



**Department of  
Environmental  
Conservation**

**KATHY HOCHUL**  
Governor

**AMANDA LEFTON**  
Acting Commissioner

June 12, 2025

John Iannone  
Auto Outlets USA  
5763 Duke of Gloucester Way  
Farmington, New York 14425

Re: Site Management  
2023 & 2024 Periodic Review Reports  
Former Griffin Technology Site  
Site No.: C835008  
Farmington (T), Ontario (C)

Dear Mr. Iannone:

The New York State Department of Environmental Conservation (Department) and the New York State Department of Health (NYSDOH) have completed a review of the 2023 & 2024 Periodic Review Reports, for the Former Griffin Technology site (Site) located at 6132 Victor Manchester Road, the town of Farmington, Ontario County. The 2023 Periodic Review Report (2023 PRR) dated September 7, 2023, and IC/EC Certification for following period: April 30, 2022, to April 30, 2023, along with the 2024 Periodic Review Report (2024 PRR) dated December 20, 2024, and IC/EC Certification for following period: April 30, 2023, to April 30, 2024. Based on the information presented, the PRR is conditionally approved with the clarifications, and modifications presented below.

1. Overgrown vegetation/obstructions that interferes with the collection of the groundwater sampling process will need to be cleared and maintained. The Department understands that prior to all future groundwater sampling events, monitoring wells scheduled for sampling will be located and access ensured.
2. The 2023 PRR cites in several locations the incorrect site number (835008). The correct site number associated with this Site is (C835008). Please update for all future submissions.
3. 2023 PRR, Section 5.0: Between the March 2022 and the August 2023 sampling events trichloroethene (TCE) is stated as increasing in OW-(1, 4, 5, & 7). The Department understands that TCE concentrations in OW-(1, 2, 4, 5, & 7) have increased and concentrations in OW-3 have decreased between the sampling events.
4. Between the March 2022 and the August 2023 sampling events cis-1,2-Dichloroethene (Cis-DCE) is stated as increasing in OW-(1, 2, 3, 5, & 7). The

Department understands that Cis-DCE concentrations in OW-4 have also increased between the sampling events.

5. Two different groundwater concentrations for Cis-DCE are stated for OW-4, and one exceedance is missing from the list of wells. The Department understands that the 2023 groundwater sampling lab results show the first OW-4 is supposed to be OW-3, and that the missing well with exceedances is OW-1. The correct list for Cis-DCE groundwater exceedances is the following: OW-1 (18J ppb), OW-2 (23 ppb), OW-3 (32 ppb), OW-4 (14 ppb), OW-5 (22 ppb), and OW-7 (35 ppb).
6. Between the March 2022 and the August 2023 sampling events vinyl chloride is stated as increasing in OW-3 and decreasing in OW-(1, 2, 3, 5, & 7). Vinyl chloride concentrations are stated as both increasing and decreasing at OW-3. The Department understands that vinyl chloride concentrations in OW-(1, 2, 3, 4, 5, & 7) have all increased and no wells have decreased between the sampling events.
7. One exceedance is missing from the list of groundwater wells with concentrations of vinyl chloride. The Department understands that the 2023 groundwater sampling lab results show OW-1 should be included in the exceedances list, and the correct list for vinyl chloride groundwater exceedances is the following: OW-1 (2.8J ppb), OW-2 (12 ppb), OW-3 (40 ppb), OW-4 (5.1 ppb), OW-5 (8.7 ppb), and OW-7 (28 ppb).
8. 2024 PRR, Section 5.0: The TCE concentrations are stated as remaining the same between the August 2023 and the November 2024 groundwater sampling events in OW-4 & OW-5. The Department understands that TCE concentrations have increased in OW-4 & OW-5 since the 2023 groundwater sampling event.
9. Monitoring well OW-7 is stated to have a possible obstruction preventing the collection of the 2024 groundwater sample. The Department requests maintenance, repair, and removal of all obstructions in OW-7 to return it to a serviceable state for continued groundwater collection.
10. The Department approves the recommendation for the maintenance and repair of the following wells:
  - Repair Protective Casings: OW-1, OW-4, IW-2, IW-4, IW-11, IW-13, and IW-14.
  - Replace Locks: OW-1, OW-2, OW-3, OW-4, OW-5, OW-7, OW-8/MW-4, OW-9/MW-3, IW-2, IW-4, IW-11, IW-13, and IW-14.
  - Replace Cover: OW-5.
11. The Department approves the recommendation for the removal of injection well IW-9. Removal must be in accordance with the decommissioning procedure found

in NYSDEC Commissioner Policy number 43 (CP-43): *Groundwater Monitoring Well Decommissioning Policy*, this has been attached for your convenience.

12. The Department approves the recommendation to survey all remaining monitoring well groundwater elevation heads.
13. With respect to the recommendation for modification of the monitoring frequency of the PRR, the Department declines the recommendation to modify the frequency from annually to biennially at this time.

The Department must be notified with a minimum of a 7-day advance notice for any field work to be conducted on-site as per the Brownfield Cleanup Agreement so that Department oversight can be provided. The notification must include an anticipated start day and time for the site's field work.

Your next PRR is due on September 7, 2025. You should receive a courtesy reminder letter and updated certification form 75-days prior to the due date. Regardless of receipt or not, of the reminder notice, the next PRR including the signed certification form, is still due on the date specified above.

If you have any questions or concerns regarding this letter or need further assistance with the Site, please feel free to contact me at (585) 226-5349 or via email at [Joshua.Ramsey@dec.ny.gov](mailto:Joshua.Ramsey@dec.ny.gov).

Sincerely,



Joshua J. Ramsey  
Project Manager

cc:

Frank Romeo (Bristol Valley Homes LLC)  
Gregory Andrus (Lu Engineers)  
Justin Deming (NYSDOH)  
Julia Kenney (NYSDOH)  
David Pratt (NYSDEC)  
Michael Ormanoski (NYSDEC)

# CP-43:Groundwater Monitoring Well Decommissioning Policy

New York State Department of Environmental Conservation

## DEC POLICY

**Issuing Authority:** Commissioner Alexander B. Grannis

**Date Issued:** November 3, 2009

**Latest Date Revised:**

### I. Summary:

Groundwater monitoring wells provide essential access to the subsurface for scientific and engineering investigations (including monitoring wells installed for leak detection purposes). To a degree, every monitoring well is an environmental liability because of the potential to act as a conduit for pollution to reach the groundwater. To limit the environmental risk, a groundwater monitoring well must be properly decommissioned when its effective life has been reached. This document provides procedures to satisfactorily decommission groundwater monitoring wells in New York State. This policy also pertains to other temporary wells such as observation wells, test wells, de-watering wells and other small diameter, non-potable water wells. It does not pertain to water supply wells.

### II. Policy:

Environmental monitoring wells should be decommissioned when:

1. they are no longer needed and re-use by another program is not an option; or
2. the well's integrity is suspect or compromised.

The method for decommissioning will be determined based upon well construction and environmental parameters. The method selected must be designed to protect groundwater and implemented according to current best engineering practices while following all applicable federal, state and local regulations. *Groundwater Monitoring Well Decommissioning Procedures* shall be maintained as an addendum to this policy.

This policy is applicable to all New York State Department of Environmental Conservation (DEC) programs that install, utilize and maintain monitoring wells for the study of groundwater, except monitoring wells for landfills regulated under 6 NYCRR Part 360 decommissioned in accordance with those regulations [see 6 NYCRR 360-2.11(a)(8)(vi)] and wells installed under the Oil, Gas and Solution Mining Law, Environmental Conservation Law Article 23. There is no specific time frame to dictate when to decommission a well; timing is dependent upon the use and condition of the well

and shall be determined on an individual basis. Best professional judgment must be exercised when using the decommissioning procedures. Outside of DEC use, this policy is mandatory when incorporated into the specifications of a state contract, an Order on Consent or a permit. In all other situations, it shall serve as guidance.

### **III. Purpose and Background:**

This document establishes a monitoring well decommissioning policy and provides technical guidance. Synonyms for well decommissioning include “plugging,” “capping” and “abandoning. For consistency, only the term “decommissioning” is used within this document.

Unprotected, neglected and improperly abandoned monitoring wells are a serious environmental liability. They can function as a pollution conduit for surface contaminants to reach the subsurface and pollute our groundwater. They also can cause unwanted mixing of groundwater, which degrades the overall water quality within an aquifer. Improperly constructed, poorly maintained or damaged monitoring wells can yield anomalous poor data that can compromise the findings of an environmental investigation or remediation project. Unneeded or compromised monitoring wells should be properly decommissioned in order to prevent harm to our groundwater.

Since 1980, the DEC has installed, directed or overseen the installation of thousands of monitoring wells throughout New York for various state and federal programs, such as Superfund, solid waste, Resource Conservation and Recovery Act (RCRA), spill response, petroleum bulk storage and chemical bulk storage. This guidance addresses the environmental liability associated with this aging network of wells.

Within its boring zone, a successfully decommissioned well prevents the following:

1. Migration of existing or future contaminants into an aquifer or between aquifers;
2. Migration of existing or future contaminants within the vadose zone;
3. Potential for vertical or horizontal migration of fluids in the well or adjacent to the well; and
4. Any change in the aquifer yield and hydrostatic head, unless due to natural conditions.

Monitoring well construction in New York varies considerably with factors such as age of the well, local geology and either the presence or absence of contamination. The predominant type of monitoring well in New York is the shallow, watertable monitoring well constructed of polyvinyl chloride plastic (PVC). The best method for decommissioning should be selected to suit the conditions and circumstances. Each decommissioning situation is to be evaluated separately using this guidance before a method is chosen and implemented.

## **IV. Responsibility:**

The Division of Environmental Remediation (DER) is responsible for updating this policy and the *Groundwater Monitoring Well Decommissioning Procedures* (addendum) in consultation with the Division of Solid and Hazardous Materials (DSHM) and the Division of Water (DOW). Compliance with the guidance does not relieve any party of the obligation to properly decommission a monitoring well. Oversight responsibility will be carried out by the DEC Regional Engineer.

## **V. Procedure:**

*Groundwater Monitoring Well Decommissioning Procedures*, the addendum to this policy, provides guidance on proper decommissioning of monitoring wells in New York State.

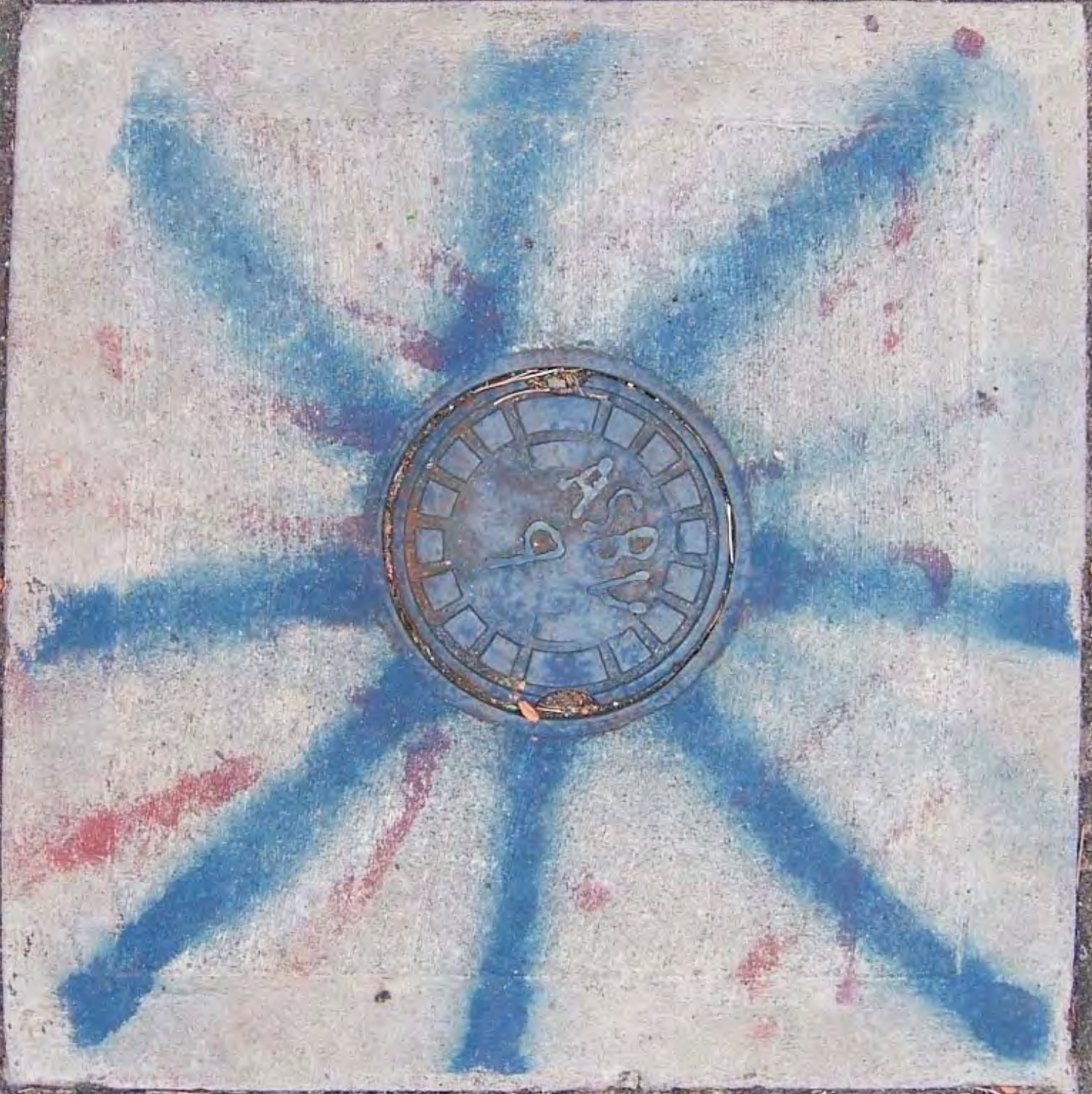
## **VI. Related References:**

- Groundwater Monitoring Well Decommissioning Procedures, October 1986. Prepared by Malcolm Pirnie, Inc. for the New York State Department of Environmental Conservation, Division of Environmental Remediation.
- Standard Guide for the Decommissioning of Ground Water Wells, Vadose Zone Monitoring Devices, Boreholes, and Other Devices for Environmental Activities, ASTM D 5299-99. American Society for Testing and Materials (ASTM). Philadelphia. 2005.
- 6 NYCRR Part 360 Solid Waste Management Facilities, New York State Department of Environmental Conservation, Division of Solid and Hazardous Materials.
- Specifications for Abandoning Wells and Boreholes in Unconsolidated Materials, New York State Department of Environmental Conservation, Region 1 - Water Unit, undated.
- Handbook of Suggested Practices for the Design and Installation of Groundwater Monitoring Wells, EPA 600/4-89/034, United States Environmental Protection Agency (EPA).

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**Final - August 2009**

# **GROUNDWATER MONITORING WELL DECOMMISSIONING PROCEDURES**



**New York State Department of Environmental Conservation  
Division of Environmental Remediation**

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## **FIGURES**

FIGURE 1 - MONITORING WELL FIELD INSPECTION LOG

FIGURE 2 - DECOMMISSIONING PROCEDURE SELECTION

FIGURE 3 - WELL DECOMMISSIONING RECORD

## **APPENDICES**

APPENDIX A - REPORTS

APPENDIX A1 - INSPECTOR'S DAILY REPORT

APPENDIX A2 - PROBLEM IDENTIFICATION REPORT

APPENDIX A3 - CORRECTIVE MEASURES REPORT

## INTRODUCTION

This document, *Groundwater Monitoring Well Decommissioning Procedures*, is the addendum to CP-43, Groundwater Monitoring Well Decommissioning Policy, which provides acceptable procedures to be used as guidance when decommissioning monitoring wells in New York State. Please note that this document does not address some site-specific special situations that may be encountered in the field. Compliance with the procedures set forth in this document does not relieve any party of the obligation to properly decommission a monitoring well.

Unprotected, neglected and improperly abandoned monitoring wells are a serious environmental liability. They can function as a pollution conduit for surface contaminants to reach the subsurface and pollute our groundwater. They also can cause unwanted mixing of groundwater, which degrades the overall water quality within an aquifer. Improperly constructed, poorly maintained or damaged monitoring wells can yield anomalous poor data that can compromise the findings of an environmental investigation or remediation project. Unneeded or compromised monitoring wells should be properly decommissioned in order to prevent harm to our groundwater.

Previous versions of this guidance have been issued since 1995. Originally developed as a specification for well decommissioning at Love Canal, the procedures were rewritten to make them applicable across the state. From an engineering standpoint, the guidance has changed very little. Most situations do not require a complex procedure.

If you have any questions, please contact Will Welling at (518) 402-9814.

Sincerely,



Gerald J. Rider, Jr., P.E.  
Chief, Remedial Section D  
Remedial Bureau E  
Division of Environmental Remediation

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## 1.0 PREPARATION

If an unneeded monitoring well remains in good usable condition, an alternative to decommissioning might be the reuse by another agency program. DEC encourages reuse in situations where a well will continue to be used and cared for responsibly.

When reuse is not an option, the first step in the well decommissioning process is to review all pertinent well construction information. One must know the well depth and construction details. GPS coordinates and permanent labeling (if available) will be useful in confirming the well to be decommissioned. An inspection must be performed prior to decommissioning in order to verify the construction and condition of each well. Specific details and subsurface conditions form the basis for decisions throughout the decommissioning process.

## **Well Details**

1. Is the well a single stem riser (all one diameter)?
2. Is the well a simple overburden well (no penetration into bedrock)?
3. Does the well riser consist of telescoping diameters of pipe which decrease with depth?
4. Is the well seal compromised (leaking, inadequate or damaged)?
5. If the well is PVC, is it 25 feet or shallower and not grouted into rock?
6. Can the riser be pulled and is removal of the well desired?
7. Is the well a bedrock well?
8. If the monitoring well is a bedrock well, does it have an open hole?
9. Is there a well assembly (riser and screen) installed within the bedrock hole?

## **Subsurface Conditions**

10. Is the soil contaminated?
11. Does the well penetrate a confining layer?
12. If the well penetrates a confining layer, might overdrilling or casing pulling cause contamination to travel up or down through a break in the confining layer?
13. Does the screened interval cross multiple water-bearing zones?

For additional collection and verification of information, the "Monitoring Well Field Inspection Log" (Figure 1) can be used during a field inspection. After the well has been located and the information gathered, one is ready to select the decommissioning procedure in accordance with Section 2.

Special conditions, such as access problems, well extensions through capped and covered non-Part 360 landfills and seasonal weather patterns affecting construction, should be assessed in the planning stage. Decommissioning work requiring the use of heavy vehicular equipment on landfill caps should be scheduled during dry weather (if possible) so as to minimize damage to the cover. If work must be performed during the spring, winter or inclement weather, special measures to reduce ruts should be employed to maintain the integrity of a completed landfill cover system. As an example, placement of plywood under vehicular equipment can eliminate deep ruts that would require repair.

## **2.0 DECOMMISSIONING METHODS**

The primary rationale for well decommissioning is to remove any potential groundwater pathway. A secondary rationale, often important to the property owner or owner of the well, is to physically remove the well. Removed well materials may be recycled and will not interfere with future construction excavation. The previous versions of these decommissioning procedures have stressed that physical removal of the well by pulling is preferable to leaving casing in the ground. Due to the added effort, expense and risk involved with pulling, the decision of whether to pull or not should be a separate consideration aside from selecting the sealing procedure.

One should select a decommissioning procedure that takes into account the geologic and hydrogeologic conditions at the well site; the presence or absence of contamination in the groundwater; and original well construction details. The selection process for well decommissioning procedures is provided by the flow chart, Figure 2. Answers to the questions

in the preceding section are the input for this flow chart. The four primary well decommissioning methods are:

1. Grouting in-place;
2. Perforating the casing followed by grouting in-place;
3. Grouting in-place followed by casing pulling;
4. Over-drilling and grouting with or without a temporary casing.

In a complex situation, one or more decommissioning procedures may be used for different intervals of the same well.

The remainder of Section 2 discusses the well decommissioning methods and the selection process. Refer to Figure 2 for a flow chart diagram of the complete procedure selection process. The DEC Project Manager has the discretion to deviate from the flow chart, (Figure 2), based on site conditions and professional judgment.

## **2.1 Grouting In-Place**

Grouting in-place is the simplest and most frequently used well decommissioning method and grouting itself is the essential component of all the decommissioning methods. The grout seals the borehole and any portion of the monitoring well that may be left in the ground. Because dirt and foreign objects can fall into an open well, whenever possible a well should be sealed first with grout before attempting subsequent decommissioning steps.

For the purpose of these decommissioning procedures, the well seal is defined as the bentonite seal above the sand pack. Aside from obvious channeling by in-flowing surface water around the well, an indication of the well seal integrity may be obtained through review of the boring logs and/or a comparison of groundwater elevations if the well is part of a cluster. Any problems noted on the boring logs pertaining to the well seal, such as bridging of bentonite pellets or running sands, or disparities between field notes (if available) and the well log would indicate the potential for a poor (compromised) well seal.

If the well seal is not compromised and there is no confining layer present, a single-stem, 2-inch PVC, monitoring well can be satisfactorily decommissioned by grouting it in-place. If the seal is compromised, casing perforation may be called for as discussed in Section 2.2.

As discussed in Section 2.4 and its sub-sections, this method is specified for the bedrock portion of a well, and is used for decommissioning small diameter cased wells. Grouting in-place involves filling the casing with grout to a level of five feet below the land surface, cutting the well casing at the five-foot depth, and removing the top portion of the casing and associated well materials from the ground. The casing must be grouted according to the procedures in Section 6. In addition, the upper five feet of the borehole is filled to land surface and restored according to the procedures described in Section 7.

For open-hole bedrock wells, the procedure involves filling the opening with grout to the top of rock according to the procedures in Section 5. A thicker grout may be required to fill any bedrock voids. If excessive grout is being lost down-hole, consider grouting in stages to reduce the pressure caused by the height of the grout column.

The standard mix with the maximum amount of allowable water will be required to penetrate the well screen and sand pack when a well assembly has been installed within a bedrock hole. For an assembly such as this, the grout should be mixed thinly enough to penetrate the slots and sand pack. The grout mixes are discussed in Sections 6.1 and 6.2.

## **2.2 Casing Perforating/Grouting In-Place**

Casing perforation followed by grouting in-place is the preferred method to use if there is poor documentation of the grouting of the well annulus, or the annulus was allowed to be back-filled with cuttings. The grout will squeeze through the perforations to seal any porous zones along the outside of the casing. The procedure involves puncturing, cutting or splitting the well casing and screen followed by grouting the well. A variety of commercial equipment is available for perforating casings and screens in wells with four-inch or larger inside diameters. Due to the diversity of applications, experienced contractors must recommend a specific technique based on site-specific conditions. A minimum of four rows of perforations several inches long around the circumference of the pipe and a minimum of five perforations per linear foot of casing or screen is recommended (American Society for Testing and Materials, Standard D 5299-99, 1999). After the perforating is complete, the borehole must be grouted according to the procedures in Section 6 and the upper five feet of borehole restored according to the procedures in Section 7.

## **2.3 Casing Pulling**

Casing pulling should be used in cases where the materials of the well assembly are to be recycled, or the well assembly must be removed to clear the site for future excavation or re-development. Casing pulling is an acceptable method to use when no contamination is present; contamination is present but the well does not penetrate a confining layer; and when both contamination and a confining layer are present but the contamination cannot cross the confining layer. Additionally, the well construction materials and well depth must be such that pulling will not break the riser. When contamination is likely to cross the confining layer during pulling, a temporary casing can be used. See Section 2.4.

Casing pulling involves removing the well casing by lifting. Grout is to be added during pulling; the grout will fill the space once occupied by the material being withdrawn. An acceptable procedure to remove casing involves puncturing the bottom of the well or using a casing cutter to cut away the screen, grouting, using jacks to free casing from the hole, and lifting the casing out by using a drill rig, backhoe, crane, or other suitable equipment. Additional grout must be added to the casing as it is withdrawn. Grout mixing and placement procedures are provided in Section 6. In wells or well points in which the bottom cannot be punctured, the casing or screened interval will be perforated or cut away prior to being filled with grout. This procedure should be followed for wells installed in collapsible formations or for highly contaminated wells.

At sites in which well casings have been grouted into the top of bedrock, the casing pulling procedure should not be attempted unless the casing can be first cut or freed from the rock.

## 2.4 Over-Drilling

Over-drilling is the technique used to physically remove an entire monitoring well, its sand pack and the old grout column and fill. In situations where PVC screens and risers are expected to sever and removal of all well materials is required, over-drilling will be required. Over-drilling is called for when a riser can't be pulled and it penetrates a confining layer. Compared to the other procedures, over-drilling is the least common method of well decommissioning.

A "temporary casing" may be necessary when extraordinary conditions are present, such as a high concentration of mobile contaminants in the overburden, depth to water is shallow, there is poor construction documentation or shoddy construction practices. The approach involves installing a large diameter steel casing around the outside of the well followed by drilling / pulling / grouting within this casing. The casing is withdrawn at the end of pulling, grouting and (perhaps) drilling. If the confining layer is less than 5 feet thick, the casing should be installed to the top of the confining layer. Otherwise, it is installed to a depth of 2 feet below the top of the confining layer. After the outer casing has been set, the well can be removed and grouted through pulling if possible or removed and grouted by drilling inside the casing.

Over-drilling is used where casing pulling is determined to be unfeasible, or where installation of a temporary casing is necessary to prevent cross-contamination, such as when a confining layer is present and contamination in the deeper aquifer could migrate to the upper aquifer as the well is pulled. The over-drilling method should:

- Follow the original well bore;
- Create a borehole of the same or greater diameter than the original boring; and
- Remove all of the well construction materials.

In over-drilling the difficulty lies in keeping the augers centered on the old well as the bit is lowered; it will tend to wander off. As a precaution, the well column should be filled with grout before over-drilling. Then without allowing the grout to dry, the driller proceeds with over-drilling the well. Grouting first guarantees that if the drill wanders off the old well and the effort is less than 100% successful, the remaining well portion will at least have been grouted. There are many methods for over-drilling. Please note that the following methods are not suitable for all types of casing, and the advice of an experienced driller should be sought.

- Conventional augering (i.e., a hollow stem auger fitted with a pilot bit). The pilot bit will grind the well construction materials, which will be brought to the well surface by the auger.
- A conventional cable tool rig to advance "temporary" casing having a larger diameter than the original boring. The cable tool kit is advanced within the casing to grind the well construction materials and soils, which are periodically removed with large diameter bailer. This method is not applicable to bedrock wells.

- An over-reaming tool with a pilot bit nearly the same size as the inside diameter of the casing and a reaming bit slightly larger than the original borehole diameter. This method can be used for wells with steel casings.
- A hollow-stem auger with outward facing carbide cutting teeth having a diameter two to four inches larger than the casing.

Prior to over-drilling, the bottom of the well should be perforated or cut away, and the casing filled with grout as with casing removal by pulling.

In all cases above, over-drilling should advance beyond the original bore depth by a distance of half a foot to ensure complete removal of the construction materials. Oversight attention should be focused on the drill cuttings, looking for fragments of well materials. Absence of these indicators is a sign that the drill has wandered off the well. If wandering is suspected, having previously filled the well with grout, the remaining portion which cannot be over-drilled can be considered grouted in-place. When the over-drilling is complete, grout should be tremied within the annular space between the augers and well casings. The grout level in the borehole should be maintained as the drilling equipment and well materials are sequentially removed. As with all the other methods, the upper five feet of borehole should be restored according to the procedures in Section 7.

### **3.0 SELECTION PROCESS AND IMPLEMENTATION**

The decommissioning procedure selection flow chart, Figure 2, is to be used to select decommissioning methods. The selection process first identifies the basic monitoring well type. There are only two types of monitoring wells described in this guidance, overburden wells and bedrock wells. Bedrock wells typically have an overburden portion which in the selection process is to be treated as an overburden well. Techniques are specified for wells based upon their type and the other physical conditions present. Decommissioning techniques called for by the selection process have their practical limits; construction details dictate when a well stem can be pulled without breaking and when it cannot be pulled. The DEC project manager has the discretion to deviate from the flow chart, (Figure 2), based on site conditions, budgetary concerns and professional judgment. The remainder of this section will discuss types of monitoring wells in various settings along with recommended decommissioning techniques.

#### **3.1 Bedrock Wells**

Referring to Figure 2 and Section 2.1, if the well extends into bedrock, the rock hole portion of the well is to be grouted in-place to the top of the rock. The grout mix, however, may vary according to the conditions. A thicker grout may be required to fill voids and a thinner grout may be necessary to penetrate well screen and sand pack. Refer to the grout mixture specifications given in Section 6.1 and 6.2.

Prior to grouting, the depth of the well will be measured to determine if any silt or debris has plugged the well. If plugging has occurred, all reasonable attempts to clear it should be made before grouting. The borehole will then be tremie grouted according to Section 6.4 from the bottom of the well to the top of bedrock to ensure a continuous grout column.

After the rock hole is grouted, the overburden portion of the well is decommissioned using appropriate techniques described below. If the bedrock extends to the ground surface, grouting can extend to the ground surface or to slightly below so that the site can be restored as appropriate in accordance with Section 7.

### **3.2 Uncontaminated Overburden Wells**

For overburden wells and the overburden portion of bedrock wells, the first factor in determining the decommissioning method is whether the overburden portion of the well exhibits contamination, as determined through historical groundwater and/or soil sampling results. If the overburden is uncontaminated, the next criteria considers whether the well penetrates a confining layer. In the case that the overburden portion of the well does not penetrate a confining layer, the casing can either be tremie-grouted and pulled or tremie grouted and left in place. As a general rule, PVC wells greater than 25-feet deep should not be pulled unless site-specific conditions or other factors indicate that the well can be pulled without breaking. If the well cannot be pulled, the well should be grouted in-place as accordance with Sections 2.1 and 2.2.

If a non-telescoped overburden well penetrates a confining layer, the casing should be removed by pulling (if possible) in accordance with Section 2.3. If the casing cannot be removed by pulling, the well should be grouted in-place or where complete removal is required, removed by over-drilling. Over-drilling will be based upon the site-specific conditions and requirements. If pulling is attempted and fails (i.e., a portion of the riser breaks) the remaining portion of the well should be removed by using the conventional augering procedure identified in Section 2.4. Note that if the riser is broken during pulling, it is highly unlikely that the driller will be able to target it to over-drill it. This is the reason why all wells should be grouted first. In all cases, after the well construction materials have been removed to the extent possible, the borehole will be grouted in accordance with Section 6 and the upper five feet will be restored in accordance with Section 7.

### **3.3 Contaminated Overburden Monitoring Wells/Piezometers**

Contamination in the overburden plays a role in the selection process. Any contamination present in the overburden must not be allowed to spread as a result of the decommissioning construction. For wells and piezometers suspected or known to be contaminated with light non-aqueous phase liquid (LNAPL) and/or dense non-aqueous phase liquid (DNAPL), often referred to as “product,” the decision to decommission the well should be reviewed. Such gross contamination is a special condition and requires design of the decommissioning procedure. If decommissioning is determined to be the proper course of action, measurement of the non-aqueous phase liquid volume will be determined and this liquid will be removed.

If an overburden well (or the overburden portion of a bedrock well) is contaminated with LNAPL, DNAPL and /or dissolved fractions as indicated by historical sampling results, one must evaluate the potential for contamination to cross an overburden confining layer (if one exists) during decommissioning. A rock or soil horizon of very low permeability is known as a confining layer. Contamination in the overburden lying above a confining layer is a significant condition to recognize. To prevent mobile contaminants from crossing a confining layer during pulling or over-drilling, a temporary casing should be installed to isolate the work zone. One should follow the procedure selection flow chart. Some contaminated conditions call for over-

drilling or a specially designed procedure.

A well in contaminated overburden may be grouted in-place as long as the grout fully seals the well and boring zone. If a well in contaminated overburden was constructed allowing formation collapse as annular backfill or if the well has a compromised well seal, one must either physically remove the well or thoroughly perforate the riser and grout it in-place.

If physical removal of the well is required and the overburden contaminants are likely to be dragged upward or downward during decommissioning, a temporary casing should be used to seal off the construction work zone. Casing pulling and overdrilling can be safely accomplished within the temporary casing. Section 2.4 discusses the temporary casing technique.

### **3.4 Telescoped Riser**

If the riser is telescoped in one or more outer casings, the decommissioning approach depends upon the integrity of the well seal. If there is no evidence that the well seal integrity is compromised, the riser should be grouted in-place in accordance with Sections 2.1 or 2.2 and the upper 5 feet of the well surface should be restored in accordance with Section 7. If indications are that the well seal is not competent, it will be necessary to design and implement a special procedure to perforate and grout or remove the well construction materials. The presence and configuration of the outer casing(s) will be specific in the individual wells and will be a key factor in the decommissioning approach. The special procedure must mitigate the potential for cross-contamination during removal of the well construction materials.

## **4.0 LOCATING AND SETTING-UP ON THE WELL**

Prior to mobilizing to decommission a monitoring well, one should notify the property owner and/or other interested parties including the governing regulatory agency. It is advisable that when at the well location, one should review the proposed well decommissioning procedure. Verify well locations and identification by their identifying markers and GPS coordinates. Lastly, verify the depth of each well with respect to depth recorded on the well construction log.

## **5.0 REMOVING THE PROTECTIVE CASING**

Most monitoring wells installed in non-traffic locations are finished with an elevated, protective casing (guard pipe) and a concrete rain pad. Wells at gasoline stations, usually being in high-traffic areas, are typically finished with a flush-mount, curb box and protective 8" dia steel inspection plate rather than a stick-up riser. The curb box is usually easily removed from around the flush-mount well before pulling or over-drilling. In the case of stick-up wells, the riser pipe may be bonded to the guard pipe and rain pad. When the protective casing and concrete pad of a stick-up monitoring well are "yanked out," a PVC riser will typically break off at the bottom of the guard pipe several feet below grade. Once this happens, it may become impossible to center a drill rig upon the well. The riser may become splintered and structurally unstable for pulling. Unless grouted first, the well may fill with dirt. Before pulling a casing or over-drilling a well, a method must be devised for removing these protective surface pieces without jeopardizing the remaining decommissioning effort.

Generally, unless the protective casing is loose and can be safely lifted off by hand, *one*

*should fill the monitoring well with grout before removing the outer protective casing.* This will ensure that the well is properly sealed regardless of any problems later when removing the protective casing. Remove the protective casing or road box vault initially only if the stick-up or vault will interfere with subsequent down-hole work which must be done before grouting. This down-hole work may include puncturing, perforating or cutting the screen or riser. But as a general procedure don't remove the protective casing or road box until after initial grouting is complete.

The procedure for removing the protective casing of a well depends upon the decommissioning method specified for the monitoring well. The variety of protective casings available preclude developing a specific removal procedure but often one can simply break up the concrete seal surrounding the casing and jack or hoist the protective casing out of the ground. A check should be made during pulling to ensure that the inner well casing is not being hoisted with the protective casing. If this occurs, the well casing should be cut off after the base of the protective casing is lifted above the land surface. At well locations where the riser has been extended, the burial of a previous concrete pad may require the excavation of soil to the top of the concrete pad to remove the well.

Steel well casing should be removed approximately five feet below the land surface so as to be below the frost line and out of the way of any subsequent shallow digging. The upper five feet of casing and the protective casing can be removed in one operation if a casing cutter is used.

Waste handling and disposal must be consistent with the methods used for the other well materials unless an alternate disposal method can be employed (i.e., steam cleaning followed by disposal as non-hazardous waste).

## **6.0 SELECTING, MIXING, AND PLACING GROUT**

This section gives recipes for the “standard grout mixture” and the thicker “special grout mixture.” Mixing and placing grout is also discussed in this section. The goal of well decommissioning is to eliminate the capability of water to travel up or down within the volume of the former well and its boring. Success depends upon the correct grout mixture and placement where it is needed. There are two types of grout mixes that may be used to seal monitoring wells: a standard mix and a special mix. Both mixes use Type 1 Portland cement and four percent bentonite by weight. However, the special mix uses a smaller volume of water and is used in situations where excessive loss of the standard grout mix is possible (e.g., highly-fractured bedrock or coarse gravels).

### **6.1 Standard Grout Mixture**

For most boreholes, the following standard mixture will be used:

- One 94-pound bag Type I Portland cement;
- 3.9 pounds powdered bentonite; and
- 7.8 gallons potable water.

Slightly more water may be used in order to penetrate a sand pack when a well screen transects multiple flow zones. This mixture results in a grout with a bentonite content of four percent by weight and will be used in all cases except in boreholes where excessive use of grout is anticipated. In these cases a special thicker mixture will be used.

## **6.2 Special Mixture**

In cases where excessive use of grout is anticipated, such as high permeability formations and highly fractured or cavernous bedrock formations, the following special mixture will be used:

- one 94-pound bag type I Portland cement;
- 3.9 pounds powdered bentonite;
- 1 pound calcium chloride; and
- 6.0-7.8 gallons potable water (depending on desired thickness).

The special mixture results in a grout with a bentonite content of four percent by dry weight. It is thicker than the standard mixture because it contains less water. This grout is expected to set faster than the Standard Grout Mixture due to the added calcium chloride. The least amount of water that can be added for the mixture to be readily pumpable is 6 gallons per 94-pound bag of cement.

## **6.3 Grout Mixing Procedure**

To begin the grout-mixing procedure, calculate the volume of grout required to fill the borehole. If possible, the mixing basin should be large enough to hold all of the grout necessary for the borehole.

Mix grout until a smooth, homogeneous mixture is achieved. Grout can be mixed manually or with a mechanized mixer. Colloidal mixers should not be used as they tend to excessively decrease the thickness of the grout for the above recipes.

## **6.4 Grout Placement**

This guidance requires that grout be placed in the well from the bottom to the top by means of a "tremie." A tremie is a pipe, a hose or a tube extending from the grout supply to the bottom of the well. The tremie delivers the grout all the way down through the water column without its being diluted and mixed with the water that may be present in the well. The tremie pipe or tube is withdrawn as (or after) the well is filled with grout.

Using the tremie, grout is placed in the borehole filling from the bottom to the top. Two-inch and larger wells should use tremie tubing of not less than 1-inch diameter. Smaller diameter wells will call for a smaller tremie pipe. Grout will then be pumped in until the grout appears at the land surface (when grouting open holes in bedrock, the grout level only needs to reach above the bedrock surface). Any groundwater displaced during grout placement, if known to be contaminated, will be contained for proper disposal.

At this time the rate of settling should be observed. If grouting the well in place, the well

casing remains in the hole. But if the decommissioning method has involved down-hole tools such as hollow-stem augers or temporary casing for overdrilling, these will be removed from the hole. As each section is removed, grout will be added to keep the level between 0 and 5 feet below grade. If the grout level drops below the land surface to an excessive degree, an alternate grouting method must be used. One possibility is to grout in stages; i.e., the first batch of grout is allowed to partially cure before a second batch of grout is added.

As previously described in Section 5.0, the outer protective casing "stick-up" should be removed only after a well has been properly filled with grout. This will ensure that the well is properly sealed regardless of any breakage which may occur when removing the stick-up. It is important to reiterate that when either casing pulling or over-drilling are required, due to the uncertainty of successfully pulling a well or over-boring a well, we insist that the driller tremie grout the well first. Then without allowing the grout to dry, the driller proceeds with pulling the casing or over-drilling the well.

Upon completion of grouting, ensure that the final grout level is approximately five feet below land surface. A ferrous metal marker will be embedded in the top of the grout to indicate the location of the former monitoring well. Lastly, a fabric "utility" marking should be placed one foot above the grout so an excavator can see it clearly.

## **7.0 BACKFILLING AND SITE RESTORATION**

The uppermost five feet of the borehole at the land surface should be filled with material physically similar to the natural soils. The surface of the borehole should be restored to the condition of the area surrounding the borehole. For example, concrete or asphalt will be patched with concrete or asphalt of the same type and thickness, grassed areas will be seeded, and topsoil will be used in other areas. All solid waste materials generated during the decommissioning process must be disposed of properly.

## **8.0 DOCUMENTATION**

A form which may be used in the field to record the decommissioning construction is included as Figure 3. Additional documentation may be required by a DEC project manager and samples are included in Appendix A. Programs within the DEC that maintain geographic data on monitoring wells strive to keep that data up to date. Owners of these data sets must be notified when a well is decommissioned. Historical groundwater quality data is linked to monitoring well locations so when a well is decommissioned, existing GIS data must be updated to reflect that fact but the coordinate location in the GIS database should not be eliminated. A metal detector may not be able to detect a deeply buried marker so if this locator is important for future utility runs or foundations, a map should be submitted to the property owner and the town engineer showing the decommissioned well locations. Global Positioning System (GPS) coordinates should be indicated on this map. Lastly, whatever documentation is produced should be provided to the property owner, the DEC, and all other parties involved.

## 9.0 FIELD OVERSIGHT

Over-drilling requires careful observation to detect whether the drill has wandered off the well. Grout preparation and tremie work should be carefully observed. The successful implementation of a decommissioning work plan depends upon proper direction, observation and oversight. Methods to be employed must be clearly worked through and all parties must understand what they have to do before going into the field. Flexibility is allowed where necessary but the work effort must be thorough and effective to protect our groundwater.

## 10.0 RELATED REFERENCES

- *Groundwater Monitoring Well Decommissioning Procedures*, October 1986. Prepared by Malcolm Pirnie, Inc., for the New York State Department of Environmental Conservation, Division of Environmental Remediation.
- American Society for Testing and Materials, A.S.T.M. D 5299-99, Standard Guide for the Decommissioning of Ground Water Wells, Vadose Zone Monitoring Devices, Boreholes, and Other Devices for Environmental Activities. A.S.T.M.. Philadelphia. 2005.
- New York State Department of Environmental Conservation, Division of Solid and Hazardous Materials, 6 NYCRR Part 360, Solid Waste Management Facilities.
- New York State Department of Environmental Conservation, Region I - Water Unit, Specifications for Abandoning Wells and Boreholes in Unconsolidated Materials, undated.
- United States Environmental Protection Agency, The Handbook of Suggested Practices for the Design and Installation of Groundwater Monitoring Wells, EPA 600/4-89/034.

## **FIGURES**

**FIGURE 1 - MONITORING WELL FIELD INSPECTION LOG**

**FIGURE 2 - DECOMMISSIONING PROCEDURE SELECTION**

**FIGURE 3 - WELL DECOMMISSIONING RECORD**

## **APPENDICES**

**APPENDIX A - REPORTS**

**APPENDIX A1 - INSPECTOR'S DAILY REPORT**

**APPENDIX A2 - PROBLEM IDENTIFICATION REPORT**

**APPENDIX A3 - CORRECTIVE MEASURES REPORT**

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**FIGURE 1**

**MONITORING WELL FIELD INSPECTION LOG**

FIGURE 1

SITE NAME:

MONITORING WELL FIELD INSPECTION LOG  
NYSDEC WELL DECOMMISSIONING PROGRAM

SITE ID.: \_\_\_\_\_  
INSPECTOR: \_\_\_\_\_  
DATE/TIME: \_\_\_\_\_  
WELL ID.: \_\_\_\_\_

|                                                                             | YES | NO |
|-----------------------------------------------------------------------------|-----|----|
| WELL VISIBLE? (If not, provide directions below) .....                      |     |    |
| WELL I.D. VISIBLE? .....                                                    |     |    |
| WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)..... |     |    |

|                                                                         | YES | NO |
|-------------------------------------------------------------------------|-----|----|
| WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL: .....             |     |    |
| SURFACE SEAL PRESENT? .....                                             |     |    |
| SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below) ..... |     |    |
| PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below) ..... |     |    |

HEADSPACE READING (ppm) AND INSTRUMENT USED.....  
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)  
PROTECTIVE CASING MATERIAL TYPE: .....  
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): .....

|                                                                          | YES | NO |
|--------------------------------------------------------------------------|-----|----|
| LOCK PRESENT? .....                                                      |     |    |
| LOCK FUNCTIONAL? .....                                                   |     |    |
| DID YOU REPLACE THE LOCK? .....                                          |     |    |
| IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below) |     |    |
| WELL MEASURING POINT VISIBLE? .....                                      |     |    |

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): .....  
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): .....  
MEASURE WELL DIAMETER (Inches): .....  
WELL CASING MATERIAL: .....  
PHYSICAL CONDITION OF VISIBLE WELL CASING: .....  
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE .....  
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES.....

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

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DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.)  
AND ASSESS THE TYPE OF RESTORATION REQUIRED.

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IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT  
(e.g. Gas station, salt pile, etc.):

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REMARKS:

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**FIGURE 2**

**DECOMMISSIONING PROCEDURE SELECTION**



## NYSDEC Monitoring Well Decommissioning Procedure Selection

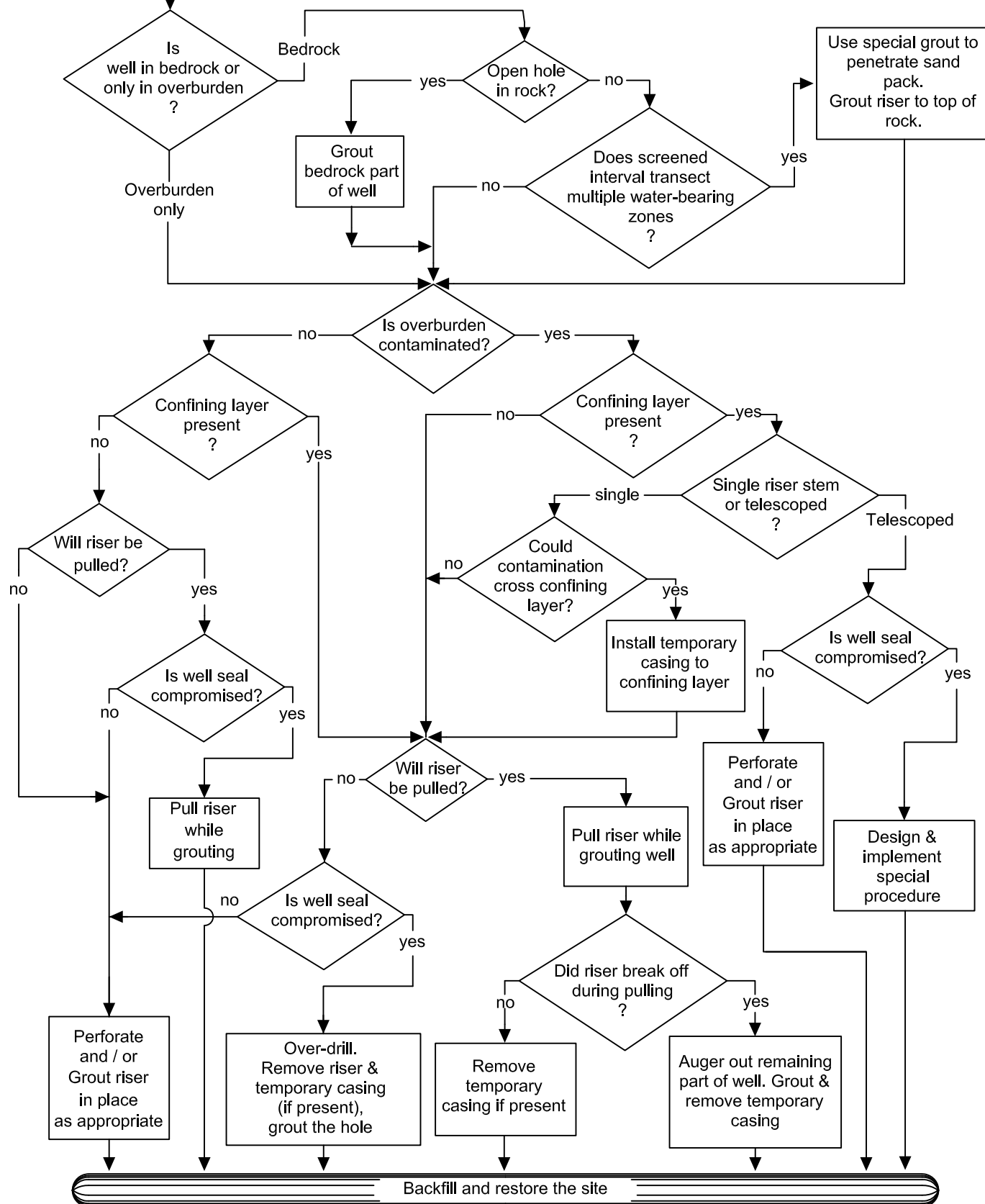


FIGURE 2

**FIGURE 3**

**WELL DECOMMISSIONING RECORD**

|                                                       |
|-------------------------------------------------------|
| <b>FIGURE 3</b><br><b>WELL DECOMMISSIONING RECORD</b> |
|-------------------------------------------------------|

|                |            |
|----------------|------------|
| Site Name:     | Well I.D.: |
| Site Location: | Driller:   |
| Drilling Co.:  | Inspector: |
|                | Date:      |

| <b>DECOMMISSIONING DATA</b><br>(Fill in all that apply)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>WELL SCHEMATIC*</b>                                                                                                                                                                                                                                                                  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| <b><u>OVERDRILLING</u></b><br>Interval Drilled <input style="width: 100px;" type="text"/><br>Drilling Method(s) <input style="width: 100px;" type="text"/><br>Borehole Dia. (in.) <input style="width: 100px;" type="text"/><br>Temporary Casing Installed? (y/n) <input style="width: 100px;" type="text"/><br>Depth temporary casing installed <input style="width: 100px;" type="text"/><br>Casing type/dia. (in.) <input style="width: 100px;" type="text"/><br>Method of installing <input style="width: 100px;" type="text"/>                                                                                                                                                                                                          | <div style="display: flex;"> <div style="flex: 1;"> <b>Depth<br/>(feet)</b><br/> <div style="display: flex; align-items: center;"> <div style="flex: 1; border-bottom: 1px solid black; margin-bottom: 5px;"></div> <div style="flex: 1; border-left: 1px solid black; border-right: 1px solid black; position: relative; height: 100px;"> <!-- Depth scale markings --> <div style="position: absolute; top: 0; left: 0; right: 0; height: 10px; border-bottom: 1px solid black;"></div> <div style="position: absolute; top: 10px; left: 0; right: 0; height: 10px; border-bottom: 1px solid black;"></div> <div style="position: absolute; top: 20px; left: 0; right: 0; height: 10px; border-bottom: 1px solid black;"></div> <div style="position: absolute; 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| <b><u>CASING PULLING</u></b><br>Method employed <input style="width: 100px;" type="text"/><br>Casing retrieved (feet) <input style="width: 100px;" type="text"/><br>Casing type/dia. (in) <input style="width: 100px;" type="text"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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| <b><u>CASING PERFORATING</u></b><br>Equipment used <input style="width: 100px;" type="text"/><br>Number of perforations/foot <input style="width: 100px;" type="text"/><br>Size of perforations <input style="width: 100px;" type="text"/><br>Interval perforated <input style="width: 100px;" type="text"/>                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                         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| <b><u>GROUTING</u></b><br>Interval grouted (FBLS) <input style="width: 100px;" type="text"/><br># of batches prepared <input style="width: 100px;" type="text"/><br>For each batch record:<br>Quantity of water used (gal.) <input style="width: 100px;" type="text"/><br>Quantity of cement used (lbs.) <input style="width: 100px;" type="text"/><br>Cement type <input style="width: 100px;" type="text"/><br>Quantity of bentonite used (lbs.) <input style="width: 100px;" type="text"/><br>Quantity of calcium chloride used (lbs.) <input style="width: 100px;" type="text"/><br>Volume of grout prepared (gal.) <input style="width: 100px;" type="text"/><br>Volume of grout used (gal.) <input style="width: 100px;" type="text"/> |                                                                                                                                                                                                                                                                                         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|                  |
|------------------|
| <b>COMMENTS:</b> |
|                  |
|                  |
|                  |
|                  |

\* Sketch in all relevant decommissioning data, including:  
 interval overdrilled, interval grouted, casing left in hole,  
 well stickup, etc.

Drilling Contractor \_\_\_\_\_

Department Representative \_\_\_\_\_

## **APPENDIX A - REPORTS**

**APPENDIX A1 - INSPECTOR'S DAILY REPORT**

**APPENDIX A2 - PROBLEM IDENTIFICATION REPORT**

**APPENDIX A3 - CORRECTIVE MEASURES REPORT**

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# Inspector's Daily Report

CONTRACTOR:

ADDRESS:

TELEPHONE:

LOCATION

FROM

TO

WEATHER

TEMP

A.M.

P.M.

DATE

| CONTRACTOR'S WORK FORCE AND EQUIPMENT |   |   |                   |   |   |                        |   |   |                  |   |   |
|---------------------------------------|---|---|-------------------|---|---|------------------------|---|---|------------------|---|---|
| DESCRIPTION                           | H | # | DESCRIPTION       | H | # | DESCRIPTION            | H | # | DESCRIPTION      | H | # |
| Field Engineer                        |   |   |                   |   |   | Equipment              |   |   | Front Loader Ton |   |   |
| Superintendent                        |   |   | Ironworker        |   |   | Generators             |   |   | Bulldozer        |   |   |
|                                       |   |   |                   |   |   | Welding Equip.         |   |   |                  |   |   |
| Laborer Foreman                       |   |   | Carpenter         |   |   |                        |   |   |                  |   |   |
| Laborer                               |   |   |                   |   |   |                        |   |   | Backhoe          |   |   |
| Operating Engineer                    |   |   | Concrete Finisher |   |   |                        |   |   |                  |   |   |
|                                       |   |   |                   |   |   |                        |   |   |                  |   |   |
| Carpenter                             |   |   |                   |   |   | Paving Equip. & Roller |   |   |                  |   |   |
|                                       |   |   |                   |   |   | Air compressor         |   |   |                  |   |   |

SEE REVERSE SIDE FOR SKETCH YES ☐ NO ☐

WORK PERFORMED:

## PAY ITEMS

| CONTRACT |      | STA  |    | DESCRIPTION | QUANTITY | REMARKS |
|----------|------|------|----|-------------|----------|---------|
| Number   | ITEM | FROM | TO |             |          |         |
|          |      |      |    |             |          |         |
|          |      |      |    |             |          |         |
|          |      |      |    |             |          |         |
|          |      |      |    |             |          |         |
|          |      |      |    |             |          |         |
|          |      |      |    |             |          |         |

TEST PERFORMED:

PICTURES TAKEN:

QA PERSONNEL

SIGNATURE

VISITORS:

REPORT NUMBER

SHEET \_\_\_\_\_ Of \_\_\_\_\_

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# PROBLEM IDENTIFICATION REPORT

Date \_\_\_\_\_

Project \_\_\_\_\_ Job Number \_\_\_\_\_

Contractor \_\_\_\_\_

Subject \_\_\_\_\_

Day 

|    |   |   |   |    |   |    |
|----|---|---|---|----|---|----|
| Su | M | T | W | Th | F | Sa |
|----|---|---|---|----|---|----|

| Sky/Precip. | Clear | Partly Cloudy | Cloudy | Rainy  | Snow   |
|-------------|-------|---------------|--------|--------|--------|
| TEMP.       | <32F  | 32-40F        | 40-70F | 70-80F | 80-90F |
| WIND        | No    | Light         | Strong |        |        |
| HUMIDITY    | Dry   | Mod.          | Humid  |        |        |

PROBLEM DESCRIPTION Reference Daily Report Number 1: \_\_\_\_\_

PROBLEM LOCATION - REFERENCE TEST RESULTS AND LOCATION (Note: Use sketches on back of form as appropriate):

PROBABLE CAUSES: \_\_\_\_\_

SUGGESTED CORRECTIVE MEASURES: \_\_\_\_\_

APPROVALS:

QA ENGINEER: \_\_\_\_\_

PROJECT MANAGER: \_\_\_\_\_

Distribution: 1. Project Manager  
2. Field Office  
3. File  
4. Owner

QA Personnel  
Signature: \_\_\_\_\_

## MEETINGS HELD AND RESULTS

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on its right side, suggesting it's resting on a surface.

## REMARKS

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## REFERENCES TO OTHER FORMS

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## SKETCHES

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on its right side, suggesting it's resting on a surface.

## SAMPLE LOG

SAMPLE NUMBER

APPROXIMATE LOCATION OF STOCKPILE

NUMBER OF STOCKPILE

DATE OF COLLECTION

## CLIMATIC CONDITIONS

## FIELD OBSERVATION

**CORRECTIVE MEASURES REPORT**

Date \_\_\_\_\_

Project \_\_\_\_\_ Job Number \_\_\_\_\_

Contractor \_\_\_\_\_

Subject \_\_\_\_\_

Day 

|    |   |   |   |    |   |    |
|----|---|---|---|----|---|----|
| Su | M | T | W | Th | F | Sa |
|----|---|---|---|----|---|----|

|             |       |               |        |        |        |
|-------------|-------|---------------|--------|--------|--------|
| Sky/Precip. | Clear | Partly Cloudy | Cloudy | Rainy  | Snow   |
| TEMP.       | <32F  | 32-40F        | 40-70F | 70-80F | 80-90F |
| WIND        | No    | Light         | Strong |        |        |
| HUMIDITY    | Dry   | Mod.          | Humid  |        |        |

CORRECTIVE MEASURES TAKEN (Reference Problem Identification Report No.): \_\_\_\_\_

RETESTING LOCATION: \_\_\_\_\_

SUGGESTED METHOD OF MINIMIZING RE-OCCURRENCE: \_\_\_\_\_

SUGGESTED CORRECTIVE MEASURES: \_\_\_\_\_

APPROVALS:

QA ENGINEER: \_\_\_\_\_

PROJECT MANAGER: \_\_\_\_\_

Distribution:

1. Project Manager
2. Field Office
3. File
4. Owner

QA Personnel

Signature: \_\_\_\_\_

Former Griffin Technology Site (#C835008)  
6132 Victor-Manchester Road  
Town of Farmington  
Ontario County, New York

## Periodic Review Report

Prepared for:



Auto Outlets USA  
5763 Duke of Gloucester Way  
Farmington, NY 14425

Prepared By:



280 East Broad Street, Suite 170  
Rochester, NY 14604

December 2024

## **Table of Contents**

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| 2.0 Site Overview .....                                                   | 2 |
| 3.0 Remedy Performance, Effectiveness, and Protectiveness Evaluation..... | 3 |
| 4.0 Institutional Control/Engineering Control Compliance .....            | 4 |
| 5.0 Monitoring Plan Compliance.....                                       | 5 |
| 6.0 Conclusions and Recommendations .....                                 | 7 |

## **Figures**

Figure 1 – Site Location Map

Figure 2 – Site Plan

Figure 3 – November 2024 Groundwater Analytical Results

## **Tables**

Table 1 – August 2023 Groundwater Sample Analytical Results

Tables 2-1 to 2-9 – Groundwater Results Trends

## **Attachments**

Attachment A – IC/EC Form

Attachment B – Groundwater Sampling Logs

Attachment C – Laboratory Analytical Reports

Attachment D – Site Photographs

### **Executive Summary**

The Former Griffin Technology Site #C835008 (hereinafter referred to as the “Site”), is a 3.6-acre parcel located at 6132 Victor Manchester Road in the Town of Farmington, Ontario County, New York (Figure 1). The Site was the location of Griffin Technology from 1975 to the mid-1990s and was used for photo coating operations involving the use of trichloroethene (TCE). The Site was admitted to the Brownfield Cleanup Program (BCP) on August 24, 2007, and is currently listed as a Class C New York State Department of Environmental Conservation (NYSDEC) Inactive Hazardous Waste Disposal Site (IHWDS). Remedial activities were completed by S&W Redevelopment of North American, LLC (SWRNA) on behalf of Victor Manchester, LLC in 2008.

Initial remedial methods included injecting an aqueous solution of potassium permanganate into 15 injection wells at the Site between July and September 2008. Observation and findings indicated the potassium permanganate solution had dispersed across the majority of the Site. However, the permanganate injections failed to adequately reduce levels of contaminants of concern (COCs), including several chlorinated volatile organic compounds (cVOCs). To address residual cVOC concentrations, Lu Engineers performed a round of emulsified vegetable oil (EVO) injections in December 2015, with NYSDEC oversight.

The effectiveness of the remedial actions outlined in the Site Management Plan (SMP; dated December 2008), and subsequent injections have been monitored through periodic groundwater sampling. Groundwater analytical data has fluctuated throughout the reporting periods. During the most recent sampling event (November 2024), analytical data indicated a general increase in concentrations of degradation products, including cis-1,2-dichloroethane (cis-1,2-DCE) and vinyl chloride; however, an overall reduction in cVOC concentrations has occurred on Site (with respect to baseline sampling results). Concentrations of TCE generally remained stable but included two (2) notable reductions at OW-1 and OW-2.

The implemented remedies to manage residual contamination are effective, protective and progressing towards the remedial action objectives (RAOs). The Institutional Controls (ICs) and Engineering Controls (ECs) outlined in the Monitoring and Sampling Plan, including, land and groundwater use restrictions, and adherence to an approved SMP, were fully in place and effective during this reporting period. No structures have been constructed on the Site and no change of use has occurred on the Site during this reporting period. No deficiencies were present and therefore, no corrective measures are recommended during this reporting period.

The required IC/EC certification has been completed as a component of this PRR report and a copy is included as Attachment A.

Some of the wells present on Site require future repair and/or decommissioning. Lu Engineers recommends repairing the wells to be sampled as part of the groundwater monitoring program outlined in the SMP, and decommissioning remaining non-essential wells. Refer to Section 5.0 for more information.

## 1.0 Introduction

This Periodic Review Report (PRR) was prepared by Lu Engineers, on behalf of Auto Outlets USA, in accordance with the requirements set forth in NYSDEC 'DER-10 Technical Guidance for Site Investigation and Remediation', dated May 2010, and the guidelines provided by the NYSDEC.

The following items are included in this PRR:

- Identification, assessment, and certification of all ICs required by the remedy for the Site;
- Results of the Site sampling events including applicable records generated for the Site during the reporting period;
- A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions;
- Data summary tables of groundwater contaminants of concern by media;
- Laboratory analysis results, and the required laboratory data deliverables for each sample collected during the reporting period which have been and will continue to be submitted electronically in a NYSDEC-approved EQUIS format;
- A Site evaluation, which includes the following:
  - I. The compliance of the remedy with the requirements of the SMP;
  - II. The operation and the effectiveness of each treatment unit, including identification of any needed repairs or modifications;
  - III. Any new conclusions or observations regarding Site contamination based on inspection or lab data generated during the monitoring events;
  - IV. Recommendations regarding any necessary changes to the remedy and/or SMP; and the overall performance and effectiveness of the remedy to date.

## 2.0 Site Overview

The Site is located at 6132 Victor-Manchester Road, Farmington, Ontario County, New York as indicated on the Site Location Map (Figure 1). The Brownfield Cleanup Agreement (BCA) describes the Site as consisting of Tax Parcel 29.00-1-12 and the southern quarter of parcel 29.00-1-76-1. The Site is bounded by a wooded area to the north, Victor-Manchester Road to the south, a wooded area to the east, and a commercial property to the west. The attached figures provide detail on the Site layout as well as the location of wells and other relevant features.

The Site is the location of the former Griffin Technology Site, which is a listed NYSDEC IHWDS (#835008). A Certificate of Completion, dated May 12, 2009, has been issued regarding remediation soil and groundwater contamination; the parcel is considered to be a controlled recognized environmental condition (CREC) at this time.

Griffin Technology previously operated the Site from 1975 until the mid-1990s performing photo coating (laminating) operations. TCE was believed to be present in liquid waste that was released onto the ground surface outside the western door of the Site building from approximately 1975 until 1986. It is estimated that a total of approximately 490-gallons of waste was released in 5-gallon increments over that time frame (BB&L, July 1991).



Previous environmental work includes, but is not limited to, the following:

- Interim Remedial Measures (IRM) Work Plan 1996 by Woodward-Clyde;
- Three (3) recovery wells screened in bedrock across the overburden/bedrock interface began operation in 1997;
- Fourth recovery well went into operation in 1999;
- Admittance to BCP in 2007;
- ISCO applied w/ NYSDEC-approved Remedial Design Document by SWRNA in 2008;
- SMP 2008;
- SMP PRR, S&W Redevelopment of North America, LLC in 2011;
- Corrective Measure Plan (CMP) by Labella in 2012;
- Final well sampling report (Test America, November 2013).

Surface and subsurface soil samples have not previously indicated contaminant concentrations in exceedance of applicable 6NYCRR Part 375-6.8(b) standards. CVOCs have been detected in groundwater above 6 NYCRR Part 703.5 Class GA Ambient Groundwater Quality standards. Primary contaminants of concern (COC) identified include TCE and its degradation products, cis-1,2-DCE, and vinyl chloride.

In July and September 2008, SWRNA oversaw the injection of an aqueous solution containing approximately 13,530 pounds of potassium permanganate into 15 on-site injection wells. Post injection monitoring indicated the potassium permanganate solution had evenly dispersed across the majority of the Site. Quarterly groundwater monitoring was implemented at the Site in accordance with the NYSDEC-approved SMP. Results from groundwater sampling events indicated that levels of TCE and other COCs returned to levels observed prior to the permanganate injection program.

In December 2015, Lu Engineers oversaw the injection of 640-gallons of emulsified vegetable oil (EVO) into 14 Site injection wells with NYSDEC oversight. Work was performed in accordance with the NYSDEC-approved IRM Work Plan, dated September 2014. EVO was used to capture and immobilize cVOCs in groundwater and stimulate contaminant attenuation by natural microbes. The March and June 2016 groundwater sampling events were performed in predetermined intervals to evaluate the effectiveness of the IRM. Long term management of the remaining contamination, as required by the SMP involves monitoring and reporting through controls implemented at the Site, including periodic sampling of nine (9) observation wells (OW-1 through OW-9) for VOCs.

### **3.0 Remedy Performance, Effectiveness, and Protectiveness Evaluation**

Post-remedial groundwater sampling indicates that low-level groundwater impacts persist at the Site since completion of IRMs. The following 10 groundwater sampling events have been conducted in accordance with the SMP:

- |                 |                 |
|-----------------|-----------------|
| • June 2011     | • October 2017  |
| • November 2013 | • July 2018     |
| • March 2016    | • March 2022    |
| • June 2016     | • August 2023   |
| • November 2016 | • November 2024 |



Table 1 presents a complete summary of groundwater analytical results from this reporting period. Table Group 2 illustrates cVOC concentration trends since June 2008. Groundwater sample analytical results were compared to applicable NYSDEC 6NYCRR Part 703.5 Class GA groundwater standards.

CVOC concentrations have fluctuated throughout sampling events. However, overall reductions (with respect to baseline sampling) have generally occurred on Site. From August 2023 to November 2024, analytical data indicated increases in several constituents, including TCE, cis-1,2-DCE, and vinyl chloride. It is inferred that fluctuating contaminant levels are highly correlated with fluctuations in groundwater elevations over time.

The ICs established for the Site continue to be in general compliance with the SMP. Though residual contamination exists in groundwater, the established controls effectively reduce the potential for human exposure.

#### **4.0 Institutional Control/Engineering Control Compliance**

Since remaining contaminated soil and groundwater exists beneath the Site, ICs/ECs are required to protect public health and the environment. ICs include an Environmental Easement which outlines Site use restrictions and groundwater use prohibition. The SMP did not require implementation of ECs, however, ECs may be implemented to mitigate soil vapor intrusion (SVI) in newly constructed buildings on-Site, or if the existing building is re-occupied (Refer to Section 6 of the SMP).

##### Institutional Controls (ICs)

A series of ICs is required by the Environmental Easement to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the Site to commercial uses only. Adherence to these Institutional Controls on the Site is required by the Environmental Easement and will be implemented under the SMP. These ICs include:

- The property may only be used for commercial use provided that the long-term Engineering and Institutional Controls included in this SMP are employed.
- The property may not be used for a higher level of use, such as unrestricted or residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- The use of groundwater underlying the property is prohibited without treatment rendering it safe for intended use, and approval from NYSDEC and NYSDOH;
- The potential for vapor intrusion must be evaluated for any buildings developed on the Site, and any potential impacts that are identified must be monitored or mitigated;
- The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls.

This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable (see Section 6.0); and



- Annual groundwater monitoring will be conducted to assess the performance and effectiveness of the remedy, in accordance with the SMP.

ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement; adherence to these ICs is required.

#### Engineering Controls (ECs)

ECs include:

- **SVI** – Prior to constructing any new buildings at the Site, and/or re-occupying existing structures, the owner must conduct a soil vapor investigation to evaluate potential for SVI, or install an active sub-slab depressurization system. Designs for engineering controls to mitigate SVI must be submitted to NYSDEC/NYSDOH for approval prior to occupancy. SVI mitigation is outlined in Section 6 of the SMP.
- The existing building, located on the east side of the Site, has not been completely inspected, but is generally intact and remains unoccupied.

The required IC/EC certification has been completed as a component of this report and a copy is included as Attachment A.

### **5.0 Monitoring Plan Compliance**

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site and all affected Site media identified in the table below.

| Monitoring Program     | Frequency* | Matrix      | Analysis              |
|------------------------|------------|-------------|-----------------------|
| Groundwater Monitoring | Annual     | Groundwater | EPA Method 8260 VOCs; |

\*The frequency of events will be conducted as specified until otherwise approved by NYSDEC (see Section 6.0).

Monitoring activities completed during this reporting period (2010-2024) included the following:

- Annual groundwater sampling of Site wells (OW-1 through OW-9)

#### Groundwater Sampling

The following table summarizes the details of the groundwater sampling program to be completed during each annual sampling event.

| Media Sampling and Analysis Summary |                   |                                            |           |
|-------------------------------------|-------------------|--------------------------------------------|-----------|
| Sample Type                         | Sample Location   | Analytical Parameters                      | Frequency |
| Groundwater                         | OW-1 through OW-9 | TCL VOC list compounds by EPA Method 8260B | Annual    |

Groundwater quality measurements including temperature, turbidity, pH, conductivity and oxidation reduction potential (ORP) were collected during the purging process at each well. Purge water from each well was released to the ground surface near the well. At each well, samples were collected for TCL VOC list compounds by EPA Method 8260B. Groundwater sampling logs are included as Attachment B of this report.

Tabulated groundwater analytical data is attached. The following sections summarize the analytical results within this reporting period:



#### November 2024

TCE concentrations increased slightly at OW-3, OW-8/MW-4 and OW-9/MW-3 with respect to the August 2023 sampling event. TCE concentrations decreased substantially at OW-1 and OW-2 and remained the same at OW-4 and OW-5 with respect to the August 2023 sampling event. TCE concentrations remain in exceedance of NYSDEC 6NYCRR Part 703.5 Class GA groundwater standards at: OW-1 (430 ppb), OW-2 (24 ppb), OW-03 (5.5 ppb), OW-4 (20 ppb), OW-5 (19 ppb), OW-8/MW-4 (9.9 ppb) and OW-9/MW-3 (42 ppb).

Cis-1,2-DCE concentrations increased at OW-1, 2, 3, 4, 5, 8 and 9 with respect to the August 2023 sampling event. cis-1,2-DCE concentrations remain in exceedance of NYSDEC 6NYCRR Part 703.5 Class GA groundwater standards at: OW-1 (24 ppb), OW-2 (50 ppb), OW-3 (33 ppb), OW-4 (16 ppb), OW-5 (28 ppb), OW-8/MW-4 (20 ppb) and OW-9/MW-3 (23 ppb).

Vinyl chloride concentrations increased at OW-1, 2, 3, 4, 5, 8 and 9 with respect to the August 2023 sampling event. Vinyl chloride concentrations remain in exceedance of NYSDEC 6NYCRR Part 703.5 Class GA groundwater standards at: OW-1 (4.4 ppb), OW-2 (38 ppb), OW-3 (54 ppb), OW-4 (6.7 ppb), OW-5 (10 ppb), OW-8/MW-4 (21 ppb) and OW-9/MW-3 (14 ppb).

Benzene was detected in exceedance of NYSDEC 6NYCRR Part 703.5 Class GA groundwater standards at OW-8/MW-4 at a concentration of 8.1 ppb.

It is noted OW-6 was dry and OW-7 was possibly obstructed. OW-6 and OW-7 were not included in sampling. A copy of the laboratory analytical report is included as Attachment C; a summary of analytical results and contaminant concentration trends are included in the attached tables. Samples were analyzed by ALS Environmental, a New York State Environmental Laboratory Approval Program (ELAP) certified laboratory. All sampling methods and QA/QC measures were adhered to as outlined in the approved SMP.

#### Monitoring Well Network

Some of the wells present on Site require future repair and/or decommissioning. The following table describes well conditions observed during the November 2024 sampling event:

| Well ID   | Notes                                                                           | Recommendation                             |
|-----------|---------------------------------------------------------------------------------|--------------------------------------------|
| OW-1      | Protective casing damaged; lock and cover missing; limited access for sampling. | Repair protective casing and replace lock. |
| OW-2      | Generally in good condition; missing lock.                                      | Replace lock.                              |
| OW-3      | Generally in good condition; missing lock.                                      | Replace lock.                              |
| OW-4      | Well casing upheaved; lock and cover missing.                                   | Repair protective casing and replace lock. |
| OW-5      | Missing lock and cover.                                                         | Replace lock and cover.                    |
| OW-7      | Missing lock                                                                    | --                                         |
| OW-8/MW-4 | Generally in good condition; missing lock.                                      | Replace lock and clear vegetation.         |
| OW-9/MW-3 | Generally in good condition; missing lock.                                      | Replace lock.                              |
| IW-1      | Good condition.                                                                 | --                                         |
| IW-2      | Protective casing uplifted; lock and cover broken off.                          | Repair protective casing.                  |
| IW-3      | Good condition.                                                                 | --                                         |
| IW-4      | Lock and cover broken off.                                                      | Repair protective casing.                  |
| IW-5      | Good condition.                                                                 | --                                         |
| IW-6      | Good condition.                                                                 | --                                         |



| Well ID | Notes                                                   | Recommendation                             |
|---------|---------------------------------------------------------|--------------------------------------------|
| IW-7    | Good condition.                                         | --                                         |
| IW-8    | Good condition.                                         | --                                         |
| IW-9    | Surface completion destroyed.                           | Decommission to extent practicable.        |
| IW-10   | Good condition.                                         | --                                         |
| IW-11   | Lock and cover broken off.                              | Repair protective casing.                  |
| IW-12   | Good condition.                                         | --                                         |
| IW-13   | Protective casing damaged; limited access for sampling. | Repair protective casing and replace lock. |
| IW-14   | Lock and cover broken off.                              | Repair protective casing.                  |

## 6.0 Conclusions and Recommendations

### IC/EC Compliance

The requirements and regulations set forth in the SMP for ICs were complied with during this reporting period. This includes the following:

**Land Use Restriction** – The on-site building is currently unoccupied and has met the requirements of this restriction in this reporting period.

**Groundwater Use Restriction** – The Site is currently vacant and does not use the Site groundwater in any capacity, therefore meeting the requirements of this restriction in this reporting period.

**SMP** – The Site is currently in compliance with all components of the Site-specific SMP and all requirements have been met during this reporting period.

The requirements set forth in the SMP for all ECs were met during this reporting period. No structures have been constructed on the Site and no change of use has occurred on the Site during this reporting period.

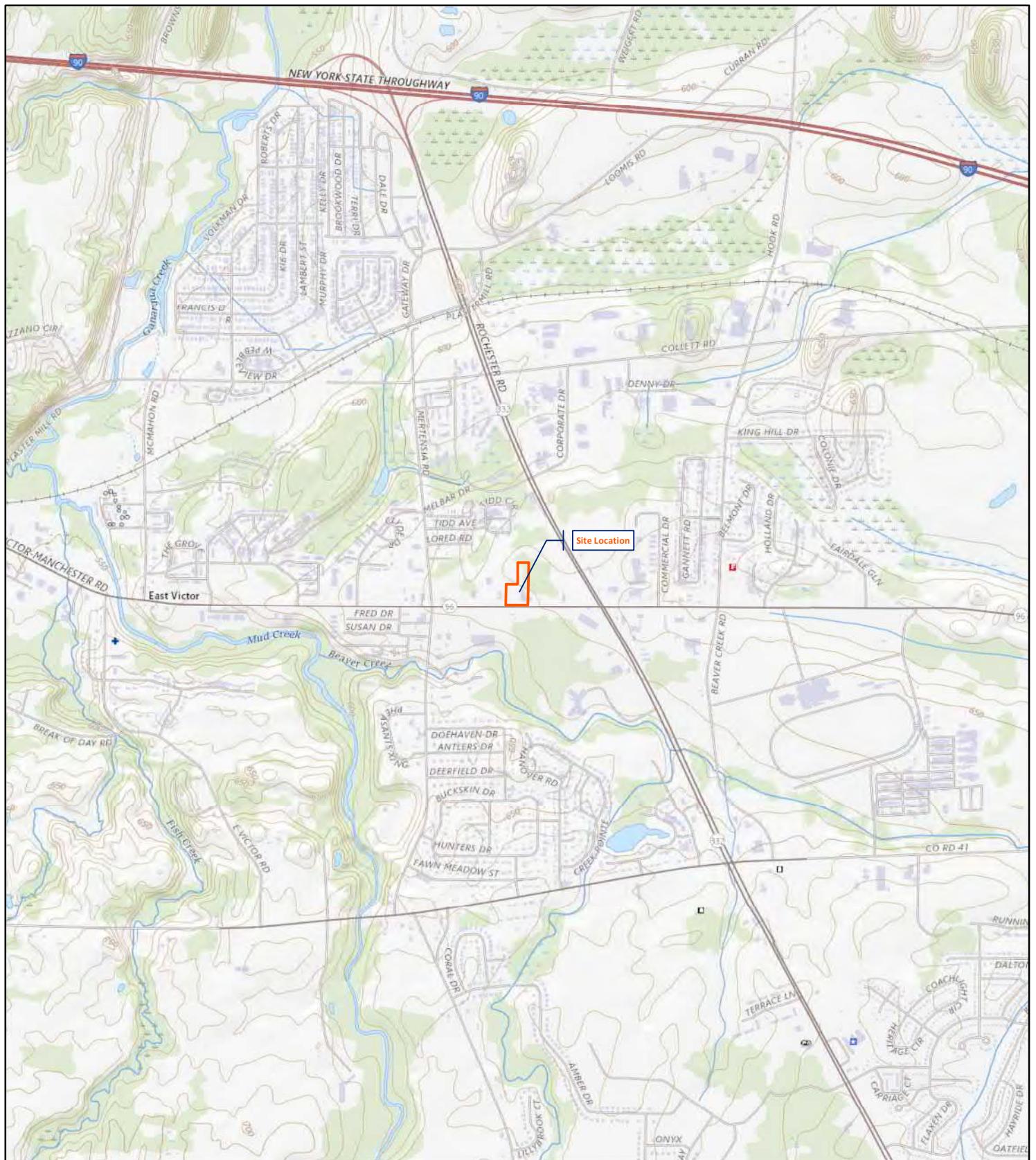
Based on post-remedial groundwater monitoring and sampling conducted to date, TCE and its degradation constituents cis-1,2-DCE, and vinyl chloride continue to exist in groundwater at the Site. Although continued fluctuations due to changing groundwater elevations are likely, contaminant concentrations in groundwater have generally decreased over time due to microbial degradation and natural attenuation. It is noted that groundwater elevations were observed to be significantly lower (as much as 10 feet) in comparison to 2022 groundwater elevations and remain the about the same in comparison to 2023 data. The elevated concentrations in cVOCs observed during the August 2023 and November 2024 sampling events are considered to be attributable to the substantial decrease in Site-wide groundwater elevations.

The presence of benzene at OW-8/MW-4 may also be attributable to the extremely low groundwater elevations observed throughout the Site. The presence of benzene should be further evaluated based on future data, including sampling at OW-7 where an elevated concentration of benzene was observed in the 2023 sampling event. It is noted that benzene is not a Site-specific contaminant of concern and the presence of OW-7 and OW-8/MW-4 on the western perimeter of the property may suggest an off-Site source.

The previously discussed Site-specific ICs and ECs for the Site continue to meet the remedial objectives while establishing protection of public health and the environment. The continued effectiveness of the ICs/ECs has allowed the remedial objectives at the Site to be met for this reporting period.

Based on the evidence of continued reductions in contaminant concentrations in groundwater, Lu Engineers recommends that periodic monitoring and reporting frequency be reduced to one (1) event every two (2) years. Therefore, if approved, the next sampling event and PRR submission would take place in 2026.





Scale 1:24,000

Contour Interval: 10 Feet

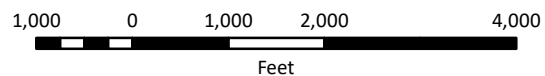


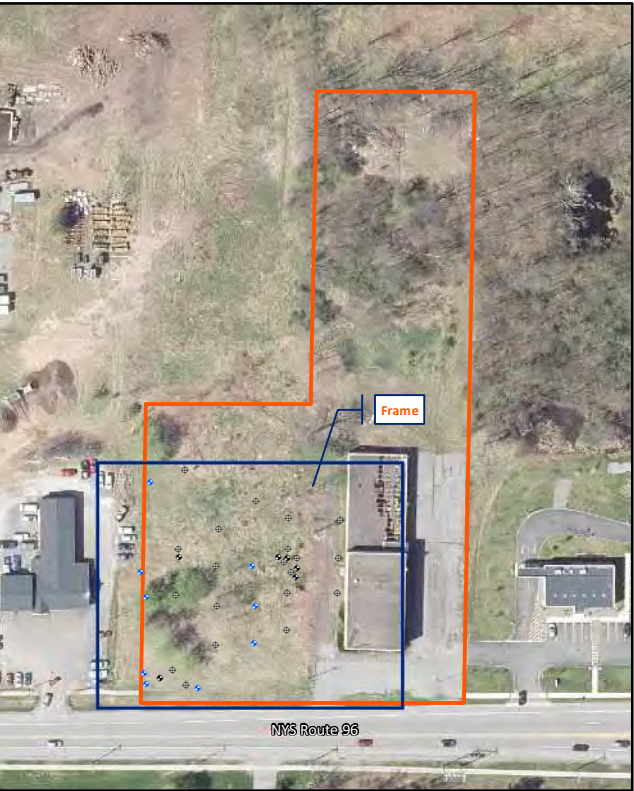
Figure 1. Site Location Map  
Former Griffin Technology Site (#C835008)  
6132 NYS Route 96

DATE: August 2023

PROJECT #: 50503-01

DRAWN/CHECKED: BGS/GLA

DATA SOURCE:  
ESRI online basemap

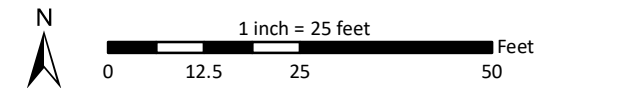


**Figure 2:**  
**Site Plan**

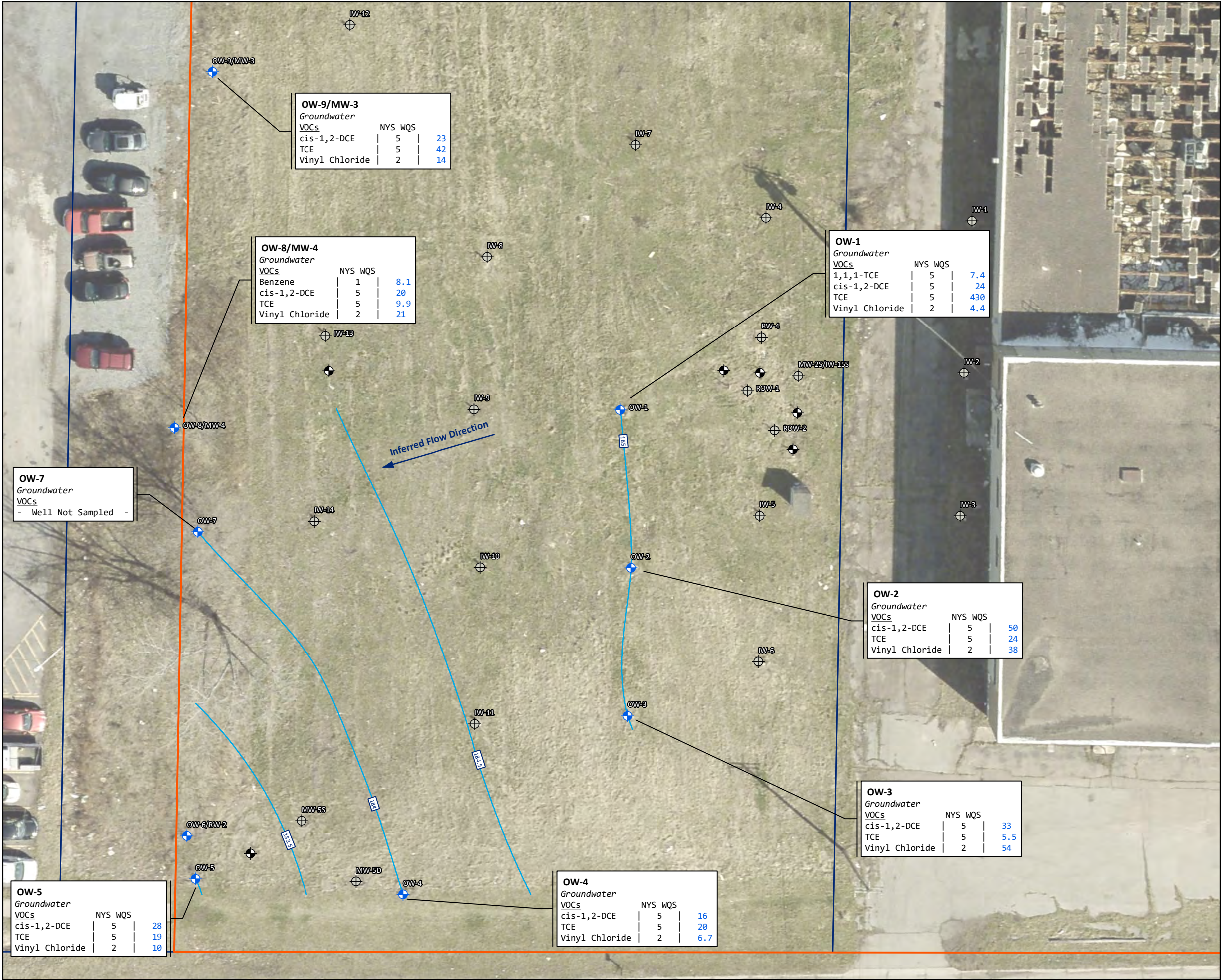
**Project:**  
Former Griffin Technology Site (#C835008)  
Periodic Review Report 2023

**Location:**  
6132 NYS Route 96  
Town of Farmington, Ontario County, NY

- Legend**
- Site Boundary
  - Observation/Monitoring Well
  - Injection Well
  - Unknown Well (Not Sampled)



|                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Drawn/Checked By: BGS/GLA                                                                                                                                                       |
| Lu Project Number: 50503-01                                                                                                                                                     |
| Date: August 2023                                                                                                                                                               |
| Notes:<br>1. Coordinate System: NAD 1983State Plane NY Central FIPS 3102 Feet<br>2. Orthoimagery downloaded from Pictometry<br>3. Scale: 1:300 (original document size 11"x17") |



**Figure 3:**  
November 2024 Groundwater Analytical Results

**Project:**  
Former Griffin Technology Site (#C835008)  
Periodic Review Report 2024

**Location:**  
6132 NYS Route 96  
Town of Farmington, Ontario County, NY

**Legend**

- Site Boundary
- Groundwater Contour
- Observation/Monitoring Well
- Injection Well
- Unknown Well (Not Sampled)

**NOTES:**

- BLUE TEXT indicates NYSDEC Part 703 Exceedance
- Values presented in ppb.

N

1 inch = 25 feet

0 12.5 25 50 Feet

Drawn/Checked By: JEB/GLA  
Lu Project Number: 50503-01  
Date: December 2024

**Notes:**

1. Coordinate System: NAD 1983 State Plane NY Central FIPS 3102 Feet
2. Orthoimagery downloaded from Pictometry
3. Scale: 1:300 (original document size 11"x17")



Former Griffin Technology Site (#835008)  
Groundwater Sample Analytical Results  
Periodic Review Report 2024

Table 1. November 2024 Groundwater Sample Analytical Results

| Detected Parameters:              | Sample ID:                 | OW-1 (11/18/24) | OW-2 (11/18/24) | OW-3 (11/18/24) | OW-4 (11/18/24) | OW-5 (11/18/24) |         | OW-8/MW-4 (11/18/24) | OW-9/MW-3 (11/18/24) |
|-----------------------------------|----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|---------|----------------------|----------------------|
|                                   | Well Number:               | OW-1            | OW-2            | OW-3            | OW-4            | OW-5            | OW-7    | OW-8/MW-4            | OW-9/MW-3            |
|                                   | PID Wellhead Reading:      | 0.0 ppm         | 0.0 ppm         | 0.0 ppm         | 0.0 ppm         | 0.0 ppm         |         | 0.0 ppm              | 0.0 ppm              |
| Volatile Organic Compounds (VOCs) | NYS Water Quality Standard | Conc. Q         | Conc. Q         | Conc. Q         | Conc. Q         | Conc. Q         | Conc. Q | Conc. Q              | Conc. Q              |
| 1,1,1-Trichloroethane (TCA)       | 5.0                        | 7.4             | 2.4             | 1.4             | 0.53 J          | ND              | NS      | 0.26 J               | 0.41 J               |
| 1,1,2,2-Tetrachloroethane         | 5.0                        | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| 1,1,2-Trichloroethane             | 1.0                        | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| 1,1-Dichloroethane (1,1 -DCA)     | 5.0                        | 1.3 J           | 3.8             | 4.2             | 1.3             | 2.0             | NS      | 1.2                  | 0.21 J               |
| 1,1-Dichloroethene (1,1 -DCE)     | 5.0                        | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| 2-Butanone (MEK)                  | 50                         | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| 2-Hexanone                        | 50                         | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| 4-Methyl-2-pentanone              | --                         | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| Acetone                           | 50.0                       | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| Benzene                           | 1.0                        | ND              | ND              | ND              | ND              | ND              | NS      | 8.1                  | ND                   |
| Bromodichloromethane              | 5.0                        | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| Bromoform                         | 50.0                       | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| Bromomethane                      | 5.0                        | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| Carbon disulfide                  | --                         | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| Carbon Tetrachloride              | 5.0                        | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| Chlorobenzene                     | 5.0                        | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| Chloroethane                      | 5.0                        | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| Chloroform                        | 7.0                        | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| Chloromethane                     | --                         | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| cis-1,2-Dichloroethene            | 5.0                        | 24              | 50              | 33              | 16              | 28              | NS      | 20                   | 23                   |
| cis-1,3-Dichloropropene           | --                         | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| Dibromochloromethane              | 50.0                       | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| Ethylbenzene                      | 5.0                        | ND              | ND              | ND              | ND              | ND              | NS      | 0.68 J               | ND                   |
| m,p-Xylene                        | 5.0                        | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| o-Xylene                          | 5.0                        | ND              | ND              | ND              | ND              | ND              | NS      | 0.45 J               | ND                   |
| Styrene                           | 5.0                        | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| Tetrachloroethene (PCE)           | 5.0                        | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| Toluene                           | 5.0                        | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| trans-1,2-Dichloroethene          | 5.0                        | ND              | 0.41 J          | ND              | ND              | ND              | NS      | ND                   | ND                   |
| trans-1,3-Dichloropropene         | --                         | ND              | ND              | ND              | ND              | ND              | NS      | ND                   | ND                   |
| Trichloroethene (TCE)             | 5.0                        | 430             | 24              | 5.5             | 20              | 19              | NS      | 9.9                  | 42                   |
| Vinyl chloride                    | 2.0                        | 4.4             | 38              | 54              | 6.7             | 10              | NS      | 21                   | 14                   |

Notes:

- All values presented in parts per billion (ppb)

< : Substance not identified above the minimum laboratory quantitation limit

Exceeds applicable groundwater quality standards

NS - Not Sampled

**Former Griffin Technology Site (#835008)**  
**Groundwater Sample Analytical Results**  
**Periodic Review Report 2024**

**Table 2-1 Groundwater Results Trend - VOCs**

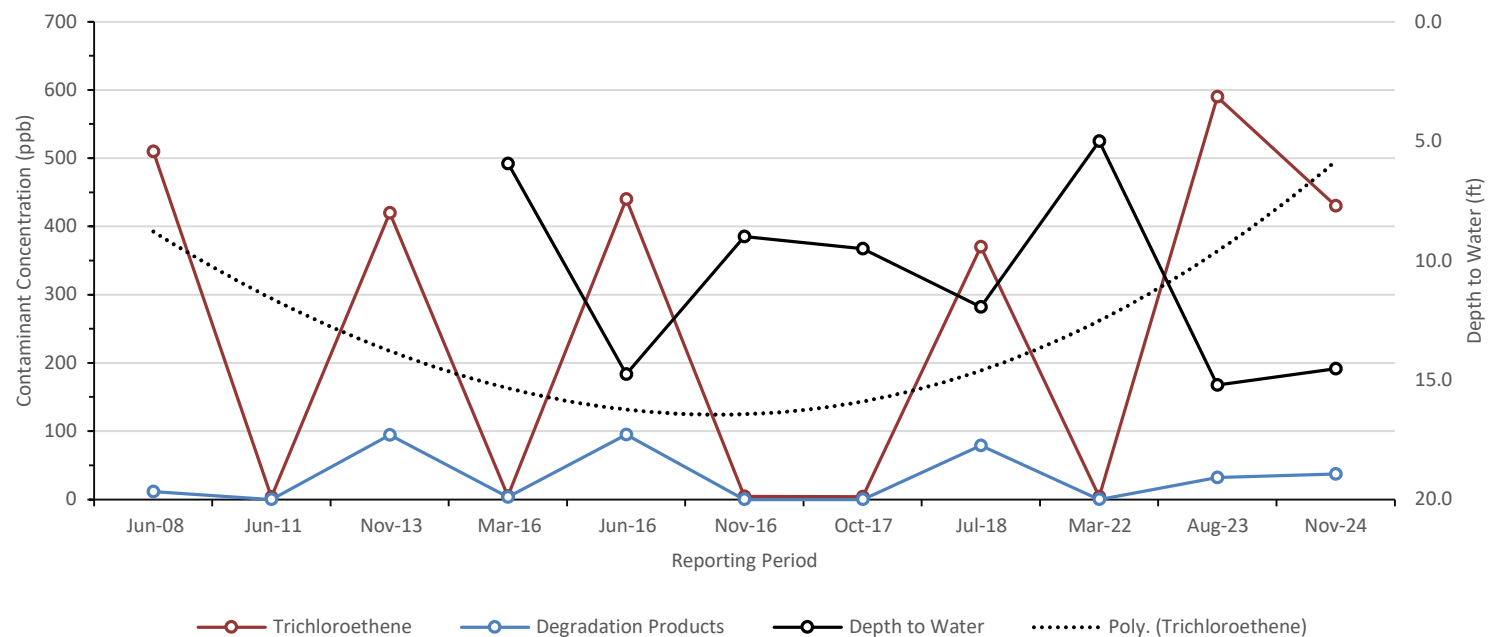
| Detected Parameters <sup>1</sup> | NYS Groundwater Standard | OW-1   |        |        |        |        |        |        |        |        |        |        |
|----------------------------------|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                  |                          | Jun-08 | Jun-11 | Nov-13 | Mar-16 | Jun-16 | Nov-16 | Oct-17 | Jul-18 | Mar-22 | Aug-23 | Nov-24 |
| 1,1,1-Trichloroethane            | 5.0                      | ND     | ND     | 11.0   | ND     | 10.0   | ND     | ND     | 7.4    | ND     | 11 J   | 7.4    |
| 1,1-Dichloroethane               | 5.0                      | ND     | ND     | 2.0    | ND     | 1.5    | ND     | ND     | 1.5    | ND     | ND     | 1.3 J  |
| 1,1-Dichloroethene               | 5.0                      | ND     | ND     | 0.49 J | ND     | 0.50 J | ND     | ND     | ND     | ND     | ND     | ND     |
| cis-1,2-Dichloroethene           | 5.0                      | 6.3    | ND     | 62     | 3.3    | 65     | ND     | ND     | 53     | ND     | 18 J   | 24     |
| Methylene Chloride               | 5.0                      | 5.2    | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     |
| Trichloroethene                  | 5.0                      | 510    | 3.5    | 420    | 4.6    | 440    | 4.1    | 3.7    | 370    | 3.83   | 590    | 430    |
| Vinyl Chloride                   | 2.0                      | ND     | ND     | 19.0   | ND     | 18.0   | ND     | ND     | 17.0   | ND     | 2.8 J  | 4.4    |

Result Exceeds NYS Ambient Groundwater Standard or applicable NYSDEC Guidance Value

1 - Results presentend in ug/L or parts per billion (ppb)

\*NYSDEC guidance value

J- Result is less than the RL, but greater than or equal to the MDL and the concentration is an approximate value



**Former Griffin Technology Site (#835008)**  
**Groundwater Sample Analytical Results**  
**Periodic Review Report 2024**

**Table 2-2 Groundwater Results Trend- VOCs**

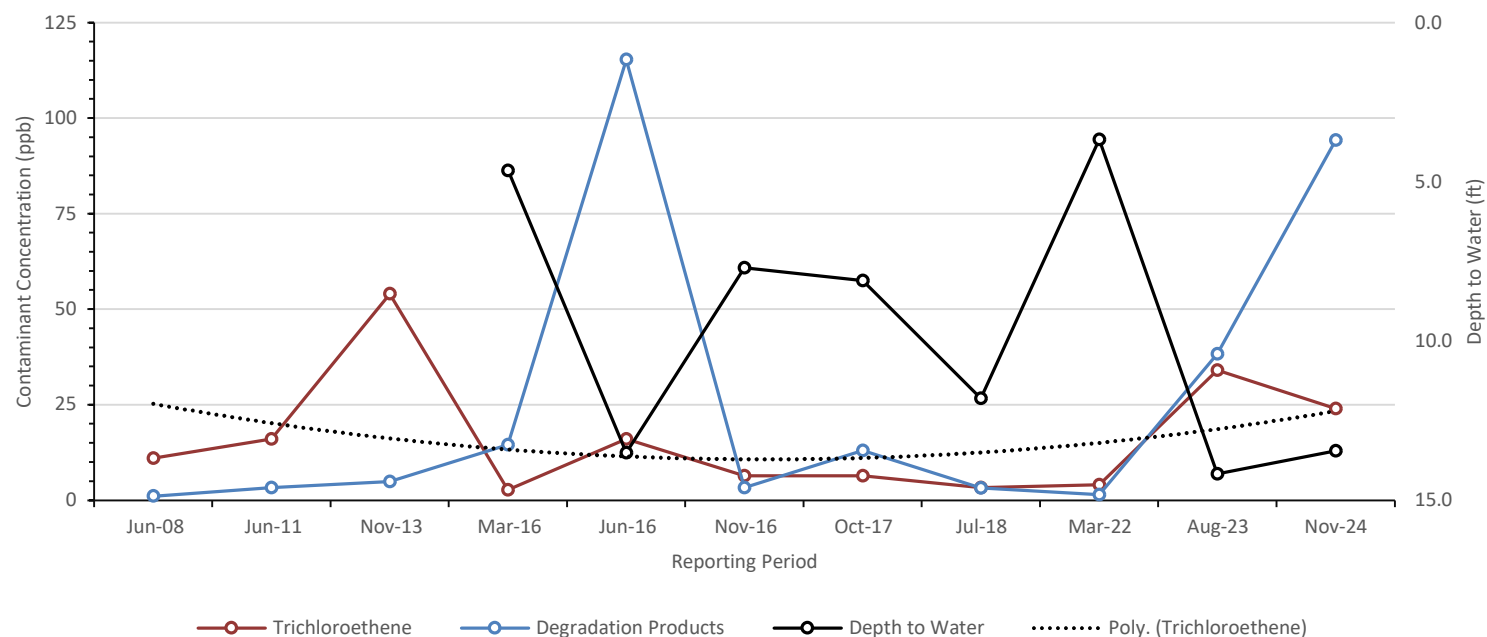
| Detected Parameters <sup>1</sup> | NYS Groundwater Standard <sup>2</sup> | OW-2   |        |        |        |        |        |        |        |        |        |        |
|----------------------------------|---------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                  |                                       | Jun-08 | Jun-11 | Nov-13 | Mar-16 | Jun-16 | Nov-16 | Oct-17 | Jul-18 | Mar-22 | Aug-23 | Nov-24 |
| 1,1,1-Trichloroethane            | 5.0                                   | ND     | ND     | 1.4    | ND     | 3.6    | ND     | ND     | ND     | ND     | 1.4 J  | 2.4    |
| 1,1-Dichloroethane               | 5.0                                   | ND     | ND     | ND     | ND     | 2.7    | ND     | 0.60 J | ND     | ND     | 1.9 J  | 3.8    |
| 1,1-Dichloroethene               | 5.0                                   | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     |
| cis-1,2-Dichloroethene           | 5.0                                   | 1.1 J  | 2.8    | 3.5    | 8.8    | 54     | 2.1    | 7.7    | 3.2    | 1.47 J | 23     | 50     |
| Methylene Chloride               | 5.0                                   | ND     | 0.1    | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     |
| Trichloroethene                  | 5.0                                   | 11     | 16     | 54     | 2.7    | 16     | 6.4    | 6.4    | 3.3    | 4.06   | 34     | 24     |
| Vinyl Chloride                   | 2.0                                   | ND     | 0.35 J | ND     | 5.7    | 55     | 1.2    | 5.3    | ND     | ND     | 12     | 38     |

Result Exceeds NYS Ambient Groundwater Standard or applicable NYSDEC Guidance Value

1 - Results presentend in ug/L or parts per billion (ppb)

\*NYSDEC guidance value

J- Result is less than the RL, but greater than or equal to the MDL and the concentration is an approximate value



Former Griffin Technology Site (#835008)  
Groundwater Sample Analytical Results  
Periodic Review Report 2024

**Table 2-3 Groundwater Results Trend - VOCs**

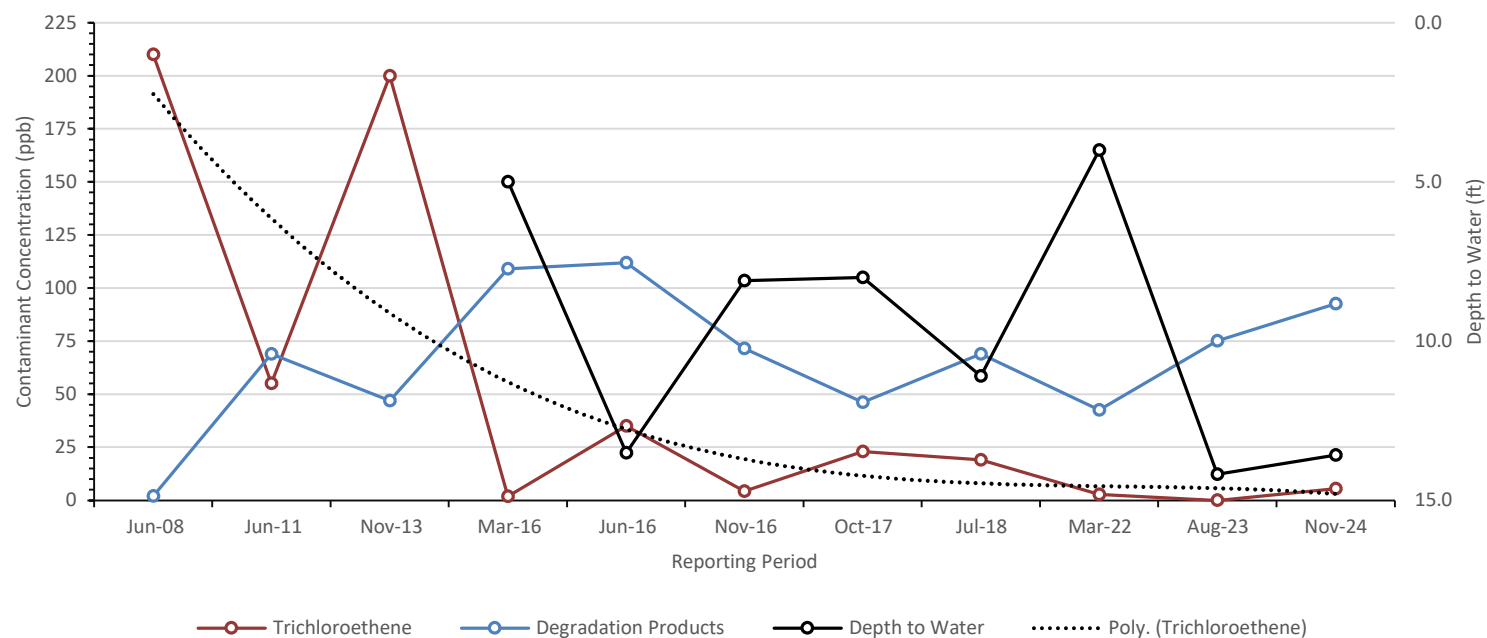
| Detected Parameters <sup>1</sup> | NYS Groundwater Standard <sup>2</sup> | OW-3   |        |        |        |        |        |        |        |        |        |        |
|----------------------------------|---------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                  |                                       | Jun-08 | Jun-11 | Nov-13 | Mar-16 | Jun-16 | Nov-16 | Oct-17 | Jul-18 | Mar-22 | Aug-23 | Nov-24 |
| 1,1,1-Trichloroethane            | 5.0                                   | ND     | 3.3    | 5.2    | 0.93 J | 3.2    | 1.1    | 1.2    | 1.4    | ND     | 0.92 J | 1.4    |
| 1,1-Dichloroethane               | 5.0                                   | ND     | 1.4    | 0.9 J  | 3.1    | 2.4    | 3.4    | 2.6    | 2.2    | 1.99 J | 2.25 J | 4.2    |
| 1,1-Dichloroethene               | 5.0                                   | ND     | 0.26 J | ND     | ND     | 0.36 J | ND     | ND     | ND     | ND     | ND     | ND     |
| cis-1,2-Dichloroethene           | 5.0                                   | ND     | 47     | 31     | 22     | 69     | 19     | 24     | 37     | 11     | 32     | 33     |
| Methylene Chloride               | 5.0                                   | 2.0 JB | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     |
| Trichloroethene                  | 5.0                                   | 210    | 55     | 200    | 1.8    | 35     | 4.2    | 23     | 19     | 2.71   | 2.5 J  | 5.5    |
| Vinyl Chloride                   | 2.0                                   | ND     | 17     | 9.8    | 83     | 37     | 48     | 14     | 25     | 29.6   | 40     | 54     |

Result Exceeds NYS Ambient Groundwater Standard or applicable NYSDEC Guidance Value

1 - Results presentend in ug/L or parts per billion (ppb)

\*NYSDEC guidance value

J- Result is less than the RL, but greater than or equal to the MDL and the concentration is an approximate value



Former Griffin Technology Site (#835008)  
Groundwater Sample Analytical Results  
Periodic Review Report 2024

Table 2-4 Groundwater Results Trend- VOCs

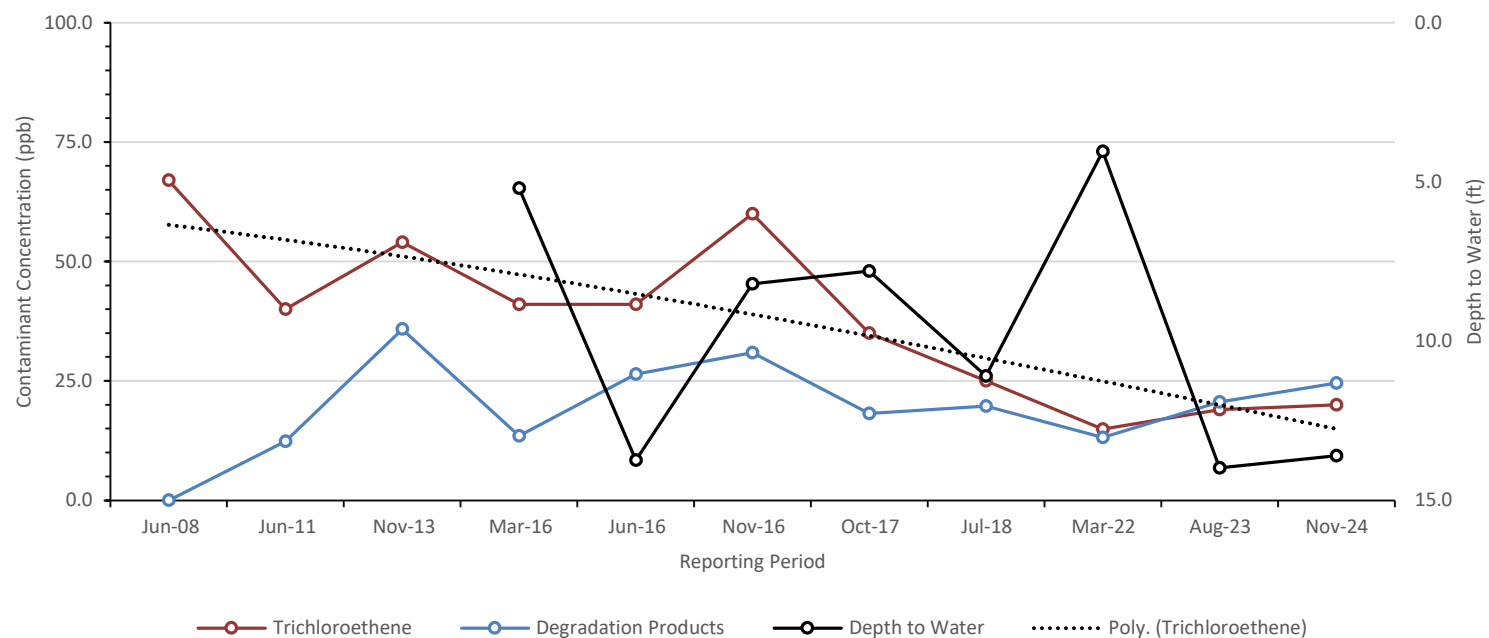
| Detected Parameters <sup>1</sup> | NYS Groundwater Standard <sup>2</sup> | OW-4   |         |        |        |        |        |        |        |        |        |        |
|----------------------------------|---------------------------------------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                  |                                       | Jun-08 | Jun-11  | Nov-13 | Mar-16 | Jun-16 | Nov-16 | Oct-17 | Jul-18 | Mar-22 | Aug-23 | Nov-24 |
| 1,1,1-Trichloroethane            | 5.0                                   | ND     | 1.6     | 2.0    | 1.1    | 1.3    | 1.8    | 1.2    | ND     | ND     | 0.36 J | 0.53 J |
| 1,1-Dichloroethane               | 5.0                                   | ND     | ND      | 0.95 J | ND     | 0.61 J | 0.70 J | 0.87 J | 0.83   | ND     | 1.1 J  | 1.3    |
| 1,1-Dichloroethene               | 5.0                                   | ND     | ND      | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     |
| cis-1,2-Dichloroethene           | 5.0                                   | ND     | 8.3     | 23.0   | 11.0   | 16.0   | 19.0   | 11.0   | 10.0   | 10.2   | 14     | 16     |
| Methylene Chloride               | 5.0                                   | ND     | 0.11 JB | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     |
| Trichloroethene                  | 5.0                                   | 67.0   | 40.0    | 54.0   | 41.0   | 41.0   | 60.0   | 35.0   | 25.0   | 14.9   | 19     | 20     |
| Vinyl Chloride                   | 2.0                                   | ND     | 2.3     | 9.9    | 1.4    | 8.5    | 9.4    | 5.1    | 4.4    | 2.9    | 5.1    | 6.7    |

Result Exceeds NYS Ambient Groundwater Standard or applicable NYSDEC Guidance Value

1 - Results presentend in ug/L or parts per billion (ppb)

\*NYSDEC guidance value

J- Result is less than the RL, but greater than or equal to the MDL and the concentration is an approximate value



Former Griffin Technology Site (#835008)  
Groundwater Sample Analytical Results  
Periodic Review Report 2024

**Table 2-5 Groundwater Results Trend- VOCs**

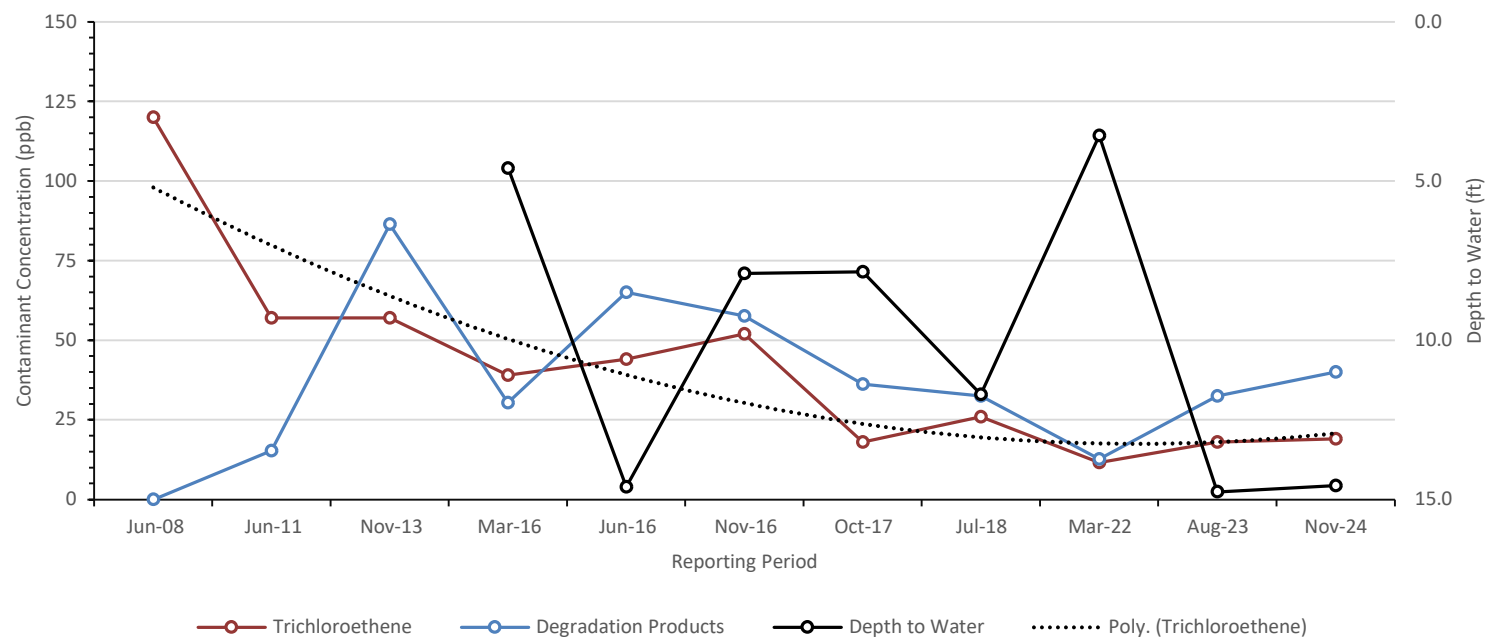
| Detected Parameters <sup>1</sup> | NYS Groundwater Standard <sup>2</sup> | OW-5   |        |        |        |        |        |        |        |        |        |        |
|----------------------------------|---------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                  |                                       | Jun-08 | Jun-11 | Nov-13 | Mar-16 | Jun-16 | Nov-16 | Oct-17 | Jul-18 | Mar-22 | Aug-23 | Nov-24 |
| 1,1,1-Trichloroethane            | 5.0                                   | ND     | 1.7    | 1.6    | 1.3    | 1.3    | 1.5    | ND     | ND     | ND     | 0.30 J | ND     |
| 1,1-Dichloroethane               | 5.0                                   | ND     | 0.65   | 2.5    | 0.86 J | 1.7    | 2.1    | 1.3    | 1.4    | ND     | 1.5 J  | 2.0    |
| 1,1-Dichloroethene               | 5.0                                   | ND     | ND     | 0.33 J | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     |
| cis-1,2-Dichloroethene           | 5.0                                   | ND     | 11.0   | 52.0   | 19.0   | 39.0   | 33.0   | 19.0   | 19.0   | 9.67   | 22     | 28     |
| Methylene Chloride               | 5.0                                   | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     |
| Trichloroethene                  | 5.0                                   | 120    | 57.0   | 57.0   | 39.0   | 44.0   | 52.0   | 18.0   | 26.0   | 11.6   | 18     | 19     |
| Vinyl Chloride                   | 2.0                                   | ND     | 1.9    | 30.0   | 9.2    | 23.0   | 21.0   | 12.0   | 8.4    | 3.05   | 8.7    | 10     |

Result Exceeds NYS Ambient Groundwater Standard or applicable NYSDEC Guidance Value

1 - Results presentend in ug/L or parts per billion (ppb)

\*NYSDEC guidance value

J- Result is less than the RL, but greater than or equal to the MDL and the concentration is an approximate value



Former Griffin Technology Site (#835008)  
Groundwater Sample Analytical Results  
Periodic Review Report 2024

**Table 2-6 Groundwater Results Trend- VOCs**

| Detected Parameters <sup>1</sup> | NYS Groundwater Standard <sup>2</sup> | OW-6/RW-2 |        |        |        |        |        |        |        |        |        |        |
|----------------------------------|---------------------------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                  |                                       | Jun-08    | Jun-11 | Nov-13 | Mar-16 | Jun-16 | Nov-16 | Oct-17 | Jul-18 | Mar-22 | Aug-23 | Nov-24 |
| 1,1,1-Trichloroethane            | 5.0                                   | ND        | 1.2    | 3.4    | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     |
| 1,1-Dichloroethane               | 5.0                                   | ND        | ND     | 2.7    | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     |
| 1,1-Dichloroethene               | 5.0                                   | ND        | ND     | 0.56 J | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     |
| cis-1,2-Dichloroethene           | 5.0                                   | ND        | 7.7    | 67.0   | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     |
| Methylene Chloride               | 5.0                                   | ND        | 0.13   | ND     | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     |
| Trichloroethene                  | 5.0                                   | 120       | 30.0   | 100    | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     |
| Vinyl Chloride                   | 2.0                                   | ND        | 1.5    | 33.0   | NS     | NS     | NS     | NS     | NS     | NS     | NS     | NS     |

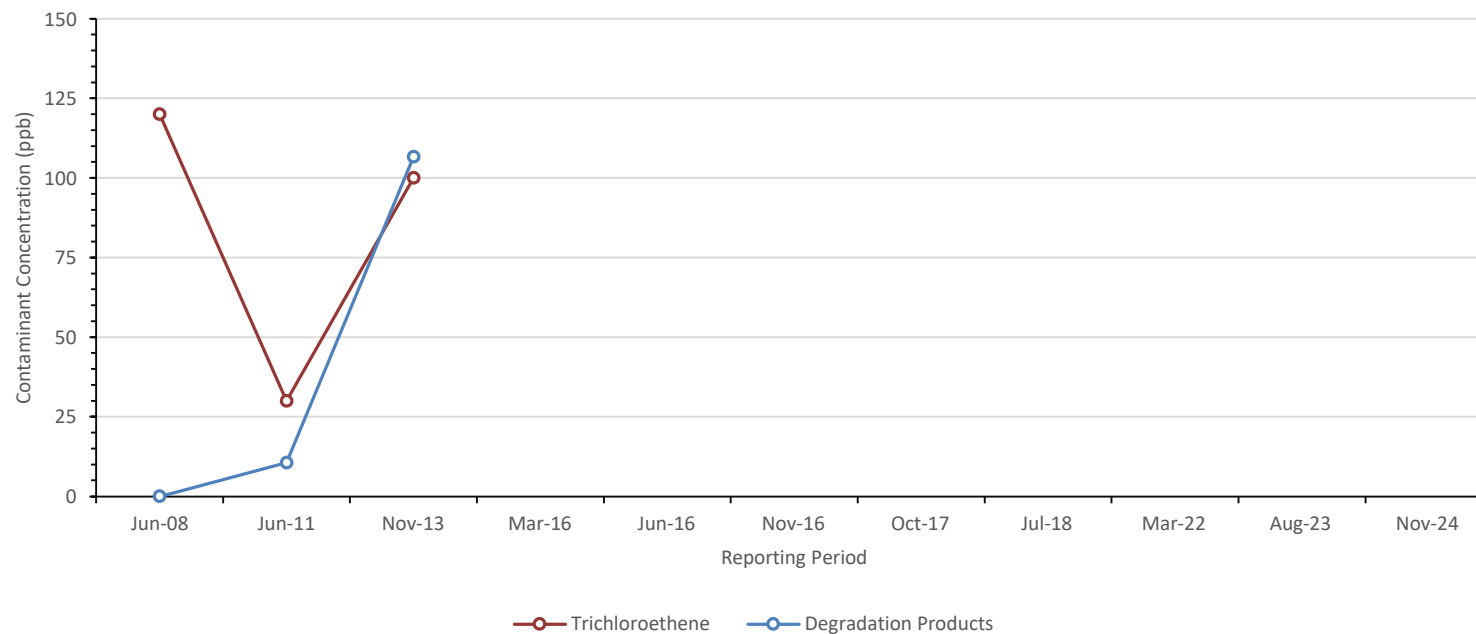
Result Exceeds NYS Ambient Groundwater Standard or applicable NYSDEC Guidance Value

1 - Results presentend in ug/L or parts per billion (ppb)

\*NYSDEC guidance value

J- Result is less than the RL, but greater than or equal to the MDL and the concentration is an approximate value

NS - Not Sampled



**Former Griffin Technology Site (#835008)**  
**Groundwater Sample Analytical Results**  
**Periodic Review Report 2024**

**Table 2-7 Groundwater Results Trend- VOCs**

| Detected Parameters <sup>1</sup> | NYS Groundwater Standard <sup>2</sup> | OW-7   |        |        |        |        |        |        |        |        |        |        |
|----------------------------------|---------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                  |                                       | Jun-08 | Jun-11 | Nov-13 | Mar-16 | Jun-16 | Nov-16 | Oct-17 | Jul-18 | Mar-22 | Aug-23 | Nov-24 |
| 1,1,1-Trichloroethane            | 5.0                                   | ND     | ND     | 2.6    | 1.1    | 1.7    | ND     | ND     | ND     | ND     | 0.22 J | NS     |
| 1,1-Dichloroethane               | 5.0                                   | ND     | ND     | 3.0    | 1.3    | 2.3    | ND     | 0.55 J | 0.17   | ND     | 2.7 J  | NS     |
| 1,1-Dichloroethene               | 5.0                                   | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | NS     |
| Benzene                          | 1.0                                   | 0.52 J | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | 32     | NS     |
| cis-1,2-Dichloroethene           | 5.0                                   | 5.7    | 0.75   | 65.0   | 24.0   | 43.0   | 1.7    | 7.7    | 10.0   | 6.55   | 35     | NS     |
| Methylene Chloride               | 5.0                                   | 2.7 JB | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | NS     |
| Trichloroethene                  | 5.0                                   | 180    | 5.2    | 60.0   | 20.0   | 54.0   | 5.3    | 9.4    | 14.0   | 3.29   | 5.9    | NS     |
| Vinyl Chloride                   | 2.0                                   | ND     | ND     | 74.0   | ND     | 41.0   | ND     | 3.5    | 8.6    | 2.19   | 28     | NS     |

Depth to Water 2.0 12.3 5.8 6.0 9.4 1.1 12.2 2.9

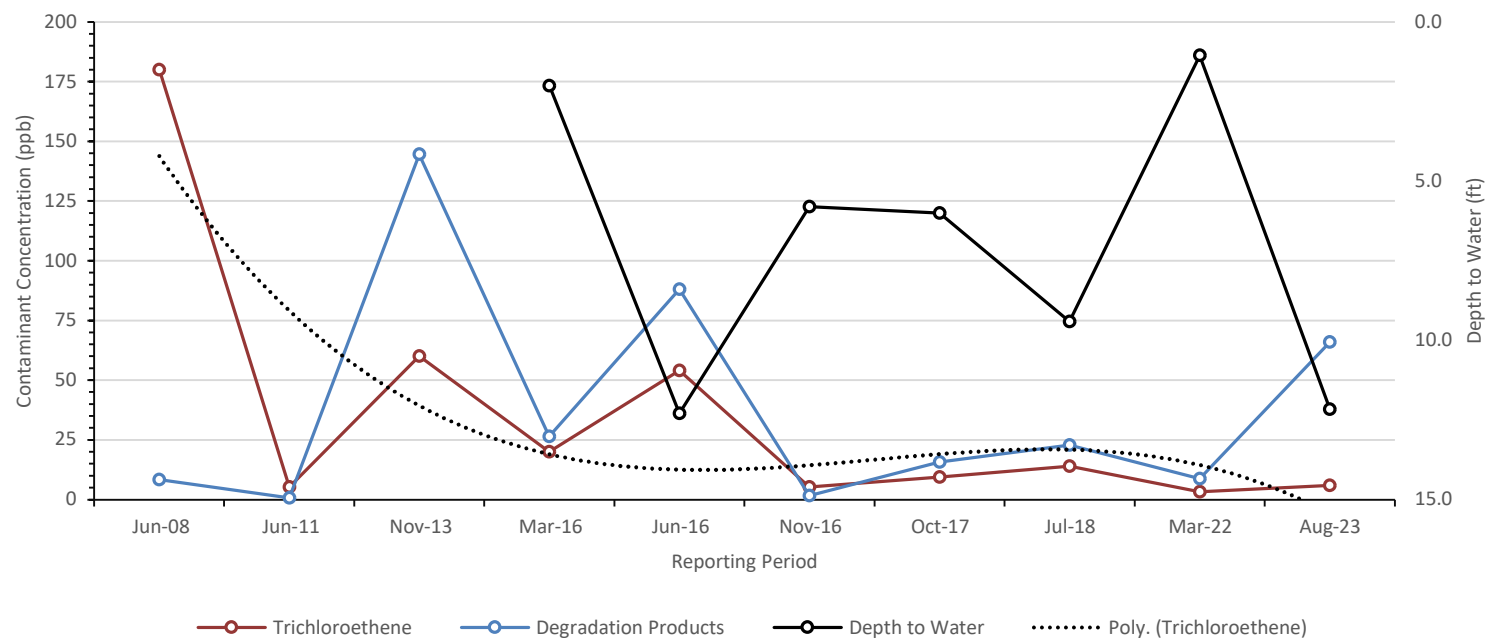
Degradation Products 8.4 0.8 144.6 26.4 88.0 1.7 15.8 22.8 8.7 65.9

Result Exceeds NYS Ambient Groundwater Standard or applicable NYSDEC Guidance Value

1 - Results presentend in ug/L or parts per billion (ppb)

\*NYSDEC guidance value

J- Result is less than the RL, but greater than or equal to the MDL and the concentration is an approximate value



Former Griffin Technology Site (#835008)  
Groundwater Sample Analytical Results  
Periodic Review Report 2024

**Table 2-8 Groundwater Results Trend - VOCs**

| Detected Parameters <sup>1</sup> | NYS Groundwater Standard <sup>2</sup> | OW-8/MW-4 |         |        |        |        |        |        |        |        |        |        |
|----------------------------------|---------------------------------------|-----------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                  |                                       | Jun-08    | Jun-11  | Nov-13 | Mar-16 | Jun-16 | Nov-16 | Oct-17 | Jul-18 | Mar-22 | Aug-23 | Nov-24 |
| 1,1,1-Trichloroethane            | 5.0                                   | ND        | ND      | 1.0    | ND     | ND     | ND     | ND     | ND     | ND     | NS     | 0.26 J |
| 1,1-Dichloroethane               | 5.0                                   | ND        | ND      | 0.95 J | ND     | 1.1    | 0.68 J | ND     | 0.91J  | ND     | NS     | 1.2    |
| 1,1-Dichloroethene               | 5.0                                   | ND        | ND      | ND     | ND     | ND     | ND     | ND     | ND     | ND     | NS     | ND     |
| cis-1,2-Dichloroethene           | 5.0                                   | 1.1 J     | 1.8     | 24.0   | 5.7    | 16.0   | 10.0   | 7.8    | 11.0   | 2.24   | NS     | 20     |
| Methylene Chloride               | 5.0                                   | ND        | 0.11 JB | ND     | ND     | ND     | ND     | ND     | ND     | ND     | NS     | ND     |
| Trichloroethene                  | 5.0                                   | 57.0      | 5.7     | 61.0   | 14.0   | 29.0   | 26.0   | 49.0   | 25.0   | 5.21   | NS     | 9.9    |
| Vinyl Chloride                   | 2.0                                   | ND        | 1.3     | 50.0   | 7.2    | 31.0   | 16.0   | 8.1    | 20.0   | 1.40 J | NS     | 21     |

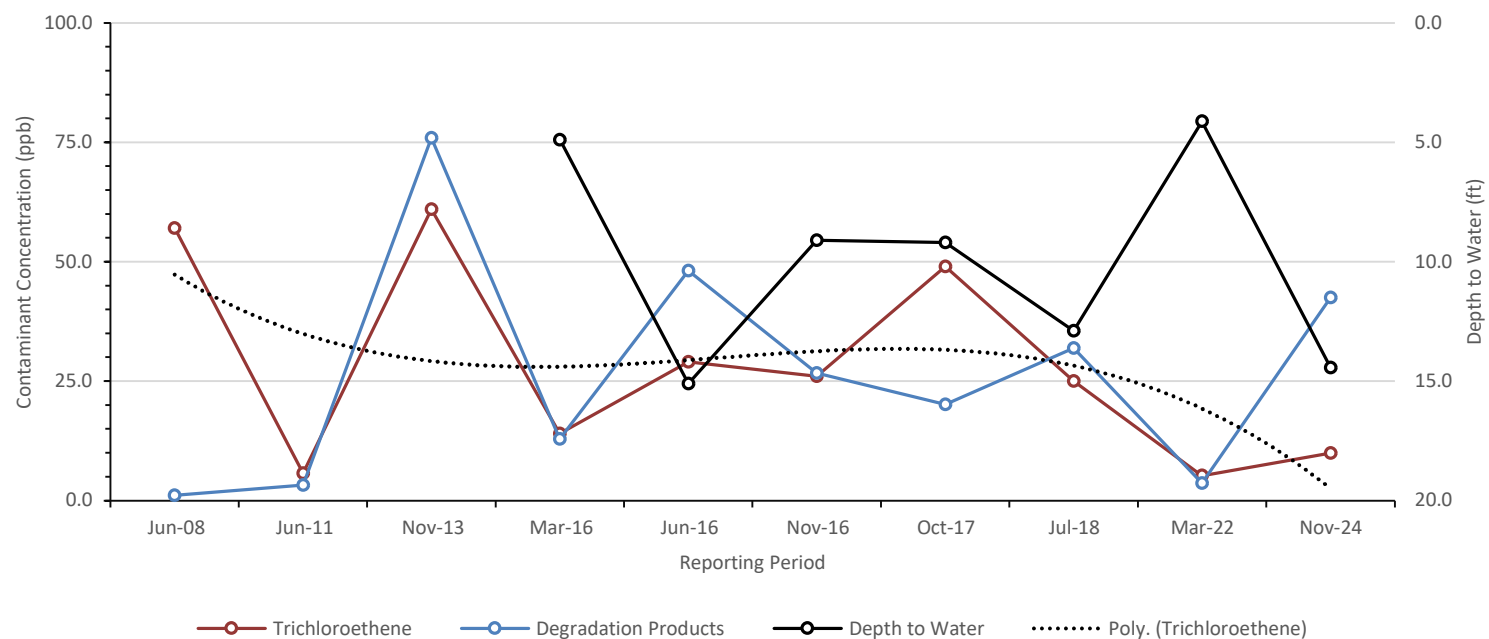
Result Exceeds NYS Ambient Groundwater Standard or applicable NYSDEC Guidance Value

1 - Results presentend in ug/L or parts per billion (ppb)

\*NYSDEC guidance value

J- Result is less than the RL, but greater than or equal to the MDL and the concentration is an approximate value

NS - Not Sampled



**Former Griffin Technology Site (#835008)**  
**Groundwater Sample Analytical Results**  
**Periodic Review Report 2024**

**Table 2-9 Groundwater Results Trend- VOCs**

| Detected Parameters <sup>1</sup> | NYS Groundwater Standard <sup>2</sup> | OW-9/MW-3 |        |        |        |        |        |        |        |        |        |        |
|----------------------------------|---------------------------------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                  |                                       | Jun-08    | Jun-11 | Nov-13 | Mar-16 | Jun-16 | Nov-16 | Oct-17 | Jul-18 | Mar-22 | Aug-23 | Nov-24 |
| 1,1,1-Trichloroethane            | 5.0                                   | ND        | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | NS     | 0.41 J |
| 1,1-Dichloroethane               | 5.0                                   | ND        | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | NS     | 0.21 J |
| 1,1-Dichloroethene               | 5.0                                   | ND        | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | NS     | ND     |
| cis-1,2-Dichloroethene           | 5.0                                   | 0.85 J    | 3.0    | 12.0   | 3.9    | 8.4    | 7.6    | ND     | 3.0    | 3.22   | NS     | 23     |
| Methylene Chloride               | 5.0                                   | ND        | ND     | ND     | ND     | ND     | ND     | ND     | ND     | ND     | NS     | ND     |
| Trichloroethene                  | 5.0                                   | 23.0      | 16.0   | 39.0   | 34.0   | 50.0   | 58.0   | 10.0   | 24.0   | 17.7   | NS     | 42     |
| Vinyl Chloride                   | 2.0                                   | ND        | 1.5    | 5.8    | 4.6    | 9.6    | 5.2    | ND     | 3.7    | 1.95 J | NS     | 14     |

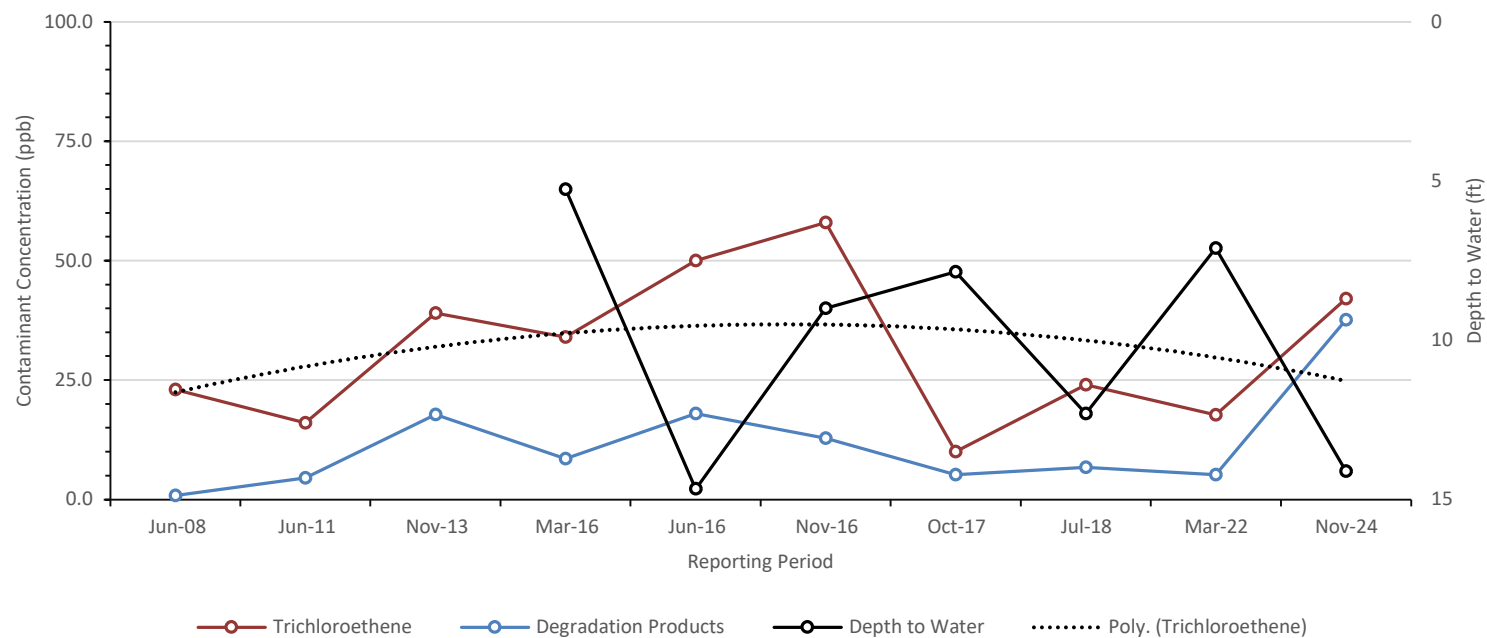
Result Exceeds NYS Ambient Groundwater Standard or applicable NYSDEC Guidance Value

1 - Results presentend in ug/L or parts per billion (ppb)

\*NYSDEC guidance value

J- Result is less than the RL, but greater than or equal to the MDL and the concentration is an approximate value

NS - Not Sampled





## NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 8  
6274 East Avon-Lima Road, Avon, NY 14414-9516  
P: (585) 226-5353 | F: (585) 226-8139  
www.dec.ny.gov

### DELIVERY CONFIRMATION REQUIRED

September 16, 2024

**Bristol Valley Homes LLC**  
745 Titus Avenue  
Annex Bldg  
Rochester, New York 14617

Auto Outlets USA Properties Inc  
John Iannone  
943 Ridge Road  
Webster, New York 14580

Rochester MHP Portfolio LLC  
90 Air Park Drive  
Suite 400  
Rochester, New York 14624

Re: Notice of Violation  
Former Griffin Technology Site  
Site No: C835008  
Farmington (T), Ontario (C)  
Tax Map No: 29.00-1-12.000 and 29.00-1-76.100

Dear Current/Former Property Owners:

The New York State Department of Environmental Conservation (Department) is issuing this letter informing you as current/former owners of the Former Griffin Technology site (Site) located at 6132 Victor Manchester Road, Town of Farmington, Ontario County that the Site is not in compliance with the Brownfield Cleanup Agreement, Certificate of Completion, Site Management Plan, and Environmental Easement. As the current/former Site owners there are certain obligations under Article 27, Title 14 and 6 NYCRR Part 375 that must be adhered to in order for the Site to maintain compliance. Failure to maintain compliance can be grounds for, *inter alia*, the revocation of the Certificate of Completion and could result in financial penalties.

This letter serves as a notice the Site is in violation of the following:

- 6 NYCRR Part 375-1.8(h) – Institutional controls, engineering controls, and Environmental Easement.
- 6 NYCRR Part 375-1.9(f) and (g) – Transfer of Certificate of Completion
- 6 NYCRR Part 375-1.11(d) – Change of Use



Department of  
Environmental  
Conservation

The Certificate of Completion was issued May 12, 2009, which triggered the Site being in active site management. As per the Department approved Site Management Plan and the Certificate of Completion, a Periodic Review Report with appropriate certification language and forms as per the schedule defined in the Site Management Plan must be submitted on an annual frequency. The Periodic Review Report was due May 30, 2024, for the reporting period of April 30, 2023 to April 30, 2024. The Site Management Plan contains the following elements applicable to the Site: a plan to maintain institutional controls and/or engineering controls (i.e., IC/EC Plan); a plan for monitoring the performance and effectiveness of the selected remedy (i.e., Monitoring Plan); and an Excavation Work Plan for all ground intrusive activities.

In addition, per Ontario County property records, it appears that the Site has been sold, and the appropriate change of use notification associated with the transfer of ownership and contact information has not been provided to the Department. The change in property ownership form must document the current property owners' information, transfer of site management requirements outlined in the Site's Site Management Plan and Environmental Easement, and the transfer of Certificate of Completion.

Please note that even though the Site is comprised of multiple parcels owned by multiple parties, one Certifying Party must arrange to submit one Periodic Review Report for all parcels that comprise the Site. The Periodic Review Report and Change of Use notifications must be received by the Department no later than 45-days from the date of this letter. The Periodic Review Report currently overdue is for the certification period from April 30, 2023 to April 30, 2024. The certification forms are attached to this letter.

The submittal of the Periodic Review Report will need to include the enclosed forms documenting that all site management requirements are being and have been 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 Qualified Environmental Professional (QEP) as defined in 6 NYCRR Part 375-1.2(ak) or a NYS licensed and registered Professional Engineer (PE) as defined in 6 NYCRR Part 375-1.2(aj). If you cannot certify that all site management requirements are being and have been met, a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance must be submitted to the Department. The Corrective Measure Work Plan must include a detailed schedule for the Site to achieve compliance which will be reviewed by the Department and if found acceptable will 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 environmental data, including the Periodic Review Report, 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 review the Periodic Review Report unless all documents and data generated in support of the Periodic Review Report have been submitted using the required formats and protocols.

**Items to submit to the Department By October 31, 2024, Close of Business:**

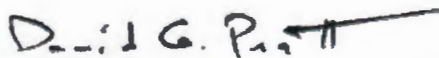
- Periodic Review Report with completed IC/EC form;
- Completed Change of Use form; and
- A Corrective Measures Work Plan IF IC/EC certifications cannot be completed.

Nothing contained herein constitutes a waiver by the Department or the State of New York of any rights held pursuant to any applicable state and/or federal law or a release for any party from any obligations held under those same laws.

The Department requests 7-days advance notice of any inspections or field work such that appropriate Department oversight can be provided as per the Brownfield Cleanup Agreement, 6 NYCRR Part 375, and the Site Management Plan.

The State seeks to resolve the outstanding differences in a mutually agreeable manner, which addresses the requirements of the Brownfield Cleanup Agreement, the Certificate of Completion, and associated Site plans. If you have any technical questions or concerns regarding this letter or need further assistance with the Site, please feel free to contact Joshua Ramsey at (585) 226-5349 or via email [Joshua.Ramsey@dec.ny.gov](mailto:Joshua.Ramsey@dec.ny.gov). If your legal team has any questions or concerns or need further assistance with the Site, please feel free to contact Dudley Loew at (585) 226-5368 or via email [Dudley.Loew@dec.ny.gov](mailto:Dudley.Loew@dec.ny.gov).

Sincerely,



David Pratt, P.E.  
Regional Remediation Engineer  
Region 8 Division of Environmental Remediation

Enclosures:  
PRR General Guidance  
Certification Form Instructions  
Certification Forms  
Change of Use Forms

cc:  
Michael Cruden (NYSDEC)  
Dudley Loew (NYSDEC)  
Justin Deming (NYSDOH)

Julia Kenney (NYSDOH)  
Charlotte Theobald (NYSDEC)  
Joshua Ramsey (NYSDEC)

## 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.**            **C835008**

**Site Name** **Former Griffin Technology Site**

Site Address: 6132 Victor Manchester Road      Zip Code: 14425  
City/Town: Farmington  
County: Ontario  
Site Acreage: 3.640

Reporting Period: April 30, 2023 to April 30, 2024

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?  
Commercial and 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

**Box 2A**

YES NO

8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?

☐ ☒

**If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.**

9. Are the assumptions in the Qualitative Exposure Assessment still valid?  
(The Qualitative Exposure Assessment must be certified every five years)

☒ ☐

**If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.**

**SITE NO. C835008****Box 3****Description of Institutional Controls**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                               |                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>Parcel</u><br><b>29.00-1-12.00</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <u>Owner</u><br>Case Realty 6132 LLC                          | <u>Institutional Control</u><br><br>Ground Water Use Restriction<br>Soil Management Plan<br>Landuse Restriction<br>Building Use Restriction<br>Site Management Plan |
| <p>The potential for vapor intrusion for the existing building and/or any building(s) on the site must be evaluated, and mitigation implimented, if necessary, prior to occupancy of the structure(s).</p> <p>Continued groundwater monitoring.</p> <p>Public water is supplied to the site.</p> <p>Site is restricted to commercial use only.</p> <p>Groundwater use is resticted without approval from NYSDEC and NYSDOH.</p> <p>Soils beneath the building footprint require evaluation if the building is demolished or excavation of those soils is initiated. Excavated soils intended to be removed from the site must be managed and characterized, and properly disposed of in accordance with NYSDEC regulations.</p> |                                                               |                                                                                                                                                                     |
| <b>29.00-1-76.100</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Auto Outlets USA Properties, Inc.                             | <u>Site Management Plan</u><br><u>Building Use Restriction</u><br><u>Ground Water Use Restriction</u><br><u>Soil Management Plan</u><br><u>Landuse Restriction</u>  |
| <p>The potential for vapor intrusion for the existing building and/or any building(s) on the site must be evaluated, and mitigation implimented, if necessary, prior to occupancy of the structure(s).</p> <p>Continued groundwater monitoring.</p> <p>Public water is supplied to the site.</p> <p>Site is restricted to commercial use only.</p> <p>Groundwater use is resticted without approval from NYSDEC and NYSDOH.</p> <p>Soils beneath the building footprint require evaluation if the building is demolished or excavation of those soils is initiated. Excavated soils intended to be removed from the site must be managed and characterized, and properly disposed of in accordance with NYSDEC regulations.</p> |                                                               |                                                                                                                                                                     |
| <b>Box 4</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                               |                                                                                                                                                                     |
| <b>Description of Engineering Controls</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                               |                                                                                                                                                                     |
| <u>Parcel</u><br><b>29.00-1-76.100</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <u>Engineering Control</u>                                    |                                                                                                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Vapor Mitigation (If Occupied Building Constructed in Future) |                                                                                                                                                                     |

**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 complete.

YES NO

☒ ☐

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

☒ ☐

**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

IC CERTIFICATIONS  
SITE NO. C835008

Box 6

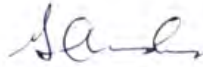
**SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE**

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 Gregory L. Andrus, P.G. at 280 E. Broad St. Suite 170 Rochester, NY 14604  
print name print business address

am certifying as Owners' Representative (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

10/29/24

Date

## EC CERTIFICATIONS

Box 7

### Professional Geologist 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 Gregory L. Andrus, P.G. at 280 E. Broad St, Suite 170 Rochester, NY 14604  
print name print business address

am certifying as a Professional Geologist for the Site Owners  
(Owner or Remedial Party)



\_\_\_\_\_  
Signature of Professional Geologist, for the Owner or  
Date Remedial Party, Rendering Certification

\_\_\_\_\_  
Stamp  
(Required for PE)

10/29/24

**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 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.

## Attachment B

### Groundwater Sampling Logs

---



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Job # 50503-02  
Sampling Event # \_\_  
Date 11/18/2024

Well Diameter 2"  
Well Integrity:  
Cap ✓  
Casing ✓  
Locked ✓  
Collar ✓

[illegible]

Purge Observations: Slightly Turbid, No odor, No Sheen  
Purge Water Containerized: N/A

Calibrated: Yes

Purged DRY  
well casing DAMAGED  
NO CAP

## Low Flow Groundwater Sampling Field Record

Project Name Former Griffin Site  
 Location ID OW-2  
 Activity Time 8:43

Field Sample ID OW-2  
 Sample Time 9:15

Job # 50503-02  
 Sampling Event #     
 Date 11/18/2024

### SAMPLING NOTES

Initial Depth to Water 13.45 feet      Measurement Point N      Well Diameter 2"  
 Final Depth to Water 13.1 feet      Well Depth 26.15 feet      Well Integrity:   
 Screen Length    feet      Pump Intake Depth         Cap ☒  
 Total Volume Purged 6 gallons      PID Well Head         Casing ☒  
 [purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]      Locked ☒  
 Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth      Collar ☒  
 Purge Estimate:    gallons

### PURGE DATA

| Time | Depth to Water (ft) | Purge Rate (ml/min) | Temp. (deg. C) | pH (units) | Dissolved O2 (mg/L) | Turbidity (NTU) | Cond. (mS/cm) | ORP (mV) | Comments |
|------|---------------------|---------------------|----------------|------------|---------------------|-----------------|---------------|----------|----------|
| 8:57 | 13.1                |                     | 12.6           | 6.70       | 1.81                | 14.0            | 1.24          | 57.2     | 2 gal.   |
| 9:05 | ↓                   |                     | 12.6           | 6.73       | 2.23                | 13.0            | 1.24          | 26.2     | 4 gal.   |
| 9:10 | ↓                   |                     | 12.4           | 6.77       | 2.60                | 10.0            | 1.24          | 20.2     | 6 gal.   |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
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|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |

Purge Observations: No Turbidity, No odor, No Sheen  
 Purge Water Containerized: N/A

### EQUIPMENT DOCUMENTATION

Type of Pump: PVC Bailer  
 Type of Tubing: n/a  
 Type of Water Quality Meter: YSI Pro Plus Quatro, LaMotte 2020

Calibrated: Yes

### ANALYTICAL PARAMETERS

| Parameter | Volumes   | Sample Collected                    |
|-----------|-----------|-------------------------------------|
| VOCs      | 3 x 40 ml | <input checked="" type="checkbox"/> |
|           |           |                                     |
|           |           |                                     |
|           |           |                                     |
|           |           |                                     |
|           |           |                                     |

### LOCATION NOTES

## Low Flow Groundwater Sampling Field Record

Project Name Former Griffin Site  
 Location ID OW-3  
 Activity Time 9:25

Field Sample ID OW-3  
 Sample Time 9:50

Job # 50503-02  
 Sampling Event # \_\_  
 Date 11/18/2024

### SAMPLING NOTES

Initial Depth to Water 13.58 feet      Measurement Point N      Well Diameter 2"  
 Final Depth to Water 14.35 feet      Well Depth 29.56 feet      Well Integrity:     
 Screen Length            feet      Pump Intake Depth                 Cap     
 Total Volume Purged 8 gallons      PID Well Head                 Casing     
 [purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]      Locked N  
 Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth      Collar     
 Purge Estimate:            gallons

### PURGE DATA

| Time | Depth to Water (ft) | Purge Rate (ml/min) | Temp. (deg. C) | pH (units) | Dissolved O2 (mg/L) | Turbidity (NTU) | Cond. (mS/cm) | ORP (mV) | Comments |
|------|---------------------|---------------------|----------------|------------|---------------------|-----------------|---------------|----------|----------|
| 9:35 | 14.35               |                     | 12.7           | 6.79       | 0.90                | 33.2            | 1.34          | -30.9    | 2 gal.   |
| 9:38 | ↓                   |                     | 12.6           | 6.73       | 0.70                | 33.2            | 1.35          | -41.9    | 4 gal.   |
| 9:45 | ↓                   |                     | 12.5           | 6.79       | 0.68                | 14.9            | 1.34          | -45.2    | 6 gal.   |
| 9:50 | ↓                   |                     | 12.2           | 6.80       | 0.58                | 14.9            | 1.34          | -46.2    | 8 gal.   |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
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|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |

Purge Observations: Slightly turbid, No odor, No Sheen  
 Purge Water Containerized: N/A

### EQUIPMENT DOCUMENTATION

Type of Pump: PVC Bailer  
 Type of Tubing: n/a  
 Type of Water Quality Meter: YSI Pro Plus Quatro, LaMotte 2020

Calibrated: Yes

### ANALYTICAL PARAMETERS

| Parameter | Volumes   | Sample Collected |
|-----------|-----------|------------------|
| VOCs      | 3 x 40 ml | ✓                |
|           |           |                  |
|           |           |                  |
|           |           |                  |
|           |           |                  |

### LOCATION NOTES

Bailer inside  
Cleared up after 4 gallon  
purged



## Low Flow Groundwater Sampling Field Record

Project Name Former Griffin Site  
Location ID OW-4  
Activity Time 10:00

Field Sample ID OW-4  
Sample Time 10:40

Job # 50503-02  
Sampling Event #     
Date 11/18/2024

### SAMPLING NOTES

Initial Depth to Water 13.60 feet  
Final Depth to Water            feet  
Screen Length            feet  
Total Volume Purged 7 gallons  
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]  
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth  
Purge Estimate:            gallons

Measurement Point N  
Well Depth 28.65 feet  
Pump Intake Depth             
PID Well Head           

Well Diameter 2"  
Well Integrity:             
Cap N  
Casing ✓  
Locked N  
Collar ✓

### PURGE DATA

| Time  | Depth to Water (ft) | Purge Rate (ml/min) | Temp. (deg. C) | pH (units) | Dissolved O2 (mg/L) | Turbidity (NTU) | Cond. (mS/cm) | ORP (mV) | Comments |
|-------|---------------------|---------------------|----------------|------------|---------------------|-----------------|---------------|----------|----------|
| 10:17 | 13.72               |                     | 13.1           | 6.79       | 0.86                | 38.4            | 1.14          | 37       | 2 GAL.   |
| 10:30 | 14.25               |                     | 12.6           | 6.79       | 0.62                | 30.2            | 1.13          | 43.1     | 4 GAL.   |
| 10:35 | 13.92               |                     | 12.8           | 6.80       | 1.50                | 12.59           | 1.13          | 35.7     | 6 GAL.   |
| 10:40 | 13.81               |                     | 12.2           | 6.80       | 0.80                | 9.68            | 1.14          | 43.4     | 7 GAL.   |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |

Purge Observations: no Turbidity, no odor, no sheen  
Purge Water Containerized: N/A

### EQUIPMENT DOCUMENTATION

Type of Pump: PVC Bailer  
Type of Tubing: n/a  
Type of Water Quality Meter: YSI Pro Plus Quatro, LaMotte 2020

Calibrated: Yes

### ANALYTICAL PARAMETERS

| Parameter | Volumes   | Sample Collected |
|-----------|-----------|------------------|
| VOCs      | 3 x 40 ml | ✓                |
|           |           |                  |
|           |           |                  |
|           |           |                  |
|           |           |                  |
|           |           |                  |

### LOCATION NOTES

Bailed inside

## Low Flow Groundwater Sampling Field Record

Project Name Former Griffin Site  
 Location ID OW-5  
 Activity Time 10:45

Field Sample ID OW-5  
 Sample Time 11:15

Job # 50503-02  
 Sampling Event #     
 Date 11/18/2024

### SAMPLING NOTES

Initial Depth to Water 14.57 feet      Measurement Point N      Well Diameter 2  
 Final Depth to Water 14.91 feet      Well Depth 29.55 feet      Well Integrity:     
 Screen Length            feet      Pump Intake Depth                 Cap N  
 Total Volume Purged 7.5 gallons      PID Well Head                 Casing     
 [purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]      Locked N  
 Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth      Collar     
 Purge Estimate:            gallons

### PURGE DATA

| Time | Depth to Water (ft) | Purge Rate (ml/min) | Temp. (deg. C) | pH (units) | Dissolved O2 (mg/L) | Turbidity (NTU) | Cond. (mS/cm) | ORP (mV) | Comments |
|------|---------------------|---------------------|----------------|------------|---------------------|-----------------|---------------|----------|----------|
| 1055 | 15.08               |                     | 13             | 6.82       | 1.31                | 767             | 1.11          | 67.2     | 2 GAL.   |
| 1100 | 15.85               |                     | 12.6           | 6.89       | 1.69                | 649             | 1.10          | 69.1     | 4 GAL.   |
| 1110 | 15.39               |                     | 12.7           | 6.85       | 1.31                | 15              | 1.11          | 73.3     | 6 GAL.   |
| 1115 | 14.91               |                     | 12.6           | 6.90       | 1.68                | 11.6            | 1.11          | 72.9     | 7.5 GAL. |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |
|      |                     |                     |                |            |                     |                 |               |          |          |

Purge Observations: No Turbidity, No odor, No Sheen  
 Purge Water Containerized: N/A

### EQUIPMENT DOCUMENTATION

Type of Pump: PVC Bailer  
 Type of Tubing: n/a  
 Type of Water Quality Meter: YSI Pro Plus Quatro, LaMotte 2020      Calibrated: Yes

### ANALYTICAL PARAMETERS

| Parameter | Volumes   | Sample Collected |
|-----------|-----------|------------------|
| VOCs      | 3 x 40 ml | ✓                |
|           |           |                  |
|           |           |                  |
|           |           |                  |
|           |           |                  |
|           |           |                  |

### LOCATION NOTES

 **Lu Engineers**  
ENVIRONMENTAL • TRANSPORTATION • CIVIL

Job # 50503-02  
Sampling Event #     
Date 11/18/2024

possible obstruction  
Not enough water to sample  
~~water~~ extraction well  
(Located by tree)

## Low Flow Groundwater Sampling Field Record

Project Name Former Griffin Site  
 Location ID OW-8/MW-4  
 Activity Time 11:45

Field Sample ID OW-8/MW-4  
 Sample Time 11:55

Job # 50503-02  
 Sampling Event #     
 Date 11/18/2024

### SAMPLING NOTES

Initial Depth to Water 14.44 feet      Measurement Point N      Well Diameter 2"  
 Final Depth to Water 16.50 feet      Well Depth 19.73 feet      Well Integrity:     
 Screen Length            feet      Pump Intake Depth                 Cap ✓  
 Total Volume Purged 3 gallons      PID Well Head                 Casing ✓  
 [purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]      Locked N  
 Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth      Collar ✓  
 Purge Estimate:            gallons

### PURGE DATA

| Time  | Depth to Water (ft) | Purge Rate (ml/min) | Temp. (deg. C) | pH (units) | Dissolved O2 (mg/L) | Turbidity (NTU) | Cond. (mS/cm) | ORP (mV) | Comments |
|-------|---------------------|---------------------|----------------|------------|---------------------|-----------------|---------------|----------|----------|
| 11:50 | 16.50               |                     | 12.7           | 6.76       | 2.87                | 8.29            | 1.04          | 90.6     | 1 gal.   |
| 11:53 | 16.51               |                     | 12.7           | 6.73       | 0.82                | 4.83            | 1.01          | 89.1     | 2 gal.   |
| 11:55 | 16.50               |                     | 12.4           | 6.78       | 1.35                | 3.42            | 0.99          | 88.9     | 3 gal.   |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |

Purge Observations: No Turbidity, No odor, No sheen  
 Purge Water Containerized: N/A

### EQUIPMENT DOCUMENTATION

Type of Pump: PVC Bailer  
 Type of Tubing: n/a  
 Type of Water Quality Meter: YSI Pro Plus Quatro, LaMotte 2020

Calibrated: Yes

### ANALYTICAL PARAMETERS

| Parameter | Volumes   | Sample Collected |
|-----------|-----------|------------------|
| VOCs      | 3 x 40 ml | ✓                |
|           |           |                  |
|           |           |                  |
|           |           |                  |
|           |           |                  |

### LOCATION NOTES

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## Low Flow Groundwater Sampling Field Record

Project Name Former Griffin Site  
 Location ID OW-9/MW-3  
 Activity Time 12:10

Field Sample ID OW-9/MW-3  
 Sample Time 12:15

Job # 50503-02  
 Sampling Event #     
 Date 11/18/2024

### SAMPLING NOTES

Initial Depth to Water 14.11 feet      Measurement Point N      Well Diameter 2"  
 Final Depth to Water 15.35 feet      Well Depth 17.15 feet      Well Integrity: \_\_\_\_\_  
 Screen Length \_\_\_\_\_ feet      Pump Intake Depth \_\_\_\_\_      Cap ✓  
 Total Volume Purged 1.5 gallons      PID Well Head \_\_\_\_\_      Casing ✓  
 [purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]      Locked N  
 Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth      Collar ✓  
 Purge Estimate: \_\_\_\_\_ gallons

### PURGE DATA

| Time  | Depth to Water (ft) | Purge Rate (ml/min) | Temp. (deg. C) | pH (units) | Dissolved O2 (mg/L) | Turbidity (NTU) | Cond. (mS/cm) | ORP (mV) | Comments |
|-------|---------------------|---------------------|----------------|------------|---------------------|-----------------|---------------|----------|----------|
| 12:10 | 15.00               |                     | 13.4           | 6.44       | 0.82                | 3.91            | 0.78          | 83.7     | .5 GAL.  |
| 12:12 | 15.19               |                     | 13.2           | 6.85       | 0.27                | 2.81            | 0.79          | 82.0     | 1 GAL.   |
| 12:15 | 15.35               |                     | 13.1           | 7.11       | 0.36                | 3.17            | 0.80          | 80.3     | 1.5 GAL. |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |
|       |                     |                     |                |            |                     |                 |               |          |          |

Purge Observations: No turbidity, NO odor, NO sheen

Purge Water Containerized: N/A

### EQUIPMENT DOCUMENTATION

Type of Pump: PVC Bailer

Type of Tubing: n/a

Type of Water Quality Meter: YSI Pro Plus Quatro, LaMotte 2020

Calibrated: Yes

### ANALYTICAL PARAMETERS

Parameter Volumes Sample Collected  
VOCs 3 x 40 ml ✓

### LOCATION NOTES

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## Attachment C

Laboratory Analytical Report

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December 04, 2024

Service Request No:R2411827

Mr. Greg Andrus  
LU Engineers  
280 East Broad Street  
Suite 170  
Rochester, NY 14604

### Laboratory Results for: Griffin Site

Dear Mr.Andrus,

Enclosed are the results of the sample(s) submitted to our laboratory November 18, 2024  
For your reference, these analyses have been assigned our service request number **R2411827**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7475. You may also contact me via email at [Meghan.Pedro@alsglobal.com](mailto:Meghan.Pedro@alsglobal.com).

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

Meghan Pedro  
Project Manager

CC: Michael Andrus

**ADDRESS**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

**PHONE** +1 585 288 5380 | **FAX** +1 585 288 8475

ALS Group USA, Corp.  
dba ALS Environmental



## Narrative Documents

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

[www.alsglobal.com](http://www.alsglobal.com)

**Client:** LU Engineers  
**Project:** Griffin Site  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Received:** 11/18/2024

### CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Manual Integrations may have been used in the quantitation of the results in this report. Manual Integrations are readily identified in the raw data on the Quantitation Reports (Organics) by the automatic placement of an "m" next to the sample result. For Ion Chromatography, the manual integrations are identified by the automatic placement of "manipulated" or "manually integrated" in the upper left corner of the chromatogram (Hexavalent Chromium) or "M" by the result in the "Type" column (anions). The reason for the manual integration is noted on the "after" chromatogram, which is found with the original chromatogram and quantitation report. All integrations follow the lab SOP ADM-INT "Manual Integration."

### Sample Receipt:

Eight water samples were received for analysis at ALS Environmental on 11/18/2024. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

### Volatiles by GC/MS:

Method 8260D, 11/26/2024: The upper control criterion was exceeded for one or more analytes in the Laboratory Control Sample (LCS). There were no detections of the analyte(s) above the MRL in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Method 8260D, 11/28/2024: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Approved by



Date

12/03/2024



## Sample Receipt Information

**ALS Environmental—Rochester Laboratory**

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Phone (585) 288-5380 Fax (585) 288-8475

[www.alsglobal.com](http://www.alsglobal.com)

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02

**Service Request:**R2411827

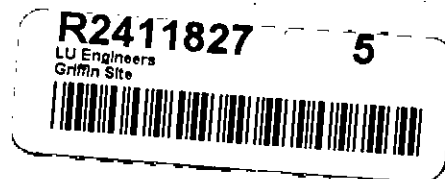
**SAMPLE CROSS-REFERENCE**

| <u>SAMPLE #</u> | <u>CLIENT SAMPLE ID</u> | <u>DATE</u> | <u>TIME</u> |
|-----------------|-------------------------|-------------|-------------|
| R2411827-001    | OW-1                    | 11/18/2024  | 0820        |
| R2411827-002    | OW-2                    | 11/18/2024  | 0915        |
| R2411827-003    | OW-3                    | 11/18/2024  | 0950        |
| R2411827-004    | OW-4                    | 11/18/2024  | 1040        |
| R2411827-005    | OW-5                    | 11/18/2024  | 1115        |
| R2411827-006    | OW-8/MW-4               | 11/18/2024  | 1155        |
| R2411827-007    | OW-9/MW-3               | 11/18/2024  | 1215        |
| R2411827-008    | Field Dup               | 11/18/2024  |             |

[illegible]



# Cooler Receipt and Preservation Check Form



Project/Client \_\_\_\_\_ Folder Number \_\_\_\_\_

Cooler received on 11/18/24 by: AA COURIER: ALS UPS FEDEX VELOCITY CLIENT

|   |                                                      |            |
|---|------------------------------------------------------|------------|
| 1 | Were Custody seals on outside of cooler?             | Y <u>N</u> |
| 2 | Custody papers properly completed (ink, signed)?     | Y <u>N</u> |
| 3 | Did all bottles arrive in good condition (unbroken)? | Y <u>N</u> |
| 4 | Circle: <u>Wet Ice</u> Dry Ice Gel packs present?    | Y <u>N</u> |

|    |                                                         |                       |
|----|---------------------------------------------------------|-----------------------|
| 5a | Did VOA vials have sig* bubbles?                        | Y <u>N</u> NA         |
| 5b | Sig* bubbles: Alk? Y N <u>NA</u> Sulfide? Y N <u>NA</u> |                       |
| 6  | Where did the bottles originate?                        | <u>ALS/ROC</u> CLIENT |
| 7  | Soil VOA received as: Bulk Encore 5035set               | <u>NA</u>             |

8. Temperature Readings Date: 11/18/24 Time: 1451 ID: IR#12 IR#11 From: Temp Blank Sample Bottle

|                               |            |     |     |     |     |     |     |
|-------------------------------|------------|-----|-----|-----|-----|-----|-----|
| Temp (°C)                     | <u>3.8</u> |     |     |     |     |     |     |
| Within 0-6°C?                 | Y N        | Y N | Y N | Y N | Y N | Y N | Y N |
| If <0°C, were samples frozen? | Y N        | Y N | Y N | Y N | Y N | Y N | Y N |

If out of Temperature, note packing/ice condition: \_\_\_\_\_ Ice melted Poorly Packed (described below) Same Day Rule

& Client Approval to Run Samples: \_\_\_\_\_ Standing Approval Client aware at drop-off Client notified by: \_\_\_\_\_

All samples held in storage location: SMO by AA on 11/18 at 1452  
5035 samples placed in storage location: \_\_\_\_\_ by \_\_\_\_\_ on \_\_\_\_\_ at \_\_\_\_\_ within 48 hours of sampling? Y N

Cooler Breakdown/Preservation Check\*\*: Date: 11/19/24 Time: 1340 by: SES

- Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- Did all bottle labels and tags agree with custody papers? YES NO
- Were correct containers used for the tests indicated? YES NO
- Were 5035 vials acceptable (no extra labels, not leaking)? YES NO N/A
- Were dissolved metals filtered in the field? YES NO N/A
- Air Samples: Cassettes / Tubes Intact Y / N with MS Y / N Canisters Pressurized Tedlar® Bags Inflated N/A

| pH                    | Lot of test paper | Reagent                                       | Preserved? |    | Lot Received                                                                                             | Exp         | Sample ID Adjusted | Vol. Added | Lot Added | Final pH |
|-----------------------|-------------------|-----------------------------------------------|------------|----|----------------------------------------------------------------------------------------------------------|-------------|--------------------|------------|-----------|----------|
| >12                   |                   | NaOH                                          | Yes        | No |                                                                                                          |             |                    |            |           |          |
| ≤2                    |                   | HNO <sub>3</sub>                              |            |    |                                                                                                          |             |                    |            |           |          |
| ≤2                    |                   | H <sub>2</sub> SO <sub>4</sub>                |            |    |                                                                                                          |             |                    |            |           |          |
| <4                    |                   | NaHSO <sub>4</sub>                            |            |    |                                                                                                          |             |                    |            |           |          |
| 5-9                   |                   | For 608pest                                   |            |    | No=Notify for 3day                                                                                       |             |                    |            |           |          |
| Residual Chlorine (-) |                   | For CN, Phenol, 625, 608pest, 522             |            |    | If +, contact PM to add Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (625, 608, CN), ascorbic (phenol). |             |                    |            |           |          |
|                       |                   | Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> |            |    |                                                                                                          |             |                    |            |           |          |
|                       |                   | ZnAcetate                                     | -          | -  |                                                                                                          |             |                    |            |           |          |
|                       |                   | HCl                                           | **         | ** | <u>20080153</u>                                                                                          | <u>9/25</u> |                    |            |           |          |

\*\*VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 022023-3AXH

Explain all Discrepancies/ Other Comments:

|       |        |
|-------|--------|
| HPROD | BULK   |
| HTR   | FLDT   |
| SUB   | HGFB   |
| ALS   | LL3541 |

Labels secondary reviewed by: SES \*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



## Miscellaneous Forms

**ALS Environmental—Rochester Laboratory**

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## REPORT QUALIFIERS AND DEFINITIONS

|   |                                                                                                                                                                                                                                                                                                        |     |                                                                                                                                                                                                                      |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| U | Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.                                                                                                                       | +   | Correlation coefficient for MSA is <0.995.                                                                                                                                                                           |
| J | Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors). | N   | Inorganics- Matrix spike recovery was outside laboratory limits.                                                                                                                                                     |
| B | Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.                                                                                                                                                                            | N   | Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.                                                                                                                     |
| E | Inorganics- Concentration is estimated due to the serial dilution was outside control limits.                                                                                                                                                                                                          | S   | Concentration has been determined using Method of Standard Additions (MSA).                                                                                                                                          |
| E | Organics- Concentration has exceeded the calibration range for that specific analysis.                                                                                                                                                                                                                 | W   | Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.                                                                                                   |
| D | Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.                                                                                            | P   | Concentration >40% difference between the two GC columns.                                                                                                                                                            |
| * | Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.                                                                                                                  | C   | Confirmed by GC/MS                                                                                                                                                                                                   |
| H | Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.                                                                                                                                                                                                         | Q   | DoD reports: indicates a pesticide/Aroclor is not confirmed ( $\geq 100\%$ Difference between two GC columns).                                                                                                       |
| # | Spike was diluted out.                                                                                                                                                                                                                                                                                 | X   | See Case Narrative for discussion.                                                                                                                                                                                   |
|   |                                                                                                                                                                                                                                                                                                        | MRL | Method Reporting Limit. Also known as:                                                                                                                                                                               |
|   |                                                                                                                                                                                                                                                                                                        | LOQ | Limit of Quantitation (LOQ)<br>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.                                                                          |
|   |                                                                                                                                                                                                                                                                                                        | MDL | Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier). |
|   |                                                                                                                                                                                                                                                                                                        | LOD | Limit of Detection. A value at or above the MDL which has been verified to be detectable.                                                                                                                            |
|   |                                                                                                                                                                                                                                                                                                        | ND  | Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.                                                                                                                               |

### Rochester Lab ID # for State Accreditations<sup>1</sup>



| NELAP States            |
|-------------------------|
| Florida ID # E87674     |
| New Hampshire ID # 2941 |
| New York ID # 10145     |
| Pennsylvania ID# 68-786 |
| Texas ID#T104704581     |
| Virginia #460167        |

| Non-NELAP States       |
|------------------------|
| Connecticut ID #PH0556 |
| Delaware Approved      |
| Maine ID #NY01587      |
| North Carolina #36701  |
| North Carolina #676    |
| Rhode Island LAO00333  |

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory. To verify NH accredited analytes, go to <https://www4.des.state.nh.us/CertifiedLabs/Certified-Method.aspx>.

## ALS Laboratory Group

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### Acronyms

|            |                                                                                                                                          |
|------------|------------------------------------------------------------------------------------------------------------------------------------------|
| ASTM       | American Society for Testing and Materials                                                                                               |
| A2LA       | American Association for Laboratory Accreditation                                                                                        |
| CARB       | California Air Resources Board                                                                                                           |
| CAS Number | Chemical Abstract Service registry Number                                                                                                |
| CFC        | Chlorofluorocarbon                                                                                                                       |
| CFU        | Colony-Forming Unit                                                                                                                      |
| DEC        | Department of Environmental Conservation                                                                                                 |
| DEQ        | Department of Environmental Quality                                                                                                      |
| DHS        | Department of Health Services                                                                                                            |
| DOE        | Department of Ecology                                                                                                                    |
| DOH        | Department of Health                                                                                                                     |
| EPA        | U. S. Environmental Protection Agency                                                                                                    |
| ELAP       | Environmental Laboratory Accreditation Program                                                                                           |
| GC         | Gas Chromatography                                                                                                                       |
| GC/MS      | Gas Chromatography/Mass Spectrometry                                                                                                     |
| LUFT       | Leaking Underground Fuel Tank                                                                                                            |
| M          | Modified                                                                                                                                 |
| MCL        | Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA. |
| MDL        | Method Detection Limit                                                                                                                   |
| MPN        | Most Probable Number                                                                                                                     |
| MRL        | Method Reporting Limit                                                                                                                   |
| NA         | Not Applicable                                                                                                                           |
| NC         | Not Calculated                                                                                                                           |
| NCASI      | National Council of the Paper Industry for Air and Stream Improvement                                                                    |
| ND         | Not Detected                                                                                                                             |
| NIOSH      | National Institute for Occupational Safety and Health                                                                                    |
| PQL        | Practical Quantitation Limit                                                                                                             |
| RCRA       | Resource Conservation and Recovery Act                                                                                                   |
| SIM        | Selected Ion Monitoring                                                                                                                  |
| TPH        | Total Petroleum Hydrocarbons                                                                                                             |
| tr         | Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.                           |

**ALS Group USA, Corp.**

dba ALS Environmental

## Analyst Summary report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02

**Service Request:** R2411827

**Sample Name:** OW-1  
**Lab Code:** R2411827-001  
**Sample Matrix:** Water

**Date Collected:** 11/18/24**Date Received:** 11/18/24

**Analysis Method**  
8260D

**Extracted/Digested By**

**Analyzed By**  
FNAEGLER

**Sample Name:** OW-2  
**Lab Code:** R2411827-002  
**Sample Matrix:** Water

**Date Collected:** 11/18/24**Date Received:** 11/18/24

**Analysis Method**  
8260D

**Extracted/Digested By**

**Analyzed By**  
FNAEGLER

**Sample Name:** OW-3  
**Lab Code:** R2411827-003  
**Sample Matrix:** Water

**Date Collected:** 11/18/24**Date Received:** 11/18/24

**Analysis Method**  
8260D

**Extracted/Digested By**

**Analyzed By**  
FNAEGLER

**Sample Name:** OW-4  
**Lab Code:** R2411827-004  
**Sample Matrix:** Water

**Date Collected:** 11/18/24**Date Received:** 11/18/24

**Analysis Method**  
8260D

**Extracted/Digested By**

**Analyzed By**  
FNAEGLER

**Sample Name:** OW-5  
**Lab Code:** R2411827-005  
**Sample Matrix:** Water

**Date Collected:** 11/18/24**Date Received:** 11/18/24

**Analysis Method**  
8260D

**Extracted/Digested By**

**Analyzed By**  
FNAEGLER

**ALS Group USA, Corp.**

dba ALS Environmental

## Analyst Summary report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02

**Service Request:** R2411827

**Sample Name:** OW-8/MW-4  
**Lab Code:** R2411827-006  
**Sample Matrix:** Water

**Date Collected:** 11/18/24**Date Received:** 11/18/24

**Analysis Method**  
8260D

**Extracted/Digested By**

**Analyzed By**  
FNAEGLER

**Sample Name:** OW-9/MW-3  
**Lab Code:** R2411827-007  
**Sample Matrix:** Water

**Date Collected:** 11/18/24**Date Received:** 11/18/24

**Analysis Method**  
8260D

**Extracted/Digested By**

**Analyzed By**  
FNAEGLER

**Sample Name:** Field Dup  
**Lab Code:** R2411827-008  
**Sample Matrix:** Water

**Date Collected:** 11/18/24**Date Received:** 11/18/24

**Analysis Method**  
8260D

**Extracted/Digested By**

**Analyzed By**  
FNAEGLER

**Sample Name:** Field Dup  
**Lab Code:** R2411827-008.R01  
**Sample Matrix:** Water

**Date Collected:** 11/18/24**Date Received:** 11/18/24

**Analysis Method**  
8260D

**Extracted/Digested By**

**Analyzed By**  
FNAEGLER



## PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

### INORGANIC

#### Water/Liquid Matrix

| Analytical Method                                     | Preparation Method                      |
|-------------------------------------------------------|-----------------------------------------|
| 200.7                                                 | 200.2                                   |
| 200.8                                                 | 200.2                                   |
| 6010C or 6010D                                        | 3005A/3010A                             |
| 6020A or 6020B                                        | ILM05.3                                 |
| 9034 Sulfide Acid Soluble                             | 9030B                                   |
| SM 4500-CN-N-2016<br>Amenable and Residual<br>Cyanide | SM 4500-CN-G and<br>SM 4500-CN-B,C-2016 |
| SM 4500-CN-E WAD<br>Cyanide                           | SM 4500-CN-I                            |

#### Solid/Soil/Non-Aqueous Matrix

| Analytical Method                                                                                         | Preparation Method |
|-----------------------------------------------------------------------------------------------------------|--------------------|
| 6010C or 6010D                                                                                            | 3050B              |
| 6020A or 6020B                                                                                            | 3050B              |
| 6010C or 6010D TCLP<br>(1311) extract                                                                     | 3005A/3010A        |
| 6010C or 6010D SPLP<br>(1312) extract                                                                     | 3005A/3010A        |
| 7199                                                                                                      | 3060A              |
| 300.0 Anions/ 350.1/ 353.2/<br>SM 2320B/ SM 5210B/<br>9056A Anions                                        | DI extraction      |
| For analytical methods not listed, the preparation method is the same as the analytical method reference. |                    |

### ORGANIC

**Preparation Methods for Organic methods are listed in the header of the Results pages.**

#### Regarding "Bulk/5035A":

For soil/solid samples submitted in soil jars for Volatiles analysis, the prep method is listed as "Bulk/5035A". The lab follows the closed-system EPA 5035A protocols once the sample is transferred to a sealed vial, but collection in bulk in soil jars does not follow the collection protocols listed in EPA 5035A. In accordance with the NYSDOH technical notice of October 2012, all results or reporting limits <200 ug/kg are to be considered estimated due to potential low bias.



## Sample Results

**ALS Environmental—Rochester Laboratory**

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## Volatile Organic Compounds by GC/MS

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Phone (585) 288-5380 Fax (585) 288-8475

[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Collected:** 11/18/24 08:20  
**Date Received:** 11/18/24 14:51

**Sample Name:** OW-1  
**Lab Code:** R2411827-001

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Analyte Name                 | Result | MRL | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------|--------|-----|------|------|----------------|---|
| 1,1,1-Trichloroethane (TCA)  | 7.4    | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| 1,1,2,2-Tetrachloroethane    | 2.5 U  | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| 1,1,2-Trichloroethane        | 2.5 U  | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| 1,1-Dichloroethane (1,1-DCA) | 1.3 J  | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| 1,1-Dichloroethene (1,1-DCE) | 2.5 U  | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| 1,2-Dichloroethane           | 2.5 U  | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| 1,2-Dichloropropane          | 2.5 U  | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| 2-Butanone (MEK)             | 13 U   | 13  | 2.0  | 2.5  | 11/26/24 18:50 |   |
| 2-Hexanone                   | 13 U   | 13  | 0.50 | 2.5  | 11/26/24 18:50 |   |
| 4-Methyl-2-pentanone         | 13 U   | 13  | 0.50 | 2.5  | 11/26/24 18:50 |   |
| Acetone                      | 13 U   | 13  | 13   | 2.5  | 11/26/24 18:50 |   |
| Benzene                      | 2.5 U  | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| Bromodichloromethane         | 2.5 U  | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| Bromoform                    | 2.5 U  | 2.5 | 0.63 | 2.5  | 11/26/24 18:50 |   |
| Bromomethane                 | 2.5 U  | 2.5 | 1.8  | 2.5  | 11/26/24 18:50 |   |
| Carbon Disulfide             | 2.5 U  | 2.5 | 1.1  | 2.5  | 11/26/24 18:50 |   |
| Carbon Tetrachloride         | 2.5 U  | 2.5 | 0.85 | 2.5  | 11/26/24 18:50 |   |
| Chlorobenzene                | 2.5 U  | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| Chloroethane                 | 2.5 U  | 2.5 | 0.58 | 2.5  | 11/26/24 18:50 |   |
| Chloroform                   | 2.5 U  | 2.5 | 1.3  | 2.5  | 11/26/24 18:50 |   |
| Chloromethane                | 2.5 U  | 2.5 | 2.0  | 2.5  | 11/26/24 18:50 |   |
| Dibromochloromethane         | 2.5 U  | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| Dichloromethane              | 2.5 U  | 2.5 | 1.7  | 2.5  | 11/26/24 18:50 |   |
| Ethylbenzene                 | 2.5 U  | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| Styrene                      | 2.5 U  | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| Tetrachloroethene (PCE)      | 2.5 U  | 2.5 | 0.53 | 2.5  | 11/26/24 18:50 |   |
| Toluene                      | 2.5 U  | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| Trichloroethene (TCE)        | 430    | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| Vinyl Chloride               | 4.4    | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| cis-1,2-Dichloroethene       | 24     | 2.5 | 0.58 | 2.5  | 11/26/24 18:50 |   |
| cis-1,3-Dichloropropene      | 2.5 U  | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| m,p-Xylenes                  | 5.0 U  | 5.0 | 1.4  | 2.5  | 11/26/24 18:50 |   |
| o-Xylene                     | 2.5 U  | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| trans-1,2-Dichloroethene     | 2.5 U  | 2.5 | 0.50 | 2.5  | 11/26/24 18:50 |   |
| trans-1,3-Dichloropropene    | 2.5 U  | 2.5 | 0.58 | 2.5  | 11/26/24 18:50 |   |

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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Collected:** 11/18/24 08:20  
**Date Received:** 11/18/24 14:51

**Sample Name:** OW-1  
**Lab Code:** R2411827-001

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 103   | 85 - 122       | 11/26/24 18:50 |   |
| Dibromofluoromethane | 98    | 80 - 116       | 11/26/24 18:50 |   |
| Toluene-d8           | 108   | 87 - 121       | 11/26/24 18:50 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Collected:** 11/18/24 09:15  
**Date Received:** 11/18/24 14:51

**Sample Name:** OW-2  
**Lab Code:** R2411827-002

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Analyte Name                 | Result | MRL | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------|--------|-----|------|------|----------------|---|
| 1,1,1-Trichloroethane (TCA)  | 2.4    | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| 1,1,2,2-Tetrachloroethane    | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| 1,1,2-Trichloroethane        | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| 1,1-Dichloroethane (1,1-DCA) | 3.8    | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| 1,1-Dichloroethene (1,1-DCE) | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| 1,2-Dichloroethane           | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| 1,2-Dichloropropane          | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| 2-Butanone (MEK)             | 5.0 U  | 5.0 | 0.78 | 1    | 11/26/24 16:10 |   |
| 2-Hexanone                   | 5.0 U  | 5.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| 4-Methyl-2-pentanone         | 5.0 U  | 5.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| Acetone                      | 5.0 U  | 5.0 | 5.0  | 1    | 11/26/24 16:10 |   |
| Benzene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| Bromodichloromethane         | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| Bromoform                    | 1.0 U  | 1.0 | 0.25 | 1    | 11/26/24 16:10 |   |
| Bromomethane                 | 1.0 U  | 1.0 | 0.70 | 1    | 11/26/24 16:10 |   |
| Carbon Disulfide             | 1.0 U  | 1.0 | 0.42 | 1    | 11/26/24 16:10 |   |
| Carbon Tetrachloride         | 1.0 U  | 1.0 | 0.34 | 1    | 11/26/24 16:10 |   |
| Chlorobenzene                | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| Chloroethane                 | 1.0 U  | 1.0 | 0.23 | 1    | 11/26/24 16:10 |   |
| Chloroform                   | 1.0 U  | 1.0 | 0.51 | 1    | 11/26/24 16:10 |   |
| Chloromethane                | 1.0 U  | 1.0 | 0.80 | 1    | 11/26/24 16:10 |   |
| Dibromochloromethane         | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| Dichloromethane              | 1.0 U  | 1.0 | 0.65 | 1    | 11/26/24 16:10 |   |
| Ethylbenzene                 | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| Styrene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| Tetrachloroethene (PCE)      | 1.0 U  | 1.0 | 0.21 | 1    | 11/26/24 16:10 |   |
| Toluene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| Trichloroethene (TCE)        | 24     | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| Vinyl Chloride               | 38     | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| cis-1,2-Dichloroethene       | 50     | 1.0 | 0.23 | 1    | 11/26/24 16:10 |   |
| cis-1,3-Dichloropropene      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| m,p-Xylenes                  | 2.0 U  | 2.0 | 0.53 | 1    | 11/26/24 16:10 |   |
| o-Xylene                     | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| trans-1,2-Dichloroethene     | 0.41 J | 1.0 | 0.20 | 1    | 11/26/24 16:10 |   |
| trans-1,3-Dichloropropene    | 1.0 U  | 1.0 | 0.23 | 1    | 11/26/24 16:10 |   |

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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Collected:** 11/18/24 09:15  
**Date Received:** 11/18/24 14:51

**Sample Name:** OW-2  
**Lab Code:** R2411827-002

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 99    | 85 - 122       | 11/26/24 16:10 |   |
| Dibromofluoromethane | 93    | 80 - 116       | 11/26/24 16:10 |   |
| Toluene-d8           | 104   | 87 - 121       | 11/26/24 16:10 |   |

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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Collected:** 11/18/24 09:50  
**Date Received:** 11/18/24 14:51

**Sample Name:** OW-3  
**Lab Code:** R2411827-003

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Analyte Name                 | Result | MRL | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------|--------|-----|------|------|----------------|---|
| 1,1,1-Trichloroethane (TCA)  | 1.4    | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| 1,1,2,2-Tetrachloroethane    | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| 1,1,2-Trichloroethane        | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| 1,1-Dichloroethane (1,1-DCA) | 4.2    | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| 1,1-Dichloroethene (1,1-DCE) | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| 1,2-Dichloroethane           | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| 1,2-Dichloropropane          | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| 2-Butanone (MEK)             | 5.0 U  | 5.0 | 0.78 | 1    | 11/26/24 16:33 |   |
| 2-Hexanone                   | 5.0 U  | 5.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| 4-Methyl-2-pentanone         | 5.0 U  | 5.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| Acetone                      | 5.0 U  | 5.0 | 5.0  | 1    | 11/26/24 16:33 |   |
| Benzene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| Bromodichloromethane         | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| Bromoform                    | 1.0 U  | 1.0 | 0.25 | 1    | 11/26/24 16:33 |   |
| Bromomethane                 | 1.0 U  | 1.0 | 0.70 | 1    | 11/26/24 16:33 |   |
| Carbon Disulfide             | 1.0 U  | 1.0 | 0.42 | 1    | 11/26/24 16:33 |   |
| Carbon Tetrachloride         | 1.0 U  | 1.0 | 0.34 | 1    | 11/26/24 16:33 |   |
| Chlorobenzene                | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| Chloroethane                 | 1.0 U  | 1.0 | 0.23 | 1    | 11/26/24 16:33 |   |
| Chloroform                   | 1.0 U  | 1.0 | 0.51 | 1    | 11/26/24 16:33 |   |
| Chloromethane                | 1.0 U  | 1.0 | 0.80 | 1    | 11/26/24 16:33 |   |
| Dibromochloromethane         | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| Dichloromethane              | 1.0 U  | 1.0 | 0.65 | 1    | 11/26/24 16:33 |   |
| Ethylbenzene                 | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| Styrene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| Tetrachloroethene (PCE)      | 1.0 U  | 1.0 | 0.21 | 1    | 11/26/24 16:33 |   |
| Toluene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| Trichloroethene (TCE)        | 5.5    | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| Vinyl Chloride               | 54     | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| cis-1,2-Dichloroethene       | 33     | 1.0 | 0.23 | 1    | 11/26/24 16:33 |   |
| cis-1,3-Dichloropropene      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| m,p-Xylenes                  | 2.0 U  | 2.0 | 0.53 | 1    | 11/26/24 16:33 |   |
| o-Xylene                     | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| trans-1,2-Dichloroethene     | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:33 |   |
| trans-1,3-Dichloropropene    | 1.0 U  | 1.0 | 0.23 | 1    | 11/26/24 16:33 |   |

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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water  
  
**Sample Name:** OW-3  
**Lab Code:** R2411827-003

**Service Request:** R2411827  
**Date Collected:** 11/18/24 09:50  
**Date Received:** 11/18/24 14:51  
  
**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 104   | 85 - 122       | 11/26/24 16:33 |   |
| Dibromofluoromethane | 102   | 80 - 116       | 11/26/24 16:33 |   |
| Toluene-d8           | 111   | 87 - 121       | 11/26/24 16:33 |   |

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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Collected:** 11/18/24 10:40  
**Date Received:** 11/18/24 14:51

**Sample Name:** OW-4  
**Lab Code:** R2411827-004

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Analyte Name                 | Result | MRL | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------|--------|-----|------|------|----------------|---|
| 1,1,1-Trichloroethane (TCA)  | 0.53 J | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| 1,1,2,2-Tetrachloroethane    | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| 1,1,2-Trichloroethane        | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| 1,1-Dichloroethane (1,1-DCA) | 1.3    | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| 1,1-Dichloroethene (1,1-DCE) | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| 1,2-Dichloroethane           | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| 1,2-Dichloropropane          | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| 2-Butanone (MEK)             | 5.0 U  | 5.0 | 0.78 | 1    | 11/26/24 16:56 |   |
| 2-Hexanone                   | 5.0 U  | 5.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| 4-Methyl-2-pentanone         | 5.0 U  | 5.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| Acetone                      | 5.0 U  | 5.0 | 5.0  | 1    | 11/26/24 16:56 |   |
| Benzene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| Bromodichloromethane         | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| Bromoform                    | 1.0 U  | 1.0 | 0.25 | 1    | 11/26/24 16:56 |   |
| Bromomethane                 | 1.0 U  | 1.0 | 0.70 | 1    | 11/26/24 16:56 |   |
| Carbon Disulfide             | 1.0 U  | 1.0 | 0.42 | 1    | 11/26/24 16:56 |   |
| Carbon Tetrachloride         | 1.0 U  | 1.0 | 0.34 | 1    | 11/26/24 16:56 |   |
| Chlorobenzene                | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| Chloroethane                 | 1.0 U  | 1.0 | 0.23 | 1    | 11/26/24 16:56 |   |
| Chloroform                   | 1.0 U  | 1.0 | 0.51 | 1    | 11/26/24 16:56 |   |
| Chloromethane                | 1.0 U  | 1.0 | 0.80 | 1    | 11/26/24 16:56 |   |
| Dibromochloromethane         | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| Dichloromethane              | 1.0 U  | 1.0 | 0.65 | 1    | 11/26/24 16:56 |   |
| Ethylbenzene                 | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| Styrene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| Tetrachloroethene (PCE)      | 1.0 U  | 1.0 | 0.21 | 1    | 11/26/24 16:56 |   |
| Toluene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| Trichloroethene (TCE)        | 20     | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| Vinyl Chloride               | 6.7    | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| cis-1,2-Dichloroethene       | 16     | 1.0 | 0.23 | 1    | 11/26/24 16:56 |   |
| cis-1,3-Dichloropropene      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| m,p-Xylenes                  | 2.0 U  | 2.0 | 0.53 | 1    | 11/26/24 16:56 |   |
| o-Xylene                     | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| trans-1,2-Dichloroethene     | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 16:56 |   |
| trans-1,3-Dichloropropene    | 1.0 U  | 1.0 | 0.23 | 1    | 11/26/24 16:56 |   |

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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water  
  
**Sample Name:** OW-4  
**Lab Code:** R2411827-004

**Service Request:** R2411827  
**Date Collected:** 11/18/24 10:40  
**Date Received:** 11/18/24 14:51  
  
**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 92    | 85 - 122       | 11/26/24 16:56 |   |
| Dibromofluoromethane | 92    | 80 - 116       | 11/26/24 16:56 |   |
| Toluene-d8           | 101   | 87 - 121       | 11/26/24 16:56 |   |

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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Collected:** 11/18/24 11:15  
**Date Received:** 11/18/24 14:51

**Sample Name:** OW-5  
**Lab Code:** R2411827-005

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Analyte Name                 | Result | MRL | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------|--------|-----|------|------|----------------|---|
| 1,1,1-Trichloroethane (TCA)  | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| 1,1,2,2-Tetrachloroethane    | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| 1,1,2-Trichloroethane        | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| 1,1-Dichloroethane (1,1-DCA) | 2.0    | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| 1,1-Dichloroethene (1,1-DCE) | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| 1,2-Dichloroethane           | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| 1,2-Dichloropropane          | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| 2-Butanone (MEK)             | 5.0 U  | 5.0 | 0.78 | 1    | 11/26/24 17:19 |   |
| 2-Hexanone                   | 5.0 U  | 5.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| 4-Methyl-2-pentanone         | 5.0 U  | 5.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| Acetone                      | 5.0 U  | 5.0 | 5.0  | 1    | 11/26/24 17:19 |   |
| Benzene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| Bromodichloromethane         | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| Bromoform                    | 1.0 U  | 1.0 | 0.25 | 1    | 11/26/24 17:19 |   |
| Bromomethane                 | 1.0 U  | 1.0 | 0.70 | 1    | 11/26/24 17:19 |   |
| Carbon Disulfide             | 1.0 U  | 1.0 | 0.42 | 1    | 11/26/24 17:19 |   |
| Carbon Tetrachloride         | 1.0 U  | 1.0 | 0.34 | 1    | 11/26/24 17:19 |   |
| Chlorobenzene                | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| Chloroethane                 | 1.0 U  | 1.0 | 0.23 | 1    | 11/26/24 17:19 |   |
| Chloroform                   | 1.0 U  | 1.0 | 0.51 | 1    | 11/26/24 17:19 |   |
| Chloromethane                | 1.0 U  | 1.0 | 0.80 | 1    | 11/26/24 17:19 |   |
| Dibromochloromethane         | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| Dichloromethane              | 1.0 U  | 1.0 | 0.65 | 1    | 11/26/24 17:19 |   |
| Ethylbenzene                 | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| Styrene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| Tetrachloroethene (PCE)      | 1.0 U  | 1.0 | 0.21 | 1    | 11/26/24 17:19 |   |
| Toluene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| Trichloroethene (TCE)        | 19     | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| Vinyl Chloride               | 10     | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| cis-1,2-Dichloroethene       | 28     | 1.0 | 0.23 | 1    | 11/26/24 17:19 |   |
| cis-1,3-Dichloropropene      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| m,p-Xylenes                  | 2.0 U  | 2.0 | 0.53 | 1    | 11/26/24 17:19 |   |
| o-Xylene                     | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| trans-1,2-Dichloroethene     | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 17:19 |   |
| trans-1,3-Dichloropropene    | 1.0 U  | 1.0 | 0.23 | 1    | 11/26/24 17:19 |   |

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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water  
  
**Sample Name:** OW-5  
**Lab Code:** R2411827-005

**Service Request:** R2411827  
**Date Collected:** 11/18/24 11:15  
**Date Received:** 11/18/24 14:51  
  
**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 94    | 85 - 122       | 11/26/24 17:19 |   |
| Dibromofluoromethane | 92    | 80 - 116       | 11/26/24 17:19 |   |
| Toluene-d8           | 102   | 87 - 121       | 11/26/24 17:19 |   |

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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Collected:** 11/18/24 11:55  
**Date Received:** 11/18/24 14:51

**Sample Name:** OW-8/MW-4  
**Lab Code:** R2411827-006

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Analyte Name                 | Result        | MRL | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------|---------------|-----|------|------|----------------|---|
| 1,1,1-Trichloroethane (TCA)  | <b>0.26 J</b> | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| 1,1,2,2-Tetrachloroethane    | 1.0 U         | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| 1,1,2-Trichloroethane        | 1.0 U         | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| 1,1-Dichloroethane (1,1-DCA) | <b>1.2</b>    | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| 1,1-Dichloroethene (1,1-DCE) | 1.0 U         | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| 1,2-Dichloroethane           | 1.0 U         | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| 1,2-Dichloropropane          | 1.0 U         | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| 2-Butanone (MEK)             | 5.0 U         | 5.0 | 0.78 | 1    | 11/26/24 17:41 |   |
| 2-Hexanone                   | 5.0 U         | 5.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| 4-Methyl-2-pentanone         | 5.0 U         | 5.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| Acetone                      | 5.0 U         | 5.0 | 5.0  | 1    | 11/26/24 17:41 |   |
| Benzene                      | <b>8.1</b>    | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| Bromodichloromethane         | 1.0 U         | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| Bromoform                    | 1.0 U         | 1.0 | 0.25 | 1    | 11/26/24 17:41 |   |
| Bromomethane                 | 1.0 U         | 1.0 | 0.70 | 1    | 11/26/24 17:41 |   |
| Carbon Disulfide             | 1.0 U         | 1.0 | 0.42 | 1    | 11/26/24 17:41 |   |
| Carbon Tetrachloride         | 1.0 U         | 1.0 | 0.34 | 1    | 11/26/24 17:41 |   |
| Chlorobenzene                | 1.0 U         | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| Chloroethane                 | 1.0 U         | 1.0 | 0.23 | 1    | 11/26/24 17:41 |   |
| Chloroform                   | 1.0 U         | 1.0 | 0.51 | 1    | 11/26/24 17:41 |   |
| Chloromethane                | 1.0 U         | 1.0 | 0.80 | 1    | 11/26/24 17:41 |   |
| Dibromochloromethane         | 1.0 U         | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| Dichloromethane              | 1.0 U         | 1.0 | 0.65 | 1    | 11/26/24 17:41 |   |
| Ethylbenzene                 | <b>0.68 J</b> | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| Styrene                      | 1.0 U         | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| Tetrachloroethene (PCE)      | 1.0 U         | 1.0 | 0.21 | 1    | 11/26/24 17:41 |   |
| Toluene                      | 1.0 U         | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| Trichloroethene (TCE)        | <b>9.9</b>    | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| Vinyl Chloride               | <b>21</b>     | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| cis-1,2-Dichloroethene       | <b>20</b>     | 1.0 | 0.23 | 1    | 11/26/24 17:41 |   |
| cis-1,3-Dichloropropene      | 1.0 U         | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| m,p-Xylenes                  | 2.0 U         | 2.0 | 0.53 | 1    | 11/26/24 17:41 |   |
| o-Xylene                     | <b>0.45 J</b> | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| trans-1,2-Dichloroethene     | 1.0 U         | 1.0 | 0.20 | 1    | 11/26/24 17:41 |   |
| trans-1,3-Dichloropropene    | 1.0 U         | 1.0 | 0.23 | 1    | 11/26/24 17:41 |   |

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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Collected:** 11/18/24 11:55  
**Date Received:** 11/18/24 14:51

**Sample Name:** OW-8/MW-4  
**Lab Code:** R2411827-006

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 100   | 85 - 122       | 11/26/24 17:41 |   |
| Dibromofluoromethane | 95    | 80 - 116       | 11/26/24 17:41 |   |
| Toluene-d8           | 105   | 87 - 121       | 11/26/24 17:41 |   |

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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Collected:** 11/18/24 12:15  
**Date Received:** 11/18/24 14:51

**Sample Name:** OW-9/MW-3  
**Lab Code:** R2411827-007

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Analyte Name                 | Result | MRL | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------|--------|-----|------|------|----------------|---|
| 1,1,1-Trichloroethane (TCA)  | 0.41 J | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| 1,1,2,2-Tetrachloroethane    | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| 1,1,2-Trichloroethane        | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| 1,1-Dichloroethane (1,1-DCA) | 0.21 J | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| 1,1-Dichloroethene (1,1-DCE) | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| 1,2-Dichloroethane           | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| 1,2-Dichloropropane          | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| 2-Butanone (MEK)             | 5.0 U  | 5.0 | 0.78 | 1    | 11/26/24 18:04 |   |
| 2-Hexanone                   | 5.0 U  | 5.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| 4-Methyl-2-pentanone         | 5.0 U  | 5.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| Acetone                      | 5.0 U  | 5.0 | 5.0  | 1    | 11/26/24 18:04 |   |
| Benzene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| Bromodichloromethane         | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| Bromoform                    | 1.0 U  | 1.0 | 0.25 | 1    | 11/26/24 18:04 |   |
| Bromomethane                 | 1.0 U  | 1.0 | 0.70 | 1    | 11/26/24 18:04 |   |
| Carbon Disulfide             | 1.0 U  | 1.0 | 0.42 | 1    | 11/26/24 18:04 |   |
| Carbon Tetrachloride         | 1.0 U  | 1.0 | 0.34 | 1    | 11/26/24 18:04 |   |
| Chlorobenzene                | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| Chloroethane                 | 1.0 U  | 1.0 | 0.23 | 1    | 11/26/24 18:04 |   |
| Chloroform                   | 1.0 U  | 1.0 | 0.51 | 1    | 11/26/24 18:04 |   |
| Chloromethane                | 1.0 U  | 1.0 | 0.80 | 1    | 11/26/24 18:04 |   |
| Dibromochloromethane         | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| Dichloromethane              | 1.0 U  | 1.0 | 0.65 | 1    | 11/26/24 18:04 |   |
| Ethylbenzene                 | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| Styrene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| Tetrachloroethene (PCE)      | 1.0 U  | 1.0 | 0.21 | 1    | 11/26/24 18:04 |   |
| Toluene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| Trichloroethene (TCE)        | 42     | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| Vinyl Chloride               | 14     | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| cis-1,2-Dichloroethene       | 23     | 1.0 | 0.23 | 1    | 11/26/24 18:04 |   |
| cis-1,3-Dichloropropene      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| m,p-Xylenes                  | 2.0 U  | 2.0 | 0.53 | 1    | 11/26/24 18:04 |   |
| o-Xylene                     | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| trans-1,2-Dichloroethene     | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 18:04 |   |
| trans-1,3-Dichloropropene    | 1.0 U  | 1.0 | 0.23 | 1    | 11/26/24 18:04 |   |

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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Collected:** 11/18/24 12:15  
**Date Received:** 11/18/24 14:51

**Sample Name:** OW-9/MW-3  
**Lab Code:** R2411827-007

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 103   | 85 - 122       | 11/26/24 18:04 |   |
| Dibromofluoromethane | 96    | 80 - 116       | 11/26/24 18:04 |   |
| Toluene-d8           | 107   | 87 - 121       | 11/26/24 18:04 |   |

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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Collected:** 11/18/24  
**Date Received:** 11/18/24 14:51

**Sample Name:** Field Dup  
**Lab Code:** R2411827-008

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Analyte Name                 | Result        | MRL | MDL | Dil. | Date Analyzed  | Q |
|------------------------------|---------------|-----|-----|------|----------------|---|
| 1,1,1-Trichloroethane (TCA)  | <b>9.4 D</b>  | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| 1,1,2,2-Tetrachloroethane    | 5.0 U         | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| 1,1,2-Trichloroethane        | 5.0 U         | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| 1,1-Dichloroethane (1,1-DCA) | <b>1.3 DJ</b> | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| 1,1-Dichloroethene (1,1-DCE) | 5.0 U         | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| 1,2-Dichloroethane           | 5.0 U         | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| 1,2-Dichloropropane          | 5.0 U         | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| 2-Butanone (MEK)             | 25 U          | 25  | 3.9 | 5    | 11/28/24 05:19 |   |
| 2-Hexanone                   | 25 U          | 25  | 1.0 | 5    | 11/28/24 05:19 |   |
| 4-Methyl-2-pentanone         | 25 U          | 25  | 1.0 | 5    | 11/28/24 05:19 |   |
| Acetone                      | 25 U          | 25  | 25  | 5    | 11/28/24 05:19 |   |
| Benzene                      | 5.0 U         | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| Bromodichloromethane         | 5.0 U         | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| Bromoform                    | 5.0 U         | 5.0 | 1.3 | 5    | 11/28/24 05:19 |   |
| Bromomethane                 | 5.0 U         | 5.0 | 3.5 | 5    | 11/28/24 05:19 |   |
| Carbon Disulfide             | 5.0 U         | 5.0 | 2.1 | 5    | 11/28/24 05:19 |   |
| Carbon Tetrachloride         | 5.0 U         | 5.0 | 1.7 | 5    | 11/28/24 05:19 |   |
| Chlorobenzene                | 5.0 U         | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| Chloroethane                 | 5.0 U         | 5.0 | 1.2 | 5    | 11/28/24 05:19 |   |
| Chloroform                   | 5.0 U         | 5.0 | 2.6 | 5    | 11/28/24 05:19 |   |
| Chloromethane                | 5.0 U         | 5.0 | 4.0 | 5    | 11/28/24 05:19 |   |
| Dibromochloromethane         | 5.0 U         | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| Dichloromethane              | 5.0 U         | 5.0 | 3.3 | 5    | 11/28/24 05:19 |   |
| Ethylbenzene                 | 5.0 U         | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| Styrene                      | 5.0 U         | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| Tetrachloroethene (PCE)      | 5.0 U         | 5.0 | 1.1 | 5    | 11/28/24 05:19 |   |
| Toluene                      | 5.0 U         | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| Trichloroethene (TCE)        | <b>450 D</b>  | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| Vinyl Chloride               | <b>4.9 DJ</b> | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| cis-1,2-Dichloroethene       | <b>26 D</b>   | 5.0 | 1.2 | 5    | 11/28/24 05:19 |   |
| cis-1,3-Dichloropropene      | 5.0 U         | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| m,p-Xylenes                  | 10 U          | 10  | 2.7 | 5    | 11/28/24 05:19 |   |
| o-Xylene                     | 5.0 U         | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| trans-1,2-Dichloroethene     | 5.0 U         | 5.0 | 1.0 | 5    | 11/28/24 05:19 |   |
| trans-1,3-Dichloropropene    | 5.0 U         | 5.0 | 1.2 | 5    | 11/28/24 05:19 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 99    | 85 - 122       | 11/28/24 05:19 |   |
| Dibromofluoromethane | 101   | 80 - 116       | 11/28/24 05:19 |   |
| Toluene-d8           | 105   | 87 - 121       | 11/28/24 05:19 |   |

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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Collected:** 11/18/24  
**Date Received:** 11/18/24 14:51

**Sample Name:** Field Dup  
**Lab Code:** R2411827-008

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Analyte Name                 | Result        | MRL | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------|---------------|-----|------|------|----------------|---|
| 1,1,1-Trichloroethane (TCA)  | <b>8.8</b>    | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| 1,1,2,2-Tetrachloroethane    | 2.0 U         | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| 1,1,2-Trichloroethane        | 2.0 U         | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| 1,1-Dichloroethane (1,1-DCA) | <b>1.3 J</b>  | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| 1,1-Dichloroethene (1,1-DCE) | <b>0.44 J</b> | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| 1,2-Dichloroethane           | 2.0 U         | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| 1,2-Dichloropropane          | 2.0 U         | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| 2-Butanone (MEK)             | 10 U          | 10  | 1.6  | 2    | 11/26/24 18:27 |   |
| 2-Hexanone                   | 10 U          | 10  | 0.40 | 2    | 11/26/24 18:27 |   |
| 4-Methyl-2-pentanone         | 10 U          | 10  | 0.40 | 2    | 11/26/24 18:27 |   |
| Acetone                      | 10 U          | 10  | 10   | 2    | 11/26/24 18:27 |   |
| Benzene                      | 2.0 U         | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| Bromodichloromethane         | 2.0 U         | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| Bromoform                    | 2.0 U         | 2.0 | 0.50 | 2    | 11/26/24 18:27 |   |
| Bromomethane                 | 2.0 U         | 2.0 | 1.4  | 2    | 11/26/24 18:27 |   |
| Carbon Disulfide             | 2.0 U         | 2.0 | 0.84 | 2    | 11/26/24 18:27 |   |
| Carbon Tetrachloride         | 2.0 U         | 2.0 | 0.68 | 2    | 11/26/24 18:27 |   |
| Chlorobenzene                | 2.0 U         | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| Chloroethane                 | 2.0 U         | 2.0 | 0.46 | 2    | 11/26/24 18:27 |   |
| Chloroform                   | 2.0 U         | 2.0 | 1.1  | 2    | 11/26/24 18:27 |   |
| Chloromethane                | 2.0 U         | 2.0 | 1.6  | 2    | 11/26/24 18:27 |   |
| Dibromochloromethane         | 2.0 U         | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| Dichloromethane              | 2.0 U         | 2.0 | 1.3  | 2    | 11/26/24 18:27 |   |
| Ethylbenzene                 | 2.0 U         | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| Styrene                      | 2.0 U         | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| Tetrachloroethene (PCE)      | 2.0 U         | 2.0 | 0.42 | 2    | 11/26/24 18:27 |   |
| Toluene                      | 2.0 U         | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| Trichloroethene (TCE)        | <b>460 E</b>  | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| Vinyl Chloride               | <b>4.2</b>    | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| cis-1,2-Dichloroethene       | <b>23</b>     | 2.0 | 0.46 | 2    | 11/26/24 18:27 |   |
| cis-1,3-Dichloropropene      | 2.0 U         | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| m,p-Xylenes                  | 4.0 U         | 4.0 | 1.1  | 2    | 11/26/24 18:27 |   |
| o-Xylene                     | 2.0 U         | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| trans-1,2-Dichloroethene     | 2.0 U         | 2.0 | 0.40 | 2    | 11/26/24 18:27 |   |
| trans-1,3-Dichloropropene    | 2.0 U         | 2.0 | 0.46 | 2    | 11/26/24 18:27 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 101   | 85 - 122       | 11/26/24 18:27 |   |
| Dibromofluoromethane | 97    | 80 - 116       | 11/26/24 18:27 |   |
| Toluene-d8           | 107   | 87 - 121       | 11/26/24 18:27 |   |



## QC Summary Forms

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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## Volatile Organic Compounds by GC/MS

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827

**SURROGATE RECOVERY SUMMARY**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260D  
**Extraction Method:** EPA 5030C

| Sample Name        | Lab Code     | 4-Bromofluorobenzene | Dibromofluoromethane | Toluene-d8 |
|--------------------|--------------|----------------------|----------------------|------------|
|                    |              | 85 - 122             | 80 - 116             | 87 - 121   |
| OW-1               | R2411827-001 | 103                  | 98                   | 108        |
| OW-2               | R2411827-002 | 99                   | 93                   | 104        |
| OW-3               | R2411827-003 | 104                  | 102                  | 111        |
| OW-4               | R2411827-004 | 92                   | 92                   | 101        |
| OW-5               | R2411827-005 | 94                   | 92                   | 102        |
| OW-8/MW-4          | R2411827-006 | 100                  | 95                   | 105        |
| OW-9/MW-3          | R2411827-007 | 103                  | 96                   | 107        |
| Field Dup          | R2411827-008 | 101                  | 97                   | 107        |
| Field Dup DL       | R2411827-008 | 99                   | 101                  | 105        |
| Lab Control Sample | RQ2415216-02 | 100                  | 99                   | 104        |
| Method Blank       | RQ2415216-03 | 94                   | 94                   | 102        |
| OW-1 MS            | RQ2415216-04 | 104                  | 106                  | 109        |
| OW-1 DMS           | RQ2415216-05 | 105                  | 105                  | 105        |
| Lab Control Sample | RQ2415321-02 | 96                   | 98                   | 100        |
| Method Blank       | RQ2415321-03 | 100                  | 106                  | 111        |

**ALS Group USA, Corp.**  
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QA/QC Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Collected:** 11/18/24  
**Date Received:** 11/18/24  
**Date Analyzed:** 11/26/24  
**Date Extracted:** NA

**Duplicate Matrix Spike Summary**  
**Volatile Organic Compounds by GC/MS**

**Sample Name:** OW-1  
**Lab Code:** R2411827-001  
**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

**Units:** ug/L  
**Basis:** NA

| Analyte Name                 | Matrix Spike<br>RQ2415216-04 |        |                 |       | Duplicate Matrix Spike<br>RQ2415216-05 |                 |       |                 | RPD | RPD<br>Limit |
|------------------------------|------------------------------|--------|-----------------|-------|----------------------------------------|-----------------|-------|-----------------|-----|--------------|
|                              | Sample<br>Result             | Result | Spike<br>Amount | % Rec | Result                                 | Spike<br>Amount | % Rec | % Rec<br>Limits |     |              |
| 1,1,1-Trichloroethane (TCA)  | 7.4                          | 144    | 125             | 109   | 150                                    | 125             | 114   | 74-127          | 5   | 30           |
| 1,1,2,2-Tetrachloroethane    | 2.5 U                        | 119    | 125             | 95    | 119                                    | 125             | 95    | 72-122          | <1  | 30           |
| 1,1,2-Trichloroethane        | 2.5 U                        | 128    | 125             | 102   | 131                                    | 125             | 105   | 82-121          | 2   | 30           |
| 1,1-Dichloroethane (1,1-DCA) | 1.3 J                        | 151    | 125             | 120   | 156                                    | 125             | 124   | 74-132          | 4   | 30           |
| 1,1-Dichloroethene (1,1-DCE) | 2.5 U                        | 146    | 125             | 117   | 150                                    | 125             | 120 * | 71-118          | 3   | 30           |
| 1,2-Dichloroethane           | 2.5 U                        | 140    | 125             | 112   | 143                                    | 125             | 115   | 68-130          | 2   | 30           |
| 1,2-Dichloropropane          | 2.5 U                        | 140    | 125             | 112   | 145                                    | 125             | 116   | 79-124          | 3   | 30           |
| 2-Butanone (MEK)             | 13 U                         | 133    | 125             | 106   | 133                                    | 125             | 106   | 61-137          | <1  | 30           |
| 2-Hexanone                   | 13 U                         | 129    | 125             | 104   | 124                                    | 125             | 99    | 56-132          | 4   | 30           |
| 4-Methyl-2-pentanone         | 13 U                         | 142    | 125             | 113   | 133                                    | 125             | 106   | 60-141          | 7   | 30           |
| Acetone                      | 13 U                         | 104    | 125             | 83    | 104                                    | 125             | 83    | 35-183          | <1  | 30           |
| Benzene                      | 2.5 U                        | 140    | 125             | 112   | 140                                    | 125             | 112   | 76-129          | <1  | 30           |
| Bromodichloromethane         | 2.5 U                        | 127    | 125             | 102   | 129                                    | 125             | 104   | 78-133          | 2   | 30           |
| Bromoform                    | 2.5 U                        | 114    | 125             | 91    | 117                                    | 125             | 93    | 58-133          | 3   | 30           |
| Bromomethane                 | 2.5 U                        | 140    | 125             | 112   | 151                                    | 125             | 121   | 10-184          | 8   | 30           |
| Carbon Disulfide             | 2.5 U                        | 127    | 125             | 101   | 128                                    | 125             | 102   | 59-140          | 1   | 30           |
| Carbon Tetrachloride         | 2.5 U                        | 128    | 125             | 102   | 133                                    | 125             | 106   | 65-135          | 4   | 30           |
| Chlorobenzene                | 2.5 U                        | 125    | 125             | 100   | 127                                    | 125             | 101   | 76-125          | <1  | 30           |
| Chloroethane                 | 2.5 U                        | 121    | 125             | 96    | 131                                    | 125             | 105   | 48-146          | 9   | 30           |
| Chloroform                   | 2.5 U                        | 132    | 125             | 106   | 141                                    | 125             | 113   | 75-130          | 6   | 30           |
| Chloromethane                | 2.5 U                        | 182    | 125             | 146   | 190                                    | 125             | 152   | 55-160          | 4   | 30           |
| Dibromochloromethane         | 2.5 U                        | 116    | 125             | 93    | 114                                    | 125             | 92    | 72-128          | 2   | 30           |
| Dichloromethane              | 2.5 U                        | 139    | 125             | 111   | 144                                    | 125             | 115   | 73-122          | 4   | 30           |
| Ethylbenzene                 | 2.5 U                        | 132    | 125             | 106   | 131                                    | 125             | 105   | 72-134          | <1  | 30           |
| Styrene                      | 2.5 U                        | 126    | 125             | 101   | 127                                    | 125             | 102   | 74-136          | <1  | 30           |
| Tetrachloroethene (PCE)      | 2.5 U                        | 137    | 125             | 109   | 134                                    | 125             | 107   | 72-125          | 2   | 30           |
| Toluene                      | 2.5 U                        | 138    | 125             | 110   | 134                                    | 125             | 107   | 79-119          | 3   | 30           |
| Trichloroethene (TCE)        | 430                          | 603 E  | 125             | 138 * | 592 E                                  | 125             | 129 * | 74-122          | 2   | 30           |
| Vinyl Chloride               | 4.4                          | 167    | 125             | 130   | 174                                    | 125             | 135   | 74-159          | 4   | 30           |
| cis-1,2-Dichloroethene       | 24                           | 174    | 125             | 120   | 180                                    | 125             | 125   | 77-127          | 3   | 30           |
| cis-1,3-Dichloropropene      | 2.5 U                        | 133    | 125             | 107   | 138                                    | 125             | 110   | 52-134          | 3   | 30           |
| m,p-Xylenes                  | 5.0 U                        | 262    | 250             | 105   | 265                                    | 250             | 106   | 80-126          | 1   | 30           |
| o-Xylene                     | 2.5 U                        | 126    | 125             | 101   | 128                                    | 125             | 102   | 79-123          | <1  | 30           |

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.  
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QA/QC Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Collected:** 11/18/24  
**Date Received:** 11/18/24  
**Date Analyzed:** 11/26/24  
**Date Extracted:** NA

**Duplicate Matrix Spike Summary**  
**Volatile Organic Compounds by GC/MS**

**Sample Name:** OW-1  
**Lab Code:** R2411827-001  
**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

**Units:** ug/L  
**Basis:** NA

| Analyte Name              | Sample Result | Matrix Spike<br>RQ2415216-04 |              |       | Duplicate Matrix Spike<br>RQ2415216-05 |              |       | % Rec Limits | RPD | RPD Limit |
|---------------------------|---------------|------------------------------|--------------|-------|----------------------------------------|--------------|-------|--------------|-----|-----------|
|                           |               | Result                       | Spike Amount | % Rec | Result                                 | Spike Amount | % Rec |              |     |           |
| trans-1,2-Dichloroethene  | 2.5 U         | 132                          | 125          | 106   | 137                                    | 125          | 110   | 73-118       | 4   | 30        |
| trans-1,3-Dichloropropene | 2.5 U         | 135                          | 125          | 108   | 139                                    | 125          | 111   | 71-133       | 2   | 30        |

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.  
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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** RQ2415216-03

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Analyte Name                 | Result | MRL | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------|--------|-----|------|------|----------------|---|
| 1,1,1-Trichloroethane (TCA)  | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| 1,1,2,2-Tetrachloroethane    | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| 1,1,2-Trichloroethane        | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| 1,1-Dichloroethane (1,1-DCA) | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| 1,1-Dichloroethene (1,1-DCE) | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| 1,2-Dichloroethane           | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| 1,2-Dichloropropane          | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| 2-Butanone (MEK)             | 5.0 U  | 5.0 | 0.78 | 1    | 11/26/24 11:15 |   |
| 2-Hexanone                   | 5.0 U  | 5.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| 4-Methyl-2-pentanone         | 5.0 U  | 5.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| Acetone                      | 5.0 U  | 5.0 | 5.0  | 1    | 11/26/24 11:15 |   |
| Benzene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| Bromodichloromethane         | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| Bromoform                    | 1.0 U  | 1.0 | 0.25 | 1    | 11/26/24 11:15 |   |
| Bromomethane                 | 1.0 U  | 1.0 | 0.70 | 1    | 11/26/24 11:15 |   |
| Carbon Disulfide             | 1.0 U  | 1.0 | 0.42 | 1    | 11/26/24 11:15 |   |
| Carbon Tetrachloride         | 1.0 U  | 1.0 | 0.34 | 1    | 11/26/24 11:15 |   |
| Chlorobenzene                | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| Chloroethane                 | 1.0 U  | 1.0 | 0.23 | 1    | 11/26/24 11:15 |   |
| Chloroform                   | 1.0 U  | 1.0 | 0.51 | 1    | 11/26/24 11:15 |   |
| Chloromethane                | 1.0 U  | 1.0 | 0.80 | 1    | 11/26/24 11:15 |   |
| Dibromochloromethane         | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| Dichloromethane              | 1.0 U  | 1.0 | 0.65 | 1    | 11/26/24 11:15 |   |
| Ethylbenzene                 | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| Styrene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| Tetrachloroethene (PCE)      | 1.0 U  | 1.0 | 0.21 | 1    | 11/26/24 11:15 |   |
| Toluene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| Trichloroethene (TCE)        | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| Vinyl Chloride               | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| cis-1,2-Dichloroethene       | 1.0 U  | 1.0 | 0.23 | 1    | 11/26/24 11:15 |   |
| cis-1,3-Dichloropropene      | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| m,p-Xylenes                  | 2.0 U  | 2.0 | 0.53 | 1    | 11/26/24 11:15 |   |
| o-Xylene                     | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| trans-1,2-Dichloroethene     | 1.0 U  | 1.0 | 0.20 | 1    | 11/26/24 11:15 |   |
| trans-1,3-Dichloropropene    | 1.0 U  | 1.0 | 0.23 | 1    | 11/26/24 11:15 |   |

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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water  
  
**Sample Name:** Method Blank  
**Lab Code:** RQ2415216-03

**Service Request:** R2411827  
**Date Collected:** NA  
**Date Received:** NA  
  
**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 94    | 85 - 122       | 11/26/24 11:15 |   |
| Dibromofluoromethane | 94    | 80 - 116       | 11/26/24 11:15 |   |
| Toluene-d8           | 102   | 87 - 121       | 11/26/24 11:15 |   |

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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** RQ2415321-03

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Analyte Name                 | Result | MRL | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------|--------|-----|------|------|----------------|---|
| 1,1,1-Trichloroethane (TCA)  | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| 1,1,2,2-Tetrachloroethane    | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| 1,1,2-Trichloroethane        | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| 1,1-Dichloroethane (1,1-DCA) | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| 1,1-Dichloroethene (1,1-DCE) | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| 1,2-Dichloroethane           | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| 1,2-Dichloropropane          | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| 2-Butanone (MEK)             | 5.0 U  | 5.0 | 0.78 | 1    | 11/27/24 21:44 |   |
| 2-Hexanone                   | 5.0 U  | 5.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| 4-Methyl-2-pentanone         | 5.0 U  | 5.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| Acetone                      | 5.0 U  | 5.0 | 5.0  | 1    | 11/27/24 21:44 |   |
| Benzene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| Bromodichloromethane         | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| Bromoform                    | 1.0 U  | 1.0 | 0.25 | 1    | 11/27/24 21:44 |   |
| Bromomethane                 | 1.0 U  | 1.0 | 0.70 | 1    | 11/27/24 21:44 |   |
| Carbon Disulfide             | 1.0 U  | 1.0 | 0.42 | 1    | 11/27/24 21:44 |   |
| Carbon Tetrachloride         | 1.0 U  | 1.0 | 0.34 | 1    | 11/27/24 21:44 |   |
| Chlorobenzene                | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| Chloroethane                 | 1.0 U  | 1.0 | 0.23 | 1    | 11/27/24 21:44 |   |
| Chloroform                   | 1.0 U  | 1.0 | 0.51 | 1    | 11/27/24 21:44 |   |
| Chloromethane                | 1.0 U  | 1.0 | 0.80 | 1    | 11/27/24 21:44 |   |
| Dibromochloromethane         | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| Dichloromethane              | 1.0 U  | 1.0 | 0.65 | 1    | 11/27/24 21:44 |   |
| Ethylbenzene                 | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| Styrene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| Tetrachloroethene (PCE)      | 1.0 U  | 1.0 | 0.21 | 1    | 11/27/24 21:44 |   |
| Toluene                      | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| Trichloroethene (TCE)        | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| Vinyl Chloride               | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| cis-1,2-Dichloroethene       | 1.0 U  | 1.0 | 0.23 | 1    | 11/27/24 21:44 |   |
| cis-1,3-Dichloropropene      | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| m,p-Xylenes                  | 2.0 U  | 2.0 | 0.53 | 1    | 11/27/24 21:44 |   |
| o-Xylene                     | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| trans-1,2-Dichloroethene     | 1.0 U  | 1.0 | 0.20 | 1    | 11/27/24 21:44 |   |
| trans-1,3-Dichloropropene    | 1.0 U  | 1.0 | 0.23 | 1    | 11/27/24 21:44 |   |

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Analytical Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** RQ2415321-03

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260D  
**Prep Method:** EPA 5030C

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 100   | 85 - 122       | 11/27/24 21:44 |   |
| Dibromofluoromethane | 106   | 80 - 116       | 11/27/24 21:44 |   |
| Toluene-d8           | 111   | 87 - 121       | 11/27/24 21:44 |   |

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QA/QC Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Analyzed:** 11/26/24

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Units:**ug/L  
**Basis:**NA

**Lab Control Sample**  
RQ2415216-02

| Analyte Name                 | Analytical Method | Result | Spike Amount | % Rec | % Rec Limits |
|------------------------------|-------------------|--------|--------------|-------|--------------|
| 1,1,1-Trichloroethane (TCA)  | 8260D             | 21.3   | 20.0         | 106   | 75-125       |
| 1,1,2,2-Tetrachloroethane    | 8260D             | 18.3   | 20.0         | 91    | 78-126       |
| 1,1,2-Trichloroethane        | 8260D             | 19.6   | 20.0         | 98    | 82-121       |
| 1,1-Dichloroethane (1,1-DCA) | 8260D             | 24.4   | 20.0         | 122   | 80-124       |
| 1,1-Dichloroethene (1,1-DCE) | 8260D             | 23.0   | 20.0         | 115   | 71-118       |
| 1,2-Dichloroethane           | 8260D             | 22.9   | 20.0         | 114   | 71-127       |
| 1,2-Dichloropropane          | 8260D             | 21.5   | 20.0         | 108   | 80-119       |
| 2-Butanone (MEK)             | 8260D             | 20.3   | 20.0         | 101   | 61-137       |
| 2-Hexanone                   | 8260D             | 17.1   | 20.0         | 85    | 63-124       |
| 4-Methyl-2-pentanone         | 8260D             | 19.6   | 20.0         | 98    | 66-124       |
| Acetone                      | 8260D             | 15.5   | 20.0         | 78    | 40-161       |
| Benzene                      | 8260D             | 21.6   | 20.0         | 108   | 79-119       |
| Bromodichloromethane         | 8260D             | 20.1   | 20.0         | 100   | 81-123       |
| Bromoform                    | 8260D             | 17.2   | 20.0         | 86    | 65-146       |
| Bromomethane                 | 8260D             | 23.5   | 20.0         | 117   | 42-166       |
| Carbon Disulfide             | 8260D             | 19.4   | 20.0         | 97    | 66-128       |
| Carbon Tetrachloride         | 8260D             | 19.6   | 20.0         | 98    | 70-127       |
| Chlorobenzene                | 8260D             | 20.1   | 20.0         | 100   | 80-121       |
| Chloroethane                 | 8260D             | 19.9   | 20.0         | 100   | 62-131       |
| Chloroform                   | 8260D             | 22.4   | 20.0         | 112   | 79-120       |
| Chloromethane                | 8260D             | 29.6   | 20.0         | 148 * | 61-143       |
| Dibromochloromethane         | 8260D             | 18.0   | 20.0         | 90    | 72-128       |
| Dichloromethane              | 8260D             | 23.5   | 20.0         | 117   | 73-122       |
| Ethylbenzene                 | 8260D             | 20.5   | 20.0         | 102   | 76-120       |
| Styrene                      | 8260D             | 20.3   | 20.0         | 102   | 80-124       |
| Tetrachloroethene (PCE)      | 8260D             | 21.5   | 20.0         | 107   | 72-125       |
| Toluene                      | 8260D             | 21.2   | 20.0         | 106   | 79-119       |
| Trichloroethene (TCE)        | 8260D             | 20.7   | 20.0         | 104   | 74-122       |
| Vinyl Chloride               | 8260D             | 25.3   | 20.0         | 127   | 74-159       |
| cis-1,2-Dichloroethene       | 8260D             | 24.1   | 20.0         | 120   | 80-121       |
| cis-1,3-Dichloropropene      | 8260D             | 20.9   | 20.0         | 104   | 77-122       |
| m,p-Xylenes                  | 8260D             | 42.0   | 40.0         | 105   | 80-126       |
| o-Xylene                     | 8260D             | 20.8   | 20.0         | 104   | 79-123       |

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QA/QC Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Analyzed:** 11/26/24

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Units:**ug/L  
**Basis:**NA

**Lab Control Sample**  
RQ2415216-02

| Analyte Name              | Analytical Method | Result | Spike Amount | % Rec | % Rec Limits |
|---------------------------|-------------------|--------|--------------|-------|--------------|
| trans-1,2-Dichloroethene  | 8260D             | 21.0   | 20.0         | 105   | 73-118       |
| trans-1,3-Dichloropropene | 8260D             | 20.6   | 20.0         | 103   | 71-133       |

ALS Group USA, Corp.  
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QA/QC Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Analyzed:** 11/27/24

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Units:**ug/L  
**Basis:**NA

**Lab Control Sample**  
RQ2415321-02

| Analyte Name                 | Analytical Method | Result | Spike Amount | % Rec | % Rec Limits |
|------------------------------|-------------------|--------|--------------|-------|--------------|
| 1,1,1-Trichloroethane (TCA)  | 8260D             | 20.1   | 20.0         | 101   | 75-125       |
| 1,1,2,2-Tetrachloroethane    | 8260D             | 20.5   | 20.0         | 103   | 78-126       |
| 1,1,2-Trichloroethane        | 8260D             | 18.9   | 20.0         | 94    | 82-121       |
| 1,1-Dichloroethane (1,1-DCA) | 8260D             | 22.8   | 20.0         | 114   | 80-124       |
| 1,1-Dichloroethene (1,1-DCE) | 8260D             | 20.9   | 20.0         | 104   | 71-118       |
| 1,2-Dichloroethane           | 8260D             | 22.3   | 20.0         | 112   | 71-127       |
| 1,2-Dichloropropane          | 8260D             | 21.6   | 20.0         | 108   | 80-119       |
| 2-Butanone (MEK)             | 8260D             | 22.6   | 20.0         | 113   | 61-137       |
| 2-Hexanone                   | 8260D             | 21.5   | 20.0         | 107   | 63-124       |
| 4-Methyl-2-pentanone         | 8260D             | 22.6   | 20.0         | 113   | 66-124       |
| Acetone                      | 8260D             | 18.1   | 20.0         | 91    | 40-161       |
| Benzene                      | 8260D             | 21.3   | 20.0         | 106   | 79-119       |
| Bromodichloromethane         | 8260D             | 19.8   | 20.0         | 99    | 81-123       |
| Bromoform                    | 8260D             | 17.1   | 20.0         | 85    | 65-146       |
| Bromomethane                 | 8260D             | 23.5   | 20.0         | 118   | 42-166       |
| Carbon Disulfide             | 8260D             | 19.0   | 20.0         | 95    | 66-128       |
| Carbon Tetrachloride         | 8260D             | 17.8   | 20.0         | 89    | 70-127       |
| Chlorobenzene                | 8260D             | 19.5   | 20.0         | 98    | 80-121       |
| Chloroethane                 | 8260D             | 16.9   | 20.0         | 85    | 62-131       |
| Chloroform                   | 8260D             | 21.2   | 20.0         | 106   | 79-120       |
| Chloromethane                | 8260D             | 26.0   | 20.0         | 130   | 61-143       |
| Dibromochloromethane         | 8260D             | 17.7   | 20.0         | 88    | 72-128       |
| Dichloromethane              | 8260D             | 22.2   | 20.0         | 111   | 73-122       |
| Ethylbenzene                 | 8260D             | 19.2   | 20.0         | 96    | 76-120       |
| Styrene                      | 8260D             | 19.0   | 20.0         | 95    | 80-124       |
| Tetrachloroethene (PCE)      | 8260D             | 19.3   | 20.0         | 97    | 72-125       |
| Toluene                      | 8260D             | 20.2   | 20.0         | 101   | 79-119       |
| Trichloroethene (TCE)        | 8260D             | 19.3   | 20.0         | 97    | 74-122       |
| Vinyl Chloride               | 8260D             | 23.4   | 20.0         | 117   | 74-159       |
| cis-1,2-Dichloroethene       | 8260D             | 22.3   | 20.0         | 111   | 80-121       |
| cis-1,3-Dichloropropene      | 8260D             | 19.5   | 20.0         | 97    | 77-122       |
| m,p-Xylenes                  | 8260D             | 39.1   | 40.0         | 98    | 80-126       |
| o-Xylene                     | 8260D             | 19.5   | 20.0         | 97    | 79-123       |

ALS Group USA, Corp.  
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QA/QC Report

**Client:** LU Engineers  
**Project:** Griffin Site/50503-02  
**Sample Matrix:** Water

**Service Request:** R2411827  
**Date Analyzed:** 11/27/24

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Units:**ug/L  
**Basis:**NA

**Lab Control Sample**  
RQ2415321-02

| Analyte Name              | Analytical Method | Result | Spike Amount | % Rec | % Rec Limits |
|---------------------------|-------------------|--------|--------------|-------|--------------|
| trans-1,2-Dichloroethene  | 8260D             | 19.6   | 20.0         | 98    | 73-118       |
| trans-1,3-Dichloropropene | 8260D             | 19.7   | 20.0         | 98    | 71-133       |



## Site Photographs

Former Griffin Technology Site (#835008)

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Photo No. 1 View of Site facing west.



Photo No. 2 View of Site facing south.



Photo No. 3 View of Site with pumping house facing east.



Photo No. 4 View of the northern side of the main structure.



Photo No. 5 Concrete pad observed on the northern wooded area.



Photo No. 6 Slightly turbid groundwater found at OW-3.

## Site Photographs

Former Griffin Technology Site (#835008)

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Photo No. 7 Purging of groundwater at OW-5.



Photo No. 8 OW-1 damaged from lawn mower.



Photo No. 9 The interior of OW-7.



Photo No. 10 Interior of injection well pump.



Photo No. 11 OW-9/MW-3



Photo No. 12 Large group of wells on the eastern side of the Site