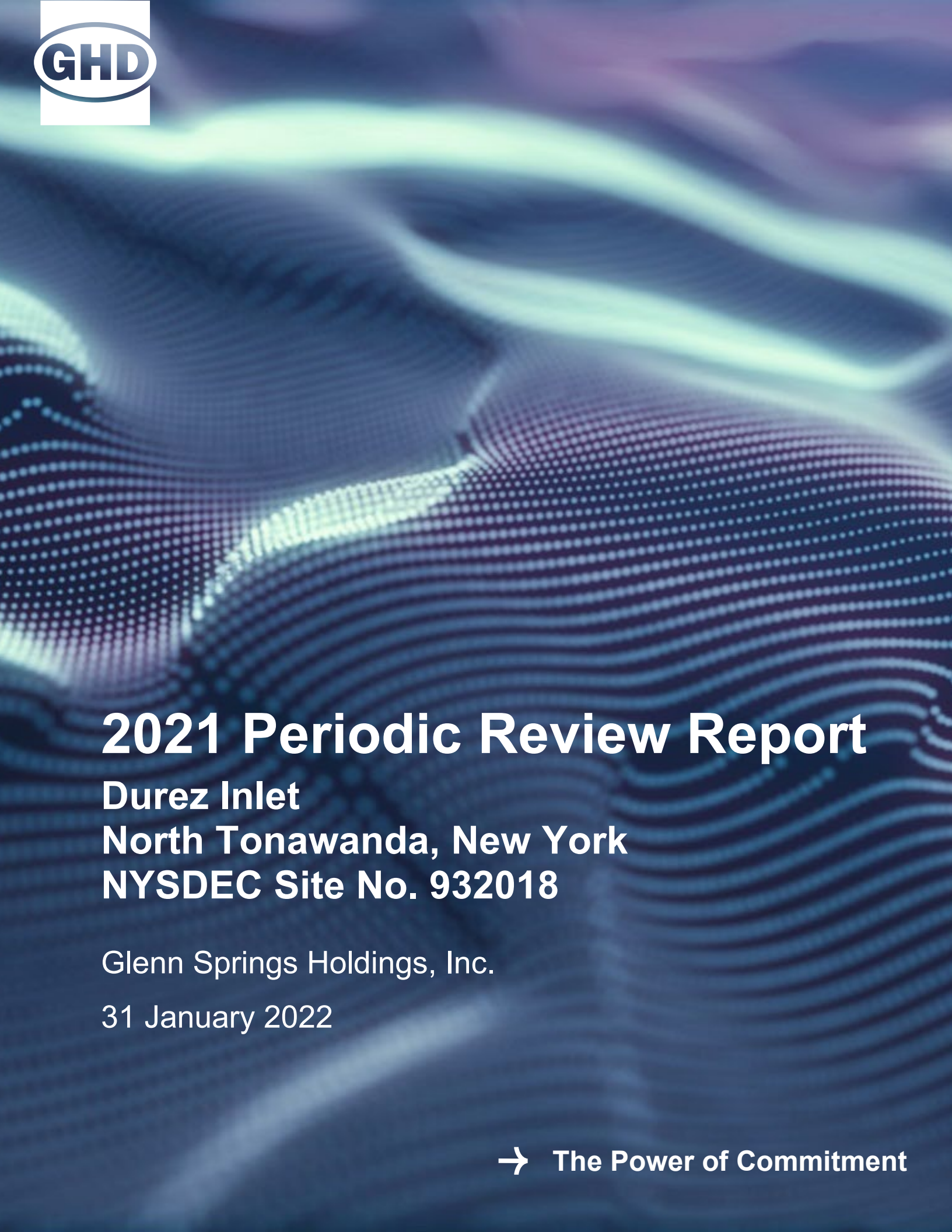

2021 Periodic Review Report

Durez Inlet
North Tonawanda, New York
NYSDEC Site No. 932018

Glenn Springs Holdings, Inc.

31 January 2022

→ The Power of Commitment

Executive summary

Effective July 1, 1998, Site responsibilities for the former Occidental Chemical Corporation (OxyChem) Durez Inlet (Inlet) in North Tonawanda, New York were assigned by OxyChem to Glenn Springs Holdings, Inc. (GSH), an affiliate of OxyChem. Pursuant to Section 11.0 of the Approved Inlet Remedial Plan (AIRP), GSH is conducting a post-remediation monitoring program at the Inlet.

Hydraulic monitoring and chemical monitoring were conducted on a semiannual basis during this reporting period. The hydraulic monitoring data show that the overall direction of groundwater flow at the Site is from west to east, across the upland area of the Inlet toward the Little Niagara River (River).

No dense non-aqueous phase liquid (DNAPL) has been observed in the groundwater monitoring wells located outside the cutoff wall (North Lobe). The monitoring data indicate that the cutoff wall is functioning as designed, and that the remedial program continues to meet its design objectives.

The 2021 groundwater quality monitoring results are consistent with historical results. Analytical results for wells MW-16I, MW-18I, and MW-19I were below the New York State (NYS) Groundwater Standards for Class GA (potable) groundwater. Concentrations of total Targeted Site Compounds (TSCs) were present in MW-20I (average 3,388 micrograms per liter [µg/L] in 2021 versus 3,597 µg/L in 2020) and in MW-22I (average 3,961 µg/L in 2021 versus 1,752 µg/L in 2020). The concentrations observed in MW-20I have remained orders of magnitude lower than those observed prior to the implementation of the in situ chemical oxidation (ISCO) program implemented in 2011/2012, have since stabilized, and the general trend in the total TSC concentrations has been downward since 1996. Total TSC concentrations in this well have remained relatively stable with only slight increases since 2012, which is likely due to the expected slight rebound following completion of the injections. Historical concentrations of total TSCs in groundwater samples collected from monitoring well MW-22I have shown both increasing and decreasing trends historically. Total TSC concentrations in this well have remained relatively consistent with only slight increases since 2016, other than recent increased concentrations following implementation of the passive diffusion remedial program (discussed below) that are expected to be short-term. The concentrations prior to implementation of the passive diffusion program were lower than the pre-injection concentrations.

A passive diffusion remedial program was implemented at groundwater monitoring wells MW-16I, MW-20I, and MW-22I in October 2019. The program will be implemented for three years and then the results will be evaluated. Years 1 and 2 are now complete. As of the spring 2021 groundwater monitoring event, concentrations of total TSCs in MW-22I have increased since implementation of the passive diffusion remediation program, while concentrations of total TSCs in MW-16I and MW-20I remain relatively unchanged. Concentrations of total TSCs are expected to decrease during the final year of the program, as the length of time of exposure to the ORC increases. Continued semiannual monitoring will assist in evaluating the effects of the passive diffusion program.

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1. Introduction

Effective July 1, 1998, Site responsibilities for the former Occidental Chemical Corporation (OxyChem) Durez Inlet (Inlet) were assigned by OxyChem to Glenn Springs Holdings, Inc. (GSH), an affiliate of OxyChem. Since that time, pursuant to the individual Site documents and subsequent approved modifications, GSH has conducted routine monitoring and maintenance programs at the Site. Since October 1, 2008, GSH has contracted GHD, formerly Conestoga-Rovers & Associates (CRA), to perform monitoring, maintenance, and reporting activities for the Site under the direct management of GSH.

Pursuant to Section 11.0 of the Approved Inlet Remedial Plan (AIRP), GSH is conducting a post-remediation monitoring program at the Inlet. The AIRP is Appendix A to the Third Stipulation and Partial Consent Judgment (Third PCJ) filed in United States District Court-Western District of New York by the State and OxyChem as part of the Durez Inlet Remediation Project. The monitoring program has been underway since May 1995, following completion of Site environmental restoration in April 1995.

The requirements of the post-remediation monitoring program were outlined in the New York State Department of Environmental Conservation (NYSDEC)-approved “Inlet Monitoring Plan” (Rust Environment and Infrastructure, October1995). The “Inlet Monitoring Plan” was revised in 2019 (GHD, April 2019) and approved by NYSDEC in an email dated August 13, 2019.

A Site location plan is presented on Figure 1.1.

This Periodic Review Report (PRR) describes the monitoring and maintenance activities conducted and presents the data collected at the Inlet between January 1 and December 31, 2021. The completed NYSDEC Institutional Controls and Engineering Controls (ICEC) Certification Form is included as Appendix A.

Other activities associated with the Site include ongoing evaluation of sediment in the Pettit Cove. This evaluation is not relevant to the operation, maintenance, and monitoring (OM&M) activities for the Durez Inlet Site, and therefore, is not described in PRRs. Unless relevant to OM&M activities for the Site, documentation associated with these other activities will continue to be provided to the NYSDEC under separate cover.

2. Inlet Monitoring Program

The activities associated with the Inlet monitoring program in accordance with Section 11.0 of the AIRP include:

i) Measurement of the Little Niagara River (River) water level and groundwater levels
ii) Chemical analysis of groundwater samples
iii) Monitoring and operation of dense non-aqueous phase liquid (DNAPL) extraction wells
iv) Maintenance of wells
v) Inspection of Site physical characteristics
vi) Evaluation of remediation performance
vii) Submittal of summary reports to the NYSDEC

This annual report presents the results of hydraulic and chemical monitoring of groundwater; monitoring and extraction of DNAPL; and inspection activities conducted at the Inlet for the calendar year 2021 in support of the AIRP.

2.1 Purpose

The Inlet Monitoring Plan consists of a DNAPL/groundwater monitoring program and a systematic inspection of the Inlet. The purpose of the Inlet Monitoring Plan is to verify the effectiveness of the remedy in the North Lobe, such as extraction of free or mobile DNAPL and isolation of the residuals by the cutoff and sheet pile walls. The North Lobe is defined as the area located inside of the cutoff wall to the north of the Inlet Cove (Figure 2.1). Five DNAPL extraction wells are located in the North Lobe. Groundwater monitoring wells are located within and outside of the North Lobe for the purposes of hydraulic and chemical groundwater monitoring. Specific objectives of the DNAPL/groundwater monitoring program for the North Lobe are as follows:

i) To identify and remove, as necessary, DNAPL in the extraction well sumps

ii) To characterize groundwater flow directions and hydraulic gradients in the vicinity of the North Lobe

iii) To identify and document long-term changes in groundwater quality in the North Lobe area

iv) To inspect groundwater collected from the lower alluvium monitoring wells outside of the North Lobe for the presence of DNAPL

Inspection of the Site includes observations for evidence of erosion and disturbance to remedial structures.

2.2 Scope

2.2.1 Groundwater Quality Monitoring Program

The groundwater quality monitoring program (chemical monitoring) consists of collecting and analyzing groundwater samples from five monitoring wells designated as "intermediate" wells, consisting of one well hydraulically upgradient to the North Lobe (MW-16I) and four wells hydraulically downgradient or cross-gradient to the North Lobe (MW-18I, MW-19I, MW-20I, and MW-22I). The groundwater samples are analyzed for the Targeted Site Compounds (TSCs), consisting of benzene; toluene; chlorobenzene; 1,2-, 1,3-, and 1,4-dichlorobenzene; and 1,2,3- and 1,2,4-trichlorobenzene. The groundwater samples are also inspected for the presence of DNAPL. The monitoring well locations are shown on Figure 2.1.

2.2.2 Hydraulic Monitoring Program

The hydraulic monitoring program consists of measuring groundwater elevations in seven intermediate monitoring wells (MW-15I, MW-16I, MW-17I, MW-18I, MW-19I, MW-20I, and MW-22I) installed in the lower alluvium outside the cutoff wall, and one monitoring well (MW-21S) installed in the upper alluvium and fill inside the cutoff wall and designated as a "shallow" well. Groundwater elevations and DNAPL levels are also measured in five extraction wells (EW-1, EW-2, EW-3, EW-4, and EW-5) installed in the lower alluvium inside the cutoff wall in the isolated area where DNAPL has been detected. The River elevation is recorded utilizing a staff gauge (SG) located along the River's edge and is measured before and after groundwater levels are measured. The monitoring and extraction well locations and the SG location are presented on Figure 2.1.

DNAPL extraction only occurs during the boating off-season from October 15 to April 15. During this period, DNAPL is removed from an extraction well when the level of DNAPL in that well reaches the top of the extraction well sump. During the boating season when DNAPL extraction does not occur, any accumulated DNAPL remains within the containment wall of the North Lobe area. The top of the containment wall is at an elevation of approximately 562 feet above mean sea level (AMSL), while the top of sump elevations range from 538.10 to 539.20 feet AMSL (approximately 24 feet below the top of the containment wall).

3. Inlet Monitoring Program Results

3.1 Groundwater Quality Monitoring

Sampling, analytical protocols, and detection limits for the sampling program have been established and set forth in the original Partial Consent Judgment (PCJ) Appendix B-1, which is also included as Appendix B to the Inlet Monitoring Plan. The Inlet Monitoring Plan also includes sampling and field procedures that supplement those in the PCJ. The five intermediate groundwater monitoring wells (MW-16I, MW-18I, MW-19I, MW-20I, and MW-22I) were sampled semiannually on April 13 and October 19, 2021. All sampling was conducted in accordance with the procedures described in Appendix B of the Inlet Monitoring Plan.

ALS Environmental (ALS) in Rochester, New York, a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratory, conducted the sample analyses. The analytical results are summarized in Table 2.1. The Quality Assurance/Quality Control (QA/QC) reviews for the two semiannual sampling events are provided in Appendix B.

The analytical results were compared to New York State (NYS) Class GA Groundwater Standards (Class GA Groundwater Standards) [NYS GQS] set forth in the Division of Water Technical and Operational Guidance Series (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998). The comparison is presented in Table 2.1. Concentrations of individual TSCs versus time for the five monitoring wells sampled are presented on Charts 1 through 5. Graphs showing concentrations of total TSCs versus time are presented on Figures 2.2 through 2.6. Only the TSC concentrations for the parent samples are shown on the charts and figures. Historical groundwater results and TSC concentrations are provided in Appendix C.

3.1.1 Chemical Concentrations

Groundwater quality generally remained stable during 2021. The analytical results for the sampling events conducted in 2021 from monitoring wells MW-16I, MW-18I, and MW-19I were below the NYS GQS, which is generally consistent with previous monitoring results. Concentrations of benzene; chlorobenzene; and 1,3- and 1,4-dichlorobenzene detected at the remaining two monitoring wells, MW-20I and MW-22I, were significantly above the NYS GQS, which is also consistent with previous monitoring results.

An active in situ chemical oxidation (ISCO) program was conducted from April 2011 through April 2012 with injections occurring in April 2011, November 2011, and April 2012. This program has reduced and stabilized groundwater concentrations of TSCs at MW-20I and MW-22I. The ISCO program was summarized in the previously submitted "In Situ Chemical Oxidation Report - MW-20 and MW-22I - Durez Inlet Remediation Program" (CRA, 2013).

A passive diffusion remedial program was implemented at groundwater monitoring wells MW-16I, MW-20I, and MW-22I in October 2019. Details of the program are presented in Section 3.1.3. Concentrations of TSCs at MW-22I increased following implementation of the program, but these increases are expected to be short-term and related to changing geochemical conditions in the subsurface resulting from the remedial program.

The groundwater quality in each of the five intermediate groundwater monitoring wells is discussed below.

MW-16I

The concentrations of total TSCs in samples collected from monitoring well MW-16I, which is considered to be an upgradient well for the Site, were primarily non-detect (ND) at 1.0 micrograms per liter (µg/L) from the time monitoring began in July 1995 until June 2006 (Figure 2.2 and Appendix C). In June 2006, the total concentration of TSCs at this monitoring well was 17.63 µg/L. In September 2006, the total TSC concentration at this monitoring well decreased back to nearly ND and then began to fluctuate, demonstrating a general increasing trend. The reason for this increasing trend is not known. Total TSC concentrations have remained at less than 4 µg/L since September 2006.

Total TSC concentrations at monitoring well MW-16I in 2021 were 3.50 µg/L during the spring monitoring event (3.68 µg/L in the duplicate sample) and 1.95 µg/L during the fall monitoring event (2.34 µg/L in the duplicate sample). These concentrations were slightly lower than the total TSC concentrations in 2020 (3.67 µg/L during the spring monitoring event [4.02 µg/L in the duplicate sample] and 3.39 µg/L during the fall monitoring event [8.86 µg/L in the duplicate sample]).

During each of the 2021 monitoring events, the individual TSCs in MW-16I were either ND or were detected at estimated concentrations below the reporting limits of 1.0 µg/L and NYS GQS (Table 2.1). . Benzene was detected at estimated concentrations of 0.622 µg/L (estimated concentration of 0.673 µg/L in the duplicate sample) and 0.222 µg/L (estimated concentration of 0.295 µg/L in the duplicate sample) during the spring and fall monitoring events, respectively, which were below the NYS GQS of 1 µg/L. Benzene has been detected consistently at estimated concentrations below 1.0 µg/L or slightly above 1.0 µg/L since 2006. Benzene marginally exceeded the NYS GQS in at least one quarter per year from 2013 through 2018 but has not been detected at a concentration above the NYS GQS since February 2018. The chlorobenzene concentrations of 2.88 µg/L (3.01 µg/L in the duplicate sample) and 1.73 µg/L (2.04 µg/L in the duplicate sample) detected during the spring and fall monitoring events, respectively, did not exceed the NYS GQS of 5 µg/L. Concentrations of individual TSCs at MW-16I with time are shown on Chart 3.

MW-18I

The total concentrations of TSCs in samples collected from monitoring well MW-18I have been primarily ND since July 1999 (Figure 2.3 and Appendix C). Individual concentrations of TSCs at this location have not exceeded the NYS GQS since April 1999. The concentrations of individual TSCs during 2021 were all ND at 1.0 µg/L (Table 2.1). Concentrations of individual TSCs at MW-18I with time are shown on Chart 4.

MW-19I

The total concentrations of TSCs in samples collected from monitoring well MW-19I have been primarily ND since July 2002 (Figure 2.4 and Appendix C). Individual concentrations of TSCs at this location have not exceeded the NYS GQS since July 1999. Individual concentrations of TSCs during 2021 were all ND at 1.0 µg/L (Table 2.1). Concentrations of individual TSCs at MW-19I with time are shown on Chart 5.

MW-20I

The total concentration of TSCs in samples collected from well MW-20I has fluctuated during the years of Site monitoring; however, overall, the trend has been downward since 1996 (Figure 2.5 and Appendix C). In 2008 and 2009, the total concentrations of TSCs were consistently above 10,000 µg/L. Following the first ISCO injection event in April 2011, the total concentration of TSCs decreased to below 3,200 µg/L during the May 2011 sampling event. Upon completion of the final ISCO injection event in April 2012, the total concentration of TSCs decreased to below 2,200 µg/L during the May 2012 sampling event. From May 2012 to October 2021, the total concentration of TSCs has trended slightly upwards, likely due to rebound effects, but are overall stable. Total TSC concentrations have remained at less than 4,000 µg/L since February 2012.

Total concentrations of TSCs during 2021 were 3,546 µg/L during the spring monitoring event and 3,229 µg/L during the fall monitoring event. These concentrations were approximately the same as the total TSC concentrations in 2020 (3,372 µg/L during the spring monitoring event and 3,822 µg/L during the fall monitoring event).

During each of the 2021 monitoring events, benzene; chlorobenzene; and 1,3- and 1,4-dichlorobenzene were detected at concentrations above the NYS GQS at MW-20I (Table 2.1). Benzene was detected at estimated concentrations of 20.2 µg/L and 18.3 µg/L during the spring and fall monitoring events, respectively, which were above the NYS GQS of 1 µg/L. These concentrations were slightly greater than the concentrations detected in 2020 (17.4 µg/L in the spring and 17.8 µg/L [estimated] in the fall), but within the historical concentration range for benzene at this location (refer to Appendix C). Concentrations of chlorobenzene; 1,3-dichlorobenzene; and 1,4-dichlorobenzene detected in 2021 were marginally lower than the concentrations detected in 2020. The concentrations of these three TSCs have remained relatively stable since approximately 2012, with a slight downward trend observed for 1,3-dichlorobenzene since that time. Concentrations of individual TSCs at MW-20I with time are shown on Chart 1.

The post-injection concentrations observed in MW-20I have remained orders of magnitude lower than those observed prior to the implementation of the ISCO program and have since stabilized.

MW-22I

The total concentration of TSCs in samples collected from well MW-22I has fluctuated during the years of Site monitoring (Figure 2.6 and Appendix C). The total TSC concentration at this location exhibited an overall increasing trend from approximately 2005 to approximately 2009, and then exhibited fluctuations on timescales of approximately three to four years from 2009 through 2019. Concentrations were relatively stable and consistent from approximately 2016 through 2019. Following implementation of the passive diffusion remedial program in October 2019, both total and individual concentrations of TSCs decreased to near-historic lows in May 2020 and then started increasing. The total concentrations of TSCs in well MW-22I during 2021 were 3,870 µg/L during the spring monitoring event and 4,051 µg/L during the fall monitoring event, which were greater than the total TSC concentrations of 95 µg/L and 3,410 µg/L during the spring and fall 2020 events, respectively. These increases are likely attributable to the ongoing passive diffusion remedial program (refer to Section 3.1.3), and are expected to be short-term.

During each of the 2021 monitoring events, benzene; chlorobenzene; and 1,3- and 1,4-dichlorobenzene were detected at concentrations above the NYS GQS at MW-22I (Table 2.1). Benzene was detected at concentrations of 54.7 µg/L and 58.7 µg/L during the spring and fall monitoring events, respectively, which were above the NYS GQS of 1 µg/L. These concentrations were both greater and lower than the concentrations detected in 2020 (0.824 µg/L [estimated] in the spring and 72.6 µg/L in the fall). The concentration of benzene detected at this location was relatively stable from approximately 2014 through October 2019, and has also fluctuated since implementation of the passive diffusion remediation program in October 2019. Concentrations of chlorobenzene; 1,3-dichlorobenzene; and 1,4-dichlorobenzene detected in 2021 were greater than the concentrations detected in 2020. However, similar to the concentration of total TSCs at this location, these concentrations increased following implementation of the passive diffusion remedial program but appear to be “leveling off.” Concentrations of individual TSCs at MW-20I with time are shown on Chart 2.

Although the 2011 – 2012 ISCO program targeted the areas around MW-20I and MW-22I, the concentrations of TSCs in MW-22I were consistently lower than in MW-20I by comparison following the ISCO treatment, up until 2021. Total concentrations of TSCs in MW-22I were reduced after the 2011 and 2012 ISCO events to below 1,000 µg/L; however, rebound was observed following the injection events. The increase in concentrations since the ISCO events, excluding the increases in 2020 and 2021 likely related to the passive diffusion program, is indicative of rebound within clayey soils after three injections of activated sodium persulfate. Total TSC concentrations in MW-20I and MW-22I during 2020 and 2021 are presented in the following tables.

Well Location	2020 Total TSC Concentrations (µg/L)	
	First Semiannual Period	Second Semiannual Period
MW-20I	3,372 µg/L	3,822 µg/L
MW-22I	94.9 µg/L	3,410 µg/L

Well Location	2021 Total TSC Concentrations (µg/L)	
	First Semiannual Period	Second Semiannual Period
MW-20I	3,546 µg/L	3,229 µg/L
MW-22I	3,870 µg/L	4,051 µg/L

The clayey (tight) soils, the sheet pile wall installed cross-gradient to groundwater flow, the adjacent River, and a clay aquitard surrounding the MW-20I and MW-22I well cluster do not allow significant groundwater flow through this area of the Site. These factors, combined with the ISCO injections, help to explain the fluctuating concentrations observed at well MW-22I in the years subsequent to the injections. No DNAPL has been observed in MW-22I during any of the monitoring events.

Figure 2.6 and Chart 2 show that the concentrations of TSCs in MW-22I were lower than the pre-injection concentrations and were relatively stable until concentrations started increasing in 2020. These increases in concentration in MW-22I likely represent a short-term fluctuation associated with the passive diffusion remedial program implemented in October 2019.

3.1.2 Chemical Trends

As indicated in Section 3.1.1, graphs of the total concentrations of TSCs in monitoring wells MW-16I, MW-18I, MW-19I, MW-20I, and MW-22I since completion of Site remedy (April 1995) through the end of the year 2021 are presented on Figures 2.2 through 2.6. Concentrations of individual TSCs are shown in Charts 1 through 5. The historical and current analytical data for these wells are presented in Appendix C. Review of the graphs and data show:

i) While occasional detections of low concentrations of the TSCs have occurred in the upgradient monitoring well MW-16I, the concentrations of the TSCs in this well have been lower than the NYS GQS since July 1996, with the exception of the chlorobenzene concentrations during the June 2006 sampling event (16 µg/L) and October 2020 sampling event (7.04 µg/L J in the duplicate sample versus 2.79 J µg/L in the parent sample); and benzene concentrations during the August 2009, November 2013, May and November 2014, May 2015, February 2016, February 2017, and February 2018 sampling events. These benzene concentrations exceeding the NYS GQS of 1.0 µg/L have ranged from 1.1 to 1.3 µg/L. No TSC concentrations exceeded the NYS GQS in 2021. Total TSC concentrations have remained at less than 4 µg/L since September 2006.

ii) Individual concentrations of TSCs detected in groundwater samples collected from monitoring wells MW-18I and MW-19I have been lower than the NYS GQS since October 1999.

iii) Although there is variability in the concentrations of TSCs in monitoring well MW-20I between groundwater monitoring events, concentrations have stabilized, with slight increases in concentrations since 2012. This is likely due to rebound following completion of the ISCO injections.

iv) The concentrations of TSCs in groundwater samples collected from monitoring well MW-22I have fluctuated historically. Concentrations were relatively stable and consistent from approximately 2016 through 2019. Increases in concentrations of TSCs have been observed since the start of the passive diffusion remedial program in October 2019, but these increases appear to be “leveling off” and were likely due to changing geochemical conditions in the subsurface resulting from the passive diffusion remedial program. These increases are expected to be short-term.

3.1.3 Passive Diffusion Remediation at MW-16I, MW-20I, and MW-22I

In response to requests from the NYSDEC expressed in letters dated May 30, 2018 and July 11, 2019, GSH evaluated the feasibility of implementing passive diffusion remedial technologies at groundwater monitoring wells MW-16I, MW-20I, and MW-22I. The purpose of the passive diffusion remedial effort is to decrease the concentrations of TSCs in these three wells over time. A work plan (Work Plan) dated July 26, 2019 and revised on August 6, 2019 was approved by the NYSDEC in an email dated August 12, 2019. The Work Plan provided for the installation of Oxygen Release Compound (ORC) socks into wells MW-16I, MW-20I, and MW-22I (ORC wells) for a period of 3 years. Installation of the first set of ORC socks occurred in October 2019, immediately following the semiannual monitoring event. The first two years of the program are now complete. As stated in the Work Plan, a summary letter describing the results of the program and presenting recommendations will be provided to the NYSDEC within 90 calendar days of conclusion of the 3-year implementation period.

The intent of the placement of the ORC socks is to introduce aerobic conditions to the formation, as chlorobenzene and benzene degrade readily in the presence of oxygen. The solid peroxides in the ORC socks release oxygen as they dissolve slowly over time. In accordance with the schedule included in the Work Plan, the ORC socks that had been installed on December 21, 2020 were removed and replaced on February 18, 2021. The socks were then removed from the wells, and not replaced, on March 12, 2021 in order to allow the effects of the ORC to abate prior to the spring semiannual monitoring event. New ORC socks were installed in the ORC wells on April 13, 2021

immediately following the spring semiannual monitoring event, and replaced on June 22 and August 18, 2021. The socks were then removed, and not replaced, on September 17, 2021 to allow the effects of the ORC to abate prior to the fall semiannual monitoring event. New ORC socks were installed in the ORC wells on October 19, 2021 immediately following the fall semiannual monitoring event, and replaced on December 22, 2021. During each sock replacement event, seven feet of the socks were installed at the bottom of each well in order to span the 5-foot screened interval. The spent ORC socks were placed into a drum located at the Durez North Tonawanda facility and disposed of off-Site in accordance with applicable regulations.

3.1.3.1 Concentration Trends

Concentrations of total TSCs in MW-16I and MW-20I have not shown significant decreases during the first two years of the passive diffusion program. However, the concentration of chlorobenzene in MW-16I (Chart 3) increased from October 2019 (start of program) to May 2020, remained stable through April 2021, and then decreased to a level slightly below that at the start of the program in October 2021. Concentrations of chlorobenzene in this well have remained below the NYS GQS. Similarly, the concentration of chlorobenzene in MW-20I (Chart 1) increased from October 2019 to October 2020, and then decreased from October 2020 to October 2021 to a level slightly below that at the start of the program. Concentrations of 1,3- and 1-4-dichlorobenzene in MW-20I have also decreased overall since the start of the program. These decreases may be indication that the concentrations are beginning to respond to the effects of the ORC.

Following implementation of the passive diffusion remedial program in October 2019, both total and individual concentrations of TSCs in MW-22I decreased to near-historic lows in May 2020 and then started increasing. The increases in total TSC concentrations as well as individual TSC concentrations (Chart 2) appear to be “leveling off.” These increases may be similar to the temporary short-term increases observed in individual TSC concentrations in MW-16I and MW-20I following the start of the program. The increased dissolved oxygen (DO) and oxidation-reduction potential (ORP) created by the introduction of the ORC may have caused organic carbon in the soil to biodegrade and be released into groundwater, causing temporary increases in groundwater concentrations. The program will be implemented for one additional year. Concentrations of TSCs are expected to decrease (or continue decreasing) during the final year of the program, as the length of time of exposure to the ORC increases.

Over the short term, installation of ORC socks can cause oxygen to be supersaturated in the areas of the wells in which they were installed. The ORC socks at the Site were removed approximately one month prior to the semiannual sampling events so that the effects of the socks could abate before sampling. Field water quality parameters measured during the spring and fall 2021 semiannual monitoring events are presented in Table 2.2 and represent groundwater chemistry in the wells approximately one month following removal of the socks. These data show that the effects of the ORC socks had indeed abated prior to sampling. Conductivity, DO, and ORP in the ORC wells (MW-16I, MW-20I, and MW-22I) were in the approximate same ranges as non-ORC wells (MW-18I and MW-19I) during the sampling events. These data show that the VOC data obtained during the semiannual sampling events was representative of conditions in the groundwater in the areas of these wells and was not influenced by the ORC socks. DO may have been elevated in the ORC wells before removal of the socks; however, in the presence of degradable compounds such as benzene and chlorobenzenes, oxygen is used quickly by indigenous microbes. Therefore, it is not unexpected that oxygen would be reduced to background levels within one month of removing the socks.

3.1.3.2 Field Parameter Measurements

As recommended in the 2020 PRR, beginning with the February 2021 ORC sock replacement event, field parameters were measured in all monitoring wells at the time of all ORC sock replacement and removal events in order to better understand the effects of the ORC socks while “active” in the ORC wells and to determine if any changes were needed during the second and third years of the program. Field parameters measured during all sock removal and replacement events conducted in 2021 are presented on Table 2.3. The field parameters measured at the time of sampling during the spring and fall 2021 semiannual monitoring events are also shown for reference. Field parameters measured at the wells during sock replacement and removal events were measured on water bailed from the well casings immediately following removal of the socks.

During the period monitored (January 1, 2021 through December 31, 2021), conductivity and DO in the ORC wells during the sock replacement and removal events, in which these field parameters were measured immediately following removal of the socks, were significantly higher than in the non-ORC wells. The conductivity and DO measurements in the ORC wells during the sock removal/replacement events were also significantly higher than these measurements in ORC wells during the semiannual monitoring events (April and October), at which times the wells had been sock-free for approximately one month. These data show that the ORC socks were oxygenating the groundwater proximate to the ORC wells during the period monitored. DO values in the ORC wells were over 20 mg/L (and as high as approximately 55 mg/L) and conductivity greater than 5 mS/cm at the time of sock removal/replacement. The solubility of oxygen in water that comes in contact with air is 8 mg/L. Therefore, the data show that the ORC is causing the groundwater to become supersaturated with oxygen. Peroxide compounds are dissolving from the ORC and becoming absorbed in the groundwater, increasing the conductivity of the groundwater proximate to the ORC wells. Furthermore, DO and ORP in the non-ORC wells were elevated during the times in which the socks had been present in the other wells, relative to the sock-free times (groundwater monitoring events), suggesting that the ORC socks were also oxygenating groundwater throughout the formation proximate to the well field. These effects were more pronounced in MW-18I than in MW-19I.

Both positive and negative ORP values were observed in the ORC wells during periods of both high dissolved oxygen and high conductivity (sock removal/replacement events); and during periods of low dissolved oxygen and low conductivity (groundwater monitoring events). This indicates that the ORP values were out of step with the DO and conductivity values in the ORC wells during portions of the monitoring period. During some sock removal/replacement events, DO values of greater than 50 mg/L were measured along with negative ORP values. These data suggest that ORP, which is a general measurement of oxidizing versus reducing conditions in the aquifer, is not being affected by the high DO values. This suggests that the oxygen from the ORC socks may be being consumed before it can affect the overall conditions in the aquifer. ORP is positive, or is less negative, in the non-ORC wells because these wells are less impacted with organic compounds and therefore the carbon source that is causing the microbes to consume oxygen and other electron acceptors and create reducing conditions (negative ORP) is not present in these wells.

As previously indicated, TSC concentrations have increased in MW-22I since implementation of the passive diffusion remedial program in October 2019. Concentrations of TSCs in MW-16I and MW-20I also exhibited increases, followed by decreases. Changes in groundwater geochemistry resulting from placement of the ORC socks, as evidenced from changes in the field parameters between sock removal/replacement events and groundwater sampling events (wells sock-free for a month), can cause short-term fluctuations in the concentrations of the compounds monitored. The concurrent temporary presence of both high DO and high ORP may have caused organic carbon to degrade, resulting in a release of organic compounds bound to the organic carbon. This may have caused temporary increases in groundwater concentrations.

Continued semiannual monitoring in the third year of the passive diffusion program will assist in evaluating the effects of the passive diffusion remedial activities. No changes in the program are recommended for third year of the program at this time.

3.2 Hydraulic Monitoring

Groundwater elevations were measured semiannually in the DNAPL extraction wells and the groundwater monitoring wells on April 13 and October 19, 2021. Extraction well EW-5 could not be accessed during the spring 2021 monitoring event due to a large boat parked on top of the well.

During a hydraulic monitoring event, the elevation of the River is also measured for comparison to the groundwater elevations. A summary of the 2021 water elevations for the eight monitoring wells, five extraction wells, and the River is presented in Table 2.4.

Groundwater potentiometric surface maps for the Site have been prepared based on the semiannual groundwater elevations and are presented on Figures 2.7 and 2.8.

A review of the hydraulic data measured during the 27 years of monitoring shows a correlation of the lower alluvium groundwater elevations (as measured in Inlet Site monitoring wells) with the elevation of the River. The potentiometric

contours presented on Figures 2.7 and 2.8 show that groundwater flow is generally in an east-to-west direction across the upland area of the Site toward the River. However, groundwater flow has been observed from the River into the North Lobe. Groundwater flow direction that fluctuates temporally is not uncommon near the groundwater-surface water interface. However, based on a comparison of the groundwater elevations in the wells farthest from the River (MW-15I through MW-18I) to wells closest to the River's shoreline, over the course of the monitoring period, the overall direction of groundwater flow at the Site was still east to west.

3.2.1 Dense Non-Aqueous Phase Liquid

DNAPL levels were measured in the five extraction wells (EW-1, EW-2, EW-3, EW-4, and EW-5) on a semiannual basis on April 13 and October 19, 2021. Table 2.5 summarizes the DNAPL elevations. EW-5 could not be accessed during the spring 2021 monitoring event due to a large boat parked on top of the well.

DNAPL removal from the five extraction wells is restricted to October 15 to April 15, during the boating off-season. DNAPL is removed only if its level rises above the top of the sump in the bottom of the extraction well. DNAPL was not removed from the extraction wells in 2021.

The accumulation rate of DNAPL in the extraction wells has slowed over time. Table 2.6 shows the volume of DNAPL recovered from the Site since the onset of maintenance and monitoring activities in May 1995. A total of 1,135.1 gallons of DNAPL has been recovered from the Site since remediation began in August 1993. Since 2002, only 19.2 gallons of DNAPL have been recovered. The highest annual amount of DNAPL recovered since 2002 was 5.3 gallons in 2010. No DNAPL was removed from the extraction wells from 2002 through 2008, from 2015 through 2018, or in 2020 or 2021.

3.2.2 Site and Well Inspections

Site and physical well inspections were completed semiannually on April 13 and October 19, 2021. The completed field inspection forms are included as Appendix D. Evidence of minor animal burrowing was observed beneath the concrete pads at EW-2 and MW-15I during both Site inspections. A large animal burrow was observed approximately 12 feet south of MW-21S during the spring 2021 Site inspection, and evidence of burrowing animals was observed in the parking area near the ramp to the dock during the fall 2021 Site inspection. It is not anticipated that these animal burrows present a concern to the integrity of the wells at this time. Repairs were not required.

Results of the semiannual well inspections are presented in Table 2.7. EW-5 could not be accessed during the spring 2021 inspection due to a large boat parked on top of the well. No deficiencies were noted during the semiannual well inspections. Repairs were not required.

3.2.3 Maintenance Activities

No maintenance activities were performed during the monitoring period.

4. Summary of 2021 Operation

The remedial systems at the Site are functioning as designed to contain the DNAPL, which allows for DNAPL removal and off-Site disposal as necessary.

Overall, groundwater quality to the north and east outside the cutoff wall has stabilized, in part due to the 2011 and 2012 ISCO injection events, which included injections of aqueous sodium persulfate and sodium hydroxide (April 2011, November 2011, and April 2012). Groundwater quality improved after the injections, as shown by the concentration of TSCs measured during monitoring conducted over the past 27 years. The concentrations observed in MW-20I have remained orders of magnitude lower than those observed prior to the implementation of the ISCO program in 2011/2012 and have since stabilized, with only slight increases since 2012 due to rebound. The

pre-injection concentrations observed in MW-22I were significantly lower than those observed in nearby well MW-20I. The concentrations of TSCs in MW-22I have remained relatively consistent with only slight increases since 2016, other than recent increased concentrations following implementation of the passive diffusion remedial program (discussed below) that are expected to be short-term.

The 2021 semiannual groundwater quality data for MW-16I, MW-18I, and MW-19I are consistent with historical analytical data. Analytical results for wells MW-16I, MW-18I, and MW-19I were below the NYS GQS.

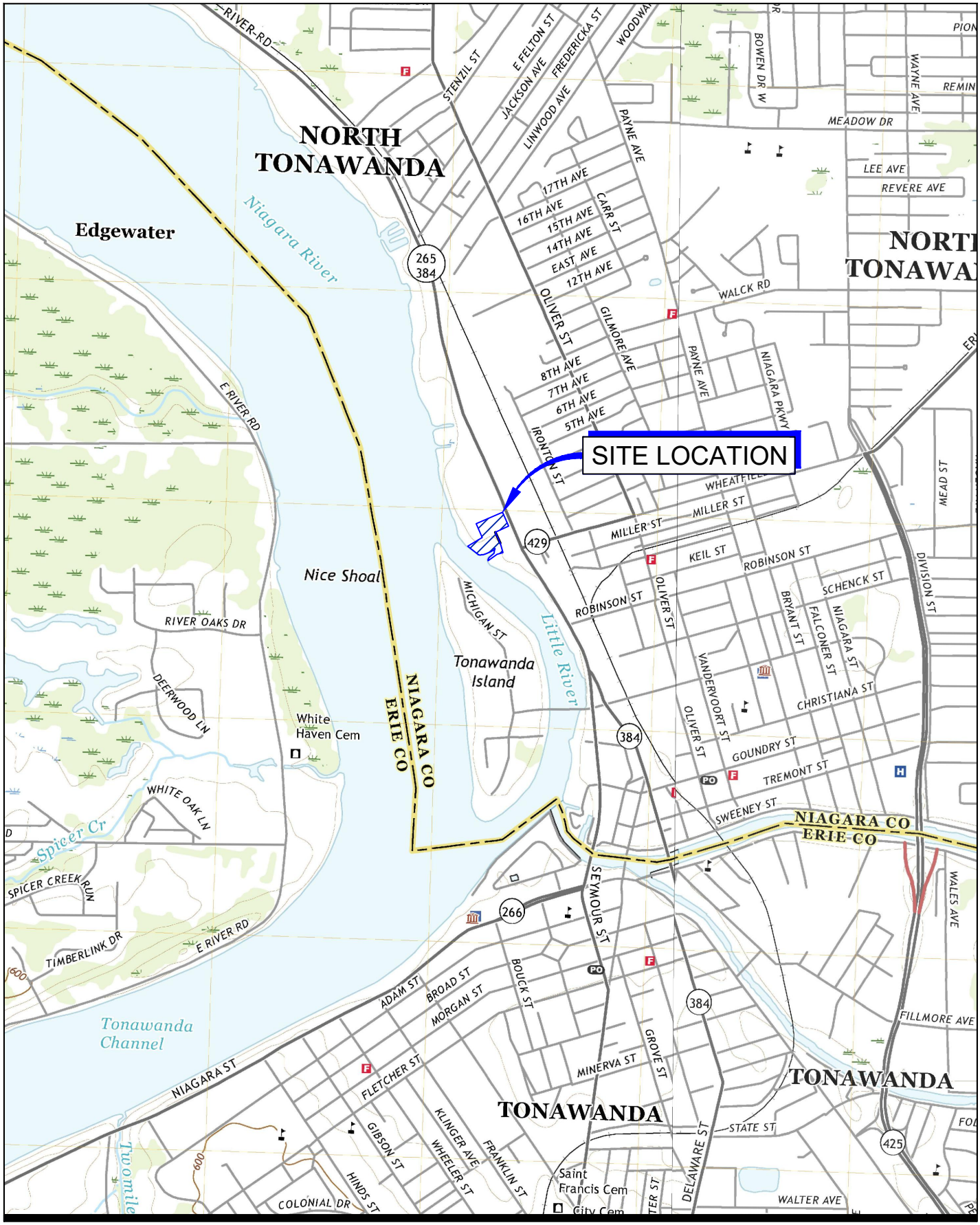
A passive diffusion remedial program was implemented at groundwater monitoring wells MW-16I, MW-20I, and MW-22I in October 2019. The program will be implemented for three years and then the results will be evaluated. The first two years are now complete. As of the spring 2021 groundwater monitoring event, concentrations of total TSCs in MW-22I have increased since implementation of the passive diffusion remedial program, while concentrations of total TSCs in MW-16I and MW-20I remain relatively unchanged. Concentrations of total TSCs are expected to decrease during the final year of the program, as the length of time of exposure to the ORC increases. Continued semiannual monitoring will assist in evaluating the effects of the passive diffusion remedial activities.

The hydraulic monitoring data show that the overall direction of groundwater flow at the Site is from east to west, across the upland area of the Inlet toward the River.

No DNAPL has been observed in any of the groundwater monitoring wells located outside the cutoff wall in the North Lobe area. The monitoring results indicate that the cutoff wall is functioning as designed.

The long-term changes in groundwater quality will continue to be monitored and evaluated.

The Inlet monitoring program data for the Site demonstrates that the remedial program continues to meet its design objectives.



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1" = 2000 ft

APPROXIMATE SCALE

N

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GLENN SPRINGS HOLDINGS, INC.
DUREZ INLET SITE
NORTH TONAWANDA, NEW YORK

Project No. **11230176**
Date **December 2021**

SITE LOCATION

FIGURE 1.1

Filename: N:\US\Niagara Falls\Projects\564\11230176\Digital_Design\ACAD\Figures\RPT001\11230176-GHD-0000-RPT-EN-0101_WA-001.DWG
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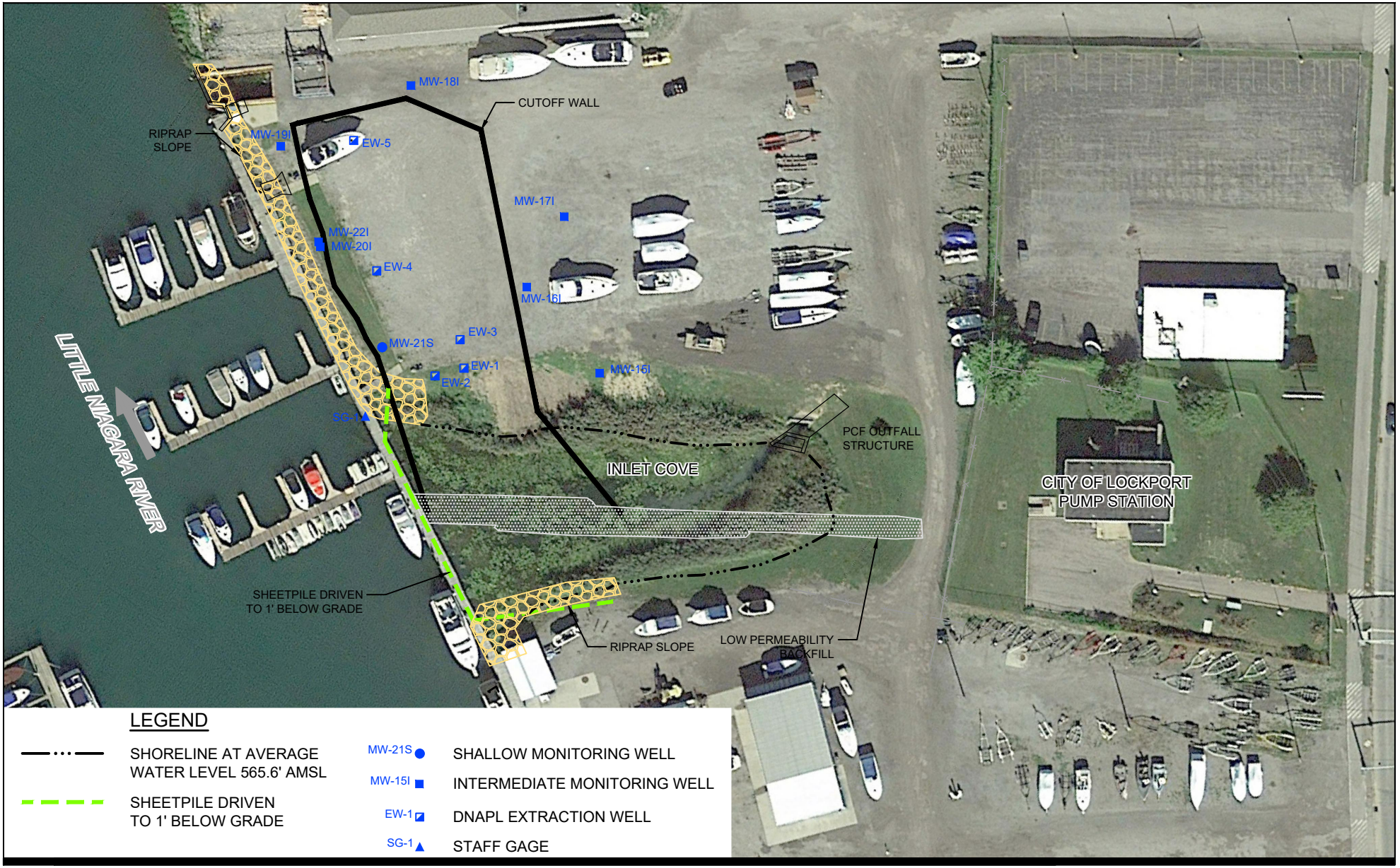
SOURCE: USGS QUADRANGLE MAP; TONAWANDA WEST, NY, 2019
AND TONAWANDA EAST, NY, 2019



0 40 80 ft

1" = 80 ft

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GLENN SPRINGS HOLDINGS, INC.
DUREZ INLET SITE
NORTH TONAWANDA, NEW YORK

Project No. **11230176**
Date **December 2021**

SITE PLAN

FIGURE 2.1

Filename: N:\US\Niagara Falls\Projects\564\11230176\Digital_Design\ACAD\Figures\RPT001\11230176-GHD-0000-RPT-EN-0102_WA-001.DWG
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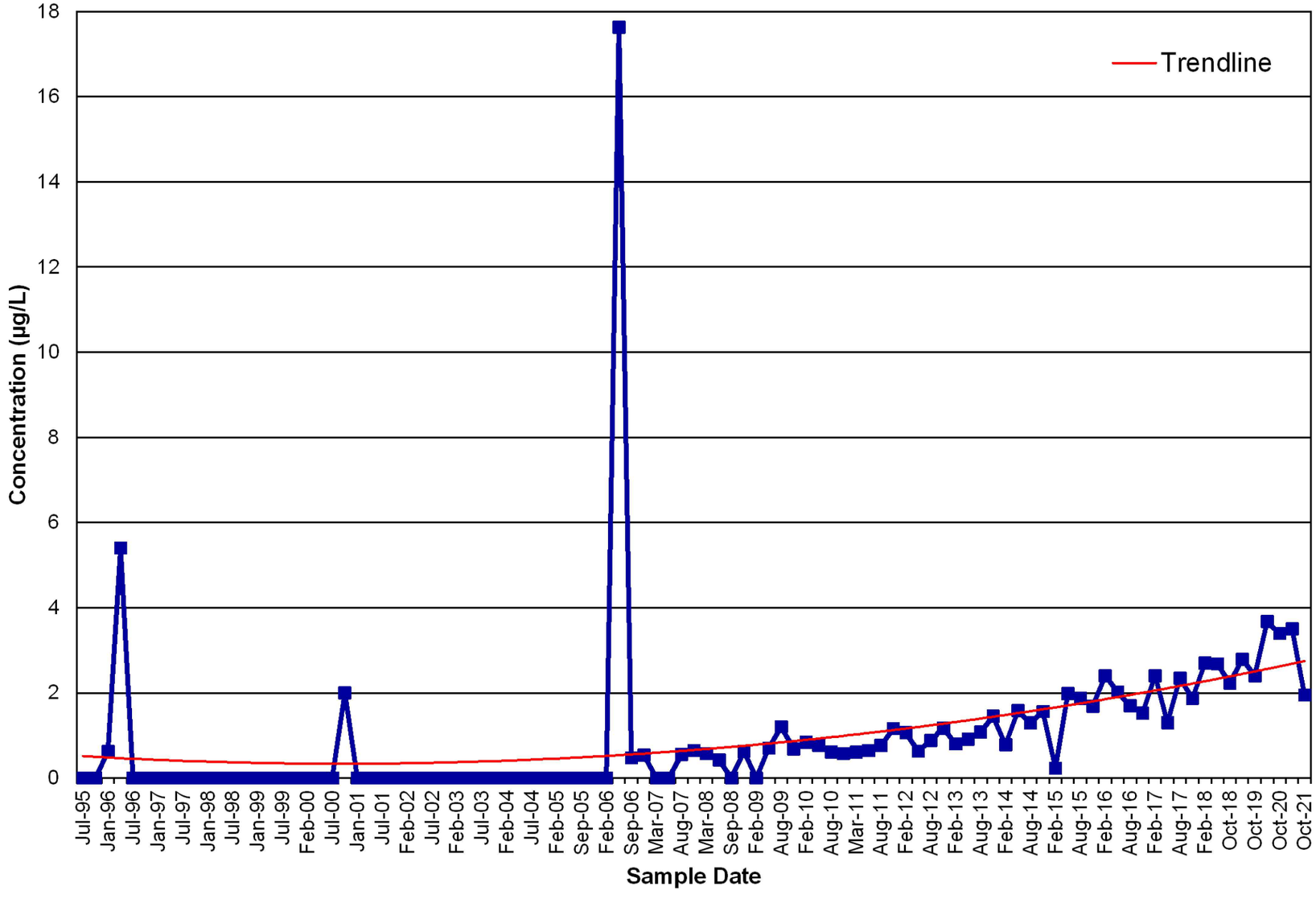
SOURCE: IMAGE © 2020 GOOGLE EARTH (IMAGERY DATE 9-2018), ACCESSED: 2020.



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GLENN SPRINGS HOLDINGS, INC.
DUREZ INLET SITE
NORTH TONAWANDA, NEW YORK

HISTORICAL CONCENTRATIONS OF TOTAL TARGETED SITE COMPOUNDS MW-16I

Project No. **11230176**
Date **December 2021**

FIGURE 2.2

Filename: N:\US\Niagara Falls\Projects\564\11230176\Digital_Design\ACAD\Figures\RPT001\11230176-GHD-0000-RPT-EN-0103_WA-001.DWG
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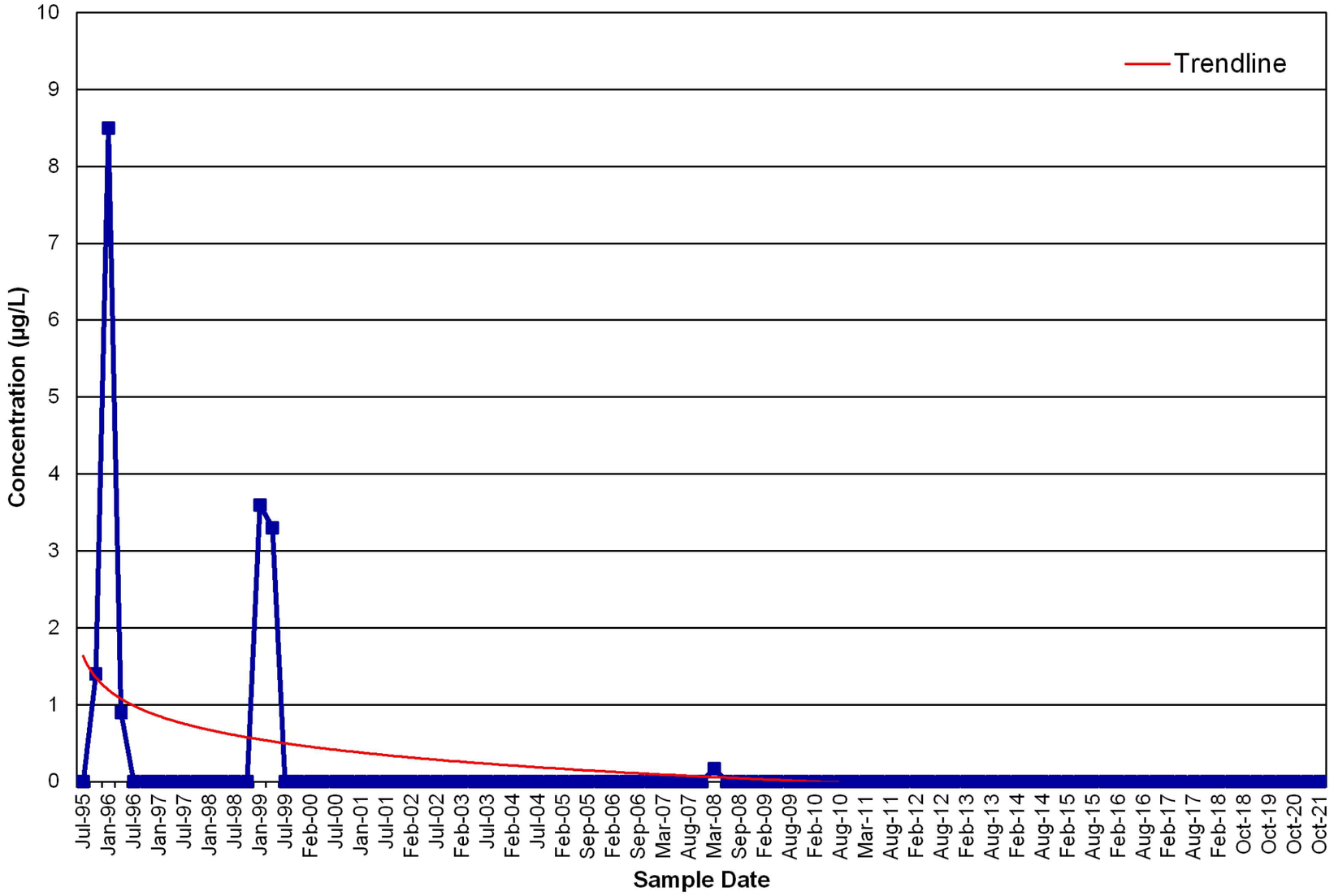

GLENN SPRINGS HOLDINGS, INC.
DUREZ INLET SITE
NORTH TONAWANDA, NEW YORK

HISTORICAL CONCENTRATIONS OF TOTAL TARGETED SITE COMPOUNDS MW-18I

Project No. **11230176**
Date **December 2021**

FIGURE 2.3

Filename: N:\US\Niagara Falls\Projects\564\11230176\Digital_Design\ACAD\Figures\RPT001\11230176-GHD-0000-RPT-EN-0103_WA-001.DWG
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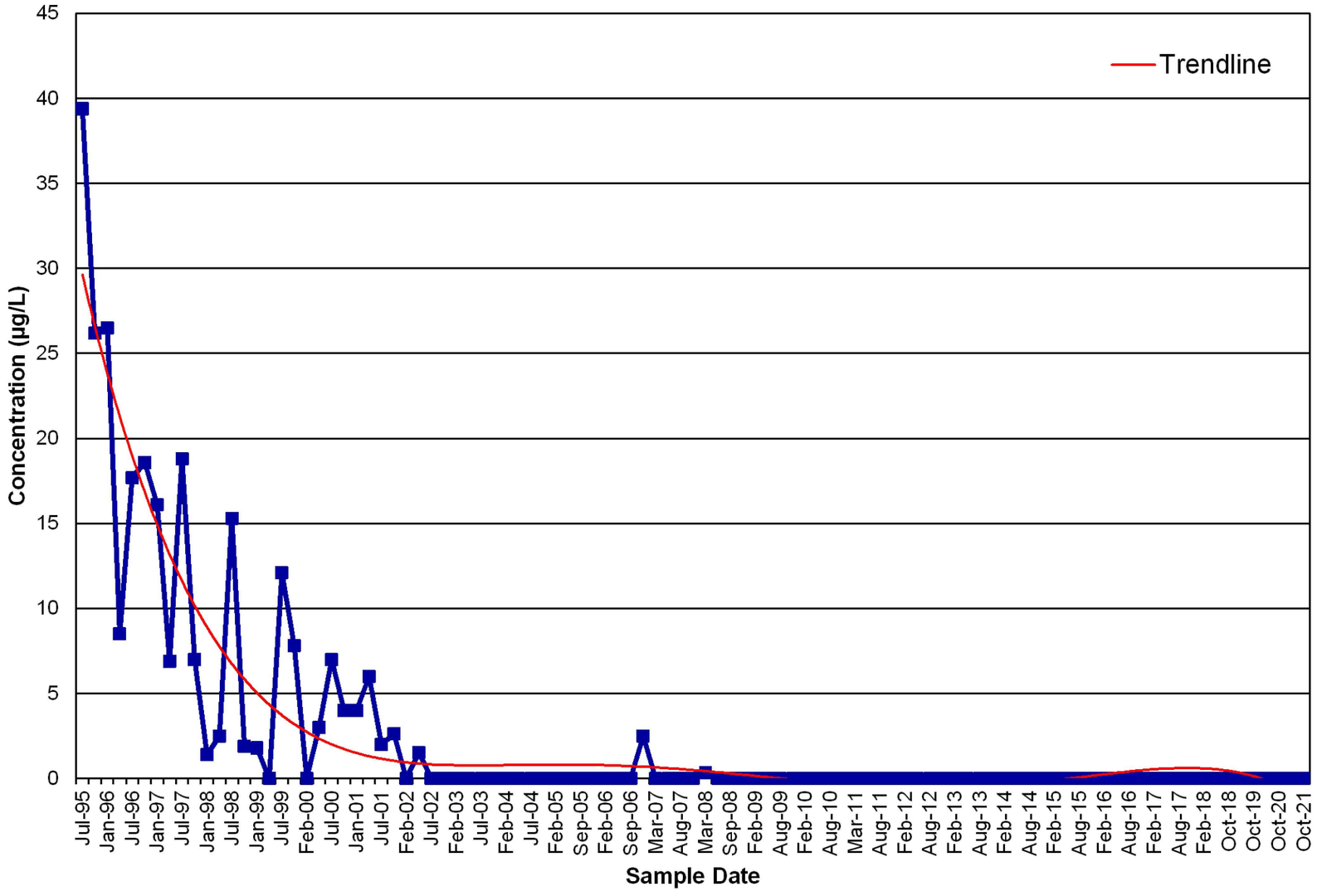

GLENN SPRINGS HOLDINGS, INC.
DUREZ INLET SITE
NORTH TONAWANDA, NEW YORK

HISTORICAL CONCENTRATIONS OF TOTAL TARGETED SITE COMPOUNDS MW-19I

Project No. **11230176**
Date **December 2021**

FIGURE 2.4

Filename: N:\US\Niagara Falls\Projects\564\11230176\Digital_Design\ACAD\Figures\RPT001\11230176-GHD-0000-RPT-EN-0103_WA-001.DWG
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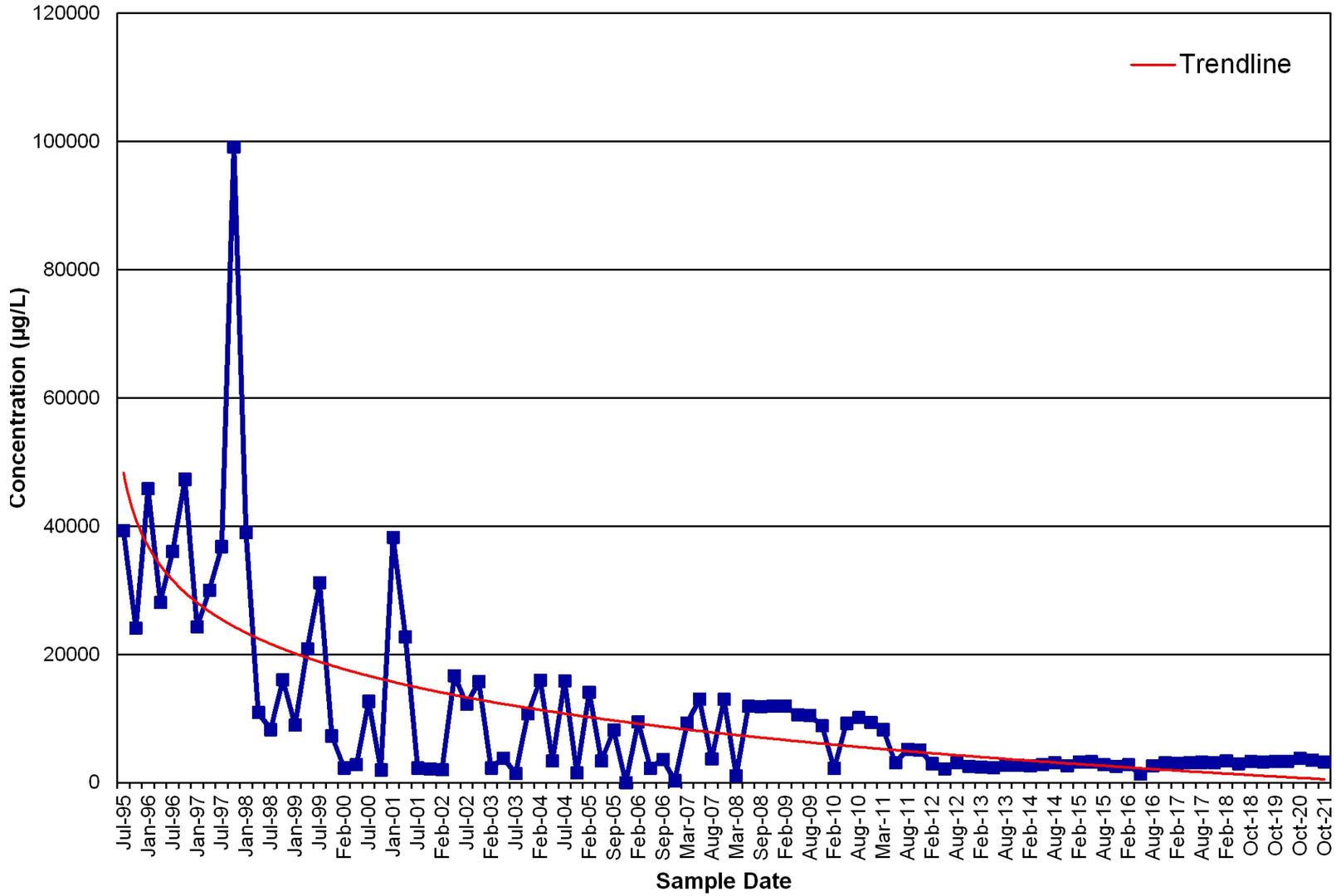

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GLENN SPRINGS HOLDINGS, INC.
DUREZ INLET SITE
NORTH TONAWANDA, NEW YORK

HISTORICAL CONCENTRATIONS OF
TOTAL TARGETED SITE COMPOUNDS
MW-20I

Project No. **11230176**
Date **December 2021**

FIGURE 2.5

Filename: N:\US\Niagara Falls\Projects\564\11230176\Digital_Design\ACAD\Figures\RPT001\11230176-GHD-0000-RPT-EN-0103_WA-001.DWG
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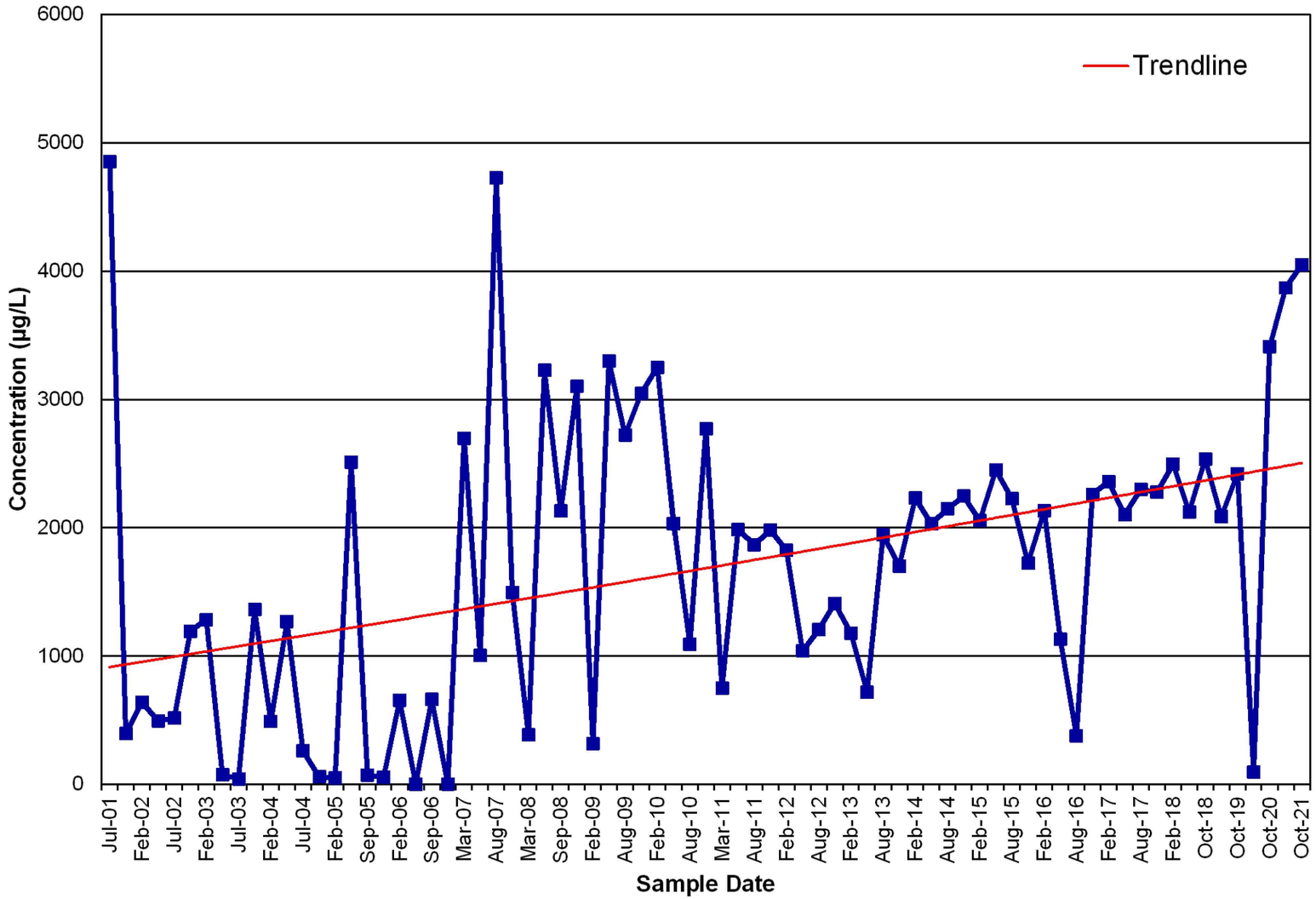

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GLENN SPRINGS HOLDINGS, INC.
DUREZ INLET SITE
NORTH TONAWANDA, NEW YORK

HISTORICAL CONCENTRATIONS OF TOTAL TARGETED SITE COMPOUNDS MW-22I

Project No. **11230176**
Date **December 2021**

FIGURE 2.6

Filename: N:\US\Niagara Falls\Projects\564\11230176\Digital_Design\ACAD\Figures\RPT001\11230176-GHD-0000-RPT-EN-0103_WA-001.DWG
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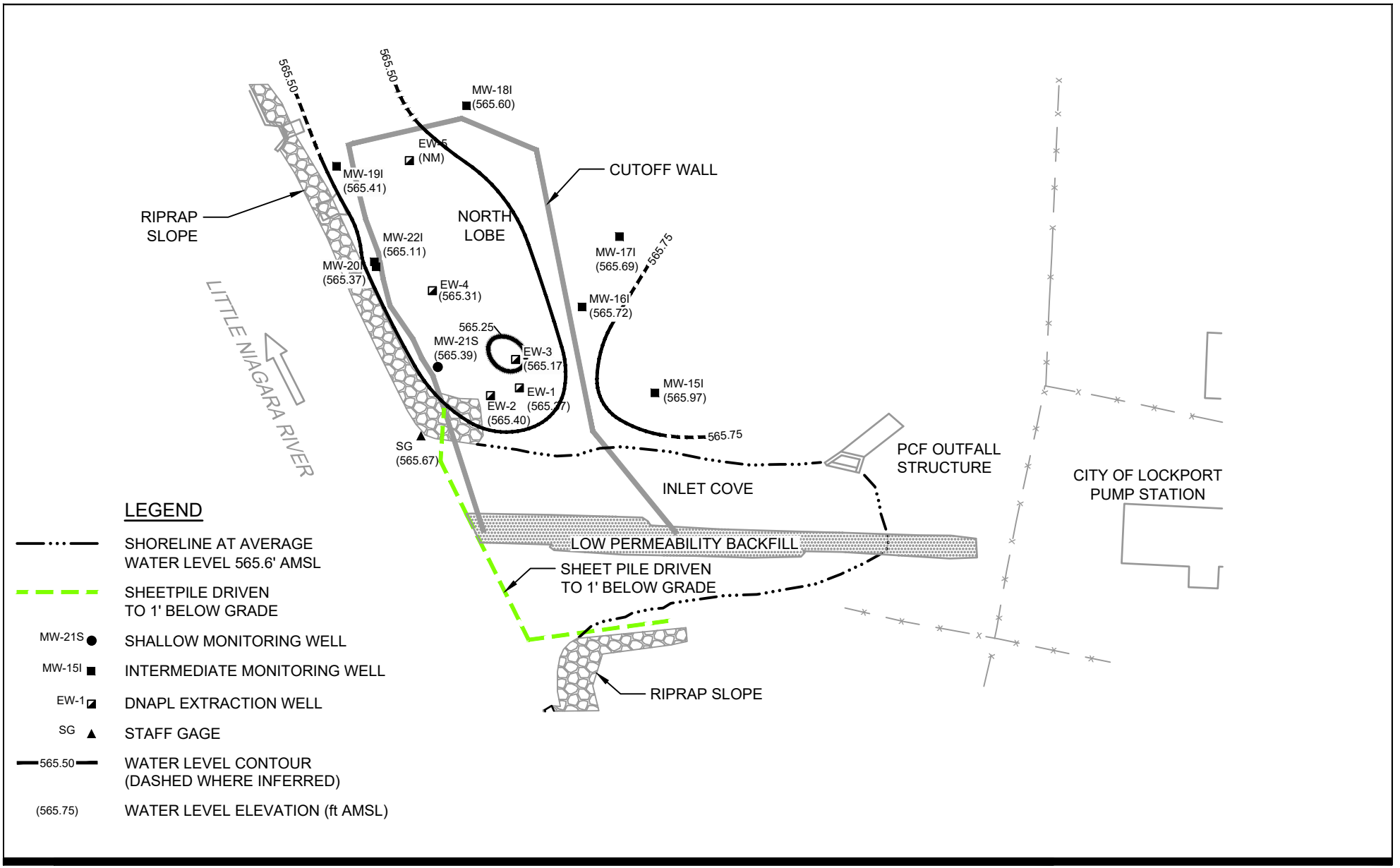

NOTES:
(1) TOP OF CUTOFF WALL WINDOW = 562.00.
(2) THE RIVER GAUGE IN THE LITTLE NIAGARA RIVER IS REPRESENTATIVE OF THE WATER ELEVATION AT THE END OF THE MONITORING.
(3) CONTOUR INTERVALS 0.25 FT.
(4) CONTOURS WERE DEVELOPED WITH CONSIDERATION OF THE MARGIN OF ERROR ASSOCIATED WITH MANUAL WATER LEVEL MEASUREMENTS.
(5) SG - STAFF GAUGE MEASUREMENT PRIOR TO HYDRAULIC MONITORING.

0 40 80 ft
1" = 80 ft

N

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GLENN SPRINGS HOLDINGS, INC.
DUREZ INLET SITE
NORTH TONAWANDA, NEW YORK

HYDRAULIC HEAD DISTRIBUTION MAP
APRIL 13, 2021

Project No. **11230176**
Date **January 2022**

FIGURE 2.7

Filename: N:\US\Niagara Falls\Projects\564\11230176\Digital_Design\ACAD\Figures\RPT001\11230176-GHD-0000-RPT-EN-0104_WA-001.DWG
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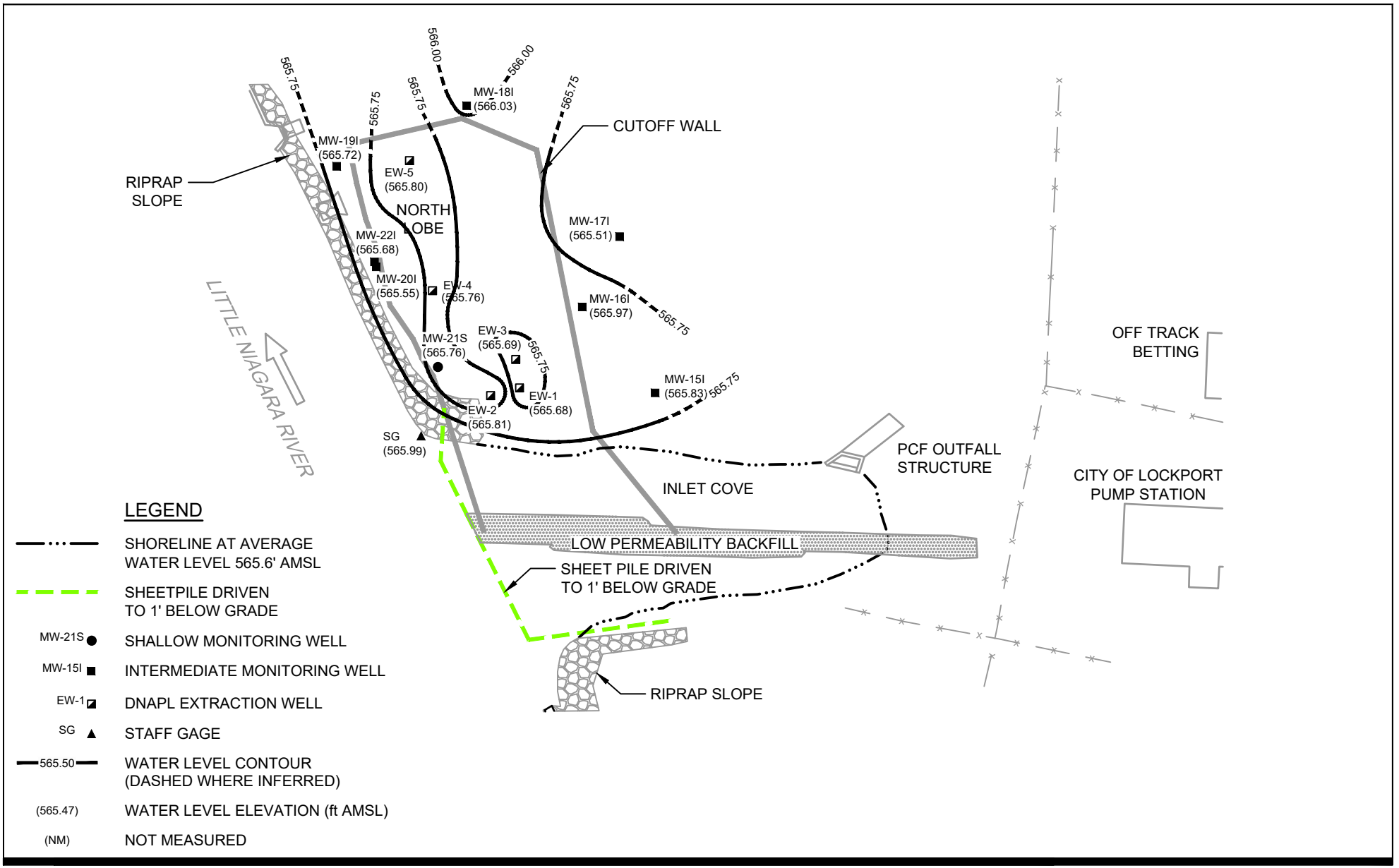

NOTES:
(1) TOP OF CUTOFF WALL WINDOW = 562.00.
(2) THE RIVER GAUGE IN THE LITTLE NIAGARA RIVER IS REPRESENTATIVE OF THE WATER ELEVATION AT THE END OF THE MONITORING.
(3) CONTOUR INTERVALS 0.25 FT.
(4) CONTOURS WERE DEVELOPED WITH CONSIDERATION OF THE MARGIN OF ERROR ASSOCIATED WITH MANUAL WATER LEVEL MEASUREMENTS.
(5) SG - STAFF GAUGE MEASUREMENT PRIOR TO HYDRAULIC MONITORING.

0 40 80 ft
1" = 80 ft

N

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GLENN SPRINGS HOLDINGS, INC.
DUREZ INLET SITE
NORTH TONAWANDA, NEW YORK

HYDRAULIC HEAD DISTRIBUTION MAP
OCTOBER 19, 2021

Project No. **11230176**
Date **December 2021**

FIGURE 2.8

Filename: N:\US\Niagara Falls\Projects\564\11230176\Digital_Design\ACAD\Figures\RPT001\11230176-GHD-0000-RPT-EN-0105_WA-001.DWG
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Groundwater Concentration Versus Time: MW-20I
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

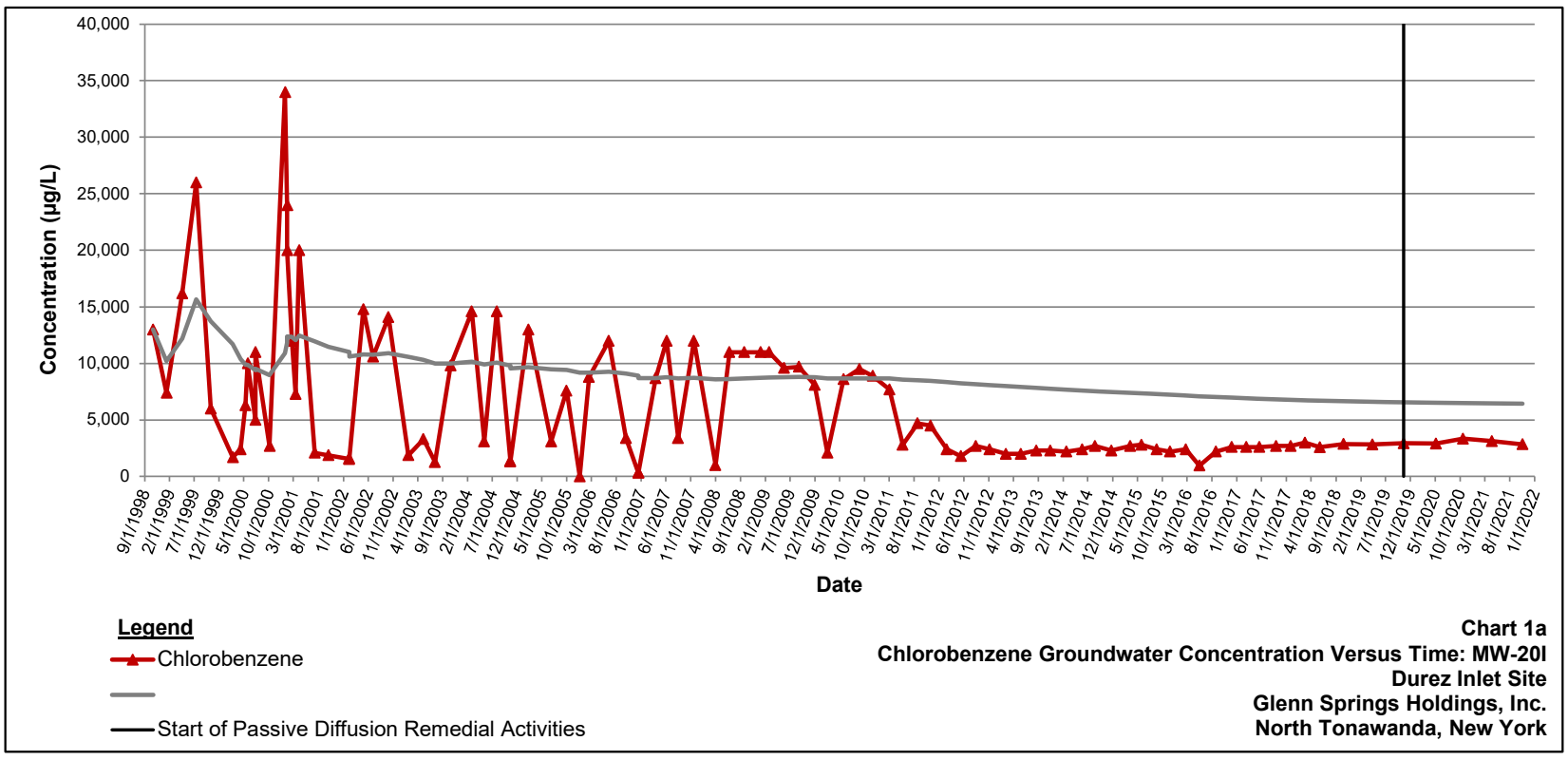


Chart 1a
Chlorobenzene Groundwater Concentration Versus Time: MW-20I
Durez Inlet Site
Glenn Springs Holdings, Inc.
North Tonawanda, New York

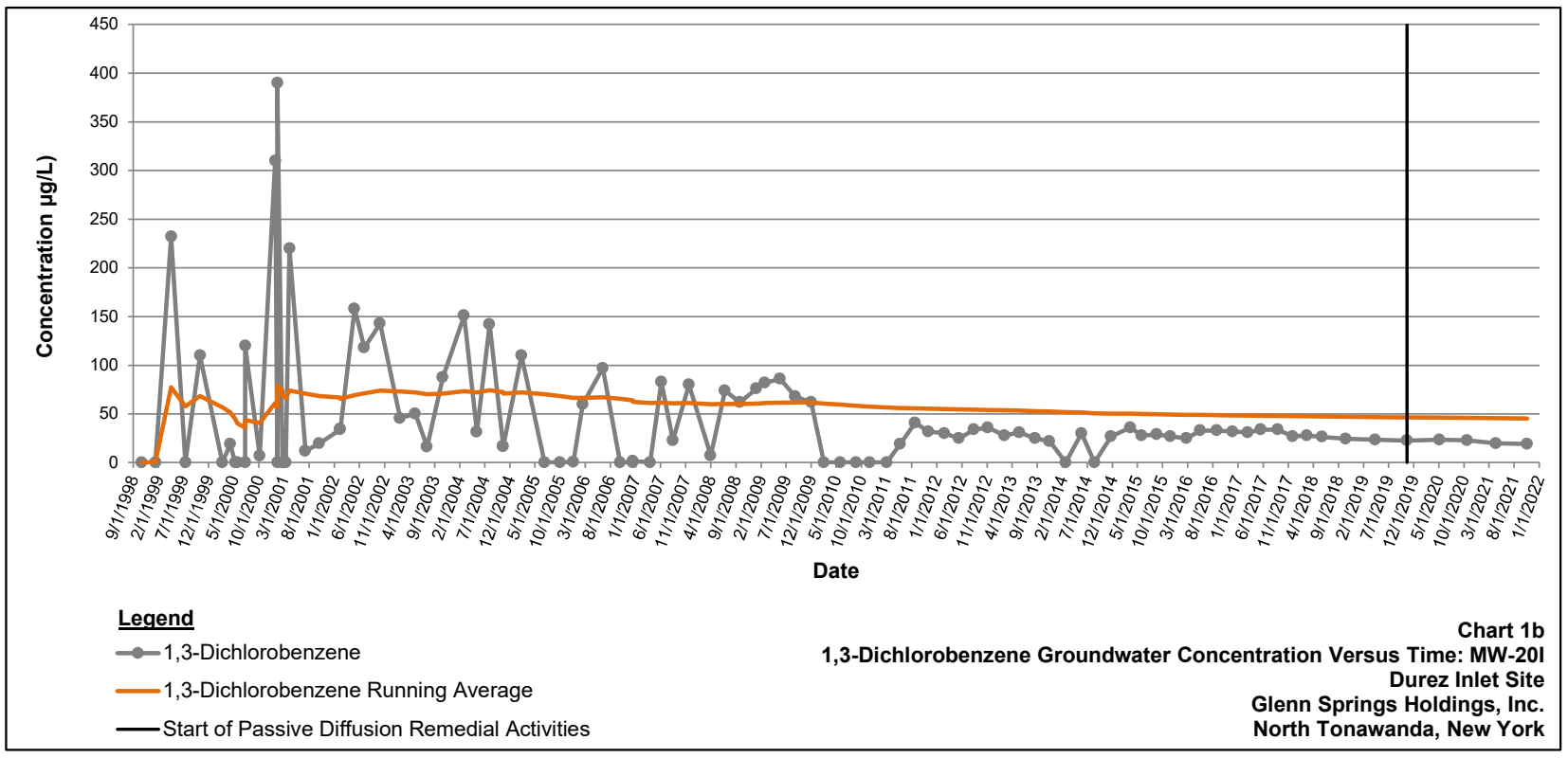


Chart 1b
1,3-Dichlorobenzene Groundwater Concentration Versus Time: MW-20I
Durez Inlet Site
Glenn Springs Holdings, Inc.
North Tonawanda, New York

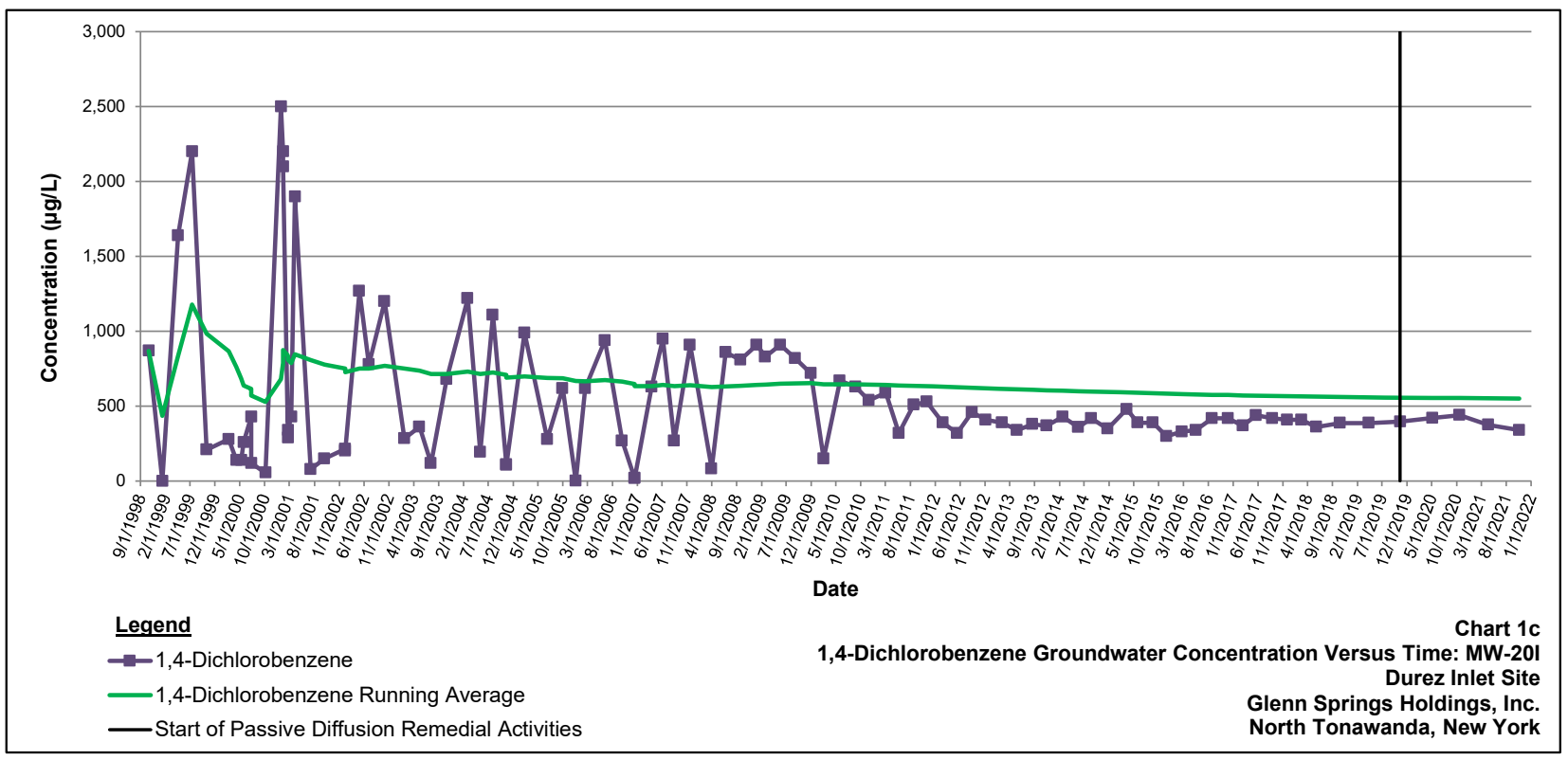


Chart 1c
1,4-Dichlorobenzene Groundwater Concentration Versus Time: MW-20I
Durez Inlet Site
Glenn Springs Holdings, Inc.
North Tonawanda, New York

Groundwater Concentration Versus Time: MW-22I
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

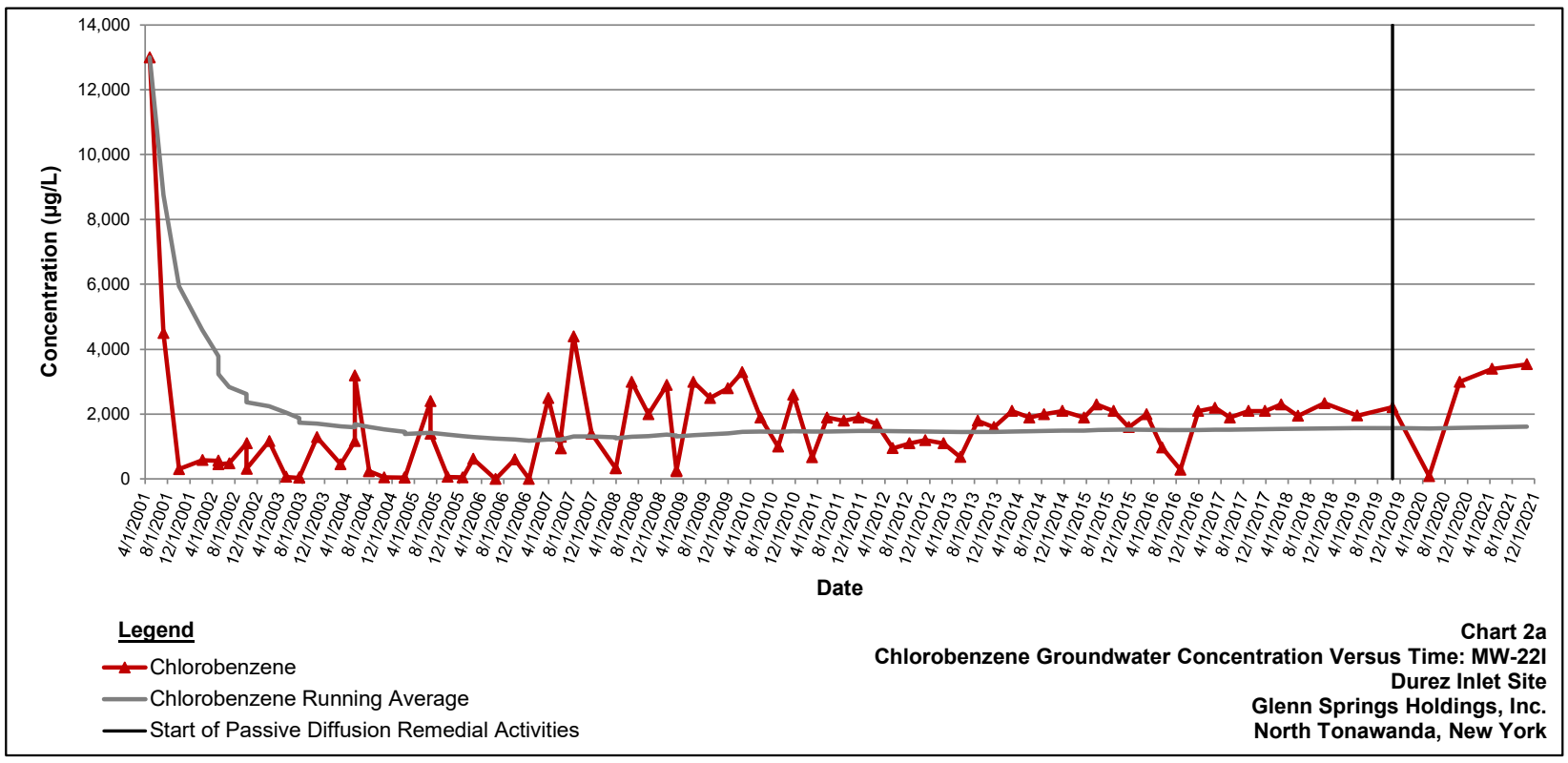


Chart 2a
Chlorobenzene Groundwater Concentration Versus Time: MW-22I
Durez Inlet Site
Glenn Springs Holdings, Inc.
North Tonawanda, New York

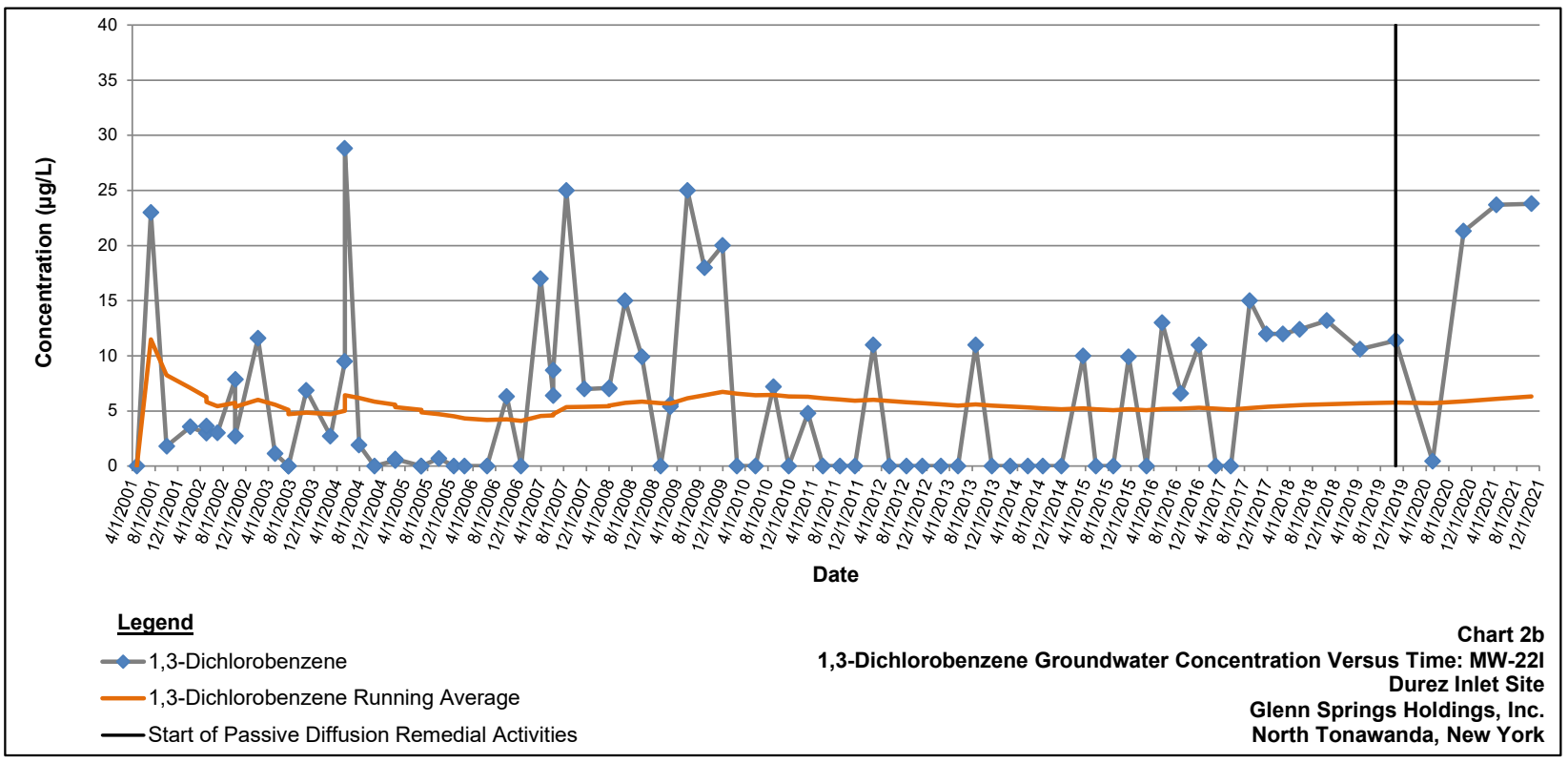


Chart 2b
1,3-Dichlorobenzene Groundwater Concentration Versus Time: MW-22I
Durez Inlet Site
Glenn Springs Holdings, Inc.
North Tonawanda, New York

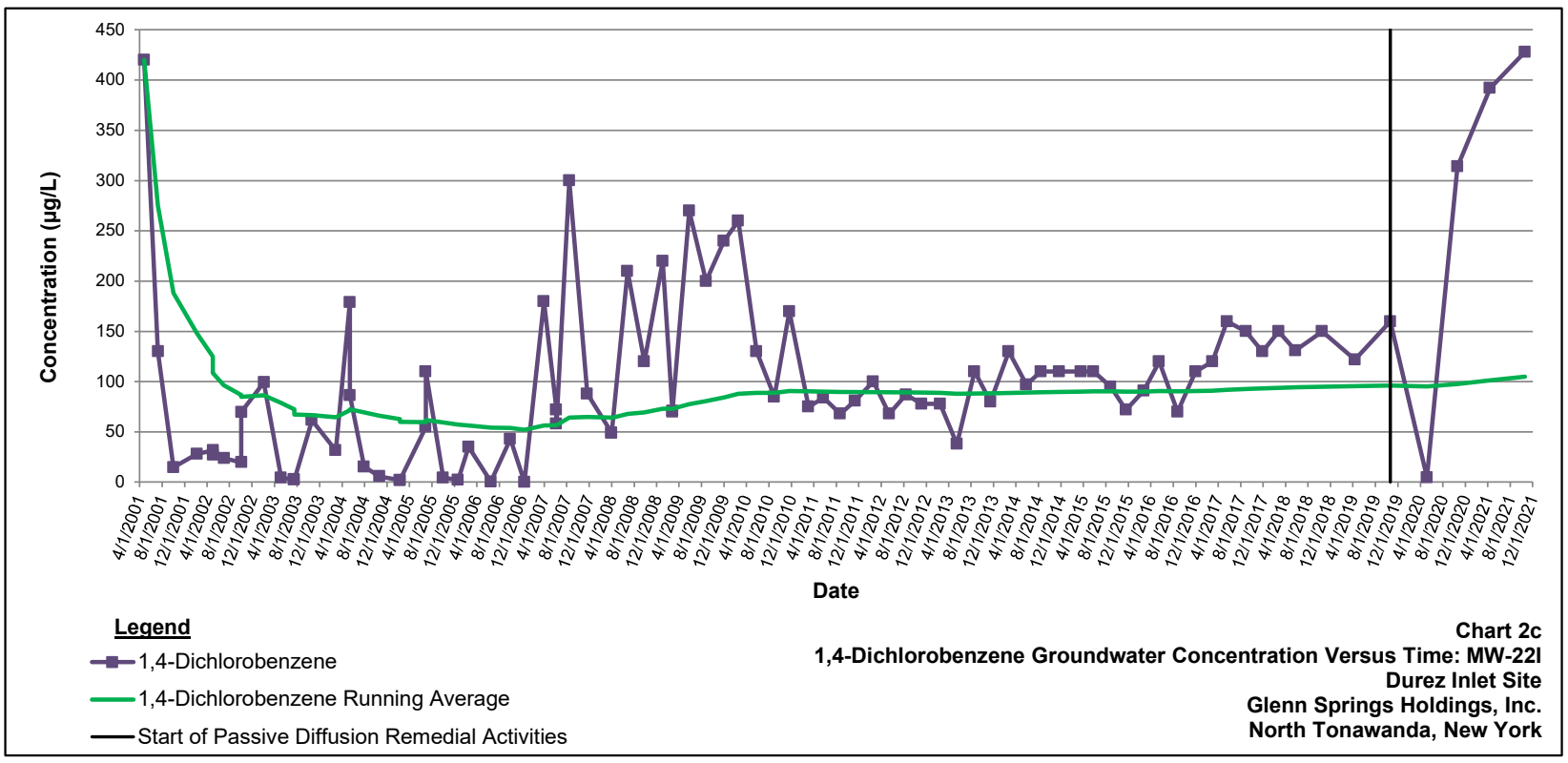


Chart 2c
1,4-Dichlorobenzene Groundwater Concentration Versus Time: MW-22I
Durez Inlet Site
Glenn Springs Holdings, Inc.
North Tonawanda, New York

Groundwater Concentration Versus Time: MW-16I
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

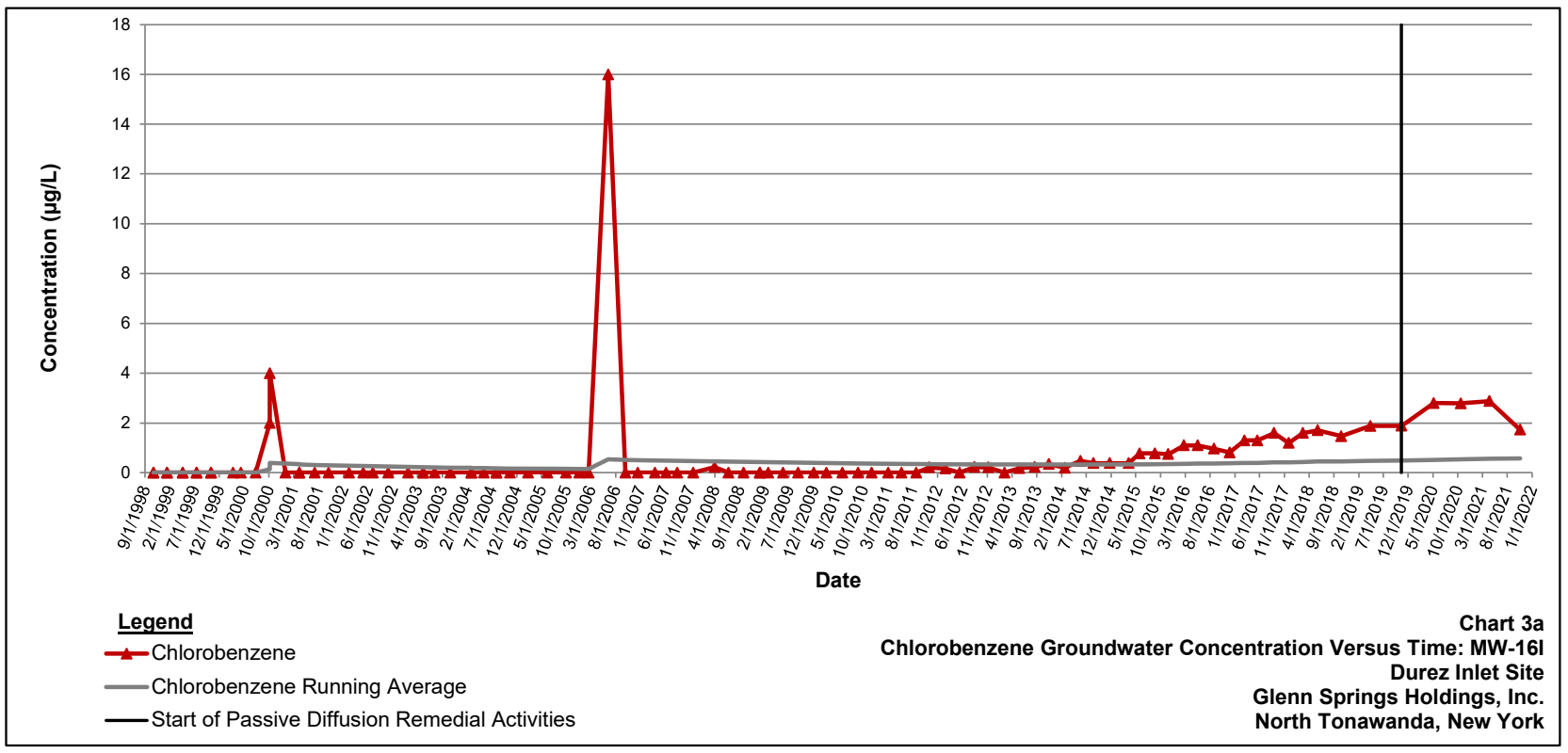


Chart 3a
Chlorobenzene Groundwater Concentration Versus Time: MW-16I
Durez Inlet Site
Glenn Springs Holdings, Inc.
North Tonawanda, New York

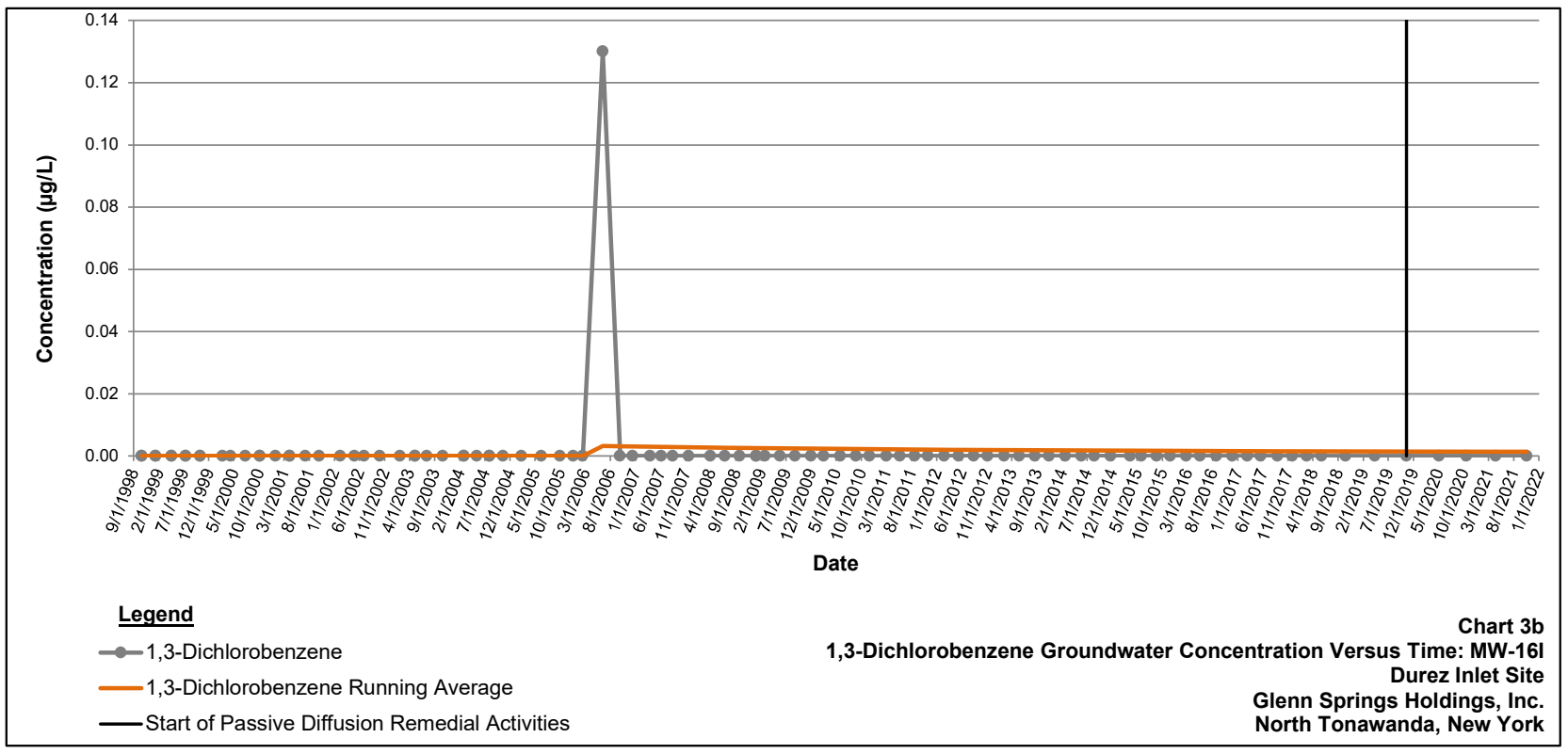


Chart 3b
1,3-Dichlorobenzene Groundwater Concentration Versus Time: MW-16I
Durez Inlet Site
Glenn Springs Holdings, Inc.
North Tonawanda, New York

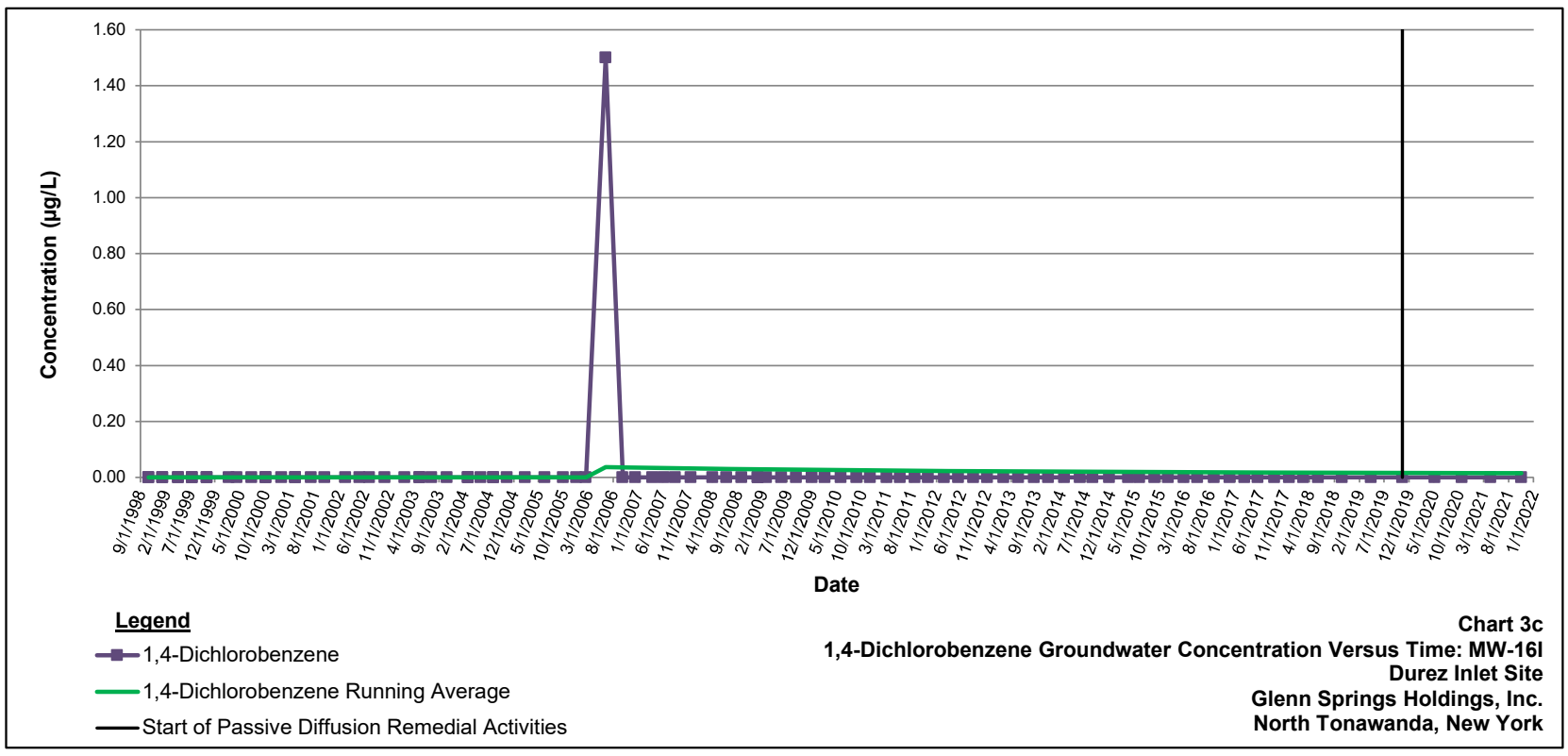


Chart 3c
1,4-Dichlorobenzene Groundwater Concentration Versus Time: MW-16I
Durez Inlet Site
Glenn Springs Holdings, Inc.
North Tonawanda, New York

Groundwater Concentration Versus Time: MW-18I
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

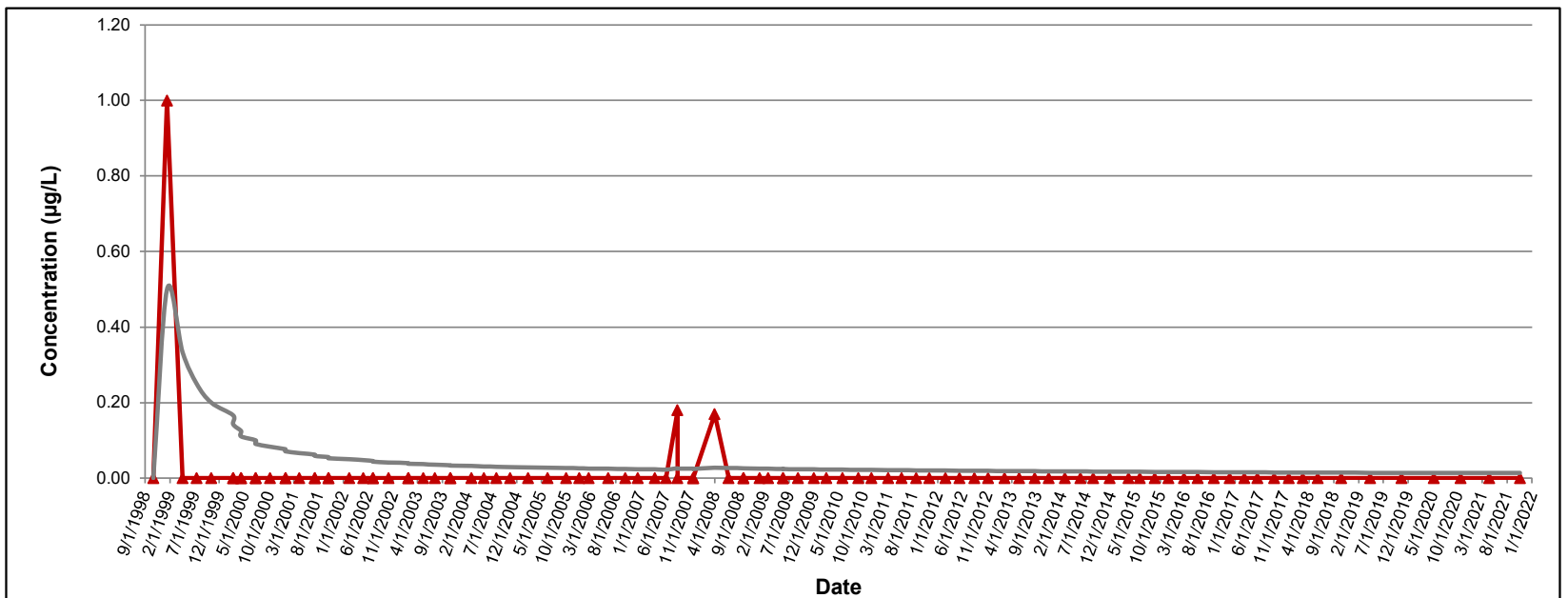


Chart 4a
Chlorobenzene Groundwater Concentration Versus Time: MW-18I
Durez Inlet Site
Glenn Springs Holdings, Inc.
North Tonawanda, New York

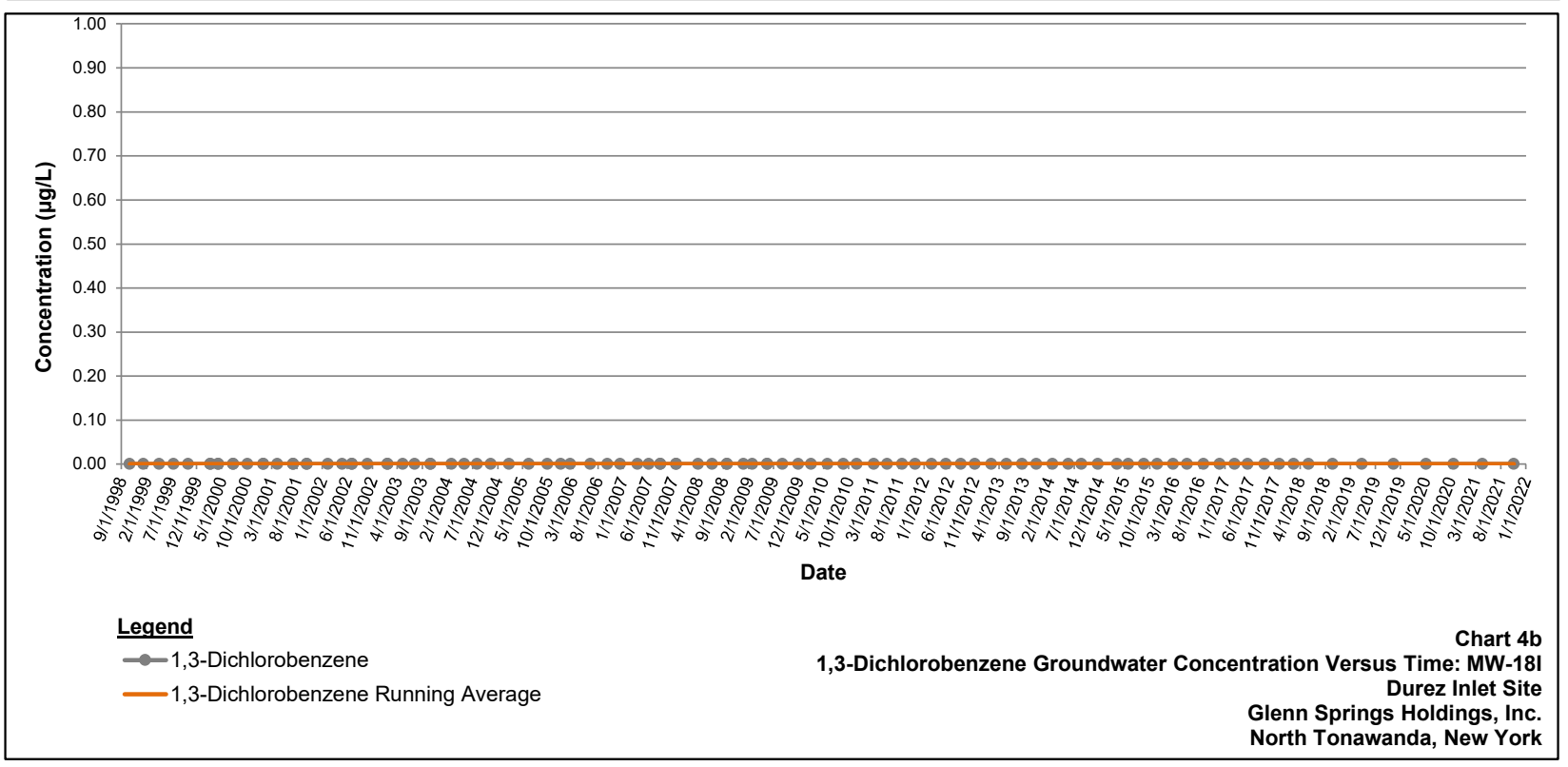


Chart 4b
1,3-Dichlorobenzene Groundwater Concentration Versus Time: MW-18I
Durez Inlet Site
Glenn Springs Holdings, Inc.
North Tonawanda, New York

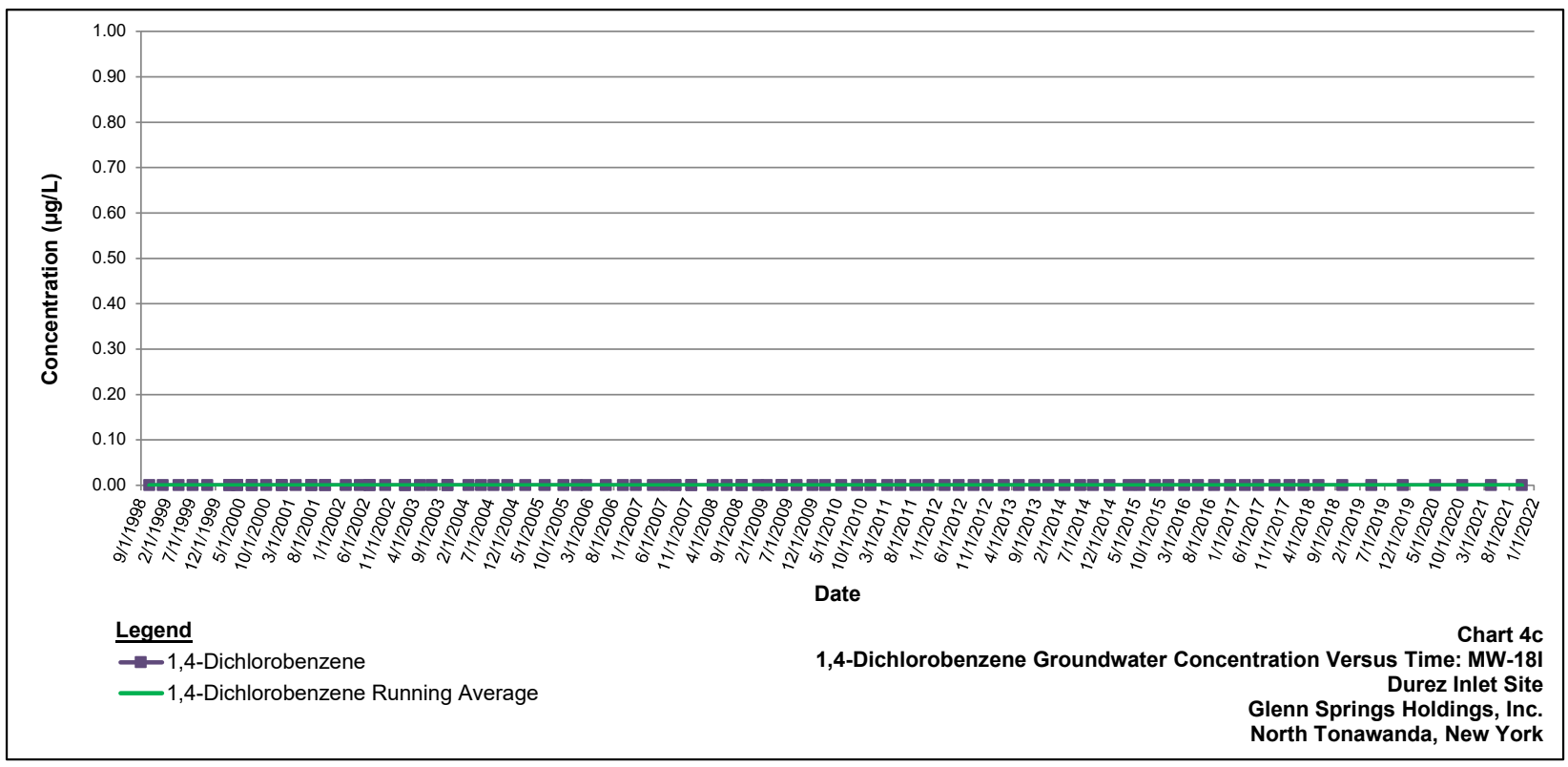


Chart 4c
1,4-Dichlorobenzene Groundwater Concentration Versus Time: MW-18I
Durez Inlet Site
Glenn Springs Holdings, Inc.
North Tonawanda, New York

Groundwater Concentration Versus Time: MW-19I
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

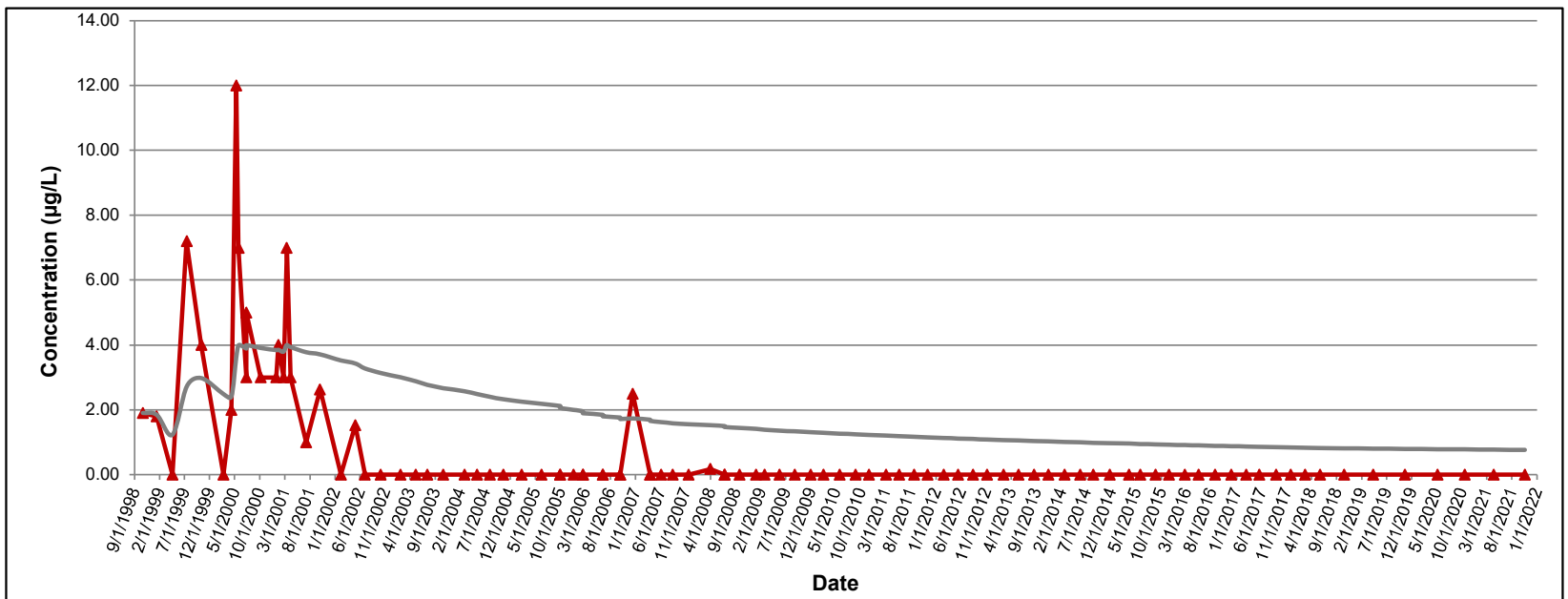


Chart 5a
Chlorobenzene Groundwater Concentration Versus Time: MW-19I
Durez Inlet Site
Glenn Springs Holdings, Inc.
North Tonawanda, New York

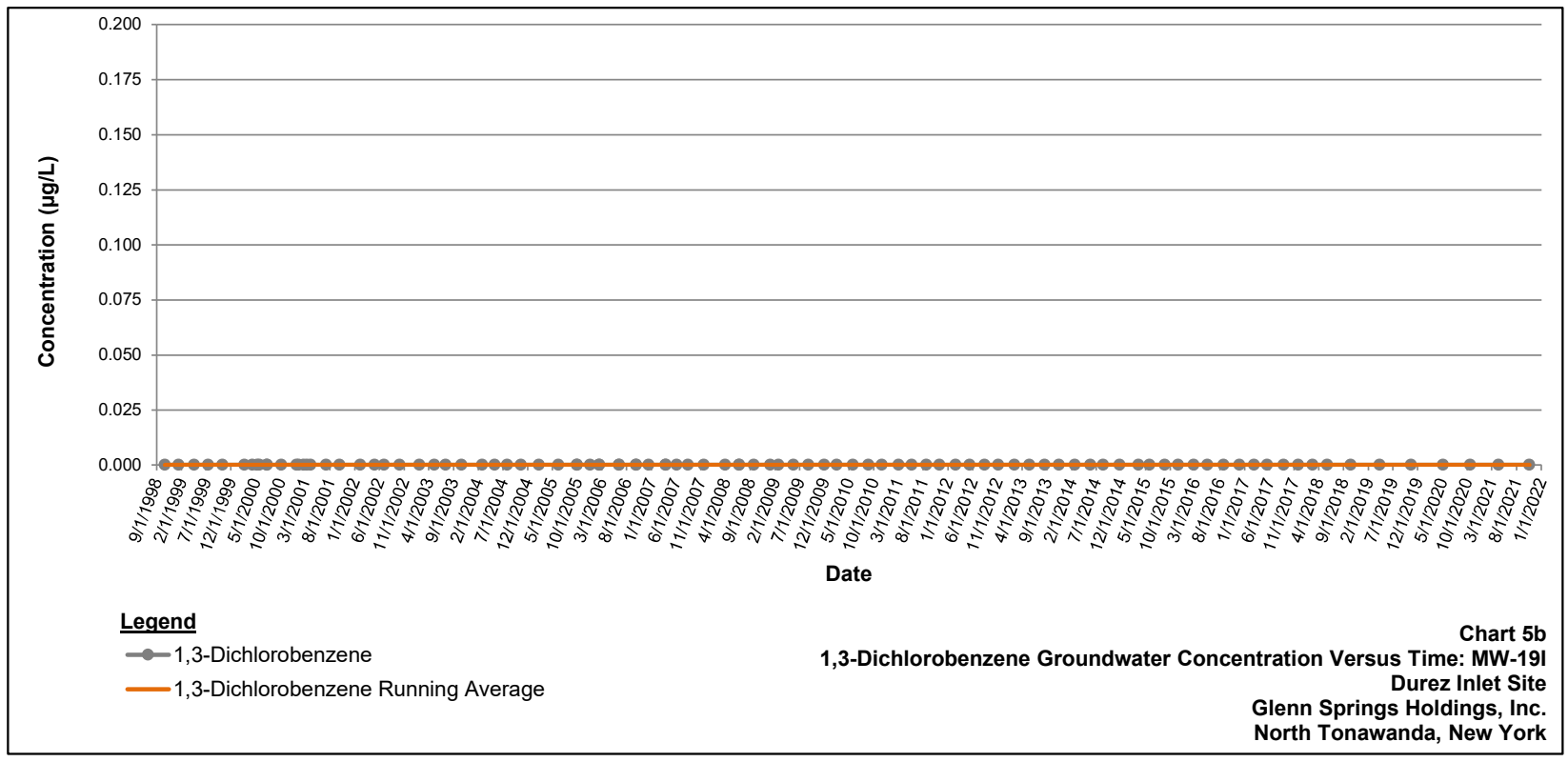


Chart 5b
1,3-Dichlorobenzene Groundwater Concentration Versus Time: MW-19I
Durez Inlet Site
Glenn Springs Holdings, Inc.
North Tonawanda, New York

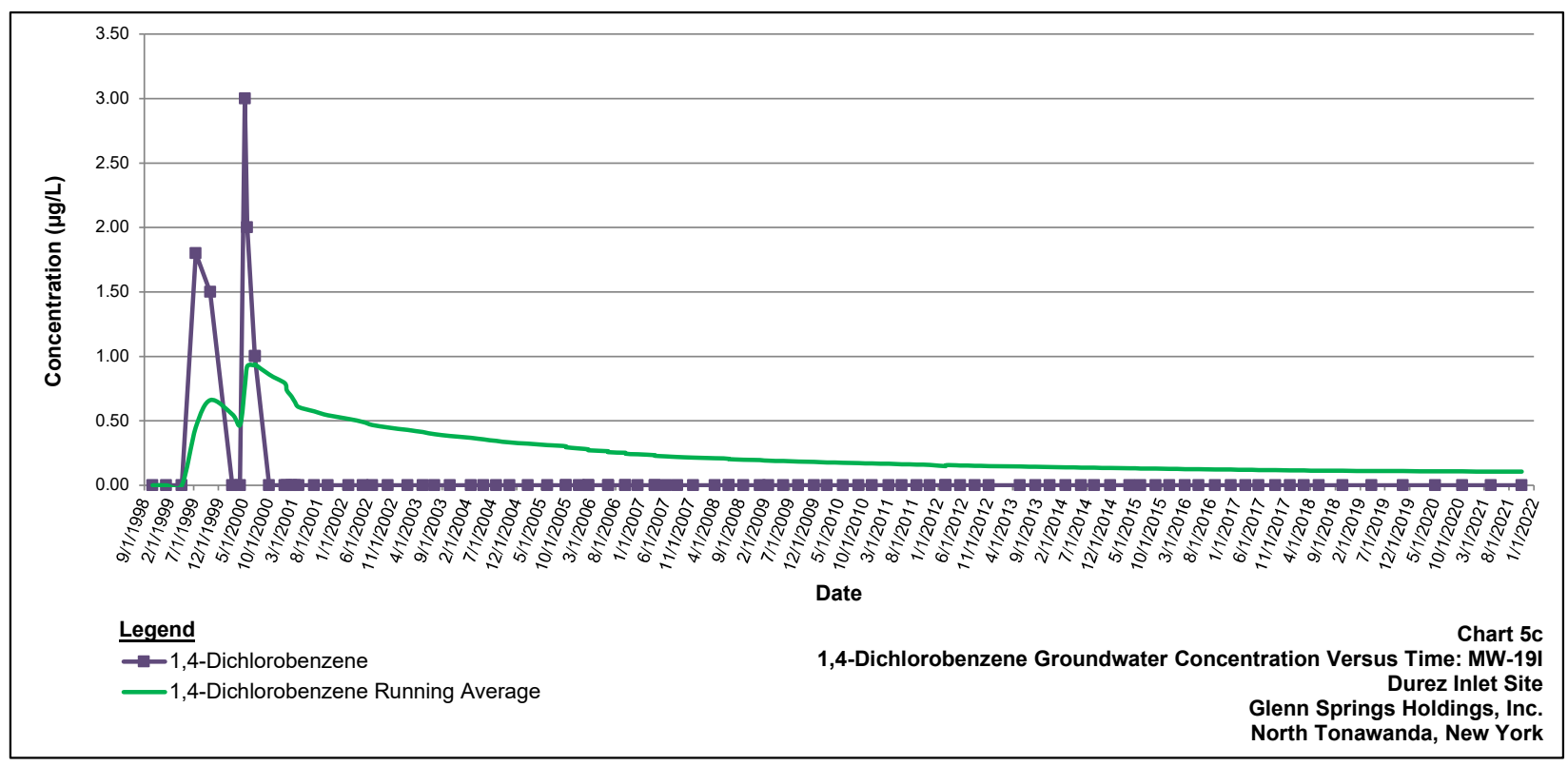


Chart 5c
1,4-Dichlorobenzene Groundwater Concentration Versus Time: MW-19I
Durez Inlet Site
Glenn Springs Holdings, Inc.
North Tonawanda, New York

Table 2.1

2021 Groundwater Chemistry Monitoring - Analytical Results
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

Compound/Parameter	* Standard Value (µg/L)	Reporting Limit (µg/L)	MW-16I		MW-18I	
			April 2021	Oct 2021	April 2021	Oct 2021
1,2,3-Trichlorobenzene	5	1	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	1	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	1	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	1	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U
Benzene	1	1	0.622 J / 0.673 J	0.222 J / 0.295 J	1.0 U	1.0 U
Chlorobenzene	5	1	2.88 / 3.01	1.73 / 2.04	1.0 U	1.0 U
Toluene	5	1	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U
Total Targeted Site Compounds			3.50 / 3.68	1.95 / 2.34	0.0	0.0

Compound/Parameter	* Standard Value (µg/L)	Reporting Limit (µg/L)	MW-19I		MW-20I	
			April 2021	Oct 2021	April 2021	Oct 2021
1,2,3-Trichlorobenzene	5	1	1.0 U	1.0 U	25.0 U	25.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U	1.0 U	25.0 U	25.0 U
1,2-Dichlorobenzene	3	1	1.0 U	1.0 U	25.0 U	25.0 U
1,3-Dichlorobenzene	3	1	1.0 U	1.0 U	19.9 J	19.2 J
1,4-Dichlorobenzene	3	1	1.0 U	1.0 U	376	341
Benzene	1	1	1.0 U	1.0 U	20.2 J	18.3 J
Chlorobenzene	5	1	1.0 U	1.0 U	3130	2850
Toluene	5	1	1.0 U	1.0 U	25.0 U	25.0 U
Total Targeted Site Compounds			0.0	0.0	3546	3229

Compound/Parameter	* Standard Value (µg/L)	Reporting Limit (µg/L)	MW-22I	
			April 2021	Oct 2021
1,2,3-Trichlorobenzene	5	1	25.0 U	25.0 U
1,2,4-Trichlorobenzene	5	1	25.0 U	25.0 U
1,2-Dichlorobenzene	3	1	25.0 U	25.0 U
1,3-Dichlorobenzene	3	1	23.7 J	23.8 J
1,4-Dichlorobenzene	3	1	392	428
Benzene	1	1	54.7	58.7
Chlorobenzene	5	1	3400	3540
Toluene	5	1	25.0 U	25.0 U
Total Targeted Site Compounds			3870	4051

Notes:

J - Estimated
U - Not detected at the associated reporting limit
µg/L - Micrograms per liter
* - New York State Ambient Water Quality Standards and Water Guidance's Values (GA Water Class)
2.80 / 3.07 - Results of investigative and duplicate sample
- Exceeds New York State Ambient Water Quality Standards and Water Guidance's Values (GA Water Class)

2021 Field Water Quality Parameters - Groundwater Sampling Events
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

	MW-16I		MW-18I	
Parameter	**April 2021**	**Oct 2021**	**April 2021**	**Oct 2021**
Temperature (°C)	12.2	13.2	12.2	13.4
Conductivity (mS/cm)	0.99	0.77	1.24	0.95
Turbidity (NTU)	16.1	10.5	6.28	5.31
Dissolved Oxygen (mg/L)	2.37	3.40	1.84	2.63
pH	9.44	9.52	7.46	7.45
ORP (mV)	-60.4	-84.6	-80.3	-83.4

	MW-19I		MW-20I	
Parameter	**April 2021**	**Oct 2021**	**April 2021**	**Oct 2021**
Temperature (°C)	12.2	12.8	11.4	13.5
Conductivity (mS/cm)	0.92	0.96	2.01	2.01
Turbidity (NTU)	1.73	0.56	53.3	33.4
Dissolved Oxygen (mg/L)	5.06	1.37	4.45	2.50
pH	7.48	7.49	9.63	9.97
ORP (mV)	72.5	183.7	-49.2	-111.5

	MW-22I	
Parameter	**April 2021**	**Oct 2021**
Temperature (°C)	11.3	13.3
Conductivity (mS/cm)	2.16	2.15
Turbidity (NTU)	29.7	15.0
Dissolved Oxygen (mg/L)	3.38	2.38
pH	10.02	10.59
ORP (mV)	21.1	-36.4

Notes:

°C - Degrees Celsius
mS/cm - Millisiemens per centimeter
NTU - Nephelometric Turbidity Unit
mg/L - Milligrams per liter
mV - Millivolts

Table 2.3

2021 Field Water Quality Parameters - Passive Diffusion Remedial Program
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

	MW-16I							
Parameter	**February 2021**	**March 2021**	**April 2021**	**June 2021**	**August 2021**	**September 2021**	**October 2021**	**December 2021**
Event	**Sock Replacement**	**Sock Removal**	**GW Sampling**	**Sock Replacement**	**Sock Replacement**	**Sock Removal**	**GW Sampling**	**Sock Replacement**
Temperature (°C)	10.7	10.2	12.2	12.5	15.9	18.15	13.2	12.0
Conductivity (mS/cm)	5.87	10.11	0.99	9.42	9.49	7.85	0.77	8.85
Dissolved Oxygen (mg/L)	43.14	45.30	2.37	28.90	30.07	24.88	3.40	26.86
pH	12.45	12.75	9.44	11.69	12.11	12.75	9.52	12.56
ORP (mV)	30.4	-100.3	-60.4	-64.9	-29.6	-62.1	-84.6	5.8

	MW-18I							
Parameter	**February 2021**	**March 2021**	**April 2021**	**June 2021**	**August 2021**	**September 2021**	**October 2021**	**December 2021**
Event	**NA**	**NA**	**GW Sampling**	**NA**	**NA**	**NA**	**GW Sampling**	**NA**
Temperature (°C)	8.2	9.7	12.2	13.7	17.8	19.8	13.4	13.3
Conductivity (mS/cm)	0.410	0.276	1.24	0.348	0.261	0.295	0.95	0.252
Dissolved Oxygen (mg/L)	8.10	11.77	1.84	7.61	9.34	2.49	2.63	9.39
pH	10.79	8.20	7.46	6.55	6.42	6.74	7.45	6.90
ORP (mV)	-15.9	-13.8	-80.3	136.8	150.8	215.5	-83.4	144.7

	MW-19I							
Parameter	**February 2021**	**March 2021**	**April 2021**	**June 2021**	**August 2021**	**September 2021**	**October 2021**	**December 2021**
Event	**NA**	**NA**	**GW Sampling**	**NA**	**NA**	**NA**	**GW Sampling**	**NA**
Temperature (°C)	9.1	10.7	12.2	13.4	17.7	20.4	12.8	11.5
Conductivity (mS/cm)	1.34	0.94	0.92	0.95	0.96	0.95	0.96	0.95
Dissolved Oxygen (mg/L)	5.83	10.03	5.06	5.97	10.18	2.53	1.37	7.35
pH	9.15	7.07	7.48	7.15	7.13	7.38	7.49	7.72
ORP (mV)	46.5	118.8	72.5	155.5	157.8	201.6	183.7	142.1

	MW-20I							
Parameter	**February 2021**	**March 2021**	**April 2021**	**June 2021**	**August 2021**	**September 2021**	**October 2021**	**December 2021**
Event	**Sock Replacement**	**Sock Removal**	**GW Sampling**	**Sock Replacement**	**Sock Replacement**	**Sock Removal**	**GW Sampling**	**Sock Replacement**
Temperature (°C)	8.2	7.9	11.4	13.7	17.9	19.2	13.5	9.5
Conductivity (mS/cm)	12.91	15.59	2.01	10.06	11.53	12.11	2.01	10.20
Dissolved Oxygen (mg/L)	41.04	52.18	4.45	27.09	25.51	23.86	2.50	30.33
pH	12.59	12.73	9.63	12.04	12.33	12.89	9.97	13.12
ORP (mV)	125.4	-94.3	-49.2	-48.9	-23.2	-58.4	-111.5	-2.3

	MW-22I							
Parameter	**February 2021**	**March 2021**	**April 2021**	**June 2021**	**August 2021**	**September 2021**	**October 2021**	**December 2021**
Event	**Sock Replacement**	**Sock Removal**	**GW Sampling**	**Sock Replacement**	**Sock Replacement**	**Sock Removal**	**GW Sampling**	**Sock Replacement**
Temperature (°C)	7.1	8.3	11.3	13.6	18.1	19.5	13.3	9.8
Conductivity (mS/cm)	5.88	12.16	2.16	10.49	7.66	7.78	2.15	10.55
Dissolved Oxygen (mg/L)	42.83	54.90	3.38	26.28	25.46	22.20	2.38	30.34
pH	13.23	12.28	10.02	11.92	12.43	12.79	10.59	13.07
ORP (mV)	8.5	-82.9	21.1	-55.6	6.7	-46.5	-36.4	-0.1

Notes:

GW Sampling - Semiannual groundwater sampling event. The ORC socks in MW-16I, MW-20I, and MW-22I are removed approximately one month prior to this sampling event and are not replaced. Field parameters are measured at the time of sampling (following purging), and then new ORC socks are installed in these three wells.

Sock Replacement - Sock replacement event. The ORC socks in MW-16I, MW-20I, and MW-22I are removed, and field parameters are measured immediately upon removal. Following measurement of field parameters, new ORC socks are installed in these three wells.

Sock Removal - Sock removal event. The ORC socks in MW-16I, MW-20I, and MW-22I are removed, and field parameters are then measured immediately upon removal. The ORC socks are not replaced until following the semiannual sampling event.

NA - Not Applicable. Well not part of passive diffusion remedial program. Field parameters are still measured for comparison to wells that have ORC socks installed.

NM - Not Measured

°C - Degrees Celsius

mS/cm - Millisiemens per centimeter

mg/L - Milligrams per liter

mV - Millivolts

Table 2.4

2021 Water Level Elevations
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

Well Number	Reference Point Elevation (ft. AMSL)	04/13/21	10/19/21
MW-15I	569.79	565.97	565.83
MW-16I	573.31	565.72	565.97
MW-17I	574.41	565.69	565.51
MW-18I	573.51	565.60	566.03
MW-19I	572.29	565.41	565.72
MW-20I	572.35	565.37	565.55
MW-21S	572.02	565.39	565.76
MW-22I	572.31	565.11	565.68
EW-1	572.09	565.37	565.68
EW-2	571.89	565.40	565.81
EW-3	572.29	565.17	565.69
EW-4	572.69	565.31	565.76
EW-5	573.06	NM	565.80
SG(1)	567.66	565.67	565.99
SG(2)	567.66	565.65	566.07

Notes:

Average elevation of the top of the cut-off wall is 562 feet AMSL

NM -Not measured due to large boat parked on top of well
ft. AMSL - Feet Above Mean Sea Level
SG - Staff Gauge at the River
SG(1) - River measurement at the start of monitoring
SG(2) - River measurement at the end of monitoring

Table 2.5

2021 DNAPL Levels and Volumes
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

	Well Number	Elevation of Top of Pipe	Elevation of DNAPL (ft. AMSL)	Elevation of Top of Sump (ft. AMSL)	Height of DNAPL Above Top of Sump (ft.) *	Elevation of Top of Till (ft. AMSL)	Height of DNAPL Above Top of Till (ft.)	Elevation of Bottom of Sump (ft. AMSL)	DNAPL Above Bottom of Sump (ft.)	Amount of DNAPL in Well (Gallons)	Amount of DNAPL Pumped (Gallons)
04/13/21	EW-1	572.09	537.21	538.70	-1.49	540.10	-2.89	537.10	0.11	0.17	NP
	EW-2	571.89	537.89	538.52	-0.63	539.40	-1.51	536.92	0.97	1.46	NP
	EW-3	572.29	537.86	538.10	-0.24	539.50	-1.64	536.50	1.36	2.04	NP
	EW-4	572.69	536.72	538.20	-1.48	539.50	-2.78	536.60	0.12	0.18	NP
	EW-5**	573.06	NA	539.20	NA	540.00	NA	537.60	NA	NA	NP
10/19/21	EW-1	572.09	537.41	538.70	-1.29	540.10	-2.69	537.10	0.31	0.47	NP
	EW-2	571.89	537.93	538.52	-0.59	539.40	-1.47	536.92	1.01	1.51	NP
	EW-3	572.29	537.68	538.10	-0.42	539.50	-1.82	536.50	1.18	1.77	NP
	EW-4	572.69	536.63	538.20	-1.57	539.50	-2.87	536.60	0.03	0.05	NP
	EW-5	573.06	538.25	539.20	-0.95	540.00	-1.75	537.60	0.65	0.97	NP

Notes:

- Dense non-aqueous phase liquid (DNAPL) volume was calculated based on a 1.5-gallon/foot multiplier for a 6-inch diameter pipe
-x.xx - (Negative value) DNAPL level is below the reference point
ft. AMSL - Feet Above Mean Sea Level
NP - Not pumped
NA - Not applicable
NM - Not measured
** -Not measured due to large boat parked on top of well
* - Positive value indicates a requirement to remove DNAPL from well

Table 2.6

Cumulative DNAPL Extracted from Site - From Remediation
August 1993 to Present
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

Period	Cumulative (gallons)	Extraction Wells (gallons)
Remediation[(1)]	880.0	
Year One, May 1995 - April 1996	959.3	79.3
Year Two, May 1996 - April 1997	1012.5	53.2
Year Three, May 1997 - April 1998	1041.5	29.0
Year Four, May 1998 - April 1999	1075.5	34.0
Year Five, May 1999 - April 2000	1099.5	24.0
Year Six, May 2000 - April 2001	1112.0	12.5
*Year Seven, May - December 2001	1116.0	4.0
Year Eight, January - December 2002	1116.0	0.0
Year Nine, January - December 2003	1116.0	0.0
Year Ten, January - December 2004	1116.0	0.0
Year Eleven, January - December 2005	1116.0	0.0
Year Twelve, January - December 2006	1116.0	0.0
Year Thirteen, January - December 2007	1116.0	0.0
Year Fourteen, January - December 2008	1116.0	0.0
Year Fifteen, January - December 2009	1121.0	5.0
Year Sixteen, January - December 2010	1126.3	5.3
Year Seventeen, January - December 2011	1128.8	2.5
Year Eighteen, January - December 2012	1130.8	2.0
Year Nineteen, January - December 2013	1131.8	1.0
Year Twenty, January - December 2014	1133.4	1.6
Year Twenty-One, January - December 2015	1133.4	0.0
Year Twenty-Two, January - December 2016	1133.4	0.0
Year Twenty-Three, January - December 2017	1133.4	0.0
Year Twenty-Four, January - December 2018	1133.4	0.0
Year Twenty-Five, January - December 2019	1135.1	1.8
Year Twenty-Six, January - December 2020	1135.1	0.0
Year Twenty-Seven, January - December 2021	1135.1	0.0
Total:	**1135.1**	**255.1**

Notes:
(1) - Remediation of the Site was completed between August 1993 to April 1995
* - Minor Change 11, annual reporting year January-December
DNAPL - Dense non-aqueous phase liquid

Table 2.7

2021 Well Inspections
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

Date: April 13, 2021

Well Number	Time	Elevation of Top of Pipe	Depth to Water	Installed Depth	Sounded Depth	Depth to NAPL	* Depth Below Top of Pipe at which DNAPL Required to be Pumped	DNAPL Removed (gal)	Well Integrity				Comments
									Locked	Capped	Cracked	Obstructed	
Monitoring Wells													
MW-15I	8:55	569.79	3.82	22.79	22.31	NN	NR	NR	Y	Y	N	N	(1)
MW-16I	8:50	573.31	7.59	32.31	32.00	NN	NR	NR	Y	Y	N	N	
MW-17I	9:17	574.41	8.72	28.41	29.34	NN	NR	NR	Y	Y	N	N	
MW-18I	10:32	573.51	7.91	34.91	34.83	NN	NR	NR	Y	Y	N	N	
MW-19I	8:44	572.29	6.88	35.19	35.45	NN	NR	NR	Y	Y	N	N	
MW-20I	9:48	572.35	6.98	34.25	33.42	NN	NR	NR	Y	Y	N	N	
MW-21S	9:35	572.02	6.63	10.02	7.82	NN	NR	NR	Y	Y	N	N	
MW-22I	11:21	572.31	7.20	34.21	31.85	NN	NR	NR	Y	Y	N	N	
EW-1	12:16	572.09	6.72	34.99	35.04	34.88	≤ 33.49	NA	Y	Y	N	N	
EW-2	12:22	571.89	6.49	34.99	34.54	34.00	≤ 33.49	NA	Y	Y	N	N	(1)
EW-3	12:28	572.29	7.12	35.79	35.32	34.43	≤ 34.29	NA	Y	Y	Y	N	
EW-4	12:11	572.69	7.38	36.09	36.26	35.97	≤ 34.59	NA	Y	Y	N	N	
EW-5	NM	573.06	NM	35.46	NM	NM	≤ 33.96	NA	NA	NA	NA	NA	
SG-1	8:49	567.66	1.99	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SG-1	12:38	567.66	2.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Description of Site:	Gravel parking lot, grass embankment
Site Conditions:	Good. EW-5 could not be accessed due to large boat parked on top of well.
Weather:	Mostly cloudy, 48 °F, winds SW 8 - 12 mph

Date: October 19, 2021

Well Number	Time	Elevation of Top of Pipe	Depth to Water	Installed Depth	Sounded Depth	Depth to NAPL	* Depth Below Top of Pipe at which DNAPL Required to be Pumped	DNAPL Removed (gal)	Well Integrity				Comments
									Locked	Capped	Cracked	Obstructed	
Monitoring Wells													
MW-15I	10:46	569.79	3.96	22.79	22.33	NN	NR	NR	Y	Y	N	N	(1)
MW-16I	12:46	573.31	7.34	32.31	31.78	NN	NR	NR	Y	Y	N	N	
MW-17I	12:46	574.41	8.90	28.41	29.33	NN	NR	NR	Y	Y	N	N	
MW-18I	11:47	573.51	7.48	34.91	34.80	NN	NR	NR	Y	Y	N	N	
MW-19I	10:05	572.29	6.57	35.19	35.45	NN	NR	NR	Y	Y	N	N	
MW-20I	11:14	572.35	6.80	34.25	33.45	NN	NR	NR	Y	Y	N	N	
MW-21S	10:57	572.02	6.26	10.02	7.84	NN	NR	NR	Y	Y	N	N	
MW-22I	11:13	572.31	6.63	34.21	31.45	NN	NR	NR	Y	Y	N	N	
EW-1	13:27	572.09	6.41	34.99	35.08	34.68	≤ 33.49	NA	Y	Y	N	N	
EW-2	13:17	571.89	6.08	34.99	34.54	33.96	≤ 33.49	NA	Y	Y	N	N	
EW-3	13:40	572.29	6.60	35.79	35.42	34.61	≤ 34.29	NA	Y	Y	Y	N	
EW-4	13:08	572.69	6.93	36.09	36.22	36.06	≤ 34.59	NA	Y	Y	N	N	
EW-5	12:53	573.06	7.26	35.46	35.17	34.81	≤ 33.96	NA	NA	NA	NA	NA	
SG-1	10:29	567.66	1.67	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SG-1	14:12	567.66	1.59	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Description of Site:	Gravel parking lot, grass embankment
Site Conditions:	Good. EW-5 could not be accessed due to large boat parked on top of well.
Weather:	Mostly cloudy, 48 °F, winds SW 8 - 12 mph

(1) Animal burrowing under concrete pad

Notes:

DNAPL - Dense Non-Aqueous Phase Liquid
NAPL - Non-Aqueous Phase Liquid
* - DNAPL requires pumping/removal when it reaches the top of the extraction well (EW) sumps
- Depths listed are representative of the depth of the top of the sump from the top of the pipe
NA - Not applicable
NM - Not measured
NN - No DNAPL present
NR - Not required to be measured/assessed
gal - Gallon

Appendices

Appendix A

Institutional and Engineering Controls Certification Form

NEW YORK ST ATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Environmental Remediation
625 Broadway, 11th Floor, Albany, NY 12233-7020
P: (518)402-9543 | F: (518)402-9547
www.dec.ny.gov

11/16/2021

Joseph Branch
Project Manager
OCC/Glenn Springs Holdings, Inc.
7601 Old Channel Trail
Montague, MI 49437
Joseph_Branch@oxy.com

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal
Site Name: Durez Div. - Occidental Chemical Corp.
Site No.: 932018
Site Address: Walck Road/River Road
North Tonawanda, NY 14120

Dear Joseph Branch:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site-specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at http://www.dec.ny.gov/regulations/67386.html) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **January 30, 2022**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. The Engineering Controls (ECs) portion of the form (Box 7) must be signed by a Professional Engineer (PE). If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.

All site-related documents and data, including the PRR, must be submitted in electronic format to the Department of Environmental Conservation. The required format for documents is an Adobe PDF file with optical character recognition and no password protection. Data must be submitted as an electronic data deliverable (EDD) according to the instructions on the following webpage:

https://www.dec.ny.gov/chemical/62440.html

Documents may be submitted to the project manager either through electronic mail or by using the Department's file transfer service at the following webpage:

https://fts.dec.state.ny.us/fts/

The Department will not approve the PRR unless all documents and data generated in support of the PRR have been submitted using the required formats and protocols.

You may contact Benjamin Mcpherson, the Project Manager, at 716-851-7220 or benjamin.mcpherson@dec.ny.gov with any questions or concerns about the site. Please notify the project manager before conducting inspections or field work. You may also write to the project manager at the following address:

New York State Department of Environmental Conservation
270 Michigan Ave

Buffalo, NY 14203-2915

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

ec: w/ enclosures
Benjamin Mcpherson, Project Manager
Andrea Caprio, Hazardous Waste Remediation Supervisor, Region 9

GHD - Margaret Popek - margaret.popek@ghd.com
GHD - John Pentilchuk - jpentilchuk@ghd.com
ghd - dennis hoyt - dennis.hoyt@ghd.com

The following parcel owner did not receive an ec:
Oar Marina, Llc - Parcel Owner
Occidental Chemical Corporation - Parcel Owner
National Grid - Parcel Owner

Enclosure 1

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7**):**

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.

- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.

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

Site Details **Box 1**

Site No. 932018

Site Name Durez Div. - Occidental Chemical Corp.

Site Address: Walck Road/River Road Zip Code: 14120
City/Town: North Tonawanda
County: Niagara
Site Acreage: ~~73.300~~ 72.23

Walck Road = 67.45 acres
River Road = 4.78 acres

Reporting Period: December 31, 2020 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 a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Industrial	☒	☐
7. Are all ICs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 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.

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. 932018 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
181.20-2-9	Oar Marina, LLC	
		Monitoring Plan O&M Plan

Site Operation, Maintenance and Monitoring (OMM) is conducted by the RP in accordance with the February 1989 Record of Decision and approved work plans. At the Inlet Site, site management includes groundwater quality monitoring, NAPL removal from extraction wells during the off-boating season and maintenance of the cover system.

Groundwater Quality Monitoring; Durez Third Stipulation and PCJ and associated minor changes to the PCJ (currently minor change number 10, Rev.2, September 1999).

DNAPL Removal; Inlet Monitoring Plan~~, Rust 1995.~~ GHD, 2019

182.06-3-19	Occidental Chemical Corporation	
		Monitoring Plan O&M Plan

Site Operation, Maintenance and Monitoring (OMM) is conducted by the RP in accordance with the February 1989 Record of Decision and approved work plans.

182.06-3-20	Occidental Chemical Corporation	
		Monitoring Plan O&M Plan

Site Operation, Maintenance and Monitoring (OMM) is conducted by the RP in accordance with the February 1989 Record of Decision and approved work plans.

182.06-3-21	Occidental Chemical Corporation	
		Monitoring Plan O&M Plan

Site Operation, Maintenance and Monitoring (OMM) is conducted by the RP in accordance with the February 1989 Record of Decision and approved work plans.

182.07-1-14	Occidental Chemical Corporation	
		Monitoring Plan O&M Plan

Record of Decision (ROD); February 25, 1989.

Appendix B, Durez Partial Consent Judgement (PCJ) "Monitoring, Operations,and Maintenance Plan" (1989) Subsequent Minor Modification #10, Rev. 2 "Minor Change to Appendix B" Monitoring, Operations, and Maintenace Plan"(September 1999) (Minor Change No. 10) groundwater monitoring.

PCJ 1992; amended by Minor Change No. 5 to allow for semi-annual reporting to the NYSDEC on quarterly hydraulic groundwater data.

Plant Site: OMM includes operation, maintenance and monitoring of the cover system, groundwater collection system, groundwater conveyance system, groundwater treatment system, groundwater monitoring wells, fencing/access points and the panhandle area.

182.32.-1-47 Occidental Chemical Corporation

Monitoring Plan
O&M Plan

Site Operation, Maintenance and Monitoring (OMM) is conducted by the RP in accordance with the February 1989 Record of Decision and approved work plans.

p/o 182.07-1-17 National Grid

Monitoring Plan
O&M Plan

Site Operation, Maintenance and Monitoring (OMM) is conducted by the RP in accordance with the February 1989 Record of Decision and approved work plans.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
181.20-2-9	Cover System Groundwater Containment Monitoring Wells Subsurface Barriers

Sheet pile wall, NAPL extraction wells and cover system.

182.06-3-19	Groundwater Treatment System Cover System Groundwater Containment Leachate Collection Fencing/Access Control

At the Plant Site, OMM includes operation, maintenance and monitoring of the cover system, groundwater collection system, groundwater conveyance system, groundwater treatment system, goundwater monitoring wells, fencing/access points and the panhandle area.

182.06-3-20	Groundwater Treatment System Cover System Groundwater Containment Leachate Collection Fencing/Access Control

At the Plant Site, OMM includes operation, maintenance and monitoring of the cover system, groundwater collection system, groundwater conveyance system, groundwater treatment system, groundwater monitoring wells,fencing/access points and the panhandle area.

182.06-3-21

Parcel	Engineering Control
	Groundwater Treatment System Cover System Groundwater Containment Leachate Collection Fencing/Access Control

At the Plant Site, OMM includes operation, maintenance and monitoring of the cover system, groundwater collection system, groundwater conveyance system, groundwater treatment system, goundwater monitoring wells, fencing/access points and the panhandle area.

182.07-1-14

Point-of-Entry Water Treatment
Monitoring Wells
Groundwater Treatment System
Cover System
Groundwater Containment
Leachate Collection
Fencing/Access Control

Soil cover system with encompassing groundwater interceptor trench and conveyance to an onsite treatment plant.

182.32.-1-47

Groundwater Treatment System
Cover System
Groundwater Containment
Leachate Collection
Fencing/Access Control

At the Plant Site, OMM includes operation, maintenance and monitoring of the cover system, groundwater collection system, groundwater conveyance system, groundwater treatment system, groundwater monitoring wells, fencing/access points and the panhandle area.

p/o 182.07-1-17

Monitoring Wells
Groundwater Treatment System
Cover System
Groundwater Containment
Leachate Collection
Fencing/Access Control

At the Plant Site, OMM includes operation, maintenance and monitoring of the cover system, groundwater collection system, groundwater conveyance system, groundwater treatment system, groundwater monitoring wells and fencing/access points. The Right Of Way (ROW) for National Grid is on site. Reporting is done by the RP; OCC/Glenn Springs Holdings, Inc.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   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.

YES	NO
X	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The 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
X	☐

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.

_____ _____

Signature of Owner, Remedial Party or Designated Representative Date

NT

IC CERTIFICATIONS
SITE NO. 932018

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.

I Joseph A. Branch (print name) at 7601 Old Channel Trail, Montague, MI 49437 (print business address),

am certifying as Remedial Party (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

1/28/2022
Date

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 Richard J. Snyder (print name) at 2055 Niagara Falls Boulevard, Niagara Falls, NY 14304 (print business address),

am certifying as a Professional Engineer for the Remedial Party (Owner or Remedial Party)

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE) — No. 66242

Jan 28, 2022
Date

Enclosure 3
Periodic Review Report (PRR) General Guidance

I. Executive Summary: (1/2-page or less)
   A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
   B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
      1. progress made during the reporting period toward meeting the remedial objectives for the site
      2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
   C. Compliance
      1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
      2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
   D. Recommendations
      1. recommend whether any changes to the SMP are needed
      2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
      3. recommend whether the requirements for discontinuing site management have been met.

II. Site Overview (one page or less)
   A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
   B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
   Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.

IV. IC/EC Plan Compliance Report (if applicable)
   A. IC/EC Requirements and Compliance
      1. Describe each control, its objective, and how performance of the control is evaluated.
      2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
      3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
      4. Conclusions and recommendations for changes.
   B. IC/EC Certification
      1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

V. Monitoring Plan Compliance Report (if applicable)
   A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
   B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
   C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
   D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
   E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
   A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
   B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.

C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated the ability of each component of the remedy subject to O&M requirements to perform as designed/expected.
D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.
E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations
A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
1. whether all requirements of each plan were met during the reporting period
2. any requirements not met
3. proposed plans and a schedule for coming into full compliance.
B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.
C. Future PRR Submittals
1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

Appendix B

Data Validation Memoranda

Memorandum

May 3, 2021

To:	Joseph Branch	Ref. No.:	11223794
From:	Linda Waters/cs/4-NF	Tel:	315-802-0343
cc:	Dennis Hoyt, Darrell Crockett, Maggie Popek, Paul Fowler, Justin Adams, Paul McMahon		
Subject:	**Analytical Results and Reduced Validation Semiannual Groundwater Monitoring Program Durez Inlet North Tonawanda, New York April 2021**		

1. Introduction

Groundwater samples were collected on April 13, 2021 in support of the Semiannual Monitoring Program at the Durez Inlet site (Site). ALS Environmental (ALS) in Rochester, New York analyzed the samples for the following:

Parameter	Methodology
Volatile Organic Compounds (VOCs)	USEPA 624.1[1]

A field sample key is presented in Table 1. The analytical results are summarized in Table 2. The quality assurance/quality control (QA/QC) criteria by which these data have been assessed are outlined in the analytical method and the "USEPA National Functional Guidelines for Superfund Organic Methods Data Review", EPA-540-R-2016-002, September 2016.

A copy of the chain of custody is attached.

Final data assessment was based on information obtained from the chain of custody, finished data sheets, blank data, surrogate recoveries, laboratory control sample (LCS)/matrix spike (MS) recoveries, and field QA/QC samples.

2. QA/QC Review

All samples were analyzed within the method required holding time.

Surrogate compounds were added to all samples, blanks, and QC samples prior to analysis. All surrogate recoveries were acceptable, demonstrating good analytical efficiency.

[1] 40 CFR Part 136 "Guidelines Establishing Test Procedures for the Analysis of Pollutants", United States Environmental Protection Agency (USEPA).

Method blanks were prepared from deionized water and analyzed with the samples. All method blank results were non-detect, demonstrating laboratory contamination was not a factor for this investigation.

LCS were prepared and analyzed with the samples. The LCS analyses demonstrated acceptable analytical accuracy.

A matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on sample MW-19I-0421. All MS/MSD results were acceptable, demonstrating good analytical precision and accuracy.

A field duplicate from well MW-16I was collected and submitted "blind" to the laboratory, as indicated in Table 1. The sample results from the original and field duplicate sample showed acceptable agreement.

One trip blank was submitted with the samples. All trip blank results were non-detect.

3. Conclusion

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

Table 1

Sample Collection and Analysis Summary
Semiannual Groundwater Monitoring Program
Durez Inlet
North Tonawanda, New York
April 2021

				Analysis/Parameters	
Sample ID	**Location ID**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr/min)**	**VOCs**	**Comment**
MW-16I-0421	MW-16I	04/13/2021	10:00	X	
MW-9I-0421	MW-16I	04/13/2021	10:00	X	Duplicate of MW-16I-0421
MW-18I-0421	MW-18I	04/13/2021	11:15	X	
MW-19I-0421	MW-19I	04/13/2021	09:25	X	MS/MSD
MW-20I-0421	MW-20I	04/13/2021	11:35	X	
MW-22I-0421	MW-22I	04/13/2021	13:00	X	
INLETTRIP-041321	-	04/13/2021	-	X	Trip Blank

Notes:

MS - Matrix Spike
MSD - Matrix Spike Duplicate
VOCs - Volatile Organic Compounds
\- - Not applicable

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring Program
Durez Inlet
North Tonawanda, New York
April 2021

Location ID:		**MW-16I**	**MW-16I**	**MW-18I**	**MW-19I**	**MW-20I**	**MW-22I**
Sample Name:		**MW-16I-0421**	**MW-9I-0421**	**MW-18I-0421**	**MW-19I-0421**	**MW-20I-0421**	**MW-22I-0421**
Sample Date:		**04/13/2021**	**04/13/2021**	**04/13/2021**	**04/13/2021**	**04/13/2021**	**04/13/2021**
			Duplicate				
Parameters	**Unit**						
Volatile Organic Compounds							
1,2,3-Trichlorobenzene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	25.0 U	25.0 U
1,2,4-Trichlorobenzene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	25.0 U	25.0 U
1,2-Dichlorobenzene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	25.0 U	25.0 U
1,3-Dichlorobenzene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	19.9 J	23.7 J
1,4-Dichlorobenzene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	376	392
Benzene	µg/L	0.622 J	0.673 J	1.00 U	1.00 U	20.2 J	54.7
Chlorobenzene	µg/L	2.88	3.01	1.00 U	1.00 U	3130	3400
Toluene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	25.0 U	25.0 U

Notes:

J - Estimated concentration

U - Not detected at the associated reporting limit

CHAIN OF CUSTODY RECORD

COC Number:

ADDRESS: 2055 Niagara Falls Blvd NF NY 14304 PAGE 1 OF 1

PHONE: _____ FAX: _____

Project No/Phase/Task Code: 11225877-80-410	Laboratory Name: ALS - Rochester	Lab Location: 1565 Jefferson Road, Building 300, Suite 360	SSOW ID:
Project Name: Durez Inlet Semi-Annual GW Sampling	Lab Contact: 585-288-5380 Brady Kalkman		Cooler No: 1
Project Location: River Road North Tonawanda			Carrier: Fed Ex
GHD Chemistry Contact: Paul McMahon			Airbill No:
Sampler(s): Shawn Gardner / Dave Tyran			Total # of Containers: 27

Item	Sample Identification (containers for each sample may be combined on one line)	Date (mm/dd/yy)	Time (hh:mm)	Sample Type: Matrix Code	Grab (G) or Comp (C)	Filtered (Y/N)	Analysis Requested: VOCs	Total Containers/sample	MS/MSD Request	Comments/ Special Instructions
1	INLETTRIP-041321	04/13/21	8:30	W	G	N	X	3		Odor: . Color: . Clarity: .
2	MW-19I-0421	4/13/21	9:25	WG	G	N	X	9	X	
3	MW-20I-0421	4/13/21	11:35	WG	G	N	X	3		
4	MW-16I-0421	4/13/21	10:00	WG	G	N	X	3		
5	MW-9I-0421	4/13/21	10:00	WG	G	N	X	3		
6	MW-18I-0421	4/13/21	11:15	WG	G	N	X	3		
7	MW-22I-0421	4/13/21	13:00	WG	G	N	X	3		
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										

TAT Required in business days (use separate COCs fro different TATs)
(Standards include 1 day, 2 days, 3 days, 1 week, 2 weeks)

Notes/Special Requirements:

	Relinquished By:	Company	Date	Time	Received By:	Company	Date	Time
1	Dave Tyran	GHD	4/13/21	1448	1	ALS	4/14/21	11:00
2								
3					3			

R2103512 5
GHD Services Inc.
Durez Inlet/281-402-D02-3100

Technical Memorandum

09 November 2021

To	Joseph Branch	**Tel**	716-205-1970
Copy to	John Pentilchuk, Darrell Crockett, Maggie Popek, Paul Fowler	**Email**	Paul.McMahon@ghd.com
From	Paul McMahon/cs/14	**Ref. No.**	11223794
Subject	Analytical Results and Reduced Validation Semiannual Groundwater Monitoring Program Durez Inlet North Tonawanda, New York October 2021		

1. Introduction

Groundwater samples were collected on October 19, 2021 in support of the Semiannual Monitoring Program at the Durez Inlet site (Site). ALS Environmental (ALS) in Rochester, New York analyzed the samples for the following:

Parameter	Methodology
Volatile Organic Compounds (VOCs)	USEPA 624.1[1]

A field sample key is presented in Table 1. The analytical results are summarized in Table 2. The quality assurance/quality control (QA/QC) criteria by which these data have been assessed are outlined in the analytical method and the "USEPA National Functional Guidelines for Superfund Organic Methods Data Review", EPA-540-R-2016-002, September 2016.

A copy of the chain of custody is attached.

Final data assessment was based on information obtained from the chain of custody, finished data sheets, blank data, surrogate recoveries, laboratory control sample (LCS)/matrix spike (MS) recoveries, and field QA/QC samples.

2. QA/QC Review

All samples were analyzed within the method required holding time.

Surrogate compounds were added to all samples, blanks, and QC samples prior to analysis. All surrogate recoveries were acceptable, demonstrating good analytical efficiency.

[1] 40 CFR Part 136 "Guidelines Establishing Test Procedures for the Analysis of Pollutants", United States Environmental Protection Agency (USEPA).

Method blanks were prepared from deionized water and analyzed with the samples. All method blank results were non-detect, demonstrating laboratory contamination was not a factor for this investigation.

LCS were prepared and analyzed with the samples. The LCS analyses demonstrated acceptable analytical accuracy.

A matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on sample MW-19I-1021. All MS/MSD results were acceptable, demonstrating good analytical precision and accuracy.

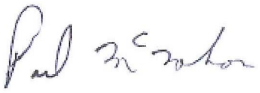
A field duplicate from well MW-16I was collected and submitted "blind" to the laboratory, as indicated in Table 1. The sample results from the original and field duplicate sample showed acceptable agreement.

One trip blank was submitted with the samples. All trip blank results were non-detect.

3. Conclusion

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

Regards,



Paul McMahon
Data Management Lead Team-Specialist

Table 1

Sample Collection and Analysis Summary
Semiannual Groundwater Monitoring Program
Durez Inlet
North Tonawanda, New York
October 2021

Sample ID	Location ID	Collection Date	Collection Time	Analysis/Parameters VOCs	Comment
MW-16I-1021	MW-16I	10/19/2021	11:15	X	
MW-9I-1021	MW-16I	10/19/2021	11:15	X	Duplicate of MW-16I-1021
MW-18I-1021	MW-18I	10/19/2021	12:10	X	
MW19I-1021	MW-19I	10/19/2021	10:50	X	MS/MSD
MW-20I-1021	MW-20I	10/19/2021	12:50	X	
MW22I-1021	MW-22I	10/19/2021	14:05	X	
INLETTRIP-101921	-	10/19/2021	-	X	Trip Blank

Notes:

- - Not applicable
MS - Matrix Spike
MSD - Matrix Spike Duplicate
VOCs - Volatile Organic Compounds

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring Program
Durez Inlet
North Tonawanda, New York
October 2021

Location ID:		MW-16I	MW-16I	MW-18I	MW-19I	MW-20I	MW-22I
Sample Name:		MW-16I-1021	MW-9I-1021	MW-18I-1021	MW19I-1021	MW-20I-1021	MW22I-1021
Sample Date:		10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021
			Duplicate				
Parameters	**Unit**						
Volatile Organic Compounds							
1,2,3-Trichlorobenzene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	25.0 U	25.0 U
1,2,4-Trichlorobenzene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	25.0 U	25.0 U
1,2-Dichlorobenzene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	25.0 U	25.0 U
1,3-Dichlorobenzene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	19.2 J	23.8 J
1,4-Dichlorobenzene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	341	428
Benzene	µg/L	0.222 J	0.295 J	1.00 U	1.00 U	18.3 J	58.7
Chlorobenzene	µg/L	1.73	2.04	1.00 U	1.00 U	2850	3540
Toluene	µg/L	1.00 U	1.00 U	1.00 U	1.00 U	25.0 U	25.0 U

Notes:

J - Estimated concentration

U - Not detected at the associated reporting limit

CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

SR# _____

T047444

ALS Environmental
1565 Jefferson Road, Bldg 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 / FAX (585) 288-8475
www.alsglobal.com

005, 006, 007, 008, 009, 010, 011

Project Name: Durez Inlet/281-402-D02-3100	
Project Number: 7405: Semi-Annual GW	Report To: Paul McMahon
Company / Address: GHD Services Inc. 2055 Niagara Falls Blvd., Suite 3 Niagara Falls NY, 14304	
Phone # 716-297-2160	FAX # 716-297-2265
Sampler Signature	Sampler Printed Name

CLIENT SAMPLE ID	LABID	SAMPLING Date	Time	Matrix	NUMBER OF CONTAINERS	14D	624 / VOC_FP	1	2	3	4	5	Remarks
1.				Liquid	6		X						
2.				Liquid	3		X						
3.				Liquid	3		X						
4.				Liquid	3		X						
5.				Liquid	3		X						
6.				Liquid	3		X						
7.				Liquid	3		X						
8.				Liquid									
9.				Liquid									
10.				Liquid									

Special Instructions/Comments:

Turnaround Requirements

___ RUSH (SURCHARGES APPLY)

___ Standard

_____ REQUESTED FAX DATE

_____ Requested Report Date

Report Requirements

___ I. Results Only

___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)

___ III. Results + QC and Cilibration Summaries

___ IV. Data Validation Report with Raw Data

EData ____Yes ____No

Invoice Information

P.O.# _____

Bill To: _____

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm	Firm	Firm	Firm	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

CHAIN OF CUSTODY RECORD

COC Number:

ADDRESS: 2055 NIAGARA FALLS BLVD N. FALLS PAGE 1 OF 1

PHONE: FAX:

Project No/Phase/Task Code: 11225877-80-410	Laboratory Name: ALS - Rochester	Lab Location: 1565 Jefferson Road, Building 300, Suite 360	SSOW ID: 281-402D02-3100
Project Name: Durez Inlet semi-annual GW sampling	Lab Contact: 585-288-5380 Brady Kalkman		Cooler No:
Project Location: NORTH TONAWANDA, NY			Carrier: FED EX
GHD Chemistry Contact: Paul McMahon			Airbill No:
Sampler(s): David Tyran Shawn Gardner			Total # of Containers: 27

Item	Sample Identification (containers for each sample may be combined on one line)	Date (mm/dd/yy)	Time (hh:mm)	Sample Type: Matrix Code	Grab (G) or Comp (C)	Filtered (Y/N)	Analysis Requested: VOCs	Total Containers/sample	MS/MSD Request	Comments/ Special Instructions:
1	MW-18I-1021	10/19/21	12:10	W	G	N	X	3		
2	MW19I-1021	10/19/21	10:50	W	G	N	X	9	X	
3	MW-16I-1021	10/19/21	11:15	W	G	N	X	3		
4	MW-9I-1021	10/19/21	11:15	W	G	N	X	3		
5	INLETTRIP-101921	10/19/21	10:20	W	G	N	X	3		
6	MW-20I-1021	10/19/21	12:50	W	G	N	X	3		
7	MW22I-1021	10/19/21	14:05	W	G	N	X	3		
8										
9										
10										
11										
12										
13										
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15										
16										
17										
18										

R2110962 5

GHD Services Inc.

Durez Inlet/281-402-D02-3100

TAT Required in business days (use separate COCs fro different TATs)

(Standards include 1 day, 2 days, 3 days, 1 week, 2 weeks)

Notes/Special Requirements: EVENT COMPLETE

	Relinquished By:	Company	Date	Time	Received By:	Company	Date	Time
1	Shawn Gardner	GHD	10/19/21	16:00	1	ALS	10/20/21	10:45
2					2			
3					3			

Appendix C

Historical Groundwater Chemistry Monitoring Analytical Results

Appendix C

Historical Groundwater Chemistry Monitoring - Analytical Results
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

MW-16I

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Jul-95	Oct-95	Jan-96	Apr-96	Jul-96	Oct-96	Jan-97	Apr-97	Jul-97	Oct-97	Jan-98	Apr-98	Jul-98	Oct-98
Benzene	1	1	1.0 U	1.0 U	0.62 J	5.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.1 U	1.0 U	1.0 U	1.0 U/1.0 U
Toluene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.1 U	1.0 U	1.0 U	1.0 U/1.0 U
Chlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.1 U	1.0 U	1.0 U	1.0 U/1.0 U
1,2-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.1 U	1.0 U	1.0 U	1.0 U/1.0 U
1,3-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.1 U	1.0 U	1.0 U	1.0 U/1.0 U
1,4-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.1 U	1.0 U	1.0 U	1.0 U/1.0 U
1,2,3-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.1 U	1.0 U	1.0 U	1.0 U/1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.1 U	1.0 U	1.0 U	1.0 U/1.0 U
Total Targeted Site Compounds			0.0	0.0	0.62	5.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

			Reported Values													
			Jan-99	Apr-99	Jul-99	Oct-99	Feb-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Feb-02	May-02
Benzene	1	1	1.0 U/2.8	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1 U	1 U	1 U/1 U	1.0 U	2.0 U/2.0 U	1 U	1.00 U	1.00 U	1.00 U
Toluene	5	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1 U	1 U	1 U/1 U	1.0 U	2.0 U/2.0 U	1 U	1.00 U	1.00 U	1.00 U
Chlorobenzene	5	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1 U	1 U	2/4	1.0 U	2.0 U/2.0 U	1 U	1.00 U	1.00 U	1.00 U
1,2-Dichlorobenzene	3	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1 U	1 U	1 U/1 U	1.0 U	2.0 U/2.0 U	1 U	1.00 U	1.00 U	1.00 U
1,3-Dichlorobenzene	3	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1 U	1 U	1 U/1 U	1.0 U	2.0 U/2.0 U	1 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	3	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1 U	1 U	1 U/1 U	1.0 U	2.0 U/2.0 U	1 U	1.00 U	1.00 U	1.00 U
1,2,3-Trichlorobenzene	5	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1 U	1 U	1 U/1 U	1.0 U	2.0 U/2.0 U	1 U	1.00 U	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1 U	1 U	1 U/1 U	1.0 U	2.0 U/2.0 U	1 U	1.00 U	1.00 U	1.00 U
Total Targeted Site Compounds			0.0/2.8	0.0/0.0	0.0/0.0	0.0/0.0	0.0	0.0	0.0	2/4	0.0	0.0/0.0	0.0	0.0	0.0	0.0

			Reported Values													
			Jul-02	Oct-02	Feb-03	May-03	Jul-03	Oct-03	Feb-04	May-04	Jul-04	Oct-04	Feb-05	Jun-05	Sep-05	Dec-05
Benzene	1	1	1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Toluene	5	1	1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Chlorobenzene	5	1	1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 UJ
1,2-Dichlorobenzene	3	1	1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 UJ
1,3-Dichlorobenzene	3	1	1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 UJ
1,4-Dichlorobenzene	3	1	1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 UJ
1,2,3-Trichlorobenzene	5	1	1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 UJ
1,2,4-Trichlorobenzene	5	1	1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Total Targeted Site Compounds			0.0	0.0	0.0	0.0/0.0	0.0	0.0	0.0/0.0	0.0	0.0/0.0	0.0	0.0	0.0	0.0	0.0

Notes:

J - Estimated
U - Not detected at the associated reporting limit
UJ - Not detected; associated reporting limit is estimated
µg/L - Micrograms per liter
* - New York State Ambient Water Quality Standards and Water Guidance's Values (GA Water Class)
8.5/9.0 - Results of investigative and duplicate sample
38 - Exceeds New York State Ambient Water Quality Standards and Water Guidance's Values (GA Water Class)

Appendix C

Historical Groundwater Chemistry Monitoring - Analytical Results
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

MW-16I - Continued

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Feb-06	Jun-06	Sep-06	Dec-06	Mar-07	Jun-07	Aug-07	Nov-07	Mar-08	Jun-08	Sep-08	Jan-09	Feb-09	May-09
Benzene	1	1	1.0 U	1.0 U	0.47 J	0.54 J	1.0 U	1.0 U	0.55 J	0.64 J	0.34 J	0.42 J	1.0 U	0.62 J/0.67 J	1.0 U	0.70 J
Toluene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U
Chlorobenzene	5	1	1.0 U	16	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.23 J	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	1	1.0 U	0.13 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	1	1.0 U	1.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U
Total Targeted Site Compounds			0.0	17.63	0.47	0.54	0.0	0.0	0.55	0.64	0.57	0.42	0.0	0.62/0.67	0.0	0.7

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Aug-09	Nov-09	Feb-10	May-10	Aug-10	Nov-10	Mar-11	May-11	Aug-11	Nov-11	Feb-12	May-12	Aug-12	Nov-12
Benzene	1	1	1.2	0.68 J	0.84 J	0.77 J	0.61 J	0.57 J	0.60 J	0.64 J/0.63 J	0.76 J/0.71 J	0.94 J/0.96 J	0.89 J/0.88 J	0.63 J/0.68 J	0.65 J/0.68 J	0.95 J
Toluene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U
Chlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	0.22 J/0.22 J	0.17 J/0.21 J	1.0 U/1.0 U	0.23 J/0.23 J	0.22 J
1,2-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U
1,3-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U
1,4-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U
1,2,3-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U
Total Targeted Site Compounds			1.2	0.68	0.84	0.77	0.61	0.57	0.60	0.64/0.63	0.76/0.71	1.16/1.18	1.06/1.09	0.63/0.68	0.88/0.91	1.17

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Feb-13	May-13	Aug-13	Nov-13	Feb-14	May-14	Aug-14	Nov-14	Feb-15	May-15	Aug-15	Nov-15	Feb-16	May-16
Benzene	1	1	0.80 J	0.73 J/0.67 J	0.84 J	1.1/1.0	0.58 J	1.1	0.90 J/0.88 J	1.1	0.23 J	1.2 / 1.2	0.95 J	0.93 J	1.3	0.92 J
Toluene	5	1	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U /1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	1	1.0 U	0.18 J/1.0 U	0.24 J	0.35 J/0.42 J	0.20 J	0.48 J	0.39 J/0.42 J	0.46 J	1.0 U	0.78 J / 0.72 J	0.92 J	0.75 J	1.1	1.1
1,2-Dichlorobenzene	3	1	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U /1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	1	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U /1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	1	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U /1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	5	1	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U /1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U /1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Targeted Site Compounds			0.80	0.91/0.67	1.08	1.45/1.42	0.78	1.58	1.29 J/1.30 J	1.56	0.23	1.98 / 1.92	1.87	1.68	2.4	2.0

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Aug-16	Nov-16	Feb-17	May-17	Aug-17	Nov-17	Feb-18	May-18	Oct-18	Apr-19	Oct-19	May-20	Oct-20	Apr-21
Benzene	1	1	0.72 J	0.70 J	1.1	1.0 U	0.74 J / 0.75 J	0.69 J / 0.67 J	1.1 / 1.1	0.970 J / 0.978 J	0.760 J / 0.730 J	0.910 J	0.510 J / 0.520 J	0.866 J / 0.949 J	0.595 J / 1.0 U	0.622 J / 0.673 J
Toluene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.00 U / 1.00 U	1.00 U / 1.00 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U
Chlorobenzene	5	1	0.97 J	0.82 J	1.3	1.3	1.6 / 1.6	1.2 / 1.2	1.6 / 1.6	1.71 / 1.76	1.47 / 1.57	1.88	1.89 / 1.76	2.80 / 3.07	2.79 J / 7.04 J	2.88 / 3.01
1,2-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.00 U / 1.00 U	1.00 U / 1.00 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U
1,3-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.00 U / 1.00 U	1.00 U / 1.00 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U
1,4-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.00 U / 1.00 U	1.00 U / 1.00 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.82	1.0 U / 1.0 U
1,2,3-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.00 U / 1.00 U	1.00 U / 1.00 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.00 U / 1.00 U	1.00 U / 1.00 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U
Total Targeted Site Compounds			1.69	1.52	2.40	1.3	2.34 / 2.33	1.87	2.7 / 2.7	2.68 / 2.74	2.23 / 2.30	2.79	2.40 / 2.28	3.67 / 4.02	3.39 / 8.86	3.50 / 3.68

Historical Groundwater Chemistry Monitoring - Analytical Results
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

MW-16I - Continued
Reported Values

			Oct-21
Benzene	1	1	0.222 J / 0.295 J
Toluene	5	1	1.0 U / 1.0 U
Chlorobenzene	5	1	1.73 / 2.04
1,2-Dichlorobenzene	3	1	1.0 U / 1.0 U
1,3-Dichlorobenzene	3	1	1.0 U / 1.0 U
1,4-Dichlorobenzene	3	1	1.0 U / 1.0 U
1,2,3-Trichlorobenzene	5	1	1.0 U / 1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U / 1.0 U
Total Targeted Site Compounds			1.95 / 2.34

Notes:

J	- Estimated
U	- Not detected at the associated reporting limit
UJ	- Not detected; associated reporting limit is estimated
µg/L	- Micrograms per liter
*	- New York State Ambient Water Quality Standards and Water Guidance's Values (GA Water Class)
8.5/9.0	- Results of investigative and duplicate sample
38	- Exceeds New York State Ambient Water Quality Standards and Water Guidance's Values (GA Water Class)

Appendix C

Historical Groundwater Chemistry Monitoring - Analytical Results
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

MW-18I

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Jul-95	Oct-95	Jan-96	Apr-96	Jul-96	Oct-96	Jan-97	Apr-97	Jul-97	Oct-97	Jan-98	Apr-98	Jul-98	Oct-98
Benzene	1	1	1.0 U	1.4	8.5 J	0.9 J/0.8 J	1.0 U/1.0 U	1.0 U/0.38 J	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
Toluene	5	1	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
Chlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/0.21 J	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
1,2-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
1,3-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
1,4-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
1,2,3-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
Total Targeted Site Compounds			0.0	1.4	8.5	0.9 J/0.8 J	0.0/0.0	0.0/0.59 J	0.0/0.0	0.0/0.0	0.0/0.0	0.0/0.0	0.0/0.0	0.0/0.0	0.0/0.0	0.0/0.0

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Jan-99	Apr-99	Jul-99	Oct-99	Feb-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Feb-02	May-02
Benzene	1	1	2.6/2.8	1.9/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1 U/1 U	1 U/1 U	1 U	1 U/1 U	2 U	1 U/1 U	1.00 U/1.00 U	1.00 U	1.00 U
Toluene	5	1	1.0 U/1.0 U	1.4/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1 U/1 U	1 U/1 U	1 U	1 U/1 U	2 U	1 U/1 U	1.00 U/1.00 U	1.00 U	1.00 U
Chlorobenzene	5	1	1.0/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1 U/1 U	1 U/1 U	1 U	1 U/1 U	2 U	1 U/1 U	1.00 U/1.00 U	1.00 U	1.00 U
1,2-Dichlorobenzene	3	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1 U/1 U	1 U/1 U	1 U	1 U/1 U	2 U	1 U/1 U	1.00 U/1.00 U	1.00 U	1.00 U
1,3-Dichlorobenzene	3	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1 U/1 U	1 U/1 U	1 U	1 U/1 U	2 U	1 U/1 U	1.00 U/1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	3	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1 U/1 U	1 U/1 U	1 U	1 U/1 U	2 U	1 U/1 U	1.00 U/1.00 U	1.00 U	1.00 U
1,2,3-Trichlorobenzene	5	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1 U/1 U	1 U/1 U	1 U	1 U/1 U	2 U	1 U/1 U	1.00 U/1.00 U	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1 U/1 U	1 U/1 U	1 U	1 U/1 U	2 U	1 U/1 U	1.00 U/1.00 U	1.00 U	1.00 U
Total Targeted Site Compounds			3.6/2.8	3.3/0.0	0.0/0.0	0.0	0.0/0.0	0.0/0.0	0.0/0.0	0.0	0.0/0.0	0.0	0.0/0.0	0.0/0.0	0.0	0.0

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Jul-02	Oct-02	Feb-03	May-03	Jul-03	Oct-03	Feb-04	May-04	Jul-04	Oct-04	Feb-05	Jun-05	Sep-05	Dec-05
Benzene	1	1	1.00 U/1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Toluene	5	1	1.00 U/1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Chlorobenzene	5	1	1.00 U/1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 UJ
1,2-Dichlorobenzene	3	1	1.00 U/1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 UJ
1,3-Dichlorobenzene	3	1	1.00 U/1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 UJ
1,4-Dichlorobenzene	3	1	1.00 U/1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 UJ
1,2,3-Trichlorobenzene	5	1	1.00 U/1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 UJ
1,2,4-Trichlorobenzene	5	1	1.00 U/1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 UJ
Total Targeted Site Compounds			0.0/0.0	0.0	0.0/0.0	0.0	0.0	0.0/0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes:

J	- Estimated
U	- Not detected at the associated reporting limit
UJ	- Not detected; associated reporting limit is estimated
µg/L	- Micrograms per liter
*	- New York State Ambient Water Quality Standards and Water Guidance's Values (GA Water Class)
8.5/9.0	- Results of investigative and duplicate sample
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Appendix C

Historical Groundwater Chemistry Monitoring - Analytical Results
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

MW-18I - Continued

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Feb-06	Jun-06	Sep-06	Dec-06	Mar-07	Jun-07	Aug-07	Nov-07	Mar-08	Jun-08	Sep-08	Jan-09	Feb-09	May-09
Benzene	1	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U/1.0 U
Toluene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U/1.0 U
Chlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/0.18 J	1.0 U/1.0 U	0.17 J	1.0 U	1.0 U/1.0 U	1.0 UJ	1.0 U	1.0 U/1.0 U
1,2-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 UJ	1.0 U	1.0 U/1.0 U
1,3-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 UJ	1.0 U	1.0 U/1.0 U
1,4-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 UJ	1.0 U	1.0 U/1.0 U
1,2,3-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U/1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U/1.0 U
Total Targeted Site Compounds			0.0	0.0	0.0	0.0	0.0	0.0	0.0/0.18	0.0	0.17	0.0	0.0/0.0	0.0	0.0	0.0/0.0

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Aug-09	Nov-09	Feb-10	May-10	Aug-10	Nov-10	Mar-11	May-11	Aug-11	Nov-11	Feb-12	May-12	Aug-12	Nov-12
Benzene	1	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
Total Targeted Site Compounds			0.0	0.0	0.0	0.0	0.0	0.0/0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Feb-13	May-13	Aug-13	Nov-13	Feb-14	May-14	Aug-14	Nov-14	Feb-15	May-15	Aug-15	Nov-15	Feb-16	May-16
Benzene	1	1	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U /1.0 U	1.0 U /1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U
Toluene	5	1	1.0 U/0.20 J	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U /1.0 U	1.0 U /1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U
Chlorobenzene	5	1	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U /1.0 U	1.0 U /1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U
1,2-Dichlorobenzene	3	1	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U /1.0 U	1.0 U /1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U
1,3-Dichlorobenzene	3	1	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U /1.0 U	1.0 U /1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U
1,4-Dichlorobenzene	3	1	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U /1.0 U	1.0 U /1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U
1,2,3-Trichlorobenzene	5	1	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U /1.0 U	1.0 U /1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U /1.0 U	1.0 U /1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U
Total Targeted Site Compounds			0/0.20	0.0	0.0/0.0	0.0	0/0	0/0	0	0	0	0	0 / 0	0 / 0	0.0	0.0

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Aug-16	Nov-16	Feb-17	May-17	Aug-17	Nov-17	Feb-18	May-18	Oct-18	Apr-19	Oct-19	May-20	Oct-20	Apr-21
Benzene	1	1	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	1	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	1	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	1	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	1	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	1	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	5	1	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Targeted Site Compounds			0 / 0	0 / 0	0 / 0	0 / 0	0	0	0	0	0	0	0	0.0	0.0	0.0

Historical Groundwater Chemistry Monitoring - Analytical Results
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

MW-18I - Continued
Reported Values

			Oct-21
Benzene	1	1	1.0 U
Toluene	5	1	1.0 U
Chlorobenzene	5	1	1.0 U
1,2-Dichlorobenzene	3	1	1.0 U
1,3-Dichlorobenzene	3	1	1.0 U
1,4-Dichlorobenzene	3	1	1.0 U
1,2,3-Trichlorobenzene	5	1	1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U
Total Targeted Site Compounds			0.0

Notes:

J	- Estimated
U	- Not detected at the associated reporting limit
UJ	- Not detected; associated reporting limit is estimated
µg/L	- Micrograms per liter
*	- New York State Ambient Water Quality Standards and Water Guidance's Values (GA Water Class)
8.5/9.0	- Results of investigative and duplicate sample
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Durez Inlet Remediation Project
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MW-19I

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Jul-95	Oct-95	Jan-96	Apr-96	Jul-96	Oct-96	Jan-97	Apr-97	Jul-97	Oct-97	Jan-98	Apr-98	Jul-98	Oct-98
Benzene	1	1	6.2	7.2	9.1 J	0.9 J	0.24 J	0.29 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	1	25	14	13	3.8	13	13	12	5.0	14.0	5.2	1.4	1.5	11	1.9
1,2-Dichlorobenzene	3	1	5.8	3.3	3	2.6	3.1	3.2	2.8	1.9	3.4	1.8	1.0 U	1.0	3.1	1.0 U
1,3-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.59 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	1	2.4	1.7	1.4	1.2	1.4	1.5	1.3	1.0 U	1.4	1.0 U	1.0 U	1.0 U	1.2	1.0 U
1,2,3-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Targeted Site Compounds			39.4	26.2	26.5	8.5	17.7	18.58 J	16.1	6.9	18.8	7.0	1.4	2.5	15.3	1.9

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Jan-99	Apr-99	Jul-99	Oct-99	Feb-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Feb-02	May-02
Benzene	1	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	2 U	1 U	1.00 U	1.00 U	1.00 U
Toluene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	2 U	1 U	1.00 U	1.00 U	1.00 U
Chlorobenzene	5	1	1.8	1.0 U	7.2	4.0	1.0 U	2	3	3	3	3	1	2.63	1.00 U	1.53
1,2-Dichlorobenzene	3	1	1.0 U	1.0 U	3.1	2.3	1.0 U	1 U	3	1	1	3	1	1.00 U	1.00 U	1.00 U
1,3-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0	1 U	1 U	1 U	2 U	1 U	1.00 U	1.00 U	1.00 U
1,4-Dichlorobenzene	3	1	1.0 U	1.0 U	1.8	1.5	1.0 U	1 U	1	1 U	1 U	2 U	1 U	1.00 U	1.00 U	1.00 U
1,2,3-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	2 U	1 U	1.00 U	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 U	2 U	1 U	1.00 U	1.00 U	1.00 U
Total Targeted Site Compounds			1.8	0.0	12.1	7.8	0.0	3	7	4	4	6	2	2.63	0.0	1.53

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Jul-02	Oct-02	Feb-03	May-03	Jul-03	Oct-03	Feb-04	May-04	Jul-04	Oct-04	Feb-05	Jun-05	Sep-05	Dec-05
Benzene	1	1	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 UJ
Toluene	5	1	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 UJ
Chlorobenzene	5	1	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 UJ
1,2-Dichlorobenzene	3	1	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 UJ
1,3-Dichlorobenzene	3	1	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 UJ
1,4-Dichlorobenzene	3	1	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 UJ
1,2,3-Trichlorobenzene	5	1	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 UJ
1,2,4-Trichlorobenzene	5	1	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 UJ
Total Targeted Site Compounds			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0/0.0	0.0

Notes:

J - Estimated
U - Not detected at the associated reporting limit
UJ - Not detected; associated reporting limit is estimated
µg/L - Micrograms per liter
* - New York State Ambient Water Quality Standards and Water Guidance's Values (GA Water Class)
8.5/9.0 - Results of investigative and duplicate sample
38 - Exceeds New York State Ambient Water Quality Standards and Water Guidance's Values (GA Water Class)

Appendix C

Historical Groundwater Chemistry Monitoring - Analytical Results
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

MW-19I - Continued

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Feb-06	Jun-06	Sep-06	Dec-06	Mar-07	Jun-07	Aug-07	Nov-07	Mar-08	Jun-08	Sep-08	Jan-09	Feb-09	May-09
Benzene	1	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	2.5	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	0.18 J	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	0.16 J	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 UJ	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	5	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Targeted Site Compounds			0.0/0.0	0.0/0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.34	0.0	0.0	0.0	0.0	0.0

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Aug-09	Nov-09	Feb-10	May-10	Aug-10	Nov-10	Mar-11	May-11	Aug-11	Nov-11	Feb-12	May-12	Aug-12	Nov-12
Benzene	1	1	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
Toluene	5	1	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
Chlorobenzene	5	1	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
1,2-Dichlorobenzene	3	1	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
1,3-Dichlorobenzene	3	1	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
1,4-Dichlorobenzene	3	1	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
1,2,3-Trichlorobenzene	5	1	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 UJ	1.0 U/1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U	1.0 U/1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U/1.0 U	1.0 U/1.0 U	1.0 U/1.0 U
Total Targeted Site Compounds			0.0	0.0	0.0	0.0/0.0	0.0/0.0	0.0	0.0	0.0	0.0	0.0	0.0	0/0	0/0	0/0

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Feb-13	May-13	Aug-13	Nov-13	Feb-14	May-14	Aug-14	Nov-14	Feb-15	May-15	Aug-15	Nov-15	Feb-16	May-16
Benzene	1	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U /1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U /1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U /1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U /1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U /1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U
1,4-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U /1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U /1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U /1.0 U	1.0 U / 1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Targeted Site Compounds			0.0	0.0	0.0	0.0	0	0	0	0/0	0 / 0	0	0.0	0 / 0	0 / 0	0.0

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values													
			Aug-16	Nov-16	Feb-17	May-17	Aug-17	Nov-17	Feb-18	May-18	Oct-18	Apr-19	Oct-19	May-20	Oct-20	Apr-21
Benzene	1	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.00 U	1.00 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Targeted Site Compounds			0.0	0 / 0	0.0	0.0	0.0	0	0	0	0	0	0	0.0	0.0	0.0

Historical Groundwater Chemistry Monitoring - Analytical Results
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

MW-19I - Continued
Reported Values

			Oct-21
Benzene	1	1	1.0 U
Toluene	5	1	1.0 U
Chlorobenzene	5	1	1.0 U
1,2-Dichlorobenzene	3	1	1.0 U
1,3-Dichlorobenzene	3	1	1.0 U
1,4-Dichlorobenzene	3	1	1.0 U
1,2,3-Trichlorobenzene	5	1	1.0 U
1,2,4-Trichlorobenzene	5	1	1.0 U
Total Targeted Site Compounds			0.0

Notes:

J	- Estimated
U	- Not detected at the associated reporting limit
UJ	- Not detected; associated reporting limit is estimated
µg/L	- Micrograms per liter
*	- New York State Ambient Water Quality Standards and Water Guidance's Values (GA Water Class)
8.5/9.0	- Results of investigative and duplicate sample
38	- Exceeds New York State Ambient Water Quality Standards and Water Guidance's Values (GA Water Class)

Appendix C

Historical Groundwater Chemistry Monitoring - Analytical Results
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

MW-20I

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values												
			Jul-95	Oct-95	Jan-96	Apr-96	Jul-96	Oct-96	Jan-97	Apr-97	Jul-97	Oct-97	Jan-98	Apr-98	Jul-98	Oct-98
Benzene	1	1	7700	3300	8300	4600	5500	6100	4300	4000	4800	3100	3200	1900	1000	2200
Toluene	5	1	1000 U	1000 U	500 U	100 U	500 U	2000 U	2000 U	2000 U	2000 U	2000 U	50 U	200 U	200 U	400 U
Chlorobenzene	5	1	28000	18000	32000	19000	27000	37000	20000	26000	32000	96000	32000	8100	6600	13000
1,2-Dichlorobenzene	3	1	2000	1400	2700	1300	1600	1,900 J	2000 U	2000 U	2000 U	2000 U	1100	310	200	400 U
1,3-Dichlorobenzene	3	1	1000 U	1000 U	370 J	210	260 J	2000 U	2000 U	2000 U	2000 U	2000 U	360	200 U	200 U	400 U
1,4-Dichlorobenzene	3	1	1600	1400	2500	1200	1700	2300	2000 U	2000 U	2000 U	2000 U	2300	630	500	870
1,2,3-Trichlorobenzene	5	1	1000 U	1000 U	500 U	100 U	500 U	2000 U	2000 U	2000 U	2000 U	2000 U	50 U	200 U	200 U	400 U
1,2,4-Trichlorobenzene	5	1	1000 U	1000 U	500 U	100 U	500 U	2000 U	2000 U	2000 U	2000 U	2000 U	50 U	200 U	200 U	400 U
Total Targeted Site Compounds			39300	24100	45870	26310	36060	47300	24300	30000	36800	99100	38960	10940	8300	16070

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values												
			Jan-99	Apr-99	Jul-99	Oct-99	Feb-99	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Feb-02	May-02
Benzene	1	1	1600	2660	3600	890	310	220	1100	230	1400	660	90	118	142/135	391
Toluene	5	1	400 U	50 U	1000 U	50 U	100 U	1 U	1	5 U	13 U	100 U	2 U	1.00 U	1.00 U/1.00 U	1.61 J
Chlorobenzene	5	1	7400	16200	26000	6000	1700	2400	11000	2700	34000	20000	2100	1880	1630/1540	14800
1,2-Dichlorobenzene	3	1	400 U	329	1000 U	100	100 U	18	54	9	58	100 U	8	12.0	20.2/20.4	83.0 J
1,3-Dichlorobenzene	3	1	400 U	232	1000 U	110	100 U	19	120	7	310	220	12	19.7	34.6/34.1	158
1,4-Dichlorobenzene	3	1	400 U	1640	2200	210	280	140	430	56	2500	1900	80	150	215/203	1270
1,2,3-Trichlorobenzene	5	1	400 U	50 U	1000 U	50 U	100 U	1 U	1 U	5 U	13 U	100 U	2 U	1.00 U	1.00 U/1.00 U	1.0 U
1,2,4-Trichlorobenzene	5	1	400 U	50 U	1000 U	50 U	100 U	1 U	1 U	5 U	13 U	100 U	2 U	1.00 U	1.87/2.03	1.0 U
Total Targeted Site Compounds			9000	21061	31800	7310	2290	2797	12705	3002	38268	22780	2290	2180	2044/1935	16703.61

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values												
			Jul-02	Oct-02	Feb-03	May-03	Jul-03	Oct-03	Feb-04	May-04	Jul-04	Oct-04	Feb-05	Jun-05	Sep-05	Dec-05
Benzene	1	1	664	347	74.5	89.4	18.5	164	41.5	44.8	34.5 J	8.92/9.40	500 U	250 U	500 U	1.0 UJ
Toluene	5	1	1.00 U	100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U/1.00U	500 U	250 U	500 U	1.0 UJ
Chlorobenzene	5	1	10600	14100	1880	3310	1270	9810	14600	3100	14600	1370/1330	13000	3100	7600	9.5 J
1,2-Dichlorobenzene	3	1	66	100 U	23.5	27.0	7.47	1.00 U	1.00 U	14.8	1.00 U	6.08/ 6.16	500 U	250 U	500 U	0.26 J
1,3-Dichlorobenzene	3	1	118	143	45.7	50.4	16.3	87.7	151	31.7	142 J	16.8/16.7	110 J	250 U	500 U	0.91 J
1,4-Dichlorobenzene	3	1	779	1200	285	363	119	680	1220	194	1110	112/107	990	280	620	1.7 J
1,2,3-Trichlorobenzene	5	1	1.00 U	100 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U/1.00U	500 U	250 U	500 U	1.0 UJ
1,2,4-Trichlorobenzene	5	1	1.00 U	100 U	1.75	1.72	1.00 U	3.24	1.00 U	1.70	1.00 U	1.00 U/1.08	500 U	250 U	500 U	1.0 UJ
Total Targeted Site Compounds			12227.3	15790	2310.45	3841.5	1431	10745	16013	3387	15886.5	1513/1469	14100	3380	8220	12.4

Notes:

J - Estimated
U - Not detected at the associated reporting limit
UJ - Not detected; associated reporting limit is estimated
µg/L - Micrograms per liter
* - New York State Ambient Water Quality Standards and Water Guidance's Values (GA Water Class)
8.5/9.0 - Results of investigative and duplicate sample
38 - Exceeds New York State Ambient Water Quality Standards and Water Guidance's Values (GA Water Class)

Appendix C

Historical Groundwater Chemistry Monitoring - Analytical Results
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

MW-20I - Continued

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values												
			Feb-06	Jun-06	Sep-06	Dec-06	Mar-07	Jun-07	Aug-07	Nov-07	Mar-08	Jun-08	Sep-08	Jan-09	Feb-09	May-09
Benzene	1	1	500 U	500 U	250 U	15 U/20 U	500 U	170 U	50 U	330 U	12 U	250 U	250 UJ	200 U	11	11 J
Toluene	5	1	500 U	500 U	250 U	15 U/20 U	500 U	170 U	50 U	330 U	12 U	250 U	250 UJ	200 U	1.0 U	1.0 U
Chlorobenzene	5	1	8800	12000	3400	340 /320	8700	12000	3400	12000	1000	11000	11000 J	11000	11000	9600
1,2-Dichlorobenzene	3	1	500 U	500 U	250 U	15 U/20 U	500 U	170 U	50 U	330 U	12 U	250 UJ	250 UJ	200 U	5	1.0 U
1,3-Dichlorobenzene	3	1	60 J	97 J	250 U	1.7 J/20 U	500 U	83	23 J	80 J	7.4 J	74 J	62 J	76 J	82	86 J
1,4-Dichlorobenzene	3	1	620	940	270	20 /20	630	950	270	910	83	860 J	810 J	910	830	910
1,2,3-Trichlorobenzene	5	1	500 U	500 U	250 U	15 U/20 U	500 U	170 U	50 U	330 U	12 U	250 U	250 U	200 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	1	500 U	500 U	250 U	15 U/20 U	500 U	170 U	50 U	330 U	12 U	250 U	250 U	200 U	1.0 U	1.0 U
Total Targeted Site Compounds			9480	2237	3670	361.7/340	9330	13033	3693	12990	1090	11934	11872	11986	11928	10607

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values												
			Aug-09	Nov-09	Feb-10	May-10	Aug-10	Nov-10	Mar-11	May-11	Aug-11	Nov-11	Feb-12	May-12	Aug-12	Nov-12
Benzene	1	1	15 J/14 J	10 J	200 U	500 U	500 U	500 U	500 U/400 U	120 U	250 U/200 U	250 U	200 U/200 U	80 U	100 U/130 U	100 U/16 J
Toluene	5	1	1.0 U/1.0 U	1.0 U	200 U	500 U	500 U	500 U	500 U/400 U	120 U	250 U/250 U	250 U	200 U/200 U	80 U	100 U/130 U	100 U/100 U
Chlorobenzene	5	1	9600/9700	8100	2100	8600	9500	8900	7700/8100	2800	4700/4400	4500	2400/3300	1800	2600/2700	2100/2400
1,2-Dichlorobenzene	3	1	5.2 J/5.9 J	5.4 J	200 U	500 U	500 U	500 U	500 U/400 U	120 U	250 U/200 U	250 U	200 U/200 U	80 U	100 U/130 U	100 U/100 U
1,3-Dichlorobenzene	3	1	68 J/68 J	62 J	200 U	500 U	500 U	500 U	500 U/400 U	19 J	29 J/41 J	32 J	30 J/334 J	25 J	36 J/34 J	36 J/25 J
1,4-Dichlorobenzene	3	1	820/840	720	150 J	670	630	540	590/670	320	510/470	530	540/390	320	460/460	410/410
1,2,3-Trichlorobenzene	5	1	1.0 U/1.0 U	1.0 U	200 U	500 U	500 U	500 U	500 U/400 U	120 U	250 U/200 U	250 U	200 U/200 U	80 U	100 U/130 U	100 U/100 U
1,2,4-Trichlorobenzene	5	1	1.0 U/1.0 U	1.0 U	200 U	500 U	500 U	500 U	500 U/400 U	120 U	250 U/200 U	250 U	200 U/200 U	80 U	100 U/130 U	100 U/100 U
Total Targeted Site Compounds			10508/10628	8897	2250	9270	10130	9440	8,290/8,770	3139	5239/4911	5062	2970/3724	2145	3096/3194	2546/2851

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values												
			Feb-13	May-13	Aug-13	Nov-13	Feb-14	May-14	Aug-14	Nov-14	Feb-15	May-15	Aug-15	Nov-15	Feb-16	May-16
Benzene	1	1	130 U	130 U	21 J	17 J	200 U	27 J	26 J	25 J	26 J	37 J	23 J	35	32 J	8.1
Toluene	5	1	130 U	130 U	100 U	100 U	200 U	200 U	200 U	200 U	100 U	200 U	200 U	0.20 J	100 U	5.0 U
Chlorobenzene	5	1	2000	2000	2300	2300	2200	2400	2700	2300	2700	2800	2400	2200	2400	960
1,2-Dichlorobenzene	3	1	130 U	130 U	100 U	100 U	200 U	200 U	200 U	200 U	100 U	200 U	200 U	4.8	100 U	5.1
1,3-Dichlorobenzene	3	1	28 J	31 J	25 J	22 J	200 U	30 J	200 U	27 J	36 J	28 J	29 J	27	25 J	33
1,4-Dichlorobenzene	3	1	390	340	380	370	430	360	420	350	480	390	390	300	330	340
1,2,3-Trichlorobenzene	5	1	130 U	130 U	100 U	100 U	200 U	200 U	200 U	200 U	100 U	200 U	200 U	1.0 U	100 U	5.0 U
1,2,4-Trichlorobenzene	5	1	130 U	130 U	100 U	100 U	200 U	200 U	200 U	200 U	100 U	200 U	200 U	1.0 U	100 U	5.0 U
Total Targeted Site Compounds			2418	2371	2726	2709	2630	2817	3146	2702	3242	3255	2842	2567	2787.0	1346.0

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values												
			Aug-16	Nov-16	Feb-17	May-17	Aug-17	Nov-17	Feb-18	May-18	Oct-18	Apr-19	Oct-19	May-20	Oct-20	Apr-21
Benzene	1	1	29	29	25	23	25	19 J	20	16.3 J	15.0 J	12.8 J	12.8 J	17.4	17.8 J	20.2 J
Toluene	5	1	10 U	20 U	20 U	20 U	25 U	25 U	20 U	20.0 U	20.0 U	20.0 U	25.0 U	25.0 U	25.0 U	25.0 U
Chlorobenzene	5	1	2200	2600	2600	2600	2700	2700	3000	2590	2870	2830	2940	2910	3340	3130
1,2-Dichlorobenzene	3	1	4.8 J	20 U	20 U	20 U	25 U	25 U	20 U	20.0 U	20.0 U	20.0 U	25.0 U	25.0 U	25.0 U	25.0 U
1,3-Dichlorobenzene	3	1	33	32	31	34	34	27	28	26.5	24.4	23.6	22.8 J	23.5 J	22.9 J	19.9 J
1,4-Dichlorobenzene	3	1	420	420	370	440	420	410	410	362	388	388	398	421	441	376
1,2,3-Trichlorobenzene	5	1	10 U	20 U	20 U	20 U	25 U	25 U	20 U	20.0 U	20.0 U	20.0 U	25.0 U	25.0 U	25.0 U	25.0 U
1,2,4-Trichlorobenzene	5	1	10 U	20 U	20 U	20 U	25 U	25 U	20 U	20.0 U	20.0 U	20.0 U	25.0 U	25.0 U	25.0 U	25.0 U
Total Targeted Site Compounds			2687	3081	3026	3097	3179	3156	3458	2995	3297	3254	3374	3372	3822	3546

Historical Groundwater Chemistry Monitoring - Analytical Results
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

MW-20I - Continued
Reported Values

			Oct-21
Benzene	1	1	18.3 J
Toluene	5	1	25.0 U
Chlorobenzene	5	1	2850
1,2-Dichlorobenzene	3	1	25.0 U
1,3-Dichlorobenzene	3	1	19.2 J
1,4-Dichlorobenzene	3	1	341
1,2,3-Trichlorobenzene	5	1	25.0 U
1,2,4-Trichlorobenzene	5	1	25.0 U
Total Targeted Site Compounds			3229

Notes:

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8.5/9.0 - Results of investigative and duplicate sample
38 - Exceeds New York State Ambient Water Quality Standards and Water Guidance's Values (GA Water Class)

Appendix C

Historical Groundwater Chemistry Monitoring - Analytical Results
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

MW-22I

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values Jul-01	Oct-01	Feb-02	May-02	Jul-02	Oct-02	Feb-03	May-03	Jul-03	Oct-03	Feb-04	May-04	Jul-04	Oct-04
Benzene	1	1	150	66.9	24.3	5.11/5.76	4.55	14.1/16.0	3.3	1.00 U	1.00 U/1.00 U	1.86	1.00 U	1.80 J/4.89 J	1.00 U	1.00 U
Toluene	5	1	1 U	1.00 U	1.00 U	1.00 U/1.00U	1.00 U	2.50 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U
Chlorobenzene	5	1	4500	308	583	459/566	485	1100 J/315 J	1170	68.4	40.3 /47.5	1290 J	455	1170 J /3190 J	243	53.2
1,2-Dichlorobenzene	3	1	47	3.00	1.58	1.00 U/1.00U	1.00 U	2.50 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U
1,3-Dichlorobenzene	3	1	23	1.81	3.56	2.98/3.62	3.01	7.86 J/2.71 J	11.6	1.15	1.00 U/1.00 U	6.88	2.72	9.49 J/28.8 J	1.91	1.00 U
1,4-Dichlorobenzene	3	1	130	14.7	28.2	27.2/31.6	23.8	69.7 J/19.8 J	99.3	4.41	2.48 /2.73	61.7 J	31.6	86.4 J /179 J	15.4	5.78
1,2,3-Trichlorobenzene	5	1	1 U	1.00 U	1.00 U	1.00 U/1.00U	1.00 U	2.50 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U
1,2,4-Trichlorobenzene	5	1	1 U	1.00 U	1.00 U	1.00 U/1.00U	1.00 U	2.50 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U	1.00 U/1.00 U	1.00 U	1.00 U
Total Targeted Site Compounds			4,850	394	641	494.29/606.98	516	1192/353.51	1,284	73.96	42.78/50.23	1,360	489	1268/3403	260	58.98

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values Feb-05	Jun-05	Sep-05	Dec-05	Feb-06	Jun-06	Sep-06	Dec-06	Mar-07	Jun-07	Aug-07	Nov-07	Mar-08	Jun-08
Benzene	1	1	2.0 U/2.0 U	200 U/50 U	5.0 U	4.0 U	50 U	1.0 U	0.92 J	1.0 U	120 U	20 U/20 U	50 U	25 U	5.0 U/5.0 U	50 U
Toluene	5	1	2.0 U/2.0 U	201 U/50 U	5.0 U	4.0 U	50 U	1.0 U	1.0 U	1.0 U	120 U	20 U/20 U	50 U	25 U	5.0 U/5.0 U	50 U
Chlorobenzene	5	1	46/41	2400 J/1400 J	66	52	620	1.4	610	0.78 J	2500	940/1,300	4400	1400	330/330	3000
1,2-Dichlorobenzene	3	1	2.0 U/2.0 U	200 U/50 U	5.0 U	4.0 U	50 U	1.0 U	0.83 J	1.0 U	120 U	20 U/20 U	50 U	25 U	1.1 J/0.71 J	50 U
1,3-Dichlorobenzene	3	1	0.51 J/0.65 J	200 U/50 U	0.70 J	4.0 U	50 U	1.0 U	6.3	1.0 U	17 J	6.4/8.7	25 J	7.0 J	7.1/7.0	15 J
1,4-Dichlorobenzene	3	1	1.9 J/2.1	110 J/55 J	4.5 J	2.3 J	35 J	0.39 J	43 J	1.0 U	180	58/72	300	88	49/49	210
1,2,3-Trichlorobenzene	5	1	2.0 U/2.0 U	200 U/50 U	5.0 U	4.0 U	50 U	1.0 U	1.0 U	1.0 U	120 U	20 U/20 U	50 U	25 U	5.0 U/5.0 U	50 U
1,2,4-Trichlorobenzene	5	1	2.0 U/2.0 U	200 U/50 U	5.0 U	4.0 U	50 U	1.0 U	1.0 U	1.0 U	120 U	20 U/20 U	50 U	25 U	5.0 U/5.0 U	50 U
Total Targeted Site Compounds			48.41/43.75	2510/1455	71.2	54.3	655	1.79	661	0.78	2697	1004/1381	4725	1495	387.2/386.71	3225

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values Sep-08	Jan-09	Feb-09	May-09	Aug-09	Nov-09	Feb-10	May-10	Aug-10	Nov-10	Mar-11	May-11	Aug-11	Nov-11
Benzene	1	1	50 U	100 U	1.0 U/1 U	2.9	3.5	2.5 J	250 U/250 U	120 U	50 U	250 U	30 U	100 U	100 U	100 U
Toluene	5	1	50 U	100 U	1.0 U/1 U	1.0 U	1.0 U	1.0 U	251 U/250 U	120 U	50 U	250 U	30U	100 U	75 U	100 U
Chlorobenzene	5	1	2000	2900	240/270	3000	2500	2800	3001/3300	1900	1000	2600	670	1900	1800	1900
1,2-Dichlorobenzene	3	1	50 U	100 U	1.0 U/1 U	1.0 U	1.0 U	3.1 J	250 U/250 U	120 U	50 U	250 U	30 U	100 U	100 U	100 U
1,3-Dichlorobenzene	3	1	9.9 J	100 U	5.6/5.4	25	18	20 J	250 U/250 U	120 U	7.2 J	250 U	4.8 J	100 U	100 U	100 U
1,4-Dichlorobenzene	3	1	120	200	71/70	270	200	240	250/260	130	85	170 J	75	84 J	68 J	81 J
1,2,3-Trichlorobenzene	5	1	50 U	100 U	1.0 U/1 U	1.0 U	1.0 U	1.0 U	250 U/250 U	120 U	50 U	250 U	30 U	100 U	100 U	100 U
1,2,4-Trichlorobenzene	5	1	50 U	100 U	1.0 U/1 U	1.0 U	1.0 U	1.0 U	250 U/250 U	120 U	50 U	250 U	30 U	100 U	100 U	100 U
Total Targeted Site Compounds			2129.9	3100	316.6/345.4	3298	2722	3046	3250/3560	2030	1092.2	2770	749.8	1984	1868	1981

Notes:

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µg/L - Micrograms per liter
* - New York State Ambient Water Quality Standards and Water Guidance's Values (GA Water Class)
8.5/9.0 - Results of investigative and duplicate sample
38 - Exceeds New York State Ambient Water Quality Standards and Water Guidance's Values (GA Water Class)

Appendix C

Historical Groundwater Chemistry Monitoring - Analytical Results
Durez Inlet Remediation Project
Groundwater Monitoring Program
Durez Inlet Site

MW-22I - Continued

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values Feb-12	May-12	Aug-12	Nov-12	Feb-13	May-13	Aug-13	Nov-13	Feb-14	May-14	Aug-14	Nov-14	Feb-15	May-15
Benzene	1	1	14 J/15 J	6.7 J/50 U	17 J/19 J	20 J/100 U	100 U	40 U	23 J	20 J	200 U	32 J	38 J	36 J	34 J	40 J
Toluene	5	1	100 U/100 U	50 U/50 U	50 U/50 U	100 U/100 U	100 U	40 U	100 U	100 U	200 U	200 U	200 U	200 U	50 U	200 U
Chlorobenzene	5	1	1700/1700	950/950	1100/1200	1300/1200	1100	680	1800	1600	2100	1900	2000	2100	1900	2300
1,2-Dichlorobenzene	3	1	100 U/100 U	50 U/50 U	50 U/50 U	100 U/100 U	100 U	40 U	100 U	100 U	200 U	200 U	200 U	200 U	50 U	200 U
1,3-Dichlorobenzene	3	1	100 U/11 J	6.3 J/50 U	50 U/50 U	11 J/100 U	100 U	40 U	11 J	100 U	200 U	200 U	200 U	200 U	10 J	200 U
1,4-Dichlorobenzene	3	1	110/100	75/68	87/83	78 J/87 J	78 J	38 J	110	80 J	130 J	97 J	110 J	110 J	110	110 J
1,2,3-Trichlorobenzene	5	1	100 U/100 U	50 U/50 U	50 U/50 U	100 U/100 U	100 U	40 U	100 U	100 U	200 U	200 U	200 U	200 U	50 U	200 U
1,2,4-Trichlorobenzene	5	1	100 U/100 U	50 U/50 U	50 U/50 U	100 U/100 U	100 U	40 U	100 U	100 U	200 U	200 U	200 U	200 U	50 U	200 U
Total Targeted Site Compounds			1824/1826	1038/1018	1204/1302	1409/1287	1178	718	1944	1700	2230	2029	2148	2246	2054	2450

Compound/Parameter	* Standard Value (µg/L)	Quantitation Limit (µg/L)	Reported Values Aug-15	Nov-15	Feb-16	May-16	Aug-16	Nov-16	Feb-17	May-17	Aug-17	Nov-17	Feb-18	May-18	Oct-18	Apr-19
Benzene	1	1	31 J	38	42 J	25	8.1	36	38	40	35	34	33	28.2	30.6	21.0 / 21.2
Toluene	5	1	100 U	0.16 J	100 U	10 U	5.0 U	5.0 U	20 U	20 U	20 U	20 U	20 U	20.0 U	20.0 U	20.0 U / 1.0 U
Chlorobenzene	5	1	2100	1600	2,000	970	290	2100	2200	1900	2100	2100	2300	1950	2340	1930 / 2040
1,2-Dichlorobenzene	3	1	100 U	2.7	100 U	10 U	2.0 J	3.1 J	20 U	20 U	20 U	20 U	20 U	20.0 U	20.0 U	20.0 U / 1.53
1,3-Dichlorobenzene	3	1	100 U	9.9	100 U	13	6.6	11	20 U	20 U	15 J	12 J	12 J	12.4 J	13.2 J	10.6 J / 10.4
1,4-Dichlorobenzene	3	1	95 J	72 J	91 J	120	70	110	120	160	150	130	150	131	150	122 / 117
1,2,3-Trichlorobenzene	5	1	100 U	1.0 U	100 U	10 U	5.0 U	5.0 U	20 U	20 U	20 U	20 U	20 U	20.0 U	20.0 U	20.0 U / 1.0 U
1,2,4-Trichlorobenzene	5	1	100 U	1.0 U	100 U	10 U	5.0 U	5.0 U	20 U	20 U	20 U	20 U	20 U	20.0 U	20.0 U	20.0 U / 1.0 U
Total Targeted Site Compounds			2226	1723	2,133	1,128	377	2,260	2358	2100	2300	2276	2495	2122	2534	2084 / 2189

Compound/Parameter	Reported Values Oct-19	May-20	Oct-20	Apr-21	Oct-21
Benzene	29.4	0.824 J	72.6	54.7	58.7
Toluene	20.0 U	1.0 U	1.0 U	25.0 U	25.0 U
Chlorobenzene	2220	88.8	3000	3400	3540
1,2-Dichlorobenzene	20.0 U	1.0 U	2.47	25.0 U	25.0 U
1,3-Dichlorobenzene	11.4 J	0.460 J	21.3	23.7 J	23.8 J
1,4-Dichlorobenzene	160	4.80	314	392	428
1,2,3-Trichlorobenzene	20.0 U	1.0 U	1.0 U	25.0 U	25.0 U
1,2,4-Trichlorobenzene	20.0 U	1.0 U	1.0 U	25.0 U	25.0 U
Total Targeted Site Compounds	2421	94.9	3410	3870	4051

Notes:

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UJ - Not detected; associated reporting limit is estimated
µg/L - Micrograms per liter
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8.5/9.0 - Results of investigative and duplicate sample
38 - Exceeds New York State Ambient Water Quality Standards and Water Guidance's Values (GA Water Class)

Appendix D

2021 Completed Semiannual Inspection Field Sheets

Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

SEMIANNUAL INSPECTION - DUREZ INLET

Site: Durez Inlet
Date: 4/13/21
Inspector: D. Tyran
Weather: Mostly cloudy 48°F winds SW 8-12 mph

Inspection Item	Inspect For	
1. Shoreline	- signs of erosion	Y (N)
2. River Bank	- signs of erosion	Y (N)
3. Aquatic Areas	- signs of erosion	Y (N)
4. Cove Cap	- signs of erosion/disturbance - exposed portion	Y (N)
	- signs of erosion/disturbance - submerged portion	Y (N)
5. North Lobe	- evidence of activity or penetration that could impact effectiveness of cutoff wall	Y (N)

Comments/Remarks (Note: If repair/maintenance is recommended, describe its location/extent below)

Large animal burrow 12' South of well MW21S
Evidence of animal burrowing under concrete pad for wells EW-2 and MW15I

Dan J Tyran

Glenn & Springs Holdings, Inc.

A subsidiary of Occidental Petroleum

Inlet Semi-Annual Inspection

Date: 10/19/2021 **Inspected By:** David Tyran

Weather: Sunny,60 degrees,winds SW 14-21mph

Inspection Item	Inspected For		Comments
Shoreline	signs of erosion	○ Y ● N	
River Bank	signs of erosion	○ Y ● N	
Aquatic Areas	signs of erosion	○ Y ● N	
Cove Cap	signs of erosion/disturbance - exposed portion	○ Y ● N	
Cove Cap	signs of erosion/disturbance - submerged portion	○ Y ● N	
North Lobe	evidence of activity or penetration that could impact effectiveness of cutoff wall	○ Y ● N	Some evidence of burrowing animals in the parking area near the ramp to the dock. Also evidence of burrowing animals under the concrete pads for wells EW2 and MW15I. Burrows do not constitute a problem at this time.

Comments/Remarks (Note: If repaire/maintenance is recommended, describe its location/extent below)

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