2024 Annual Monitoring Report

Wausau Ground Water Contamination Site
Wausau, Wisconsin

U.S. EPA ID: WID 980993521

Wausau Group of Responsible Parties

March 26, 2025

→ The Power of Commitment

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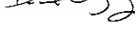
[Status code]	S3	Mel Ross	OJ Ojinaga				3/25/2025
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1. Introduction

GHD Services Inc. (GHD) has prepared this 2024 Annual Monitoring Report for the Wausau Water Supply National Priorities List (NPL) Site (Site) in Wausau, Wisconsin, on behalf of the Wausau Group of Responsible Parties (Group). This report presents the results of annual groundwater monitoring conducted at the Site in September 2024.

1.1 History

The Group initiated remedial action at the Site in the early 1990s in accordance with the September 29, 1990, Record of Decision (ROD) and the Consent Decree (CD) entered with the court on January 24, 1991. The final remedial action at the Site consisted of two soil vapor extraction (SVE) systems to address the source areas along with groundwater extraction and treatment, utilizing existing municipal production wells (CW3 and CW6) and a remediation well (EW1). The Site location is shown on Figure 1. A Site plan is presented on Figure 2.

Source area remediation was accomplished by the installation of SVE systems at Marathon Electric[1] (West Bank) and Wausau Chemical Corporation (East Bank) in January 1994. The SVE system at Marathon Electric operated until April 1996 when the West Bank source remediation was approved as complete. The East Bank SVE system was modified in 1996 and continued to operate through January 2001. The East Bank source remediation was approved as complete in 2007 and SVE system operation ceased.

The groundwater remediation system consists of two municipal water supply wells (CW3 and CW6) and one extraction well installed at Marathon Electric (EW1). Air strippers located at the Wausau water treatment plant treats water from the municipal supply wells. Water from EW1 was treated by air stripping (over riprap on the riverbank) before discharging to the Wisconsin River.

The pumping rates for the three extraction wells were originally defined in the CD. The Groundwater Flow Model Report (CRA, May 1993), established a range of pumping rates that would maintain capture of the groundwater plume. Subsequently, in an August 4, 1995 letter, the United States Environmental Protection Agency (EPA) approved a pumping configuration range for the three extraction wells. Those pumping rates were:

– CW3: 65 hours per week at 1,200 gallons per minute (gpm) to 100 hours per week at 1,100 gpm
– CW6: 85 hours to 100 hours per week at 1,400 gpm
– EW1: 800 to 900 gpm continuously

EW1 stopped operating in July 2012 due to pump failure. Since EW1 has completed its performance goal, the Group proposed a pilot study to confirm that the groundwater containment network of pumping wells will continue to be effective without the need to pump EW1. The EW1 Shutdown Pilot Study Work Plan proposal was submitted to the EPA on September 3, 2013. The Pilot Study was conducted from the 4th quarter of 2013 through the 4th quarter of 2014, and the results were reported to the EPA in March 2015. In a letter dated November 19, 2021, the EPA approved the request to permanently shut down EW1. We have continued to evaluate groundwater quality through the annual groundwater monitoring conducted each fall from 2015 through 2024 at EW1.

From 1985 through 1996, as an interim remedial measure, additional groundwater remediation was provided by a groundwater extraction system operated by Wausau Chemical Corporation (WCC). The extraction system at WCC consisted of a series of shallow wells at the south end of WCC property. Groundwater from this system was treated by air stripping. This remediation was conducted in addition to the requirements of the ROD or the CD and operation ceased in 1996.

From 1993 through 2000 groundwater monitoring was conducted according to the Monitoring Program Plan (CRA, 1994). The Monitoring Program Plan consisted of a complex system of monthly, quarterly, semiannual, and annual

[1] Marathon Electric was acquired by Regal Beloit Corporation and is now doing business at the Wausau plant under the Regal name.

monitoring. In June 2000, the Groundwater Monitoring Plan replaced the Monitoring Program Plan as the approved groundwater monitoring program. The Groundwater Monitoring Plan consists of annual sampling of monitoring wells and quarterly sampling of EW1 (when operating).

The Groundwater Monitoring Plan requires an annual report on the activities occurring the previous calendar year. This report fulfills the requirement for 2024.

1.2 Monitoring Background

Groundwater monitoring at this Site is a combination of hydraulic and water quality monitoring designed to verify that the groundwater extraction wells contain the contaminant plume, and that groundwater quality is improving as a result of past source remedial actions and ongoing volatile organic compound (VOC) removal from the aquifer. Groundwater remediation at the Wausau Site has been ongoing for over 30 years.

Aquifer remediation progress is a slow process, but contaminant concentrations have been reduced significantly at the Site. The aquifer has been monitored annually, and the data show a 30-year downward trend of VOC concentrations in groundwater. Because of the time necessary to achieve groundwater remediation, containment of contaminated groundwater is the primary measurable and achievable short-term objective.

For the purpose of evaluation, groundwater monitoring at Wausau has been divided into two areas. The first is a Rexnord (formerly Marathon Electric Corporation) facility along the west bank of the Wisconsin River (West Bank), which includes a closed municipal landfill. The second is the Wausau Chemical facility located along the east bank of the Wisconsin River (East Bank). The river forms a natural hydraulic division of the Site. During 2024, two groundwater extraction wells were operated to remove VOC contaminated groundwater. One extraction well is on the West Bank (CW6), and one is on the East Bank (CW3) (see Figure 2). During the 2024 sampling event, both extraction wells were functional and pumping.

1.3 Site Geology

The Site is underlain by glacial outwash and alluvial sediments that have filled in the pre-glacial stream valley into which the Wisconsin River now flows. The alluvial aquifer consists of sand and gravel with minimal silt or clay lenses and ranges from 0 to 160 feet thick and has an irregular base and lateral boundaries. Relatively impermeable bedrock underlies the aquifer and forms its lateral boundaries within the pre-glacial valley. Six production wells in the Site area provide drinking water for the City of Wausau. These wells are screened in the alluvial aquifer and are adjacent to the Wisconsin River.

1.4 Groundwater Cleanup Standards

The Groundwater Monitoring Plan was developed to monitor compliance with cleanup standards for the groundwater at the Site. The groundwater cleanup standards for the Site are the EPA maximum drinking water contaminant levels (MCLs). The MCLs for the primary VOC contaminants of concern at the Site are:

Trichloroethylene (TCE)	5 µg/L
Tetrachloroethylene (PCE)	5 µg/L
cis 1,2-Dichloroethene (cis-1,2-DCE)	70 µg/L
Vinyl chloride	2 µg/L

With the exception of vinyl chloride, these standards are the same as the Wisconsin Department of Natural Resources WDNR) Enforcement Standards (ES). The Wisconsin ES for vinyl chloride is 0.2 µg/L (WDNR Chapter NR 140).

2. 2024 Annual Monitoring

The 2024 annual groundwater monitoring event was conducted on September 23 and 24, 2024. Monitoring was conducted in accordance with the Groundwater Monitoring Plan (GMP) with the revisions to the analyte list and monitored locations as approved by EPA since the initial GMP was first approved in 2000. Table 2.1 presents the VOC analyte list and monitored locations for the 2024 sampling event. These locations were proposed in the 2019 Annual Monitoring Report (GHD, 2020). At the request of the EPA, monitoring well C3S was sampled in addition to the approved monitoring well list.

2.1 Water Level Monitoring

Table 2.2 presents the groundwater elevation data measured on September 23 and 24, 2024. Water table contours based on these measurements are depicted on Figure 3. Field staff obtained water level measurements on the East Bank on September 23, 2024, during the time well CW3 was operating. The West Bank water level measurements were obtained on September 24, 2024, while well CW6 on the West Bank was operating. Water level measurements from the City production wells were obtained with the assistance of City personnel.

The East Bank groundwater flow patterns are controlled by the operation of CW3. however, since CW3 was not operational during the groundwater measurements, East Bank groundwater contours did not indicate the typical large cone of influence surrounding CW3 that fully captures the East Bank contaminant plume that we have seen historically. It can be assumed that, based on historical data, the cone of influence is still present when CW3 is operational, however this isn't depicted in the 2023 contours. Under natural conditions, groundwater on the East Bank flows in a south-southwest direction toward the Wisconsin River, as observed during 2023 sampling event when CW3 was not operating due to rehabilitation activities being conducted at the time of hydraulic monitoring. This effect on groundwater flow can be seen in Figure 3, as mentioned above.

West Bank contours depict a large cone of influence created by CW6 and CW10. Under natural conditions, West Bank groundwater would flow generally eastward and discharge to the Wisconsin River. Under pumping conditions, however, groundwater flows toward the City supply wells.

2.2 Groundwater Sampling

During the annual groundwater sampling event, samples were collected from 10 wells from the East Bank and 15 wells from the West Bank monitoring networks, respectively. Groundwater samples were analyzed for the Site-specific VOC list (see Table 2.1) by EPA Method 8260D. A summary of the groundwater sampling event, including field parameter measurements, is presented in Table 2.3.

Groundwater sampling was conducted according to the Quality Assurance Project Plan (CRA, February 1994) as amended by a June 11, 1999, letter to the EPA. Eurofins Laboratories, Inc., of Chicago, Illinois, analyzed all samples. Laboratory results will be submitted electronically in the Region V Electronic Data Deliverable (EDD) format for inclusion in the Region V EPA database. Copies of the laboratory report and data quality validation memoranda for the 2024 data are presented in Appendix A.

2.3 Extraction Well Sampling

EW-1 did not operate during 2024; thus, influent and post treatment effluent samples were not collected. However, a sample was collected from EW1 during the annual monitoring event, as discussed below.

3. Operation and Maintenance

Operation and maintenance activities reported in this section cover the City production wells, groundwater monitoring wells, and the annual inspection of the paved surfaces near the East Bank source area.

3.1 Monitoring Well Inspection

All Site monitoring wells were inspected during the September 2024 monitoring event. An inspection form was used to document the following well conditions:

- Well ID present
- Well location free of overgrowth
- Protective cover and casing condition
- Well cap condition
- Lock condition
- Concrete seal condition
- Locking cover condition
- Ground condition (subsidence)
- Flush mount surface condition
- Flush mount bolt condition

Table 3.1 presents the results of the inspection including locations where repairs are required. No critical damage was noted during the inspection. Location repairs will be addressed in 2025.

3.2 City Production Wells

Table 3.2 presents 2024 pumping data for the six City wells. While only wells CW3 and CW6 are part of the remediation system, data for all City wells are presented, consistent with previous reports. The table shows, by month, the number of hours each well was operated, the number of gallons pumped from each well, and the average pumping rate while the pump was operating.

Required pumping rates for CW3 and CW6 were established in an August 4, 1995 letter from EPA. The pumping rates are required under the CD/SOW to ensure full capture of the groundwater plume. In accordance with the letter, pumping of CW3 was to be maintained between 65 hours per week at 1,200 gallons per minute (gpm) to 100 hours per week at 1,100 gpm. Pumping of CW6 was set at 85 hours per week at 1,400 gpm. CW3 and CW6 generally operate on alternate weekly schedules where CW6 operates on the weekdays and CW3 operates more on the weekends.

During 2024, CW3 operated for an average of 74.5 hours per week with an average pumping rate of 1,207 gpm, operating at approximately 115.3% of the total required gallons based on the 1995 EPA pumping requirements.

CW6 pumped an average of 91.8 hours per week with an average pumping rate of 1,201 gpm. Although well rehabilitation is conducted on a regular basis, CW6 is no longer capable of pumping at the prescribed rate of 1,400 gpm. The total volume of groundwater (343,844,100) pumped by CW6 during 2024 was 92.6% of the EPA required volume of 371,280,000 gallons/year.

3.3 East Bank Source Area Pavement Inspection

The EPA and WDNR approved final closure of the East Bank source remediation SVE system in September 2007. As described in the Pavement Cover and Building Maintenance Plan, a requirement of the closure was annual inspection of the paved areas surrounding the Wausau Chemical property. The purpose of the inspection is to monitor the

integrity of the paved areas of the property and make recommendations to minimize rainwater infiltration and prevent direct human contact with soils. In August 2009, the entire pavement area was repaved by the City of Wausau with new asphalt, including the street adjacent to the west side of the property, North River Drive.

Also, an approximately 2,800 square foot addition, with concrete floor and roof, was added to the south end of the building in 2009-2010. Inspections conducted during 2024 found the pavement to be in fair condition. A copy of the pavement inspection log is provided in Appendix B.

4. Evaluation of Groundwater Monitoring Data

The objectives of the annual groundwater monitoring program are to monitor the long-term improvement of groundwater quality and containment of the contaminant plume. Table 4.1 presents the laboratory results for monitoring well samples collected in September 2024. VOC concentration maps for the principal Site contaminants (TCE, cis-1,2-DCE, PCE and vinyl chloride) are presented on Figures 4, 5, 6, and 7. In 2021, select monitoring wells on both banks were sampled for 1,4-dioxane (1,4D). 1,4D was not detected at any of the wells sampled in 2021, and no further 14D sampling is anticipated.

4.1 West Bank

The primary chlorinated VOC found in the West Bank groundwater is TCE, which was detected at 10 of the 15 West Bank monitoring wells, plus City well CW6. Monitoring wells with TCE concentrations greater than the MCL of 5 µg/L included C4S, R2D, W53A, W54, W55, and WSWD. The TCE concentration at CW6 is relatively stable at 2.4 µg/L in 2024, 2.7 µg/L in 2023, and 3.0 µg/L in 2022, all below the MCL.

The monitoring wells that exceeded the TCE MCL in the West Bank can be separated into two groups: south of Bos Creek, located on or adjacent to the former landfill on Marathon Electric property, and north of Bos Creek, downgradient of the former landfill in the direction of groundwater flow towards CW6 (see Figure 4). Well EW1 had no VOC detections during the 2024 sampling event.

VOC contaminants are more prevalent south of Bos Creek, in the shallower portion of the aquifer near the source area. Monitoring wells south of Bos Creek exceeding the MCL for TCE included W53A, W54, C4S, R2D and WSWD with concentrations of 59 µg/L, 200 µg/L, 5.2 µg/L (duplicate measurement 5.3 µg/L), 13.0 µg/L and 31 µg/L, respectively. TCE concentrations at W53A, W54, and C4S have exhibited substantial fluctuations since the shutdown of EW1 in 2012 (see the trend graphs in Appendix C). These fluctuations are typical of source area wells where increased precipitation and water level changes could have a localized effect on VOC concentrations in the groundwater. GHD performed Mann-Kendall tests for W53A and W54 TCE concentrations from 2012, a year prior to the trial shutdown, to present. The results of these tests showed no trend in W53A and a positive trend in W54, indicating a slight increase in TCE concentrations over time. The results of these tests are shown in Appendix D. R2D is a deep aquifer well approximately 150 feet north of Marathon property, which has shown decreasing concentrations from 2015. WSWD has been relatively stable, averaging around 30 µg/L over the prior three annual events.

North of Bos Creek, the West Bank plume is in the deeper portion of the aquifer. The only monitoring well north of Bos Creek that exceeded the MCL for TCE during the 2024 sampling event was W55, with a concentration of 31 µg/L. Recent decreasing TCE concentrations north of EW1 indicate that the plume remnant that was in a stagnation zone between EW1 and CW6 continues to migrate north to CW6 since EW1 stopped pumping. This is supported by generally increasing TCE concentrations at W55 since 2012 as well as generally decreasing concentrations at R3D and W52 (see these trend graphs in Appendix C). The TCE concentrations at R3D remain several orders of magnitude lower compared to data from 1999 through 2007, when concentrations ranged from 280 µg/L to 1,800 µg/L.

TCE degradation product cis-1,2-DCE was detected at 6 locations in the West Bank, with no concentrations exceeding the cleanup standard of 70 µg/L. Additionally, PCE was detected in well C3S at very low concentrations not exceeding the MCL, and vinyl chloride was not detected in West Bank well samples. C3S did, however, exceed the MCL for

carbon tetrachloride (5 µg/L) and chloroform (6 µg/L). No other exceedances occurred in West Bank samples. Overall, this is a decrease in chlorinated VOC detections compared to historical data.

The overall extent of the West Bank contaminant plume has not changed significantly since EW1 was shut down. For figures showing plume extents and groundwater contours the year prior to the shutdown, see the 2012 Annual Monitoring Report. TCE and cis-1,2-DCE were the only VOCs detected down gradient from the source area on the West Bank. Figures 4 and 5 depict the TCE and cis-1,2-DCE concentrations, respectively. The contour lines on the figures show the approximate areas of concentrations exceeding the MCL. Charts showing historical chlorinated VOC concentrations for select West Bank wells are presented in Appendix C.

4.2 East Bank

East Bank VOC data are presented in Table 4.1. While PCE was the initial contaminant of concern on the East Bank, the presence of TCE, cis-1,2-DCE, and vinyl chloride at concentrations equal to or greater than PCE in some wells indicates an active natural biodegradation process is occurring. For example, the cis-1,2-DCE concentration at monitoring well WW6 was higher than the PCE concentration.

PCE and/or its daughter products were detected at 7 of the 10 East Bank monitoring wells. Three monitoring wells had concentrations that exceeded the MCL of at least one VOC: E22A (TCE concentration of 8.5 µg/L), E24AR (vinyl chloride concentration of 5.1 µg/L), and WC5A (TCE concentration of 23 µg/L, vinyl chloride concentration of 2.1 µg/L). A chart showing historical chlorinated VOC concentrations from CW3 located on the East Bank is presented in Appendix C, note that there is no change shown for 2023 as analytical was not collected due to well repairs. Due to fluctuations in TCE results over the years, Mann-Kendall tests were performed for all 10 East Bank monitoring wells from 2012 to present to determine contaminant trends. Of the 10 wells, one (E22A) showed a decreasing trend, two have been non-detect from 2012 to present (E21, WW4), one had less than four detections (MW10B), and six showed no trend up or down (CW3, E24AR, E37A, WC3B, WC5A, and WW6). The tabulated results of these tests are shown in Appendix D. Individual VOC concentrations for the shallow wells are presented for PCE, TCE, cis-1,2-DCE, and vinyl chloride on Figures 4 through 7, respectively. Historical data graphs of cis-1,2-DCE, TCE, and vinyl chloride concentrations for all wells with MCL exceedances in both the East and West banks are presented in Appendix C; contaminants with no historical detections have been omitted from these graphs for simplicity.

4.3 Hydraulic Capture

Hydraulic capture of the Site contaminant plumes is demonstrated by the water table contours illustrated on Figure 3. At nested well locations, the water table elevations for shallow and deep wells were similar, indicating horizontal flow and hydraulic containment of the shallow and deeper portions of the aquifer.

5. Site Groundwater Monitoring Plan

The current Site groundwater monitoring plan includes an annual monitoring event that is conducted in September or October. In the 2016 Annual Monitoring Report (AMR), we proposed a reduced groundwater sampling list for the East Bank. Therefore, beginning in 2017, a reduced number of wells were sampled and gauged for hydraulic monitoring.

In 2024, 10 East Bank monitoring wells were sampled, and water levels were measured at 15 East Bank wells as well as CW3.

On the West Bank, 15 wells including the City supply well CW6 were sampled and water levels were measured at 25 monitoring wells including the City supply wells CW6 and CW10. All groundwater samples were analyzed for the Site-specific VOC list by EPA Method 8260D. Table 2.1 summarizes the current monitoring plan. During the annual monitoring event, all wells are inspected to document their condition, including total depth, casing and grout, well ID, well cap, lock, concrete seal, and ground subsidence.

5.1 Groundwater Monitoring Plan

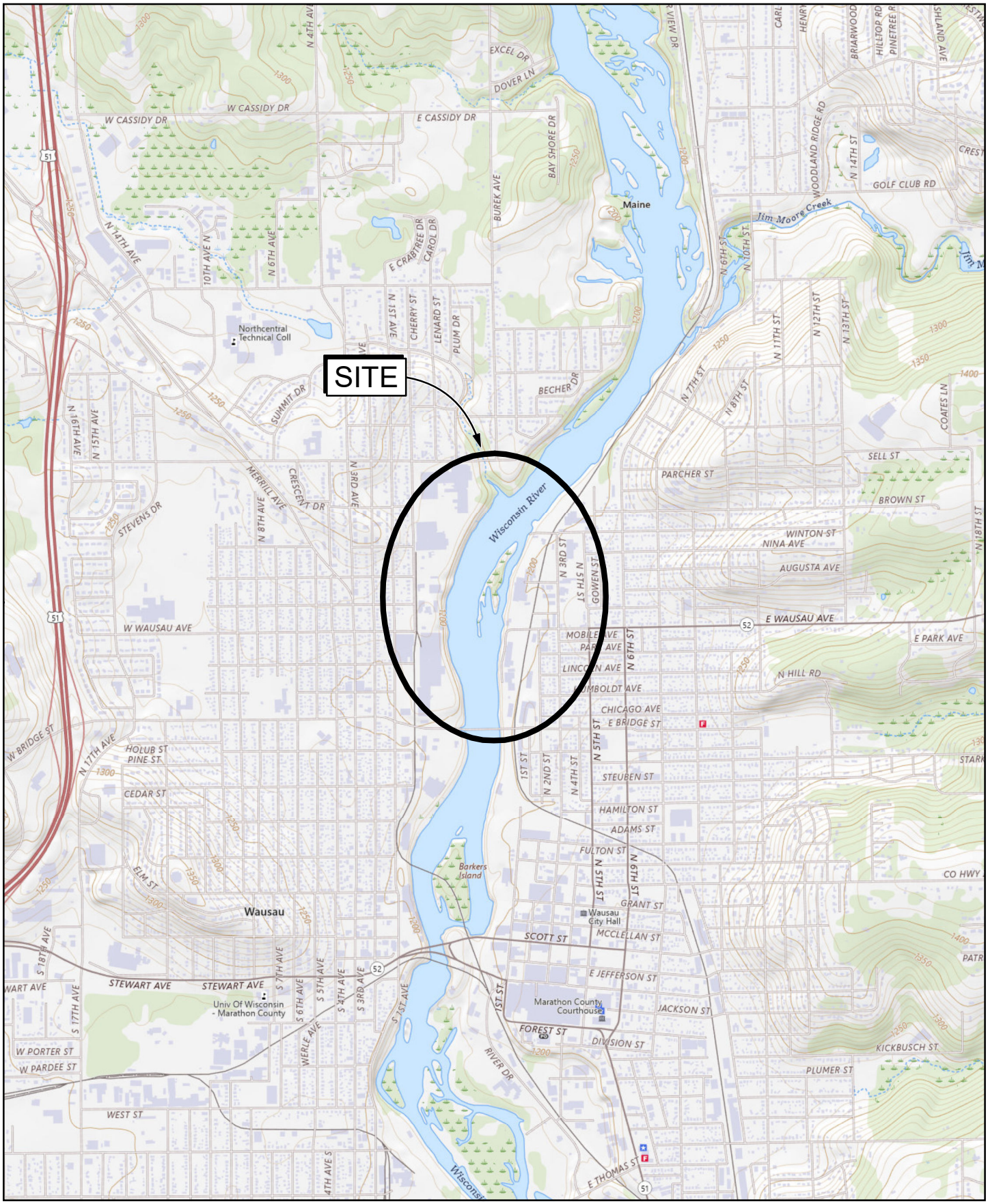
No modifications to the monitoring plan are proposed currently. In 2024, the Group conducted the annual sampling event in September and plans to continue to conduct the sampling event in August or September of 2025.

6. Recommendations

In 2025 GHD, on behalf of the PRP group, proposes to commence abandonment of monitoring wells that no longer provide data that is that is necessary to evaluate the Site. A separate letter will be sent to the WDNR detailing the proposed modifications to the Sampling Plan. The letter will detail the rationale behind the proposed modifications.

In addition, we would like to continue discussions with the USEPA and WDNR to remove CW3 from the monitoring program and abandon the well completely. The City of Wausau would like to request the abandonment of CW3 as there is a significant economic impact to bring this well and pumphouse up to code. The City would likely need to put about $600,000 into this site to make it a long term well for the City. In addition, this is the only well we have on the east side of the river and if we abandon this well, we would be able to eliminate a raw water line under the river which is well past its design life and extremely costly to replace. Previous lines replaced under the river for wastewater were in excess of $1.5 million each. Eliminating and abandoning CW3 is in the best interest of the City and would like USEPA and the WDNR to consider this request.

Figures



Paper Size ANSI A

0 500 1,000 1,500 2,000

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983 HARN
Grid: NAD 1983 HARN WISCRS Marathon County Feet

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GHD

WAUSAU WATER SUPPLY NPL SITE
WAUSAU, WISCONSIN

Project No. **12655584**
Revision No. **-**
Date **02/05/2025**

SITE LOCATION

FIGURE 1

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LEGEND

- MONITORING WELL
- EXTRACTION WELL
- CITY PRODUCTION WELL
- INDUSTRIAL WELL

CW11
GM4D
CW10
CW9OBS R
CW9
CW7
MW4A
MW4B
GM2S
W57
MW7
CW6
MW3A
W56
W55
W55A
MW1A
R2D
R2S
R1D
W50
R3D
W52A
W52
C2S
R4D
EW1
C7S
W53A
W54
WSWS
W53
WSWD
C3S
C6S
C4D
C4S
E21
HURD
WW4
CW3
GM6D
WW6
E26
E22A
E37A
E26A
E22
E28A
WC5A
WC4A
WC3B
E24AR
MW10B
MW10A
WC7A

MARATHON ELECTRIC MFG.

OLD LANDFILL LIMITS

FORMER WAUSAU CHEMICAL COMPANY

WATER TREATMENT PLANT

WISCONSIN RIVER

BOS CREEK

E CAMPUS DR
STONE ST
PLUM DR
MORTENSON DR
N BURE K AV
TIERNEY RD
BUGBEE AV
BRISBANE CT
GEMINI PL
MARTEN ST
BECHER DR
McCARTHY BLVD
W CROCKER ST
PEARSON ST
W BOS CREEK DR
E BOS CREEK DR
LILAC ST
LUCILLE ST
N 2ND AV
BURNS ST
CLAYTON ST
E CLAYTON ST
CHERRY ST
EAST C HERRY ST
BROKEN ARROW RD
SPRING ST
BIRCH ST
ORCHARD ST
PARCHER ST
GILBERT ST
BROWN ST
WINTON ST
N 6TH ST
NINA AV
N 7TH ST
TURNER ST
W RANDOLPH ST
E RANDOLPH ST
N 1ST AV
W ELDRED ST
E ELDRED ST
W STROWBRIDGE ST
E STROWBRIDGE ST
W KNOX ST
E KNOX ST
N 5TH ST
GOWEN ST
DEVOE ST
AUGUSTA AV
JOZIK ST
W UNION AV
E UNION AV
N 2ND AV
W WAUSAU AV
E WAUSAU AV
N 3RD ST
CENTER ST
MOBILE AV
PARK AV
NORTON ST
E NORTON ST
N 3RD AV
LINCOLN AV
QUAW ST
HUMBOLDT AV
W BRIDGE ST
CHICAGO AV
CENTRAL BRIDGE ST
E BRIDGE ST
N 1ST ST
N 4TH ST
N RIVER DR

Paper Size ANSI B

0 100 200 300 400 500

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983 HARN
Grid: NAD 1983 HARN WISCRS Marathon County Feet

N

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WAUSAU WATER SUPPLY NPL SITE
WAUSAU, WISCONSIN

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Date **02/05/2025**

SITE PLAN

FIGURE 2

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Data source: Marathon County. Created by: rjcoy

LEGEND

- MONITORING WELL
- EXTRACTION WELL
- CITY PRODUCTION WELL
- INDUSTRIAL WELL
- GROUNDWATER CONTOUR
- INFERRED CONTOUR
- APPROXIMATE EXTENT OF CONTAMINANT PLUME IN GROUNDWATER

CW11 ~1190
CW9 ~1189
CW9OBS R NM
GM4D 1185.83
CW10 ~1177
1189
1188
1185
1186
CW7 ~1206*
GM2S 1186.73
MW4B
MW4A 1185.35
W57 1185.82
MW7 1185.28
CW6 ~1162
1185
MW3A 1187.70
~1187
W56 1186.93
W55 1186.16
W55A
MW1A 1186.82
BOS CREEK
R2S
R2D 1187.15
1190
1189
W50
R1D 1190.06
R3D 1187.38
W52A
W52 1187.48
WISCONSIN RIVER
MARATHON ELECTRIC MFG.
C2S 1187.75
R4D 1187.70
EW1 1187.64
C7S 1187.61
WSWD 1187.65
W53
W54 1187.72
WSWS
1188
C3S 1187.08
WILSON HURD TEST WELL 1186.98
C6S 1188.08
C4D
C4S 1187.62
OLD LANDFILL LIMITS
E21 1186.59
1186
WW4 1185.07
CW3 ~1143
1185
GM6D 1185.01
WW6 1186.76
FORMER WAUSAU CHEMICAL CORPORATION
E26A 1186.27
E26
E22A 1185.98
E22
E37A 1186.10
E28A 1186.87
WC5A 1186.33
WC4A 1186.60
WC3B 1186.56
E24AR 1186.31
WATER TREATMENT PLANT
MW10B 1186.44
MW10A
WC7A 1186.63

NOTES

1186.80 GROUNDWATER ELEVATION (FT AMSL)

*1187.12** NOT USED FOR CONTOURING

Paper Size ANSI B

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Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983 HARN
Grid: NAD 1983 HARN WISCRS Marathon County Feet

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GHD

WAUSAU WATER SUPPLY NPL SITE
WAUSAU, WISCONSIN

GROUNDWATER ELEVATIONS AND CONTOURS SEPTEMBER 2024

Project No. **12655584**
Revision No. **-**
Date **02/13/2025**

FIGURE 3

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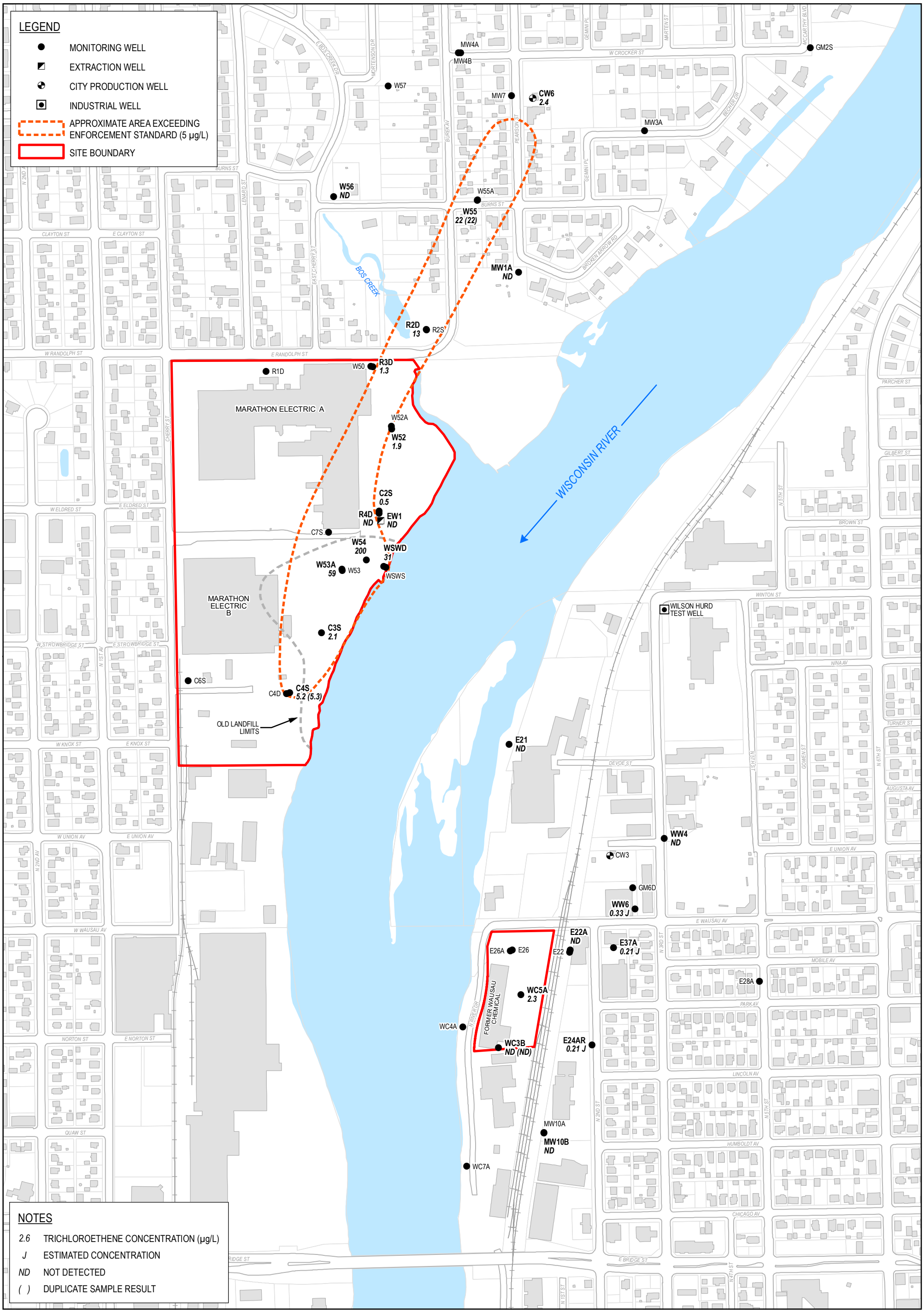
LEGEND
MONITORING WELL
EXTRACTION WELL
CITY PRODUCTION WELL
INDUSTRIAL WELL
APPROXIMATE AREA EXCEEDING ENFORCEMENT STANDARD (5 µg/L)
SITE BOUNDARY
MW4A
MW4B
GM2S
W57
MW7
CW6 2.4
MW3A
W56 ND
W55A
W55 22 (22)
MW1A ND
R2D 13
R2S
R3D 1.3
W50
R1D
MARATHON ELECTRIC A
W52A
W52 1.9
C2S 0.5
R4D ND
EW1 ND
C7S
W54 200
WSWD 31
W53A 59
W53
WSWS
MARATHON ELECTRIC B
C3S 2.1
C6S
C4D
C4S 5.2 (5.3)
OLD LANDFILL LIMITS
WISCONSIN RIVER
WILSON HURD TEST WELL
E21 ND
WW4 ND
CW3
GM6D
WW6 0.33 J
E22A ND
E22
E26A
E26
E37A 0.21 J
E28A
WC5A 2.3
FORMER WAUSAU CHEMICAL
WC4A
WC3B ND (ND)
E24AR 0.21 J
MW10A
MW10B ND
WC7A
BOS CREEK
E BOS CREEK DR
MORTENSON DR
BUREK AV
PEARSON ST
GEMINI PL
MARTEN ST
MCCARTHY BLVD
W CROCKER ST
BECHER DR
BROKEN ARROW RD
BURNS ST
LENARD ST
EAST CHERRY ST
CLAYTON ST
E CLAYTON ST
W RANDOLPH ST
E RANDOLPH ST
CHERRY ST
W ELDRED ST
E ELDRED ST
W STROWBRIDGE ST
E STROWBRIDGE ST
N 1ST AV
W KNOX ST
E KNOX ST
W UNION AV
E UNION AV
N 2ND AV
W WAUSAU AV
E WAUSAU AV
NORTON ST
E NORTON ST
QUAW ST
E BRIDGE ST
N RIVER DR
N 2ND ST
N 3RD ST
N 5TH ST
N 6TH ST
WINTON ST
NINA AV
DEVOE ST
GOWEN ST
TURNER ST
AUGUSTA AV
GILBERT ST
PARCHER ST
BROWN ST
MOBILE AV
PARK AV
LINCOLN AV
HUMBOLDT AV
CHICAGO AV
NOTES
2.6 TRICHLOROETHENE CONCENTRATION (µg/L)
J ESTIMATED CONCENTRATION
ND NOT DETECTED
( ) DUPLICATE SAMPLE RESULT
Paper Size ANSI B
0 100 200 300 400
Feet
N
Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983 HARN
Grid: NAD 1983 HARN WISCRS Marathon County Feet
GHD
WAUSAU WATER SUPPLY NPL SITE
WAUSAU, WISCONSIN
TRICHLOROETHENE CONCENTRATIONS SEPTEMBER 2024
Project No. 12655584
Revision No. -
Date 02/06/2025
FIGURE 4
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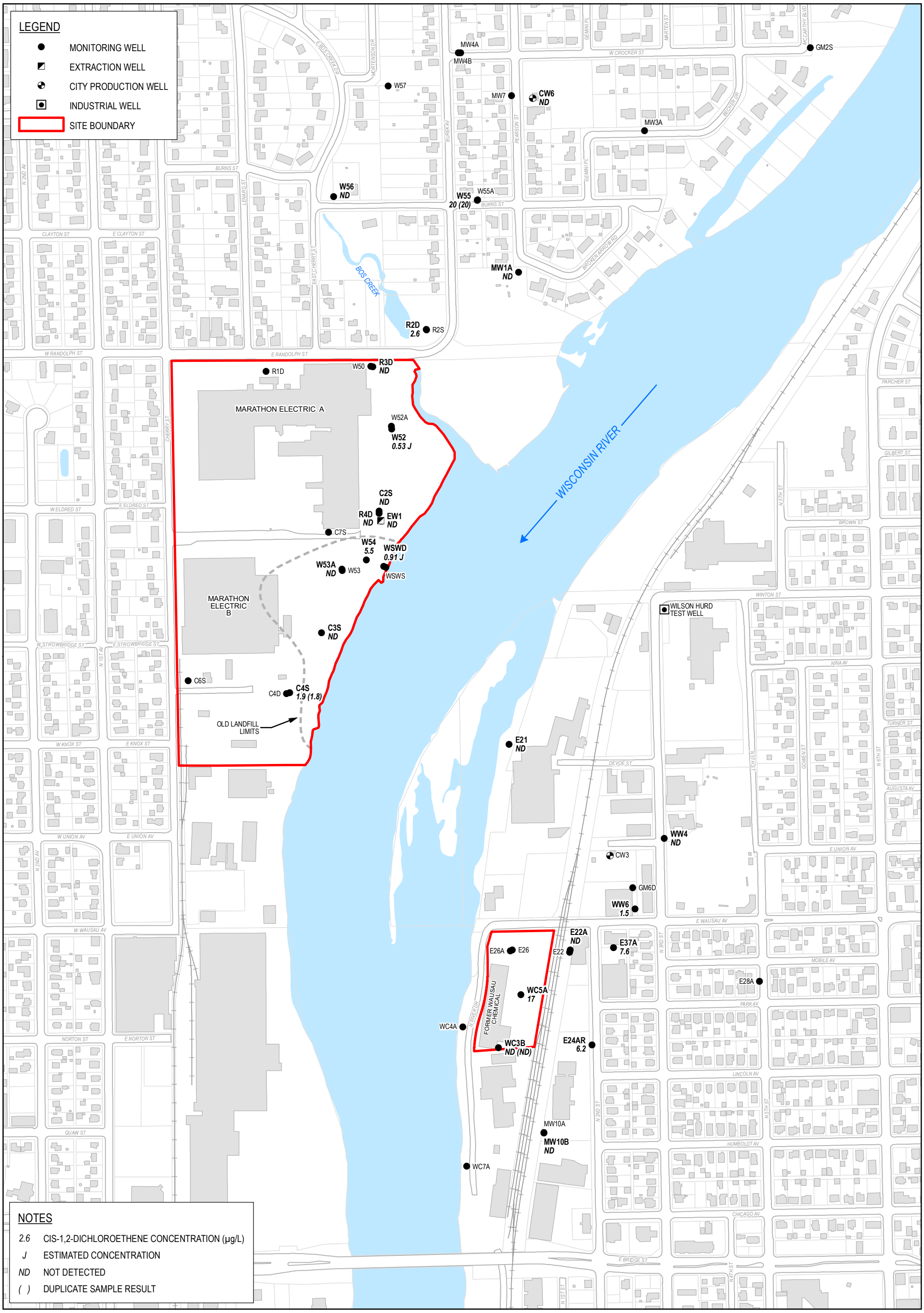
LEGEND
MONITORING WELL
EXTRACTION WELL
CITY PRODUCTION WELL
INDUSTRIAL WELL
SITE BOUNDARY
MW4A
MW4B
GM2S
W57
MW7
CW6 ND
MW3A
W56 ND
W55 20 (20)
W55A
MW1A ND
R2D 2.6
R2S
R3D ND
W50
R1D
MARATHON ELECTRIC A
W52A
W52 0.53 J
C2S ND
R4D ND
EW1 ND
C7S
W54 5.5
WSWD 0.91 J
W53A ND
W53
WSWS
MARATHON ELECTRIC B
C3S ND
C6S
C4D
C4S 1.9 (1.8)
OLD LANDFILL LIMITS
WISCONSIN RIVER
WILSON HURD TEST WELL
E21 ND
WW4 ND
CW3
GM6D
WW6 1.5
E22A ND
E37A 7.6
E26A
E26
E22
WC5A 17
FORMER WAUSAU CHEMICAL
E28A
WC4A
WC3B ND (ND)
E24AR 6.2
MW10A
MW10B ND
WC7A
BOS CREEK
E BOS CREEK DR
MORTENSON DR
BUREK AV
PEARSON ST
GEMINI PL
MARTEN ST
MCCARTHY BLVD
W CROCKER ST
BECHER DR
BROKEN ARROW RD
BURNS ST
LENARD ST
EAST CHERRY ST
CLAYTON ST
E CLAYTON ST
N 2ND AV
W RANDOLPH ST
E RANDOLPH ST
CHERRY ST
W ELDRED ST
E ELDRED ST
W STROWBRIDGE ST
E STROWBRIDGE ST
N 1ST AV
W KNOX ST
E KNOX ST
W UNION AV
E UNION AV
W WAUSAU AV
E WAUSAU AV
NORTON ST
E NORTON ST
QUAW ST
N RIVER DR
N 3RD ST
N 2ND ST
N 5TH ST
N 6TH ST
WINTON ST
NINA AV
TURNER ST
AUGUSTA AV
GOWEN ST
DEVOE ST
BROWN ST
GILBERT ST
PARCHER ST
MOBILE AV
PARK AV
LINCOLN AV
HUMBOLDT AV
CHICAGO AV
E BRIDGE ST
NOTES
2.6 CIS-1,2-DICHLOROETHENE CONCENTRATION (µg/L)
J ESTIMATED CONCENTRATION
ND NOT DETECTED
( ) DUPLICATE SAMPLE RESULT
Paper Size ANSI B
0 100 200 300 400
Feet
N
Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983 HARN
Grid: NAD 1983 HARN WISCRS Marathon County Feet
GHD
WAUSAU WATER SUPPLY NPL SITE
WAUSAU, WISCONSIN
CIS-1,2-DICHLOROETHENE CONCENTRATIONS SEPTEMBER 2024
Project No. 12655584
Revision No. -
Date 02/06/2025
FIGURE 5
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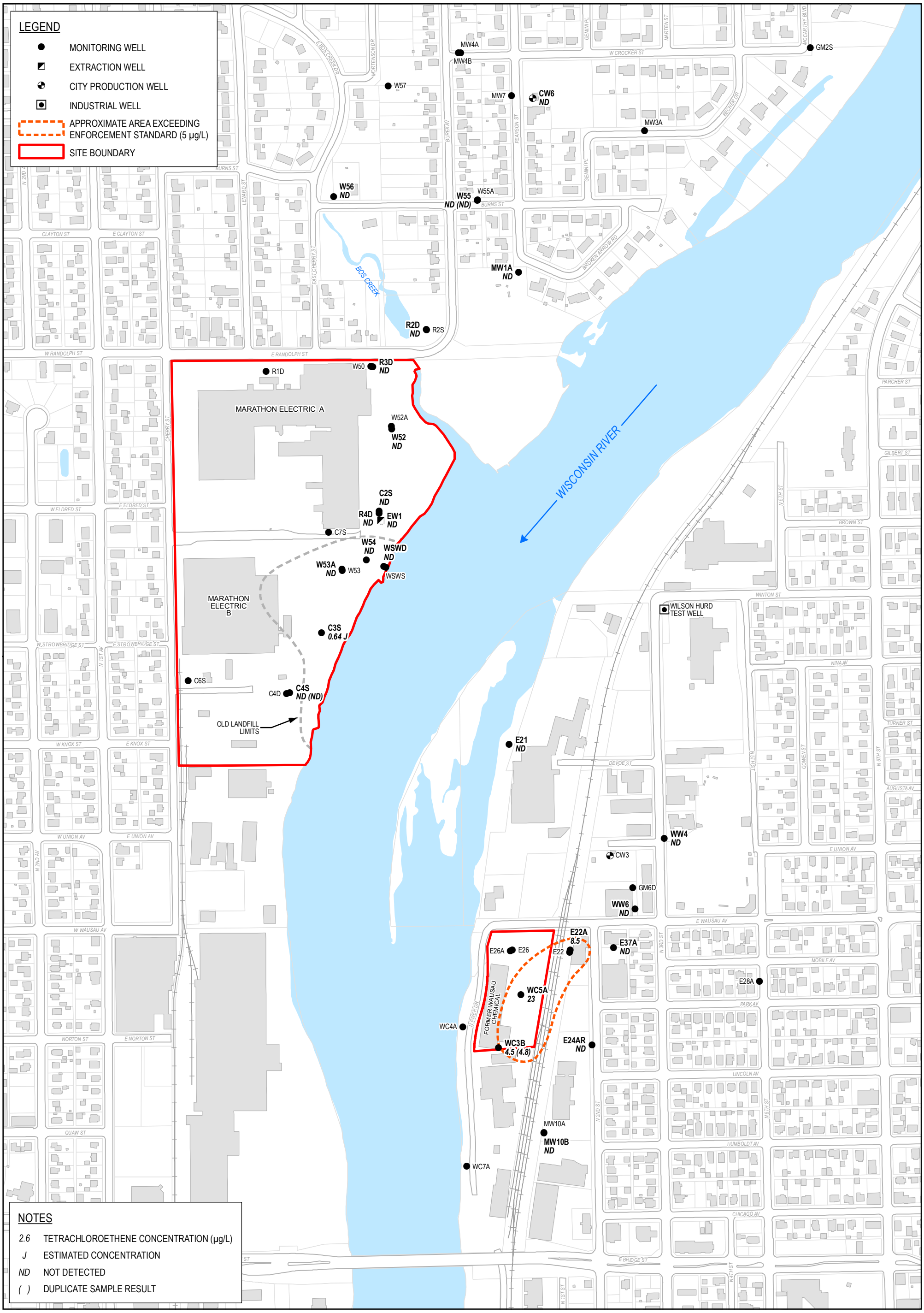
LEGEND
MONITORING WELL
EXTRACTION WELL
CITY PRODUCTION WELL
INDUSTRIAL WELL
APPROXIMATE AREA EXCEEDING ENFORCEMENT STANDARD (5 µg/L)
SITE BOUNDARY
MW4A
MW4B
GM2S
W57
MW7
CW6 ND
MW3A
W56 ND
W55 ND (ND)
W55A
MW1A ND
R2D ND
R2S
R1D
W50
R3D ND
MARATHON ELECTRIC A
W52A
W52 ND
C2S ND
R4D ND
EW1 ND
C7S
W54 ND
WSWD ND
W53A ND
W53
WSWS
MARATHON ELECTRIC B
C3S 0.64 J
C6S
C4D
C4S ND (ND)
OLD LANDFILL LIMITS
WISCONSIN RIVER
WILSON HURD TEST WELL
E21 ND
WW4 ND
CW3
GM6D
WW6 ND
E22A 8.5
E26A
E26
E22
E37A ND
E28A
WC5A 23
FORMER WAUSAU CHEMICAL
WC4A
WC3B 4.5 (4.8)
E24AR ND
MW10A
MW10B ND
WC7A
BOS CREEK
E BOS CREEK DR
MORTENSON DR
BUREK AV
PEARSON ST
GEMINI PL
MARTEN ST
MCCARTHY BLVD
W CROCKER ST
BECHER DR
BROKEN ARROW RD
BURNS ST
LENARD ST
EAST CHERRY ST
CLAYTON ST
E CLAYTON ST
W RANDOLPH ST
E RANDOLPH ST
CHERRY ST
W ELDRED ST
E ELDRED ST
W STROWBRIDGE ST
E STROWBRIDGE ST
N 1ST AV
W KNOX ST
E KNOX ST
W UNION AV
E UNION AV
N 2ND AV
W WAUSAU AV
E WAUSAU AV
NORTON ST
E NORTON ST
QUAW ST
N RIVER DR
N 2ND ST
N 3RD ST
DEVOE ST
WINTON ST
NINA AV
GOWEN ST
N 6TH ST
TURNER ST
AUGUSTA AV
PARCHER ST
GILBERT ST
N 5TH ST
BROWN ST
MOBILE AV
PARK AV
LINCOLN AV
HUMBOLDT AV
CHICAGO AV
E BRIDGE ST
N 1ST ST
NOTES
2.6 TETRACHLOROETHENE CONCENTRATION (µg/L)
J ESTIMATED CONCENTRATION
ND NOT DETECTED
( ) DUPLICATE SAMPLE RESULT
Paper Size ANSI B
0 100 200 300 400
Feet
N
Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983 HARN
Grid: NAD 1983 HARN WISCRS Marathon County Feet
WAUSAU WATER SUPPLY NPL SITE
WAUSAU, WISCONSIN
TETRACHLOROETHENE CONCENTRATIONS SEPTEMBER 2024
Project No. 12655584
Revision No. -
Date 02/06/2025
FIGURE 6
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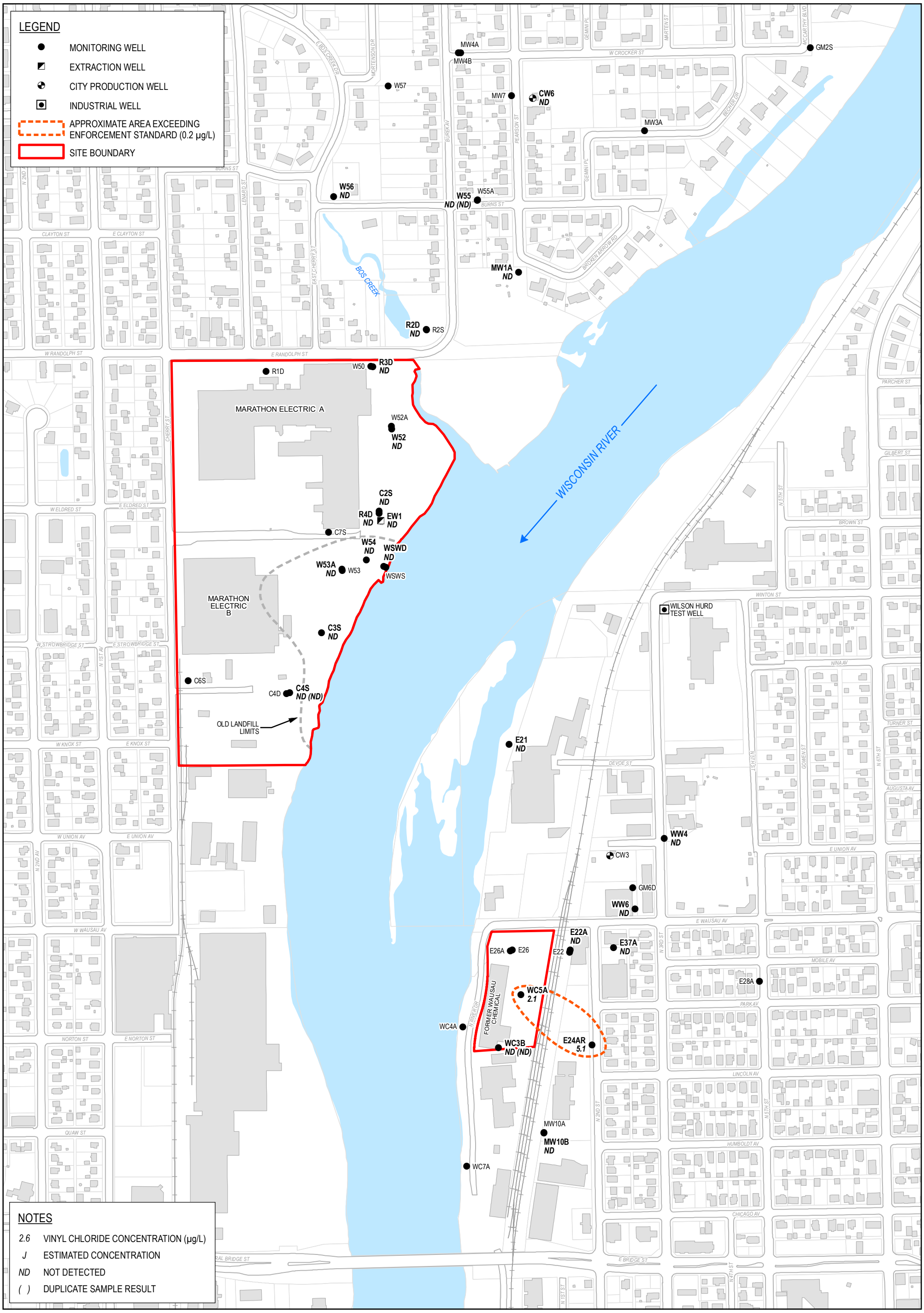
LEGEND
MONITORING WELL
EXTRACTION WELL
CITY PRODUCTION WELL
INDUSTRIAL WELL
APPROXIMATE AREA EXCEEDING ENFORCEMENT STANDARD (0.2 µg/L)
SITE BOUNDARY
MW4A
MW4B
GM2S
W57
MW7
CW6 ND
MW3A
W56 ND
W55 ND (ND)
W55A
MW1A ND
R2D ND
R2S
R1D
W50
R3D ND
MARATHON ELECTRIC A
W52A
W52 ND
C2S ND
R4D ND
EW1 ND
C7S
W54 ND
WSWD ND
W53A ND
W53
WSWS
MARATHON ELECTRIC B
C3S ND
C6S
C4D
C4S ND (ND)
OLD LANDFILL LIMITS
WISCONSIN RIVER
WILSON HURD TEST WELL
E21 ND
WW4 ND
CW3
GM6D
WW6 ND
E22A ND
E37A ND
E26A
E26
E22
WC5A 2.1
E28A
FORMER WAUSAU CHEMICAL
WC4A
WC3B ND (ND)
E24AR 5.1
MW10A
MW10B ND
WC7A
BOS CREEK
E BOS CREEK DR
MORTENSON DR
BUREK AV
PEARSON ST
GEMINI PL
MARTEN ST
MCCARTHY BLVD
W CROCKER ST
BECHER DR
BROKEN ARROW RD
BURNS ST
LENARD ST
EAST CHERRY ST
CLAYTON ST
E CLAYTON ST
W RANDOLPH ST
E RANDOLPH ST
CHERRY ST
W ELDRED ST
E ELDRED ST
W STROWBRIDGE ST
E STROWBRIDGE ST
N 1ST AV
W KNOX ST
E KNOX ST
W UNION AV
E UNION AV
N 2ND AV
W WAUSAU AV
E WAUSAU AV
NORTON ST
E NORTON ST
QUAW ST
N RIVER DR
N 1ST ST
N 2ND ST
N 3RD ST
N 5TH ST
N 6TH ST
WINTON ST
NINA AV
DEVOE ST
GOWEN ST
TURNER ST
AUGUSTA AV
PARCHER ST
GILBERT ST
BROWN ST
MOBILE AV
PARK AV
LINCOLN AV
HUMBOLDT AV
CHICAGO AV
E BRIDGE ST
NOTES
2.6 VINYL CHLORIDE CONCENTRATION (µg/L)
J ESTIMATED CONCENTRATION
ND NOT DETECTED
( ) DUPLICATE SAMPLE RESULT
Paper Size ANSI B
0 100 200 300 400
Feet
N
Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983 HARN
Grid: NAD 1983 HARN WISCRS Marathon County Feet
GHD
WAUSAU WATER SUPPLY NPL SITE
WAUSAU, WISCONSIN
VINYL CHLORIDE CONCENTRATIONS SEPTEMBER 2024
Project No. 12655584
Revision No. -
Date 02/06/2025
FIGURE 7
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Tables

Table 2.1

2024 Groundwater Monitoring Plan
Wausau Water Supply NPL Site
Wausau, Wisconsin

Monitoring Event	VOC Sample Locations		Laboratory Analysis	Groundwater Elevations	
	East Bank	**West Bank**		**East Bank**	**West Bank**
Annual - Fall	CW3*, E21, E22A**, E37A, E24AR, MW10B, WW4, WW6, WC3B**, WC5A	EW1, CW6, R2D**, R3D, R4D, C2S, C3S, C4S, W52**, W53A, W54**, W55*, W56, WSWD, MW1A	Volatile Organic Compounds (VOC) Method 8260D	E21, E22A, E24AR, E26A, E28A, E37A, GM6D, W.HURD, MW10B, WC3B, WC4A, WC5A, WC7A, WW4, WW6	EW1, C2S, C3S, C4S, C6S, C7S, GM2S, GM4D, MW1A, MW3A, MW4A, MW7, R1D, R2D, R3D, R4D, W52, W53A, W54, W55, W56, W57, WSWD, City Wells CW6, CW7, CW9, CW10, CW11 (if pumping)

Site Specific VOC List

Acetone
Benzene
Carbon tetrachloride
Chloroform
1,1-Dichloroethene
cis-1,2-Dichloroethene
Ethylbenzene
Methylene chloride
Tetrachloroethene
Toluene
1,1,2-Trichloroethane
Trichloroethene
Vinyl chloride
Xylenes

Notes:
* - Not sampled in 2023 due to being down for repairs
** - Well sampled for 1,4-Dioxane in 2021

Table 2.2

Groundwater Elevations - September 2024
Wausau Water Supply NPL Site
Wausau, Wisconsin

East Bank	Reference Elevation (ft AMSL)	Top of Screen (ft BTOC)	Bottom of Screen (ft BTOC)	Water Level (ft BTOC) 9/23-9/24/24	Water Table Elevation (ft AMSL) 9/23-9/24/24
CW3	1202.15	52.00	92.00	59.00	1143.15
E21	1197.51	124.50	129.50	10.92	1186.59
E22A	1195.88	12.00	22.00	9.90	1185.98
E24AR	1209.33	24.50	34.50	23.02	1186.31
E26A	1199.13	13.00	23.00	12.86	1186.27
E28A	1211.60	27.50	37.00	24.73	1186.87
E37A	1197.84	16.00	26.00	11.74	1186.10
GM6D	1198.57	104.00	114.00	13.56	1185.01
HURD	1200.23	80.00	100.00	13.25	1186.98
MW10B	1210.37	25.00	35.00	23.93	1186.44
WC3B	1196.11	14.00	24.00	9.55	1186.56
WC4A	1196.57	8.80	18.80	9.97	1186.60
WC5A	1196.66	8.70	18.70	10.33	1186.33
WC7A	1196.77	50.00	53.00	10.14	1186.63
WW4	1200.34	35.00	40.00	15.27	1185.07
WW6	1200.53	36.00	41.00	13.77	1186.76

Notes:
ft BTOC - Feet below top of casing
ft AMSL - Feet above mean sea level
* - Well was pumping
NM - Not Measured
NA - Not Available

Table 2.2

Groundwater Elevations - September 2024
Wausau Water Supply NPL Site
Wausau, Wisconsin

West Bank				**9/23-9/24/24**	**9/23-9/24/24**
C2S	1219.05	22.50	37.90	31.30	1187.75
C3S	1220.58	23.90	38.90	33.50	1187.08
C4S	1216.70	16.80	32.20	29.08	1187.62
C6S	1221.58	24.10	39.50	33.50	1188.08
C7S	1220.87	22.60	38.00	33.26	1187.61
CW10	1218.49	125.00	160.00	41.20	1177.29
CW6	1220.33	60.00	100.00	58.30	1162.03
EW1	1218.04	102.50	143.00	30.40	1187.64
GM2S	1211.78	24.30	34.20	25.05	1186.73
GM4D	1216.35	135.00	145.00	30.52	1185.83
MW1A	1215.69	122.00	130.00	28.87	1186.82
MW3A	1223.13	130.00	140.00	35.43	1187.70
MW4A	1215.48	90.00	100.00	30.13	1185.35
MW7	1218.53	35.00	45.00	33.25	1185.28
R1D	1222.24	111.00	121.00	32.18	1190.06
R2D	1209.42	124.50	135.00	22.27	1187.15
R3D	1215.42	126.00	136.00	28.04	1187.38
R4D	1218.90	123.00	133.00	31.20	1187.70
W52	1219.16	119.50	124.00	31.68	1187.48
W53A	1216.67	31.30	41.30	29.35	1187.32
W54	1216.19	61.00	65.50	28.47	1187.72
W55	1217.04	110.50	115.50	30.88	1186.16
W56	1200.01	61.50	66.50	13.08	1186.93
W57	1201.76	73.00	77.50	15.94	1185.82
WSWD	1193.02	138.40	149.40	5.37	1187.65

Notes:
ft BTOC - Feet below top of casing
ft AMSL - Feet above mean sea level
* - Well was pumping
NM - Not Measured
NA - Not Available

Table 2.3

Groundwater Sampling Summary - September 2024
Wausau Water Supply NPL Site
Wausau, Wisconsin

Well	Date	pH	Conductivity (uS/cm)	Temperature (ºC)	Sample Type	Sample ID Number
East Bank						
CW3	9/23/2024	7.71	381	15.61	Grab	GW-240923-RA-01
E21	9/24/2024	7.52	245	12.22	Grab	GW-240924-RA-07
E22A	9/24/2024	6.13	290	12.32	Grab	GW-240924-RA-11
E24AR	9/23/2024	6.41	718	13.65	Grab	GW-240923-RA-02
E37A	9/23/2024	6.39	1210	15.4	Grab	GW-240923-RA-03
MW10B	9/24/2024	6.32	EB	10.73	Grab	GW-240924-RA-10
WC3B	9/23/2024	6.49	539	14.26	Grab	GW-240923-RA-05 GW-240923-RA-04 (FD)
WC5A	9/23/2024	6.46	335	14.64	Grab	GW-240923-RA-06
WW4	9/24/2024	6.22	690	11.63	Grab	GW-240924-RA-08
WW6	9/24/2024	6.82	249	13.06	Grab	GW-240924-RA-09
West Bank						
C2S	9/23/2024	6.13	1430	13.55	Grab	GW-240923-RA-20
C3S	9/23/2024	6.19	970	11.17	Grab	GW-240923-RA-15
C4S	9/23/2024	6.22	1390	12.7	Grab	GW-240923-RA-13 GW-240923-RA-14 (FD)
CW6	9/24/2024	6.71	327	11.64	Grab	GW-240924-RA-24
EW1	9/23/2024	7.3	406	14.81	Grab	GW-240923-RA-21
MW1A	9/24/2024	9.59	131	10.67	Grab	GW-240924-RA-28
R2D	9/24/2024	6.37	421	9.9	Grab	GW-240924-RA-30
R3D	9/23/2024	6.02	579	10.89	Grab	GW-240923-RA-23
R4D	9/23/2024	5.84	1060	14.67	Grab	GW-240923-RA-19
W52	9/23/2024	7.37	724	12.87	Grab	GW-240923-RA-22
W53A	9/23/2024	6.51	1550	12.9	Grab	GW-240923-RA-16
W54	9/23/2024	6.32	1940	12	Grab	GW-240923-RA-18
W55	9/24/2024	6.88	264	10.94	Grab	GW-240924-RA-26 GW-240924-RA-27 (FD)
W56	9/24/2024	7.21	1070	10.5	Grab	GW-240924-RA-25 (MS/MSD)
WSWD	9/24/2024	6.45	1750	12.06	Grab	GW-240924-RA-31

Notes:
uS/cm - microsiemens per centimeter
MS/MSD - Matrix Spike/Matrix Spike Duplicate
FD - Field Duplicate

Table 3.1

2024 Monitoring Well Inspection
Wausau Water Supply NPL Site
Wausau, Wisconsin

	CW3	E21	E22	E22A	E24AR	E26	E26A	E28A	E37A	GM6D	W. HURD
Difficult to find? Brush need cutting?	City pump house	No/No	Yes	Yes	No/No	No/No	No/No	No/No	Yes/No	No/No	No/No
Clearly labeled on outside? ID tag visible?	NA	Yes	No	No	No	Yes	Yes	No	Yes	No, label removed	Yes
Protop and Casing Condition	NA	Good	Good	Good	Good	Good	Fair	Rusty	Good	Good	Good
Surface seal visible? Concrete Condition? (Soil/sod covered?)	NA	No, sod covered	Yes, concrete in good condition	Yes, concrete in good condition	Yes, concrete in good condition	No, sod covered	No, sod covered	Yes, concrete surface - good	Not visible/ sod cover Had to clean out around ring	Yes, concrete surface seal in asphalt	No, sod
Well Cap Condition (inner/outer)	NA	Good	Good	Good	Good	Good	Inner good	Inner good	Inner good	Good	Good
Does well riser inhibit the protop from being closed and locked?	NA	No	No	No	No	No	No	No, but corroded	No	No	No
Lock Condition	NA	Good	Good	Good	Fair	Good	Fair	Fair	Good	Good	Fair
Ground subsidence?	NA	None	None	None	None	Soil - good	Soil - good	No	Low spot, would be ponded	None	None
Flush Mount? Potential for ponded water?	NA	Above grade	Flush - No Ponding	Flush - No Ponding	Flush - No	Above grade	Above grade	Flush - No	Flush - Yes	Flush - No	Above grade
Flush Mount in impervious surface? (surface type)	NA	NA	Soil	Soil	Concrete pad in turf	NA	NA	Concrete sidewalk	Asphalt	New concrete vault in asphalt	NA
Flush Mount water tight?	NA	NA	No	No	Yes	NA	NA	Yes	Yes	Yes	NA
Notes		Lock is 2121 Master Erosion around riser	9/16" BAD BOLTS	Socket 3/4"	Socket 3/4"			3/4"	Socket 9/16"	**Replace bollard, been removed Extremely soft bottom**	No casing

Table 3.1

2024 Monitoring Well Inspection
Wausau Water Supply NPL Site
Wausau, Wisconsin

	MW10A	MW10B	WC3B	WC4A	WC5A	WC7	WW4	WW6	EW1	CW6	CW9 OBS R
Difficult to find? Brush need cutting?	No/No	**Yes**	No/No	No/No	**Yes**	No/No	No/No	No/No	Pump house	City pump house	No/No
Clearly labeled on outside? ID tag visible?	wh	Yes	No	Yes	Yes	No, Yes	No	Yes	No	Yes	USGS label
Protop and Casing Condition	Fair -rust	Poor, rusty, needs repair	Good	Good	Good	Needs Repair	Good	Good	Good	NA	Good
Surface seal visible? Concrete Condition? (Soil/sod covered?)	No, covered with vegetation	No, covered with vegetation	Yes, concrete good	No, sod	Can't see it	No, soil and grass	Concrete good	Yes, asphalt - good condition	None	NA	No, sod
Well Cap Condition (inner/outer)	Fair, rust	Not Present	Good	Good	None, inner, outer rusted	Good	Good	Good	NA	NA	Good
Does well riser inhibit the protop from being closed and locked?	NA	No	No	No	No	No	No	No	None	NA	Yes
Lock Condition	Broken	None	Good	Good	Good	Good	Good	Good	NA	NA	Good
Ground subsidence?	None	None	None	None	None	None	None	None	None	NA	None
Flush Mount? Potential for ponded water?	Above grade	Above grade	Flush - No	Above grade	Above grade	Above grade	Flush - No	Flush, No	NA	NA	Above grade
Flush Mount in impervious surface? (surface type)	NA	NA	Yes - Concrete	NA	NA	NA	New concrete pad in sod	Yes, concrete/asphalt	NA	NA	NA
Flush Mount water tight?	NA	NA	Yes	NA	NA	NA	Yes	Yes	NA	NA	NA
Notes	NEED NEW PROTOP CAP - can't get it off	Soft bottom	No Bolts	Soft bottom		Riser cracked at ground level soft bottom	Socket 9/16"	Soft bottom	No cap well is open		

2024 Monitoring Well Inspection
Wausau Water Supply NPL Site
Wausau, Wisconsin

	CW10	CW11	C2S	C3S	C4S	C4D	C6S	C7S	GM2S	GM4D	MW1A	MW3A
Difficult to find? Brush need cutting?	No/No	No/No	No/No	No/No	No/No	No/No	No/No	No/No	No/No	No/No	No/No	No/No
Clearly labeled on outside? ID tag visible?	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes
Protop and Casing Condition	NA	NA	Fair	Fair	Fair	Ues	Fair	Fair	Good	Good	Good	Good
Surface seal visible? Concrete Condition? (Soil/sod covered?)	NA	NA	Yes	No, sod	No, sod	Yes, grass	No, sod	Soil covered	New concrete pad	No, sod and leaf litter	No, gravel	Yes, concrete - good
Well Cap Condition (inner/outer)	NA	NA	Fair	Fair	Fair	Good	Fair	Fair	Good	Fair	Good	Good
Does well riser inhibit the protop from being closed and locked?	NA	NA	No	No	No	No	No	No	No	No	Yes	No
Lock Condition	NA	NA	Fair	Bad	Good	Good	Good	Fair	Good	Good	Good	Good
Ground subsidence?	NA	NA	None	Grass	Grass	Grass	None	Soil	None	None	None	None
Flush Mount? Potential for ponded water?	NA	NA	Above grade	Above grade	Above grade	Above grade	Above grade	Above grade	New vault installed	Above grade	Above grade	Flush - No
Flush Mount in impervious surface? (surface type)	NA	NA	NA	NA	NA	NA	NA	NA	Concrete pad in sod	NA	NA	Soil, grass
Flush Mount water tight?	NA	NA	NA	NA	NA	NA	NA	NA	Yes	NA	NA	Yes
Notes												

2024 Monitoring Well Inspection
Wausau Water Supply NPL Site
Wausau, Wisconsin

	MW4A	MW4B	MW7	R1D	R2S	R2D	R3D	R4D	W50	W52	W52A	W53
Difficult to find? Brush need cutting?	No/No	No/No	No/No	No/No	Yes/Yes	Yes/Yes	No/No	No/No	No/No	No/No	No/No	No/No
Clearly labeled on outside? ID tag visible?	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Protop and Casing Condition	Good	Good	Good	Good	Fair	Fair	Good	Fair	Good	Fair	Fair	Fair
Surface seal visible? Concrete Condition? (Soil/sod covered?)	Yes, concrete - good	Yes, concrete - good	Yes, concrete - good	Yes, concrete	No, leaf litter, soil	No, leaf litter, soil	No, grass	No, sod and leaf litter	No, grass	No, soil	No, soil and grass	Weathered pad
Well Cap Condition (inner/outer)	Good	Good	Good	Good	Good	None	Fair	Fair	None	Fair	Fair	Good
Does well riser inhibit the protop from being closed and locked?	No	No	No	No	No	No	No	Yes	No	No	No	No
Lock Condition	Good	Good	Good	None	Good	Good	Good	Fair	Good	Fair	should replace	Good
Ground subsidence?	None	None	None	Concrete	Soil	Soil	Grass	None	Grass	None	None	None
Flush Mount? Potential for ponded water?	Flush - No	Flush - No	Flush - No	Above grade	Above grade	Above grade	Above grade	Above grade	Above grade	Above grade	Above grade	Flush - No
Flush Mount in impervious surface? (surface type)	Soil, grass	Soil, grass	Grass boulevard	NA	NA	NA	NA	NA	NA	NA	NA	Yes, new vault
Flush Mount water tight?	Yes	Yes	Yes	NA	NA	NA	NA	NA	NA	NA	NA	Yes, new vault
Notes	Missing bolt	Missing bolt										Needs bolts

2024 Monitoring Well Inspection
Wausau Water Supply NPL Site
Wausau, Wisconsin

	W53A	W54	W55	W55A	W56	W57	WSWS	WSWD
Difficult to find? Brush need cutting?	No/No	No/No	No/No	No/No	Yes/Yes	No/No	No/No	No/No
Clearly labeled on outside? ID tag visible?	No	No	Yes	No	Yes	No	Yes	Yes
Protop and Casing Condition	Good	Fair	Good	Fair	Fair	Fair	Good	Good
Surface seal visible? Concrete Condition? (Soil/sod covered?)	Yes, concrete - fair	Yes - good	Yes, concete - good	No - sod	No - leaf cover	No - sod	No - sod and leaf litter	No - sod and leaf litter
Well Cap Condition (inner/outer)	Good	Good	Good	Poor, bolt stuck	Fair	Good	Good	Fair
Does well riser inhibit the protop from being closed and locked?	No	No	No	No	No	No	No	No
Lock Condition	Good	Old Lock	poor	no lock	New one	no lock	Fair	Good
Ground subsidence?	None	Bad	None	None	Soil/ leaves	None	None	None
Flush Mount? Potential for ponded water?	Flush - No	Flush - Concrete	Flush - No	Flush - No	Above grade	Flush - No	Above grade	Above grade
Flush Mount in impervious surface? (surface type)	Concrete	Yes, Concrete	Concrete	Soil, grass	NA	Soil, grass	NA	NA
Flush Mount water tight?	Yes	Yes	Yes	Yes	NA	Yes	NA	NA
Notes	Needs bolts	13/16" Socket						

Table 3.2

2024 City Well Pumping Summary
Wausau Water Supply NPL Site
Wausau, Wisconsin

		Well CW-3	Well CW-6	Well CW-7	Well CW-9	Well CW-10	Well CW-11
January	Hours	311	416	174.9	130.9	147.2	135.3
	Gallons	24.0786	30.0926	15.8781	7.1151	21.5266	18.7165
	GPM	1290	1206	1513	906	2437	2306
February	Hours	288.5	402.6	163.6	132.7	125.2	127.4
	Gallons	22.0495	29.0942	14.8139	7.1845	18.1822	18.7914
	GPM	1274	1204	1509	902	2420	2458
March	Hours	381.2	356.6	213.9	168.3	95.5	125.5
	Gallons	29.2075	25.774	19.2917	9.108	13.85	17.4936
	GPM	1277	1205	1503	902	2417	2323
April	Hours	295.7	419.3	170.3	94.5	110.9	161.9
	Gallons	22.1459	30.3473	15.3913	5.1523	16.0183	22.3148
	GPM	1248	1206	1506	909	2407	2297
May	Hours	306.4	434.2	219.8	141.3	133.8	190.4
	Gallons	22.8565	31.3878	19.9192	7.6916	20.3225	29.2453
	GPM	1243	1205	1510	907	2531	2560
June	Hours	382.7	325	250.8	115.4	125.4	164.3
	Gallons	27.1863	23.3981	22.1973	6.2397	19.4759	25.088
	GPM	1184	1200	1475	901	2589	2545
July	Hours	287.5	429.3	103.2	220.1	218.5	146.4
	Gallons	19.2408	30.0384	8.0319	11.0636	33.6268	23.1317
	GPM	1115	1166	1297	838	2565	2633
August	Hours	334.4	377.9	235.7	245.1	178.1	166.8
	Gallons	23.5761	27.3263	18.4876	12.7226	24.1483	23.7141
	GPM	1175	1205	1307	865	2260	2370
September	Hours	350.3	353.3	234.6	203.9	112.3	236.2
	Gallons	24.5388	25.5028	18.3902	10.6199	15.1782	33.7358
	GPM	1168	1203	1306	868	2253	2380
October	Hours	274.6	461.8	162.6	219.6	118.4	164.7
	Gallons	19.3505	33.3603	12.8436	11.6278	16.776	24.6496
	GPM	1174	1204	1316	882	2361	2494
November	Hours	350.9	366.8	172.2	152.4	121	37.4
	Gallons	24.6736	26.5067	16.142	8.1273	16.2435	5.2529
	GPM	1172	1204	1562	889	2237	2341
December	Hours	311.4	429.3	127.6	110.1	161.9	103.2
	Gallons	21.6159	31.0156	12.3065	5.9233	22.2246	13.5547
	GPM	1157	1204	1607	897	2288	2189
Average hrs/week:							
Average GPM:		**1207**	**1201**	**1448**	**884**	**2402**	**2422**

Notes:
Hours - Total hours pumped per month
Gallons - Millions of gallons pumped per month
GPM - Gallons per minute

Table 4.1

Annual Groundwater Monitoring Event VOC Analytical Results- September 23-24, 2024
Wausau Water Supply NPL Site
Wausau, Wisconsin

Sample Location:		Sample Location:	C2S	C3S	C4S	C4S	CW6	EW1	MW1A	R2D	R3D	R4D	W52	W53A	W54	W55
Sample ID:		Sample ID:	GW-240923-RA-20	GW-240923-RA-15	GW-240923-RA-13	GW-240923-RA-14	GW-240924-RA-24	GW-240923-RA-21	GW-240924-RA-28	GW-240924-RA-30	GW-240923-RA-23	GW-240923-RA-19	GW-240923-RA-22	GW-240923-RA-16	GW-240923-RA-18	GW-240924-RA-26
Sample Date:		Sample Date:	9/23/2024	9/23/2024	9/23/2024	9/23/2024	9/24/2024	9/23/2024	9/24/2024	9/24/2024	9/23/2024	9/23/2024	9/23/2024	9/23/2024	9/23/2024	9/24/2024
			WB	WB	WB	WB	WB	WB	WB	WB	WB	WB	WB	WB	WB	WB
						Duplicate										
Parameters	**Units**															
		WDNR ES														
Volatile Organic Compounds																
1,1,2-Trichloroethane	ug/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Acetone	ug/L	9000	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Carbon tetrachloride	ug/L	5	1.0 U	**130**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	6	2.0 U	**42**	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	ug/L	70	1.0 U	1.0 U	1.9	1.8	1.0 U	1.0 U	1.0 U	2.6	1.0 U	1.0 U	0.53 J	1.0 U	5.5	20
Ethylbenzene	ug/L	700	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methylene chloride	ug/L	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5	1.0 U	0.64 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	800	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Trichloroethene	ug/L	5	0.5	2.1	**5.2**	**5.3**	2.4	0.50 U	0.50 U	**13**	1.3	0.50 U	1.9	**59**	**200**	**22**
Vinyl chloride	ug/L	0.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	2000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 4.1

Annual Groundwater Monitoring Event VOC Analytical Results- September 23-24, 2024
Wausau Water Supply NPL Site
Wausau, Wisconsin

Sample Location:		Sample Location:	W55	W56	WSWD	CW3	E21	E22A	E24AR	E37A	MW10B	WC3B	WC3B	WC5A	WW4	WW6
Sample ID:		Sample ID:	GW-240924-RA-27	GW-240924-RA-25	GW-240924-RA-31	GW-240923-RA-01	GW-240924-RA-07	GW-240924-RA-11	GW-240923-RA-02	GW-240923-RA-03	GW-240924-RA-10	GW-240923-RA-04	GW-240923-RA-05	GW-240923-RA-06	GW-240924-RA-08	GW-240924-RA-09
Sample Date:		Sample Date:	9/24/2024	9/24/2024	9/24/2024	9/23/2024	9/24/2024	9/24/2024	9/23/2024	9/23/2024	9/24/2024	9/23/2024	9/23/2024	9/23/2024	9/24/2024	9/24/2024
			WB Duplicate	WB	WB	EB	EB	EB	EB	EB	EB	EB Duplicate	EB	EB	EB	EB
Parameters	**Units**															
		WDNR ES														
Volatile Organic Compounds																
1,1,2-Trichloroethane	ug/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Acetone	ug/L	9000	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	5	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Carbon tetrachloride	ug/L	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	6	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	ug/L	70	20	1.0 U	0.91 J	0.61 J	1.0 U	1.0 U	6.2	7.6	1.0 U	1.0 U	1.0 U	17	1.0 U	1.5
Ethylbenzene	ug/L	700	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methylene chloride	ug/L	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5	1.0 U	1.0 U	1.0 U	0.47 J	1.0 U	**8.5**	1.0 U	1.0 U	1.0 U	4.5	4.8	**23**	1.0 U	1.0 U
Toluene	ug/L	800	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Trichloroethene	ug/L	5	**22**	0.50 U	**31**	0.81	0.50 U	0.50 U	0.21 J	0.21 J	0.50 U	0.50 U	0.50 U	2.3	0.50 U	0.33 J
Vinyl chloride	ug/L	0.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**5.1**	1.0 U	1.0 U	1.0 U	1.0 U	**2.1**	1.0 U	1.0 U
Xylenes (total)	ug/L	2000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Notes:
EB - East Bank Well
WB - West Bank Well
U - Not detected at the associated reporting limit
J - Estimated concentration
0.64 J -Detected
130 -Concentration exceeded Enforcement Standard
WDNR Enforcement Standard, Upaded 1/25/2023

Appendices

Appendix A

August 29, 30, and September 1, 2023 Laboratory Report and Data Quality Validation Memorandum

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. James Abston
GHD Services Inc.
26850 Haggerty Rd.
Farmington Hills, Michigan 48331

Generated 10/9/2024 9:19:44 PM

JOB DESCRIPTION

Wausau 003978

JOB NUMBER

500-257254-1

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

Eurofins Chicago

Job Notes

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Authorization

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Authorized for release by
Shawn Hayes, Senior Project Manager
Shawn.Hayes@et.eurofinsus.com
(708)534-5200

Table of Contents

Job ID: 500-257254-1 — Eurofins Chicago

Job Narrative
500-257254-1

Receipt
The samples were received on 9/25/2024 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.6º C.

Receipt Exceptions
Received 2 VOA vials broken for sample GW-240923-RA-19 (500-257254-19) and 1 VOA vial broken for sample GW-240924-RA-26 (500-257254-26).

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with the following had compounds outside 20% drift for method 8260D. Where applicable, a standard was analyzed at the reporting limit (CCVL) and analyses were able to continue, as low failing compounds were detected. Any detects for these out of control compounds should be considered estimates.

Method 8260D: The following sample had to be re analyzed due to carryover. Only one vial was provided, and the vial had headspace upon reanalysis. GW-240923-RA-19 (500-257254-19)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-01 — Lab Sample ID: 500-257254-1

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.61	J	1.0	0.42	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.47	J	1.0	0.39	ug/L	1		8260D	Total/NA
Trichloroethene	0.81		0.50	0.15	ug/L	1		8260D	Total/NA

Client Sample ID: GW-240923-RA-02 — Lab Sample ID: 500-257254-2

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	6.2		1.0	0.42	ug/L	1		8260D	Total/NA
Trichloroethene	0.21	J	0.50	0.15	ug/L	1		8260D	Total/NA
Vinyl chloride	5.1		1.0	0.47	ug/L	1		8260D	Total/NA

Client Sample ID: GW-240923-RA-03 — Lab Sample ID: 500-257254-3

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	7.6		1.0	0.42	ug/L	1		8260D	Total/NA
Trichloroethene	0.21	J	0.50	0.15	ug/L	1		8260D	Total/NA

Client Sample ID: GW-240923-RA-04 — Lab Sample ID: 500-257254-4

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	4.5		1.0	0.39	ug/L	1		8260D	Total/NA

Client Sample ID: GW-240923-RA-05 — Lab Sample ID: 500-257254-5

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	4.8		1.0	0.39	ug/L	1		8260D	Total/NA

Client Sample ID: GW-240923-RA-06 — Lab Sample ID: 500-257254-6

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	17		1.0	0.42	ug/L	1		8260D	Total/NA
Tetrachloroethene	23		1.0	0.39	ug/L	1		8260D	Total/NA
Trichloroethene	2.3		0.50	0.15	ug/L	1		8260D	Total/NA
Vinyl chloride	2.1		1.0	0.47	ug/L	1		8260D	Total/NA

Client Sample ID: GW-240924-RA-07 — Lab Sample ID: 500-257254-7

No Detections.

Client Sample ID: GW-240924-RA-08 — Lab Sample ID: 500-257254-8

No Detections.

Client Sample ID: GW-240924-RA-09 — Lab Sample ID: 500-257254-9

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.5		1.0	0.42	ug/L	1		8260D	Total/NA
Trichloroethene	0.33	J	0.50	0.15	ug/L	1		8260D	Total/NA

Client Sample ID: GW-240924-RA-10 — Lab Sample ID: 500-257254-10

No Detections.

Client Sample ID: GW-240924-RA-11 — Lab Sample ID: 500-257254-11

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	8.5		1.0	0.39	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Detection Summary

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240924-RA-12 — Lab Sample ID: 500-257254-12

No Detections.

Client Sample ID: GW-240923-RA-13 — Lab Sample ID: 500-257254-13

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.9		1.0	0.42	ug/L	1		8260D	Total/NA
Trichloroethene	5.2		0.50	0.15	ug/L	1		8260D	Total/NA

Client Sample ID: GW-240923-RA-14 — Lab Sample ID: 500-257254-14

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.8		1.0	0.42	ug/L	1		8260D	Total/NA
Trichloroethene	5.3		0.50	0.15	ug/L	1		8260D	Total/NA

Client Sample ID: GW-240923-RA-15 — Lab Sample ID: 500-257254-15

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Carbon tetrachloride	130		1.0	0.41	ug/L	1		8260D	Total/NA
Chloroform	42		2.0	0.92	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.64	J	1.0	0.39	ug/L	1		8260D	Total/NA
Trichloroethene	2.1		0.50	0.15	ug/L	1		8260D	Total/NA

Client Sample ID: GW-240923-RA-16 — Lab Sample ID: 500-257254-16

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	59		0.50	0.15	ug/L	1		8260D	Total/NA

Client Sample ID: GW-240923-RA-17 — Lab Sample ID: 500-257254-17

No Detections.

Client Sample ID: GW-240923-RA-18 — Lab Sample ID: 500-257254-18

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	5.5		1.0	0.42	ug/L	1		8260D	Total/NA
Trichloroethene - DL	200		5.0	1.5	ug/L	10		8260D	Total/NA

Client Sample ID: GW-240923-RA-19 — Lab Sample ID: 500-257254-19

No Detections.

Client Sample ID: GW-240923-RA-20 — Lab Sample ID: 500-257254-20

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.50		0.50	0.15	ug/L	1		8260D	Total/NA

Client Sample ID: GW-240923-RA-21 — Lab Sample ID: 500-257254-21

No Detections.

Client Sample ID: GW-240923-RA-22 — Lab Sample ID: 500-257254-22

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.53	J	1.0	0.42	ug/L	1		8260D	Total/NA
Trichloroethene	1.9		0.50	0.15	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-23 — Lab Sample ID: 500-257254-23

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.3		0.50	0.15	ug/L	1		8260D	Total/NA

Client Sample ID: GW-240924-RA-24 — Lab Sample ID: 500-257254-24

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	2.4		0.50	0.15	ug/L	1		8260D	Total/NA

Client Sample ID: GW-240924-RA-25 — Lab Sample ID: 500-257254-25

No Detections.

Client Sample ID: GW-240924-RA-26 — Lab Sample ID: 500-257254-26

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	20		1.0	0.42	ug/L	1		8260D	Total/NA
Trichloroethene	22		0.50	0.15	ug/L	1		8260D	Total/NA

Client Sample ID: GW-240924-RA-27 — Lab Sample ID: 500-257254-27

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	20		1.0	0.42	ug/L	1		8260D	Total/NA
Trichloroethene	22		0.50	0.15	ug/L	1		8260D	Total/NA

Client Sample ID: GW-240924-RA-28 — Lab Sample ID: 500-257254-28

No Detections.

Client Sample ID: GW-240924-RA-29 — Lab Sample ID: 500-257254-29

No Detections.

Client Sample ID: GW-240924-RA-30 — Lab Sample ID: 500-257254-30

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.6		1.0	0.42	ug/L	1		8260D	Total/NA
Trichloroethene	13		0.50	0.15	ug/L	1		8260D	Total/NA

Client Sample ID: GW-240924-RA-31 — Lab Sample ID: 500-257254-31

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.91	J	1.0	0.42	ug/L	1		8260D	Total/NA
Trichloroethene	31		0.50	0.15	ug/L	1		8260D	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 500-257254-32

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CHI
5030B	Purge and Trap	SW846	EET CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-257254-1	GW-240923-RA-01	Water	09/23/24 11:57	09/25/24 09:45
500-257254-2	GW-240923-RA-02	Water	09/23/24 14:51	09/25/24 09:45
500-257254-3	GW-240923-RA-03	Water	09/23/24 17:06	09/25/24 09:45
500-257254-4	GW-240923-RA-04	Water	09/23/24 15:47	09/25/24 09:45
500-257254-5	GW-240923-RA-05	Water	09/23/24 15:47	09/25/24 09:45
500-257254-6	GW-240923-RA-06	Water	09/23/24 16:27	09/25/24 09:45
500-257254-7	GW-240924-RA-07	Water	09/24/24 09:12	09/25/24 09:45
500-257254-8	GW-240924-RA-08	Water	09/24/24 09:53	09/25/24 09:45
500-257254-9	GW-240924-RA-09	Water	09/24/24 10:38	09/25/24 09:45
500-257254-10	GW-240924-RA-10	Water	09/24/24 11:40	09/25/24 09:45
500-257254-11	GW-240924-RA-11	Water	09/24/24 08:08	09/25/24 09:45
500-257254-12	GW-240924-RA-12	Water	09/24/24 08:08	09/25/24 09:45
500-257254-13	GW-240923-RA-13	Water	09/23/24 14:00	09/25/24 09:45
500-257254-14	GW-240923-RA-14	Water	09/23/24 14:00	09/25/24 09:45
500-257254-15	GW-240923-RA-15	Water	09/23/24 14:20	09/25/24 09:45
500-257254-16	GW-240923-RA-16	Water	09/23/24 14:59	09/25/24 09:45
500-257254-17	GW-240923-RA-17	Water	09/23/24 14:59	09/25/24 09:45
500-257254-18	GW-240923-RA-18	Water	09/23/24 15:23	09/25/24 09:45
500-257254-19	GW-240923-RA-19	Water	09/23/24 15:53	09/25/24 09:45
500-257254-20	GW-240923-RA-20	Water	09/23/24 16:09	09/25/24 09:45
500-257254-21	GW-240923-RA-21	Water	09/23/24 16:24	09/25/24 09:45
500-257254-22	GW-240923-RA-22	Water	09/23/24 16:44	09/25/24 09:45
500-257254-23	GW-240923-RA-23	Water	09/23/24 17:05	09/25/24 09:45
500-257254-24	GW-240924-RA-24	Water	09/24/24 07:57	09/25/24 09:45
500-257254-25	GW-240924-RA-25	Water	09/24/24 08:38	09/25/24 09:45
500-257254-26	GW-240924-RA-26	Water	09/24/24 09:01	09/25/24 09:45
500-257254-27	GW-240924-RA-27	Water	09/24/24 09:01	09/25/24 09:45
500-257254-28	GW-240924-RA-28	Water	09/24/24 09:18	09/25/24 09:45
500-257254-29	GW-240924-RA-29	Water	09/24/24 09:18	09/25/24 09:45
500-257254-30	GW-240924-RA-30	Water	09/24/24 10:05	09/25/24 09:45
500-257254-31	GW-240924-RA-31	Water	09/24/24 10:39	09/25/24 09:45
500-257254-32	Trip Blank	Water	09/23/24 00:00	09/25/24 09:45

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-01
Date Collected: 09/23/24 11:57
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			09/27/24 16:42	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			09/27/24 16:42	1
Acetone	<4.3		10	4.3	ug/L			09/27/24 16:42	1
Benzene	<0.18		0.50	0.18	ug/L			09/27/24 16:42	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			09/27/24 16:42	1
Chloroform	<0.92		2.0	0.92	ug/L			09/27/24 16:42	1
cis-1,2-Dichloroethene	**0.61**	**J**	1.0	0.42	ug/L			09/27/24 16:42	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			09/27/24 16:42	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			09/27/24 16:42	1
Tetrachloroethene	**0.47**	**J**	1.0	0.39	ug/L			09/27/24 16:42	1
Toluene	<0.21		0.50	0.21	ug/L			09/27/24 16:42	1
Trichloroethene	**0.81**		0.50	0.15	ug/L			09/27/24 16:42	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			09/27/24 16:42	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			09/27/24 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*123*		*75 - 126*		*09/27/24 16:42*	*1*
4-Bromofluorobenzene (Surr)	*105*		*72 - 124*		*09/27/24 16:42*	*1*
Dibromofluoromethane	*108*		*75 - 120*		*09/27/24 16:42*	*1*
Toluene-d8 (Surr)	*93*		*75 - 120*		*09/27/24 16:42*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-02
Date Collected: 09/23/24 14:51
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-2
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			09/27/24 17:07	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			09/27/24 17:07	1
Acetone	<4.3		10	4.3	ug/L			09/27/24 17:07	1
Benzene	<0.18		0.50	0.18	ug/L			09/27/24 17:07	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			09/27/24 17:07	1
Chloroform	<0.92		2.0	0.92	ug/L			09/27/24 17:07	1
cis-1,2-Dichloroethene	**6.2**		1.0	0.42	ug/L			09/27/24 17:07	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			09/27/24 17:07	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			09/27/24 17:07	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			09/27/24 17:07	1
Toluene	<0.21		0.50	0.21	ug/L			09/27/24 17:07	1
Trichloroethene	**0.21**	**J**	0.50	0.15	ug/L			09/27/24 17:07	1
Vinyl chloride	**5.1**		1.0	0.47	ug/L			09/27/24 17:07	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			09/27/24 17:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*123*		*75 - 126*		*09/27/24 17:07*	*1*
4-Bromofluorobenzene (Surr)	*102*		*72 - 124*		*09/27/24 17:07*	*1*
Dibromofluoromethane	*108*		*75 - 120*		*09/27/24 17:07*	*1*
Toluene-d8 (Surr)	*92*		*75 - 120*		*09/27/24 17:07*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-03
Date Collected: 09/23/24 17:06
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			09/27/24 17:32	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			09/27/24 17:32	1
Acetone	<4.3		10	4.3	ug/L			09/27/24 17:32	1
Benzene	<0.18		0.50	0.18	ug/L			09/27/24 17:32	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			09/27/24 17:32	1
Chloroform	<0.92		2.0	0.92	ug/L			09/27/24 17:32	1
cis-1,2-Dichloroethene	**7.6**		1.0	0.42	ug/L			09/27/24 17:32	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			09/27/24 17:32	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			09/27/24 17:32	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			09/27/24 17:32	1
Toluene	<0.21		0.50	0.21	ug/L			09/27/24 17:32	1
Trichloroethene	**0.21**	**J**	0.50	0.15	ug/L			09/27/24 17:32	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			09/27/24 17:32	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			09/27/24 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*75 - 126*		*09/27/24 17:32*	*1*
4-Bromofluorobenzene (Surr)	*103*		*72 - 124*		*09/27/24 17:32*	*1*
Dibromofluoromethane	*108*		*75 - 120*		*09/27/24 17:32*	*1*
Toluene-d8 (Surr)	*94*		*75 - 120*		*09/27/24 17:32*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-04
Date Collected: 09/23/24 15:47
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			09/27/24 17:56	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			09/27/24 17:56	1
Acetone	<4.3		10	4.3	ug/L			09/27/24 17:56	1
Benzene	<0.18		0.50	0.18	ug/L			09/27/24 17:56	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			09/27/24 17:56	1
Chloroform	<0.92		2.0	0.92	ug/L			09/27/24 17:56	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			09/27/24 17:56	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			09/27/24 17:56	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			09/27/24 17:56	1
Tetrachloroethene	**4.5**		1.0	0.39	ug/L			09/27/24 17:56	1
Toluene	<0.21		0.50	0.21	ug/L			09/27/24 17:56	1
Trichloroethene	<0.15		0.50	0.15	ug/L			09/27/24 17:56	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			09/27/24 17:56	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			09/27/24 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*125*		*75 - 126*		*09/27/24 17:56*	*1*
4-Bromofluorobenzene (Surr)	*103*		*72 - 124*		*09/27/24 17:56*	*1*
Dibromofluoromethane	*109*		*75 - 120*		*09/27/24 17:56*	*1*
Toluene-d8 (Surr)	*93*		*75 - 120*		*09/27/24 17:56*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-05
Date Collected: 09/23/24 15:47
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			09/27/24 18:21	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			09/27/24 18:21	1
Acetone	<4.3		10	4.3	ug/L			09/27/24 18:21	1
Benzene	<0.18		0.50	0.18	ug/L			09/27/24 18:21	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			09/27/24 18:21	1
Chloroform	<0.92		2.0	0.92	ug/L			09/27/24 18:21	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			09/27/24 18:21	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			09/27/24 18:21	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			09/27/24 18:21	1
Tetrachloroethene	**4.8**		1.0	0.39	ug/L			09/27/24 18:21	1
Toluene	<0.21		0.50	0.21	ug/L			09/27/24 18:21	1
Trichloroethene	<0.15		0.50	0.15	ug/L			09/27/24 18:21	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			09/27/24 18:21	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			09/27/24 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*123*		*75 - 126*		*09/27/24 18:21*	*1*
4-Bromofluorobenzene (Surr)	*106*		*72 - 124*		*09/27/24 18:21*	*1*
Dibromofluoromethane	*108*		*75 - 120*		*09/27/24 18:21*	*1*
Toluene-d8 (Surr)	*93*		*75 - 120*		*09/27/24 18:21*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-06
Date Collected: 09/23/24 16:27
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			09/27/24 18:45	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			09/27/24 18:45	1
Acetone	<4.3		10	4.3	ug/L			09/27/24 18:45	1
Benzene	<0.18		0.50	0.18	ug/L			09/27/24 18:45	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			09/27/24 18:45	1
Chloroform	<0.92		2.0	0.92	ug/L			09/27/24 18:45	1
cis-1,2-Dichloroethene	**17**		1.0	0.42	ug/L			09/27/24 18:45	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			09/27/24 18:45	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			09/27/24 18:45	1
Tetrachloroethene	**23**		1.0	0.39	ug/L			09/27/24 18:45	1
Toluene	<0.21		0.50	0.21	ug/L			09/27/24 18:45	1
Trichloroethene	**2.3**		0.50	0.15	ug/L			09/27/24 18:45	1
Vinyl chloride	**2.1**		1.0	0.47	ug/L			09/27/24 18:45	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			09/27/24 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*125*		*75 - 126*		*09/27/24 18:45*	*1*
4-Bromofluorobenzene (Surr)	*104*		*72 - 124*		*09/27/24 18:45*	*1*
Dibromofluoromethane	*110*		*75 - 120*		*09/27/24 18:45*	*1*
Toluene-d8 (Surr)	*93*		*75 - 120*		*09/27/24 18:45*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240924-RA-07
Date Collected: 09/24/24 09:12
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/01/24 10:34	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/01/24 10:34	1
Acetone	<4.3		10	4.3	ug/L			10/01/24 10:34	1
Benzene	<0.18		0.50	0.18	ug/L			10/01/24 10:34	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/01/24 10:34	1
Chloroform	<0.92		2.0	0.92	ug/L			10/01/24 10:34	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/01/24 10:34	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/01/24 10:34	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/01/24 10:34	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/01/24 10:34	1
Toluene	<0.21		0.50	0.21	ug/L			10/01/24 10:34	1
Trichloroethene	<0.15		0.50	0.15	ug/L			10/01/24 10:34	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/01/24 10:34	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/01/24 10:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*121*		*75 - 126*		*10/01/24 10:34*	*1*
4-Bromofluorobenzene (Surr)	*105*		*72 - 124*		*10/01/24 10:34*	*1*
Dibromofluoromethane	*107*		*75 - 120*		*10/01/24 10:34*	*1*
Toluene-d8 (Surr)	*94*		*75 - 120*		*10/01/24 10:34*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240924-RA-08
Date Collected: 09/24/24 09:53
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/01/24 10:58	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/01/24 10:58	1
Acetone	<4.3		10	4.3	ug/L			10/01/24 10:58	1
Benzene	<0.18		0.50	0.18	ug/L			10/01/24 10:58	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/01/24 10:58	1
Chloroform	<0.92		2.0	0.92	ug/L			10/01/24 10:58	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/01/24 10:58	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/01/24 10:58	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/01/24 10:58	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/01/24 10:58	1
Toluene	<0.21		0.50	0.21	ug/L			10/01/24 10:58	1
Trichloroethene	<0.15		0.50	0.15	ug/L			10/01/24 10:58	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/01/24 10:58	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/01/24 10:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*121*		*75 - 126*		*10/01/24 10:58*	*1*
4-Bromofluorobenzene (Surr)	*105*		*72 - 124*		*10/01/24 10:58*	*1*
Dibromofluoromethane	*108*		*75 - 120*		*10/01/24 10:58*	*1*
Toluene-d8 (Surr)	*94*		*75 - 120*		*10/01/24 10:58*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240924-RA-09
Date Collected: 09/24/24 10:38
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-9
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/03/24 15:39	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/03/24 15:39	1
Acetone	<4.3		10	4.3	ug/L			10/03/24 15:39	1
Benzene	<0.18		0.50	0.18	ug/L			10/03/24 15:39	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/03/24 15:39	1
Chloroform	<0.92		2.0	0.92	ug/L			10/03/24 15:39	1
cis-1,2-Dichloroethene	**1.5**		1.0	0.42	ug/L			10/03/24 15:39	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/03/24 15:39	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/03/24 15:39	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/03/24 15:39	1
Toluene	<0.21		0.50	0.21	ug/L			10/03/24 15:39	1
Trichloroethene	**0.33**	**J**	0.50	0.15	ug/L			10/03/24 15:39	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/03/24 15:39	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/03/24 15:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*75 - 126*		*10/03/24 15:39*	*1*
4-Bromofluorobenzene (Surr)	*81*	*^c*	*72 - 124*		*10/03/24 15:39*	*1*
Dibromofluoromethane	*92*		*75 - 120*		*10/03/24 15:39*	*1*
Toluene-d8 (Surr)	*88*		*75 - 120*		*10/03/24 15:39*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240924-RA-10

Date Collected: 09/24/24 11:40
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-10

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/01/24 11:47	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/01/24 11:47	1
Acetone	<4.3		10	4.3	ug/L			10/01/24 11:47	1
Benzene	<0.18		0.50	0.18	ug/L			10/01/24 11:47	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/01/24 11:47	1
Chloroform	<0.92		2.0	0.92	ug/L			10/01/24 11:47	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/01/24 11:47	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/01/24 11:47	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/01/24 11:47	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/01/24 11:47	1
Toluene	<0.21		0.50	0.21	ug/L			10/01/24 11:47	1
Trichloroethene	<0.15		0.50	0.15	ug/L			10/01/24 11:47	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/01/24 11:47	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/01/24 11:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*121*		*75 - 126*		*10/01/24 11:47*	*1*
4-Bromofluorobenzene (Surr)	*106*		*72 - 124*		*10/01/24 11:47*	*1*
Dibromofluoromethane	*106*		*75 - 120*		*10/01/24 11:47*	*1*
Toluene-d8 (Surr)	*94*		*75 - 120*		*10/01/24 11:47*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240924-RA-11
Date Collected: 09/24/24 08:08
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-11
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/01/24 12:12	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/01/24 12:12	1
Acetone	<4.3		10	4.3	ug/L			10/01/24 12:12	1
Benzene	<0.18		0.50	0.18	ug/L			10/01/24 12:12	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/01/24 12:12	1
Chloroform	<0.92		2.0	0.92	ug/L			10/01/24 12:12	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/01/24 12:12	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/01/24 12:12	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/01/24 12:12	1
Tetrachloroethene	**8.5**		1.0	0.39	ug/L			10/01/24 12:12	1
Toluene	<0.21		0.50	0.21	ug/L			10/01/24 12:12	1
Trichloroethene	<0.15		0.50	0.15	ug/L			10/01/24 12:12	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/01/24 12:12	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/01/24 12:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*123*		*75 - 126*		*10/01/24 12:12*	*1*
4-Bromofluorobenzene (Surr)	*106*		*72 - 124*		*10/01/24 12:12*	*1*
Dibromofluoromethane	*108*		*75 - 120*		*10/01/24 12:12*	*1*
Toluene-d8 (Surr)	*95*		*75 - 120*		*10/01/24 12:12*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240924-RA-12
Date Collected: 09/24/24 08:08
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-12
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/01/24 12:36	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/01/24 12:36	1
Acetone	<4.3		10	4.3	ug/L			10/01/24 12:36	1
Benzene	<0.18		0.50	0.18	ug/L			10/01/24 12:36	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/01/24 12:36	1
Chloroform	<0.92		2.0	0.92	ug/L			10/01/24 12:36	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/01/24 12:36	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/01/24 12:36	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/01/24 12:36	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/01/24 12:36	1
Toluene	<0.21		0.50	0.21	ug/L			10/01/24 12:36	1
Trichloroethene	<0.15		0.50	0.15	ug/L			10/01/24 12:36	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/01/24 12:36	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/01/24 12:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*122*		*75 - 126*		*10/01/24 12:36*	*1*
4-Bromofluorobenzene (Surr)	*106*		*72 - 124*		*10/01/24 12:36*	*1*
Dibromofluoromethane	*108*		*75 - 120*		*10/01/24 12:36*	*1*
Toluene-d8 (Surr)	*94*		*75 - 120*		*10/01/24 12:36*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-13

Date Collected: 09/23/24 14:00
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-13

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/01/24 13:01	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/01/24 13:01	1
Acetone	<4.3		10	4.3	ug/L			10/01/24 13:01	1
Benzene	<0.18		0.50	0.18	ug/L			10/01/24 13:01	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/01/24 13:01	1
Chloroform	<0.92		2.0	0.92	ug/L			10/01/24 13:01	1
cis-1,2-Dichloroethene	**1.9**		1.0	0.42	ug/L			10/01/24 13:01	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/01/24 13:01	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/01/24 13:01	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/01/24 13:01	1
Toluene	<0.21		0.50	0.21	ug/L			10/01/24 13:01	1
Trichloroethene	**5.2**		0.50	0.15	ug/L			10/01/24 13:01	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/01/24 13:01	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/01/24 13:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*122*		*75 - 126*		*10/01/24 13:01*	*1*
4-Bromofluorobenzene (Surr)	*105*		*72 - 124*		*10/01/24 13:01*	*1*
Dibromofluoromethane	*107*		*75 - 120*		*10/01/24 13:01*	*1*
Toluene-d8 (Surr)	*94*		*75 - 120*		*10/01/24 13:01*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-14
Date Collected: 09/23/24 14:00
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-14
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/01/24 13:25	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/01/24 13:25	1
Acetone	<4.3		10	4.3	ug/L			10/01/24 13:25	1
Benzene	<0.18		0.50	0.18	ug/L			10/01/24 13:25	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/01/24 13:25	1
Chloroform	<0.92		2.0	0.92	ug/L			10/01/24 13:25	1
cis-1,2-Dichloroethene	**1.8**		1.0	0.42	ug/L			10/01/24 13:25	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/01/24 13:25	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/01/24 13:25	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/01/24 13:25	1
Toluene	<0.21		0.50	0.21	ug/L			10/01/24 13:25	1
Trichloroethene	**5.3**		0.50	0.15	ug/L			10/01/24 13:25	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/01/24 13:25	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/01/24 13:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*123*		*75 - 126*		*10/01/24 13:25*	*1*
4-Bromofluorobenzene (Surr)	*105*		*72 - 124*		*10/01/24 13:25*	*1*
Dibromofluoromethane	*108*		*75 - 120*		*10/01/24 13:25*	*1*
Toluene-d8 (Surr)	*93*		*75 - 120*		*10/01/24 13:25*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-15

Date Collected: 09/23/24 14:20
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-15

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/01/24 13:50	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/01/24 13:50	1
Acetone	<4.3		10	4.3	ug/L			10/01/24 13:50	1
Benzene	<0.18		0.50	0.18	ug/L			10/01/24 13:50	1
Carbon tetrachloride	**130**		1.0	0.41	ug/L			10/01/24 13:50	1
Chloroform	**42**		2.0	0.92	ug/L			10/01/24 13:50	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/01/24 13:50	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/01/24 13:50	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/01/24 13:50	1
Tetrachloroethene	**0.64**	**J**	1.0	0.39	ug/L			10/01/24 13:50	1
Toluene	<0.21		0.50	0.21	ug/L			10/01/24 13:50	1
Trichloroethene	**2.1**		0.50	0.15	ug/L			10/01/24 13:50	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/01/24 13:50	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/01/24 13:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*125*		*75 - 126*		*10/01/24 13:50*	*1*
4-Bromofluorobenzene (Surr)	*104*		*72 - 124*		*10/01/24 13:50*	*1*
Dibromofluoromethane	*109*		*75 - 120*		*10/01/24 13:50*	*1*
Toluene-d8 (Surr)	*94*		*75 - 120*		*10/01/24 13:50*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-16
Date Collected: 09/23/24 14:59
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-16
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/01/24 14:14	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/01/24 14:14	1
Acetone	<4.3		10	4.3	ug/L			10/01/24 14:14	1
Benzene	<0.18		0.50	0.18	ug/L			10/01/24 14:14	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/01/24 14:14	1
Chloroform	<0.92		2.0	0.92	ug/L			10/01/24 14:14	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/01/24 14:14	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/01/24 14:14	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/01/24 14:14	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/01/24 14:14	1
Toluene	<0.21		0.50	0.21	ug/L			10/01/24 14:14	1
Trichloroethene	**59**		0.50	0.15	ug/L			10/01/24 14:14	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/01/24 14:14	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/01/24 14:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*75 - 126*		*10/01/24 14:14*	*1*
4-Bromofluorobenzene (Surr)	*105*		*72 - 124*		*10/01/24 14:14*	*1*
Dibromofluoromethane	*107*		*75 - 120*		*10/01/24 14:14*	*1*
Toluene-d8 (Surr)	*95*		*75 - 120*		*10/01/24 14:14*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-17

Date Collected: 09/23/24 14:59
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-17

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/01/24 14:39	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/01/24 14:39	1
Acetone	<4.3		10	4.3	ug/L			10/01/24 14:39	1
Benzene	<0.18		0.50	0.18	ug/L			10/01/24 14:39	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/01/24 14:39	1
Chloroform	<0.92		2.0	0.92	ug/L			10/01/24 14:39	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/01/24 14:39	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/01/24 14:39	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/01/24 14:39	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/01/24 14:39	1
Toluene	<0.21		0.50	0.21	ug/L			10/01/24 14:39	1
Trichloroethene	<0.15		0.50	0.15	ug/L			10/01/24 14:39	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/01/24 14:39	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/01/24 14:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*123*		*75 - 126*		*10/01/24 14:39*	*1*
4-Bromofluorobenzene (Surr)	*104*		*72 - 124*		*10/01/24 14:39*	*1*
Dibromofluoromethane	*106*		*75 - 120*		*10/01/24 14:39*	*1*
Toluene-d8 (Surr)	*94*		*75 - 120*		*10/01/24 14:39*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-18

Lab Sample ID: 500-257254-18

Date Collected: 09/23/24 15:23

Matrix: Water

Date Received: 09/25/24 09:45

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/01/24 15:03	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/01/24 15:03	1
Acetone	<4.3		10	4.3	ug/L			10/01/24 15:03	1
Benzene	<0.18		0.50	0.18	ug/L			10/01/24 15:03	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/01/24 15:03	1
Chloroform	<0.92		2.0	0.92	ug/L			10/01/24 15:03	1
cis-1,2-Dichloroethene	**5.5**		1.0	0.42	ug/L			10/01/24 15:03	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/01/24 15:03	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/01/24 15:03	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/01/24 15:03	1
Toluene	<0.21		0.50	0.21	ug/L			10/01/24 15:03	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/01/24 15:03	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/01/24 15:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*123*		*75 - 126*		*10/01/24 15:03*	*1*
4-Bromofluorobenzene (Surr)	*105*		*72 - 124*		*10/01/24 15:03*	*1*
Dibromofluoromethane	*108*		*75 - 120*		*10/01/24 15:03*	*1*
Toluene-d8 (Surr)	*94*		*75 - 120*		*10/01/24 15:03*	*1*

Method: SW846 8260D - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**200**		5.0	1.5	ug/L			10/03/24 16:05	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*75 - 126*		*10/03/24 16:05*	*10*
4-Bromofluorobenzene (Surr)	*82*	*^c*	*72 - 124*		*10/03/24 16:05*	*10*
Dibromofluoromethane	*93*		*75 - 120*		*10/03/24 16:05*	*10*
Toluene-d8 (Surr)	*86*		*75 - 120*		*10/03/24 16:05*	*10*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-19
Date Collected: 09/23/24 15:53
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-19
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/04/24 12:33	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/04/24 12:33	1
Acetone	<4.3		10	4.3	ug/L			10/04/24 12:33	1
Benzene	<0.18		0.50	0.18	ug/L			10/04/24 12:33	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/04/24 12:33	1
Chloroform	<0.92		2.0	0.92	ug/L			10/04/24 12:33	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/04/24 12:33	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/04/24 12:33	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/04/24 12:33	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/04/24 12:33	1
Toluene	<0.21		0.50	0.21	ug/L			10/04/24 12:33	1
Trichloroethene	<0.15		0.50	0.15	ug/L			10/04/24 12:33	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/04/24 12:33	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/04/24 12:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*75 - 126*		*10/04/24 12:33*	*1*
4-Bromofluorobenzene (Surr)	*102*		*72 - 124*		*10/04/24 12:33*	*1*
Dibromofluoromethane	*101*		*75 - 120*		*10/04/24 12:33*	*1*
Toluene-d8 (Surr)	*98*		*75 - 120*		*10/04/24 12:33*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-20
Date Collected: 09/23/24 16:09
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-20
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/01/24 15:53	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/01/24 15:53	1
Acetone	<4.3		10	4.3	ug/L			10/01/24 15:53	1
Benzene	<0.18		0.50	0.18	ug/L			10/01/24 15:53	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/01/24 15:53	1
Chloroform	<0.92		2.0	0.92	ug/L			10/01/24 15:53	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/01/24 15:53	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/01/24 15:53	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/01/24 15:53	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/01/24 15:53	1
Toluene	<0.21		0.50	0.21	ug/L			10/01/24 15:53	1
Trichloroethene	**0.50**		0.50	0.15	ug/L			10/01/24 15:53	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/01/24 15:53	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/01/24 15:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*122*		*75 - 126*		*10/01/24 15:53*	*1*
4-Bromofluorobenzene (Surr)	*105*		*72 - 124*		*10/01/24 15:53*	*1*
Dibromofluoromethane	*109*		*75 - 120*		*10/01/24 15:53*	*1*
Toluene-d8 (Surr)	*95*		*75 - 120*		*10/01/24 15:53*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-21
Date Collected: 09/23/24 16:24
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-21
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/01/24 16:17	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/01/24 16:17	1
Acetone	<4.3		10	4.3	ug/L			10/01/24 16:17	1
Benzene	<0.18		0.50	0.18	ug/L			10/01/24 16:17	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/01/24 16:17	1
Chloroform	<0.92		2.0	0.92	ug/L			10/01/24 16:17	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/01/24 16:17	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/01/24 16:17	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/01/24 16:17	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/01/24 16:17	1
Toluene	<0.21		0.50	0.21	ug/L			10/01/24 16:17	1
Trichloroethene	<0.15		0.50	0.15	ug/L			10/01/24 16:17	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/01/24 16:17	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/01/24 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*75 - 126*		*10/01/24 16:17*	*1*
4-Bromofluorobenzene (Surr)	*106*		*72 - 124*		*10/01/24 16:17*	*1*
Dibromofluoromethane	*107*		*75 - 120*		*10/01/24 16:17*	*1*
Toluene-d8 (Surr)	*94*		*75 - 120*		*10/01/24 16:17*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-22
Date Collected: 09/23/24 16:44
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-22
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/02/24 17:20	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/02/24 17:20	1
Acetone	<4.3		10	4.3	ug/L			10/02/24 17:20	1
Benzene	<0.18		0.50	0.18	ug/L			10/02/24 17:20	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/02/24 17:20	1
Chloroform	<0.92		2.0	0.92	ug/L			10/02/24 17:20	1
cis-1,2-Dichloroethene	**0.53**	**J**	1.0	0.42	ug/L			10/02/24 17:20	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/02/24 17:20	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/02/24 17:20	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/02/24 17:20	1
Toluene	<0.21		0.50	0.21	ug/L			10/02/24 17:20	1
Trichloroethene	**1.9**		0.50	0.15	ug/L			10/02/24 17:20	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/02/24 17:20	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/02/24 17:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*126*		*75 - 126*		*10/02/24 17:20*	*1*
4-Bromofluorobenzene (Surr)	*102*		*72 - 124*		*10/02/24 17:20*	*1*
Dibromofluoromethane	*110*		*75 - 120*		*10/02/24 17:20*	*1*
Toluene-d8 (Surr)	*94*		*75 - 120*		*10/02/24 17:20*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-23
Date Collected: 09/23/24 17:05
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-23
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/01/24 16:42	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/01/24 16:42	1
Acetone	<4.3		10	4.3	ug/L			10/01/24 16:42	1
Benzene	<0.18		0.50	0.18	ug/L			10/01/24 16:42	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/01/24 16:42	1
Chloroform	<0.92		2.0	0.92	ug/L			10/01/24 16:42	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/01/24 16:42	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/01/24 16:42	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/01/24 16:42	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/01/24 16:42	1
Toluene	<0.21		0.50	0.21	ug/L			10/01/24 16:42	1
Trichloroethene	**1.3**		0.50	0.15	ug/L			10/01/24 16:42	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/01/24 16:42	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/01/24 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*121*		*75 - 126*		*10/01/24 16:42*	*1*
4-Bromofluorobenzene (Surr)	*102*		*72 - 124*		*10/01/24 16:42*	*1*
Dibromofluoromethane	*109*		*75 - 120*		*10/01/24 16:42*	*1*
Toluene-d8 (Surr)	*94*		*75 - 120*		*10/01/24 16:42*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240924-RA-24
Date Collected: 09/24/24 07:57
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-24
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/02/24 17:44	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/02/24 17:44	1
Acetone	<4.3		10	4.3	ug/L			10/02/24 17:44	1
Benzene	<0.18		0.50	0.18	ug/L			10/02/24 17:44	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/02/24 17:44	1
Chloroform	<0.92		2.0	0.92	ug/L			10/02/24 17:44	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/02/24 17:44	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/02/24 17:44	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/02/24 17:44	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/02/24 17:44	1
Toluene	<0.21		0.50	0.21	ug/L			10/02/24 17:44	1
Trichloroethene	**2.4**		0.50	0.15	ug/L			10/02/24 17:44	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/02/24 17:44	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/02/24 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*124*		*75 - 126*		*10/02/24 17:44*	*1*
4-Bromofluorobenzene (Surr)	*105*		*72 - 124*		*10/02/24 17:44*	*1*
Dibromofluoromethane	*109*		*75 - 120*		*10/02/24 17:44*	*1*
Toluene-d8 (Surr)	*94*		*75 - 120*		*10/02/24 17:44*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240924-RA-25
Date Collected: 09/24/24 08:38
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-25
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/03/24 16:30	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/03/24 16:30	1
Acetone	<4.3		10	4.3	ug/L			10/03/24 16:30	1
Benzene	<0.18		0.50	0.18	ug/L			10/03/24 16:30	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/03/24 16:30	1
Chloroform	<0.92		2.0	0.92	ug/L			10/03/24 16:30	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/03/24 16:30	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/03/24 16:30	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/03/24 16:30	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/03/24 16:30	1
Toluene	<0.21		0.50	0.21	ug/L			10/03/24 16:30	1
Trichloroethene	<0.15		0.50	0.15	ug/L			10/03/24 16:30	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/03/24 16:30	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/03/24 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*75 - 126*		*10/03/24 16:30*	*1*
4-Bromofluorobenzene (Surr)	*82*	*^c*	*72 - 124*		*10/03/24 16:30*	*1*
Dibromofluoromethane	*92*		*75 - 120*		*10/03/24 16:30*	*1*
Toluene-d8 (Surr)	*88*		*75 - 120*		*10/03/24 16:30*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240924-RA-26
Date Collected: 09/24/24 09:01
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-26
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/02/24 18:09	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/02/24 18:09	1
Acetone	<4.3		10	4.3	ug/L			10/02/24 18:09	1
Benzene	<0.18		0.50	0.18	ug/L			10/02/24 18:09	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/02/24 18:09	1
Chloroform	<0.92		2.0	0.92	ug/L			10/02/24 18:09	1
cis-1,2-Dichloroethene	**20**		1.0	0.42	ug/L			10/02/24 18:09	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/02/24 18:09	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/02/24 18:09	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/02/24 18:09	1
Toluene	<0.21		0.50	0.21	ug/L			10/02/24 18:09	1
Trichloroethene	**22**		0.50	0.15	ug/L			10/02/24 18:09	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/02/24 18:09	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/02/24 18:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*75 - 126*		*10/02/24 18:09*	*1*
4-Bromofluorobenzene (Surr)	*105*		*72 - 124*		*10/02/24 18:09*	*1*
Dibromofluoromethane	*108*		*75 - 120*		*10/02/24 18:09*	*1*
Toluene-d8 (Surr)	*95*		*75 - 120*		*10/02/24 18:09*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240924-RA-27
Date Collected: 09/24/24 09:01
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-27
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/02/24 18:33	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/02/24 18:33	1
Acetone	<4.3		10	4.3	ug/L			10/02/24 18:33	1
Benzene	<0.18		0.50	0.18	ug/L			10/02/24 18:33	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/02/24 18:33	1
Chloroform	<0.92		2.0	0.92	ug/L			10/02/24 18:33	1
cis-1,2-Dichloroethene	**20**		1.0	0.42	ug/L			10/02/24 18:33	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/02/24 18:33	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/02/24 18:33	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/02/24 18:33	1
Toluene	<0.21		0.50	0.21	ug/L			10/02/24 18:33	1
Trichloroethene	**22**		0.50	0.15	ug/L			10/02/24 18:33	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/02/24 18:33	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/02/24 18:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*75 - 126*		*10/02/24 18:33*	*1*
4-Bromofluorobenzene (Surr)	*104*		*72 - 124*		*10/02/24 18:33*	*1*
Dibromofluoromethane	*108*		*75 - 120*		*10/02/24 18:33*	*1*
Toluene-d8 (Surr)	*94*		*75 - 120*		*10/02/24 18:33*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240924-RA-28
Date Collected: 09/24/24 09:18
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-28
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/02/24 18:58	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/02/24 18:58	1
Acetone	<4.3		10	4.3	ug/L			10/02/24 18:58	1
Benzene	<0.18		0.50	0.18	ug/L			10/02/24 18:58	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/02/24 18:58	1
Chloroform	<0.92		2.0	0.92	ug/L			10/02/24 18:58	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/02/24 18:58	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/02/24 18:58	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/02/24 18:58	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/02/24 18:58	1
Toluene	<0.21		0.50	0.21	ug/L			10/02/24 18:58	1
Trichloroethene	<0.15		0.50	0.15	ug/L			10/02/24 18:58	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/02/24 18:58	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/02/24 18:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*75 - 126*		*10/02/24 18:58*	*1*
4-Bromofluorobenzene (Surr)	*104*		*72 - 124*		*10/02/24 18:58*	*1*
Dibromofluoromethane	*109*		*75 - 120*		*10/02/24 18:58*	*1*
Toluene-d8 (Surr)	*95*		*75 - 120*		*10/02/24 18:58*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240924-RA-29
Date Collected: 09/24/24 09:18
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-29
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/01/24 17:06	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/01/24 17:06	1
Acetone	<4.3		10	4.3	ug/L			10/01/24 17:06	1
Benzene	<0.18		0.50	0.18	ug/L			10/01/24 17:06	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/01/24 17:06	1
Chloroform	<0.92		2.0	0.92	ug/L			10/01/24 17:06	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/01/24 17:06	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/01/24 17:06	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/01/24 17:06	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/01/24 17:06	1
Toluene	<0.21		0.50	0.21	ug/L			10/01/24 17:06	1
Trichloroethene	<0.15		0.50	0.15	ug/L			10/01/24 17:06	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/01/24 17:06	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/01/24 17:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*75 - 126*		*10/01/24 17:06*	*1*
4-Bromofluorobenzene (Surr)	*104*		*72 - 124*		*10/01/24 17:06*	*1*
Dibromofluoromethane	*106*		*75 - 120*		*10/01/24 17:06*	*1*
Toluene-d8 (Surr)	*94*		*75 - 120*		*10/01/24 17:06*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240924-RA-30
Date Collected: 09/24/24 10:05
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-30
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/02/24 19:47	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/02/24 19:47	1
Acetone	<4.3		10	4.3	ug/L			10/02/24 19:47	1
Benzene	<0.18		0.50	0.18	ug/L			10/02/24 19:47	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/02/24 19:47	1
Chloroform	<0.92		2.0	0.92	ug/L			10/02/24 19:47	1
cis-1,2-Dichloroethene	**2.6**		1.0	0.42	ug/L			10/02/24 19:47	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/02/24 19:47	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/02/24 19:47	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/02/24 19:47	1
Toluene	<0.21		0.50	0.21	ug/L			10/02/24 19:47	1
Trichloroethene	**13**		0.50	0.15	ug/L			10/02/24 19:47	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/02/24 19:47	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/02/24 19:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*75 - 126*		*10/02/24 19:47*	*1*
4-Bromofluorobenzene (Surr)	*104*		*72 - 124*		*10/02/24 19:47*	*1*
Dibromofluoromethane	*108*		*75 - 120*		*10/02/24 19:47*	*1*
Toluene-d8 (Surr)	*95*		*75 - 120*		*10/02/24 19:47*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240924-RA-31
Date Collected: 09/24/24 10:39
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-31
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/02/24 19:23	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/02/24 19:23	1
Acetone	<4.3		10	4.3	ug/L			10/02/24 19:23	1
Benzene	<0.18		0.50	0.18	ug/L			10/02/24 19:23	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/02/24 19:23	1
Chloroform	<0.92		2.0	0.92	ug/L			10/02/24 19:23	1
cis-1,2-Dichloroethene	**0.91**	**J**	1.0	0.42	ug/L			10/02/24 19:23	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/02/24 19:23	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/02/24 19:23	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/02/24 19:23	1
Toluene	<0.21		0.50	0.21	ug/L			10/02/24 19:23	1
Trichloroethene	**31**		0.50	0.15	ug/L			10/02/24 19:23	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/02/24 19:23	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/02/24 19:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*75 - 126*		*10/02/24 19:23*	*1*
4-Bromofluorobenzene (Surr)	*102*		*72 - 124*		*10/02/24 19:23*	*1*
Dibromofluoromethane	*108*		*75 - 120*		*10/02/24 19:23*	*1*
Toluene-d8 (Surr)	*95*		*75 - 120*		*10/02/24 19:23*	*1*

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: Trip Blank
Date Collected: 09/23/24 00:00
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-32
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/03/24 15:13	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/03/24 15:13	1
Acetone	<4.3		10	4.3	ug/L			10/03/24 15:13	1
Benzene	<0.18		0.50	0.18	ug/L			10/03/24 15:13	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/03/24 15:13	1
Chloroform	<0.92		2.0	0.92	ug/L			10/03/24 15:13	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/03/24 15:13	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/03/24 15:13	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/03/24 15:13	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/03/24 15:13	1
Toluene	<0.21		0.50	0.21	ug/L			10/03/24 15:13	1
Trichloroethene	<0.15		0.50	0.15	ug/L			10/03/24 15:13	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/03/24 15:13	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/03/24 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*75 - 126*		*10/03/24 15:13*	*1*
4-Bromofluorobenzene (Surr)	*82*	*^c*	*72 - 124*		*10/03/24 15:13*	*1*
Dibromofluoromethane	*93*		*75 - 120*		*10/03/24 15:13*	*1*
Toluene-d8 (Surr)	*87*		*75 - 120*		*10/03/24 15:13*	*1*

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
J	Reported value was between the limit of detection and the limit of quantitation.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

GC/MS VOA

Analysis Batch: 788005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-257254-1	GW-240923-RA-01	Total/NA	Water	8260D	
500-257254-2	GW-240923-RA-02	Total/NA	Water	8260D	
500-257254-3	GW-240923-RA-03	Total/NA	Water	8260D	
500-257254-4	GW-240923-RA-04	Total/NA	Water	8260D	
500-257254-5	GW-240923-RA-05	Total/NA	Water	8260D	
500-257254-6	GW-240923-RA-06	Total/NA	Water	8260D	
MB 500-788005/6	Method Blank	Total/NA	Water	8260D	
LCS 500-788005/3	Lab Control Sample	Total/NA	Water	8260D	
LCSD 500-788005/4	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 788465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-257254-7	GW-240924-RA-07	Total/NA	Water	8260D	
500-257254-8	GW-240924-RA-08	Total/NA	Water	8260D	
500-257254-10	GW-240924-RA-10	Total/NA	Water	8260D	
500-257254-11	GW-240924-RA-11	Total/NA	Water	8260D	
500-257254-12	GW-240924-RA-12	Total/NA	Water	8260D	
500-257254-13	GW-240923-RA-13	Total/NA	Water	8260D	
500-257254-14	GW-240923-RA-14	Total/NA	Water	8260D	
500-257254-15	GW-240923-RA-15	Total/NA	Water	8260D	
500-257254-16	GW-240923-RA-16	Total/NA	Water	8260D	
500-257254-17	GW-240923-RA-17	Total/NA	Water	8260D	
500-257254-18	GW-240923-RA-18	Total/NA	Water	8260D	
500-257254-20	GW-240923-RA-20	Total/NA	Water	8260D	
500-257254-21	GW-240923-RA-21	Total/NA	Water	8260D	
500-257254-23	GW-240923-RA-23	Total/NA	Water	8260D	
500-257254-29	GW-240924-RA-29	Total/NA	Water	8260D	
MB 500-788465/6	Method Blank	Total/NA	Water	8260D	
LCS 500-788465/3	Lab Control Sample	Total/NA	Water	8260D	
LCSD 500-788465/4	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 788660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-257254-22	GW-240923-RA-22	Total/NA	Water	8260D	
500-257254-24	GW-240924-RA-24	Total/NA	Water	8260D	
500-257254-26	GW-240924-RA-26	Total/NA	Water	8260D	
500-257254-27	GW-240924-RA-27	Total/NA	Water	8260D	
500-257254-28	GW-240924-RA-28	Total/NA	Water	8260D	
500-257254-30	GW-240924-RA-30	Total/NA	Water	8260D	
500-257254-31	GW-240924-RA-31	Total/NA	Water	8260D	
MB 500-788660/6	Method Blank	Total/NA	Water	8260D	
LCS 500-788660/3	Lab Control Sample	Total/NA	Water	8260D	
LCSD 500-788660/4	Lab Control Sample Dup	Total/NA	Water	8260D	

Analysis Batch: 788845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-257254-9	GW-240924-RA-09	Total/NA	Water	8260D	
500-257254-18 - DL	GW-240923-RA-18	Total/NA	Water	8260D	
500-257254-25	GW-240924-RA-25	Total/NA	Water	8260D	
500-257254-32	Trip Blank	Total/NA	Water	8260D	
MB 500-788845/8	Method Blank	Total/NA	Water	8260D	

GC/MS VOA (Continued)

Analysis Batch: 788845 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-788845/5	Lab Control Sample	Total/NA	Water	8260D	
500-257254-25 MS	GW-240924-RA-25	Total/NA	Water	8260D	
500-257254-25 MSD	GW-240924-RA-25	Total/NA	Water	8260D	

Analysis Batch: 789039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-257254-19	GW-240923-RA-19	Total/NA	Water	8260D	
MB 500-789039/7	Method Blank	Total/NA	Water	8260D	
LCS 500-789039/4	Lab Control Sample	Total/NA	Water	8260D	

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-126)	(72-124)	(75-120)	(75-120)
500-257254-1	GW-240923-RA-01	123	105	108	93
500-257254-2	GW-240923-RA-02	123	102	108	92
500-257254-3	GW-240923-RA-03	118	103	108	94
500-257254-4	GW-240923-RA-04	125	103	109	93
500-257254-5	GW-240923-RA-05	123	106	108	93
500-257254-6	GW-240923-RA-06	125	104	110	93
500-257254-7	GW-240924-RA-07	121	105	107	94
500-257254-8	GW-240924-RA-08	121	105	108	94
500-257254-9	GW-240924-RA-09	87	81 ^c	92	88
500-257254-10	GW-240924-RA-10	121	106	106	94
500-257254-11	GW-240924-RA-11	123	106	108	95
500-257254-12	GW-240924-RA-12	122	106	108	94
500-257254-13	GW-240923-RA-13	122	105	107	94
500-257254-14	GW-240923-RA-14	123	105	108	93
500-257254-15	GW-240923-RA-15	125	104	109	94
500-257254-16	GW-240923-RA-16	120	105	107	95
500-257254-17	GW-240923-RA-17	123	104	106	94
500-257254-18	GW-240923-RA-18	123	105	108	94
500-257254-18 - DL	GW-240923-RA-18	86	82 ^c	93	86
500-257254-19	GW-240923-RA-19	97	102	101	98
500-257254-20	GW-240923-RA-20	122	105	109	95
500-257254-21	GW-240923-RA-21	120	106	107	94
500-257254-22	GW-240923-RA-22	126	102	110	94
500-257254-23	GW-240923-RA-23	121	102	109	94
500-257254-24	GW-240924-RA-24	124	105	109	94
500-257254-25	GW-240924-RA-25	86	82 ^c	92	88
500-257254-25 MS	GW-240924-RA-25	86	80	89	90
500-257254-25 MSD	GW-240924-RA-25	85	79	90	89
500-257254-26	GW-240924-RA-26	119	105	108	95
500-257254-27	GW-240924-RA-27	120	104	108	94
500-257254-28	GW-240924-RA-28	118	104	109	95
500-257254-29	GW-240924-RA-29	118	104	106	94
500-257254-30	GW-240924-RA-30	119	104	108	95
500-257254-31	GW-240924-RA-31	120	102	108	95
500-257254-32	Trip Blank	88	82 ^c	93	87
LCS 500-788005/3	Lab Control Sample	115	105	103	93
LCS 500-788465/3	Lab Control Sample	116	103	106	93
LCS 500-788660/3	Lab Control Sample	116	103	105	94
LCS 500-788845/5	Lab Control Sample	86	79	88	90
LCS 500-789039/4	Lab Control Sample	94	104	98	100
LCSD 500-788005/4	Lab Control Sample Dup	118	103	106	93
LCSD 500-788465/4	Lab Control Sample Dup	117	104	105	93
LCSD 500-788660/4	Lab Control Sample Dup	115	102	106	93
MB 500-788005/6	Method Blank	121	104	107	94
MB 500-788465/6	Method Blank	117	104	106	95
MB 500-788660/6	Method Blank	120	103	108	95
MB 500-788845/8	Method Blank	86	80	93	89
MB 500-789039/7	Method Blank	98	102	99	98

Surrogate Legend

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 500-788005/6
Matrix: Water
Analysis Batch: 788005

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			09/27/24 10:33	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			09/27/24 10:33	1
Acetone	<4.3		10	4.3	ug/L			09/27/24 10:33	1
Benzene	<0.18		0.50	0.18	ug/L			09/27/24 10:33	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			09/27/24 10:33	1
Chloroform	<0.92		2.0	0.92	ug/L			09/27/24 10:33	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			09/27/24 10:33	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			09/27/24 10:33	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			09/27/24 10:33	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			09/27/24 10:33	1
Toluene	<0.21		0.50	0.21	ug/L			09/27/24 10:33	1
Trichloroethene	<0.15		0.50	0.15	ug/L			09/27/24 10:33	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			09/27/24 10:33	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			09/27/24 10:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*121*		*75 - 126*		*09/27/24 10:33*	*1*
4-Bromofluorobenzene (Surr)	*104*		*72 - 124*		*09/27/24 10:33*	*1*
Dibromofluoromethane	*107*		*75 - 120*		*09/27/24 10:33*	*1*
Toluene-d8 (Surr)	*94*		*75 - 120*		*09/27/24 10:33*	*1*

Lab Sample ID: LCS 500-788005/3
Matrix: Water
Analysis Batch: 788005

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichloroethane	50.0	47.6		ug/L		95	71 - 130
1,1-Dichloroethene	50.0	46.2		ug/L		92	67 - 122
Acetone	50.0	48.1		ug/L		96	40 - 143
Benzene	50.0	42.9		ug/L		86	70 - 120
Carbon tetrachloride	50.0	51.8		ug/L		104	59 - 133
Chloroform	50.0	49.4		ug/L		99	70 - 120
cis-1,2-Dichloroethene	50.0	52.2		ug/L		104	70 - 125
Ethylbenzene	50.0	43.7		ug/L		87	70 - 123
Methylene Chloride	50.0	49.5		ug/L		99	69 - 125
Tetrachloroethene	50.0	56.3		ug/L		113	70 - 128
Toluene	50.0	44.9		ug/L		90	70 - 125
Trichloroethene	50.0	53.9		ug/L		108	70 - 125
Vinyl chloride	50.0	46.1		ug/L		92	64 - 126
Xylenes, Total	100	84.7		ug/L		85	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*115*		*75 - 126*
4-Bromofluorobenzene (Surr)	*105*		*72 - 124*
Dibromofluoromethane	*103*		*75 - 120*
Toluene-d8 (Surr)	*93*		*75 - 120*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 500-788005/4
Matrix: Water
Analysis Batch: 788005

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloroethane			50.0	45.2		ug/L		90	71 - 130	5	20
1,1-Dichloroethene			50.0	45.2		ug/L		90	67 - 122	2	20
Acetone			50.0	45.1		ug/L		90	40 - 143	7	20
Benzene			50.0	42.1		ug/L		84	70 - 120	2	20
Carbon tetrachloride			50.0	50.4		ug/L		101	59 - 133	3	20
Chloroform			50.0	49.1		ug/L		98	70 - 120	1	20
cis-1,2-Dichloroethene			50.0	51.4		ug/L		103	70 - 125	2	20
Ethylbenzene			50.0	42.5		ug/L		85	70 - 123	3	20
Methylene Chloride			50.0	48.1		ug/L		96	69 - 125	3	20
Tetrachloroethene			50.0	54.7		ug/L		109	70 - 128	3	20
Toluene			50.0	43.3		ug/L		87	70 - 125	4	20
Trichloroethene			50.0	52.6		ug/L		105	70 - 125	3	20
Vinyl chloride			50.0	43.4		ug/L		87	64 - 126	6	20
Xylenes, Total			100	81.7		ug/L		82	70 - 125	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*118*		*75 - 126*
4-Bromofluorobenzene (Surr)	*103*		*72 - 124*
Dibromofluoromethane	*106*		*75 - 120*
Toluene-d8 (Surr)	*93*		*75 - 120*

Lab Sample ID: MB 500-788465/6
Matrix: Water
Analysis Batch: 788465

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/01/24 10:09	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/01/24 10:09	1
Acetone	<4.3		10	4.3	ug/L			10/01/24 10:09	1
Benzene	<0.18		0.50	0.18	ug/L			10/01/24 10:09	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/01/24 10:09	1
Chloroform	<0.92		2.0	0.92	ug/L			10/01/24 10:09	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/01/24 10:09	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/01/24 10:09	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/01/24 10:09	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/01/24 10:09	1
Toluene	<0.21		0.50	0.21	ug/L			10/01/24 10:09	1
Trichloroethene	<0.15		0.50	0.15	ug/L			10/01/24 10:09	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/01/24 10:09	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/01/24 10:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*75 - 126*		*10/01/24 10:09*	*1*
4-Bromofluorobenzene (Surr)	*104*		*72 - 124*		*10/01/24 10:09*	*1*
Dibromofluoromethane	*106*		*75 - 120*		*10/01/24 10:09*	*1*
Toluene-d8 (Surr)	*95*		*75 - 120*		*10/01/24 10:09*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 500-788465/3
Matrix: Water
Analysis Batch: 788465

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,2-Trichloroethane			50.0	48.9		ug/L		98	71 - 130		
1,1-Dichloroethene			50.0	48.7		ug/L		97	67 - 122		
Acetone			50.0	49.5		ug/L		99	40 - 143		
Benzene			50.0	45.2		ug/L		90	70 - 120		
Carbon tetrachloride			50.0	54.2		ug/L		108	59 - 133		
Chloroform			50.0	52.4		ug/L		105	70 - 120		
cis-1,2-Dichloroethene			50.0	54.6		ug/L		109	70 - 125		
Ethylbenzene			50.0	45.9		ug/L		92	70 - 123		
Methylene Chloride			50.0	52.0		ug/L		104	69 - 125		
Tetrachloroethene			50.0	57.9		ug/L		116	70 - 128		
Toluene			50.0	46.7		ug/L		93	70 - 125		
Trichloroethene			50.0	57.1		ug/L		114	70 - 125		
Vinyl chloride			50.0	45.1		ug/L		90	64 - 126		
Xylenes, Total			100	87.8		ug/L		88	70 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*116*		*75 - 126*
4-Bromofluorobenzene (Surr)	*103*		*72 - 124*
Dibromofluoromethane	*106*		*75 - 120*
Toluene-d8 (Surr)	*93*		*75 - 120*

Lab Sample ID: LCSD 500-788465/4
Matrix: Water
Analysis Batch: 788465

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloroethane			50.0	45.5		ug/L		91	71 - 130	7	20
1,1-Dichloroethene			50.0	45.4		ug/L		91	67 - 122	7	20
Acetone			50.0	48.0		ug/L		96	40 - 143	3	20
Benzene			50.0	43.0		ug/L		86	70 - 120	5	20
Carbon tetrachloride			50.0	50.6		ug/L		101	59 - 133	7	20
Chloroform			50.0	49.0		ug/L		98	70 - 120	7	20
cis-1,2-Dichloroethene			50.0	51.9		ug/L		104	70 - 125	5	20
Ethylbenzene			50.0	43.5		ug/L		87	70 - 123	5	20
Methylene Chloride			50.0	49.0		ug/L		98	69 - 125	6	20
Tetrachloroethene			50.0	55.7		ug/L		111	70 - 128	4	20
Toluene			50.0	44.5		ug/L		89	70 - 125	5	20
Trichloroethene			50.0	54.0		ug/L		108	70 - 125	5	20
Vinyl chloride			50.0	46.9		ug/L		94	64 - 126	4	20
Xylenes, Total			100	82.7		ug/L		83	70 - 125	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*117*		*75 - 126*
4-Bromofluorobenzene (Surr)	*104*		*72 - 124*
Dibromofluoromethane	*105*		*75 - 120*
Toluene-d8 (Surr)	*93*		*75 - 120*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 500-788660/6
Matrix: Water
Analysis Batch: 788660

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/02/24 10:42	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/02/24 10:42	1
Acetone	<4.3		10	4.3	ug/L			10/02/24 10:42	1
Benzene	<0.18		0.50	0.18	ug/L			10/02/24 10:42	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/02/24 10:42	1
Chloroform	<0.92		2.0	0.92	ug/L			10/02/24 10:42	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/02/24 10:42	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/02/24 10:42	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/02/24 10:42	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/02/24 10:42	1
Toluene	<0.21		0.50	0.21	ug/L			10/02/24 10:42	1
Trichloroethene	<0.15		0.50	0.15	ug/L			10/02/24 10:42	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/02/24 10:42	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/02/24 10:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*75 - 126*		*10/02/24 10:42*	*1*
4-Bromofluorobenzene (Surr)	*103*		*72 - 124*		*10/02/24 10:42*	*1*
Dibromofluoromethane	*108*		*75 - 120*		*10/02/24 10:42*	*1*
Toluene-d8 (Surr)	*95*		*75 - 120*		*10/02/24 10:42*	*1*

Lab Sample ID: LCS 500-788660/3
Matrix: Water
Analysis Batch: 788660

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichloroethane	50.0	44.4		ug/L		89	71 - 130
1,1-Dichloroethene	50.0	49.1		ug/L		98	67 - 122
Acetone	50.0	41.7		ug/L		83	40 - 143
Benzene	50.0	43.7		ug/L		87	70 - 120
Carbon tetrachloride	50.0	54.4		ug/L		109	59 - 133
Chloroform	50.0	49.7		ug/L		99	70 - 120
cis-1,2-Dichloroethene	50.0	52.2		ug/L		104	70 - 125
Ethylbenzene	50.0	44.4		ug/L		89	70 - 123
Methylene Chloride	50.0	49.2		ug/L		98	69 - 125
Tetrachloroethene	50.0	57.9		ug/L		116	70 - 128
Toluene	50.0	45.2		ug/L		90	70 - 125
Trichloroethene	50.0	55.3		ug/L		111	70 - 125
Vinyl chloride	50.0	52.6		ug/L		105	64 - 126
Xylenes, Total	100	84.0		ug/L		84	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*116*		*75 - 126*
4-Bromofluorobenzene (Surr)	*103*		*72 - 124*
Dibromofluoromethane	*105*		*75 - 120*
Toluene-d8 (Surr)	*94*		*75 - 120*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 500-788660/4
Matrix: Water
Analysis Batch: 788660

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloroethane			50.0	46.1		ug/L		92	71 - 130	4	20
1,1-Dichloroethene			50.0	46.7		ug/L		93	67 - 122	5	20
Acetone			50.0	42.7		ug/L		85	40 - 143	2	20
Benzene			50.0	43.3		ug/L		87	70 - 120	1	20
Carbon tetrachloride			50.0	51.5		ug/L		103	59 - 133	5	20
Chloroform			50.0	49.7		ug/L		99	70 - 120	0	20
cis-1,2-Dichloroethene			50.0	52.0		ug/L		104	70 - 125	0	20
Ethylbenzene			50.0	43.9		ug/L		88	70 - 123	1	20
Methylene Chloride			50.0	49.6		ug/L		99	69 - 125	1	20
Tetrachloroethene			50.0	55.7		ug/L		111	70 - 128	4	20
Toluene			50.0	44.8		ug/L		90	70 - 125	1	20
Trichloroethene			50.0	54.3		ug/L		109	70 - 125	2	20
Vinyl chloride			50.0	43.0		ug/L		86	64 - 126	20	20
Xylenes, Total			100	83.4		ug/L		83	70 - 125	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*115*		*75 - 126*
4-Bromofluorobenzene (Surr)	*102*		*72 - 124*
Dibromofluoromethane	*106*		*75 - 120*
Toluene-d8 (Surr)	*93*		*75 - 120*

Lab Sample ID: MB 500-788845/8
Matrix: Water
Analysis Batch: 788845

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/03/24 14:47	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/03/24 14:47	1
Acetone	<4.3		10	4.3	ug/L			10/03/24 14:47	1
Benzene	<0.18		0.50	0.18	ug/L			10/03/24 14:47	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/03/24 14:47	1
Chloroform	<0.92		2.0	0.92	ug/L			10/03/24 14:47	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/03/24 14:47	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/03/24 14:47	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/03/24 14:47	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/03/24 14:47	1
Toluene	<0.21		0.50	0.21	ug/L			10/03/24 14:47	1
Trichloroethene	<0.15		0.50	0.15	ug/L			10/03/24 14:47	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/03/24 14:47	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/03/24 14:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*86*		*75 - 126*		*10/03/24 14:47*	*1*
4-Bromofluorobenzene (Surr)	*80*		*72 - 124*		*10/03/24 14:47*	*1*
Dibromofluoromethane	*93*		*75 - 120*		*10/03/24 14:47*	*1*
Toluene-d8 (Surr)	*89*		*75 - 120*		*10/03/24 14:47*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 500-788845/5
Matrix: Water
Analysis Batch: 788845

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,2-Trichloroethane			50.0	47.2		ug/L		94	71 - 130		
1,1-Dichloroethene			50.0	53.5		ug/L		107	67 - 122		
Acetone			50.0	50.3		ug/L		101	40 - 143		
Benzene			50.0	54.4		ug/L		109	70 - 120		
Carbon tetrachloride			50.0	54.9		ug/L		110	59 - 133		
Chloroform			50.0	51.5		ug/L		103	70 - 120		
cis-1,2-Dichloroethene			50.0	52.4		ug/L		105	70 - 125		
Ethylbenzene			50.0	49.3		ug/L		99	70 - 123		
Methylene Chloride			50.0	46.7		ug/L		93	69 - 125		
Tetrachloroethene			50.0	51.9		ug/L		104	70 - 128		
Toluene			50.0	50.3		ug/L		101	70 - 125		
Trichloroethene			50.0	56.3		ug/L		113	70 - 125		
Vinyl chloride			50.0	42.9		ug/L		86	64 - 126		
Xylenes, Total			100	106		ug/L		106	70 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*86*		*75 - 126*
4-Bromofluorobenzene (Surr)	*79*		*72 - 124*
Dibromofluoromethane	*88*		*75 - 120*
Toluene-d8 (Surr)	*90*		*75 - 120*

Lab Sample ID: 500-257254-25 MS
Matrix: Water
Analysis Batch: 788845

Client Sample ID: GW-240924-RA-25
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,2-Trichloroethane	<0.73		50.0	46.8		ug/L		94	71 - 130		
1,1-Dichloroethene	<0.48		50.0	50.1		ug/L		100	67 - 122		
Acetone	<4.3		50.0	42.6		ug/L		85	40 - 143		
Benzene	<0.18		50.0	53.7		ug/L		107	70 - 120		
Carbon tetrachloride	<0.41		50.0	54.6		ug/L		109	59 - 133		
Chloroform	<0.92		50.0	50.9		ug/L		102	70 - 120		
cis-1,2-Dichloroethene	<0.42		50.0	50.4		ug/L		101	70 - 125		
Ethylbenzene	<0.20		50.0	47.8		ug/L		96	70 - 123		
Methylene Chloride	<3.6		50.0	46.7		ug/L		93	69 - 125		
Tetrachloroethene	<0.39		50.0	50.3		ug/L		101	70 - 128		
Toluene	<0.21		50.0	48.5		ug/L		97	70 - 125		
Trichloroethene	<0.15		50.0	55.4		ug/L		111	70 - 125		
Vinyl chloride	<0.47		50.0	46.3		ug/L		93	64 - 126		
Xylenes, Total	<0.30		100	102		ug/L		102	70 - 125		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*86*		*75 - 126*
4-Bromofluorobenzene (Surr)	*80*		*72 - 124*
Dibromofluoromethane	*89*		*75 - 120*
Toluene-d8 (Surr)	*90*		*75 - 120*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 500-257254-25 MSD
Matrix: Water
Analysis Batch: 788845

Client Sample ID: GW-240924-RA-25
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloroethane	<0.73		50.0	45.2		ug/L		90	71 - 130	4	20
1,1-Dichloroethene	<0.48		50.0	49.7		ug/L		99	67 - 122	1	20
Acetone	<4.3		50.0	50.2		ug/L		100	40 - 143	16	20
Benzene	<0.18		50.0	52.5		ug/L		105	70 - 120	2	20
Carbon tetrachloride	<0.41		50.0	53.6		ug/L		107	59 - 133	2	20
Chloroform	<0.92		50.0	49.4		ug/L		99	70 - 120	3	20
cis-1,2-Dichloroethene	<0.42		50.0	49.4		ug/L		99	70 - 125	2	20
Ethylbenzene	<0.20		50.0	45.9		ug/L		92	70 - 123	4	20
Methylene Chloride	<3.6		50.0	45.7		ug/L		91	69 - 125	2	20
Tetrachloroethene	<0.39		50.0	46.5		ug/L		93	70 - 128	8	20
Toluene	<0.21		50.0	47.2		ug/L		94	70 - 125	3	20
Trichloroethene	<0.15		50.0	52.6		ug/L		105	70 - 125	5	20
Vinyl chloride	<0.47		50.0	43.1		ug/L		86	64 - 126	7	20
Xylenes, Total	<0.30		100	97.5		ug/L		98	70 - 125	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*85*		*75 - 126*
4-Bromofluorobenzene (Surr)	*79*		*72 - 124*
Dibromofluoromethane	*90*		*75 - 120*
Toluene-d8 (Surr)	*89*		*75 - 120*

Lab Sample ID: MB 500-789039/7
Matrix: Water
Analysis Batch: 789039

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.73		1.0	0.73	ug/L			10/04/24 10:40	1
1,1-Dichloroethene	<0.48		1.0	0.48	ug/L			10/04/24 10:40	1
Acetone	<4.3		10	4.3	ug/L			10/04/24 10:40	1
Benzene	<0.18		0.50	0.18	ug/L			10/04/24 10:40	1
Carbon tetrachloride	<0.41		1.0	0.41	ug/L			10/04/24 10:40	1
Chloroform	<0.92		2.0	0.92	ug/L			10/04/24 10:40	1
cis-1,2-Dichloroethene	<0.42		1.0	0.42	ug/L			10/04/24 10:40	1
Ethylbenzene	<0.20		0.50	0.20	ug/L			10/04/24 10:40	1
Methylene Chloride	<3.6		5.0	3.6	ug/L			10/04/24 10:40	1
Tetrachloroethene	<0.39		1.0	0.39	ug/L			10/04/24 10:40	1
Toluene	<0.21		0.50	0.21	ug/L			10/04/24 10:40	1
Trichloroethene	<0.15		0.50	0.15	ug/L			10/04/24 10:40	1
Vinyl chloride	<0.47		1.0	0.47	ug/L			10/04/24 10:40	1
Xylenes, Total	<0.30		1.0	0.30	ug/L			10/04/24 10:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*75 - 126*		*10/04/24 10:40*	*1*
4-Bromofluorobenzene (Surr)	*102*		*72 - 124*		*10/04/24 10:40*	*1*
Dibromofluoromethane	*99*		*75 - 120*		*10/04/24 10:40*	*1*
Toluene-d8 (Surr)	*98*		*75 - 120*		*10/04/24 10:40*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 500-789039/4
Matrix: Water
Analysis Batch: 789039

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,2-Trichloroethane			50.0	46.5		ug/L		93	71 - 130		
1,1-Dichloroethene			50.0	46.2		ug/L		92	67 - 122		
Acetone			50.0	34.8		ug/L		70	40 - 143		
Benzene			50.0	44.2		ug/L		88	70 - 120		
Carbon tetrachloride			50.0	47.5		ug/L		95	59 - 133		
Chloroform			50.0	42.6		ug/L		85	70 - 120		
cis-1,2-Dichloroethene			50.0	44.8		ug/L		90	70 - 125		
Ethylbenzene			50.0	45.0		ug/L		90	70 - 123		
Methylene Chloride			50.0	42.2		ug/L		84	69 - 125		
Tetrachloroethene			50.0	51.9		ug/L		104	70 - 128		
Toluene			50.0	42.7		ug/L		85	70 - 125		
Trichloroethene			50.0	46.0		ug/L		92	70 - 125		
Vinyl chloride			50.0	46.6		ug/L		93	64 - 126		
Xylenes, Total			100	88.8		ug/L		89	70 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*75 - 126*
4-Bromofluorobenzene (Surr)	*104*		*72 - 124*
Dibromofluoromethane	*98*		*75 - 120*
Toluene-d8 (Surr)	*100*		*75 - 120*

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-01
Lab Sample ID: 500-257254-1
Date Collected: 09/23/24 11:57
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788005	W1T	EET CHI	09/27/24 16:42

Client Sample ID: GW-240923-RA-02
Lab Sample ID: 500-257254-2
Date Collected: 09/23/24 14:51
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788005	W1T	EET CHI	09/27/24 17:07

Client Sample ID: GW-240923-RA-03
Lab Sample ID: 500-257254-3
Date Collected: 09/23/24 17:06
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788005	W1T	EET CHI	09/27/24 17:32

Client Sample ID: GW-240923-RA-04
Lab Sample ID: 500-257254-4
Date Collected: 09/23/24 15:47
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788005	W1T	EET CHI	09/27/24 17:56

Client Sample ID: GW-240923-RA-05
Lab Sample ID: 500-257254-5
Date Collected: 09/23/24 15:47
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788005	W1T	EET CHI	09/27/24 18:21

Client Sample ID: GW-240923-RA-06
Lab Sample ID: 500-257254-6
Date Collected: 09/23/24 16:27
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788005	W1T	EET CHI	09/27/24 18:45

Client Sample ID: GW-240924-RA-07
Lab Sample ID: 500-257254-7
Date Collected: 09/24/24 09:12
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788465	W1T	EET CHI	10/01/24 10:34

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240924-RA-08
Lab Sample ID: 500-257254-8
Date Collected: 09/24/24 09:53
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788465	W1T	EET CHI	10/01/24 10:58

Client Sample ID: GW-240924-RA-09
Lab Sample ID: 500-257254-9
Date Collected: 09/24/24 10:38
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788845	W1T	EET CHI	10/03/24 15:39

Client Sample ID: GW-240924-RA-10
Lab Sample ID: 500-257254-10
Date Collected: 09/24/24 11:40
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788465	W1T	EET CHI	10/01/24 11:47

Client Sample ID: GW-240924-RA-11
Lab Sample ID: 500-257254-11
Date Collected: 09/24/24 08:08
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788465	W1T	EET CHI	10/01/24 12:12

Client Sample ID: GW-240924-RA-12
Lab Sample ID: 500-257254-12
Date Collected: 09/24/24 08:08
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788465	W1T	EET CHI	10/01/24 12:36

Client Sample ID: GW-240923-RA-13
Lab Sample ID: 500-257254-13
Date Collected: 09/23/24 14:00
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788465	W1T	EET CHI	10/01/24 13:01

Client Sample ID: GW-240923-RA-14
Lab Sample ID: 500-257254-14
Date Collected: 09/23/24 14:00
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788465	W1T	EET CHI	10/01/24 13:25

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-15
Lab Sample ID: 500-257254-15
Date Collected: 09/23/24 14:20
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788465	W1T	EET CHI	10/01/24 13:50

Client Sample ID: GW-240923-RA-16
Lab Sample ID: 500-257254-16
Date Collected: 09/23/24 14:59
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788465	W1T	EET CHI	10/01/24 14:14

Client Sample ID: GW-240923-RA-17
Lab Sample ID: 500-257254-17
Date Collected: 09/23/24 14:59
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788465	W1T	EET CHI	10/01/24 14:39

Client Sample ID: GW-240923-RA-18
Lab Sample ID: 500-257254-18
Date Collected: 09/23/24 15:23
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D	DL	10	788845	W1T	EET CHI	10/03/24 16:05
Total/NA	Analysis	8260D		1	788465	W1T	EET CHI	10/01/24 15:03

Client Sample ID: GW-240923-RA-19
Lab Sample ID: 500-257254-19
Date Collected: 09/23/24 15:53
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	789039	W1T	EET CHI	10/04/24 12:33

Client Sample ID: GW-240923-RA-20
Lab Sample ID: 500-257254-20
Date Collected: 09/23/24 16:09
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788465	W1T	EET CHI	10/01/24 15:53

Client Sample ID: GW-240923-RA-21
Lab Sample ID: 500-257254-21
Date Collected: 09/23/24 16:24
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788465	W1T	EET CHI	10/01/24 16:17

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240923-RA-22
Date Collected: 09/23/24 16:44
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-22
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788660	SW1	EET CHI	10/02/24 17:20

Client Sample ID: GW-240923-RA-23
Date Collected: 09/23/24 17:05
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-23
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788465	W1T	EET CHI	10/01/24 16:42

Client Sample ID: GW-240924-RA-24
Date Collected: 09/24/24 07:57
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-24
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788660	SW1	EET CHI	10/02/24 17:44

Client Sample ID: GW-240924-RA-25
Date Collected: 09/24/24 08:38
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788845	W1T	EET CHI	10/03/24 16:30

Client Sample ID: GW-240924-RA-26
Date Collected: 09/24/24 09:01
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-26
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788660	SW1	EET CHI	10/02/24 18:09

Client Sample ID: GW-240924-RA-27
Date Collected: 09/24/24 09:01
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-27
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788660	SW1	EET CHI	10/02/24 18:33

Client Sample ID: GW-240924-RA-28
Date Collected: 09/24/24 09:18
Date Received: 09/25/24 09:45

Lab Sample ID: 500-257254-28
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788660	SW1	EET CHI	10/02/24 18:58

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Client Sample ID: GW-240924-RA-29
Lab Sample ID: 500-257254-29
Date Collected: 09/24/24 09:18
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788465	W1T	EET CHI	10/01/24 17:06

Client Sample ID: GW-240924-RA-30
Lab Sample ID: 500-257254-30
Date Collected: 09/24/24 10:05
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788660	SW1	EET CHI	10/02/24 19:47

Client Sample ID: GW-240924-RA-31
Lab Sample ID: 500-257254-31
Date Collected: 09/24/24 10:39
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788660	SW1	EET CHI	10/02/24 19:23

Client Sample ID: Trip Blank
Lab Sample ID: 500-257254-32
Date Collected: 09/23/24 00:00
Matrix: Water
Date Received: 09/25/24 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	788845	W1T	EET CHI	10/03/24 15:13

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: Wausau 003978

Job ID: 500-257254-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-25

Chain of Custody Record 735179

eurofins | Environment Testing America

Address _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TAL-8210

Client Contact	Project Manager: Ojinaga	Site Contact.	Date:	COC No
Company Name GHD	Tel/Email:	Lab Contact:	Carrier:	1 of 3 COCs
Address 960 Long Lake Rd	Analysis Turnaround Time			Sampler
City/State/Zip St. Paul	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone 612 524 6855	TAT if different from Below _____			Walk-in Client
Fax	☐ 2 weeks			Lab Sampling
Project Name Wausau	☐ 1 week			
Site 003978	☐ 2 days			Job / SDG No
P O #	☐ 1 day			500-257254

500-257254 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Select LOCs	Sample Specific Notes
1 GW-240923-RA-01	9/23	1157	G	GW	3	N	N	X	
2 GW-240923-RA-02	↓	1451	↓	↓	3			X	
3 GW-240923-RA-03		1706			3			X	
4 GW-240923-RA-04		1547			3			X	
5 GW-240923-RA-05		1547			3			X	
6 GW-240923-RA-06		1627			3			X	
7 GW-240924-RA-07	9/24	912			3			X	
8 GW-240924-RA-08		953			3			X	
9 GW-240924-RA-09		1038			3			X	
10 GW-240924-RA-10		1140			3			X	
11 GW-240924-RA-11		808			3			X	
12 GW-240924-RA-12	↓	808	↓	↓	3			X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact ☐ Yes ☐ No | Custody Seal No | Cooler Temp (°C) Obs'd 5.9 Corr'd 5.6 | Therm ID No _____

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
	GHD	9/24/24 1300			
Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Relinquished by	Company	Date/Time	Received in Laboratory by	Company	Date/Time
				EETA	9/25/24 0945

Chain of Custody Record 735178

eurofins | Environment Testing America

Address _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TAL-8210

Client Contact	Project Manager: Ojunga	Site Contact	Date:	COC No
Company Name GHD	Tel/Email:	Lab Contact:	Carrier:	2 of 3 COCs
Address 900 Long Lake Rd	Analysis Turnaround Time			Sampler
City/State/Zip St. Paul MN	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone 612 524 6855	TAT if different from Below _____			Walk-in Client
Fax	☐ 2 weeks			Lab Sampling
Project Name Wausau	☐ 1 week			
Site 003978	☐ 2 days			Job / SDG No
P O #	☐ 1 day			500-257254

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Select VOCs	Sample Specific Notes
13 GW-240923-RA-13	9/23	1400	G	GW	3	N	N	Y	
14 RA-14		1400			3			Y	
15 RA-15		1420			3			Y	
16 RA-16		1459			3			Y	
17 RA-17		1459			3			Y	
18 RA-18		1523			3			Y	
19 RA-19		1553			3			Y	
20 RA-20		1609			3			Y	
21 RA-21		1624			3			Y	
22 RA-22		1644			3			Y	
23 GW-240923-RA-23		1705			3			Y	
24 GW-240924-RA-24	9/24	757			3			Y	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☐ Non Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact ☐ Yes ☐ No | Custody Seal No | Cooler Temp (°C) Obs'd _____ Corr'd _____ Therm ID No _____

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
	GHD	9/24 1300			
Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Relinquished by	Company	Date/Time	Received in Laboratory by	Company	Date/Time
			Alice Todd	EETA	9/25/24 0945

Chain of Custody Record 735177

eurofins | Environment Testing America

Address _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TAL-8210

Client Contact	Project Manager: Ojinaga	Site Contact.	Date:	COC No
Company Name GHD	Tel/Email:	Lab Contact:	Carrier:	3 of 3 COCs
Address 900 Long Lake Rd	Analysis Turnaround Time			Sampler
City/State/Zip St. Paul MN	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone 612 524 6855	TAT if different from Below _____			Walk-in Client
Fax	☐ 2 weeks			Lab Sampling
Project Name Wausau	☐ 1 week			
Site 003978	☐ 2 days			Job / SDG No
P O #	☐ 1 day			500-257254

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Select VOCs	Sample Specific Notes
25	GW-240924-RA-25	9/24	838	G	GW	9	N	X	Y	
26	RA-26		901			3			Y	
27	RA-27		901			3			Y	
28	RA-28		918			3			Y	
29	RA-29		918			3			Y	
30	RA-30		1005			3			Y	
31	GW-240924-RA-31		1039			3			Y	
32	trip blank					2				

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact ☐ Yes ☐ No | Custody Seal No | Cooler Temp (°C) Obs'd _____ Corr'd _____ Therm ID No _____

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
[signature]	GHD	9/24 1900			
Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Relinquished by	Company	Date/Time	Received by Laboratory by: [signature]	Company EET A	Date/Time 9/25/24 0945

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 500-257254-1

Login Number: 257254
List Number: 1
Creator: Scott, Sherri L

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Containers recd broken. Sufficient sample in remaining containers for analysis.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Data Verification Report

January 13, 2025

To	OJ Ojinaga (GHD)	**Contact No.**	248-893-3381
Copy to	Mel Ross (GHD)	**Email**	james.abston@ghd.com
From	James Abston/lg	**Project No.**	12655584
Project Name	City of Wausau		
Subject	Analytical Results and Data Verification 2024 Annual Groundwater Monitoring Wausau Ground Water Contamination Site Wausau, Wisconsin September 2024		

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

1. Introduction

This document details a data verification of analytical results for water samples collected in support of the 2024 Annual Groundwater Monitoring at the Wausau Ground Water Contamination Site during September 2024. Samples were submitted to Eurofins Environment Testing located in University Park, Illinois. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spikes (MS) and field quality assurance/quality control (QA/QC) samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

1. "National Functional Guidelines for Organic Superfund Methods Data Review", USEPA 540-R-20-005, November 2020.

Item 1 will subsequently be referred to as the "Guidelines" in this report.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4. Surrogate Spike Recoveries - Organic Analyses

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compound determinations were spiked with the appropriate number of surrogate compounds prior to sample analysis.

High surrogate recoveries do not impact any associated non-detect sample results.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries were within the laboratory control limits.

5. Laboratory Control Sample Analyses

LCS are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects.

High LCS recoveries and/or RPDs do not impact any associated non-detect sample results.

For this study, LCS were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

The LCS contained all compounds of interest. All LCS recoveries were within the laboratory control limits, demonstrating acceptable analytical accuracy.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed as specified in Table 1.

The MS/MSD samples were spiked with all compounds of interest. All percent recoveries and RPD values were within the laboratory (method) control limits, demonstrating acceptable analytical accuracy and precision.

7. Field QA/QC Samples

The field QA/QC consisted of one trip blank samples, two field blank samples and three field duplicate sample sets.

Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank was submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest.

Field (Ambient) Blank Sample Analysis

To assess ambient conditions at the site, two field blank samples were submitted for analysis, as identified in Table 1. All results were non-detect for the analytes of interest.

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, three field duplicate sample sets were collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 percent for water samples. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one times the RL value for water samples.

All field duplicate results met the above criteria demonstrating acceptable sampling and analytical precision.

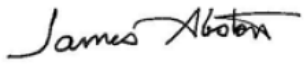
8. Analyte Reporting

The laboratory reported detected results down to the laboratory's sample-specific method detection limit (MDL) for each analyte. Positive analyte detections less than the RL but greater than the sample-specific MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this report. No positive analyte detections less than the RL but greater than the sample-specific MDL were reported. Non-detect results were presented as non-detect at the RL in Table 2.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable without qualification.

Regards,



James Abston
Chemistry Data Validator / Analytical Coordinator

Table 1

Sample Collection and Analysis Summary
2024 Annual Groundwater Monitoring
Wausau Ground Water Contamination Site
Wausau, Wisconsin
September 2024

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters: VOC	Comments
GW-240923-RA-01	CW3	Groundwater	9/23/24	11:57	X	
GW-240923-RA-02	E24AR	Groundwater	9/23/24	14:51	X	
GW-240923-RA-03	E37A	Groundwater	9/23/24	17:06	X	
GW-240923-RA-04	WC3B	Groundwater	9/23/24	15:47	X	FD (GW-240923-RA-05)
GW-240923-RA-05	WC3B	Groundwater	9/23/24	15:47	X	
GW-240923-RA-06	WC5A	Groundwater	9/23/24	16:27	X	
GW-240923-RA-13	C4S	Groundwater	9/23/24	14:00	X	
GW-240923-RA-14	C4S	Groundwater	9/23/24	14:00	X	FD (GW-240923--RA-13)
GW-240923-RA-15	C3S	Groundwater	9/23/24	14:20	X	
GW-240923-RA-16	W53A	Groundwater	9/23/24	14:59	X	
GW-240923-RA-17	Field Blank	Groundwater	9/23/24	14:59	X	Field Blank
GW-240923-RA-18	W54	Groundwater	9/23/24	15:23	X	
GW-240923-RA-19	R4D	Groundwater	9/23/24	15:53	X	
GW-240923-RA-20	C2S	Groundwater	9/23/24	16:09	X	
GW-240923-RA-21	EW1	Groundwater	9/23/24	16:24	X	
GW-240923-RA-22	W52	Groundwater	9/23/24	16:44	X	
GW-240923-RA-23	R3D	Groundwater	9/23/24	17:05	X	
GW-240924-RA-07	E21	Groundwater	9/24/24	9:12	X	
GW-240924-RA-08	WW4	Groundwater	9/24/24	9:53	X	
GW-240924-RA-09	WW6	Groundwater	9/24/24	10:38	X	
GW-240924-RA-10	MW10B	Groundwater	9/24/24	11:40	X	
GW-240924-RA-11	E22A	Groundwater	9/24/24	8:08	X	
GW-240924-RA-12	Field Blank	Water Quality Control Matrix	9/24/24	8:08	X	Field Blank
GW-240924-RA-24	CW6	Groundwater	9/24/24	7:57	X	
GW-240924-RA-25	W56	Groundwater	9/24/24	8:38	X	
GW-240924-RA-26	W55	Groundwater	9/24/24	9:01	X	
GW-240924-RA-27	W55	Groundwater	9/24/24	9:01	X	FD (GW-240924-RA-26)
GW-240924-RA-28	MW1A	Groundwater	9/24/24	9:18	X	
GW-240924-RA-29	Equipment Blank	Groundwater	9/24/24	9:18	X	
GW-240924-RA-30	R2D	Groundwater	9/24/24	10:05	X	
GW-240924-RA-31	WSWD	Groundwater	9/24/24	10:39	X	
Trip Blank	Trip Blank	Water Quality Control Matrix	9/23/24	--	X	Trip Blank

Notes:
FD - Field Duplicate sample of sample in parenthesis
MS/MSD - Matrix Spike/Matrix Spike Duplicate
VOC - Volatile Organic Compounds
-- - Not applicable

Table 2

Validated Analytical Results Summary
2024 Annual Groundwater Monitoring
Wausau Ground Water Contamination Site
Wausau, Wisconsin
September 2024

Location ID:		C2S	C3S	C4S	C4S	CW3	CW6	E21	E22A	E24AR	E37A
Sample Name:		GW-240923-RA-20	GW-240923-RA-15	GW-240923-RA-13	GW-240923-RA-14	GW-240923-RA-01	GW-240924-RA-24	GW-240924-RA-07	GW-240924-RA-11	GW-240923-RA-02	GW-240923-RA-03
Sample Date:		09/23/2024	09/23/2024	09/23/2024	09/23/2024 Duplicate	09/23/2024	09/24/2024	09/24/2024	09/24/2024	09/23/2024	09/23/2024
Parameters	**Unit**										
Volatile Organic Compounds											
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Acetone	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Carbon tetrachloride	µg/L	1.0 U	130	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	2.0 U	42	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.9	1.8	0.61 J	1.0 U	1.0 U	1.0 U	6.2	7.6
Ethylbenzene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	1.0 U	0.64 J	1.0 U	1.0 U	0.47 J	1.0 U	1.0 U	8.5	1.0 U	1.0 U
Toluene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Trichloroethene	µg/L	0.50	2.1	5.2	5.3	0.81	2.4	0.50 U	0.50 U	0.21 J	0.21 J
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.1	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Notes:
U - Not detected
J - Estimated concentration

Table 2

Validated Analytical Results Summary
2024 Annual Groundwater Monitoring
Wausau Ground Water Contamination Site
Wausau, Wisconsin
September 2024

Location ID:		EW1	MW10B	MW1A	R2D	R3D	R4D	W52	W53A	W54	W55
Sample Name:		GW-240923-RA-21	GW-240924-RA-10	GW-240924-RA-28	GW-240924-RA-30	GW-240923-RA-23	GW-240923-RA-19	GW-240923-RA-22	GW-240923-RA-16	GW-240923-RA-18	GW-240924-RA-26
Sample Date:		09/23/2024	09/24/2024	09/24/2024	09/24/2024	09/23/2024	09/23/2024	09/23/2024	09/23/2024	09/23/2024	09/24/2024
Parameters	**Unit**										
Volatile Organic Compounds											
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Acetone	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	2.6	1.0 U	1.0 U	0.53 J	1.0 U	5.5	20
Ethylbenzene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Trichloroethene	µg/L	0.50 U	0.50 U	0.50 U	13	1.3	0.50 U	1.9	59	200	22
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Notes:
U - Not detected
J - Estimated concentration

Table 2

Validated Analytical Results Summary
2024 Annual Groundwater Monitoring
Wausau Ground Water Contamination Site
Wausau, Wisconsin
September 2024

Location ID:		W55	W56	WC3B	WC3B	WC5A	WSWD	WW4	WW6	Trip Blank
Sample Name:		GW-240924-RA-27	GW-240924-RA-25	GW-240923-RA-05	GW-240923-RA-04	GW-240923-RA-06	GW-240924-RA-31	GW-240924-RA-08	GW-240924-RA-09	Trip Blank
Sample Date:		09/24/2024	09/24/2024	09/23/2024	09/23/2024	09/23/2024	09/24/2024	09/24/2024	09/24/2024	09/23/2024
		Duplicate			Duplicate					
Parameters	**Unit**									
Volatile Organic Compounds										
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Acetone	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	µg/L	20	1.0 U	1.0 U	1.0 U	17	0.91 J	1.0 U	1.5	1.0 U
Ethylbenzene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	4.8	4.5	23	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Trichloroethene	µg/L	22	0.50 U	0.50 U	0.50 U	2.3	31	0.50 U	0.33 J	0.50 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	2.1	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Notes:
U - Not detected
J - Estimated concentration

Table 3

Analytical Methods
2024 Annual Groundwater Monitoring
Wausau Ground Water Contamination Site
Wausau, Wisconsin
September 2024

Parameter	Method	Matrix	Holding Time Collection or Extraction to Analysis (Days)
Volatile Organic Compounds (VOCs)	SW-846 8260B	Groundwater	14

Notes:
Method References:
SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

Appendix B

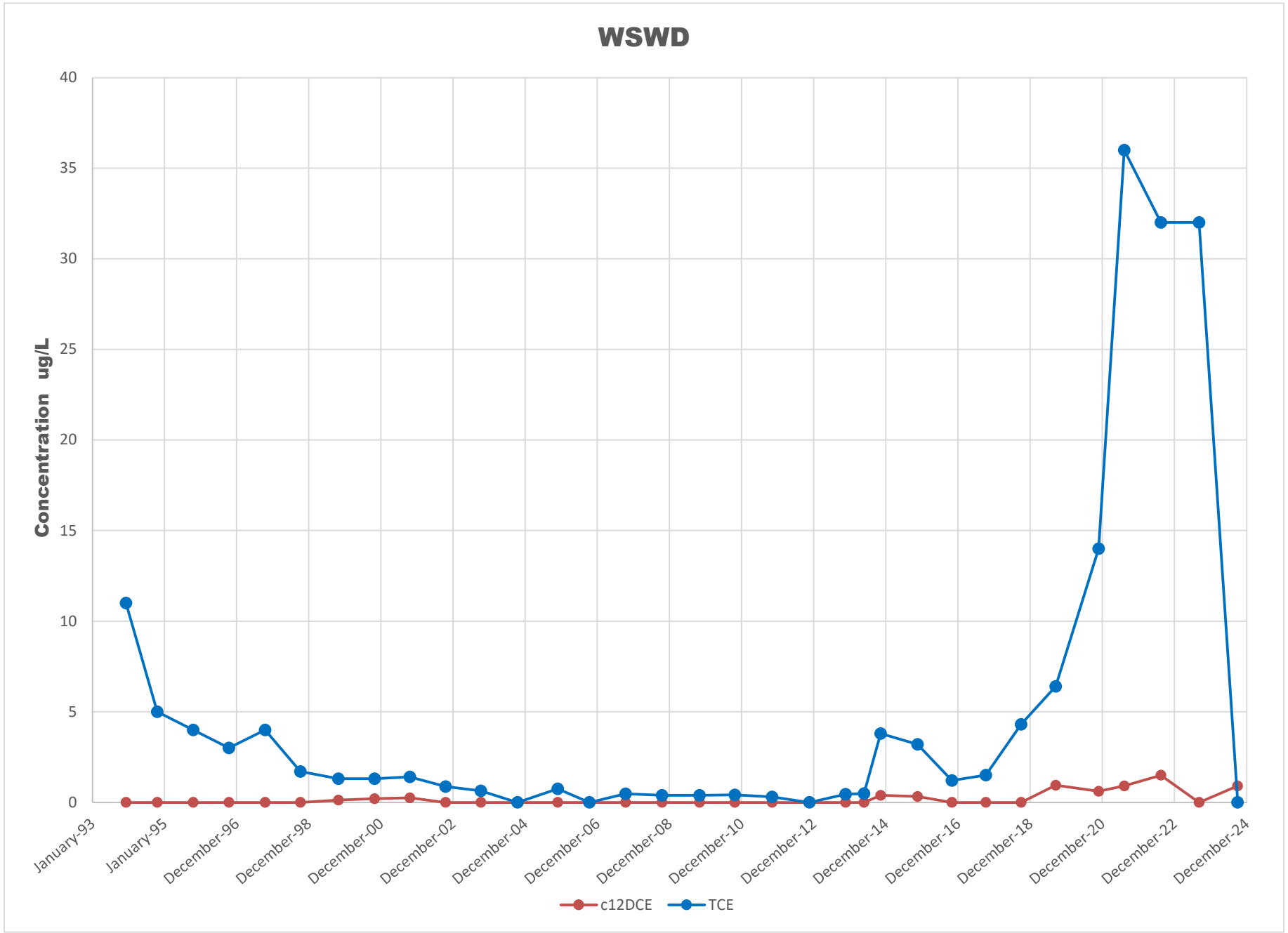
Wausau Chemical Pavement Inspection Report

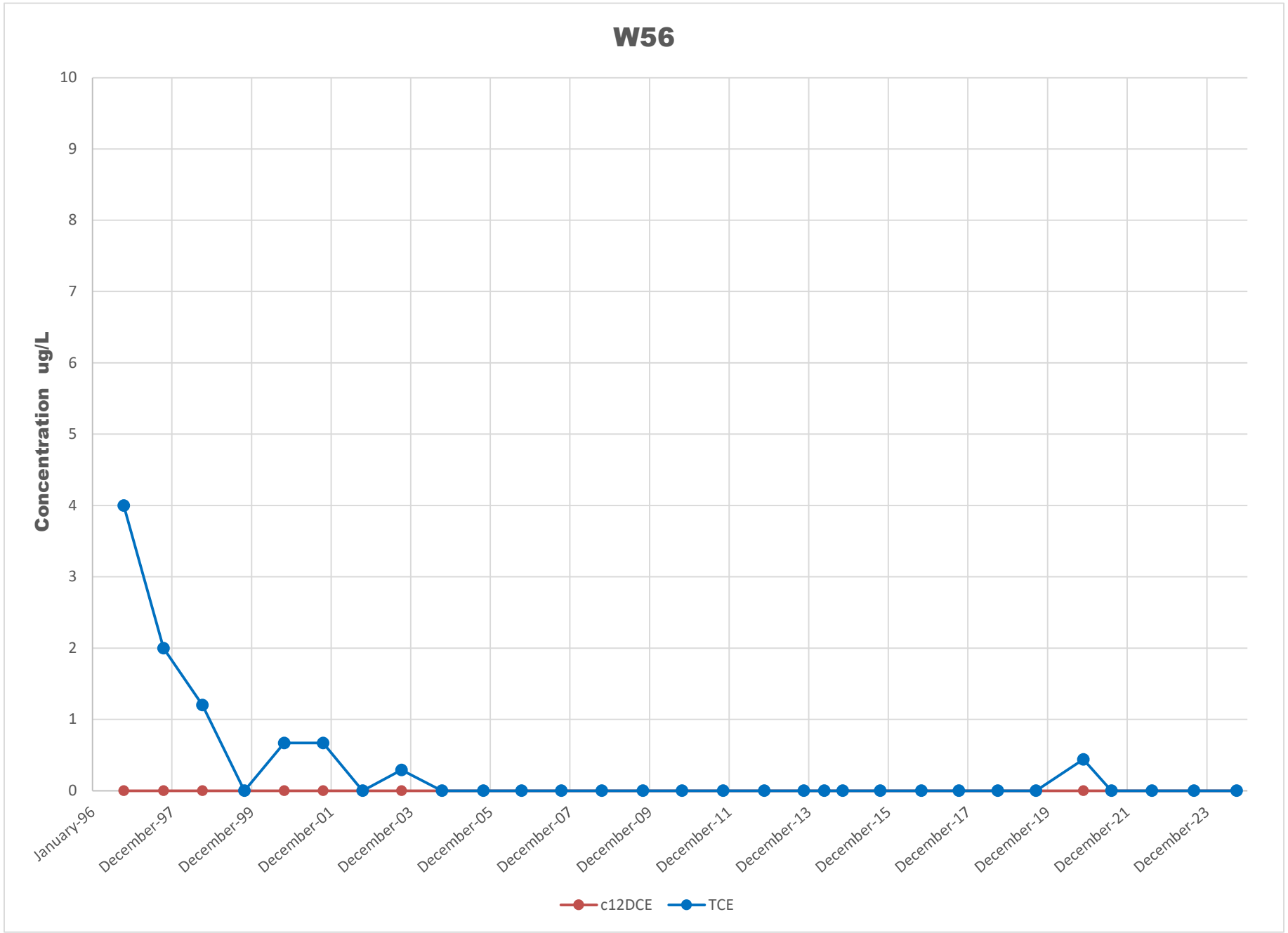
Pavement Barrier Inspection Log
Former Wausau Chemical Corporation

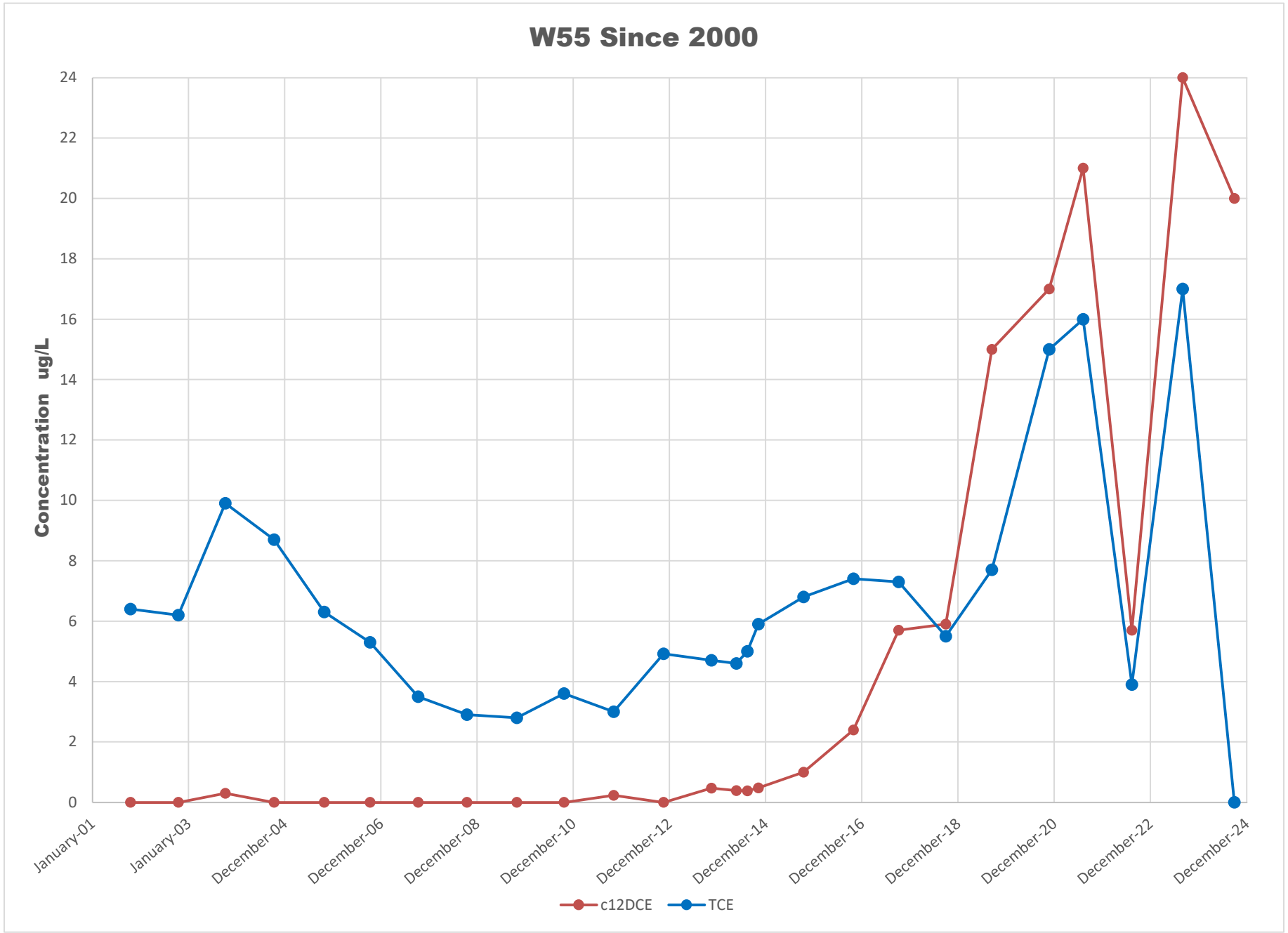
Inspection Date	Inspector	Condition of Cap	Recommendations	Have Recommendations From Previous Inspection Been Implemented?
8/29/2011	Rob Flashinski	Pavement was completely replaced in 2009. Three cracks starting to form, but have not penetrated.	No action required.	Yes.
7/2/2012	Rob Flashinski	Overall condition is very good. Recent work by the gas company has been patched thoroughly. All existing cracks have been filled.	None.	None Existed.
5/21/2013	Rob Flashinski	No change in appearance.	None.	Yes.
11/6/2013	Rob Flashinski	Overall condition is still good. Some hairline type cracks starting to form on the ends of previously filled cracks and near gas company asphalt work.	Nothing at this point. The hairline cracks will likely need attention in the spring.	Yes.
11/7/2014	Rob Flashinski	Overall condition is still good. Some hairline type cracks still exist on the ends of previously filled cracks and asphalt work by gas meter is starting to show again, but no cracks have formed.	Nothing at this point. Expect that some tar caulking will be needed in the spring.	Yes.
########	Rob Flashinski	Overall condition is still good. Existing Cracks were sealed by Advanced Seal Coatings.	Nothing at this point.	Yes.
9/14/2016	Rob Flashinski	Overall condition is still good. Prior repair work is still in good condition also	Nothing at this point.	Yes.
8/14/2017	Rob Flashinski	Overall condition is still good. Some signs of asphalt aging.	Nothing.	Yes.
########	Rob Flashinski	Overall condition is decent, however, more noticeable cracking is evident.	Filled cracks with asphalt filler in 2018	Yes.
########	Charles Ahrens - GHD	Good condition. Cracks filled in 2018 are still in good shape.	No repairs necessary.	Yes.
########	Kiel Jenkin - GHD	Good condition. Cracks filled in 2018 are still in good shape.	No repairs necessary.	N/A
8/2/2021	Kiel Jenkin - GHD	Good condition. Cracks filled in 2018 are still in good shape.	No repairs necessary.	N/A
8/8/2022	Ryan Aamot - GHD	Good condition. Cracks filled in 2018 are still in good shape.	No repairs necessary.	N/A
8/30/2023	Ryan Aamot - GHD	Decent condition. Asphalt starting to age.	No repairs necessary.	N/A
9/24/2024	Ryan Aamot - GHD	Decent condition. Asphalt starting to age.	No repairs necessary.	N/A

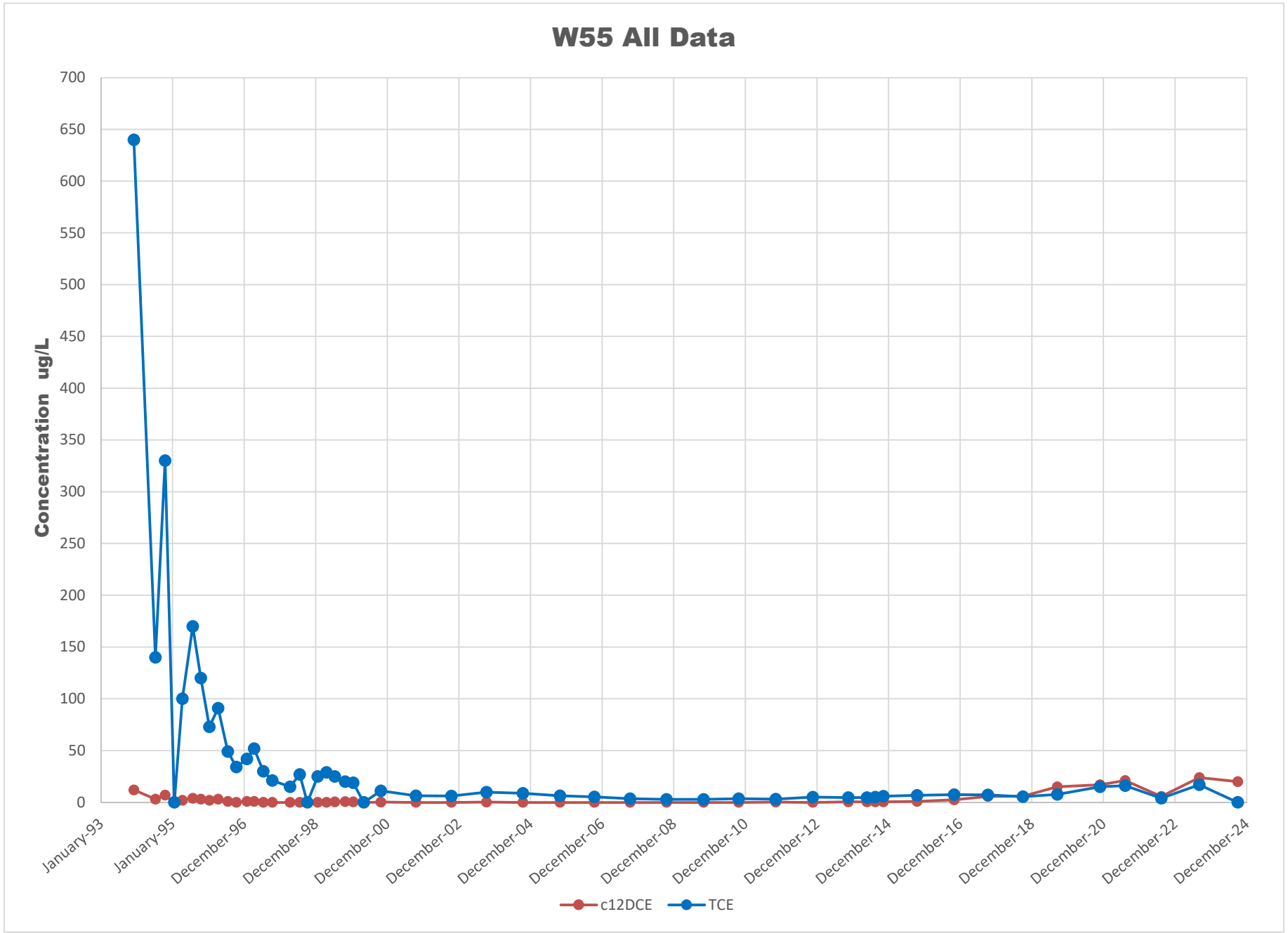
Appendix C

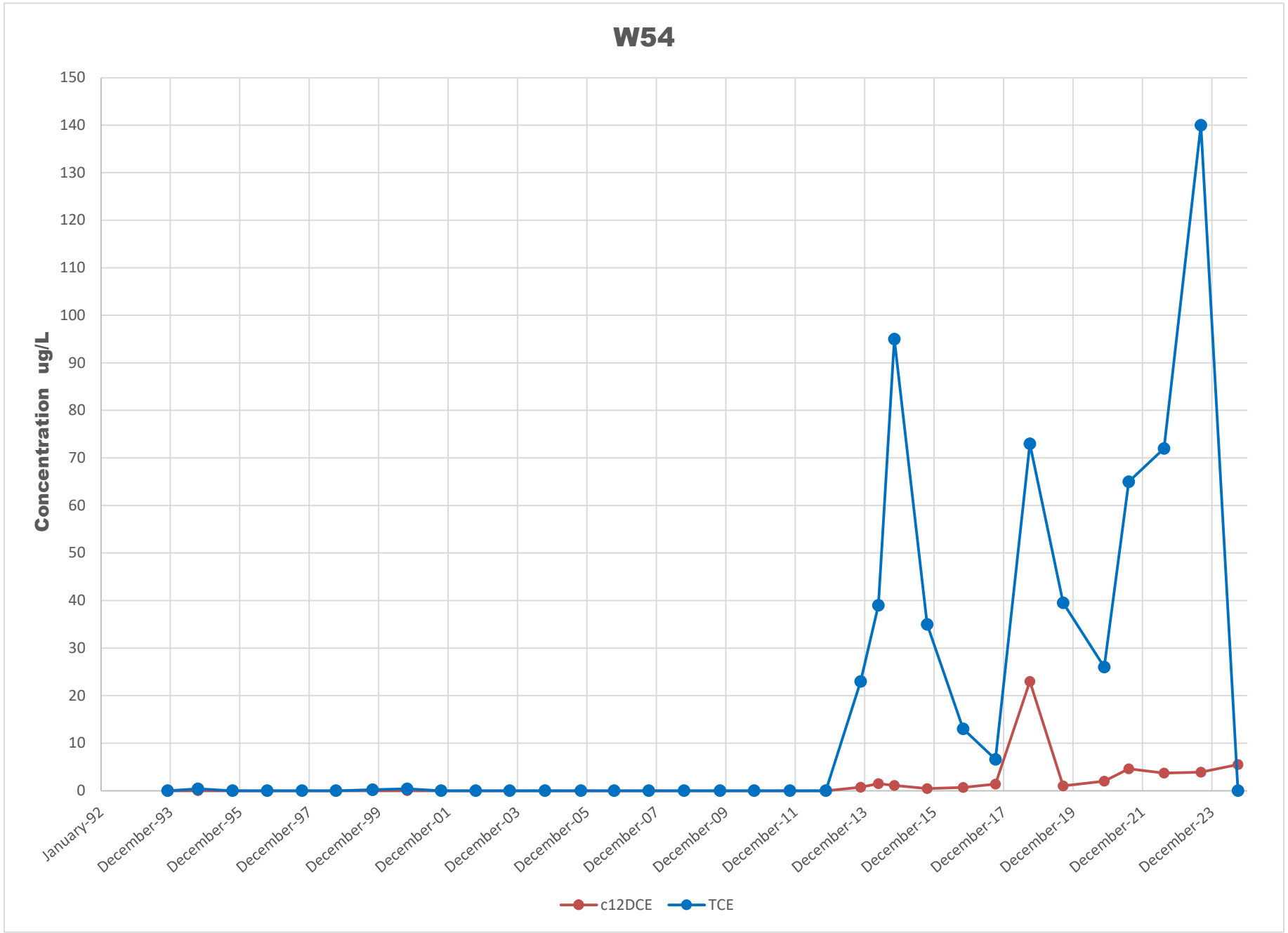
Total Chlorinated VOC Concentration Charts

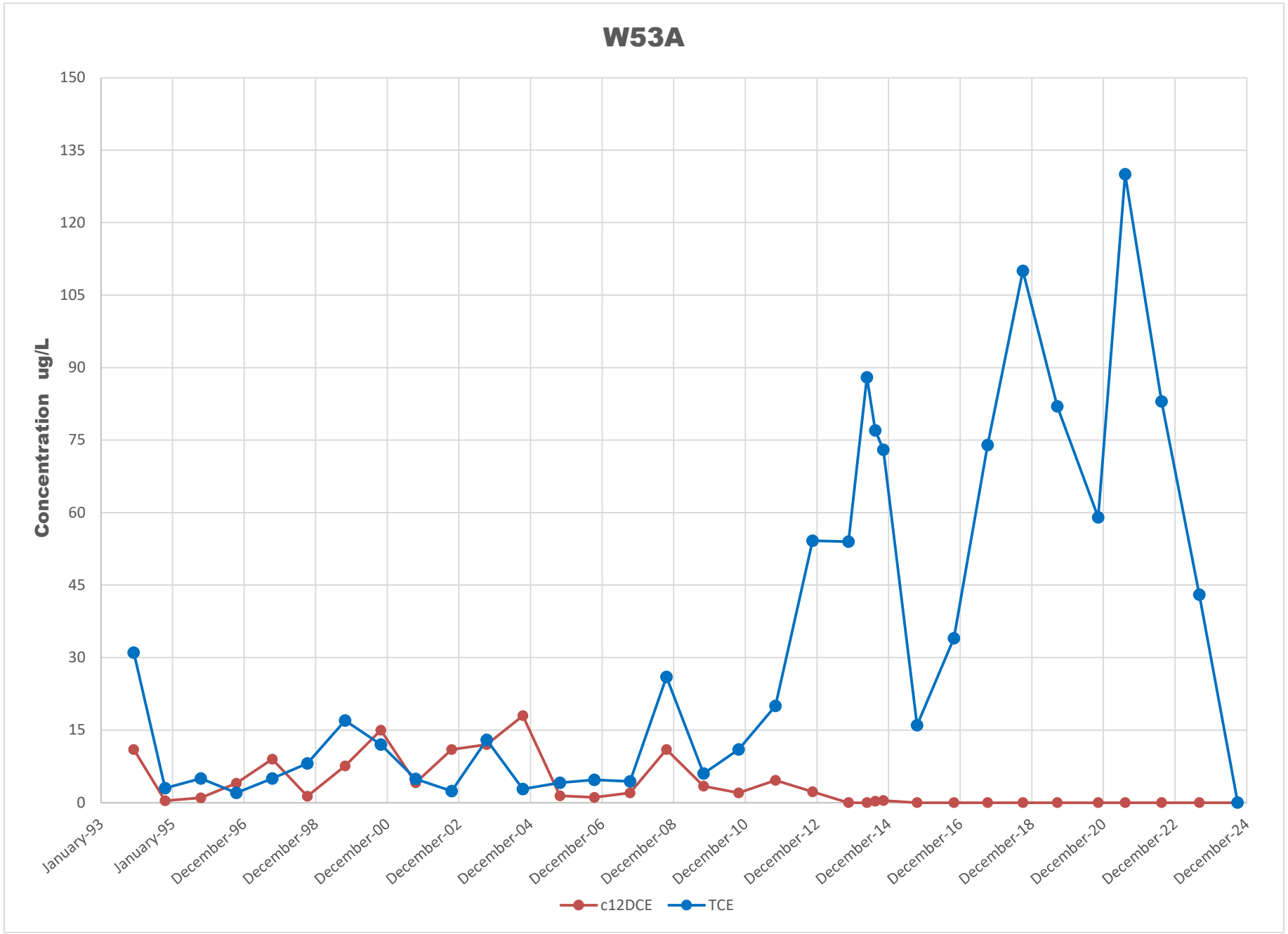

WSWD
Concentration ug/L
40
35
30
25
20
15
10
5
0
January-93
January-95
December-96
December-98
December-00
December-02
December-04
December-06
December-08
December-10
December-12
December-14
December-16
December-18
December-20
December-22
December-24
c12DCE
TCE

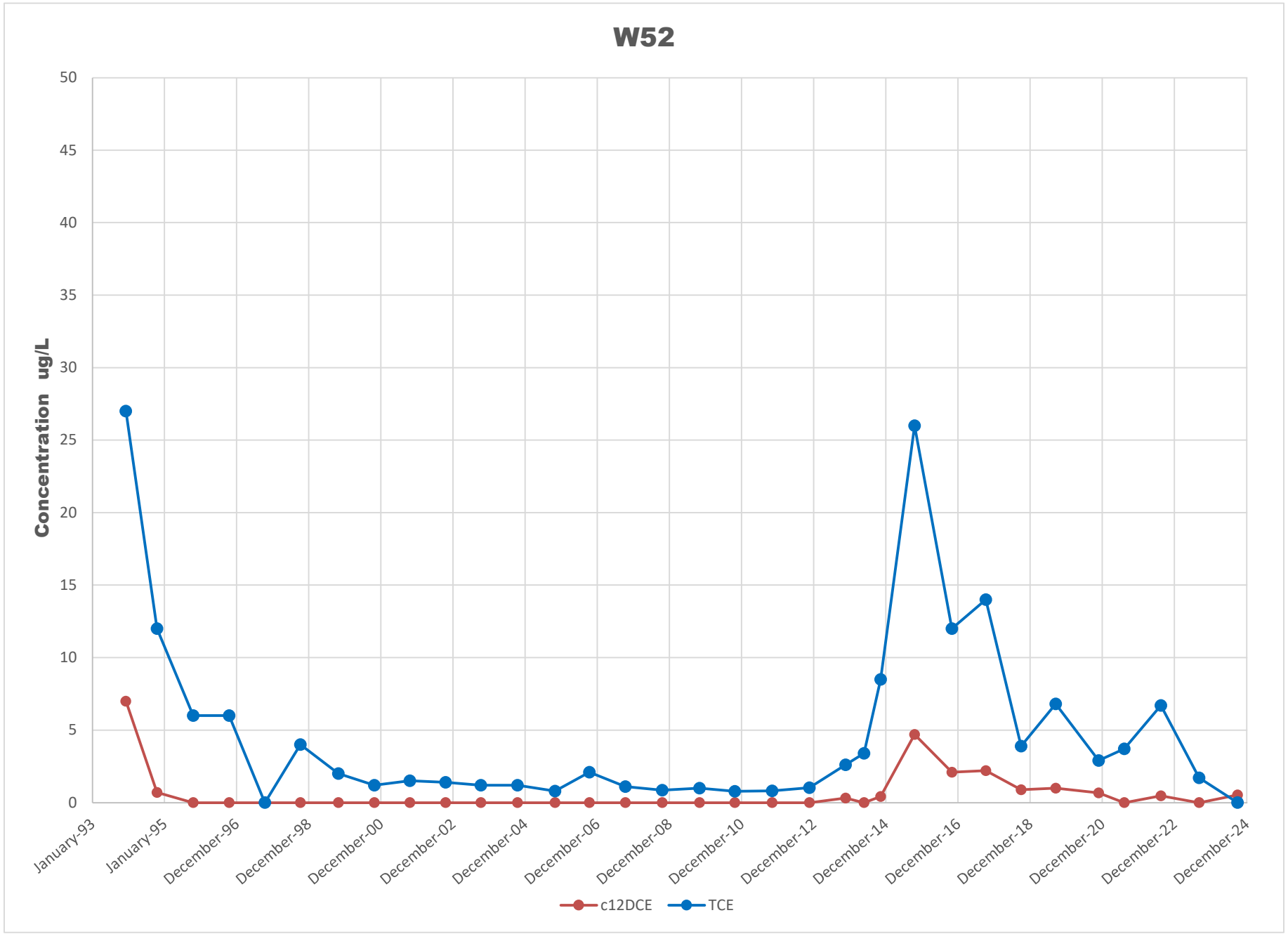

W56
Concentration ug/L
10
9
8
7
6
5
4
3
2
1
0
January-96
December-97
December-99
December-01
December-03
December-05
December-07
December-09
December-11
December-13
December-15
December-17
December-19
December-21
December-23
c12DCE
TCE

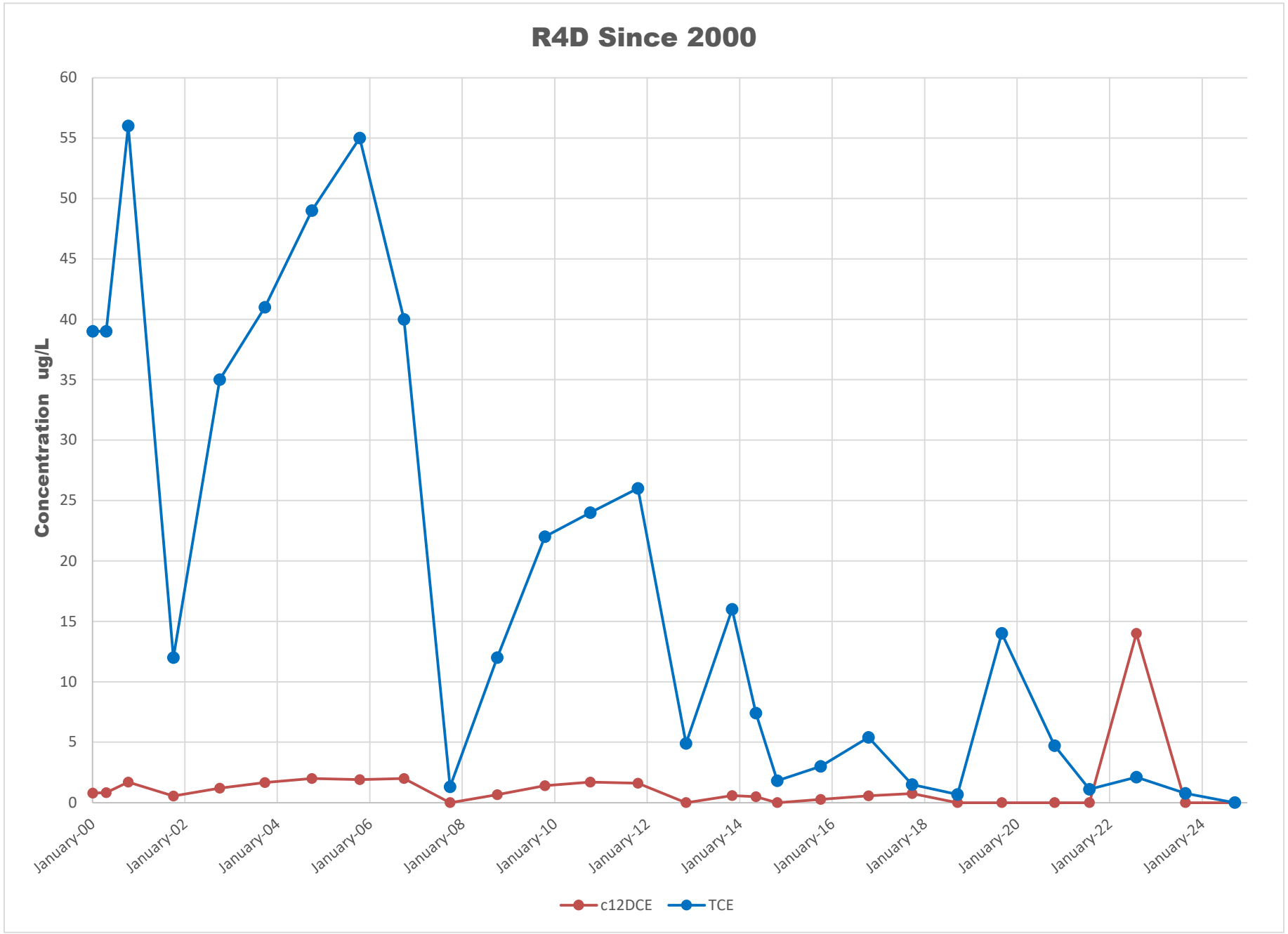

W55 Since 2000
Concentration ug/L
24
22
20
18
16
14
12
10
8
6
4
2
0
January-01
January-03
December-04
December-06
December-08
December-10
December-12
December-14
December-16
December-18
December-20
December-22
December-24
c12DCE
TCE

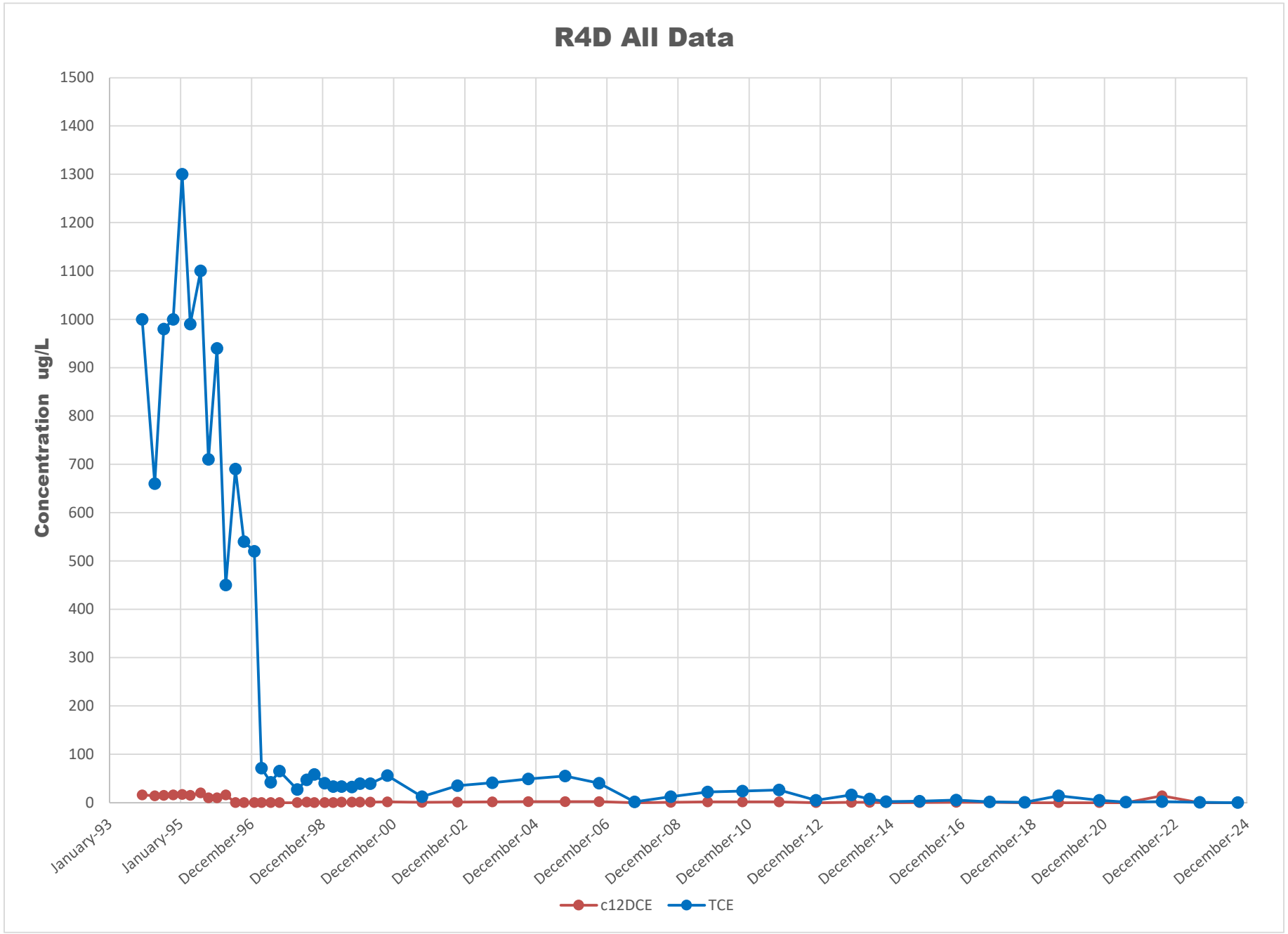

W55 All Data
Concentration ug/L
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
January-93
January-95
December-96
December-98
December-00
December-02
December-04
December-06
December-08
December-10
December-12
December-14
December-16
December-18
December-20
December-22
December-24
c12DCE
TCE

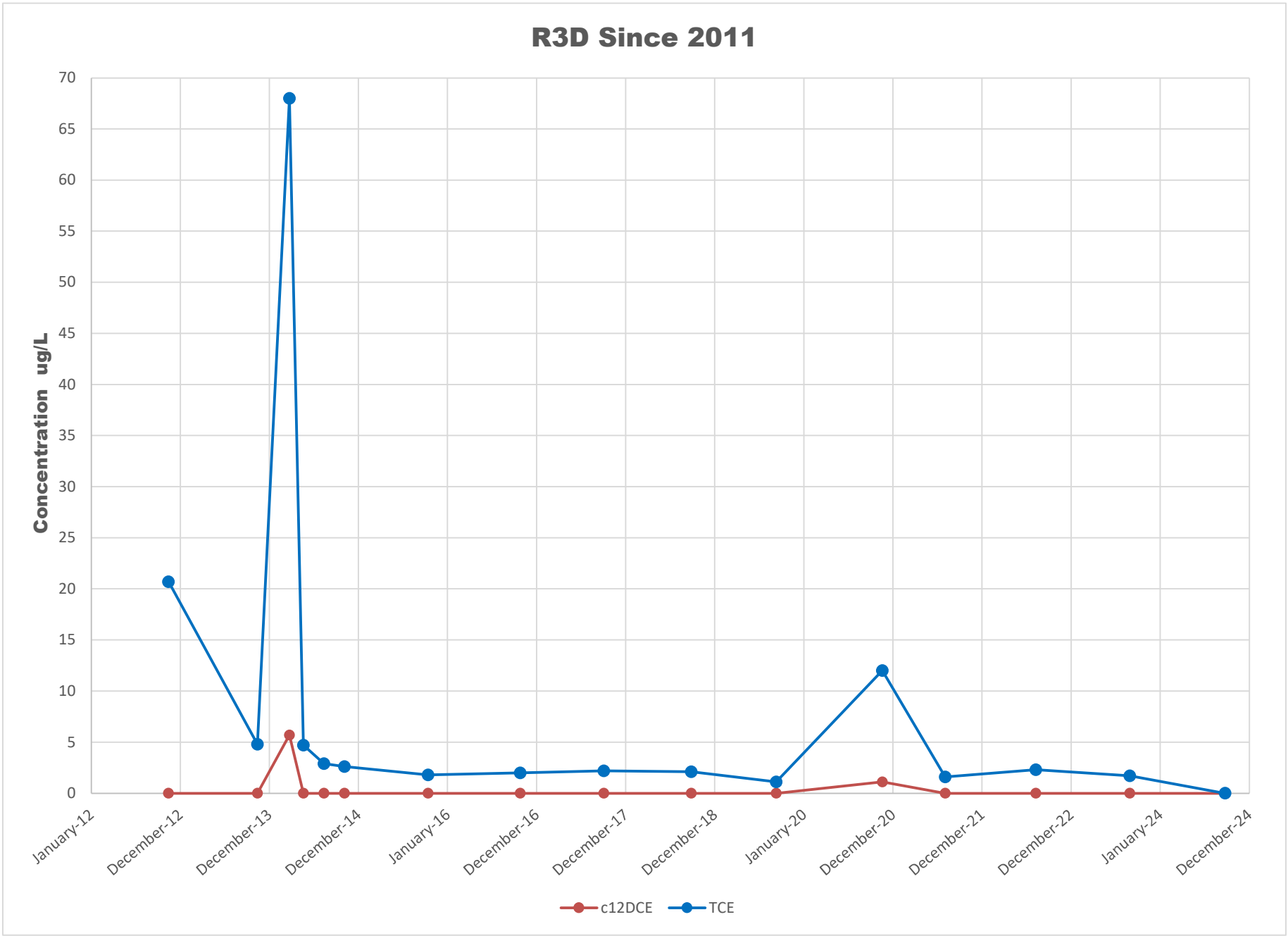

W54
Concentration ug/L
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
January-92
December-93
December-95
December-97
December-99
December-01
December-03
December-05
December-07
December-09
December-11
December-13
December-15
December-17
December-19
December-21
December-23
c12DCE
TCE

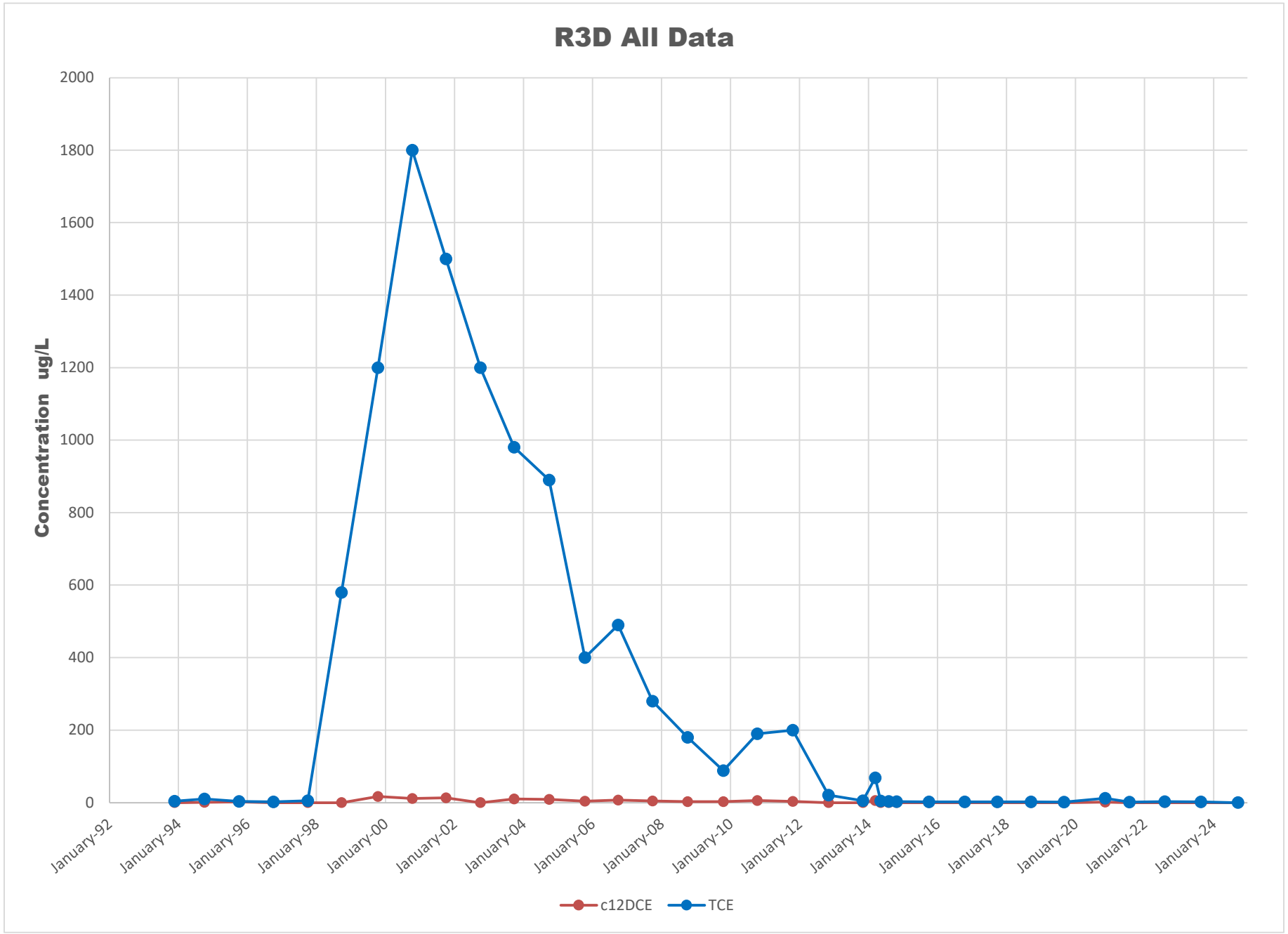

W53A
Concentration ug/L
150
135
120
105
90
75
60
45
30
15
0
January-93
January-95
December-96
December-98
December-00
December-02
December-04
December-06
December-08
December-10
December-12
December-14
December-16
December-18
December-20
December-22
December-24
c12DCE
TCE

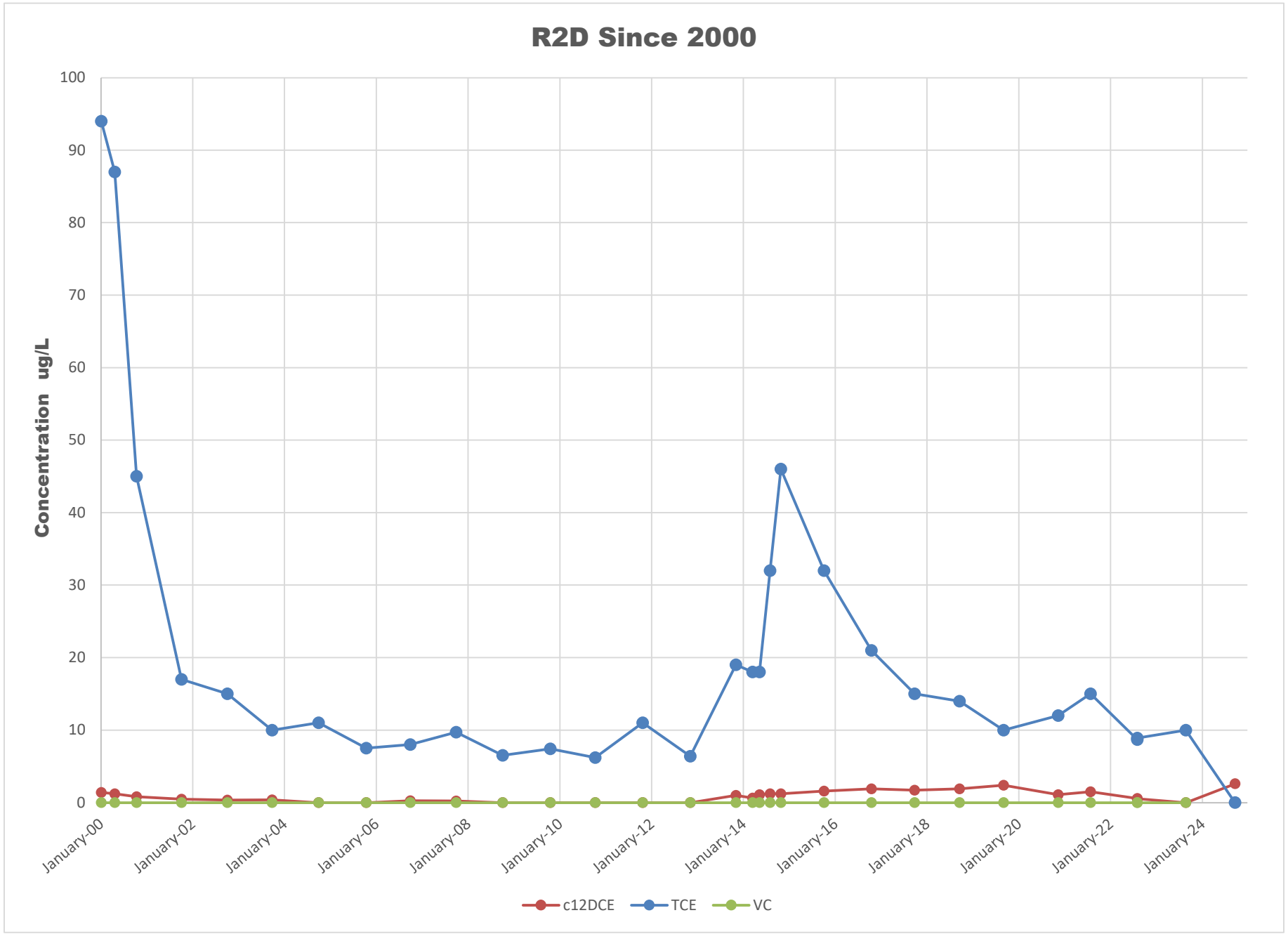

W52
Concentration ug/L
50
45
40
35
30
25
20
15
10
5
0
January-93
January-95
December-96
December-98
December-00
December-02
December-04
December-06
December-08
December-10
December-12
December-14
December-16
December-18
December-20
December-22
December-24
c12DCE
TCE

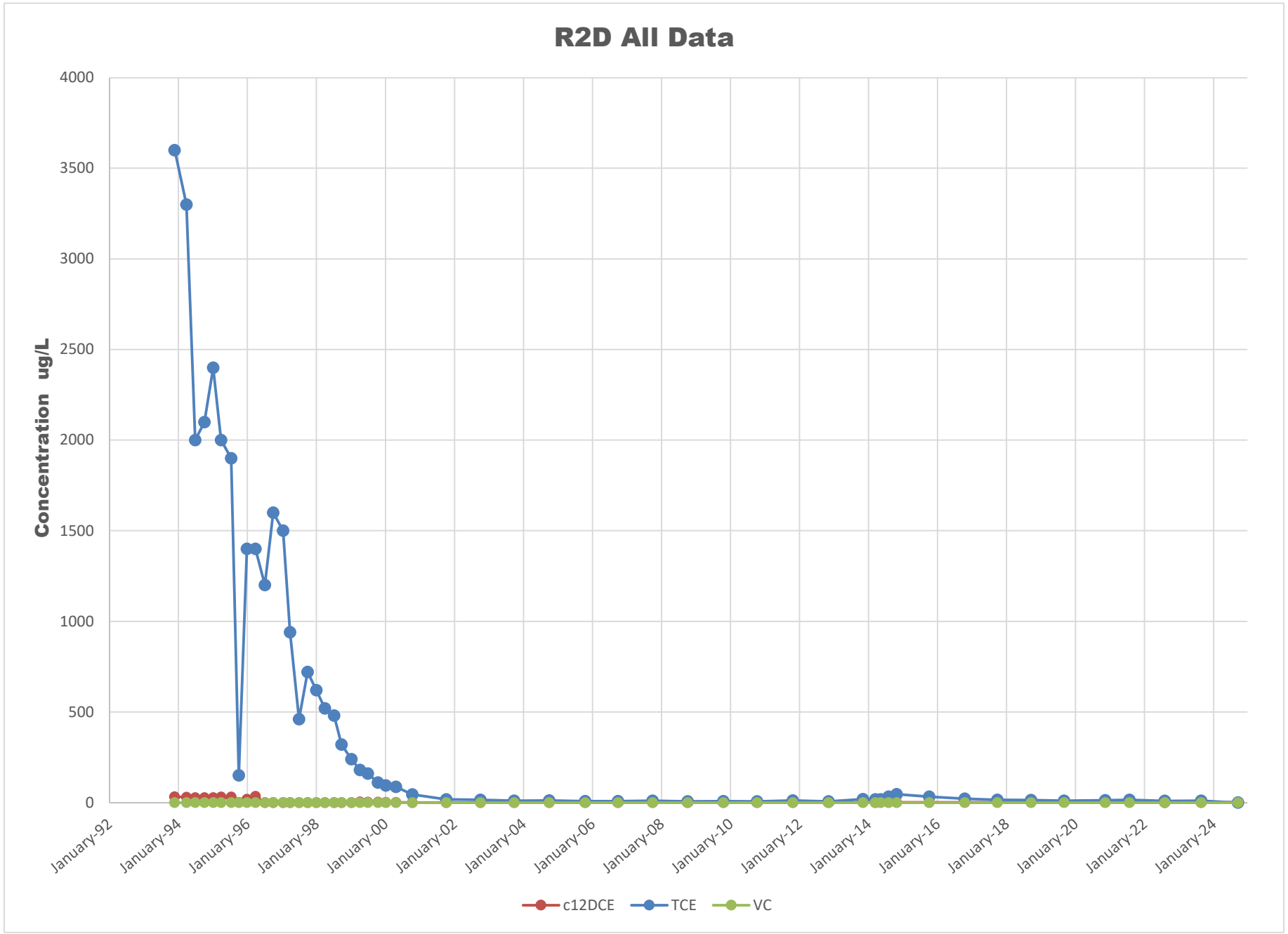

R4D Since 2000
Concentration ug/L
60
55
50
45
40
35
30
25
20
15
10
5
0
January-00
January-02
January-04
January-06
January-08
January-10
January-12
January-14
January-16
January-18
January-20
January-22
January-24
c12DCE
TCE

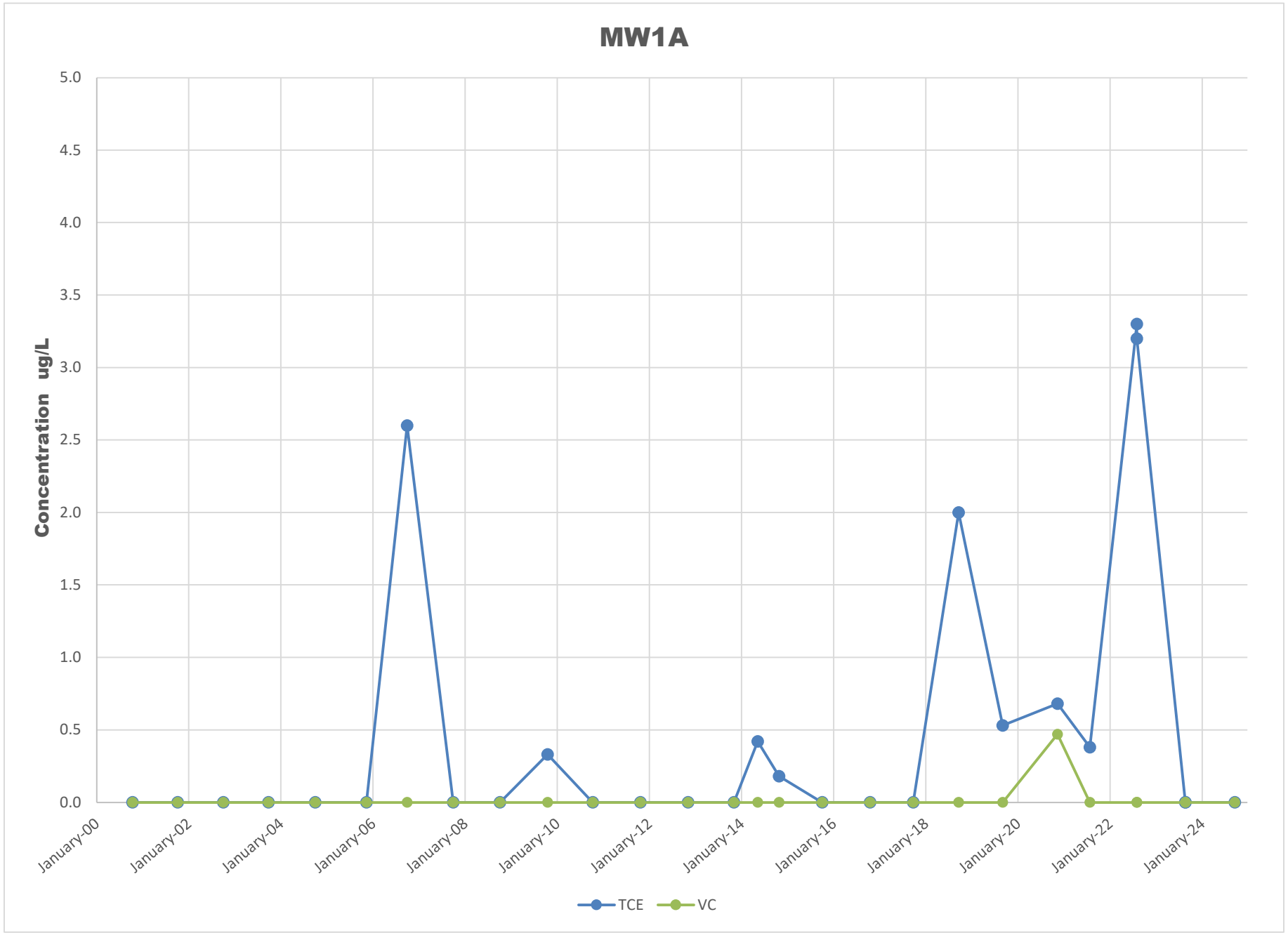

R4D All Data
Concentration ug/L
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
January-93
January-95
December-96
December-98
December-00
December-02
December-04
December-06
December-08
December-10
December-12
December-14
December-16
December-18
December-20
December-22
December-24
c12DCE
TCE

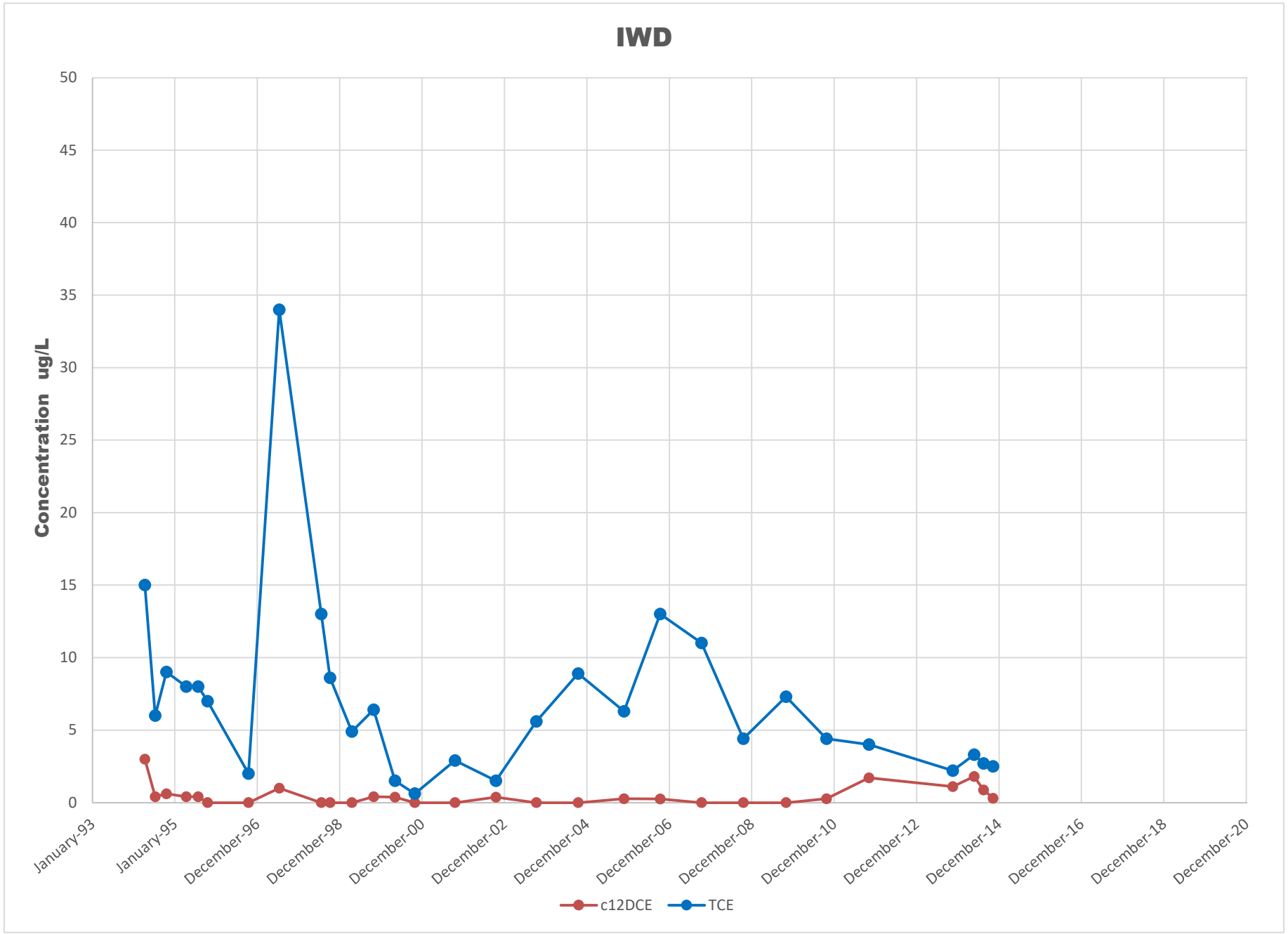

R3D Since 2011
Concentration ug/L
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
January-12
December-12
December-13
December-14
January-16
December-16
December-17
December-18
January-20
December-20
December-21
December-22
January-24
December-24
c12DCE
TCE

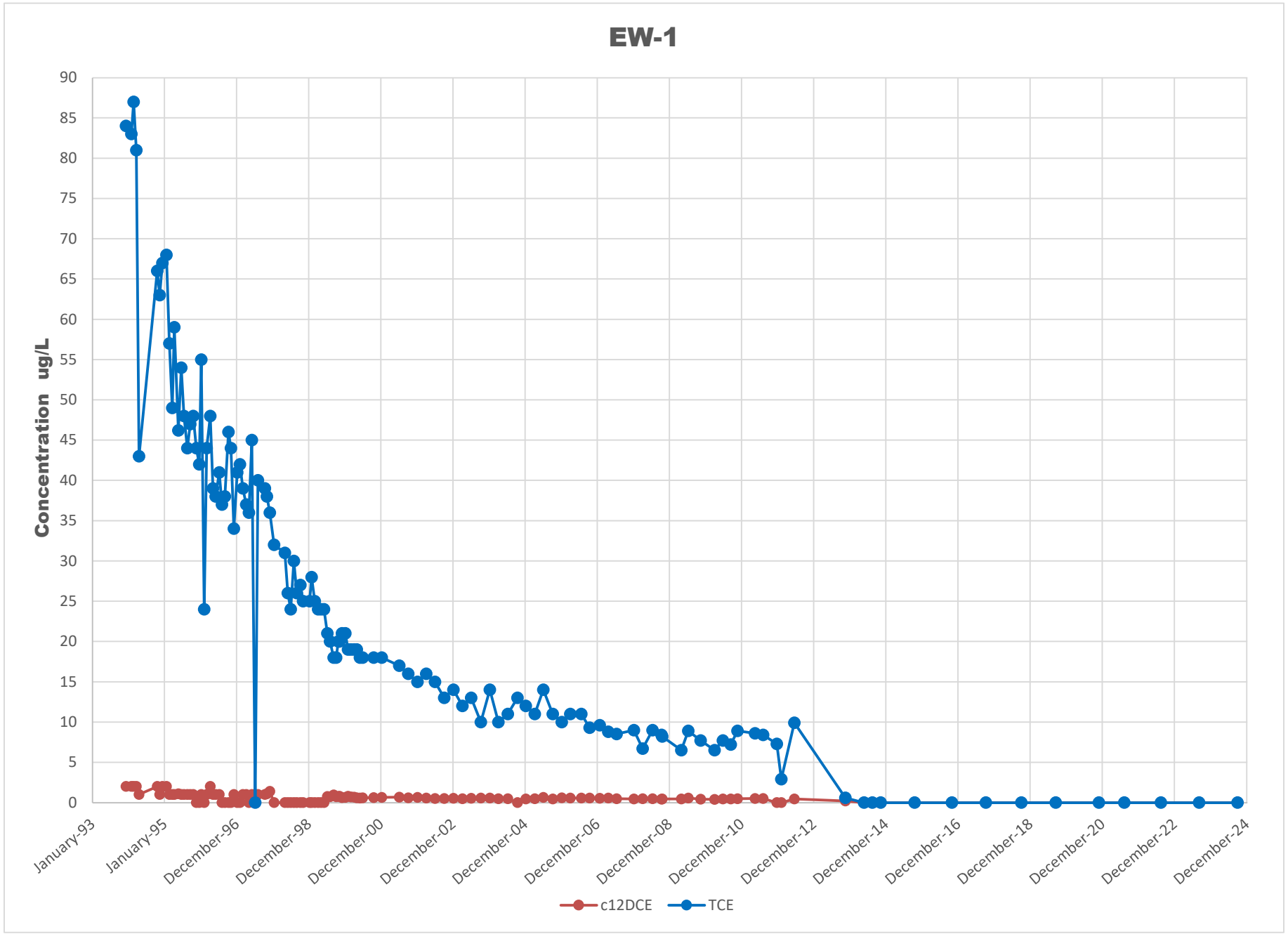

R3D All Data
Concentration ug/L
2000
1800
1600
1400
1200
1000
800
600
400
200
0
January-92
January-94
January-96
January-98
January-00
January-02
January-04
January-06
January-08
January-10
January-12
January-14
January-16
January-18
January-20
January-22
January-24
c12DCE
TCE

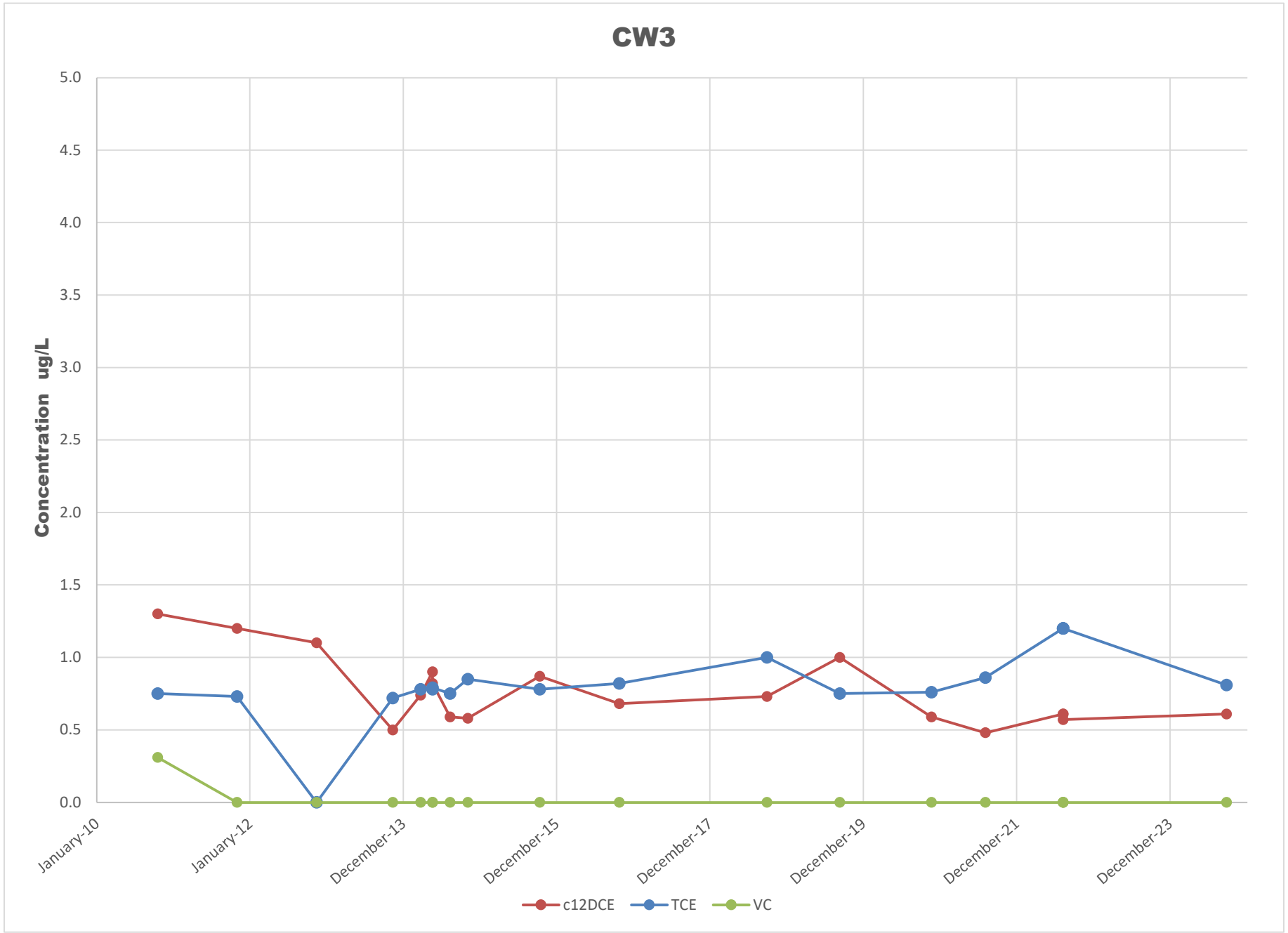

R2D Since 2000
Concentration ug/L
100
90
80
70
60
50
40
30
20
10
0
January-00
January-02
January-04
January-06
January-08
January-10
January-12
January-14
January-16
January-18
January-20
January-22
January-24
c12DCE
TCE
VC

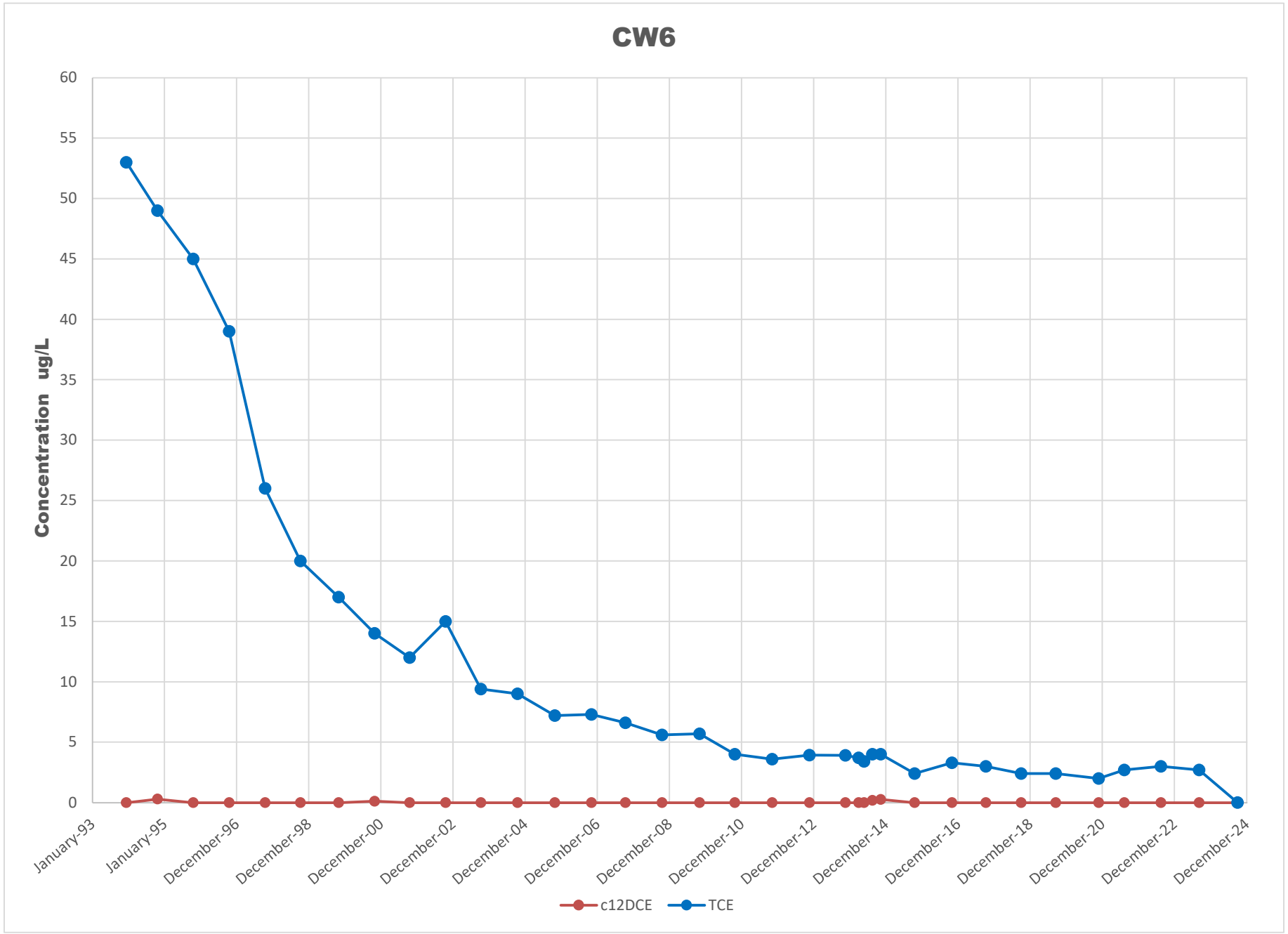

R2D All Data
Concentration ug/L
4000
3500
3000
2500
2000
1500
1000
500
0
January-92
January-94
January-96
January-98
January-00
January-02
January-04
January-06
January-08
January-10
January-12
January-14
January-16
January-18
January-20
January-22
January-24
c12DCE
TCE
VC

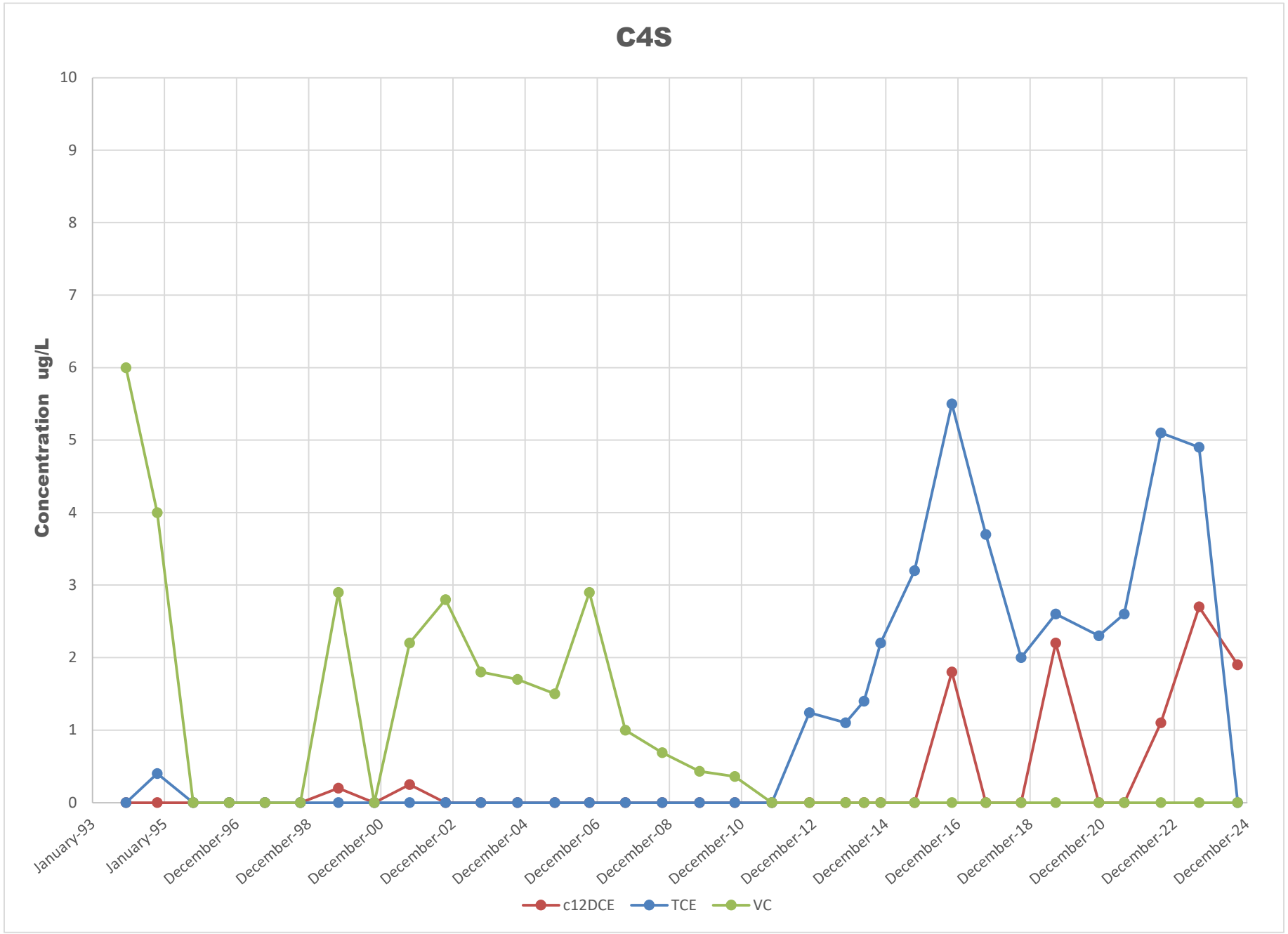

MW1A
Concentration ug/L
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
January-00
January-02
January-04
January-06
January-08
January-10
January-12
January-14
January-16
January-18
January-20
January-22
January-24
TCE
VC

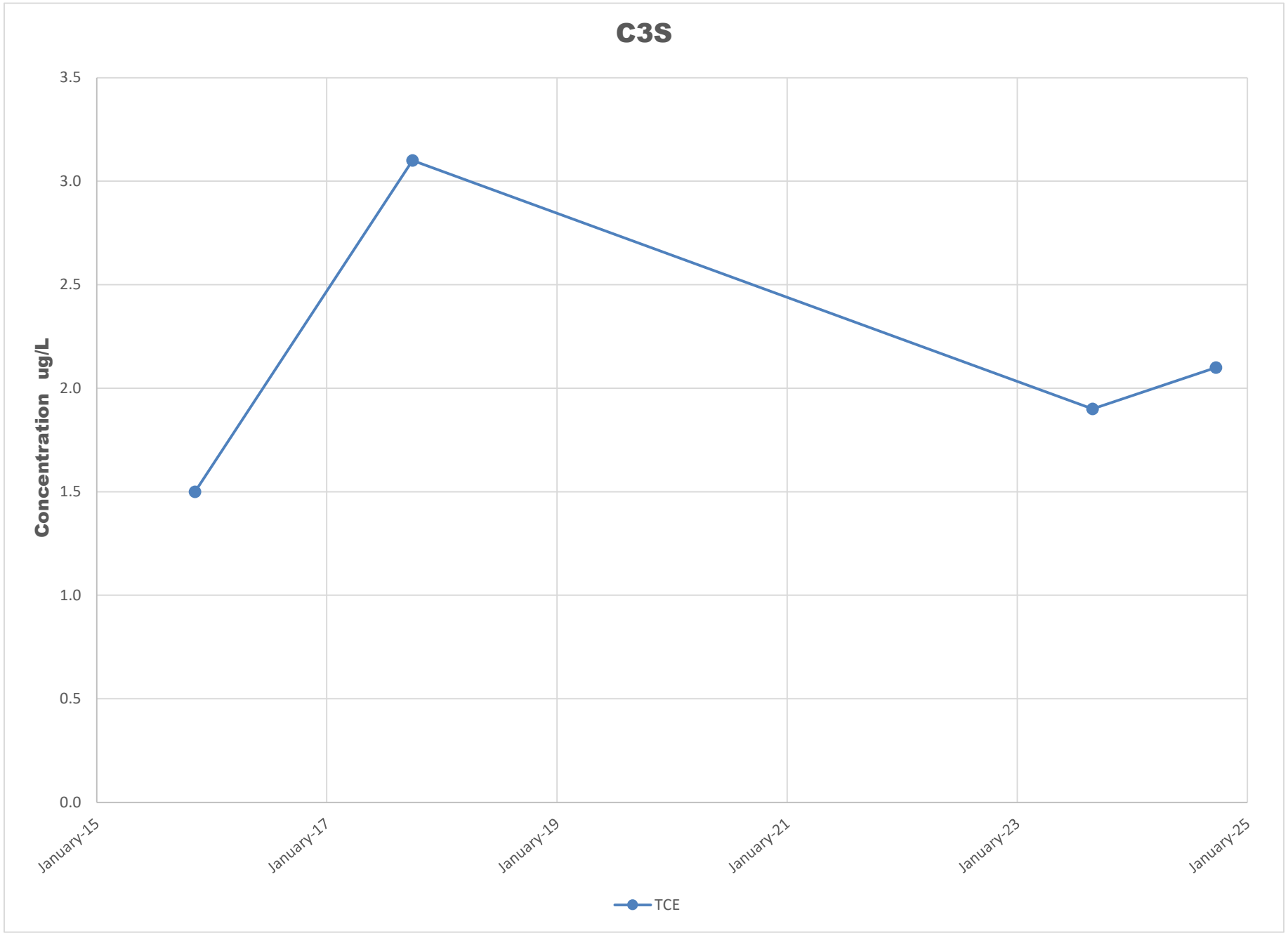

IWD
Concentration ug/L
50
45
40
35
30
25
20
15
10
5
0
January-93
January-95
December-96
December-98
December-00
December-02
December-04
December-06
December-08
December-10
December-12
December-14
December-16
December-18
December-20
c12DCE
TCE

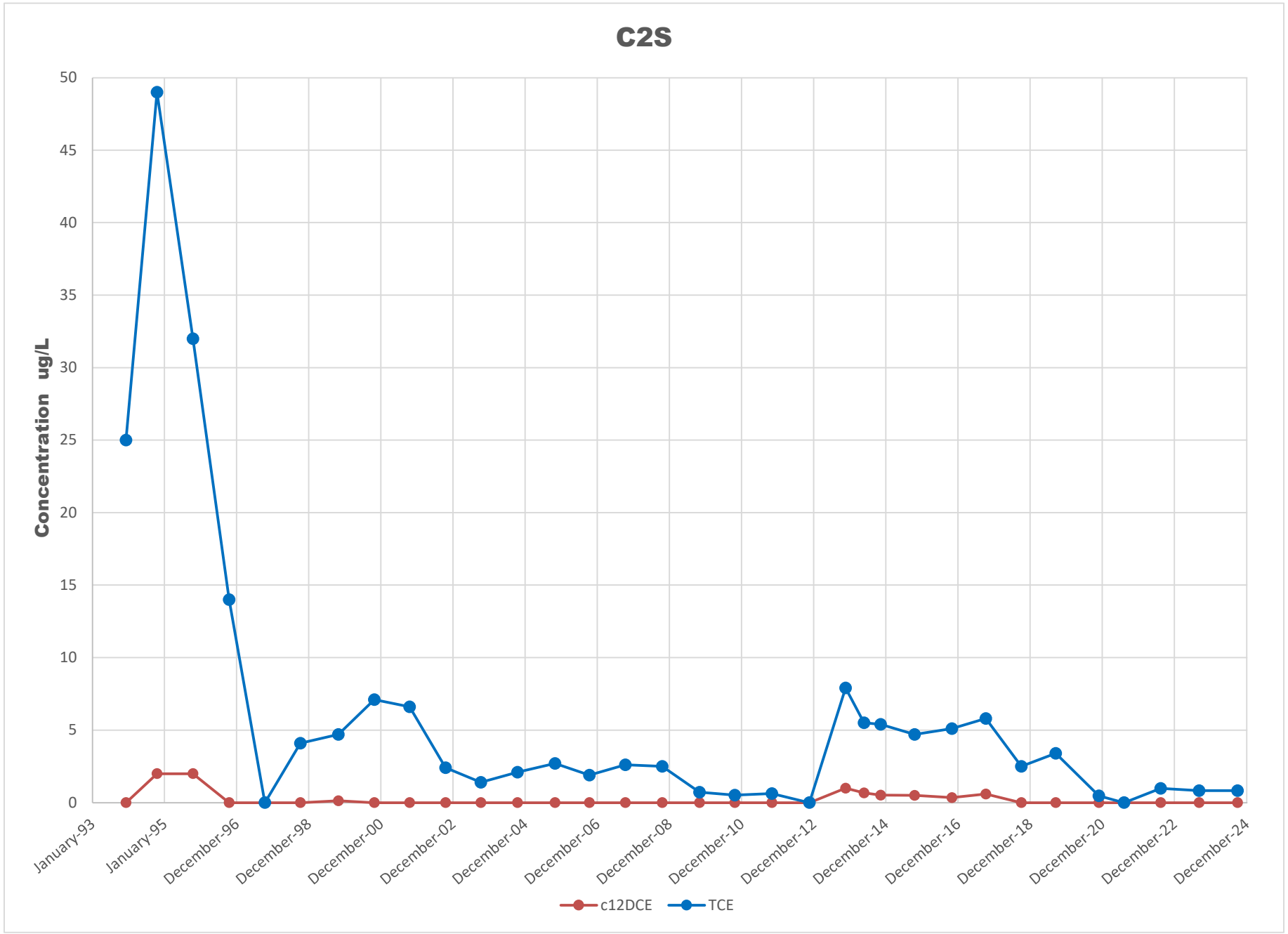

EW-1
Concentration ug/L
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
January-93
January-95
December-96
December-98
December-00
December-02
December-04
December-06
December-08
December-10
December-12
December-14
December-16
December-18
December-20
December-22
December-24
c12DCE
TCE

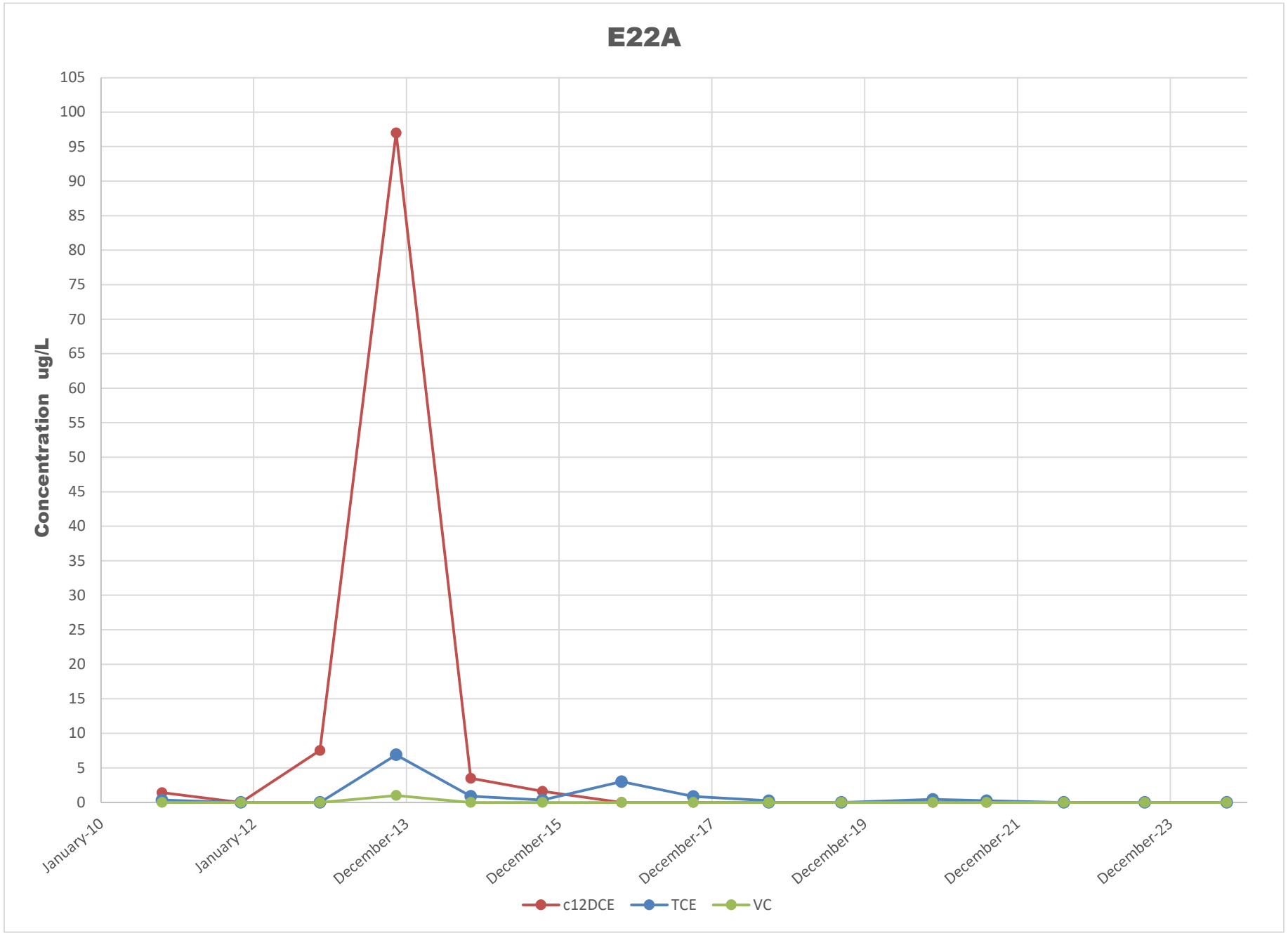

CW3
Concentration ug/L
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
January-10
January-12
December-13
December-15
December-17
December-19
December-21
December-23
c12DCE
TCE
VC

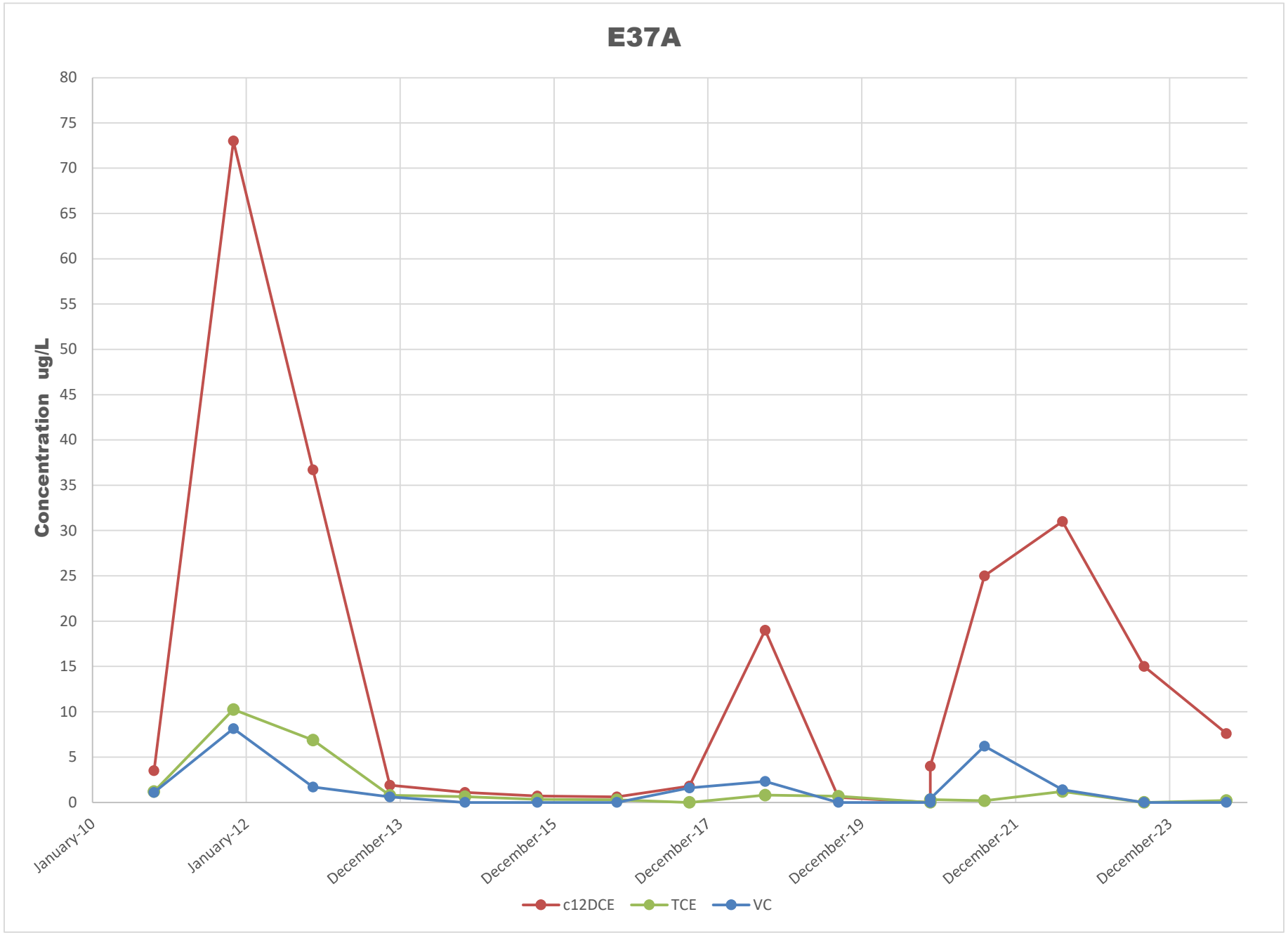

CW6
Concentration ug/L
60
55
50
45
40
35
30
25
20
15
10
5
0
January-93
January-95
December-96
December-98
December-00
December-02
December-04
December-06
December-08
December-10
December-12
December-14
December-16
December-18
December-20
December-22
December-24
c12DCE
TCE

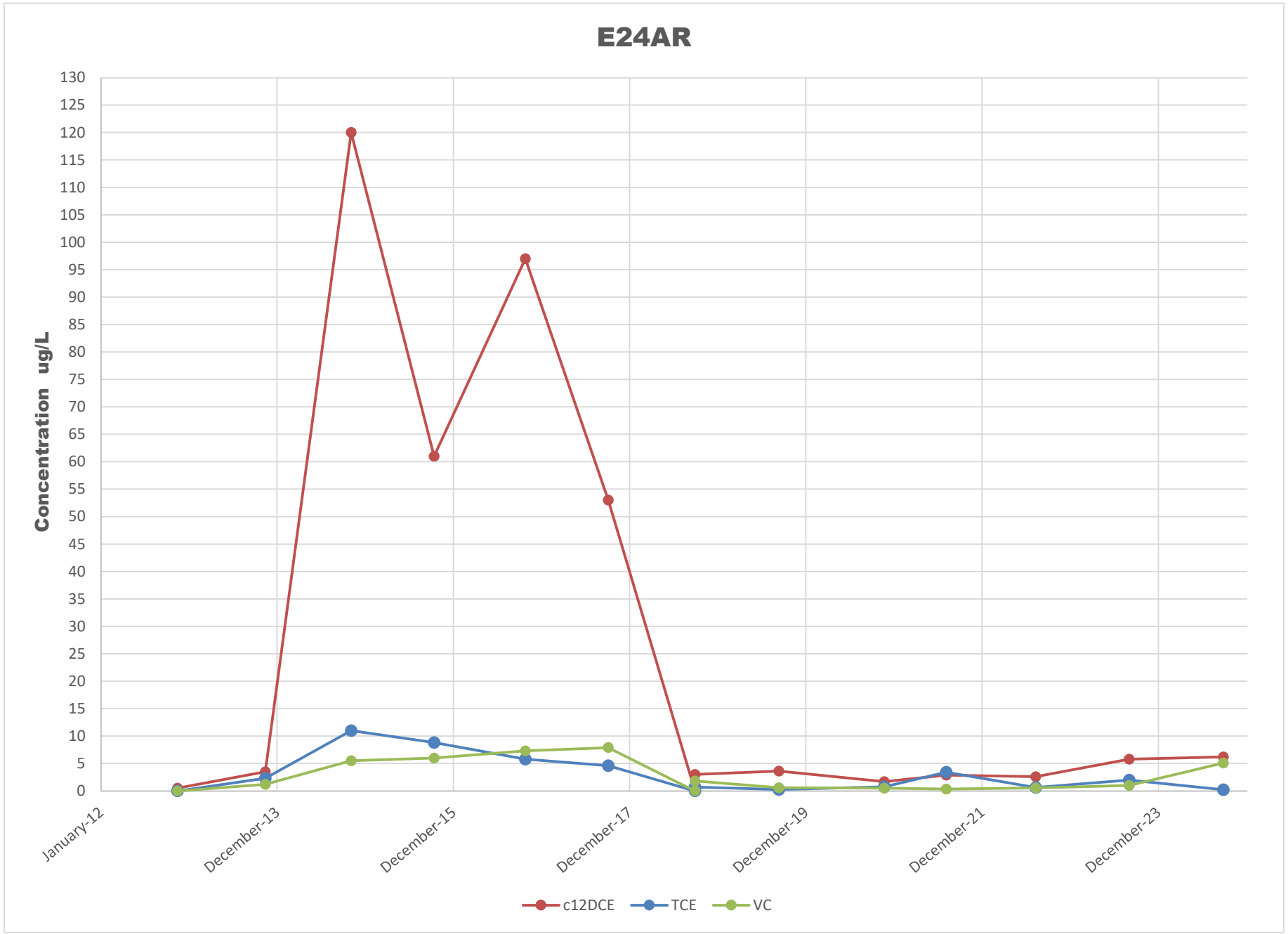

C4S
Concentration ug/L
10
9
8
7
6
5
4
3
2
1
0
January-93
January-95
December-96
December-98
December-00
December-02
December-04
December-06
December-08
December-10
December-12
December-14
December-16
December-18
December-20
December-22
December-24
c12DCE
TCE
VC

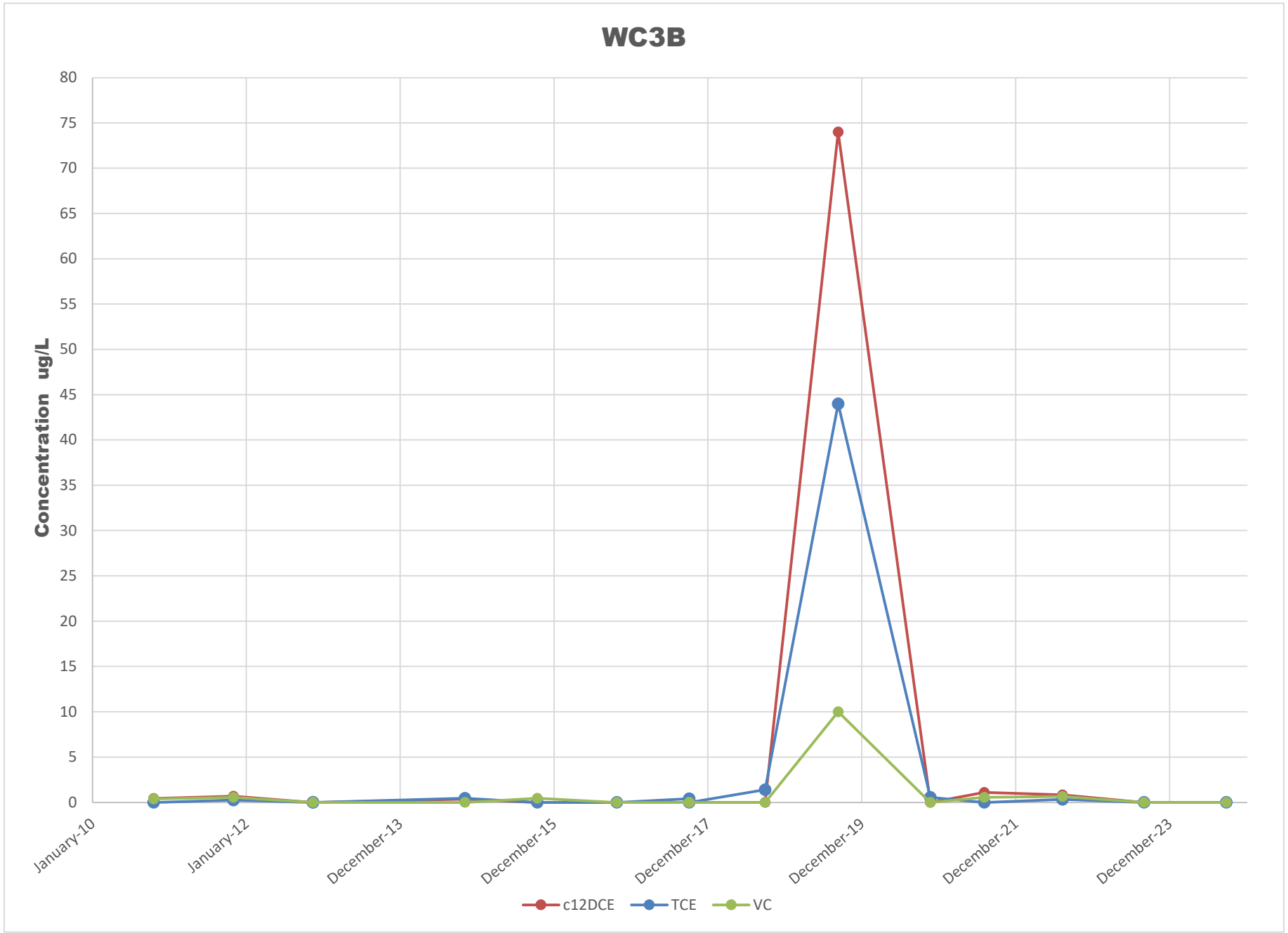

C3S
Concentration ug/L
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
January-15
January-17
January-19
January-21
January-23
January-25
TCE

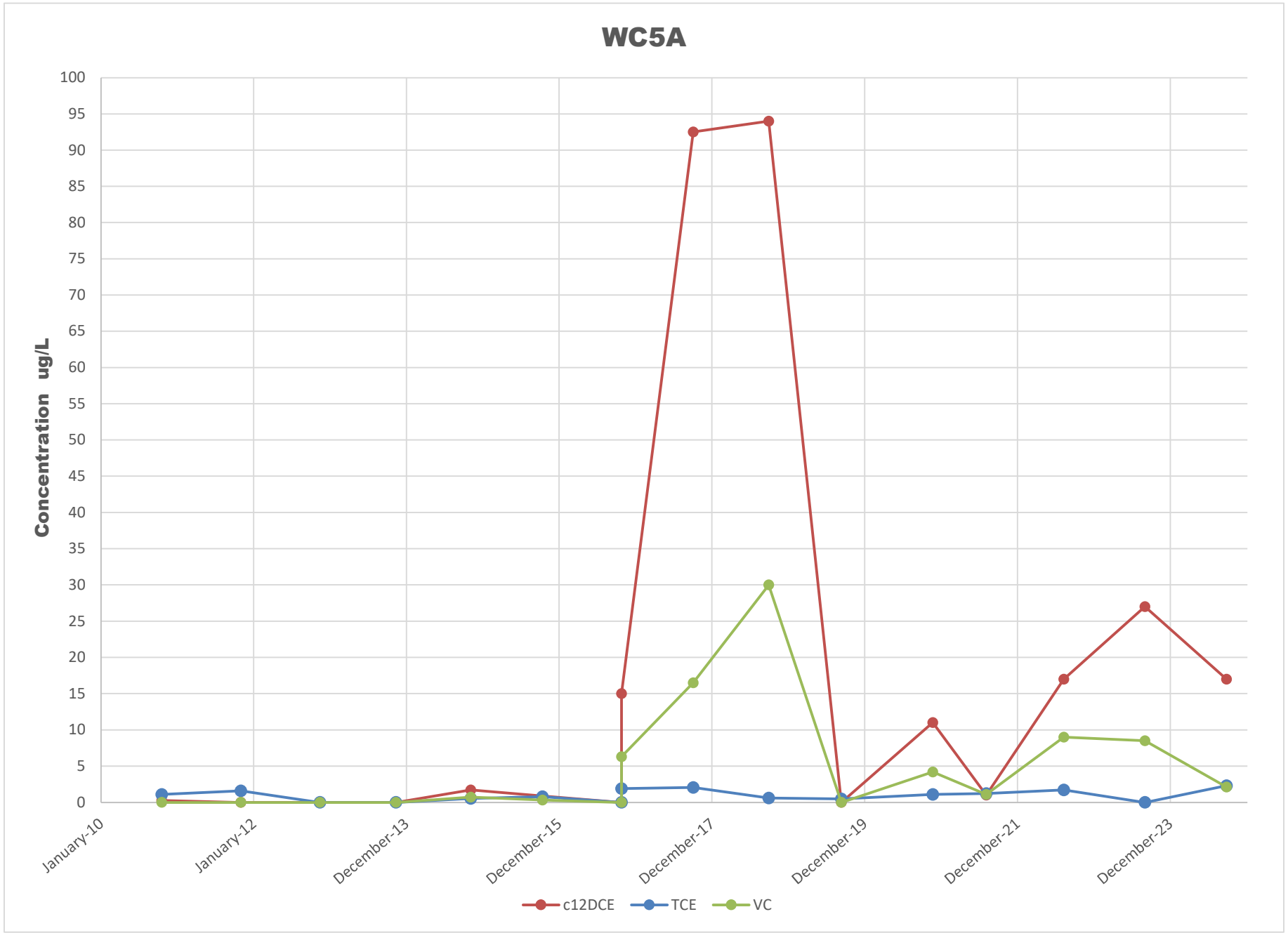

C2S
Concentration ug/L
50
45
40
35
30
25
20
15
10
5
0
January-93
January-95
December-96
December-98
December-00
December-02
December-04
December-06
December-08
December-10
December-12
December-14
December-16
December-18
December-20
December-22
December-24
c12DCE
TCE

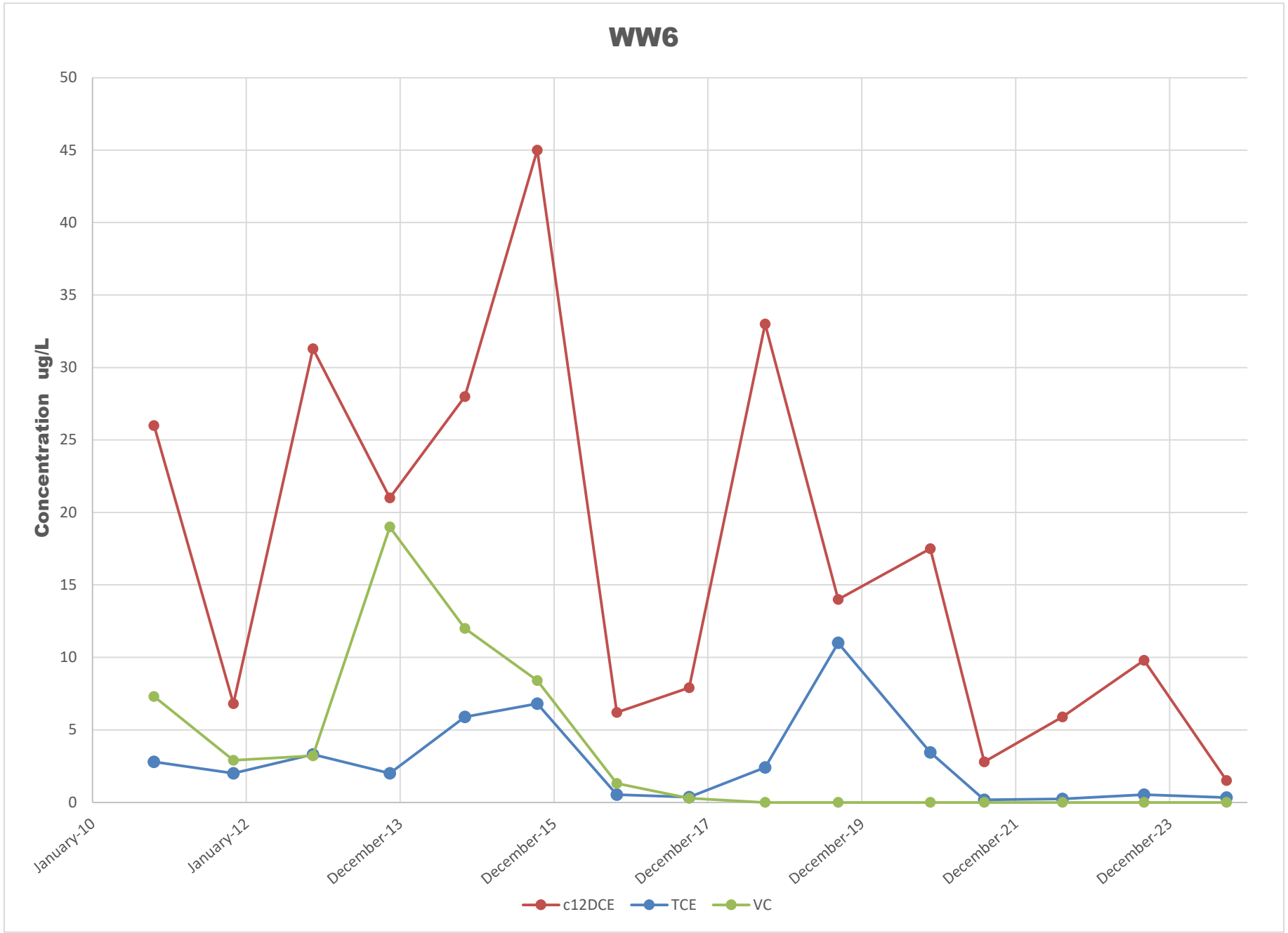

E22A
Concentration ug/L
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
January-10
January-12
December-13
December-15
December-17
December-19
December-21
December-23
c12DCE
TCE
VC


E37A
Concentration ug/L
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
January-10
January-12
December-13
December-15
December-17
December-19
December-21
December-23
c12DCE
TCE
VC


E24AR
Concentration ug/L
130
125
120
115
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
January-12
December-13
December-15
December-17
December-19
December-21
December-23
c12DCE
TCE
VC


WC3B
Concentration ug/L
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
January-10
January-12
December-13
December-15
December-17
December-19
December-21
December-23
c12DCE
TCE
VC


WC5A
Concentration ug/L
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
January-10
January-12
December-13
December-15
December-17
December-19
December-21
December-23
c12DCE
TCE
VC


WW6
Concentration ug/L
50
45
40
35
30
25
20
15
10
5
0
January-10
January-12
December-13
December-15
December-17
December-19
December-21
December-23
c12DCE
TCE
VC

Appendix D

Mann-Kendall Trend Test Results

			Raw Data		Processed Data [1]					Mann-Kendall Trend Test Results		
Well	Analyte	Date Range	Number of Samples	Percent Non-detect	Number of Samples	Number of Detects	Percent Non-detect	Minimum (µg/L)	Maximum (µg/L)	Stat.	Prob.	Conclusion
CW3	Trichloroethene	11/2012 - 9/2024	14	7%	10	10	0%	0.72 J	1.2 / 1.2	13	0.292	No trend
E21	Trichloroethene	11/2012 - 9/2024	15	100%	15	0	100%	0.50 U	1.0 U / 1.0 U	--	--	100% ND
E22A	Trichloroethene	11/2012 - 9/2024	13	38%	13	8	38%	0.22 J	6.9	-37	0.023	**Decreasing**
E24AR	Trichloroethene	11/2012 - 9/2024	13	8%	13	12	8%	0.21 J	11	-24	0.161	No trend
E37A	Trichloroethene	11/2012 - 9/2024	14	21%	13	11	15%	0.17 J	6.87	-29	0.087	No trend
MW10B	Trichloroethene	11/2012 - 9/2024	13	92%	13	1	92%	0.17 J	1.00 U	--	--	<4 detects
W53A	Trichloroethene	11/2012 - 9/2024	15	0%	15	15	0%	16 / 16	130	12	0.586	No trend
W54	Trichloroethene	11/2012 - 9/2024	15	7%	14	13	7%	1.00 U	200	45	0.016	**Increasing**
WC3B	Trichloroethene	11/2012 - 9/2024	12	50%	12	6	50%	0.33 J	44	-3	0.883	No trend
WC5A	Trichloroethene	11/2012 - 9/2024	13	23%	13	10	23%	0.48 J	2.3	29	0.085	No trend
WW4	Trichloroethene	11/2012 - 9/2024	13	100%	13	0	100%	0.50 U	1.00 U	--	--	100% ND
WW6	Trichloroethene	11/2012 - 9/2024	14	0%	13	13	0%	0.18 J	11	-25	0.142	No trend

Notes:

[1] Processed data included:

a) Due to differences in sampling frequency (quarterly, in 2014), data were removed to match the current sampling frequency (annual).

b) Non-detects with detection limits above some detected values were excluded from the trend test.

U - Not detected at the associated reporting limit.

J - Estimated concentration.

1.2 / 1.2: field duplicate results

<4 detetcts: when fewer than 4 detected values are present, no test is performed.

100% ND: no detected values in the data set; no test performed.

Statistic: calculated as the sum of the signs of all possible pair-wise data comparisons.

Probability of significance: A value less than 0.05 indicates greater than 95 percent confidence of a statistically significant trend.