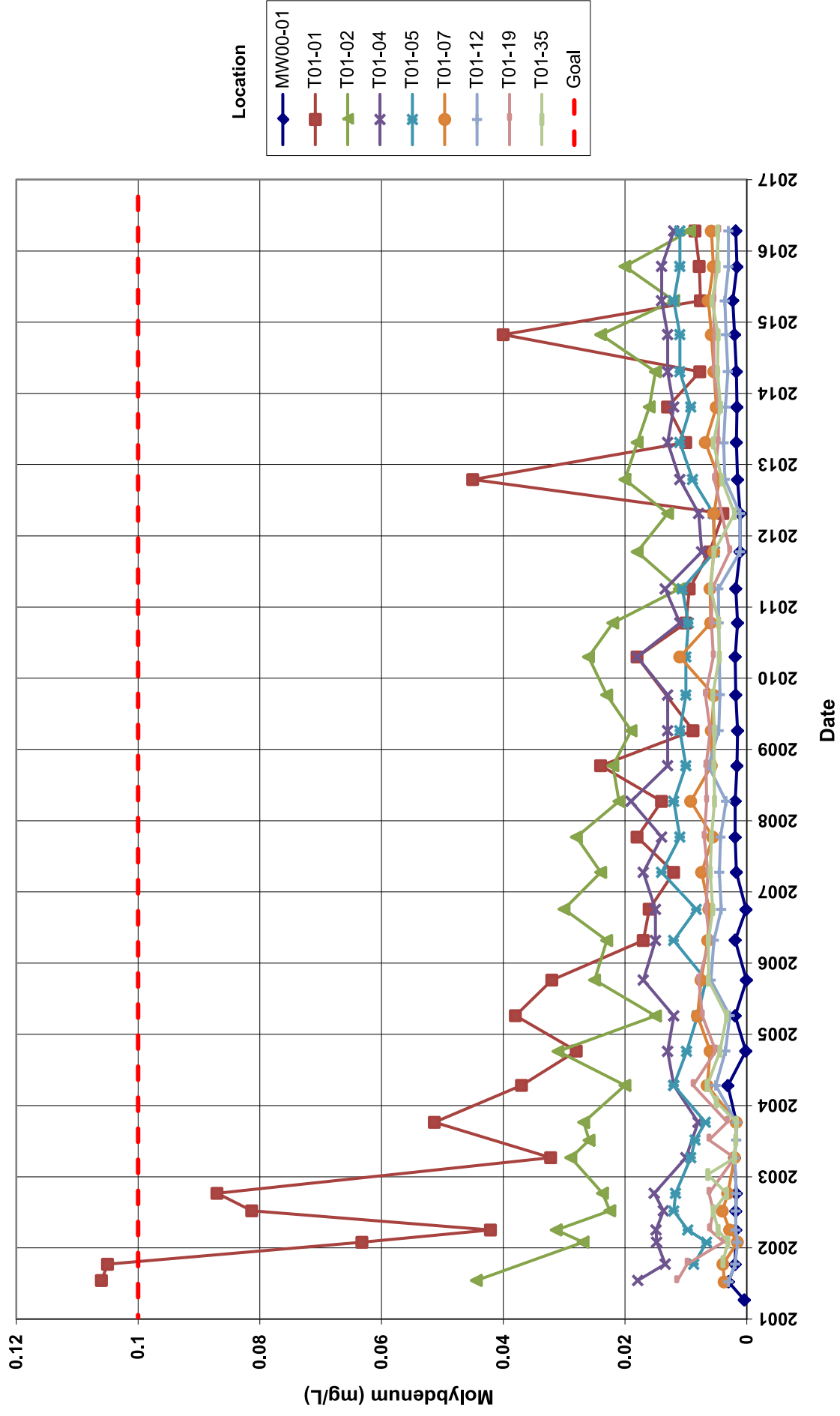
Monticello Disposal & Processing Sites
Downgradient Wells
Manganese Concentration
Remediation Goal = 0.88 mg/L



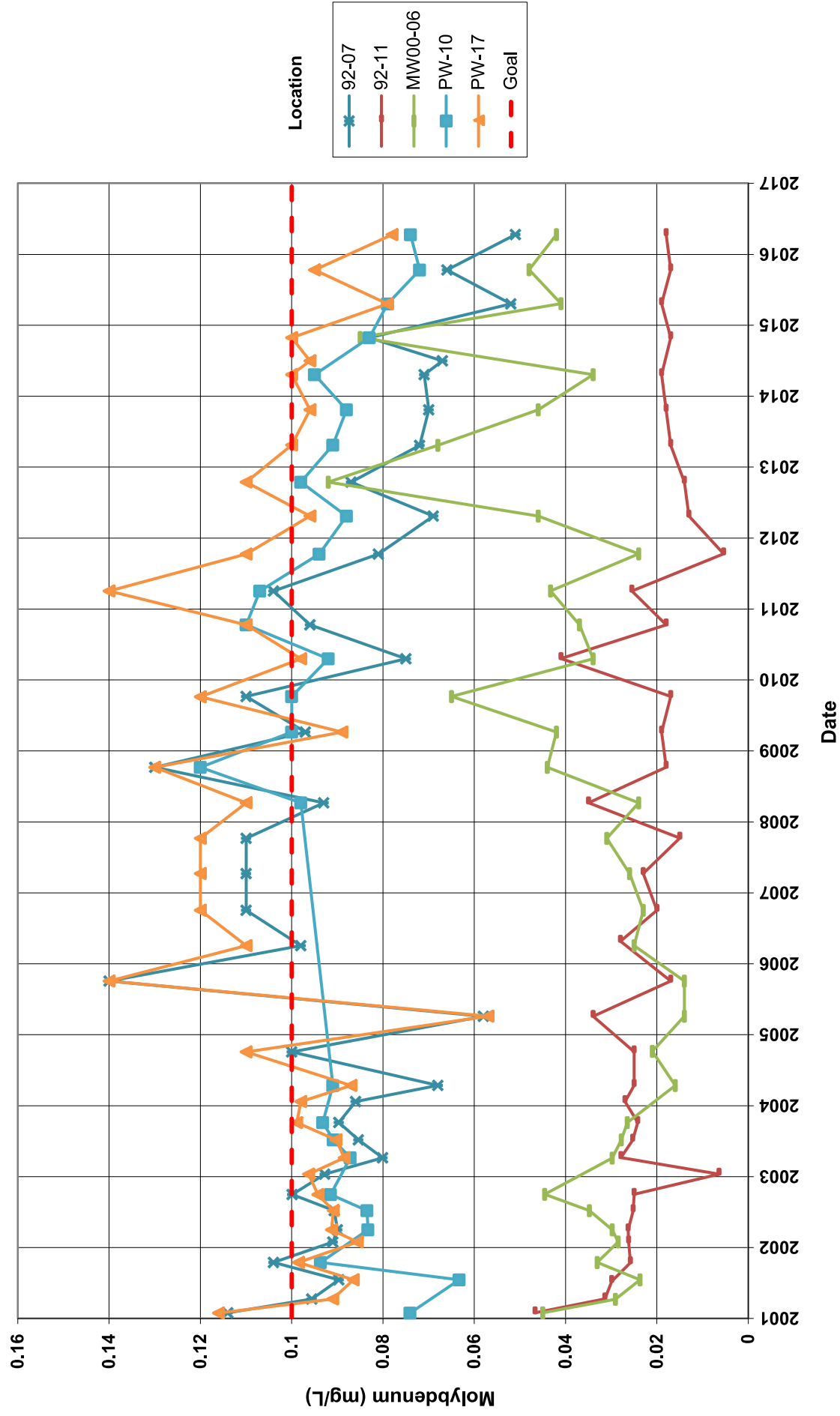
Monticello Disposal & Processing Sites
Downgradient PRB Wells
Manganese Concentration
Remediation Goal = 0.88 mg/L



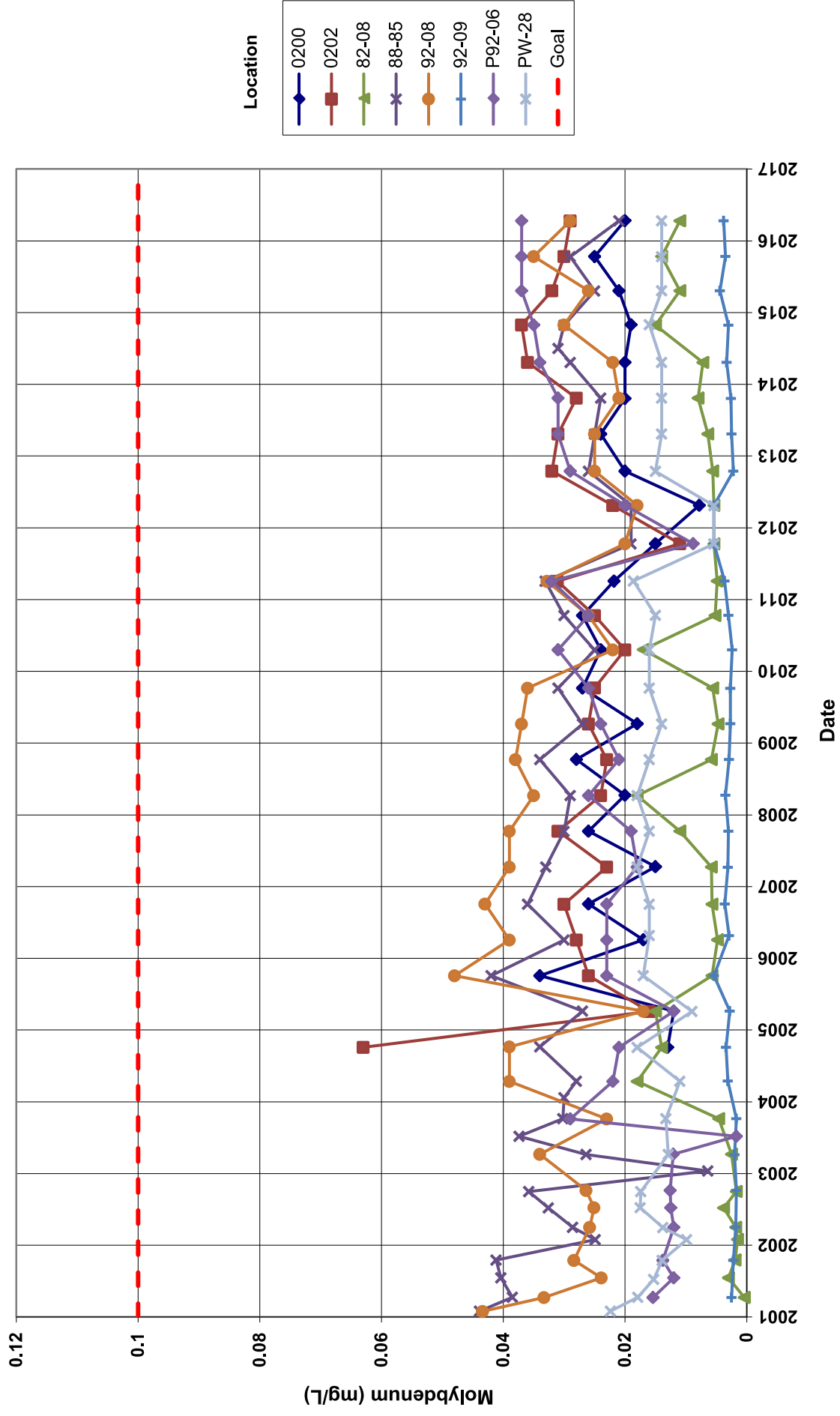
Monticello Disposal & Processing Sites
Former Mill Site Wells
Molybdenum Concentration
Remediation Goal = 0.1 mg/L



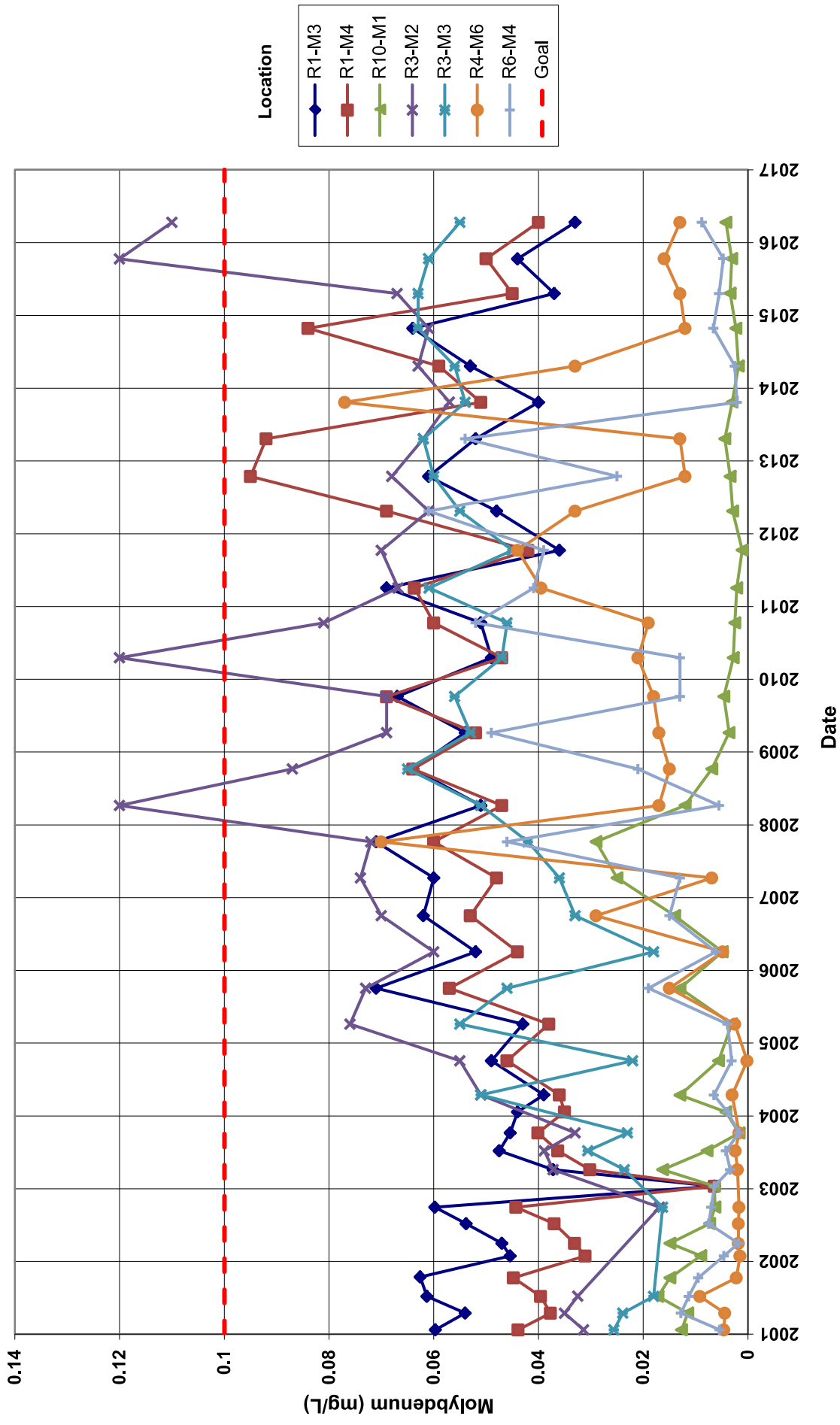
Monticello Disposal & Processing Sites
Downgradient Wells
Molybdenum Concentration
Remediation Goal = 0.1 mg/L



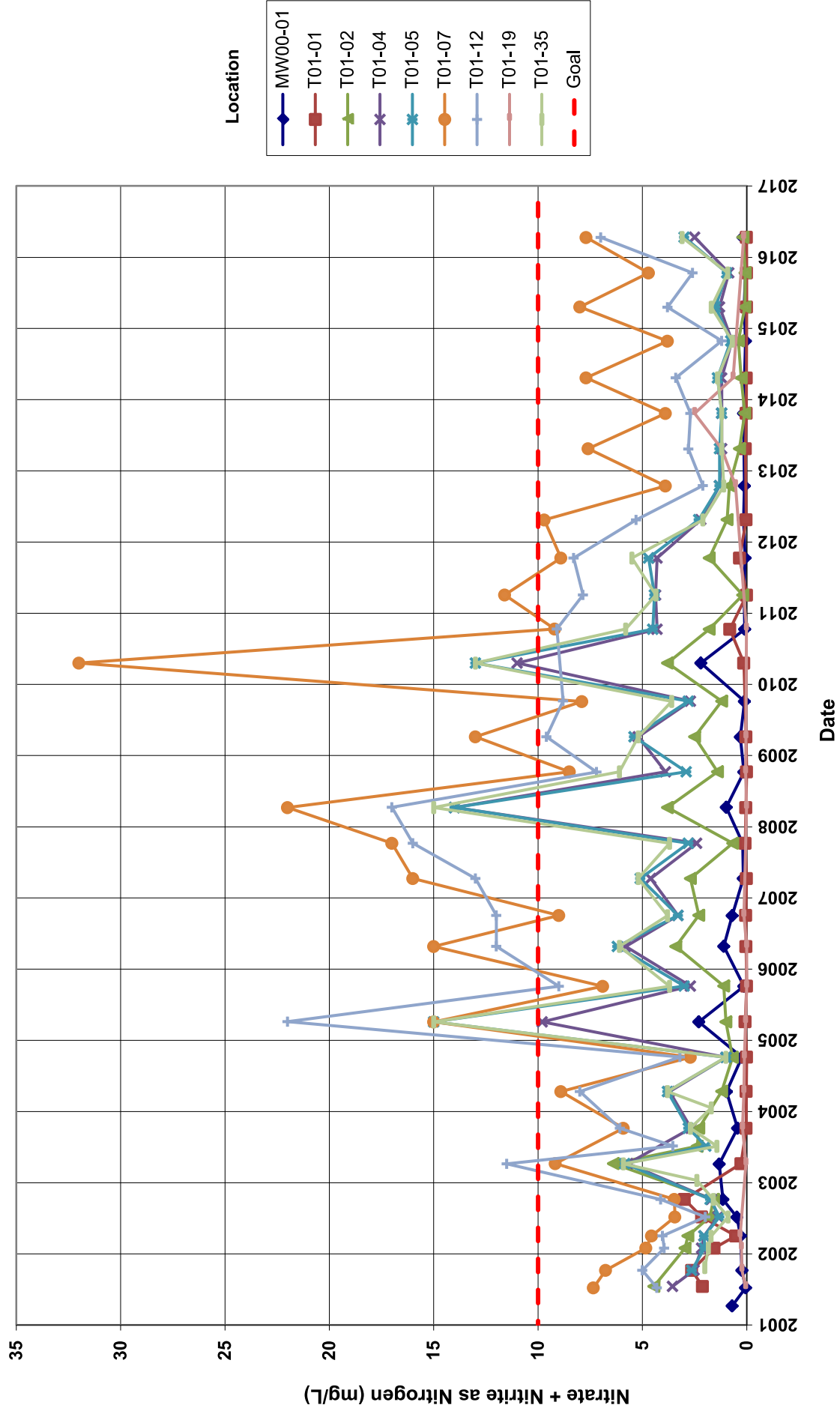
Monticello Disposal & Processing Sites
Downgradient Wells
Molybdenum Concentration
Remediation Goal = 0.1 mg/L



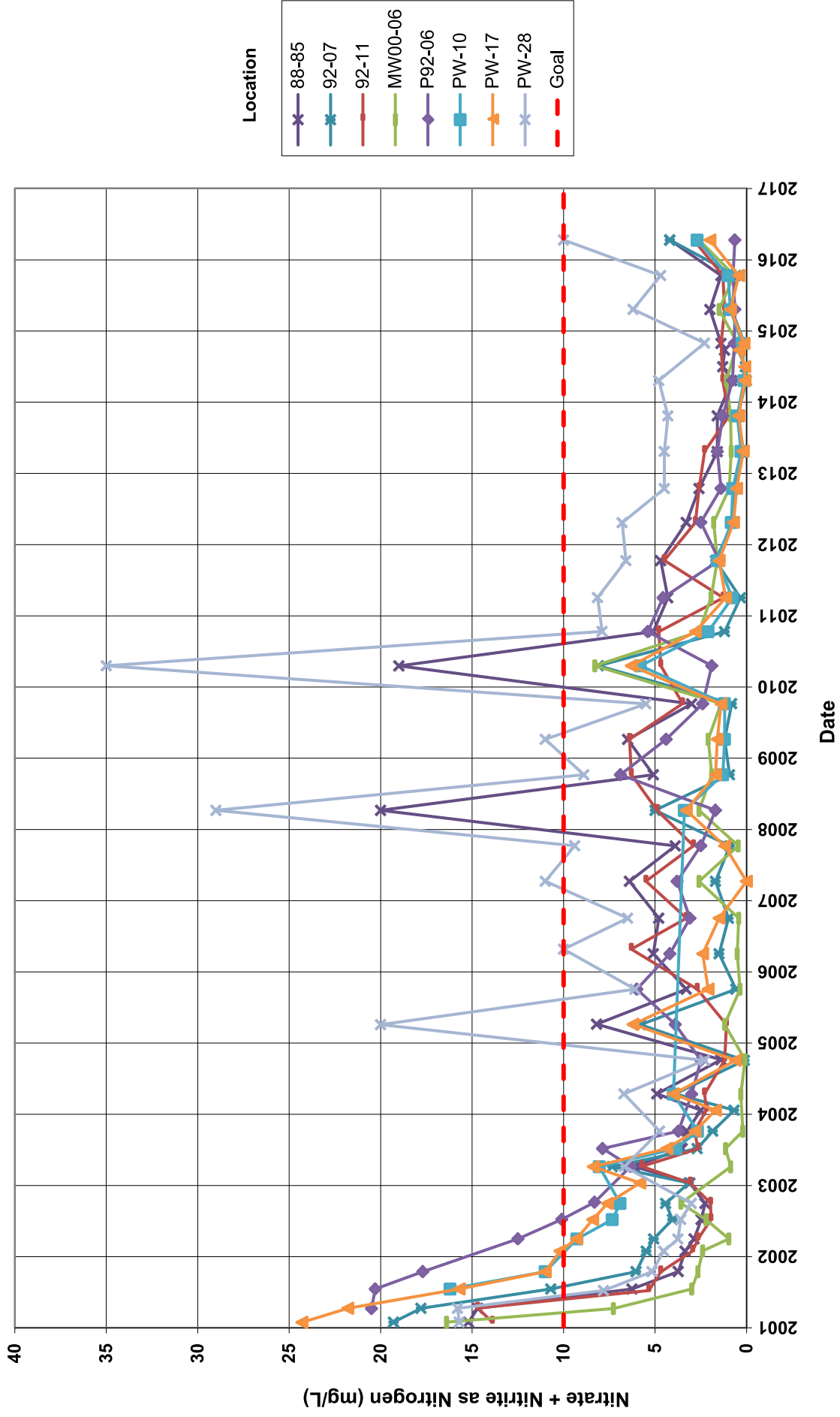
Monticello Disposal & Processing Sites
Downgradient PRB Wells
Molybdenum Concentration
Remediation Goal = 0.1 mg/L



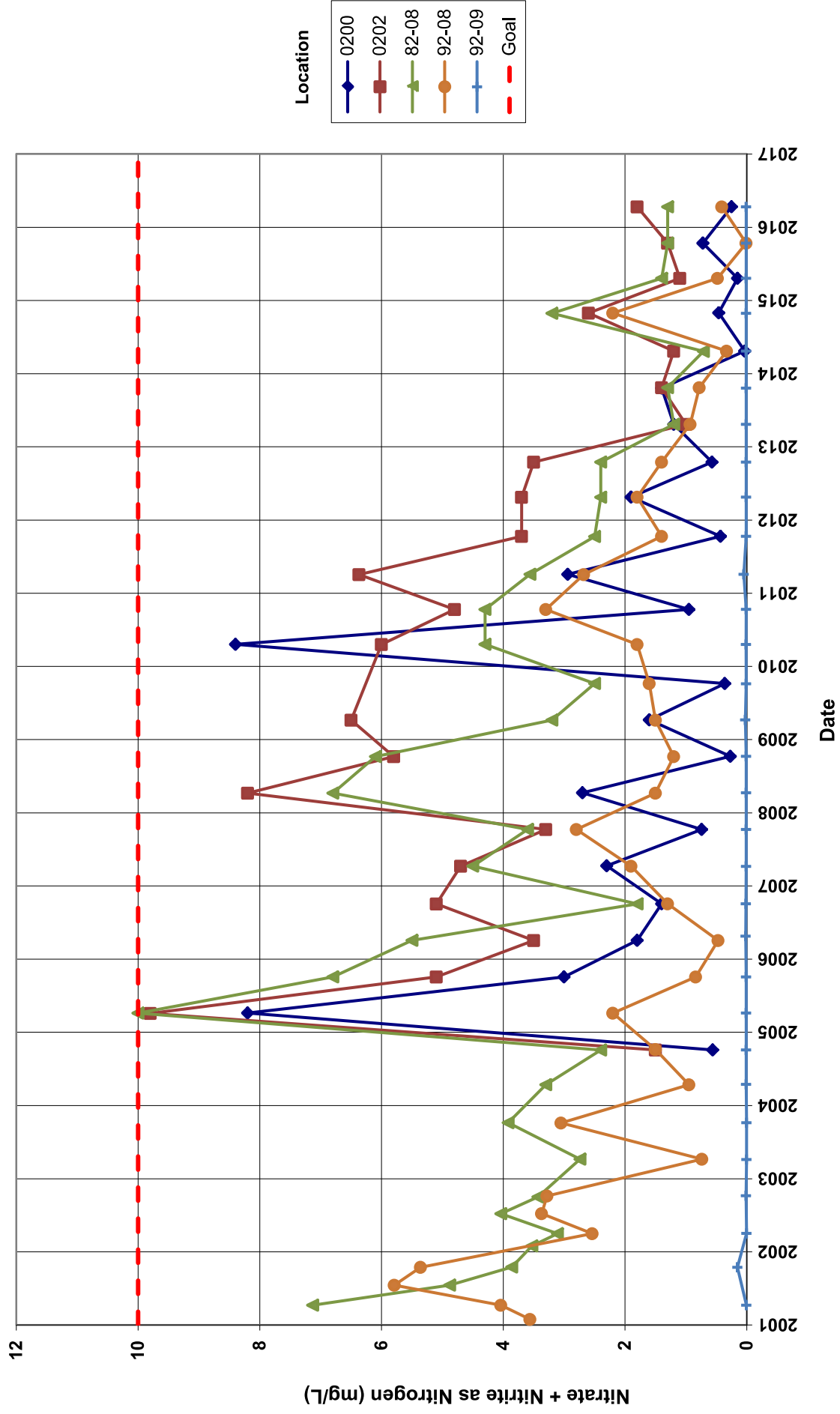
Monticello Disposal & Processing Sites
Former Mill Site Wells
Nitrate + Nitrite as Nitrogen Concentration
Remediation Goal = 10 mg/L



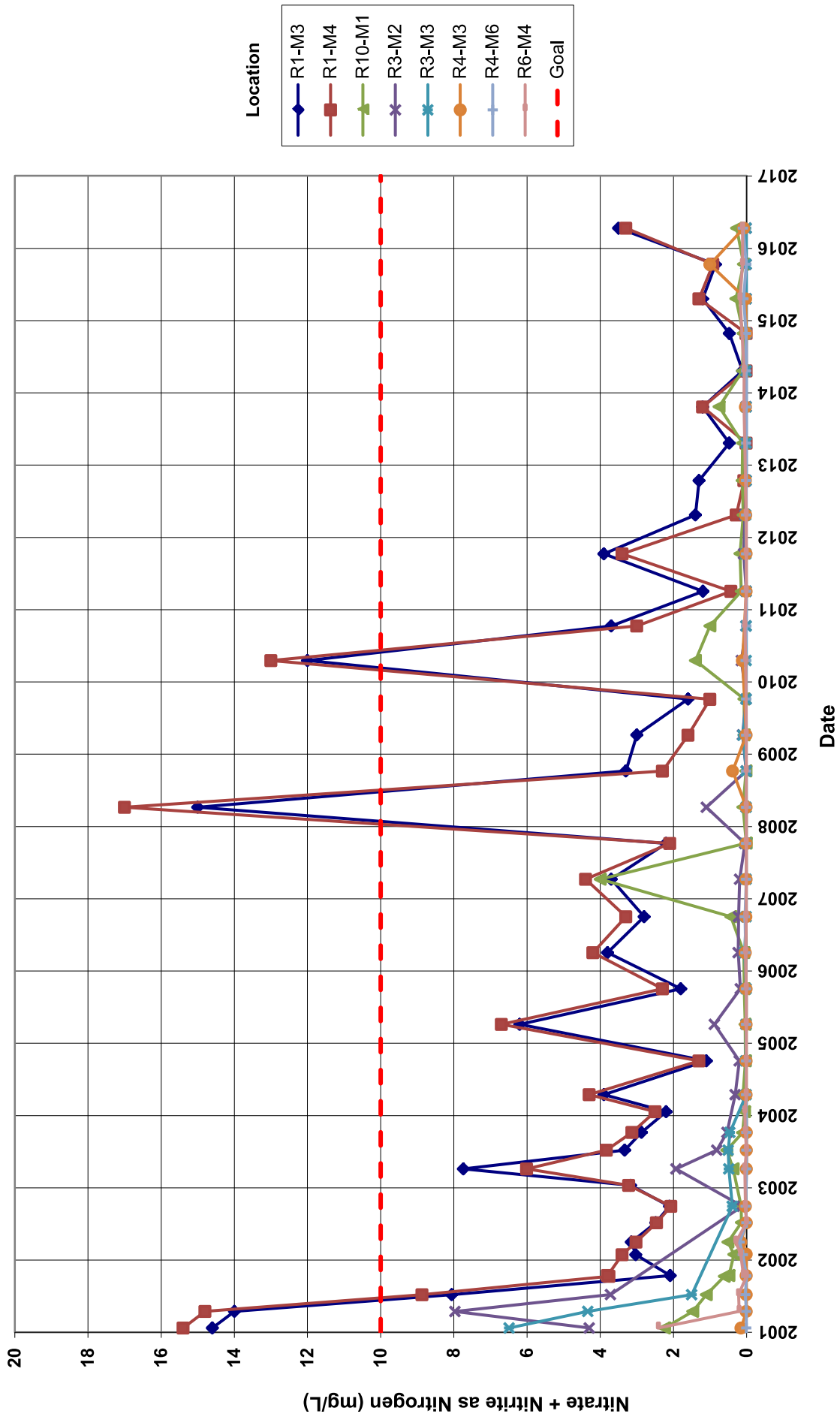
**Monticello Disposal & Processing Sites
Downgradient Wells
Nitrate + Nitrite as Nitrogen Concentration
Remediation Goal = 10 mg/L**



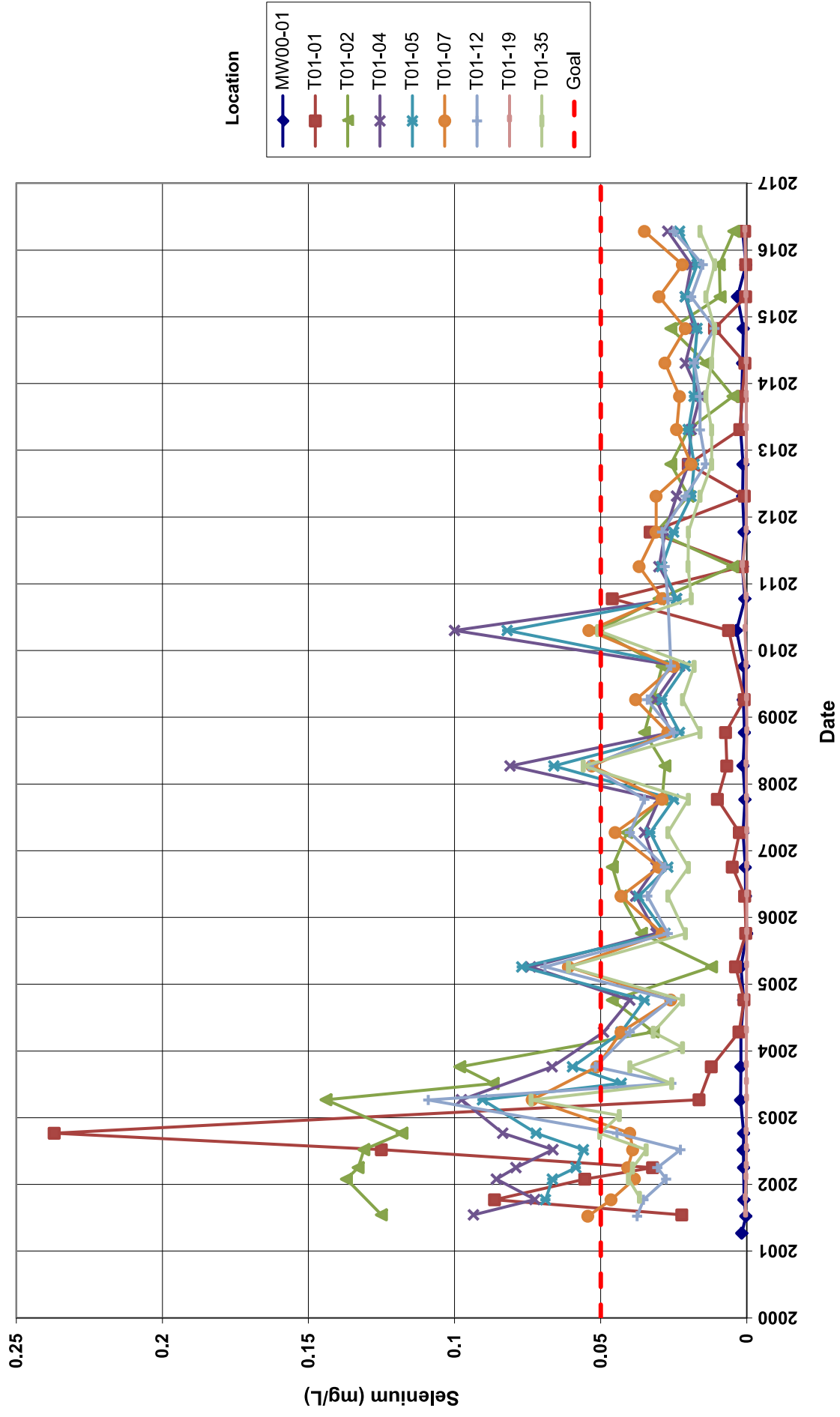
Monticello Disposal & Processing Sites
Downgradient Wells
Nitrate + Nitrite as Nitrogen Concentration
Remediation Goal = 10 mg/L



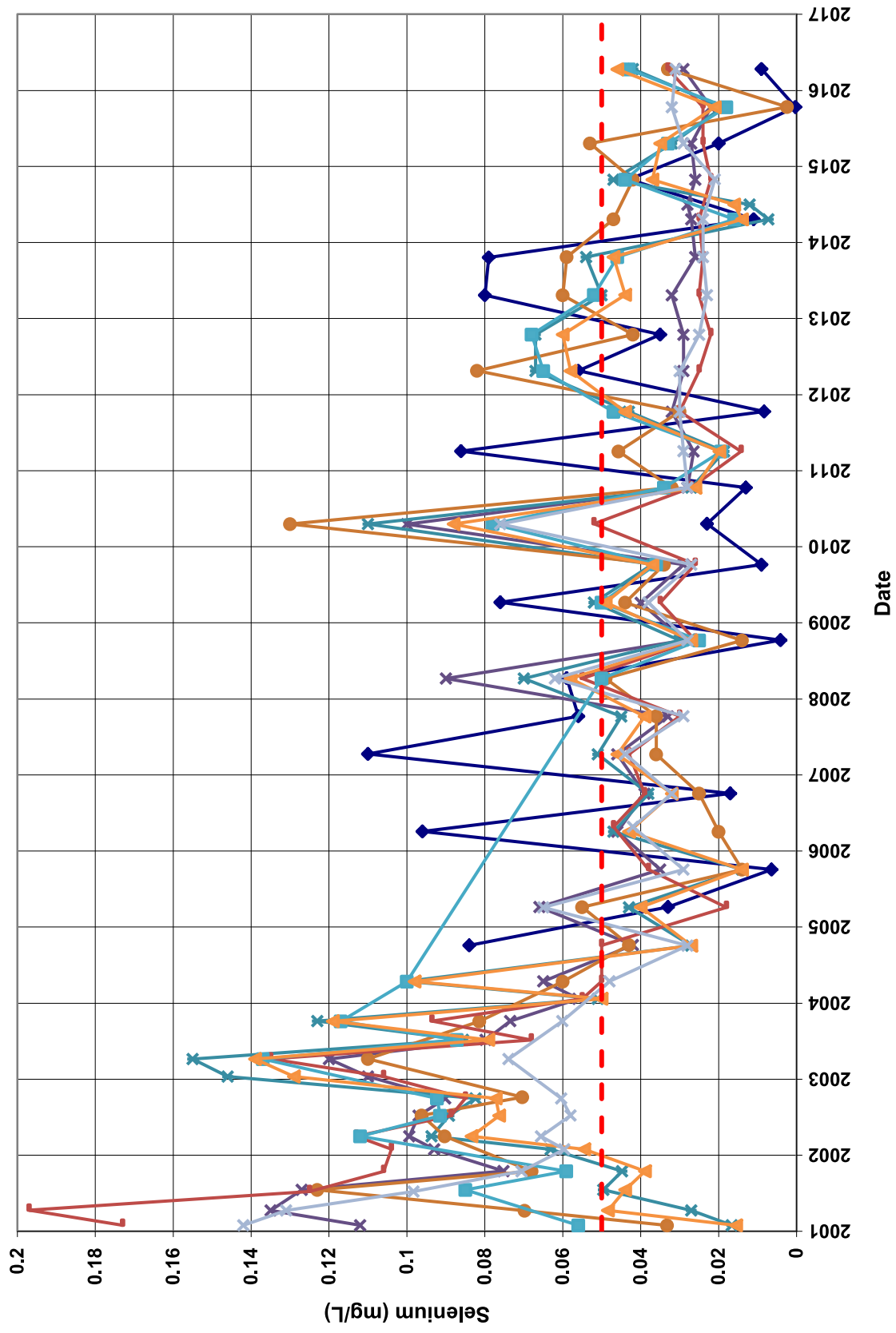
Monticello Disposal & Processing Sites
Downgradient PRB Wells
Nitrate + Nitrite as Nitrogen Concentration
Remediation Goal = 10 mg/L



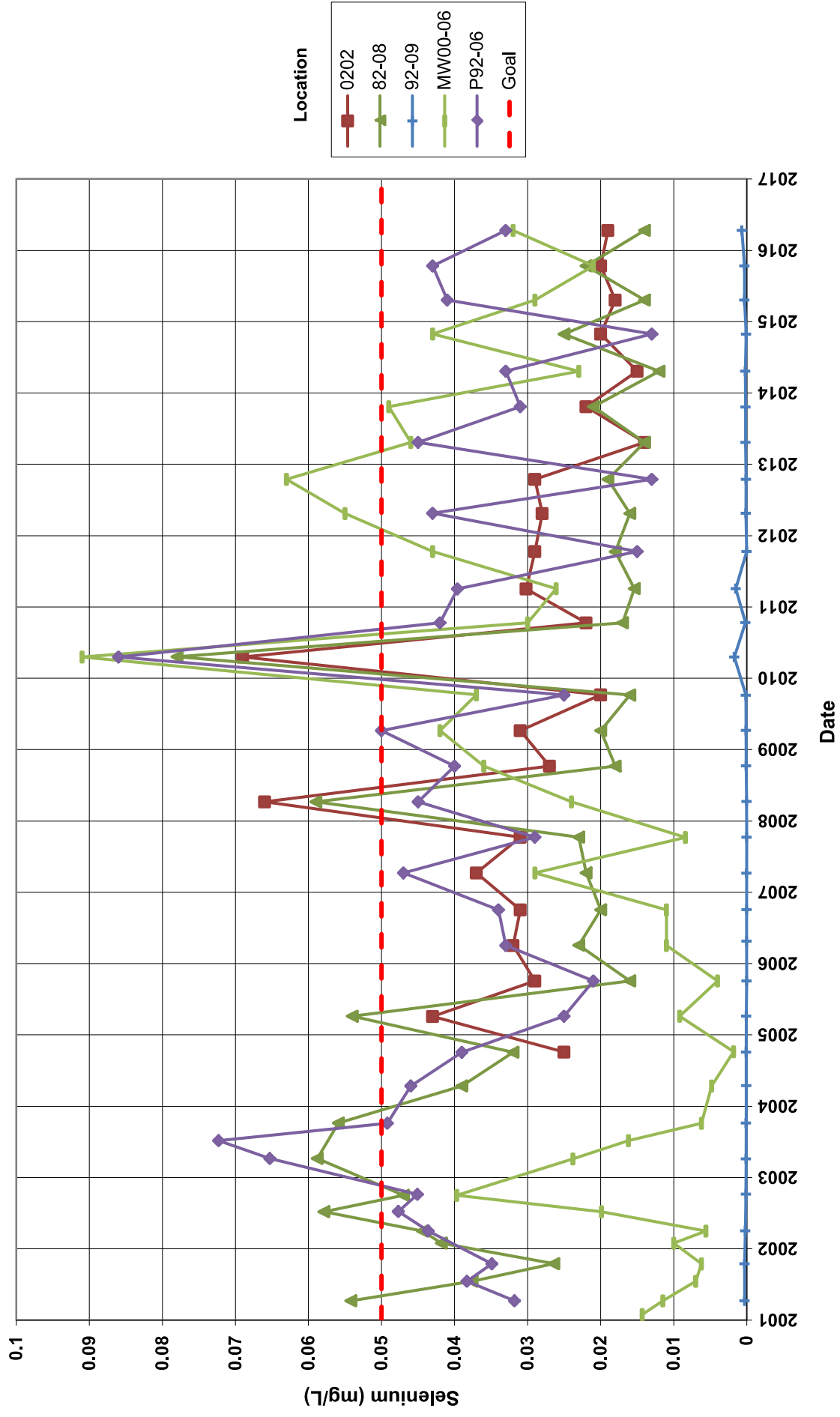
Monticello Disposal & Processing Sites
Former Mill Site Wells
Selenium Concentration
Remediation Goal = 0.05 mg/L



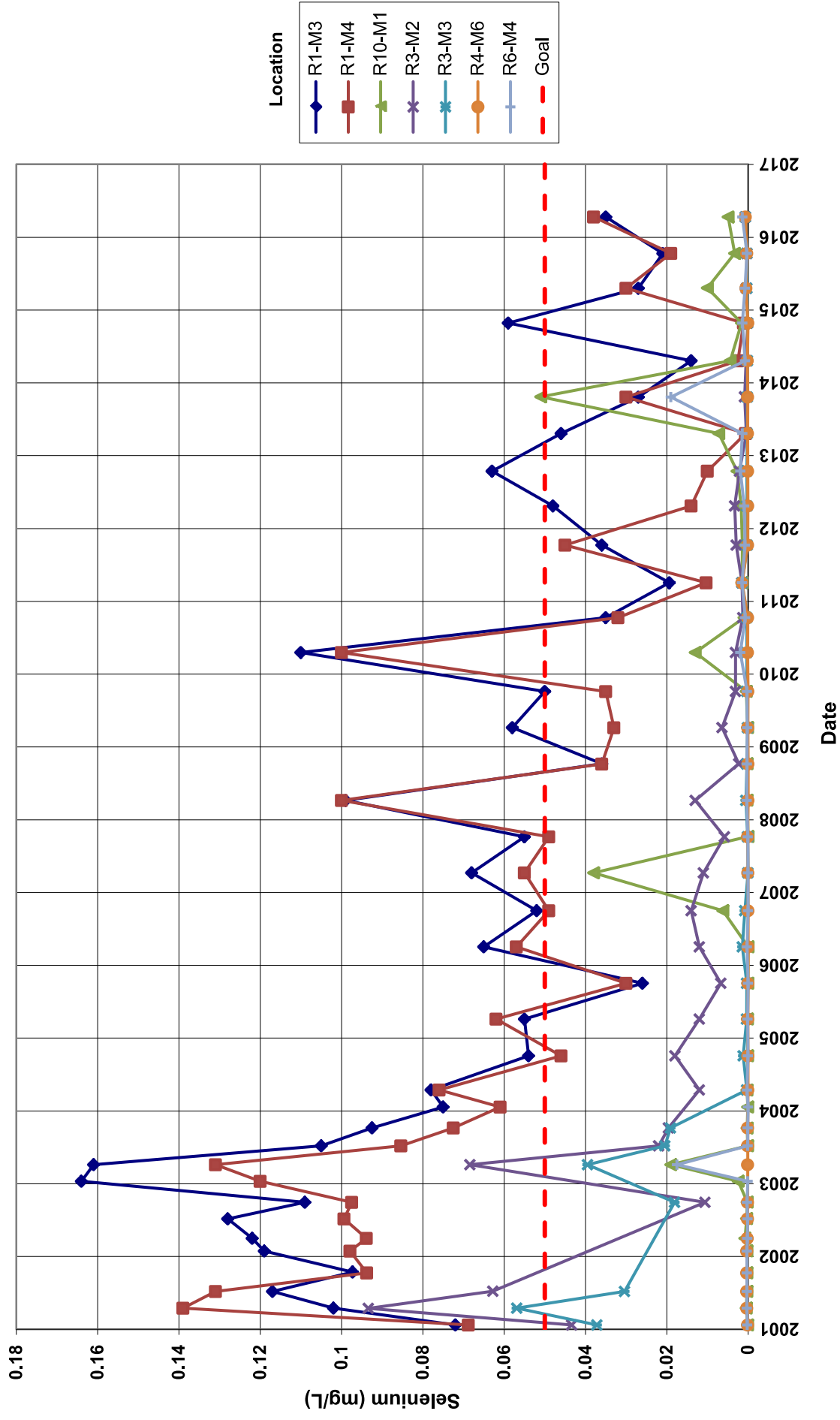
Monticello Disposal & Processing Sites
Downgradient Wells
Selenium Concentration
Remediation Goals = 0.05 mg/L



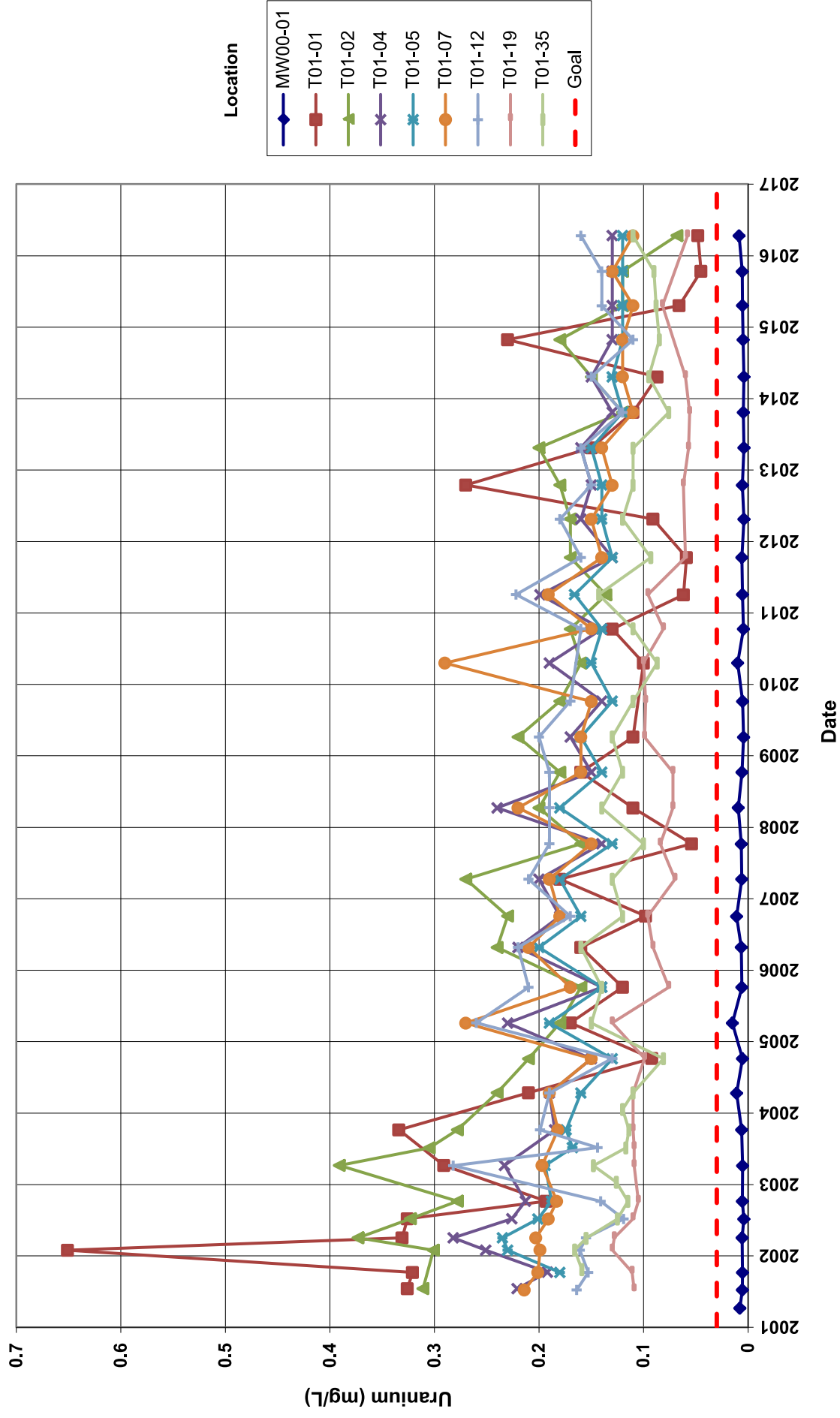
Monticello Disposal & Processing Sites
Downgradient Wells
Selenium Concentration
Remediation Goals = 0.05 mg/L



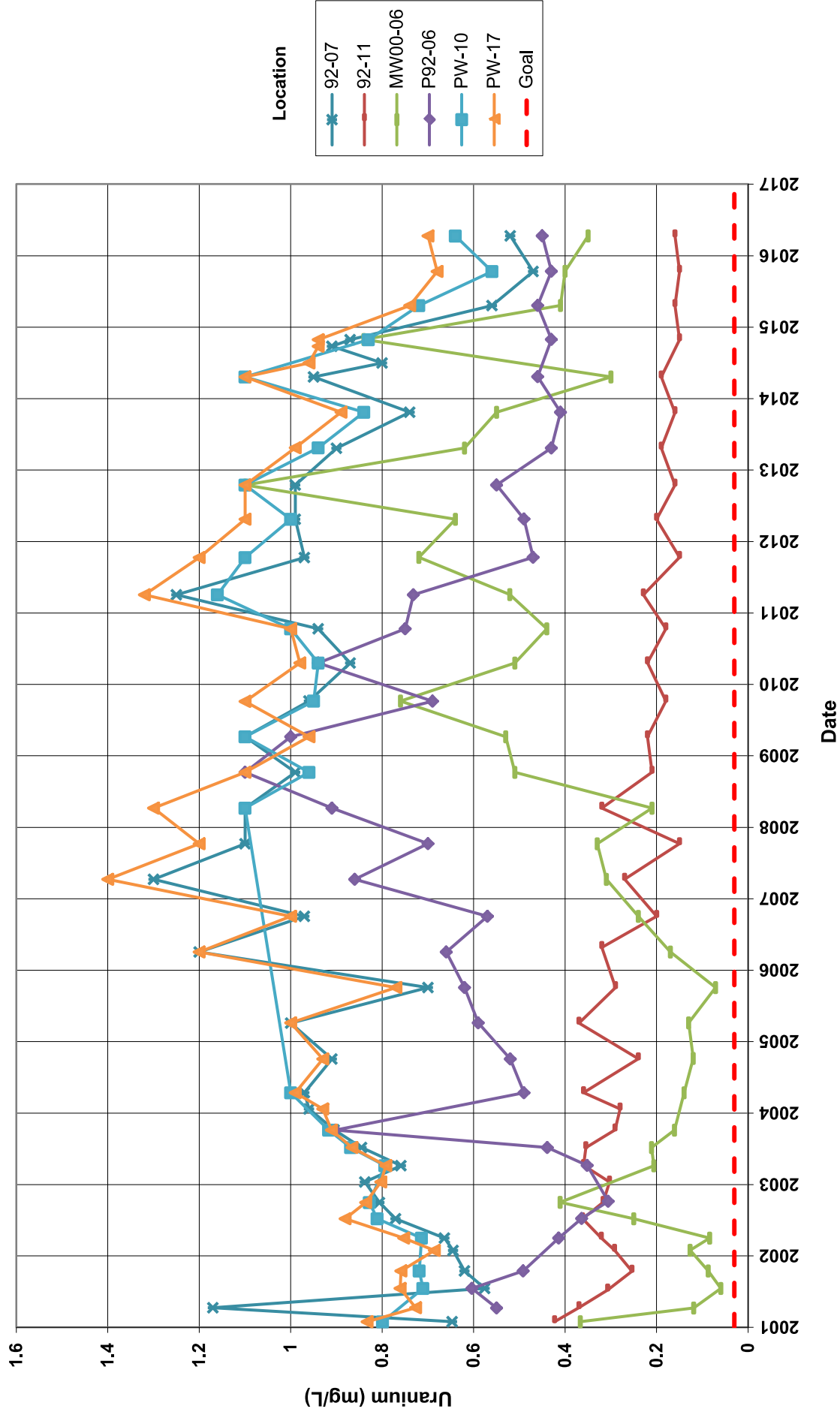
Monticello Disposal & Processing Sites
Downgradient PRB Wells
Selenium Concentration
Remediation Goal = 0.05 mg/L



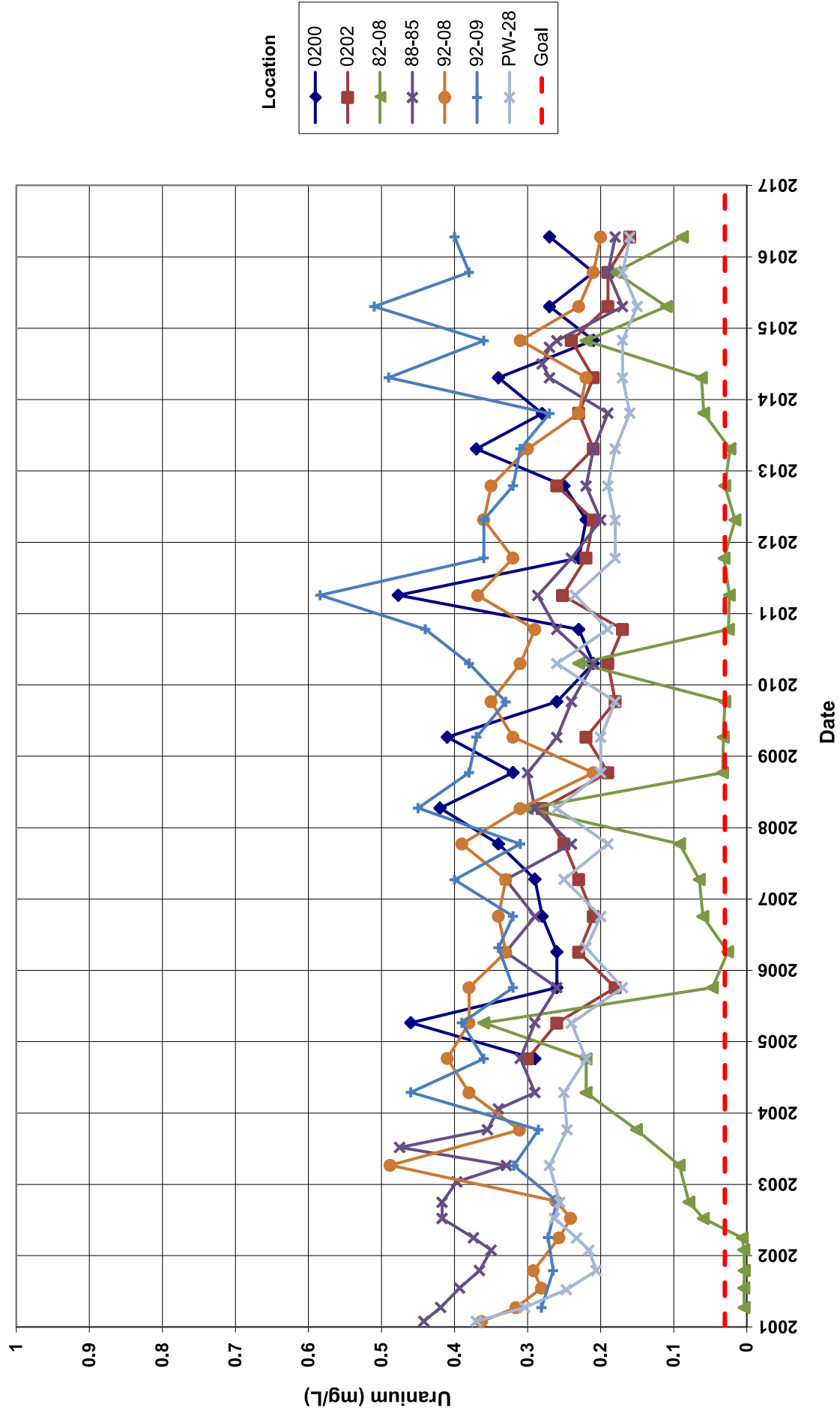
Monticello Disposal & Processing Sites
Former Mill Site Wells
Uranium Concentration
Remediation Goal = 0.03 mg/L



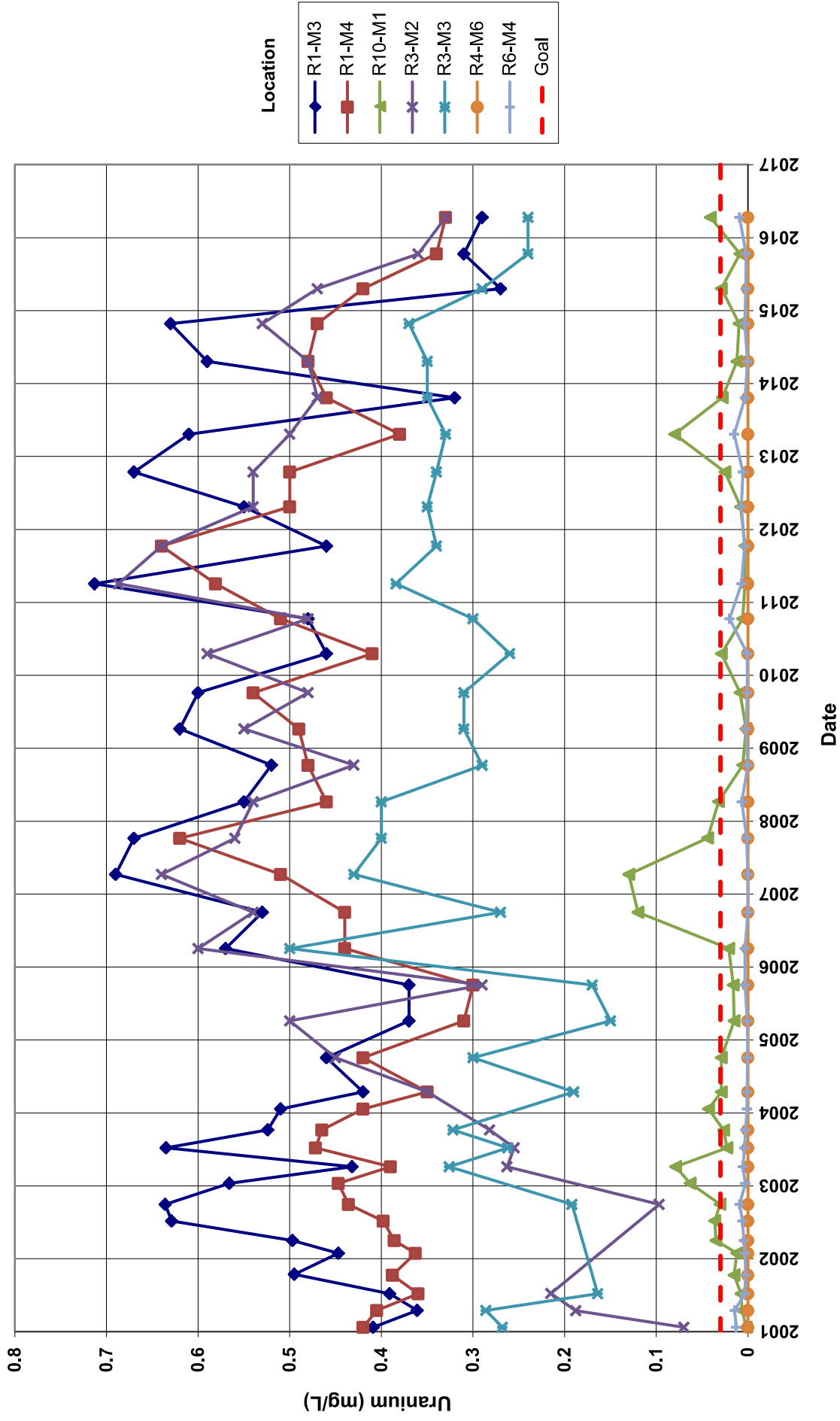
Monticello Disposal & Processing Sites
Downgradient Wells
Uranium Concentration
Remediation Goal = 0.03 mg/L



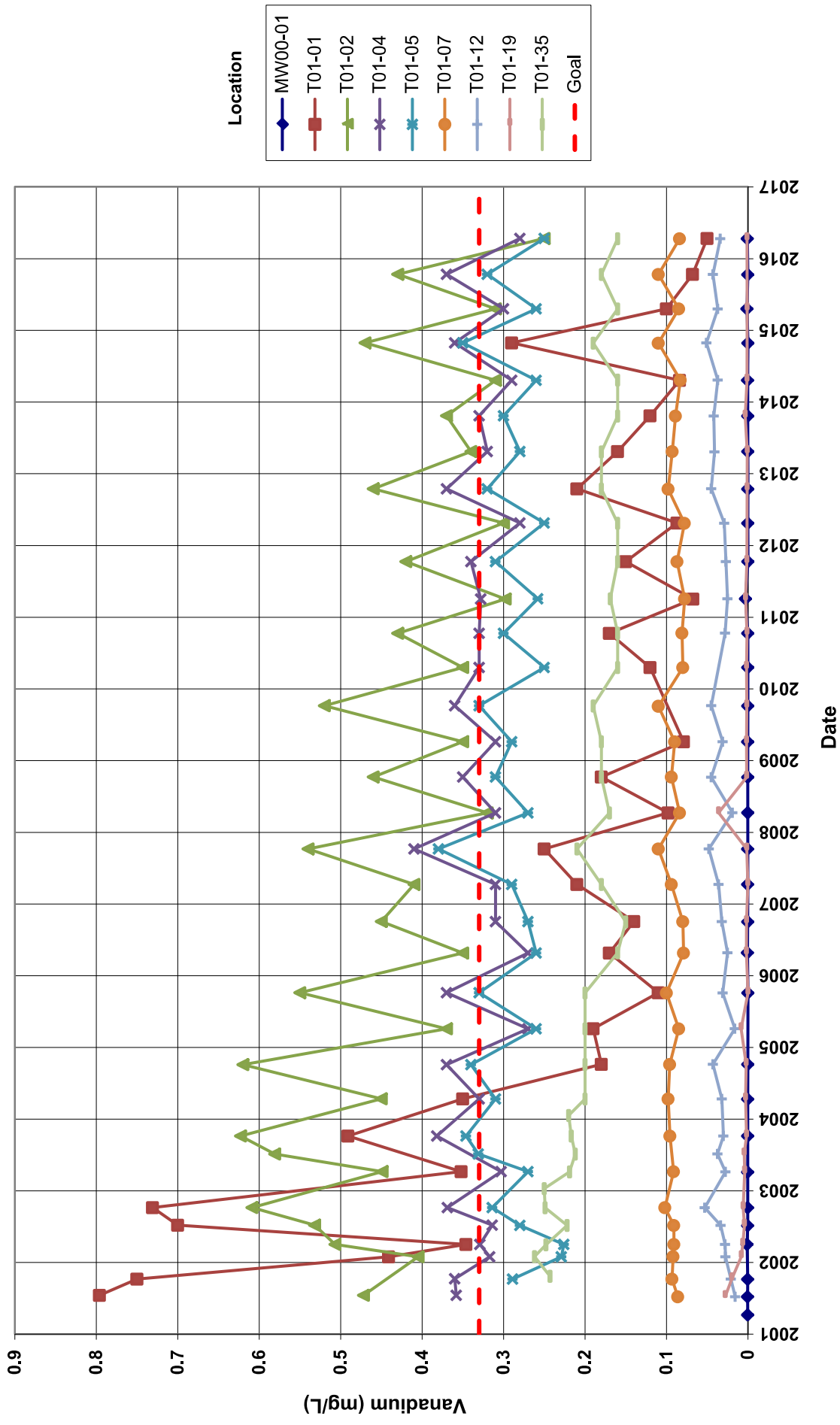
Monticello Disposal & Processing Sites
Downgradient Wells
Uranium Concentration
Remediation Goal = 0.03 mg/L



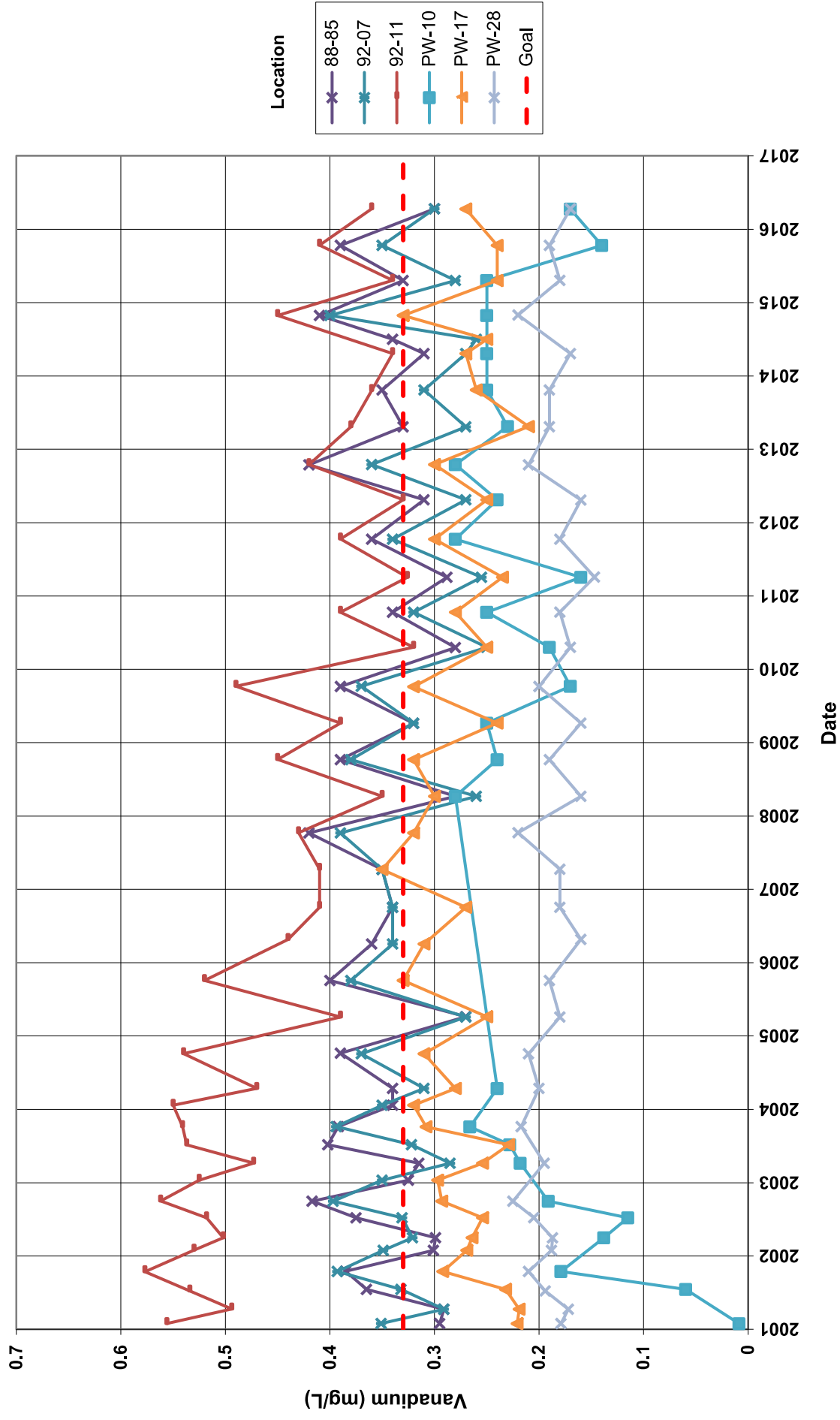
Monticello Disposal & Processing Sites
Downgradient PRB Wells
Uranium Concentration
Remediation Goal = 0.03 mg/L



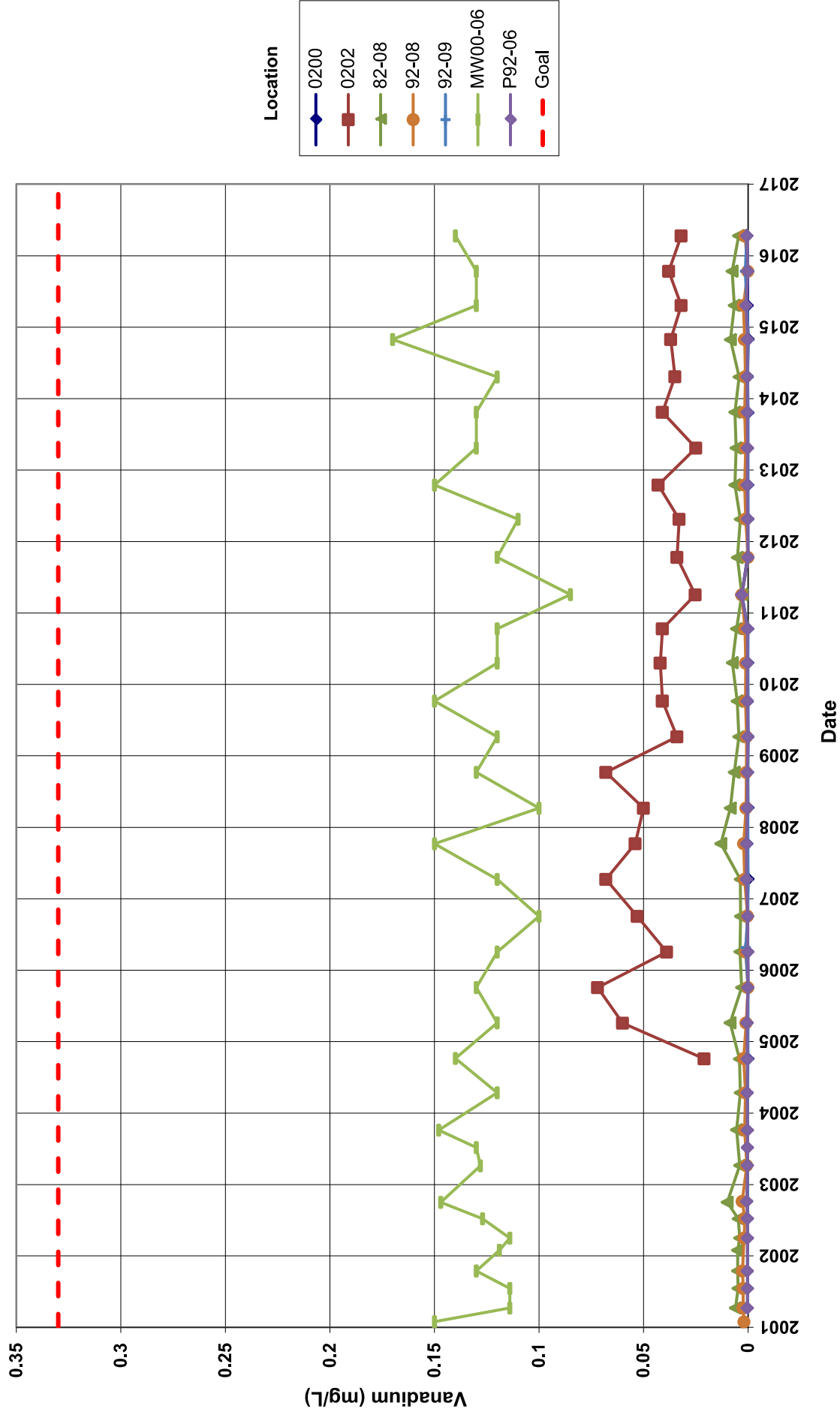
Monticello Disposal & Processing Sites
Former Mill Site Wells
Vanadium Concentration
Remediation Goal = 0.33 mg/L



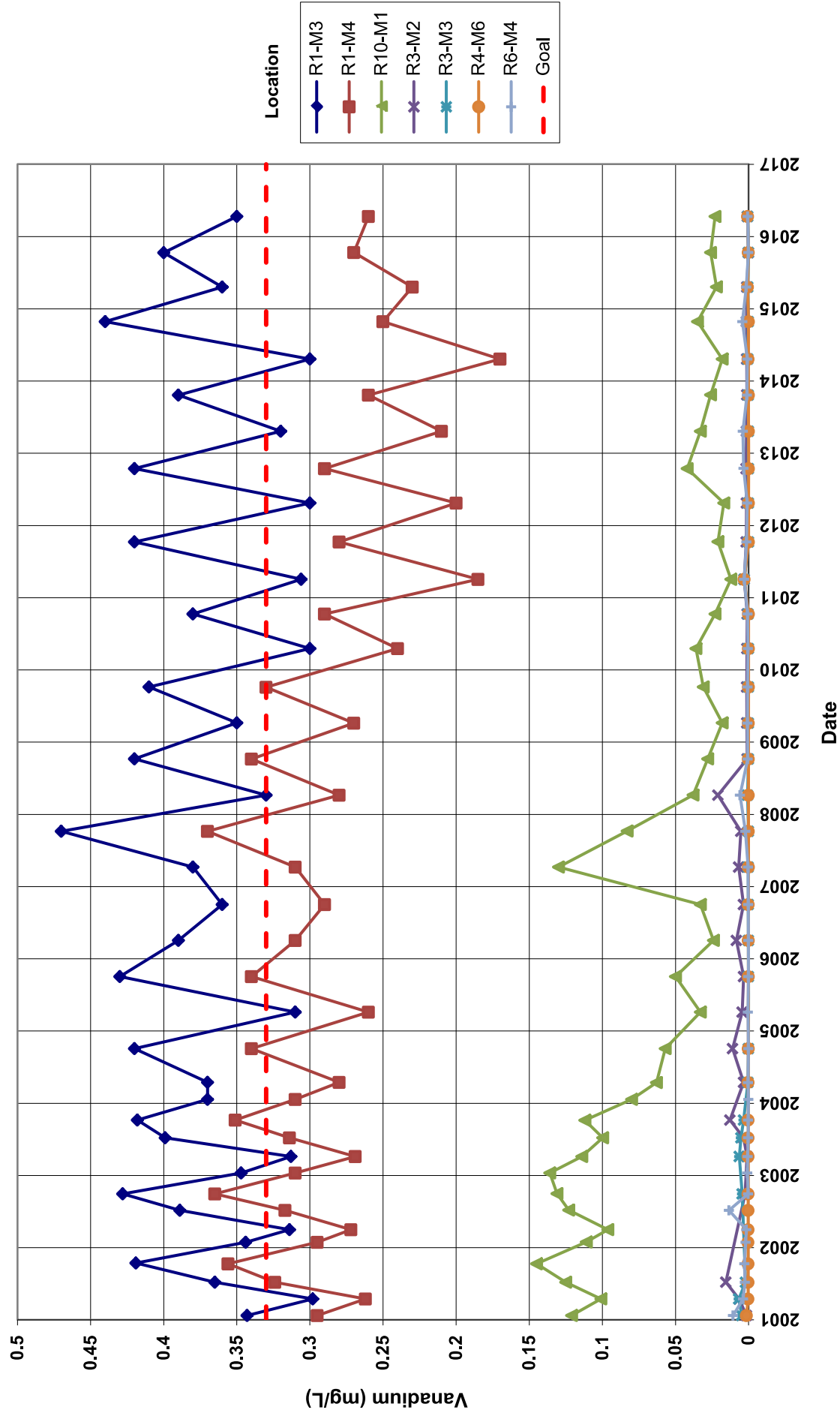
Monticello Disposal & Processing Sites
Downgradient Wells
Vanadium Concentration
Remediation Goal = 0.33 mg/L



Monticello Disposal & Processing Sites
Downgradient Wells
Vanadium Concentration
Remediation Goal = 0.33 mg/L



Monticello Disposal & Processing Sites
Downgradient PRB Wells
Vanadium Concentration
Remediation Goal = 0.33 mg/L



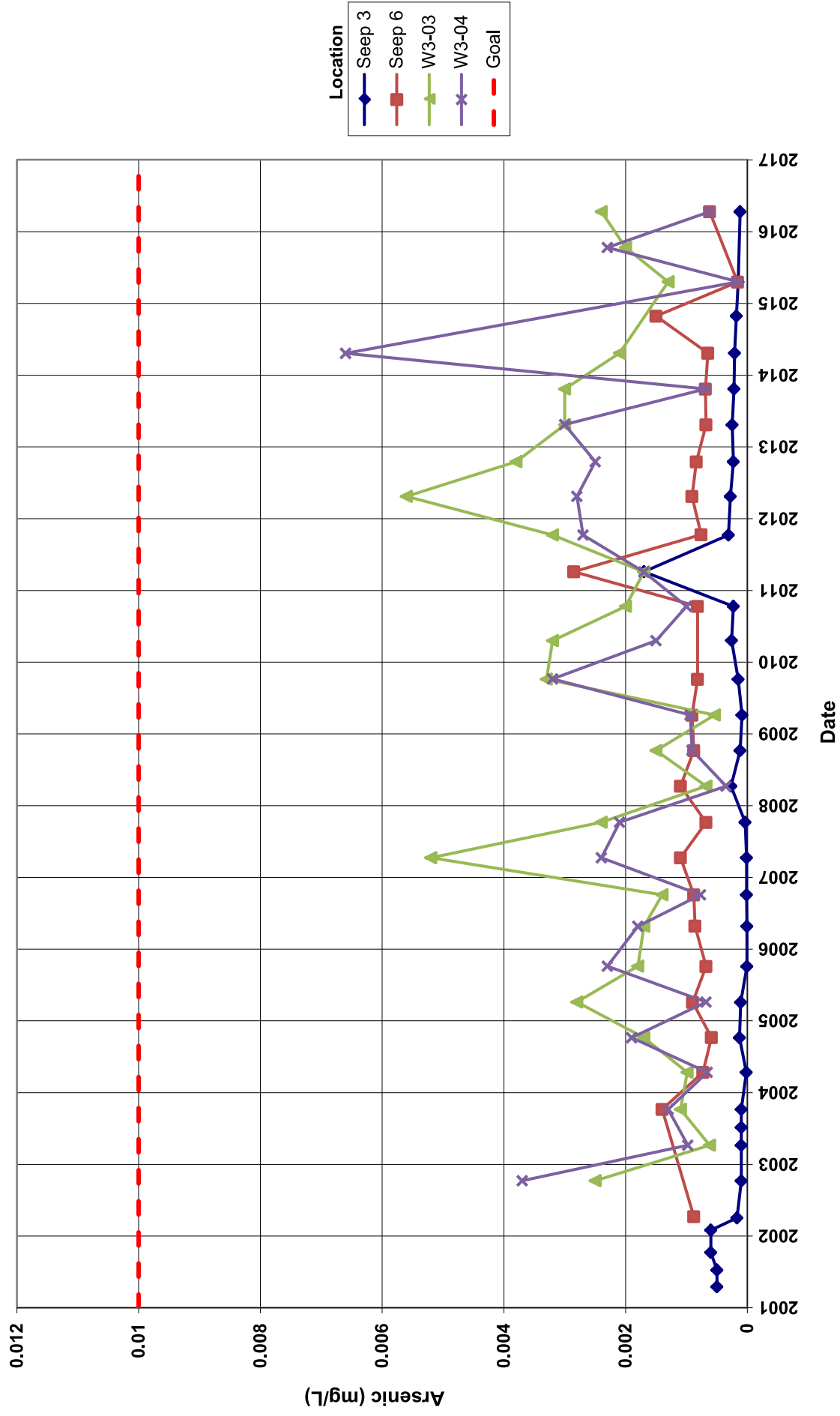
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Time-Concentration Graphs

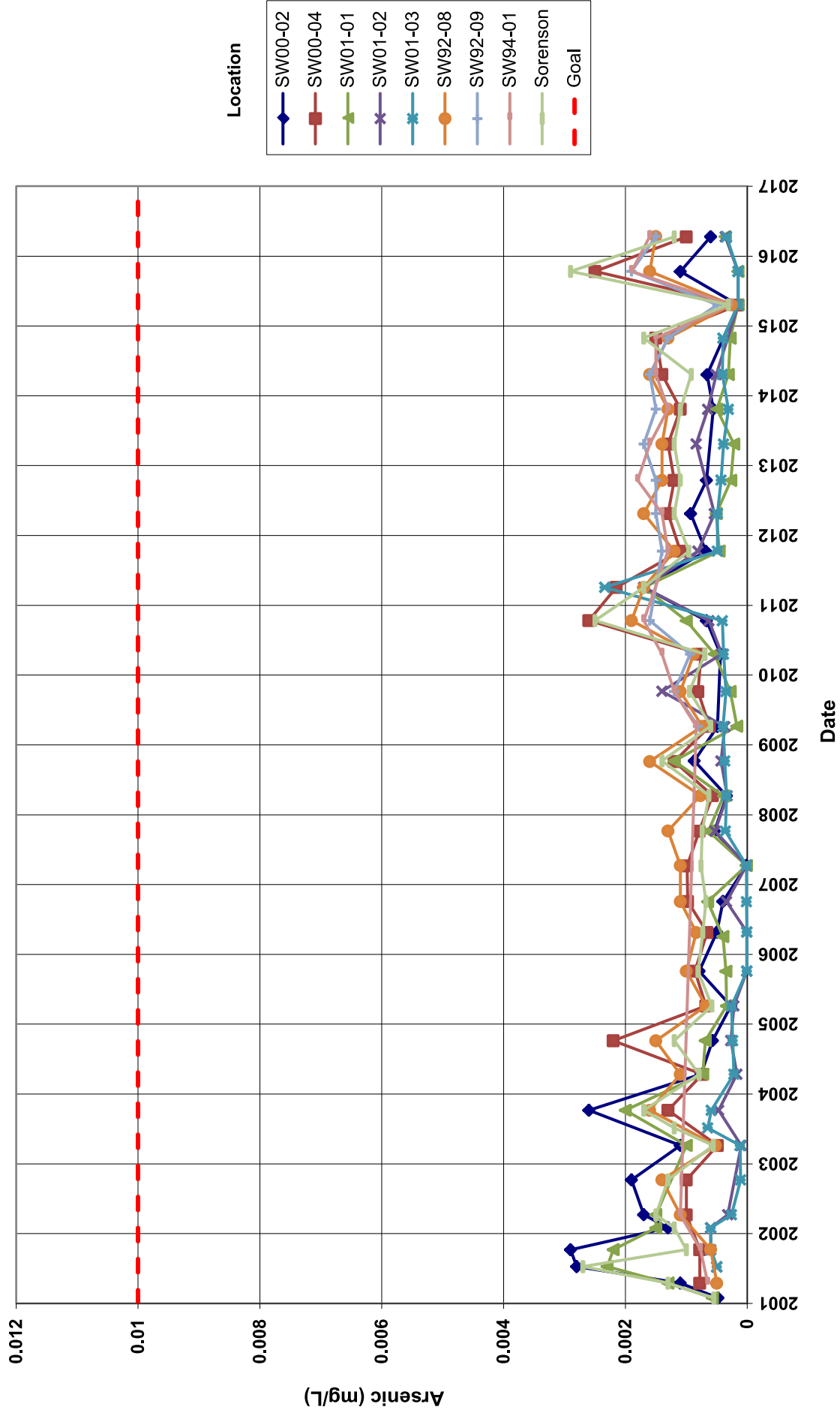
Surface Water

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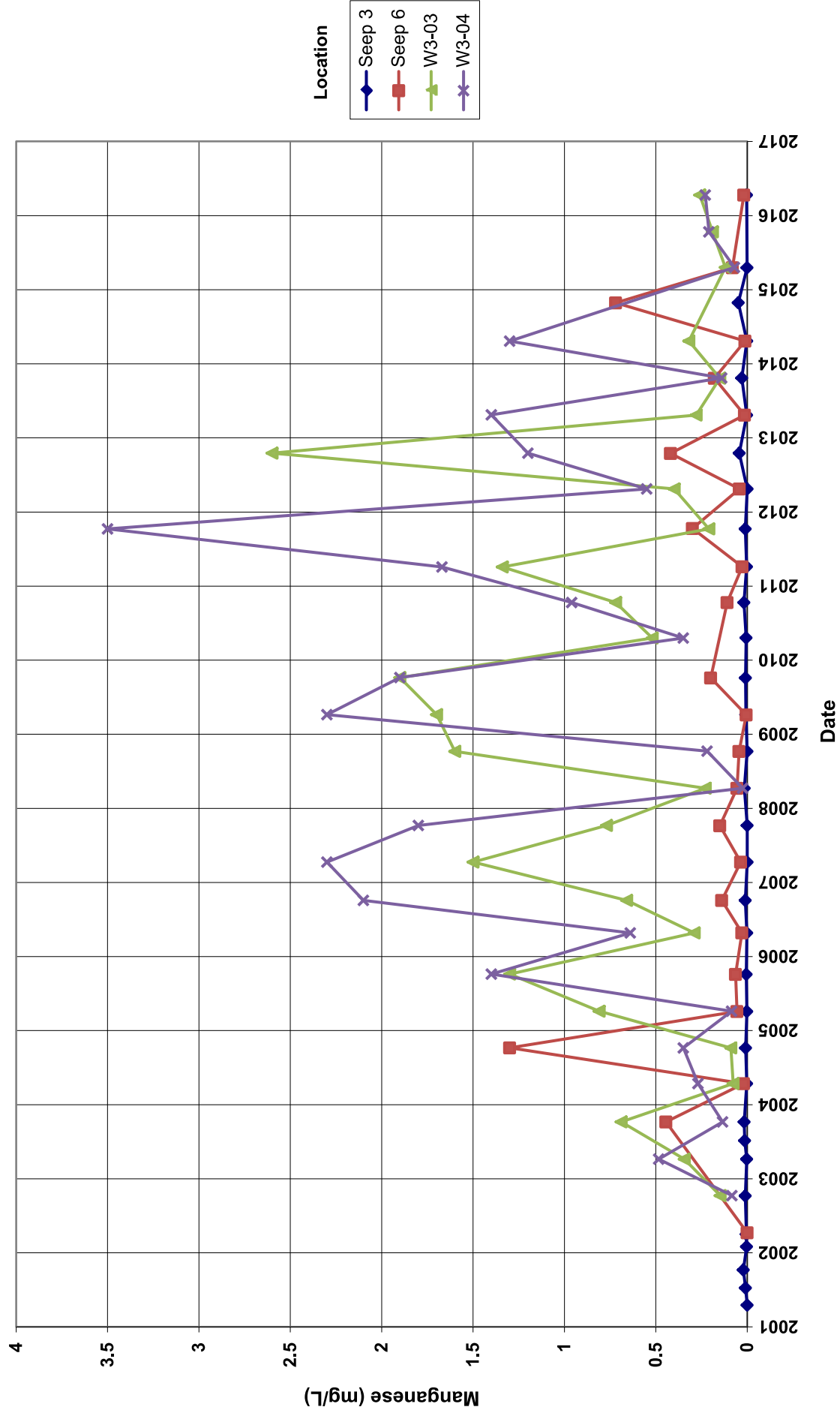
Monticello Disposal & Processing Sites
Former Mill Site Seeps and Wetlands
Arsenic Concentration
Remediation Goal = 0.01 mg/L



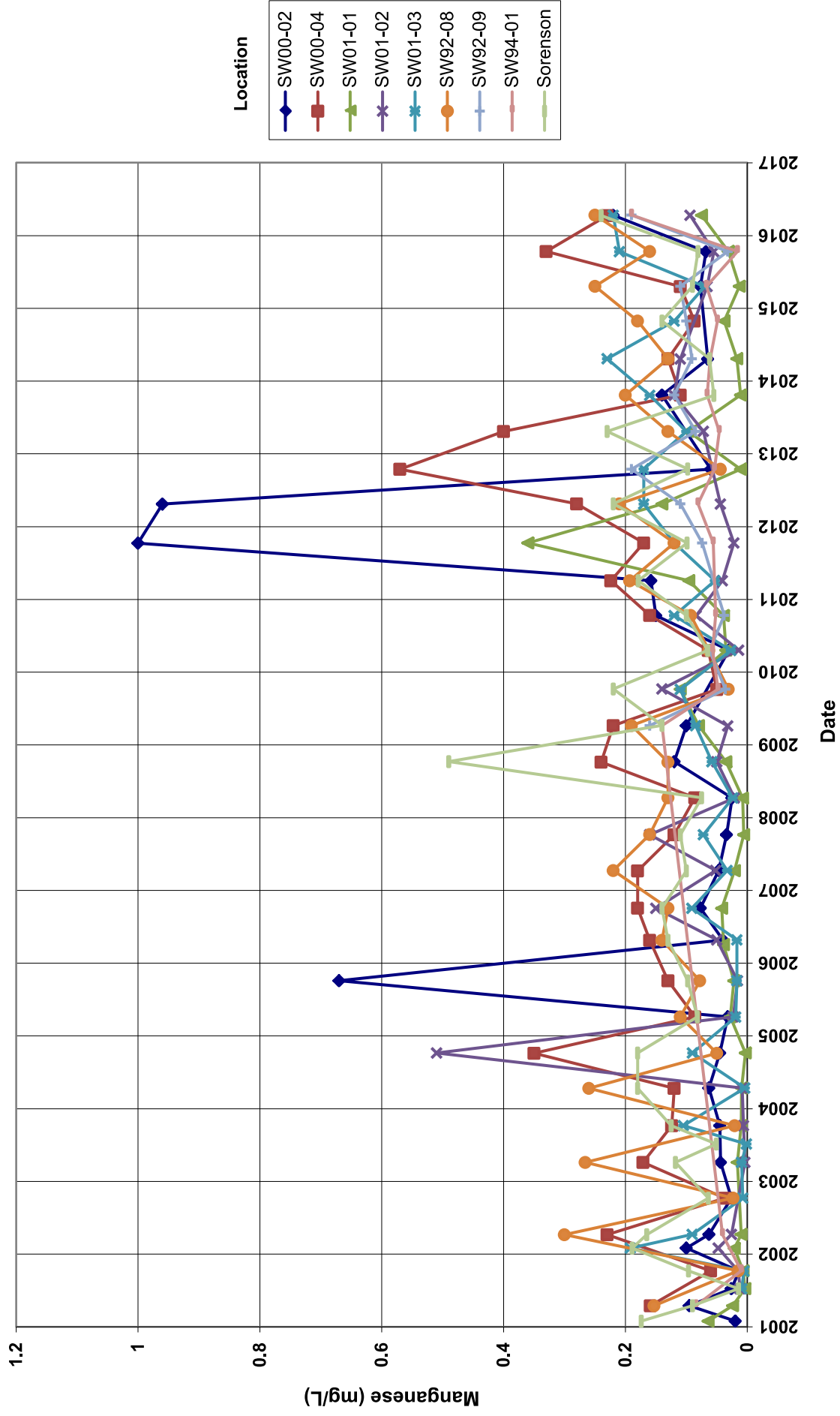
Monticello Disposal & Processing Sites
Montezuma Creek Locations
Arsenic Concentration
Remediation Goal = 0.01 mg/L



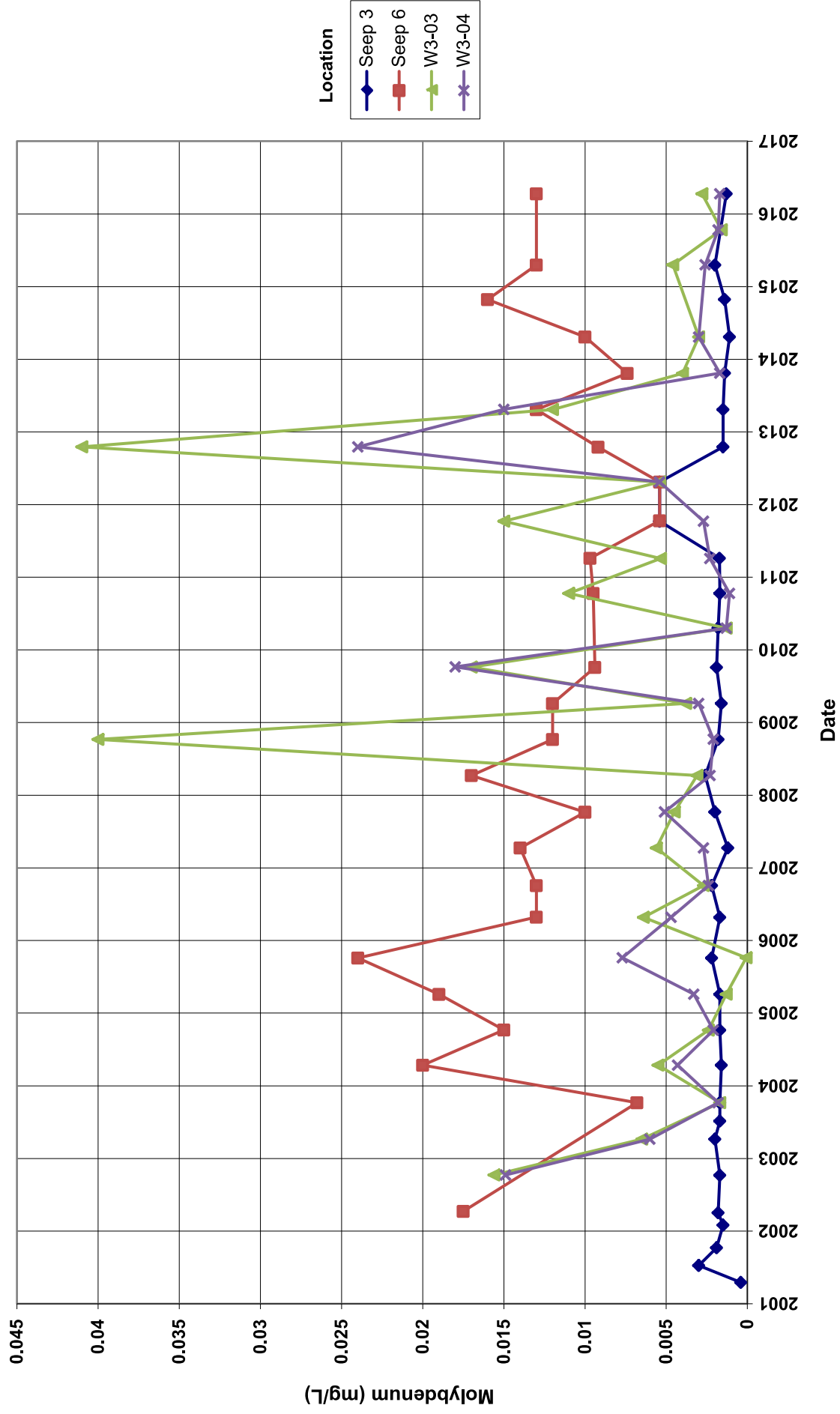
Monticello Disposal & Processing Sites Former Mill Site Seeps and Wetlands Manganese Concentration



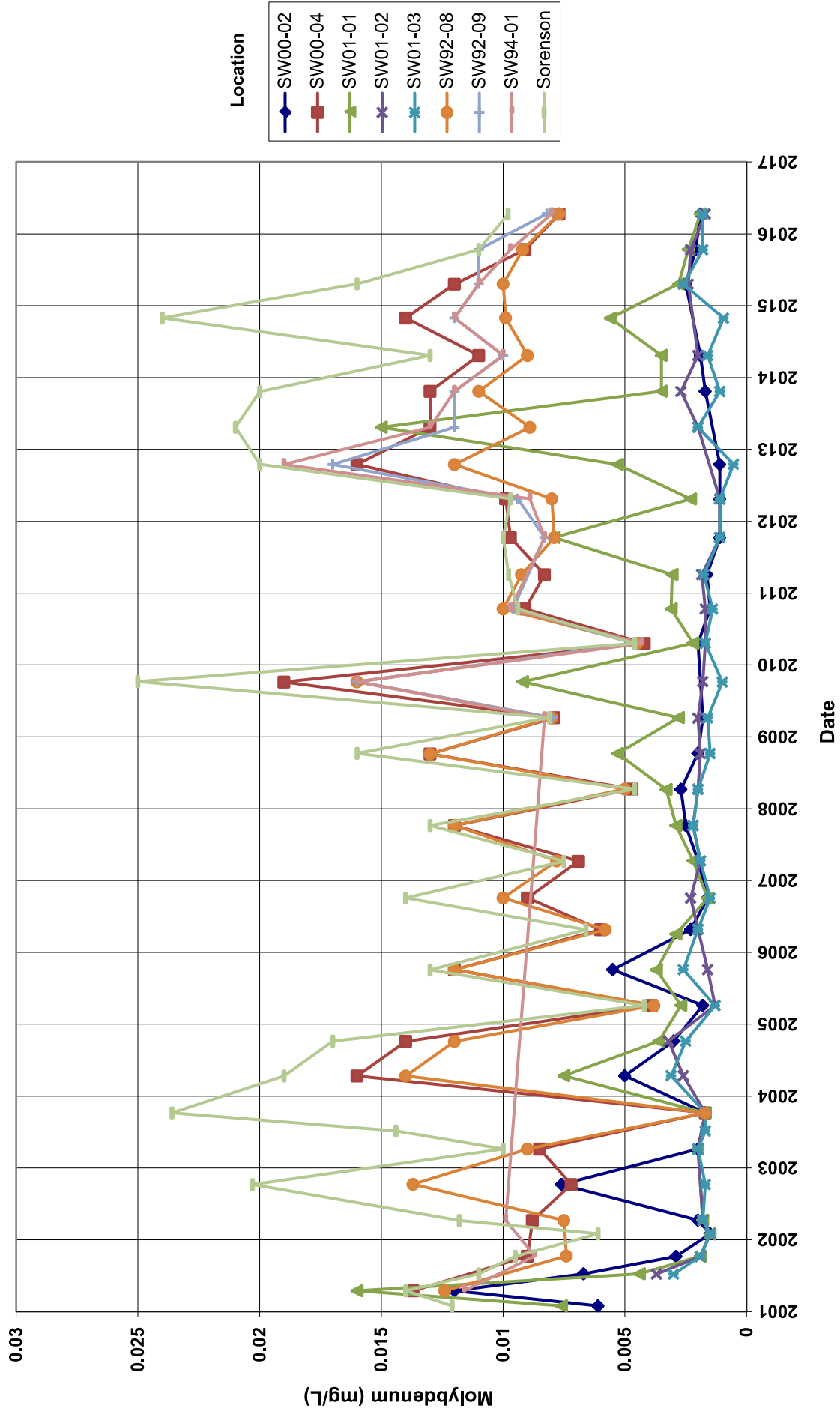
Monticello Disposal & Processing Sites Montezuma Creek Locations Manganese Concentration



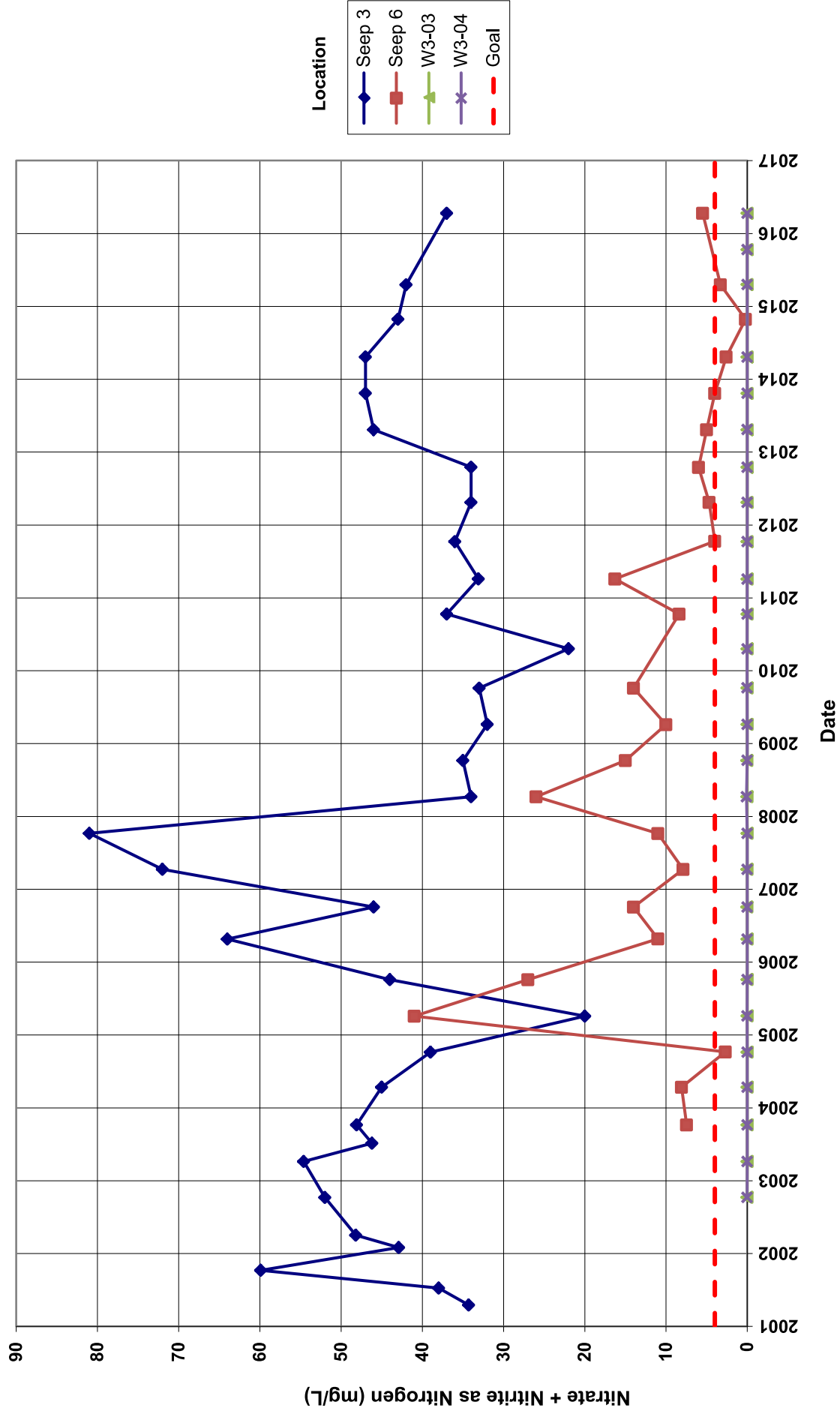
Monticello Disposal & Processing Sites Former Mill Site Seeps and Wetlands Molybdenum Concentration



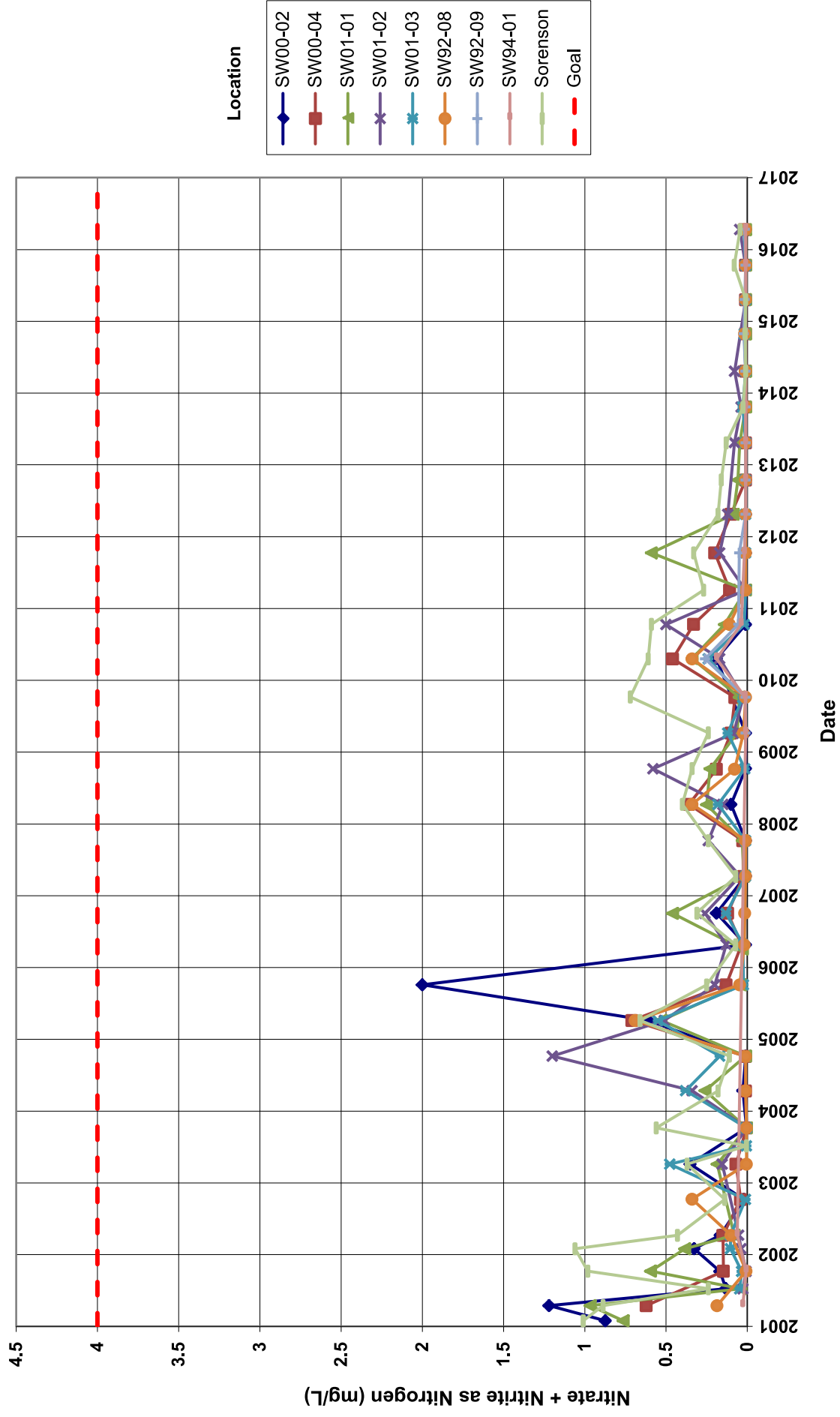
Monticello Disposal & Processing Sites
Montezuma Creek Locations
Molybdenum Concentration



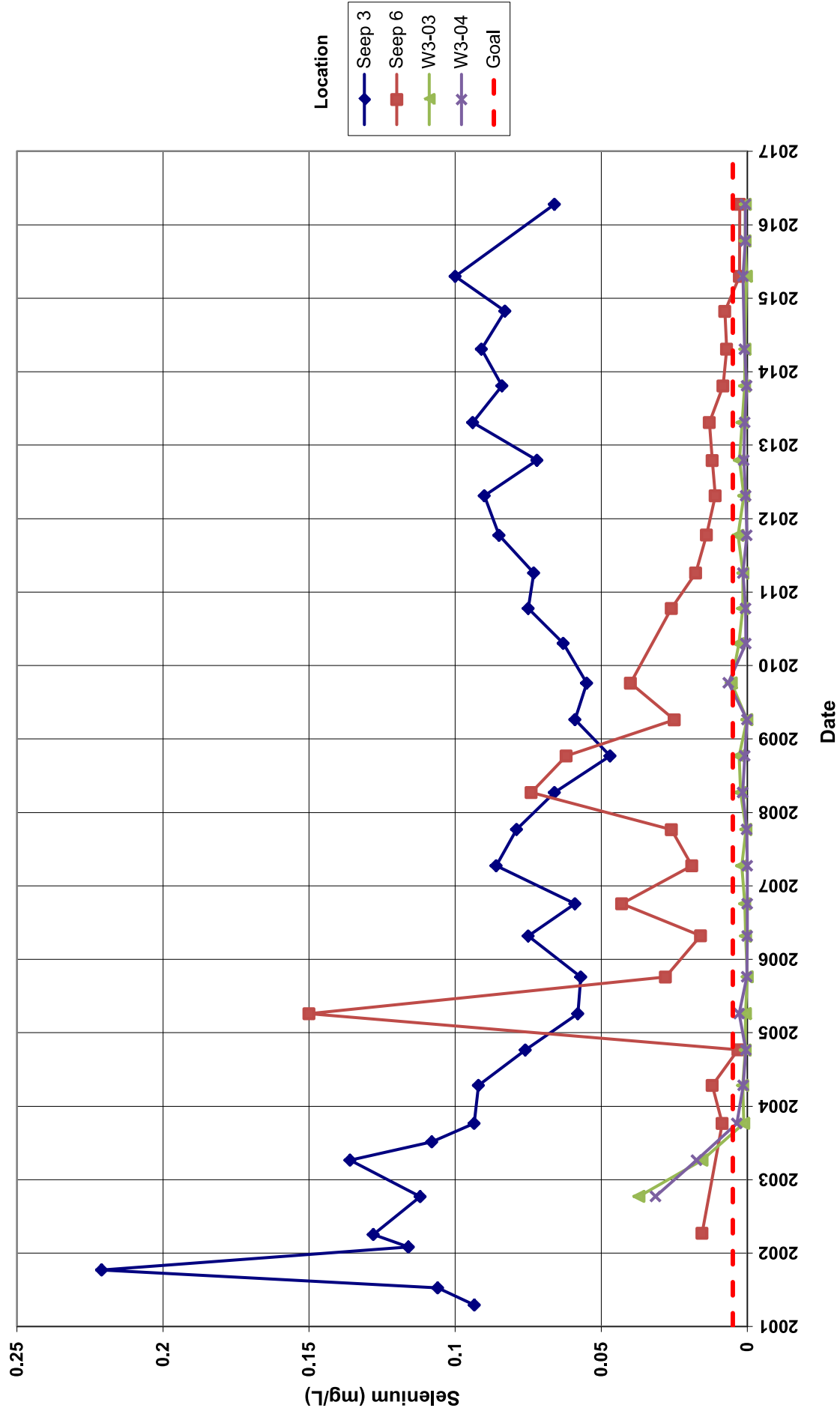
**Monticello Disposal & Processing Sites
Former Mill Site Seeps and Wetlands
Nitrate + Nitrite as Nitrogen Concentration
Remediation Goal = 4 mg/L**



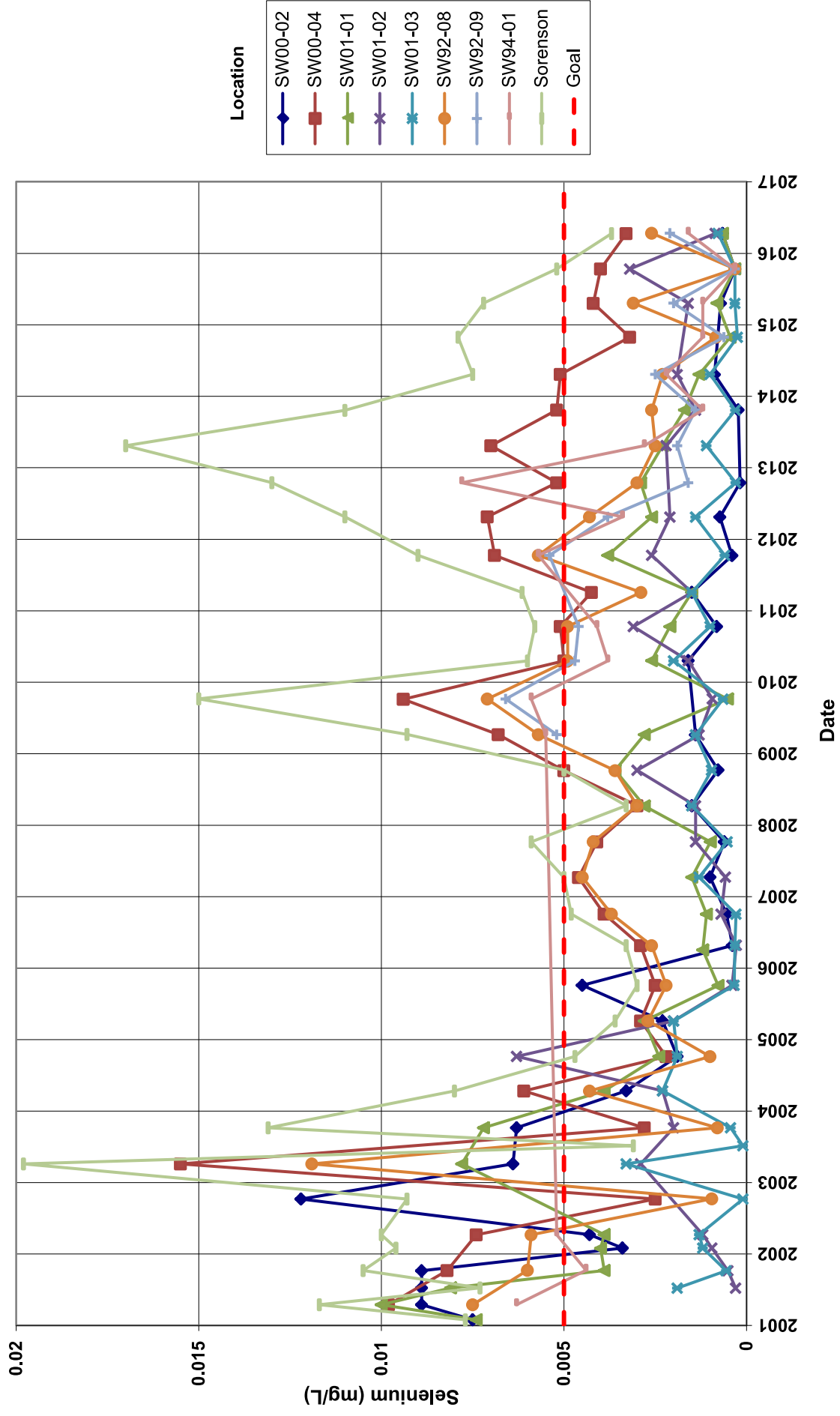
**Monticello Disposal & Processing Sites
Montezuma Creek Locations
Nitrate + Nitrite as Nitrogen Concentration
Remediation Goal = 4 mg/L**



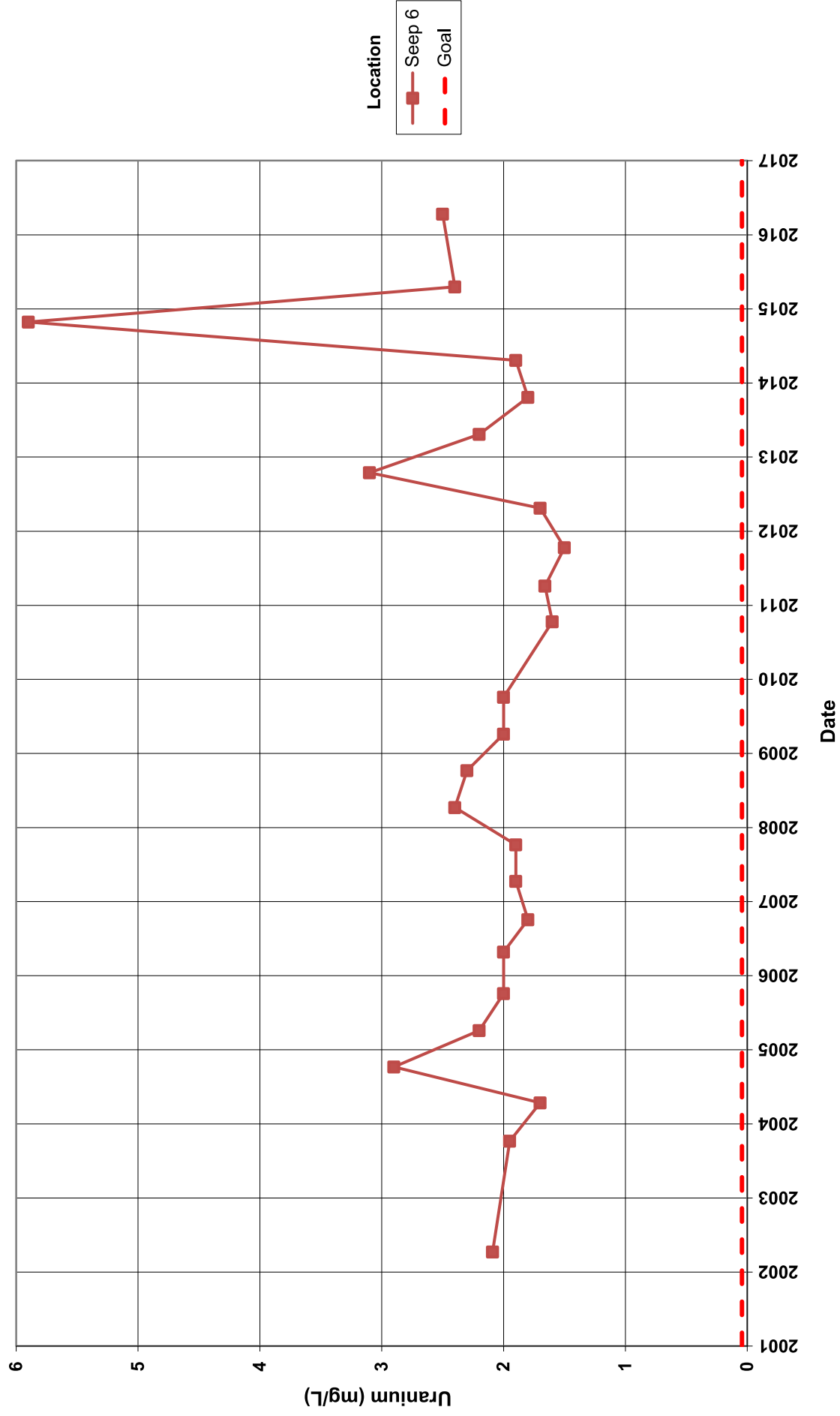
Monticello Disposal & Processing Sites
Former Mill Site Seeps and Wetlands
Selenium Concentration
Remediation Goal = 0.005 mg/L



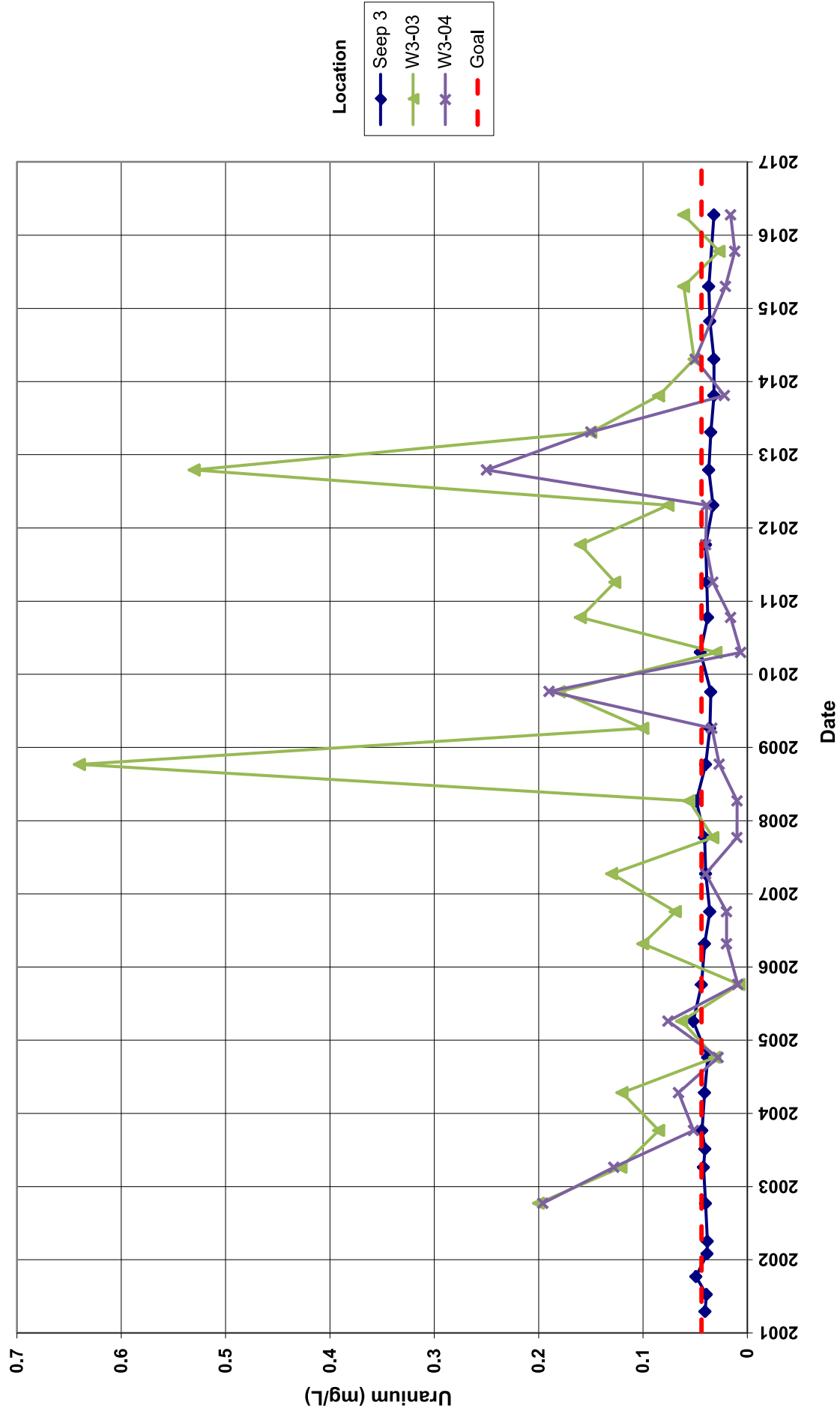
Monticello Disposal & Processing Sites
Montezuma Creek Locations
Selenium Concentration
Remediation Goal = 0.005 mg/L



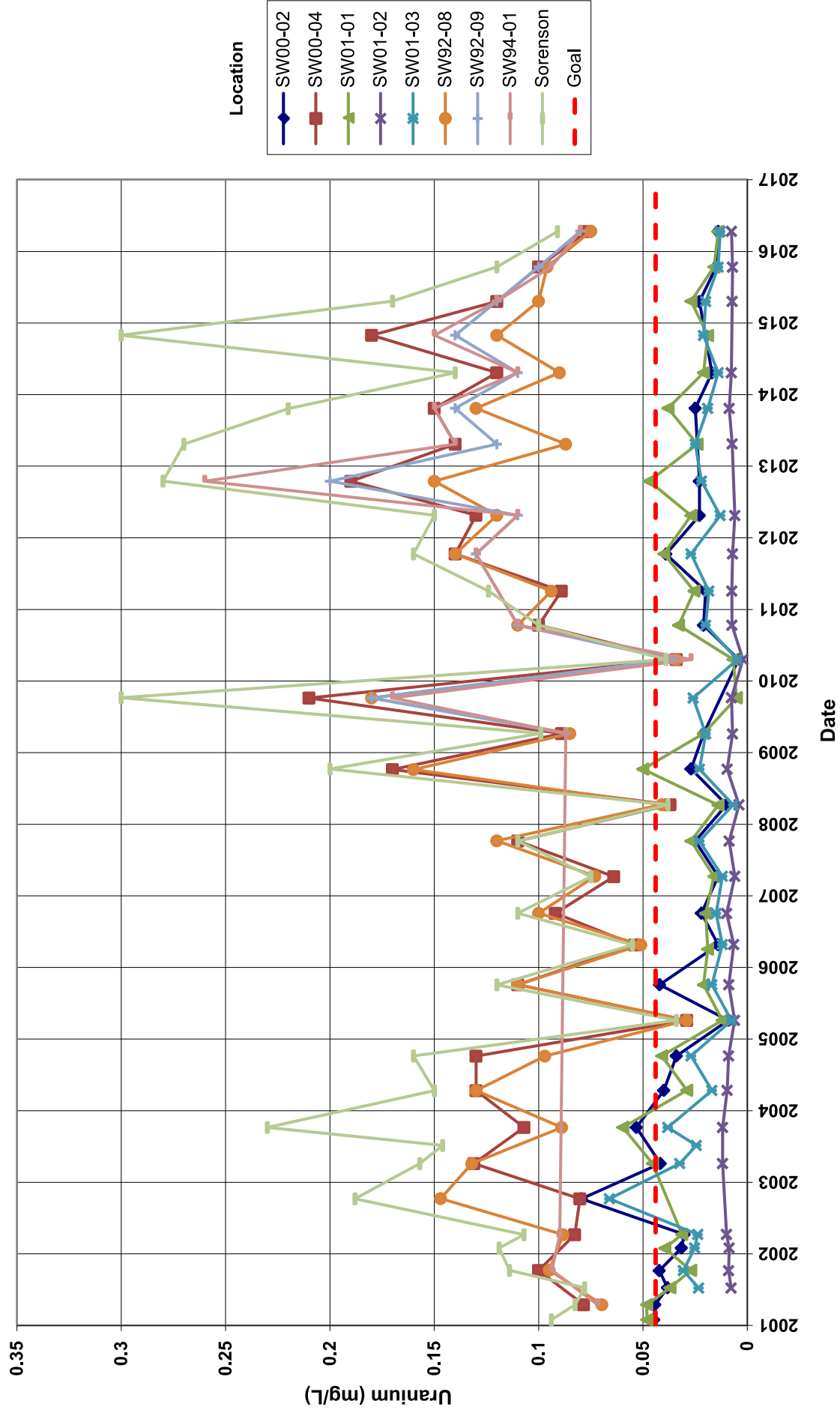
Monticello Disposal & Processing Sites
Former Mill Site Seeps and Wetlands
Uranium Concentration
Remediation Goal = 0.044 mg/L



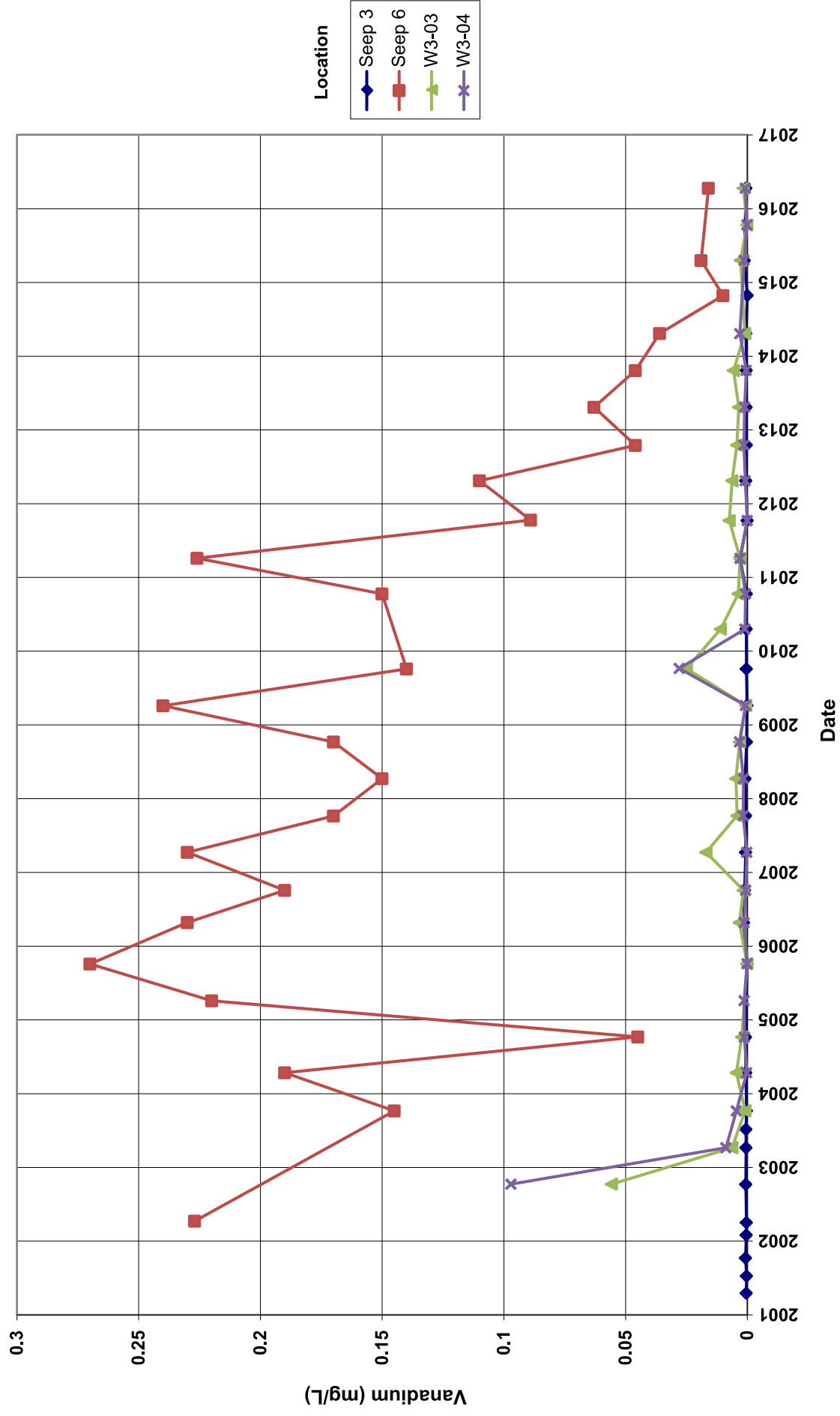
Monticello Disposal & Processing Sites
Former Mill Site Seeps and Wetlands
Uranium Concentration
Remediation Goal = 0.044 mg/L



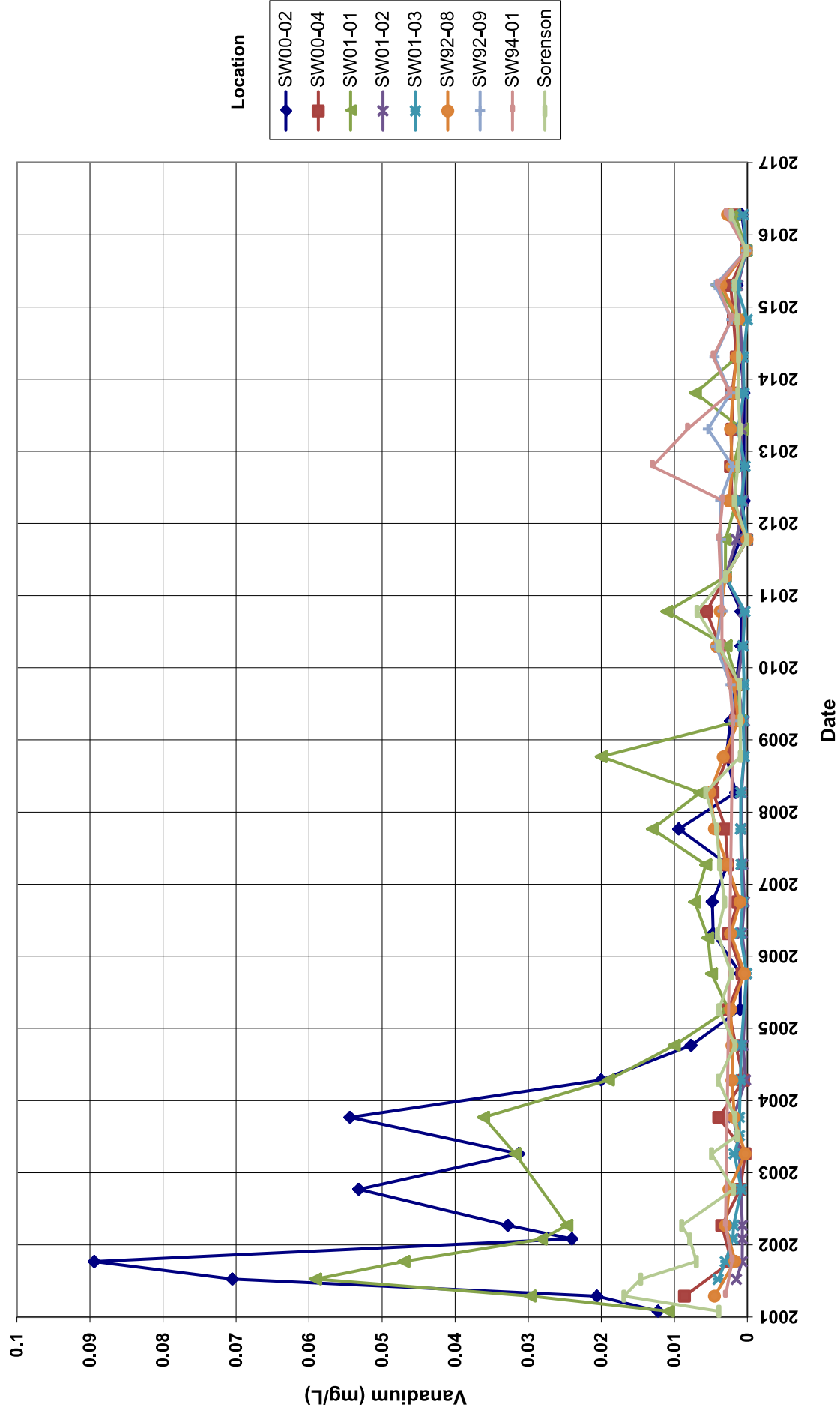
Monticello Disposal & Processing Sites
Montezuma Creek Locations
Uranium Concentration
Remediation Goal = 0.044 mg/L



Monticello Disposal & Processing Sites Former Mill Site Seeps and Wetlands Vanadium Concentration



Monticello Disposal & Processing Sites Montezuma Creek Locations Vanadium Concentration



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Attachment 4

Assessment of Anomalous Data

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Potential Outliers Report

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Potential Outliers Report

Potential outliers are results that lie outside the historical range, possibly due to transcription errors, data calculation errors, or measurement system problems. However, outliers can also represent true values that indicate more variability in the population than was expected. Potential outliers are identified by generating the Data Validation Outliers Report from data in the environmental database. The new data set is compared to historical values and data that fall outside the historical data range are listed on the report along with the historical minimum and maximum values. The review includes an evaluation of any notable trends in the data that may indicate the outliers represent true extreme values.

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.** The Outliers Report is generated using the Sample Management System from data in the environmental database. The application compares the new data set (in standard environmental database units) with historical data and lists the new data that fall outside the historical data range. A determination is also made as to whether the data are normally distributed using the Shapiro-Wilk Test.
2. **Apply the appropriate statistical test.** Dixon's Test for extreme values 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.** The review should include an evaluation of any notable trends in the data that may indicate the outliers represent true extreme values.

Table 6 shows the outlier report that was generated using historical data. Two laboratory results were identified as potentially anomalous due to sample dilution causing an elevated detection limit; both samples were reported as not detected. Four more laboratory results were identified as potentially anomalous because of the low variability of the historical data or because of downward or upward trending in the data. The data associated with these results were further reviewed. There were no errors noted and the data for this RIN are acceptable as qualified.

One potential outlier was identified during data validation for the previous sampling event in October 2015. The alkalinity at location MW00-06 was abnormally high. The data collected during the current sampling event indicates the result was erroneous and was flagged with an “R” as a rejected value.

Comparison: All historical Data Beginning 1/1/2001
 Laboratory: ALS Laboratory Group
 RIN: 16047728
 Report Date: 6/20/2016

Table 6. Data Validation Outliers Report

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current			Historical Maximum			Historical Minimum			Number of Data Points			Statistical Outlier
					Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	UF	N Below Detect	
MNT01	0200	N001	04/13/2016	Iron	0.110	F	0.0613	B	0.00140	B	0.00140	B	UF	26	24		Yes
MNT01	0202	0001	04/12/2016	Fluoride	1.000	U	QF	0.630	FQ	0.280	F	20	1				Yes
MNT01	0202	0001	04/12/2016	Potassium	5.80	QF	12.0	F	5.90	23	0	No					
MNT01	0202	0001	04/12/2016	Uranium	0.160	QF	0.300	J	0.170	23	0	No					
MNT01	82-08	N001	04/12/2016	Potassium	3.90	F	22.0	B	4.30	B	J	36	0	No			
MNT01	92-07	N001	04/12/2016	Molybdenum	0.0510	F	0.140	F	0.0520	43	0	No					
MNT01	92-07	N002	04/12/2016	Molybdenum	0.0500	F	0.140	F	0.0520	43	0	No					
MNT01	92-07	N001	04/12/2016	Potassium	9.80	F	27.5	11.0	45	0	No						
MNT01	92-07	N002	04/12/2016	Potassium	9.80	F	27.5	11.0	45	0	No						
MNT01	92-08	N001	04/12/2016	Potassium	6.10	F	17.0	6.40	35	0	No						
MNT01	92-08	N001	04/12/2016	Uranium	0.200	F	0.488	0.210	FQ	35	0	No					
MNT01	MW00-01	N001	04/12/2016	Iron	0.0670	J	F	0.0522	B	0.0008	U	35	27	Yes			
MNT01	MW00-01	N001	04/12/2016	Manganese	0.00210	J	F	0.00200	U	0.000066	B	U	35	28	NA		
MNT01	MW00-06	N001	04/12/2016	Potassium	8.30	F	20.0	8.40	40	0	No						
MNT01	P92-06	N001	04/12/2016	Magnesium	61.0	F	147	64.0	37	0	No						
MNT01	P92-06	N001	04/12/2016	Sodium	110	F	512	120	37	0	No						
MNT01	PW-17	0001	04/11/2016	Potassium	11.0	QF	27.0	12.0	39	0	No						

Comparison: All historical Data Beginning 1/1/2001

Laboratory: ALS Laboratory Group

RIN: 16047728

Report Date: 6/20/2016

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current			Historical Maximum			Historical Minimum			Number of Data Points			Statistical Outlier
					Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	Data	N Below Detect	
MNT01	PW-17	0001	04/11/2016	Sodium	87.0		QF	356			91.0			39	0	0	NA
MNT01	R1-M3	0001	04/12/2016	Potassium	7.50			20.9			8.70			40	0	0	No
MNT01	R1-M4	0001	04/12/2016	Manganese	0.0004	J		0.530			0.00250	B		40	0	0	No
MNT01	R1-M4	0001	04/12/2016	Potassium	8.50			18.0			9.50			40	0	0	No
MNT01	R3-M2	0001	04/12/2016	Potassium	8.50			22.0			11.0			32	0	0	No
MNT01	R3-M3	0001	04/12/2016	Potassium	8.80			20.0			10.00			31	0	0	No
MNT01	R4-M6	0001	04/12/2016	Manganese	0.0110			0.550			0.0120			36	0	0	NA
MNT01	R4-M6	0001	04/12/2016	Potassium	9.10			23.0			10.00			36	0	0	No
MNT01	R4-M6	0001	04/12/2016	Uranium	0.00023			0.00019			0.0000014	B	U	36	19	19	NA
MNT01	R6-M4	0001	04/12/2016	Potassium	7.30			23.0			8.60			38	0	0	No
MNT01	Seep 6	N001	04/12/2016	Selenium	0.00260			0.150			0.00270		J	24	0	0	No
MNT01	SW00-02	N001	04/12/2016	Iron	0.180			0.150			0.0008	B	U	37	27	27	NA
MNT01	SW00-04	0001	04/11/2016	Fluoride	1.000	U		0.580		J	0.0377	B		30	7	7	NA
MNT01	SW01-01	N001	04/12/2016	Iron	0.200			0.0700			0.0008	B	U	36	24	24	Yes
MNT01	SW92-08	N001	04/13/2016	Fluoride	1.000	U		0.590			0.0486	B		30	6	6	NA
MNT01	SW92-09	0001	04/13/2016	Fluoride	1.000	U		0.580		J	0.170	N		13	1	1	NA
MNT01	SW94-01	0001	04/13/2016	Manganese	0.190			0.140			0.00970	B		17	0	0	Yes
MNT01	T01-01	N001	04/13/2016	Vanadium	0.0500		F	0.796			0.0675	N		39	0	0	NA

Comparison: All historical Data Beginning 1/1/2001

Laboratory: ALS Laboratory Group

RIN: 16047728

Report Date: 6/20/2016

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
MNT01	T01-02	N001	04/13/2016	Molybdenum	0.00940	F	0.0444	B	0.0111		0.0111			34	0	No
MNT01	T01-02	N001	04/13/2016	Potassium	5.60	F	16.6	E	6.55		6.55	E		34	0	No
MNT01	T01-02	N001	04/13/2016	Selenium	0.00440	F	0.144		0.00470		0.00470			34	0	No
MNT01	T01-02	N001	04/13/2016	Uranium	0.0680	F	0.391		0.120		0.120			34	0	No
MNT01	T01-02	N001	04/13/2016	Vanadium	0.250	F	0.623		0.298		0.298			34	0	No
MNT01	T01-04	N001	04/13/2016	Potassium	4.90	F	12.0	F	5.00		5.00			35	0	No
MNT01	T01-05	N001	04/13/2016	Potassium	4.80	F	11.0	F	5.00		5.00			33	0	No
MNT01	T01-19	0001	04/12/2016	Magnesium	37.0	QF	60.0	Q	42.0		42.0			30	0	Yes
MNT01	T01-19	0001	04/12/2016	Potassium	3.40	QF	7.30	B	3.46		3.46	B		30	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.
NA: Data are not normally or lognormally distributed.