

**SIXTH FIVE-YEAR REVIEW REPORT FOR
SUMMIT NATIONAL SUPERFUND SITE
PORTAGE COUNTY, OHIO**



Prepared by

**U.S. Environmental Protection Agency
Region 5
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7/7/2023

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LIST OF ABBREVIATIONS & ACRONYMS

ARAR	Applicable or Relevant and Appropriate Requirement
C-56	hexachlorocyclopentadiene
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	Contaminant of Concern
EC	Environmental Covenant
EPA	United States Environmental Protection Agency
ESD	Explanation of Significant Differences
FYR	Five-Year Review
ICs	Institutional Controls
ISCO	In-Situ Chemical Oxidation
LIL	Lower Intermediate Units
MCL	Maximum Contaminant Level
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
Ohio EPA	Ohio Environmental Protection Agency
OU	Operable Unit
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PCE	Tetrachloroethene
PFAS	Per- and Polyfluoroalkyl Substances
PQL	Practical Quantitation Limit
PRP	Potentially Responsible Party
RAO	Remedial Action Objective
ROD	Record of Decision
RPM	Remedial Project Manager
RSL	Regional Screening Level
Site	Summit National Superfund Site
SNFT	Summit National Facility Trust
SSIPL	Site-specific Indicator Parameter List
SVOCs	Semi-Volatile Organic Compounds
TAL	Target Analyte List
TCA	1,1,1-trichloroethane
TCL	Target Compound List
TSCA	Toxic Substances Control Act
UECA	Uniform Environmental Covenants Act
UIU	Upper Intermediate Units
UU/UE	Unlimited Use and Unrestricted Exposure
VOCs	Volatile Organic Compounds
WTU	Water Table Unit

I. INTRODUCTION

The purpose of a Five-Year Review (FYR) is to evaluate the implementation and performance of a remedy in order to determine if the remedy is and will continue to be protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in FYR reports such as this one. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The United States Environmental Protection Agency (EPA) is preparing this FYR pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121, consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 CFR Section 300.430(f)(4)(ii)), and considering EPA policy.

This is the sixth FYR for the Summit National Superfund Site (Site). The triggering action for this statutory review is the completion date of the previous FYR. The FYR has been prepared due to the fact that hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure (UU/UE).

The Site consists of one operable unit (OU), which is addressed in this FYR. The site-wide OU addresses the Site's soil, sediment, and groundwater.

The Summit National Superfund Site FYR was led by EPA remedial project manager (RPM), Mitchell Latta. Participants included Ohio Environmental Protection Agency (Ohio EPA) project manager, Ed D'Amato. The potentially responsible parties (PRPs) and Ohio EPA were notified of the initiation of the FYR. The review began on 12/8/2022.

Site Background

The Site is located at 1240 Alliance Road in Deerfield Township, Portage County, approximately 45 miles southeast of Cleveland, Ohio. It includes a roughly rectangular property at the southeast corner of the intersection of Ohio Route 225 and U.S. Route 224 (see Appendix B, Figure 1). Prior to the remedial construction, the Site contained the remains of a coal tippie and a scale house in the northwest corner, two dilapidated buildings in the northeast corner, an abandoned incinerator and two small buildings in the southeast corner, and two ponds (referred to as the east pond and the west pond) across the center of the property (see Appendix B, Figure 2). All these features were removed during the final cleanup. There are currently two storage structures on the site, one that houses the former pump and treat system. The site is otherwise vacant with no regular activity outside of standard operations and maintenance.

Prior to 1974, the 11.5-acre Site was formerly a coal strip mine and contained a coal wash pond and coal stockpile. The Site was used for storage and disposal of industrial waste and incineration of liquid waste from April 1974 until June 1978. EPA placed the Site on the National Priorities List (NPL) in September 1983.

The Site is currently bordered by a skating rink, a school bus storage facility and a residence to the north, a permitted solid waste landfill to the west, an undeveloped brushy wooded area to the east, and a commercial concrete facility and an old unpermitted landfill to the south. The surrounding area is a mix of commercial, agricultural, and residential properties. It is anticipated that the future land use in the surrounding area will not change from current use. Approximately 4,500 people live within three miles

of the Site. Surface water and shallow groundwater in the vicinity of the Site flow to the southeast, toward the Berlin Lake reservoir, which is a standby water supply for the City of Youngstown.

The strata at the Site have been characterized as three separate hydrogeologic units: the Water Table Unit (WTU), the Upper and Lower Intermediate Units (UIU and LIU) and the Upper Sharon aquifer. The WTU is generally from 5 to 12 feet below grade and flows to the southeast. Groundwater in the UIU flows generally southeastward and in the LIU, it flows westward. The Upper Sharon aquifer flows to the north. Surface water and shallow WTU groundwater in the vicinity of the Site flow to the southeast, toward the Berlin Lake reservoir.

FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name: Summit National		
EPA ID: OHD980609994		
Region: 5	State: OH	City/County: Deerfield Township/ Portage County
SITE STATUS		
NPL Status: Final		
Multiple OUs? No	Has the site achieved construction completion? Yes	
REVIEW STATUS		
Lead agency: EPA <i>[If "Other Federal Agency", enter Agency name]:</i>		
Author name (Federal or State Project Manager): Mitchell Latta		
Author affiliation: EPA Region 5		
Review period: 12/8/2022 – 1/25/2023		
Date of site inspection: 11/15/2022		
Type of review: Statutory		
Review number: 6		
Triggering action date: 7/13/2018		
Due date (five years after triggering action date): 7/13/2023		

II. RESPONSE ACTION SUMMARY

Basis for Taking Action

The Remedial Investigation included a risk assessment to determine the potential risk the Site may have on human health. The study concluded that unacceptable health risks [i.e., greater than an excess lifetime cancer risk of 1×10^{-4} to 1×10^{-6} or a non-cancer hazard index (HI) greater than 1] may occur under current and potential future conditions (CH2M Hill; 1988). The potential pathways of human exposure are incidental ingestion and direct contact of soil, and consumption of contaminated groundwater in the shallow and intermediate water bearing units beneath the site. Risks were evaluated for:

- Current on-site trespasser exposure to soil,
- Current off-site worker exposure to soil at the southern perimeter of the Site,
- Current off-site resident exposure to soil at the eastern perimeter of the Site,
- Current risks to children from sediment in the off-site ditches and to teenagers from the sediment in the impoundment south of the Site,
- Risks to future on-site workers and residents living on the Site from exposure to on-site soil and groundwater.

Hazardous substances and other contaminants released at the Site in each medium included a variety of volatile organic chemicals (VOCs), semi-volatile organic chemicals (SVOCs), pesticides, polychlorinated biphenyls (PCBs), and inorganic chemicals (i.e., metals). The contaminants of concern (COCs) at the Site in various media are shown in the four tables below: soils (Table 1), sediments (Table 2), surface water (Table 3), and groundwater (Table 4).

Table 1: Soil COCs

Contaminant
Bis(2-ethylhexyl) Phthalate
1,2-Dichloroethane
Hexachlorobenzene
PCBs
PAHs
TCE

Table 2: Sediment COCs

Contaminant
Bis(2-ethylhexyl) Phthalate
1,2-Dichloroethane
PCBs
PAHs

Table 3: Groundwater & Surface Water COCs

Contaminant
Antimony
Acetone
Barium
Bis(2-ethylhexyl) phthalate
Chlorobenzene
Chromium (VI)
Cyanides
Cis-1,2-Dichloroethene
Trans-1,2-Dichloroethene
1,2-dichloroethane
1,1-dichloroethene
Ethylbenzene
Nickel
Phenol
PAHs
Tetrachloroethene
Toluene
Trichloroethene
Vinyl Chloride
Zinc

Response Actions

Initial Response Actions

In August 1979, the State of Ohio filed a complaint alleging the operation of a solid waste disposal facility without a permit, creation of a public nuisance, failure to comply with orders from Ohio EPA and installation of facilities for the storage and disposal of liquid wastes without submitting plans to the state agency. After an investigation confirmed the presence of more than 7,500 gallons of hexachlorocyclopentadiene, also known as C-56, a chemical used in the manufacture of pesticides, EPA informed the then-owner of the Site that remedial action was being planned pursuant to Section 311 of the Clean Water Act. The owner declined to act or to fund a cleanup, so EPA funded the cleanup of C-56 waste from September through November 1980. From early spring to late fall of 1980, Ohio EPA fenced the Site, graded the surface to control surface water run on and run off, identified the contents and staged about 2,000 drums, characterized the contents of several bulk tanks, and installed two on-site and four off-site monitoring wells.

During 1980 and 1981, some of the companies that had brought waste to the Site identified themselves and voluntarily removed their wastes. In November 1980, an agreement was reached between the State of Ohio and eight generators that provided \$2.5 million for a surface cleanup. The cleanup operation included removal of 17,000 drums, bulk tanks, a concrete pit and its contents, surface debris, and a small amount of contaminated soil. The surface cleanup was concluded in June 1982.

During the spring of 1987, EPA Region 5 Emergency Response personnel responded to an emergency involving periodic overflows from the east pond to an adjacent residential property. The response included the removal of a buried tank near the incinerator that used to operate at the Site.

Remedial Decisions

EPA issued a Record of Decision (ROD) for the Site on June 30, 1988, and later issued a ROD amendment on November 2, 1990, and an Explanation of Significant Differences (ESD) on March 23, 1992 (EPA, 1988; EPA, 1990; EPA, 1992).

The selected remedy for the Site, as documented in the ROD, ROD Amendment, and ESD, included the following remedy components:

- Construction of a chain link fence around the Site's boundary.
- Excavation and on-site incineration of 24,000 cubic yards of on-site soils, 4,000 cubic yards of perimeter sediments, and the contents of an estimated 900 to 1,600 buried drums.
- Demolition or dismantling of all on-site structures for on-site disposal.
- Collection and treatment of surface water from the two on-site ponds and from drainage ditches, followed by excavation and on-site treatment of the sediments from the ponds.
- Extraction of groundwater from the WTU by a pipe and media drain system (i.e., passive system) along the southern boundary and the southern ends of the eastern and western boundaries, and extraction of additional groundwater via extraction wells in the Intermediate Unit, with treatment of all extracted groundwater
- Removal/relocation of a vacant residence and cement plant property.
- Testing of the ash from the incinerated soil and sediment to ensure compliance with EPA and State standards before using the ash as fill to re-grade the Site prior to placement of the final cover. In the event the incinerator is unable to meet Toxic Substances Control Act (TSCA) standards for PCBs during the test burn, PCB-contaminated soil exceeding 50 parts per million would be disposed off-site at a TSCA landfill.
- Regrading and installation of a soil cover over about 10.6 acres of the Site, consisting of 18 inches of loam, six inches of topsoil, and a vegetative cover.
- Rerouting the South and East drainage ditches to uncontaminated off-site areas.
- Limiting access and implementing deed restrictions to limit future uses of the Site.

The selected remedy was designed to address three major remedial action objectives (RAOs): 1) protection and enhancement of the quality of the groundwater and recovery of the groundwater resource in the vicinity of the Site; 2) protection of the quality of the surface water in the vicinity of the Site; and 3) protection of the public from direct contact with contaminated material on or near the Site, and from migration of surficial contaminants via surface runoff, wind erosion and volatilization.

COCs and cleanup levels for groundwater, surface water, soils, and sediments, as defined in the 1988 ROD, are presented in Tables 5, 6, and 7, below. Cleanup levels for surface water and groundwater contaminants were set equivalent to Safe Drinking Water Act Maximum Contaminant Levels (MCLs) or Ohio Water Quality Standards, when an MCL was not available. Soils and sediments cleanup levels are based on a 10^{-6} cancer risk for an adult recreator.

Table 5: Cleanup levels for COCs in Surface & Groundwater

Contaminant	MCLs or MCLGs (µg/L)	Contaminant	MCLs or MCLGs (µg/L)
Antimony	6	1,1-dichloroethene	7
Acetone	78,000*	Ethylbenzene	700
Barium	1,000	Nickel	506*
Bis(2-ethylhexyl) phthalate	0.18	Phenol	370*
Chlorobenzene	60	PAHs	-
Chromium (VI)	50	Tetrachloroethene	5
Cyanides	8.1*	Toluene	1,700
Cis-1,2-Dichloroethene	70	Trichloroethene	5
Trans-1,2-Dichloroethene	70	Vinyl Chloride	1
1,2-dichloroethane	5	Zinc	270*

*- denotes Ohio Water Quality Standards, when MCL was not available

Table 6: Cleanup Levels for COCs in Soils

Contaminant	Cleanup Level ¹ (mg/Kg)
Bis(2-ethylhexyl) Phthalate	.072
1,2-Dichloroethane	5.4
Hexachlorobenzene	0.29
PCBs	0.11
PAHs	0.043
TCE	4.5

1- Cleanup levels are based on a 10⁻⁶ cancer risk for an adult recreator for each chemical presented.

Table 7: Cleanup Levels for COCs in Sediments

Contaminant	Cleanup Level ¹ (mg/Kg)
Bis(2-ethylhexyl) Phthalate	7,400
1,2-Dichloroethane	5.6
PCBs	1.2
PAHs	0.44

1- Cleanup levels are based on a 10⁻⁶ cancer risk for an adult recreator for each chemical presented.

Status of Implementation

A Consent Decree (Civil Action number C81-1961) between EPA, Ohio EPA, and the settling PRPs was entered and became effective on June 11, 1991. The settling PRPs formed the Summit National Facility Trust (SNFT) to implement the selected remedy. Following completion of the remedial design (Conestoga-Rovers & Associates (CRA), 1993), the remedial action was implemented in five phases

from June 30, 1993, to August 23, 1995. Between August 1994 and April 1995, the site boundary was expanded to include all contaminated areas, and a fence was installed around the site to limit access. All onsite structures were demolished including one residence which was relocated. Approximately 21,100 tons of soil and sediments were incinerated on-site. Soils were tested for organic concentrations and toxicity characteristic leaching procedure metals in 500-ton batches. A water treatment system was constructed in order to collect and treat surface water and groundwater. The only change in the selected remedy from what was anticipated was that the contents of 480 overpacked drums were taken off-site for disposal instead of being incinerated on-site. After excavation of soils and site debris, the site was regraded, and a cap was put over the excavation area using clean fill material. A vegetative cover was then grown on the site which is still maintained regularly.

EPA conducted the final Site inspection in August 1995 and the Site achieved the construction completion milestone on September 18, 1995, with EPA's issuance of the Preliminary Close-Out Report (EPA, 1995). SNFT issued a Remedial Action Report documenting that the RA construction was complete, including as-built drawings, on October 31, 1995 (CRA, 1995). An Institutional Control (IC) was implemented at a later date and is discussed below.

In May 1995, the SNFT submitted an evaluation of the groundwater extraction system to EPA and Ohio EPA which showed that the groundwater contamination in the WTU was effectively contained by the pipe and media drain system but that the extraction wells installed in the Intermediate Unit were not providing an effective horizontal area of capture to contain groundwater in the Intermediate Unit at the Site boundary (CRA, 1995). The evaluation also showed that the extraction wells in the Intermediate Unit would likely draw contaminants from the WTU into the Intermediate Unit along portions of the pipe and media drain. The evaluation also concluded that the groundwater drawdown created by the pipe and media drain in the WTU induces a natural upward gradient from the Intermediate Unit to the pipe and media drain. Based on the April 1995 evaluation, EPA and Ohio EPA approved the shutdown of the groundwater extraction wells in the Intermediate Unit in May 1995. The pipe and media drain groundwater collection system continued to operate, along with the groundwater treatment system.

In the 2004 ten-year groundwater evaluation (submitted in March 2005), the SNFT requested permission to suspend operation of the groundwater extraction and treatment system. The request was based on the stability of on-site groundwater contaminant concentrations and the absence of an indication of adverse impacts to downgradient groundwater in any of the groundwater units (CRA, 2005). In June 2005, the SNFT contractor submitted a "Work Plan for Groundwater Migration Evaluation" to Ohio EPA that included post-shutdown evaluation monitoring (CRA, 2005). Ohio EPA approved the Work Plan on July 18, 2005. Approval of the plan allowed the SNFT to shut down the groundwater collection and treatment system and to continue collecting groundwater hydraulic monitoring data as well as groundwater samples for chemical analysis to determine whether the groundwater plume would remain stable without operation of the system. On August 31, 2005, the groundwater extraction and treatment system were shut down, which commenced the shutdown evaluation period. The sampling event that took place that month was established as the pre-shutdown baseline monitoring event for the groundwater migration evaluation. The system has remained in shutdown status since that time. Contingency criteria for restarting the extraction system or taking other measures are discussed below in the Data Review section of this FYR.

In a letter to the SNFT on May 1, 2020, EPA granted the SNFT's request to discontinue sediment sampling at the Site based on recent results which suggest the presence of immobile constituents and

because no contemporary Site-related environmental conditions or activities necessitate ongoing sediment monitoring (EPA, 2020).

On August 17, 2022, EPA deleted the land/soil portion of the Site from the NPL through a partial deletion after determining that the soil cleanup was complete, and no further action was necessary other than continued operation and maintenance (O&M), monitoring, and FYRs (EPA, 2022). The groundwater portion of the site is undergoing a long-term cleanup and remains on the NPL along with the surface water and sediments that shallow groundwater may discharge to.

Institutional Controls

An IC has been implemented at the Site in the form of an environmental covenant (EC) that conforms to the Ohio Uniform Environmental Covenants Act (UECA), as summarized in Table 8 below.

Table 8: Summary of Planned and/or Implemented ICs

Media, engineered controls, and areas that do not support UU/UE based on current conditions	ICs Needed	ICs Called for in the Decision Documents	Impacted Parcel(s)	IC Objective	Title of IC Instrument Implemented and Date (or planned)
Land – Onsite	Yes	Yes	Sitewide	Prohibit any filling, grading, excavating, building, drilling, mining, farming or other development on property within the Site, except for activities required pursuant to the Consent Decree	EC per the Ohio UECA, recorded with Portage County Recorder on June 5, 2013.
Groundwater - On Site current area that exceeds groundwater cleanup standards	Yes	Yes	Sitewide	Prohibit groundwater use, extraction, or development until cleanup standards are achieved.	EC per the Ohio UECA, recorded with Portage County Recorder on June 5, 2013.
Surface Water – On site	Yes	Yes	Sitewide	Prohibit use of surface water within the Site for any purpose.	EC per the Ohio UECA, recorded with Portage County Recorder on June 5, 2013.
Other Remedial Action Components	Yes	Yes	Sitewide	Prohibit inconsistent uses and protect the integrity of the remedy components.	EC per the Ohio UECA, recorded with Portage County Recorder on June 5, 2013.

A map showing the area in which the ICs apply is included in Appendix B.

Status of Access Restrictions and ICs: Access to the Site is restricted by a fence. All required ICs at the Site have been implemented.

Current Compliance: Based on the 11/15/2022 FYR Site inspection and interviews with the PRPs' site manager, EPA is not aware of Site or media uses which are inconsistent with the stated objectives for the IC in place.

IC Follow up Actions Needed: No follow up actions needed at this time.

Long Term Stewardship: Long-term protectiveness at the Site requires compliance with use restrictions to assure the remedy continues to function as intended. To assure proper maintenance and monitoring of the IC that has been implemented at the Site, long-term stewardship procedures for the IC were put in place in September 2013 as part of the Operation, Maintenance and Monitoring Plan (OMMP) (CRA 2013). These procedures are conducted by the PRPs on an annual basis to ensure proper monitoring and enforcement of the IC at the Site. The OMMP includes regular inspection of the IC and annual certification to EPA that the IC is in place and effective.

Systems Operations/Operation & Maintenance

Since shutdown of the groundwater collection/extraction and treatment system in August 2005, the primary activities at the Site have included groundwater, surface water, and sediment monitoring as well as inspection and maintenance of the Site cover and fence.

A site-specific indicator parameter list (SSIPL) was developed and approved by Ohio EPA and EPA for groundwater quality monitoring. Since development and approval of the SSIPL, the groundwater monitoring program includes annual sampling of selected WTU and UIU on-site and downgradient monitoring wells, with samples analyzed for the SSIPL, except that every fifth year all wells in the monitoring well network are sampled for the full target compound list/target analyte list (TCL/TAL) analysis. The wells sampled during the routine annual events include 8 WTU wells (on-site wells MW-11, MW-107, MW-108, MW-111, and MW-113, and downgradient off-site wells MW-4, MW-114 [sentinel], and MW-115 [sentinel]) and 4 UIU wells (on-site wells MW-207 and MW224, and downgradient off-site wells MW-209 and MW-220). Surface water samples are also taken from the ditch that runs along the site and analyzed for the SSIPL. As part of a partial deletion completed at the site in 2020, the PRPs no longer collect sediment samples at the site.

Per the OMMP, groundwater monitoring reports, as well as annual evaluation and progress reports, are submitted to EPA and Ohio EPA. Operation and maintenance (O&M) activities include periodic inspection and maintenance of the Site cover, monitoring wells, and perimeter fence.

III. PROGRESS SINCE THE LAST REVIEW

This section includes the protectiveness determinations and statements from the last FYR as well as the recommendations from the last FYR and the current status of those recommendations.

Table 9: Protectiveness Determinations/Statements from the 2018 FYR

OU #	Protectiveness Determination	Protectiveness Statement
1 / Sitewide	Protective	The remedy at the Summit National Superfund Site is protective of human health and the environment. Exposure pathways to contaminated groundwater are being controlled and exposure to contaminated soil at the Site has been addressed by incinerating the most heavily contaminated soils, sending several hundred drums of waste off-site for disposal, applying a clean soil cover and a vegetative cover over remaining soil contamination, and by fencing that surrounds the Site. All required ICs have been implemented, with an EC under the Ohio UECA recorded on June 5, 2013. Long-term stewardship procedures are in place, and compliance with effective ICs is being ensured through long-term stewardship by maintaining, monitoring, and enforcing effective ICs.

There were no issues and recommendations in the last FYR that affected the protectiveness of the remedy.

OTHER FINDINGS from the 2018 FYR

The following recommendation was identified during the 2018 FYR Site inspection that may improve management of O&M at the Site but does not affect current nor future protectiveness:

- Create new permanent labels to identify the monitoring wells; the current label identifications on the monitoring wells are barely legible.

Status update: Permanent labels have been placed on all monitoring wells.

IV. FIVE-YEAR REVIEW PROCESS

Community Notification, Involvement & Site Interviews

A public notice was made available on the EPA website for Summit National, on 12/29/2022, stating that there was a FYR and inviting the public to submit any comments to EPA. A copy of the public notice is included in Appendix C. No comments were received for this FYR resulting from the public notice. This FYR report will be made available at the Site information repository located at Reed Memorial Library, 167 E Main Street, Ravenna, Ohio, and online at <http://www.epa.gov/superfund/summitnational>

During the FYR process, interviews were conducted to document any perceived problems or successes with the remedy that has been implemented to date. The project manager and property manager were both interviewed onsite during the FYR site inspection. There were no major issues at the site identified during these interviews. They identified some minor issues that are summarized in the Site Inspection section below.

Data Review

Monitoring of groundwater contaminant concentrations, hydraulic containment, and the groundwater treatment system (while it was operating) have been ongoing since November 1994. The data were regularly reported to and reviewed by EPA and Ohio EPA. For this FYR, all data since 1994 were reviewed, with an emphasis on data obtained since the previous FYR. The data discussed in this section is focused on annual sampling events from 2018-2022, and the five-year sampling event performed in 2019.

Groundwater

The objectives of the annual groundwater monitoring program are to characterize any changes in groundwater quality in the WTU and UIU underlying the interior affected area of the Site and in the sentinel wells downgradient of the Site. The results from the sentinel wells were evaluated using the extraction system shutdown contingency criteria established for the Site as modified in the 2010 groundwater monitoring report, as follows:

"If VOCs above their respective maximum contaminant level (MCL) are detected in the sentinel wells (off-site downgradient WTU monitoring wells MW-114 and MW-115), SNFT will evaluate options to mitigate the release (e.g., restart the groundwater extraction system, implement in-situ chemical oxidation (ISCO) to treat the released groundwater, phytoremediation, etc.). The sentinel wells are located 70 to 80 feet south of the southern property boundary and wet well of the pipe and media drain.

"During pumping of groundwater from the pipe and media drain, the WTU zone of groundwater capture extends 100 to 200 feet south of the pipe and media drain at the wet well. In this case, off-site downgradient WTU monitoring wells MW-116, MW-117 and MW-118 (approximately 230 feet south of the southern property boundary) will be used to verify whether there is any long term impact to the groundwater south of the Site and outside the influence of the pipe and media drain."

For this FYR period, water quality data from the annual events completed in 2018, 2020, 2021, and 2022 are summarized in tables 11a, 11b, and 11c (Appendix D). Water quality data collected during the 2019 full TCL/TAL five-year sampling event is presented in Appendix D. Historic groundwater sampling results are displayed graphically in Appendix E, which shows time-series plots of the results for each individual SSIPL VOC at each individual WTU and UIU annual-event monitoring well. Electronic database files containing all historic results are maintained by Eagon & Associates, Inc. (a contractor for the SNFT).

The groundwater monitoring data collected from 2018 through 2022 from the two WTU sentinel wells show the following:

- MW-114
At MW-114, two SSIPL VOCs – toluene (MCL=1000 µg/L), and xylene (total) (MCL=70µg/L) – were detected, in 2020, at estimated “J-flagged” values that were less than the practical quantitation limit (PQL). (Appendix D)
- MW-115

- Two VOCs – 1,1-dichloroethane (no MCL) and cis-1,2-dichloroethene (MCL = 70 µg/L) – were detected each year, which is consistent with historic data, but with decreasing concentration trends compared to historic data. Cis-1,2-dichloroethene was well below its MCL. (Appendix D)
- Additional VOC detections include 1,2-dichloroethane from 2019-2022 (MCL=5µg/L), toluene (MCL=1000 µg/L), and xylene (total) (MCL= 70µg/L). All of which were detected at estimated “J-flagged” values that were less than the PQL and well below their respective MCLs. (Appendix D)

Table 11b (Appendix D) summarizes the detections at the sentinel wells during this review period and presents a comparison with MCLs, where applicable. Based on the data from the sentinel wells, EPA and Ohio EPA agree that no contingency actions need to be taken at this time, and the groundwater collection and treatment system can remain off, pending the results of the 2023 and future groundwater sampling events.

A review of the groundwater data collected from 2018 through 2022 from the other WTU and UIU annual-event monitoring wells shows the following:

- Contaminant concentrations in downgradient WTU monitoring wells (MW-4, in addition to sentinel wells MW-114 and MW-115) have remained either non-detect or similar to the concentrations detected since the 2005 baseline sampling event. Cis-1,2 DCE values ranging from 4.9µg/L (2020) to 4.3µg/L (2021-22) (MCL=100µg/L). 1,1-DCE values ranging from 1.3µg/L (2020) to 1.5µg/L(2022) (no MCL). Full results are shown in Appendix D.
- Contaminant concentrations at most on-site WTU monitoring wells (MW-11, MW-107, MW111, MW-113) were consistent with historic results with detections of Trichloroethene, Benzene, and Vinyl Chloride above MCLs (full results in appendix D). Detections of the following contaminants were found at these wells below MCLs: 1,1,1-Trichloroethane, 1,1-DCE, 1,2-DCE, cis-1,2-DCE, trans-1,2-DCE (Appendix D). Contaminant concentrations at the other on-site WTU monitoring well (MW-108) continued to show increasing trends for the following SSIPL VOCs; 1,1-DCE, Benzene, cis-1,2-DCE, trans-1,2-DCE and Vinyl Chloride, as shown in the plots in Appendix E. While the detected compounds seem to be contained within the Site boundaries, as evidenced by continued non-detections of SSIPL VOCs in the closest WTU downgradient well (MW-4), EPA will continue to monitor trends at MW-108 closely. This FYR includes a recommendation for additional monitoring activities to ensure contamination detected at MW-108 is contained within the site boundaries.
- Contaminant concentrations in downgradient UIU monitoring wells (MW-209 and MW220) have remained either non-detect or similar to (if not lower than) the concentrations detected since the 2005 baseline sampling event. The only detections were for acetone (detected at MW-209 each year during this review period at concentrations consistent with historic results and detected in 2018-2020 at concentrations lower than historic results, ranging from low “J-flagged” estimated concentrations 4.4-6.9µg/L) and toluene and xylene (total) (detected at MW-209 only in 2018-2020 at a low “J-flagged” estimated concentration 0.19-0.43µg/L J). Results for detections at MW-209 are summarized in table 11c (Appendix D).

- Contaminant concentrations at on-site UIU wells (MW-207 and MW-224) were all non-detect during this review period for MW-224. There were two detections for well MW-207 for contaminants toluene and xylene (total) in 2020. These were detected at estimated “J-flagged” values that were less than the PQL.

Overall, the groundwater monitoring results collected and evaluated during this review period confirm that the Site continues to achieve the post-shutdown goal of on-site containment of waste-derived constituents as defined in the 2005 Work Plan for Groundwater Migration (CRA, 2005). Off-site boundary wells were installed to monitor for off-site migration of site-related contamination. No significant detections of site related contamination have been observed at the off-site wells. All post-shutdown monitoring, including the data collected during this FYR period, have demonstrated that the cessation of pumping operations in 2005 has not resulted in detrimental impacts to groundwater quality off-site. Current groundwater contaminant concentrations within the Site boundaries are still well above the groundwater cleanup standards.

Hydraulic Monitoring

Review of hydraulic monitoring data since the startup of the groundwater collection system, in conjunction with a review of the groundwater quality monitoring data, have shown that hydraulic containment has been consistently maintained, even following shutdown of the groundwater collection and treatment system. Groundwater hydraulic monitoring is currently performed annually and consists of taking groundwater level measurements at the network of on-site and off-site monitoring wells and piezometers in the WTU and UIU. The groundwater elevation contours during this review period demonstrate that the horizontal direction of groundwater flow is generally southeasterly in the WTU, as has been consistently observed in the past. The groundwater flow direction in the UIU is generally easterly and is consistent with the pre-shutdown groundwater flow direction in this unit. Potentiometric surface maps from the most recent annual report are attached in Appendix B. Contaminated groundwater was effectively contained within the Site boundaries by the pipe and media drain groundwater collection system during its operation (1995-2005) and continues to be contained by the low permeability of the hydrogeologic units, and groundwater contamination has not migrated off-site.

Surface Water

Surface water samples are collected annually from the confluence of the south and east (or “S&E”) ditches adjacent to the Site and analyzed for VOCs and SVOCs. Appendix F presents time-series concentration plots for VOCs detected in surface water since 1996. The results during this review period (2018 through 2022) were consistent with historical results, non-detect or below detection limits, and show that there are no significant impacts to surface water quality as the result of the Site.

Sediment

SNFT sampled for sediment in their 2018 annual sampling event. The sediment samples included several polycyclic aromatic hydrocarbons (PAHs) that were detected at or above their respective PQLs, The April 2018 list of detected constituents was consistent with 2019 results as well (Appendix D, Table 2B). None of the quantified sediment COC concentrations exceeded either residential or industrial Regional Screening Levels (RSLs) in April 2018 or the 2019 five-year sampling events and no VOCs were detected in the sediment samples (Appendix D, Table 2B). Detections of PAHs in the sediment samples are attributed to past coal mining activities in the area

In the 2019 five-year sampling event report, SNFT requested discontinuing sampling of ditch sediments during annual (and five-year) events because past monitoring has found only immobile constituents related to historic coal-mining activities. In a letter from Ohio EPA on July 1, 2020, Ohio EPA and EPA agreed to the proposal to discontinue sediment sampling at the Site. EPA agreed that sediment sampling could be discontinued at the Site based on recent results which suggest the presence of immobile constituents and because no contemporary Site-related environmental conditions or activities necessitate ongoing sediment monitoring. Sediment samples show multiple detections of SVOCs comprised of PAHs presumed to be associated with historic coal-mining activities on and adjacent to the Site. Surface water samples suggest that there are no significant influences on surface water or sediment quality as the result of the Site. EPA determined that the site had achieved RAOs related to sediment and issued a partial deletion for the site in 2020.

Site Inspection

The inspection of the Site was conducted on 11/15/2022. In attendance were Mitchell Latta, EPA RPM; Ed D'Amato, Ohio EPA; and Michael Gibson with Eagon, Inc.; and On-Site O&M Staff David Miller with D&M Consultants representing the PRPs. The purpose of the inspection was to assess the protectiveness of the remedy.

Mitchell Latta and Ed D'Amato met with SNFT's representatives in the onsite building to begin the inspection and began with an interview. The PRPs' representatives noted no major issues or changes since the previous FYR. The team started by inspecting the inactive groundwater treatment plant. The PRPs' representatives had all required safety plans on site. The team walked around the Site. No major issues were observed during the walk through. The cap and vegetative cover were in good condition with no visible issues noted. Monitoring wells were clearly labeled and locked. Fencing was in good condition and all gates were locked and secure. The PRPs' representatives mentioned that there were some issues with cars damaging fencing on the Northwest corner of the Site, which is next to a busy intersection, but all damaged fencing has been replaced. Based on the Site inspection, there are no Site or media uses occurring which are incompatible with the stated objectives of the IC in place.

V. TECHNICAL ASSESSMENT

QUESTION A: Is the remedy functioning as intended by the decision documents?

Question A Summary:

Yes. Based on a review of relevant Site documents, environmental data, risk assumptions, and the results of the Site inspection, the remedy appears to be functioning as intended by the decision documents (1988 ROD, 1990 ROD amendment, and 1992 ESD) and is expected to continue to do so.

Remedial Action Performance

The contamination remaining at the site is in groundwater. The remaining contaminants in the groundwater are effectively contained by the remedy and are gradually being reduced. Contaminated soils were covered with 2.5 feet of clean soil and by a vegetative cover and the Site is entirely fenced to prevent access and direct contact exposures. Contaminated groundwater was effectively contained within the Site boundaries by the pipe and media drain groundwater collection system during its

operation (1995-2005) and continues to be contained by the low permeability of the hydrogeologic units, and groundwater contamination has not migrated off-site. The offsite monitoring wells have consistently shown that groundwater contamination is contained onsite. An effective IC is in place to prevent use of onsite groundwater until cleanup standards are achieved.

System Operations/O&M

Current O&M activities include groundwater monitoring, hydraulic monitoring, surface water monitoring, soil cover maintenance, and fence repairs as needed.

Implementation of Institutional Controls and Other Measures

The required ICs have been implemented, in the form of an EC recorded on June 5, 2013, and there are no Site or media uses occurring which are incompatible with the stated objectives of the IC in place. Long-term stewardship procedures were put in place in September 2013 as part of the OMMP and include regular inspection of the ICs and annual certification to EPA that the ICs are in place and effective.

QUESTION B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

Question B Summary:

No. The RAOs are still valid, but there have been some changes to toxicity factors and cancer slope factors since the time the remedy was selected, as discussed below. Further, the potential for emerging contaminants such as per- and polyfluoroalkyl substances (PFAS) and 1,4 Dioxane in site groundwater could affect the exposure assumptions made at the time of remedy selection if they are determined to be present and site related. These changes do not affect the protectiveness of the remedy as ICs are in place to prohibit use of groundwater at the site and data shows that site-related contamination is not migrating off-site.

Also, based on the types of waste that were historically accepted by the landfill, there is potential for the emerging contaminant PFAS in the groundwater at the Site. Out of an abundance of caution, the Site should be evaluated for the presence of PFAS compounds and 1,4-Dioxane to be considered protective in the long-term.

Changes in Standards and TBCs

The values that are the basis for the groundwater cleanup standards that are part of the selected remedy have changed over the years, with some having increased and some having decreased. Cleanup levels for surface water and groundwater contaminants were set equivalent to Safe Drinking Water Act MCLs or Ohio Water Quality Standards, when an MCL was not available. The cleanup standards for benzene, 1,2-dichloroethane, PCE, TCE and vinyl chloride have become more stringent compared to the standards in the remedy selection decision documents that are based on MCLs, while the standard for chloroethane has become less stringent. Groundwater results are compared with the updated MCLs. At this time, however, data shows that groundwater contamination is contained, and there are ICs in place preventing use of the groundwater and there is not an impact on current protectiveness. However, because these standards have changed and are more stringent, EPA needs to evaluate whether a decision document is needed to update the groundwater cleanup standards.

Expected Progress Towards Meeting RAOs

The selected remedy was designed to address the three RAOs: 1) protection and enhancement of the quality of the groundwater and recovery of the groundwater resource in the vicinity of the Site; 2) protection of the quality of the surface water in the vicinity of the Site; and 3) protection of the public from direct contact with contaminated material on or near the Site, and from migration of surficial contaminants via surface runoff, wind erosion and volatilization.

Overall, the groundwater monitoring results collected and evaluated during this review period confirm that the Site continues to achieve the post-shutdown criteria of on-site containment of waste-derived constituents. All post-shutdown monitoring, including the data collected during this FYR period, have demonstrated that the cessation of pumping operations in 2005 has not resulted in detrimental impacts to groundwater quality off-site. These results are effectively addressing the second RAO. Current groundwater contaminant concentrations within the Site boundaries are still well above the groundwater cleanup standards, and it appears that it will be many years before the concentrations will fall below those standards and fully meet the first RAO. The third RAO is being met through placement of the cap and a fence. Containment of the contaminants on site is addressing the third RAO.

QUESTION C: Has any other information come to light that could call into question the protectiveness of the remedy?

Question C Summary:

No. No additional information was discovered as part of this FYR to call into question the protectiveness of the remedy. EPA is not aware of any impacts from climate change or natural disasters at this site in this five-year period.

VI. ISSUES/RECOMMENDATIONS

Issues and Recommendations Identified in the Five-Year Review:				
OU(s): OU1/Sitewide	Issue Category: Monitoring			
	Issue: There is the potential for the emerging contaminants PFAS and 1,4-Dioxane in the groundwater at the Site based on Site history.			
	Recommendation: Samples should be collected and analyzed for PFAS and 1,4-Dioxane in the next groundwater sampling event under an EPA-approved Uniform Federal Policy-Quality Assurance Project Plan to determine if they are present and site-related.			
Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	PRP	EPA/State	12/30/2024
Issue Category: Monitoring				

OU(s): OU1/Sitewide	Issue: Increasing contamination observed at MW-108 and recent surface water results shows cis-DCE detections. These results could indicate this water body is receiving contaminants from the landfill.			
	Recommendation: PRPs should further investigate potential transport of site-related contaminants to the surface water body and potential offsite migration of COCs. PRPs should also analyze current off-site well placement to determine if more monitoring wells are necessary to address data gaps.			
Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	PRP	EPA/State	12/30/2024

OU(s): OU1/Sitewide	Issue Category: Monitoring			
	Issue: Some of the groundwater standards have changed and are more stringent.			
	Recommendation: EPA needs to evaluate whether a decision document is needed to update the groundwater cleanup standards, and if so, complete one.			
Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	EPA	EPA/State	12/30/2024

VII. PROTECTIVENESS STATEMENT

OU1 and Sitewide Protectiveness Statement(s)
<i>Protectiveness Determination:</i> Short-term Protective
<p><i>Protectiveness Statement:</i> The remedy at the Site currently protects human health and the environment because exposure pathways that could result in unacceptable risks are being controlled. Exposure pathways to contaminated groundwater are being controlled through groundwater containment and ICs. Exposure to contaminated soil at the Site has been addressed by incinerating the most heavily contaminated soils, sending several hundred drums of waste off-site for disposal, applying a clean soil cover and a vegetative cover over remaining soil contamination, and by fencing that surrounds the Site. All required ICs have been implemented, with an EC under the Ohio UECA recorded on June 5, 2013, to prevent unacceptable exposures, and recent inspection results indicate there are no Site or media uses occurring which are incompatible with the objectives of this implemented IC.</p> <p>Current data shows that the Site continues to achieve the post-shutdown criteria of on-site containment of waste-derived constituents, following the 2005 shutdown of the water treatment system.</p> <p>However, in order for the remedy to be protective in the long term, the following actions need to be taken to ensure protectiveness:</p> <ul style="list-style-type: none"> • Samples should be collected and analyzed for PFAS and 1,4-Dioxane in the next groundwater sampling event under an EPA-approved Uniform Federal Policy-Quality Assurance Project Plan to determine if they are present and site-related.

- Further investigation into the hydrogeological connection between groundwater and surface water is required to determine whether site-related contaminants are being transported into the water body.
- EPA needs to evaluate whether a decision document is needed to update the groundwater cleanup standards, and if so, complete one.

VIII. NEXT REVIEW

The next FYR report for the Summit National Superfund Site is required five years from the completion date of this review.

APPENDIX A – REFERENCE LIST

- CH2M Hill; 1988 - Feasibility Study Report - Summit National Superfund Site - February 10, 1988
- CH2M Hill; 1988 - Remedial Investigation Report - Summit National Superfund Site - January 11, 1988
- Eagon & Associates; 2013 through 2017 - Annual Progress Reports - Summit National Superfund Site
- Eagon & Associates; 2016 through 2017 - Groundwater Monitoring Reports - Summit National Superfund Site
- Eagon & Associates; 2018 through 2022 - Groundwater Monitoring Reports - Summit National Superfund Site
- Conestoga-Rovers & Associates; 1993 - Final Design Report - Summit National Superfund Site - May 27, 1993
- Conestoga-Rovers & Associates; 2013 - Groundwater Monitoring Reports - Summit National Superfund Site
- Conestoga-Rovers & Associates; 1994 through 2008 - Hydraulic Monitoring Reports - Summit National Superfund Site
- Conestoga-Rovers & Associates; 1999 - Interim Evaluation of Remedial Action - Summit National Superfund Site - March 4, 1999
- Conestoga-Rovers & Associates; 1995 – Extraction Well Shutdown & Hydraulic Monitoring Report – Summit National Superfund Site – May 23, 1995
- Conestoga-Rovers & Associates; 1995 - Operation, Maintenance and Monitoring Plan - Summit National Superfund Site - November 3, 1995
- Conestoga-Rovers & Associates; 1995 - Remedial Action Report - Summit National Superfund Site - October 31, 1995
- Conestoga-Rovers & Associates; 2004 - October 2004 Groundwater Monitoring Report Summit National Superfund Site Deerfield Ohio- March 16, 2005
- Conestoga-Rovers & Associates; 2005 - Work Plan for Groundwater Migration Evaluation Summit National Superfund Site Deerfield Ohio- June 10, 2005
- Conestoga-Rovers & Associates; 2013 – Operation Maintenance and Monitoring Plan Summit National Superfund Site Deerfield Ohio- September 13, 2013
- Ohio EPA; 1998 - Five Year Review Report - Summit National Superfund Site - October 21, 1998

Ohio EPA; 2003 - Second Five Year Review Report - Summit National Superfund Site - September 22, 2003

Ohio EPA; 1994 - Substantive Permit to Discharge- Summit National Superfund Site - May 18, 1994

Ohio EPA; 2020 – Letter to SNFT, Comments on 2019 Five-Year Groundwater Monitoring Report Summit National Superfund Site – July 1, 2020

Summit National Facility Trust; 1994 through 2008 - Monthly Effluent Reports for the Groundwater Treatment Plant - Summit National Superfund Site

United States Environmental Protection Agency; 2001 - Comprehensive Five-Year Review Guidance, June 2001 - Office of Solid Waste and Emergency Response (OSWER) Directive 9355.7-03B-P

United States Environmental Protection Agency; 1988 - EPA Superfund Record of Decision: Summit National Superfund Site - June 30, 1988

United States Environmental Protection Agency; 1990 - EPA Superfund Record of Decision: Summit National Superfund Site - November 2, 1990

United States Environmental Protection Agency; 1992 - Explanation of Significant Differences Summit National Superfund Site - March 23, 1992

United States Environmental Protection Agency; 1995 - EPA Superfund Preliminary Closeout Report: Summit National Superfund Site - September 18, 1995

United States Environmental Protection Agency; 2013 - Fourth Five Year Review Report - Summit National Superfund Site - July 16, 2013

United States Environmental Protection Agency; 2018 - Fifth Five Year Review Report - Summit National Superfund Site - July 13, 2018

United States Environmental Protection Agency; 2020 – EPA Letter to Ohio EPA Regarding 2019 Five-Year Groundwater Monitoring Event Report - Summit National Superfund Site – May 1, 2020

Consent Decree (Civil Action number C81-1961) - Summit National Superfund Site - June 11, 1991

United States Environmental Protection Agency; 2022 - Site-Specific Justification for the Deletion of the Land/Soil Portion of the Summit National Superfund Site from the National Priorities List Deerfield Township, Portage County, Ohio - January 2022

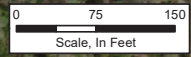
APPENDIX B

SITE MAP & POTENTIOMETRIC SURFACE MAP

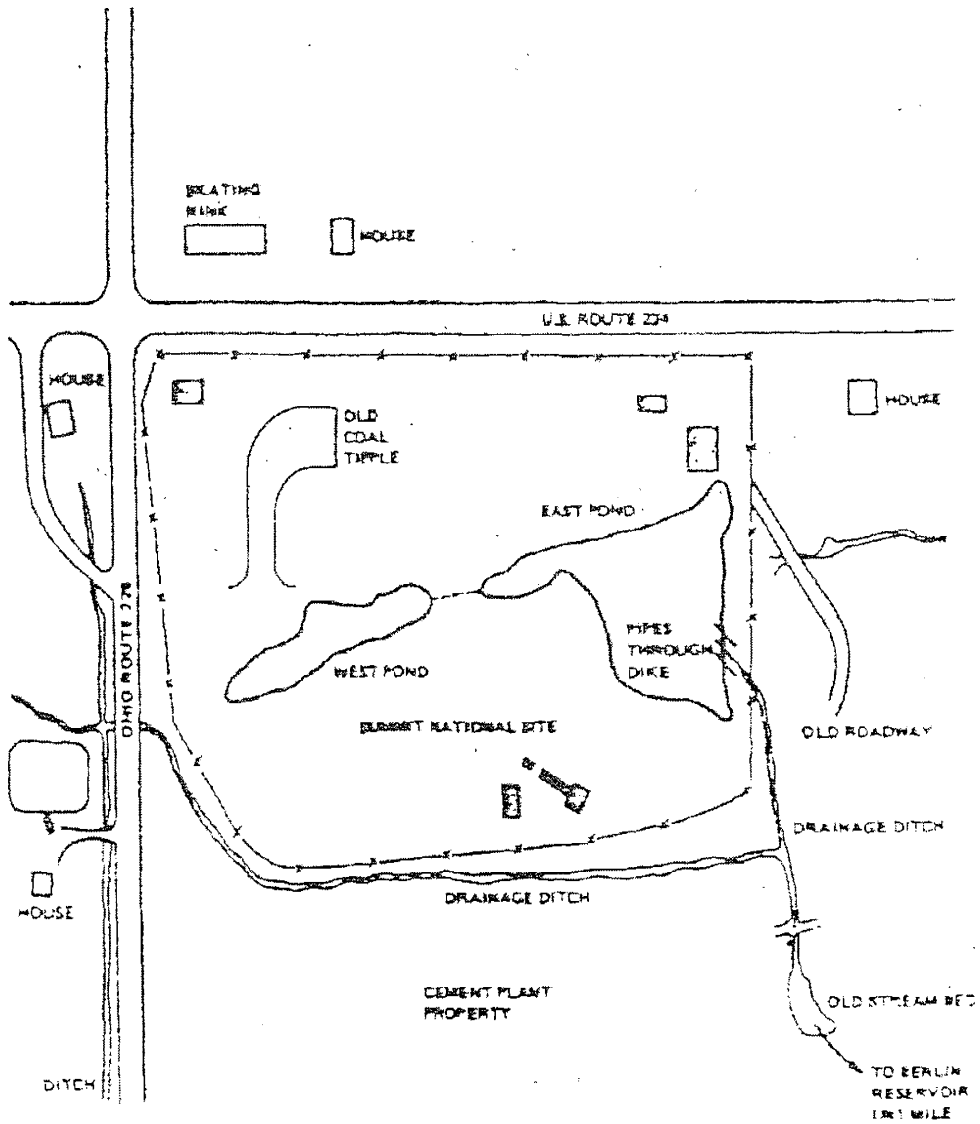


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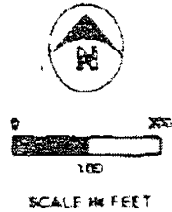
- ◆ Non-Potable Supply Well
- ⊕ / △ Water Table Unit
- ⊕ / △ Upper Intermediate Unit
- ⊕ / △ Lower Intermediate Unit
- ⊕ Upper Sharon Unit
- ★ Surface Water Sampling Location
- ⊕ MW-111 - Annual Monitoring Wells
- ⊕ MW-110 - 5 Year Monitoring Wells
- - - Property Boundary
- Chain Link Fence
- Pipe and Media Drain
- Operational Site Boundary (1988 RI)
- - - Site Boundary (1991 Consent Decree)



Compiled By: MAM	Figure Title: Figure 1. Site Map
Created By: MAM	Project Title: SUMMIT NATIONAL SUPERFUND SITE
Checked By: ADG	Prepared By:
Approved By: MTG	Figure: 1
Date: 9/20/2022	



LEGEND
 [Hatched Box] ABANDONED STRUCTURES

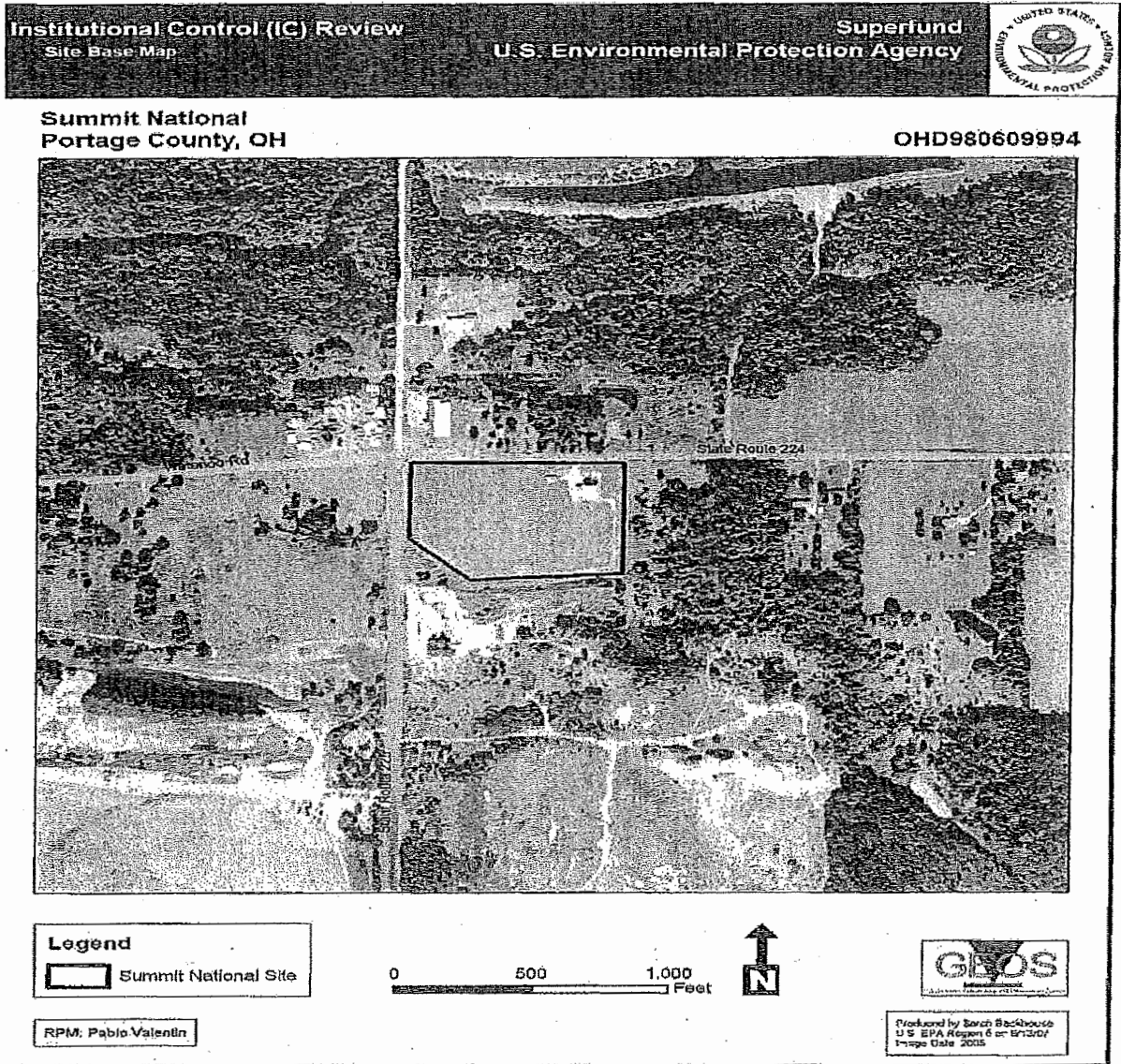


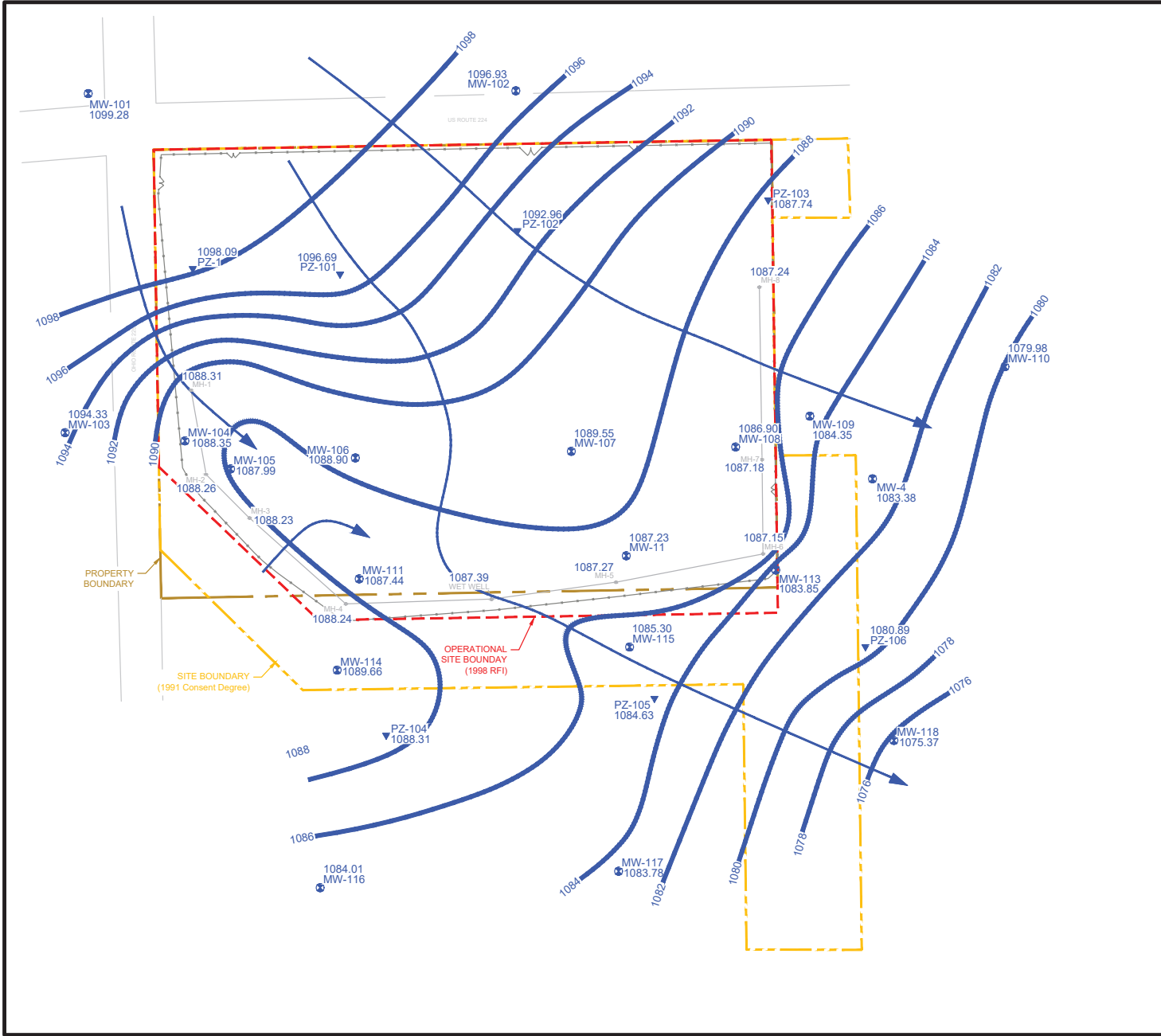
NOTE: ALL LOCATIONS OF STRUCTURES AND PHYSICAL FEATURES APPROXIMATE.

Figure 2
 Site Map

EXHIBIT B

Portage County, Ohio, Auditor's Tax Map of the Site





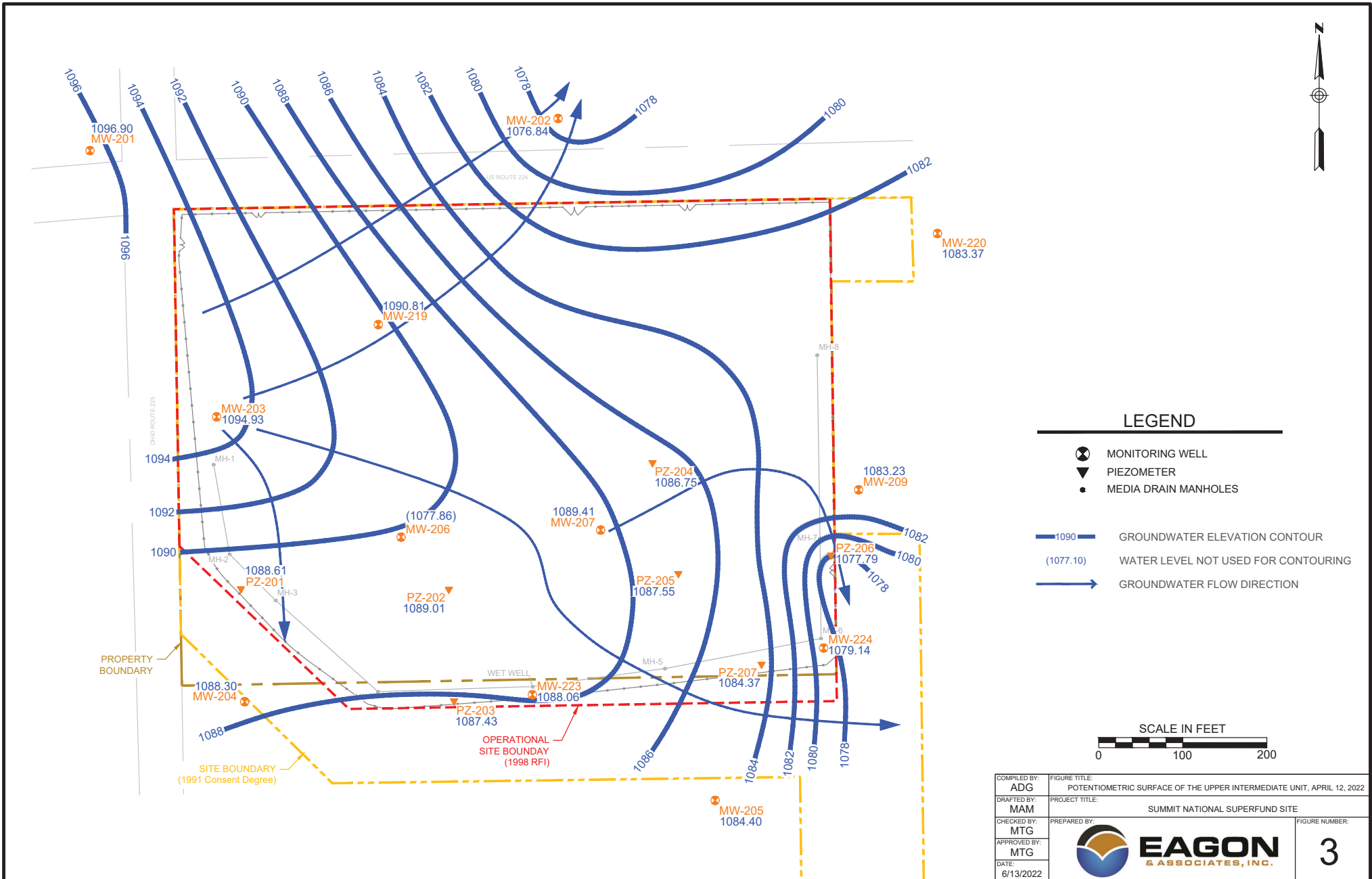
LEGEND

- MONITORING WELL
- PIEZOMETER
- MEDIA DRAIN MANHOLES
- 1090 GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION



COMPILED BY: ADG	FIGURE TITLE: POTENTIOMETRIC SURFACE OF THE WATER TABLE UNIT, APRIL 12, 2022.
DRAFTED BY: MAM	PROJECT TITLE: SUMMIT NATIONAL SUPERFUND SITE
CHECKED BY: MTG	PREPARED BY:
APPROVED BY: MTG	
DATE: 6/13/2022	

PLAN/DC/SUMMIT NATIONAL SUPERFUND SITE/RFI/4022/DWG/04/2022



LEGEND

- MONITORING WELL
- PIEZOMETER
- MEDIA DRAIN MANHOLES
- 1090 GROUNDWATER ELEVATION CONTOUR
- (1077.10) WATER LEVEL NOT USED FOR CONTOURING
- GROUNDWATER FLOW DIRECTION



COMPILED BY: ADG	FIGURE TITLE: POTENTIOMETRIC SURFACE OF THE UPPER INTERMEDIATE UNIT, APRIL 12, 2022
DRAFTED BY: MAM	PROJECT TITLE: SUMMIT NATIONAL SUPERFUND SITE
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APPROVED BY: MTG	FIGURE NUMBER: 3
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PLANT/CONTAMINANT NATIONAL SUPERFUND SITE (RFS) - 40222 2016 03/20/2015

APPENDIX C

PUBLIC NOTICE OF FIVE-YEAR REVIEW

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Public Notice: Summit National Site – Five Year-Review in Process

Publish Date: December 29, 2022

Summary

Sixth Five-Year Review in Process

U.S. Environmental Protection Agency is conducting a five-year review of the Summit National site at 1240 Alliance Rd. in Deerfield Township, Ohio. The Superfund law requires regular checkups of sites that have been cleaned up – with waste managed on-site – to make sure the cleanup continues to protect people and the environment. This is the sixth five-year review of this site.

EPA’s cleanup of the site involved removing over 17,000 drums and tanks from the site for off-site disposal and excavating 18,600 tons of contaminated soil for on-site thermal treatment. The treated soil was tested, retreated if needed, backfilled onto the site, covered by a 2-foot soil cover, and then revegetated. On August 17, 2022, EPA removed the land/soil portion of the site from the National Priorities List (NPL) after determining that the soil cleanup was complete. The groundwater portion of the site is undergoing a long-term cleanup and remains on the NPL along with the surface water and sediments that shallow groundwater may discharge to. Operation and maintenance, land and groundwater use restrictions, and groundwater monitoring continue.

More information is available online at the Summit National site webpage. The review is expected to be completed by the end of July 2023.

How to Comment

Comments Due: March 29, 2023

The five-year review is an opportunity for you to tell EPA about site conditions and any concerns you have. Contact:

Adrian Palomeque
<https://epa.gov/palomeque.adrian%40epa.gov>
 (palomeque.adrian@epa.gov)
 Community Involvement Coordinator
 312-353-2035

Mitchell Latta
<https://epa.gov/latta.mitchell%40epa.gov>
 (latta.mitchell@epa.gov)
 Remedial Project Manager
 312-886-4783

You may also call EPA toll-free at 800-621-8431, 9 a.m. to 5:30 p.m., weekdays.

Applicants or Respondents

United States

Contact Us <https://epa.gov/publicnotices/forms/contact-us-about-public-notice-us-epa> to ask a question, provide feedback, or report a problem.

LAST UPDATED ON DECEMBER 29, 2022



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APPENDIX D

SUMMARIZED WATER QUALITY DATA

ANNUAL REPORTS 2018-2022

Table 11a. WTU Wells - Summarized Water Quality Data 2018-2022 (2019 excluded)						
Well ID	Parameter	Apr-18	Apr-20	Apr-21	Apr-22	MCL (µg/L)
MW-11	1,1,1-Trichloroethane	15	13	15	19	200
	1,1-Dichloroethane	70	65	71	80	-
	1,2-Dichloroethane	1	1.1	0.90 J	1.2	5
	Benzene	0.48 J	0.29 J	0.54 J	0.59 J	5
	cis-1,2-Dichloroethene	49	29	38	39	70
	trans-1,2-Dichloroethene	1.3	0.80 J	1.5	1.4	100
	Trichloroethene	88	32	79	53	5
	Vinyl Chloride	6.6	3.4	5.5	7.1	2
	Xylene (total)	ND (2.0)	ND (2.0)	ND (2.0)	ND (2.0)	10,000
	MW-107	1,1,1-Trichloroethane	9.4	6.6 J	4.2 J	ND (10)
1,1-Dichloroethane		1100	890	530	660	-
1,2-Dichloroethane		-	28	15	18	5
Benzene		87 J	93	94	97	5
cis-1,2-Dichloroethene		15	5.8 J	60	ND (10)	70
trans-1,2-Dichloroethene		2.7	ND (10)	ND (10)	ND (10)	100
Trichloroethene		1.6	ND (10)	1.4 J	ND (10)	5
Vinyl Chloride		21	8.1 J	ND (10)	ND (10)	2
Xylene (total)		820	4,300	4,800	3,900	10,000
MW-108		1,1,1-Trichloroethane	2.4 J	2	1.9	1.8
	1,1-Dichloroethane	270	280	310	320	-
	1,2-Dichloroethane	49	46	43	42	5
	Benzene	110	110	120	130	5
	cis-1,2-Dichloroethene	200	210	200	230	70
	trans-1,2-Dichloroethene	4.7	5.7	6.3	6.1	100
	Trichloroethene	22	23	18	20	5
	Vinyl Chloride	85	86	99	82	2
	Xylene (total)	ND (2.0)	0.22 J	0.64 J	54	10,000
	MW-111	1,1,1-Trichloroethane	1.1 J	0.81 J	0.87 J	1.8
1,1-Dichloroethane		28	26	32	53	-
1,2-Dichloroethane		120	91	110	200	5
Benzene		ND (1.0)	0.18 J	0.20 J	ND (1.0)	5
cis-1,2-Dichloroethene		6.4	6.1	7.4	12	70
trans-1,2-Dichloroethene		ND (1.0)	ND (1.0)	0.24 J	ND (1.0)	100
Trichloroethene		ND (1.0)	0.11 J	0.15 J	ND (1.0)	5
Vinyl Chloride		7.6	7.3	11	24	2
Xylene (total)		ND (2.0)	0.70 J	ND (2.0)	ND (2.0)	10,000

All results in µg/L

ND(x) = Not Detected (Detection Limit)

J = Estimated result less than practical quantitation limit and greater than method detection limit.

Table 11b. WTU Offsite Wells - Summarized Water Quality Data 2018-2022 (2019 excluded)						
Well ID	Parameter	Apr-18	Apr-20	Apr-21	Apr-22	MCL (µg/L)
MW-4	Xylene (total)	0.41 J	ND (2.0)	ND (2.0)	ND (2.0)	10,000
MW-114	Xylene (total)	ND (2.0)	0.25 J	ND (2.0)	ND (2.0)	10,000
MW-115	1,1,1-Trichloroethane	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	200
	1,1-Dichloroethane	0.43 J	1.3	1.3	1.5	-
	1,2-Dichloroethane	ND (1.0)	0.40 J	0.34 J	0.29 J	5
	Benzene	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	5
	cis-1,2-Dichloroethene	0.72 J	4.9	4.3	4.3	70
	trans-1,2-Dichloroethene	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	100
	Trichloroethene	ND (1.0)	ND (1.0)	0.10 J	ND (1.0)	5
Vinyl Chloride	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	2	
Xylene (total)	ND (2.0)	0.19 J	ND (2.0)	ND (2.0)	10,000	

All results in µg/L

ND(x) = Not Detected (Detection Limit)

J = Estimated result less than practical quantitation limit and greater than method detection limit.

Table 11c. UIU Wells - Summarized Water Quality Data 2018-2022 (2019 excluded)						
Well ID	Parameter	Apr-18	Apr-20	Apr-21	Apr-22	MCL
MW-209	Acetone	4.4 J	6.9 J	ND (10)	ND (10)	-
	Toulene	0.31 J	0.19 J	0.43 J	ND (1.0)	-
	Xylene (total)	0.26 J	0.18 J	0.62 J	ND (2.0)	10,000

All results in µg/L

ND(x) = Not Detected (Detection Limit)

J = Estimated result less than practical quantitation limit and greater than method detection limit.

Wells MW-207, MW-224, MW-220, excluded due to non-detect or insignificant J-values.

TABLE 1.
SUMMARY OF WATER-LEVEL & TOTAL WELL DEPTH MEASUREMENTS
APRIL 8, 2019
SUMMIT NATIONAL SUPERFUND SITE

Well Number	Measuring Point Elevation (ft., MSL)	Time (24:00)	Depth to Water (feet)	Water Level Elevation (ft., MSL)	Total Well Depth (ft., TOC)	Comments
Water Table Unit (WTU) Monitoring Wells and Piezometers						
MW-4	1091.09	1315	5.68	1085.41	24.65	
MW-11	1095.93	1035	8.81	1087.12	26.50	
MW-101	1107.57	1500	8.04	1099.53	24.32	
MW-102	1100.17	1422	3.53	1096.64	21.15	
MW-103	1096.22	1410	2.02	1094.2	19.96	
MW-104	1099.81	1123	11.75	1088.06	30.02	
MW-105	1101.32	1120	13.53	1087.79	29.14	
MW-106	1102.88	1312	14.39	1088.49	35.07	
MW-107	1098.27	1345	10.22	1088.05	30.83	
MW-108	1091.96	1411	5.11	1086.85	18.38	
MW-109	1087.42	1328	2.9	1084.52	10.71	
MW-110	1086.87	1243	5.5	1081.37	15.29	
MW-111	1099.67	1101	12.43	1087.24	29.20	
MW-113	1088.46	1018	4.65	1083.81	16.53	
MW-114	1097.27	1500	7.89	1089.38	21.66	
MW-115	1101.83	1423	16.59	1085.24	40.81	
MW-116	1105.54	1452	21.57	1083.97	26.53	
MW-117	1123.97	1446	40.13	1083.84	60.86	
MW-118	1098.38	1350	22.61	1075.77	37.25	
PZ-1	1104.43	1150	6.77	1097.66	18.65	
PZ-101	1108.53	1107	12.1	1096.43	32.83	
PZ-102	1100.21	1327	7.6	1092.61	27.13	
PZ-103	1093.98	938	6.41	1087.57	19.72	
PZ-104	1097.54	1506	9.22	1088.32	25.72	
PZ-105	1101.60	1434	16.81	1084.79	41.11	
PZ-106	1102.23	1346	21.37	1080.86	34.18	

TABLE 1.
SUMMARY OF WATER-LEVEL & TOTAL WELL DEPTH MEASUREMENTS
APRIL 8, 2019
SUMMIT NATIONAL SUPERFUND SITE

Well Number	Measuring Point Elevation (ft., MSL)	Time (24:00)	Depth to Water (feet)	Water Level Elevation (ft., MSL)	Total Well Depth (ft., TOC)	Comments
Water Table Unit Media Drain Manholes						
MH-1	1102.78	1251	14.7	1088.08	--	
MH-2	1101.04	1249	13	1088.04	--	
MH-3	1100.95	1245	12.94	1088.01	--	
MH-4	1100.05	1245	12.02	1088.03	--	
MH-5	1095.68	1236	8.52	1087.16	--	
MH-6	1088.64	1003	1.6	1087.04	--	
MH-7	1089.29	948	2.14	1087.15	--	
MH-8	1089.23	935	2.15	1087.08	--	
Wet Well	1098.86	1241	11.66	1087.20	--	
Upper Intermediate Unit (UIU) Monitoring Wells and Piezometers						
MW-201	1107.52	1456	11.4	1096.12	63.29	
MW-202	1099.50	1432	23.35	1076.15	50.10	
MW-203	1103.35	1144	8.92	1094.43	54.08	
MW-204	1098.01	1508	10.33	1087.68	46.52	
MW-205	1100.90	1440	16.39	1084.51	53.21	
MW-206	1103.22	1308	26.1	1077.12	63.57	
MW-207	1098.51	1341	9.55	1088.96	49.63	
MW-209	1087.66	1331	4.63	1083.03	37.76	
MW-219	1108.24	1203	18.29	1089.95	62.89	
MW-220	1090.92	1255	7.78	1083.14	38.75	
MW-223	1098.37	1047	10.4	1087.97	45.55	
MW-224	1089.41	1005	10.51	1078.90	36.03	
PZ-201	1099.74	1110	11.33	1088.41	47.03	
PZ-202	1101.56	1258	12.98	1088.58	54.98	
PZ-203	1098.31	1052	10.98	1087.33	10.65	
PZ-204	1095.41	1337	9.35	1086.06	50.04	
PZ-205	1096.63	1357	9.25	1087.38	42.65	
PZ-206	1088.05	956	10.49	1077.56	39.12	
PZ-207	1091.36	1027	7.02	1084.34	38.95	

TABLE 1.
SUMMARY OF WATER-LEVEL & TOTAL WELL DEPTH MEASUREMENTS
APRIL 8, 2019
SUMMIT NATIONAL SUPERFUND SITE

Well Number	Measuring Point Elevation (ft., MSL)	Time (24:00)	Depth to Water (feet)	Water Level Elevation (ft., MSL)	Total Well Depth (ft., TOC)	Comments
Lower Intermediate Unit (LIU) Monitoring Wells and Piezometers						
MW-301	1107.91	1452	27.6	1080.31	81.09	
MW-302	1100.39	1438	24.6	1075.79	78.20	
MW-303	1103.15	1139	25.63	1077.52	69.28	
MW-304	1097.73	1517	14.5	1083.23	72.38	
MW-305	1101.22	1436	24.71	1076.51	67.94	
MW-306	1103.14	1303	27.25	1075.89	93.00	
MW-307	1098.83	1350	22.95	1075.88	74.23	
MW-309	1087.81	1333	12.07	1075.74	60.21	
MW-319	1108.07	1156	18.13	1089.94	76.15	
MW-320	1091.14	1255	18.3	1072.84	100.98	
MW-321	1095.32	1333	19.46	1075.86	69.26	
MW-322	1098.88	1105	14.5	1084.38	70.78	
MW-323	1097.51	1042	21.5	1076.01	84.25	
MW-324	1089.39	1012	15.31	1074.08	89.08	
PZ-301	1100.07	1115	18.3	1081.77	69.43	
PZ-302	1101.25	1254	25.56	1075.69	72.70	
PZ-303	1098.39	1057	22.5	1075.89	81.84	
PZ-305	1096.49	1404	20.8	1075.69	59.62	
PZ-306	1088.35	950	12.19	1076.16	99.73	
PZ-307	1091.40	1023	12.08	1079.32	71.66	
Upper Sharon Unit (USU) Monitoring Wells and Piezometers						
MW-401	1099.75	1320	29.86	1069.89	141.91	
MW-402	1089.90	1312	26.05	1063.85	131.5	
MW-414	1096.99	1503	22.36	1074.63	103.5	
MW-415	1102.25	1419	27.11	1075.14	89.3	
MW-420	1091.66	1258	23.53	1068.13	131.35	
MW-421	1099.93	1427	26.89	1073.04	104.08	
MW-422	1107.38	1448	26.21	1081.17	111.4	
Non-Pot. Well	1099.34	1541	108.11	991.23	--	Pump Running

TABLE 2A.
WATER-QUALITY DATA SUMMARY, APRIL 2019
GROUNDWATER MONITORING WELLS
SUMMIT NATIONAL SUPERFUND SITE

Parameter	MW-4 4/10/2019 Result	Dup #3 4/10/2019 Result	MW-11 4/12/2019 Result	MW-101 (bg) 4/10/2019 Result	Dup #1 4/10/2019 Result	MW-102 (bg) 4/9/2019 Result	MW-103 (bg) 4/11/2019 Result	MW-104 4/11/2019 Result	MW-105 4/10/2019 Result	Dup #4 4/10/2019 Result	MW-106 4/11/2019 Result	MW-107 4/12/2019 Result	MW-108 4/12/2019 Result	MW-109 4/11/2019 Result	MW-110 4/12/2019 Result	MW-111 4/12/2019 Result	MW-113 4/9/2019 Result	MW-114 4/11/2019 Result	MW-115 4/10/2019 Result	MW-116 4/10/2019 Result	MW-117 4/10/2019 Result	Dup #2 4/10/2019 Result	MW-118 4/11/2019 Result
Aluminum	J 73	< 200	< 200	< 200	< 200	610	J 85	< 200	280	270	< 200	< 200	< 200	< 200	< 200	J 150	550	200	J 100	J 64	< 200	< 200	250
Antimony	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Arsenic (c)	< 15	< 15	< 15	J 5.2	J 6.4	< 15	30	< 15	J 13	J 11	< 15	44	22	< 15	< 15	J 12	J 7.9	38	< 15	< 15	< 15	< 15	< 15
Barium	J 18	J 13	J 10	J 6.9	J 6.8	J 8.3	J 9.6	J 41	J 20	J 21	J 5.4	420	J 45	J 8.3	J 40	J 8.6	J 15	J 13	J 9.7	J 7	J 5.6	J 6	J 12
Beryllium	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	J 1	J 1.1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Cadmium	J 0.67	J 0.5	J 0.23	J 0.6	J 0.67	J 0.83	< 5	< 5	< 5	< 5	J 0.24	< 5	< 5	J 0.32	< 5	J 0.2	J 0.81	< 5	J 0.4	J 0.8	J 0.51	J 0.59	< 5
Calcium	360000	330000	300000	270000	270000	220000	270000	190000	280000	290000	350000	170000	170000	430000	100000	450000	520000	400000	270000	490000	420000	440000	270000
Chromium	J 0.71	< 10	J 1.2	J 6.3	J 2.7	J 2.2	J 2.1	J 1.8	J 9.5	J 9.1	J 3	12	J 3.5	J 1.5	5.6	J 3.4	J 2.9	J 2.7	39	J 7.6	J 7.6	12	27
Cobalt	28	14	J 2.5	43	44	26	< 10	< 10	J 6.8	J 7.2	J 0.88	J 2	J 2.4	55	< 10	J 3	J 2.1	15	< 10	< 10	J 1.9	J 2.3	J 4
Copper	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	J 7.3	< 25	< 25	J 3.5	< 25	J 3.5	< 25	J 3.8	J 4.6	< 25	< 25	< 25	J 4.8
Iron (c)	4400	2800	3400	25000	26000	89000	8500	15000	23000	23000	5500	460	35000	1100	260	140000	1800	61000	5800	J 230	5200	6000	5500
Lead (c)	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Magnesium	200000	180000	68000	130000	130000	110000	67000	44000	95000	100000	130000	85000	49000	200000	25000	130000	230000	24000	55000	600000	110000	120000	91000
Manganese	2700	1400	2100	5200	5300	1500	1600	1400	4400	4700	890	410	1300	5400	110	3200	6000	1300	360	420	3900	4100	4700
Nickel	J 8.2	J 5.4	J 4.3	85	82	59	J 4	J 4.7	J 28	J 29	J 11	J 9.9	J 5.8	120	J 5.1	J 12	J 18	J 25	J 31	J 7.5	J 37	43	J 26
Potassium	6100	5600	5100	6000	6100	5700	J 2800	J 3800	8800	9300	11000	7500	J 4400	J 2400	J 1400	8900	6700	23000	5500	15000	13000	13000	6200
Selenium	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Silver	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Sodium	17000	15000	40000	33000	33000	33000	33000	590000	180000	180000	47000	130000	70000	9800	J 3800	80000	160000	66000	65000	230000	45000	47000	69000
Thallium	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	J 2.9	< 20	< 20	< 20	< 20	< 20	< 20
Vanadium	J 5.9	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Zinc	< 50	< 50	J 16	140	140	190	< 50	< 50	J 48	51	< 50	< 50	< 50	J 44	< 50	< 50	< 50	100	< 50	< 50	J 20	J 22	< 50
Mercury	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,1,1-Trichloroethane	< 1	< 1	11	< 1	< 1	< 1	< 1	< 1	< 1	< 1	J 0.89	J 3.2	2.3	< 1	< 1	J 0.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane (c)	< 1	< 1	J 0.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	J 3.4	J 0.37	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane (c)	< 1	< 1	56	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.1	690	330	< 1	< 1	28	< 1	< 1	1.4	< 1	< 1	< 1	< 1
1,1-Dichloroethene (c)	< 1	< 1	J 0.73	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	3.2	< 1	< 1	J 0.4	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane (c)	< 1	< 1	J 0.9	< 1	< 1	< 1	< 1	< 1	< 1	< 1	J 0.69	17	44	< 1	< 1	88	< 1	< 1	J 0.37	< 1	< 1	< 1	2.2
1,2-Dichloroethene [total]	< 2	< 2	30	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 20	250	< 2	< 2	6.4	< 2	< 2	5.7	< 2	< 2	< 2	< 2
1,2-Dichloropropane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Butanone [Methyl ethyl ketone] [MEK]	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 100	< 13	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 100	< 13	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-Methyl-2-pentanone [Methyl isobutyl ketone] [MIBK]	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 100	< 13	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone (c)	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 100	< 13	< 10	< 10	< 10	J 6.5	< 10	< 10	< 10	< 10	< 10	< 10
Benzene (c)	< 1	< 1	J 0.25	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	89	140	< 1	< 1	J 0.18	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromomethane [Methyl bromide]	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon disulfide	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	< 1.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 10	J 0.29	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	390	< 1.3	< 1	< 1	1.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1

All results in ug/L.
c = potential carcinogen
bg = background well
J = estimated value between MDL and PQL

**TABLE 2A.
WATER-QUALITY DATA SUMMARY, APRIL 2019
GROUNDWATER MONITORING WELLS
SUMMIT NATIONAL SUPERFUND SITE**

Parameter	MW-201 (bg)	MW-202	MW-203	MW-204 (bg)	MW-205 (bg)	MW-206	MW-207	MW-209	MW-219	MW-220	MW-223	MW-224
	4/10/2019 Result	4/9/2019 Result	4/11/2019 Result	4/9/2019 Result	4/11/2019 Result	4/11/2019 Result	4/12/2019 Result	4/11/2019 Result	4/11/2019 Result	4/11/2019 Result	4/10/2019 Result	4/9/2019 Result
Aluminum	< 200	310	J 150	< 200	< 200	2000	J 54	< 200	< 200	J 57	< 200	< 200
Antimony	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Arsenic (c)	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15
Barium	J 14	J 190	J 15	J 8.7	J 3	J 29	J 5.7	J 12	J 14	J 18	J 13	J 7.6
Beryllium	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Cadmium	J 0.43	< 5	< 5	J 0.66	< 5	< 5	< 5	< 5	< 5	< 5	J 0.53	J 0.43
Calcium	90000	10000	8000	260000	170000	22000	310000	270000	6800	310000	390000	200000
Chromium	J 2.9	13	J 9.3	J 1.7	18	J 8.5	J 2.6	J 2.5	J 4.5	J 2.8	J 1.2	< 10
Cobalt	< 10	< 10	< 10	< 10	J 1.9	J 1	< 10	J 2.4	< 10	< 10	J 7	< 10
Copper	< 25	< 25	< 25	< 25	< 25	J 3.7	< 25	< 25	< 25	< 25	< 25	< 25
Iron (c)	J 1500	880	350	2700	7800	2600	2500	920	190	J 60	110000	1800
Lead (c)	< 10	< 10	J 5.5	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Magnesium	41000	6000	J 4300	110000	110000	8500	160000	130000	J 2900	81000	130000	81000
Manganese	71	16	J 8.2	190	730	100	100	2900	22	59	6300	480
Nickel	J 3.6	J 11	J 6.7	J 2.3	J 15	7.7	J 2.5	J 5.2	J 3.8	J 4.7	J 17	J 2.3
Potassium	9300	6300	5000	15000	12000	6700	18000	15000	J 4200	17000	16000	15000
Selenium	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Silver	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Sodium	880000	570000	730000	440000	110000	630000	190000	180000	570000	380000	180000	490000
Thallium	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	J 2.7	< 20	< 20
Vanadium	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Zinc	< 50	< 50	< 50	< 50	< 50	J 12	< 50	< 50	< 50	< 50	< 50	J 13
Mercury	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.7	< 1
1,1-Dichloroethene (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	3	< 1
1,2-Dichloroethene [total]	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	J 1.7	< 2
1,2-Dichloropropane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Butanone [Methyl ethyl ketone] [MEK]	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-Methyl-2-pentanone [Methyl isobutyl ketone] [MIBK]	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone (c)	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	J 6.5	< 10
Benzene (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromomethane [Methyl bromide]	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon disulfide	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

All results in ug/L

c = potential carcinogen

bg = background well

J = estimated value between MDL and PQL

**TABLE 2A.
WATER-QUALITY DATA SUMMARY, APRIL 2019
GROUNDWATER MONITORING WELLS
SUMMIT NATIONAL SUPERFUND SITE**

Parameter	MW-201 (bg)	MW-202	MW-203	MW-204 (bg)	MW-205 (bg)	MW-206	MW-207	MW-209	MW-219	MW-220	MW-223	MW-224
	4/10/2019 Result	4/9/2019 Result	4/11/2019 Result	4/9/2019 Result	4/11/2019 Result	4/11/2019 Result	4/12/2019 Result	4/11/2019 Result	4/11/2019 Result	4/11/2019 Result	4/10/2019 Result	4/9/2019 Result
Chloroform [Trichloromethane] (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloromethane [Methyl chloride]	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.7	< 1
cis-1,3-Dichloropropene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride (c)	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,2-Dichloroethene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	J 0.28	< 1
Vinyl chloride (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Xylenes [total] (c)	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,2-Dichlorobenzene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Acenaphthylene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Anthracene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[a]anthracene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[a]pyrene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[b]fluoranthene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[g,h,i]perylene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[k]fluoranthene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
bis[2-Chloroethoxy]methane	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
bis[2-Chloroethyl]ether (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
bis[2-Ethylhexyl]phthalate [DEHP] (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
Butyl benzylphthalate [BBP] (c)	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Carbazole	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Chrysene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Dibenz[a,h]anthracene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Dibenzofuran	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Diethyl phthalate	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
Dimethyl phthalate	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Di-n-butylphthalate [DBP]	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
Di-n-octyl phthalate [DnOP]	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Hexachlorobutadiene (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Indeno[1,2,3-cd]pyrene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Isophorone (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
1,2,4-Trichlorobenzene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
1,3-Dichlorobenzene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
1,4-Dichlorobenzene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2,2'-Oxybis[1-chloropropane] [bis[2-Chloroisopropyl] ether] (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2,4,5-Trichlorophenol	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
2,4,6-Trichlorophenol (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
2,4-Dichlorophenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8

All results in ug/L

c = potential carcinogen

bg = background well

J = estimated value between MDL and PQL

**TABLE 2A.
WATER-QUALITY DATA SUMMARY, APRIL 2019
GROUNDWATER MONITORING WELLS
SUMMIT NATIONAL SUPERFUND SITE**

Parameter	MW-201 (bg)	MW-202	MW-203	MW-204 (bg)	MW-205 (bg)	MW-206	MW-207	MW-209	MW-219	MW-220	MW-223	MW-224
	4/10/2019 Result	4/9/2019 Result	4/11/2019 Result	4/9/2019 Result	4/11/2019 Result	4/11/2019 Result	4/12/2019 Result	4/11/2019 Result	4/11/2019 Result	4/11/2019 Result	4/10/2019 Result	4/9/2019 Result
2,4-Dimethylphenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
2,4-Dinitrophenol	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9
2,4-Dinitrotoluene (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
2,6-Dinitrotoluene (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
2-Chloronaphthalene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2-Chlorophenol	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2-Methylnaphthalene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
2-Methylphenol	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2-Nitroaniline	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
2-Nitrophenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
3&4-Methylphenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
3,3'-Dichlorobenzidine (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
3-Nitroaniline	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4,6-Dinitro-2-methylphenol	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
4-Bromophenyl phenyl ether	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Chloro-3-methylphenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Chloroaniline	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Chlorophenyl phenyl ether	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Nitroaniline	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Nitrophenol	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9
Acenaphthene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Fluoranthene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Fluorene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Hexachlorobenzene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Hexachlorocyclopentadiene	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9
Hexachloroethane (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Naphthalene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Nitrobenzene (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
N-Nitrosodi-n-propylamine (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
N-Nitrosodiphenylamine (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Pentachlorophenol (c)	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9
Phenanthrene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Phenol (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Pyrene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Cyanide	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

All results in ug/L

c = potential carcinogen

bg = background well

J = estimated value between MDL and PQL

TABLE 2A.
WATER-QUALITY DATA SUMMARY, APRIL 2019
GROUNDWATER MONITORING WELLS
SUMMIT NATIONAL SUPERFUND SITE

Parameter	MW-301 (bg)	MW-302 (bg)	MW-303	Dup #6	MW-304 (bg)	MW-305	Dup #5	MW-306	MW-307	MW-309	MW-319	MW-320	MW-321	MW-322	MW-323	MW-324
	4/9/2019	4/9/2019	4/11/2019	4/11/2019	4/9/2019	4/10/2019	4/10/2019	4/12/2019	4/12/2019	4/11/2019	4/11/2019	4/11/2019	4/12/2019	4/10/2019	4/10/2019	4/9/2019
Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Aluminum	360	7000	< 200	< 200	J 74	< 200	< 200	J 99	640	J 150	940	J 67	J 130	< 200	310	< 200
Antimony	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Arsenic (c)	< 15	< 15	< 15	< 15	< 15	< 15	J 4.8	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15	< 15
Barium	J 14	J 53	J 21	J 22	J 16	J 4	< 200	J 30	J 27	J 36	J 110	J 98	J 40	J 11	J 24	J 14
Beryllium	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Cadmium	< 5	< 5	< 5	< 5	< 5	< 5	J 0.22	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	J 0.49
Calcium	8600	J 3000	28000	28000	21000	59000	67000	J 4700	5900	J 3800	20000	J 2200	8300	120000	J 4200	110000
Chromium	22	21	J 9.8	13	41	16	20	10	J 3.6	11	J 4.6	J 1.1	J 2.6	J 1.1	20	1.3
Cobalt	< 10	J 2.8	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Copper	J 8.9	J 10	< 25	J 5.1	J 3.9	J 4.3	J 5.6	< 25	< 25	< 25	< 25	< 25	< 25	< 25	J 7.9	< 25
Iron (c)	940	8100	360	460	1300	7400	9300	200	370	220	690	280	230	J 63	J 690	J 53
Lead (c)	J 2.8	J 3.9	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Magnesium	7500	J 1800	12000	12000	9400	18000	20000	J 2400	J 2000	J 1400	J 2500	J 820	J 2800	53000	J 1700	64000
Manganese	J 7.3	190	27	27	83	310	370	J 10	J 9.4	J 6.3	J 8.2	J 9.3	J 12	62	31	46
Nickel	J 14	J 17	J 7.5	8.9	J 30	J 9.6	J 13	J 6.8	J 4	J 6.6	J 3.2	J 3.6	J 2.3	< 40	J 13	J 2.2
Potassium	11000	J 4600	7200	7200	6000	7000	7700	J 4000	J 4600	J 3500	10000	J 2600	J 4500	12000	J 3600	12000
Selenium	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Silver	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Sodium	700000	370000	770000	770000	710000	440000	480000	490000	640000	460000	500000	380000	650000	640000	590000	470000
Thallium	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	J 5.6	< 20
Vanadium	< 50	J 15	< 50	< 50	< 50	< 50	< 50	< 50	< 50	J 5.8	< 50	< 50	< 50	< 50	< 50	< 50
Zinc	< 50	J 17	< 50	< 50	< 50	< 50	< 50	< 50	< 50	J 20	< 50	J 9.7	< 50	< 50	< 50	< 50
Mercury	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	J 0.42	< 1	< 1	< 1
1,1-Dichloroethene (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethene [total]	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,2-Dichloropropane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Butanone [Methyl ethyl ketone] [MEK]	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-Methyl-2-pentanone [Methyl isobutyl ketone] [MIBK]	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone (c)	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzene (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromomethane [Methyl bromide]	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon disulfide	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

All results in ug/L
c= potential carcinogen
bg - background well
J = estimated value between MDL and PQL

TABLE 2A.
WATER-QUALITY DATA SUMMARY, APRIL 2019
GROUNDWATER MONITORING WELLS
SUMMIT NATIONAL SUPERFUND SITE

Parameter	MW-301 (bg) 4/9/2019 Result	MW-302 (bg) 4/9/2019 Result	MW-303 4/11/2019 Result	Dup #6 4/11/2019 Result	MW-304 (bg) 4/9/2019 Result	MW-305 4/10/2019 Result	Dup #5 4/10/2019 Result	MW-306 4/12/2019 Result	MW-307 4/12/2019 Result	MW-309 4/11/2019 Result	MW-319 4/11/2019 Result	MW-320 4/11/2019 Result	MW-321 4/12/2019 Result	MW-322 4/10/2019 Result	MW-323 4/10/2019 Result	MW-324 4/9/2019 Result
Chloroform [Trichloromethane] (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloromethane [Methyl chloride]	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,3-Dichloropropene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride (c)	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,2-Dichloroethene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vinyl chloride (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Xylenes [total] (c)	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,2-Dichlorobenzene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Acenaphthylene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Anthracene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[a]anthracene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[a]pyrene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[b]fluoranthene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[g,h,i]perylene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[k]fluoranthene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
bis[2-Chloroethoxy]methane	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
bis[2-Chloroethyl]ether (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
bis[2-Ethylhexyl]phthalate [DEHP] (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
Butyl benzylphthalate [BBP] (c)	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Carbazole	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Chrysene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Dibenz[a,h]anthracene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Dibenzofuran	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Diethyl phthalate	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
Dimethyl phthalate	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Di-n-butylphthalate [DBP]	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
Di-n-octyl phthalate [DnOP]	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Hexachlorobutadiene (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Indeno[1,2,3-cd]pyrene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Isophorone (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
1,2,4-Trichlorobenzene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
1,3-Dichlorobenzene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
1,4-Dichlorobenzene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2,2'-Oxybis[1-chloropropane] [bis[2-Chloroisopropyl] ether] (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2,4,5-Trichlorophenol	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
2,4,6-Trichlorophenol (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
2,4-Dichlorophenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8

All results in ug/L
c = potential carcinogen
bg - background well
J = estimated value between MDL and PQL

**TABLE 2A.
WATER-QUALITY DATA SUMMARY, APRIL 2019
GROUNDWATER MONITORING WELLS
SUMMIT NATIONAL SUPERFUND SITE**

Parameter	MW-301 (bg) 4/9/2019 Result	MW-302 (bg) 4/9/2019 Result	MW-303 4/11/2019 Result	Dup #6 4/11/2019 Result	MW-304 (bg) 4/9/2019 Result	MW-305 4/10/2019 Result	Dup #5 4/10/2019 Result	MW-306 4/12/2019 Result	MW-307 4/12/2019 Result	MW-309 4/11/2019 Result	MW-319 4/11/2019 Result	MW-320 4/11/2019 Result	MW-321 4/12/2019 Result	MW-322 4/10/2019 Result	MW-323 4/10/2019 Result	MW-324 4/9/2019 Result
2,4-Dimethylphenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
2,4-Dinitrophenol	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9
2,4-Dinitrotoluene (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
2,6-Dinitrotoluene (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
2-Chloronaphthalene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2-Chlorophenol	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2-Methylnaphthalene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	1.2	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
2-Methylphenol	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2-Nitroaniline	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
2-Nitrophenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
3&4-Methylphenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
3,3'-Dichlorobenzidine (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
3-Nitroaniline	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4,6-Dinitro-2-methylphenol	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
4-Bromophenyl phenyl ether	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Chloro-3-methylphenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Chloroaniline	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Chlorophenyl phenyl ether	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Nitroaniline	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Nitrophenol	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9
Acenaphthene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Fluoranthene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Fluorene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Hexachlorobenzene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Hexachlorocyclopentadiene	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9
Hexachloroethane (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Naphthalene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	0.46	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Nitrobenzene (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
N-Nitrosodi-n-propylamine (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
N-Nitrosodiphenylamine (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Pentachlorophenol (c)	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9
Phenanthrene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Phenol (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Pyrene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Cyanide	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

All results in ug/L

c= potential carcinogen

bg - background well

J = estimated value between MDL and PQL

TABLE 2A.
WATER-QUALITY DATA SUMMARY, APRIL 2019
GROUNDWATER MONITORING WELLS
SUMMIT NATIONAL SUPERFUND SITE

Parameter	MW-401 4/10/2019 Result	MW-402 4/10/2019 Result	MW-414 (bg) 4/11/2019 Result	MW-415 (bg) 4/10/2019 Result	MW-421 4/9/2019 Result	MW-422 (bg) 4/9/2019 Result	Non-Potable Well 4/10/2019 Result
Aluminum	1100	1300	J 130	< 200	J 130	J 74	< 200
Antimony	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Arsenic (c)	< 15	< 15	< 15	< 15	< 15	< 15	< 15
Barium	J 64	J 55	J 13	J 10	J 110	J 14	J 100
Beryllium	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Cadmium	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Calcium	J 2300	J 1900	J 3900	J 2700	J 3000	J 4000	J 2100
Chromium	J 6.3	12	< 10	J 1	J 3.2	J 1.4	< 10
Cobalt	< 10	< 10	< 10	< 10	< 10	J 4.6	< 10
Copper	< 25	J 10	< 25	< 25	J 14	< 25	J 15
Iron (c)	J 4600	18000	1500	3800	7200	8300	J 100
Lead (c)	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Magnesium	J 1100	J 1400	J 1700	J 1100	J 900	J 1800	J 850
Manganese	82	79	J 13	26	110	91	J 3.5
Nickel	J 14	J 23	< 40	J 3.5	J 9.1	J 10	J 4.9
Potassium	J 3300	J 3400	J 3600	J 3100	J 2900	J 3700	J 2900
Selenium	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Silver	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Sodium	530000	490000	550000	500000	410000	560000	450000
Thallium	J 4	< 20	< 20	< 20	< 20	< 20	< 20
Vanadium	J 5.7	J 7	< 50	< 50	< 50	< 50	< 50
Zinc	< 50	J 13	< 50	< 50	< 50	< 50	J 40
Mercury	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethene [total]	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,2-Dichloropropane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Butanone [Methyl ethyl ketone] [MEK]	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-Methyl-2-pentanone [Methyl isobutyl ketone] [MIBK]	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone (c)	J 6.6	J 5.7	< 10	< 10	< 10	< 10	< 10
Benzene (c)	< 1	J 0.42	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromomethane [Methyl bromide]	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon disulfide	< 1	J 0.41	< 1	J 0.28	< 1	< 1	< 1
Carbon tetrachloride (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1

All results in ug/L

(c) = potential carcinogen

(bg) = background well

J = estimated value between MDL and PQL

TABLE 2A.
WATER-QUALITY DATA SUMMARY, APRIL 2019
GROUNDWATER MONITORING WELLS
SUMMIT NATIONAL SUPERFUND SITE

Parameter	MW-401 4/10/2019 Result	MW-402 4/10/2019 Result	MW-414 (bg) 4/11/2019 Result	MW-415 (bg) 4/10/2019 Result	MW-421 4/9/2019 Result	MW-422 (bg) 4/9/2019 Result	Non-Potable Well 4/10/2019 Result
Chloroform [Trichloromethane] (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloromethane [Methyl chloride]	< 1	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	< 1	< 1	< 1	J 0.19	< 1	< 1	< 1
cis-1,3-Dichloropropene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Ethylbenzene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Methylene chloride (c)	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Toluene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,2-Dichloroethene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene (c)	< 1	< 1	< 1	J 0.16	< 1	< 1	< 1
Vinyl chloride (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Xylenes [total] (c)	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,2-Dichlorobenzene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Acenaphthylene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Anthracene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[a]anthracene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[a]pyrene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[b]fluoranthene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[g,h,i]perylene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[k]fluoranthene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
bis[2-Chloroethoxy]methane	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
bis[2-Chloroethyl]ether (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
bis[2-Ethylhexyl]phthalate [DEHP] (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
Butyl benzylphthalate [BBP] (c)	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Carbazole	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Chrysene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Dibenz[a,h]anthracene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Dibenzofuran	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Diethyl phthalate	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
Dimethyl phthalate	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Di-n-butylphthalate [DBP]	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
Di-n-octyl phthalate [DnOP]	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Hexachlorobutadiene (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Indeno[1,2,3-cd]pyrene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Isophorone (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
1,2,4-Trichlorobenzene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
1,3-Dichlorobenzene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
1,4-Dichlorobenzene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2,2'-Oxybis[1-chloropropane] [bis[2-Chloroisopropyl] ether] (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2,4,5-Trichlorophenol	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
2,4,6-Trichlorophenol (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
2,4-Dichlorophenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8

All results in ug/L

(c) = potential carcinogen

(bg) = background well

J = estimated value between MDL and PQL

TABLE 2A.
WATER-QUALITY DATA SUMMARY, APRIL 2019
GROUNDWATER MONITORING WELLS
SUMMIT NATIONAL SUPERFUND SITE

Parameter	MW-401 4/10/2019 Result	MW-402 4/10/2019 Result	MW-414 (bg) 4/11/2019 Result	MW-415 (bg) 4/10/2019 Result	MW-421 4/9/2019 Result	MW-422 (bg) 4/9/2019 Result	Non-Potable Well 4/10/2019 Result
2,4-Dimethylphenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
2,4-Dinitrophenol	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9
2,4-Dinitrotoluene (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
2,6-Dinitrotoluene (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
2-Chloronaphthalene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2-Chlorophenol	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2-Methylnaphthalene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
2-Methylphenol	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2-Nitroaniline	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
2-Nitrophenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
3&4-Methylphenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
3,3'-Dichlorobenzidine (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
3-Nitroaniline	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4,6-Dinitro-2-methylphenol	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
4-Bromophenyl phenyl ether	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Chloro-3-methylphenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Chloroaniline	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Chlorophenyl phenyl ether	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Nitroaniline	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Nitrophenol	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9
Acenaphthene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Fluoranthene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Fluorene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Hexachlorobenzene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Hexachlorocyclopentadiene	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9
Hexachloroethane (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Naphthalene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Nitrobenzene (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
N-Nitrosodi-n-propylamine (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
N-Nitrosodiphenylamine (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Pentachlorophenol (c)	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9
Phenanthrene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Phenol (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Pyrene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Cyanide	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

All results in ug/L

(c) = potential carcinogen

(bg) = background well

J = estimated value between MDL and PQL

**TABLE 2A.
WATER-QUALITY DATA SUMMARY, APRIL 2019
RINSE BLANK SAMPLES
SUMMIT NATIONAL SUPERFUND SITE**

Parameter	Rinse Blank #1 4/8/2019 Result	Rinse Blank #2 4/10/2019 Result	Rinse Blank #3 4/10/2019 Result	Rinse Blank #4 4/11/2019 Result	Rinse Blank #5 4/11/2019 Result	Rinse Blank #6 4/12/2019 Result	S&E Rinse Blank 4/10/2019 Result
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
1,2-Dichlorobenzene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
1,2-Dichloroethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethene [total]	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1,2-Dichloropropane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
1,4-Dichlorobenzene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2,2'-Oxybis[1-chloropropane] [bis[2-Chloroisopropyl] ether] (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2,4,5-Trichlorophenol	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
2,4,6-Trichlorophenol (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
2,4-Dichlorophenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
2,4-Dimethylphenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
2,4-Dinitrophenol	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9
2,4-Dinitrotoluene (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
2,6-Dinitrotoluene (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
2-Butanone [Methyl ethyl ketone] [MEK]	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Chloronaphthalene	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2-Chlorophenol	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2-Hexanone	< 10	< 10	< 10	< 10	< 10	< 10	< 10
2-Methylnaphthalene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
2-Methylphenol	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
2-Nitroaniline	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
2-Nitrophenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
3&4-Methylphenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
3,3'-Dichlorobenzidine (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
3-Nitroaniline	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4,6-Dinitro-2-methylphenol	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
4-Bromophenyl phenyl ether	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Chloro-3-methylphenol	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Chloroaniline	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Chlorophenyl phenyl ether	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Methyl-2-pentanone [Methyl isobutyl ketone] [MIBK]	< 10	< 10	< 10	< 10	< 10	< 10	< 10
4-Nitroaniline	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
4-Nitrophenol	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9
Acenaphthene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Acenaphthylene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Acetone (c)	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Aluminum	< 200	< 200	< 200	< 200	< 200	< 200	--

All results in ug/L

c = potential carcinogen

TABLE 2A.
WATER-QUALITY DATA SUMMARY, APRIL 2019
RINSE BLANK SAMPLES
SUMMIT NATIONAL SUPERFUND SITE

Parameter	Rinse	Rinse	Rinse	Rinse	Rinse	Rinse	S&E
	Blank #1 4/8/2019 Result	Blank #2 4/10/2019 Result	Blank #3 4/10/2019 Result	Blank #4 4/11/2019 Result	Blank #5 4/11/2019 Result	Blank #6 4/12/2019 Result	Rinse Blank 4/10/2019 Result
Anthracene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Antimony	< 20	< 20	< 20	< 20	< 20	< 20	--
Arsenic (c)	< 15	< 15	< 15	< 15	< 15	< 15	--
Barium	< 200	< 200	< 200	< 200	< 200	< 200	--
Benzene (c)	< 1	< 1	< 1	< 1	< 1	< 1	--
Benzo[a]anthracene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[a]pyrene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[b]fluoranthene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[g,h,i]perylene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Benzo[k]fluoranthene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Beryllium	< 5	< 5	< 5	< 5	< 5	< 5	< 5
bis[2-Chloroethoxy]methane	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	--
bis[2-Chloroethyl]ether (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
bis[2-Ethylhexyl]phthalate [DEHP] (c)	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
Bromodichloromethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromoform (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bromomethane [Methyl bromide]	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Butyl benzylphthalate [BBP] (c)	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Cadmium	< 5	< 5	< 5	< 5	< 5	< 5	--
Calcium	< 5000	< 5000	< 5000	< 5000	< 5000	< 5000	--
Carbazole	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Carbon disulfide	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon tetrachloride (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chlorobenzene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloroform [Trichloromethane] (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chloromethane [Methyl chloride]	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Chromium	< 10	< 10	< 10	< 10	< 10	< 10	--
Chrysene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
cis-1,2-Dichloroethene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,3-Dichloropropene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Cobalt	< 10	< 10	< 10	< 10	< 10	< 10	--
Copper	< 25	< 25	< 25	< 25	< 25	< 25	--
Cyanide	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	--
Dibenz[a,h]anthracene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Dibenzofuran	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Dibromochloromethane (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Diethyl phthalate	< 4.5	J 3.5	< 4.5	< 4.5	J 3.7	< 4.5	< 4.5
Dimethyl phthalate	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Di-n-butylphthalate [DBP]	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5	< 4.5
Di-n-octyl phthalate [DnOP]	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Ethylbenzene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Fluoranthene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18

All results in ug/L
c = potential carcinogen

TABLE 2A.
WATER-QUALITY DATA SUMMARY, APRIL 2019
RINSE BLANK SAMPLES
SUMMIT NATIONAL SUPERFUND SITE

Parameter	Rinse	Rinse	Rinse	Rinse	Rinse	Rinse	S&E
	Blank #1 4/8/2019 Result	Blank #2 4/10/2019 Result	Blank #3 4/10/2019 Result	Blank #4 4/11/2019 Result	Blank #5 4/11/2019 Result	Blank #6 4/12/2019 Result	Rinse Blank 4/10/2019 Result
Fluorene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Hexachlorobenzene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Hexachlorobutadiene (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Hexachlorocyclopentadiene	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9
Hexachloroethane (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Indeno[1,2,3-cd]pyrene (c)	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Iron (c)	< 200	< 200	< 200	< 200	< 200	< 200	--
Isophorone (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	--
Lead (c)	< 10	< 10	< 10	< 10	< 10	< 10	--
Magnesium	< 5000	< 5000	< 5000	< 5000	< 5000	< 5000	--
Manganese	< 15	< 15	< 15	< 15	< 15	< 15	--
Mercury	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	--
Methylene chloride (c)	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Naphthalene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Nickel	< 40	< 40	< 40	< 40	< 40	< 40	--
Nitrobenzene (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
N-Nitrosodi-n-propylamine (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
N-Nitrosodiphenylamine (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Pentachlorophenol (c)	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9	< 8.9
Phenanthrene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Phenol (c)	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
Potassium	< 5000	< 5000	< 5000	< 5000	< 5000	< 5000	--
Pyrene	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Selenium	< 20	< 20	< 20	< 20	< 20	< 20	--
Silver	< 10	< 10	< 10	< 10	< 10	< 10	--
Sodium	< 5000	< 5000	< 5000	< 5000	< 5000	33000	--
Styrene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Thallium	< 20	< 20	< 20	< 20	< 20	< 20	--
Toluene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,2-Dichloroethene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Vanadium	< 50	J 5.7	< 50	< 50	< 50	< 50	--
Vinyl chloride (c)	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Xylenes [total] (c)	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Zinc	< 50	< 50	< 50	< 50	< 50	< 50	--

All results in ug/L
c = potential carcinogen

TABLE 2B.
WATER-QUALITY & SEDIMENT DATA SUMMARY, APRIL 2019
SURFACE WATER AND SEDIMENT
SUMMIT NATIONAL SUPERFUND SITE

Parameter	Surface Water 4/10/2019 Result
1,1,1-Trichloroethane	< 1
1,1,1,2-Tetrachloroethane (c)	< 1
1,1,2-Trichloroethane (c)	< 1
1,1-Dichloroethane (c)	J 0.24
1,1-Dichloroethene (c)	< 1
1,2,4-Trichlorobenzene	< 0.89
1,2-Dichlorobenzene	< 0.89
1,2-Dichloroethane (c)	< 1
1,2-Dichloroethene (total)	J 1.6
1,2-Dichloropropane (c)	< 1
1,3-Dichlorobenzene	< 0.89
1,4-Dichlorobenzene	< 0.89
2,2'-oxybis[1-chloropropane] (c)	< 0.89
2,4,5-Trichlorophenol	< 4.5
2,4,6-Trichlorophenol (c)	< 4.5
2,4-Dichlorophenol	< 1.8
2,4-Dimethylphenol	< 1.8
2,4-Dinitrophenol	< 8.9
2,4-Dinitrotoluene (c)	< 4.5
2,6-Dinitrotoluene (c)	< 4.5
2-Butanone (MEK)	< 10
2-Chloronaphthalene	< 0.89
2-Chlorophenol	< 0.89
2-Hexanone	< 10
2-Methylnaphthalene (c)	< 0.18
2-Methylphenol	< 0.89
2-Nitroaniline	< 1.8
2-Nitrophenol	< 1.8
3&4-Methylphenol	< 1.8
3,3'-Dichlorobenzidine (c)	< 4.5
3-Nitroaniline	< 1.8
4,6-Dinitro-o-cresol	< 4.5
4-Bromophenyl phenyl ether	< 1.8
4-Chloro-3-methyl phenol	< 1.8
4-Chloroaniline	< 1.8
4-Chlorophenyl phenyl ether	< 1.8
4-Methyl-2-pentanone(MIBK)	< 10
4-Nitroaniline	< 1.8
4-Nitrophenol	< 8.9
Acenaphthene	< 0.18
Acenaphthylene	< 0.18
Acetone (c)	< 10
Anthracene	< 0.18
Benzene (c)	< 1
Benzo(a)anthracene (c)	< 0.18
Benzo(a)pyrene (c)	< 0.18

All results in ug/L

c = potential carcinogen

J = estimated value between MDL and PQL

Parameter	Surface Water 4/10/2019 Result
Benzo(b)fluoranthene (c)	< 0.18
Benzo(g,h,i)perylene (c)	< 0.18
Benzo(k)fluoranthene (c)	< 0.18
bis(2-Chloroethoxy)methane	< 0.89
bis(2-Chloroethyl)ether (c)	< 0.89
bis(2-Ethylhexyl)phthalate (c)	< 4.5
Bromodichloromethane (c)	< 1
Bromoform (c)	< 1
Bromomethane	< 1
Butyl benzyl phthalate (c)	< 1.8
Carbazole	< 0.89
Carbon disulfide	< 1
Carbon tetrachloride (c)	< 1
Chlorobenzene	< 1
Chloroethane	< 1
Chloroform (c)	< 1
Chloromethane	< 1
Chrysene (c)	< 0.18
cis-1,2-Dichloroethene	1.6
cis-1,3-Dichloropropene	< 1
Dibenzo(a,h)anthracene (c)	< 0.18
Dibenzofuran	< 0.89
Dibromochloromethane	< 1
Diethyl phthalate	< 4.5
Dimethyl phthalate	< 1.8
Di-n-butyl phthalate	< 4.5
Di-n-octyl phthalate	< 1.8
Ethylbenzene	< 1
Fluoranthene	< 0.18
Fluorene	< 0.18
Hexachlorobenzene (c)	< 0.18
Hexachlorobutadiene (c)	< 0.89
Hexachlorocyclopentadiene	< 8.9
Hexachloroethane (c)	< 0.89
Indeno(1,2,3-cd)pyrene	< 0.18
Isophorone (c)	< 0.89
Methylene chloride	< 5
Naphthalene	< 0.18
Nitrobenzene (c)	< 0.89
N-Nitroso-di-n-propylamine (c)	< 0.89
N-Nitrosodiphenylamine (c)	< 0.89
Pentachlorophenol (c)	< 8.9
Phenanthrene	< 0.18
Phenol (c)	< 0.89
Pyrene	< 0.18
Styrene	< 1
Tetrachloroethene (c)	< 1

Parameter	Surface Water 4/10/2019 Result
Toluene	< 1
trans-1,2-Dichloroethene	< 1
trans-1,3-Dichloropropene	< 1
Trichloroethene (c)	J 0.38
Vinyl chloride (c)	< 2
Xylene (total) (c)	< 1

TABLE 2B.
WATER-QUALITY & SEDIMENT DATA SUMMARY, APRIL 2019
SURFACE WATER AND SEDIMENT
SUMMIT NATIONAL SUPERFUND SITE

Parameter	S&E Ditch Sediment 4/10/2019 Result
1,1,1-Trichloroethane	< 5.4
1,1,2,2-Tetrachloroethane (c)	< 5.4
1,1,2-Trichloroethane (c)	< 5.4
1,1-Dichloroethane (c)	< 5.4
1,1-Dichloroethene (c)	< 5.4
1,2,4-Trichlorobenzene	< 70
1,2-Dichlorobenzene	< 70
1,2-Dichloroethane (c)	< 5.4
1,2-Dichloroethene (total)	< 11
1,2-Dichloropropane (c)	< 5.4
1,3-Dichlorobenzene	< 70
1,4-Dichlorobenzene	< 70
2,2'-oxybis[1-chloropropane] (c)	< 140
2,4,5-Trichlorophenol	< 210
2,4,6-Trichlorophenol (c)	< 210
2,4-Dichlorophenol	< 210
2,4-Dimethylphenol	< 210
2,4-Dinitrophenol	< 460
2,4-Dinitrotoluene (c)	< 280
2,6-Dinitrotoluene (c)	< 280
2-Butanone (MEK)	< 21
2-Chloronaphthalene	< 70
2-Chlorophenol	< 70
2-Hexanone	< 21
2-Methylnaphthalene (c)	740
2-Methylphenol	< 280
2-Nitroaniline	< 280
2-Nitrophenol	< 70
3&4-Methylphenol	< 560
3,3'-Dichlorobenzidine (c)	< 140
3-Nitroaniline	< 280
4,6-Dinitro-o-cresol	< 460
4-Bromophenyl phenyl ether	< 70
4-Chloro-3-methyl phenol	< 210
4-Chloroaniline	< 210
4-Chlorophenyl phenyl ether	< 70
4-Methyl-2-pentanone(MIBK)	< 21
4-Nitroaniline	< 280
4-Nitrophenol	< 460
Acenaphthene	< 21
Acenaphthylene	< 21
Acetone (c)	< 27
Anthracene	< 21
Benzene (c)	< 5.4
Benzo(a)anthracene (c)	53
Benzo(a)pyrene (c)	57

All results in ug/Kg

c = possible carcinogen

J = estimated value between MDL and PQL

Parameter	S&E Ditch Sediment 4/10/2019 Result
Benzo(b)fluoranthene (c)	75
Benzo(g,h,i)perylene (c)	180
Benzo(k)fluoranthene (c)	J 15
bis(2-Chloroethoxy)methane	< 140
bis(2-Chloroethyl)ether (c)	< 140
bis(2-Ethylhexyl)phthalate (c)	< 98
Bromodichloromethane (c)	< 5.4
Bromoform (c)	< 5.4
Bromomethane	< 5.4
Butyl benzyl phthalate (c)	< 98
Carbazole	< 70
Carbon disulfide	< 5.4
Carbon tetrachloride (c)	< 5.4
Chlorobenzene	< 5.4
Chloroethane	< 5.4
Chloroform	< 5.4
Chloromethane	< 5.4
Chrysene (c)	120
cis-1,2-Dichloroethene	< 5.4
cis-1,3-Dichloropropene	< 5.4
Dibenzo(a,h)anthracene (c)	< 21
Dibenzofuran	170
Dibromochloromethane	< 5.4
Diethyl phthalate	< 98
Dimethyl phthalate	< 98
Di-n-butyl phthalate	< 98
Di-n-octyl phthalate	< 98
Ethylbenzene	< 5.4
Fluoranthene	120
Fluorene	22
Hexachlorobenzene (c)	< 21
Hexachlorobutadiene (c)	< 70
Hexachlorocyclopentadiene	< 460
Hexachloroethane (c)	< 70
Indeno(1,2,3-cd)pyrene	< 21
Isophorone (c)	< 70
Methylene chloride	< 27
Naphthalene	510
Nitrobenzene (c)	< 140
N-Nitroso-di-n-propylamine (c)	< 70
N-Nitrosodiphenylamine (c)	< 70
Pentachlorophenol (c)	< 210
Phenanthrene	500
Phenol (c)	< 70
Pyrene	160
Styrene	< 5.4
Tetrachloroethene (c)	< 5.4

Parameter	S&E Ditch Sediment 4/10/2019 Result
Toluene	< 5.4
trans-1,2-Dichloroethene	< 5.4
trans-1,3-Dichloropropene	< 5.4
Trichloroethene (c)	< 5.4
Vinyl chloride (c)	< 5.4
Xylene (total) (c)	< 11

TABLE 2C.
WATER-QUALITY DATA SUMMARY, APRIL 2019
RESIDENTIAL WELLS
SUMMIT NATIONAL SUPERFUND SITE

Parameter	Residential Well #1 4/10/2019 Result	Residential Well #2 4/10/2019 Result	Residential Well #3 4/10/2019 Result
1,1,1-Trichloroethane	< 1	< 1	< 1
1,1-Dichloroethane (c)	< 1	< 1	< 1
1,2-Dichloroethane (c)	< 1	< 1	< 1
Acetone (c)	< 10	< 10	< 10
Benzene (c)	< 1	< 1	< 1
bis[2-Ethylhexyl]phthalate [DEHP] (c)	< 4.5	< 4.5	J 2.2
Chlorobenzene	< 1	< 1	< 1
Chloroethane	< 1	< 1	< 1
cis-1,2-Dichloroethene	< 1	< 1	< 1
Ethylbenzene	< 1	< 1	< 1
Toluene	< 1	< 1	< 1
trans-1,2-Dichloroethene	< 1	< 1	< 1
Trichloroethene (c)	< 1	< 1	< 1
Vinyl chloride (c)	< 1	< 1	< 1
Xylenes [total] (c)	< 2	< 2	< 2

All results in ug/L

c = potential carcinogen

J = estimated value between MDL and PQL

TABLE 3.
PARAMETER LIST AND REGIONAL SCREENING LEVELS FOR SUBSTANCES
WITH POSSIBLE CARCINOGENIC EFFECTS
SUMMIT NATIONAL SUPERFUND SITE

Parameter	Toxicological Class (1)				(SF ₀)	(RfD)	(RSL)
	1986	1996	1999	2005	Oral Cancer Slope Factor (2) 1/(mg/kg-day)	Oral Reference Dose (3) (mg/kg-day)	Regional Screening Level For Individual Compounds Based On 1.0 x 10 ⁻⁶ Risk (4) THQ = 1.0 (ug/L)
Volatile Organic Compounds							
1,1,1-Trichloroethane; Methylchloroform	D			I	NV	2.00E+00	NV
1,1,2,2-Tetrachloroethane	C			L	2.00E-01	2.00E-02	7.60E-02
1,1,2-Trichloroethane	C				5.70E-02	4.00E-03	2.80E-01
1,1-Dichloroethane; Ethylidene Chloride	C				5.70E-03	2.00E-01	2.80E+00
1,1-Dichloroethylene; 1,1-Dichloroethene; Vinylidene Chloride	C				NV	5.00E-02	NV
1,2-Dichloroethane; Ethylenedichloride	B2				9.10E-02	6.00E-03	1.70E-01
1,2-Dichloroethylene; 1,2-Dichloroethene					NA	NA	NA
cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene					NV	2.00E-03	NV
trans-1,2-Dichloroethylene; trans-1,2-Dichloroethene					NV	2.00E-02	NV
1,2-Dichloropropane; Propylenedichloride	B2				3.70E-02	4.00E-02	8.50E-01
cis-1,3-Dichloropropene (5)					1.00E-01	3.00E-02	4.70E-01
trans-1,3-Dichloropropene (5)					1.00E-01	3.00E-02	4.70E-01
2-Hexanone; Methyl butyl ketone			S	I	NV	5.00E-03	NV
Acetone; 2-Propanone	D		S		NV	9.00E-01	NV
Benzene	A	K			5.50E-02	4.00E-03	4.60E-01
Bromodichloromethane; Dichlorobromomethane	B2				6.20E-02	2.00E-02	1.30E-01
Bromoform; Tribromomethane	B2				7.90E-03	2.00E-02	3.30E+00
Bromomethane; Methyl bromide	D				NV	1.40E-03	NV
Carbon Disulfide					NV	1.00E-01	NV
Carbon Tetrachloride	B2			L	7.00E-02	4.00E-03	4.60E-01
Chlorobenzene	D				NV	2.00E-02	NV
Chloroethane; Ethyl Chloride					NV	NV	NV
Chloroform; Trichloromethane	B2		L/N		3.10E-02	1.00E-02	2.20E-01
Chloromethane; Methyl chloride	D	P			NV	NV	NV
Dibromochloromethane; Chlorodibromomethane	C			L	8.40E-02	2.00E-02	8.70E-01
Ethylbenzene	D				1.10E-02	1.00E-01	1.50E+00
Methyl ethyl ketone; MEK; 2-Butanone	D		S		NV	6.00E-01	NV
Methyl isobutyl ketone; MIK; 4-Methyl-2-pentanone					NV	NV	NV
Methylene chloride; Dichloromethane	B2				2.00E-03	6.00E-03	1.10E+01
Styrene; Ethenylbenzene					NV	2.00E-01	NV
Tetrachloroethylene; Tetrachloroethene; Perchloroethylene	B2			L	2.10E-03	6.00E-03	1.10E+01
Toluene; Methylbenzene	D			I	NV	8.00E-02	NV
Trichloroethylene; Trichloroethene	B2			K	4.60E-02	5.00E-04	4.90E-01
Vinyl Acetate					NV	1.00E+00	NV
Vinyl Chloride	A	K			7.20E-01	3.00E-03	1.90E-02
Xylene (total)	D		S		NV	2.00E-01	NV
m-Xylene	D				NV	2.00E-01	NV
o-Xylene	D				NV	2.00E-01	NV
p-Xylene	D				NV	2.00E-01	NV
Semi-Volatile Organic Compounds							
1,2,4-Trichlorobenzene	D				2.90E-02	1.00E-02	1.20E+00
1,2-Dichlorobenzene; o-Dichlorobenzene	D				NV	9.00E-02	NV
1,3-Dichlorobenzene; m-Dichlorobenzene	D				NA	NA	NA
1,4-Dichlorobenzene; p-Dichlorobenzene					5.40E-03	7.00E-02	4.80E-01
2,4,5-Trichlorophenol					NV	1.00E-01	NV
2,4,6-Trichlorophenol	B2				1.10E-02	1.00E-03	4.10E+00
2,4-Dichlorophenol					NV	3.00E-03	NV
2,4-Dimethylphenol; m-Xylenol					NV	2.00E-02	NV
2,4-Dinitrophenol					NV	2.00E-03	NV
2,4-Dinitrotoluene; 1-Methyl-2,4-dinitrobenzene	B2				3.10E-01	2.00E-03	2.40E-01
2,6-Dinitrotoluene; 2-Methyl-1,3-dinitrobenzene	B2				1.50E+00	3.00E-04	4.90E-02
2-Chloronaphthalene; 2-Naphthyl chloride; beta-Chloronaphthalene					NV	8.00E-02	NV
2-Chlorophenol					NV	5.00E-03	NV

**TABLE 3.
PARAMETER LIST AND REGIONAL SCREENING LEVELS FOR SUBSTANCES
WITH POSSIBLE CARCINOGENIC EFFECTS
SUMMIT NATIONAL SUPERFUND SITE**

Parameter	Toxicological Class (1)				(SF ₀)	(RfD)	(RSL)
	1986	1996	1999	2005	Oral Cancer Slope Factor (2) 1/(mg/kg-day)	Oral Reference Dose (3) (mg/kg-day)	Regional Screening Level For Individual Compounds Based On 1.0 x 10 ⁻⁶ Risk (4) THQ = 1.0 (ug/L)
Semi-Volatile Organic Compounds (continued)							
2-Methylnaphthalene	C		S		NV	4.00E-03	NV
2-Methylphenol; o-Cresol					NV	5.00E-02	NV
2-Nitroaniline; 2-Nitrobenzenamine; o-Nitroaniline					NV	1.00E-02	NV
2-Nitrophenol; o-Nitrophenol					NA	NA	NA
3,3'-Dichlorobenzidine; 3,3'-Dichloro-[1,1'-bi phenyl]-4,4'-diamine	B2				4.50E-01	NV	1.30E-01
3-Nitroaniline; 3-Nitrobenzenamine; m-Nitroaniline					NA	NA	NA
3&4-Methylphenol; m&p-Cresol	(6)				NV	1.00E-01	NV
4,6-Dinitro-o-cresol; 4,6-Dinitro-2-methylphenol; 2-Methyl-4,6-dinitrophenol					NV	8.00E-05	NV
4-Bromophenyl Phenyl Ether; 1-Bromo-4-phenoxy-benzene	D				NA	NA	NA
4-Chloroaniline; p-Chloroaniline; 4-Chlorobenzenamine					2.00E-01	4.00E-03	3.70E-01
4-Chlorophenyl phenyl ether; 1-Chloro-4-phenoxy benzene					NA	NA	NA
4-Chloro-3-methyl phenol					NV	1.00E-01	NV
4-Methylphenol; p-Cresol	C				NV	1.00E-01	NV
4-Nitroaniline; 4-Nitrobenzenamine; p-Nitroaniline					2.00E-02	4.00E-03	3.80E+00
4-Nitrophenol; p-Nitrophenol					NA	NA	NA
Acenaphthene; 1,2-Dihydroacenaphthylene, Acenaphthylene	D				NV	6.00E-02	NV
Anthracene	D				NV	3.00E-01	NV
Benzo[a]anthracene; Benzanthracene	B2				1.00E-01	NV	3.00E-02
Benzo[a]pyrene	B2				1.00E+00	3.00E-04	2.50E-02
Benzo[b]flouranthene; Benz[e]acephenanthylene	B2				1.00E-01	NV	2.50E-01
Benzo[ghi]perylene	D				NA	NA	NA
Benzo[k]flouranthene	B2				1.00E-02	NV	2.50E+00
Benzyl alcohol; Benzenemethanol	D				NV	1.00E-01	NV
Benzoic acid					NV	4.00E+00	NV
bis(2-Chloroethoxy)methane; 1,1-[methylenebis(oxy)] bis[2-chloroethane]	D				NV	3.00E-03	NV
bis(2-Chloroethyl) ether; Dichloroethyl ether; 1,1'-oxybis [2-Chloroethane]	B2				1.10E+00	NV	1.40E-02
bis(2-Chloro-1-methylethyl) Ether; 2,2'-Dichlorodiisopropyl ether; DCIP	C				NV	4.00E-02	NV
bis(2-Ethylhexyl) Phthalate; 1,2-Benzenedicarboxylic acid, bis (2-Ethylhexyl) ester	B2				1.40E-02	2.00E-02	5.60E+00
Butyl benzyl phthalate; Benzyl butyl phthalate; 1,2-Benzenedicarboxylic acid	C				1.90E-03	2.00E-01	1.60E+01
Chrysene	B2				1.00E-03	NV	2.50E+01
Di-n-butyl phthalate; 1,2-Benzenedicarboxylic acid dibutyl ester, Dibutyl Phthalate	D				NV	1.00E-01	NV
Di-n-octyl phthalate; 1,2-Benzenedicarboxylic acid, Dioctyl ester					NV	1.00E-02	NV
Di-n-propylnitrosamine; N-Nitrosodipropylamine; N-Nitroso-N-dipropylamine					7.00E+00	NV	1.10E-02
Dibenz[a,h]anthracene	B2				1.00E+00	NV	2.50E-02
Dibenzofuran	D				NV	1.00E-03	NV
Diethyl phthalate; 1,2-Benzenedicarboxylic acid, Diethyl ester	D				NV	8.00E-01	NV
Dimethyl phthalate; 1,2-Benzenedicarboxylic acid, dimethyl ester	D				NA	NA	NA
Fluoranthene	D				NV	4.00E-02	NV
Fluorene; 9H-fluorene	D				NV	4.00E-02	NV
Hexachlorobenzene	B2				1.60E+00	8.00E-04	9.80E-03
Hexachlorobutadiene	C				7.80E-02	1.00E-03	1.40E-01
Hexachlorocyclopentadiene	D	N			NV	6.00E-03	NV
Hexachloroethane	C			L	4.00E-02	7.00E-04	3.30E-01
Indeno (1,2,3-cd) pyrene	B2				1.00E-01	NV	2.50E-01
Isophorone; 3,5,5-Trimethyl-2-cyclohexen-1-one	C				9.50E-04	2.00E-01	7.80E+01
N-Nitrosodimethylamine; N-Methyl-N-nitroso methanamine	B2				5.10E+01	8.00E-06	1.10E-04
N-Nitroso-Di-N-Propylamine	B2				7.00E+00	NV	1.10E-02
Naphthalene	D	P			NV	2.00E-02	1.70E-01
Nitrobenzene	D			L	NV	2.00E-03	1.40E-01
Pentachlorophenol	B2			L	4.00E-01	5.00E-03	4.10E-02
Phenanthrene	D				NA	NA	NA
Phenol	D		S		NV	3.00E-01	NV
Pyrene	D				NV	3.00E-02	NV

**TABLE 3.
PARAMETER LIST AND REGIONAL SCREENING LEVELS FOR SUBSTANCES
WITH POSSIBLE CARCINOGENIC EFFECTS
SUMMIT NATIONAL SUPERFUND SITE**

Parameter	Toxicological Class (1)				(SF ₀)	(RfD)	(RSL)
	1986	1996	1999	2005	Oral Cancer Slope Factor (2) 1/(mg/kg-day)	Oral Reference Dose (3) (mg/kg-day)	Regional Screening Level For Individual Compounds Based On 1.0 x 10 ⁻⁶ Risk (4) THQ = 1.0 (ug/L)
Metals (Total)							
Aluminum					NV	1.00E+00	NV
Antimony (metallic)					NV	4.00E-04	NV
Arsenic, Inorganic	A				1.50E+00	3.00E-04	5.20E-02
Barium		N			NV	2.00E-01	NV
Beryllium and Compounds		P			NV	2.00E-03	NV
Cadmium (Water)					NV	5.00E-04	NV
Calcium					NA	NA	NA
Chromium, Total		P			NV	NV	NV
Cobalt					NV	3.00E-04	NV
Copper	D				NV	4.00E-02	NV
Cyanide (free, CN-)	D				NV	6.00E-04	NV
Iron	C				NV	7.00E-01	NV
Lead and Compounds	B2				NV	NV	NV
Magnesium					NA	NA	NA
Manganese (Diet)	D				NV	1.40E-01	NV
Mercury (elemental)	D				NV	NV	NV
Nickel (Soluble Salts)					NV	2.00E-02	NV
Potassium					NA	NA	NA
Selenium	D				NV	5.00E-03	NV
Silver	D				NV	5.00E-03	NV
Sodium					NA	NA	NA
Thallium (Soluble Salts)		I			NV	1.00E-05	NV
Vanadium and Compounds					NV	5.00E-03	NV
Zinc and Compounds	D		S	I	NV	3.00E-01	NV

Notes:

NA = Not Available; **Bold** - Potential Carcinogen

(1) USEPA Weight-of-Evidence Toxicological Classification.

1986 Guidelines

- A - Human Carcinogen (sufficient evidence of carcinogenicity in humans)
- B1** - Probable Human Carcinogen (limited evidence of carcinogenicity in humans)
- B2** - Probable Human Carcinogen (sufficient evidence of carcinogenicity in animals)
- C - Possible Human Carcinogen (limited evidence of carcinogenicity in animals)
- D - Not Classified as to Human Carcinogenicity (inadequate or no evidence)

1996 Guidelines

- K** - Known/likely human carcinogen
- P - Carcinogenic potential cannot be determined
- N - Not likely to be carcinogenic to humans

1999, 2005 Guidelines

- K** - Carcinogenic to humans
- L - Likely to be carcinogenic to humans
- S - Suggestive evidence of carcinogenicity, but not sufficient to assess human carcinogenic potential
- I - Data are inadequate for an assessment of human carcinogenic potential
- N - Not likely to be carcinogenic to humans

(2) Cancer Slope Factor - A measure of the carcinogenic potential of a compound.

SOURCE : USEPA Integrated Risk Information System (IRIS); August 2018.

: Health Effects Assessment Table (HEAST); July 1997.

: Regional Screening Levels (RSLs) Master Table; November 2019. Provisional values supplied by NCEA.

: CalEPA Office of Environmental Health Hazard Assessment (OEHHA), Cancer Potency Values; September 2016.

(3) The RfD is a daily exposure level which is believed to be without appreciable health risk to humans over a lifetime. The RfD is usually derived from an experimental "no observed adverse effect level" (NOAEL), identified as the highest dose in the most relevant study that did not result in a known adverse effect. The NOAEL is divided by various uncertainty factors to derive the RfD. These uncertainty factors account for the variation in human response, extrapolation to human responses if animal experiments were used, data quality and relevance.

(4) Based on the assumption of 2 liters of groundwater consumed per day, for 350 days per year, by a 70-kg adult for a 30-year residency period.

(5) 1,3-Dichloropropene CSF, RfD₀, and RSL substituted.

TABLE 4.
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND HAZARD INDICES
APRIL 2019 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE

Well	Chemical of Potential Concern (COPC)	Reported Groundwater Concentration (mg/L)	Oral Reference Dose (1) (mg/kg-day)	Hazard Quotient (HQ)	Hazard Index (3) (HI)	Percent Contribution of COPC (%)
Water Table Unit (WTU) Wells						
MW-4	Iron	3.6 *	7.00E-01	0.14	0.14	100.00
MW-11	1,1,1-Trichloroethane	0.011	2.00E+00	0.00	<u>2.24</u>	0.01
	1,1,2-Trichloroethane	0.0002	4.00E-03	0.00		0.06
	1,1-Dichloroethane	0.056	2.00E-01	0.01		0.34
	1,1-Dichloroethene	0.00073	5.00E-02	0.00		0.02
	1,2-Dichloroethane	0.0009	6.00E-03	0.00		0.18
	Benzene	0.00025	4.00E-03	0.00		0.08
	cis-1,2-Dichloroethene	0.029	2.00E-03	0.39		17.46
	Iron	3.4	7.00E-01	0.13		5.85
	trans-1,2-Dichloroethene	0.0008	2.00E-02	0.00		0.05
	Trichloroethene	0.031	5.00E-04	1.67		74.68
	Vinyl chloride	0.0032	3.00E-03	0.03		1.28
	MW-101	Iron	25.5 *	7.00E-01	0.98	0.98
MW-102	Iron	89	7.00E-01	3.43	3.43	100.00
MW-103	Arsenic	0.03	3.00E-04	2.70	<u>3.03</u>	89.17
	Iron	8.5	7.00E-01	0.33		10.83
MW-104	Iron	15	7.00E-01	0.58	0.58	100.00
	Sodium	590	NV	--		0.00
MW-105	Iron	23	7.00E-01	0.89	0.89	100.00
MW-106	1,1,1-Trichloroethane	0.00089	2.00E+00	0.00	0.22	0.01
	1,1-Dichloroethane	0.0011	2.00E-01	0.00		0.07
	1,2-Dichloroethane	0.00069	6.00E-03	0.00		1.44
	Iron	5.5	7.00E-01	0.21		98.48
MW-107	1,1,2-Trichloroethane	0.0034	4.00E-03	0.02	<u>6.51</u>	0.35
	1,1-Dichloroethane	0.69	2.00E-01	0.09		1.43
	1,2-Dichloroethane	0.017	6.00E-03	0.08		1.17
	1,2-Dichlorobenzene	0.0013	9.00E-02	0.00		0.01
	2,4-Dimethylphenol	0.0015	2.00E-02	0.00		0.03
	2-Methylphenol	0.0015	5.00E-02	0.00		0.01
	2-Methylnaphthalene	0.0016	4.00E-03	0.01		0.17
	3&4-Methylphenol	0.0064	1.00E-01	0.00		0.03
	4-Chloro-3-Methylphenol	0.0088	1.00E-01	0.00		0.04
	Arsenic	0.044	3.00E-04	3.96		60.81
	Benzene	0.089	4.00E-03	0.60		9.23
	Chloroethane	0.390	NV	--		0.00
	Ethylbenzene	0.940	1.00E-01	0.25		3.90
	Toluene	3.0	8.00E-02	1.01		15.55
	Iron	0.46	7.00E-01	0.02		0.27
	Isophorone	0.0028	2.00E-01	0.00		0.01
	Naphthalene	0.0077	2.00E-02	0.01		0.16
Xylene (total)	3.3	2.00E-01	0.45		6.84	

TABLE 4.
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND HAZARD INDICES
APRIL 2019 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE

Well	Chemical of Potential Concern (COPC)	Reported Groundwater Concentration (mg/L)	Oral Reference Dose (1) (mg/kg-day)	Hazard Quotient (HQ)	Hazard Index (3) (HI)	Percent Contribution of COPC (%)
Water Table Unit (WTU) Wells (cont'd)						
MW-108	1,1,1-Trichloroethane	0.0023	2.00E+00	0.00	<u>9.89</u>	0.00
	1,1,2-Trichloroethane	0.00037	J 4.00E-03	0.00		0.03
	1,1-Dichloroethane	0.33	2.00E-01	0.04		0.45
	1,1-Dichloroethene	0.0032	5.00E-02	0.00		0.02
	1,2-Dichloroethane	0.044	6.00E-03	0.20		2.00
	Arsenic	0.022	3.00E-04	1.98		20.03
	Benzene	0.14	4.00E-03	0.95		9.56
	cis-1,2-Dichloroethene	0.24	2.00E-03	3.24		32.77
	Iron	35	7.00E-01	1.35		13.66
	Phenol	0.0011	3.00E-01	0.00		0.00
	Trichloroethene	0.023	5.00E-04	1.24		12.56
	Vinyl chloride	0.098	3.00E-03	0.88		8.92
	Xylene (total)	0.00064	J 2.00E-01	0.00		0.00
MW-109	Iron	1.1	7.00E-01	0.04	0.04	100.00
MW-110	Iron	0.26	7.00E-01	0.01	0.01	100.00
MW-111	1,1-Dichloroethane	0.028	2.00E-01	0.00	<u>5.97</u>	0.06
	1,1-Dichloroethene	0.0004	J 5.00E-02	0.00		0.00
	1,2-Dichloroethane	0.088	6.00E-03	0.40		6.64
	Benzene	0.00018	J 4.00E-03	0.00		0.02
	cis-1,2-Dichloroethene	0.0062	2.00E-03	0.08		1.40
	Chloroethene	0.0013	NV	--		0.00
	Iron	140	7.00E-01	5.40		90.53
	Vinyl chloride	0.0089	3.00E-03	0.08		1.34
MW-113	Acetone	0.0065	J 9.00E-01	0.00		0.00
	Iron	1.8	7.00E-01	0.07		1.16
MW-114	Arsenic	0.038	3.00E-04	3.42	<u>5.77</u>	59.24
	Iron	61	7.00E-01	2.35		40.76
MW-115	1,1-Dichloroethane	0.0014	2.00E-01	0.00	0.30	0.06
	1,2-Dichloroethane	0.00037	J 6.00E-03	0.00		0.55
	cis-1,2-Dichloroethene	0.0057	2.00E-03	0.08		25.44
	Iron	5.8	7.00E-01	0.22		73.95
MW-116	--	--	--	--	--	--
MW-117	Iron	5.6	* 7.00E-01	0.22	0.22	100.00
MW-118	1,2-Dichloroethane	0.0022	6.00E-03	0.01	0.22	4.46
	Iron	5.5	7.00E-01	0.21		95.54

TABLE 4.
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND HAZARD INDICES
APRIL 2019 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE

Well	Chemical of Potential Concern (COPC)	Reported Groundwater Concentration (mg/L)	Oral Reference Dose (1) (mg/kg-day)	Hazard Quotient (HQ)	Hazard Index (3) (HI)	Percent Contribution of COPC (%)
Upper Intermediate Unit (UIU) Wells						
MW-201	--	--	--	--	--	--
MW-202	Iron	0.88	7.00E-01	0.03	0.03	100.00
MW-203	Iron	0.35	7.00E-01	0.01	0.01	100.00
MW-204	Iron	2.7	7.00E-01	0.10	0.10	100.00
MW-205	Iron	7.8	7.00E-01	0.30	0.30	100.00
MW-206	Iron	2.6	7.00E-01	0.10	0.10	100.00
MW-207	Iron	2.5	7.00E-01	0.10	0.10	100.00
MW-209	Iron	0.92	7.00E-01	0.04	0.04	100.00
MW-219	Iron	0.19	7.00E-01	0.01	0.01	100.00
MW-220	--	--	--	--	--	--
MW-223	1,1-Dichloroethane	0.0017	2.00E-01	0.00	4.29	0.01
	1,2-Dichloroethane	0.003	6.00E-03	0.01		0.31
	Acetone	0.0065	J 9.00E-01	0.00		0.00
	cis-1,2-Dichloroethene	0.0017	2.00E-03	0.02		0.53
	Iron	110	7.00E-01	4.24		98.79
	Trichloroethene	0.00028	J 5.00E-04	0.02		0.35
MW-224	Iron	1.8	7.00E-01	0.07		1.62
Lower Intermediate Unit (LIU) Wells						
MW-301	Iron	0.94	7.00E-01	0.04	0.04	100.00
MW-302	Iron	8.1	7.00E-01	0.31	0.31	100.00
MW-303	Iron	0.011	* 7.00E-01	0.00	0.00	100.00
MW-304	Iron	0.041	7.00E-01	0.00	0.00	100.00
MW-305	Iron	7.4	7.00E-01	0.29	0.29	100.00
MW-306	Iron	0.2	7.00E-01	0.01	0.01	100.00
MW-307	Iron	0.37	7.00E-01	0.01	0.01	100.00
MW-309	2-Methylnaphthalene	0.0012	4.00E-03	0.01	0.02	48.84
	Iron	0.22	7.00E-01	0.01		51.16
MW-319	Iron	0.69	7.00E-01	0.03	0.03	100.00
MW-320	Iron	0.28	7.00E-01	0.01	0.01	100.00
MW-321	1,1-Dichloroethane	0.00042	J 2.00E-01	0.00	0.01	0.42
	1,2-Dichloroethane	0.001	6.00E-03	0.00		33.51
	Iron	0.23	7.00E-01	0.01		66.07
MW-322	--	--	--	--	--	--
MW-323	--	--	--	--	--	--
MW-324	--	--	--	--	--	--

TABLE 4.
SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AND HAZARD INDICES
APRIL 2019 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE

Well	Chemical of Potential Concern (COPC)	Reported Groundwater Concentration (mg/L)	Oral Reference Dose (1) (mg/kg-day)	Hazard Quotient (HQ)	Hazard Index (3) (HI)	Percent Contribution of COPC (%)
Upper Sharon Unit (USU) Wells						
MW-401	Acetone	0.0066	J	9.00E-01	0.00	100.00
MW-402	Acetone	0.0057	J	9.00E-01	0.00	0.02
	Benzene	0.00042	J	4.00E-03	0.00	0.41
	Iron	18		7.00E-01	0.69	99.57
MW-414	Iron	1.5		7.00E-01	0.06	100.00
MW-415	Iron	3.8		7.00E-01	0.15	94.43
	Trichloroethene	0.00016	J	5.00E-04	0.01	5.57
MW-421	Iron	7.2		7.00E-01	0.28	100.00
MW-422	Iron	8.3		7.00E-01	0.32	100.00
Non-Potable Water Well	--	--	--	--	--	--

NV - No Value Available

Bold - HQ or HI at or above 1.0

Underline - Potential Carcinogen Contribution to HQ

* - Value is the Average of Dup Result and Well Result

J - Estimated Value between the MDL and the PQL

-- - Not Applicable. No constituents detected, or if detected, are below a concentration that designates the constituent as a COPC.

(1) The RfD is a daily exposure level which is believed to be without appreciable health risk to humans over a lifetime. The RfD is usually derived from an experimental "no observed adverse effect level" (NOAEL), identified as the highest dose in the most relevant study that did not result in a known adverse effect. The NOAEL is divided by various uncertainty factors to derive the RfD. These uncertainty factors account for the variation in human response, extrapolation to human responses if animal experiments were used, data quality and relevance.

(2) Based on the assumption of 2 liters of groundwater consumed per day, for 350 days per year, by a 70-kg adult for a 30-year residency period.

(3) A Hazard Index of >1.0 exceeds the Performance Standard for the Site.

**TABLE 5.
SUMMARY OF SIGNIFICANT POST-SHUTDOWN TRENDS
APRIL 2019 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE**

Well	Well Location	Parameter	Method	POST SHUTDOWN		
				Overall	Early (2006 - 2009)	Recent (2009 - 2019)
MW-11	On-site	1,1,1-Trichloroethane	Mann-Kendall	Down	--	--
		1,2-Dichloroethane	Mann-Kendall	Down	--	--
		Trichloroethene	Mann-Kendall	Down	--	--
MW-107	On-site	1,1,1-Trichloroethane	Mann-Kendall	Down	--	--
		1,2-Dichloroethane	Mann-Kendall	Down	--	--
		cis-1,2-Dichloroethene	Mann-Kendall	Down	--	--
		Toluene	Mann-Kendall	Down	--	--
MW-108	On-site	1,1-Dichloroethane	Mann-Kendall	Up	Up	None
		Benzene	Mann-Kendall	Up	Up	None
		cis-1,2-Dichloroethene	Mann-Kendall	Up	Up	None
		trans-1,2-Dichloroethene	Mann-Kendall	Up	None	None
		Vinyl Chloride	Mann-Kendall	Up	Up	None
MW-111	On-site	1,1,1-Trichloroethane	Mann-Kendall	Down	--	--

Notes:

Up = Statistically significant upward trend identified.

Down = Statistically significant downward trend identified.

None = No statistically significant trend identified.

-- = Not applicable

TABLE 6.
COMPARISON OF VOC DETECTIONS WITH MCLs
SENTINEL & DOWNGRAIDENT OFF-SITE WATER TABLE UNIT WELLS
APRIL 2019 GROUNDWATER MONITORING EVENT
SUMMIT NATIONAL SUPERFUND SITE

Sample ID	Parameter	Units	April 2019 Result	MCL	Exceeds MCL (Yes/No)
Sentinel Wells					
MW-114	VOCs	ug/l	ND	--	No
MW-115	1,1-Dichloroethane	ug/l	1.4	--	No
MW-115	1,2-Dichloroethane	ug/l	0.37 J	5	No
MW-115	cis-1,2-Dichloroethene	ug/l	5.7	70	No
Additional Downgradient WTU Monitoring Wells					
MW-4	VOCs	ug/l	ND	--	No
MW-109	VOCs	ug/l	ND	--	No
MW-110	VOCs	ug/l	ND	--	No
MW-113	Acetone	ug/l	6.5 J	--	No
MW-116	VOCs	ug/l	ND	--	No
MW-117	VOCs	ug/l	ND	--	No
MW-118	1,2-Dichloroethane	ug/l	2.2	5	No

VOCs - Includes all SSIPL constituents

ND - No VOCs detected

J - Estimated concentration detected below the practical quantitation limit but above the method detection limit

TABLE 7.
NUMBER OF SSIPL VOC DETECTIONS AND MAXIMUM CONCENTRATIONS BY ZONE
SUMMIT NATIONAL SUPERFUND SITE

Constituents	Water Table Unit (19 wells)					Upper Intermediate Unit (12 wells)				
	April 2019 Event		All Events			April 2019 Event		All Events		
	No. Detects	Max.	No. Obs.	No. Detects	Max.	No. Detects	Max.	No. Obs.	No. Detects	Max.
1,1,1-Trichloroethane	5	11	381	113	1300	1	6.5 J	220	1	0.34 J
1,1-Dichloroethane	6	690	514	191	1600	1	1.7	304	19	3.9
1,2-Dichloroethane	6	44	514	199	1800	1	3.0	304	28	8.9
1,2-Dichloroethene (Total)	4	250	400	104	437	1	1.7 J	238	16	6
Acetone	1	6.5 J	514	36	34,000	0	--	304	26	1200
Benzene	4	140	381	64	140	0	--	220	0	--
Chlorobenzene	1	0.29 J	233	13	70.6	0	--	134	0	--
Chloroethane	2	390	357	20	390	0	--	210	0	--
Cis-1,2-Dichloroethene	4	240	325	114	434	1	1.7	190	14	4
Ethylbenzene	2	940	513	41	1405	0	--	304	2	0.89
Toluene	2	3,000	514	49	11,500	0	--	304	4	6.45
Trans-1,2-dichloroethene	3	6.3 J	250	42	51	0	--	142	0	--
Trichloroethene	2	31	495	72	349	1	0.28 J	292	6	0.47 J
Vinyl Chloride	2	98	381	84	260 J	0	--	220	0	--
Xylenes (Total)	2	3,300	514	41	4935	0	--	304	3	3.2

Note:

All results represented in ug/L.

J - Estimated concentration detected below the practical quantitation limit but above the method detection limit.

TABLE 7.
NUMBER OF SSIPL VOC DETECTIONS AND MAXIMUM CONCENTRATIONS BY ZONE
SUMMIT NATIONAL SUPERFUND SITE

Constituents	Lower Intermediate Unit (14 wells)					Upper Sharon Unit (7 wells)				
	April 2019 Event		All Events			April 2019 Event		All Events		
	No. Detects	Max.	No. Obs.	No. Detects	Max.	No. Detects	Max.	No. Obs.	No. Detects	Max.
1,1,1-Trichloroethane	0	--	199	0	--	0	--	96	0	--
1,1-Dichloroethane	1	0.42 J	297	7	0.64 J	0	--	123	0	--
1,2-Dichloroethane	1	1.0	297	16	3.6	0	--	123	0	--
1,2-Dichloroethene (Total)	0	--	241	0	--	0	--	100	0	--
Acetone	0	--	297	3	130	2	6.6 J	123	4	270
Benzene	0	--	199	0	--	1	0.42 J	96	6	0.77
Chlorobenzene	0	--	116	0	--	0	--	63	0	--
Chloroethane	0	--	199	0	--	0	--	96	0	--
Cis-1,2-Dichloroethene	0	--	167	0	--	1	0.19 J	77	1	0.19 J
Ethylbenzene	0	--	297	0	--	0	--	123	0	--
Toluene	0	--	297	9	5	0	--	123	5	6.7
Trans-1,2-dichloroethene	0	--	112	0	--	0	--	58	0	--
Trichloroethene	0	--	283	0	--	1	0.16 J	123	1	0.16 J
Vinyl Chloride	0	--	199	0	--	0	--	96	0	--
Xylenes (Total)	0	--	277	3	1.6	0	--	123	1	1.7

Note:

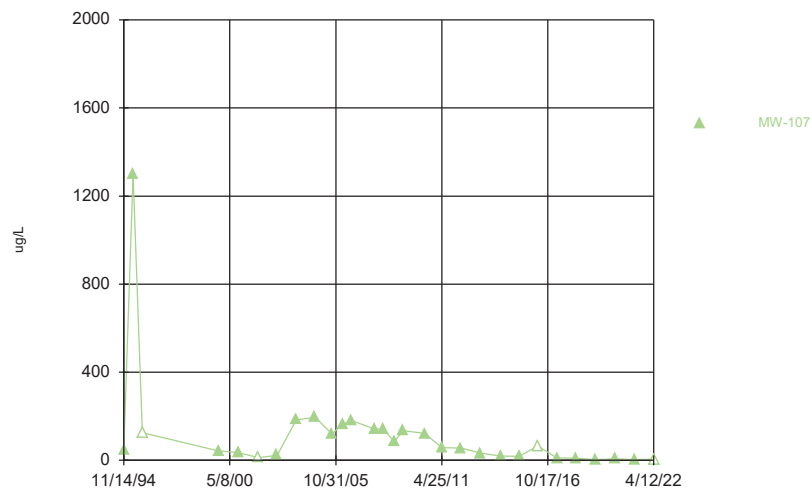
All results represented in ug/L.

J - Estimated concentration detected below the practical quantitation limit but above the method detection limit.

APPENDIX E

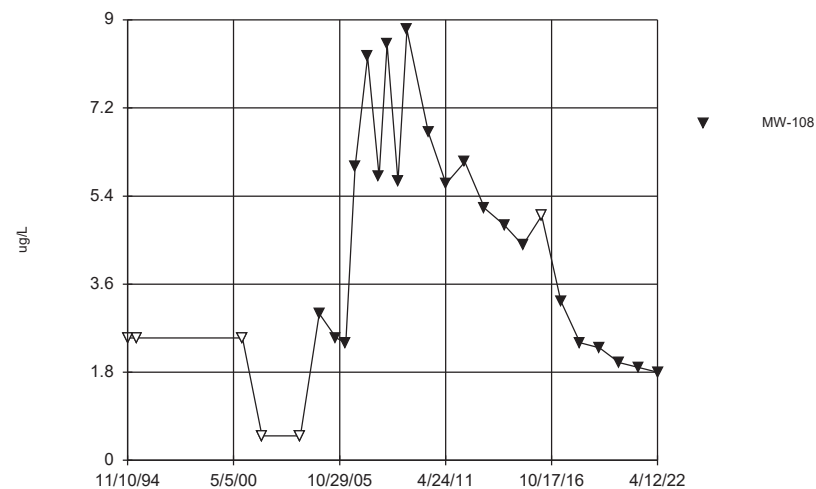
TIME-SERIES PLOTS OF WATER-QUALITY DATA, ANNUAL MONITORING WELLS

Time Series



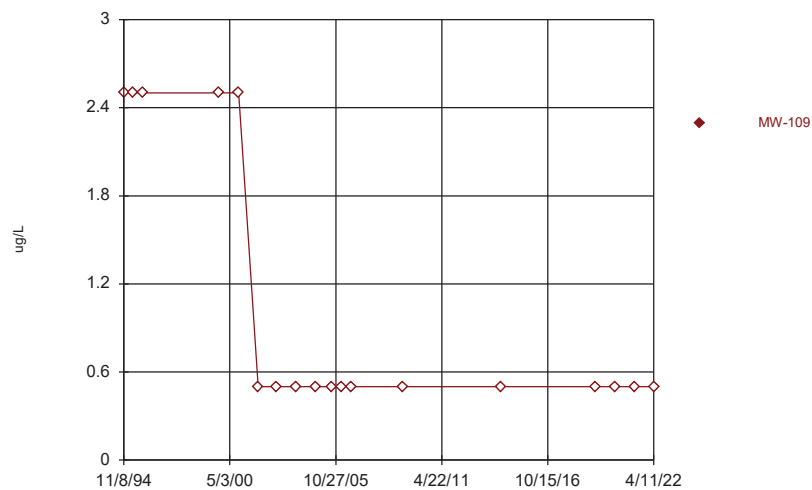
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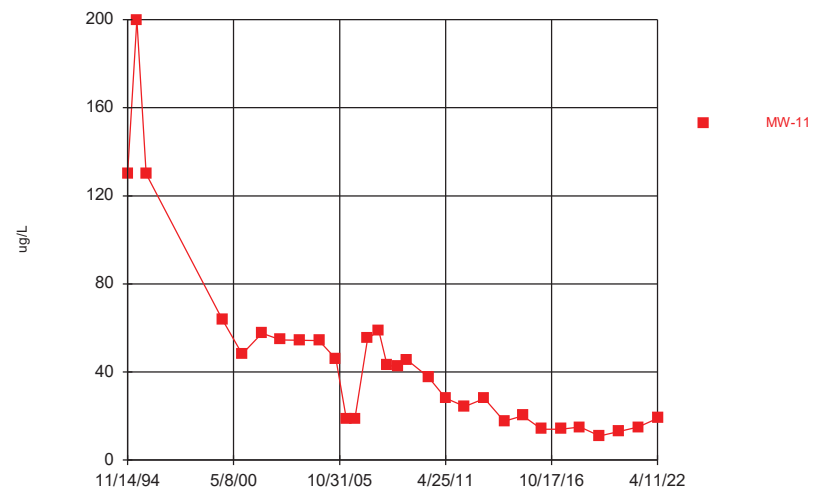
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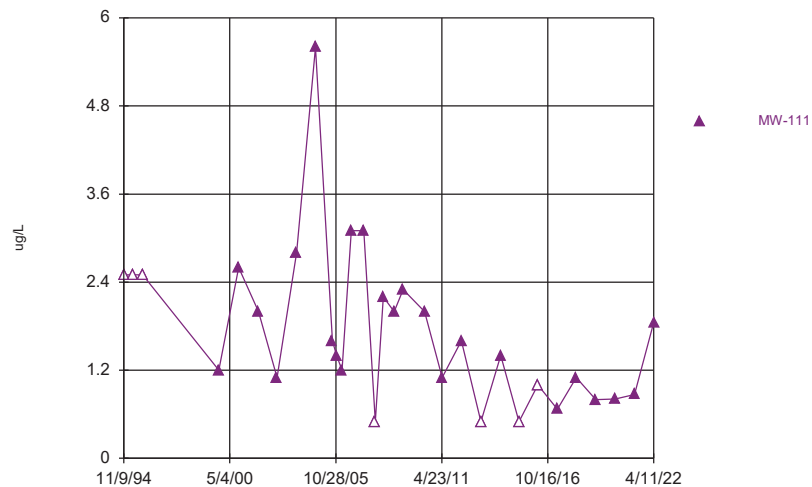
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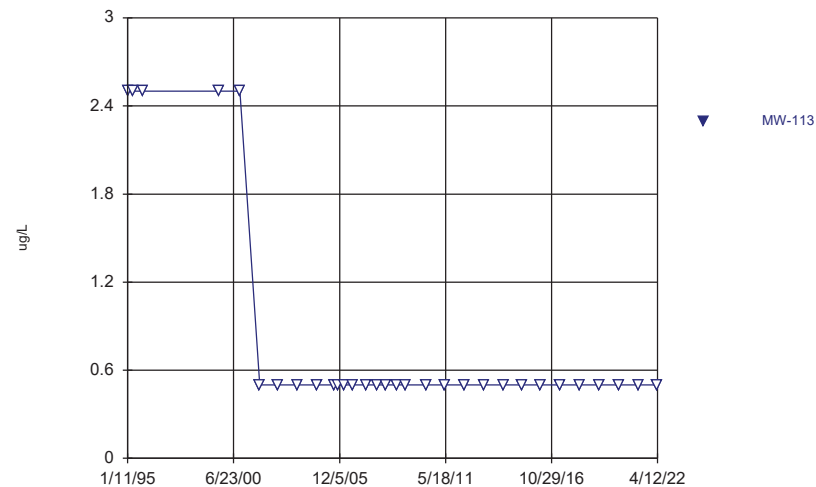
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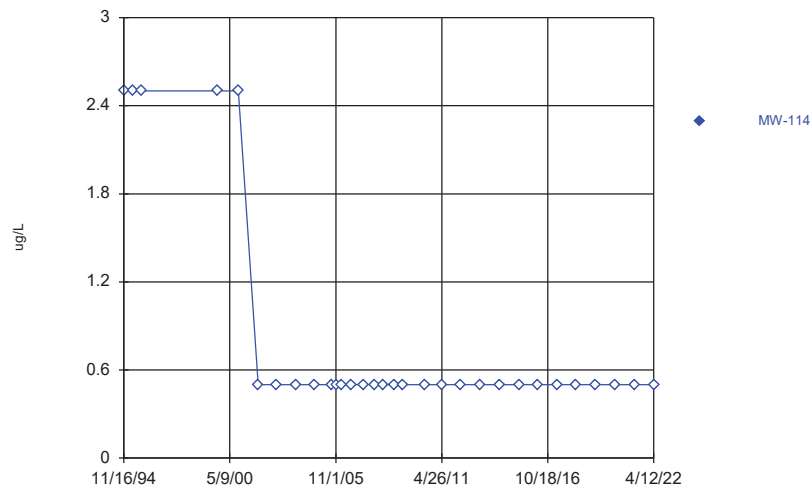
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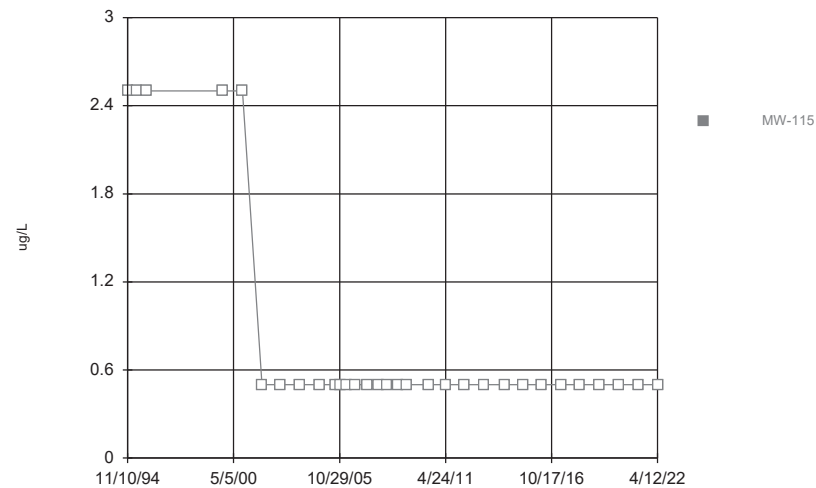
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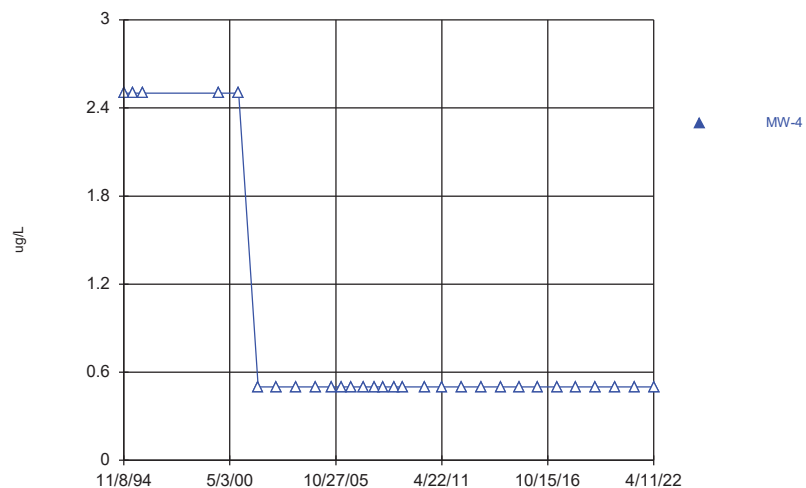
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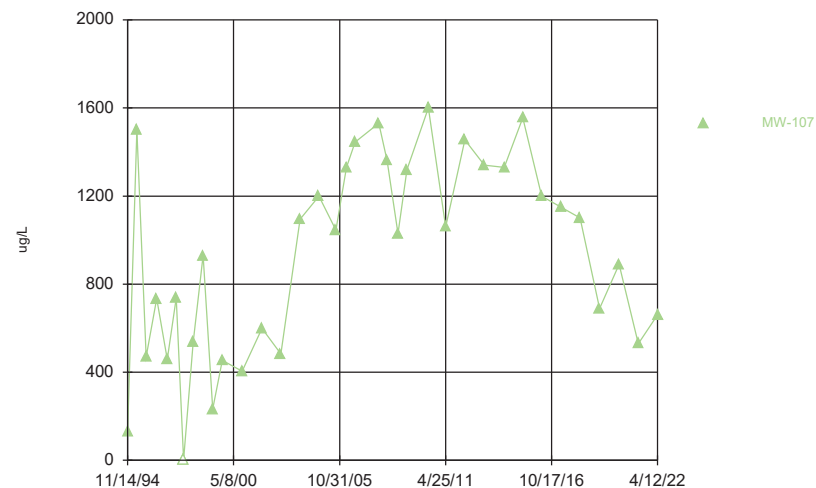
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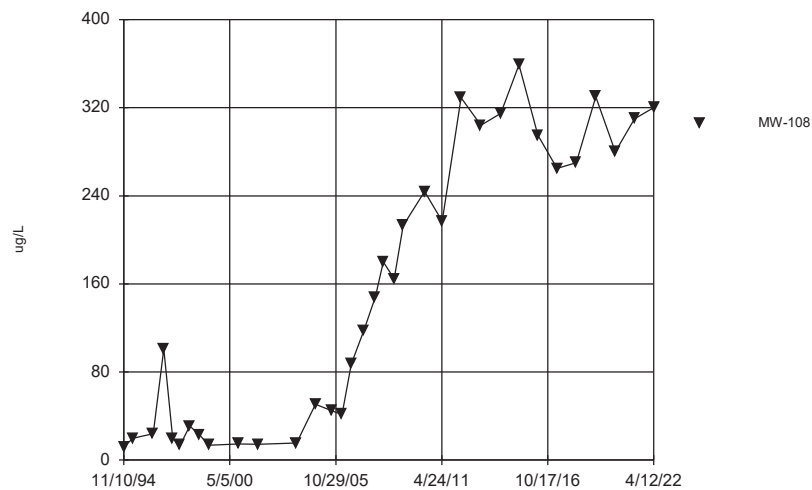
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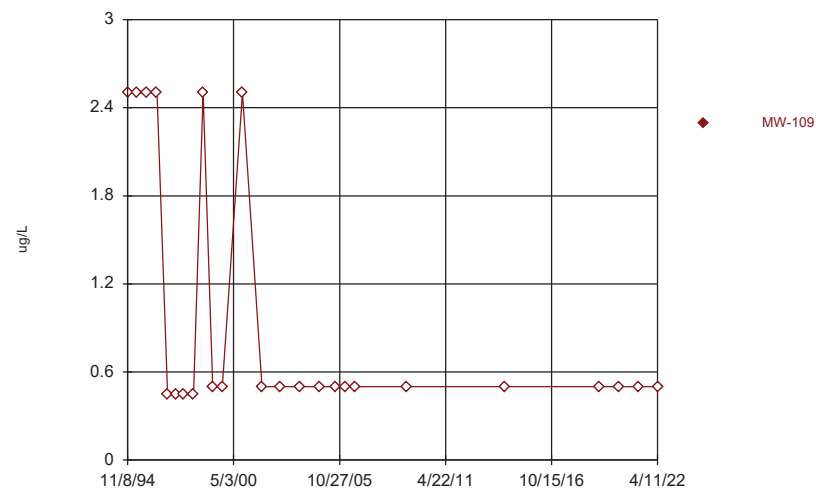
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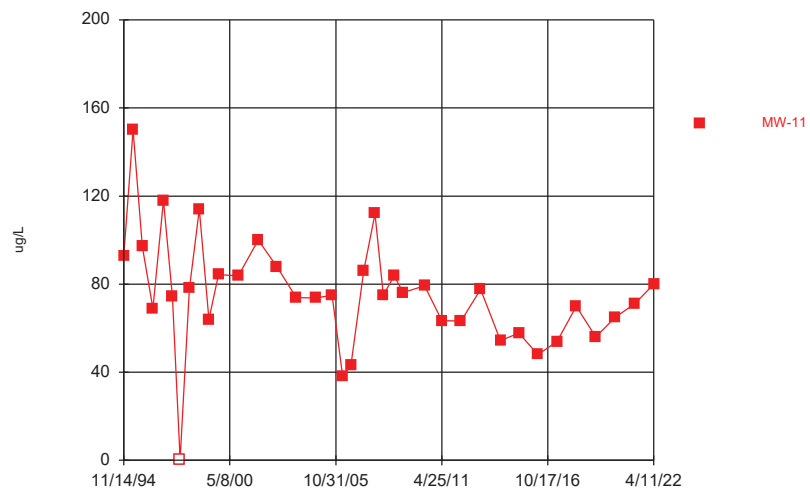
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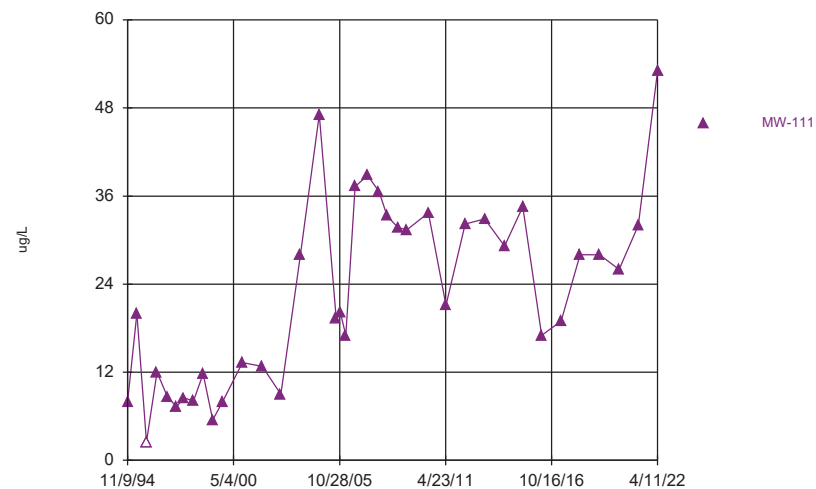
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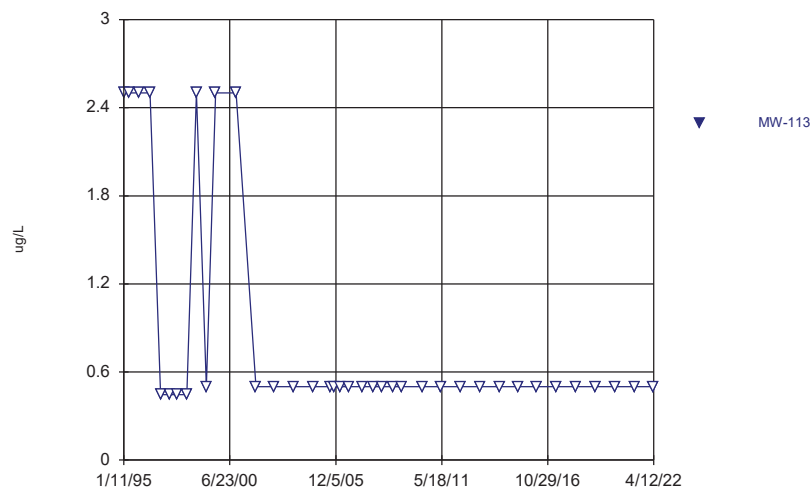
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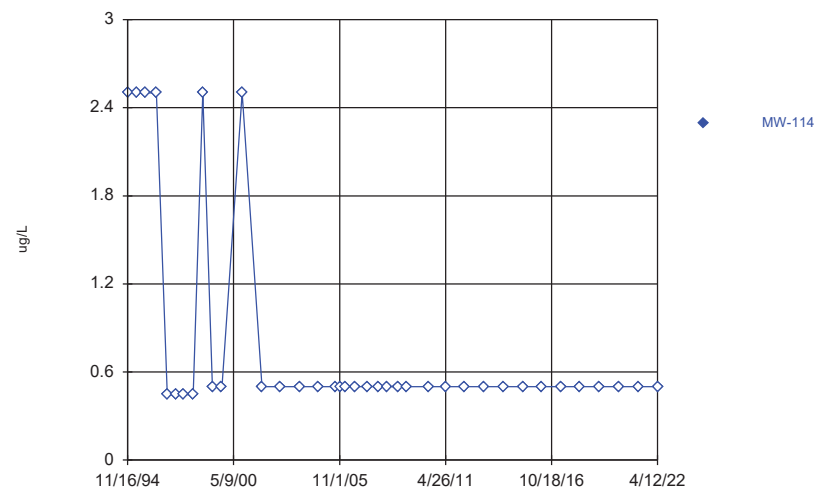
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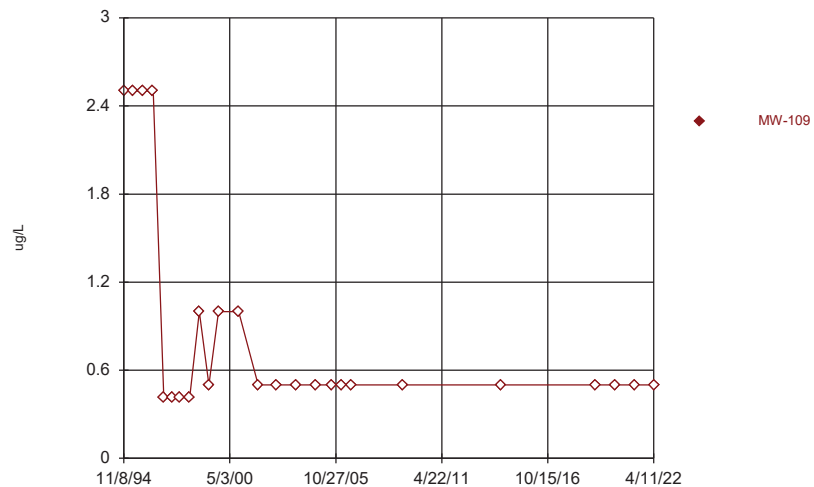
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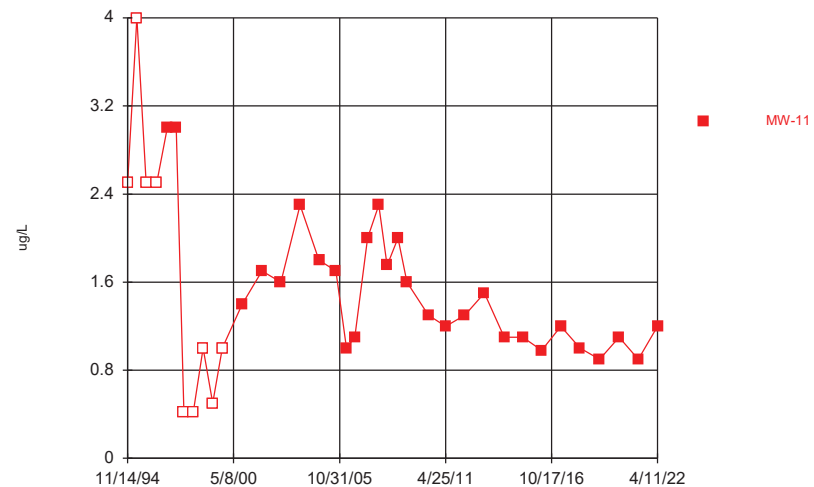
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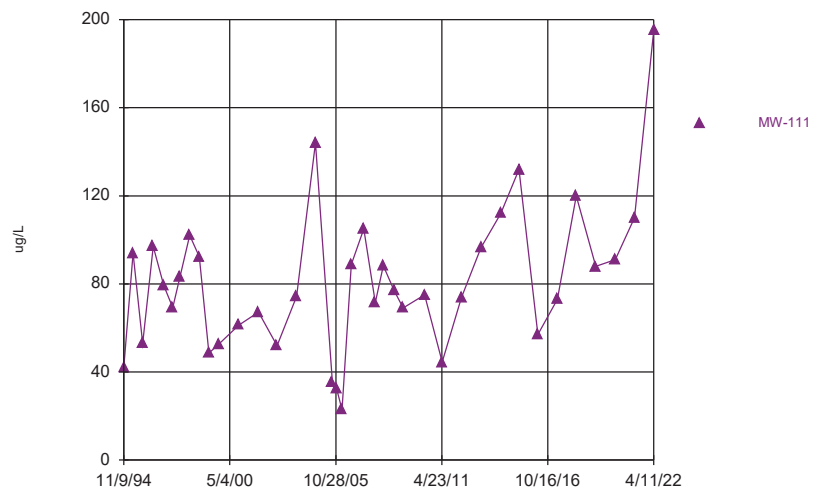
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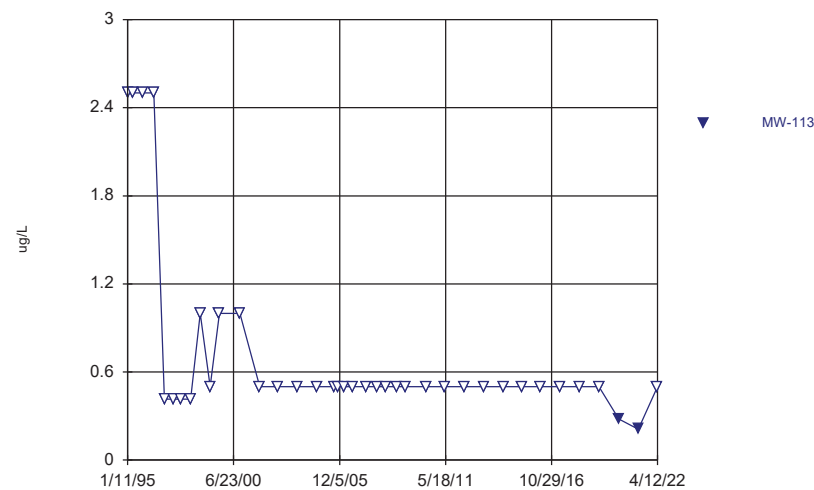
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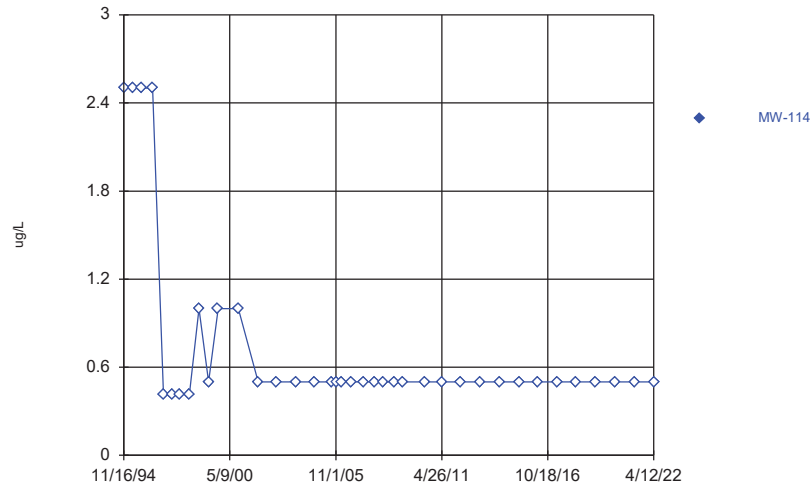
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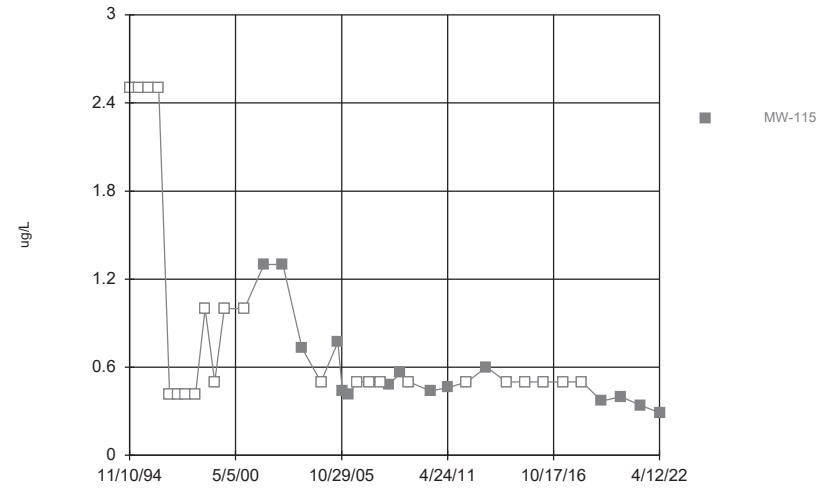
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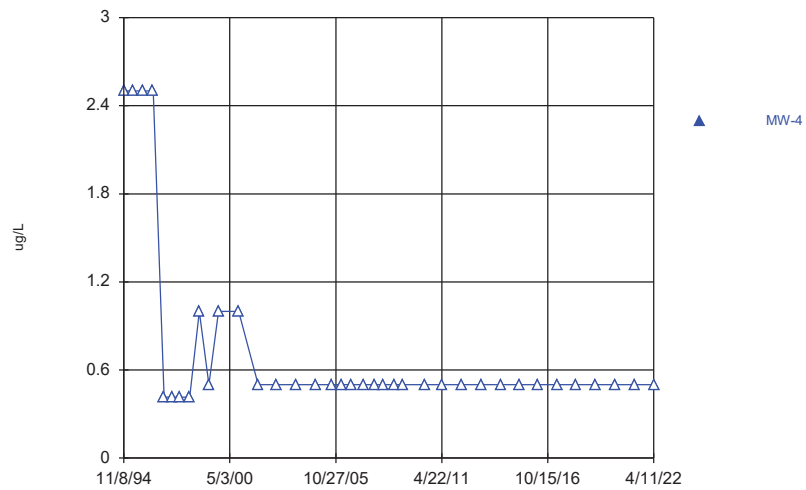
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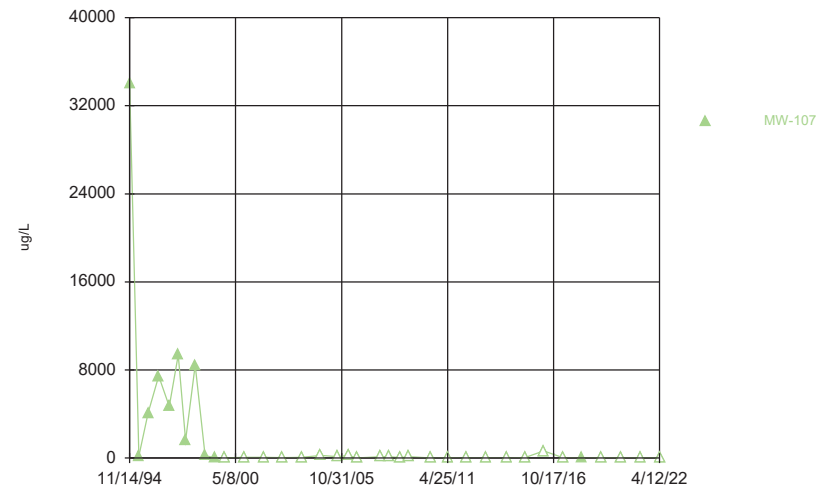
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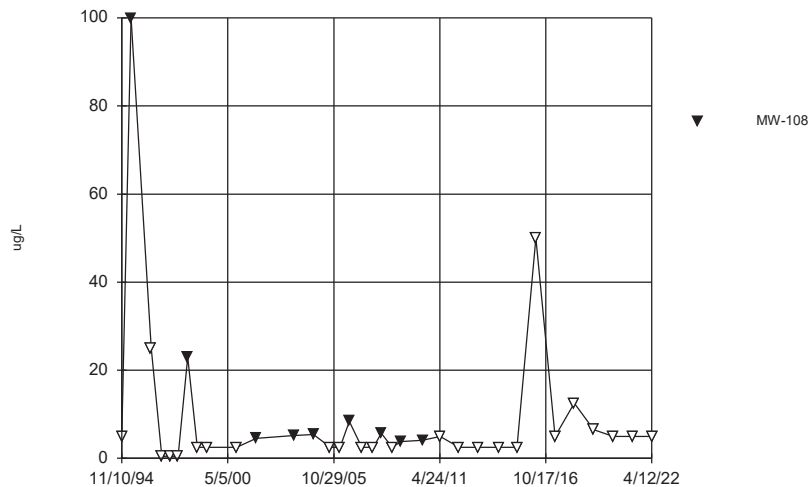
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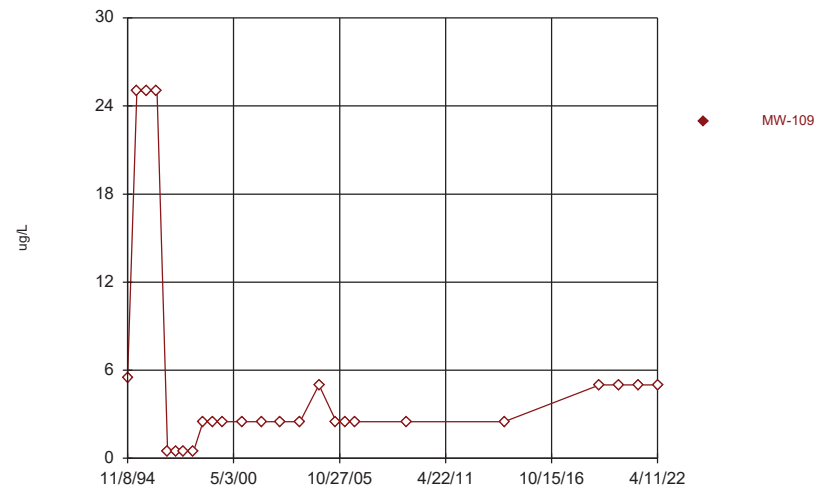
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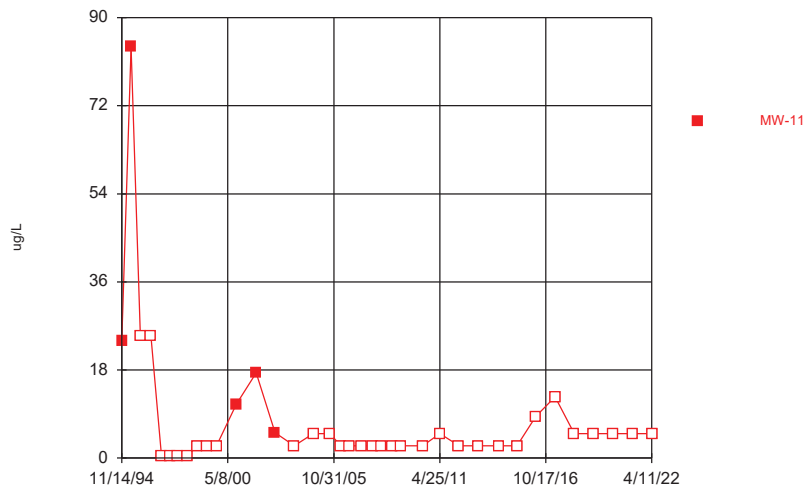
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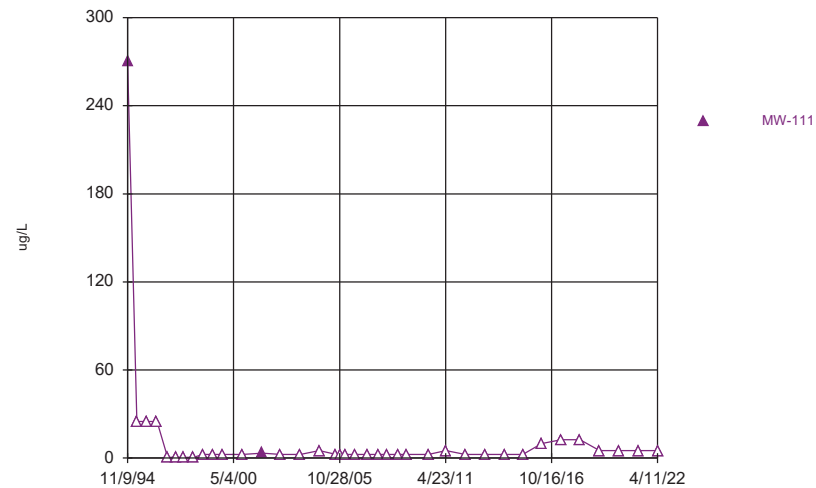
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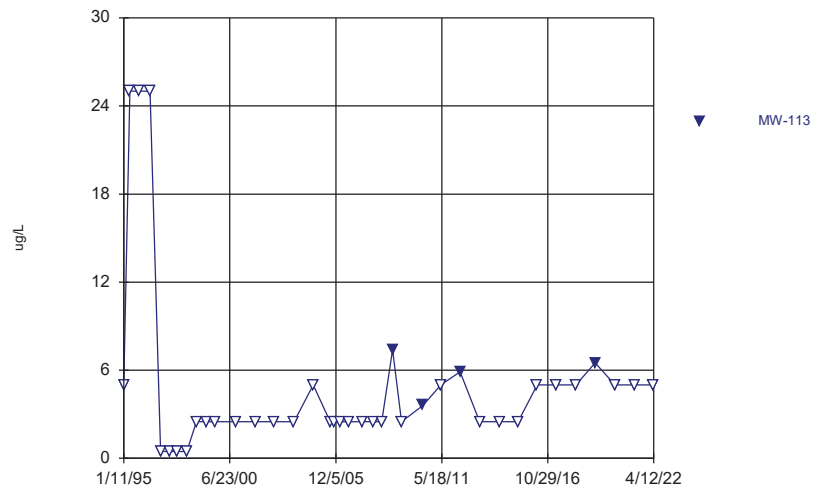
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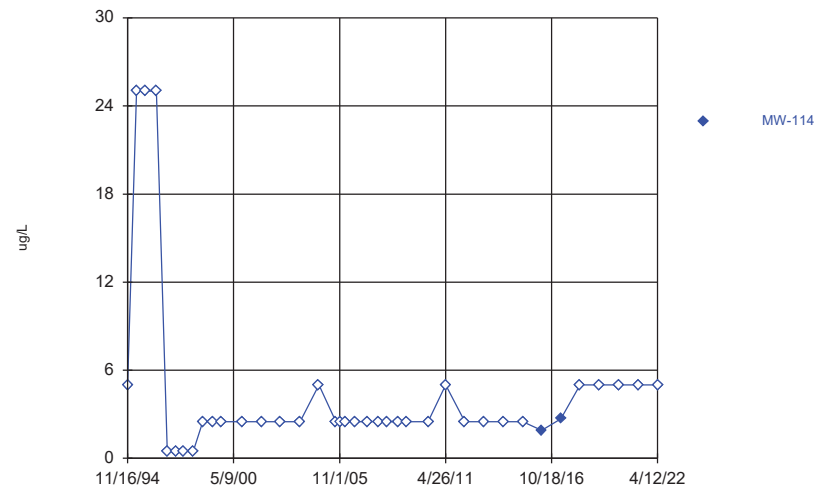
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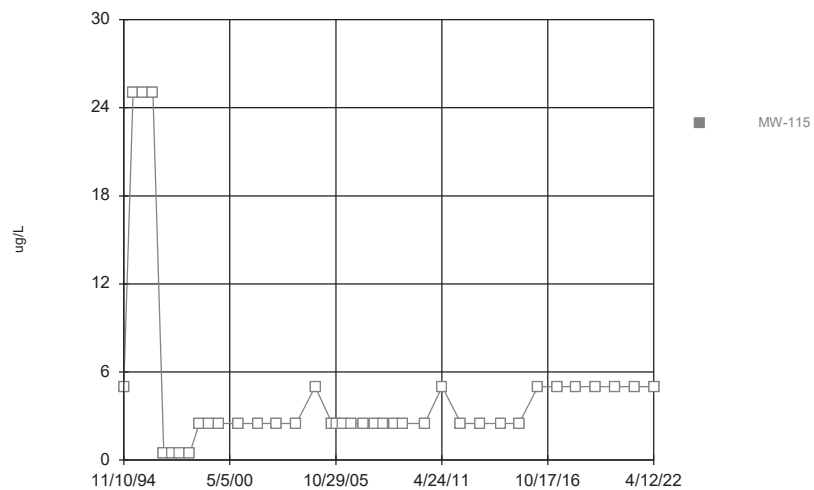
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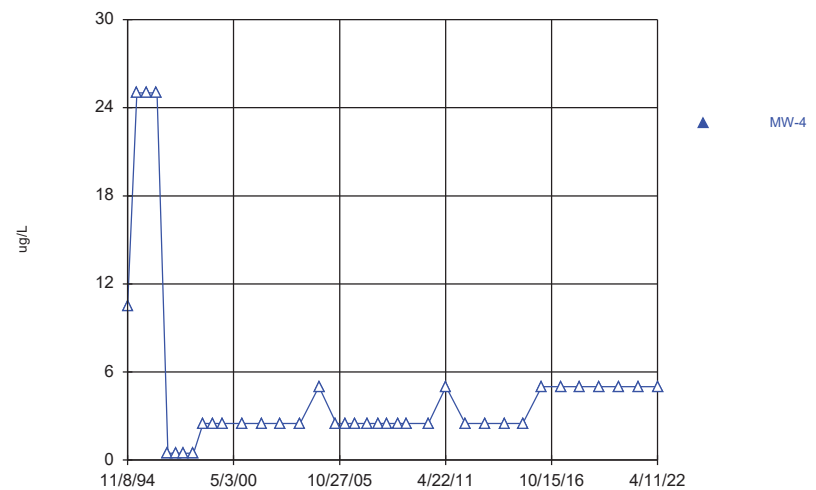
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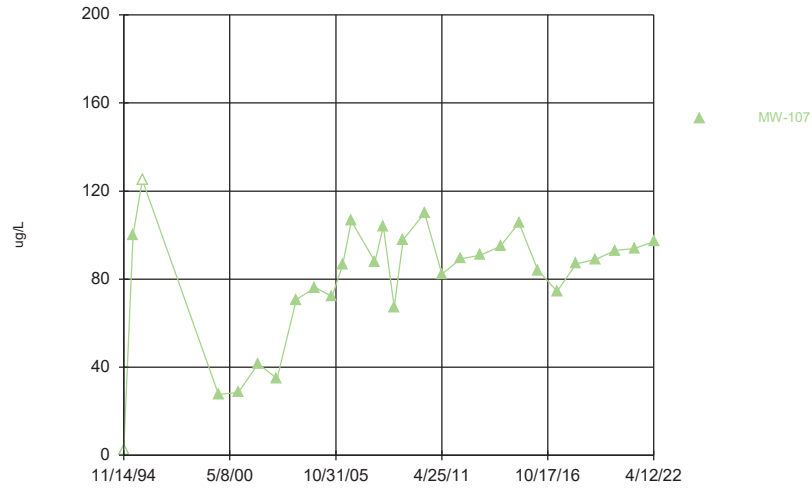
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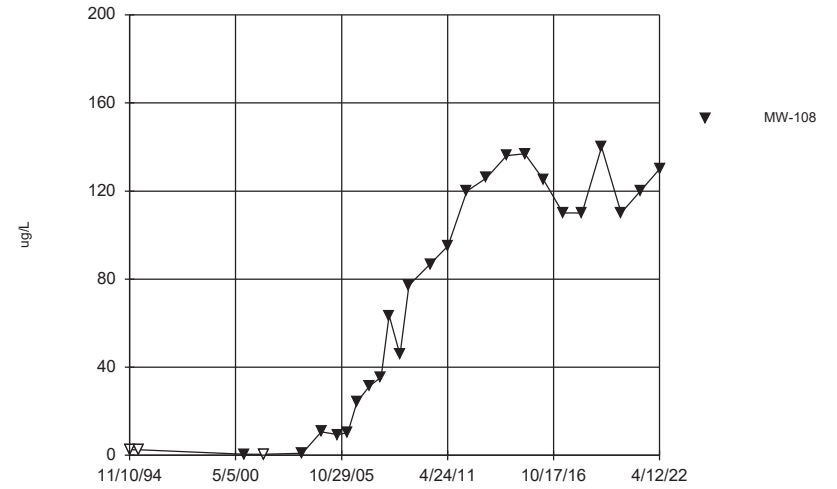
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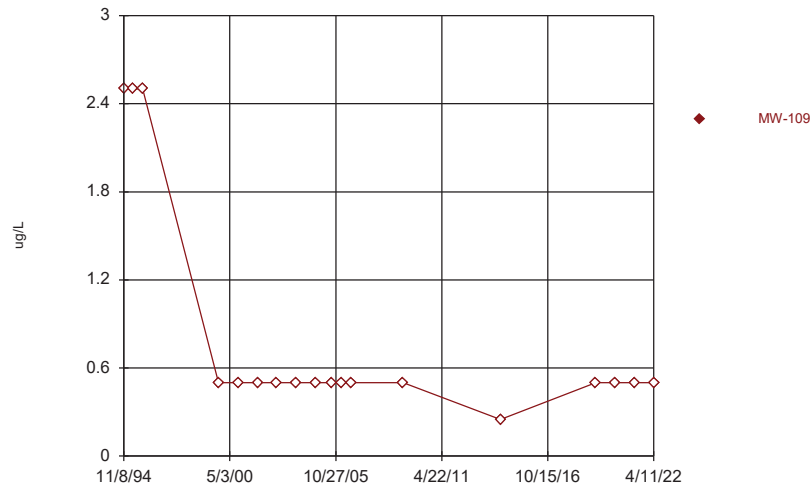
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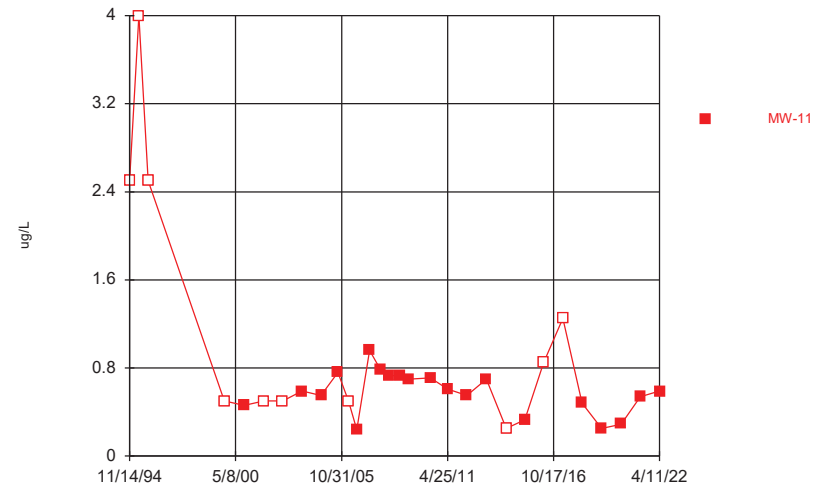
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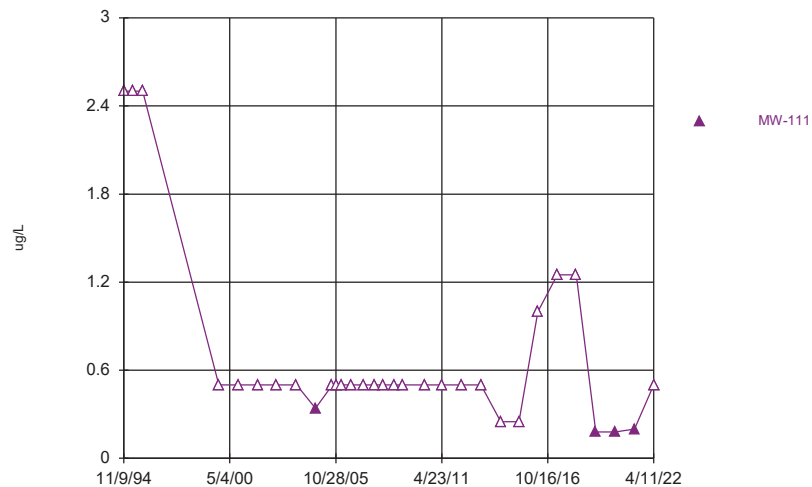
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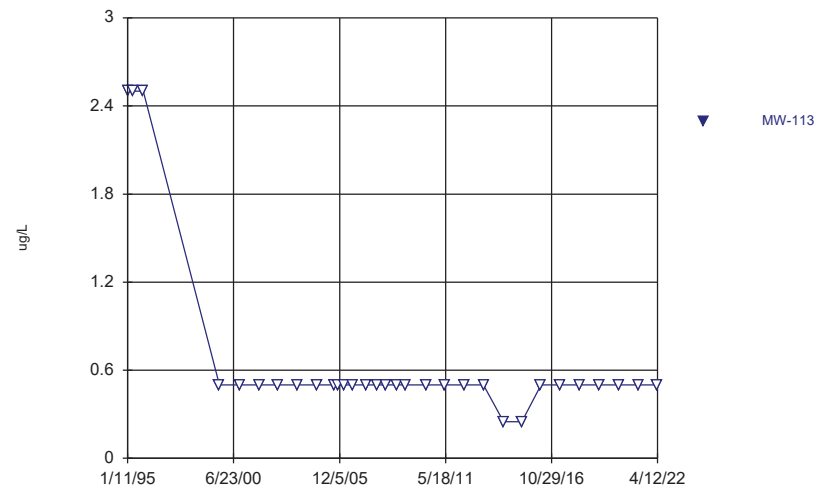
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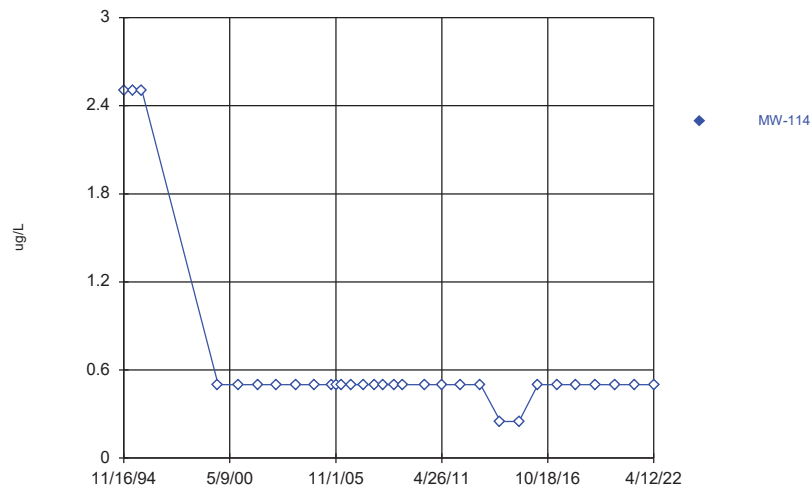
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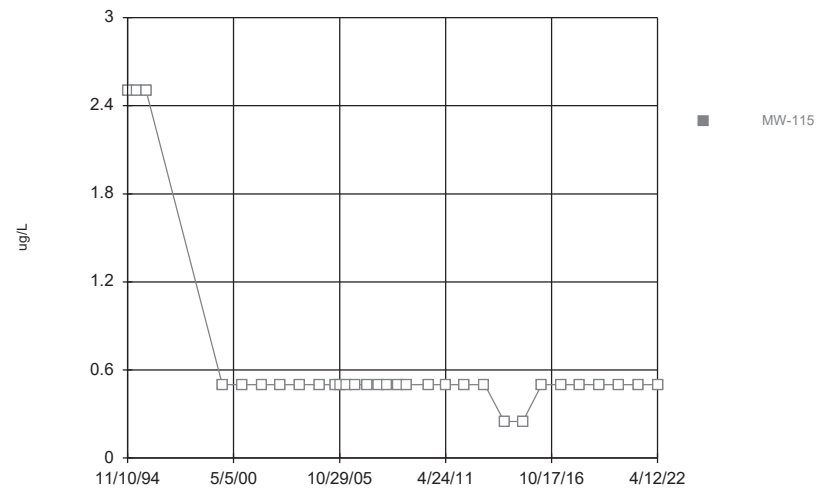
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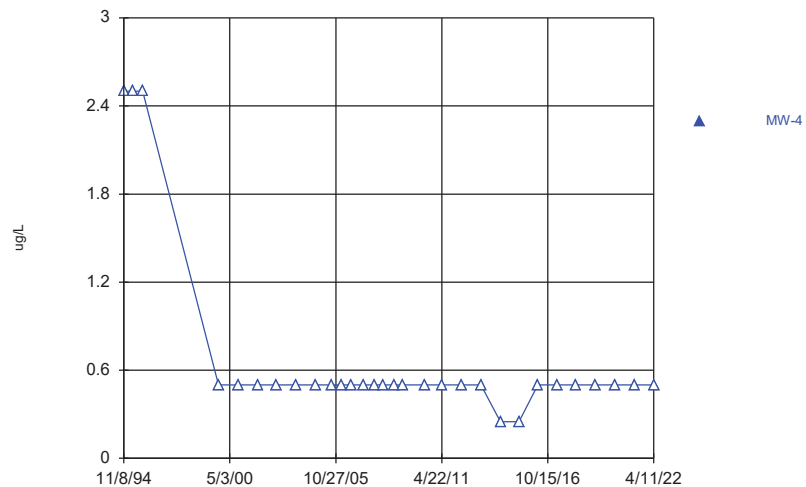
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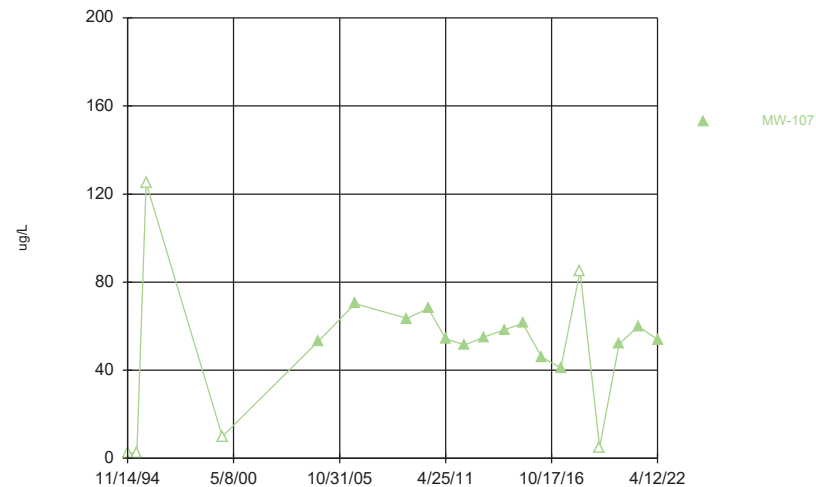
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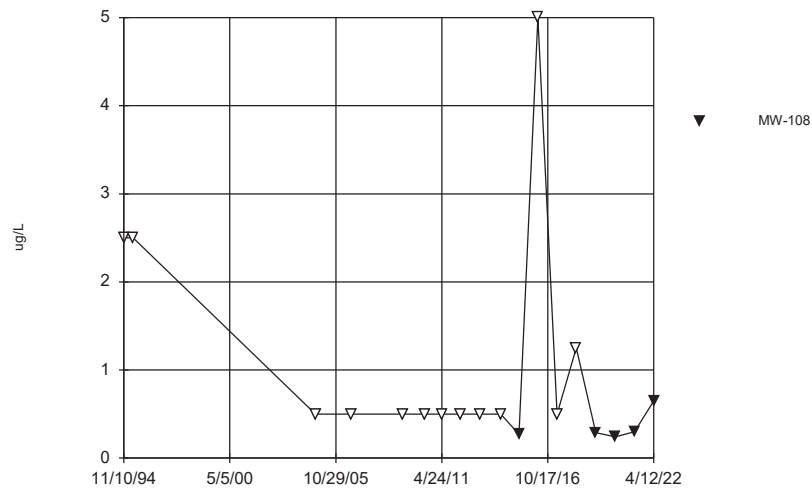
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Summit National Site Client: Summit National Site Data: Summit.National.Database

Time Series



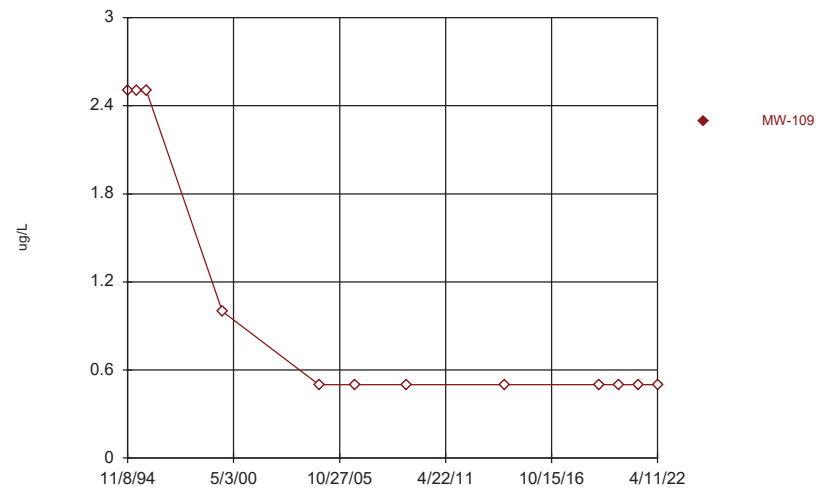
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Time Series



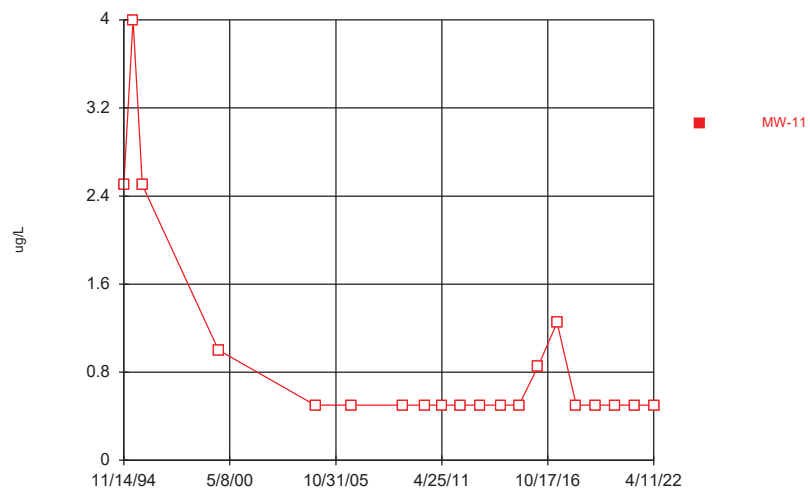
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Time Series



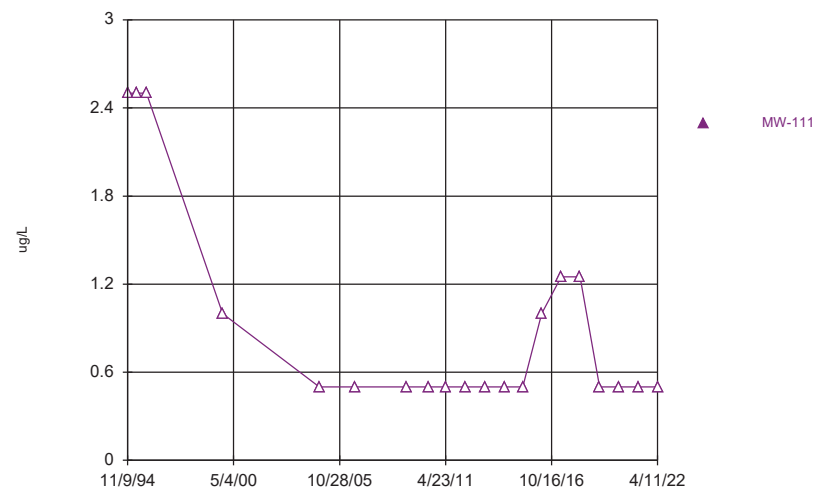
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Time Series



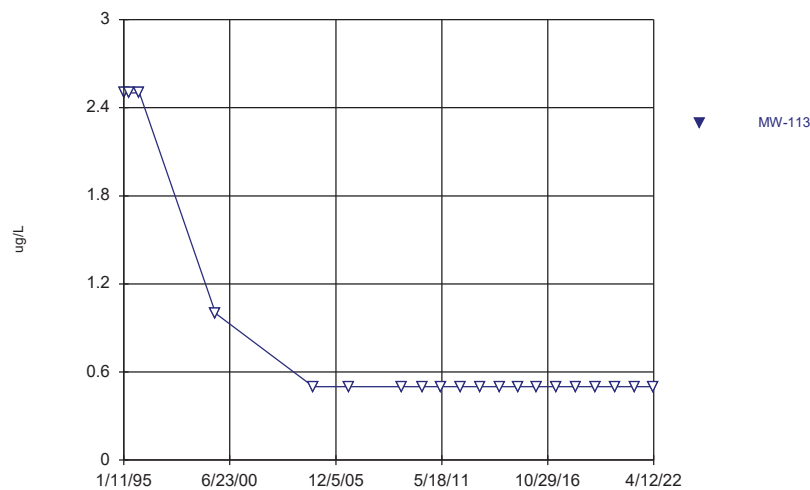
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Time Series



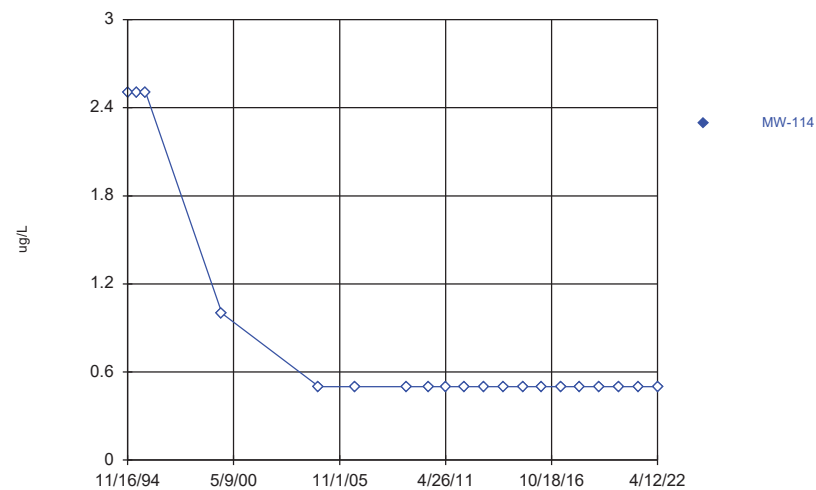
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Time Series



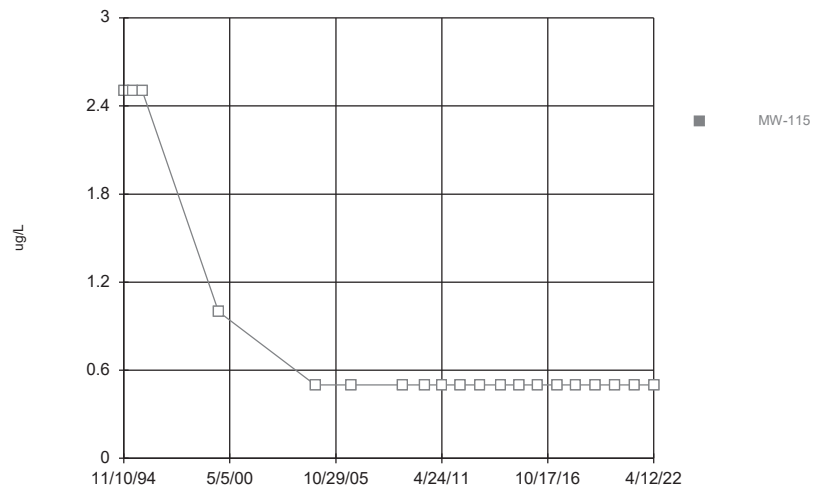
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Time Series



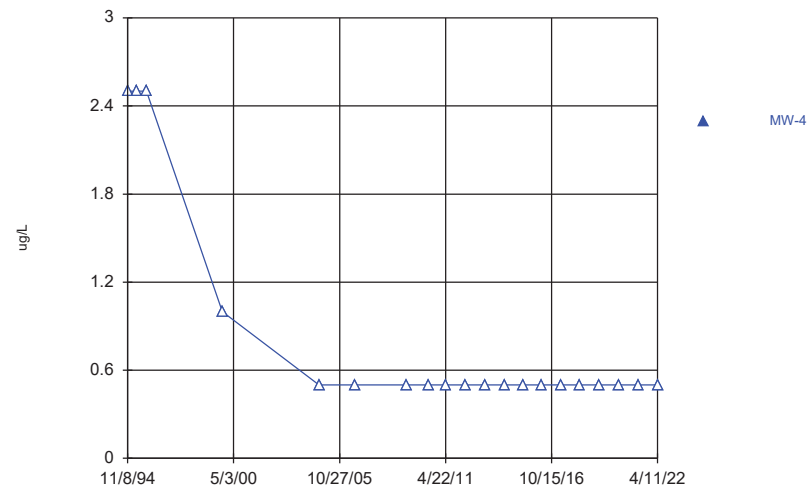
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Time Series



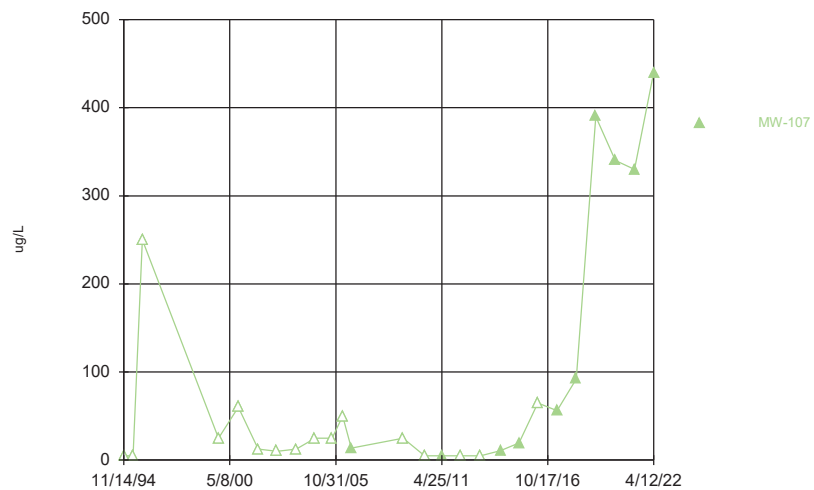
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Time Series



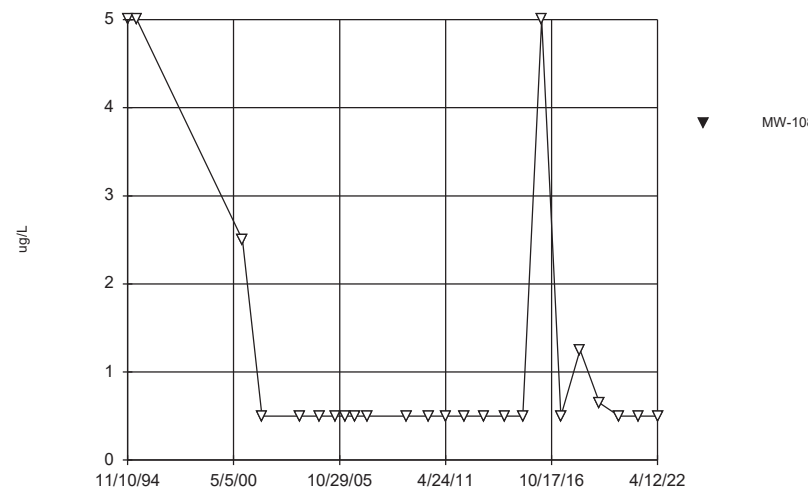
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Time Series



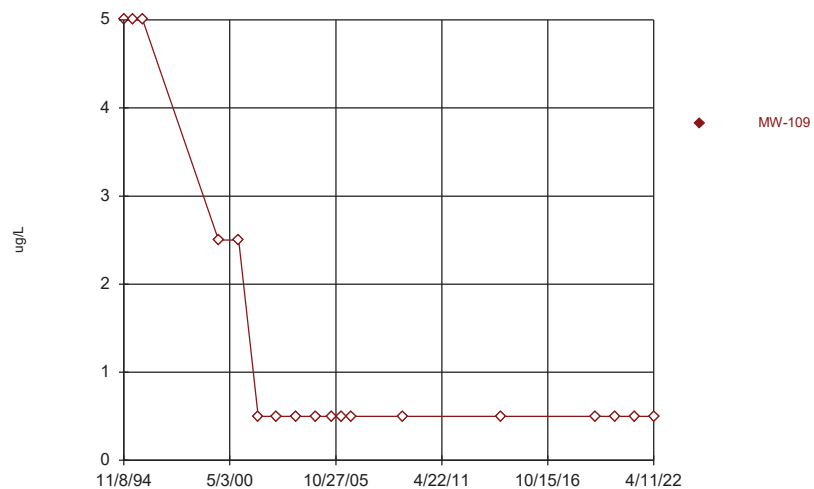
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Time Series



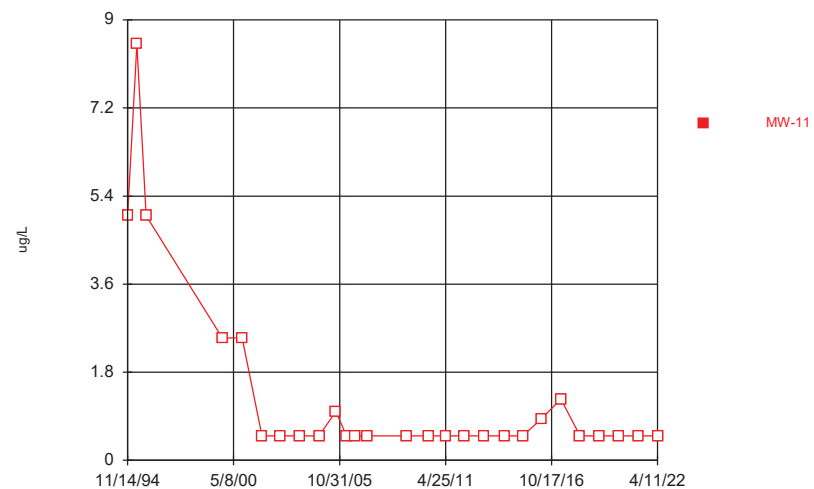
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Time Series



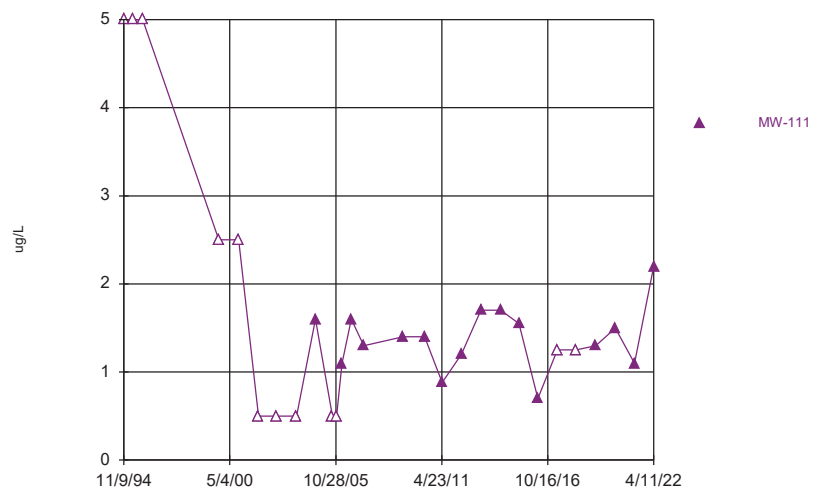
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Time Series



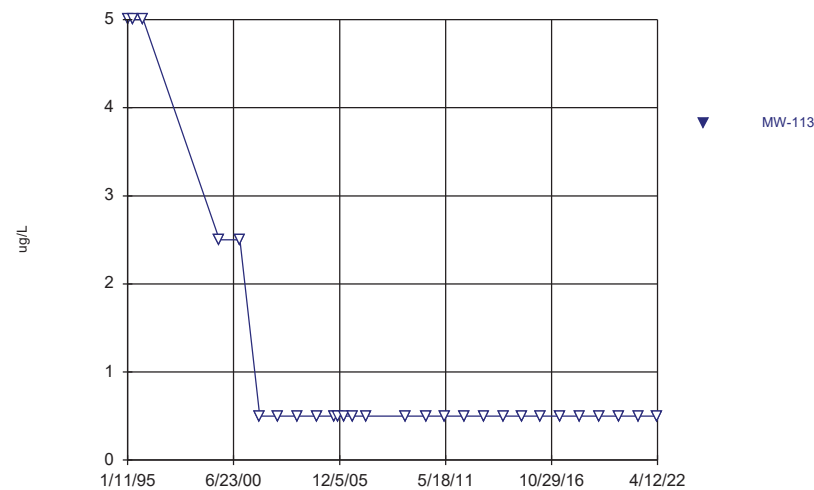
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Time Series



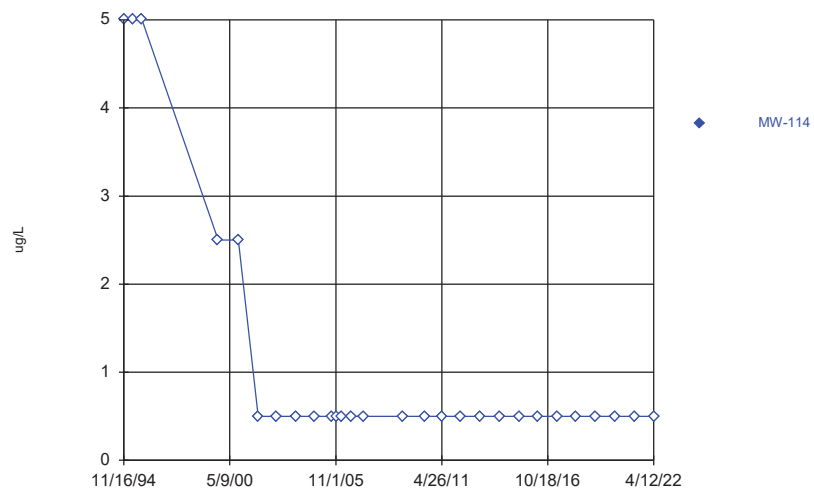
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Time Series



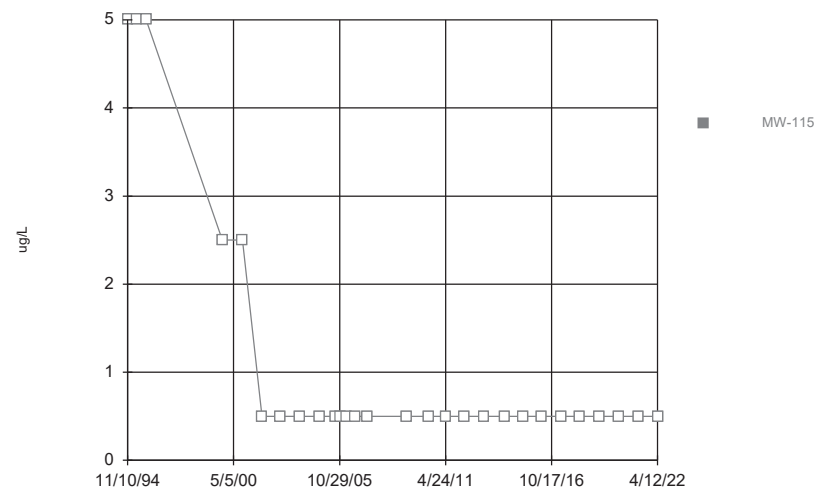
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Time Series



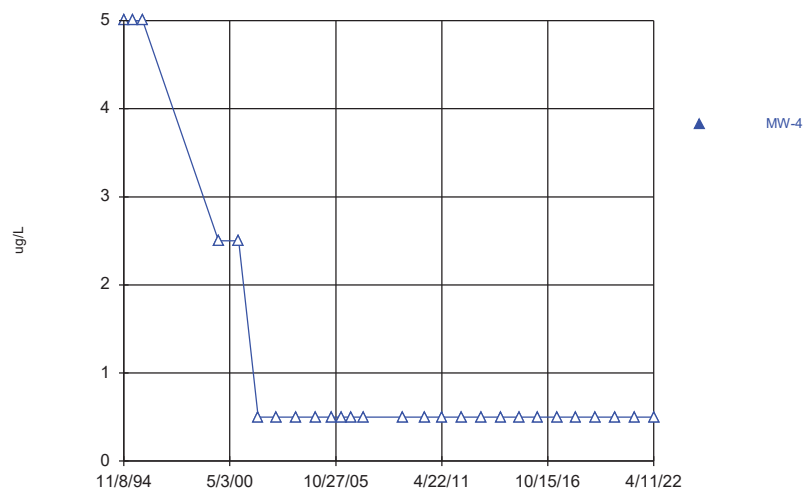
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Time Series



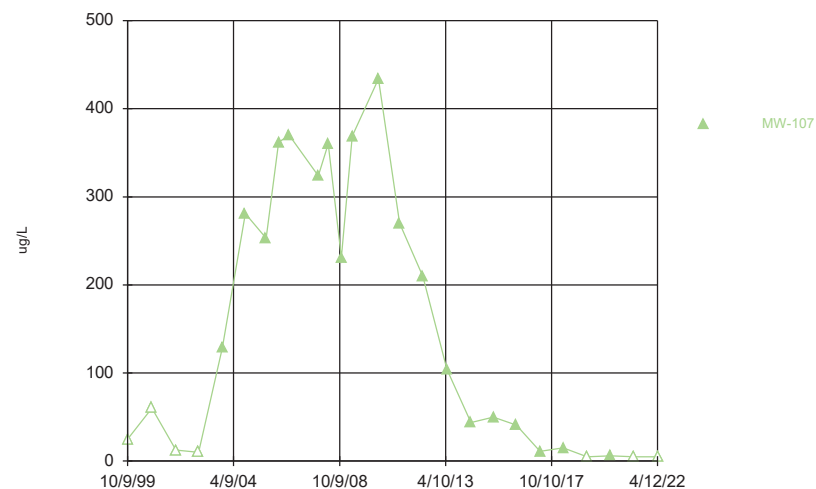
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Time Series



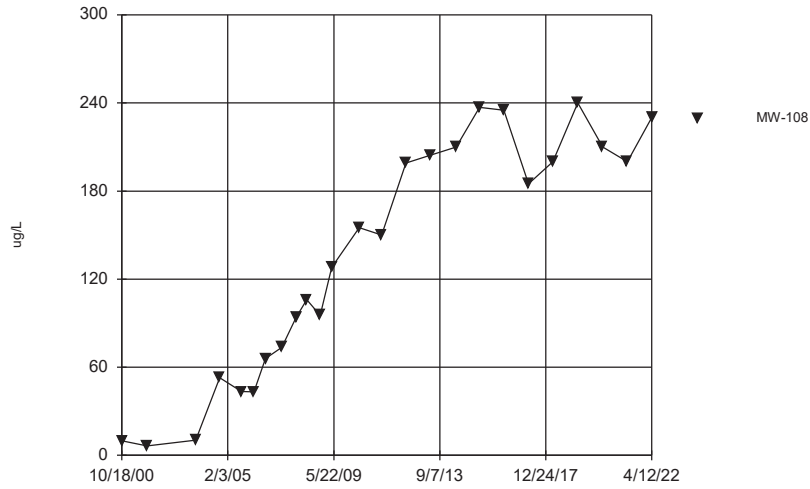
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Time Series



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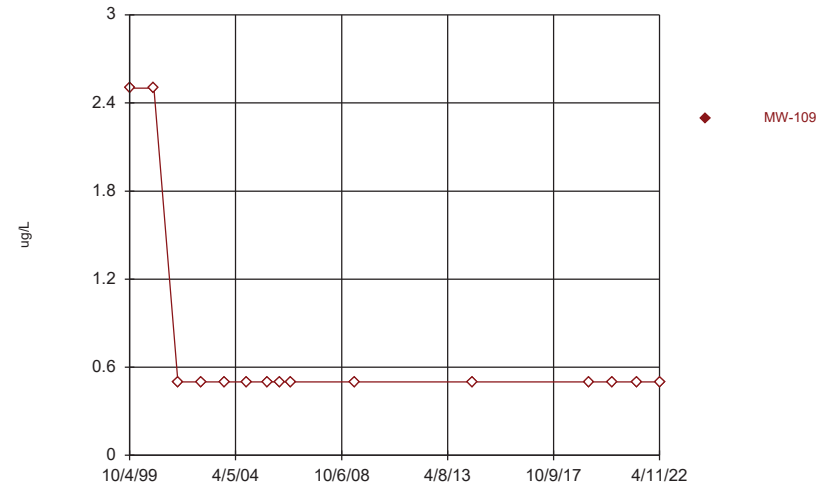
Time Series



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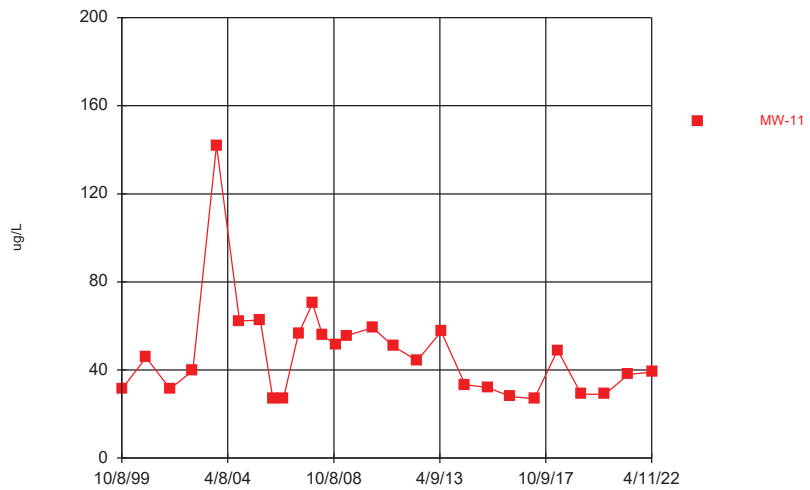
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Time Series



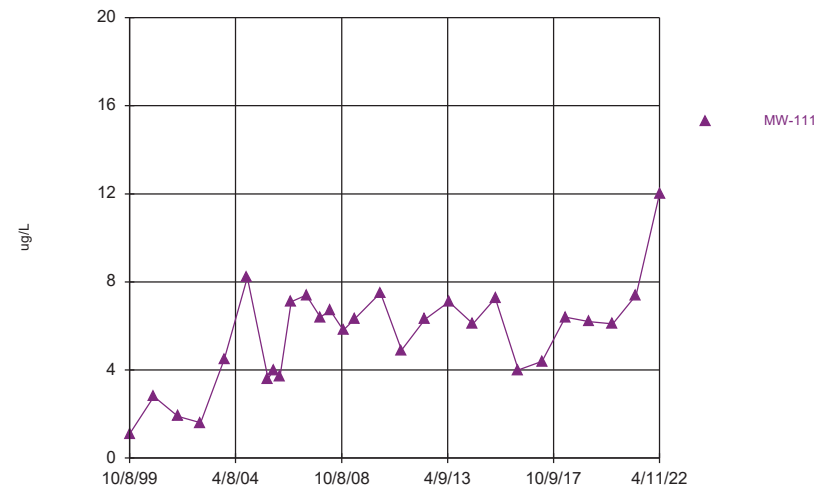
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Time Series



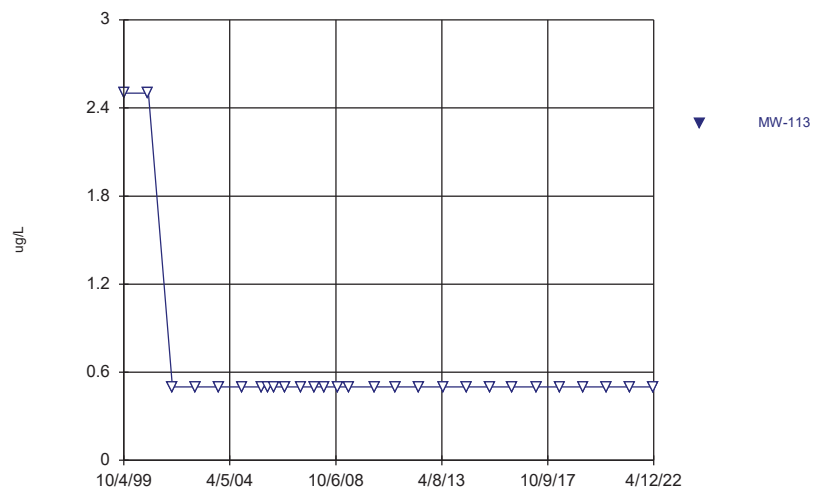
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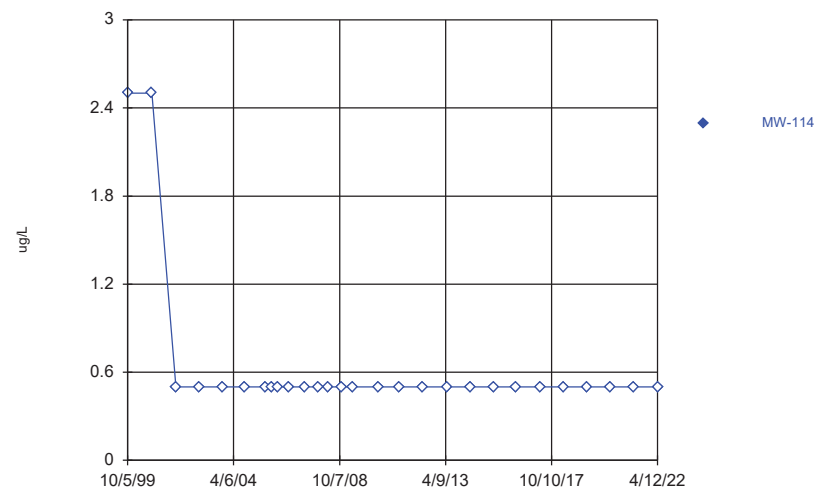
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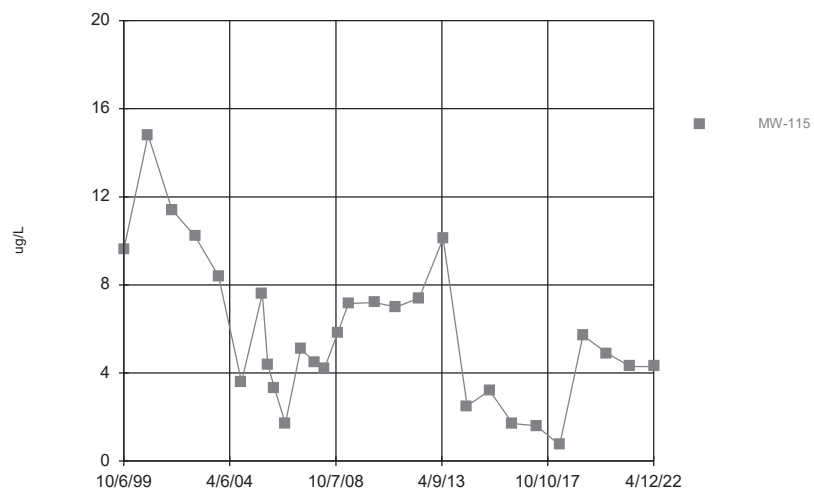
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Time Series



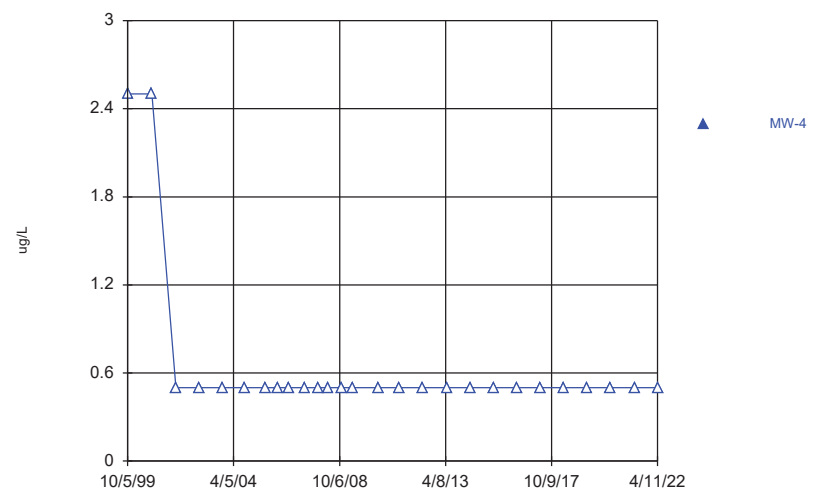
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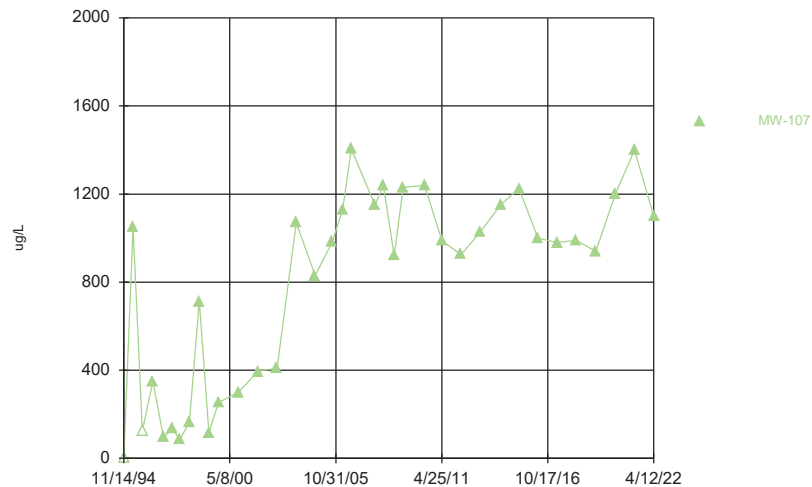
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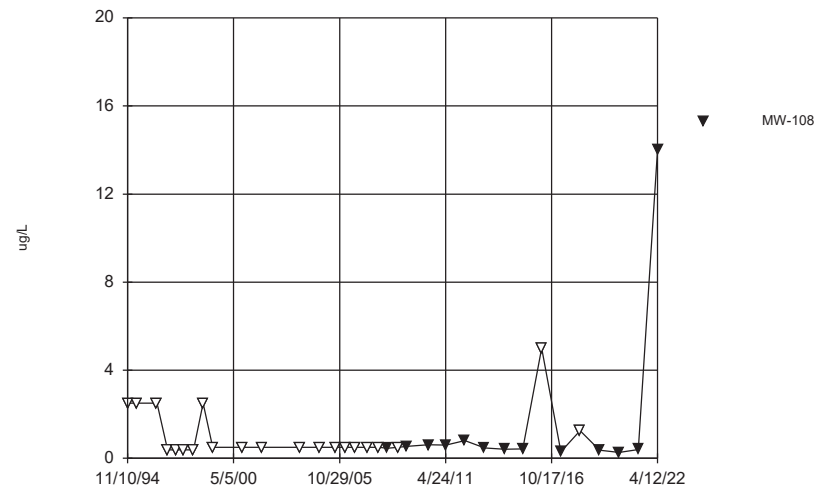
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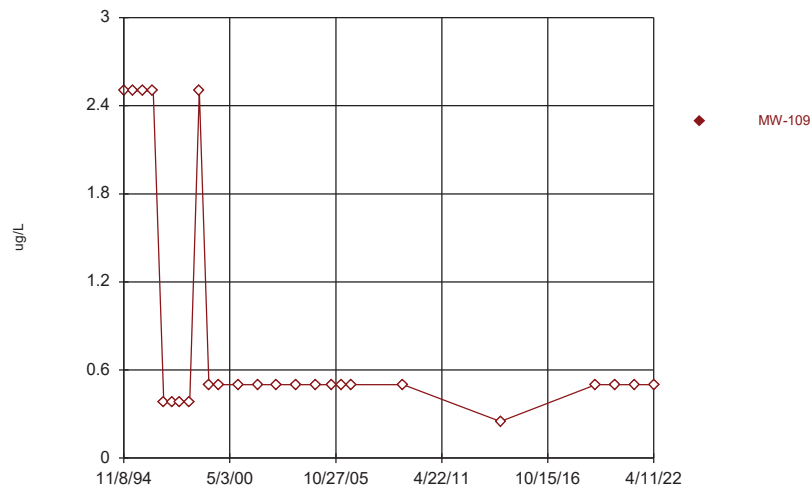
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Time Series



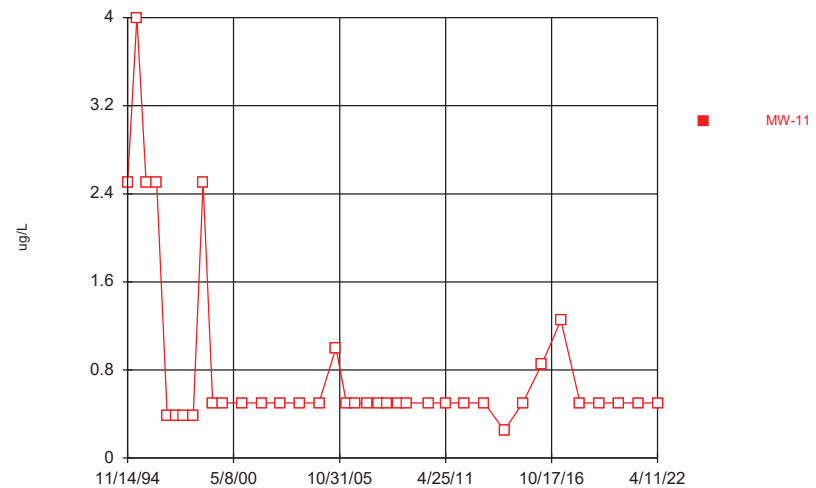
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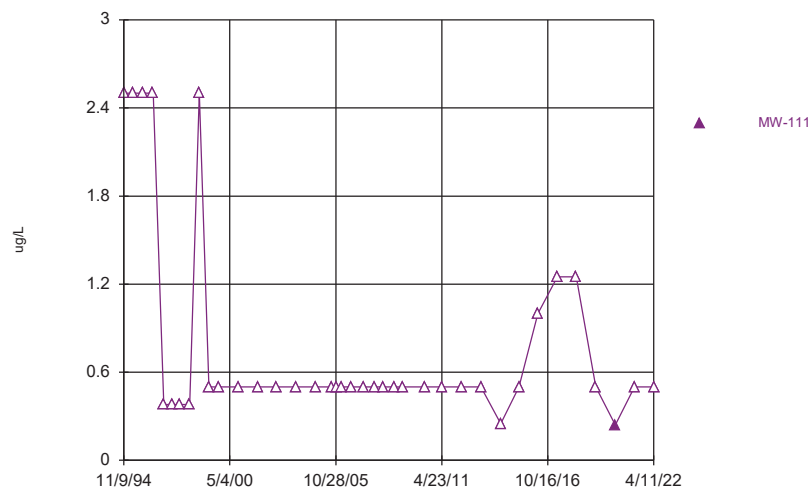
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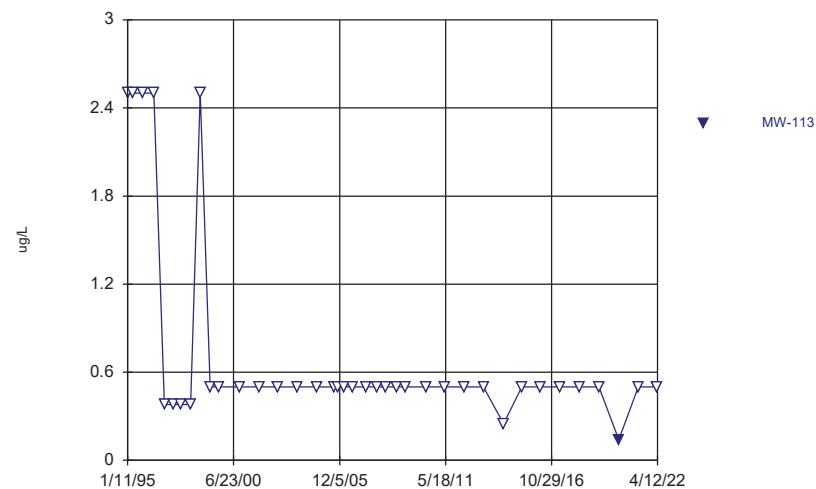
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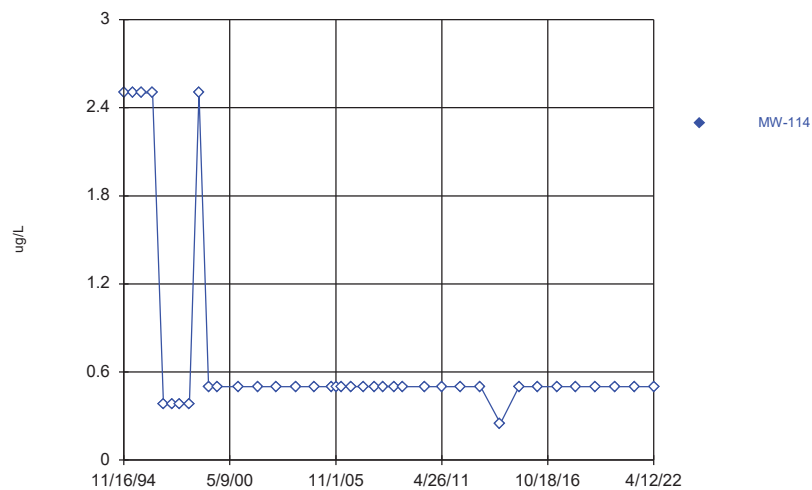
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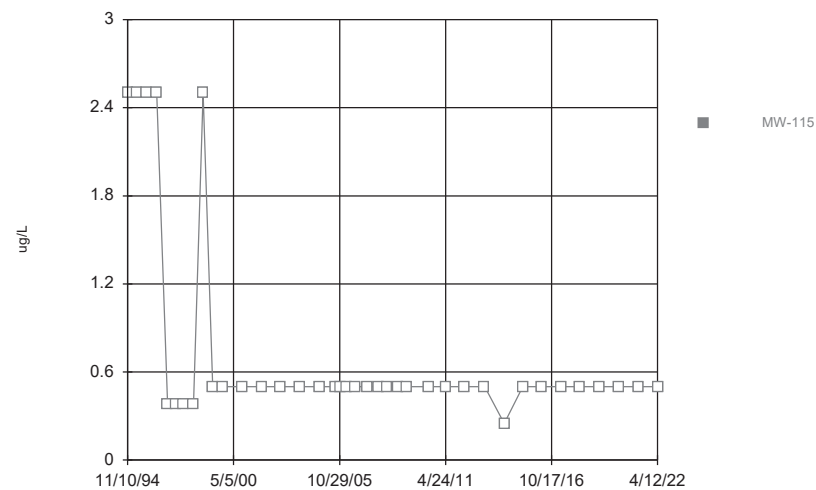
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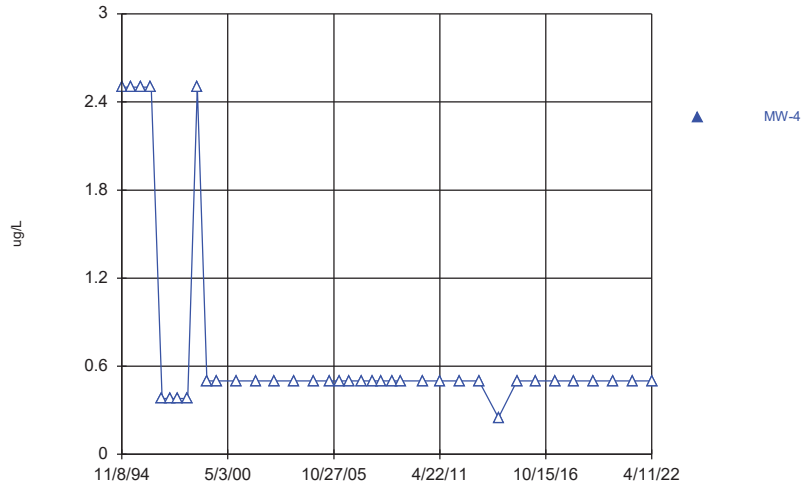
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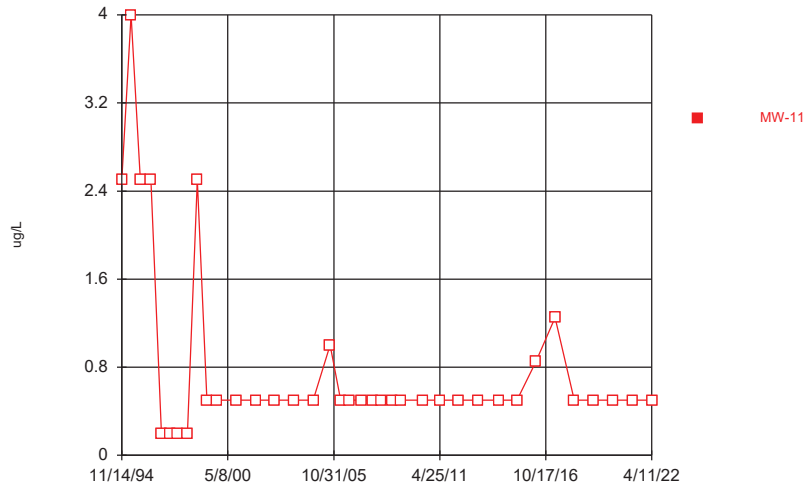


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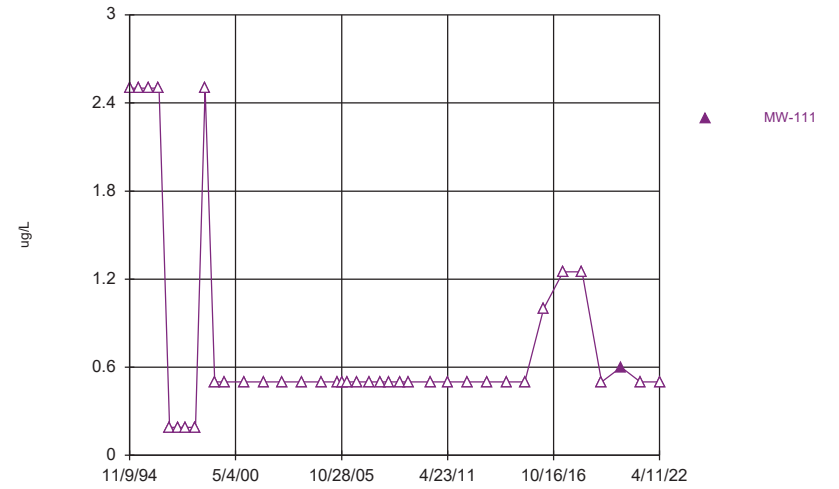


Time Series



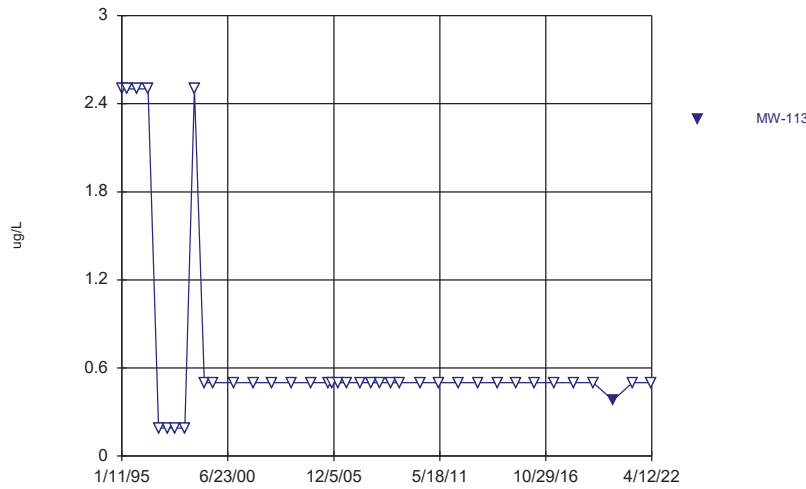
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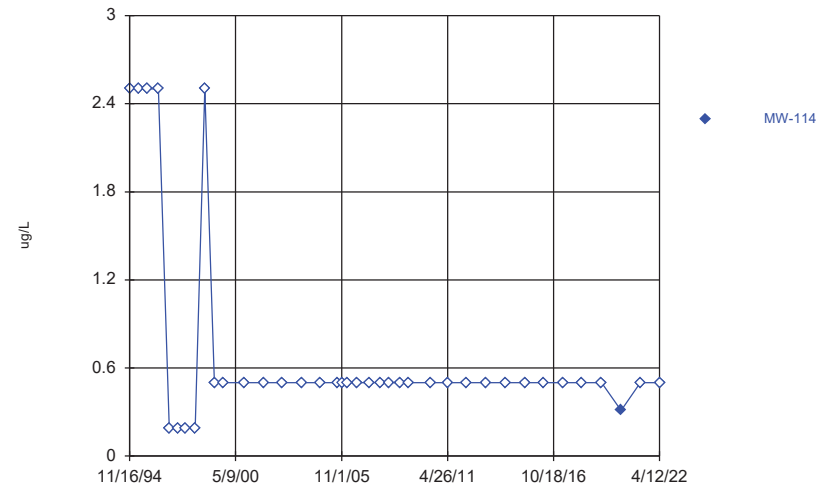
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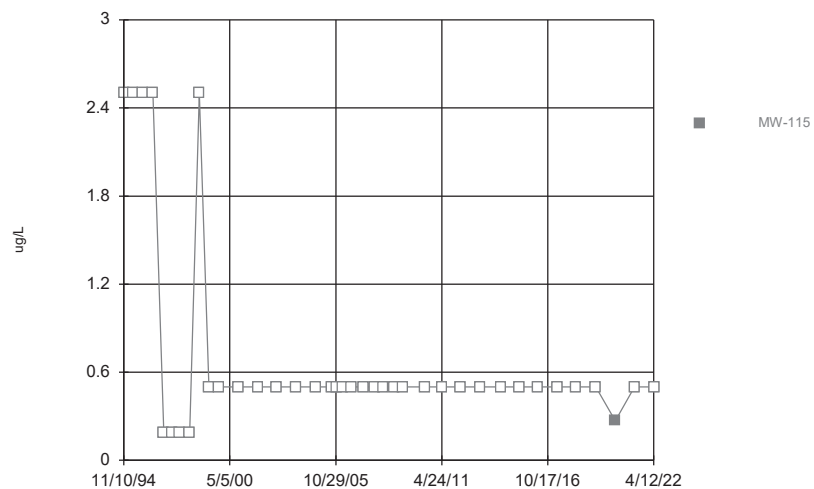
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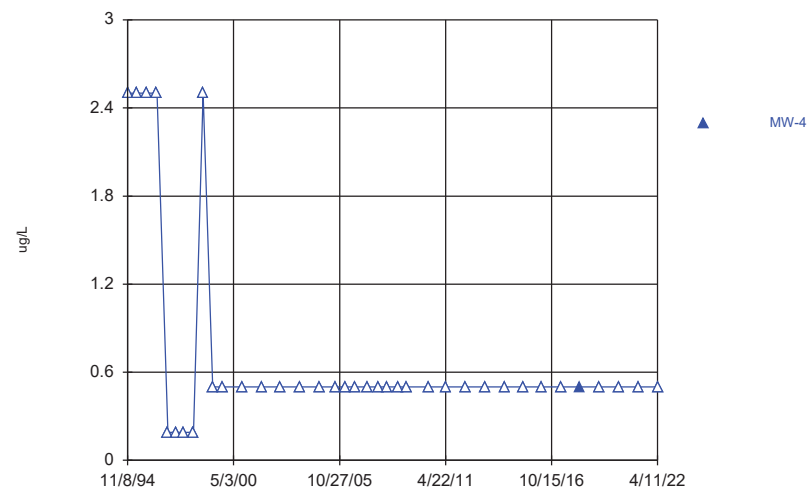
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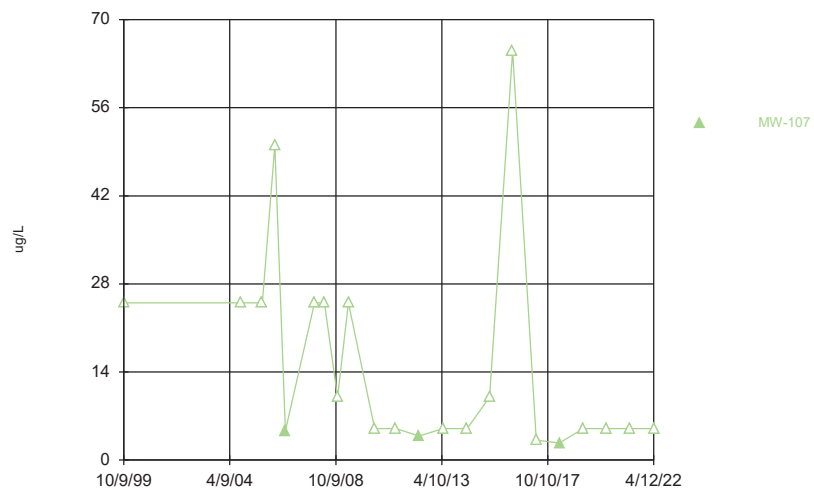
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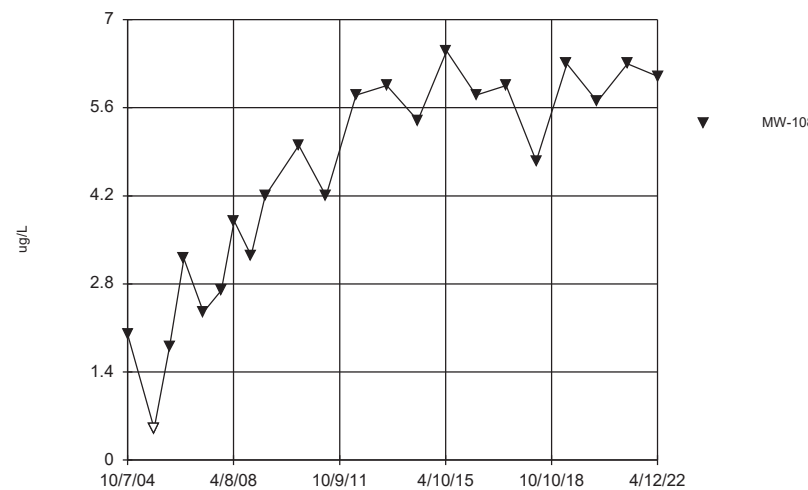
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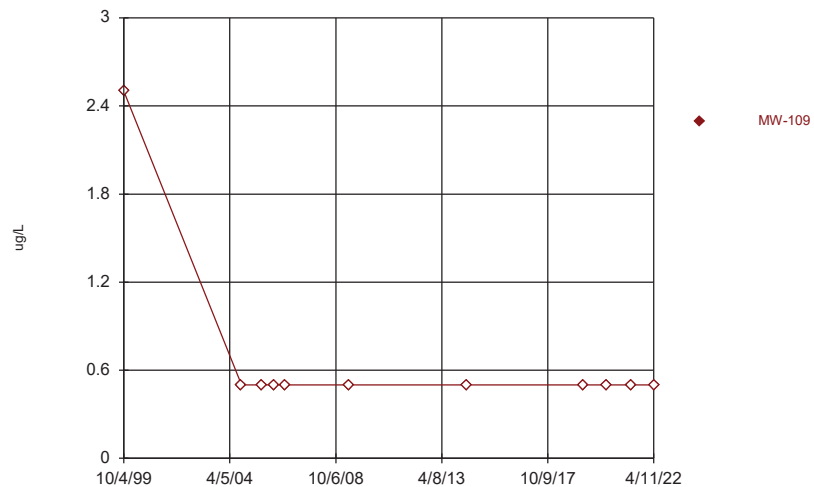
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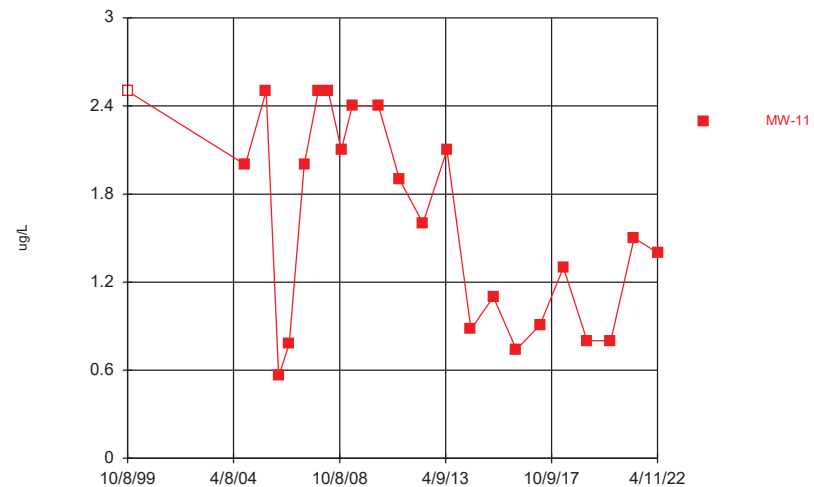
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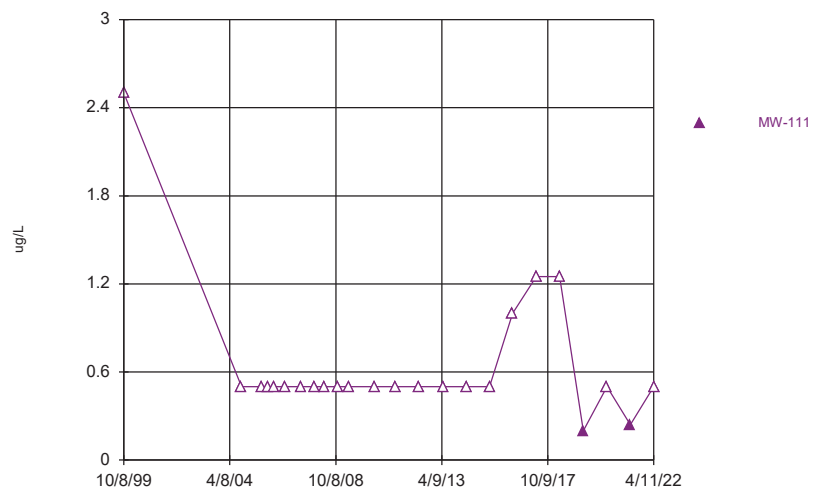
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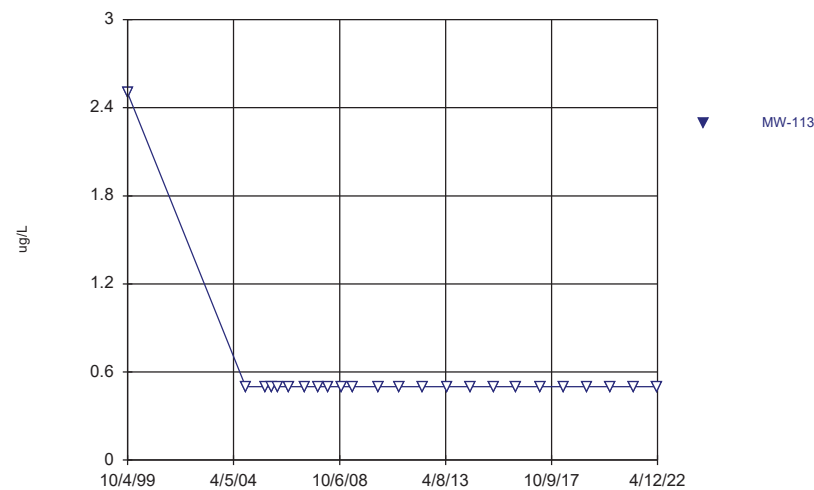
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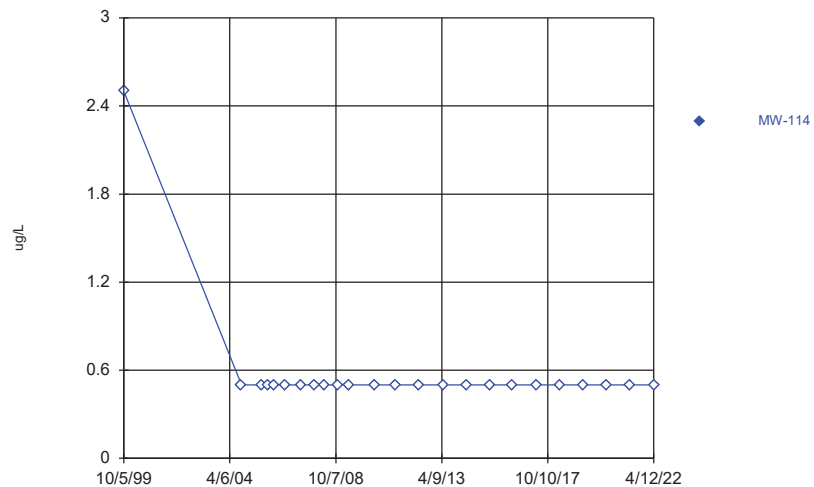
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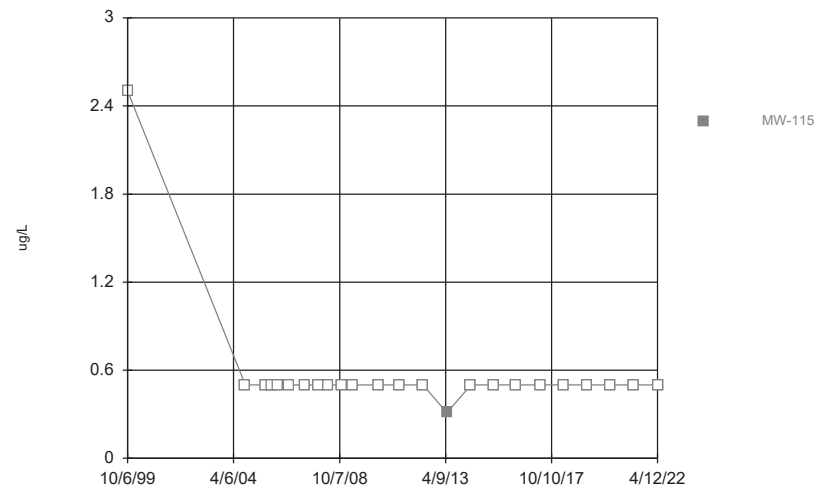
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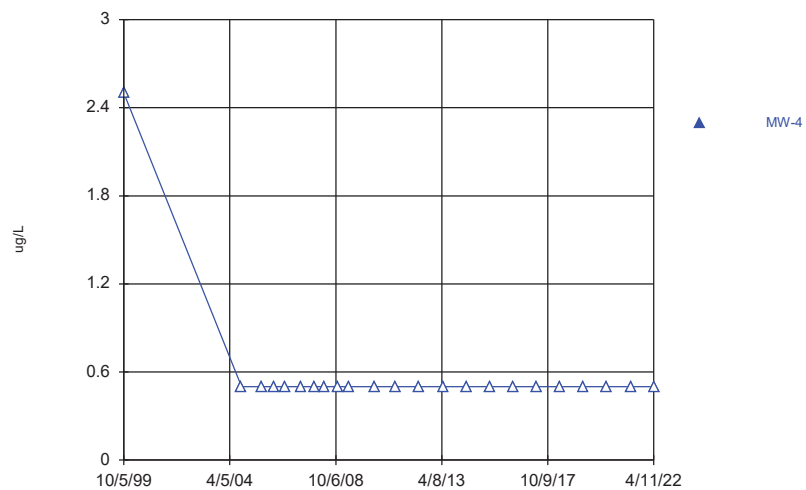
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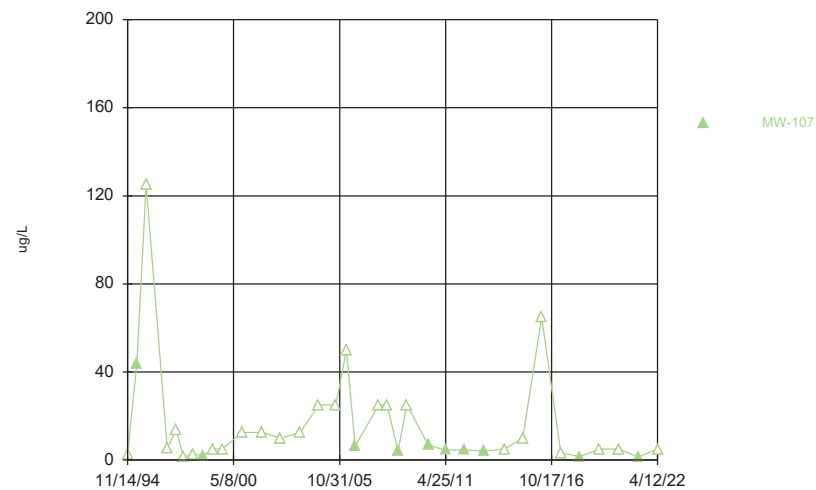
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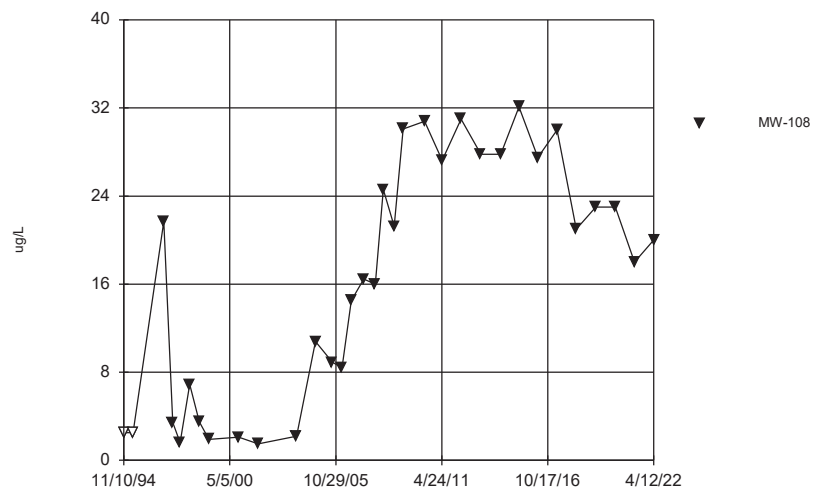
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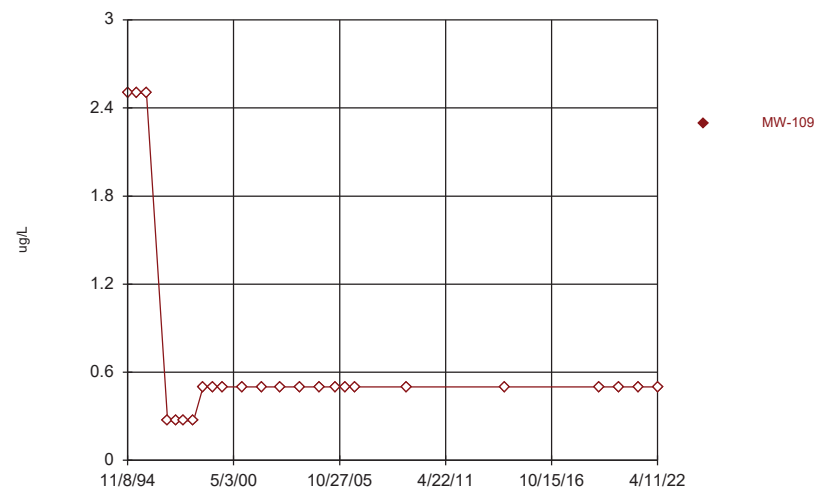
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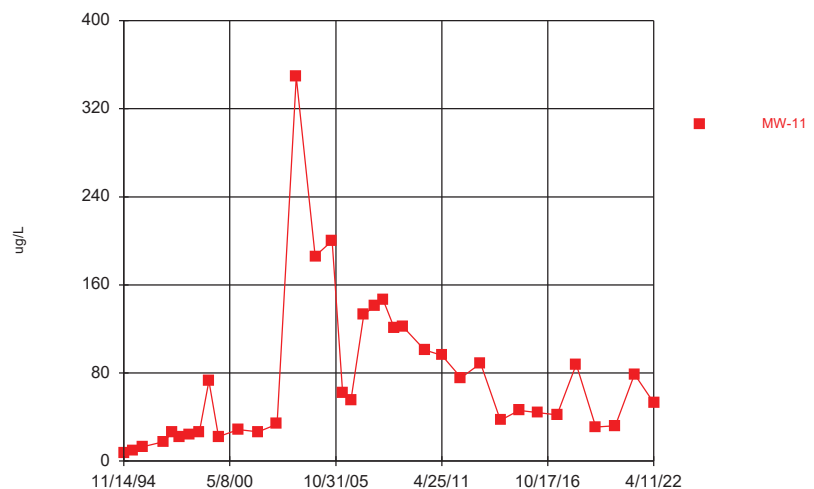
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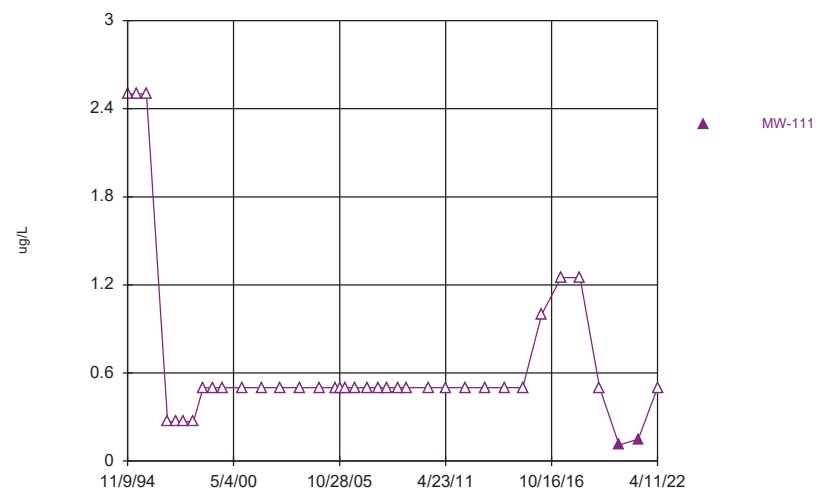
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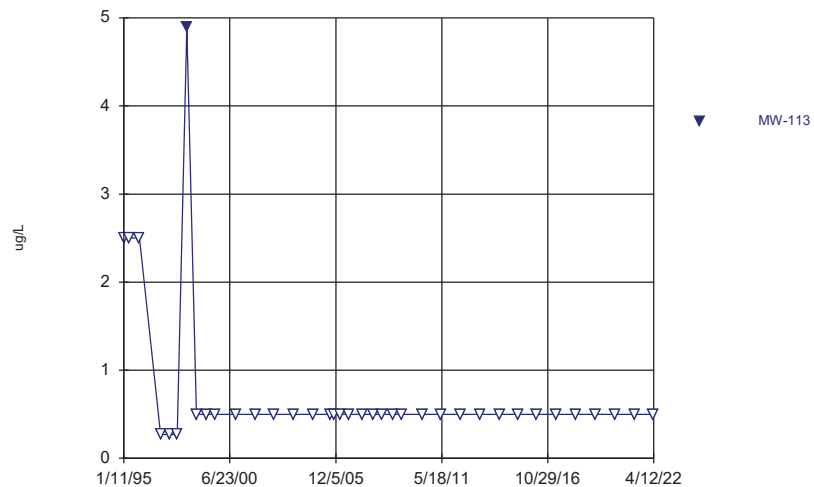
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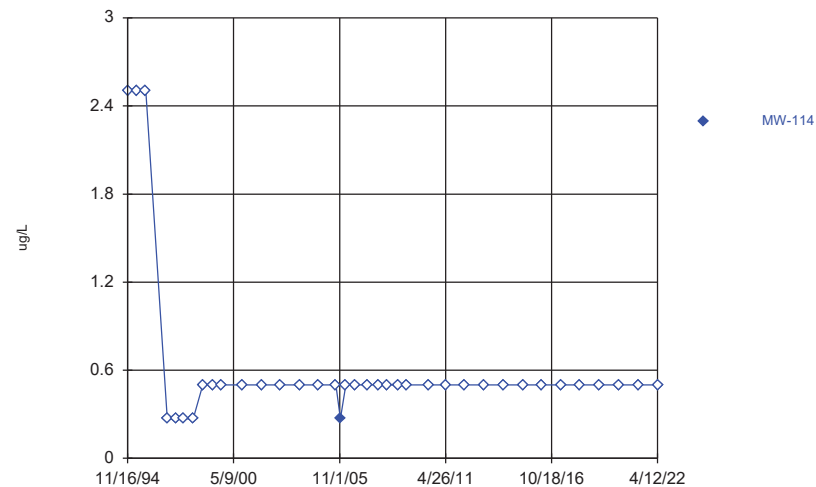
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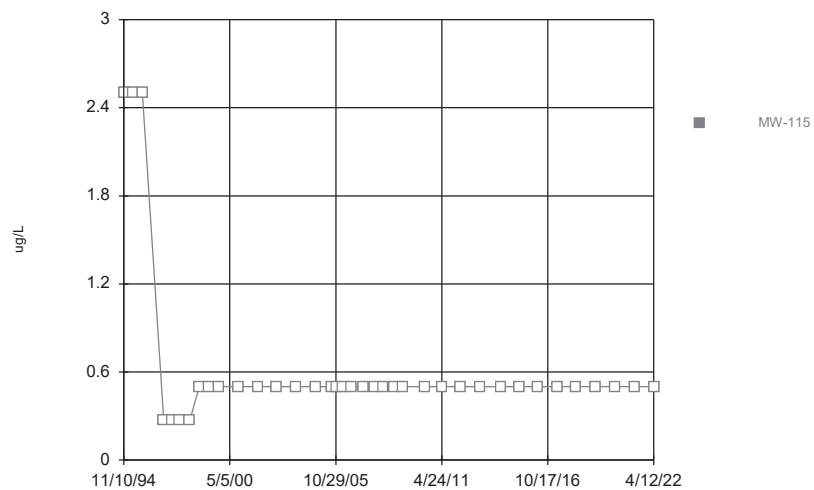
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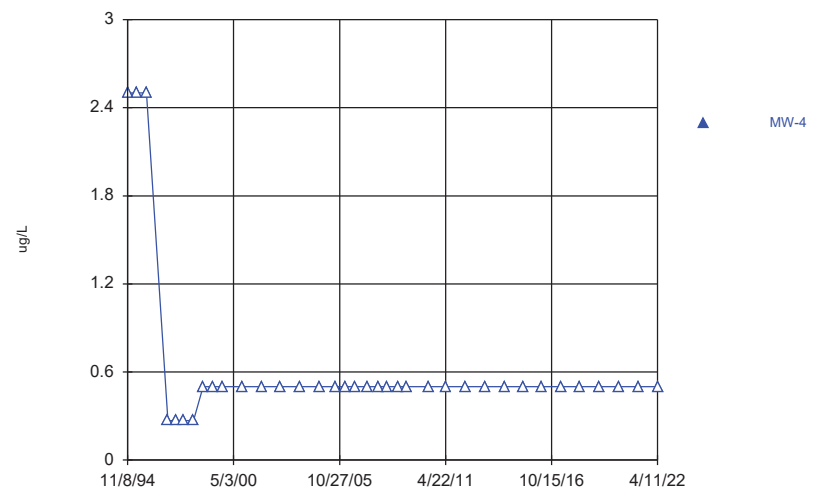
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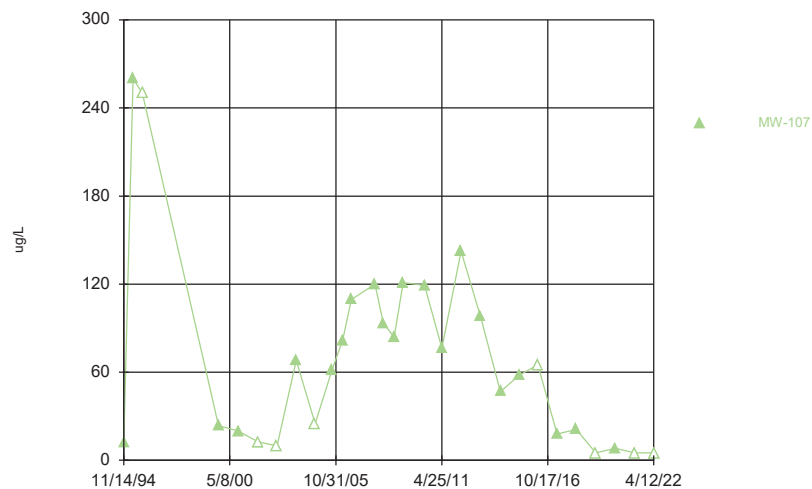
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Time Series



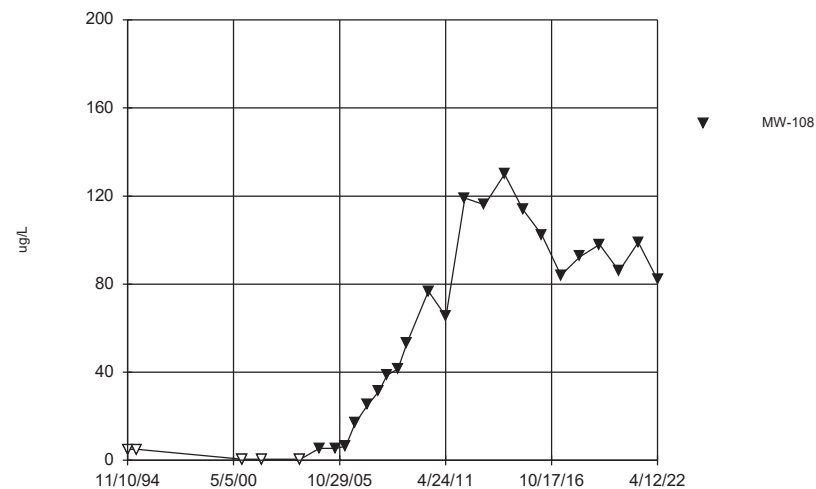
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Time Series



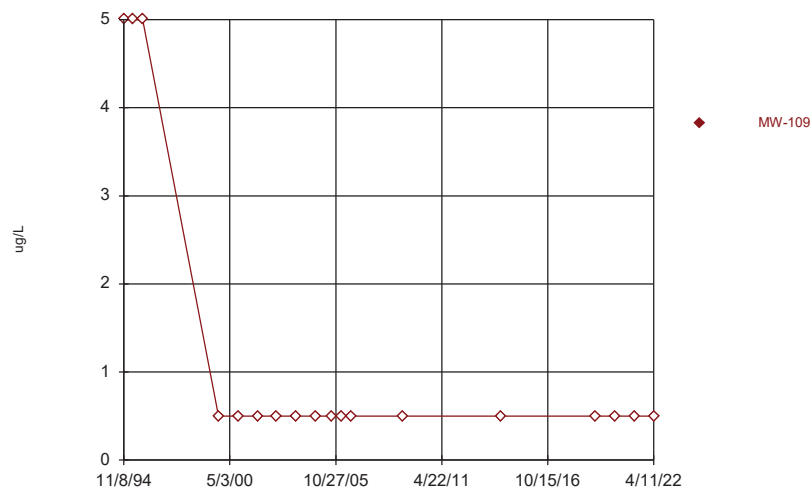
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Time Series



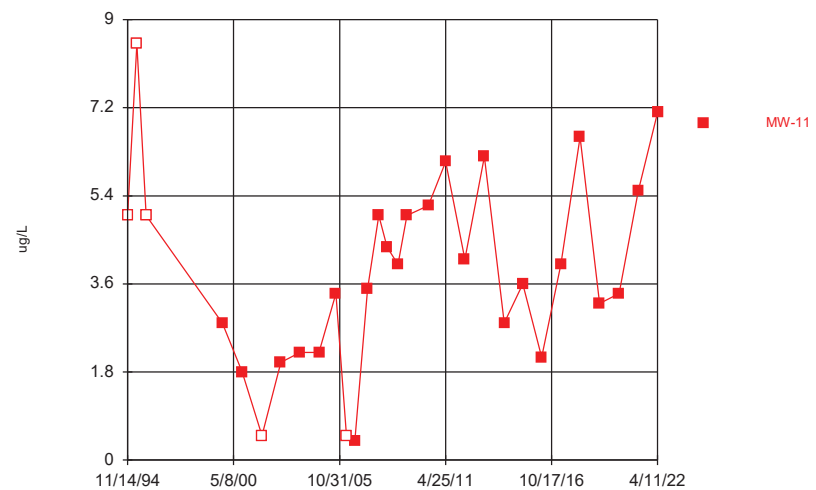
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Time Series



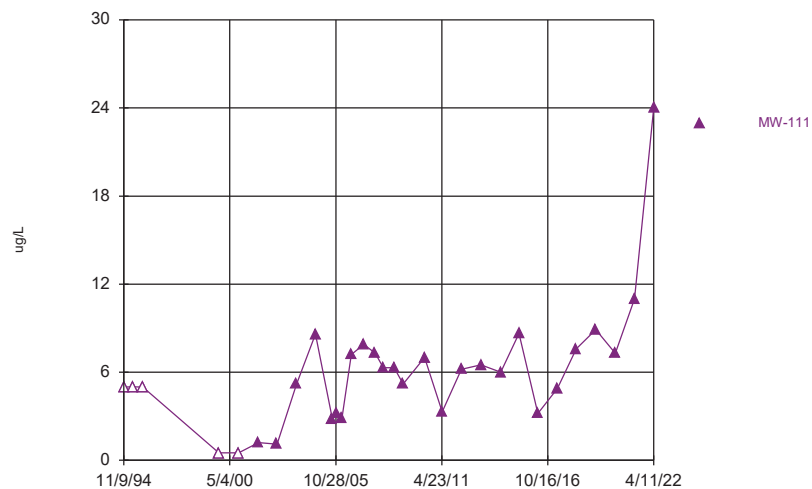
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Time Series



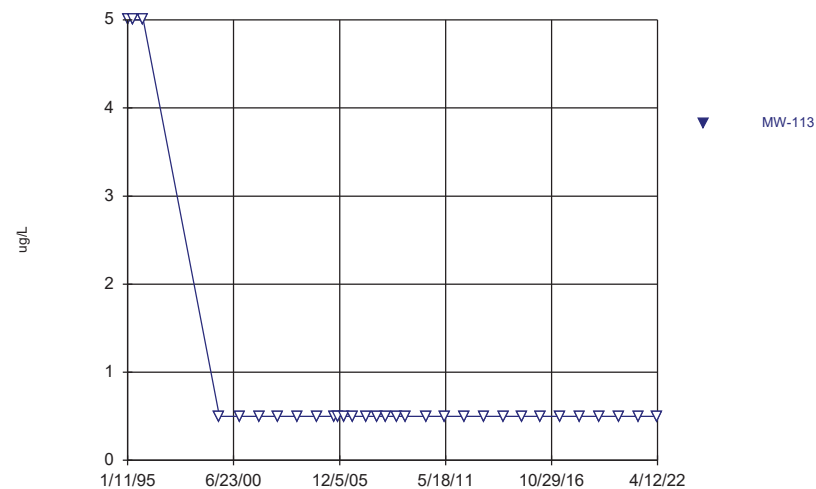
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Time Series



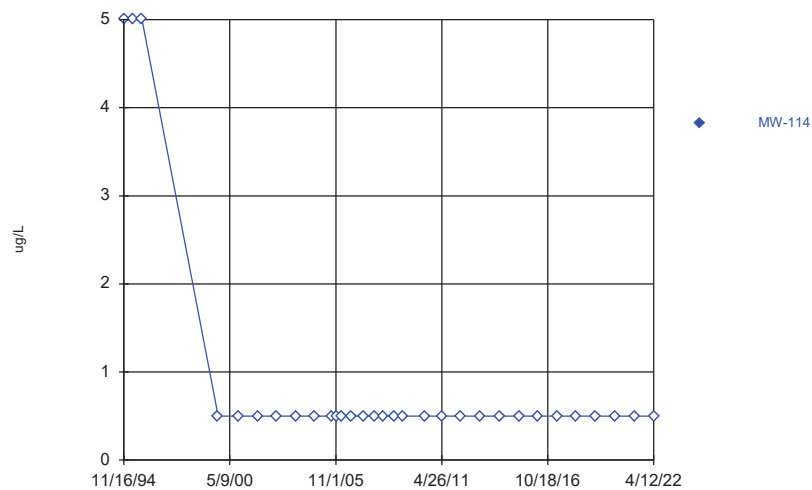
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Time Series



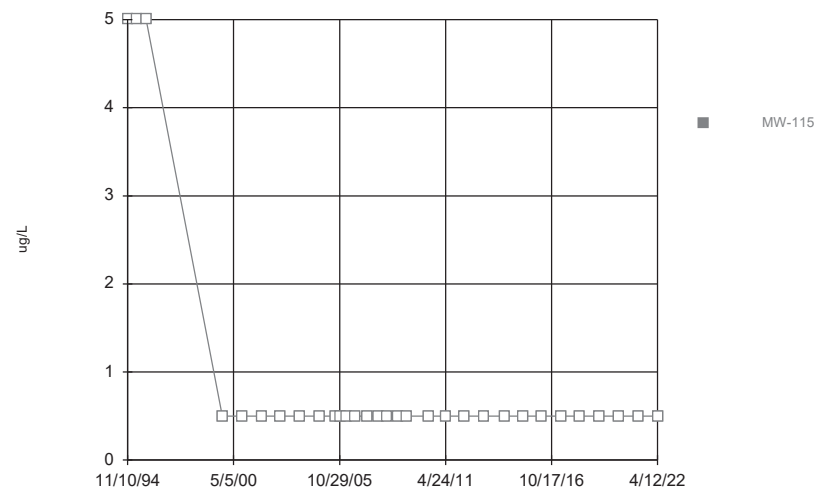
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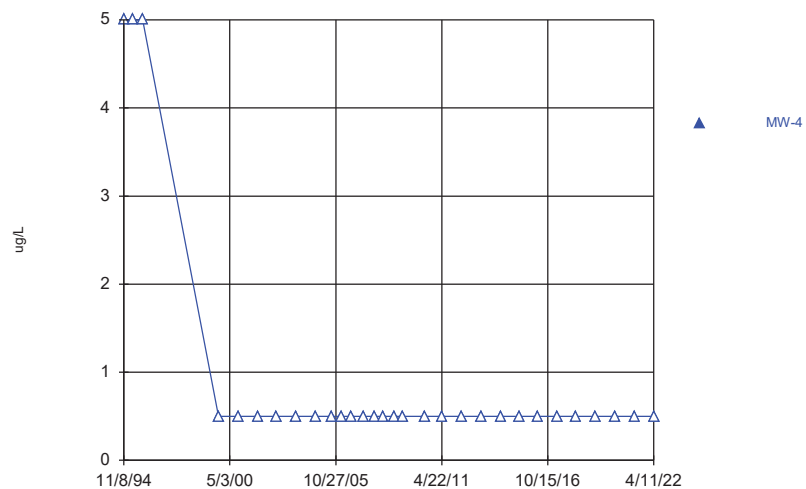
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Time Series



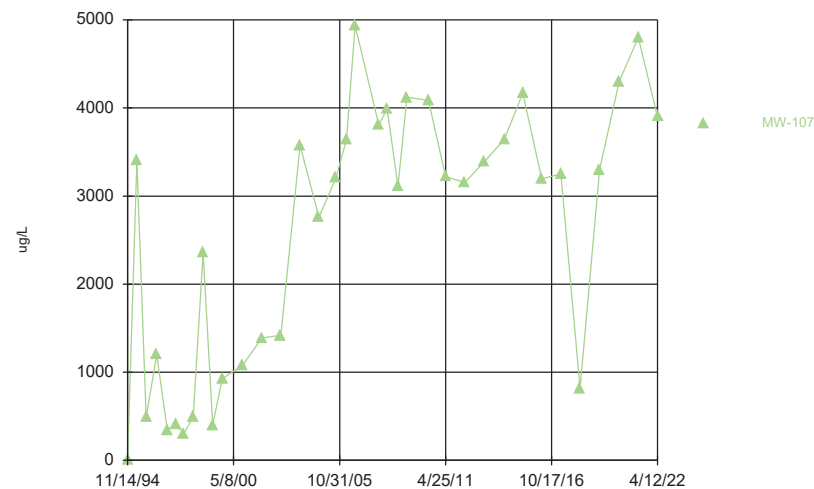
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Time Series



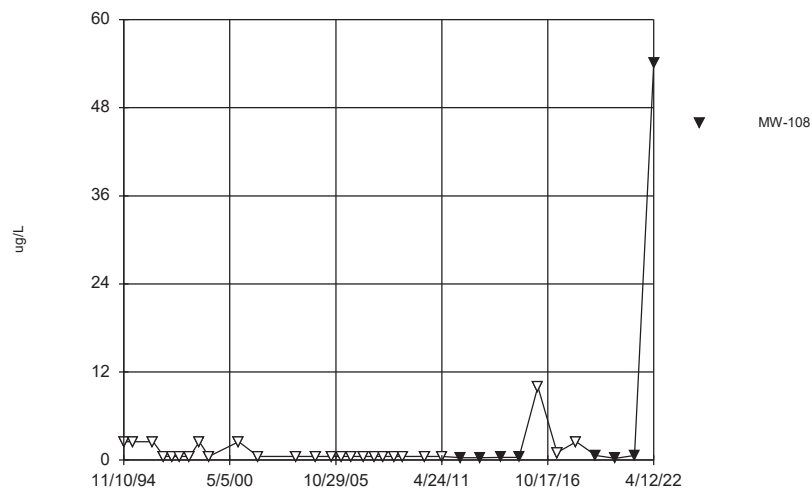
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Time Series



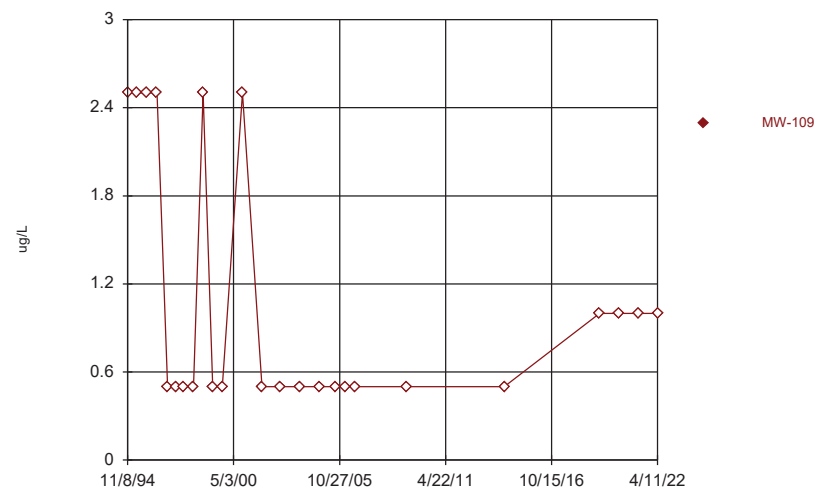
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Time Series



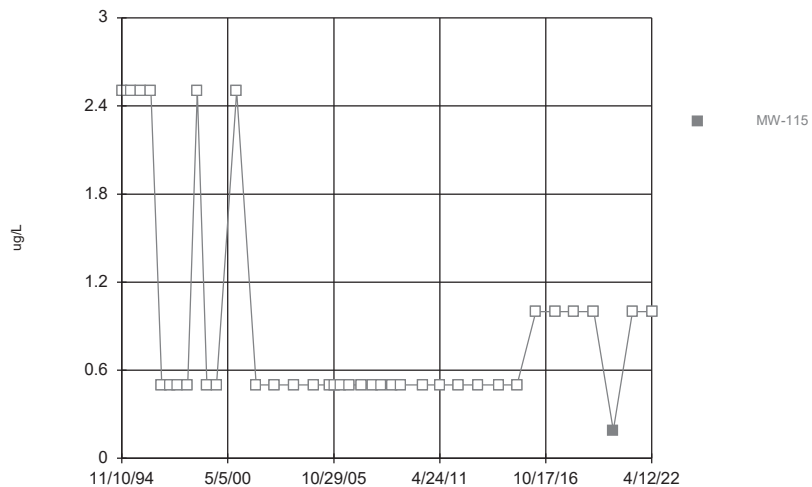
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Time Series

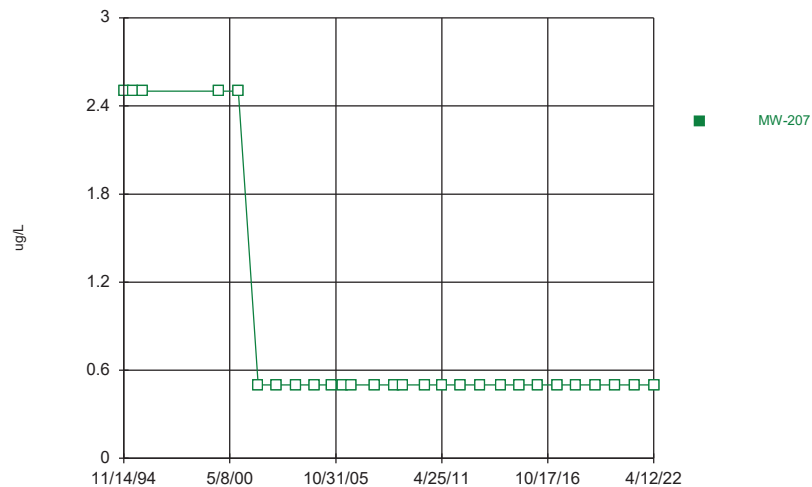


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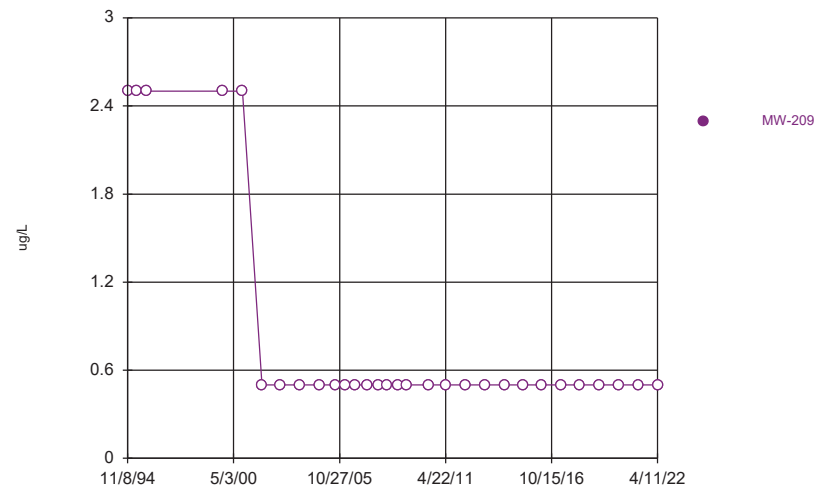


Time Series



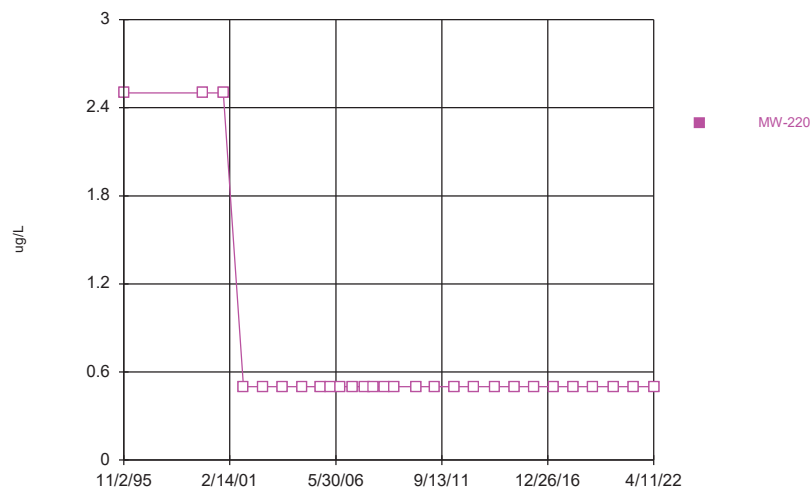
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Time Series



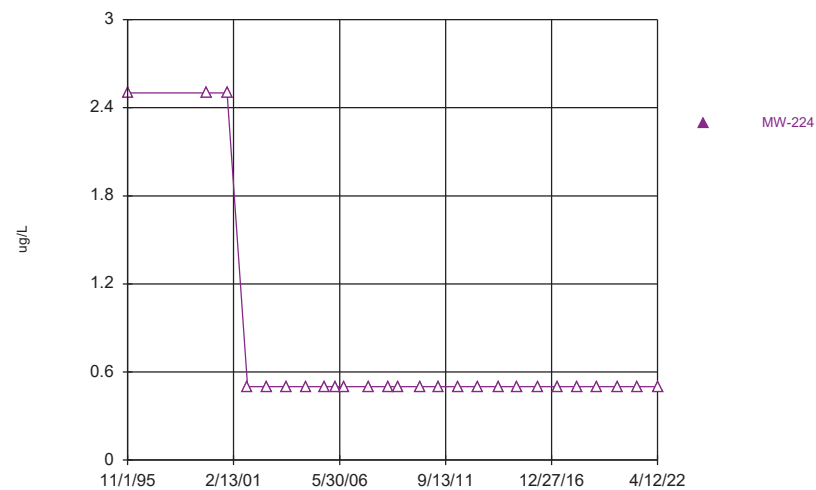
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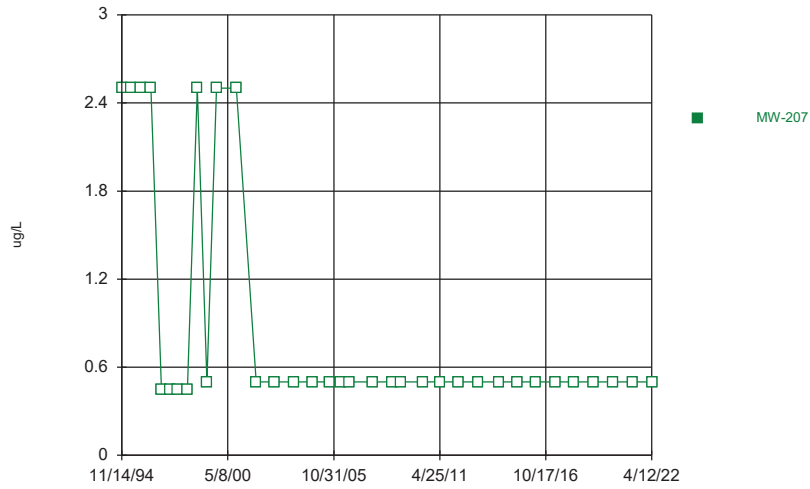
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Time Series



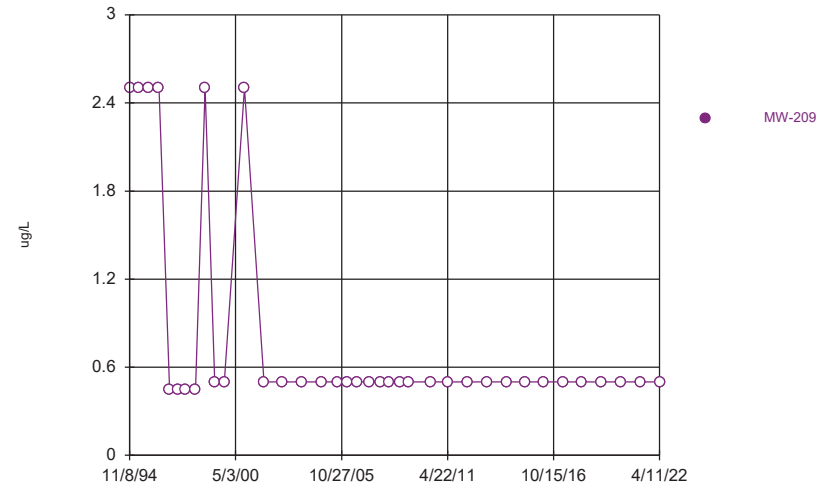
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Time Series

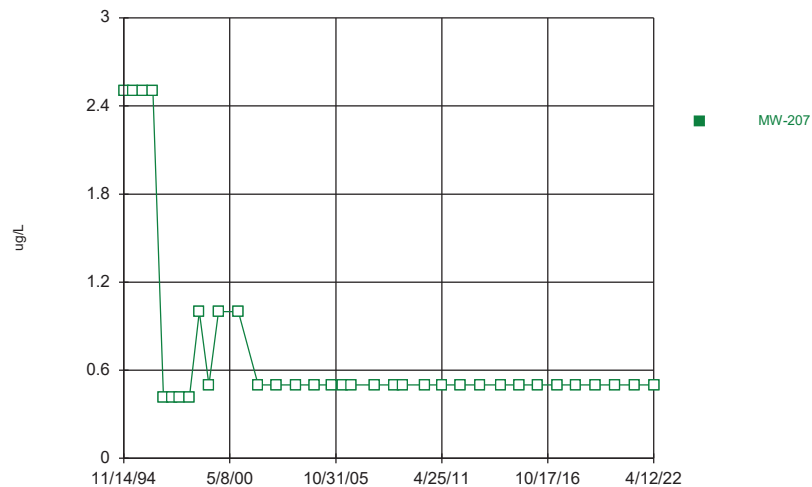


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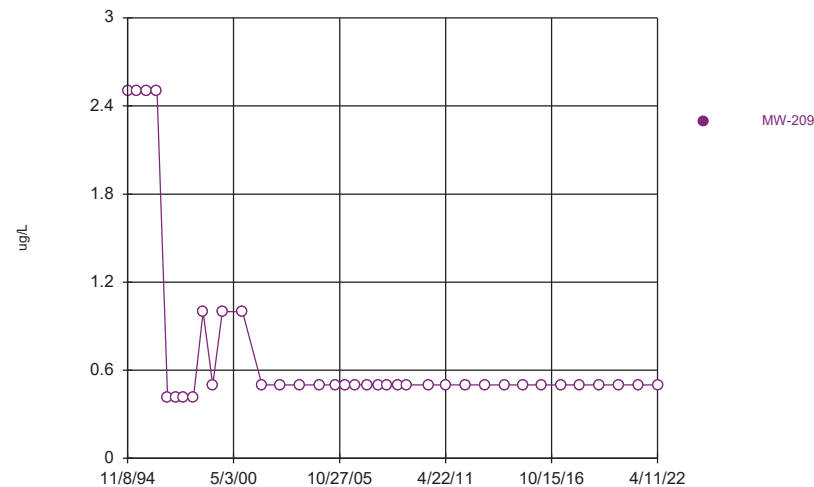


Time Series



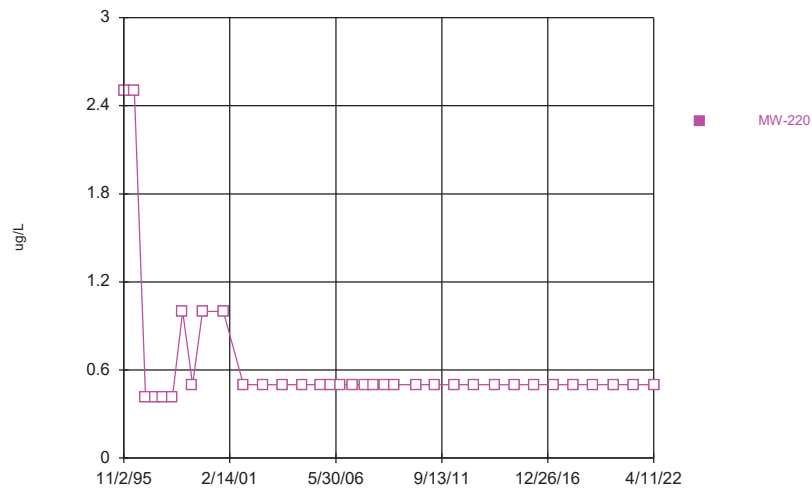
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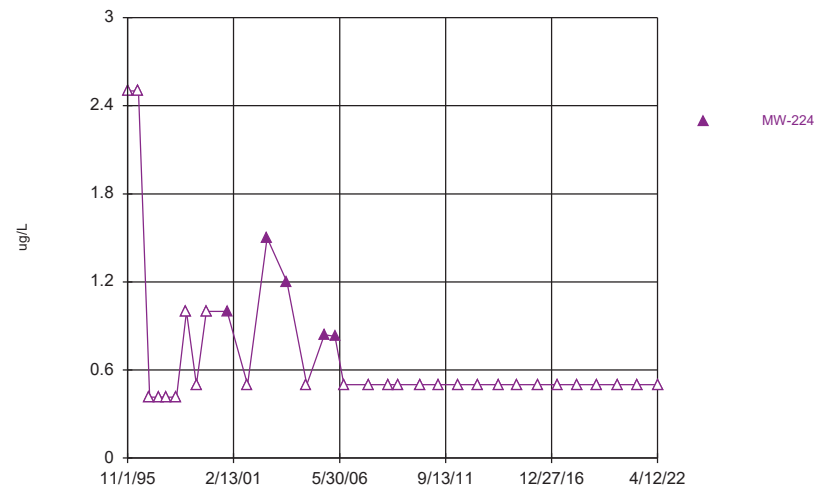
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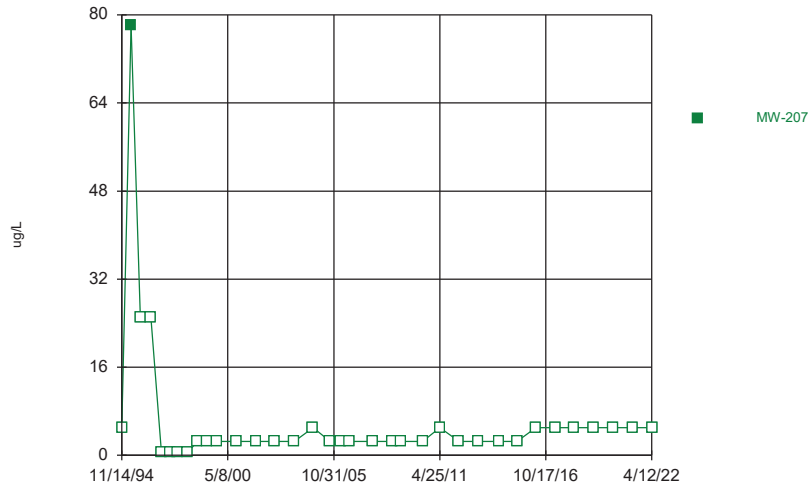
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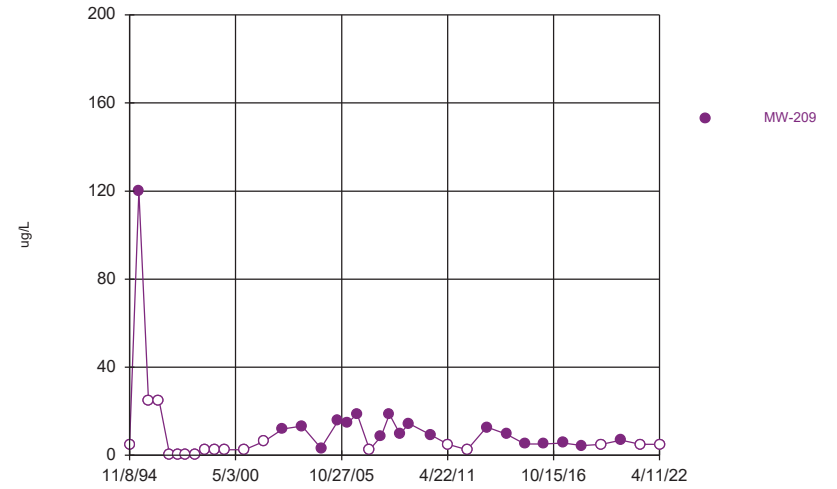
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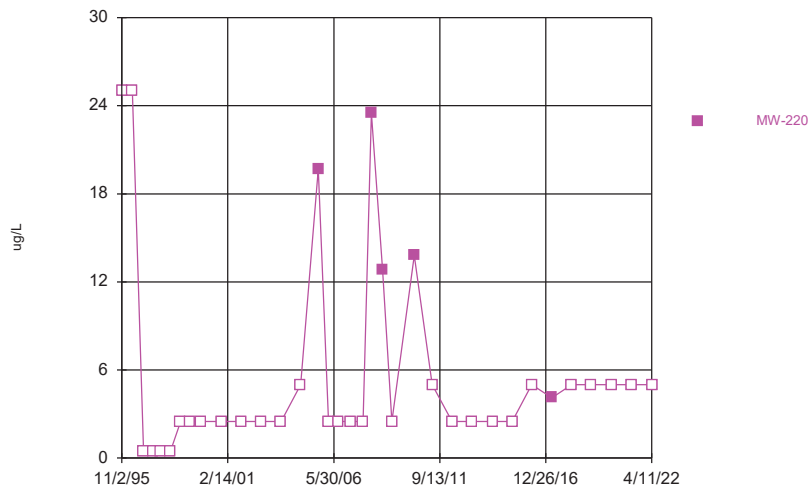
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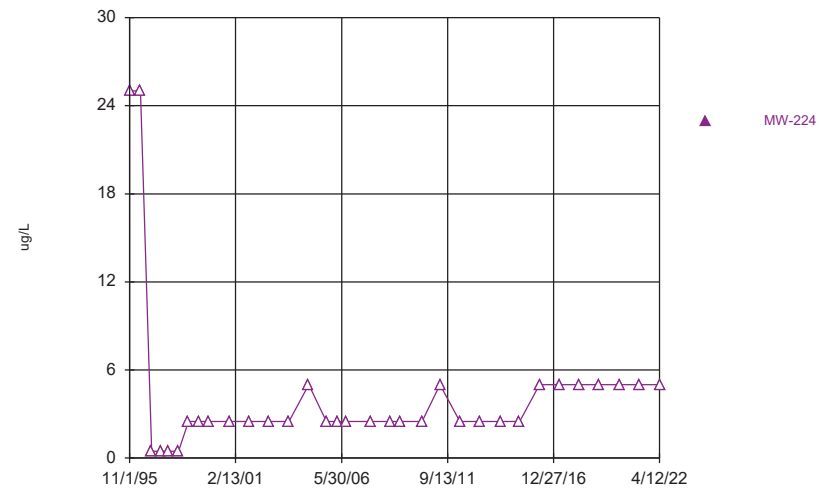
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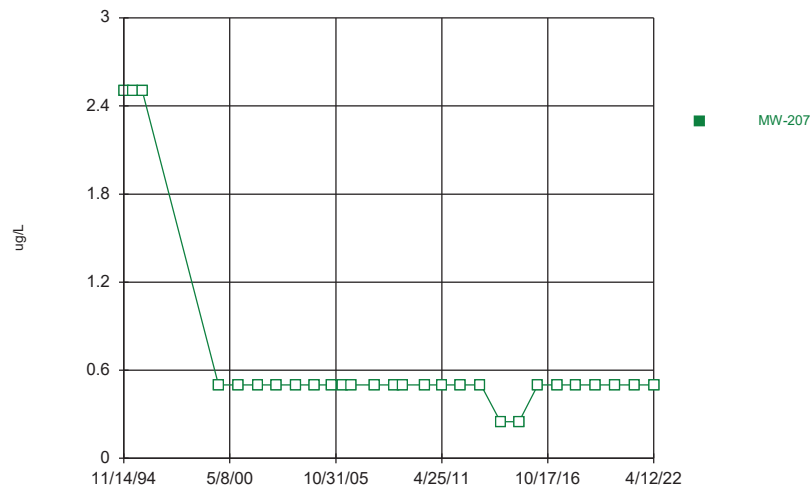
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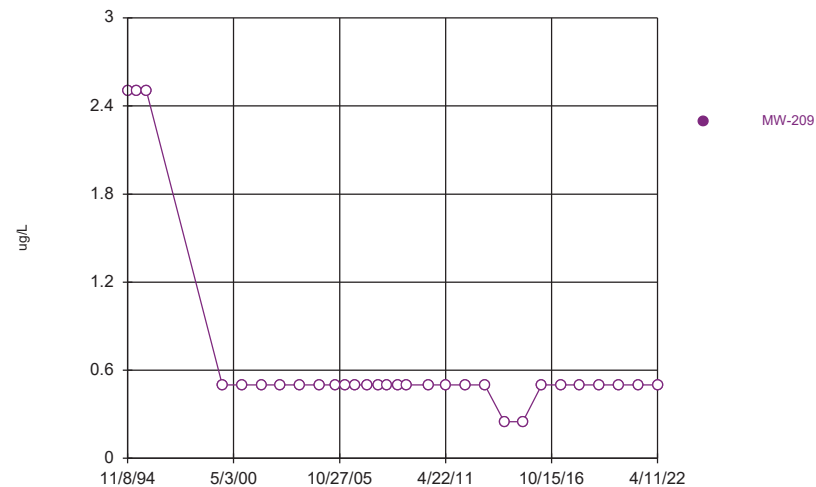
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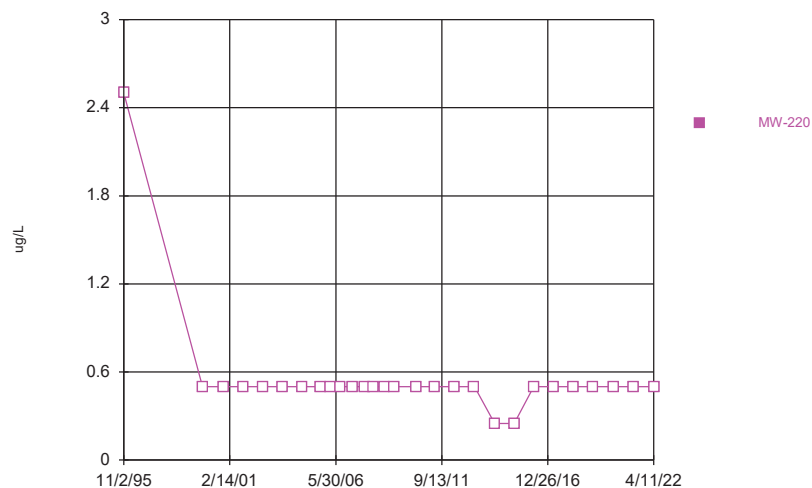
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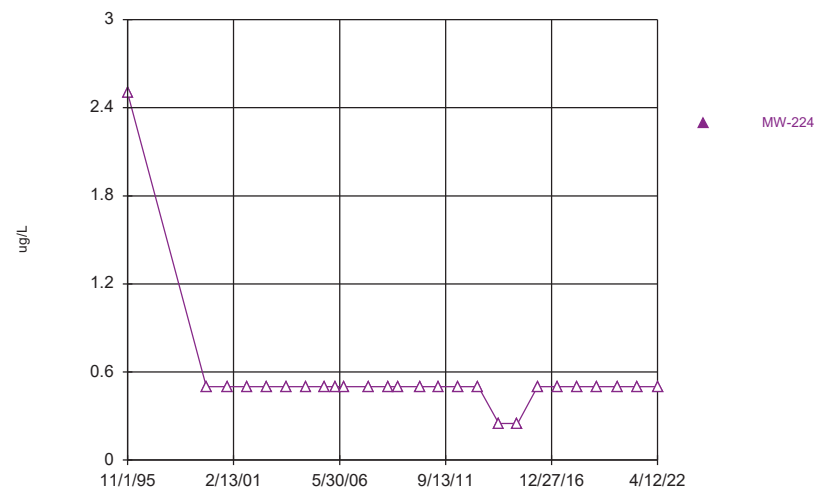
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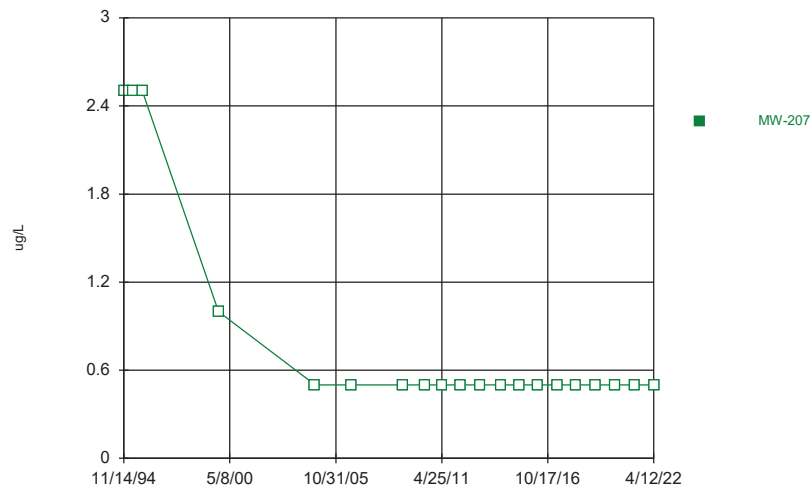
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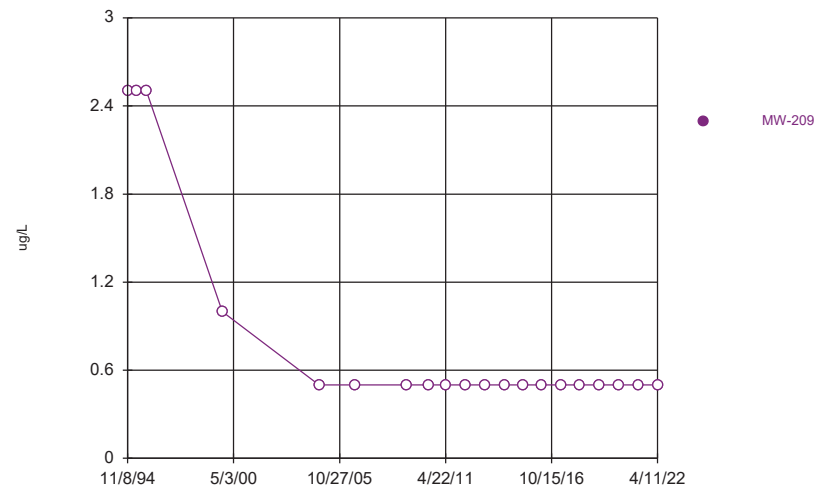
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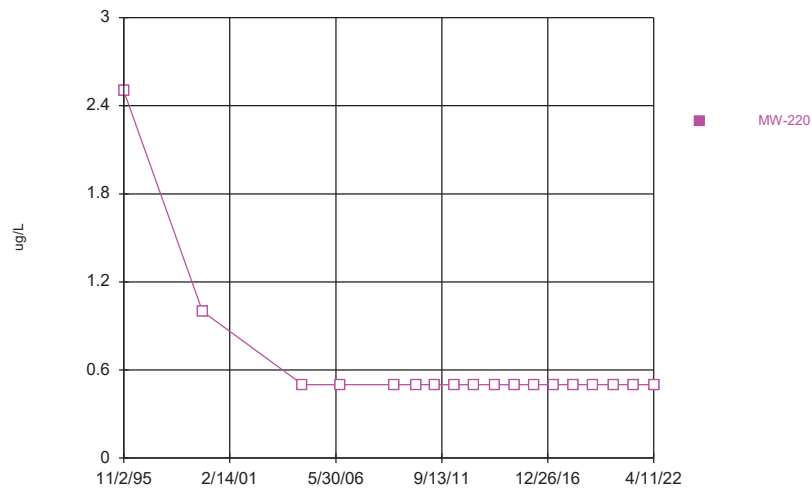
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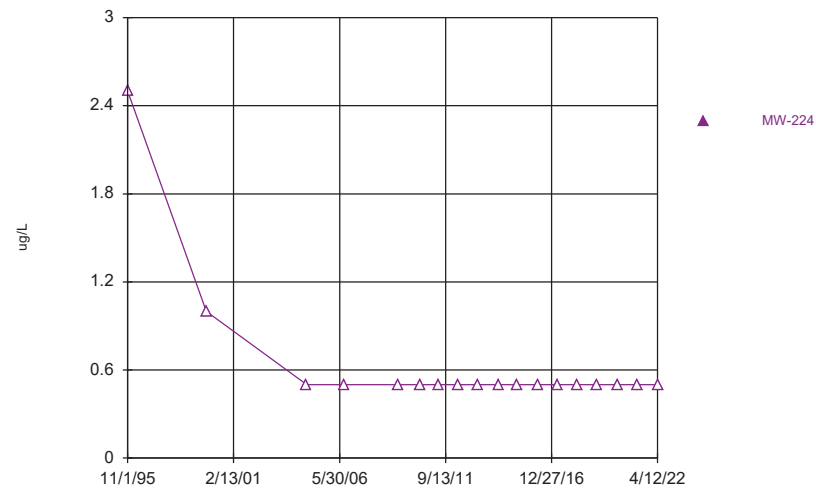
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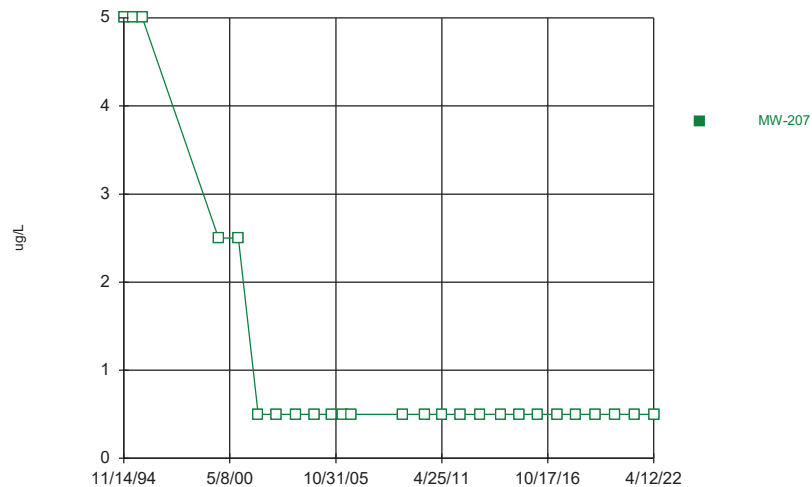
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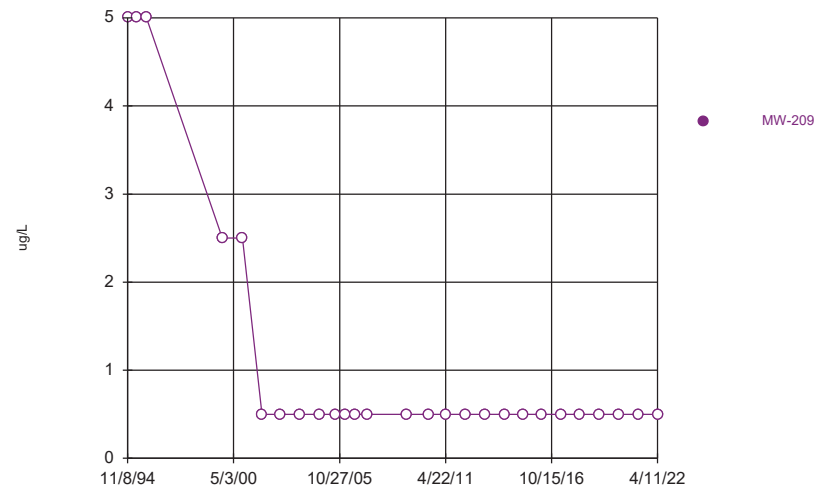
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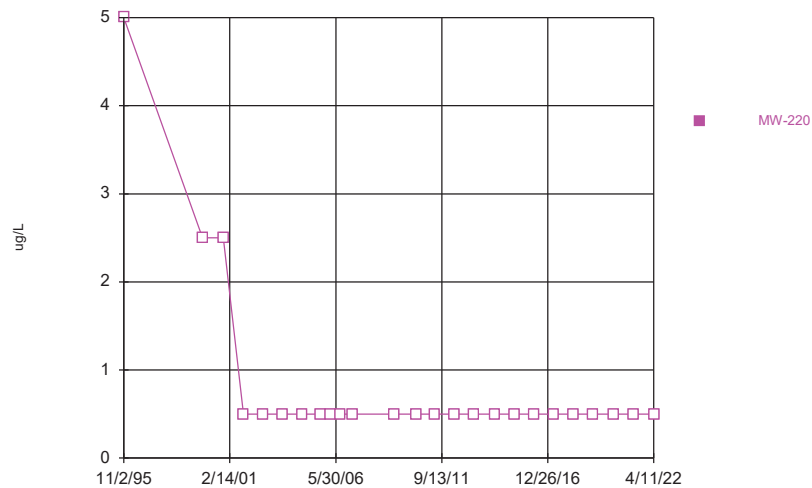
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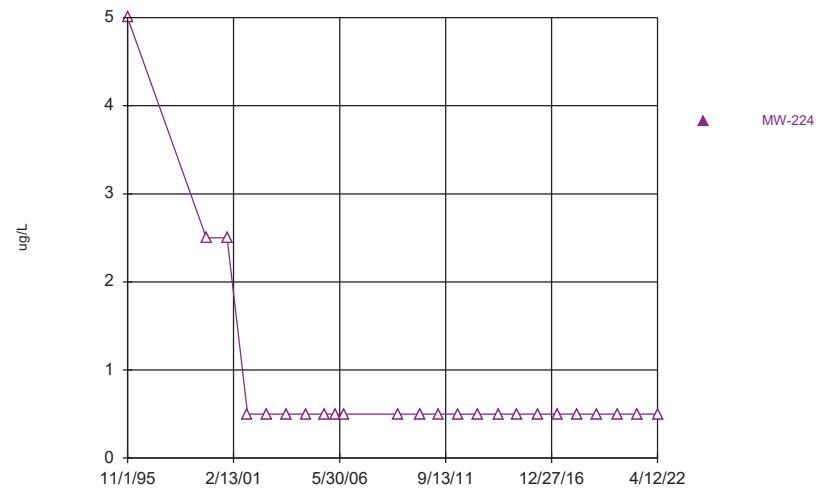
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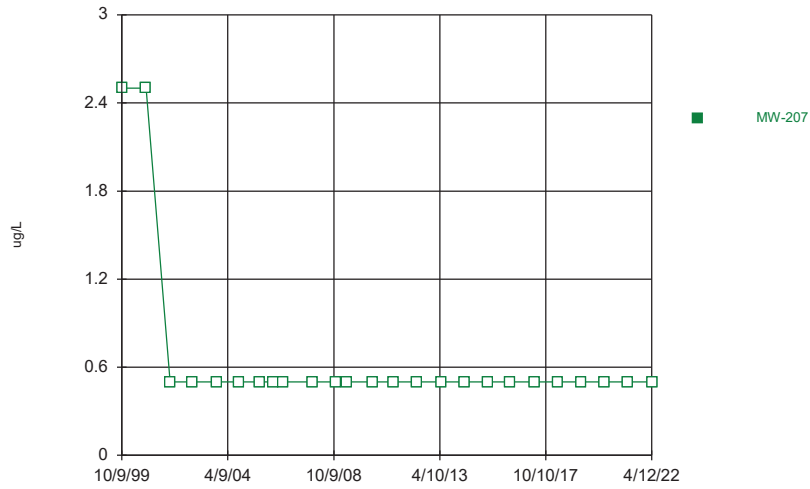
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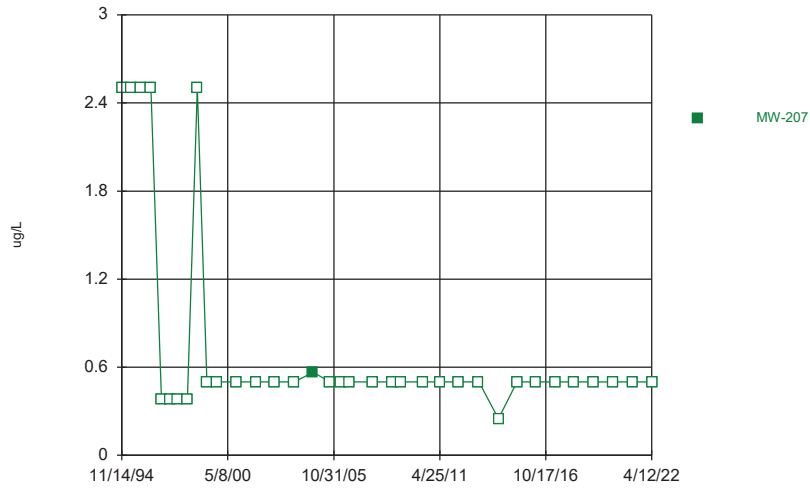


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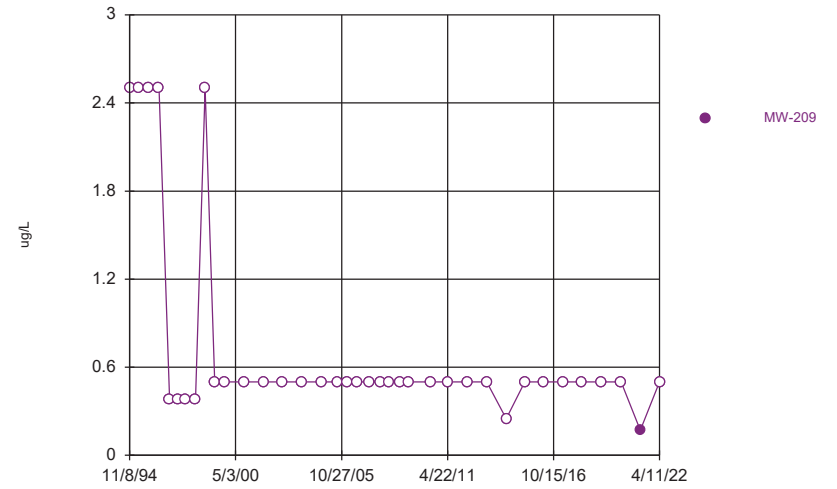


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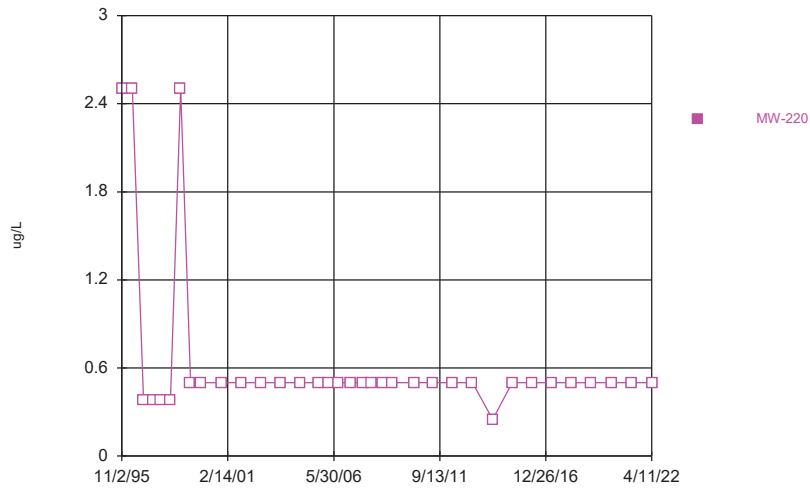
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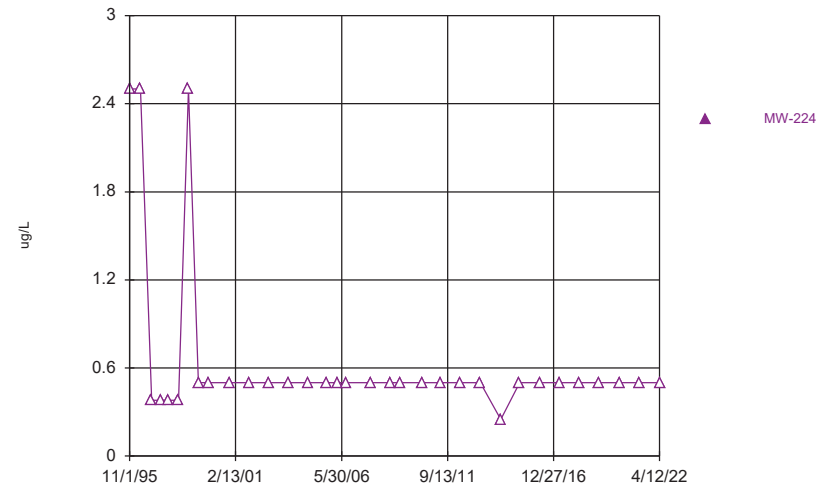
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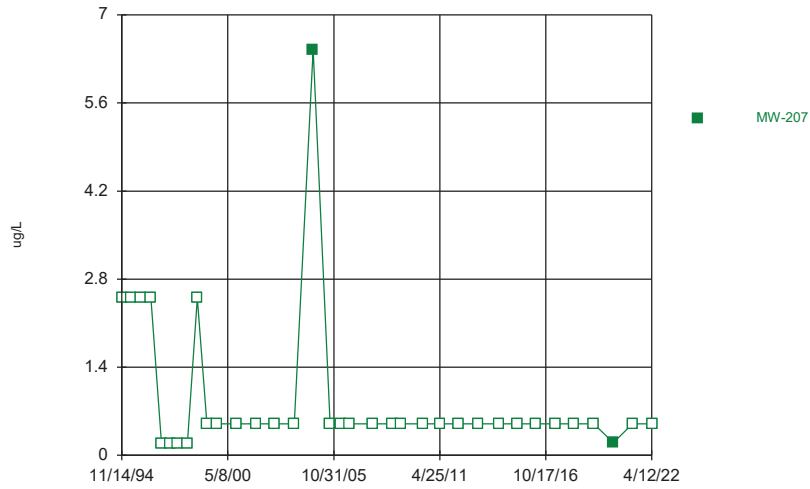
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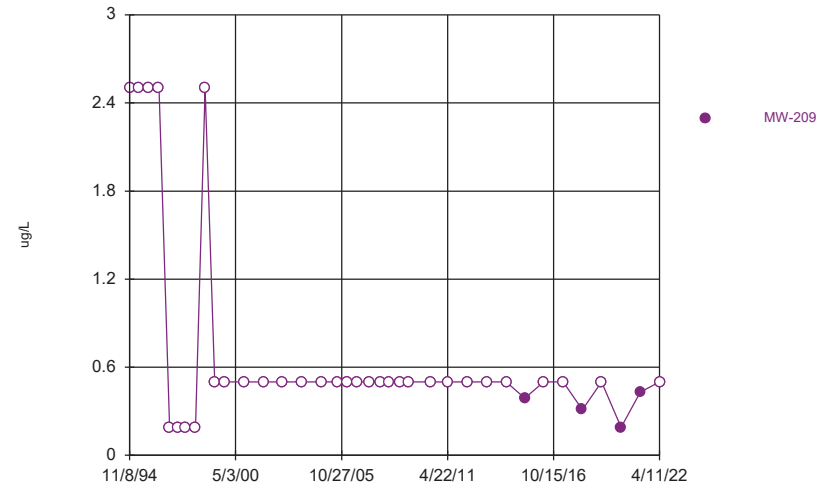
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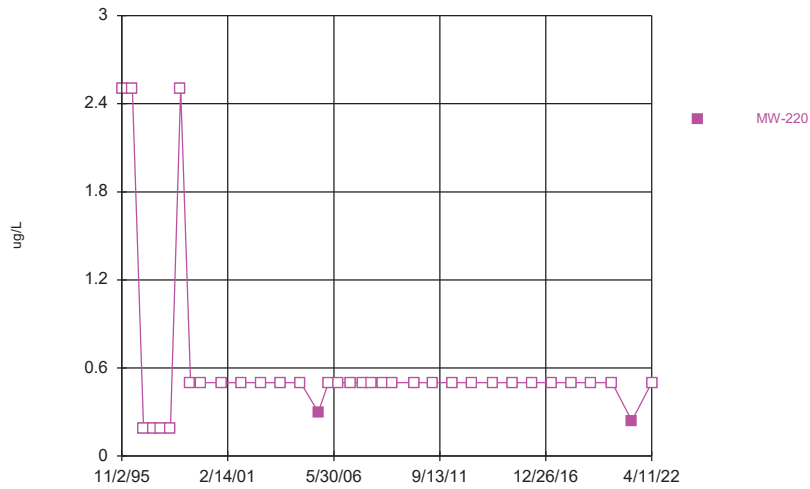
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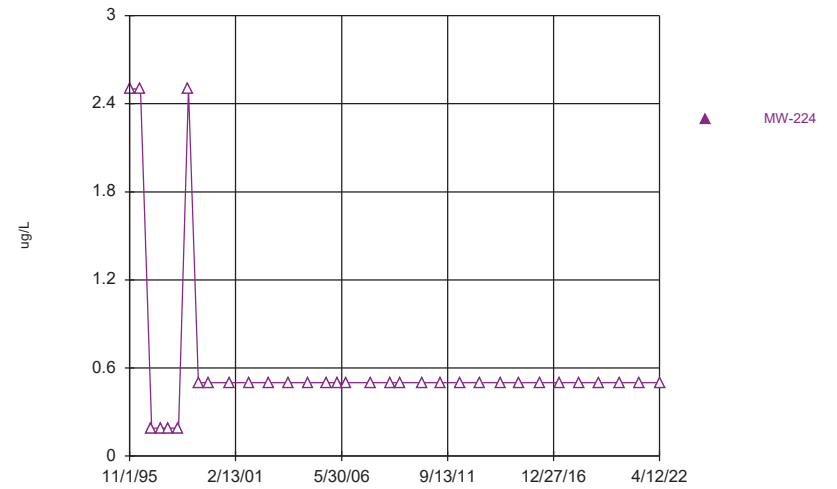
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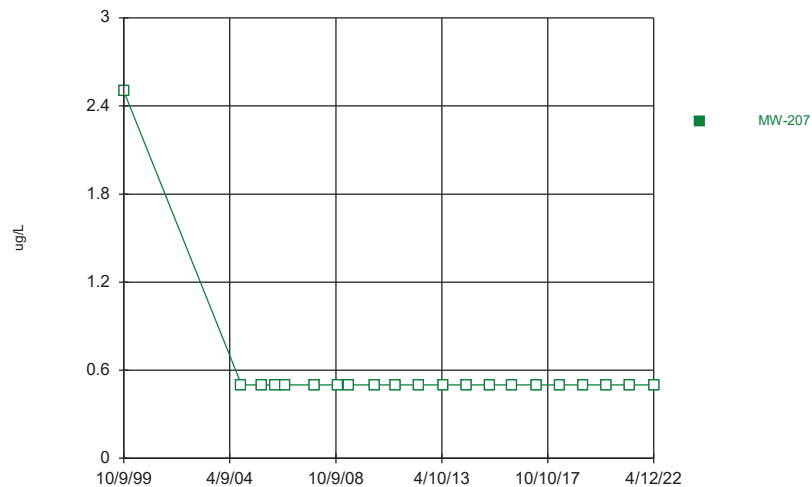
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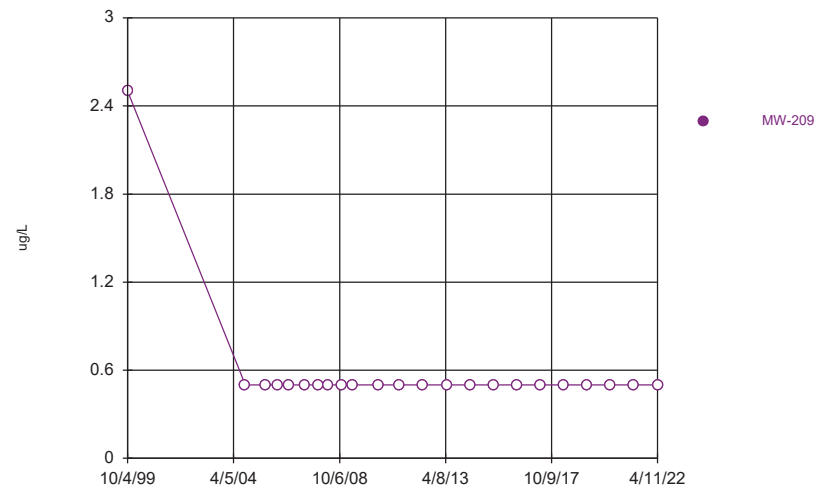
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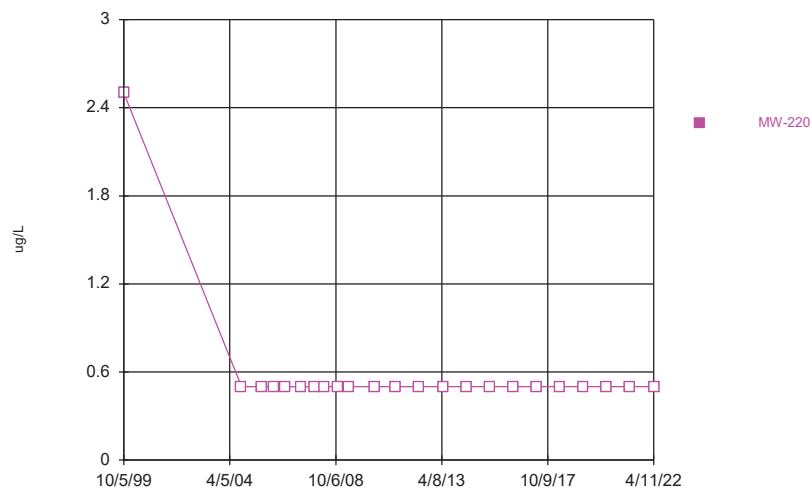
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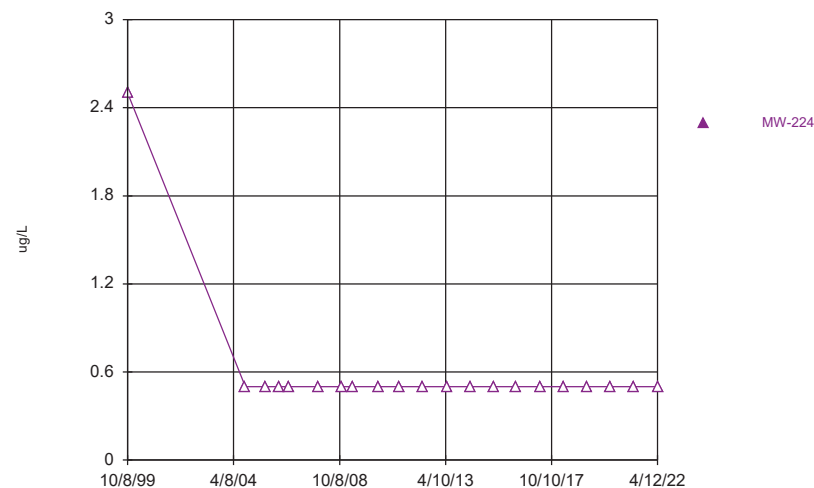
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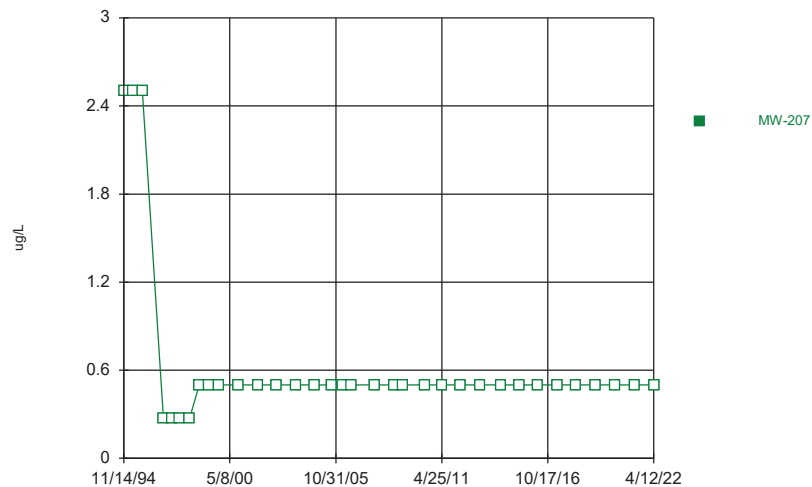
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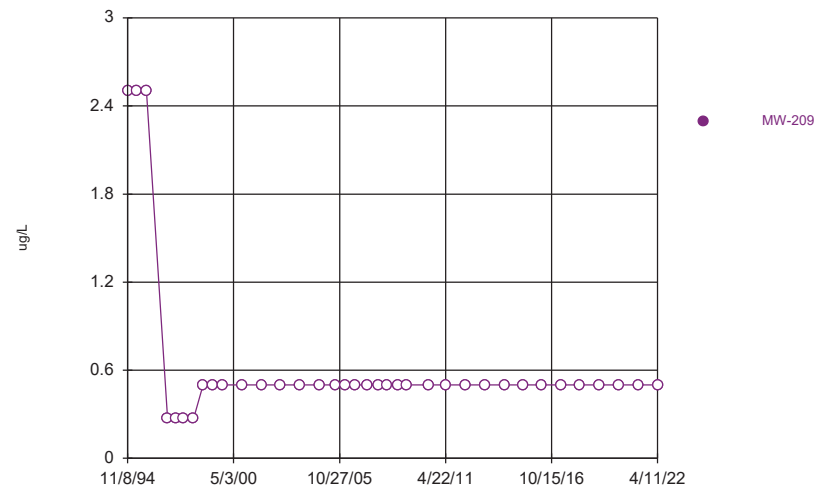
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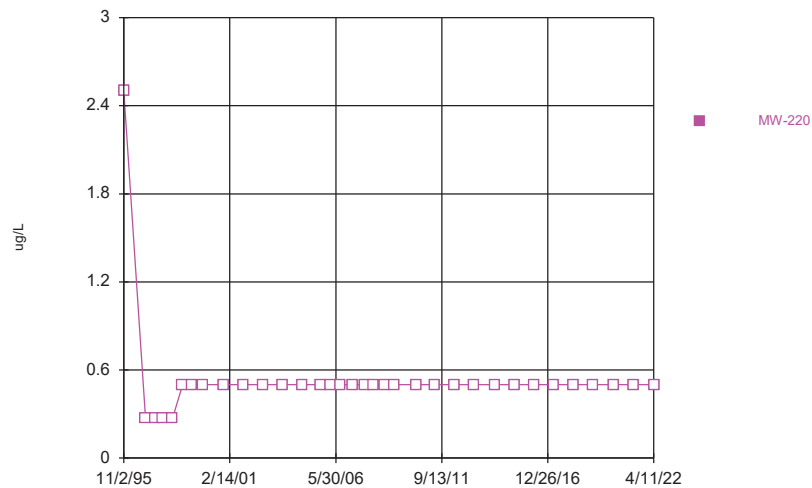
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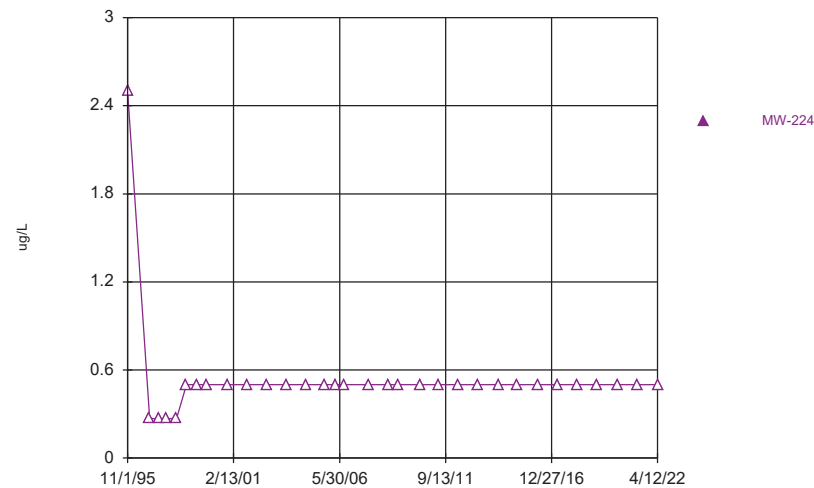
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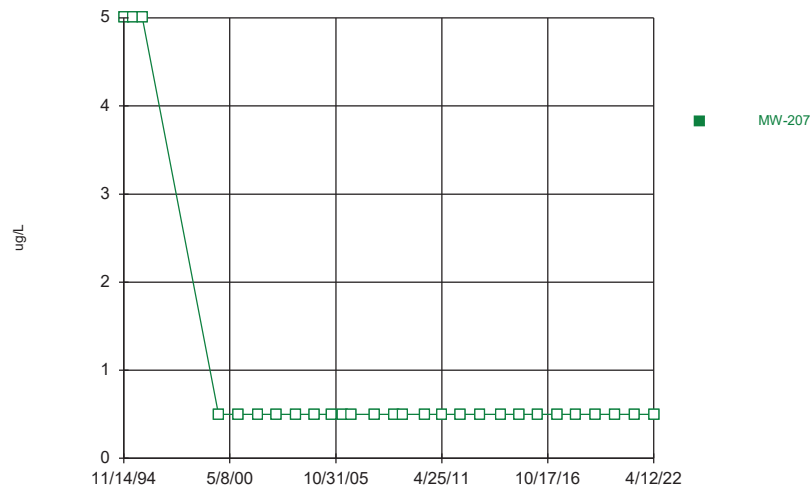
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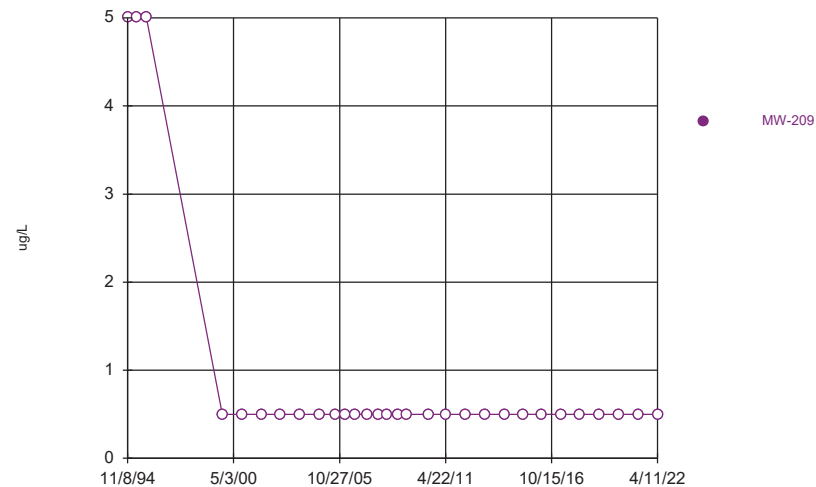
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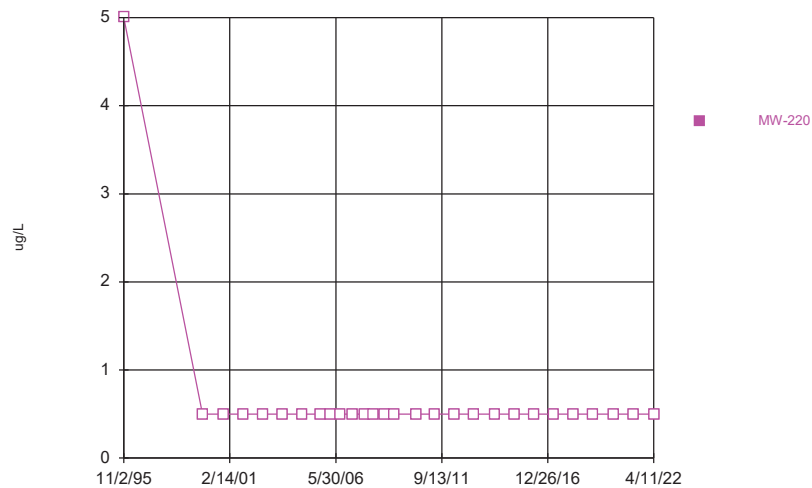
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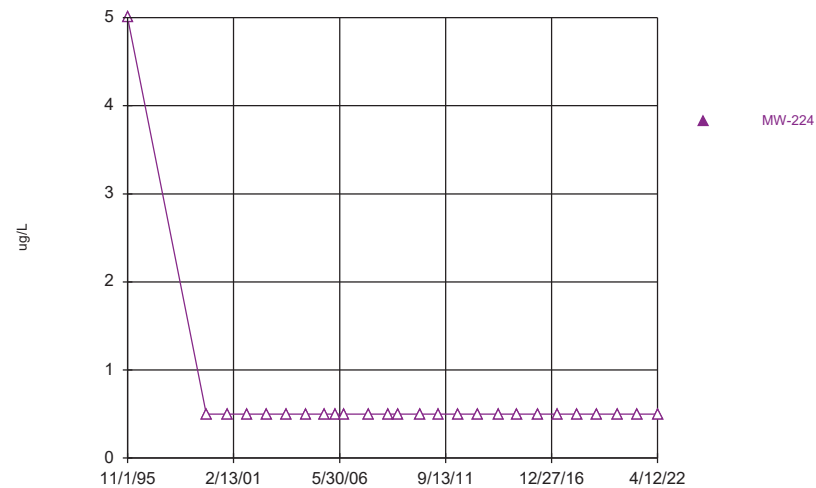
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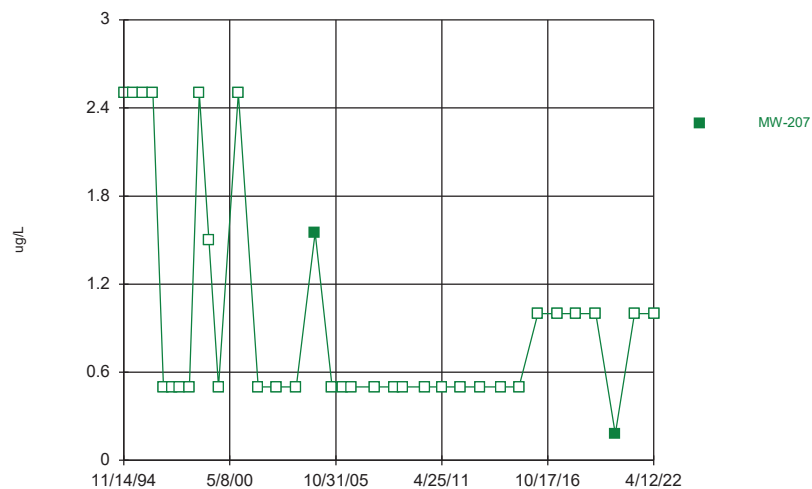
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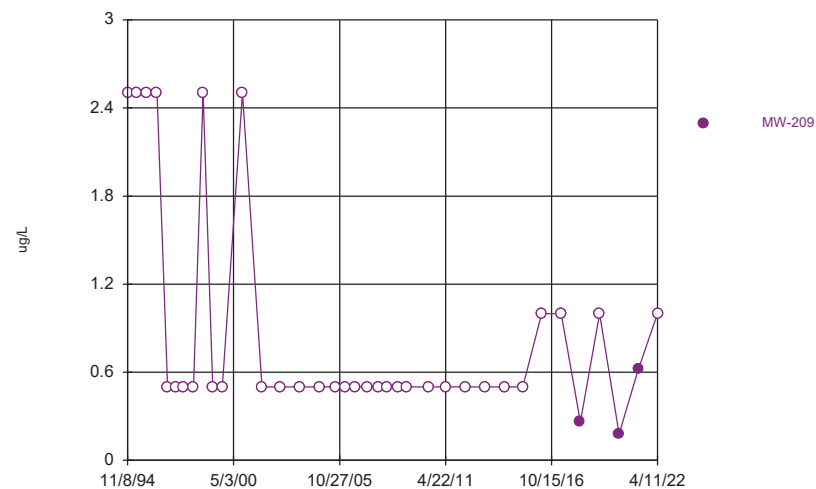
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Time Series



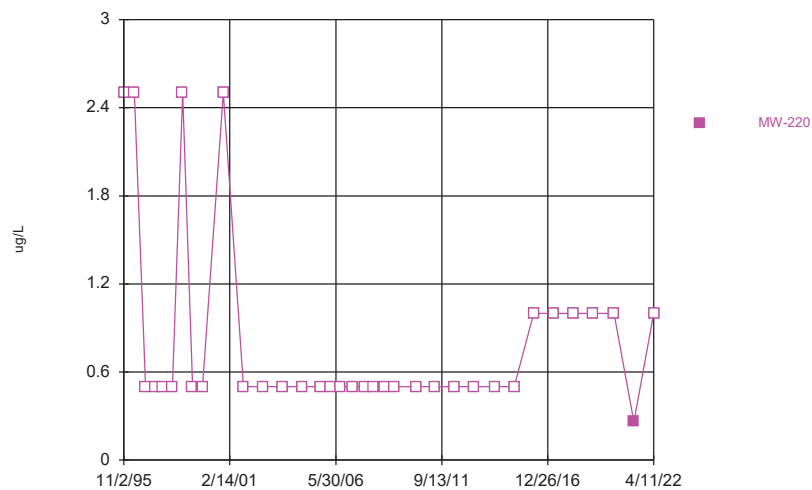
Constituent: Xylenes [total] Analysis Run 5/3/2022 10:42 AM View: UIU Time Series
Summit National Site Client: Summit National Site Data: Summit.National.Database

Time Series



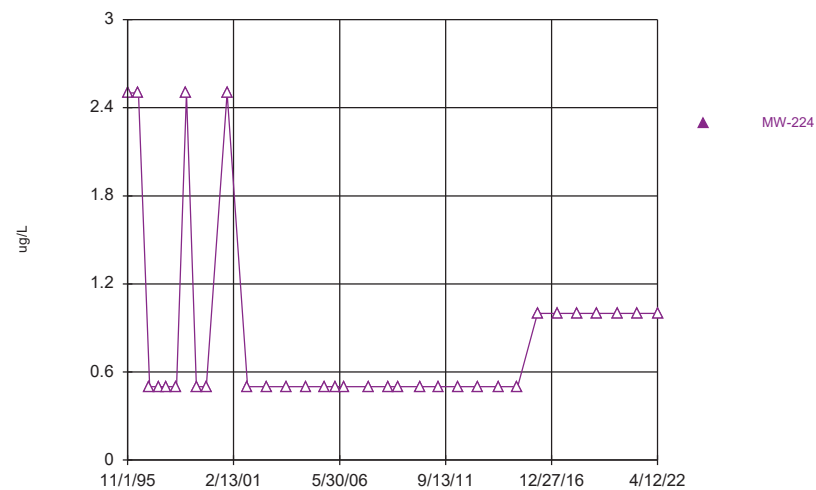
Constituent: Xylenes [total] Analysis Run 5/3/2022 10:42 AM View: UIU Time Series
Summit National Site Client: Summit National Site Data: Summit.National.Database

Time Series



Constituent: Xylenes [total] Analysis Run 5/3/2022 10:42 AM View: UIU Time Series
Summit National Site Client: Summit National Site Data: Summit.National.Database

Time Series

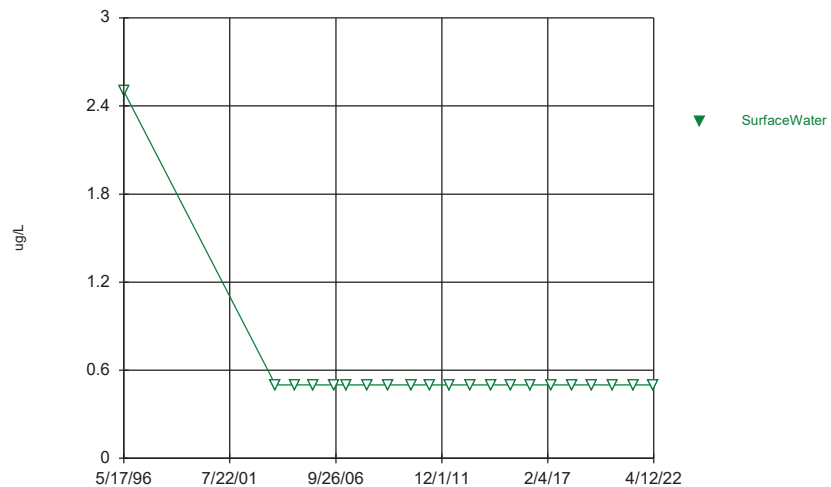


Constituent: Xylenes [total] Analysis Run 5/3/2022 10:42 AM View: UIU Time Series
Summit National Site Client: Summit National Site Data: Summit.National.Database

APPENDIX F

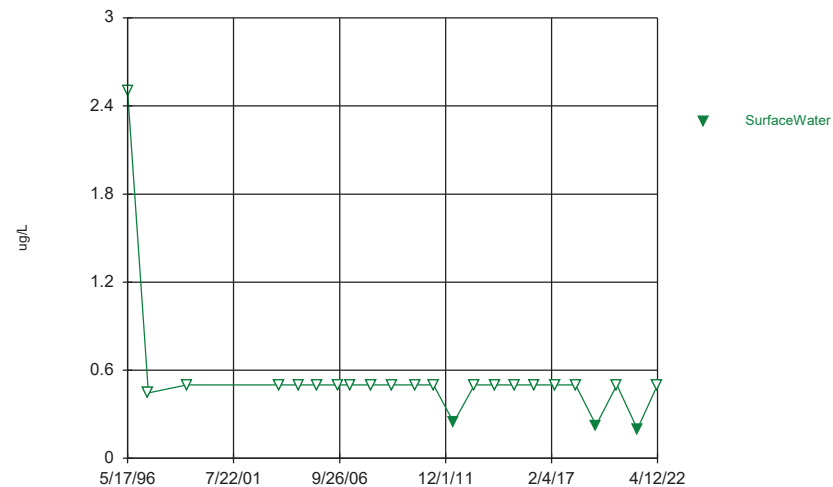
**TIME-SERIES PLOTS OF VOC RESULTS,
S&E SURFACE WATER**

Time Series



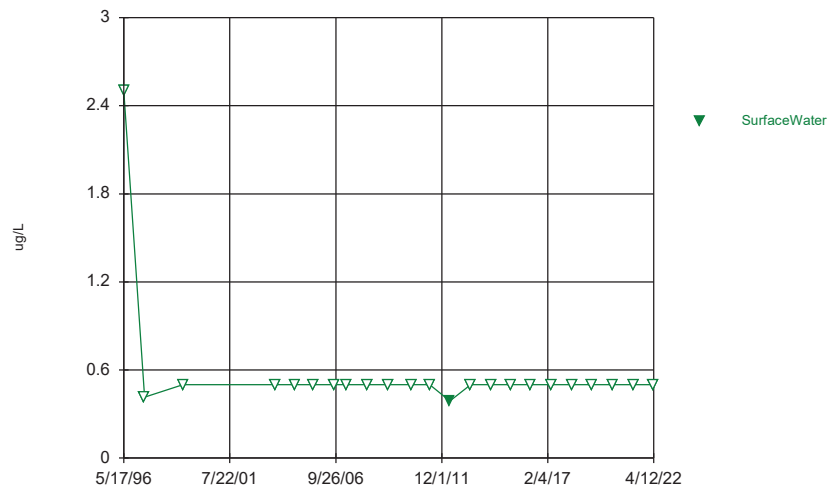
Constituent: 1,1,1-Trichloroethane Analysis Run 5/3/2022 10:56 AM View: Surface Water TS
Summit National Site Client: Summit National Site Data: Summit.National.Database

Time Series



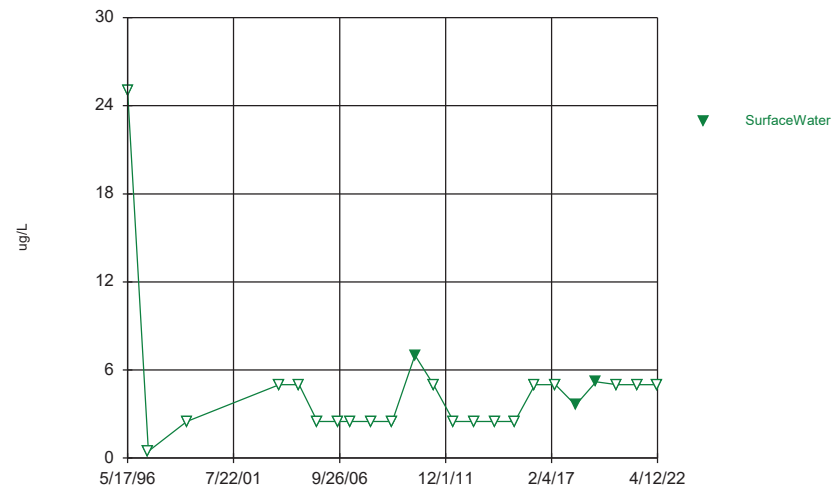
Constituent: 1,1-Dichloroethane Analysis Run 5/3/2022 10:56 AM View: Surface Water TS
Summit National Site Client: Summit National Site Data: Summit.National.Database

Time Series



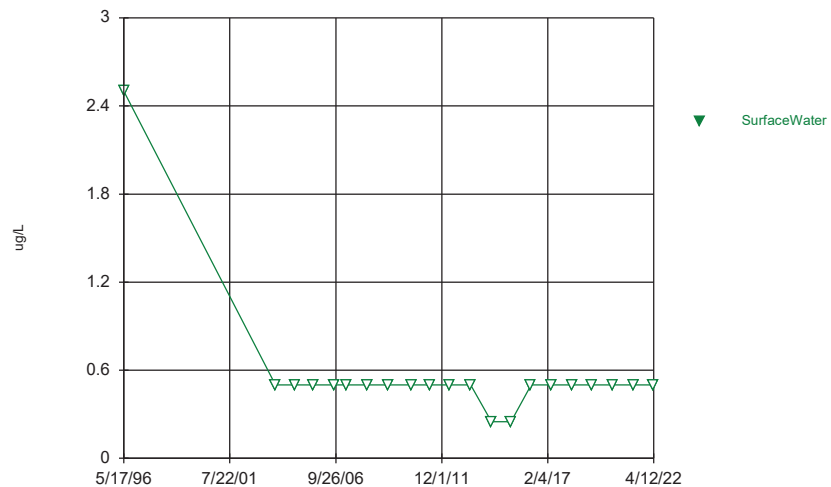
Constituent: 1,2-Dichloroethane Analysis Run 5/3/2022 10:56 AM View: Surface Water TS
Summit National Site Client: Summit National Site Data: Summit.National.Database

Time Series



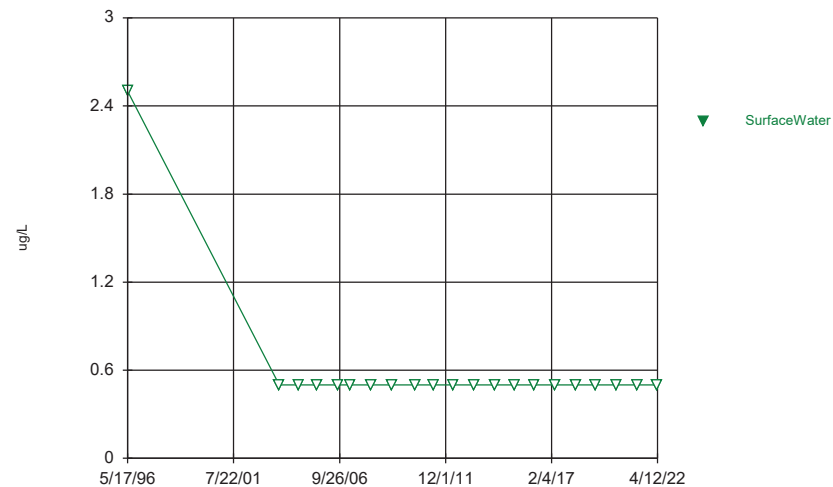
Constituent: Acetone Analysis Run 5/3/2022 10:57 AM View: Surface Water TS
Summit National Site Client: Summit National Site Data: Summit.National.Database

Time Series



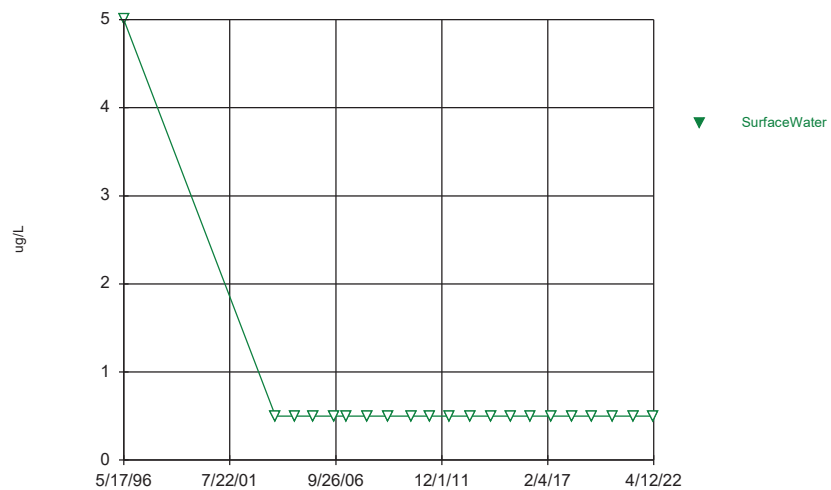
Constituent: Benzene Analysis Run 5/3/2022 10:57 AM View: Surface Water TS
Summit National Site Client: Summit National Site Data: Summit.National.Database

Time Series



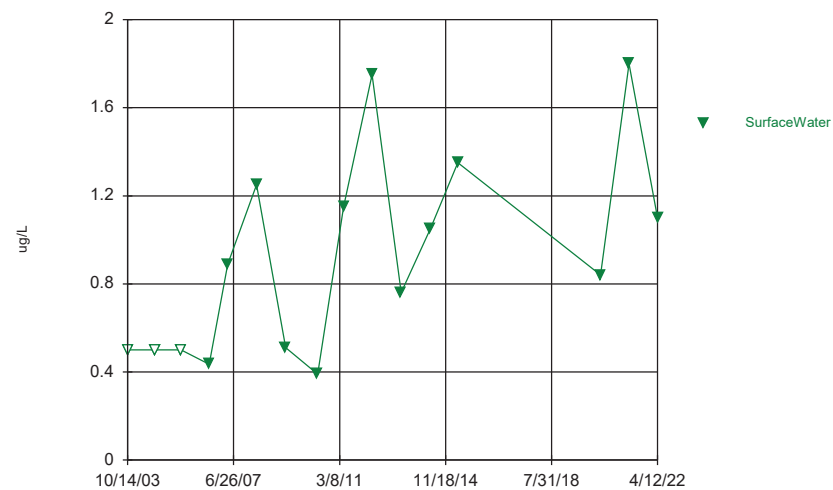
Constituent: Chlorobenzene Analysis Run 5/3/2022 10:57 AM View: Surface Water TS
Summit National Site Client: Summit National Site Data: Summit.National.Database

Time Series



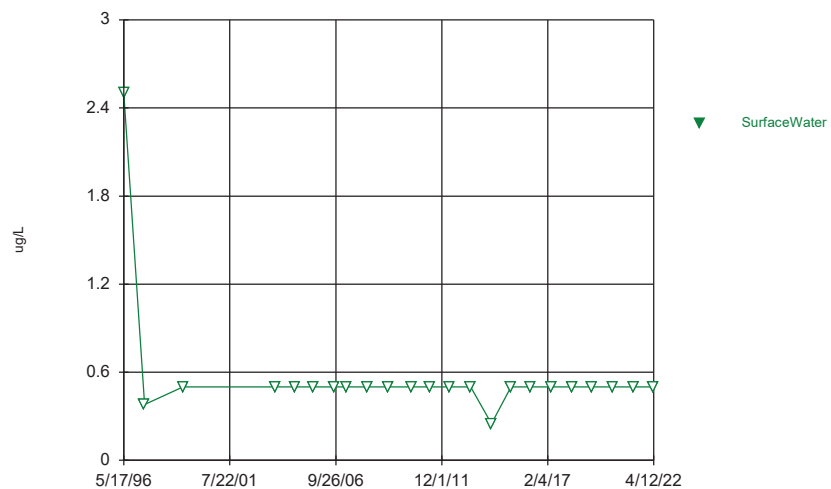
Constituent: Chloroethane Analysis Run 5/3/2022 10:57 AM View: Surface Water TS
Summit National Site Client: Summit National Site Data: Summit.National.Database

Time Series



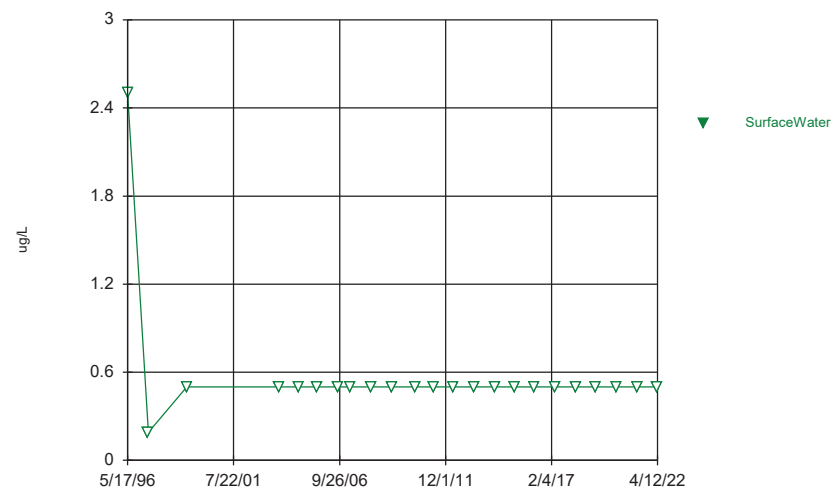
Constituent: cis-1,2-Dichloroethene Analysis Run 5/3/2022 10:57 AM View: Surface Water TS
Summit National Site Client: Summit National Site Data: Summit.National.Database

Time Series



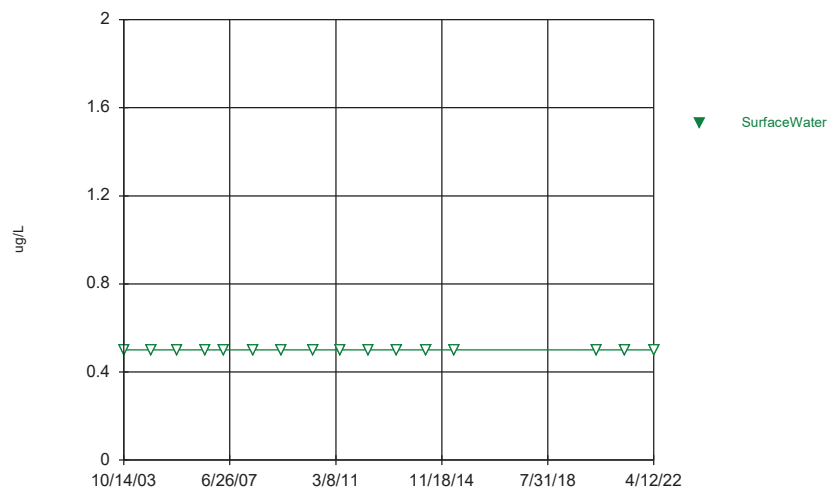
Constituent: Ethylbenzene Analysis Run 5/3/2022 10:57 AM View: Surface Water TS
Summit National Site Client: Summit National Site Data: Summit.National.Database

Time Series



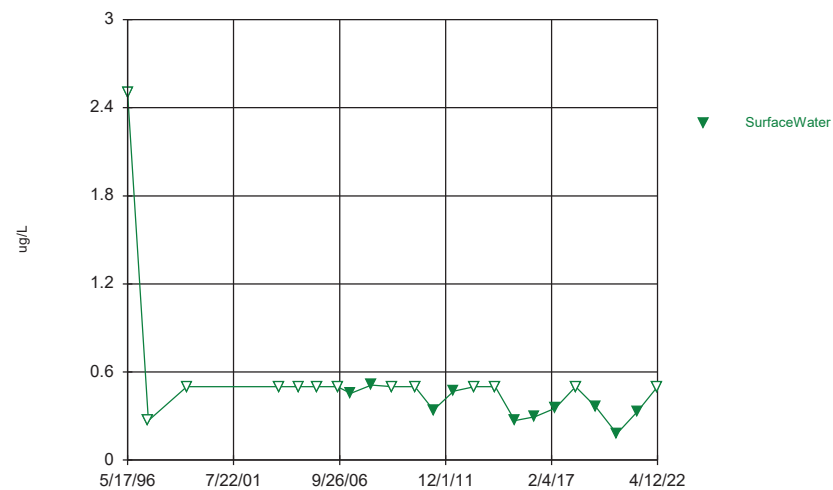
Constituent: Toluene Analysis Run 5/3/2022 10:57 AM View: Surface Water TS
Summit National Site Client: Summit National Site Data: Summit.National.Database

Time Series



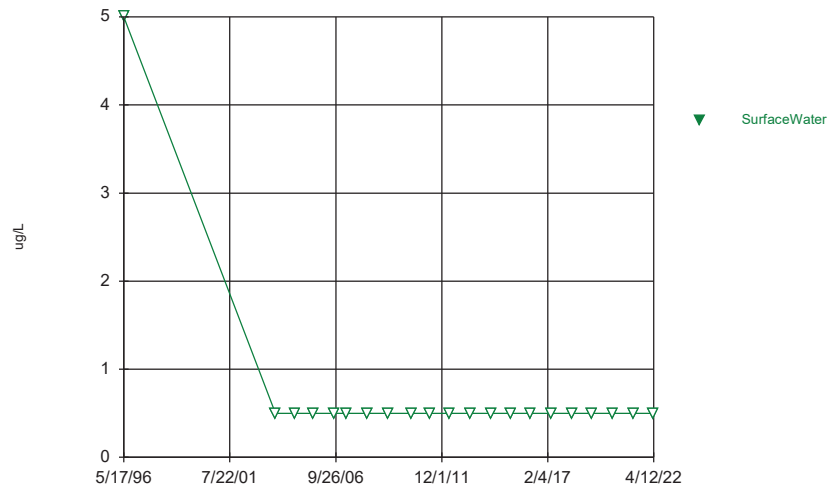
Constituent: trans-1,2-Dichloroethene Analysis Run 5/3/2022 10:57 AM View: Surface Water TS
Summit National Site Client: Summit National Site Data: Summit.National.Database

Time Series



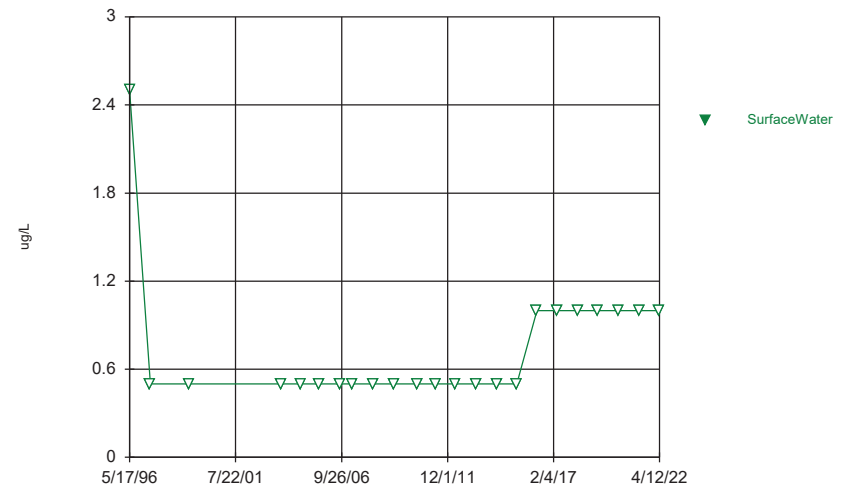
Constituent: Trichloroethene Analysis Run 5/3/2022 10:57 AM View: Surface Water TS
Summit National Site Client: Summit National Site Data: Summit.National.Database

Time Series



Constituent: Vinyl chloride Analysis Run 5/3/2022 10:57 AM View: Surface Water TS
Summit National Site Client: Summit National Site Data: Summit.National.Database

Time Series



Constituent: Xylenes [total] Analysis Run 5/3/2022 10:57 AM View: Surface Water TS
Summit National Site Client: Summit National Site Data: Summit.National.Database

APPENDIX G – SITE INSPECTION CHECKLIST

Site Inspection Checklist

I. SITE INFORMATION	
Site name: Summit National Superfund Site	Date of inspection: 11/15/2022
Location and Region: DEERFIELD TOWNSHIP, OH 44411	EPA ID: OHD980609994
Agency, office, or company leading the FYR: EPA Region 5	Weather/temperature: Overcast, cold, no precipitation
Remedy Includes: (Check all that apply)	
<input checked="" type="checkbox"/> Landfill cover/containment <input checked="" type="checkbox"/> Access controls <input checked="" type="checkbox"/> Institutional controls <input checked="" type="checkbox"/> Groundwater pump and treatment <input checked="" type="checkbox"/> Surface water collection and treatment	<input type="checkbox"/> Monitored natural attenuation <input type="checkbox"/> Groundwater containment <input type="checkbox"/> Vertical barrier walls <input type="checkbox"/> Other: <small>Click or tap here to enter text.</small>
Attachments:	
<input checked="" type="checkbox"/> Inspection team roster attached	<input checked="" type="checkbox"/> Site map attached

Site Inspection Checklist

1. O&M Documents			
<input checked="" type="checkbox"/> O&M manual	<input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
<input checked="" type="checkbox"/> As-built drawings	<input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
<input checked="" type="checkbox"/> Maintenance logs	<input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks: Click or tap here to enter text.			
2. Site-Specific Health and Safety Plan		<input checked="" type="checkbox"/> Readily available	
<input checked="" type="checkbox"/> Contingency Plan/Emergency Response Plan		<input checked="" type="checkbox"/> Readily available	
Remarks: Click or tap here to enter text.			
3. O&M and OSHA Training Records			
	<input checked="" type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks: Click or tap here to enter text.			
4. Permits and Service Agreements			
<input type="checkbox"/> Air discharge permit	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Effluent discharge	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Waste disposal, POTW	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Other permits: Click or tap here to enter text.			
Remarks: Click or tap here to enter text.			
5. Gas Generation Records			
	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: Click or tap here to enter text.			
6. Settlement Monument Records			
	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: Click or tap here to enter text.			
7. Groundwater Monitoring Records			
	<input checked="" type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks: Click or tap here to enter text.			
8. Leachate Extraction Records			
	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: Click or tap here to enter text.			
9. Discharge Compliance Records			

Site Inspection Checklist

- | | | | |
|---|--|-------------------------------------|---|
| <input type="checkbox"/> Air | <input type="checkbox"/> Readily available | <input type="checkbox"/> Up to date | <input checked="" type="checkbox"/> N/A |
| <input type="checkbox"/> Water (effluent) | <input type="checkbox"/> Readily available | <input type="checkbox"/> Up to date | <input checked="" type="checkbox"/> N/A |

Remarks: Click or tap here to enter text.

10. Daily Access/Security Logs

- | | | |
|---|--|------------------------------|
| <input checked="" type="checkbox"/> Readily available | <input checked="" type="checkbox"/> Up to date | <input type="checkbox"/> N/A |
|---|--|------------------------------|

Remarks: No ongoing issues.

IV. O&M COSTS

1. O&M Organization

- | | |
|--|--|
| <input type="checkbox"/> State in-house | <input type="checkbox"/> Contractor for State |
| <input type="checkbox"/> PRP in-house | <input checked="" type="checkbox"/> Contractor for PRP |
| <input type="checkbox"/> Federal Facility in-house | <input type="checkbox"/> Contractor for Federal Facility |

Remarks: Click or tap here to enter text.

2. O&M Cost Records

- Readily available Up to date Funding mechanism/agreement in place

Original O&M cost estimate Click or tap here to enter text. Breakdown attached

Total annual cost by year for review period if available

From	To	Total cost	
Click or tap to enter a date.	Click or tap to enter a date.	Click or tap here to enter text.	<input type="checkbox"/> Breakdown attached
From	To	Total cost	
Click or tap to enter a date.	Click or tap to enter a date.	Click or tap here to enter text.	<input type="checkbox"/> Breakdown attached
From	To	Total cost	
Click or tap to enter a date.	Click or tap to enter a date.	Click or tap here to enter text.	<input type="checkbox"/> Breakdown attached
From	To	Total cost	
Click or tap to enter a date.	Click or tap to enter a date.	Click or tap here to enter text.	<input type="checkbox"/> Breakdown attached
From	To	Total cost	
Click or tap to enter a date.	Click or tap to enter a date.	Click or tap here to enter text.	<input type="checkbox"/> Breakdown attached

3. Unanticipated or Unusually High O&M Costs During Review Period

Describe costs and reasons:

Click or tap here to enter text.

V. ACCESS AND INSTITUTIONAL CONTROLS

Site Inspection Checklist

<input checked="" type="checkbox"/> Applicable	<input type="checkbox"/> N/A
1. Fencing Damaged <input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> Gates secured <input type="checkbox"/> N/A Remarks: Click or tap here to enter text.	
2. Other Access Restrictions <input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> Gates secured Remarks: Click or tap here to enter text.	
3. Institutional Controls (ICs)	
A. Implementation and Enforcement	
Site conditions imply ICs not properly implemented	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Site conditions imply ICs not being fully enforced	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Type of monitoring (<i>e.g.</i> , self-reporting, drive by)	Self-reporting
Frequency	Bi-monthly
Responsible party/agency	PRP – Summit National Trust
Contact: Name _____, Title _____, Click or tap to enter a date., P: Phone Number _____	
Reporting is up-to-date	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Reports are verified by the lead agency	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Specific requirements in deed or decision documents have been met	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Violations have been reported	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Other problems or suggestions: Click or tap here to enter text.	
B. Adequacy <input checked="" type="checkbox"/> ICs are adequate <input type="checkbox"/> ICs are inadequate <input type="checkbox"/> N/A Remarks: Click or tap here to enter text.	
4. General	
A. Vandalism/Trespassing <input type="checkbox"/> Location shown on site map <input checked="" type="checkbox"/> No vandalism evident Remarks: Click or tap here to enter text.	
B. Land use changes on site <input checked="" type="checkbox"/> N/A Remarks: Click or tap here to enter text.	
C. Land use changes off site <input checked="" type="checkbox"/> N/A Remarks: Click or tap here to enter text.	
VI. GENERAL SITE CONDITIONS	

Site Inspection Checklist

1. Roads	<input checked="" type="checkbox"/> Applicable	<input type="checkbox"/> N/A
A. Roads damaged	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Roads adequate <input type="checkbox"/> N/A
Remarks: Click or tap here to enter text.		
B. Other Site Conditions		
Remarks: Click or tap here to enter text.		
VII. LANDFILL COVERS		
1. Landfill Surface	<input checked="" type="checkbox"/> Applicable	<input type="checkbox"/> N/A
A. Settlement (Low Spots)	<input type="checkbox"/> Location Shown on Site Map	<input checked="" type="checkbox"/> Settlement Not Evident
Areal Extent: Click or tap here to enter text.		Depth: Click or tap here to enter text.
Remarks: Click or tap here to enter text.		
B. Cracks	<input type="checkbox"/> Location Shown on Site Map	<input checked="" type="checkbox"/> Cracking Not Evident
Lengths: Click or tap here to enter text.	Widths: Click or tap here to enter text.	Depths: Click or tap here to enter text.
Remarks: Click or tap here to enter text.		
C. Erosion	<input type="checkbox"/> Location Shown on Site Map	<input checked="" type="checkbox"/> Erosion Not Evident
Areal Extent: Click or tap here to enter text.		Depth: Click or tap here to enter text.
Remarks: Click or tap here to enter text.		
D. Holes	<input type="checkbox"/> Location Shown on Site Map	<input checked="" type="checkbox"/> Holes Not Evident
Areal Extent: Click or tap here to enter text.		Depth: Click or tap here to enter text.
Remarks: Click or tap here to enter text.		
E. Vegetative Cover	<input checked="" type="checkbox"/> Grass	<input checked="" type="checkbox"/> Cover Properly Established
<input type="checkbox"/> Tress/Shrubs (indicate size and locations on a diagram)		<input type="checkbox"/> No Signs of Stress
Remarks: Click or tap here to enter text.		
F. Alternative Cover (armored rock, concrete, etc.)		<input checked="" type="checkbox"/> N/A
Remarks: Click or tap here to enter text.		
G. Bulges	<input type="checkbox"/> Location Shown on Site Map	<input checked="" type="checkbox"/> Bulges Not Evident
Areal Extent: Click or tap here to enter text.		Height: Click or tap here to enter text.
Remarks: Click or tap here to enter text.		
H. Wet Areas/Water Damage	<input type="checkbox"/> Wet Areas/Water Damage Not Evident	
<input type="checkbox"/> Wet Areas	<input type="checkbox"/> Location Shown on Site Map	Areal Extent: Click or tap here to enter text.

Site Inspection Checklist

Remarks: Click or tap here to enter text.

D. Undercutting Location Shown on Site Map Undercutting Not Evident

Areal Extent: Click or tap here to enter text.

Depth: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

E. Obstructions Location Shown on Site Map Undercutting Not Evident

Type: Click or tap here to enter text.

Areal Extent: Click or tap here to enter text.

Size: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

F. Excessive Vegetative Growth Location Shown on Site Map Excessive Growth Not Evident

Areal Extent: Click or tap here to enter text.

Vegetation in channels does not obstruct flow

Remarks: Click or tap here to enter text.

4. Cover Penetrations Applicable N/A

A. Gas Vents Active Passive

Properly secured/locked Functioning Routinely sampled

Good condition Evidence of leakage at penetration

Needs Maintenance N/A

Remarks: Click or tap here to enter text.

B. Gas Monitoring Probes

Properly secured/locked Functioning Routinely sampled

Good condition Evidence of leakage at penetration

Needs Maintenance N/A

Remarks: Click or tap here to enter text.

C. Monitoring Wells

Properly secured/locked Functioning Routinely sampled

Good condition Evidence of leakage at penetration

Needs Maintenance N/A

Remarks: Clearly marked, clearly visible, and secured.

D. Leachate Extraction Wells

Properly secured/locked Functioning Routinely sampled

Site Inspection Checklist

<input type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance Remarks: Click or tap here to enter text.	<input type="checkbox"/> Evidence of leakage at penetration <input checked="" type="checkbox"/> N/A
E. Settlement Monuments <input type="checkbox"/> Located <input type="checkbox"/> Routinely Surveyed <input checked="" type="checkbox"/> N/A Remarks: Click or tap here to enter text.	
5. Gas Collection and Treatment <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A	
A. Gas Treatment Facilities <input type="checkbox"/> Flaring <input type="checkbox"/> Thermal Destruction <input type="checkbox"/> Collection for Reuse <input type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance Remarks: Click or tap here to enter text.	
B. Gas Collection Wells, Manifolds, and Piping <input type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A Remarks: Click or tap here to enter text.	
C. Gas Monitoring Facilities (e.g. gas monitoring of adjacent homes or buildings) <input type="checkbox"/> Good condition <input type="checkbox"/> Needs Maintenance <input type="checkbox"/> N/A Remarks: Click or tap here to enter text.	
6. Cover Drainage Layer <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A	
A. Outlet Pipes Inspected <input type="checkbox"/> Functioning <input type="checkbox"/> N/A Remarks: Click or tap here to enter text.	
B. Outlet Rock Inspected <input type="checkbox"/> Functioning <input type="checkbox"/> N/A Remarks: Click or tap here to enter text.	
7. Detention/Sediment Ponds <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A	
A. Siltation <input type="checkbox"/> Siltation Not Evident <input type="checkbox"/> N/A Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text. Remarks: Click or tap here to enter text.	
B. Erosion <input type="checkbox"/> Erosion Not Evident Areal Extent: Click or tap here to enter text. Depth: Click or tap here to enter text. Remarks: Click or tap here to enter text.	
C. Outlet Works <input type="checkbox"/> Functioning <input type="checkbox"/> N/A Remarks: Click or tap here to enter text.	

Site Inspection Checklist

D. Dam	<input type="checkbox"/> Functioning	<input type="checkbox"/> N/A
Remarks: Click or tap here to enter text.		
8. Retaining Walls	<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
A. Deformations	<input type="checkbox"/> Location Shown on Site Map	<input type="checkbox"/> Deformation Not Evident
Horizontal Displacement: Click or tap here to enter text.		
Vertical Displacement: Click or tap here to enter text.		
Rotational Displacement: Click or tap here to enter text.		
Remarks: Click or tap here to enter text.		
B. Degradation	<input type="checkbox"/> Location Shown on Site Map	<input type="checkbox"/> Deformation Not Evident
Remarks: Click or tap here to enter text.		
9. Perimeter Ditches/Off-Site Discharge	<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
A. Siltation	<input type="checkbox"/> Location Shown on Site Map	<input type="checkbox"/> Siltation Not Evident
Areal Extent: Click or tap here to enter text.		Depth: Click or tap here to enter text.
Remarks: Click or tap here to enter text.		
B. Vegetative Growth	<input type="checkbox"/> Location Shown on Site Map	<input type="checkbox"/> N/A
<input type="checkbox"/> Vegetation Does Not Impede Flow		
Areal Extent: Click or tap here to enter text.		Type: Click or tap here to enter text.
Remarks: Click or tap here to enter text.		
C. Erosion	<input type="checkbox"/> Location Shown on Site Map	<input type="checkbox"/> Erosion Not Evident
Areal Extent: Click or tap here to enter text.		Depth: Click or tap here to enter text.
Remarks: Click or tap here to enter text.		
D. Discharge Structure	<input type="checkbox"/> Functioning	<input type="checkbox"/> N/A
Remarks: Click or tap here to enter text.		
VIII. VERTICAL BARRIER WALLS		
<input type="checkbox"/> Applicable		<input checked="" type="checkbox"/> N/A
1. Settlement	<input type="checkbox"/> Location Shown on Site Map	<input type="checkbox"/> Settlement Not Evident
Areal Extent: Click or tap here to enter text.		Depth: Click or tap here to enter text.
Remarks: Click or tap here to enter text.		
2. Performance Monitoring	Type of Monitoring: Click or tap here to enter text.	
<input type="checkbox"/> Performance Not Monitored		<input type="checkbox"/> Evidence of Breaching

Site Inspection Checklist

Frequency: Click or tap here to enter text.

Head Differential: Click or tap here to enter text.

Remarks: Click or tap here to enter text.

IX. GROUNDWATER/SURFACE WATER REMEDIES

Applicable

N/A

1. Groundwater Extraction Wells, Pumps, and Pipelines

Applicable

N/A

A. Pumps, Wellhead Plumbing, and Electrical

N/A

Good Condition

All Required Wells Properly Operating

Needs Maintenance

Remarks: Click or tap here to enter text.

B. Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances

Good Condition

Needs Maintenance

Remarks: System is in currently on site but has been shutdown since 1995 and will be removed soon. Remains on site, in the event of any need for further treatment at the site, a new system will be put in place.

C. Spare Parts and Equipment

Needs to be Provided

Readily Available

Good Condition

Requires Upgrade

Remarks: Click or tap here to enter text.

2. Surface Water Collection Structures, Pumps, and Pipelines

Applicable

N/A

A. Collection Structures, Pumps, and Electrical

Good Condition

Needs Maintenance

Remarks: Click or tap here to enter text.

B. Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances

Good Condition

Needs Maintenance

Remarks: Click or tap here to enter text.

C. Spare Parts and Equipment

Needs to be Provided

Readily Available

Good Condition

Requires Upgrade

Remarks: Click or tap here to enter text.

3. Treatment System

Applicable

N/A

A. Treatment Train (Check components that apply)

Metals removal

Oil/Water Separation

Bioremediation

Air Stripping

Carbon Absorbers

Filters Click or tap here to enter text.

Site Inspection Checklist

- Additive (e.g. chelation agent, flocculent) Click or tap here to enter text.
- Others Click or tap here to enter text.
- Good Condition Needs Maintenance
- Sampling ports properly marked and functional
- Sampling/maintenance log displayed and up to date
- Equipment properly identified
- Quantity of groundwater treated annually Click or tap here to enter text.
- Quantity of surface water treated annually Click or tap here to enter text.

Remarks: System is in currently on site but has been shutdown since 1995 and will be removed soon. Remains on site, in the event of any need for further treatment at the site, a new system will be put in place.

B. Electrical Enclosures and Panels (properly rated and functional)

- N/A Good Condition Needs Maintenance

Remarks: Click or tap here to enter text.

C. Tanks, Vaults, Storage Vessels

- N/A Good Condition Needs Maintenance
- Proper Secondary Containment Good Condition Needs Maintenance

Remarks: Click or tap here to enter text.

D. Discharge Structure and Appurtenances

- N/A Good Condition Needs Maintenance

Remarks: Click or tap here to enter text.

E. Treatment Building(s)

- N/A Good condition (esp. roof and doorways)
- Needs repair Chemicals and equipment properly stored

Remarks Click or tap here to enter text.

F. Monitoring Wells (Pump and Treatment Remedy)

- Properly secured/locked Functioning N/A
- Routinely sampled All required wells located
- Good condition Needs Maintenance

Remarks Click or tap here to enter text.

4. Monitoring Data

A. Monitoring Data:

Site Inspection Checklist

Is Routinely Submitted on Time

Is of Acceptable Quality

B. Monitoring Data Suggests:

Groundwater plume is effectively contained

Contaminant concentrations are declining

5. Monitored Natural Attenuation

A. Monitoring Wells (natural attenuation remedy)

N/A

Properly secured/locked

Functioning

Routinely sampled

All required wells located

Needs Maintenance

Good condition

Remarks: [Click or tap here to enter text.](#)

X. OTHER REMEDIES

If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.

XI. OVERALL OBSERVATIONS

1. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).

No issues with the remedy observed.

2. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

O&M activities are adequate and effective in preserving the long-term protectiveness of the remedy.

3. Early Indicators of Potential Remedy Problems

Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future.

No potential problems observed.

4. Early Indicators of Potential Remedy Problems

Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.

No optimization opportunities noted.

Site Inspection Appendix A: Summit National Superfund Site Photos

Photo 1: Site entrance gate.



Photo 2: Former water treatment system building.



Photo 3: Monitoring well cluster.



Photo 4: Southwest Corner of site



Photo 5: Western Side of the Site.



Photo 6: Southeast portion of the site.

