

Mr. Michael Belveg Regional Enforcement Coordinator, Region 7 New York State Department of Environmental Conservation 615 Erie Blvd. West Syracuse, New York 13204

# Periodic Review Report for Reporting Period 2019-2021 – Former Accurate Die Casting Site (Site #7-34-052), Fayetteville, New York

Date March 30, 2022

Dear Mr. Belveg:

This letter serves as the *Periodic Review Report* (PRR) for the reporting period from January 1, 2019 to December 31, 2021. This PRR documents the implementation of, and compliance with, Site Management (SM) requirements under the Order on Consent #A7-0318-94-10 (the Order) and the December 1994 *Record of Decision* (1994 ROD) for the Former Accurate Die Casting Site (Site) in Fayetteville, New York (Site #7-34-052) (**Figure 1**). This PRR is accompanied by the Site Management Periodic Review Report Notice and Institutional and Engineering Controls Certification Form (**Attachment 1**).

# I. Executive Summary

In December 1994, the New York State Department of Environmental Conservation (NYSDEC) issued a Record of Decision (ROD) (NYSDEC, 1994) in which the NYSDEC selected (1) excavation and off-Site disposal for contaminated soil, and (2) extraction and on-Site treatment for the contaminated groundwater at the Site. The NYSDEC identified five areas (**Figure 1**) in the December 1994 ROD which could pose an unacceptable risk to human health if not addressed.

Remedial actions to address these five areas were conducted between 1995 and 1999, as described in Section II below. A *Final Engineering Report* (FER) (O'Brien & Gere Engineers, Inc. [OBG], 2000) was provided to the NYSDEC in March 2000 certifying and documenting that the remedial actions to address the five areas as proposed in the design documents prepared by OBG and approved by NYSDEC were completed in accordance with those documents and NYSDEC-approved modifications thereto. The FER also indicated that groundwater collection and treatment will continue until volatile organic compound (VOC) levels in the groundwater are below NYSDEC groundwater quality standards, or

Ramboll 333 West Washington Street Syracuse, NY 13202 USA

T 315-956-6100 F 315-463-7554 https://ramboll.com



until such a time that asymptotic levels have been achieved and further reduction in VOC levels in groundwater is not practicable.

Presently, the NYSDEC requires sampling of select groundwater monitoring wells on Site on two occasions each year, during the Spring and Fall, and analyses for volatile organic compounds (VOCs). As presented in Section III below, the results indicate that progress is being made toward meeting the remedial objectives for the Site. However, it is likely that the concentration of several VOCs may remain above the Class GA drinking water standards in overburden groundwater and bedrock groundwater on the Site for an indefinite period. Regardless, the current remedy is protective for direct contact with potentially impacted groundwater since groundwater is not recovered for consumption or use on or near the Site because the community is served by the regional public water authority.

On June 4, 2014, the NYSDEC changed the classification of the Site from a Class 2 site (meaning one presenting significant threat to the public health or environment - action required) to a Class 4 site (meaning one where the site is properly closed - requires continued management). The Site is presently unoccupied. A deed was recorded with the Onondaga County Clerk on December 29, 2017 transferring title to the Site from the Site owner, 547 East Genesee Street, LLC, to FOUBU Environmental Services, LLC (FOUBU).

FOUBU applied to the NYSDEC on January 15, 2015, as a "Volunteer", for the Site to participate in the Brownfield Cleanup Program (BCP). On March 31, 2015, the NYSDEC provided notice that the application was accepted, and on June 1, 2015 executed Brownfield Site Cleanup Agreement Index C734052-03-15 with FOUBU ("Applicant"). FOUBU subsequently provided notice to NYSDEC on June 15, 2015 of an intended Change of Use for the Site, in accordance with the provisions of 6 NYCRR §375-1.11(d), as an initial action to allow demolition of the existing building in preparation for the Site redevelopment. FOUBU intends commercial redevelopment of the Site under the BCP.

On October 10, 2019, FOUBU submitted a Remedial Investigation Work Plan to NYSDEC as a requirement of the BCP. The Remedial Investigation was conducted between November 11, 2019 and February 3, 2020. On September 3, 2021, FOUBU submitted the Remedial Investigation Report (RIR) to NYSDEC.

# **II. Site Overview**

## Location

The Site is located at 547 East Genesee Street in Fayetteville, New York (Figure 1); it is currently zoned for commercial/industrial use and is approximately 33 acres in size. The Site is bordered to the west by a former railroad bed that is no longer in use. Residential housing is located further west of the former railroad bed. Residential housing also borders the Site to the east. The northern portion of the Site is undeveloped, wooded land. The Site is bounded to the south by East Genesee Street.

## Ownership

Accurate Die Casting and predecessor owners and operators of the facility conducted manufacturing operations at the Site from approximately 1950 until 1988 when Accurate Die Casting abandoned the facility. Accurate Die Casting and the predecessor owners and operators used the facility for die and casting operations to fabricate metal products for the automobile industry and other industries.

ITT Commercial Finance Corporation, a former subsidiary of ITT Industries, now ITT LLC (ITT), acquired the Site in 1988 as a result of foreclosure proceedings. ITT never conducted manufacturing operations



at the Site and did not own or operate the facility at any time that a disposal or release of hazardous substances occurred at the Site.

The Site was sold to O'Brien & Gere Technical Services, Inc. in 1999. In 2000, O'Brien & Gere Technical Services, Inc. subsequently sold the Site to Three Ponds Corporation. Three Ponds Corporation subsequently changed its name to 547 East Genesee Street, LLC. A deed was recorded with the Onondaga County Clerk on December 29, 2017 transferring title to the Site to FOUBU.

## **Investigations and Record of Decision**

Although ITT never conducted manufacturing operations at the Site, ITT conducted remedial assessments of the property and completed a Remedial Investigation and Feasibility Study in accordance with NYSDEC Consent Order (CO) (Index # A7-0258-91-03) dated August 19, 1991 and amended on June 6, 1994.

The Final Report – Remedial Investigation (Stearns & Wheler, December 1993) concluded that:

- Trichloroethene (TCE) was observed in both overburden and bedrock groundwater at concentrations above the NYSDEC Class GA groundwater standards.
- The highest TCE concentrations in soils were observed at about 20 to 25 ft below grade in the vicinity of MW-3, at the interface between the sand/gravel and till layers.

Following the investigation, a ROD (December 5, 1994) was prepared by the NYSDEC in which it selected (1) excavation and off-Site disposal for the contaminated soil, and (2) extraction and on-Site treatment for the contaminated groundwater. The NYSDEC identified five areas in the December 1994 ROD requiring remedial action, as described below. The NYSDEC subsequently prepared an Amended ROD (October 2, 1997) and an Explanation of Significant Differences (ESD) (October 1998).

## **Remedial Actions**

A Remedial Design was prepared, and Remedial Construction was implemented under NYSDEC Consent Order (Index #A7-0318-94-10) dated April 26, 1995. The NYSDEC-approved Site remediation that was conducted included soil excavation and construction of a groundwater collection and treatment (GWC&T) system as summarized below for each area.

## Area 1 – PCB/PAH/VOC Soils Area

In accordance with the NYSDEC-approved *PCB/PAH/VOCs Soils Area Excavation Plan* (OBG, 1995a) dated March 1995, unsaturated soils exhibiting concentrations of PAHs, PCBs, and VOCs above remedial action objectives (RAOs) in the northwest area of the Site were excavated during September and October 1995. After excavating approximately 600 cubic yards (cy) of soil, grab samples were collected from the excavations and analyzed for PAHs, VOCs, and PCBs to evaluate if further action was required. Based on the results of the sampling and analyses, it was concluded that the unsaturated soils containing PAHs, PCBs, and VOCs above the RAOs had been removed to the extent practicable.

In 1997, approximately 350 cy of the 600 cy of excavated soil was removed from the Site and transported to the ESMI facility in Fort Edward, New York for low temperature thermal destruction and subsequent off-Site disposal. The remaining 250 cy of soil was mechanically processed on-Site to enhance volatilization of VOCs in accordance with the Amended ROD issued in October 1997 (NYSDEC, 1997).



In April 1998, following analyses that indicated that the RAOs had been achieved, the 250 cy of mechanically processed soils were spread on-Site in the Corrective Action Management Unit (CAMU) (Area 1) identified in the Amended ROD (**Figure 1**). In accordance with the NYSDEC requirements, approximately 1 foot of general fill, topsoil, and grass seed was placed on top of the processed soils.

Pursuant to an ESD Notice dated October 1998 (NYSDEC, 1998a), a groundwater collection trench was then constructed to intercept groundwater (if any) containing VOCs present in the sand lenses observed in Area 1. Construction plans (OBG, 1998) for the installation of a groundwater interceptor trench in Area 1 were submitted to the NYSDEC for review in August 1998 and approved by a letter dated October 7, 1998 (NYSDEC, 1998b). Construction of the trench was completed in July 1999 following the placement of approximately 300 cy of soil, excavated during construction of the interceptor trench, into the CAMU as approved by the NYSDEC by the letter dated July 14, 1999 (NYSDEC, 1999). The location of the collection trench is shown on **Figure 1**. Collected groundwater is treated at the existing on-Site treatment system.

## Area 2 – Northeast Corner of Facility

In accordance with the NYSDEC-approved *IRM Work Plan* dated May 1994 (OBG, 1994a), the area outside the northeast corner of the facility was addressed as part of an IRM between May 24 and June 22, 1994. During that period, soils exhibiting TCE above the RAO of 0.7 milligrams per kilogram (mg/kg) were removed to the extent practicable. Afterwards, the soil was mechanically processed on-Site to enhance volatilization of the VOCs until residual levels were documented to be below the RAOs. Following achievement of the RAOs, the soils were used to backfill the excavation. A description of the soil remediation activities completed in this area is provided in the NYSDEC-approved *Soil Remediation Activities Summary Report* dated October 1994 (OBG, 1994b).

## <u> Area 3 – Overburden Groundwater</u>

In accordance with the NYSDEC-approved *IRM Work Plan* (OBG, 1994a) and as part of the IRM which addressed the soils outside the northeast corner of the facility (Area 2), a groundwater collection sump was constructed within the excavation (S-1 on **Figure 1**). The sump extends to the clay layer that was found to be present at the base of the excavation made during the soil remediation activities. This sump is being utilized as one of the groundwater recovery points for the groundwater recovery and treatment system constructed at the Site to address the shallow/overburden groundwater. However, the sump is typically dry as reported in the quarterly reports provided to the NYSDEC.

Also, an overburden recovery well designated as RW-1 (**Figure 1**) was constructed on-Site as part of the IRM. A 24-hour aquifer performance test was conducted using this recovery well on September 28 and 29, 1994 to evaluate the overburden aquifer characteristics and to assess the influence of pumping on the overburden aquifer. The results of the performance test are provided in the NYSDEC-approved *Basis of Design Report* for the System dated December 1994 (OBG, 1994c). This recovery well is being utilized to collect groundwater containing TCE in the overburden aquifer downgradient of the northeast corner of the facility.

Recovery and treatment of overburden groundwater using the sump and RW-1 has been ongoing since February 5, 1996 and is continuing.



## Area 4 – Shallow Bedrock Groundwater

A second groundwater recovery well, designated as RW-2, is being utilized on-Site to recover groundwater containing VOCs from the shallow bedrock in the vicinity of the northeast corner of the facility (**Figure 1**). This well was installed between September 5 and 18, 1995, in accordance with the NYSDEC-approved *Remedial Design/Remedial Action (RD/RA) Work Plan* dated March 1995 (OBG, 1995b) and the letter from OBG dated May 26, 1995 (OBG, 1995c), as amended on July 17, 1995 (OBG, 1995e). An aquifer performance test was conducted using this recovery well between November 7 and 13, 1995. The results of the performance test were provided to the NYSDEC in a letter report dated January 12, 1996 (OBG, 1996).

Recovery and treatment of shallow bedrock groundwater using RW-2 was initiated on February 5, 1996 and is continuing.

## <u> Area 5 – Septic Tank</u>

During 1995, the septic tank was uncovered, and the contents were removed and disposed of at an off-Site NYSDEC-approved landfill in accordance with the NYSDEC-approved *Remedial Design/Remedial Action Work Plan* dated March 1995 (OBG, 1995b). Once the contents were removed, the walls of the septic tank were cleaned using a pressure-washer as approved by the NYSDEC. The spent washing liquid was collected and treated on-Site using the groundwater treatment system. Subsequent to decontaminating the floor and walls of the septic tank, the concrete vault was filled and buried, completing remediation of this area.

A *Final Engineering Report* (FER) (O'Brien & Gere Engineers, Inc. [OBG], 2000) was provided to the NYSDEC in March 2000 certifying and documenting that the remedial actions to address the five areas as proposed in the design documents prepared by OBG and approved by NYSDEC were completed in accordance with those documents and NYSDEC-approved modifications thereto. The FER also indicated that groundwater collection and treatment will continue until volatile organic compound (VOC) levels in the groundwater are below NYSDEC groundwater quality standards, or until such a time that asymptotic levels have been achieved and further reduction in VOC levels in groundwater is not practicable.

An *On-Site Soil Vapor Sampling Work Plan* (OBG, 2006a) and a letter revision (OBG, 2006b) were subsequently submitted to the NYSDEC on February 13, 2006 and February 16, 2006, respectively. The results of the on-Site sampling were reported to NYSDEC in a Technical Memorandum (TM) dated September 18, 2006 (OBG, 2006c). A soil vapor mitigation system for the on-Site building was recommended but due to the changing occupancy and probable Site redevelopment, NYSDEC allowed the mitigation system installation to be deferred until such changes were designed. The on-Site building is currently unoccupied, and soil vapor mitigation is pending Site/building redevelopment or reoccupancy.

Based on the results of the on-Site investigation, off-Site vapor intrusion sampling was also recommended as indicated in the technical memorandum titled *Vapor Intrusion Evaluation Results* (OBG, 2006c). The final work plan for conducting off-Site sampling was submitted to NYSDEC on February 23, 2007 (OBG, 2007). The off-Site sampling was conducted in two phases. Phase I was conducted in March and April 2007 (2006/2007 heating season) and repeated at some off-Site properties during the 2007/2008, 2008/2009 and 2009/2010 heating seasons. Phase II was conducted at other off-Site properties between February and April 2008 (2007/2008 heating season). Based on the results of the off-site sampling, vapor intrusion mitigation systems were recommended at six off-Site properties and have been installed at five of these six properties. The analytical results of the sampling at the sixth property resulted in a No Further Action (NFA) determination based on the guidance tables contained in *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*; and



the updated Soil Vapor/Indoor Air Matrices (New York State Department of Health [NYSDOH], 2006/2017). However, because the properties on either side of the sixth property had analytical results requiring action based on the guidance tables, the NYSDEC and NYSDOH required that a vapor intrusion mitigation system be offered to the sixth property owner. A letter to the property owner dated July 14, 2007 stated this, but the sixth property owner declined to have a system installed at their property. An *Operation and Maintenance Plan for Off-Site Vapor Intrusion Mitigation Systems* (OBG, 2009) was approved by NYSDEC and is currently being followed.

## **Current Status**

On June 4, 2014, the NYSDEC changed the classification of the Site from a Class 2 site (meaning one presenting significant threat to the public health or environment – action required) to a Class 4 site (meaning one where the site is properly closed – requires continued management). The Site is presently unoccupied.

On June 2, 2015, NYSDEC provided ITT with a Letter Notification, per the Order, Paragraph XIII.K.3, that ITT has satisfied its on-Site remedial requirements, including the on-Site Operation, Maintenance and Monitoring Requirements at the Site; however, the Order still remains in effect for off-Site obligations and requirements.

As described above, the NYSDEC provided notice to FOUBU that its BCP application was accepted, and a Brownfield Site Cleanup Agreement Index C734052-03-15 with FOUBU ("Applicant") was executed on June 1, 2015. Pursuant to the requirements of the BCP, FOUBU prepared and submitted a Remedial Investigation Work Plan to NYSDEC, implemented the Remedial Investigation, and submitted a Remedial Investigation Report to NYSDEC. FOUBU is currently awaiting NYSDEC acceptance of the Remedial Investigation Report.

FOUBU plans to redevelop the Site as a "Volunteer" under the BCP. However, at present, redevelopment under the BCP is pending redevelopment plan approvals from the Village of Fayetteville.

# III. Evaluation of Remedy Performance, Effectiveness, and Protectiveness

## **On-Site Groundwater Recovery and Treatment System**

A record of the groundwater elevations measured prior to and since operation of the groundwater recovery and treatment system began is provided in **Table 1**. **Figures 2, 3, and 4** depict the October 2019, 2020, and 2021 overburden groundwater elevation contours, respectively. **Figures 5, 6, and 7** depict the October 2019, 2020, and 2021 bedrock groundwater elevations, respectively.

- As indicated on **Figures 2, 3, and 4**, groundwater flow in the overburden is generally to the northeast towards Bishop Brook under a hydraulic gradient of approximately 0.04 feet per foot (ft/ft).
- As indicated on **Figures 5, 6, and 7**, bedrock groundwater flow potential is to the northwest towards Bishop Brook under a hydraulic gradient of approximately 0.04 ft/ft.

**Tables 2 and 3** provide a summary of groundwater quality for contaminants of concern, namely TCE, cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), tetrachloroethene (PCE), and toluene. **Figures 8, 9, and through 10** depict the October 2019, 2020, and 2021 TCE concentrations in the overburden groundwater respectively. **Figures 11, 12, and 13** depict the October 2019, 2020, and 2021 bedrock groundwater, respectively. There are three areas on-Site where TCE concentrations are notable.



- One area, below the existing building, is evidenced by monitoring wells MW-13 and MW-14 which exhibited TCE concentrations ranging from 150 micrograms per liter ( $\mu$ g/L) (MW-14 in October 2021) to 260  $\mu$ g/L (MW-13 in October 2019).
- Another area is evidenced by monitoring well MW-17 which exhibited a TCE concentration ranging from 100  $\mu$ g/L (October 2021) to 180  $\mu$ g/L (October 2019).
- The third area is evidenced by monitoring wells MW-18 and MW-24, which exhibited TCE concentrations ranging from 290 μg/L (MW-24 in October 2019) to 1400 μg/L (MW-18 in October 2020 and 2021).

Presented as part of **Attachment 2** are graphs depicting the trend of TCE concentrations observed in the fifteen monitoring wells and two piezometers including MW-5, MW-6, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, MW-17, MW-18, MW-21, MW-22, MW-24, PZ-1, and PZ-2.

## **Off-Site Vapor Intrusion Mitigation Systems**

Maintenance activities have been performed in accordance with the NYSDEC-approved *Operation and Maintenance Plan for Off-Site Vapor Intrusion Mitigation Systems* (OBG, 2009) and included conducting annual inspections of the systems and submitting annual communication letters to applicable property owners.

# IV. Institutional Control/Engineering Control Compliance Report

Excavating on-Site in the CAMU (Area 1) is not allowed, nor is construction of groundwater recovery wells for consumption or production use. The Site owner filed a Declaration of Covenants and Restrictions (deed restrictions), as required by the NYSDEC, on May 15, 2014 that prohibits the disturbance or excavation of the Property which threatens the integrity of the engineering controls, or which results in unacceptable human exposure to contaminated soils and prohibits use of on-Site groundwater. Also, the deed restrictions filed by the current Site owner require evaluation of the potential for soil vapor intrusion by the Site owner should the on-Site building become occupied and for any buildings developed on the Site.

# V. Monitoring Plan Compliance Report

Groundwater samples have been collected and analyzed for VOCs since 1998 in accordance with the NYSDEC-approved *Sampling and Analysis Plan* (SAP) dated March 1996 (OBG, 1996). Presently, the NYSDEC requires sampling of select monitoring wells on two occasions each year, during the spring and fall, and analyses for VOCs.

- For the Spring monitoring event, also referred to as the semi-annual event, the NYSDEC presently requires samples to be collected from five monitoring wells including MW-10, MW-11, MW-13, MW-18, and MW-24.
- For the Fall (or annual) event, the NYSDEC presently requires samples to be collected from fifteen monitoring wells and two piezometers including MW-5, MW-6, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15B, MW-16B, MW-17, MW-18, MW-21, MW-22, MW-24, PZ-1, and PZ-2.

TCE is the primary contaminant of concern, although other chlorinated compounds (cis-1,2-DCE, trans-1,2-DCE, and PCE) have been occasionally detected. The results of the spring and fall semiannual groundwater monitoring events are provided to the NYSDEC in quarterly reports and PRRs.



# VI. Operation and Maintenance Plan Compliance Report

In accordance with the 1994 ROD, the groundwater recovery and treatment system (the "System") was constructed on-Site and has been in operation since February 5, 1996. The System includes groundwater recovery well RW-1 that is screened in the overburden and groundwater recovery well RW-2 that is screened in the shallow bedrock (**Figure 1**). Groundwater is also recovered, when present, from the:

- Sump constructed outside the northeast corner of the facility (Area 2) where during 1994 the soil contaminated with TCE was removed and treated as part of an IRM (**Figure 1**); and
- 300 ft long groundwater interceptor trench (Area 1) constructed in accordance with the ESD dated October 1998 downgradient of the CAMU (**Figure 1**).

Recovered groundwater is first discharged to an influent equalization tank and then pumped through bag filters and two granular activated carbon (GAC) filters connected in series. On a monthly basis, samples of water are collected both between and prior to the GAC filters to gauge system performance. The treated effluent from the System is discharged to the rip-rap lined bank of Bishop Brook (**Figure 1**) and monitored in accordance with the State Pollution Discharge Elimination System (SPDES) fact sheet issued by the NYSDEC (NYSDEC, 1997). The results of monitoring performed in accordance with the SPDES fact sheet are presently required to be submitted to NYSDEC on a quarterly basis. The quarterly submittals are not provided herein due to file size. As indicated in the quarterly groundwater treatment plant operation reports, the system effluent complies with the SPDES permit requirements.

**Table 4** provides a summary of the volume of groundwater recovered each year since operation of the System was initiated on February 5, 1996. The table identifies the average flow rate for each year calculated by taking the volume of groundwater recovered for a particular year, dividing it by the number of days in the period, and dividing it by the number of minutes in a day. **Attachment 3** provides a graph depicting the annualized average flow rates and trends.

The shallow bedrock groundwater recovery well RW-2 has recovered an average flow of 6.5 gallons per minute (gpm) between January 1, 2019 and December 31, 2019, 5.6 gallons per minute (gpm) between January 1, 2020 and December 31, 2020, and 5.7 gallons per minute (gpm) between January 1, 2021 and December 31, 2021. The average flow rate for the 25 years of system operation is approximately 5 gpm.

The annual average flow rate from recovery well RW-1 has been more variable. The highest annual average flow for RW-1 was calculated to be 14 gpm for 1996, the year operation of the groundwater recovery and treatment system was initiated. Between 1996 and 2005 the annual average flow for RW-1 declined steadily to an annual average flow rate of 2.4 gpm. Between 2006 and 2012 the annual average flow rate ranged between 2.3 gpm and 5 gpm, averaging 3.7 gpm over this six year period. Since 2012, the RW-1 flow rate has an annual average flow ranging between 1.2 and 2.3 gpm, averaging 1.5 gpm over this ten year period to present.

**Table 5** provides a summary of the influent concentrations of TCE to the groundwater treatment system. **Attachment 4** provides a graph depicting the concentrations of TCE influent to the groundwater treatment system over time. As shown on the graph in **Attachment 4**, between 1997 and 2003 the TCE concentrations fluctuated, ranging between 350  $\mu$ g/L and 2,300  $\mu$ g/L. A decreasing trend with considerably less fluctuation is observed after 2003.



Maintenance to the groundwater treatment system was performed between January 1, 2019 and December 31, 2021, and is summarized as follows:

- The carbon in granular activated carbon filter GAC#1 was replaced on January 10, 2019 and afterward filter GAC#1 was placed into lag service and GAC#2 placed into lead service.
- The groundwater recovery system was temporarily shut-down on February 13, 2019 for installation of new flow meters and a new pH meter. The system was restarted on February 13, 2019.
- The diffuser in the lead granular activated carbon (GAC) unit was cleaned on May 30, 2019, and the bag filters were changed-out.
- The carbon in granular activated carbon filter GAC#2 was replaced on July 11, 2019 and afterward filter GAC#2 was placed into lag service and GAC#1 placed into lead service.
- The carbon in granular activated carbon filter GAC#1 was replaced on January 15, 2020 and afterward filter GAC#2 was placed into lead service and GAC#1 placed into lag service.
- The carbon in granular activated carbon filter GAC#2 was replaced on May 18, 2020 and afterward, filter GAC#1 was placed into lead service and GAC#2 was placed onto lag service.
- On August 12, 2020, the groundwater treatment system was shut down due to a failure of the transfer pump between the groundwater holding tank and the granulated activated carbon (GAC) vessels. The transfer pump was replaced on August 24, 2020 and the system was restarted that day.
- The carbon in granular activated carbon filter GAC#1 was replaced on June 23, 2021 and afterward, filter GAC#2 was placed into lead service and GAC#1 was placed into lag service.
- In preparation for replacement of the carbon media, the granular activated carbon filter GAC#2 was drained on December 6, 2021. The carbon in granular activated carbon filter GAC#2 was replaced on December 8, 2021, and afterward, filter GAC#1 was placed into lead service and GAC#2 was placed into lag service.

# **VII. Conclusions and Recommendations**

The remedial actions completed between 1995 and 1999 to address the five Areas identified in the December 1994 ROD have been maintained as required by the Order on Consent. As presented in Section III above, the results of monitoring conducted at the Site indicate that progress is being made toward meeting the remedial objectives established by the 1994 ROD. However, it is likely that the concentration of several VOCs may remain above the Class GA drinking water standards in impacted overburden groundwater and bedrock groundwater for an indefinite period. There are no changes recommended presently for operation of the groundwater recovery system.

Deed restrictions were filed on May 15, 2014 by the Site owner that prohibit use of on-Site groundwater and requires future actions by the Site owner should the Site be occupied or redeveloped. A letter from the Site owner certifying that the deed restrictions remain in place is provided as **Attachment 5**.

On June 4, 2014, the NYSDEC changed the classification of the Site from Class 2 to Class 4.

Operation and maintenance activities associated with the off-Site vapor intrusion mitigation systems will continue in accordance with the NYSDEC-approved O&M Plan (OBG, 2009).



If you have questions regarding this PRR, please do not hesitate to contact David Carnevale, Eric Gernant, or me on behalf of Ramboll.

Yours sincerely

lacingles Mc Grand . uglas M. Crawford, PE Douglas M. Crawford, PE

Vice President ENVIRONMENT & HEALTH, AMERICAS

D 315-956-6442 M 315-200-5204 doug.crawford@ramboll.com

cc:

- G. Priscott NYSDEC
- E. O'Neil NYSDOH
- S. McLaughlin NYSDOH
- T. Slutzky FOUBU
- J. Stanek ITT Inc.
- E. Gernant Ramboll
- D. Carnevale Ramboll

## Tables

- 1. Groundwater Elevation Summary
- 2. Groundwater Trichloroethene Concentrations
- 3. Other Detected Volatile Organic Compounds
- 4. Summary of Recovered Groundwater Volumes
- 5. Summary of Influent Trichloroethene Concentrations

## Figures

- 1. Site Plan
- 2. Overburden Groundwater Elevation (10/22/2019)
- 3. Overburden Groundwater Elevation (10/22/2020)
- 4. Overburden Groundwater Elevation (10/22/2021)
- 5. Bedrock Groundwater Elevation (10/22/2019)
- 6. Bedrock Groundwater Elevation (10/22/2020)
- 7. Bedrock Groundwater Elevation (10/22/2021)
- 8. Overburden TCE Concentration (10/22/2019)
- 9. Overburden TCE Concentration (10/22/2020)
- 10. Overburden TCE Concentration (10/22/2021)
- 11. Bedrock TCE Concentration (10/22/2019)
- 12. Bedrock TCE Concentration (10/22/2020)
- 13. Bedrock TCE Concentration (10/22/2021)

## Attachments

- 1. Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form
- 2. Monitoring Well TCE Concentration Trend Graphs
- 3. Annual Average Flow Rate Trends
- 4. Groundwater Treatment System Influent TCE Concentration Trend Graph
- 5. Certification letter from FOUBU Environmental Services, LLC regarding deed restrictions



## References

NYSDEC, 1994 – Record of Decision for Former Accurate Die Casting Site, Fayetteville, New York, Site Number7-34-052, December 1994.

NYSDEC, 1997 – Record of Decision Amendment for Former Accurate Die Casting Site, Fayetteville, New York, Site Number 7-34-052, October 1997.

NYSDEC, 1998a – *Explanation of Significant Differences, Former Accurate Die Casting Site, Fayetteville, New York, Site Number7-34-052,* October 1998.

NYSDEC, 1998b – October 7, 1998 letter from NYSDEC to O'Brien & Gere Engineers, Inc. regarding approval of groundwater interceptor trench construction plans.

NYSDEC, 1999 – July 14, 1999 letter from NYSDEC to O'Brien & Gere Engineers, Inc. regarding establishment of a Corrective Action Management Unit (CAMU) on Site.

NYSDEC, 2003 – January 28, 2003 letter from NYSDEC to O'Brien & Gere Engineers, Inc. regarding proposed reclassification of the Site from Class 2 to Class 4.

NYSDEC, 2005 – August 19, 2005 letter from NYSDEC to O'Brien & Gere Engineers, Inc. requesting performance of a soil vapor intrusion evaluation for the Accurate Die Casting Site, Site Number7-34-052.

NYSDOH, 2006/2017. Guidance for Evaluating Soil Vapor Intrusion in the State of New York; and updated Soil Vapor/Indoor Air Matrices, May 2017. Center for Environmental Health, Bureau of Environmental Exposure Investigation. May 2017.

OBG, 1994a - Interim Remedial Measure (IRM) Soil Excavation Work Plan, May 1994.

OBG, 1994b - Interim Remedial Measure Summary Report, October 1994.

OBG, 1994c - Groundwater Recovery and Treatment System Basis of Design Report, December 1994.

- OBG, 1995a PCB/PAH/VOC Soils Excavation Work Plan, February 1995.
- OBG, 1995b Remedial Design/Remedial Action (RD/RA) Work Plan, March 1995.
- OBG, 1995c May 26, 1995 letter from O'Brien & Gere Engineers, Inc. to NYSDEC.
- OBG, 1995d PCB/PAH/VOC Soils Area Excavation Plan, June 1995.
- OBG, 1995e July 17, 1995 letter from O'Brien & Gere Engineers, Inc. to NYSDEC.

OBG, 1996 – Sampling and Analysis Plan, March 1996.

OPBG, 1998 – August 1998 letter from O'Brien & Gere Engineers, Inc. to NYSDEC regarding construction plans for groundwater interceptor trench.

OBG, 2000 – Final Engineering Report, March 2000.



OBG, 2005 – September 21, 2005 letter from O'Brien & Gere Engineers, Inc. to NYSDEC agreeing to conduct a soil vapor intrusion evaluation at the former Accurate Die Casting Site, Site Number7-34-052.

OBG, 2006a – On-Site Soil Vapor Sampling Work Plan, February 2006.

OBG, 2006b – February 16, 2006 letter from O'Brien & Gere Engineers, Inc. to NYSDEC regarding revision of *On-Site Soil Vapor Sampling Work Plan*.

OBG, 2006c – September 18, 2006 technical memorandum from O'Brien & Gere Engineers, Inc. to NYSDEC presenting results of the on-Site soil vapor sampling.

OBG, 2007 – Final Work Plan for Conduct of Off-Site Sampling, February 2007.

OBG, 2009 – Operation and Maintenance Work Plan, November 2009.

OBG, Part of Ramboll, 2019. *Remedial Investigation Work Plan*, Former Accurate Die Casting Site, Fayetteville, NY, May 2019.

Ramboll, 2021. *Remedial Investigation Report*, Former Accurate Die Casting Site, Fayetteville, NY September 2021.

Stearns & Wheler, 1993 – *Remedial Investigation Report*, December 1993.



**TABLES** 



TABLE 1

**GROUNDWATER ELEVATION SUMMARY** 



				Groundwater									
	Ground	Well Casing	Screen Interval	Elevation (ft)									
Well ID	Elevation (ft)	Elevation (ft)	Elevation (ft)	5/28/1992	6/26/1992	8/7/1992	9/26/1994	9/27/1994	10/18/1994	11/2/1994	11/17/1994	11/30/1994	12/15/1994
MW-01	99.36	101.11	75.4 - 85.4	DRY	DRY	79.69			DRY				
MW-02	91.8	94.68	76.6 - 86.6	83.21	82.81	84.32	83.1	83.28	80.12				
MW-03	97.65	99.63	73.7 - 83.7	80.44		81.63							
MW-04	65.62	68.52	46.6 - 56.6	51.08	49.95	50.81	47.22	52.21	46.79				
MW-05	88.21	90.42	49.2 - 59.2	60.71	63.76	61.22	59.87	59.91	59.45				
MW-06	77.46	79.38	46.4 - 56.4	60.5	60.49	60.46	59.51	59.52	59.05				
MW-07 (B)	75.66	78.34	34.3 - 44.3	54.59	54.55	54.47	53.9	53.97	53.55				
MW-08	88.21	91.78	53.9 - 63.9	66.38	66.38	66.83	61.59	61.65	60.99				
MW-09	102.44	104.03	49.7 - 59.7	60.46	60.51	61.83	59.57	59.59	59.08				
MW-10 (B)	97.51	97.27	43 - 53	61.15	61.99	61.69			56.02	55.07	55.19	54.94	55.19
MW-11 (B)	91.48	93.8	43.1 - 53.1	62.34	63.7	63.66	58.41	58.39	57.47		56.68	55.59	56.63
MW-12	93.62	94.14	51.9 - 61.9	62.24	60.74	62.77	59.77	59.79	59.31				
MW-13	98.8	98.7	77.7 - 87.7	DRY	80.62	80.92			78.7	82.92	78.21	78.21	80.92
MW-14	98.76	100.62	74.6 - 84.6	75.11	79.07	81.54			86.18	80.12	80.54	80.54	80.2
MW-15 (B)	96.1	98.9	32.7 - 42.7						53.47				
MW-16 (B)	98.5	100.85	50.8 - 60.8						61.67				
MW-17	66.9	69.24	53.7 - 63.7				54.61	54.61	54.08				
MW-18	76.5	78.29	61.5 - 71.5										
MW-19	69.5	71.27	46.5 - 56.5										
MW-20	70.98	73.34	51.9 - 61.9										
MW-21	69.9	71.87	59.5 - 64.5										
MW-22	71.5	73.34	60.9 - 65.9										
MW-23 (B)	89.8	91.72	17.3 - 22.3										
MW-24*			-										
PZ-01	81.8	83.95	49.8 - 59.8				59.56	59.57	59.1				
PZ-02	80.6	83.06	42.8 - 52.8				59.35	59.36	58.89				
RW-01**	78.4	80.28	29.4 - 39.4, 45.4 - 50.4				56.88	56.89	58.22				
RW-02 (B)	91.58	95.18	-										
SUMP		97.93	-							76.04	74.83	75	75.17

Notes:

--- Water level not monitored, (B)-Bedrock groundwater monitoring well,



				Groundwater									
	Ground	Well Casing	Screen Interval	Elevation (ft)									
Well ID	Elevation (ft)	Elevation (ft)	Elevation (ft)	12/27/1994	1/13/1995	1/25/1995	2/9/1995	2/23/1995	3/9/1995	4/26/1995	7/25/1995	10/17/1995	2/5/1996
MW-01	99.36	101.11	75.4 - 85.4							DRY	DRY	DRY	77.06
MW-02	91.8	94.68	76.6 - 86.6							83.28	82.42	84.22	84.04
MW-03	97.65	99.63	73.7 - 83.7										
MW-04	65.62	68.52	46.6 - 56.6							51.44	45.94		53.6
MW-05	88.21	90.42	49.2 - 59.2							60.34	58.78		61.26
MW-06	77.46	79.38	46.4 - 56.4								58.52	58.1	60.86
MW-07 (B)	75.66	78.34	34.3 - 44.3							54.51	53.27	52.71	55.16
MW-08	88.21	91.78	53.9 - 63.9							63.41	59.82	60.76	66.61
MW-09	102.44	104.03	49.7 - 59.7							60.1	58.56	58.16	60.95
MW-10 (B)	97.51	97.27	43 - 53	55.02	54.94	54.95	54.52	54.36	55.02	57.49	54.6	54.61	62
MW-11 (B)	91.48	93.8	43.1 - 53.1	56.55	55.63	55.63	56.13	55.63	56.55	58.86	55.72	55.31	62.63
MW-12	93.62	94.14	51.9 - 61.9							60.3	58.76	58.35	61.11
MW-13	98.8	98.7	77.7 - 87.7	78.34	78.25	77.83	77.84	77.75	77.67	DRY	DRY	DRY	
MW-14	98.76	100.62	74.6 - 84.6	80.54	80.62	80.45	78.95	79.54	80.12	80.61	80.61	80.72	79.91
MW-15 (B)	96.1	98.9	32.7 - 42.7							54.71	51.6	50.47	59.24
MW-16 (B)	98.5	100.85	50.8 - 60.8							63.86	59.41	58.06	67.14
MW-17	66.9	69.24	53.7 - 63.7							59.02	57.71	DRY	60.29
MW-18	76.5	78.29	61.5 - 71.5										
MW-19	69.5	71.27	46.5 - 56.5										
MW-20	70.98	73.34	51.9 - 61.9										
MW-21	69.9	71.87	59.5 - 64.5										
MW-22	71.5	73.34	60.9 - 65.9										
MW-23 (B)	89.8	91.72	17.3 - 22.3										
MW-24*			-										
PZ-01	81.8	83.95	49.8 - 59.8								58.58	58.16	60.92
PZ-02	80.6	83.06	42.8 - 52.8							59.88	58.37	57.97	60.7
RW-01**	78.4	80.28	29.4 - 39.4, 45.4 - 50.4							59.14	57.6	57.11	59.64
RW-02 (B)	91.58	95.18	-									56.05	63.8
SUMP		97.93	-	74.83	75	75	74.88	75	78	75.09	75.25	76.94	74.67

Notes:

--- Water level not monitored, (B)-Bedrock groundwater monitoring well,



				Groundwater									
	Ground	Well Casing	Screen Interval	Elevation (ft)									
Well ID	Elevation (ft)	Elevation (ft)	Elevation (ft)	2/7/1996	2/15/1996	2/16/1996	2/20/1996	2/22/1996	2/29/1996	3/7/1996	3/21/1996	4/4/1996	4/10/1996
MW-01	99.36	101.11	75.4 - 85.4	76.64	75.3	DRY	DRY	DRY	75.36	75.17	77.34	DRY	DRY
MW-02	91.8	94.68	76.6 - 86.6	83.87	83.41	83.34	83.15	83.32	83.67	83.5	84.24	83.68	83.68
MW-03	97.65	99.63	73.7 - 83.7										
MW-04	65.62	68.52	46.6 - 56.6	52.06	55.39	54.43	52.46	60.37	58.14	55.1	59.26	52.66	54.43
MW-05	88.21	90.42	49.2 - 59.2		60.8	60.73	60.5	60.4	60.14	59.73	58.85	58.32	58.14
MW-06	77.46	79.38	46.4 - 56.4	60.44	60.41	60.11	59.8	59.75	59.45	58.96	58.02	57.48	57.28
MW-07 (B)	75.66	78.34	34.3 - 44.3	54.67	55.03	54.52	54.45	54.58	54.46	54.32	54.29	54.17	54.15
MW-08	88.21	91.78	53.9 - 63.9	66.4	65.93	65.84	65.47	65.42	65.12	64.68	64.76	64.1	63.83
MW-09	102.44	104.03	49.7 - 59.7	60.7	60.48	60.35			59.71	59.22	58.3	57.78	57.59
MW-10 (B)	97.51	97.27	43 - 53	59.88	62.11	60.42	59.96	59.91	59.64	59.43	59.07	58.81	58.72
MW-11 (B)	91.48	93.8	43.1 - 53.1	60.37	62.67	60.88	60.35	60.29	59.99	59.78	59.38	59.1	59.01
MW-12	93.62	94.14	51.9 - 61.9	60.83	60.65	60.5	60.21	60.16	59.86	59.37	58.44	57.93	57.74
MW-13	98.8	98.7	77.7 - 87.7	79.98	79.91	79.9	79.88	79.87	79.86	79.77	79.68	79.6	79.57
MW-14	98.76	100.62	74.6 - 84.6		80.28	80.29	80.35	80.38	80.44	80.45	80.49	80.52	80.55
MW-15 (B)	96.1	98.9	32.7 - 42.7	59.37	59.79	59.63	59.56	59.56	59.46	59.4	59.14	59.07	59.04
MW-16 (B)	98.5	100.85	50.8 - 60.8	67.17	66.9	66.79	66.57	66.52	66.39	66.17	65.99	65.99	65.9
MW-17	66.9	69.24	53.7 - 63.7	60.17	59.75	59.7	59.52	59.64	59.42	59.28	59.3	59.27	59.14
MW-18	76.5	78.29	61.5 - 71.5										
MW-19	69.5	71.27	46.5 - 56.5										
MW-20	70.98	73.34	51.9 - 61.9										
MW-21	69.9	71.87	59.5 - 64.5										
MW-22	71.5	73.34	60.9 - 65.9										
MW-23 (B)	89.8	91.72	17.3 - 22.3										
MW-24*			-										
PZ-01	81.8	83.95	49.8 - 59.8	60.61	60.46	60.28	59.99	59.93	59.63	59.14	58.21	57.67	57.47
PZ-02	80.6	83.06	42.8 - 52.8	60.3	60.26	59.97	59.66	59.61	59.33	58.83	57.9	57.39	57.19
RW-01**	78.4	80.28	29.4 - 39.4, 45.4 - 50.4	55.04	59.22	54.71	54.4	54.35	54.05	53.58	52.76	52.24	52.03
RW-02 (B)	91.58	95.18	-	59.98	63.83	60.67		59.97	59.63	59.41	58.95	58.63	58.52
SUMP		97.93	-	74.68	74.64	74.63	74.63	75.3	74.9	74.65	74.87	74.69	74.99

Notes:

--- Water level not monitored, (B)-Bedrock groundwater monitoring well,



				Groundwater									
	Ground	Well Casing	Screen Interval	Elevation (ft)									
Well ID	Elevation (ft)	Elevation (ft)	Elevation (ft)	4/18/1996	5/2/1996	6/6/1996	7/16/1996	9/5/1996	10/21/1996	11/19/1996	1/16/1997	2/4/1997	4/15/1997
MW-01	99.36	101.11	75.4 - 85.4	DRY	77.73	DRY	DRY	DRY	DRY	76.6	75.15		75.64
MW-02	91.8	94.68	76.6 - 86.6	84.86	85.35	83.17	83.32	82.57	83.18	84.22	83.56		83.81
MW-03	97.65	99.63	73.7 - 83.7										
MW-04	65.62	68.52	46.6 - 56.6	60.28	59.7	51.63	52.45	DRY	55.91	55.91	53.12		
MW-05	88.21	90.42	49.2 - 59.2	58.2	58.71	60.54	58.98	56.33	55.4	56.49	59.15		59.83
MW-06	77.46	79.38	46.4 - 56.4	57.41	58.17	59.91	58.13	54.95	53.71	55.61	58.39		59.34
MW-07 (B)	75.66	78.34	34.3 - 44.3	54.32	54.75	55.02	53.95	52.44	51.22	52.68	54.28		54.7
MW-08	88.21	91.78	53.9 - 63.9	64.08	65.43	67.07	64.5	59.05	59.56	63.61	64.67		65.15
MW-09	102.44	104.03	49.7 - 59.7	57.73	58.46	60.18	58.38	55.38	54.24	56.64	58.65		59.6
MW-10 (B)	97.51	97.27	43 - 53	58.61	59.72	62.25	59.11	53.88		54.95	59.61		58.11
MW-11 (B)	91.48	93.8	43.1 - 53.1	58.94	60.35	62.68	59.53	54.72	52.88	55.85	60.15		58.59
MW-12	93.62	94.14	51.9 - 61.9	57.86	58.59	60.33	58.54	55.48	54.3	56.18	58.81		59.72
MW-13	98.8	98.7	77.7 - 87.7	79.52	79.44	79.28	79.35	79.15	79.07	80.68	80.49		80.33
MW-14	98.76	100.62	74.6 - 84.6	78.14	79.29	80.56	80.66	80.59	80.61		80.59		80.53
MW-15 (B)	96.1	98.9	32.7 - 42.7	58.84	59.87	62.62	59.24	54.83	51.58	51.99	58.83		59.83
MW-16 (B)	98.5	100.85	50.8 - 60.8	65.84	67.02	68.4	65.57	63.31			66.13		66.89
MW-17	66.9	69.24	53.7 - 63.7	59.3	59.95	59.22	58.46	57.89	55.96	58.02	59.33		59.64
MW-18	76.5	78.29	61.5 - 71.5			72.95	72.32	70.81	70.77		73.31	72.78	73.6
MW-19	69.5	71.27	46.5 - 56.5			DRY							
MW-20	70.98	73.34	51.9 - 61.9			DRY	50.26	DRY	DRY	DRY	DRY		
MW-21	69.9	71.87	59.5 - 64.5									63.69	63.74
MW-22	71.5	73.34	60.9 - 65.9									63.69	67.92
MW-23 (B)	89.8	91.72	17.3 - 22.3										37.71
MW-24*			-										
PZ-01	81.8	83.95	49.8 - 59.8	57.6	58.34		58.31	55.13	53.9	55.83	58.57		59.51
PZ-02	80.6	83.06	42.8 - 52.8	57.3	58.04	59.77	57.97	54.9	53.53	55.25	58.23		59.13
RW-01**	78.4	80.28	29.4 - 39.4, 45.4 - 50.4	52.11	52.69	53.82	51.94	48.05	41.8	47.33	50.74		50.3
RW-02 (B)	91.58	95.18	-	58.41	59.63	62.56	59.14		42.02	55.39			55.69
SUMP		97.93	-	75.89	75.76	74.73	74.78	74.56	74.85	74.77	74.71		74.94

Notes:

--- Water level not monitored, (B)-Bedrock groundwater monitoring well,



				Groundwater									
	Ground	Well Casing	Screen Interval	Elevation (ft)									
Well ID	Elevation (ft)	Elevation (ft)	Elevation (ft)	7/8/1997	10/22/1997	1/29/1998	4/15/1998	10/20/1998	4/28/1999	10/19/1999	4/6/2000	11/7/2000	7/3/2001
MW-01	99.36	101.11	75.4 - 85.4	DRY	80.92	DRY	77.46						
MW-02	91.8	94.68	76.6 - 86.6		82.84	83.47	83.52	83.54	83.38	84.44	86.58		84.33
MW-03	97.65	99.63	73.7 - 83.7										
MW-04	65.62	68.52	46.6 - 56.6										
MW-05	88.21	90.42	49.2 - 59.2	59.16	58.34	60.86			59.91	55.35	60.52	59.83	60.92
MW-06	77.46	79.38	46.4 - 56.4	58.58	57.97	60.46	60.57	59.69	59.11	53.34	60.36	59.4	55.87
MW-07 (B)	75.66	78.34	34.3 - 44.3	52.93	50.63	52.9	53.82	51.76	54.57	51.73	54.87	DRY	53.34
MW-08	88.21	91.78	53.9 - 63.9	61.65	58.9	64.98	67.17	59.86	64.21	62.37	66.41	61.45	65.63
MW-09	102.44	104.03	49.7 - 59.7	58.76	58	60.51	60.56	59.71	59.68	54.25	60.62	59.42	60.51
MW-10 (B)	97.51	97.27	43 - 53	53.44	50.75	55.78		51.88	57.97	51.32	57.6	52.73	57.22
MW-11 (B)	91.48	93.8	43.1 - 53.1	55.2	52.5	56.75	61.73	53.98	58.36	53.31	59.39	54.66	59.15
MW-12	93.62	94.14	51.9 - 61.9	58.92	58.21	60.67	60.8	59.89	59.53	54.09	60.71	59.62	60.63
MW-13	98.8	98.7	77.7 - 87.7	79.84	79.53	78.87	78.67	78.31	78.08	80.75	80.89	80.53	79.95
MW-14	98.76	100.62	74.6 - 84.6	80.55	80.58	80.78	80.78	80.64	80.54	80.67	80.6	80.75	79.74
MW-15 (B)	96.1	98.9	32.7 - 42.7	56.63	50.48	56.34	62.1	52.58	58.94	50.95	58.81	54.32	58.98
MW-16 (B)	98.5	100.85	50.8 - 60.8	64.43	58.45	65.71	68.03	61.84	65.99	59.81	66.92	63.57	66.14
MW-17	66.9	69.24	53.7 - 63.7	58.33	DRY	59.7	59.51	57.93	58.76	57.47	60.28	58.33	58.55
MW-18	76.5	78.29	61.5 - 71.5	71.34	69.71	73.5	73.29	70.74	72.46	70.78	75.08	71.61	72.09
MW-19	69.5	71.27	46.5 - 56.5	DRY									
MW-20	70.98	73.34	51.9 - 61.9										
MW-21	69.9	71.87	59.5 - 64.5		62.93	63.82	63.54	63.23	63.31	62.69	64.42	62.59	62.53
MW-22	71.5	73.34	60.9 - 65.9	67.35	65.96	68.51	68.39	67.83	68.05	67.69	68.52	66.42	68.13
MW-23 (B)	89.8	91.72	17.3 - 22.3	35.61	32.29	34.95	37.95	33.57	36.76	32.48	36.69	33.97	36.21
MW-24*			-										
PZ-01	81.8	83.95	49.8 - 59.8	58.7	58.01	60.5	60.61	59.7	59.3	53.65	60.51	59.44	
PZ-02	80.6	83.06	42.8 - 52.8	58.34	57.65	60.22	60.34	59.46	59.03	52.71	60.17	59.16	
RW-01**	78.4	80.28	29.4 - 39.4, 45.4 - 50.4	43.34	42.03	43.13	32.6	32.36	54.69		50.73	40.88	
RW-02 (B)	91.58	95.18	-	44.07	42.89	52.74	59.94	44.33	56.74		54.52	42.86	
SUMP		97.93	-	75.01	74.75	74.89	74.96	75.2	75.26		78.49	74.91	75.33

Notes:

--- Water level not monitored, (B)-Bedrock groundwater monitoring well,



				Groundwater									
	Ground	Well Casing	Screen Interval	Elevation (ft)									
Well ID	Elevation (ft)	Elevation (ft)	Elevation (ft)	11/8/2001	4/3/2002	10/9/2002	12/28/2004	4/8/2005	5/8/2005	11/9/2005	4/21/2006	1/2/2007	11/29/2007
MW-01	99.36	101.11	75.4 - 85.4	76.87	77.42	101.11	76.7	80.09	80.09	78.27	78.66	76.7	80.03
MW-02	91.8	94.68	76.6 - 86.6	83.67	84.28	83.6	83.67	85.01	85.01	84.1	85.14	83.58	85.6
MW-03	97.65	99.63	73.7 - 83.7										
MW-04	65.62	68.52	46.6 - 56.6										
MW-05	88.21	90.42	49.2 - 59.2	60.1	60.8	58.42	60.79	61.76	61.76	60.82	60.88	60.65	61.62
MW-06	77.46	79.38	46.4 - 56.4	59.67	60.42	59.84	60.35	61.45	61.45	60.36	70.35	60.28	60.5
MW-07 (B)	75.66	78.34	34.3 - 44.3	51.92	53.59	52.34	54.11	55.35	55.35		54.59	54.04	52.96
MW-08	88.21	91.78	53.9 - 63.9	60.92	64.16	60.73	63.24	67.83	67.83	64.14	65.22	63.24	66.86
MW-09	102.44	104.03	49.7 - 59.7	59.68	60.47	59.85	60.36	61.54	61.54	60.4	60.36	60.36	60.55
MW-10 (B)	97.51	97.27	43 - 53	52.6	56.07	54.57	54.86	60.38	60.38	55.76	58.75	57.62	56.01
MW-11 (B)	91.48	93.8	43.1 - 53.1	54.73	57.19	54.77	56.54	60.89	60.89	56.05	58.84	57.81	55.72
MW-12	93.62	94.14	51.9 - 61.9	59.87	60.64		60.54	61.67	61.67	60.58	60.54	60.47	60.72
MW-13	98.8	98.7	77.7 - 87.7	80.1	78.65	79.62	83.48	80.04	80.04	80.6	79.8	79.44	78.68
MW-14	98.76	100.62	74.6 - 84.6	80.77	80.48	82.87	81.72	84.69	84.69	82.77	82.71	82.65	89.24
MW-15 (B)	96.1	98.9	32.7 - 42.7	53.52	59.03	54.4	57.78	61.53	61.53	55.87	59.87	59.26	54.35
MW-16 (B)	98.5	100.85	50.8 - 60.8	63.58	66.25	63.5	65.64	68.75	68.75	65.35	66.31	66.12	63.99
MW-17	66.9	69.24	53.7 - 63.7	58.02	59.24	57.58	58.91	60.79	60.79	58.91	58.77	59	58.46
MW-18	76.5	78.29	61.5 - 71.5	71.36	73.75	69.84	72.88	74.61	74.61	72.33	72.54	73.2	72.84
MW-19	69.5	71.27	46.5 - 56.5	DRY	DRY	DRY	DRY		DRY	DRY	DRY		DRY
MW-20	70.98	73.34	51.9 - 61.9										
MW-21	69.9	71.87	59.5 - 64.5	62.58	63.39	61.82	62.54	63.92	63.92	62.62	62.24	62.63	63.12
MW-22	71.5	73.34	60.9 - 65.9	68.15	68.71	67.24	63.41	68.65	68.65	68.68	68.3	68.59	68.94
MW-23 (B)	89.8	91.72	17.3 - 22.3	33.25	35.68	33.63	36.49	39.32	39.32	35.43	37.72	36.62	34.82
MW-24*			-										
PZ-01	81.8	83.95	49.8 - 59.8	59.7	60.45	59.87	60.4	61.48	61.48	60.38	60.37	60.35	60.53
PZ-02	80.6	83.06	42.8 - 52.8	59.48	60.18	59.65	60.23	61.28	61.28	60.22	60.19	60.09	60.36
RW-01**	78.4	80.28	29.4 - 39.4, 45.4 - 50.4	36.48	36.53	34.88							
RW-02 (B)	91.58	95.18	-	42.97	49.85	44.13							
SUMP		97.93	-	75.05	75.13	74.94							

Notes:

--- Water level not monitored, (B)-Bedrock groundwater monitoring well,



	Ground	Well Casing	Screen Interval	Groundwater Elevation (ft)									
Well ID	Elevation (ft)	Elevation (ft)	Elevation (ft)	5/8/2008	11/21/2008	4/22/2009	11/20/2009	4/30/2010	11/17/2010	5/12/2011	11/29/2011	5/22/2012	11/28/2012
MW-01	99.36	101.11	75.4 - 85.4	80.06	80.11	80.69	79.49	80.73	79.87	80.71	75.97	75.07	75.06
MW-02	91.8	94.68	76.6 - 86.6			83.26	83.24	83.13	83.6	NM	83.98	83.36	83.4
MW-03	97.65	99.63	73.7 - 83.7										
MW-04	65.62	68.52	46.6 - 56.6										
MW-05	88.21	90.42	49.2 - 59.2	60.72	60.24	60.86	60.32	60.7	60.62	62.32	60.66	60.54	60.02
MW-06	77.46	79.38	46.4 - 56.4	60.28	59.98	60.46	60.03	60.34	60.26	NM	60.26	60.16	59.78
MW-07 (B)	75.66	78.34	34.3 - 44.3	52.94		56.1	52.88	54.04	52.94	53.84	53.18	53.32	52.24
MW-08	88.21	91.78	53.9 - 63.9	66.82	66.88	66.5	61.93	65.94	64.7	NM	63	62.44	60.93
MW-09	102.44	104.03	49.7 - 59.7	60.33	60.53	60.49	60.03	60.37	60.27	61.9	60.25	60.19	59.76
MW-10 (B)	97.51	97.27	43 - 53	61.05	52.79	60.33	53.77	58.97	58.77	66.37	55.73	55.41	52.47
MW-11 (B)	91.48	93.8	43.1 - 53.1	60.32	52.42	59.4	52.98	57.95	57.84	64.85	54.56	54.2	51.58
MW-12	93.62	94.14	51.9 - 61.9	60.5	60.19	60.67	60.24	60.56	60.44	62.02	60.46	60.38	59.98
MW-13	98.8	98.7	77.7 - 87.7	78.23	DRY	DRY	78.02	Dry	Dry	Dry	Dry	Dry	Dry
MW-14	98.76	100.62	74.6 - 84.6	82.74	82.59	82.72	82.67	82.62	82.77	81.74	82.7	82.64	82.54
MW-15 (B)	96.1	98.9	32.7 - 42.7	61.89	52.85	61.74	54.7	60.4	60.1	62.56	57.88	57.6	52.1
MW-16 (B)	98.5	100.85	50.8 - 60.8	67.78	63.03	67.85	64.11	66.77	66.41	74.8	64.83	64.81	61.03
MW-17	66.9	69.24	53.7 - 63.7	58.96	57.9	59.36	58.38	58.96	58.89	60.26	58.96	58.92	54.44
MW-18	76.5	78.29	61.5 - 71.5	72.7	71.85	73.08	71.91	72.53	72.95	73.26	73.05	72.47	70.83
MW-19	69.5	71.27	46.5 - 56.5	DRY									
MW-20	70.98	73.34	51.9 - 61.9										
MW-21	69.9	71.87	59.5 - 64.5	62.65	62.65	62.63	62.43	62.31	63.31	62.36	62.85	62.12	60.57
MW-22	71.5	73.34	60.9 - 65.9	68.6	68.51	68.44	68.29	68.26	68.88	68.44	68.74	68.3	68.34
MW-23 (B)	89.8	91.72	17.3 - 22.3	34.76	34.82	39.14	35.06	38.38	38.08	42.22	36.96	37.4	34
MW-24*			-										Dry
PZ-01	81.8	83.95	49.8 - 59.8	60.32	59.99	60.49	60.03	60.37	60.27	61.85	60.27	60.2	59.79
PZ-02	80.6	83.06	42.8 - 52.8	60.12	59.81	60.3	59.86	60.18	60.1	61.61	60.11	60.02	59.62
RW-01**	78.4	80.28	29.4 - 39.4, 45.4 - 50.4										33.54
RW-02 (B)	91.58	95.18	-										43.33
SUMP		97.93	-										

Notes:

--- Water level not monitored, (B)-Bedrock groundwater monitoring well,



				Groundwater									
	Ground	Well Casing	Screen Interval	Elevation (ft)									
Well ID	Elevation (ft)	Elevation (ft)	Elevation (ft)	4/18/2013	10/1/2013	4/16/2014	9/18/2014	3/31/2015	9/16/2015	3/22/2016	10/4/2016	4/26/2017	10/25/2017
MW-01	99.36	101.11	75.4 - 85.4	78.43	75.06	77.29	75.07	80.26	75.07	76.29	Dry	77.51	Dry
MW-02	91.8	94.68	76.6 - 86.6	84.68	83.36	85.18	83.06	85.18	83.06	84.26	83.38	84.66	83.22
MW-03	97.65	99.63	73.7 - 83.7										
MW-04	65.62	68.52	46.6 - 56.6										
MW-05	88.21	90.42	49.2 - 59.2	61.08	60.38	61.74	60.24	60.22	60.06	60.86	59.7	61.87	59.92
MW-06	77.46	79.38	46.4 - 56.4	60.98	60.04	61.35	59.94	60.02	59.88	60.46	59.52	61.34	59.74
MW-07 (B)	75.66	78.34	34.3 - 44.3	54.12	53.14	54.82	52.29	53.28	52.24	54.3	52.22	55.1	52.19
MW-08	88.21	91.78	53.9 - 63.9	65.6	62.66	68.38	61.32	63.93	61.36	66.44	59.78	69.74	60.54
MW-09	102.44	104.03	49.7 - 59.7	60.71	60.05	61.43	59.97	60.01	59.88	60.47	59.49	61.41	59.73
MW-10 (B)	97.51	97.27	43 - 53	58.67	55.39	61.91	54.73	54.25	54.85	59.77	52.77	64.23	53.71
MW-11 (B)	91.48	93.8	43.1 - 53.1	57.48	54.10	60.5	53.54	53.15	53.55	58.44	51.66	62.6	52.5
MW-12	93.62	94.14	51.9 - 61.9	60.88	60.24	61.56	60.16	60.22	60.09	60.66	59.7	61.58	59.92
MW-13	98.8	98.7	77.7 - 87.7	Dry	78.00	79.94	79.3	78.74	78.3	78.04	78	DRY	DRY
MW-14	98.76	100.62	74.6 - 84.6	82.54	82.82	82.8	82.88	84.8	83.2	83.06	82.7	82.76	82.74
MW-15 (B)	96.1	98.9	32.7 - 42.7	60.12	57.65	63.3	56.34	55.06	56.68	61.32	52.54	66.2	53.92
MW-16 (B)	98.5	100.85	50.8 - 60.8	67.15	64.75	69.49	64.19	64.2	64.29	67.45	61.5	71.99	62.6
MW-17	66.9	69.24	53.7 - 63.7	59.88	58.24	60.36	58.08	58.7	58	59.64	Dry	59.94	57.66
MW-18	76.5	78.29	61.5 - 71.5	74.27	71.07	74.83	70.77	73.63	70.23	73.59	69.39	73.93	69.91
MW-19	69.5	71.27	46.5 - 56.5	Dry									
MW-20	70.98	73.34	51.9 - 61.9										
MW-21	69.9	71.87	59.5 - 64.5	62.92	60.91	63.71	60.55	63.43	60.57	62.73	Dry	62.75	Dry
MW-22	71.5	73.34	60.9 - 65.9	68.3	66.39	68.04	66.8	68.18	66.92	68.14	65.58	68.99	68.38
MW-23 (B)	89.8	91.72	17.3 - 22.3	38.6	36.86	40.38	36.22	36.12	36.54	39.36	34.52	41.77	35.52
MW-24*			-	Dry									
PZ-01	81.8	83.95	49.8 - 59.8	60.69	60.07	61.39	59.97	60.03	59.89	60.47	59.5	61.37	59.75
PZ-02	80.6	83.06	42.8 - 52.8	60.51	59.88	61.14	59.78	59.84	59.72	60.28	59.34	61.16	59.56
RW-01**	78.4	80.28	29.4 - 39.4, 45.4 - 50.4	34.88	34.38	34.88	34.88	33.93	34.14	33.53	35.32	35.48	34.96
RW-02 (B)	91.58	95.18	-	54.73	44.02	58.94	44.18	44.8	43.54	56.36	43.94	61.42	44.68
SUMP		97.93	-										

Notes:

--- Water level not monitored, (B)-Bedrock groundwater monitoring well,



				Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	
	Ground	Well Casing	Screen Interval	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	
Well ID	Elevation (ft)	Elevation (ft)	Elevation (ft)	4/24/2018	10/4/2018	4/11/2019 <sup>1</sup>	10/22/2019	4/15/2020	10/22/2020	4/20/2021	10/21/2021	
MW-01	99.36	101.11	75.4 - 85.4	76.09	DRY	75.06	DRY	DRY	DRY	DRY	DRY	
MW-02	91.8	94.68	76.6 - 86.6	83.94	84.32	83.72	84.6	83.7	83.94	83.63	85.36	
MW-03	97.65	99.63	73.7 - 83.7									
MW-04	65.62	68.52	46.6 - 56.6									
MW-05	88.21	90.42	49.2 - 59.2	61.1	60.1	60.68	60.44	60.66	59.92	60.37	61.1	
MW-06	77.46	79.38	46.4 - 56.4	60.62	59.86	60.36	60.12	60.34	59.78	60.16	60.82	
MW-07 (B)	75.66	78.34	34.3 - 44.3	54.54	52.7	54.34	52.34	53.32	52.74	53.22	53.48	
MW-08	88.21	91.78	53.9 - 63.9	67.92	62.12	64.76	61.88	64.7	60.88	62.16	62.73	
MW-09	102.44	104.03	49.7 - 59.7	60.65	59.85	60.39	60.11	60.33	59.77	60.17	60.88	
MW-10 (B)	97.51	97.27	43 - 53	61.75	54.41	58.57	55.35	58.35	54.01	55.29	57.19	
MW-11 (B)	91.48	93.8	43.1 - 53.1	60.25	53.1	57.28	54.04	56.96	52.72	53.92	54.74	
MW-12	93.62	94.14	51.9 - 61.9	60.82	60.04	60.56	60.3	60.52	59.98	60.34	61.04	
MW-13	98.8	98.7	77.7 - 87.7	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	
MW-14	98.76	100.62	74.6 - 84.6	82.56	82.78	83.18	82.7	82.38	82.62	82.18	82.57	
MW-15 (B)	96.1	98.9	32.7 - 42.7	63.6	54.78	60.68	56.48	60.5	54.55	56.74	58.92	
MW-16 (B)	98.5	100.85	50.8 - 60.8	69.13	63.59	66.57	64.21	66.29	63.25	64.77	66.3	
MW-17	66.9	69.24	53.7 - 63.7	59.34	57.78	58.96	57.84	58.92	57.64	58.84	58.79	
MW-18	76.5	78.29	61.5 - 71.5	73.49	70.69	73.21	71.31	73.09	69.97	72.83	73.05	
MW-19	69.5	71.27	46.5 - 56.5	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	
MW-20	70.98	73.34	51.9 - 61.9									
MW-21	69.9	71.87	59.5 - 64.5	62.51	DRY	62.57	DRY	68.63	DRY	62.05	62.83	
MW-22	71.5	73.34	60.9 - 65.9	69.28	68.98	69.74	69.34	69.69	68.74	70.08	69.88	
MW-23 (B)	89.8	91.72	17.3 - 22.3	40.48	35.78	39.32	35.6	39.42	36.02	37.22	37.78	
MW-24*			-						DRY		DRY	
PZ-01	81.8	83.95	49.8 - 59.8	60.65	59.87	60.39	60.13	60.35	59.77	60.17	60.85	
PZ-02	80.6	83.06	42.8 - 52.8	60.38	59.68	60.18	59.92	60.14	59.6	59.98	60.64	
RW-01**	78.4	80.28	29.4 - 39.4, 45.4 - 50.4	34.34	34.18	33.08	34.73	35.28	34.38	34.96	34.12	
RW-02 (B)	91.58	95.18	-	58.58	44.88	52.93	45.43	51.46	45.14	45.76	46.53	
SUMP		97.93	-									

Notes:

--- Water level not monitored, (B)-Bedrock groundwater monitoring well,

\* - Measurement relative to top of well casing. Elevations based on assumed datum. MW-01 through MW-16 installed during Remedial Investigation (Stearns & Wheler). MW-03 was removed as part of the TCE Soils Interim Remedial Measure (IRM) completed in September 1994. System shutdown 02/15/96; System restored 02/20/96.

- System start-up 02/06/96; MW-13 casing elev. changed 06/06/96. MW-04 and MW-20 were abandoned and replaced by MW-21 and MW-22 on 01/20/97.
- \*\* Groundwater elevations are representative of combined pumping head of both screened intervals.

 $^{1}\ {\rm Elevations}\ {\rm represent}\ {\rm water}\ {\rm levels}\ {\rm measured}\ {\rm at}\ {\rm the}\ {\rm time}\ {\rm of}\ {\rm PDB}\ {\rm installation}$ 



TABLE 2

**GROUNDWATER TRICHLOROETHENE CONCENTRATIONS** 

Sample Date	August-89	December-89	May-90	May-92	July-94	October-94	February-95	April-95	July-95
	Trichloroethene								
	ug/L								
Location ID									
MW-01	112	ND	2	ND					
MW-02	ND	ND	1	ND		ND	ND	ND	ND
MW-03	ND	ND	440000	340000	ND	NI	NI	NI	NI
MW-04		7	43	6	270	23	13	16	
MW-05		340	344	110	330	410	290	280	
MW-06		700	454	510	390	360	330	280	270
MW-07 (B)		ND							
MW-08		ND	ND	ND		ND	ND	ND	ND
MW-09		109	106	60	72	74	74	84	75
MW-10 (B)				4500	1600	1300	1400	1200	900
MW-11 (B)				5200	5500	5300	4300	3900	4000
MW-12				36	44	35	33	30	25
MW-13				110	740	510			
MW-14				67	150	120	79	95	140
MW-15 (B)	NI	NI	NI	NI	NI	14	11	10	17
MW-16 (B)	NI	NI	NI	NI	NI	6	17	7	18
MW-17	NI	NI	NI	NI	260	140	200	130	160
MW-18	NI								
MW-20	NI								
MW-21	NI								
MW-22	NI								
MW-23 (B)	NI								
MW-24	NI								
PZ-01	NI	NI	NI	NI	NI				120
PZ-02	NI	NI	NI	NI	NI			490	400

Notes:

MD - Not detected, U - Not detected above known MDL, --- - Not analyzed, NI - Not installed at time of monitoring, (B) - Bedrock Monitoring Well MW-01 through MW-16 installed during Remedial Investigation (Stearns & Wheler), F1 - MS/MSD recovery outside limits

MW-03 removed as part of TCE Soils Interim Remedial Measure (IRM) completed in September 1994. Data was collected by Stearns & Wheler prior to 07/22/94. MW-04 and MW-20 were abandoned and replaced by MW-21 and MW-22 on 01/20/97.

Sample Date	October-95	January-96	April-96	May-96	July-96	October-96	January-97	April-97	July-97
	Trichloroethene								
	ug/L								
Location ID									
MW-01									
MW-02	ND					1 U			
MW-03	NI								
MW-04	15					62	NI	NI	NI
MW-05						180			
MW-06	180	170	110		98	71	75	52	
MW-07 (B)	ND					1 U			
MW-08	ND					1 U			
MW-09	68	100	64		65	50	95	83	66
MW-10 (B)	890	900	820		960	1700	1900	1200	
MW-11 (B)	2600	2500	1500		1400	1600	1500	800	
MW-12	29					17			
MW-13						370			
MW-14	78	84	250		230	170	390	400	260
MW-15 (B)	7					20			
MW-16 (B)	20					11			
MW-17		180	350		460	300	450	220	150
MW-18	NI	NI	NI	1200		2900	850	410	1800
MW-20	NI	NI	NI	70			NI	NI	NI
MW-21	NI	NI	NI	NI	NI	NI	270	520	310
MW-22	NI	NI	NI	NI	NI	NI	2	1	3
MW-23 (B)	NI	1 U	1 U						
MW-24	NI								
PZ-01						32			
PZ-02						540			

Notes:

ND - Not detected, U - Not detected above known MDL, --- - Not analyzed, NI - Not installed at time of monitoring, (B) - Bedrock Monitoring Well MW-01 through MW-16 installed during Remedial Investigation (Stearns & Wheler), F1 - MS/MSD recovery outside limits

MW-03 removed as part of TCE Soils Interim Remedial Measure (IRM) completed in September 1994. Data was collected by Stearns & Wheler prior to 07/22/94. MW-04 and MW-20 were abandoned and replaced by MW-21 and MW-22 on 01/20/97.

Sample Date	October-97	January-98	April-98	October-98	November-98	April-99	October-99	April-00	November-00
	Trichloroethene								
	ug/L								
Location ID									
MW-01									
MW-02	1 U			1 U			1 U		1 U
MW-03	NI								
MW-04	NI								
MW-05	220			200			78		110
MW-06	58		140	92		63	72	30	48
MW-07 (B)	1 U			1 U			1 U		
MW-08				1 U			1 U		1 U
MW-09	61	140	120	80		120	46	69	60
MW-10 (B)	1300		930	880		720	700	530	690
MW-11 (B)	1600		920	1100		740	900	670	840
MW-12	19			22			15		17
MW-13	760			480			430		790
MW-14	560	560	460	400		460	260	250	280
MW-15 (B)	18			21			13		7
MW-16 (B)	14			4			15		3
MW-17		270	800	250		280	180	160	220
MW-18	3100	1000	1100	3600		620	1800	360	1900
MW-20	NI								
MW-21	450	120	1300	180		510	90	42	73
MW-22	8	5	10	14		10	9	13	12
MW-23 (B)	1 U	1 U		1 U			1 U		1 U
MW-24	NI	NI	NI	NI	6000	4300	4300	690	2400
PZ-01	48			85			410		29
PZ-02	420			250			18		160

Notes:

MD - Not detected, U - Not detected above known MDL, --- - Not analyzed, NI - Not installed at time of monitoring, (B) - Bedrock Monitoring Well MW-01 through MW-16 installed during Remedial Investigation (Stearns & Wheler), F1 - MS/MSD recovery outside limits

MW-03 removed as part of TCE Soils Interim Remedial Measure (IRM) completed in September 1994. Data was collected by Stearns & Wheler prior to 07/22/94. MW-04 and MW-20 were abandoned and replaced by MW-21 and MW-22 on 01/20/97.

Sample Date	July-01	November-01	April-02	June-02	October-02	May-03	December-03	July-04	December-04
	Trichloroethene								
	ug/L								
Location ID									
MW-01		1 U							
MW-02		1 U							
MW-03	NI								
MW-04	NI								
MW-05		120			100		110		98
MW-06	89	92			92		110		
MW-07 (B)		1 U							
MW-08		1 U							
MW-09	70	77			67		110		
MW-10 (B)	600	900	740		700	530	570	470	
MW-11 (B)	680	1000	870		760	940	620	490	
MW-12		19			18		20		21
MW-13		520		360	370				
MW-14	270	240			200	310	190		200
MW-15 (B)		27			21		26		2.1
MW-16 (B)		3			1		3		2.1
MW-17	240	230			290		310		140
MW-18	970	2000	350		2500	2100	2300	1600	
MW-20	NI								
MW-21	35	38					12		4.9
MW-22	13	13			4		18		18
MW-23 (B)		1 U							
MW-24	600	1500		470		390	190	170	96
PZ-01		79			79		92		120
PZ-02		260			160		150		130

Notes:

ND - Not detected, U - Not detected above known MDL, --- - Not analyzed, NI - Not installed at time of monitoring, (B) - Bedrock Monitoring Well MW-01 through MW-16 installed during Remedial Investigation (Stearns & Wheler), F1 - MS/MSD recovery outside limits

MW-03 removed as part of TCE Soils Interim Remedial Measure (IRM) completed in September 1994. Data was collected by Stearns & Wheler prior to 07/22/94. MW-04 and MW-20 were abandoned and replaced by MW-21 and MW-22 on 01/20/97.

Sample Date	April-05	November-05	April-06	January-07	February-07	May-07	November-07	May-08	November-08
	Trichloroethene								
	UG/L								
Location ID									
MW-01									
MW-02									
MW-03	NI								
MW-04	NI								
MW-05		75.0		75.2			88		84.6
MW-06				142			120		84.1
MW-07 (B)									
MW-08									
MW-09		83.3		86.9			88		77.2
MW-10 (B)	450		486		448	448	440	476	126
MW-11 (B)	390		469		407	390	380	293	746
MW-12		19.6		23		24	38		24.3
MW-13	200		265		265	282	310	251	
MW-14		127		270			380		484
MW-15 (B)		0.50 U		0.54			0.82		0.5 U
MW-16 (B)		2.25		1.82			2.1		3.21
MW-17				132			240		210
MW-18	1300		1490		763	1590	1800	1160	1840
MW-20	NI								
MW-21		10.6		6.17			7.2		12.2
MW-22		15.8		13.5			27		28.9
MW-23 (B)									
MW-24	64	124	70.6	100		197	210	159	452
PZ-01		103		132			100		48.4
PZ-02		118		125			110		116

Notes:

MD - Not detected, U - Not detected above known MDL, --- - Not analyzed, NI - Not installed at time of monitoring, (B) - Bedrock Monitoring Well MW-01 through MW-16 installed during Remedial Investigation (Stearns & Wheler), F1 - MS/MSD recovery outside limits

MW-03 removed as part of TCE Soils Interim Remedial Measure (IRM) completed in September 1994. Data was collected by Stearns & Wheler prior to 07/22/94. MW-04 and MW-20 were abandoned and replaced by MW-21 and MW-22 on 01/20/97.

Sample Date	April-09	November-09	April-10	November-10	May-11	November-11	May-12	November-12	April-13
	Trichloroethene								
	ug/l								
Location ID									
MW-01									
MW-02									
MW-03	NI	NI	NI	NI	NI	NI		NI	
MW-04	NI	NI	NI	NI	NI	NI		NI	
MW-05		77.8		82		73.1		64.8	
MW-06		75.8		83.8		52.6		87.2	
MW-07 (B)									
MW-08									
MW-09		71.2		62		52.6		87.6	
MW-10 (B)	329	285	369	395	416	169	135	60.7	320
MW-11 (B)	260	452	379	406	255	926	891	1080	638
MW-12		16.5		19.5		21.9		17.6	
MW-13			208	262		278	234	307	196
MW-14		426		438		17.8		355	
MW-15 (B)		0.65		22.9		0.5 U		0.5 U	
MW-16 (B)		1.96		1.69		1.53		2.21	
MW-17		190		79.6		496		118	
MW-18	1160	1290	609	1300	1460	1190	1020	1820	942
MW-20	NI	NI	NI	NI	NI	NI		NI	
MW-21		12.3		6.1		6.76		27.4	
MW-22		19		19.4		23.6		19.1	
MW-23 (B)									
MW-24	118		193	331	62.1	246	162	1010	210
PZ-01		50.9		95		94.2		50.8	
PZ-02		101		100		96.6		111	

Notes:

MD - Not detected, U - Not detected above known MDL, --- - Not analyzed, NI - Not installed at time of monitoring, (B) - Bedrock Monitoring Well MW-01 through MW-16 installed during Remedial Investigation (Stearns & Wheler), F1 - MS/MSD recovery outside limits

MW-03 removed as part of TCE Soils Interim Remedial Measure (IRM) completed in September 1994. Data was collected by Stearns & Wheler prior to 07/22/94. MW-04 and MW-20 were abandoned and replaced by MW-21 and MW-22 on 01/20/97.

Sample Date	October-13	Apr-14	Sep-14	Mar-15	Sep-15	March-16	Oct-16	Apr-17	Oct-17	Apr-18
	Trichloroethene									
	ug/l									
Location ID										
MW-01										
MW-02										
MW-03										
MW-04										
MW-05	73		53		55		40		44	
MW-06	64		82		79		57		64	
MW-07 (B)										
MW-08										
MW-09	52		45		46		33		26	
MW-10 (B)	84	310	56	96	100	270	100	260	63	250
MW-11 (B)	760	470	640	690	680	560	540 F1	610	180	390
MW-12	16		21		16		13		13	
MW-13	290	190	260	210	260	220	240	220	190	220
MW-14	1600	210	300		200		280		250	
MW-15 (B)	0.69 J		10		0.82 J		1U		1U	
MW-16 (B)	1.5		1.5		1.5		1.6		1.6	
MW-17	330		260		190		190		200	
MW-18	1700	650	1500	960	1500 F1	1200	1300	610	1000	1300 F1
MW-20										
MW-21	15		15		18		19		15	
MW-22	1.5		11		9.5		8.4		9.6	
MW-23 (B)										
MW-24	530	220	400	230	380	320	420	220	300	150 F1
PZ-01	90		77		63		41		46	
PZ-02	97		89		83		71		64	

Notes:

MD - Not detected, U - Not detected above known MDL, --- - Not analyzed, NI - Not installed at time of monitoring, (B) - Bedrock Monitoring Well MW-01 through MW-16 installed during Remedial Investigation (Stearns & Wheler), F1 - MS/MSD recovery outside limits

MW-03 removed as part of TCE Soils Interim Remedial Measure (IRM) completed in September 1994. Data was collected by Stearns & Wheler prior to 07/22/94. MW-04 and MW-20 were abandoned and replaced by MW-21 and MW-22 on 01/20/97.

Sample Date	Oct-18	May-19	Oct-19	Apr-20	Oct-20	Apr-21	Oct-21	
	Trichloroethene							
	ug/l							
Location ID								
MW-01								
MW-02								
MW-03								
MW-04								
MW-05	57		47		56		49	
MW-06	72		66		40		55	
MW-07 (B)								
MW-08								
MW-09	40		34		28		37	
MW-10 (B)	77	140	71	120	99	110	64	
MW-11 (B)	300	310	510	440	670	680	440	
MW-12	17		15		13		13	
MW-13	250		260	220	220	180	230	
MW-14	270		220		160		150	
MW-15 (B)	1 U		1 U		3.5		1.5	
MW-16 (B)	1.6		1 U		1.3		1.4	
MW-17	210		180		150		100	
MW-18	1500 F1	960	1400	1100 F1	1200 F1	940	1400 F1	
MW-20								
MW-21	17		15		13		6.4	
MW-22	14		5.7		9.7		5.5	
MW-23 (B)								
MW-24	370	140	290	160	310	200	330	
PZ-01	48		47		44		51	
PZ-02	75		69		67		68	

Notes:

MD - Not detected, U - Not detected above known MDL, --- - Not analyzed, NI - Not installed at time of monitoring, (B) - Bedrock Monitoring Well MW-01 through MW-16 installed during Remedial Investigation (Stearns & Wheler), F1 - MS/MSD recovery outside limits

MW-03 removed as part of TCE Soils Interim Remedial Measure (IRM) completed in September 1994. Data was collected by Stearns & Wheler prior to 07/22/94. MW-04 and MW-20 were abandoned and replaced by MW-21 and MW-22 on 01/20/97.



TABLE 3

**OTHER DETECTED VOLATILE ORGANIC COMPOUNDS** 



# Table 3Former Accurate Die Casting SiteFayetteville, New YorkTriennial Groundwater Report (2019-2021)Other Detected Volatile Organic Compounds

	Chemical Name	cis-1,2-Dichloroethene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene
Location ID	Sample Date	ug/l	ug/l	ug/l	ug/l
MW-01	11/8/2001	1 U	1 U	1 U	1 U
MW-02	10/22/1996	1 U	1 U	1 U	1 U
MW-02	10/22/1997	1 U	1 U	1 U	1 U
MW-02	10/21/1998	1 U	1 U	1 U	1 U
MW-02	10/19/1999	1 U	1 U	1 U	1 U
MW-02	11/9/2000	1 U	1 U	1 U	1 U
MW-02	11/10/2001	1 U	1 U	1 U	1 U
MW-04	10/22/1996	12	1 U	1 U	1 U
MW-05	10/21/1996	10 U	10 U	10 U	10 U
MW-05	10/22/1997	10 U	10 U	10 U	10 U
MW-05	10/20/1998	10 U	10 U	10 U	10 U
MW-05	10/19/1999	10 U	10 U	10 U	10 U
MW-05	11/8/2000	5 U	5 U	5 U	5 U
MW-05	11/9/2001	5 U	5 U	5 U	5 U
MW-05	10/10/2002	5 U	5 U	5 U	5 U
MW-05	12/8/2003	5 U	5 U	5 U	5 U
MW-05	12/28/2004	2.5 U	2.7	2.5 U	2.5 U
MW-05	11/9/2005	2.50 U	2.50 U	2.50 U	2.50 U
MW-05	1/2/2007	2.5 U	2.5 U	2.5 U	2.5 U
MW-05	11/29/2007	0.5 U	2.5	0.5 U	0.5 U
MW-05	11/1/2008	1.52	1.95	0.5 U	0.5 U
MW-05	11/20/2009	1.15	2.25	0.5 U	0.5 U
MW-05	11/17/2010	2.5 U	2.5 U	2.5 U	2.5 U
MW-05	11/29/2011	2.5 U	2.5 U	2.5 U	2.5 U
MW-05	11/28/2012	2.5 U	2.5	2.5 U	2.5 U
MW-05	10/1/2013	1.3	2.5	1 U	1 U
MW-05	9/18/2014	1 U	1.9	1 U	1 U
MW-05 MW-05	9/16/2015	1 U 1 U	1.9 2	1 U 1 U	1 U 1 U
MW-05	10/6/2016	0.88 J	1.8 F2	1 U	1 U
MW-05	10/25/2017	1.2	2.1	1 U	1 U
MW-05	10/4/2018	1.2 1 U	1.8	1 U	1 U
MW-05	10/22/2019 10/22/2020	0.92 J	1.8	1 U	1 U
MW-05	10/21/2020	1 U	1.5	1 U	1 U
MW-06	1/17/1996		5 U	5 U	
MW-06	4/10/1996		5 U	5 U	
MW-06	7/16/1996	5 U	5 U	5 U	5 U
MW-06	10/22/1996	2 U	2 U	2 U	2 U
MW-06	1/16/1997	1 U	1 U	1 U	1 U
MW-06	4/15/1997	1 U	1 U	1 U	1 U
MW-06	10/23/1997	1 U	1 U	1 U	1 U
MW-06	4/15/1998	5 U	5 U	5 U	5 U
MW-06	10/20/1998	2 U	2 U	2 U	2 U
MW-06	4/29/1999	2 U	2 U	2 U	2 U
MW-06	10/19/1999	2 U	2 U	2 U	2 U
MW-06	4/6/2000	1 U	1 U	1 U	1 U
MW-06	11/8/2000	1 U	1 U	1 U	1 U
MW-06	7/3/2001	2 U	2 U	2 U	2 U
MW-06	11/9/2001	2 U	2 U	2 U	2 U
MW-06	10/10/2002	2 U	2 U	2 U	2 U
MW-06	12/8/2003	5 U	5 U	5 U	5 U
MW-06	1/2/2007	2.5 U	2.5 U	2.5 U	2.5 U
MW-06	11/29/2007	0.65	0.5 U	0.5 U	0.5 U
MW-06	11/1/2008	0.5 U	0.5 U	0.5 U	0.5 U
MW-06	11/20/2009	0.5 U	0.5 U	0.5 U	0.5 U
MW-06	11/23/2010	1 U	1 U	1 U	1 U
MW-06	11/29/2011	2.5 U	2.5 U	2.5 U	2.5 U
MW-06	11/28/2012	1.25 U	1.25 U	1.25 U	1.25 U



# Table 3Former Accurate Die Casting SiteFayetteville, New YorkTriennial Groundwater Report (2019-2021)Other Detected Volatile Organic Compounds

	Chemical Name	cis-1,2-Dichloroethene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene
Location ID	Sample Date	ug/l	ug/l	ug/l	ug/l
MW-06	10/1/2013	1 U	1 U	1 U	1 U
MW-06	9/18/2014	10	1 U	1 U	1 U
MW-06	9/16/2015	1 U	1 U	1 U	1 U
MW-06	10/6/2016	1 U	1 U	1 U	1 U
MW-06	10/25/2017	1 U	0.21 J	1 U	1 U
MW-06	10/4/2018	1 U	1 U	1 U	1 U
MW-06	10/22/2019	1 U	1 U	1 U	1 U
MW-06	10/22/2020	1 U	1 U	1 U	1 U
MW-06	10/21/2021	1 U	1 U	1 U	1 U
MW-07 (B)	10/21/1996	1 U	1 U	1 U	1 U
MW-07 (B)	10/22/1997	1 U	1 U	1 U	1 U
MW-07 (B)	10/20/1998	1 U	1 U	1 U	1 U
MW-07 (B)	10/19/1999	1 U	1 U	1 U	1 U
MW-07 (B)	11/9/2001	1 U	1 U	1 U	1 U
MW-08	10/22/1996	1 U	1 U	1 U	1 U
MW-08	10/21/1998	1 U	1 U	1 U	1 U
MW-08	10/19/1999	1 U	1 U	1 U	1 U
MW-08	11/7/2000	1 U	1 U	1 U	1 U
MW-08	11/8/2001	1 U	1 U	1 U	1 U
MW-09	1/17/1996		5 U	5 U	
MW-09	4/10/1996		1 U	1 U	
MW-09	7/16/1996	1 U	1 U	1 U	1 U
MW-09	10/21/1996	1 U	1 U	1 U	1 U
MW-09	1/16/1997	5 U	5 U	5 U	5 U
MW-09	4/15/1997	2 U	2 U	2 U	2 U
MW-09	7/8/1997	5 U	5 U	5 U	5 U
MW-09	10/22/1997	5 U	5 U	5 U	5 U
MW-09	1/29/1998	5 U	5 U	5 U	5 U
MW-09	4/15/1998	5 U	5 U	5 U	5 U
MW-09	10/20/1998	2 U	2 U	2 U	2 U
MW-09	4/29/1999	2 U	2 U	2 U	2 U
MW-09	10/19/1999	5 U	5 U	5 U	5 U
MW-09	4/6/2000	2 U	2 U	2 U	2 U
MW-09	11/8/2000	2 U	2 U	2 U	2 U
MW-09	7/3/2001	2 U	2 U	2 U	2 U
MW-09	11/10/2001	2 U	2 U	2 U	2 U
MW-09	10/11/2002	2 U	2 U	2 U	2 U
MW-09	12/8/2003	2 U	2 U	2 U	2 U
MW-09	11/9/2005	2.50 U	2.50 U	2.50 U	2.50 U
MW-09	1/2/2007	2.5 U	2.5 U	2.5 U	2.5 U
MW-09	11/29/2007	0.5 U	0.5 U	0.5 U	0.5 U
MW-09 MW-09	11/1/2008	0.5 U 2.5 U	0.5 U 2.5 U	0.5 U 2.5 U	0.5 U 2.5 U
	11/20/2009				
MW-09 MW-09	11/17/2010 11/29/2011	2.5 U 2.5 U	2.5 U 2.5 U	2.5 U 2.5 U	2.5 U 2.5 U
MW-09 MW-09	11/29/2011	2.5 U	1.25 U	2.5 U	2.5 U
MW-09	10/1/2013	1.25 U 1 U	1.25 U 1 U	1.23 U 1 U	1.25 U 1 U
MW-09	9/18/2014	1 U	1 U	1 U	1 U
MW-09	9/16/2015	10	1 U	1 U	1 U
MW-09	10/6/2016	1 U	1 U	1 U	1 U
MW-09	10/25/2017	1 U	1 U	1 U	1 U
MW-09	10/23/2017	1 U	1 U	1 U	1 U
MW-09	10/22/2019	1 U	1 U	1 U	1 U
MW-09	10/22/2019	1 U	1 U	1 U	1 U
MW-09	10/21/2020	10	1 U	1 U	1 U
MW-10 (B)	1/17/1996		20 U	20 U	
MW-10 (B) MW-10 (B)	4/10/1996		20 U	20 U	
MW-10 (B) MW-10 (B)	7/16/1996	 50 U	50 U	50 U	 50 U
MW-10 (B) MW-10 (B)	10/22/1996	50 U	50 U	50 U	50 U
MW-10 (B) MW-10 (B)	1/16/1997	100 U	100 U	100 U	100 U



# Table 3Former Accurate Die Casting SiteFayetteville, New YorkTriennial Groundwater Report (2019-2021)Other Detected Volatile Organic Compounds

	Chemical Name	cis-1,2-Dichloroethene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene
Location ID	Sample Date	ug/l	ug/l	ug/l	ug/l
MW-10 (B)	4/16/1997	100 U	100 U	100 U	100 U
MW-10 (B)	10/23/1997	50 U	50 U	50 U	50 U
MW-10 (B)	4/15/1998	50 U	50 U	50 U	50 U
MW-10 (B)	10/21/1998	50 U	50 U	50 U	50 U
MW-10 (B)	4/29/1999	25 U	25 U	25 U	25 U
MW-10 (B)	10/20/1999	25 U	25 U	25 U	25 U
MW-10 (B)	4/6/2000	20 U	20 U	20 U	20 U
MW-10 (B)	11/8/2000	20 U	20 U	20 U	20 U
MW-10 (B)	7/3/2001	20 U	20 U	20 U	20 U
MW-10 (B)	11/10/2001	20 U	20 U	20 U	20 U
MW-10 (B)	4/3/2002	20 U	20 U	20 U	20 U
MW-10 (B)	10/10/2002	20 U	20 U	20 U	20 U
MW-10 (B)	5/1/2003	20 U	20 U	20 U	20 U
MW-10 (B)	12/8/2003	20 U	20 U	20 U	20 U
MW-10 (B)	7/19/2004	10 U	10 U	10 U	10 U
MW-10 (B)	4/8/2005	0.50 U	0.50 U	0.50 U	0.50 U
MW-10 (B)	4/21/2006	10 U	10 U	10 U	10 U
MW-10 (B)	2/7/2007	10 U	10 U	10 U	10 U
MW-10 (B)	5/31/2007	10 U	10 U	10 U	10 U
MW-10 (B)	11/29/2007	0.5 U	0.5 U	0.5 U	0.5 U
MW-10 (B)	5/1/2008	0.5 U	0.5 U	0.5 U	0.5 U
MW-10 (B)	11/1/2008	5 U	5 U	5 U	5 U
MW-10 (B)	4/22/2009	10 U	10 U	10 U	10 U
MW-10 (B)	11/20/2009	10 U	10 U	10 U	10 U
MW-10 (B)	4/30/2010	10 U	10 U	10 U	10 U
MW-10 (B)	11/17/2010	10 U	10 U	10 U	10 U
MW-10 (B)	5/12/2011	10 U	10 U	10 U	10 U
MW-10 (B)	11/29/2011	10 U	10 U	10 U	10 U
MW-10 (B)	5/22/2012	5 U	5 U	5 U	5 U
MW-10 (B)	11/28/2012	1 U	1 U	1 U	1 U
MW-10 (B)	4/18/2013	25 U	25 U	25 U	25 U
MW-10 (B)	10/1/2013	1 U	1 U	1 U	1 U
MW-10 (B)	4/16/2014	1 U	1 U	1 U	1 U
MW-10 (B)	9/18/2014	1 U	1 U	1 U	1 U
MW-10 (B)	3/31/2015	1 U	1 U	1 U	1 U
MW-10 (B)	9/16/2015	1 U	1 U	1 U	1 U
MW-10 (B)	3/22/2016	2 U	2 U*	2 U	2 U
MW-10 (B)	10/6/2016	5 U	5 U	5 U	5 U
MW-10 (B)	4/26/2017	1 U	1 U	1 U	1 U
MW-10 (B)	10/25/2017	1 U	1 U	1 U	1 U
MW-10 (B)	4/24/2018	1 U	1 U	1 U	1 U
MW-10 (B)	10/4/2018	2 U	2 U	2 U	2 U
MW-10 (B)	5/1/2019	2 U	2 U	2 U	2 U
MW-10 (B)	10/22/2019	2 U	2 U	2 U	2 U
MW-10 (B)	4/15/2020	2 U	2 U	2 U	2 U
MW-10 (B)	10/22/2020	2 U	2 U	2 U	2 U
MW-10 (B)	4/20/2021	2 U	2 U	2 U	2 U
MW-10 (B)	10/21/2021	2 U	2 U	2 U	2 U
MW-11 (B)	1/17/1996		100 U	100 U	
MW-11 (B)	4/10/1996		100 U	100 U	
MW-11 (B)	7/16/1996	100 U	100 U	100 U	100 U
MW-11 (B)	10/22/1996	100 U	100 U	100 U	100 U
MW-11 (B)	1/16/1997	100 U	100 U	100 U	100 U
MW-11 (B)	4/15/1997	50 U	50 U	50 U	50 U
MW-11 (B)	10/23/1997	50 U	50 U	50 U	50 U
MW-11 (B)	4/15/1998	50 U	50 U	50 U	50 U
MW-11 (B)	10/21/1998	50 U	50 U	50 U	50 U
MW-11 (B)	4/29/1999	50 U	50 U	50 U	50 U
MW-11 (B)	10/19/1999	25 U	25 U	25 U	25 U
MW-11 (B)	4/6/2000	20 U	20 U	20 U	20 U



Chemical Nar		cis-1,2-Dichloroethene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene		
Location ID	Sample Date	ug/l	ug/l	ug/l	ug/l		
MW-11 (B)	11/9/2000	20 U	20 U	20 U	20 U		
MW-11 (B)	7/3/2001	20 U	20 U	20 U	20 U		
MW-11 (B)	11/9/2001	20 U	20 U	20 U	20 U		
MW-11 (B)	4/3/2002	20 U	20 U	20 U	20 U		
MW-11 (B)	10/10/2002	20 U	20 U	20 U	20 U		
MW-11 (B)	5/1/2003	20 U	20 U	20 U	20 U		
MW-11 (B)	12/8/2003	50 U	50 U	50 U	50 U		
MW-11 (B)	7/19/2004	10 U	10 U	10 U	10 U		
MW-11 (B)	4/8/2005	1.1	0.50 J	0.50 U	0.50 U		
MW-11 (B)	4/21/2006	10 U	10 U	10 U	10 U		
MW-11 (B)	2/7/2007	5 U	5 U	5 U	5 U		
MW-11 (B)	5/31/2007	5 U	5 U	5 U	5 U		
MW-11 (B)	11/29/2007	1.2	0.5 U	0.5 U	0.5 U		
MW-11 (B)	5/1/2008	0.65	0.5 U	0.5 U	0.5 U		
MW-11 (B)	11/1/2008	10 U	10 U	10 U	10 U		
MW-11 (B)	4/22/2009	10 U	10 U	10 U	10 U		
MW-11 (B)	11/20/2009	10 U	10 U	10 U	10 U		
MW-11 (B)	4/30/2010	10 U	10 U	10 U	10 U		
MW-11 (B)	11/17/2010	10 U	10 U	10 U	10 U		
MW-11 (B)	5/21/2011	10 U	10 U	10 U	10 U		
MW-11 (B)	11/29/2011	10 U	10 U	10 U	10 U		
MW-11 (B)	5/22/2012	25 U	25 U	25 U	25 U		
MW-11 (B)	11/28/2012	25 U	25 U	25 U	25 U		
MW-11 (B)	4/18/2013	25 U	25 U	25 U	25 U		
MW-11 (B)	10/1/2013	1.1	1 U	1 U	1 U		
MW-11 (B)	4/16/2014	1	1 U	1 U	1 U		
MW-11 (B)	9/18/2014	5 U	5 U	5 U	5 U		
MW-11 (B)	3/31/2015	5 U	5 U	5 U	5 U		
MW-11 (B)	9/16/2015	10 U	10 U	10 U	10 U		
MW-11 (B)	3/22/2016	10 U	10 U*	10 U	10 U		
MW-11 (B)	10/6/2016	10 U	10 U	10 U	10U		
MW-11 (B)	4/26/2017	0.5 J	1 U	1 U	1 U		
MW-11 (B)	10/25/2017	0.33 J	1 U	1 U	1 U		
MW-11 (B)	4/24/2018	1 U	1 U	1 U	1 U		
MW-11 (B)	10/4/2018	8 U	8 U	8 U	8 U		
MW-11 (B)	5/1/2019	8 U	8 U	8 U	8 U		
MW-11 (B)	10/22/2019	8 U	8 U	8 U	8 U		
MW-11 (B)	4/15/2020	8 U	8 U	8 U	8 U		
MW-11 (B)	10/22/2020	8 U	8 U	8 U	8 U		
MW-11 (B)	4/20/2021	10 U	10 U	10 U	10 U		
MW-11 (B)	10/21/2021	8 U	8 U	8 U	8 U		
MW-12	10/21/1996	1 U	1 U	1 U	1 U		
MW-12	10/22/1997	1 U	1 U	1 U	1 U		
MW-12	10/20/1998	1 U	1 U	1 U	1 U		
MW-12	10/19/1999	1 U	1 U	1 U	1 U		
MW-12	11/8/2000	1 U	1 U	1 U	1 U		
MW-12	11/9/2001	1 U	1 U	1 U	1 U		
MW-12	10/10/2002	1 U	1 U	2	1 U		
MW-12	12/8/2003	1 U	1 U	1 U	1 U		
MW-12	12/28/2004	0.50 U	0.50 U	0.50 U	0.50 U		
MW-12	11/9/2005	0.50 U	0.50 U	0.50 U	0.50 U		
MW-12	1/2/2007	0.5 U	0.5 U	0.5 U	0.5 U		
MW-12	5/31/2007	0.5 U	0.5 U	0.5 U	0.5 U		
MW-12	11/29/2007	0.5 U	0.5 U 0.5 U 0.5 U		0.5 U		
MW-12	11/1/2008	0.5 U			0.5 U		
MW-12	11/20/2009	0.5 U			0.5 U		
MW-12	11/17/2010	0.5 U	0.5 U	0.5 U	0.5 U		
MW-12	11/29/2011	0.5 U	0.5 U	0.5 U	0.5 U		
MW-12	11/28/2012	0.5 U	0.5 U	0.5 U	0.5 U		
MW-12	10/1/2013	1 U	1 U	1 U	1 U		



	Chemical Name	cis-1,2-Dichloroethene	Tetrachloroethene	Toluene	e trans-1,2-Dichloroethene		
Location ID	Sample Date	ug/l	ug/l	ug/l	ug/l		
MW-12	9/18/2014	1 U	1 U	1 U	1 U		
MW-12	9/16/2015	1 U	1 U	1 U	1 U		
MW-12	10/6/2016	1 U	1 U	1 U	1 U		
MW-12	10/25/2017	1 U	1 U	1 U	1 U		
MW-12	10/4/2018	1 U	1 U	1 U	1 U		
MW-12	10/22/2019	1 U	1 U	1 U	1 U		
MW-12	10/22/2020	1 U	1 U	1 U	1 U		
MW-12	10/21/2021	1 U	1 U	1 U	1 U		
MW-13	10/24/1996	10 U	10 U	10 U	10 U		
MW-13	10/23/1997	50 U	50 U	50 U	50 U		
MW-13	10/21/1998	25 U	25 U	25 U	25 U		
MW-13	10/20/1999	20 U	20 U	20 U	20 U		
MW-13	11/9/2000	20 U	20 U	20 U	20 U		
MW-13	11/8/2001	20 U	20 U	20 U	20 U		
MW-13	6/11/2002	20 U	20 U	20 U	20 U		
MW-13	10/11/2002	20 U	20 U	20 U	20 U		
MW-13	4/8/2005	0.50 U	0.50 U	0.50 U	0.50 U		
MW-13	4/21/2006	5 U	5 U	5 U	5 U		
MW-13	2/7/2007	5 U	5 U	5 U	5 U		
MW-13	5/31/2007	5 U	5 U	5 U	5 U		
MW-13	11/29/2007	0.5 U	0.5 U	0.5 U	0.5 U		
MW-13	5/1/2008	0.5 U	0.5 U	0.5 U	0.5 U		
MW-13	11/1/2008	NS	NS	NS	NS		
MW-13	4/30/2010	5 U	5 U	5 U	5 U		
MW-13	11/17/2010	5 U	5 U	5 U	5 U		
MW-13	11/29/2011	5 U	5 U	5 U	5 U		
MW-13	5/22/2012	5 U	5 U	5 U	5 U		
MW-13	11/28/2012	5 U	5 U	5 U	5 U		
MW-13	4/18/2013	5 U	5 U	5 U	5 U		
MW-13	10/1/2013	1 U	1 U	1 U	1 U		
MW-13	4/16/2014	1 U	1 U	1 U	1 U		
MW-13	9/18/2014	4 U	4 U	4 U	4 U		
MW-13	3/31/2015	4 U	4 U	4 U	4 U		
MW-13	9/16/2015	4 U	4 U	4 U	4 U		
MW-13	3/22/2016	4 U	4 U*	4 U	4 U		
MW-13	10/6/2016	4 U	4 U	4 U	4 U		
MW-13	4/27/2017	1 U	1 U	1 U	1 U		
MW-13	10/25/2017	1 U	1 U	1 U	1 U		
MW-13	4/24/2018	1 U	1 U	1 U	1 U		
MW-13	10/4/2018	4 U	4 U	4 U	4 U		
MW-13	10/22/2019	4 U	4 U	4 U	4 U		
MW-13	4/15/2020	4 U	4 U	4 U	4 U		
MW-13	10/22/2020	4 U	4 U	4 U	4 U		
MW-13	4/22/2021	4 U	4 U	4 U	4 U		
MW-13	10/21/2021	4 U	4 U	4 U	4 U		
MW-14	1/17/1996		5 U	5 U			
MW-14	4/10/1996		5 U	5 U			
MW-14	7/16/1996	10 U	10 U	10 U	10 U		
MW-14	10/22/1996	5 U	5 U	5 U	5 U		
MW-14	1/16/1997	10 U	10 U	10 U	10 U		
MW-14	4/16/1997	10 U	10 U	10 U	10 U		
MW-14	7/8/1997	10 U	10 U	10 U	10 U		
MW-14	10/23/1997	10 U	10 U	10 U	10 U		
MW-14	1/29/1998	10 U	10 U	10 U	10 U		
MW-14	4/15/1998	10 U	10 U	10 U	10 U		
MW-14	10/21/1998	10 U	10 U	10 U	10 U		
MW-14	4/29/1999	10 U	10 U	10 U	10 U		
MW-14	10/20/1999	10 U	10 U	10 U	10 U		
MW-14	4/6/2000	5 U	5 U	5 U	5 U		
MW-14	11/8/2000	5 U	5 U	5 U	5 U		

3/21/2022 I:\Obg-Lim.3902\74482.Itt-Acc-Die-O\Docs\Reports\PRRs (Triennial Reporting)\2019-2021\Tables\Table\_3\_GW\_Other\_Detected\_VOCs.xlsx Page 5 of 11



	Chemical Name	cis-1,2-Dichloroethene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene		
Location ID	Sample Date	ug/l	ug/l	ug/l	ug/l		
MW-14	7/3/2001	5 U	5 U	5 U	5 U		
MW-14	11/8/2001	5 U	5 U	5 U	5 U		
MW-14	10/11/2002	5 U	5 U	5 U	5 U		
MW-14	5/1/2003	5 U	5 U	5 U	5 U		
MW-14	12/8/2003	10 U	10 U	10 U	10 U		
MW-14	12/28/2004	5.0 U	5.0 U	5.0 U	5.0 U		
MW-14	11/9/2005	5.00 U	5.00 U	5.00 U	5.00 U		
MW-14	1/2/2007	5 U	5 U	5 U	5 U		
MW-14	11/29/2007	0.94	0.5 U	0.5 U	0.5 U		
MW-14	11/1/2008	1	0.5 U	0.5 U	0.5 U		
MW-14	11/20/2009	12.5 U	12.5 U	12.5 U	12.5 U		
MW-14	11/17/2010	10 U	10 U	10 U	10 U		
MW-14	11/29/2011	0.5 U	0.5 U	0.5 U	0.5 U		
MW-14	11/28/2012	2.5 U	2.5 U	2.5 U	2.5 U		
MW-14	10/1/2013	200	0.49 J	1 U	0.93 J		
MW-14	9/18/2014	4 U	4 U	4 U	4 U		
MW-14	9/16/2015	4 U	4 U	4 U	4 U		
MW-14	10/6/2016	4 U	4 U	4 U	4 U		
MW-14	10/25/2017	0.48 J	1 U	1 U	10		
MW-14	10/4/2018	5 U	5 U	5 U	5 U		
MW-14	10/22/2019	5 U	5 U	5 U	5 U		
MW-14	10/22/2020	5 U	5 U	5 U	5 U		
MW-14	10/21/2021	5 U	5 U	5 U	5 U		
MW-15 (B)	10/22/1996	1 U	1 U	1 U	1 U		
MW-15 (B)	10/22/1997	1 U	1 U	1 U	1 U		
MW-15 (B)	10/21/1998	1 U	1 U	1 U	1 U		
MW-15 (B)	10/19/1999	1 U	1 U	1 U	1 U		
MW-15 (B)	11/9/2000	1 U	1 U	1 U	1 U		
MW-15 (B)	11/8/2001	1 U	1 U	1 U	1 U		
MW-15 (B)	10/11/2002	1 U 1 U	1 U 1 U	1 U 1 U	1 U 1 U		
MW-15 (B)	12/8/2003	0.50 U	0.50 U	0.50 U	0.50 U		
MW-15 (B)	12/28/2004 11/9/2005	2.19	0.50 U	0.50 U	0.50 U		
MW-15 (B) MW-15 (B)	1/2/2003	1.8	0.5 U	0.50 U	0.50 U		
MW-15 (B) MW-15 (B)	11/29/2007	1.8	0.5 U	0.5 U	0.5 U		
MW-15 (B)	11/1/2008	0.5 U	0.5 U	0.5 U	0.5 U		
MW-15 (B)	11/20/2009	0.71	0.5 U	0.5 U	0.5 U		
MW-15 (B)	11/17/2010	0.5 U	0.5 U	0.5 U	0.5 U		
MW-15 (B)	11/29/2011	0.5 U	0.5 U	0.5 U	0.5 U		
MW-15 (B)	11/28/2012	0.5 U	0.5 U	0.5 U	0.5 U		
MW-15 (B)	10/1/2013	1 U	1 U	1 U	1 U		
MW-15 (B)	9/18/2014	1 U	1 U	1 U	1 U		
MW-15 (B)	9/16/2015	1 U	1 U	1 U	1 U		
MW-15 (B)	10/6/2016	1 U	1 U	1 U	1 U		
MW-15 (B)	10/25/2017	1 U	1 U	1 U	1 U		
MW-15 (B)	10/4/2018	1 U	1 U	1 U	1 U		
MW-15 (B)	10/22/2019	1 U	1 U	1 U	1 U		
MW-15 (B)	10/22/2020	1 U	1 U	1 U	1 U		
MW-15 (B)	10/21/2021	1 U	1 U	1 U	1 U		
MW-16 (B)	10/22/1996	1 U	1 U	1 U	1 U		
MW-16 (B)	10/22/1997	1 U	1 U	1 U	1 U		
MW-16 (B)	10/21/1998	1 U	1 U	1 U	1 U		
MW-16 (B)	10/19/1999	1 U	1 U	1 U	1 U		
		1 U					
MW-16 (B)	11/9/2000		10	1 U	1 U		
MW-16 (B)	11/8/2001	1 U	1 U	10	1 U		
MW-16 (B)	10/11/2002	1 U	1 U	1 U	1 U		
MW-16 (B)	12/8/2003	1 U	1 U	1 U	1 U		
MW-16 (B)	12/28/2004	0.50 U	0.50 U	0.50 U	0.50 U		
MW-16 (B)	11/9/2005	0.50 U	0.50 U	0.50 U	0.50 U		
MW-16 (B)	1/2/2007	0.5 U	0.5 U	0.5 U	0.5 U		



	Chemical Name	cis-1,2-Dichloroethene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene		
Location ID Sample Date		ug/l	ug/l	ug/l	ug/l		
MW-16 (B)	11/29/2007	0.5 U	0.5 U	0.5 U	0.5 U		
MW-16 (B)	11/1/2008	0.5 U	0.5 U	0.5 U	0.5 U		
MW-16 (B)	11/20/2009	0.5 U	0.5 U	0.5 U	0.5 U		
MW-16 (B)	11/17/2010	0.5 U	0.5 U	0.5 U	0.5 U		
MW-16 (B)	11/29/2011	0.5 U	0.5 U	0.5 U	0.5 U		
MW-16 (B)	11/28/2012	0.5 U	0.5 U	0.5 U	0.5 U		
MW-16 (B)	10/1/2013	1 U	1 U	1 U	1 U		
MW-16 (B)	9/18/2014	1 U	1 U	1 U	1 U		
MW-16 (B)	9/16/2015	1 U	1 U	1 U	1 U		
MW-16 (B)	10/6/2016	1 U	1 U	1 U	1 U		
			1 U	1 U	1 U		
MW-16 (B)	10/25/0217	1 U					
MW-16 (B)	10/4/2018	1 U	10	1 U	1 U		
MW-16 (B)	10/22/2019	1 U	1 U	1 U	1 U		
MW-16 (B)	10/22/2020	1 U	1 U	1 U	1 U		
MW-16 (B)	10/21/2021	1 U	1 U	1 U	1 U		
MW-17	1/17/1996		5 U	5 U			
MW-17	4/10/1996		20	5 U			
MW-17	7/16/1996	10 U	10 U	10 U	10 U		
MW-17	10/22/1996	7	12	5 U	5 U		
MW-17	1/16/1997	10 U	22	10 U	10 U		
MW-17	4/15/1997	10 U	15	10 U	10 U		
MW-17	7/8/1997	10 U	18	10 U	10 U		
MW-17	1/29/1998	10 U	12	10 U	10 U		
MW-17	4/15/1998	50 U	50 U	50 U	50 U		
		10 U	17				
MW-17	10/20/1998			10 U	10 U		
MW-17	4/29/1999	10 U	23	10 U	10 U		
MW-17	10/19/1999	10 U	10 U	10 U	10 U		
MW-17	4/6/2000	10 U	10 U	10 U	10 U		
MW-17	11/9/2000	15	7	5 U	5 U		
MW-17	7/3/2001	10	7	5 U	5 U		
MW-17	11/10/2001	10	8	5 U	5 U		
MW-17	10/11/2002	22	5 U	5 U	5 U		
MW-17	12/8/2003	10 U	10 U	10 U	10 U		
MW-17	12/28/2004	5.1	11	5.0 U	5.0 U		
MW-17	11/9/2005	17.9	9.5	2.50 U	2.50 U		
MW-17	1/2/2007	9.45	10.2	2.5 U	2.5 U		
MW-17	11/29/2007	22	6.9	0.5 U	0.5 U		
MW-17	11/1/2008	21.7	5.06	0.5 U	0.5 U		
		11.6		5 U			
MW-17	11/20/2009		6.1		5 U		
MW-17	11/17/2010	2.4	6.18	1.25 U	1.25 U		
MW-17	11/29/2011	20.2	19.7	5 U	5 U		
MW-17	11/28/2012	10.7	5.25	2.5 U	2.5 U		
MW-17	10/1/2013	31	8.1	1 U	1 U		
MW-17	9/18/2014	24	4.93	5 U	5 U		
MW-17	9/16/2015	16	5.9	1 U	1 U		
MW-17	10/6/2016	18	5.2	5 U	5 U		
MW-17	10/25/2017	29	4.4	1 U	0.68 J		
MW-17	10/4/2018	23	4.1 J	5 U	5 U		
MW-17	10/22/2019	29	4.3 J	5 U	5 U		
MW-17	10/22/2020	25	4.3 J	5 U	5 U		
MW-17	10/21/2021	11	3.3	2 U	2 U		
MW-17	5/29/1996	50 U		50 U	50 U		
MW-18	10/22/1996	81	50 U	50 U	50 U		
MW-18	1/16/1997	100 U	100 U	100 U	100 U		
MW-18	4/16/1997	10 U	10 U	10 U	10 U		
MW-18	7/8/1997	66	50 U	50 U			
MW-18	10/23/1997	100 U	100 U	100 U	100 U		
MW-18	1/29/1998	50 U	50 U	50 U	50 U		
MW-18	4/16/1998	50 U	50 U	50 U	50 U		
MW-18	10/21/1998	160	100 U	100 U	100 U		



	Chemical Name	cis-1,2-Dichloroethene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene			
Location ID	Sample Date	ug/l	ug/l	ug/l	ug/l			
MW-18	4/29/1999	37	25 U	25 U	25 U			
MW-18	10/19/1999	100 U	100 U	100 U	100 U			
MW-18	4/6/2000	14	10 U	10 U	10 U			
MW-18	11/9/2000	100	50 U	50 U	50 U			
MW-18	7/3/2001	50 U	50 U	50 U	50 U			
MW-18	11/10/2001	120	50 U	50 U	50 U			
MW-18	4/4/2002	10 U	10 U	10 U	10 U			
MW-18	10/15/2002	310	50 U	50 U	50 U			
MW-18	5/1/2003	130	50 U	50 U	50 U			
MW-18	12/8/2003	100 U	100 U	100 U	100 U			
MW-18	7/19/2004	140	50 U	50 U	50 U			
MW-18	4/8/2005	120	0.51	0.50 U	0.86			
MW-18	4/21/2006	127	25 U	25 U	25 U			
MW-18	2/7/2007	68.5	12.5 U	12.5 U	12.5 U			
MW-18	5/31/2007	136	12.5 U	12.5 U	12.5 U			
MW-18	11/29/2007	190	0.51	0.5 U	0.86			
MW-18	5/1/2008	108	0.5 U	0.5 U	0.81			
MW-18	11/1/2008	148	25 U	25 U	25 U			
MW-18	04/22/2009	79.5	25 U	25 U	25 U			
MW-18	11/20/2009	125	25 U	25 U	25 U			
MW-18 MW-18	04/30/2010	38.5	25 U	25 U	25 U			
	11/17/2010	38.5 99	25 U	25 U 25 U	25 U			
MW-18		73.5	25 U	25 U 25 U	25 U			
MW-18	5/21/2011							
MW-18	11/29/2011	109	25 U	25 U	25 U			
MW-18	5/22/2012	74	25 U	25 U	25 U			
MW-18	11/28/2012	144	25 U	25 U	25 U			
MW-18	4/18/2013	70.5	25 U	25 U	25 U			
MW-18	10/1/2013	210	0.42 J	1 U	0.9 J			
MW-18	4/16/2014	76	1 U	1.0 U	1 U			
MW-18	9/18/2014	270	1 U	10 U	1 U			
MW-18	3/31/2015	210	10 U	10 U	10 U			
MW-18	9/16/2015	430 F1	10 U	10 U	10 U			
MW-18	3/22/2016	360	25 U*	25 U	25 U			
MW-18	10/6/2016	500	20 U	20 U	20 U			
MW-18	4/27/2017	180	5 U	5 U	5U			
MW-18	10/25/2017	300	5 U	5 U	6.1			
MW-18	4/24/2018	340	20 U*	20 U	20 U			
MW-18	10/4/2018	510	20 U	20 U	20 U			
MW-18	5/1/2019	290	20 U	20 U	20 U			
MW-18	10/22/2019	440	20 U	20 U	20 U			
MW-18	4/15/2020	330	20 U	20 U	20 U			
MW-18	10/22/2020	470	20 U	20 U	20 U			
MW-18	4/20/2021	350	20 U	20 U	20 U			
MW-18	10/21/2021	750 F1	20 U	20 U	20 U			
MW-20	5/24/1996	46	1 U	1 U	1 U			
MW-21	1/21/1997	650	100 U	100 U	100 U			
MW-21	4/16/1997	630	50 U	50 U	50 U			
MW-21	7/8/1997	770	50 U	50 U	50 U			
MW-21	10/23/1997	800	50 U	50 U	50 U			
MW-21	1/29/1998	350	10 U	10 U	10 U			
MW-21	4/16/1998	1400		50 U	50 U			
MW-21	10/21/1998				50 U			
MW-21 MW-21	4/29/1999				100 U			
			<b>2100</b> 100 U 100 U <b>670</b> 20 U 20 U					
MW-21	10/19/1999		670 20 U 20 U		20 U			
MW-21	4/6/2000	140	5 U	5 U	5 U			
MW-21	11/7/2000	220	5 U	5 U	5 U			
MW-21	7/3/2001	130	5 U	5 U	5 U			
MW-21	11/10/2001	240	5 U	5 U	5 U			
MW-21	12/8/2003	32	1 U	1 U	1 U			
MW-21	12/28/2004	2.8	0.50 U	0.50 U	0.50 U			

3/21/2022 I:\Obg-Lim.3902\74482.Itt-Acc-Die-O\Docs\Reports\PRRs (Triennial Reporting)\2019-2021\Tables\Table\_3\_GW\_Other\_Detected\_VOCs.xlsx Page 8 of 11



	Chemical Name	cis-1,2-Dichloroethene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene		
Location ID	Sample Date	ug/l	ug/l	ug/l	<b>ug/I</b> 0.50 U		
MW-21	11/9/2005	20	0.50 U	0.50 U			
MW-21	1/2/2007	15.4	0.5 U	0.5 U	0.5 U		
MW-21	11/29/2007	25	0.5 U	0.5 U	0.5 U		
MW-21	11/1/2008	45.2	0.5 U	0.5 U	0.5 U		
MW-21	11/20/2009	40.7	1 U	1 U	1 U		
MW-21	11/17/2010	22.6	1 U	1 U	1 U		
MW-21	11/29/2011	18.8	0.5 U	0.5 U	0.5 U		
MW-21	11/28/2012	71	2.5 U	2.5 U	2.5 U		
MW-21	10/1/2013	28	1 U	1 U	1 U		
MW-21	9/18/2014	30	1 U	1 U	1 U		
MW-21	9/16/2015	40	1 U	1 U	1 U		
MW-21	10/6/2016	48	1 U	1 U	1 U		
MW-21	10/25/2017	48	1 U	1 U	1.3		
MW-21	10/4/2018	43	1 U	1 U	1 U		
MW-21	10/22/2019	38	1 U	1 U	1 U		
		29	1 U	1 U	1 U		
MW-21	10/22/2020	8.1	1 U	1 U 1 U	1 U		
MW-21	10/21/2021	5	10	1 U 1 U	1 U		
MW-22	1/21/1997						
MW-22	4/16/1997	4	1 U	1 U	1 U		
MW-22	7/8/1997	9	1 U	1 U	1 U		
MW-22	10/23/1997	22	1 U	1 U	1 U		
MW-22	1/29/1998	11	1 U	1 U	1 U		
MW-22	4/16/1998	22	1 U	1 U	1 U		
MW-22	10/21/1998	35	1 U	1 U	1 U		
MW-22	4/29/1999	24	1 U	1 U	1 U		
MW-22	10/19/1999	28	1 U	1 U	1 U		
MW-22	4/6/2000	26	1 U	1 U	1 U		
MW-22	11/9/2000	29	1 U	1 U	1 U		
MW-22	7/3/2001	37	1 U	1 U	1 U		
MW-22	11/10/2001	36	1 U	1 U	1 U		
MW-22	10/11/2002	51	1 U	1 U	1 U		
MW-22	12/8/2003	52	2 U	2 U	2 U		
MW-22	12/28/2004	47	1.0 U	1.0 U	1.1		
MW-22	11/9/2005	56.3	1.00 U	1.00 U	1.00 U		
MW-22	1/2/2007	38.4	1 U	1 U	1 U		
MW-22	11/29/2007	37	0.5 U	0.5 U	0.77		
MW-22	11/1/2008	31.2	0.5 U	0.5 U	0.92		
MW-22	11/20/2009	30.6	1 U	1 U	1 U		
MW-22	11/17/2010	30.5	1 U	1 U	1 U		
MW-22	11/29/2011	33.4	0.5 U	0.5 U	1.16		
MW-22	11/28/2012	37.2	1 U	1 U	1.24		
MW-22	10/1/2013	48	1 U	1 U	2.4		
MW-22 MW-22	9/18/2014	53	1 U	1 U	5		
MW-22 MW-22	9/16/2015	54	1 U	1 U	5.2		
	10/6/2016	30	1 U	1 U	2.5		
MW-22	10/25/2017	18	10	1 U	1.1		
MW-22	10/4/2018	19	10	1 U	1.5		
MW-22	10/22/2019	5.6	10	1 U	10		
MW-22	10/22/2020	7	1 U	1 U	0.9 J		
MW-22	10/21/2021	7.8	1 U	1 U	1 U		
MW-23 (B)	4/15/1997	1 U	1 U	1 U	1 U		
MW-23 (B)	7/8/1997	1 U	1 U	1 U	1 U		
MW-23 (B)	10/22/1997	1 U	1 U	1 U	1 U		
MW-23 (B)	1/29/1998	1 U	1 U	1 U	1 U		
MW-23 (B)	10/21/1998	1 U	1 U	1 U	1 U		
MW-23 (B)	10/19/1999	1 U	1 U	1 U	1 U		
MW-23 (B)	11/7/2000	1 U	1 U	1 U	1 U		
MW-23 (B)	11/8/2001	1 U	1 U	1 U	1 U		



	Chemical Name	cis-1,2-Dichloroethene	Tetrachloroethene	Toluene			
Location ID	Sample Date	ug/l	ug/l	ug/l	ug/l		
MW-24	11/9/1998	2600	200 U	200 U	200 U		
MW-24	4/29/1999	1600	100 U	100 U	100 U		
MW-24	10/19/1999	3000	100 U	100 U	100 U		
MW-24	4/6/2000	250	20 U	20 U	20 U		
MW-24	11/7/2000	1200	50 U	50 U	50 U		
MW-24	7/3/2001	400	50 U	50 U	50 U		
MW-24	11/10/2001	2100	50 U	50 U	50 U		
MW-24	6/11/2002	680	50 U	50 U	50 U		
MW-24	5/1/2003	410	10 U	10 U	10 U		
MW-24	12/8/2003	81	10 U	10 U	10 U		
MW-24	7/19/2004	680	10 U	10 U	10 U		
MW-24	12/28/2004	69	5.0 U	5.0 U	5.0 U		
MW-24	4/8/2005	44	2.0 U	2.0 U	2.0 U		
MW-24	11/9/2005	75.6	2.50 U	2.50 U	2.50 U		
MW-24	4/21/2006	180	2.5 U	2.5 U	2.5 U		
MW-24	1/2/2007	5.15	2.5 U	2.5 U	2.5 U		
MW-24	5/31/2007	45.7	2.5 U	2.5 U	2.5 U		
MW-24	11/29/2007	42	0.5 U	0.5 U	0.5 U		
MW-24	5/1/2008	8.21	0.5 U	0.5 U	0.5 U		
MW-24	11/1/2008	51.9	5 U	5 U	5 U		
MW-24	04/22/2009	8.1	5 U	5 U	5 U		
MW-24	04/30/2010	11	2.5 U	2.5 U	2.5 U		
MW-24	11/17/2010	212	2.5 U	2.5 U	2.5 U		
MW-24	5/21/2011	492	5 U	5 U	5 U		
MW-24	11/29/2011	43.3	5 U	5 U	5 U		
MW-24	5/22/2012	36.9	5 U	5 U	5 U		
MW-24 MW-24	11/28/2012	111	25 U	25 U	25 U		
		43					
MW-24	4/18/2013		25 U	25 U	25 U		
MW-24	10/1/2013	150	1 U	1 U	1.9		
MW-24	4/16/2014	89	1 U	1 U	1.2		
MW-24	9/18/2014	110	5 U	5 U	5 U		
MW-24	3/31/2015	14	5 U	5 U	5 U		
MW-24	9/16/2015	150	5 U	5 U	5 U		
MW-24	3/22/2016	34	5 U*	5 U	5 U		
MW-24	10/6/2016	65	5 U	5 U	5 U		
MW-24	4/26/2017	31	1 U	1 U	1U		
MW-24	10/25/2017	60	1 U	1 U	1.7		
MW-24	4/24/2018	18	5 U	5 U	5 U		
MW-24	10/4/2018	60	5 U	5 U	5 U		
MW-24	5/1/2019	6.2	5 U	5 U	5 U		
MW-24	10/22/2019	63	5 U	5 U	5 U		
MW-24	4/15/2020	9	5 U	5 U	5 U		
MW-24	10/20/2020	59	5 U	5 U	5 U		
MW-24	4/20/2021	18	5 U	5 U	5 U		
MW-24	10/21/2021	67	5 U	5 U	5 U		
PZ-01	10/21/1996	1 U	1 U	1 U	1 U		
PZ-01	10/23/1997	1 U	1 U	1 U	1 U		
PZ-01	10/20/1998	2 U	2 U	2 U	2 U		
PZ-01	10/19/1999	10 U	10 U	10 U	10 U		
PZ-01	11/7/2000	10 0 1 U	10 0 1 U	100 1 U	10 0 1 U		
PZ-01 PZ-01	11/9/2000	2 U	2 U	2 U	2 U		
PZ-01 PZ-01	10/10/2002	2 U	2 U	2 U 2 U	2 U		
PZ-01	12/8/2003	5 U 2 5 U	5 U 2.5 U	5 U 2 5 U	5 U		
PZ-01	12/28/2004	2.5 U		2.5 U	2.5 U		
PZ-01	11/9/2005	2.50 U	2.50 U	2.50 U	2.50 U		
PZ-01	1/2/2007	2.5 U	2.5 U	2.5 U	2.5 U		
PZ-01	11/29/2007	0.5 U	0.5 U	0.5 U	0.5 U		
PZ-01	11/1/2008	0.5 U	0.5 U	0.5 U	0.5 U		
PZ-01	11/20/2009	0.5 U	0.5 U	0.5 U	0.5 U		
PZ-01	11/17/2010	1 U	1 U	1 U	1 U		
PZ-01	11/29/2011	2.5 U	2.5 U	2.5 U	2.5 U		
PZ-01	11/28/2012	2.5 U	2.5 U	2.5 U	2.5 U		

3/21/2022 I:\Obg-Lim.3902\74482.Itt-Acc-Die-O\Docs\Reports\PRRs (Triennial Reporting)\2019-2021\Tables\Table\_3\_GW\_Other\_Detected\_VOCs.xlsx Page 10 of 11

	Chemical Name	cis-1,2-Dichloroethene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene
Location ID	Sample Date	ug/l	ug/l	ug/l	ug/l
PZ-01	10/1/2013	1 U	1 U	1 U	1 U
PZ-01	9/18/2014	1 U	1 U	1 U	1 U
PZ-01	9/16/2015	1 U	1 U	1 U	1 U
PZ-01	10/6/0216	1 U	1 U	1 U	1 U
PZ-01	10/25/2017	1 U	1 U	1 U	1 U
PZ-01	10/4/2018	1 U	1 U	1 U	1 U
PZ-01	10/22/2019	1 U	1 U	1 U	1 U
PZ-01	10/22/2020	1 U	1 U	1 U	1 U
PZ-01	10/21/2021	1 U	1 U	1 U	1 U
PZ-02	10/21/1996	10 U	10 U	10 U	10 U
PZ-02	10/23/1997	10 U	10 U	10 U	10 U
PZ-02	10/20/1998	10 U	10 U	10 U	10 U
PZ-02	10/19/1999	1 U	1 U	1 U	1 U
PZ-02	11/9/2000	5 U	5 U	5 U	5 U
PZ-02	11/10/2001	5 U	5 U	5 U	5 U
PZ-02	10/11/2002	5 U	5 U	5 U	5 U
PZ-02	12/8/2003	5 U	5 U	5 U	5 U
PZ-02	12/28/2004	2.5 U	2.5 U	2.5 U	2.5 U
PZ-02	11/9/2005	2.50 U	2.50 U	2.50 U	2.50 U
PZ-02	1/2/2007	2.5 U	2.5 U	2.5 U	2.5 U
PZ-02	11/29/2007	1.1	0.51	0.5 U	0.5 U
PZ-02	11/1/2008	1	0.5 U	0.5 U	0.5 U
PZ-02	11/20/2009	2.5 U	2.5 U	2.5 U	2.5 U
PZ-02	11/17/2010	2.5 U	2.5 U	2.5 U	2.5 U
PZ-02	11/29/2011	2.5 U	2.5 U	2.5 U	2.5 U
PZ-02	11/28/2012	2.5 U	2.5 U	2.5 U	2.5 U
PZ-02	10//1/2013	1 U	0.57 J	1 U	1 U
PZ-02	9/18/2014	1 U	0.47 J	1 U	1 U
PZ-02	9/16/2015	1 U	0.49 J	1 U	1 U
PZ-02	10/6/2016	1 U	0.48 J	1 U	1 U
PZ-02	10/25/2017	0.51 J	0.50 J	1 U	1 U
PZ-02	10/4/2018	1 U	0.46 J	1 U	1 U
PZ-02	10/22/2019	1 U	0.51 J	1 U	1 U
PZ-02	10/22/2020	1 U	0.49 J	1 U	1 U
PZ-02	10/21/2021	1 U	1 U	1 U	1 U

Notes: J - Estimated, U - Not detected, NS - Not sampled, --- - Not Analyzed, Detects in BOLD, \* - LCS or LCSD outside limits MW-04, MW-20 were abandoned and replaced by MW-21, MW-22 on 1/20/97, (B) Bedrock Monitoring Well



TABLE 4

SUMMARY OF RECOVERED GROUNDWATER VOLUMES



# Table 4Former Accurate Die Casting SiteFayetteville, New YorkTriennial Groundwater Report (2019-2021)Summary of Recovered Groundwater Volumes

	RV	V-1	RV	V-2	Total (	Note 1)
Year	Volume (gal)	RW-1 annual avg. flow rate (gpm)	Volume (gal)	RW-2 annual avg. flow rate (gpm)	Volume (gal)	Total annual avg. flow rate (gpm)
1996 (note 2)	5,998,900	14.0	1,987,020	4.7	8,024,610	18.8
1997 (note 3)	6,519,770	12.4	2,494,900	4.8	9,036,730	17.2
1998 (note 4)	4,578,960	8.7	2,243,700	4.3	6,856,820	13.0
1999 (note 5)						
2000	5,536,710	10.5	2,348,840	4.5	7,888,520	15.0
2001	4,382,540	8.3	2,285,500	4.3	6,668,320	12.7
2002	3,680,540	7.0	2,494,490	4.7	6,176,790	11.8
2003	1,702,150	3.2	2,850,890	5.4	4,560,930	8.7
2004	1,362,590	2.6	3,201,590	6.1	4,569,740	8.7
2005	1,242,760	2.4	2,935,610	5.6	4,179,920	8.0
2006	1,820,850	3.5	2,996,200	5.7	4,818,730	9.2
2007 (note 6)	2,269,640	4.3	2,997,210	5.7	5,267,350	10.0
2008 (note 7)	2,615,210	5.0	2,697,830	5.1	5,313,040	10.1
2009 (note 8)	2,183,860	4.2	2,773,920	5.3	4,957,780	9.5
2010 (note 9)	1,762,230	3.4	2,870,950	5.5	4,639,510	8.9
2011 (note 10)	1,610,860	3.1	3,051,580	5.8	4,662,440	8.8
2012 (note 11)	1,225,270	2.3	2,146,120	4.0	3,371,390	6.3
2013 (note 12)	792,200	1.5	2,058,420	4.0	2,852,470	5.5
2014 (note 13)	911,470	1.7	2,172,290	4.1	3,090,530	5.9
2015 (note 14)	793,750	1.5	2,357,770	4.5	3,152,900	6.0
2016 (note 15)	549,220	1.4	1,773,230	4.5	2,322,450	5.9
2017 (note 16)	598,050	1.5	1,683,390	4.3	2,283,090	5.8
2018 (note 17)	806,940	1.2	3,035,920	4.6	3,842,860	5.8
2019 (note 18)	736,724	1.4	3,413,192	6.5	4,151,016	7.9
2020 (note 19)	769,355	1.5	2,917,742	5.6	3,688,023	7.0
2021 (note 20)	803,475	1.5	2,986,166	5.7	3,790,466	7.2

Notes

1. Total includes the flows, when applicable, from the sump and interceptor trench as well as the two recovery wells.

- 2. The groundwater recovery system was placed into operation on February 5, 1996. The data for 1996 includes volumes
- recovered between February 5, 1996 and November 27, 1996 as reported in February 7, 1997 letter to the NYSDEC. Average calculated by dividing period flow by 296 days in period.
- 3. The data for 1997 includes volumes recovered between December 2, 1996 and December 1, 1997 as reported in Jan 27, 1998 letter to the NYSDEC. Average calculated by dividing period flow by 364 days in period.
- 4. The data for 1998 includes volumes recovered between December 1, 1997 and December 1, 1998 as reported in Feb 25, 1999 letter to the NYSDEC. Average calculated by dividing period flow by 365 days in period.
- 5. Data for 1999 in central records and not recovered for preparation of table.
- 6. Volume of groundwater recovered between January 1, 2007 and January 2, 2008. Average calculated by
- dividing period flow by 366 days in period.7. Volume of groundwater recovered between January 3, 2008 and January 2, 2009. Average calculated by dividing period flow by 365 days in period.
- Volume of groundwater recovered between January 3, 2009 and December 30, 2009. Average calculated by dividing period flow by 361 days in period.
- 9. Volume of groundwater recovered between December 31, 2009 and December 27, 2010. Average calculated by dividing period flow by 361 days in period.
- 10. Volume of groundwater recovered between December 28, 2010 and December 29, 2011. Average calculated by dividing period flow by 366 days in period.
- Volume of groundwater recovered between December 30, 2011 and January 2, 2013. Average calculated by dividing period flow by 369 days in period.
- Volume of groundwater recovered between January 3, 2013 and December 30, 2013. Average calculated by dividing period flow by 361 days in period.
- Volume of groundwater recovered between December 31, 2013 and December 31, 2014. Average calculated by dividing period flow by 365 days in period.
- Volume of groundwater recovered between December 31, 2014 and December 31, 2015. Average calculated by dividing period flow by 365 days in period.
- Volume of groundwater recovered between December 31, 2015 and September 30, 2016. Average calculated by dividing period flow by 274 days in period.
- 16. Volume of groundwater recovered between December 31, 2016 and September 30, 2017. Average calculated by dividing period flow by 304 days in period.
- 17. Volume of groundwater recovered between October 1, 2017 and December 31, 2018. Average calculated by dividing period flow by 457 days in period.
- Volume of groundwater recovered between January 1, 2019 and December 31, 2019. Average calculated by dividing period flow by 365 days in period.
- Volume of groundwater recovered between January 1, 2020 and December 31, 2020. Average calculated by dividing period flow by 365 days in period.
- 20. Volume of groundwater recovered between January 1, 2021 and December 31, 2021. Average calculated by dividing period flow by 365 days in period.



TABLE 5

SUMMARY OF INFLUENT TRICHLOROETHENE CONCENTRATIONS

# Table 5Former Accurate Die Casting SiteFayetteville, New YorkTriennial Groundwater Report (2019-2021)Summary of Influent TCE Concentrations

Sample date	Influent Concentra		Sample date	Influent TCE Concentration		Sample date	Influe Concer		Sample date	Influe Concer	ent TCE ntration	Sample date	Influent TCE date Concentration		Sample date	Influe Concen	nt TCE tration
4/4/1996	1900	ug/l	10/7/1998	840	ug/l	5/2/2001	1100	ug/l	4/7/2005	690	ug/l	1/7/2013	552	ug/l	3/1/2021	340	ug/l
5/2/1996	1900	ug/l	11/4/1998	750	ug/l	6/6/2001	1000	ug/l	7/7/2005	940	ug/l	4/2/2013	412	ug/l	6/8/2021	310	ug/l
5/21/1996	2100	ug/l	12/2/1998	580	ug/l	7/5/2001	740	ug/l	10/6/2005	876	ug/l	7/1/2013	384	ug/l	9/7/2021	320	ug/l
6/6/1996	2300	ug/l	1/6/1999	550	ug/l	8/1/2001	600	ug/l	1/6/2006	654	ug/l	10/10/2013	437	ug/l	12/6/2021	360	ug/l
7/3/1996	1900	ug/l	2/3/1999	1100	ug/l	9/5/2001	710	ug/l	4/6/2006	125	ug/l	1/21/2014	340	ug/l			
8/2/1996	1700	ug/l	3/3/1999	1200	ug/l	10/3/2001	820	ug/l	7/6/2006	584	ug/l	4/1/2014	340	ug/l			
9/5/1996	1400	ug/l	4/7/1999	1100	ug/l	10/3/2001	1900	ug/l	10/5/2006	698	ug/l	7/1/2014	520	ug/l			
10/3/1996	750	ug/l	5/5/1999	590	ug/l	11/7/2001	710	ug/l	1/4/2007	609	ug/l	10/7/2014	360	ug/l			
11/7/1996	500	ug/l	6/2/1999	510	ug/l	12/5/2001	550	ug/l	4/5/2007	560	ug/l	1/6/2015	360	ug/L			
12/5/1996	460	ug/l	7/7/1999	530	ug/l	1/2/2002	530	ug/l	7/3/2007	682	ug/l	4/6/2015	360	ug/L			
1/2/1997	800	ug/l	8/4/1999	420	ug/l	2/5/2002	610	ug/l	10/2/2007	416	ug/l	7/6/2015	320	ug/L			
2/6/1997	1400	ug/l	9/2/1999	470	ug/l	3/5/2002	850	ug/l	1/11/2008	294	ug/l	11/5/2015	340	ug/L			
3/5/1997	1100	ug/l	10/6/1999	350	ug/l	4/3/2002	610	ug/l	4/2/2008	425	ug/l	1/7/2016	350	ug/L			
4/2/1997	1200	ug/l	11/3/1999	520	ug/l	5/1/2002	860	ug/l	7/10/2008	285	ug/l	4/5/2016	350	ug/L			
5/7/1997	1300	ug/l	12/1/1999	400	ug/l	6/5/2002	850	ug/l	10/2/2008	319	ug/l	10/3/2016	310	ug/l			
6/4/1997	1200	ug/l	1/5/2000	420	ug/l	7/2/2002	1400	ug/l	4/3/2009	297	ug/l	3/6/2017	390	ug/l			
7/2/1997	1200	ug/l	2/2/2000	450	ug/l	8/6/2002	790	ug/l	7/7/2009	324	ug/l	6/5/2017	550	ug/l			
8/5/1997	810	ug/l	3/1/2000	520	ug/l	9/4/2002	690	ug/l	8/6/2009	440	ug/l	10/10/2017	400	ug/l			
9/3/1997	720	ug/l	4/5/2000	560	ug/l	10/2/2002	700	ug/l	10/8/2009	431	ug/l	12/6/2017	340	ug/l			
9/30/1997	580	ug/l	5/3/2000	1300	ug/l	11/6/2002	540	ug/l	1/12/2010	368	ug/l	3/7/2018	310	ug/l			
11/5/1997	590	ug/l	6/7/2000	1900	ug/l	11/6/2002	590	ug/l	4/6/2010	306	ug/l	6/4/2018	360	ug/l			
12/3/1997	660	ug/l	7/5/2000	1300	ug/l	12/3/2002	600	ug/l	7/7/2010	403	ug/l	9/6/2018	380	ug/l			
1/7/1998	940	ug/l	8/2/2000	1100	ug/l	1/2/2003	1000	ug/l	10/5/2010	363	ug/l	12/7/2018	330	ug/l			
2/4/1998	790	ug/l	9/6/2000	900	ug/l	2/4/2003	670	ug/l	1/7/2011	177	ug/l	3/6/2019	530	ug/l			
3/4/1998	880	ug/l	10/4/2000	740	ug/l	3/4/2003	640	ug/l	4/5/2011	560	ug/l	6/5/2019	330	ug/l			
4/1/1998	1500	ug/l	11/1/2000	670	ug/l	4/3/2003	910	ug/l	7/7/2011	513	ug/l	9/4/2019	380	ug/l			
5/5/1998	1700	ug/l	12/6/2000	480	ug/l	5/1/2003	1200	ug/l	10/4/2011	446	ug/l	12/4/2019	330	ug/l			
6/3/1998	1300	ug/l	1/3/2001	460	ug/l	6/5/2003	970	ug/l	1/3/2012	460	ug/l	3/2/2020	310	ug/l			
7/1/1998	960	ug/l	2/7/2001	500	ug/l	7/3/2003	930	ug/l	4/3/2012	479	ug/l	6/1/2020	330	ug/l			
8/5/1998	880	ug/l	3/7/2001	680	ug/l	4/1/2004	850	ug/l	7/6/2012	558	ug/l	9/1/2020	300	ug/l			
9/2/1998	1100	ug/l	4/4/2001	950	ug/l	10/7/2004	790	ug/l	10/16/2012	425	ug/l	12/7/2020	330	ug/l			







#### FIGURE 01

FORMER ACCURATE DIE CASTING SITE FAYETEVILLE, NEW YORK SITE CODE 7-34-052

#### SITE PLAN

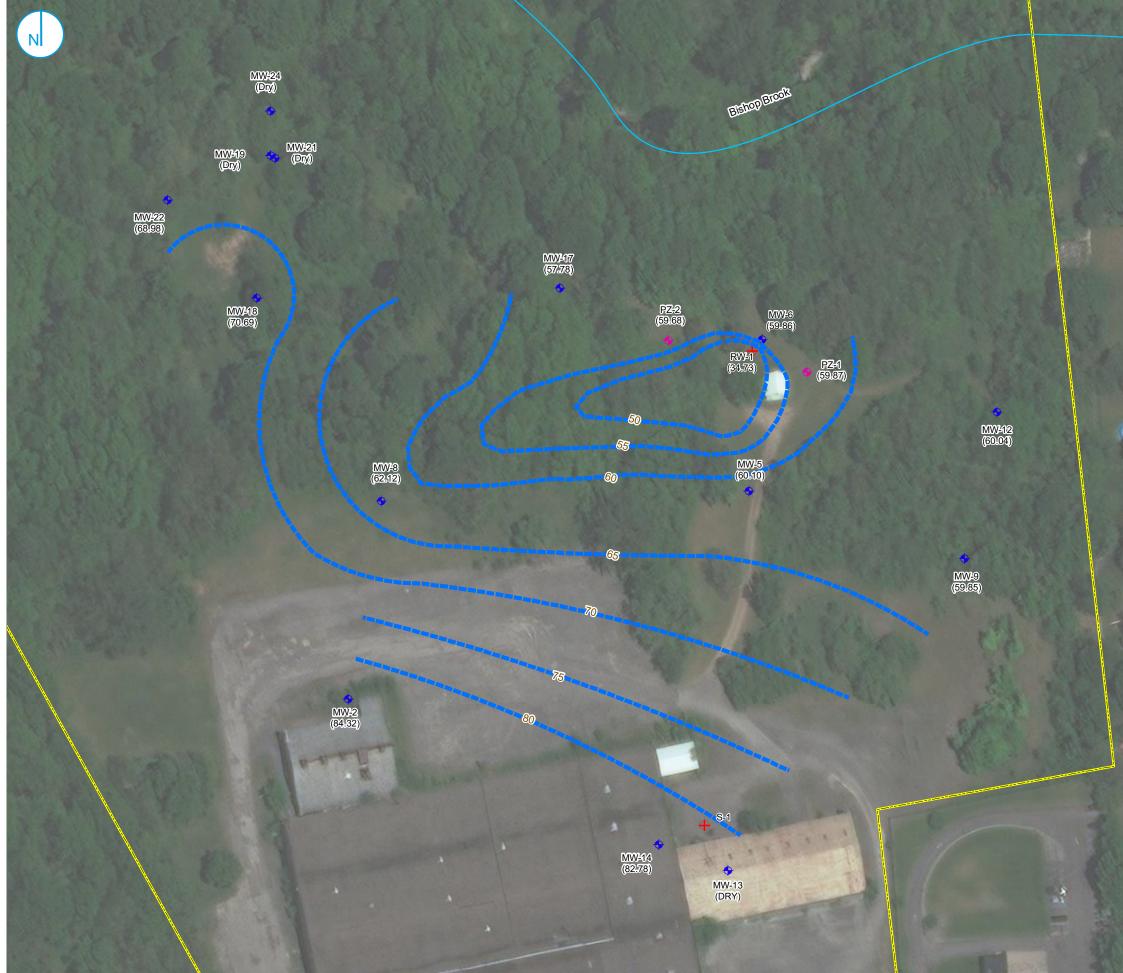




LEGEND

0

- PROPERTY LINE (approximate)
- ✤ MONITORING WELL
- PIEZOMETER
- + RECOVERY WELL



ID, IGN, and the

s DS, USDA, U



#### LEGEND

- -- OVERBURDEN CONTOUR
- OVERBURDEN MONITORING WELL
- OVERBURDEN PIEZOMETER
- ✤ OVERBURDEN RECOVERY WELL

PROPERTY LINE (approximate)

#### (60.83) GROUNDWATER ELEVATIONS

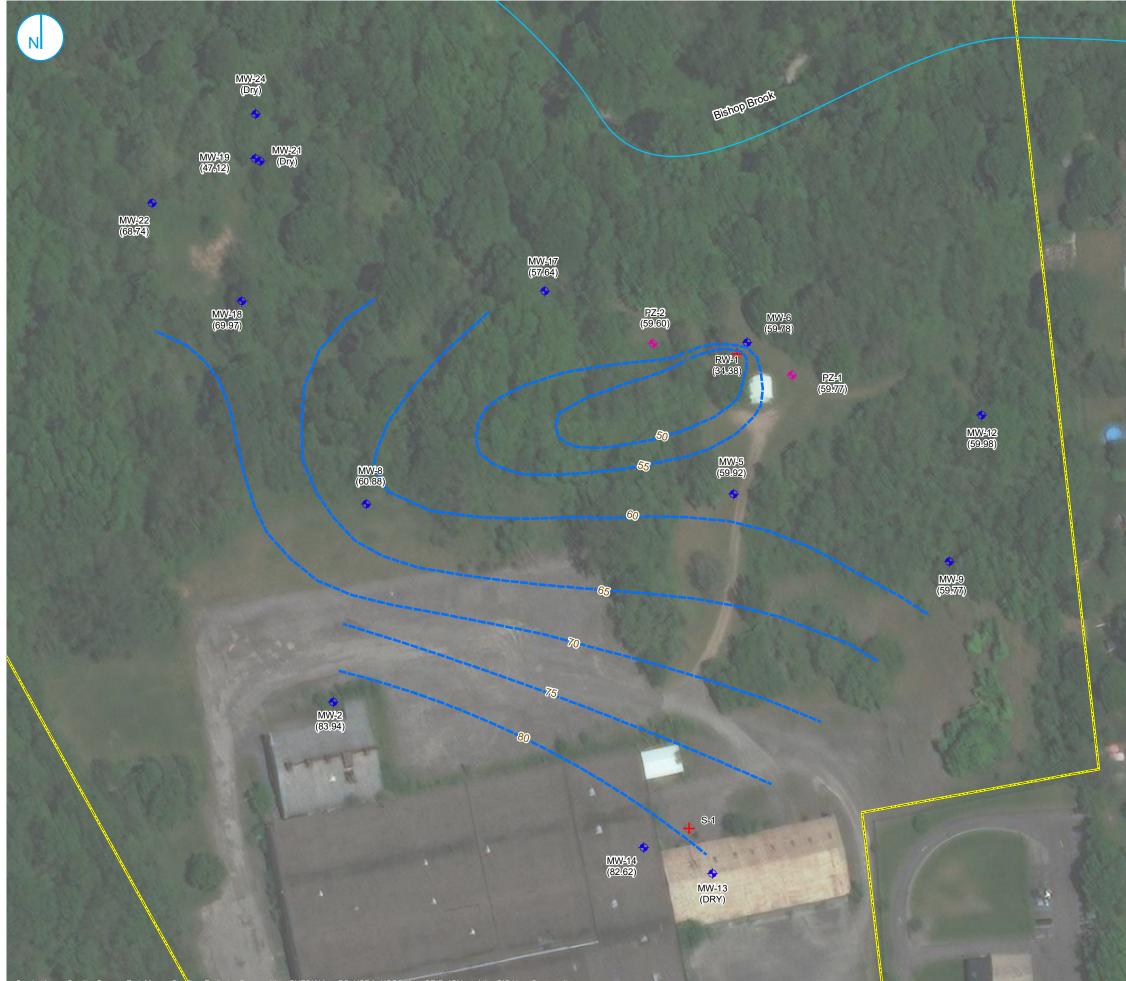
(60) GROUNDWATER CONTOUR

0 100 200

#### OVERBURDEN GROUNDWATER ELEVATIONS

#### 10/22/2019

FORMER ACCURATE DIE CASTING SITE FAYETEVILLE, NEW YORK SITE CODE 7-34-052





#### LEGEND

- --- OVERBURDEN CONTOUR
- OVERBURDEN MONITORING WELL
- ♦ OVERBURDEN PIEZOMETER
- PROPERTY LINE (approximate)

#### (60.38) GROUNDWATER ELEVATIONS

(60) GROUNDWATER CONTOUR

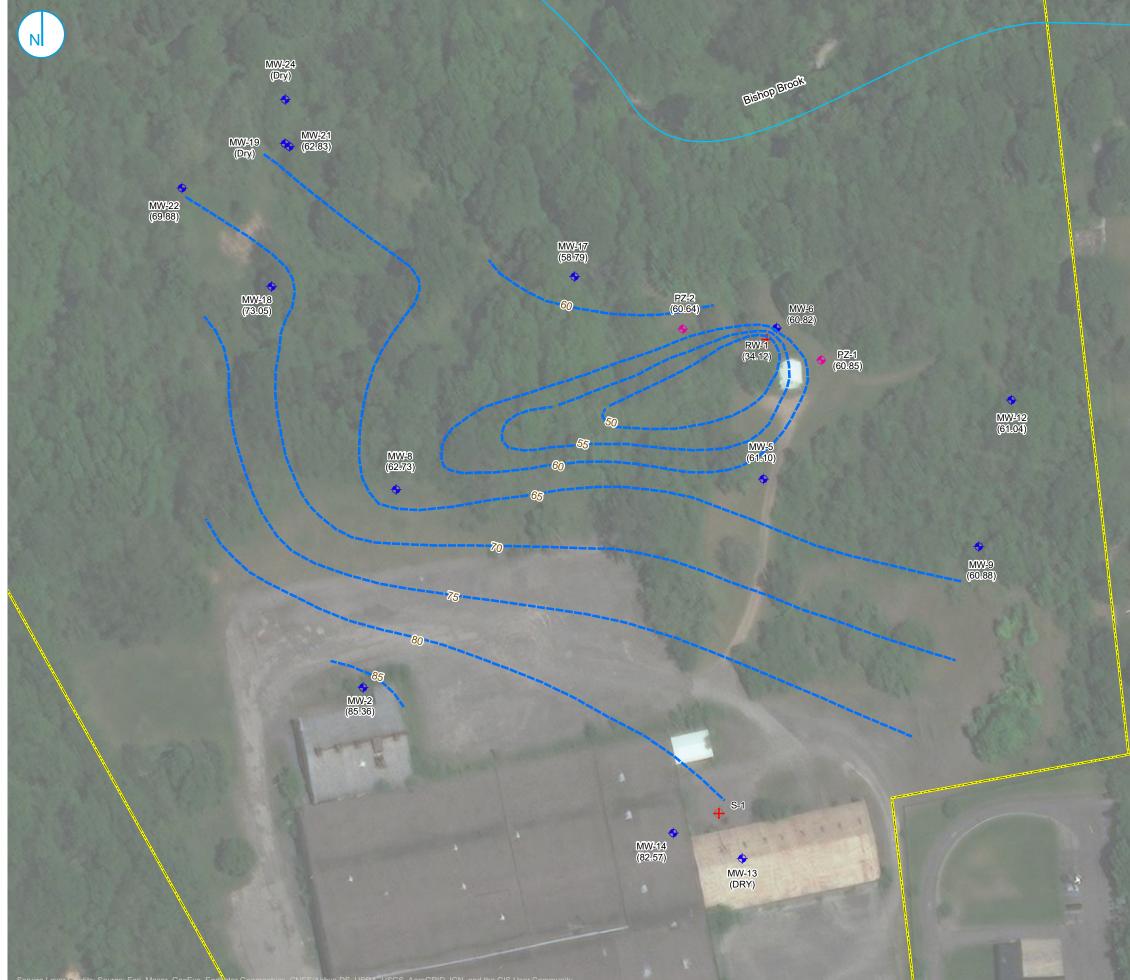
0 100 200

#### OVERBURDEN GROUNDWATER ELEVATIONS

#### (10/22/2020)

#### FORMER ACCURATE DIE CASTING SITE FAYETEVILLE, NEW YORK SITE CODE 7-34-052





l:\Obg-Lim.3902\45845.Itt-Acc-Die-O-A\Docs\DWG\MKD\Triennial Report Figures\Figure\_4\_Overburden\_GW\_Elevation\_102121\_REV.rr

ROJECT: 169000XXXX | DATED: 3/23/2022 | DESIGNER: VELIZCY



#### LEGEND

- ---- OVERBURDEN CONTOUR
- ♦ OVERBURDEN MONITORING WELL
- OVERBURDEN PIEZOMETER
- ♦ OVERBURDEN RECOVERY WELL

PROPERTY LINE (approximate)

#### (60.38) GROUNDWATER ELEVATIONS

(60) GROUNDWATER CONTOUR

0 100 200

#### OVERBURDEN GROUNDWATER ELEVATIONS

#### (10/21/2021)

#### FORMER ACCURATE DIE CASTING SITE FAYETEVILLE, NEW YORK SITE CODE 7-34-052









FORMER ACCURATE DIE CASTING SITE FAYETEVELLE, NEW YORK SITE CODE 7-34-052

#### (10/22/2019)

#### **BEDROCK GROUNDWATER ELEVATIONS**

100 200

- Feet

(52.29) GROUNDWATER ELEVATIONS 60 GROUNDWATER CONTOUR

LEGEND

-- BEDROCK CONTOUR

BEDROCK MONITORING WELL BEDROCK RECOVERY WELL **PROPERTY LINE** (*approximate*)

OJECT: 169000XXXX | DATED: 3/23/2022 | DESIGNER: VELIZCY





#### LEGEND

- BEDROCK CONTOUR
- BEDROCK MONITORING WELL
- + BEDROCK RECOVERY WELL

PROPERTY LINE (approximate)

#### (54.01) GROUNDWATER ELEVATIONS

60 GROUNDWATER CONTOUR



#### BEDROCK GROUNDWATER ELEVATIONS

#### (10/22/2020)

#### FORMER ACCURATE DIE CASTING SITE FAYETEVILLE, NEW YORK SITE CODE 7-34-052







#### LEGEND

- -- BEDROCK CONTOUR
- BEDROCK MONITORING WELL
- BEDROCK RECOVERY WELL

PROPERTY LINE (approximate)

#### (54.01) GROUNDWATER ELEVATIONS

60 GROUNDWATER CONTOUR

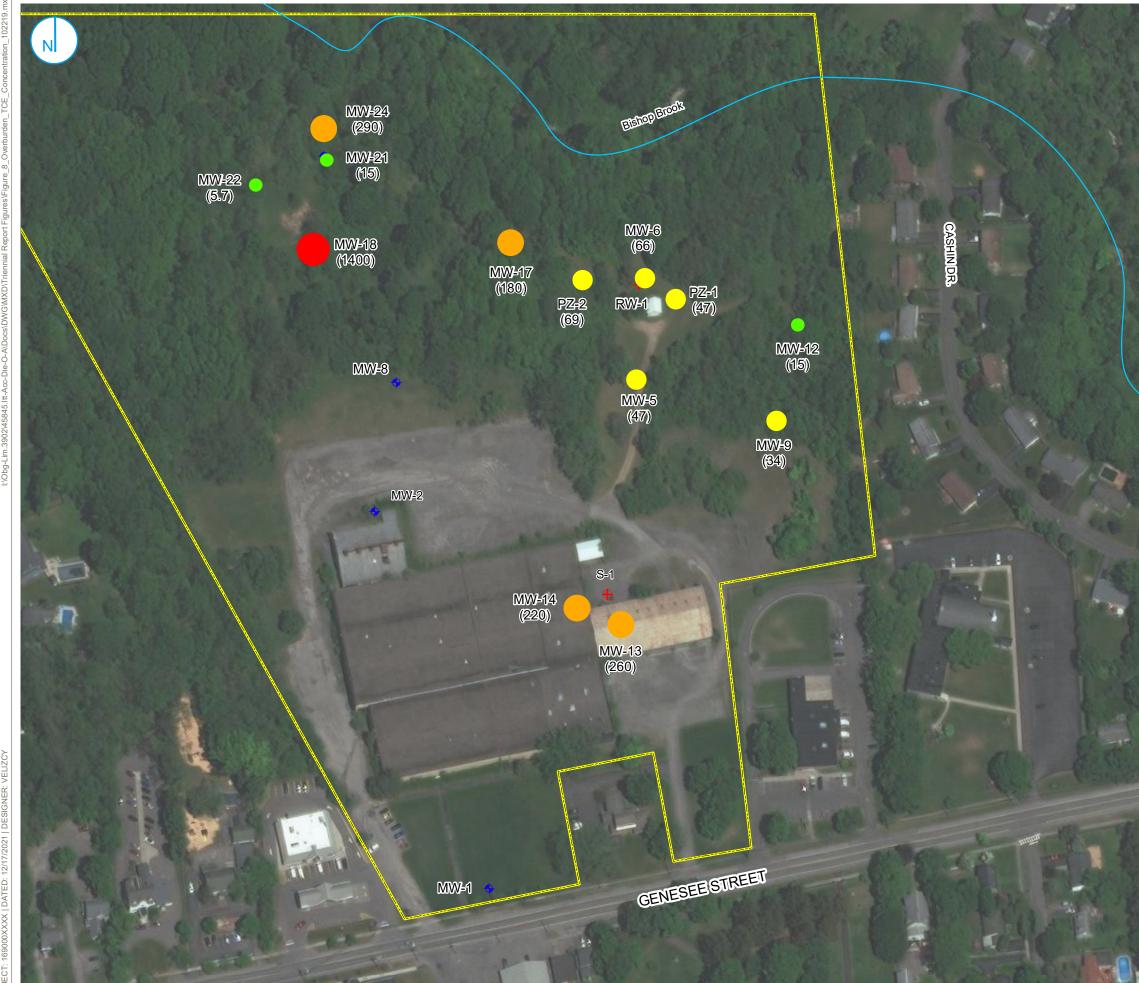


#### BEDROCK GROUNDWATER ELEVATIONS

#### (10/21/2021)

#### FORMER ACCURATE DIE CASTING SITE FAYETEVILLE, NEW YORK SITE CODE 7-34-052







#### LEGEND

- MONITORING WELL
- ♦ PIEZOMETER
- + RECOVERY WELL

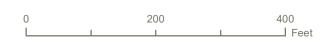
PROPERTY LINE (approximate)

#### TCE Concentrations (ug/l)



#### (1,400) TCE Concentration (ug/IL

NOTE - MW-24 LOCATION IS APPROXIMATE



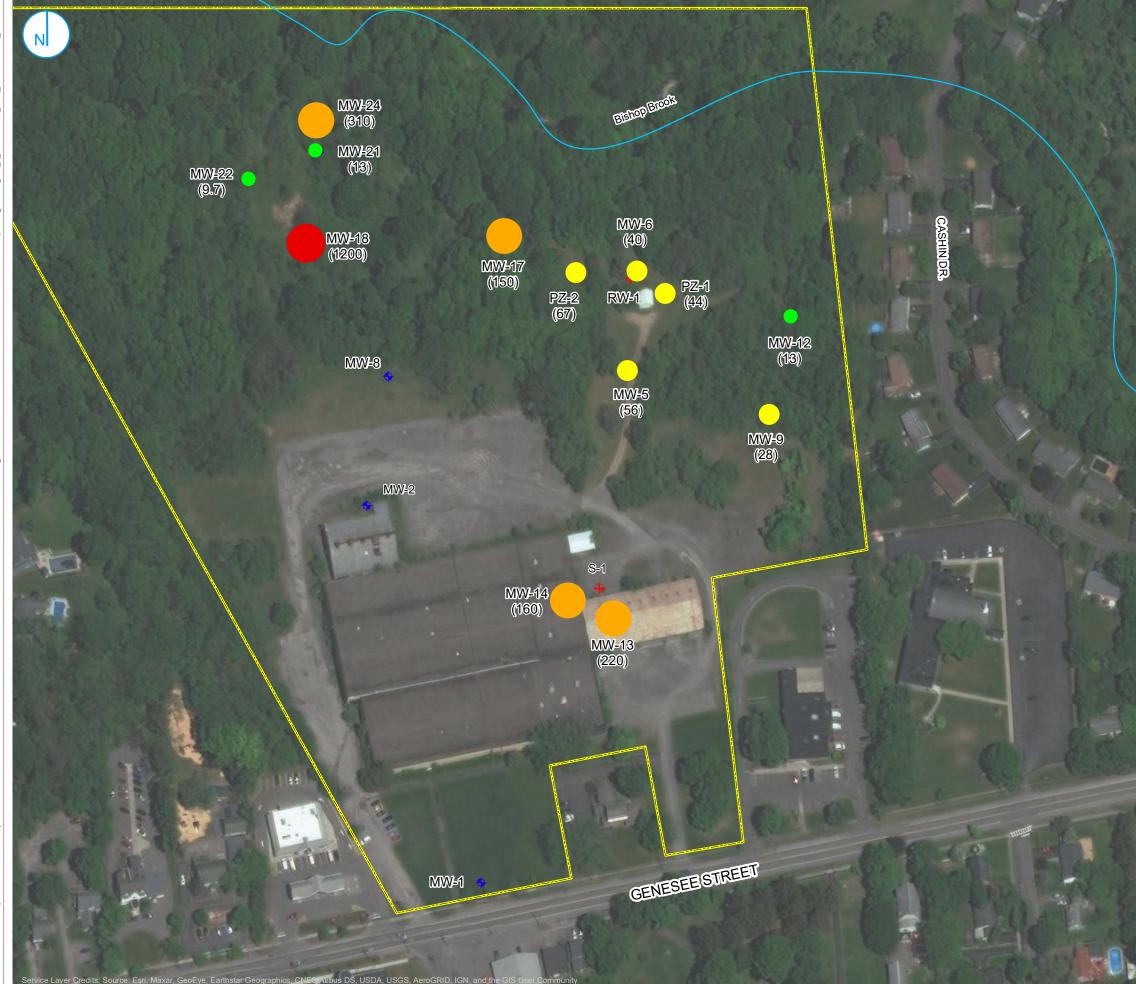
#### **OVERBURDEN TCE CONCENTRATIONS**

#### (10/22/2019)

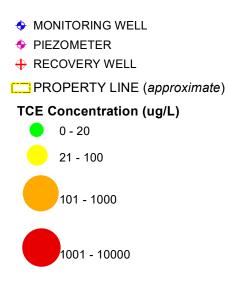
#### FORMER ACCURATE DIE CASTING SITE FAYETEVILLE, NEW YORK SITE CODE 7-34-052

#### FIGURE 08

RAMBOLL

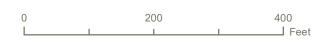






#### (1400 TCE Concentration)

MW-24 location is approximate

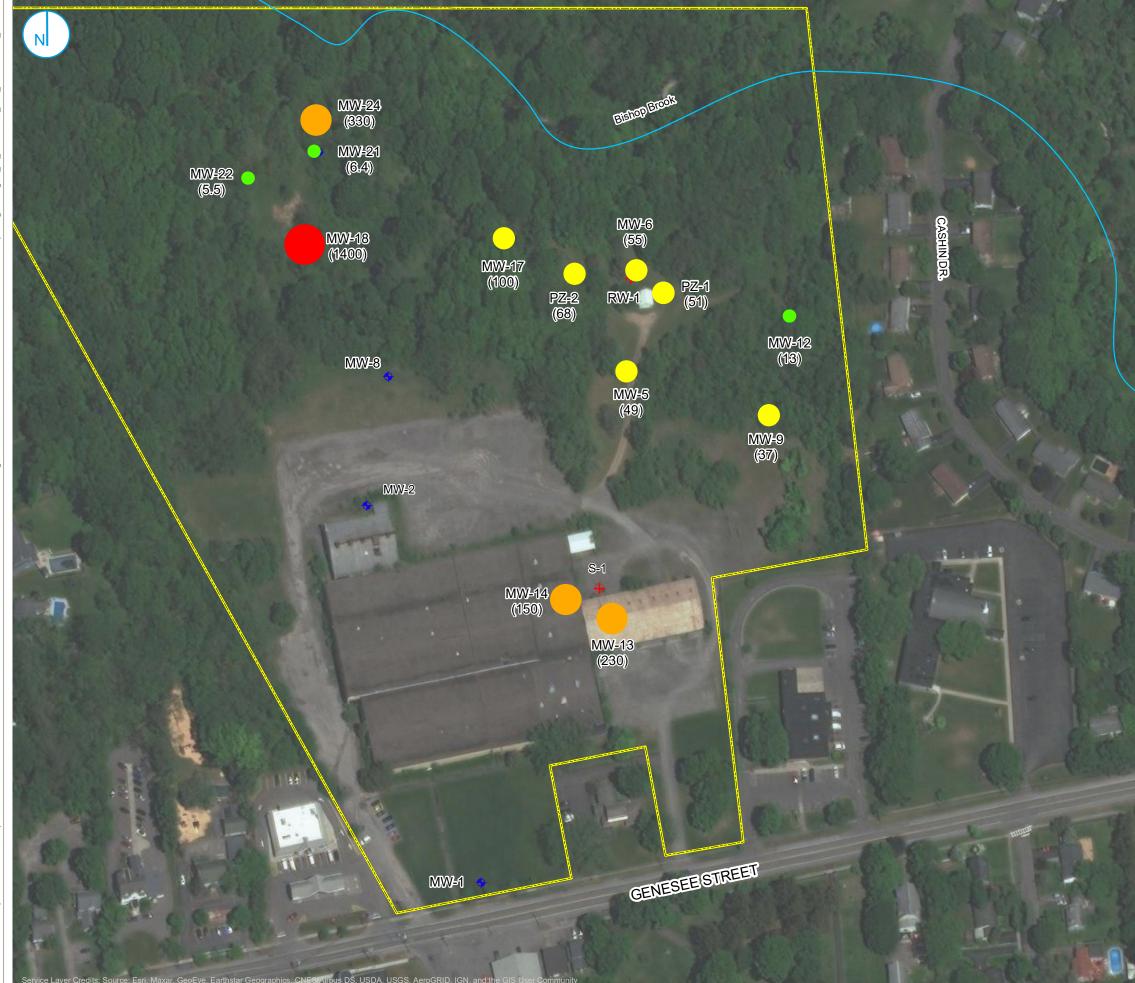


#### OVERBURDEN TCE CONCENTRATIONS (10/22/2020)

FORMER ACCURATE DIE CASTING SITE FAYETEVILLE, NEW YORK SITE CODE 7-34-052



RAMBOLL

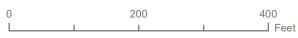






FORMER ACCURATE DIE CASTING SITE FAYETEVILLE, NEW YORK SITE CODE 7-34-052

#### **OVERBURDEN TCE CONCENTRATIONS** (10/22/2021)







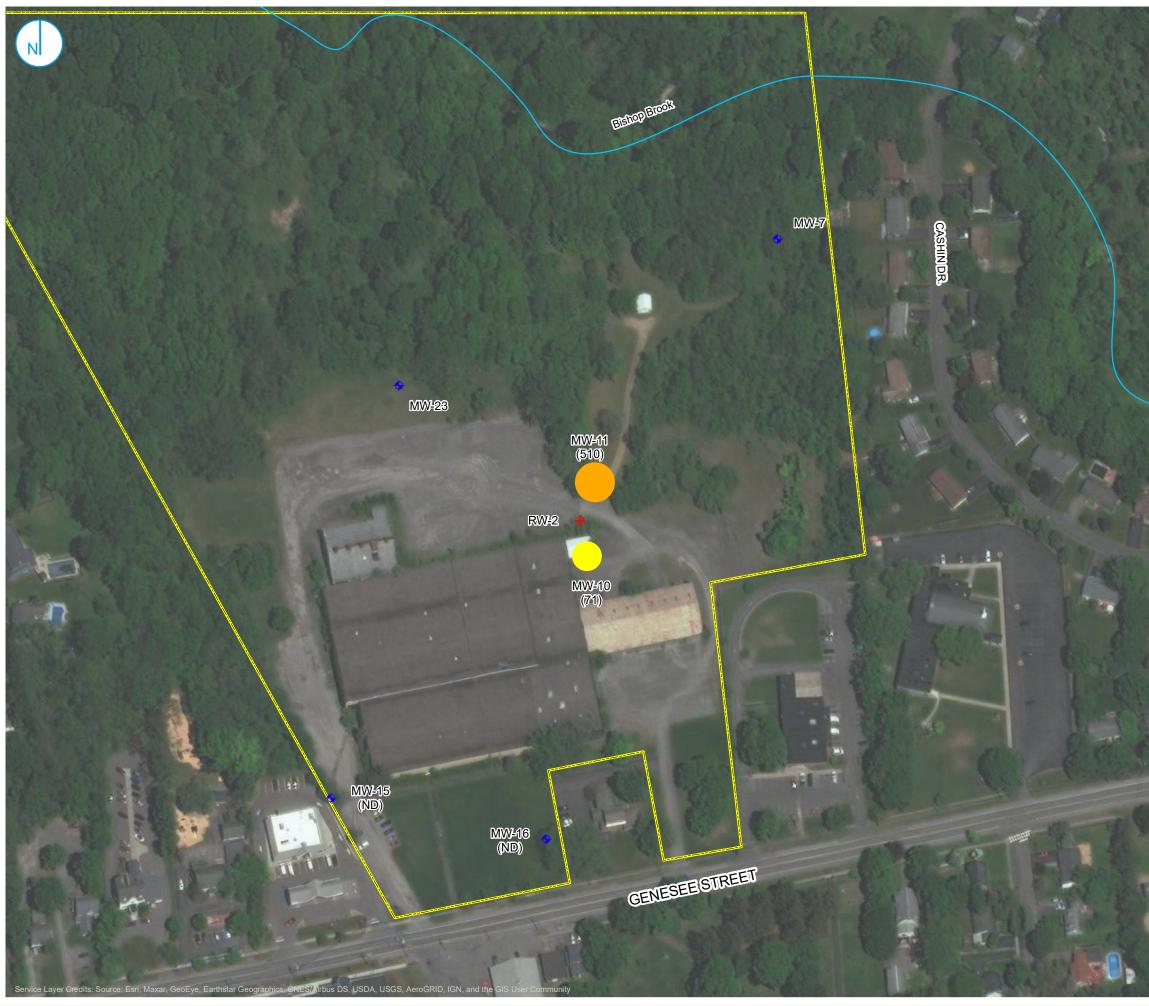
(1400 TCE Concentration)



♦ MONITORING WELL

♦ PIEZOMETER

RECOVERY WELL





#### FIGURE 11

#### FORMER ACCURATE DIE CASTING SITE FAYETEVILLE, NEW YORK SITE CODE 7-34-052

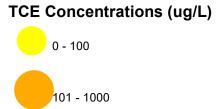
#### **BEDROCK TCE CONCENTRATIONS** (10/22/2019)

#### 200 400 \_ Feet









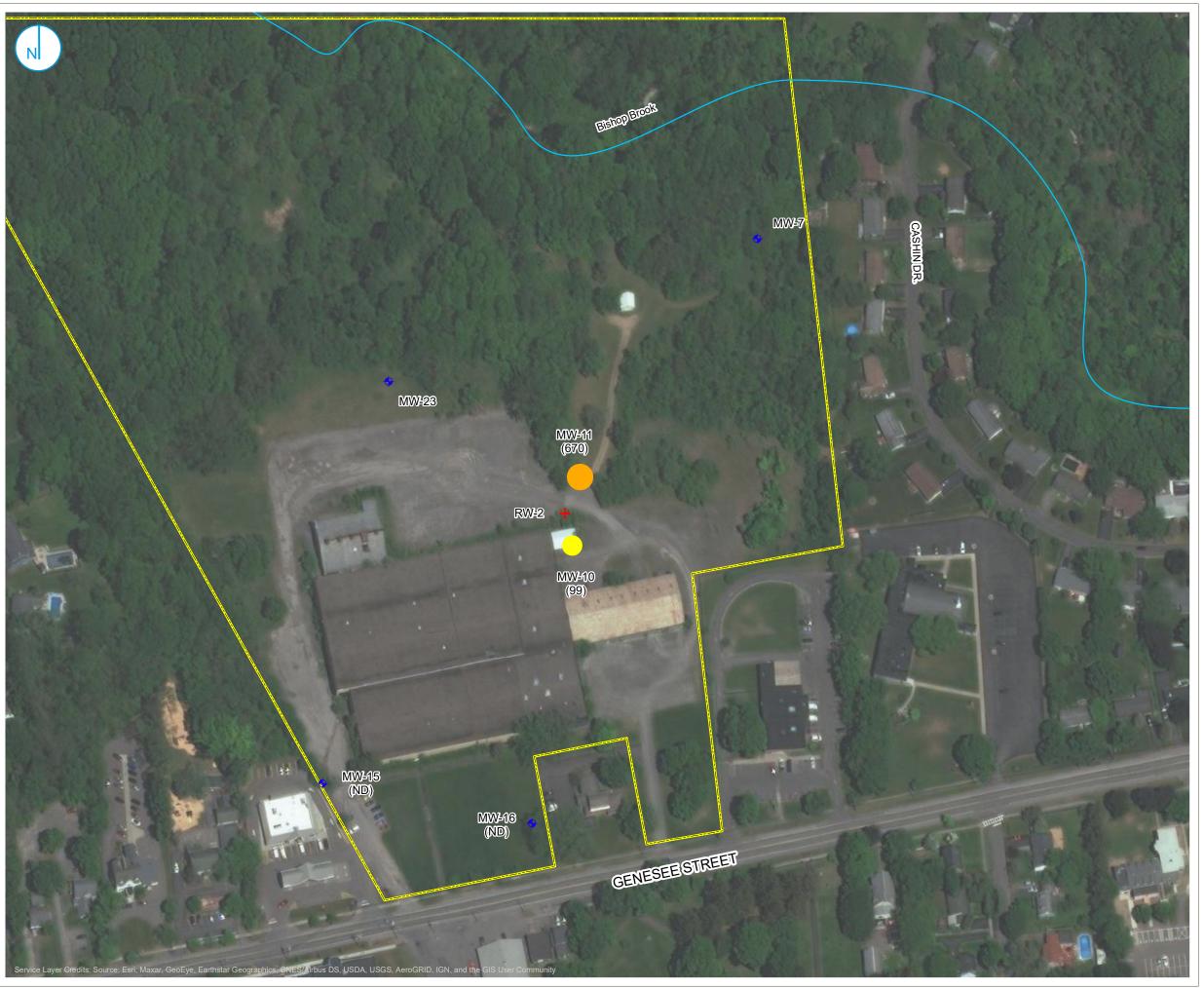
MONITORING WELL ♦ PIEZOMETER

RECOVERY WELL

PROPERTY LINE (approximate)

### (71) TCE Concentrations

RAMBOLL





PIEZOMETER

RECOVERY WELL

PROPERTY LINE (approximate)

#### TCE Concentrations (ug/L)



100.1 - 1000

#### (570) TCE Concentrations)

(ND) Not detected

0

#### BEDROCK TCE CONCENTRATIONS (10/22/2020)

#### FORMER ACCURATE DIE CASTING SITE FAYETEVILLE, NEW YORK SITE CODE 7-34-052





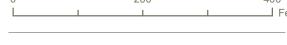


#### FIGURE 13

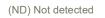
#### FORMER ACCURATE DIE CASTING SITE FAYETEVILLE, NEW YORK SITE CODE 7-34-052

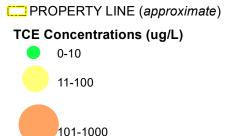
#### **BEDROCK TCE CONCENTRATIONS** (10/22/2021)

#### 200 400 J Feet









♦ MONITORING WELL

♦ PIEZOMETER RECOVERY WELL



(570) TCE Concentrations)



#### **ATTACHMENT 1**

#### SITE MANAGEMENT PERIODIC REVIEW REPORT NOTICE

INSTITUTIONAL AND ENGINEERING CONTROLS CERTIFICATION FORM



#### Enclosure 2 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form



Site Details Site No. 734052	Box 1
Site Name Accurate Die Casting Corporation	
Site Address: 547 East Genesee Street Zip Code: 13066 City/Town: Fayetteville County: Onondaga Site Acreage: 33	
Reporting Period: January 1, 2019 to December 31, 2021	
	YES NO
1. Is the information above correct?	
If NO, include handwritten above or on a separate sheet.	
2. Has some or all of the site property been sold, subdivided, merged, or undergone tax map amendment during this Reporting Period?	e a
<ol> <li>Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?</li> </ol>	
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issu for or at the property during this Reporting Period?	ied
If you answered YES to questions 2 thru 4, include documentation or evide that documentation has been previously submitted with this certification for	
5. Is the site currently undergoing development?	
The site entered the Brownfield Cleanup Program on June 1, 2015 (Agreement Index C734052-03-15), but redevelopment is presently on hold pending approva of the development plan by the Village of Fayetteville and rezoning of the Site.	Box 2
	YES NO
<ol> <li>Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial</li> </ol>	
7. Are all ICs/ECs in place and functioning as designed?	
IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date belo DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continu	
A Corrective Measures Work Plan must be submitted along with this form to addres	ss these issues.
Daugles Mc Crawfel     3/30/202       Signature of Owner, Remedial Party or Designated Representative     Date	
Signature of Owner, Remedial Party or Designated Representative Dat	te

SITE NO. 734052 Description of Institutional Controls

<u>Parcel</u> 009.-04-19.1 <u>Owner</u> FOUBU Environmental Services LLC Institutional Control Ground Water Use Restriction Soil Management Plan Site Management Plan O&M Plan

#### **Description of Institutional Controls:**

In accordance with the December 1994 Record of decision (ROD), October 1998 Explanation of Significant Difference (ESD), and letter from the New York State Department of Environmental Conservation (NYSDEC) dated July 14, 1999, a Corrective Action Management Unit (CAMU) was established in the portion of the Site designated in the 1994 ROD as Area 1 – PCB/PAH/VOC Soils Area. Intrusive activities (e.g. excavation) are not allowed to be undertaken in the CAMU without receiving prior approval to do so from the NYSDEC.

Also, groundwater may not be recovered on-site for any use. A Declaration of Covenants and Restrictions dated May 12, 2014, identifying controls for the property, was recorded in the Onondaga County Clerk's office.

#### **Description of Engineering Controls**

<u>Parcel</u> 009.-04-19.1

#### Engineering Control Vapor Mitigation Groundwater Treatment System

#### **Description of Engineering Controls:**

In accordance with the December 1994 ROD, October 1998 ESD, and letter from the NYSDEC dated July 14, 1999, A CAMU was established in the portion of the Site designated in the 1994 ROD as Area 1 – PCB/PAH/VOC Soils Area. A groundwater intercept trench is located downgrade of the CAMU, in the overburden material, to collected groundwater (if any) present in the sand lenses.

A groundwater recovery well RW-1 operates on-site to address overburden groundwater (designated as Area 3 in the 1994 ROD) hydraulically downgradient of the location where trichloroethylene (TCE) was released to the surface outside the northeast corner of the facility (designated as Area 2 in the 1994 ROD). Also, a groundwater collection sump to collect overburden water (if any) is maintained in Area 2. Groundwater recovery well RW-2 operates near Area 2 to address shallow bedrock groundwater (designated as Area 4 in the 1994 ROD) beneath Area 2.

The collected groundwater is treated on-site using bag filters and a pair of granular activated carbon (GAC) filters connected in series. The treated groundwater is discharged to the bank of Bishop Brook, where it is further aerated while flowing over the rip-rap lined discharge channel directing the flow to Bishop Brook. Samples of the treated groundwater are collected periodically in accordance with a State Pollutant Discharge Elimination System (SPDES) Fact Sheet to monitor compliance with the discharge standards established for the Site.

Off-site Sub-slab Depressurization Systems: In accordance with NYSDOH Soil Vapor Intrusion guidance, sub-slab depressurization systems were installed off-site where necessary.

Box 3

Box 4

	Box 5
	Periodic Review Report (PRR) Certification Statements
1.	I certify by checking "YES" below that:
1.	
	<ul> <li>a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;</li> </ul>
	b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.
	engineering practices, and the information presented is accurate and compete. YES NO
2.	If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:
	(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;
	(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;
	(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;
	(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and
	(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.
	YES NO
	IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.
	A Corrective Measures Work Plan must be submitted along with this form to address these issues.
	Daugles Mc Crandle 3/30/2022
	Manyles Mc Granfle     3/30/2022       Signature of Owner, Remedial Party or Designated Representative     Date

#### **IC CERTIFICATIONS** SITE NO. 734052

Box 6

#### SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

Douglas M. Crawford

print name

at Ramboll, 333 W. Washington St, Syracuse, NY 13221 print business address

am certifying for Remedial Parties (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative **Rendering Certification** 

3/30/2022 Date

#### **IC/EC CERTIFICATIONS**

Box 7

#### **Professional Engineer Signature**

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

 I
 Douglas M. Crawford
 at
 Ramboll, 333 W. Washington St, Syracuse, NY 13221

 print name
 print business address

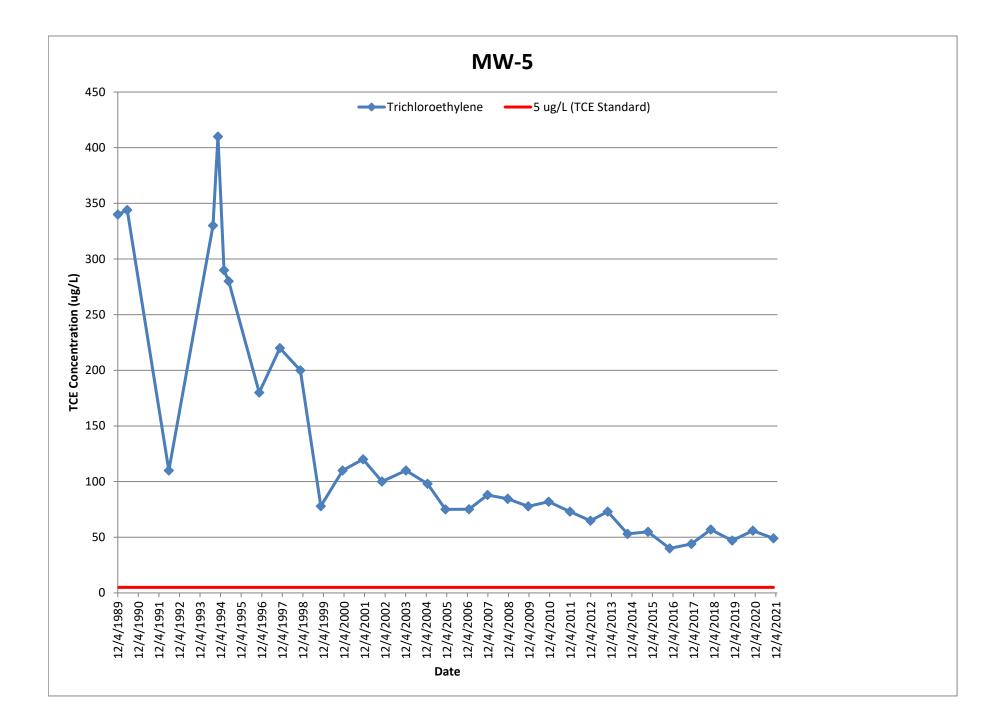
 am certifying as a Professional Engineer for the
 Remedial Parties

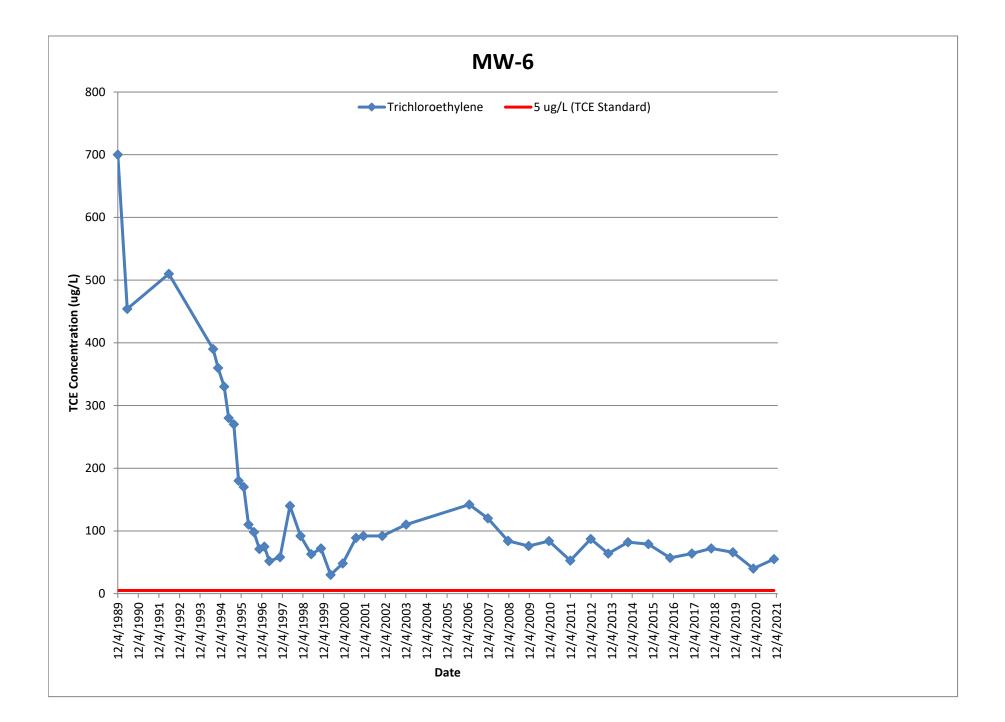
 (Owner or Remedial Party)
 (Owner or Remedial Party)

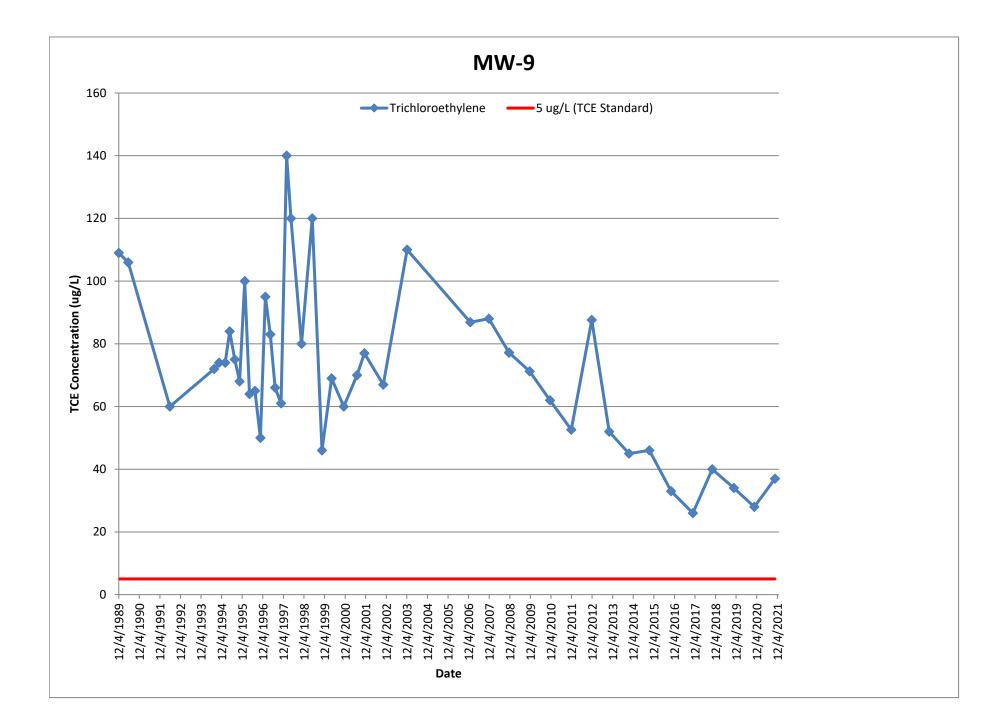


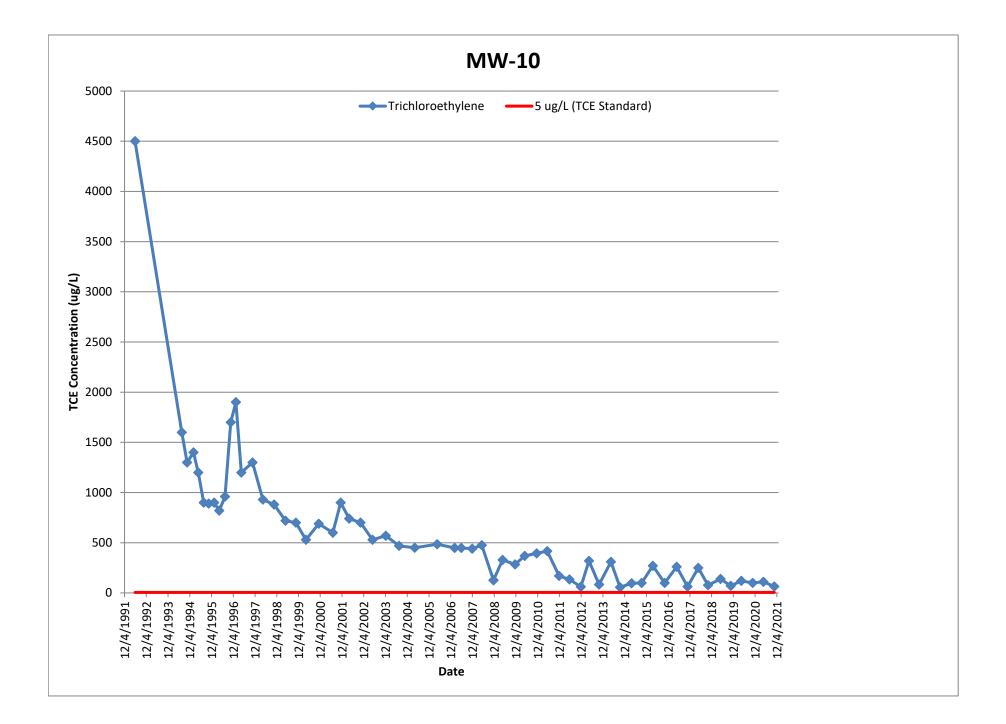
**ATTACHMENT 2** 

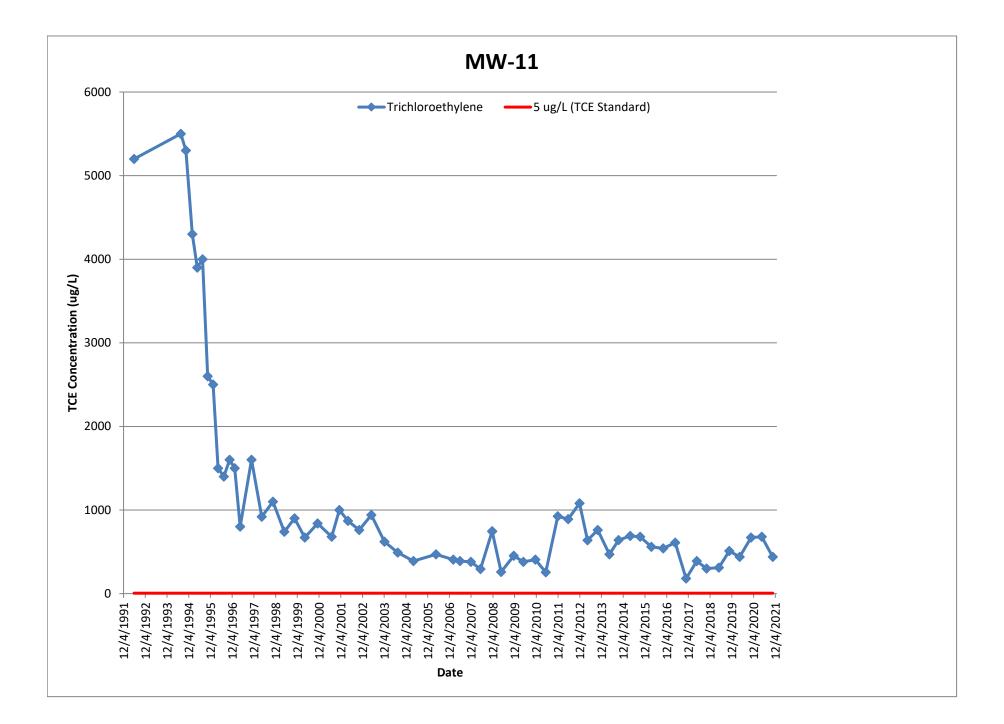
MONITORING WELL TCE CONCENTRATION TREND GRAPH

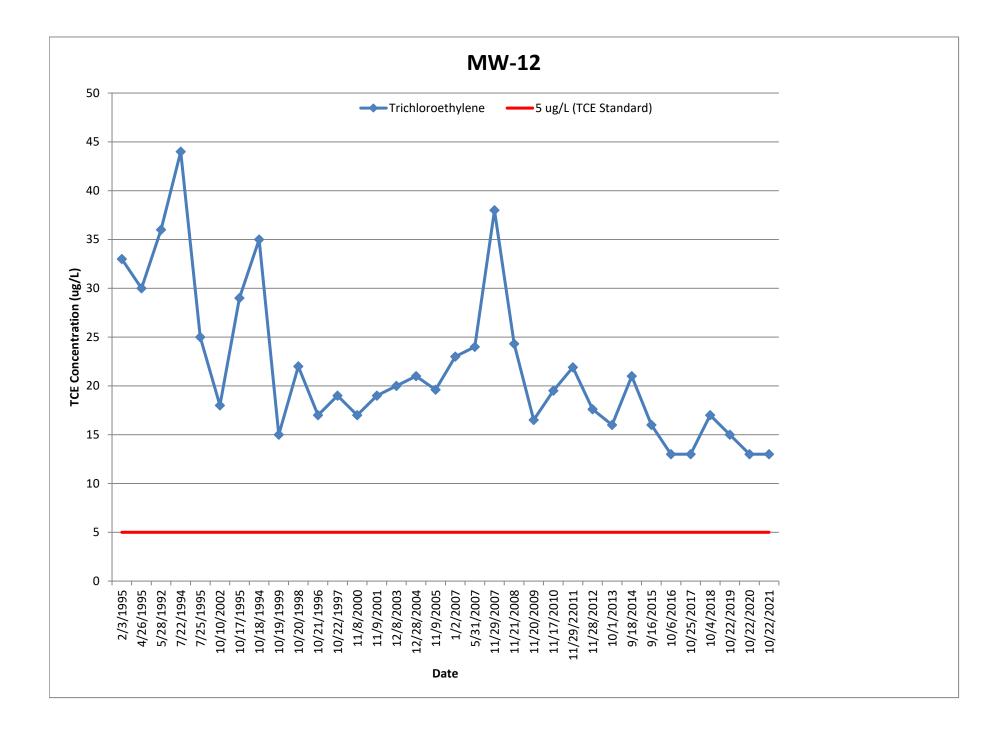


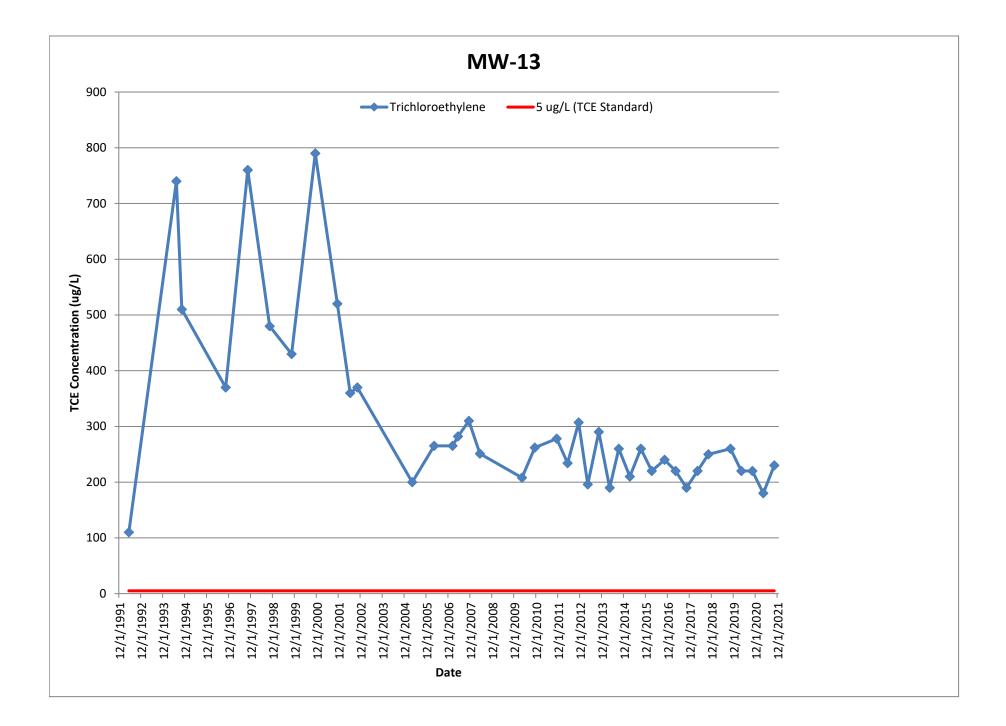


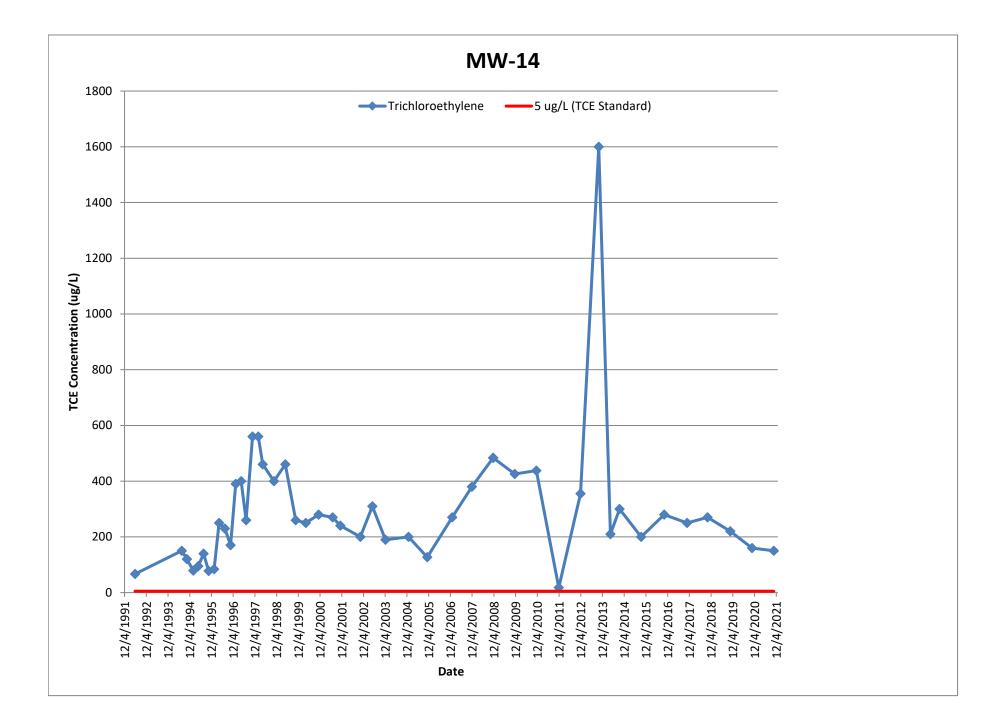


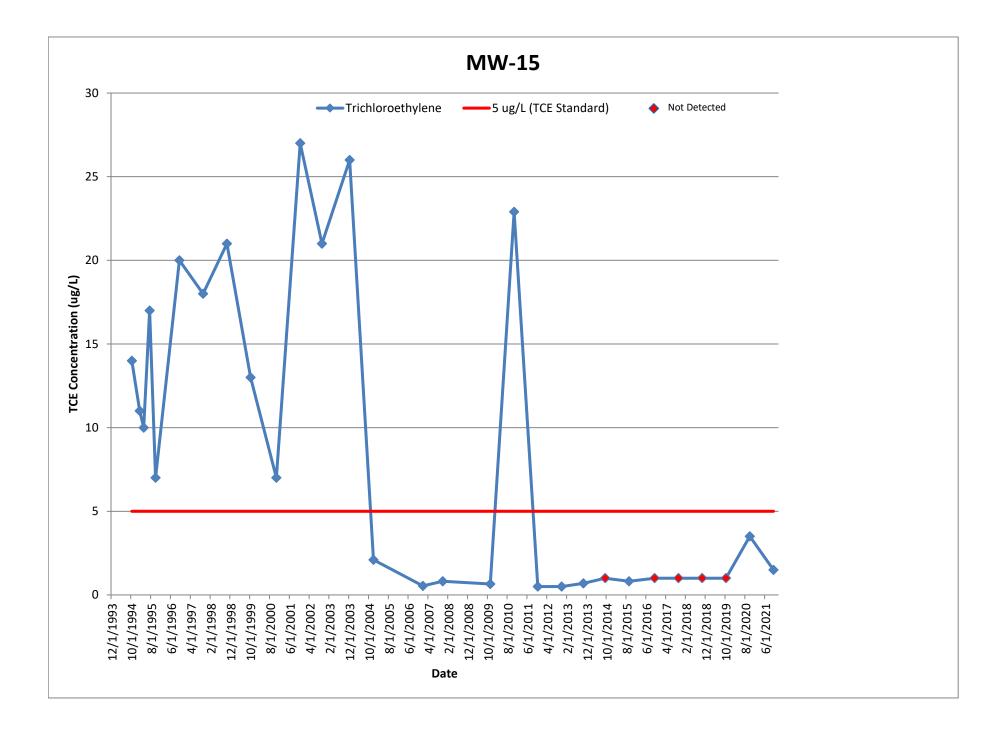


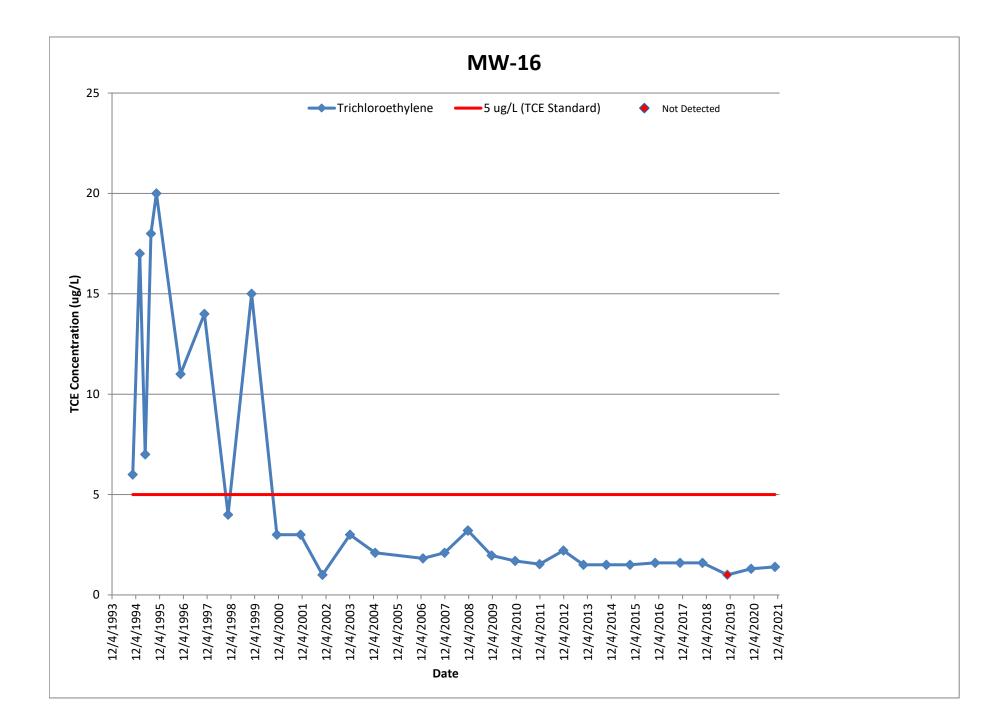


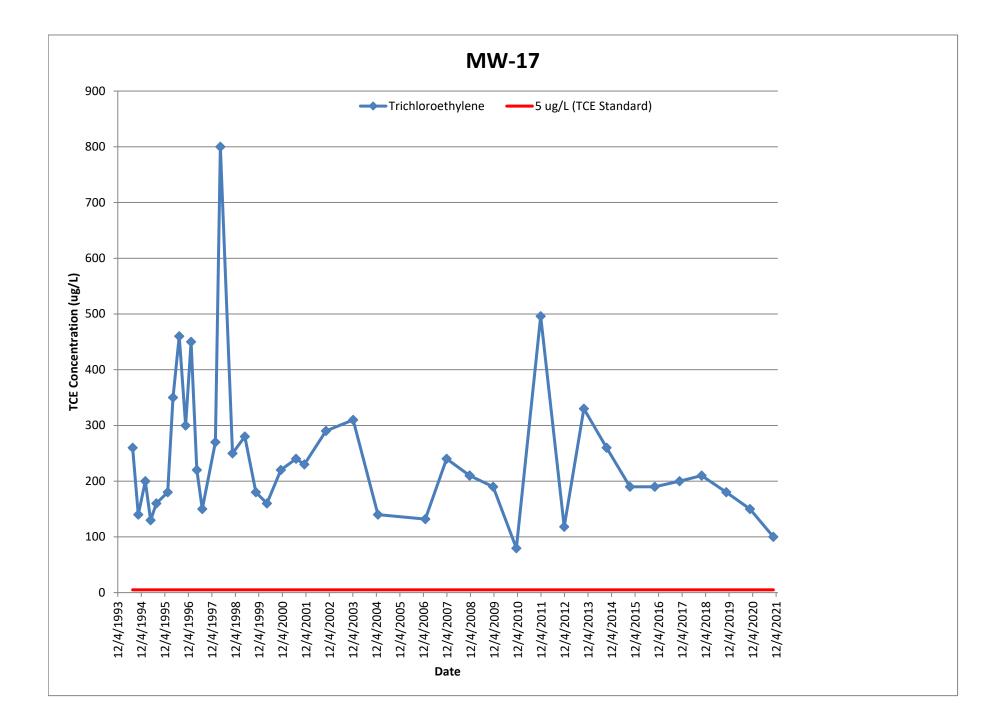


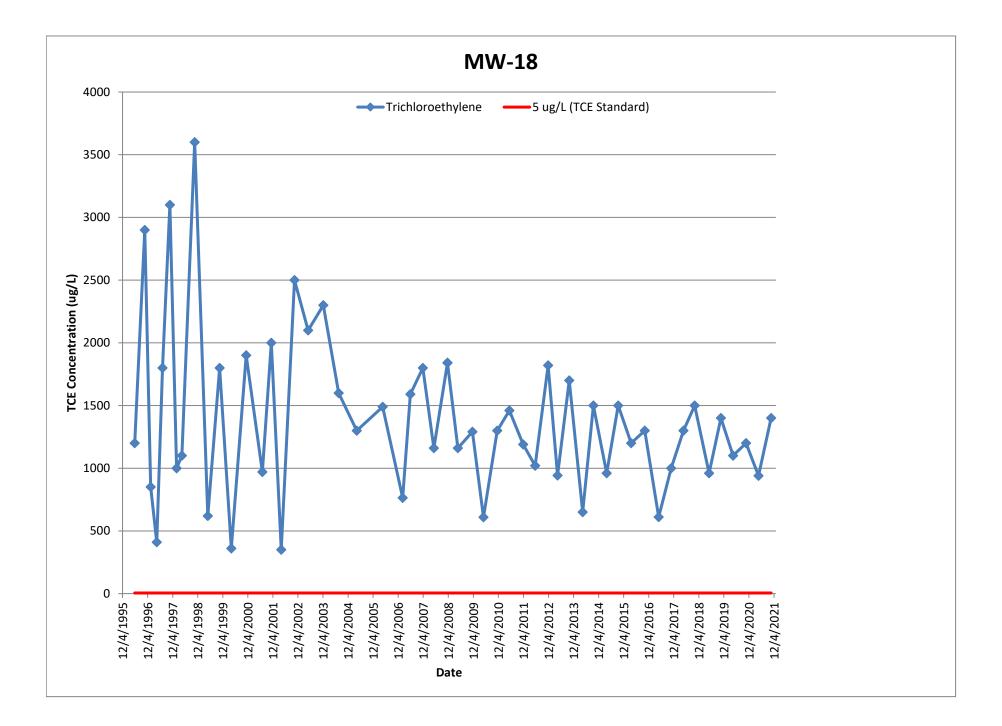


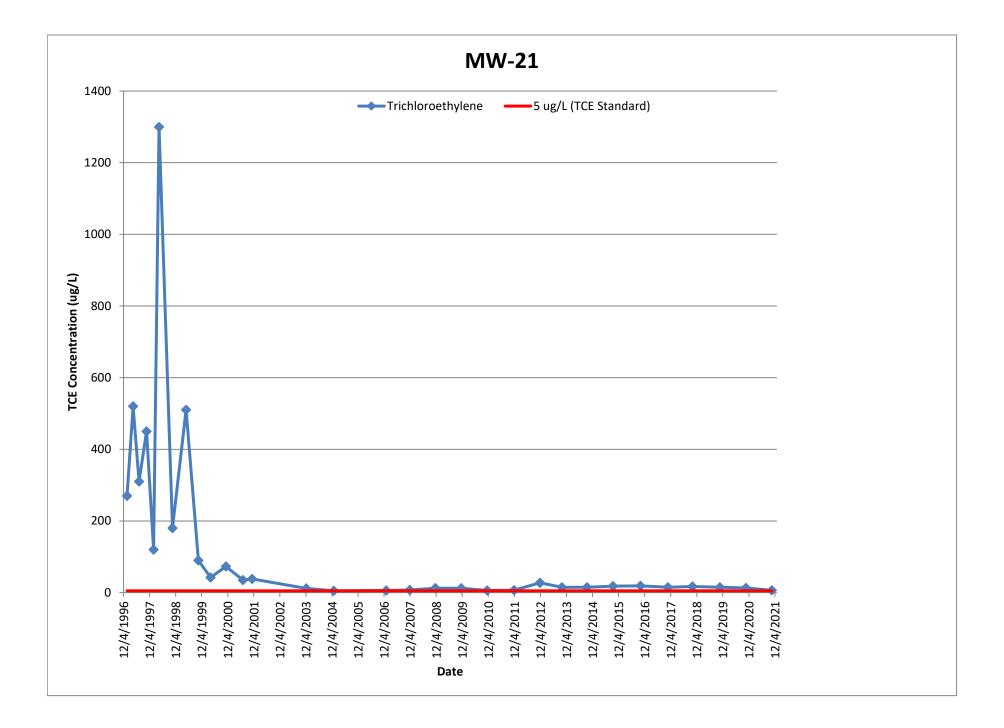


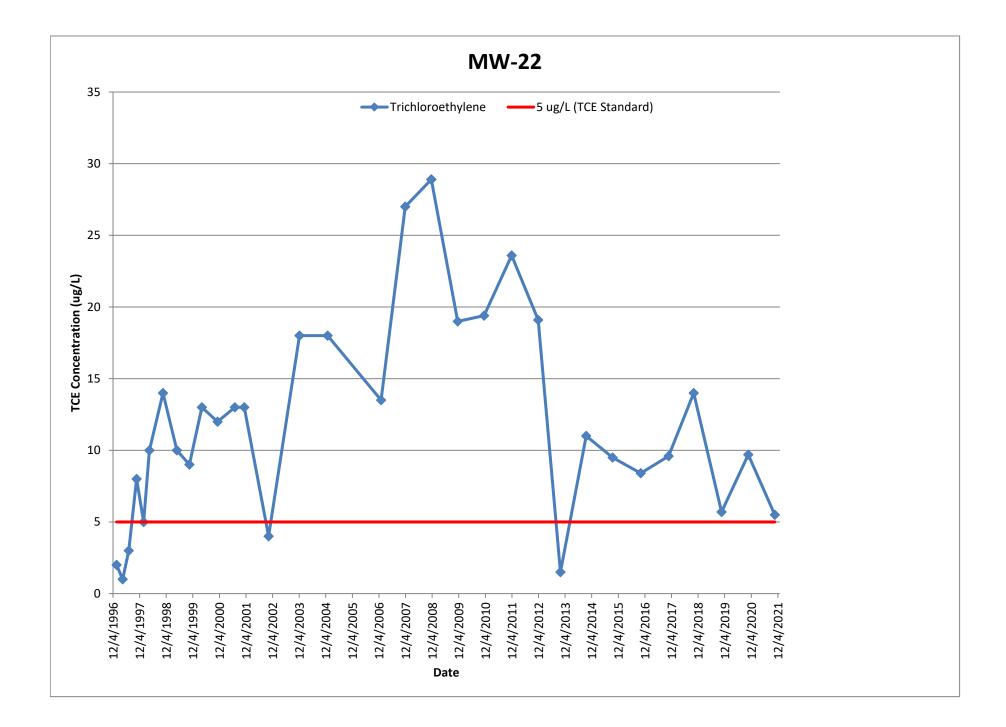


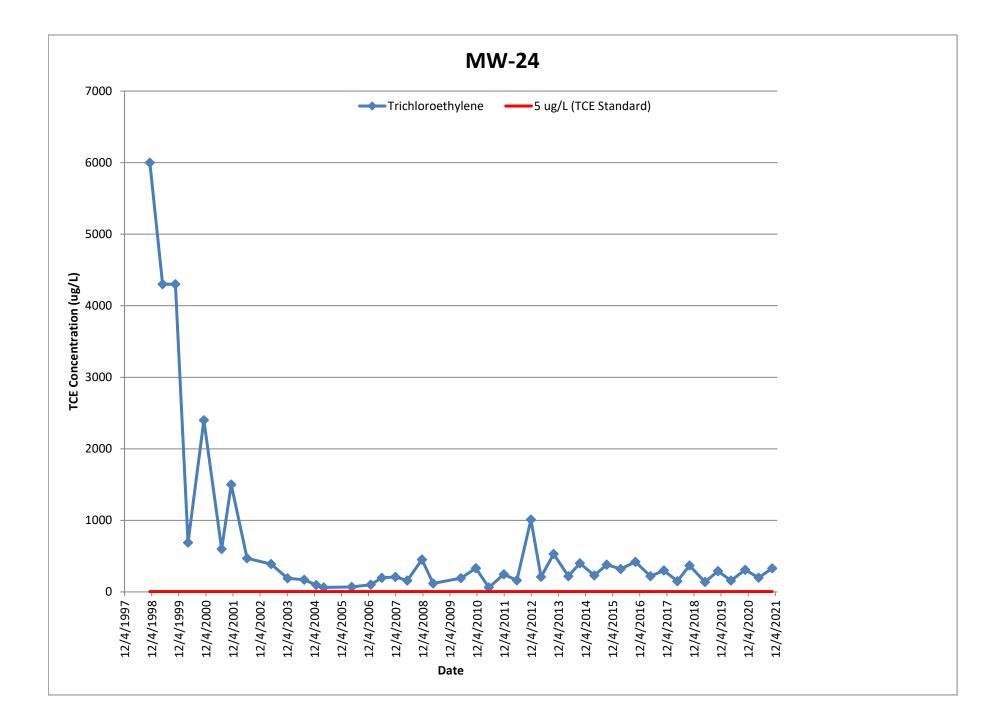


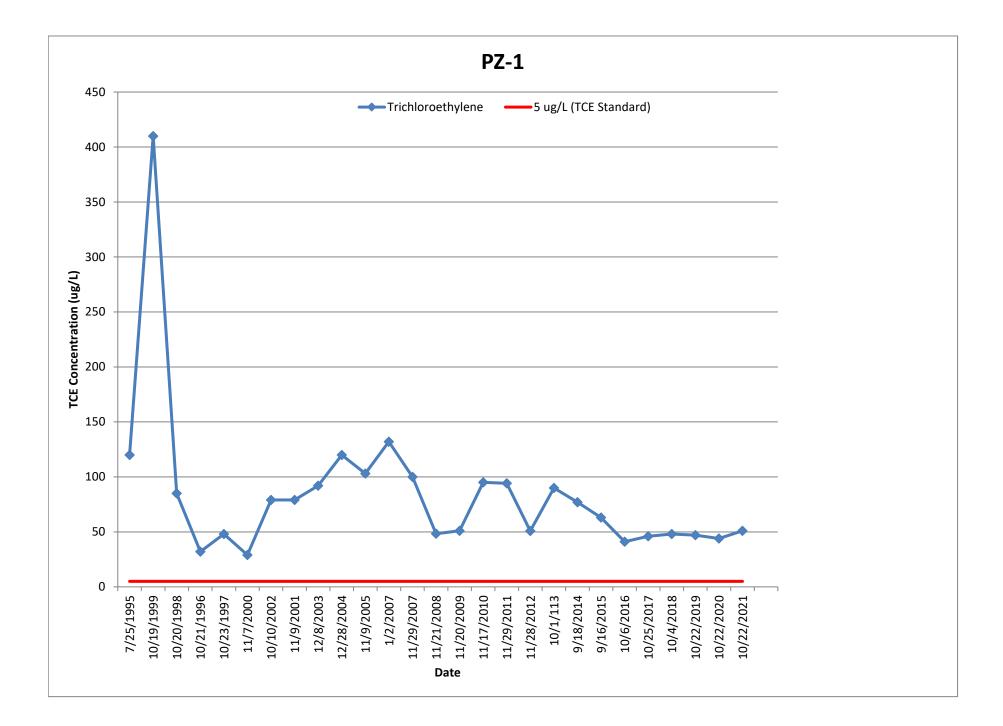


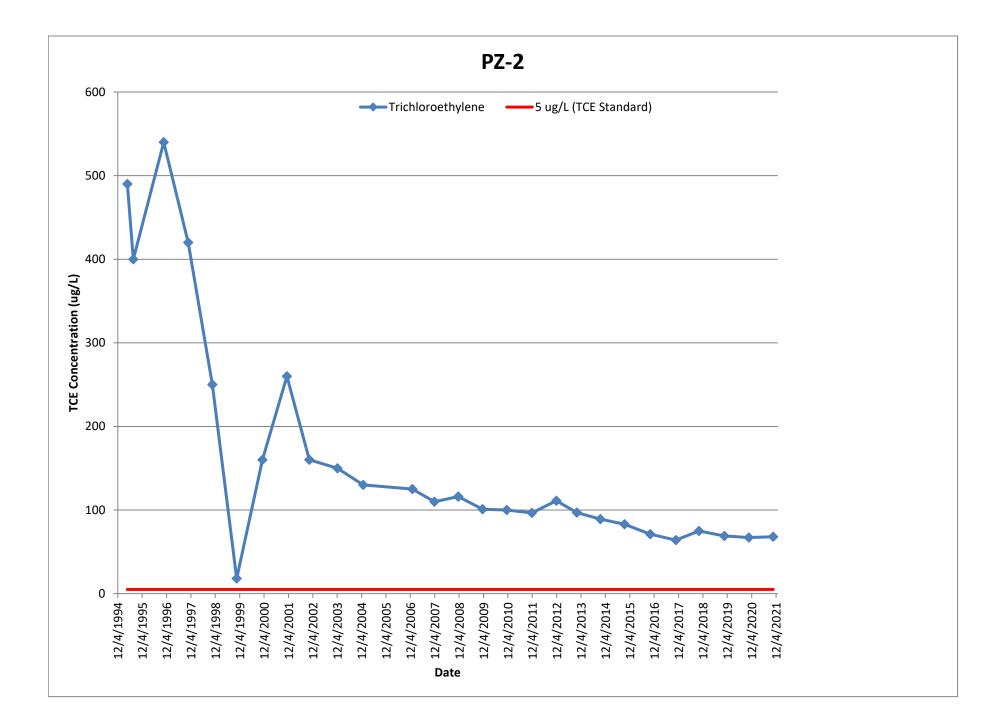








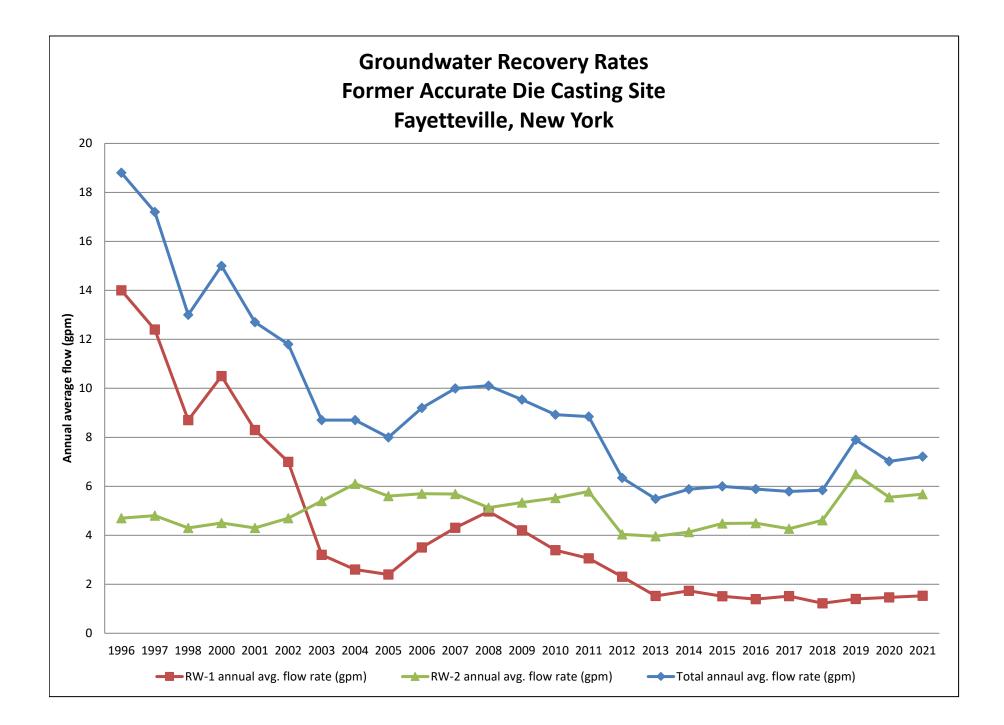






**ATTACHMENT 3** 

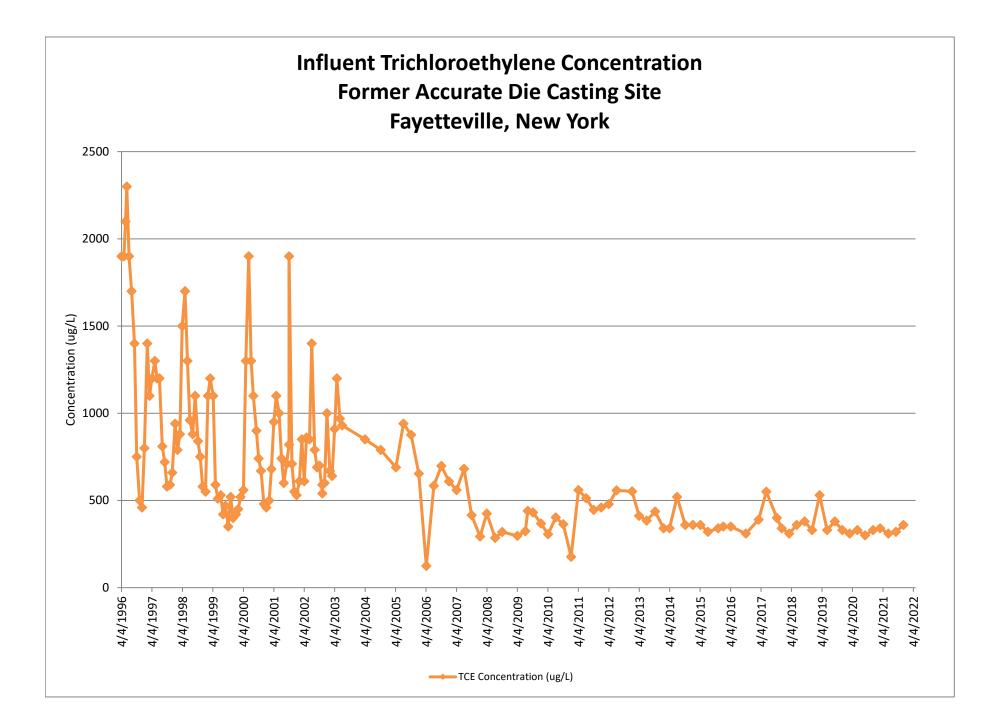
**ANNUAL AVERAGE FLOW RATE TRENDS** 





**ATTACHMENT 4** 

**GROUNDWATER TREATMENT SYSTEM INFLUENT TCE CONCENTRATION TREND GRAPHS** 





## **ATTACHMENT 5**

**CERTIFICATION FROM SITE OWNER REGARDING DEED RESTRICTIONS IN PLACE** 

## FOUBU ENVIRONMENTAL SERVICES, LLC 333 West Washington Street, Suite 400 Syracuse, New York 13202

March 24, 2022

Mr. Michael Belveg Regional Enforcement Coordinator, Region 7 New York State Department of Environmental Conservation 615 Erie Blvd. West Syracuse, New York 13204

*Re: Periodic Review Report / Site #734052* 

Dear Mr. Belveg:

Let this letter serve as notification from us that, as of 5/15/14, deed restrictions were in-place and in effect for the above referenced site.

Should you have any questions, please do not hesitate to contact me.

Sincerely,

FOUBU ENVIRONMENTAL SERVICES, LLC

Eric M. Gernanz, Esq. Managing Executive

EMG/mh

cc:

- C. Calkins Ramboll
  - D. Crawford Ramboll
  - D. Carnevale Ramboll