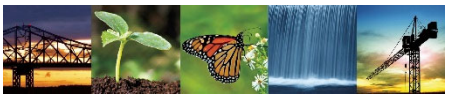


Known for excellence.
Built on trust.

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

17975 West Sarah Lane
Suite 100
Brookfield, WI 53045
T: 262.754.2560
F: 262.923.7758
www.gza.com

March 13, 2024
File No. 20.0153134.30

Ms. Danielle Keller, South-Central Environmental Program Associate
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg, Wisconsin 53711-5397

Re: Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin 53032
BRRTS #02-14-554523

Dear Ms. Keller:

On behalf of Gardner Manufacturing Company (Gardner), GZA GeoEnvironmental submitted an infiltration/injection (I/I) request to the Wisconsin Department of Natural Resources (WDNR) for conducting injection of emulsified vegetable oil (EVO) into groundwater, as described in the March 13, 2024, Groundwater Remediation Injection Exemption Request, uploaded to the WDNR. The I/I request is for the former Gardner property located at 263 Kansas Street in Horicon, Wisconsin ("Site"). GZA submitted a general permit application and paid a fee for the project at the WDNR ePermitting website for coverage under *WPDES Wastewater Discharge Permit No. WI-0046566-07-0 for Contaminated Groundwater From Remedial Action Operations*.

The party taking the lead in Site remediation is as follows:

Gardner Manufacturing Company, Inc.
1201 West Lake Street, Horicon WI 53032
Mr. Robert Pitz, General Manager, 920-485-4303 (bobpitz@gardnermfg.com)

The environmental consultant contact information is as follows:

GZA GeoEnvironmental, Inc.
17975 West Sarah Lane, Suite 100, Brookfield, WI 53045
Mr. Bernard Fenelon, Senior Consultant, 262-754-2567 (bernard.fenelon@gza.com)

The WDNR Project Manager is Mr. Jeff Ackerman.

The $700 technical review fee to process the request is attached. If you have questions or comments, please feel free to contact the undersigned at (262) 424-2045.

Very truly yours,

GZA GeoEnvironmental, Inc.

Bernard G. Fenelon, P.G.
Senior Consultant
Hydrogeologist

J:\153100to153199\153134 263 Kansas\30 Remediation\Report\2023 Injection and WPDES Request Report\FINAL 153134.30 Cover Letter_RR EPA 3-13-24.docx

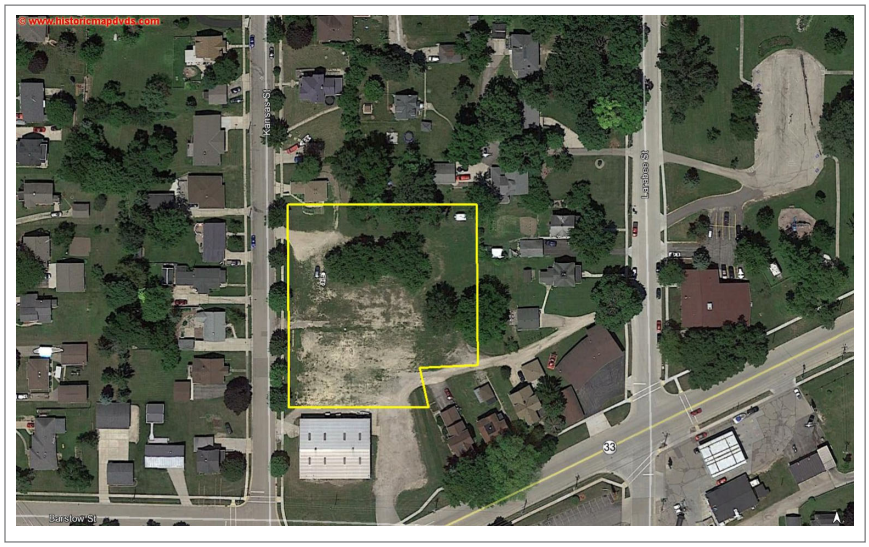
Attachment: Review Fee

Known for excellence.
Built on trust.

GROUNDWATER REMEDIATION ERD INJECTION EXEMPTION REQUEST

Former Gardner Manufacturing Company, Inc. Property
263 Kansas Street
Horicon, Wisconsin
BRRTS No. 02-14-554523

March 13, 2024
File No. 20.0153134.30



PREPARED FOR:
Wisconsin Department of Natural Resources
Fitchburg, Wisconsin

GZA GeoEnvironmental, Inc.
17975 West Sarah Lane, Suite 100 | Brookfield, WI 53045
262-754-2560

32 Offices Nationwide
www.gza.com

Known for excellence.
Built on trust.

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

17975 West Sarah Lane
Suite 100
Brookfield, WI 53045
T: 262.754.2560
F: 262.923.7758
www.gza.com

March 13, 2024
File No. 20.0153134.30

Mr. Jeff Ackerman, Hydrogeologist
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg, Wisconsin 53711-5367

Re: Groundwater Remediation ERD Injection Exemption Request
Former Gardner Manufacturing Company, Inc. Property
263 Kansas Street
Horicon, Wisconsin
BRRTS No. 02-14-554523

Dear Mr. Ackerman:

On behalf of Gardner Manufacturing Company, Inc. (Gardner), GZA GeoEnvironmental, Inc. (GZA) is pleased to present the Wisconsin Department of Natural Resources (WDNR) this Groundwater Remediation Enhanced Reductive Dechlorination (ERD) Injection Exemption Request ("Request") in preparation for remedial activities at 263 Kansas Street in Horicon, Wisconsin ("Site"). The Request provides a summary of previous injection activities, remedial progress, and monitoring results, along with recommendations for expansion of the area covered by emulsified vegetable oil (EVO) injections to the eastern portion of the Site.

As a result of our recommendation, we are making an exemption request for the injection of EVO solution at the Site and submitting a Notice of Intent (NOI) for *Request for Coverage Under WPDES Wastewater Discharge Permit No. WI-0046566-07-0 for Contaminated Groundwater From Remedial Action Operations* with this Request. A $700 technical review fee to process the injection request is being provided to the South-Central Environmental Program Associate under separate cover. GZA will also file a general permit application and pay an application fee online at the WDNR ePermitting website.

We trust the information provided in the Request will meet your needs for coverage of the planned remediation under the general permit and issuance of the exemption. If you have questions, please contact Mr. Fenelon at (262) 424-2045.

Very truly yours,

GZA GeoEnvironmental, Inc.

Bernard G. Fenelon, P.G.
Senior Consultant
Hydrogeologist

John C. Osborne, P.G.
Senior Principal
Hydrogeologist

J:\153100to153199\153134 263 Kansas\30 Remediation\Report\2023 Injection and WPDES Request Report\
FINAL 153134.30 GW Remediation ERD Injection Exemption Request_263 Kansas St 3-13-24.docx

Attachment

1.0 INTRODUCTION

On behalf of Gardner Manufacturing Company, Inc. (Gardner), GZA GeoEnvironmental, Inc. (GZA) is pleased to present the Wisconsin Department of Natural Resources (WDNR) this Groundwater Remediation Enhanced Reductive Dechlorination (ERD) Injection Exemption Request ("Request") in preparation for implementation of additional groundwater remediation activities at 263 Kansas Street in Horicon, Wisconsin ("Site"). This Request provides a summary of the ERD injection activities previously conducted, post-injection groundwater monitoring results, and an exemption request for additional emulsified vegetable oil (EVO) injections to expand the ERD groundwater remedy to the eastern portion of the Site and near downgradient areas east of the Site. This Request is subject to the Limitations provided in **Appendix A**.

A Notice of Intent (NOI) for *Request for Coverage Under WPDES Wastewater Discharge Permit No. WI-0046566-07-0 for Contaminated Groundwater From Remedial Action Operations* is being made in this Request, as described below.

2.0 BACKGROUND

The Site is located in the NE ¼ of the SW ¼ of Section 6, Township 11 North, Range 16 East in the City of Horicon, Dodge County, Wisconsin, as shown on **Figure 1**. The Site layout is shown on **Figure 2**. The City of Horicon ("City") currently owns the approximately 1.5-acre Site. The Site is vacant and unpaved with the footprint of recently demolished buildings evident on the Site and visible in past aerial photographs. The remainder of the Site is covered by former gravel parking areas, roadways, or is vegetated. The Site is bounded by Kansas Street to the west, beyond which are residential properties; by a City-owned commercial parcel to the south (267 Kansas Street); and by residential properties to the north and east. The Site formerly contained a two-story, 25,000 square-foot building, a 2,200 square-foot storage shed, and an approximately 1,175 square-foot ancillary building. The lower western portion of the Site and the areas around the former main building are at an elevation of approximately 880 feet, and the surface elevation rises to approximately 895 feet on the northeastern portion of the Site.

2.1 SUMMARY OF SITE PHYSICAL AND CHEMICAL CONDITIONS

Various Site investigation phases were conducted by GZA and other consultants prior to GZA's involvement to evaluate the extent and magnitude of impacts in soil, soil vapor, and groundwater at on- and off-Site locations. The results of the Site investigation phases were documented by GZA in reports dated November 22, 2013, August 21, 2015, and September 8, 2016. A summary of the results of the investigation and evaluation of remedial alternatives is presented below:

1. In general, glacial deposits consisting of poorly-graded, fine sand to well-graded sand with gravel and varying amounts of silt are the predominant lithology encountered in on- and off-Site borings drilled to depths up to 58 feet and elevations as low as approximately 820 feet. In general, the upper 30 to 40 feet of glacial deposits transition largely to sand on the eastern and northern portions of the Site and at downgradient, off-Site locations. In the borings drilled to refusal, the presumed bedrock surface, approximately 10 to 20 feet of silty and clayey glacial deposits were identified overlying bedrock. Based on the depths of refusal, the elevation of the top of bedrock is in the range of approximately 820 to 825 feet and approximately 55 to 70 feet below grade across the Site.
2. The water table depth is in the range of approximately 4 to 12 feet below grade (elevation range of 866 to 874 feet) on the western portion of the Site and 13 to 20 feet below grade (elevation range of 863 to 867 feet) on the eastern portion of the Site. The groundwater depth is much greater at 28 to 32 feet below grade (elevation range of 863 to 866 feet) on the northeastern portion of the Site where the surface elevation rises approximately 15 feet. As the

ground surface elevation declines to the east toward the Rock River in Clausen Bowling Green Park, the groundwater depth is within 1 foot of grade and, at times, is above grade.

3. Groundwater flow is generally to the northeast, as shown on **Figure 2**. Based on the measured gradient, average hydraulic conductivity, and estimated porosity of the shallow deposits, the average linear horizontal groundwater flow velocity is estimated from less than 1 to 3 feet per day (ft/d) (250 to 1,000 feet per year [ft/yr]). Monitoring of water quality during the 2015 pilot test[1] indicated that the groundwater flow velocity at that time was greater than 1 ft/d. Monitoring of water quality during the 2017 pilot test[2] indicates that the groundwater flow velocity may be much less than 1 ft/d in the vicinity of MW-10.

4. Summaries of VOC results in soil are provided in Tables 1 and 2 in **Appendix B**. Trichloroethene (TCE) is the primary constituent detected in soil. The primary source area of TCE affecting groundwater quality consists of low-level TCE concentrations that occur almost exclusively in the groundwater fluctuation zone and below the water table extending from the east half of the Site and downgradient coinciding with the TCE groundwater plume. A second area of TCE, which is also affecting groundwater quality, exists in the presence of petroleum volatile organic compounds (pVOCs), is present at higher concentrations over a much smaller footprint near the northeast corner of the building on the 267 Kansas Street parcel.

5. Summaries of volatile organic compound (VOC) results in groundwater are provided in Tables 3 and 4 in **Appendix B**. The primary chemical constituents detected with groundwater enforcement standard (ES) exceedances are TCE and its degradation products, cis- and trans-1,2-dichloroethene (DCE), 1,1-DCE, and vinyl chloride. The highest TCE and total chlorinated VOC (cVOC) concentrations in groundwater occur beneath the northeastern portion of the Site and extend downgradient to the northeast in the direction of the Rock River. A TCE isoconcentration map with 2022 TCE concentrations in groundwater is provided as **Figure 3**.

6. Eighteen properties near the Site, consisting of 17 residences and one non-residential property, were assessed for the vapor intrusion (VI) pathway. In nine of the assessed properties, consisting of eight of the residences and the one non-residential property, the TCE residential sub-slab vapor risk screening level (VRSL) was exceeded in sub-slab samples. Therefore, mitigation systems were installed in the homes on the eight residential properties and the building on the non-residential property.

7. Post-mitigation indoor air sample results confirmed that the indoor air in the seven residential buildings and one non-residential building met residential indoor air quality vapor action levels (VALs).[3]

8. An ERD pilot test was conducted in 2015-2016, and consisted of the injection of 5,000 gallons of water containing 330 pounds of sodium lactate split between two injection wells (Inj-1 and Inj-3) spaced 20 feet apart and constructed with 20-foot screens placed in the upper portion of the water table. Based on groundwater conditions observed in an injection well (Inj-2[4]) constructed halfway between the two injections wells (10 feet from each), the injected sodium lactose solution extended at least 10 feet from the two injection wells. The pilot test was effective in substantially reducing cVOC concentrations 35 feet downgradient of the injections at monitoring well MW-17 after one year with at more than 97% reduction in TCE (from 15 to <0.5 micrograms per liter [µg/l]) ; more than 80% reduction in cis-1,2-

[1] The groundwater flow velocity is at least 1 foot/day based on the increase in total organic carbon (TOC) concentrations measured in the first monthly post-injection groundwater sampling event (TOC migration of 35 to 40 feet in less than 35 days).

[2] Changes in groundwater quality were not noted in samples from MW-10 until after the December 5, 2017 sampling round and by the February 21 groundwater sampling round (changes observed at approximately 35 feet in 70 to 150 days). Note that the estimate of groundwater flow velocity is affected by constituent retardation and biological acclimation times.

[3] Note that the owner of 316 Barstow did not grant GZA access to collect post-mitigation indoor air quality samples.

[4] Inj-2 was used as a monitoring well for the pilot test, but was constructed with a 20-foot screen (as were Inj-1 and Inj-3) for potential use as an injection well.

DCE (from 290 to 51 µg/l); 70% reduction in trans-1,2-DCE (from 26 to 8.1 µg/l), more than 99% reduction in 1,2,3-trichloropropane (from 100 to <1 µg/l), and more than 80% reduction in total cVOC mass (from 425 to 91 µg/l).

9. GZA conducted a second expanded pilot test on the northeastern portion of the Site where the highest TCE concentrations in groundwater were encountered in August 2017, through the injection of a bioaugmented EVO solution into the aquifer in nine direct-push borings along two profiles on the northeastern portion of the Site. GZA injected approximately 8,000 gallons of injectate containing approximately 700 gallons of the EVO product, Newman Zone 55™; 120 pounds of the nutrient mix MicroBlend™; and 15 liters of the dechlorinating culture SDC-9™ into nine injection locations.

10. After 14 months of post-injection groundwater monitoring of wells in the vicinity of the pilot test, TCE concentrations in MW-21, located approximately 7 feet north of the pilot test injections, declined by 99% from a pre-injection concentration of 660 µg/l to less than the NR 140 groundwater ES. In monitoring well MW-10, located approximately 40 feet downgradient of the injections, TCE concentrations decreased by approximately 33% from a pre-injection concentration of 7,800 µg/l to 5,200 µg/l after 14 months of post-injection groundwater monitoring. In subsequent post-injection monitoring at MW-10, TCE concentrations continued to decline and in January 2020, had declined by approximately 90% to 820 µg/l.

11. Based on the favorable ERD pilot test results, GZA conducted a full-scale, Site-wide injection program in 2019. GZA presented the proposed scope for full-scale groundwater remediation in a February 14, 2019 injection exemption request, which was approved by the WDNR in a letter dated April 26, 2019. GZA conducted the full-scale groundwater remediation from July 23 to August 6, 2019, consisting of 67,000 gallons of EVO solution containing Newman Zone 55® EVO and SDC-9® culture injected in 65 direct-push borings along two approximately 310-foot-long north-south profiles on the central portion of the Site.

12. After more years of groundwater monitoring following the 2019 full-scale EVO injections, TCE concentrations in groundwater had been reduced by 99% to 100% within the injection zone and by 97% to 100% in certain monitoring wells (MW-10, MW-21, MW-24, and MW-28) approximately 40 feet downgradient of the injection zone. Degradation products cis-1,2-DCE and vinyl chloride in the injection zone and certain downgradient locations were also on declining trends and, in many cases, are at concentrations less than or approaching NR 140 groundwater standards.

Additional background information of Site investigation, remediation, and groundwater monitoring activities previously performed by MSA Professional Services, Inc. (MSA), SCS BT Squared, Inc., and GZA are documented in the: 1) *Site Investigation Report*, dated November 22, 2013; 2) *Documentation of Supplemental Site Investigation Activities*, dated August 21, 2015; 3) *Documentation of Sodium Lactate Pilot Test Results,* dated June 2, 2016; 4) *ERD Pilot Test Report and Injection Exemption Request*, dated February 14, 2019; 5) *ERD Injection Documentation and Results Report,* dated May 7, 2020; and 6) *Post-Injection ERD Groundwater Monitoring Report,* dated March 10, 2023 ("2023 Post-Injection Report").

In our 2023 Post-Injection Report, GZA stated that the 2019 EVO injections appeared to be approaching their limit of effectiveness based on the 85% to 90% depletion of total organic carbon (TOC) from peak concentrations in the injection zone and the slowing of remediation progress at downgradient locations, and recommended additional EVO injections near the downgradient side of the property.

3.0 EXPANSION OF GROUNDWATER REMEDIATION

To expand the groundwater remedy, GZA proposes the following:

1. Installation of two supplemental downgradient off-Site monitoring wells on residential properties, assuming access for the installations and sampling is allowed;
2. Injection of a similar EVO mixture as was used in 2019, into groundwater along three north-south profiles near the eastern Site boundary; and
3. Conduct groundwater and soil gas monitoring to evaluate remedial progress.

For the expansion of injections, a new injection permit (Wisconsin Pollutant Discharge Elimination System [WPDES] permit) will be required to be obtained from the State. Information for the injection permit application is included herein and GZA will submit a permit application for discharge of treatment solutions to groundwater under WPDES General Permit No. WI-0046566-07-0 for Contaminated Groundwater From Remedial Action Operations through the WDNR ePermitting website.

3.1 PROPOSED OFF-SITE MONITORING WELL INSTALLATIONS

In advance of the EVO injections, which are planned for near the downgradient boundary of the Site, GZA will request permission from one or more downgradient property owners for access to install two downgradient groundwater monitoring wells. As the closest downgradient monitoring wells are more than 250 feet from the eastern Site boundary, monitoring wells closer to the planned injections will be valuable in monitoring the effects of remedial progress in groundwater downgradient of the Site. GZA will request access from property owners at 142, 146, 150, and 154 Larabee Street with the hope of gaining access to two of the properties. Upon gaining access, GZA will conduct standard utility clearances and install and develop two water-table monitoring wells in general accordance with Wisconsin Administrative Code (Wis. Adm. Code) NR 141 with anticipated monitoring well depths of approximately 40 feet. GZA will determine specific off-Site monitoring well locations after we obtain access to properties. GZA will also install soil gas vapor probes to depths of approximately 8 feet adjacent to the monitoring wells for monitoring methane in soil gas near the approximate depth of the nearby basements.

3.2 PRE-INJECTION GROUNDWATER MONITORING

Prior to confirming the locations and lengths of the planned injection profiles, GZA will conduct a limited pre-injection groundwater sampling round from the supplemental off-Site monitoring wells that are installed and existing monitoring wells MW-4, MW-5, MW-10, MW-24, MW-29, and MW-30. GZA will collect the groundwater samples using low-flow purge and sampling protocols. A state-certified laboratory will analyze the samples for VOCs; dissolved gases (methane, ethane, and ethene); sulfate; dissolved iron, chromium, and arsenic; and TOC in accordance with standard methods.

3.3 PROPOSED EVO INJECTION PLAN

GZA proposes the following injection scope of work:

1. Injections will occur along two parallel profiles, separated by 20 feet, approximately 220 feet long, along the east property boundary and along a short eastern portion of the north property line, and a single, 90-foot profile just west of MW-4, as shown on **Figure 2,** for a total of approximately 530 feet of profile line.
2. The profiles will each consist of injections into borings drilled on 10-foot centers for a total of approximately 56 borings in which injections occur.

3. Individual injections will be targeted to occur at four depths within an approximately 15-foot interval from approximately the water table in the depth range of approximately 10 to 25 feet to a depth of approximately 25 to 40 feet for a total of 224 targeted injection intervals.
4. As with prior injections, GZA proposes the planned 15-foot injection interval based on the pre-injection decrease in TCE concentration and increase in TCE degradation product concentrations with depth as follows:
    a. TCE concentrations observed in nested monitoring well P-10 (screened 49 to 54 feet below grade) were less than 1% the TCE concentrations observed in MW-10 (screened from 15 to 25 feet below grade) and the pre-injection daughter product to TCE ratios increased with depth from approximately 3% in monitoring well MW-10 to approximately 96% in monitoring well P-10;
    b. TCE concentrations observed in nested monitoring well P-5 (screened 35 to 40 feet below grade) were approximately 1% the TCE concentrations observed in MW-5 (screened from 15 to 25 feet below grade) and the pre-injection daughter product to TCE ratios increased with depth from approximately 9% in monitoring well MW-5 to approximately 95% in monitoring well P-5; and
    c. TCE concentrations observed in nested monitoring well P-6 (screened 35 to 40 feet below grade) were approximately 14% the TCE concentrations observed in MW-6 (screened from 9 to 19 feet below grade) and the pre-injection daughter product to TCE ratios increased with depth from approximately 40% in monitoring well MW-5 to approximately 99% in monitoring well P-5.
5. The injections are expected to occur at pressures up to 30 pounds per square inch (psi) at injection rates up to 5 gallons per minute (gpm) for a single injection location.
6. Approximately 20 gallons of EVO (RNAS Newman Zone 55™), 1.7 pounds of oxygen scavenger (RNAS Newmann Zone OS™), and approximately 0.4 liters of culture (RNAS-supplied SDC-9™) will be diluted with approximately 200 gallons of groundwater obtained from one of the on-Site extraction wells or water from the Horicon municipal system for injection in each target interval.
7. Based on the mix ratios presented above, the injectate will contain a 9% dose of Newman Zone 55™ for a concentration of approximately 90 grams per liter.
8. Upon completion of the injections at each location, the borings will be abandoned with bentonite in accordance with the requirements of Wis. Adm. Code NR 141.
9. A total of approximately 49,300 gallons of injectate, containing 4,480 gallons of Newman Zone 55™, 380 pounds of Newman Zone OS™, and 90 liters of SDC-9™, will be injected into the 224 injection intervals.
10. The Safety Data Sheets (SDSs) and product description sheets for the products proposed for injection into groundwater are provided in **Appendix C**.
11. Upon completion of the injections at each location, the borings will be abandoned with bentonite in accordance with the requirements of Wis. Adm. Code NR 141.
12. GZA is applying for a discharge of treatment solution to the groundwater under WPDES General Permit No. WI-0046566-07-0 for Contaminated Groundwater From Remedial Action Operations on the WDNR ePermitting website. GZA signed the online form with Gardner's delegated signature authority. A signed Form 3400-220 (Delegation of Signature Authority [DSA] WPDES General Permit Discharge) is provided in **Appendix D**.

3.4 PROPOSED PRE- AND POST-INJECTION GROUNDWATER MONITORING

Groundwater and soil gas monitoring is proposed to be conducted as follows:

Monitoring Locations	Matrix	Frequency	Type of Analytical or Field Measurement	Purpose
MW-1 through MW-30, 9 deeper-screened P-wells, and new downgradient off-Site monitoring wells	Water	Once prior to injections.	VOCs for all wells and dissolved gases (methane, ethane, and ethene); sulfate; dissolved iron, chromium, and arsenic; and TOC(2) for the 16 wells listed for quarterly monitoring below	Monitor baseline groundwater conditions for comparison to post-injection groundwater conditions.
Closest 4 water table monitoring wells to active injections	Water	Two times daily when injections occur(3)	Water level	Monitor changes in groundwater levels during injections.
VP-1 through VP-8 and new vapor probes installed at off-Site properties	Soil Gas	Quarterly following injections until methane levels stabilize or are declining	4-Gas meter	Monitor changes in soil gas concentrations after injections.
MW-4, MW-5, P-5, MW-10, P-10, MW-21, MW-24, and new downgradient off-Site monitoring wells	Water	Quarterly for three rounds(4)	VOCs; dissolved gases (methane, ethane and ethene); sulfate; dissolved iron, chromium, and arsenic; and TOC(2)	Monitor changes in VOC concentrations, electron acceptors, and biodegradation product concentrations
MW-1 through MW-30, 9 deeper-screened P-wells, and new downgradient off-Site monitoring wells	Water	Annual round(4)	VOCs for all wells and dissolved gases (methane, ethane and ethene); sulfate; dissolved iron, chromium, and arsenic; and TOC(2) for the 16 wells listed for quarterly monitoring above	Monitor changes in VOC concentrations, electron acceptors, and biodegradation product concentrations.

Notes:

1. Field measurements of temperature, specific conductance, pH, dissolved oxygen, and oxidation-reduction potential will be made during purging.
2. Analyses will be conducted by a state-certified laboratory for VOCs in accordance with United States Environmental Protection Agency (USEPA) Method 8260; dissolved arsenic, chromium, and iron analyses in accordance with USEPA Method 6020; dissolved gas (ethane, ethene, and methane) analyses in accordance with Method RSK-175; sulfate analysis in accordance with Standard Method 300.0; and TOC analysis in accordance with USEPA Method 9060.
3. The three-times daily measurements will be conducted prior to beginning injections each day, near the middle of the day, and near the end of the injection period each day. The once daily measurement will occur at the end of the injection day.
4. As warranted by the results, a schedule going forward will be proposed following completion of a year of groundwater monitoring.

GZA will collect groundwater samples using low-flow purge and sampling methods while monitoring the natural attenuation field parameters, temperature, specific conductance, pH, dissolved oxygen (DO) and oxygen-reduction potential (ORP).

4.0 DISCHARGE MANAGEMENT PLAN

A discharge management plan, as required under the online general permit application, is presented below and includes each of the items specified in Section 3 of the July 1, 2018 WPDES Permit No. WI-0046566-07-0 for Contaminated Groundwater From Remedial Action Operations. A summary of the WDNR-requested information is provided below in *italics* and the response follows.

1. *A detailed site map. The site map shall identify the discharge location, general land uses, underground storage tanks and pipelines, groundwater monitoring and recovery wells, contaminant plume definition and zone of influence, other known spills in the area, septic tanks and drain fields, separation distances to potable water supply wells and residences, and other pertinent information.*

   Figures 2 and 3 provide detailed Site information, including groundwater flow and groundwater TCE concentrations, general land uses, groundwater monitoring wells, properties that have been assessed for vapor intrusion and where vapor mitigation systems have been installed, municipal storm and sanitary sewers, municipal water mains, and the closest potable water supply well (Horicon Municipal Well #3 just east of 258 Bartow Street). The Site is within a municipal water service area and potable wells are not known to be in the vicinity other than Municipal Well #3, which is no longer in service.

   The TCE discharge location(s) that can account for the TCE groundwater plume is unknown, as the former owner does not have information on past TCE use. Additionally, TCE concentrations detected in soil on the Site are not indicative of a TCE source for a majority of the TCE groundwater plume. A small, shallow TCE source is present in soil near well MW-25 and is estimated to contain less than 10 pounds of TCE in less than 100 cubic yards of soil.[5]

   Septic tanks and drain fields are not known to exist on the Site or in the vicinity, as the Site and vicinity are in the municipal sanitary sewer service area. A fuel oil underground storage tank (UST) was removed from the north side of the former Site building in the vicinity of monitoring well MW-3.

2. *A general description of the suspected sources of groundwater pollution at the site.*

   The source of TCE on the Site is unknown.

3. *Final plans and specifications for the proposed treatment system (if necessary)*.

   A treatment system is not part of the groundwater remediation plan.

4. *General description of planned operation and maintenance*.

   Following the EVO injections, operation and maintenance of a system will not occur. Proposed sampling locations and routine monitoring and analysis are provided in the Proposed Groundwater Monitoring Plan presented above.

5. *A listing of all required local, state, and federal permits, licenses, and approvals to construct and implement the remedial or interim action. Please include the s. NR 140.28(5), Wis. Adm Code, temporary exemption request and approval for the injection or infiltration of a substance or remedial material (if necessary)*.

   A WPDES permit is required for the injections and the application for discharge under WPDES General Permit No. WI-0046566-07-0 for Contaminated Groundwater From Remedial Action Operations was submitted through the WDNR ePermitting website. The NR 140.28(5) temporary exemption request is provided in the following section.

[5] Planned for excavation and off-Site landfill disposal in 2024.

6. *Description of erosion and sediment control practices*.

   As the discharge will occur below grade through small-diameter borings and the only surface disturbance planned is the drilling of the small-diameter injection borings, erosion and sediment controls are unnecessary.

7. *A summary of analytical results detected at the site for the substances listed in Table 1 of Section 4.2.1.1 or Table 2 of Section 5.3. The summary shall include results from any volatile organic compounds and polycyclic aromatic hydrocarbons compounds scans.*

   A summary of results for VOCs, polycyclic aromatic hydrocarbons (PAHs), and metals in soil samples obtained by MSA is provided as Table 1 in **Appendix B**. A summary of results for VOCs in soil obtained by GZA is provided as Table 2 in **Appendix B**. Summaries of VOCs and ERD parameters in groundwater obtained by GZA are provided as Tables 3 and 4 in **Appendix B**.

8. *A summary of the substance or remedial material to be used for the purpose of restoring contaminated soil or groundwater (if necessary). Please include the material safety sheets for each substance or material and the sampling location of the discharge*.

   The Safety Data Sheets (SDSs) of the proposed remedial materials are provided in **Appendix C**.

9. *Monitoring exemption request for sampling for certain contaminants regulated by this permit. The applicant must demonstrate that the contaminants will not be present in the effluent discharge. The initial sample analysis results must not exceed 20% of any permit discharge limitations and certify that there is no abrupt chance that a permit limit will be exceeded through the treatment system*.

   The injection plan consists of extracting groundwater from within the groundwater VOC plume, which will result in the injection of groundwater with elevated VOC concentrations when groundwater derived from the Site is used as dilution water. However, the groundwater extracted from within the groundwater plume will be mixed with the remedial materials and injected back into the same groundwater plume for treatment of both the injected water and surrounding groundwater.

10. *Alternative sampling location request for monitoring groundwater discharges at a new or existing groundwater monitoring system downgradient of infiltration system to demonstrate compliance with this permit. Applicants must demonstrate that the groundwater monitoring system is downgradient of infiltration and that a representative sample of the discharge will be collected*.

    The Proposed Groundwater Monitoring Plan presented above includes sampling of many downgradient monitoring wells and analysis for constituents of concern.

11. *Applicants must demonstrate that there is no reasonable potential to exceed water quality standards listed in to chs. NR 102, NR 104, NR 105, NR 106, NR 207, and NR 217 Wis. Adm. Code, for pollutants not directly limited by this permit, or that there is no reasonable potential to exceed groundwater quality standards listed in Ch. NR 140, Wis. Adm. Code, for pollutants not directly limited by this permit*.

    Temporary exceedances of groundwater quality standards are inherent in the ERD remedial method in which the TCE degradation products cis- and trans-1,2-DCE and vinyl chloride are successively generated before being degraded to the non-toxic end-product, ethene. As observed in groundwater data from the prior 2019 EVO injections, the exceedances are temporary. Elevated arsenic concentrations are also generated as a result of the strongly reducing conditions caused by the EVO injections. The arsenic concentrations are also expected to be temporary, as long as reducing groundwater conditions persist. The exceedances are generally considered acceptable temporary side effects of the method in order to remediate recalcitrant cVOCs. Therefore, an injection exemption request is provided below.

5.0 INJECTION EXEMPTION REQUEST

As the proposed groundwater remediation involves injection of materials into the waters of the State (i.e., groundwater), the process requires a temporary exemption under Wis. WAC NR 140.28(5) and a variance from WAC NR 812.05. Chapter NR 140.28(5) identifies prerequisites and criteria for granting a temporary exemption when infiltration or injection are utilized for a remedial action. The following sections provide information required by Paragraphs NR 140.28(5)(c) and (d).

5.1 NR 140.28(5)(C) – EXEMPTION PREREQUISITES

This section addresses the exemption prerequisites listed in Paragraphs 1 through 6 of NR 140.28(5)(c):

1. Reasonable Period of Time: This prerequisite requires the remedial action to achieve the applicable response objectives required by NR 140.24(2) (compliance with Preventive Action Limits [PALs]) or NR 140.26(2) (compliance with ESs) within a reasonable period of time. Based on the results from previous Site injections, the remedial strategy being implemented at the Site will result in a substantial reduction in dissolved constituent concentrations, to perhaps less than groundwater standards, within a few years. The timeframe for active Site groundwater remediation, following the proposed injections, is anticipated to be approximately three to five years. Subsequent injections may be warranted depending on the effectiveness and extent of groundwater remediation achieved with the proposed injections.

   Chapter NR 722.07(4)(a) provides criteria for determining restoration timeframes. The expected timeframe needed to achieve necessary restoration is generally related to the presence of receptors and contaminant mobility. With the lack of utilized downgradient water supply wells over the extent of the groundwater plume and with the sub-slab depressurization systems (SSDSs) still being maintained and operating, there are no known receptors of the impacted groundwater or impacted soil gas from the Site. Therefore, the remedial timeframe appears reasonable. Groundwater sampling will be conducted during the remediation to document plume reduction and remedial timeframe.

2. Minimization of Injected Remedial Material: The EVO product is designed to spread through groundwater flow to locations downgradient of each specific injection location and adsorb to the aquifer matrix. At some distance, downgradient of the injections, complete adsorption occurs, and further migration stops. The adsorbed organic carbon is then available for establishing suitable geochemical conditions over the extent of the aquifer in which the organic carbon spread. This condition is important to the remedial approach due to the need to degrade TCE adsorbed on soil over the extent of the groundwater plume. Post-injection monitoring will be conducted to evaluate the organic carbon spread and the need for future injections at locations downgradient of the Site. The groundwater monitoring will also be used to evaluate the need for reinjections. Additional material will be injected only to the extent necessary to meet groundwater objectives.

3. Impacts to Public Health or Welfare: The remedial material, prepared with Site-derived groundwater and food-grade organic carbon, does not represent a threat to public health or welfare. The reductive dechlorination of TCE forms vinyl chloride; however, vinyl chloride in turn degrades to ethene, carbon dioxide, and water. A Site-specific health and safety plan will be prepared to address exposure during the implementation process. The shallow groundwater in this area is not used for human consumption and the vapor intrusion pathway has been mitigated. Therefore, the proposed injection is not expected to threaten public health or welfare.

4. Presence of Floating Non-Aqueous Phase Liquid: Light non-aqueous phase liquid (LNAPL) was not observed during the investigation. Therefore, this prerequisite is not applicable.

5. Expansion of Groundwater Contamination: The injections will occur inside of the boundaries of known impacted groundwater and the mix water is expected to be derived from within the plume, resulting in no anticipated groundwater mounding that could result in plume spread. However, if the proposed wells do not produce sufficient rate of dilution water, water will be obtained from the City municipal water supply. Because the anticipated volume of injection solution is a small percentage (~2.5%) of the total volume of impacted groundwater beneath the Site alone (50,000 gallons versus 2,000,000 gallons), measurable expansion of the groundwater contamination is not expected to occur even if municipal water is used.

   Monitoring well water levels will be measured during the injections and groundwater monitoring events to evaluate Site groundwater flow patterns and identify changes that could be associated with the injection events.

6. Other Permits and Licenses: A variance from the WDNR under Section NR 812.05 is required and is addressed below. The application for a WPDES general permit will be submitted through WDNR's ePermitting website.

5.2 NR 140.28(5)(D) - REMEDIAL ACTION DESIGN, OPERATION AND MONITORING CRITERIA

This section addresses the design, operation, and monitoring criteria listed in Paragraphs 1 through 5 of NR 140.28(5)(d):

1. Design, Operation, and Monitoring Procedures: The injection procedures described above were established to comply with NR 140.28(5)(c) and (d).

   A groundwater monitoring program described above will be implemented to evaluate the progress of remediation and changes in groundwater geochemical conditions. VOC results will provide an indication of rate of remedial progress, completion of biodegradation to non-toxic endpoints, and constituent concentration relative to Chapter NR 140 ESs. Water level data will be used to evaluate the remedial process' effect, if any, on groundwater flow. Natural attenuation indicator data, as described above, will be used to evaluate whether geochemical conditions within the aquifer are suitable for anaerobic biological degradation of TCE.

2. Pre-Treatment of Contaminated Groundwater: The injections will utilize a solution of Site-derived groundwater and, if necessary, City municipal water mixed with EVO, trace nutrients, oxygen scavenger, and culture. Because the groundwater used for dilution water will be derived from the Site of the Horicon municipal supply, mixed with remedial materials intended for in-situ remediation of cVOCs before being injected back into groundwater on the Site, negative impact on groundwater is not expected to occur.

3. Remedial Material Proposed for Injection: A solution of Site-derived groundwater or Horicon municipal water, if necessary, EVO, culture, trace nutrients, and oxygen scavenger will be used as the remedial material at the Site. The SDSs for the proposed products are provided in **Appendix C**.

4. Volume and Rate of Injection: Approximately 50,000 gallons of the proposed injectate will be equally distributed among 56 direct-push borings through direct injection at rates up to 5 gpm and pressures up to 30 psi. Future injections, if necessary, are expected to occur at a similar volume, rate, and pressure over other portions of the groundwater plume.

5. Locations of Injection: **Figure 3** illustrates the areas of the Site where the proposed injections will occur when approved.

6.0 VARIANCE REQUEST

6.1 NR 812.05 – DISPOSAL OF POLLUTANTS; INJECTION PROHIBITION

Based on NR 812.05, "…the use of any well, drillhole or water system for the placement of any waste, surface or subsurface water or any substance, as defined in s. 160.01 (8), Stats., underground is prohibited unless…the placement is a department-approved activity necessary for…the remediation of contaminated soil, groundwater or an aquifer."

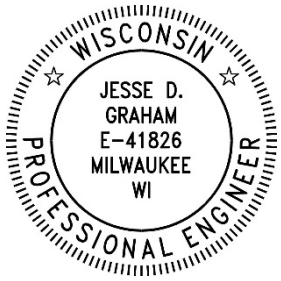
Because a bioaugmented EVO solution is proposed for injection into groundwater at the Site as a WDNR-approved activity necessary for remediation of contaminated groundwater at the Site, a variance under NR 812.05 is requested.

7.0 NR 712 CERTIFICATIONS

"I, Bernard G. Fenelon, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

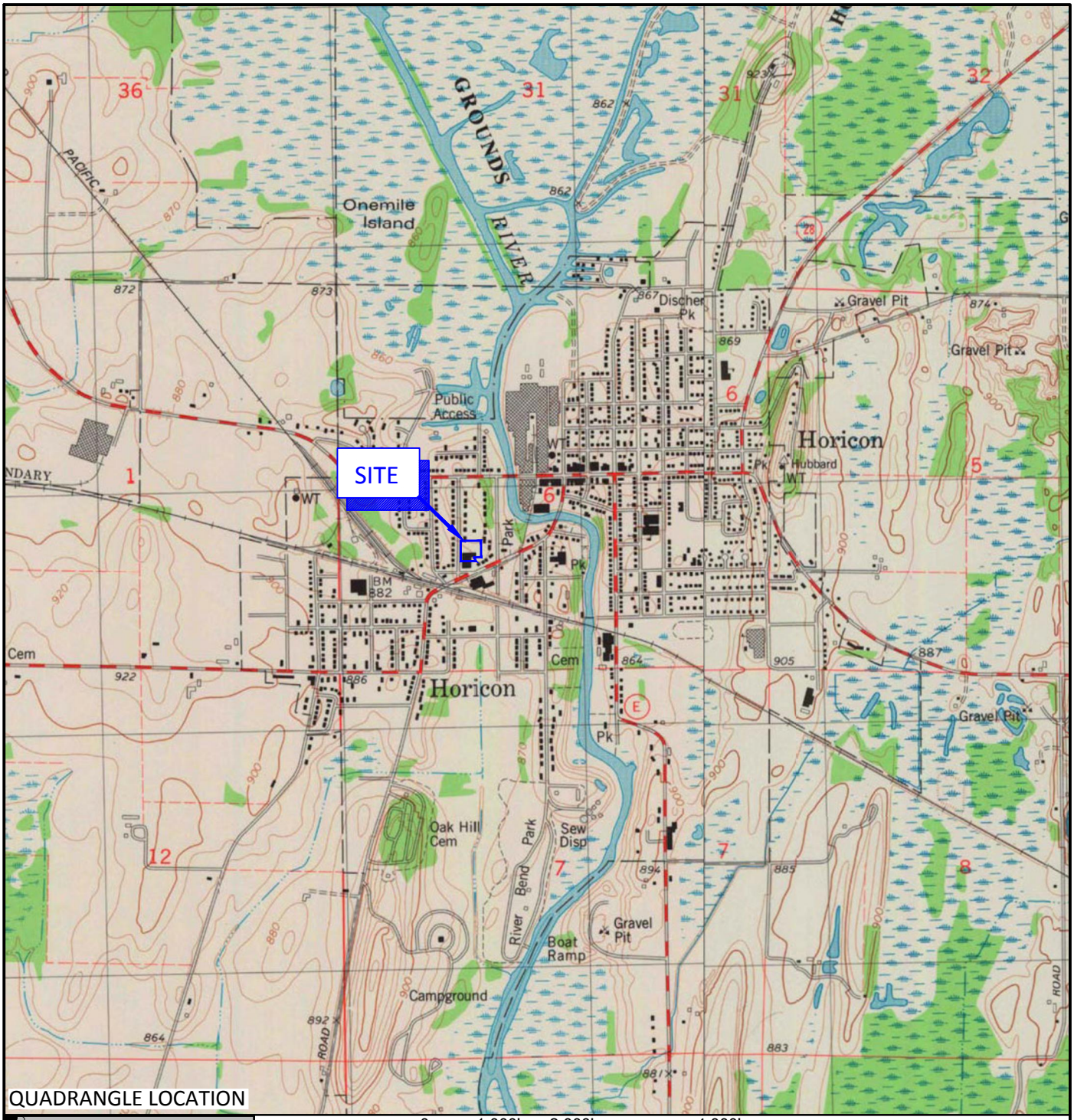
Senior Consultant/Hydrogeologist — March 13, 2024 Date

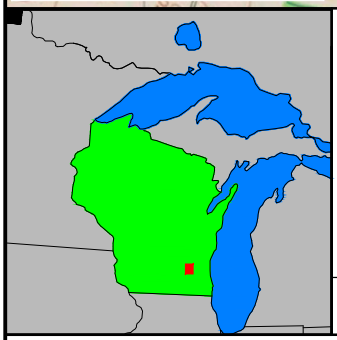
"I, Jesse D. Graham, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."



Senior Project Manager, P.E. #41826-0006 — P.E. Stamp

FIGURES





0 1,000' 2,000' 4,000'

APPROXIMATE SCALE IN FEET

N
W E
S

SOURCE:

BASE MAP FROM THE FOLLOWING USGS QUADRANGLE MAP:
HORICON, WIS. (1980) & MAYVILLE SOUTH, WIS. (1980)

DIGITAL TOPOGRAPHIC MAPS PROVIDED BY USGSSTORE.GOV.

CONTOUR ELEVATIONS REFERENCE NAVD 88,

CONTOURS ARE SHOWN IN FEET AT 10' INTERVALS

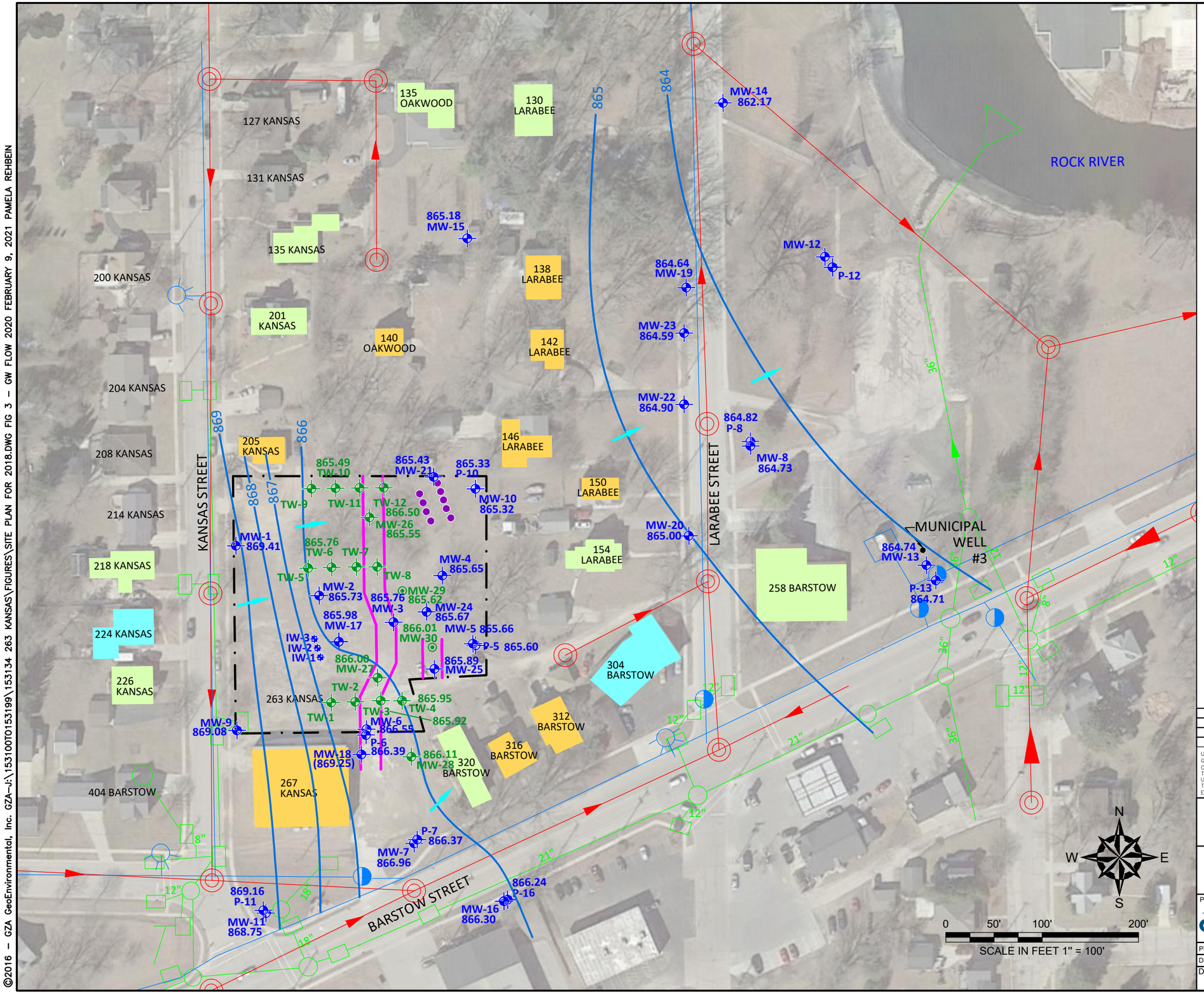
263 KANSAS STREET
HORICON, WISCONSIN

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:

SITE LOCATION MAP

PROJ MGR: BGF	REVIEWED BY: JCO	CHECKED BY: BGF	FIGURE 1
DESIGNED BY: BGF	DRAWN BY: KLK	SCALE: see above	
DATE: AUGUST, 2016	PROJECT NO. 20.0153134.30	REVISION NO.	SHEET NO. OF



LEGEND

- APPROXIMATE SITE BOUNDARY
- MONITORING WELL LOCATION
- 2019 MONITORING WELLS
- 2017 PILOT TEST INJECTION BORING LOCATION
- 2019 WATER SUPPLY WELLS
- VI ASSESSMENT CONDUCTED AND VENTILATION SYSTEM INSTALLED
- VI ASSESSMENT CONDUCTED AND VENTILATION SYSTEM NOT INSTALLED
- ACCESS DENIED FOR VI ASSESSMENT OR NO RESPONSE
- UTILITIES - STORM SEWER
- UTILITIES - SANITARY SEWER
- UTILITIES - WATER MAIN
- GROUNDWATER CONTOUR LINES (CONTOUR INTERVAL 1')
- 864.75 GROUNDWATER ELEVATIONS
- GROUNDWATER FLOW DIRECTION
- 2019 INJECTION PROFILES

NOTES

1. ALL BUILDINGS ON THE SUBJECT PROPERTY AT 263 KANSAS STREET HAVE BEEN REMOVED.
2. THE BASEMAP WAS OBTAINED THROUGH USE OF THE LOCAL COUNTY ONLINE GIS MAPPING TOOL. THE PROGRAM NOTES THAT ALL PROPERTY BOUNDARIES ARE NOT SURVEYED AND ARE ONLY APPROXIMATE REPRESENTATIONS OF ACTUAL BOUNDARIES.
3. THE USE OF AERIAL PHOTOGRAPHY CAN OFTEN MAKE BUILDINGS AND OTHER SITE FEATURES APPEAR TO BE OVERLAPPING AND DISTORTED WHEN OVERLAID WITH ACTUAL SITE FEATURES.
4. GROUNDWATER ELEVATIONS IN PARENTHESES ARE NOT REPRESENTATIVE OF WATER-TABLE ELEVATIONS IN THE SAND AND GRAVEL AQUIFER AND WERE NOT USED FOR ESTABLISHING CONTOUR LINES.

NO.	ISSUE/DESCRIPTION	BY	DATE

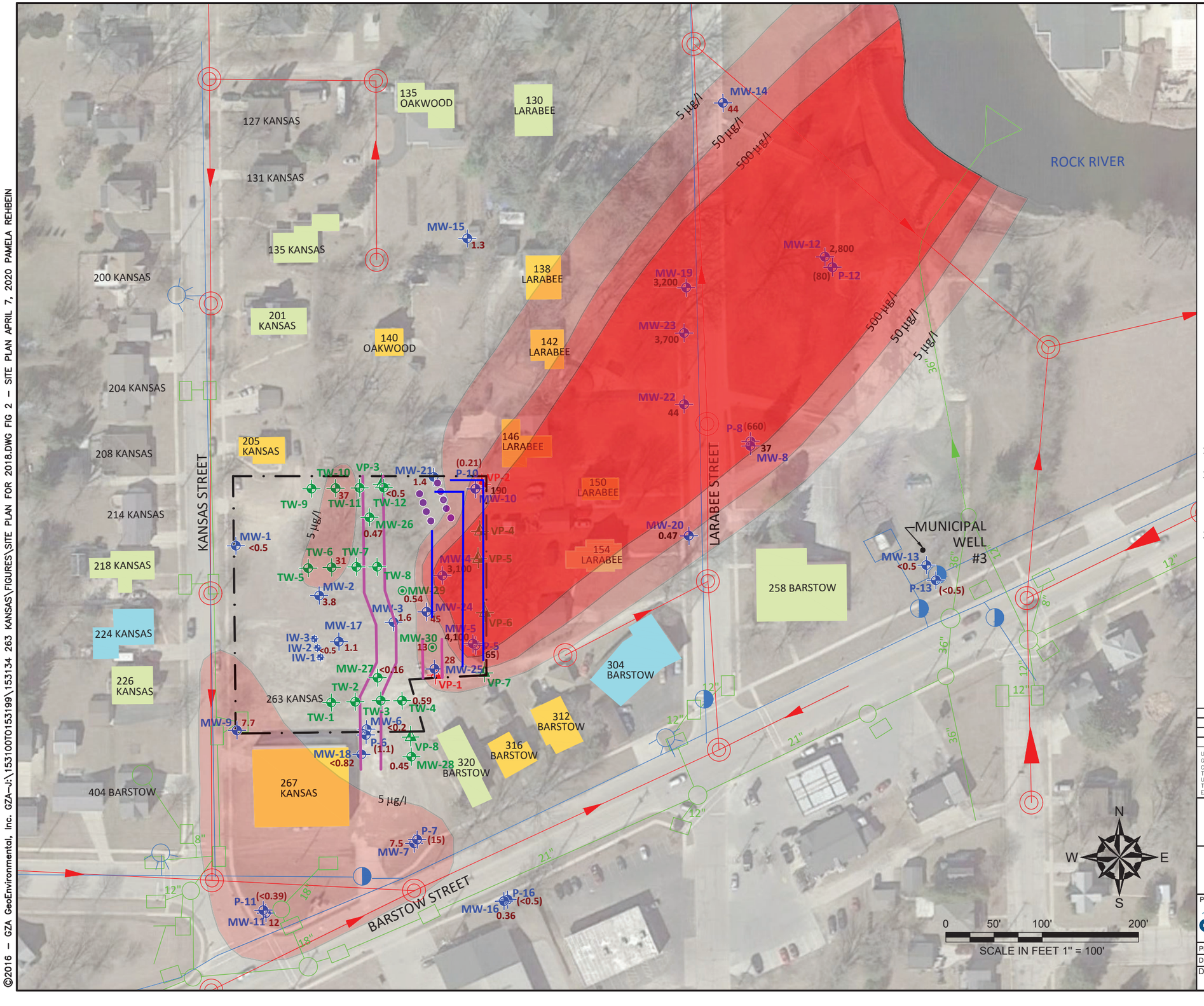
263 KANSAS STREET
HORICON, WISCONSIN

GROUNDWATER FLOW AND SITE FEATURES MAP (2020)

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:

PROJ MGR: BGF	REVIEWED BY: JCO	CHECKED BY: BGF	FIG
DESIGNED BY: ERS	DRAWN BY: PLR	SCALE: see above	
DATE: 2/9/2021	PROJECT NO. 20.0153134.30	REVISION NO.	2
			SHEET NO.



LEGEND

- APPROXIMATE SITE BOUNDARY
- 2019 WATER SUPPLY WELLS
- MONITORING WELL LOCATION
- 2019 MONITORING WELLS
- 2019 SOIL BORINGS
- VAPOR PROBE LOCATION
- 2019 VAPOR PROBE
- VI ASSESSMENT CONDUCTED AND VENTILATION SYSTEM INSTALLED
- VI ASSESSMENT CONDUCTED AND VENTILATION SYSTEM NOT INSTALLED
- ACCESS DENIED FOR VI ASSESSMENT OR NO RESPONSE
- UTILITIES - STORM SEWER
- UTILITIES - SANITARY SEWER
- UTILITIES - WATER MAIN
- 2019 INJECTION PROFILES
- 2017 PILOT TEST INJECTION BORING LOCATION
- PROPOSED 2024 INJECTION PROFILES

NOTES

1. ALL BUILDINGS ON THE SUBJECT PROPERTY AT 263 KANSAS STREET HAVE BEEN REMOVED.
2. THE BASEMAP WAS OBTAINED THROUGH USE OF THE LOCAL COUNTY ONLINE GIS MAPPING TOOL. THE PROGRAM NOTES THAT ALL PROPERTY BOUNDARIES ARE NOT SURVEYED AND ARE ONLY APPROXIMATE REPRESENTATIONS OF ACTUAL BOUNDARIES.
3. THE USE OF AERIAL PHOTOGRAPHY CAN OFTEN MAKE BUILDINGS AND OTHER SITE FEATURES APPEAR TO BE OVERLAPPING AND DISTORTED WHEN OVERLAID WITH ACTUAL SITE FEATURES.

NO.	ISSUE/DESCRIPTION	BY	DATE

263 KANSAS STREET
HORICON, WISCONSIN

AUGUST 2022 TCE ISOCONCENTRATION MAP AND PROPOSED 2024 EVO INJECTION PROFILES

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR:	
PROJ MGR: BGF	REVIEWED BY: JCO	CHECKED BY: BGF	FIG 3
DESIGNED BY: ERS	DRAWN BY: PLR	SCALE: see above	
DATE: 11/30/23	PROJECT NO. 20.0153134.30	REVISION NO.	SHEET NO.

APPENDIX A

LIMITATIONS

LIMITATIONS

Standard of Care

1. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this report may be found at the subject location(s).
2. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state, or federal agency.
3. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

Subsurface Conditions

4. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs. The nature and extent of variations between these explorations may not become evident until further exploration or construction. If variations or other latent conditions then become evident, it will be necessary to reevaluate the conclusions and recommendations of this report.
5. Water level readings have been made, as described in this Report, in and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table may be other than indicated in the Report.

Compliance with Codes and Regulations

6. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.

Screening and Analytical Testing

7. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment and/or air. Future Site activities and uses may result in a requirement for additional testing.
8. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.
9. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological, or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.

Interpretation of Data

10. Our opinions are based on available information as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

Additional Information

11. In the event that the Client or others authorized to use this report obtain additional information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

Additional Services

12. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/ redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.

APPENDIX B

TABLES OF SUPPLEMENTAL SOIL AND GROUNDWATER ANALYTICAL RESULTS

TABLE 1

Soil Sample Analytical Results
263 Kansas Street
Horicon, WI

Location	Sample Depth (Feet)	Date	Benzene	Ethyl benzene	Toluene	1,2,4- Tri-methyl-benzene	1,3,5- Tri-methyl-benzene	Total Xylene	1,1-Dichloro ethene	cis 1,2-Dichloro ethene	trans 1,2-Dichloro ethene	Isopropyl benzene	PCE	TCE
NR 746 Table 1			8.5	4.6	38	83	11	42*						
NR 746 Table 2			1.10											
NR 720 GRCL's			0.0055	2.9	1.5			4.1*						
SSRCL Direct Contact-Non-Industrial									391	78	156.5		0.65	0.08
SSRCL Direct Contact- Industrial									1825	3650	7300		27.5	3.575
SSRCL Groundwater Pathway									0.001	0.055	0.1		0.0096	0.0091
B1	2-4'	9/10/2009	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027
B2	2-4'	9/10/2009	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027
B3	12-16'	9/10/2009	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	780
B4	14-16'	9/10/2009	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	190
B5	2-4'	9/10/2009	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.026	210
B6	3-4'	6/2/2010	<0.029	<0.029	<0.029	<0.029	<0.029	<0.099	<0.029	<0.029	<0.029	<0.029	<0.029	<0.29
B6	12-14.5	6/2/2010	<0.029	<0.029	<0.029	<0.029	<0.029	<0.097	<0.029	<0.029	<0.029	<0.029	<0.029	**0.35**
B7	3-4'	6/2/2010	<0.027	<0.027	<0.027	<0.027	<0.027	<0.093	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027
B7	14-16'	6/2/2010	<0.029	<0.029	<0.029	<0.029	<0.029	<0.099	<0.029	<0.029	<0.029	<0.029	**0.053**	**0.94**
MW1	12-16'	6/3/2010	<0.036	<0.036	<0.036	<0.036	<0.036	<0.12	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036
MW2	12-16'	6/3/2010	<0.03	<0.03	<0.03	<0.03	<0.03	<0.1	<0.03	0.092	<0.03	<0.03	<0.03	**0.095**
MW3	3-4'	6/3/2010	<0.026	<0.026	<0.026	<0.026	<0.026	<0.089	<0.026	<0.026	<0.026	<0.026	<0.026	**0.35**
MW3	14-16'	6/3/2010	<0.029	<0.029	<0.029	<0.029	<0.029	<0.099	<0.029	<0.029	<0.029	<0.029	<0.029	**0.49**
MW4	18-20'	6/3/2010	<0.03	<0.03	<0.03	<0.03	<0.03	<0.1	<0.03	<0.03	<0.03	<0.03	<0.03	**0.078**
P5	20-24	6/2/2010	**0.04**	**3**	0.052	<0.03	<0.03	0.51	**0.062**	**0.45**	**0.14**	0.11	<0.03	**13**
P6	3-4'	6/4/2010	<0.03	<0.03	<0.03	<0.03	<0.03	<0.1	<0.03	<0.03	<0.03	<0.03	<0.03	**0.2**
P6	12-16	6/4/2010	<0.028	<0.028	<0.028	<0.028	<0.028	<0.094	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028
VP1	12-14'	6/4/2010	<0.026	<0.026	<0.026	<0.026	<0.026	<0.089	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026
P8 Drum	20-32	11/9/2010	<0.025	<0.025	0.078	<0.025	<0.025	<0.025	<0.025	0.057	<0.025	<0.025	<0.025	**2.2**

Analyte	Sampling Date	1-Methyl Naphthalene	2-Methyl Naphthalene	Acenaph thene	Acenaph thylene	Anthra-cene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene
Guidance GRCLs Direct Contact		70000/1100	70000/600	60000/900	360/18	300000/5000	3.9/0.0888	0.39/0.088	3.9/0.088	39/1.8
Guidance GRCLs Groundwater		23	20	38	0.7	3000	17	48	360	6800
MW2	12-16' 6/3/2010	<0.036	<0.036	<0.06	<0.1	<0.006	<0.006	<0.006	<0.006	<0.006
P5	20-24 6/2/2010	<0.035	<0.035	<0.058	<0.099	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058
P6	12-16' 6/4/2010	<0.033	<0.033	<0.054	<0.092	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054
VP1	3-4' 6/4/2010	<0.039	<0.039	<0.065	<0.11	<0.0065	<0.0065	<0.0065	<0.0065	<0.0065

MSA reported these three results in the table as mg/kg, while the laboratory reports states the results are ug/kg.

TABLE 1
Soil Sample Analytical Results
263 Kansas Street
Horicon, WI

Analyte		Sampling Date	Benzo(k) fluoranthene	Chrysene	Dibenzo(a,h) anthracene	Fluor anthene	Fluorene	Indeno(1,2,-cd)pyrene	Naph-thalene	Phenan threne	Pyrene
Guidance GRCLs Direct Contact			39/0.88	390/8.8	0.39/0.0088	40000/600	40000/600	3.9/0.088	110/20	390/18	30000/500
Guidance GRCLs Groundwater			870	37	38	500	100	680	0.4	1.8	8700
MW2	12-16'	6/3/2010	<0.006	<0.006	<0.009	<0.012	<0.012	<0.006	<0.036	<0.006	<0.006
P5	20-24	6/2/2010	<0.0058	<0.0058	<0.0087	<0.012	<0.012	<0.0058	<0.035	0.048	<0.0058
P6	12-16'	6/4/2010	<0.0054	<0.0054	<0.0082	<0.011	<0.011	<0.0054	<0.033	<0.0054	<0.0054
VP1	3-4'	6/4/2010	<0.0065	<0.0065	<0.0098	<0.013	<0.013	<0.0065	<0.039	<0.0065	<0.0065

Analyte		Sampling Date	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver	Mercury	PAH
GRCLs Direct Contact - Non-Industrial			0.039		8	16,000	50				
GRCLs Direct Contact - Industrial			1.6		510		500				
B1	2-4'	9/10/2009	<1.6	<0.12	<0.11	<0.2	3.3	<4.5	<0.12	0.014	ND
B2	2-4'	9/10/2009	<1.5	10	<0.11	15	27	<4.3	<0.12	0.019	ND
B3	12-16'	9/10/2009	<1.4	11	<0.098	5.9	6.6	<3.9	<0.11	<0.0098	ND
B4	14-16'	9/10/2009	<1.5	<0.12	<0.11	4.2	7.4	<4.4	<0.12	<0.011	ND
B5	2-4'	9/10/2009	<1.4	<0.11	<0.1	3.1	5.2	<4.0	<0.11	<0.0096	ND
B6	3-4'	6/2/2010		12		5.7	1.4			<0.01	
B6	12-14.5	6/2/2010		13		3.6	<1.4			<0.011	
B7	3-4'	6/2/2010		22		6.8	1.9			<0.011	
B7	14-16'	6/2/2010		11		3.5	<1.4			<0.011	
MW1	3-4'	6/3/2010		65		16	12			0.042	
MW2	6-8'	6/3/2010		16		5.2	<1.2			<0.0097	
MW3	3-4	6/3/2010		8.1		3.7	<1.3			<0.01	
MW4	3-4'	6/3/2010		19		5.1	<1.2			<0.011	
MW5	3-4'	6/2/2010		270		26	**650**			0.14	
P6	3-4'	6/4/2010		54		15	10			0.021	
VP1	3-4'	6/4/2010		88		24	11			0.05	

Notes:

Concentrations are in mg/Kg.
GRCLs = NR 720 generic residual contaminant levels
Bold numbers indicated concentrations exceeding the GRCLS or the NR 746 Table 1 values
GRCLS with "/" indicate the GRCLs for industrial property and residential properties, respectively.
PAHs = polycyclic aromatic hydrocarbons.
ND = not detected.
TCE = Trichloroethene
PCE = Tetrachlorethene
Only parameters representative of petroleum contamination and detected parameters are presented in Table.
See Lab report for a complete list of results.

TABLE 2
SOIL VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Boring/ Monitoring Well	Parameter =>	Volatile Organic Compounds (µg/kg)																						
		Acetone	Benzene	n-Butyl-benzene	sec-Butyl-benzene	tert-Butyl-benzene	1,1-DCE	1,2-DCA	cis-1,2-DCE	trans-1,2-DCE	Ethylbenzene	Isopropyl-benzene	p-Isopropyl-toluene	Naphthalene	N-Propyl-benzene	Styrene	PCE	Toluene	TCE	1,2,3-TCP	1,2,4-TMB	1,3,5-TMB	Vinyl chloride	Xylenes, Total
RCL Direct Contact (Non-Industrial)		63,800,000	1,490	108,000	145,000	183,000	342,000	608	156,000	1,560,000	7,470	268,000	162,000	5,150	264,000	867,000	30,700	818,000	1,260	5	89,800	182,000	67	258,000
RCL Direct Contact (Industrial)		100,000,000	7,410	108,000	145,000	183,000	1,190,000	3,030	2,040,000	1,670,000	37,000	268,000	162,000	26,000	264,000	867,000	153,000	818,000	8,810	95	219,000	182,000	2,030	258,000
RCL Groundwater Pathway		3,677	5.1	NS	NS	NS	5.0	2.8	41.2	58.8	1,570	NS	NS	658	NS	220	4.5	1,107	3.6	51.9	1,382		0.1	3,940
B-1 (2-4')	9/10/09	NA	<27	<27	<27	<27	<27	<27	<27	<27	<27	<27	<27	<55	<27	<55	<27	<27	<27	<55	<27	<27	<38	<93
GP-1 (4-5')	8/13/12	<1,100	<27	<27	<27	<27	<27	<27	<27	<27	<27	<27	<27	<270	<27	<27	<27	<27	<27	<54	<27	<27	<27	<54
GP-1 (10-11')	8/13/12	<920	<23	<23	<23	<23	<23	<23	<23	<23	<23	<23	<23	<230	<23	<23	<23	<23	**180**	<46	<23	<23	<23	<46
GP-1 (17-18')	8/13/12	<1,000	<25	<25	<25	<25	<25	<25	**30**	<25	<25	<25	<25	<250	<25	<25	<25	<25	**1,100**	<51	<25	<25	<25	<51
B-2 (2-4')	9/10/09	NA	<28	<28	<28	<28	<28	<28	<28	<28	<28	<28	<28	<57	<28	<57	<28	<28	<28	<57	<28	<28	<40	<97
GP-2 (4-5')	8/13/12	<930	<23	<23	<23	<23	<23	<23	<23	<23	<23	<23	<23	<230	<23	<23	<23	<23	**41**	<47	<23	<23	<23	<47
GP-2 (8-9')	8/13/12	<970	<24	<24	<24	<24	<24	<24	<24	<24	<24	<24	<24	<240	<24	<24	<24	<24	<24	<48	<24	<24	<24	<48
GP-2 (13-14')	8/13/12	<830	<21	<21	<21	<21	<21	<21	<21	<21	<21	<21	<21	<210	<21	<21	<21	<21	**31**	<42	<21	<21	<21	<42
B-3 (12-16')	9/10/09	NA	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<51	<26	<51	<26	<26	**780**	<51	<26	<26	<36	<87
GP-3 (8-9')	8/13/12	<1,100	<27	<27	<27	<27	<27	<27	<27	<27	<27	<27	<27	<270	<27	<27	<27	<27	<27	<53	<27	<27	<27	<53
GP-3 (19-20')	8/13/12	<1,000	<25	<25	<25	<25	<25	<25	**260**	<25	<25	<25	<25	<250	<25	<25	<25	<25	**59**	<51	<25	<25	<25	<51
B-4 (14-16')	9/10/09	NA	<28	<28	<28	<28	<28	<28	<28	<28	<28	<28	<28	<57	<28	<57	<28	<28	**190**	<57	<28	<28	<40	<96
GP-4 (4-5')	8/13/12	<940	<24	<24	<24	<24	<24	<24	<24	<24	<24	<24	<24	<240	<24	<24	<24	<24	<24	<47	<24	<24	<24	<47
GP-4 (13-14')	8/13/12	<1,000	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<250	<25	<25	<25	<25	<25	<50	<25	<25	<25	<50
B-5 (2-4')	9/10/09	NA	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<51	<26	<51	<26	<26	**210**	<51	<26	<26	<36	<87
GP-5 (4-5')	8/13/12	<1,000	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<260	<26	<26	<26	<26	<26	<52	<26	<26	<26	<52
GP-5 (14-15')	8/13/12	<900	<23	<23	<23	<23	<23	<23	<23	<23	<23	<23	<23	<230	<23	<23	<23	<23	<23	<45	<23	<23	<23	<45
B-6 (3-4')	6/2/10	NA	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<58	<29	<58	<29	<29	<29	<58	<29	<29	<41	<99
B-6 (12-14.5')	6/2/10	NA	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<57	<29	<57	<29	<29	**350**	<57	<29	<29	<40	<97
GP-6 (3-4')	8/13/12	<1,000	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<260	<26	<26	<26	<26	<26	<51	<26	<26	<26	<51
GP-6 (8-9')	8/13/12	<950	<24	<24	<24	<24	<24	<24	<24	<24	<24	<24	<24	<240	<24	<24	<24	<24	**82**	<47	<24	<24	<24	<47
B-7 (3-4')	6/2/10	NA	<27	<27	<27	<27	<27	<27	<27	<27	<27	<27	<27	<55	<27	<55	<27	<27	<27	<55	<27	<27	<38	<93
B-7 (14-16')	6/2/10	NA	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<58	<29	<58	**53**	<29	**940**	<58	<29	<29	<41	<99
GP-7 (4-5')	8/13/12	<1,100	<28	<28	<28	<28	<28	<28	<28	<28	<28	<28	<28	<280	<28	<28	<28	<28	<28	<56	<28	<28	<28	<56
GP-7 (8-9')	8/13/12	<870	<22	<22	<22	<22	<22	<22	<22	<22	<22	<22	**56**	<220	<22	<22	**54**	**43**	<22	<43	**38**	<22	<22	**142**
GP-8 (3-4')	8/13/12	<1,100	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<290	<29	<29	<29	<29	<29	<57	<29	<29	<29	<57
GP-8 (8-9')	8/13/12	<910	<23	<23	<23	<23	<23	<23	<23	<23	<23	<23	<23	<230	<23	<23	<23	<23	**100**	<46	<23	<23	<23	<46
GP-8 (12-13')	8/13/12	**1,200**	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<290	<29	<29	<29	<29	**240**	<59	<29	<29	<29	<59
GP-9 (7-8')	8/13/12	<1,200	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<290	<29	<29	<29	<29	**35**	<59	<29	<29	<29	<59
GP-9 (12-13')	8/13/12	<1,100	<28	<28	<28	<28	<28	<28	<28	<28	<28	<28	<28	<280	<28	<28	<28	<28	**92**	<56	<28	<28	<28	<56
GP-10 (4-5')	8/13/12	**1,100**	<28	<28	<28	<28	<28	<28	<28	<28	<28	<28	<28	<280	<28	<28	<28	<28	<28	<57	<28	<28	<28	<57
GP-10 (7-8')	8/13/12	<930	<23	<23	<23	<23	<23	<23	<23	<23	<23	<23	<23	<230	<23	<23	<23	<23	**29**	<47	<23	<23	<23	<47
GP-10 (14-15')	8/13/12	<880	<22	<22	<22	<22	<22	<22	<22	<22	<22	<22	<22	<220	<22	<22	<22	<22	**28**	<44	<22	<22	<22	<44

TABLE 2
SOIL VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Boring/ Monitoring Well	Parameter =>	Volatile Organic Compounds (µg/kg)																						
		Acetone	Benzene	n-Butyl-benzene	sec-Butyl-benzene	tert-Butyl-benzene	1,1-DCE	1,2-DCA	cis-1,2-DCE	trans-1,2-DCE	Ethylbenzene	Isopropyl-benzene	p-Isopropyl-toluene	Naphthalene	N-Propyl-benzene	Styrene	PCE	Toluene	TCE	1,2,3-TCP	1,2,4-TMB	1,3,5-TMB	Vinyl chloride	Xylenes, Total
RCL Direct Contact (Non-Industrial)		63,800,000	1,490	108,000	145,000	183,000	342,000	608	156,000	1,560,000	7,470	268,000	162,000	5,150	264,000	867,000	30,700	818,000	1,260	5	89,800	182,000	67	258,000
RCL Direct Contact (Industrial)		100,000,000	7,410	108,000	145,000	183,000	1,190,000	3,030	2,040,000	1,670,000	37,000	268,000	162,000	26,000	264,000	867,000	153,000	818,000	8,810	95	219,000	182,000	2,030	258,000
RCL Groundwater Pathway		3,677	5.1	NS	NS	NS	5.0	2.8	41.2	58.8	1,570	NS	NS	658	NS	220	4.5	1,107	3.6	51.9	1,382		0.1	3,940
GP-100 (5-7.5')	6/6/13	<840	<21	<21	<21	<21	<21	<21	<21	<21	<21	<21	<21	<210	<21	<21	<21	<21	<21	<42	<21	<21	<21	<42
GP-100 (10-12.5')	6/6/13	<820	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<200	<20	<20	<20	<20	**55**	<41	<20	<20	<20	<41
GP-101 (2.5-5')	6/6/13	<890	<22	<22	<22	<22	<22	<22	<22	<22	<22	<22	<22	<220	<22	<22	<22	<22	<22	<44	<22	<22	<22	<44
GP-101 (10-12.5')	6/6/13	<870	<22	<22	<22	<22	<22	<22	<22	<22	<22	<22	<22	<220	<22	<22	<22	<22	**160**	<43	<22	<22	<22	<43
GP-102 (2.5-5')	6/6/13	<810	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<200	<20	<20	<20	<20	<20	<41	<20	<20	<20	<41
GP-102 (10-12.5')	6/6/13	<890	<22	<22	<22	<22	<22	<22	<22	<22	<22	<22	<22	<220	<22	<22	<22	<22	**130**	<44	<22	<22	<22	<44
GP-201 (3-5')	5/20/15	NA	<3.9	**35 J**	<8.2	<7.2	<16	<15	**640**	<13	**1,400**	**140**	<9.8	**5,800**	**79 J**	<5.3	**120**	**1,400**	**4,900**	<31	**310**	**170**	**27**	**5,700**
GP-201 (8-10')	5/20/15	NA	**270**	**770**	**1,400**	**260**	**500**	<16	**180,000**	**41 J**	**830,000**	**45,000**	**990**	**350**	**21,000**	<5.1	**3,100**	**1,900,000**	**110,000**	<29	**33,000**	**17,000**	**810**	**4,100,000**
GP-201 (13-15')	5/20/15	NA	<3.8	<6.6	<7.9	<7.0	<16	<15	**1,100**	<13	**14,000**	**650**	<9.5	<25	**280**	**710**	<8.6	**29,000**	**59**	<30	**500**	**230**	**980**	**69,000**
GP-202 (3-5')	5/20/15	NA	<4.2	<7.3	<8.7	<7.7	<17	<16	<7.0	<14	<7.1	<14	<10	<28	<9.9	<5.6	<9.4	**21**	**2,900**	<29	<12	<12	<5.9	**45**
GP-202 (8-10')	5/20/15	NA	**35**	<6.5	<7.7	<6.8	<15	<16	**90**	<13	<6.3	<13	<9.3	<25	<8.8	<5.0	<8.4	<5.8	**460**	<29	<11	<10	**27**	<3.4
GP-203 (3-5')	5/20/15	NA	<3.8	<6.5	<7.8	<6.9	<16	<16	**420**	**87**	<6.4	<13	<9.4	<25	<8.9	<5.0	<8.5	<5.8	**380**	<29	<11	<10	<5.3	<3.5
GP-203 (8-10')	5/20/15	NA	<3.8	<6.7	<8.0	<7.0	<16	<15	<6.4	<13	<6.5	<13	<9.6	<26	<9.0	<5.1	<8.6	<5.9	**260**	<30	<11	<11	<5.3	<3.5
GP-203 (10-12')	5/20/15	NA	<3.8	<6.7	<7.9	<7.0	<16	<16	**92**	<13	<6.5	<13	<9.5	<25	<9.0	<5.1	<8.6	<5.9	**13,000**	<30	<11	<11	<5.4	<3.5
GP-204 (3-5')	5/20/15	NA	<3.6	<6.3	<7.5	<6.7	<15	<15	<6.0	<12	<6.2	<12	<9.1	<24	<8.6	<4.8	<8.2	<5.6	**150**	<28	<10	<10	<5.1	<3.4
GP-204 (8-10')	5/20/15	NA	<3.8	<6.6	<7.9	<7.0	<16	<15	<6.3	<13	<6.5	<13	<9.5	<25	<9.0	<5.1	<8.6	<5.9	<9.6	<30	<11	<11	<5.4	<3.5
GP-205 (3-5')	5/20/15	NA	<3.6	<6.3	<7.5	<6.7	<15	<15	<6.0	<12	<6.2	<12	<9.0	<24	<8.6	<4.8	<8.2	<5.6	<9.1	<28	<10	<10	<5.1	<3.3
GP-205 (10-12')	5/20/15	NA	<3.7	<6.4	<7.6	<6.7	<15	<15	<6.1	<12	<6.2	<12	<9.1	<24	<8.6	<4.9	<8.2	<5.7	<9.2	<28	<10	<10	<5.1	<3.4
GP-206 (3-5')	5/20/15	NA	<3.8	<6.6	<7.9	<7.0	<16	<15	**28 J**	<13	<6.4	<13	<9.5	**71 J**	<9.0	<5.1	**33 J**	<5.9	**1,800**	<29	<11	<11	<5.3	<3.5
GP-206 (8-10')	5/20/15	NA	<3.8	<6.7	<8.0	<7.0	<16	<15	<6.4	<13	<6.5	<13	<9.6	<26	<9.0	<5.1	<8.6	<5.9	**45**	<30	<11	<11	<5.4	<3.5
GP-301 (17.5-20')	5/18/16	NA	**26**	<25	<25	<25	<25	<25	**1,600**	**44 J**	<12	<24	<23	<21	<26	<24	<23	**27**	**4,000**	<26	<23	<24	<17	<14
GP-301 (25-27.5')	5/18/16	NA	<11	<30	<31	<31	<30	<30	**2,000**	**74 J**	<14	<30	<28	<26	<32	<30	<28	<11	**360**	<32	<28	<29	<20	<17
GP-301 (32.5-35')	5/18/16	NA	<13	<35	<36	<36	<35	<36	<37	<32	<17	<35	<33	<30	<38	<35	<34	<13	**160**	<38	<33	<35	<24	<20
GP-301 (42.5-45')	5/18/16	NA	<12	<33	<33	<33	<33	<33	**1,600**	**350**	<15	<32	<30	<28	<35	<32	<31	<12	**3,300**	<35	<30	<32	<22	<18
GP-302 (7.5-10')	5/19/16	NA	<12	<32	<33	<33	<32	<33	<34	<29	<15	<32	<30	<28	<34	<32	<31	<12	<14	<34	<30	<32	<22	<18
GP-302 (17.5-20')	5/19/16	NA	<12	<32	<33	<33	<33	<33	**100**	<29	<15	<32	<30	<28	<35	<32	<31	<12	**2,000**	<35	<30	<32	<22	<18
GP-302 (27.5-30')	5/19/16	NA	<8.4	<22	<23	<23	<23	<23	**420**	**73**	<11	<22	<21	<19	<24	<22	<21	<8.5	**970**	<24	<21	<22	<15	<13
GP-303 (2.5-5')	5/18/16	NA	<13	<34	<35	<35	<34	<35	**220**	<31	<16	<34	<32	<29	<37	<34	<33	**94**	**2,600**	<37	**270**	**180**	<23	**1,300**
GP-303 (10-12.5')	5/18/16	NA	<13	<33	<34	<34	<34	<34	**110**	<30	**130**	**48 J**	<31	<29	<36	<33	<32	**49**	**1,000**	<36	**720**	**480**	<23	**2,300**
GP-304 (10-12.5')	5/18/16	NA	**35**	<46	<48	<48	<47	<47	<49	<42	**10,000**	**370**	<43	<40	**110 J***	<46	<44	**580**	**600**	<49	**260**	**160**	<31	**40,000**
GP-304 (27.5-30')	5/18/16	NA	<11	<29	<30	<30	<29	<29	**6,400**	**150**	<14	<29	<27	<25	<31	<29	<28	<11	<12	<31	<27	<28	**6,500**	<16
GP-304 (35-37.5')	5/18/16	NA	<14	<37	<38	<38	<37	<37	**280**	<33	<43	<37	<35	<32	<40	<37	<35	<14	<16	<40	<34	<36	<25	<21
GP-304 (55-57')	5/18/16	NA	<12	<32	<32	<32	<32	<32	<33	<28	<15	<31	<29	<27	<34	<31	<30	<12	<13	<34	<29	<31	<21	<18

TABLE 2
SOIL VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Boring/ Monitoring Well	Parameter =>	Volatile Organic Compounds (µg/kg)																						
		Acetone	Benzene	n-Butyl-benzene	sec-Butyl-benzene	tert-Butyl-benzene	1,1-DCE	1,2-DCA	cis-1,2-DCE	trans-1,2-DCE	Ethylbenzene	Isopropyl-benzene	p-Isopropyl-toluene	Naphthalene	N-Propyl-benzene	Styrene	PCE	Toluene	TCE	1,2,3-TCP	1,2,4-TMB	1,3,5-TMB	Vinyl chloride	Xylenes, Total
RCL Direct Contact (Non-Industrial)		63,800,000	1,490	108,000	145,000	183,000	342,000	608	156,000	1,560,000	7,470	268,000	162,000	5,150	264,000	867,000	30,700	818,000	1,260	5	89,800	182,000	67	258,000
RCL Direct Contact (Industrial)		100,000,000	7,410	108,000	145,000	183,000	1,190,000	3,030	2,040,000	1,670,000	37,000	268,000	162,000	26,000	264,000	867,000	153,000	818,000	8,810	95	219,000	182,000	2,030	258,000
RCL Groundwater Pathway		3,677	5.1	NS	NS	NS	5.0	2.8	41.2	58.8	1,570	NS	NS	658	NS	220	4.5	1,107	3.6	51.9	1,382		0.1	3,940
GP-305 (2.5-5')	5/18/16	NA	<12	<33	<33	<33	<33	<33	<34	<29	<15	<32	<30	<28	<35	<32	<31	<12	**73**	<35	<30	<32	<22	<18
GP-305 (10-12.5')	5/18/16	NA	<12	<32	<32	<32	<32	<31	<33	<29	<15	<31	<29	<27	<34	<31	<30	<12	<13	<34	<29	<31	<21	<18
GP-305 (22.5-25')	5/18/16	NA	**28**	<33	<34	<34	<33	<33	**1,200**	**49 J**	<15	<33	<31	<28	<35	<33	<31	<12	**620**	<35	<30	<32	**79**	<19
GP-305 (45-47.5')	5/18/16	NA	<14	<38	<39	<39	<38	<38	<39	<34	<18	<37	<35	<32	<40	<37	<36	<14	<16	<40	<35	<37	<25	<21
GP-306 (7.5-10')	5/19/16	NA	<13	<34	<35	<35	<34	<34	<36	<31	<16	<34	<32	<29	<36	<34	<32	<13	<14	<36	<31	<33	<23	<19
GP-306 (20-22.5')	5/19/16	NA	<14	<37	<38	<38	<37	<37	**370**	**210**	<17	<36	<34	<32	<39	<36	<35	<14	**880**	<43	<34	<36	<25	<21
GP-306 (32.5-35')	5/19/16	NA	<14	<38	<39	<39	<38	<38	**360**	<34	<18	<38	<35	<33	<40	<38	<36	<14	<16	<40	<35	<37	<26	<21
GP-306 (45-47.5')	5/19/16	NA	<14	<38	<39	<39	<38	<38	<40	<34	<18	<37	<35	<32	<40	<38	<36	<14	<16	<40	<35	<37	<25	<21
GP-307 (7.5-10')	5/18/16	NA	<10	<27	<28	<28	<27	<28	<29	<25	<13	<27	<25	<23	<29	<27	<26	<10	**27 J**	<29	<25	<27	<18	<15
GP-307 (17.5-20')	5/18/16	NA	<14	<38	<39	<39	<38	<39	<40	<34	**22 J**	<38	<36	<33	<41	<38	<36	<14	**3,200**	<41	<35	<37	<26	<22
GP-308 (5-7.5')	5/19/16	NA	<24	<64	<65	<65	<64	<64	**160**	<58	<30	<63	<60	**69,000**	<68	**75 J**	<61	<24	**1,900**	<68	**920**	**410**	<43	**200**
GP-308 (17.5-20')	5/19/16	NA	<11	<30	<31	<31	<30	<30	**2,000**	**97**	<14	<30	<28	<26	<32	<30	<29	<11	<13	<32	<28	<29	**460**	<17
GP-308 (30-32.5')	5/19/16	NA	<13	<34	<35	<35	<34	<34	**2,800**	**390**	<16	<33	<32	<29	<36	<34	<32	**20 J**	**890**	<36	<31	<33	**210**	<19
GP-308 (40-42.5')	5/19/16	NA	<14	<38	<39	<39	<38	<38	**280**	**57 J**	<18	<38	<36	<33	<41	<38	<36	<14	<16	<41	<35	<37	<26	<22
GP-309 (7.5-10')	5/20/16	NA	<9.9	<26	<27	<27	<26	<27	<28	<24	<12	<26	<25	<23	<28	<26	<25	<10	**1,000**	<28	<24	<26	<18	<15
GP-309 (17.5-20')	5/20/16	NA	<9.3	<25	<25	<25	<25	<25	**520**	**120**	<12	<25	<23	<21	<26	<25	<24	<9.4	**140**	<26	<23	<24	<17	<14
GP-309 (27.5-30')	5/20/16	NA	<9.8	<26	<27	<27	<26	<26	**520**	**120**	<12	<26	<24	<22	<28	<26	<25	<9.8	**43**	<28	<24	<25	<18	<15
GP-310 (7.5-10')	5/20/16	NA	<11	<29	<30	<30	<29	<29	<31	<26	<14	<29	<27	<25	<31	<29	<28	<11	<12	<31	<27	<29	<20	<17
GP-310 (15-17.5')	5/20/16	NA	<10	<27	<28	<28	<27	<27	<29	<25	<13	<27	<25	<23	<29	<27	<26	<10	<11	<29	<25	<27	<18	<15
GP-310 (27.5-30')	5/20/16	NA	<10	<27	<28	<28	<27	<27	**380**	<25	<13	<27	<25	<23	<29	<27	<26	<10	<12	<29	<25	<27	<18	<15
GP-311 (5-7.5')	5/20/16	NA	<12	<32	<33	<33	<32	<32	<34	<29	<15	<32	<30	<28	<34	<32	<30	**22**	**81**	<34	<29	<31	<22	**25 J**
GP-311 (17.5-20')	5/20/16	NA	<8.5	<23	<23	<23	<23	<23	**34 J**	<20	<11	<22	<21	<19	<24	<22	<22	<8.5	**1,100**	<24	<21	<22	<15	<13
GP-311 (25-27.5')	5/20/16	NA	<9.5	<25	<26	<26	<25	<26	<27	<23	<12	<25	<24	<19	<27	<25	<24	<9.6	<11	<27	<23	<25	<17	<14
GP-312 (15-17.5')	5/20/16	NA	<10	<27	<28	<28	<27	<27	<29	<25	<13	<27	<25	<23	<29	<27	<26	<10	**200**	<29	<25	<27	<18	<15
GP-312 (27.5-30')	5/20/16	NA	<11	<28	<29	<29	<28	<28	**74**	<25	<13	<28	<26	<24	<30	<28	<27	<11	**950**	<30	<26	<27	<19	<16
IW-1 (30-32')	5/19/15	NA	<3.6	<6.2	<7.4	<6.6	<15	<14	<5.9	<12	<6.1	<12	<8.9	<24	<8.4	<4.8	<8.1	<5.5	**27**	**84 J**	<10	<9.9	<5.0	<3.3
MW-1 (3-4')	6/3/10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1 (12-16')	6/3/10	NA	<36	<36	<36	<36	<36	<36	<36	<36	<36	<36	<36	<72	<36	<72	<36	<36	<36	<72	<36	<36	<50	<120
MW-2 (6-8')	6/3/10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2 (12-16')	6/3/10	NA	<30	<30	<30	<30	<30	<30	**92**	<30	<30	<60	<60	<60	<30	<60	<30	<30	**95**	<60	<30	<30	<42	<100
MW-3 (3-4')	6/3/10	NA	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<52	<26	<52	<26	<26	**350**	<52	<26	<26	<37	<89
MW-3 (14-16')	6/3/10	NA	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<29	<58	<29	<58	<29	<29	**490**	<58	<29	<29	<41	<99
MW-4 (3-4')	6/3/10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4 (18-20')	6/3/10	NA	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<59	<30	<59	<30	<30	**78**	<59	<30	<30	<42	<100
MW-5 (3-4')	6/2/10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2
SOIL VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Boring/ Monitoring Well	Parameter =>	Volatile Organic Compounds (µg/kg)																						
		Acetone	Benzene	n-Butyl-benzene	sec-Butyl-benzene	tert-Butyl-benzene	1,1-DCE	1,2-DCA	cis-1,2-DCE	trans-1,2-DCE	Ethylbenzene	Isopropyl-benzene	p-Isopropyl-toluene	Naphthalene	N-Propyl-benzene	Styrene	PCE	Toluene	TCE	1,2,3-TCP	1,2,4-TMB	1,3,5-TMB	Vinyl chloride	Xylenes, Total
RCL Direct Contact (Non-Industrial)		63,800,000	1,490	108,000	145,000	183,000	342,000	608	156,000	1,560,000	7,470	268,000	162,000	5,150	264,000	867,000	30,700	818,000	1,260	5	89,800	182,000	67	258,000
RCL Direct Contact (Industrial)		100,000,000	7,410	108,000	145,000	183,000	1,190,000	3,030	2,040,000	1,670,000	37,000	268,000	162,000	26,000	264,000	867,000	153,000	818,000	8,810	95	219,000	182,000	2,030	258,000
RCL Groundwater Pathway		3,677	5.1	NS	NS	NS	5.0	2.8	41.2	58.8	1,570	NS	NS	658	NS	220	4.5	1,107	3.6	51.9	1,382		0.1	3,940
MW-9 (5-7.5')	6/25/12	<900	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<250	<25	<25	<25	<25	<25	<49	<25	<25	<25	<49
MW-9 (10-12.5')	6/25/12	<930	<23	<23	<23	<23	<23	<23	<23	<23	<23	<23	<23	<230	<23	<23	<23	<23	<23	<47	<23	<23	<23	<47
MW-12 (7.5-10')	6/25/12	<1,000	<25	<25	<25	<25	<25	<25	**40**	<25	<25	<25	<25	<250	<25	<25	<25	<25	**2,200**	<50	<25	<25	<25	<50
MW-17 (5-7')	5/19/15	NA	<3.8	<6.7	<8.0	<7.0	<16	<15	<6.4	<13	<6.5	<13	<9.6	<26	<9.0	<5.1	<8.6	<5.9	<9.6	<30	<11	<11	<5.4	<3.5
MW-17 (13-15')	5/19/15	NA	<3.8	<6.7	<8.0	<7.0	<16	<15	<6.4	<13	<6.5	<13	<9.6	<26	<9.1	<5.1	<8.7	<6.0	**36**	<30	<11	<11	<5.4	<3.5
MW-19 (7.5-10')	5/20/16	NA	<9.6	<26	<26	<26	<26	<26	<27	<23	<12	<25	<24	<22	<27	<25	<24	<9.7	**360**	<27	<24	<25	<17	<15
MW-19 (17.5-20')	5/20/16	NA	<9.9	<26	<27	<27	<26	<27	<28	<24	<12	<26	<25	<23	<28	<26	<25	<10	**5,400**	<28	<24	<26	<18	<15
MW-19 (27.5-30')	5/20/16	NA	<10	<27	<27	<27	<27	<27	<28	<24	<13	<26	<25	<23	<28	<26	<25	<10	**340**	<28	<25	<26	<18	<15
MW-20 (12.5-15')	5/20/16	NA	<11	<28	<29	<29	<29	<29	<30	<26	<13	<28	<27	<24	<30	<28	<27	<11	<12	<30	<26	<28	<19	<16
MW-20 (22.5-25')	5/20/16	NA	<10	<27	<28	<28	<28	<28	<29	<25	<13	<27	<26	<24	<29	<27	<26	<10	**750**	<29	<25	<27	<19	<16
MW-20 (27.5-30')	5/20/16	NA	<11	<30	<31	<31	<30	<30	<31	<27	<14	<29	<28	<26	<32	<30	<28	<11	**450**	<32	<27	<29	<20	<17
MW-21 (15-17.5')	7/31/17	NA	<7.4	<20	<20	<20	<20	<20	<21	<18	<9.2	<19	<18	<17	<21	<19	<19	<7.4	<8.3	<21	<18	<19	<13	<11
MW-21 (22.5-25')	7/31/17	NA	<7.2	<19	<20	<20	<19	<19	<20	<17	<9	<19	<18	<16	<20	<19	<18	<7.2	**150**	<20	<18	<19	<13	<11
MW-21 (32.5-35')	7/31/17	NA	<15	<39	<40	<40	<39	<39	**380**	**140**	<18	<39	<36	<34	<42	<39	<37	<15	**27,000**	<42	<36	<38	<26	<22
MW-21-SB-1 (32.5-35') (5' W of MW-21)	6/12/19	NA	<9.6	<26	<26	<26	<26	<25	**4,800**	<23	<12	<25	<24	**27 JB**	<27	<25	<24	<9.7	**1,500**	<27	<24	<25	<17	<15
MW-21-SB-2 (32.5-35') (5' E of MW-21)	6/12/19	NA	<10	<28	<28	<28	<28	<28	**4,600**	<25	<13	<27	<26	<24	<29	<27	<26	<10	**1,500**	<29	<25	<27	**220**	<16
MW-21-SB-3 (32.5-35') (5' S of MW-21)	6/12/19	NA	<10	<27	<28	<28	<27	<27	<290	**340**	<13	<27	<25	<23	<29	<27	<26	<10	**17,000**	<29	<25	<27	**700**	<15
MW-22 (10-12.5')	7/31/17	NA	<7.3	<19	<20	<20	<20	<20	<20	<18	<9.2	<19	<18	<17	<21	<19	<19	<7.4	<8.2	<21	<18	<19	<13	<11
MW-22 (17.5-20')	7/31/17	NA	<7.4	<20	<20	<20	<20	<20	**28 J**	<18	<9.3	<20	<18	<17	<21	<20	<19	<7.5	**640**	<21	<18	<19	<13	<11
MW-23 (10-12.5')	7/31/17	NA	<7.2	<19	<20	<20	<19	<19	<20	<17	<9.1	<19	<18	<17	<21	<19	<18	<7.3	**610**	<21	<18	<19	<13	<11
MW-23 (17.5-20')	7/31/17	NA	<7.4	<20	<20	<20	<20	<20	<21	<18	<9.3	<19	<18	<17	<21	<20	<19	<7.5	**1,100**	<21	<18	<19	<13	<11
MW-25 SB-1 (10-12.5')	6/13/19	NA	<8.8	<23	<24	<24	<24	<24	<25	<21	<11	<23	<22	<20	<25	<23	<22	<8.9	**560**	<25	<22	<23	<16	<13
MW-25 SB-1 (17.5-20')	6/13/19	NA	<9.3	<25	<25	<25	<25	<25	<26	<22	<12	<24	<23	<21	<26	<24	**230**	<9.3	**30,000**	<26	<23	<24	<17	<14
MW-25 SB-1 (22.5-25')	6/13/19	NA	<9.9	<26	<27	<27	<26	<26	<28	<24	<12	<26	<24	**80 B**	<28	**73**	<25	**110**	**490**	<28	<24	**150**	<18	<15
MW-25 SB-2 (10-12.5')	6/13/19	NA	<9.6	<26	<26	<26	<26	<26	<27	<23	<12	<25	<24	<22	<27	<25	<24	<9.7	**71 B**	<27	<24	<25	<17	<15
MW-25 SB-2 (17.5-20')	6/13/19	NA	<11	<29	<30	<30	<29	<29	<30	<26	<14	<29	<27	<25	<31	<29	<28	<11	**1,800 B**	<31	<27	<28	<20	<16
MW-25 SB-2 (22.5-25')	6/13/19	NA	<11	<30	<31	<31	<30	<30	<31	<27	<14	<30	<28	<26	<32	<30	**83**	<11	**7,700 B**	<32	<26	<29	<20	<17

TABLE 2
SOIL VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Boring/ Monitoring Well	Parameter =>	Volatile Organic Compounds (µg/kg)																					
		Acetone	Benzene	n-Butyl-benzene	sec-Butyl-benzene	tert-Butyl-benzene	1,1-DCE	1,2-DCA	cis-1,2-DCE	trans-1,2-DCE	Ethylbenzene	Isopropyl-benzene	p-Isopropyl-toluene	Naphthalene	N-Propyl-benzene	Styrene	PCE	Toluene	TCE	1,2,3-TCP	1,2,4-TMB	1,3,5-TMB	Vinyl chloride	Xylenes, Total
RCL Direct Contact (Non-Industrial)		63,800,000	1,490	108,000	145,000	183,000	342,000	608	156,000	1,560,000	7,470	268,000	162,000	5,150	264,000	867,000	30,700	818,000	1,260	5	89,800	182,000	67	258,000
RCL Direct Contact (Industrial)		100,000,000	7,410	108,000	145,000	183,000	1,190,000	3,030	2,040,000	1,670,000	37,000	268,000	162,000	26,000	264,000	867,000	153,000	818,000	8,810	95	219,000	182,000	2,030	258,000
RCL Groundwater Pathway		3,677	5.1	NS	NS	NS	5.0	2.8	41.2	58.8	1,570	NS	NS	658	NS	220	4.5	1,107	3.6	51.9	1,382		0.1	3,940
MW-25 SB-3R (0-2.5')	12/23/20	NA	<8.1	**140**	56	<22	<22	<22	<23	<20	<10	**28** J	**78**	**280**	**36** J	<22	<21	**30**	<9.1	<23	**230**	**190**	<15	78
MW-25 SB-3 (2.5-5')	6/13/19	NA	<97	<260	<260	<260	<260	<260	<270	<230	<120	<260	<240	**1,200** B	<280	<260	<250	<98	**350,000**	<280	<240	<250	<170	<150
MW-25 SB-3R (5-7.5')	12/23/20	NA	<11	<29	<30	<30	<29	<30	<31	<26	<14	<29	<27	<25	<31	<29	<28	<11	<12	<31	<27	<29	<20	<17
MW-25 SB-3 (10-12.5')	6/13/19	NA	<9.7	<26	<26	<26	<26	<26	<27	<23	<12	<26	<24	<22	<27	<26	<25	<9.8	**200**	<27	<24	<25	<17	<15
MW-25 SB-3 (17.5-20')	6/13/19	NA	<9.6	<26	<26	<26	<26	<25	<27	<23	<12	<25	<24	<22	<27	<25	<24	**10** J	**580** B	<27	<24	<25	<17	<15
MW-25 SB-4 (0-2.5')	8/1/19	NA	<12	**72** J	<33	<33	<32	<32	<34	<29	<15	<32	<30	**230** B	<34	<32	<31	**220**	**22,000**	<34	<30	**120**	<22	**150**
MW-25-SB-4R (2.5-5')	12/23/20	NA	<10	<27	<28	<28	<27	<27	<28	<24	<13	<27	<25	<23	<29	<27	**45** J	**12** J	**3,700**	<29	<25	<26	<18	<15
MW-25-SB-4R (5-7.5')	12/23/20	NA	<11	<29	<30	<30	<29	<30	<31	<26	<14	<29	<27	<25	<31	<29	<28	**32**	**19** J	<31	<27	<29	<20	26 J
MW-25 SB-4 (7.5-10')	8/1/19	NA	<9.2	<24	<25	<25	<24	<25	<26	<22	<11	<24	<23	<21	<26	<24	<23	<9.2	**96**	<26	<22	<24	<16	<14
MW-25 SB-5 (2.5-5')	8/1/19	NA	<10	<28	<29	<29	<28	<28	<29	<25	<13	<28	<26	<24	<30	<28	<27	<11	<12	<30	<26	<27	<19	<16
MW-25 SB-5 (5-7.5')	8/1/19	NA	<9.8	<26	<27	<27	<26	<26	<27	<24	<12	<26	<24	<22	<28	<26	<25	<9.9	<11	<28	<24	<26	<18	<15
MW-25 SB-6 (0-2.5')	8/1/19	NA	<12	<32	<32	<32	<32	<32	<33	<29	**43**	<31	<30	**230** B	<34	<31	<30	**250**	**1,300**	<34	**79** J	<31	<21	**500**
MW-25 SB-6 (2.5-5')	8/1/19	NA	<10	<28	<28	<28	<28	<28	<29	<25	<13	<27	<26	<24	<30	<28	<26	<10	**170**	<30	<26	<27	<19	<16
MW-25 SB-7 (0-2.5')	8/1/19	NA	<10	<28	<28	<28	<28	<28	<29	<25	<13	<27	<26	**3,100**	<30	<28	<26	<10	<12	<30	<26	<27	<19	<16
MW-25 SB-7 (2.5-5')	8/1/19	NA	<9.7	<26	<26	<26	<26	<26	<27	<23	<12	<25	<24	**120** B	<27	<26	<25	<9.8	<11	<27	<24	<25	<17	<15
MW-25 SB-8 (2.5-5')	8/1/19	NA	<9.6	<26	<26	<26	<26	<26	<27	<23	<12	<25	<24	<22	<27	<26	<24	<9.7	<11	<27	<24	<25	<17	<15
MW-25 SB-8 (5-7.5')	8/1/19	NA	<9.0	<24	<24	<24	<24	<24	<25	<21	<11	<24	<22	<20	<25	<24	<23	<9.0	<10	<25	<22	<23	<16	<13
MW-25 SB-9 (0-2.5')	12/23/20	NA	<10	<28	<28	<28	<28	<28	<29	<25	<13	<27	<26	<24	<29	<27	<26	<10	<12	<29	<25	<27	<19	<16
MW-25 SB-9 (2.5-5')	12/23/20	NA	<11	<29	<29	<29	<29	<29	<30	<26	<13	<28	<27	<25	<30	<28	<27	<11	<12	<30	<26	<28	<19	<16
MW-25 SB-9 (5-7.5')	12/23/20	NA	<9.0	<24	<24	<24	<24	<24	<25	<21	<11	<24	<22	<21	<25	<24	<23	<9.0	<10	<25	<22	<23	<16	<14
MW-25 SB-10 (0-2.5')	12/23/20	NA	<11	<30	<30	<30	<30	<30	<31	<27	**26**	<29	<28	<26	<32	<30	<28	**72**	**64**	<32	<27	<29	<20	**220**
MW-25 SB-10 (2.5-5')	12/23/20	NA	<12	<31	<32	<32	<31	<31	<32	<28	<15	<31	<29	<27	<33	<31	<29	<12	<13	<33	<28	<30	<21	<17
MW-25 SB-10 (5-7.5')	12/23/20	NA	<9.0	<24	<25	<25	<24	<24	<25	<22	<11	<24	<22	<21	<26	<24	<23	<9.1	<10	<26	<22	<23	<16	<14
MW-25 SB-11 (0-2.5')	12/23/20	NA	<8.5	<23	<23	<23	<23	<23	<24	<20	**13** J	<22	<21	<19	<24	<22	<21	**95**	**220**	<24	**22** J	<22	<15	**110**
MW-25 SB-11 (2.5-5')	12/23/20	NA	<11	<30	<31	<31	<30	<31	<32	<27	<14	<30	<28	<26	<32	<30	<29	<11	<13	<32	<28	<30	<20	<17
MW-25 SB-11 (5-7.5')	12/23/20	NA	<8.9	<24	<24	<24	<24	<24	<25	<21	<11	<23	<22	<20	<25	<23	<22	<8.9	<10	<25	<22	<23	<16	<13
MW-25 SB-12 (0-2.5')	12/23/20	NA	<8.6	<23	<23	<23	<23	<23	<24	<21	26	<23	<21	**53** J	<24	<23	<22	**100**	**450**	<24	**29** J	<22	<15	**190**
MW-25 SB-12 (2.5-5')	12/23/20	NA	<11	<29	<30	<30	<30	<30	<31	<26	<14	<29	<27	<25	<31	<29	<28	<11	**13** J	<31	<27	<29	<20	<17
MW-25 SB-12 (7.5-10')	12/23/20	NA	<9.1	<24	<25	<25	<24	<24	<25	<22	<11	<24	<22	<21	<26	<24	<23	<9.1	**140**	<26	**28** J	<24	<16	<14
MW-25 SB-13 (0-2.5')	12/23/20	NA	<1.5	<4.0	<4.1	<4.1	<4.0	<4.0	<4.2	<3.6	<1.9	<4.0	<3.7	<3.4	<4.3	<4.0	<3.8	**5.5**	**33**	<4.3	<3.7	<3.9	<2.7	**4.7** J
MW-25 SB-13 (2.5-5')	12/23/20	NA	<8.0	<21	<22	<22	<21	<22	<22	<19	<10	<21	<20	<18	<23	<21	<20	<8.0	**250**	<23	<20	<21	<14	<12
MW-25 SB-13 (5-7.5')	12/23/20	NA	<11	<29	<30	<30	<29	<29	<30	<26	<14	<29	<27	<25	<31	<29	<28	<11	<12	<31	<27	<28	<20	<16

TABLE 2
SOIL VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Boring/ Monitoring Well	Parameter =>	Volatile Organic Compounds (µg/kg)																					
		Acetone	Benzene	n-Butyl-benzene	sec-Butyl-benzene	tert-Butyl-benzene	1,1-DCE	1,2-DCA	cis-1,2-DCE	trans-1,2-DCE	Ethylbenzene	Isopropyl-benzene	p-Isopropyl-toluene	Naphthalene	N-Propyl-benzene	Styrene	PCE	Toluene	TCE	1,2,3-TCP	1,2,4-TMB	1,3,5-TMB	Vinyl chloride	Xylenes, Total
RCL Direct Contact (Non-Industrial)		63,800,000	1,490	108,000	145,000	183,000	342,000	608	156,000	1,560,000	7,470	268,000	162,000	5,150	264,000	867,000	30,700	818,000	1,260	5	89,800	182,000	67	258,000
RCL Direct Contact (Industrial)		100,000,000	7,410	108,000	145,000	183,000	1,190,000	3,030	2,040,000	1,670,000	37,000	268,000	162,000	26,000	264,000	867,000	153,000	818,000	8,810	95	219,000	182,000	2,030	258,000
RCL Groundwater Pathway		3,677	5.1	NS	NS	NS	5.0	2.8	41.2	58.8	1,570	NS	NS	658	NS	220	4.5	1,107	3.6	51.9	1,382		0.1	3,940
MW-25 SB-14 (0-2.5')	12/23/20	NA	<10	<27	<28	<28	<27	<28	**310**	**67 J**	<13	<27	<25	**25 J**	<29	<27	**39 J**	**78**	**4,300**	<29	<25	<27	<18	**140**
MW-25 SB-14 (2.5-5')	12/23/20	NA	<9.8	<26	**37 J**	<27	<26	<26	**78**	<24	<12	<26	**65 J**	**39 J**	<28	<26	<25	<9.9	**1,600**	<28	**28 J**	**120**	<18	<15
MW-25 SB-14 (5-7.5')	12/23/20	NA	<11	<30	<31	<31	<30	<31	<32	<27	<14	<30	<28	<26	<32	<30	<29	<11	**36 J**	<32	<28	<30	<20	<17
MW-25 SB-15 (0-2.5')	12/23/20	NA	<9.7	<26	**210**	<27	<26	<26	<27	<23	**130**	**200**	**440**	**700**	**180**	<26	<25	**67**	**160**	<28	**690**	**1,200**	<17	**460**
MW-25 SB-15 (2.5-5')	12/23/20	NA	<11	<29	<30	<30	<30	<30	<31	<27	<14	<29	<27	<25	<31	<29	<28	<11	<12	<31	<27	<29	<20	<17
MW-25 SB-15 (5-7.5')	12/23/20	NA	<11	<29	<30	<27	<29	<29	<30	<26	<14	<29	<27	<25	<31	<29	<27	<11	<12	<31	<27	<28	<19	<16
P-5 (20-24')	6/2/10	NA	**40**	<30	<30	<30	**62**	<30	**450**	**140**	**3,000**	**110**	<30	<60	<30	<60	<30	**52**	**13,000**	<60	<30	<30	<42	**510**
P-6 (3-4')	6/4/10	NA	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<60	<30	<60	<30	<30	**200**	<60	<30	<30	<42	<100
P-6 (12-16')	6/4/10	NA	<28	<28	<28	<28	<28	<28	<28	<28	<28	<28	<28	<55	<28	<55	<28	<28	<28	<55	<28	<28	<39	<94
P-10 (5-7.5')	6/25/12	<840	<21	<21	<21	<21	<21	<21	<21	<21	<21	<21	<21	<210	<21	<21	<21	<21	<21	<42	<21	<21	<21	<42
P-10 (27.5-30')	6/25/12	<930	<23	<23	<23	<23	<23	<23	<23	<23	<23	<23	<23	<230	<23	<23	<23	<23	**1,600**	<47	<23	<23	<23	<47
P-10 (48-50')	6/25/12	<1,000	<25	<25	<25	<25	<25	<25	**65**	<25	<25	<25	<25	<250	<25	<25	<25	<25	**1,400**	<50	<25	<25	<25	<50
P-12 (13-15')	5/18/15	NA	<3.7	<6.5	<7.7	<6.8	<15	<14	**58**	<13	<6.3	<13	<9.3	<25	<8.8	<5.0	<8.4	<5.8	**3,300**	<29	<11	<10	<5.2	<3.4
P-12 (23-25')	5/18/15	NA	<3.8	<6.6	<7.9	<7.0	<16	<15	**210**	**64**	<6.4	<13	<9.5	<25	<9.0	<5.1	<8.5	<5.9	**26,000**	<29	<11	<11	<5.3	<3.5
P-12 (30-32')	5/18/15	NA	**28**	<6.5	<7.7	<6.8	**320**	**44 J**	**2,000**	**76**	<6.3	<13	<9.3	<25	<8.8	<5.0	<8.4	<5.8	**2,000**	<29	<11	<10	<5.2	<3.4
P-16 (2-4')	5/18/15	NA	<3.7	<6.4	<7.6	<6.7	<15	<14	<6.1	<12	<6.2	<12	<9.1	<24	<8.6	<4.9	<8.2	<5.7	<9.2	<28	<10	<10	<5.1	<3.4
P-16 (5-7')	5/18/15	NA	<3.7	<6.4	<7.6	<6.7	<15	<14	<6.1	<12	<6.2	<12	<9.2	<24	<8.7	<4.9	<8.3	<5.7	<9.2	<28	<10	<10	<5.2	<3.4
P-16 (10-12')	5/18/15	NA	<3.7	<6.4	<7.6	<6.7	<15	<14	<6.1	<12	<6.2	<12	<9.1	<24	<8.6	<4.9	<8.2	<5.7	<9.2	<28	<10	<10	<5.1	<3.4
VP-1 (3-4')	6/4/10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VP-1 (12-14')	6/3/10	NA	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<26	<52	<26	<52	<26	<26	<26	<52	<26	<26	<36	<88

Notes:

1. Samples collected prior to 2011 were collected by MSA Professional Services, Inc. of Baraboo, Wisconsin and the samples were analyzed by TestAmerica of Watertown, Wisconsin. Samples collected after 2011 were collected by GZA GeoEnvironmental, Inc. and the samples were analyzed by ECCS of Madison, Wisconsin or TestAmerica of University Park, Illinois. Samples were analyzed for volatile organic compounds (VOCs) in accordance with USEPA Method 8260B.
2. Only constituents detected in soil samples are listed.
3. "NA" denotes sample not analyzed for the parameter.
4. "NS" denotes an RCL is not provided for the constituent in the referenced RCL worksheet.
5. Results are provided in micrograms per kilogram (µg/kg) for VOCs and PAHs and milligrams per kilogram (mg/kg) for metals, as indicated.
6. Results for acetone in samples GP-8 and GP-10 may be biased high because of high continuing calibration verification (CCV).
7. Residual Contaminant Levels (RCLs) for VOCs and metals were obtained from the WDNR RCL worksheet (updated January 2015) accessed at: http://dnr.wi.gov/topic/Brownfields/Professionals.html.
8. Concentrations detected above the method detection limit are provided in **bold font,** and concentrations exceeding the lowest published residual contaminant level (RCL) are underlined.
9. Orange shaded rows indicate that the soil sample was collected from an interval within the groundwater fluctuation zone or from below the water table.
10. J = Estimated value. The analyte was detected at a concentration between the limit of detection (LOD) and limit of quantification (LOQ). B denotes the constituent was detected in a blank sample at a concentration above the method detection limit (<1 µg/kg) but less than the reporting limit.
11. Chemical abbreviations are provided as follows:

1,1-DCE = 1,1-Dichloroethene; trans-1,2-DCE = trans-1,2-Dichloroethene; 1,2,3-TCP = 1,2,3-Trichloropropane; 1,2-DCA = 1,2-Dichloroethane; PCE = Tetrachloroethene
1,2,4-TMB = 1,2,4-Trimethylbenzene; cis-1,2-DCE = cis-1,2-Dichloroethene; TCE = Trichloroethene; 1,3,5-TMB = 1,3,5-Trimethylbenzene

TABLE 3
GROUNDWATER VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Monitoring Well	Parameter (µg/l)	Benzene	CA	CM	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	Ethylbenzene	1,1,2,2-PCA	PCE	Toluene	1,1,2-TCA	TCE	1,2,3-TCP	VC	Xylenes
NR 140 ES		5	400	30	5	7	70	100	700	0.2	5	1,000	5	5	60	0.2	10,000
NR 140 PAL		0.5	80	3	0.5	0.7	7	20	140	0.02	0.5	200	0.5	0.5	12	0.02	1,000
MW-1	29-Jun-10	<2	<5	<2	<2	<2	<2	<2	<2	<2	<2	--	<2	<2	<2	<2	--
	30-Aug-10	<2	<5	0.38 J	<2	<2	<2	<2	<2	<2	<2	--	<2	<2	<2	<2	--
	31-May-12	<0.5	<5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5
	25-Jun-13	<0.5	<5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.7	<0.5	<0.5	<1	<0.5	<0.5
	10-Jun-15	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1	<0.5	<1
	19-May-16	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1	<0.5	<1
	27-Jul-17	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1	<0.5	<1
	16-Oct-18	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1	<1	<1
	15-Jul-19	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<2	<1	<1
	5-Oct-20	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<2	<1	<1
	Dup4 10/5/20	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<2	<1	<1
	1-Sep-22	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<2	<1	<1
MW-2	29-Jun-10	<2	<5	<2	**4.1**	**0.85** J	**380**	**35**	<2	<2	<2	--	<2	**100**	**24**	**2.6**	--
	30-Aug-10	<8	<20	<8	**3.2** J	<8	**330**	**33**	<8	**1** J	<8	--	<8	**74**	**39**	**2.7**	--
	Dup 8/30/10	<8	<20	<8	**3.3** J	<8	**330**	**33**	<8	<8	<8	--	<8	**73**	**41**	**2.7** J	--
	23-Nov-10	<2	<5	<2	**5.2**	**1.3** J	**360**	**54**	<2	<2	<2	--	<2	**130**	**33**	**5.7**	--
	1-Jun-12	<0.5	<5	<2	<0.5	**1**	**410**	**22**	<0.5	<0.5	<0.5	<0.5	<0.5	**56**	**42**	**2**	<0.5
	25-Jun-13	<0.5	<5	<2	**1.1**	<0.5	**260**	9.7	<0.5	<0.5	<0.5	0.52	<0.5	**41**	**32**	**0.52** HC	<0.5
	13-Jun-15	<0.5	<1	<1	**1.3**	**0.72** J	**330**	**20**	<0.5	<1	<1	<0.5	<1	**39**	**29**	**1.4**	<1
	19-May-16	<0.5	<1	<1	<1	<1	**180**	5.5	<0.5	<1	<1	<0.5	<1	**14**	**13**	**0.4** J	<1
	27-Jul-17	<0.5	<1	<1	<1	0.63 J	**200**	7.4	<0.5	<1	<1	<0.5	<1	**14**	7.1	**1.8**	<1
	17-Oct-18	<0.5	<1	<1	**0.92** J	<1	**83**	4.9	<0.5	<1	<1	<0.5	<1	**6**	5.7	**2.4**	<1
	Dup2 10/17/18	<0.5	<1	<1	**0.83** J	<1	**82**	4.6	<0.5	<1	<1	<0.5	<1	**5.7**	5.6	**2.6**	<1
	16-Jul-19	<0.5	<1	<1	**1.3**	<1	**150**	8.5	<0.5	<1	<1	<0.5	<1	**8.3**	3.4	**2.2**	<1
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred ~40 feet Downgradient of MW-2															
	30-Oct-19	<0.15	<1	<1	<1	<1	**130**	7.3	<0.5	<1	<1	<0.5	<1	**5.6**	2.3	**2.4**	<1
	13-Jan-20	0.32 J,B	<1	<1	<1	<1	**140**	7.5	<0.5	<1	<1	<0.5	<1	**5.7**	2.2	<0.2	<1
	30-Apr-20	<0.5	<1	<1	**1.3**	<1	**170**	10	<0.5	<1	<1	<0.5	<1	**5.2**	1.8 J	**2.2**	<1
	4/30/20 Dup	<0.5	<1	<1	**1.3**	<1	**170**	10	<0.5	<1	<1	<0.5	<1	**5.2**	1.8 J	**2.2**	<1
	30-Sep-20	<0.5	<1	<1	**1.4**	0.5 J	**180**	13	<0.5	<1	<1	<0.5	<1	**5.3**	3.3	**11**	<1
	16-Mar-21	<0.5	<1	<1	**2.3**	<1	**170**	11	<0.5	<1	<1	<0.5	<1	**6.2**	3.1	**7.8**	<1
	3/16/21 Dup	<0.5	<1	<1	**2.2**	0.5 J	**160**	10	<0.5	<1	<1	<0.5	<1	**6.3**	3.5	**8.1**	<1
	29-Aug-22	<0.5	<1	<1	**1**	<1	**59**	3.1	<0.5	<1	<1	<0.5	<1	**3.8**	3	**1.3**	<1
IW-2	27-May-15	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	5.6	<0.5	<1
	5/27 - 6/3/15	1st Pilot Test Organic Carbon Injections Occurred 10 feet Sidegradient of IW-2															
	1-Oct-15	<0.5	<1	<1	<1	<1	0.61 J	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1	<0.5	<1
	2-Aug-17	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1	<0.5	<1
	29-Aug-22	<0.5	<1	<1	**0.9** J	<1	2.9	<1	<0.5	<1	<1	<0.5	<1	<0.5	1.2 J	**0.36** J	<1
MW-3	29-Jun-10	<2	<5	<2	**3.5**	<2	**27**	3	<2	<2	**0.99** J	--	0.25 J	**930**	**67**	<2	--
	30-Aug-10	<20	<50	<10	<20	<20	**27**	<20	<20	<20	<20	--	<20	**710**	**88**	<20	--
	1-Jun-12	<0.5	<5	<2	<0.5	<0.5	**25**	1.5	<0.5	<0.5	**0.84**	<0.5	<0.5	**570**	**190**	<0.5	<0.5
	25-Jun-13	<0.5	<5	<2	**4.1**	<0.5	**25**	1.2	<0.5	<0.5	**0.91**	1.4	<0.5	**580**	**110**	<0.5	<0.5
	26-May-15	<0.5	<1	<1	**2.7**	<1	**20**	1.5	<0.5	<1	**0.74** J	<0.5	<1	**420**	**120**	<0.5	<1
	5/27 - 6/3/15	1st Pilot Test Organic Carbon Injections Occurred 90 feet Upgradient of MW-3															

TABLE 3
GROUNDWATER VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Monitoring Well	Parameter (µg/l)	Benzene	CA	CM	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	Ethylbenzene	1,1,2,2-PCA	PCE	Toluene	1,1,2-TCA	TCE	1,2,3-TCP	VC	Xylenes
NR 140 ES		5	400	30	5	7	70	100	700	0.2	5	1,000	5	5	60	0.2	10,000
NR 140 PAL		0.5	80	3	0.5	0.7	7	20	140	0.02	0.5	200	0.5	0.5	12	0.02	1,000
MW-3	30-Jun-15	<1	<2	<2	**2.8**	<2	**20**	1.5 J	<1	<2	<2	<1	<2	**450**	**86**	<1	<2
(Cont.)	30-Jul-15	<0.5	<1	<1	**3.2**	<1	**22**	1.5	<0.5	<1	**0.87** J	<0.5	<1	**550**	**100**	<0.5	<1
	28-Aug-15	<0.5	<1	<1	**3.2**	<1	**19**	1.3	<0.5	<1	**0.83** J	<0.5	<1	**450**	**95**	<0.5	<1
	1-Oct-15	<0.5	<1	<1	**3.8**	<1	**21**	1.4	<0.5	<1	**0.7** J	<0.5	<1	**490**	**100**	<0.5	<1
	19-May-16	<0.5	<1	<1	**2.9**	<1	**21**	1.2	<0.5	<1	**0.91** J	<0.5	<1	**410**	**86**	<0.5	<1
	28-Jul-17	<0.5	<1	<1	**1.3**	<1	**20**	0.89 J	<0.5	<1	**0.74** J	<0.5	<1	**390**	**41**	<0.5	<1
	Dup2 7/28/17	<0.5	<1	<1	**1.2**	<1	**19**	1	<0.5	<1	**0.69** J	<0.5	<1	**360**	**39**	<0.5	<1
	17-Oct-18	0.18 J	<1	<1	**1.1**	<1	**16**	1.6	0.19 J	<1	**1.2**	0.16 J	<1	**300**	**53**	<1	<1
	15-Jul-19	<0.5	<1	<1	<1	<1	**25**	0.52 J	<0.5	<1	**0.95** J	<0.5	<1	**290**	**26**	<1	<1
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred Just Upgradient of MW-3															
	30-Oct-19	<0.5	<1	<1	<1	0.59 J	**210**	3.1	<0.5	<1	<1	<0.5	<1	**25**	**28**	**12**	<1
	13-Jan-20	0.25 J,B	<1	<1	<1	**0.89** J	**220**	1.9	<0.5	<1	<1	<0.5	<1	**7.3**	10	**14**	<1
	Dup 1/13/20	0.2 J,B	<1	<1	<1	**0.9** J	**240**	2.2	<0.5	<1	<1	<0.5	<1	**8.0**	11	**15**	<1
	30-Apr-20	<0.5	<1	<1	<1	0.69 J	**190**	<1	<0.5	<1	<1	<0.5	<1	**3.8**	6.2	**21**	<1
	30-Sep-20	<0.5	<1	<1	<1	<1	**60**	1.3	<0.5	<1	<1	<0.5	<1	**3.3**	1.2 J	**70**	<1
	16-Mar-21	<0.5	<1	<1	<1	<1	**8.1**	<1	<0.5	<1	<1	<0.5	<1	**4.6**	<2	**9.5**	<1
	3-Nov-21	No Sample Collected - Insufficient Water in Well															
	29-Aug-22	<0.5	<1	<1	<1	<1	6.9	<1	<0.5	<1	<1	<0.5	<1	**1.6**	<2	**1.1**	<1
MW-4	29-Jun-10	0.4 J	<5	<2	<2	**1.4** J	**120**	1.6 J	<2	<2	<2	--	<2	**7,100**	<2	**0.21** J	--
(15' to 25' bg)	30-Aug-10	<200	<500	<200	<200	<200	**160** J	<200	<200	<200	<200	--	<200	**5,500**	<200	<200	--
	23-Nov-10	**0.8** J	<5	<2	<2	**2.9**	**340** J	3.1	<2	<2	<2	--	<2	**8,900**	<2	**0.43**	--
	31-May-12	<0.5	<5	<2	<0.5	**1.4**	**160**	6.5	<0.5	<0.5	<0.5	<0.5	<0.5	**5,700**	<1	<0.5	<0.5
	25-Jun-13	<5	<50	<20	<5	<5	**100**	6.4	<5	<5	<5	15 BHCD	<5	**3,700**	<10	<5	<5
	27-May-15	<2.5	<5	<5	<5	<5	**140**	13	<2.5	<5	<5	<2.5	<5	**4,600**	<5	<2.5	<5
	30-Jul-15	<5	<10	<10	<10	<10	**180**	15	<5	<10	<10	<5	<10	**7,500**	<10	<5	<10
	1-Oct-15	**2.7**	<5	<5	<5	**3.4** J	**270**	**34**	<2.5	<5	<5	<2.5	<5	**8,600**	<5	<2.5	<5
	19-May-16	<5	<10	<10	<10	<10	**89**	7.1 J	<5	<10	<10	<5	<10	**4,100**	<10	<5	<10
	27-Jul-17	<5	<10	<10	<10	<10	**96**	<10	<5	<10	<10	<5	<10	**3,100**	<10	<5	<10
	Dup1 7/27/17	<5	<10	<10	<10	<10	**96**	<10	<5	<10	<10	<5	<10	**3,000**	<10	<5	<10
	19-Sep-17	<5	<10	<10	<10	<10	**120**	6.4 J	<5	<10	<10	<5	<10	**4,100**	<10	<5	<10
	5-Dec-17	<5	<10	<10	<10	<10	**150**	8 J	<5	<10	<10	<5	<10	**4,000**	<10	<5	<10
	Dup 12/5/17	<5	<10	<10	<10	<10	**140**	7 J	<5	<10	<10	<5	<10	**3,700**	<10	<5	<10
	20-Feb-18	<2.5	<5	<5	<5	<5	**140**	7.4	<2.5	<5	<5	<2.5	<5	**4,500**	<5	<2.5	<5
	Dup 2/20/18	<2.5	<5	<5	<5	<5	**140**	7.7 F2	<2.5	<5	<5	<2.5	<5	**5,000**	<5	<2.5	<5
	23-Apr-18	<5	<10	<10	<10	<10	**150**	16	<5	<10	<10	<5	<10	**3,900**	<10	<10	<10
	2-Jul-18	<5	<10	<10	<10	<10	**110**	9.4 J	<5	<10	<10	<5	<10	**3,600**	<10	<10	<10
	15-Oct-18	**5.9**	<10	<10	<10	<10	**180**	17	<5	<10	<10	1.8 J	<10	**3,600**	<10	<10	<10
	16-Jul-19	<5	<10	<10	<10	<10	**110**	<10	<5	<10	<10	<5	<10	**3,300**	<10	<10	<10
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred ~60 feet Upgradient of MW-4															
	28-Oct-19	<2.5	<5	<5	<5	<5	**52**	4.1 J	<2.5	<5	<5	<2.5	<5	**1,300**	<10	<5	<5
	13-Jan-20	<5	<10	<10	<10	<10	**80**	<10	<5	<10	<10	<5	<10	**2,700**	<20	<10	<10
	30-Apr-20	<2.5	<5	<5	<5	<5	**82**	<5	<2.5	<5	<5	<2.5	<5	**2,100**	<10	<5	<5

TABLE 3
GROUNDWATER VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Monitoring Well	Parameter (µg/l)	Benzene	CA	CM	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	Ethylbenzene	1,1,2,2-PCA	PCE	Toluene	1,1,2-TCA	TCE	1,2,3-TCP	VC	Xylenes
NR 140 ES		5	400	30	5	7	70	100	700	0.2	5	1,000	5	5	60	0.2	10,000
NR 140 PAL		0.5	80	3	0.5	0.7	7	20	140	0.02	0.5	200	0.5	0.5	12	0.02	1,000
MW-4 (Cont.)	30-Sep-20	<5	<10	<10	<10	<10	**120**	8.2 J	<5	<10	<10	<5	<10	**2,800**	<20	**11**	<10
	16-Mar-21	<2.5	<5	<5	<5	<5	**320**	**21**	<2.5	<5	<5	<2.5	<5	**4,200**	<10	**300**	<5
	3-Nov-21	<2.5	<5	<5	<5	<5	**270**	13	<2.5	<5	<5	<2.5	<5	**4,400**	<10	**84**	<5
	30-Aug-22	<5	<10	<10	<10	<10	**1,600**	**30**	<5	<10	<10	<5	<10	**3,100**	<20	**1,000**	<10
MW-5	29-Jun-10	**0.58** J	<5	<2	<2	**1.3** J	**220**	1.9 J	0.7 J	<2	**6.7**	--	<2	**1,100**	<2	**2.6**	--
	8/30/10(Note 7)	<50	<130	<50	<50	<50	**280**	<50	<50	<50	**14** J	--	<50	**2,000**	<50	**6.5** J	--
	31-May-12	**0.61**	<5	<2	<0.5	**4.7**	**94**	3.2	<0.5	<0.5	**13**	<0.5	<0.5	**2,300**	<1	**15**	<0.5
	25-Jun-13	<5	<50	<20	<5	<5	**230**	<5	<5	<5	**13** D	7.5 B HC D	<5	**2,200**	<10	<5	<5
	27-May-15	**1.1** J	<5	<5	<5	**7.4**	**130**	5.4	<2.5	<5	**12**	<2.5	<5	**2,300**	<5	**19**	<5
	30-Jul-15	<2.5	<5	<5	<5	**9.3**	**170**	7.2	<2.5	<5	**13**	<2.5	<5	**4,000**	<5	**23**	<5
	1-Oct-15	**1.6** J	<5	<5	<5	**21**	**190**	13	<2.5	<5	**12**	<2.5	<5	**4,700**	<5	**63**	<5
	20-May-16	<5	<10	<10	<10	<10	**310**	<10	<5	<10	**23**	<5	<10	**5,200**	<10	**8**	<10
	Dup3 5/20/16	<5	<10	<10	<10	<10	**310**	<10	<5	<10	**18**	<5	<10	**5,700**	<10	**8.9**	<10
	31-Jul-17	<1	<2	<2	<2	<2	**29**	<2	<1	<2	**6.3**	<1	<2	**700**	<2	<2	<1
	16-Oct-18	<2.5	<5	<5	<5	**5.9**	**150**	4.5 J	<2.5	<5	**6.9**	<2.5	<5	**1,200**	<5	**26**	<5
	17-Jul-19	<0.5	<1	<1	<1	**0.7** J	**54**	1.1	<0.5	<1	**6.2**	<0.5	<1	**670**	<2	**1.7**	<1
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred ~80 feet Upgradient of MW-5															
	29-Oct-19	<0.5	<1	<1	<1	0.68 J	**63**	1	<0.5	<1	**3.3**	<0.5	<1	**400**	<2	**5.8**	<1
	14-Jan-20	<0.5	<1	<1	<1	<1	**23**	<1	<0.5	<1	<0.5	<0.5	<1	**340**	<2	<1	<1
	5-May-20	<0.5	<1	<1	<1	<1	**17**	<1	<0.5	<1	**4**	<0.5	<1	**290**	<2	**0.79 J**	<1
	30-Sep-20	<0.5	<1	<1	<1	**2.1**	**250**	3.6	<0.5	<1	**5.6**	<0.5	<1	**400**	<2	**35**	<1
	16-Mar-21	<0.5	<1	<1	<1	**1.9**	**290**	4	<0.5	<1	**4.1**	<0.5	<1	**420**	<2	**45**	<1
	3-Nov-21	<1	<2	<2	<2	**8.2**	**820**	13	<1	<2	**8.2**	<1	<2	**1,500**	<4	**130**	<2
	Dup 11/3/21	**0.71** J	<2	<2	<2	**8.7**	**800**	13	<1	<2	**10**	<1	<2	**1,400**	<4	**83**	<2
	31-Aug-22	<2.5	<5	<5	<5	**6.1**	**610**	9.6	<2.5	<5	**11**	<2.5	<5	**4,100**	<10	**31**	<5
	Dup2 8/31/22	<2.5	<5	<5	<5	**7.1**	**650**	10	<2.5	<5	**12**	<2.5	<5	**4,100**	<10	**32**	<5
P-5	29-Jun-10	**0.84** J	5.4 J	<8	<8	**10**	**2,200**	**95**	<8	<8	<8	--	<8	**15** J	<8	**77**	--
	8/30/10(Note 7)	<20	12 J	<20	<20	**9.6** J	**1,100**	**86**	<20	<20	<20	--	<20	**4.9** J	<20	**86**	--
	31-May-12	**0.83**	<5	<2	<0.5	**12**	**1,000**	**96**	<0.5	<0.5	<0.5	<0.5	<0.5	**9.8**	<1	**74**	<0.5
	Dup2 5/31/12	**0.92**	<5	<2	<0.5	**13**	**1,100**	**93**	<0.5	<0.5	<0.5	<0.5	<0.5	**9.8**	<1	**72**	<0.5
	25-Jun-13	**0.61**	<5	<2	<0.5	**11**	**870**	**95**	<0.5	<0.5	<0.5	0.98 B HC	<0.5	**33**	<1	**65** HC	<0.5
	13-Jun-15	0.32 J	9.3	<1	<1	**5.7**	**440**	**85**	<0.5	<1	<1	<0.5	<1	**60**	<1	**49**	<1
	20-May-16	<0.5	5	<1	<1	**5.1**	**520**	**100**	<0.5	<1	<1	<0.5	<1	**54**	<1	**71**	<1
	31-Jul-17	**6**	8.9	<2	<2	**3.1**	**610**	**120**	<1	<2	<2	<1	<2	**63**	<2	**47**	0.89 J
	16-Oct-18	0.35 J	5	<2	<2	**4.4**	**900**	**150**	<1	<2	<2	<1	<2	**50**	<2	**150**	<2
	17-Jul-19	0.33 J	4.4	<3	<1	**3.6**	**680**	**140**	<0.5	<1	<1	<0.5	<1	**53**	<2	**93**	<1
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred ~80 feet Upgradient of P-5															
	29-Oct-19	0.4 J	3.8	<2	<2	**3.1**	**700**	**130**	<1	<2	<1	0.42 J	<2	**52**	<4	**81**	<2
	14-Jan-20	0.3 J	2.1	<1	<1	<1	**680**	**140**	<0.5	<1	<0.5	<0.5	<1	**57**	<2	**73**	<1
	30-Sep-20	<1	2.2	<2	<2	**3.1**	**630**	**130**	<1	<2	<2	<1	<2	**69**	<4	**42**	<2
	16-Mar-21	<1	1.7 J	<2	<2	**3.6**	**800**	**130**	<1	<2	<2	<1	<2	**53**	<4	**40**	<2
	31-Aug-22	0.34 J	5.4	<1	<1	**4.2**	**890**	**120**	<1	<1	<1	<0.5	<1	**66**	<2	**32**	<1
	Dup1 8/31/22	0.3 J	5.2	<1	<1	**3.8**	**1,000**	**110**	<0.5	<1	<1	<0.5	<1	**65**	<2	**32**	<1

TABLE 3
GROUNDWATER VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Monitoring Well	Parameter (µg/l)	Benzene	CA	CM	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	Ethylbenzene	1,1,2,2-PCA	PCE	Toluene	1,1,2-TCA	TCE	1,2,3-TCP	VC	Xylenes
NR 140 ES		5	400	30	5	7	70	100	700	0.2	5	1,000	5	5	60	0.2	10,000
NR 140 PAL		0.5	80	3	0.5	0.7	7	20	140	0.02	0.5	200	0.5	0.5	12	0.02	1,000
MW-6	29-Jun-10	<4	<10	<4	<4	<4	**47**	<4	<4	<4	<4	--	<4	**300**	<4	**1.7**	--
	30-Aug-10	<4	<10	<4	<4	<4	**26**	<4	<4	<4	<4	--	<4	**190**	<4	**2.2** J	--
	23-Nov-10	<8	<20	<8	<8	<8	**58**	<8	<8	<8	<8	--	<8	**280**	<8	**3.9** J	--
	31-May-12	<0.5	<5	<2	<0.5	<0.5	**24**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**51**	<1	**1.3**	<0.5
	Dup1 5/31/12	<0.5	<5	<2	<0.5	<0.5	**24**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**52**	<1	**1.1**	<0.5
	25-Jun-13	<0.5	<5	<2	<0.5	<0.5	**13**	<0.5	<0.5	<0.5	<0.5	1.1 B HC	<0.5	**63**	<1	<0.5	<0.5
	13-Jun-15	<0.5	<1	<1	<1	<1	**22**	<1	<0.5	<1	<1	<0.5	<1	**52**	<1	**0.98**	<1
	20-May-16	<0.5	<1	<1	<1	<1	**27**	<1	<0.5	<1	<1	<0.5	<1	**78**	<1	**0.88**	<1
	31-Jul-17	<0.5	<1	<1	<1	<1	**29**	<1	<0.5	<1	<1	<0.5	<1	**94**	<1	**1.1**	<1
	16-Oct-18	<0.5	<1	<1	<1	<1	**40**	0.49 J	<0.5	<1	<1	<0.5	<1	**56**	<1	**3.9**	<1
	Dup1 10/16/18	<0.5	<1	<1	<1	<1	**36**	0.4 J	<0.5	<1	<1	<0.5	<1	**50**	<1	**3.3**	<1
	17-Jul-19	<0.5	<1	<1	<1	<1	**52**	1.2	<0.5	<1	<1	<0.5	<1	**71**	<2	**2**	<1
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred at MW-6															
	30-Oct-19	0.22 J	<1	<1	<1	<1	**98**	1.4	<0.5	<1	<1	0.18 J	<1	**4.7**	<2	**49**	<1
	15-Jan-20	0.18 J	<1	<1	<1	<1	**180**	2.6	<0.5	<1	<1	0.33 J	<1	**0.69**	<2	**60**	<1
	4-May-20	<0.5	<1	<1	<1	<1	**13**	1.1	<0.5	<1	<1	0.26 J	<1	0.23 J	<2	**10**	<1
	1-Oct-20	<0.5	<1	<1	<1	<1	1.7	0.66 J	<0.5	<1	<1	<0.5	<1	<0.5	<2	**0.86** J	<1
	12-Mar-21	<0.5	<1	<1	<1	<1	1.4	1.2	<0.5	<1	<1	0.3 J	<1	<0.5	<2	**3.4**	<1
	3-Nov-21	<0.5	<1	<1	<1	<1	0.7 J	0.39 J	<0.5	<1	<1	0.3 J	<1	<0.5	<2	**1**	<1
	29-Aug-22	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	0.39 J	<1	<0.5	<2	<1	<1
P-6	29-Jun-10	**1.6** J	<25	<10	<10	<10	**710**	**120**	<10	<10	<10	--	<10	**11**	<10	**290**	--
(31' to 36' bg)	30-Aug-10	**2.1** J	<40	<16	<16	<16	**560**	**79**	<16	<16	<16	--	<16	**61**	<16	**460**	--
	23-Nov-10	<40	<100	<40	<40	<40	**790**	**110**	<40	<40	<40	--	<40	**48**	<40	**1,100**	--
	31-May-12	**4.9**	<5	<2	**0.65**	**1.9**	**910**	**68**	<0.5	<0.5	<0.5	<0.5	<0.5	**3.3**	<1	**1,600**	<0.5
	25-Jun-13	**5.2**	<50	<20	<5	<5	**940**	**77**	<5	<5	<5	16 B HC	<5	<5	<10	**870** HC	<5
	13-Jun-15	**2.4**	<1	<1	**0.97** J	**1.2**	**410**	15	<0.5	<1	<1	<0.5	<1	**3.1**	<1	**410**	<1
	Dup3 6/13/15	**2.5**	<1	<1	**0.84** J	**1.3**	**420**	15	<0.5	<1	<1	<0.5	<1	**3.4**	<1	**420**	<1
	20-May-16	**4.4**	0.59 J	<1	**3.5**	**1.8**	**720**	**21**	<0.5	<1	<1	<0.5	<1	**13**	<1	**820**	<1
	31-Jul-17	**2.4**	<1	<1	**1.9**	**1.1**	**240**	8.7	<0.5	<1	<1	<0.5	<1	**4**	<1	**200**	<1
	16-Oct-18	**2.9**	1.6	<1	**1.9**	**1.2**	**370**	11	<0.5	<1	<1	0.15 J	<1	**8.4**	<1	**200**	<1
	17-Jul-19	**2.3**	<1	<1	**1.7**	**1.0**	**300**	11	<0.5	<1	<1	<0.5	<1	**7.2**	<2	**94**	<1
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred at P-6															
	29-Oct-19	**2.3**	0.66 J	<1	**1.3**	**1.1**	**340**	11	<0.5	<1	<1	0.16 J	<1	**1.6**	<2	**180**	<1
	15-Jan-20	**2.5**	<1	<1	<1	<1	**220**	9.5	<0.5	<1	<1	<0.5	<1	**1.6**	<2	**180**	<1
	4-May-20	**0.98**	<1	<1	<1	<1	**100**	3	<0.5	<1	<1	<0.5	<1	**1.4**	<2	**120**	<1
	1-Oct-20	**1.3**	<1	<1	<1	<1	**180**	4.3	<0.5	<1	<1	<0.5	<1	**1.1**	<2	**280**	<1
	12-Mar-21	**1.6**	<1	<1	**1.1**	**0.72** J	**240**	6.7	<0.5	<1	<1	<0.5	<1	**1.5**	<2	**160**	<1
	29-Aug-22	**0.79**	<1	<1	**2.3**	<1	**140**	2.1	<0.5	<1	<1	<0.5	<1	**1.1**	<2	**92**	<1
MW-7	1-Jun-12	<0.5	<5	<2	<0.5	**0.72**	**12**	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	**71**	<1	<0.5	<0.5
	25-Jun-13	<0.5	<5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.53 B HC	<0.5	**2.2**	<1	<0.5	<0.5
	10-Jun-15	<0.5	<1	<1	<1	<1	**9.4**	<1	<0.5	<1	<1	<0.5	<1	**25**	<1	<0.5	<1
	20-May-16	<0.5	<1	<1	<1	<1	3.4	<1	<1	<1	<1	<0.5	<1	**13**	<1	<0.5	<1
	28-Jul-17	<0.5	<1	<1	<1	<1	5.9	<1	<0.5	<1	<1	<0.5	<1	**17**	<1	<0.5	<1
	17-Oct-18	<0.5	<1	<1	<1	<1	4.3	<1	<0.5	<1	<1	<0.5	<1	**9.3**	<1	<1	<1
	17-Jul-19	<0.5	<1	<1	<1	<1	2.7	<1	<0.5	<1	<1	<0.5	<1	**8.3**	<2	<1	<1

TABLE 3
GROUNDWATER VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Monitoring Well	Parameter (µg/l)	Benzene	CA	CM	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	Ethylbenzene	1,1,2,2-PCA	PCE	Toluene	1,1,2-TCA	TCE	1,2,3-TCP	VC	Xylenes
NR 140 ES		5	400	30	5	7	70	100	700	0.2	5	1,000	5	5	60	0.2	10,000
NR 140 PAL		0.5	80	3	0.5	0.7	7	20	140	0.02	0.5	200	0.5	0.5	12	0.02	1,000
MW-7	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred ~80 Feet Upgradient of MW-7															
(Cont.)	30-Oct-19	<0.5	<1	<1	<1	<1	3.7	<1	<0.5	<1	<1	<0.5	<1	**8.1**	<2	<1	<1
	Dup1 10/30/19	<0.5	<1	<1	<1	<1	3.3	<1	<0.5	<1	<1	<0.5	<1	**7.7**	<2	<1	<1
	13-Jan-20	0.23 J,B	<1	<1	<1	<1	0.6 J	<1	<0.5	<1	<1	<0.5	<1	**2.6**	<2	<1	<1
	4-May-20	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**2.1**	<2	<1	<1
	1-Oct-20	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**1.6**	<2	<1	<1
	16-Mar-21	<0.5	<1	<1	<1	<1	1.3	<1	<0.5	<1	<1	<0.5	<1	**3.6**	<2	<1	<1
	2-Sep-22	<0.5	<1	<1	<1	<1	2.8	<1	<0.5	<1	<1	<0.5	<1	**7.5**	<2	<1	0.31 J
P-7	23-Nov-10	<40	<100	<40	<40	<40	**1,900**	**84**	<40	<40	<40	--	<40	**6.4** J	<40	**220**	--
	1-Jun-12	**1.9**	<5	<2	<0.5	**6.8**	**1,300**	**53**	<0.5	<0.5	<0.5	<0.5	<0.5	**1.8**	<1	**200**	<0.5
	25-Jun-13	<5	<50	<20	<5	**9.4** D	**1,800**	**92**	<5	<5	<5	5.7 B HC	<5	<5	<10	**220** HC	<5
	10-Jun-15	**0.81**	<1	<1	<1	**1.6**	**210**	7.9	<0.5	<1	<1	<0.5	<1	<0.5	<1	**19**	<1
	20-May-16	0.46 J	1.4	<1	<1	0.54 J	**70**	2.2	<0.5	<1	<1	<0.5	<1	0.27 J	<1	**6.2**	<1
	28-Jul-17	0.48 J	<1	<1	<1	0.53 J	**42**	1.3	<0.5	<1	<1	<0.5	<1	0.42 J	<1	**2.5**	<1
	17-Oct-18	**0.54**	5.1	<1	<1	<1	**57**	1.2	<0.5	<1	<1	<0.5	<1	0.37 J	<1	**9.2**	<1
	18-Jul-19	0.24 J	<1	<1	<1	<1	**43**	0.78 J	<0.5	<1	<1	<0.5	<1	**35**	<2	<1	<1
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred ~80 Feet Upgradient of P-7															
	30-Oct-19	0.27 J	<1	<1	<1	0.52 J	**56**	0.8 J	<0.5	<1	<1	<0.5	<1	**34**	<2	**1.3**	<1
	13-Jan-20	0.37 J,B	<1	<1	<1	<1	**43**	0.81 J	<0.5	<1	<1	<0.5	<1	**38**	<2	**0.53** J	<1
	1-Oct-20	<0.5	<1	<1	<1	**0.84** J	**77**	1.3	<0.5	<1	<1	<0.5	<1	**32**	<2	**3.1**	<1
	16-Mar-21	0.15 J	<1	<1	<1	<1	**60**	1	<0.5	<1	<1	<0.5	<1	**18**	<2	**0.9** J	<1
	2-Sep-22	<0.5	8.6	<1	<1	0.57 J	**130**	3.6	<0.5	<1	<1	<0.5	<1	**15**	<2	**47**	<1
MW-8	23-Nov-10	<20	<50	<20	<20	<20	**42**	<20	<20	<20	<20	--	<20	**420**	<20	<20	--
	30-May-12	<0.5	<5	<2	<0.5	<0.5	**32**	2.5	<0.5	<0.5	<0.5	<0.5	<0.5	**170**	<1	<0.5	<0.5
	26-Jun-13	<0.5	<5	<2	<0.5	<0.5	**61**	3.5	<0.5	<0.5	<0.5	<0.5	<0.5	**49**	<1	<0.5	<0.5
	9-Jun-15	<0.5	<1	<1	<1	<1	**38**	1.7	<0.5	<1	<1	<0.5	<1	**33**	<1	**0.89**	<1
	Dup1 6/9/15	<0.5	<1	<1	<1	<1	**42**	2	<0.5	<1	<1	<0.5	<1	**37**	<1	**1**	<1
	19-May-16	<0.5	<1	<1	<1	<1	**28**	1.5	<0.5	<1	<1	<0.5	<1	**26**	<1	<0.5	<1
	1-Aug-17	<0.5	<1	<1	<1	<1	**34**	1.7	<0.5	<1	<1	<0.5	<1	**58**	<1	<0.5	<1
	17-Oct-18	<0.5	<1	<1	<1	<1	**29**	1.5	<0.5	<1	<1	<0.5	<1	**38**	<1	<1	<1
	Dup3 10/17/18	<0.5	<1	<1	<1	<1	**30**	1.6	<0.5	<1	<1	<0.5	<1	**39**	<1	<1	<1
	15-Jul-19	<0.5	<1	<1	<1	<1	**32**	1.7	<0.5	<1	<1	<0.5	<1	**42**	<2	<1	<1
	Dup1 7/15/19	<0.5	<1	<1	<1	<1	**34**	1.8	<0.5	<1	<1	<0.5	<1	**44**	<2	<1	<1
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred ~410 Feet Upgradient of MW-8															
	6-Oct-20	<0.5	<1	<1	<1	<1	**30**	1.6	<0.5	1.6	<1	<0.5	<1	**48**	<2	<1	<1
	3-Sep-22	<0.5	<1	<1	<1	<1	**32**	1.7	<0.5	<1	<1	<0.5	<1	**37**	<2	<1	<1
P-8	23-Nov-10	<20	<50	<20	<20	<20	**460**	19 J	<20	<20	<20	--	<20	**340**	<20	**69**	--
	30-May-12	<0.5	<5	<2	**19**	**1.5**	**360**	**85**	<0.5	<0.5	<0.5	<0.5	<0.5	**580**	<1	**13**	<0.5
	26-Jun-13	<5	<50	<20	**49**	**7.7**	**490**	**170**	<5	<5	<5	5.5 B HC	<5	**2,300**	<10	**27** HC	<5
	9-Jun-15	<0.5	<1	<1	<1	<1	**67**	4.5	<0.5	<1	<1	<0.5	<1	**370**	<1	**73**	<1
	19-May-16	<0.5	<1	<1	<1	<1	**66**	4.2	<0.5	<1	<1	<0.5	<1	**150**	<1	**7.9**	<1
	Dup2 5/19/16	<0.5	<1	<1	<1	<1	**61**	4.1	<0.5	<1	<1	<0.5	<1	**150**	<1	**8.6**	<1
	1-Aug-17	<2.5	<5	<5	<5	**2.2** J	**180**	13	<2.5	<5	<5	<2.5	<5	**1,600**	<5	**15**	<5
	17-Oct-18	<2.5	<5	<5	<5	**2.4** J	**160**	13	<2.5	<5	<5	<2.5	<5	**1,900**	<5	**17**	<5

TABLE 3
GROUNDWATER VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Monitoring Well	Parameter (µg/l)	Benzene	CA	CM	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	Ethylbenzene	1,1,2,2-PCA	PCE	Toluene	1,1,2-TCA	TCE	1,2,3-TCP	VC	Xylenes
NR 140 ES		5	400	30	5	7	70	100	700	0.2	5	1,000	5	5	60	0.2	10,000
NR 140 PAL		0.5	80	3	0.5	0.7	7	20	140	0.02	0.5	200	0.5	0.5	12	0.02	1,000
P-8	15-Jul-19	0.2 J	<1	<1	<1	**2.9**	**310**	**20**	<0.5	<1	<1	<0.5	<1	**850**	<2	**17**	<1
(Cont.)	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred ~410 Feet Upgradient of P-8															
	6-Oct-20	<0.5	<1	<1	<2	**3.3**	**250**	**21**	<1	<2	<2	<1	<2	**610**	<4	**6.0**	<2
	3-Sep-22	0.16 J	<1	<1	<1	**3.5**	**230**	**29**	<0.5	<1	<1	<0.5	<1	**660**	<2	**19**	<1
MW-9	2-Jul-12	<0.5	<5	<2	<0.5	<0.5	**8.6**	<0.5	<0.5	<0.5	<0.5	--	<0.5	**12**	<1	<0.5	--
	26-Jun-13	<0.5	<5	<2	<0.5	<0.5	2.3	<0.5	<0.5	<0.5	<0.5	1.2 B HC	<0.5	**6.5**	<1	<0.5	<0.5
	9-Jun-15	<0.5	<1	<1	<1	<1	3	<1	<0.5	<1	<1	<0.5	<1	**13**	<1	<0.5	<1
	18-May-16	<0.5	<1	<1	<1	<1	3.3	<1	<0.5	<1	<1	<0.5	<1	**10**	<1	<0.5	<1
	Dup1 5/18/16	<0.5	<1	<1	<1	<1	3.2	<1	<0.5	<1	<1	<0.5	<1	**10**	<1	<0.5	<1
	27-Jul-17	<0.5	<1	<1	<1	<1	1.1	<1	<0.5	<1	<1	<0.5	<1	**8.8**	<1	<0.5	<1
	16-Oct-18	<0.5	<1	<1	<1	<1	0.51 J	<1	<0.5	<1	<1	<0.5	<1	**4.8**	<1	<1	<1
	15-Jul-19	<0.5	<1	<1	<1	<1	3.1	<1	<0.5	<1	<1	<0.5	<1	**12**	<2	<1	<1
	7-Oct-20	<0.5	<1	<1	<1	<1	0.71 J	<1	<0.5	<1	<1	<0.5	<1	**9.2**	<2	<1	<1
	1-Sep-22	<0.5	<1	<1	<1	<1	**9**	<1	<0.5	<1	<1	<0.5	<1	**6.9**	<2	<1	<1
	Dup4 9/1/22	<2.5	<5	<5	<5	<5	**9.8**	<5	<2.5	<5	<5	<2.5	<5	**7.7**	<10	<5	<5
MW-10	3-Jul-12	<100	<1,000	<400	<100	<100	<100	<100	<100	<100	<100	--	<100	**7,000**	<200	<100	--
	Dup 7/3/12	<100	<1,000	<400	<100	<100	<100	<100	<100	<100	<100	--	<100	**7,000**	<200	<100	--
	1-Jul-13	<5	<50	<20	**6.2**	<5	**87**	17	<5	<5	<5	<5	<5	**7,600**	<10	<5	<5
	13-Jun-15	**2.7**	<5	<5	**4.8** J	<5	**240**	**26**	3.6	<5	<5	<2.5	<5	**7,400**	9.5	<2.5	<5
	19-May-16	<2.5	<5	<5	**7.4**	**4.6** J	**450**	**40**	<2.5	<5	**2.8** J	<2.5	<5	**8,600**	**12**	**1.6** J	<5
	31-Jul-17	<5	<10	<10	**12**	**5.7** J	**650**	**64**	<5	<10	<10	<5	<10	**7,800**	11	<5	<10
	8/21/17 - 8/24/17	2nd Pilot Test Organic Carbon Injections Occurred 40 feet Upgradient of MW-10															
	19-Sep-17	<5	<10	<10	**11**	**5.6** J	**620**	**61**	<5	<10	<10	<5	<10	**8,000**	<10	<5	<10
	5-Dec-17	<10	<20	<20	**12** J	<20	**600**	**59**	<10	<20	<20	<10	<20	**6,300**	<20	<10	<20
	20-Feb-18	<2.5	<5	<5	**11**	**6.4**	**750**	**79**	<2.5	<5	<5	<2.5	<5	**7,100**	**15**	**3.2**	<5
	23-Apr-18	<10	<20	<20	<20	<20	**720**	**58**	<10	<20	<20	<10	<20	**6,200**	<20	<20	<20
	2-Jul-18	<10	<20	<20	<20	<20	**2,900**	**93**	<10	<20	<20	<10	<20	**8,800**	<20	<20	<20
	15-Oct-18	<10	<20	<20	**9.7** J	<20	**2,800**	**77**	<10	<20	<20	<10	<20	**5,200**	<20	**810**	<20
	18-Jul-19	<5	<10	<10	<10	**21**	**7,300**	**44**	<5	<10	<10	<5	<10	**3,000**	<20	**3,400**	<10
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred ~100 Feet Upgradient of MW-10															
	28-Oct-19	<5	<10	<10	<10	**10**	**4,800**	**36**	<5	<10	<10	<5	<10	**1,600**	<20	**6,600**	<10
	14-Jan-20	<5	<10	<10	<10	**6.3** J	**3,600**	**31**	<5	<10	<10	<5	<10	**820**	<20	**4,800**	<10
	4-May-20	<10	<20	<20	<20	<20	**2,100**	**24**	<10	<20	<20	<10	<20	**410**	<40	**5,600**	<20
	2-Oct-20	<2.5	<5	<5	**3.2** J	**3.7** J	**3,000**	**65**	<2.5	<5	<5	<2.5	<5	**340**	<10	**5,600**	<5
	11-Mar-21	<2.5	<5	<5	**2.4** J	**6.7**	**4,900**	**94**	<2.5	<5	<5	<2.5	<5	**500**	<10	**2,200**	<5
	3-Nov-21	<2.5	<5	<5	<5	**6.4**	**5,100**	**83**	<2.5	<5	<5	<2.5	<5	**300**	<10	**4,900**	<5
	31-Aug-22	<2.5	<5	<5	<5	**4.5** J	**3,600**	**42**	<2.5	<5	<5	<2.5	<5	**190**	<10	**3,800**	<5
P-10	3-Jul-12	<5	<50	<20	**82**	<5	**150**	**33**	<5	<5	<5	--	<5	**26**	<1	<0.5	--
	1-Jul-13	<0.5	<5	<2	**47**	**0.78**	**230**	**68**	<0.5	<0.5	<0.5	<0.5	<0.5	**2.2**	<1	**1.5**	<0.5
	13-Jun-15	**0.76** J	<2	<2	<2	**7.6**	**2,900**	**21**	1.1	<2	<2	<1	<2	**58**	2	**32**	<2
	2-Aug-17	<0.5	<1	<1	**30**	**1.7**	**370**	18	<0.5	<1	<1	<0.5	<1	**6.4**	<1	**35**	<1
	8/21/17 - 8/24/17	2nd Pilot Test Organic Carbon Injections Occurred 40 feet Upgradient of P-10															
	19-Sep-17	<0.5	<1	<1	**29**	0.55 J	**120**	11	<0.5	<1	<1	<0.5	<1	**3.3**	<1	**13**	<1
	5-Dec-17	<0.5	<1	<1	**37**	**1.2**	**180** F1	14	<0.5	<1	<1	<0.5	<1	**50**	<1	**14**	<1

TABLE 3
GROUNDWATER VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Monitoring Well	Parameter (µg/l)	Benzene	CA	CM	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	Ethylbenzene	1,1,2,2-PCA	PCE	Toluene	1,1,2-TCA	TCE	1,2,3-TCP	VC	Xylenes
NR 140 ES		5	400	30	5	7	70	100	700	0.2	5	1,000	5	5	60	0.2	10,000
NR 140 PAL		0.5	80	3	0.5	0.7	7	20	140	0.02	0.5	200	0.5	0.5	12	0.02	1,000
P-10	20-Feb-18	<0.5	<1	<1	**31**	**2**	**280**	10	<0.5	<1	<1	0.78	<1	**24**	<1	**22**	<1
(Cont.)	23-Apr-18	<0.5	<1	<1	**31**	0.5 J	**110**	9.6	<0.5	<1	<1	<0.5	<1	**1.3**	<1	**11**	<1
	2-Jul-18	<0.5	<1	<1	**31**	<1	**91**	11	<0.5	<1	<1	<0.5	<1	**1.7**	<1	**7.7**	<1
	16-Oct-18	<0.5	<1	<1	<1	<1	**81**	5.6	<0.5	<1	<1	<0.5	<1	**0.99**	<1	**12**	<1
	23-Jul-19	<0.5	<1	<1	**42**	0.45 J	**110**	7.3	<0.5	<1	<1	<0.5	<1	**0.55**	<2	**32**	<1
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred ~100 Feet Upgradient of P-10															
	28-Oct-19	<0.5	<1	<1	**32**	0.47 J	**130**	6.3	<0.5	<1	<1	<0.5	<1	**18**	<2	**14**	<1
	14-Jan-20	<0.5	<1	<1	**46**	<1	**130**	8	<0.5	<1	<1	<0.5	<1	**11**	<2	**9.8**	<1
	2-Oct-20	<0.5	<1	<1	**36**	<1	**95**	4.2	<0.5	<1	<1	<0.5	<1	**5**	<2	**22**	<1
	11-Mar-21	<0.5	<1	<1	**41**	**1.2**	**270**	8.5	<0.5	<1	<1	<0.5	<1	**1.9**	<2	**160**	<1
	31-Aug-22	<0.5	<1	<1	**33**	<1	**20**	<1	<0.5	<1	<1	<0.5	<1	0.21 J	<2	**33**	<1
MW-11	2-Jul-12	<0.5	<5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--	<0.5	**7.4**	<1	<0.5	--
	26-Jun-13	<0.5	<5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1 B HC	<0.5	**2.2**	<1	<0.5	<0.5
	Dup1 6/26/13	<0.5	<5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.82 B HC	<0.5	**2.6**	<1	<0.5	<0.5
	10-Jun-15	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**12**	<1	<0.5	<1
	18-May-16	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**6.2**	<1	<0.5	<1
	27-Jul-17	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**5.8**	<1	<0.5	<1
	16-Oct-18	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**1.6**	<1	<1	<1
	22-Jul-19	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**4.8**	<2	<1	<1
	5-Oct-20	<0.5	<1	<1	<1	<1	1.2	<1	<0.5	<1	<1	<0.5	<1	**9**	<2	<1	<1
	2-Sep-22	<0.5	<1	<1	<1	<1	0.97 J	<1	<0.5	<1	<1	<0.5	<1	**12**	<2	<1	<1
P-11	3-Jul-12	<0.5	<5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--	<0.5	**1.1**	<1	<0.5	--
	1-Jul-13	<0.5	<5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.53**	<1	<0.5	<0.5
	10-Jun-15	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1	<0.5	<1
	18-May-16	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1	<0.5	<1
	27-Jul-17	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1	<0.5	<1
	16-Oct-18	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1	<1	<1
	22-Jul-19	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<2	<1	<1
	5-Oct-20	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<2	<1	<1
	2-Sep-22	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	0.39 J	<2	<1	<1
MW-12	2-Jul-12	<100	<1,000	<400	<100	<100	**160**	<100	<100	<100	<100	--	<100	**3,000**	<200	<100	--
	26-Jun-13	**0.72**	6.8	<2	**12**	**11**	**320**	18	<0.5	<0.5	<0.5	1.4 B HC	<0.5	**3,700**	<1	**43** HC	<0.5
	9-Jun-15	**1.2**	<2	<2	**20**	**14**	**320**	**47**	<1	<2	<2	<1	<2	**3,600**	<2	**30**	<2
	19-May-16	<5	<10	<10	**15**	**12**	**290**	**54**	<5	<10	<10	<5	<10	**3,200**	<10	**26**	<10
	1-Aug-17	<5	<10	<10	**9** J	**7.8** J	**290**	**30**	<5	<10	<10	<5	<10	**3,300**	<10	**14**	<10
	Dup3 8/1/17	<5	<10	<10	**8.7** J	**8.3** J	**310**	**32**	<5	<10	<10	<5	<10	**3,300**	<10	**15**	<10
	18-Oct-18	<2.5	<5	<5	**6.1**	**6.6**	**210**	**20**	<2.5	<5	<5	<2.5	<5	**3,100**	<5	**22**	<5
	23-Jul-19	<2.5	2.7 J	<5	**7.7**	**7.6**	**340**	**36**	<2.5	<5	<5	<2.5	<5	**1,900**	<10	**34**	<5
	6-Oct-20	<5	<10	<10	<10	**6.1** J	**350**	**29**	<5	<10	<10	<5	<5	**2,900**	<20	**24**	<10
	3-Sep-22	<2.5	<5	<5	**5.9**	**9.1**	**420**	**37**	<2.5	<5	<5	<2.5	<5	**2,800**	<10	**28**	1.9 J

TABLE 3
GROUNDWATER VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Monitoring Well	Parameter (µg/l)	Benzene	CA	CM	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	Ethylbenzene	1,1,2,2-PCA	PCE	Toluene	1,1,2-TCA	TCE	1,2,3-TCP	VC	Xylenes
NR 140 ES		5	400	30	5	7	70	100	700	0.2	5	1,000	5	5	60	0.2	10,000
NR 140 PAL		0.5	80	3	0.5	0.7	7	20	140	0.02	0.5	200	0.5	0.5	12	0.02	1,000
P-12	9-Jun-15	<0.5	<1	<1	**8.8**	**1.8**	**160**	5.6	<0.5	<1	<1	<0.5	<1	**300**	<1	**51**	<1
	Dup2 6/9/15	<0.5	<1	<1	**9**	**1.6**	**170**	6	<0.5	<1	<1	<0.5	<1	**310**	<1	**52**	<1
	19-May-16	0.4 J	<1	<1	**13**	**3**	**520**	14	<0.5	<1	<1	<0.5	<1	**320**	<1	**47**	<1
	1-Aug-17	<1	<2	<2	**12**	**3.7**	**560**	**24**	<1	<2	<2	<1	<2	**370**	<2	**37**	<2
	18-Oct-18	0.31 J	<1	<1	**10**	**3.1**	**620**	**25**	<0.5	<1	<1	<0.5	<1	**260**	<1	**48**	<1
	23-Jul-19	0.35 J	<2	<2	**7.7**	**3.0**	**660**	**26**	<1	<2	<2	<1	<2	**210**	<4	**41**	<2
	6-Oct-20	<0.5	<1	<1	**3.6**	**1.4**	**260**	9.8	<0.5	<1	<1	<0.5	<1	**51**	<2	**24**	<1
	3-Sep-22	0.27 J	<1	<1	**8.3**	**3.1**	**600**	**31**	<0.5	<1	<1	<0.5	<1	**80**	<2	**41**	<1
MW-13	2-Jul-12	<0.5	<5	<2	<0.5	<0.5	**19**	0.93	<0.5	<0.5	<0.5	--	<0.5	**3.3**	<1	<0.5	--
	26-Jun-13	<0.5	10	<2	<0.5	<0.5	**47**	2.1	<0.5	<0.5	<0.5	<0.5	<0.5	**5.9**	<1	**12** HC	<0.5
	9-Jun-15	<0.5	5.8	<1	<1	<1	**50**	3	<0.5	<1	<1	<0.5	<1	**8.7**	<1	**5.6**	<1
	18-May-16	<0.5	<1	<1	<1	<1	**8.9**	0.58 J	<0.5	<1	<1	<0.5	<1	**2.6**	<1	**0.47** J	<1
	28-Jul-17	<0.5	<1	<1	<1	<1	5.5	0.67 J	<0.5	<1	<1	<0.5	<1	**4.7**	<1	<0.5	<1
	18-Oct-18	<0.5	<1	<1	<1	<1	0.46 J	<1	<0.5	<1	<1	<0.5	<1	**1.7**	<1	<1	<1
	23-Jul-19	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<2	<1	<1
	6-Oct-20	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**1.2**	<2	<1	<1
	2-Sep-22	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<2	<1	<1
P-13	2-Jul-12	<0.5	<5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--	<0.5	<0.5	<1	<0.5	--
	26-Jun-13	<0.5	<5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.3 B HC	<0.5	<0.5	<1	<0.5	<0.5
	Dup2 6/26/13	<0.5	<5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.3 B HC	<0.5	<0.5	<1	<0.5	<0.5
	9-Jun-15	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1	<0.5	<1
	18-May-16	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1	<0.5	<1
	28-Jul-17	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1	<0.5	<1
	18-Oct-18	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1	<1	<1
	23-Jul-19	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<2	<1	<1
	6-Oct-20	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<2	<1	<1
	2-Sep-22	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<2	<1	<1
MW-14	1-Jul-13	<0.5	<5	<2	<0.5	<0.5	**22**	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	**99**	<1	**0.9**	<0.5
	13-Jun-15	<0.5	<1	<1	<1	0.5 J	**51**	2.1	<0.5	<1	<1	<0.5	<1	**180**	<1	<0.5	<1
	18-May-16	<0.5	<1	<1	**1.2**	**0.74** J	**110**	8.4	<0.5	<1	<1	<0.5	<1	**170**	<1	<0.5	<1
	27-Jul-17	<2.5	<5	<5	<5	<5	**260**	**28**	<2.5	<5	<5	<2.5	<5	**1,700**	<5	**1.3** J	<5
	17-Oct-18	<1	<2	<2	**1.8** J	**1.3** J	**180**	16	<1	<2	<2	<1	<2	**930**	<2	**3.0**	<2
	15-Jul-19	<0.5	<1	<1	**1.3**	<1	**190**	14	<0.5	<1	<1	<0.5	<1	**920**	<2	**4.3**	<1
	6-Oct-20	<0.5	<1	<1	**0.62** J	**0.97** J	**160**	6.2	<0.5	<1	<1	<0.5	<1	**220**	<2	**5.3**	<1
	3-Sep-22	<0.5	<1	<1	<1	**0.71** J	**52**	1.9	<0.5	<1	<1	<0.5	<1	**44**	<2	**7.6**	<1
MW-15	1-Jul-13	<0.5	<5	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.73**	<1	<0.5	<0.5
	13-Jun-15	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1	<0.5	<1
	19-May-16	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**0.53**	<1	<0.5	<1
	1-Aug-17	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	0.47 J	<1	<0.5	<1
	18-Oct-18	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**0.51**	<1	<1	<1
	23-Jul-19	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**0.97**	<2	<1	<1
	2-Oct-20	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**1**	<2	<1	<1
	Dup3 10/2/20	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**1.1**	<2	<1	<1
	1-Sep-22	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**1.3**	<2	<1	<1

TABLE 3
GROUNDWATER VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Monitoring Well	Parameter (µg/l)	Benzene	CA	CM	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	Ethylbenzene	1,1,2,2-PCA	PCE	Toluene	1,1,2-TCA	TCE	1,2,3-TCP	VC	Xylenes
NR 140 ES		5	400	30	5	7	70	100	700	0.2	5	1,000	5	5	60	0.2	10,000
NR 140 PAL		0.5	80	3	0.5	0.7	7	20	140	0.02	0.5	200	0.5	0.5	12	0.02	1,000
MW-16	10-Jun-15	<0.5	<1	<1	<1	<1	4.7	<1	<0.5	<1	<1	<0.5	<1	**4.2**	<1	<0.5	<1
	18-May-16	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	0.46 J	<1	<0.5	<1
	28-Jul-17	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1	<0.5	<1
	18-Oct-18	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<1	<1	<1
	23-Jul-19	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<2	<1	<1
	5-Oct-20	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	0.4 J	<2	<2	<1
	2-Sep-22	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	0.36 J	<2	<1	<1
P-16	10-Jun-15	<0.5	<1	<1	<1	<1	**31**	1.3	<0.5	<1	<1	<0.5	<1	**0.52**	<1	**9.5**	<1
	18-May-16	<0.5	<1	<1	<1	<1	**52**	1.5	<0.5	<1	<1	<0.5	<1	<0.5	<1	**9.4**	<1
	28-Jul-17	<0.5	<1	<1	<1	<1	**120**	5.2	<0.5	<1	<1	<0.5	<1	<0.5	<1	**18**	<1
	18-Oct-18	<0.5	<1	<1	<1	<1	**98**	4.8	<0.5	<1	<1	<0.5	<1	<0.5	<1	**22**	<1
	23-Jul-19	<0.5	<1	<1	<1	<1	**130**	6.8	<0.5	<1	<1	<0.5	<1	<0.5	<2	<1	<1
	5-Oct-20	<0.5	<1	<1	<1	0.59 J	**150**	6.9	<0.5	<1	<1	<0.5	<1	<0.5	<2	**20**	<1
	2-Sep-22	<0.5	<1	<1	<1	0.69 J	**160**	10	<0.5	<1	<1	<0.5	<1	<0.5	<2	**24**	<1
MW-17	27-May-15	<0.5	<1	<1	**3.4**	**0.78** J	**270**	**26**	<0.5	<1	<1	<0.5	<1	**15**	**100**	**1.9**	<1
	Dup1 5/27/15	<0.5	<1	<1	**3.2**	**0.74** J	**290**	**25**	<0.5	<1	<1	<0.5	<1	**14**	**100**	**2**	<1
	5/27/15 - 6/3/15	1st Pilot Test Organic Carbon Injections Occurred 35 feet Upgradient of MW-17															
	30-Jun-15	<0.5	<1	<1	**6.5**	**0.73** J	**280**	**27**	<0.5	<1	<1	<0.5	<1	**17**	**77**	**3.6**	<1
	30-Jul-15	<0.5	<1	<1	**8.8**	**0.79** J	**250**	**26**	<0.5	<1	<1	<0.5	<1	**19**	**110**	**4.9**	<1
	28-Aug-15	<0.5	<1	<1	**17**	0.68 J	**260**	**23**	<0.5	<1	<1	<0.5	<1	**16**	**120**	**6**	<1
	1-Oct-15	<0.5	<1	<1	**19**	**0.82** J	**320**	**26**	<0.5	<1	<1	<0.5	<1	**7.5**	**150**	**7.1**	<1
	19-May-16	<0.5	<1	<1	**8.1**	<1	**51**	8.1	<0.5	<1	<1	<0.5	<1	<0.5	6.2	**24**	<1
	31-Jul-17	<0.5	<1	<1	**2.6**	<1	0.83 J	<1	<0.5	<1	<1	<0.5	<1	**1.3**	<1	**4.8**	<1
	16-Oct-18	<0.5	<1	<1	**3.4**	<1	**7.7**	2.8	<0.5	<1	<1	<0.5	<1	0.28 J	<1	**14**	<1
	18-Jul-19	<0.5	<1	<1	**3.6**	<1	4.7	1.6	<0.5	<1	<1	<0.5	<1	**1.0**	<2	**9.1**	<1
	Dup2 7/15/19	<0.5	<1	<1	**3.9**	<1	4.5	1.9	<0.5	<1	<1	<0.5	<1	**0.71**	<2	**9.3**	<1
	1-Oct-20	<0.5	<1	<1	**1.4**	<1	1.4	0.46 J	<0.5	<1	<1	<0.5	<1	**2.3**	<2	**2.1**	<1
	Dup2 10/1/20	<0.5	<1	<1	<1	<1	1.4	0.42 J	<0.5	<1	<1	<0.5	<1	**2.4**	<2	**2.1**	<1
	1-Sep-22	<0.5	<1	<1	**2.8**	<1	2.7	<1	<0.5	<1	<1	<0.5	<1	**1.1**	<2	**17**	<1
MW-18	23-May-16	**8.1**	<2	<2	<2	<2	**62**	<2	**320**	<2	<2	**230**	<2	**7.6**	<2	**340**	**1,500**
	31-Jul-17	**2.4** J	<5	<5	<5	<5	**1,200**	<5	**1,200**	<5	<5	**280**	<5	**36**	<5	**400**	**3,100**
	17-Oct-18	0.49 J	<2	<2	<2	**4.4**	**1,300**	3.3	**420**	<2	<2	140	<2	**150**	<2	**540**	790
	16-Jul-19	**1.2**	<1	<1	<1	**3.7**	**180**	2.8	**310**	<1	<1	22	<1	**69**	<2	**110**	310
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred at MW-18															
	1-Oct-20	<2.5	<5	<5	<5	<5	2.2 J	<5	**1,800**	<5	<5	71	<5	<2.5	<10	<5	**7,800**
	29-Aug-22	<2.5	<5	<5	<5	<5	<5	<5	**1,200**	<5	<5	5.3	<5	<2.5	<10	<5	**2,200**
MW-19	23-May-16	<2.5	<5	<5	<5	<4	**9.6**	<5	<2.5	<5	<5	<2.5	<5	**3,000**	<5	<2.5	<5
	1-Aug-17	<2.5	<5	<5	<5	<5	**22**	5.2	<2.5	<5	<5	<2.5	<5	**2,900**	<5	<2.5	<5
	17-Oct-18	<2.5	<5	<5	<5	<5	**33**	7.4	<2.5	<5	<5	<2.5	<5	**2,800**	<5	<5	<5
	22-Jul-19	<1	<2	<2	<2	<2	**59**	13	<1	<2	<2	<1	<2	**2,500**	<4	<2	<2
	5-Oct-20	<5	<10	<10	<10	<10	**120**	18	<5	<10	<10	<5	<10	**3,400**	<20	<10	<10
	1-Sep-22	<2.5	12	<5	**3.4** J	**2.9** J	**700**	**24**	<2.5	<5	**2.9** J	1.2 J	<5	**3,900**	<10	**190**	<5
	Dup3 9/1/22	<2.5	19	<5	<5	**2.6** J	**630**	**22**	<2.5	<5	<5	<2.5	<5	**3,200**	<10	**140**	<5

TABLE 3
GROUNDWATER VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Monitoring Well	Parameter (µg/l)	Benzene	CA	CM	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	Ethylbenzene	1,1,2,2-PCA	PCE	Toluene	1,1,2-TCA	TCE	1,2,3-TCP	VC	Xylenes
NR 140 ES		5	400	30	5	7	70	100	700	0.2	5	1,000	5	5	60	0.2	10,000
NR 140 PAL		0.5	80	3	0.5	0.7	7	20	140	0.02	0.5	200	0.5	0.5	12	0.02	1,000
MW-20	23-May-16	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**1.5**	<1	<0.5	<1
	2-Aug-17	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**1.2**	<1	<0.5	<1
	19-Oct-18	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	0.36 J	<1	<1	<1
	22-Jul-19	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**0.50**	<2	<1	<1
	6-Oct-20	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<2	<1	<1
	1-Sep-22	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	0.47 J	<2	<1	<1
MW-21	2-Aug-17	<1	<2	<2	<2	<2	**11**	1.7 J	<1	<2	<2	<1	<2	**660**	<2	<1	<2
	8/21/17 - 8/24/17	2nd Pilot Test Organic Carbon Injections Occurred 7 feet Sidegradient of MW-21															
	19-Sep-17	<1	<2	<2	<2	<2	**56**	4	<1	<2	<2	<1	<2	**940**	<2	<1	<2
	5-Dec-17	<1	<2	<2	**3.3**	<2	**83**	6.5	<1	<2	<2	<1	<2	**1,000**	2.3	<1	<2
	20-Feb-18	<0.5	<1	<1	**2.3**	0.61 J	**150**	8.2	<0.5	<1	<1	<0.5	<1	**960**	2.1	**0.77**	<1
	23-Apr-18	<1	<2	<2	**3.1**	**3**	**1,200**	**29**	<1	<2	<2	<1	<0.7	**260**	3.2	**190**	<2
	2-Jul-18	<10	<20	<20	<20	<20	**920**	**56**	<10	<20	<20	<10	<20	<10	<20	**7,500**	<20
	15-Oct-18	<5	<10	<10	**5.6** J	<10	**140**	**43**	<5	<10	<10	<5	<10	**3.0** J	<10	**5,100**	<10
	18-Jul-19	<0.5	<1	<1	<1	<1	**140**	9.1	<0.5	<1	<1	<0.5	<1	<0.5	<2	**230**	<1
	23-Jul-19	<0.5	<1	<1	<1	<1	**320**	8.1	<0.5	<1	<1	<0.5	<1	**13**	<2	**310**	<1
	Dup 7/23/2019	<0.5	<1	<1	<1	<1	**290**	7.2	<0.5	<1	<1	<0.5	<1	**12**	<2	**370**	<1
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred ~60 feet Upgradient of MW-21															
	28-Oct-19	<0.5	0.9 J	<1	**2**	<1	**100**	**20**	<0.5	<1	<1	<0.5	<1	**0.97**	<2	**370**	<1
	14-Jan-20	<0.5	<1	<1	**1.4**	<1	**22**	7.9	<0.5	<1	<1	<0.5	<1	<0.5	<2	**190**	<1
	4-May-20	<0.5	1.2	<1	**1.1**	<1	**8.0**	0.93 J	<0.5	<1	<1	<0.5	<1	0.34 J	<2	**47**	<1
	2-Oct-20	<0.5	3	<1	**2**	<1	3	<1	<0.5	<1	<1	<0.5	<1	<0.5	<2	**18**	<1
	11-Mar-21	<0.5	8.2	<1	**1.1**	<1	1.2	<1	<0.5	<1	<1	<0.5	<1	**0.92**	<2	<1	<1
	3-Nov-21	<0.5	9.3	<1	0.49 J	<1	0.75 J	<1	<0.5	<1	<1	<0.5	<1	**0.65**	<2	**1.1**	<1
	31-Aug-22	<0.5	6.4	<1	<1	<1	0.93 J	<1	<0.5	<1	<1	<0.5	<1	**1.4**	<2	**1**	<1
MW-22	2-Aug-17	<5	<10	<10	<10	**6.2** J	**420**	**83**	<5	<10	<10	<5	<10	**7,100**	<10	<5	<10
	8/21/17 - 8/24/17	2nd Pilot Test Organic Carbon Injections Occurred 260 feet Upgradient of MW-22															
	19-Sep-17	<10	<20	<20	<20	<20	**310**	**51**	<10	<20	<20	<10	<20	**6,400**	<20	<10	<20
	5-Dec-17	<10	<20	<20	<20	<20	**170**	**22**	<10	<20	<20	<10	<20	**5,000**	<20	<10	<20
	20-Feb-18	<2.5	<5	<5	**3.2** J	**3.5** J	**240**	**39**	<2.5	<5	<5	<2.5	<5	**6,300**	<5	<2.5	<5
	23-Apr-18	<10	<20	<20	<20	<20	**210**	**40**	<10	<20	<20	<10	<20	**5,300**	<20	<20	<20
	Dup1 4/23/18	<10	<20	<20	<20	<20	**220**	**41**	<10	<20	<20	<10	<20	**5,200**	<20	<20	<20
	2-Jul-18	<2.5	<5	<5	<5	<5	**46**	7.8	<2.5	<5	<5	<2.5	<5	**1,600**	<5	<5	<5
	Dup 7/2/18	<2.5	<5	<5	<5	<5	**50**	8.5	<2.5	<5	<5	<2.5	<5	**1,700**	<5	<5	<5
	15-Oct-18	<0.5	<1	<1	<1	<1	**7**	0.95 J	<0.5	<1	0.49 J	<0.5	<1	**550**	<1	<1	<1
	22-Jul-19	<0.5	<1	<1	<1	<1	**27**	5.1	<0.5	<1	<1	<0.5	<1	**780**	<2	<1	<1
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred ~320 feet Upgradient of MW-22															
	5-Oct-20	<0.5	<1	<1	<1	<1	0.74 J	<1	<0.5	<1	<1	<0.5	<1	**120**	<2	<1	<1
	1-Sep-22	<0.5	<1	<1	<1	<1	1.8	<1	<0.5	<1	<1	<0.5	<1	**44**	<2	<1	<1
MW-23	2-Aug-17	<0.5	<10	<10	<10	<10	**43**	12	<5	<10	<10	<5	<10	**3,700**	<10	<2	<10
	8/21/17 - 8/24/17	2nd Pilot Test Organic Carbon Injections Occurred 280 feet Upgradient of MW-23															
	19-Sep-17	<5	<10	<10	<10	<10	**44**	12	<5	<10	<10	<5	<10	**4,100**	<10	<5	<10
	Dup 9/19/17	<5	<10	<10	<10	<10	**46**	12	<5	<10	<10	<5	<10	**4,200**	<10	<5	<10
	5-Dec-17	<5	<10	<10	<10	<10	**38**	9.8 J	<5	<10	<10	<5	<10	**3,700**	<10	<5	<10

TABLE 3
GROUNDWATER VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Monitoring Well	Parameter (µg/l)	Benzene	CA	CM	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	Ethylbenzene	1,1,2,2-PCA	PCE	Toluene	1,1,2-TCA	TCE	1,2,3-TCP	VC	Xylenes
NR 140 ES		5	400	30	5	7	70	100	700	0.2	5	1,000	5	5	60	0.2	10,000
NR 140 PAL		0.5	80	3	0.5	0.7	7	20	140	0.02	0.5	200	0.5	0.5	12	0.02	1,000
MW-23	20-Feb-18	<2.5	<5	<5	<5	<5	**39**	9.4	<2.5	<5	<5	1.3 J	<5	**4,000**	<5	<2.5	<5
(Cont.)	23-Apr-18	<2.5	<5	<5	<5	<5	**39**	8.4	<2.5	<5	<5	<2.5	<5	**3,000**	<5	<5	<5
	2-Jul-18	<5	<10	<10	<10	<10	**53**	12	<5	<10	<10	<5	<10	**4,400**	<10	<10	<10
	15-Oct-18	<5	<10	<10	<10	<10	**49**	18	<5	<10	<10	<5	<10	**3,700**	<10	<10	<10
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred ~350 feet Upgradient of MW-23															
	22-Jul-19	<2.5	<5	<5	<5	<5	**82**	18	<2.5	<5	<5	<2.5	<5	**3,400**	<10	<5	<5
	5-Oct-20	<5	<10	<10	<10	<10	**160**	**25**	<5	<10	<10	<5	<10	**4,100**	<20	**4.2** J	<10
	16-Mar-21	<2.5	<5	<5	<5	<5	**140**	**25**	<2.5	<5	<5	<2.5	<5	**3,400**	<10	**45**	<5
	1-Sep-22	<2.5	5	<5	<5	<5	**430**	**120**	<2.5	<5	<5	<2.5	<5	**3,700**	<10	**450**	<5
MW-24	2-Aug-17	<2.5	<5	<5	<5	<5	**570**	**260**	<2.5	<5	<5	<2.5	<5	**1,900**	<5	**24**	<5
(Mix Water	16-Jul-19	<5	<10	<10	<10	<10	**76**	<10	<5	<10	**21**	<5	<10	**2,300**	<20	<10	<10
Supply Well)	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections ~40 feet Upgradient of MW-24															
	29-Oct-19	0.33 J	4.3	<2	<2	**5.5**	**1,700**	**190**	<1	<2	**1.6 J**	0.31 J	<2	**300**	<4	**140**	<1
	14-Jan-20	<0.5	<1	<1	<1	<1	**150**	8	<0.5	<1	**8.4**	<0.5	<1	**2,000**	<2	<1	<1
	4-May-20	<2.5	<5	<5	<5	<5	**140**	10	<2.5	<5	**12**	<2.5	<5	**2,000**	<10	<5	<5
	1-Oct-20	<2.5	7.6	<5	<5	**6.3**	**1,800**	**240**	<2.5	<5	<5	<2.5	<5	**110**	<10	**200**	<5
	Dup1 10/1/20	<2.5	7.3	<5	<5	**6.1**	**2,000**	**230**	1.1 J	<5	<5	<2.5	<5	**110**	<10	**190**	6.4
	12-Mar-21	<2.5	2.9 J	<5	<5	**7.7**	**2,300**	**310**	<2.5	<5	**3.6 J**	<2.5	<5	**300**	<10	**220**	<5
	30-Aug-22	<2.5	<5	<5	<5	**5.8**	**1,700**	**170**	<2.5	<5	<5	<2.5	<5	**45**	<10	**390**	<5
MW-25	3-Aug-17	<25	<50	<50	<50	<50	**550**	**100**	22 J	<50	<50	120	<50	**26,000**	<50	**17** J	85
(Mix Water	15-Oct-18	<50	<100	<100	<100	<100	**65** J	<100	38 J	<100	**57** J	120	<100	**36,000**	<100	<100	77 J
Supply Well)	17-Jul-19	<25	<50	<50	<50	<50	**47** J	<50	26	<50	**19** J	54	<50	**20,000**	<100	<50	33 J
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections at MW-25															
	29-Oct-19	<1	<2	<2	<2	**1.7 J**	**1,100**	3.7	0.43 J	<2	<2	1.3	<2	**36**	<2	**83**	1.8 J
	15-Jan-20	<25	<50	<50	<50	<50	**12,000**	<50	<25	<50	<50	<25	<50	<8.2	<100	<50	<50
	5-May-20	<50	<100	<100	<100	**51** J	**32,000**	**42** J	29 J	<100	<100	170	<100	**140**	<200	**1,300**	91 J
	1-Oct-20	<10	<20	<20	<20	**43**	**38,000**	**52**	89	<20	<20	**410**	<20	**190**	<40	**10,000**	300
	16-Mar-21	<25	<50	<50	<50	**22** J	**22,000**	**55**	**140**	<50	<50	**490**	<50	**140**	<100	**5,700**	440
	3-Nov-21	<5	<10	<10	<10	**8** J	**10,000**	**41**	**180**	<10	<10	**360**	<10	**56**	<20	**4,300**	620
	30-Aug-22	**0.75** J	<5	<5	<5	**5.1**	**3,100**	**22**	74	<5	<5	160	<5	**28**	<10	**1,000**	240
MW-26	23-Jul-19	<0.5	<1	<1	**1.8**	<1	**140**	4.6	<0.5	<1	<1	<0.5	<1	**27**	<2	**0.57** J	<1
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred at MW-26															
	28-Oct-19	<0.5	<1	<1	**2.2**	<1	**160**	6.8	<0.5	<1	<1	<0.5	<1	**39**	1.1 J	**10**	<1
	14-Jan-20	<0.5	<1	<1	**1.8**	<1	**160**	4.6	<0.5	<1	<1	<0.5	<1	**13**	<2	<1	<1
	30-Apr-20	<0.5	<1	<1	<1	<1	**110**	3.0	<0.5	<1	<1	<0.5	<1	<0.5	<2	**2.2**	<1
	30-Sep-20	<0.5	<1	<1	<1	<1	**81**	2.7	<0.5	<1	<1	<0.5	<1	**1.5**	<2	**13**	<1
	11-Mar-21	<0.5	<1	<1	**0.51 J**	<1	0.5 J	<1	<0.5	<1	<1	<0.5	<1	**2.4**	<2	**16**	<1
	30-Aug-22	<0.5	1.8	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	0.47 J	<2	**1.1**	<1
MW-27	23-Jul-19	<1	<2	<2	<2	<2	**1,300**	**68**	<1	<2	<2	<1	<2	**430**	<4	**110**	<2
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred at MW-27															
	29-Oct-19	**0.65**	<1	<1	**2.1**	**1.3**	**490**	**26**	<0.5	<1	<1	0.25 J	<1	**11**	2.1	**100**	<1
	15-Jan-20	**1.1**	<2	<2	<2	**2.4**	**680**	**38**	<1	<2	<2	<1	<2	<0.33	2.2 J	**93**	<2
	4-May-20	**0.85**	<1	<1	**2.5**	**1.9**	**730**	**28**	<0.5	<1	<1	0.19 J	<1	**1.6**	2.8	**180**	<1
	30-Sep-20	0.44 J	0.6 J	<1	**1.2**	<1	**60**	3.6	<0.5	<1	<1	<0.5	<1	**0.5**	<2	**56**	<1

TABLE 3
GROUNDWATER VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Monitoring Well	Parameter (µg/l)	Benzene	CA	CM	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	Ethylbenzene	1,1,2,2-PCA	PCE	Toluene	1,1,2-TCA	TCE	1,2,3-TCP	VC	Xylenes
NR 140 ES		5	400	30	5	7	70	100	700	0.2	5	1,000	5	5	60	0.2	10,000
NR 140 PAL		0.5	80	3	0.5	0.7	7	20	140	0.02	0.5	200	0.5	0.5	12	0.02	1,000
MW-27 (Cont.)	12-Mar-21	0.48 J	2.2	<1	**0.81** J	<1	4.7	1.5	<0.5	<1	<1	<0.5	<1	0.43 J	<2	**2.4**	<1
	3-Nov-21	<0.5	<1	<1	**0.58** J	<1	0.78 J	<1	<0.5	<1	<1	<0.5	<1	<0.5	<2	<1	<1
	29-Aug-22	0.21 J	0.55 J	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<2	<1	<1
MW-28	18-Jul-19	**0.66**	<1	<1	<1	**1.9**	**500**	**67**	<0.5	<1	<1	<0.5	<1	**170**	<2	**61**	<1
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred ~40 feet Upgradient of MW-28															
	30-Oct-19	0.31 J	<1	<1	<1	<1	**110**	5.5	0.46 J	<1	<1	0.17 J	<1	**13**	<2	**36**	1.1
	15-Jan-20	<0.5	<1	<1	<1	<1	**37**	2.9	<0.5	<1	<1	<0.5	<1	<0.16	<2	**18**	0.29 J
	30-Apr-20	0.19 J	6.9	<1	<1	<1	**47**	<1	<0.5	<1	<1	<0.5	<1	**6.4**	<2	**23**	<1
	2-Oct-20	<0.5	20	<1	<1	<1	**46**	3.7	<0.5	<1	<1	<0.5	<1	<0.16	<2	**53**	<1
	12-Mar-21	0.26 J	6.9	<1	<1	<1	**16**	1.3	<0.5	<1	<1	<0.5	<1	**3.5**	<2	<1	<1
	3-Nov-21	**0.63**	1.5	<1	<1	<1	**8.4**	0.46 J	<0.5	<1	<1	<0.5	<1	0.41 J	<2	**7.6**	<1
	30-Aug-22	0.28 J	2.5	<1	<1	<1	0.83 J	<1	<0.5	<1	<1	<0.5	<1	0.45 J	<2	**0.74** J	<1
MW-29	23-Jul-19	**0.64** J	2.9	<2	**15**	**2.3**	**800**	**91**	<1	<2	<2	<1	<2	**3.3**	**14**	**55**	<2
(Mix Water Supply Well)	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred at MW-29															
	3-Oct-20	**0.63** J	3	<2	<2	**2**	**620**	**94**	<1	<2	<2	<1	<2	**0.56** J	<4	**93**	<2
	12-Mar-21	**0.51**	2.5	<1	**1.2**	**1.2**	**400**	**80**	<0.5	<1	<1	<0.5	<1	**1.4**	<2	**130**	<1
	30-Aug-22	0.4 J	1	<1	**0.84** J	<1	**38**	**30**	<0.5	<1	<1	<0.5	<1	**0.54**	<2	**150**	<1
MW-30	23-Jul-19	**0.76** J	<2	<2	<2	**4.1**	<50	**140**	<1	<2	**4.4**	0.43 J	<2	**3,600**	<4	**52**	<2
(Mix Water Supply Well)	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred ~20 feet Upgradient of MW-30															
	15-Jan-20	<10	<20	<20	<20	<20	**6,000**	<20	<10	<20	<20	<10	<20	**50**	<40	**190**	<20
	30-Apr-20	<5	<10	<10	<10	<10	**4,100**	**24**	<5	<10	<10	<5	<10	<5	<20	**670**	<10
	30-Sep-20	**0.81**	<1	<1	<1	<1	**93**	**27**	<0.5	<1	<1	0.26 J	<1	**0.9**	<2	**120**	<1
	12-Mar-21	**1.4**	0.6 J	<1	<1	<1	**55**	**21**	<0.5	<1	<1	0.4 J	<1	0.18 J	<2	**410**	0.76 J
	3-Nov-21	**4.2**	1.5	<1	<1	**1.1**	**330**	17	<0.5	<1	<1	0.62	<1	**6.5**	<2	**170**	1.2
	30-Aug-22	**21**	<20	<20	<20	<20	**3,100**	**22**	<10	<20	<20	<10	<20	**13**	<40	**5,800**	<20
TW-1	14-Jun-19	0.16 J	<1	<1	**1.1**	<1	**18**	8.7	<0.5	<1	<1	0.38 J	<1	0.18 J	0.78 J	**0.89** J	<1
	8-Nov-19	Temporary Monitoring Well Abandoned															
TW-2	14-Jun-19	<0.5	<1	<1	<1	<1	**130**	5.7	<0.5	<1	<1	<0.5	<1	**150**	3.7	<1	<1
	8-Nov-19	Temporary Monitoring Well Abandoned															
TW-3	14-Jun-19	**0.75** J	1.1 J	<2	**1.7** J	**7.4**	**1,900**	**36**	<1	<2	<2	0.53 J	<2	**84**	<4	**310**	<2
	Dup 6/14/19	**0.92** J	<2	<2	**1.7** J	**6.7**	**1,700**	**38**	<1	<2	<2	<1	<2	**91**	<4	**280**	<2
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred at TW-3															
	1-Oct-20	0.39 J	<1	<1	<1	0.68 J	**320**	15	<0.5	<1	<1	<0.5	<1	0.48 J	<2	**340**	<1
TW-4	14-Jun-19	**0.84**	<1	<1	<1	**2.3**	**490**	**49**	<0.5	<1	<1	0.19 J	<1	**120**	<2	**66**	<1
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred ~20 feet Upgradient of TW-4															
	1-Oct-20	**0.63** J	34	<2	<2	<2	**850**	**47**	<1	<2	<2	<1	<2	**52**	<4	**710**	<2
	2-Sep-22	**1.5**	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**0.59**	<2	<1	<1
TW-5	14-Jun-19	<0.5	<1	<1	**4.8**	0.69 J	**300**	**30**	<0.5	<1	<1	0.25 J	<1	**6.5**	1.0 J	**8.8**	<1
	8-Nov-19	Temporary Monitoring Well Abandoned															

TABLE 3
GROUNDWATER VOLATILE ORGANIC COMPOUND ANALYTICAL RESULTS SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Monitoring Well	Parameter (µg/l)	Benzene	CA	CM	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	Ethylbenzene	1,1,2,2-PCA	PCE	Toluene	1,1,2-TCA	TCE	1,2,3-TCP	VC	Xylenes
NR 140 ES		5	400	30	5	7	70	100	700	0.2	5	1,000	5	5	60	0.2	10,000
NR 140 PAL		0.5	80	3	0.5	0.7	7	20	140	0.02	0.5	200	0.5	0.5	12	0.02	1,000
TW-6	14-Jun-19	<0.5	<1	<1	**1.5**	0.67 J	**240**	18	<0.5	<1	<1	0.19 J	<1	**33**	9.4	**12**	<1
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred ~40 feet Downgradient of TW-6															
	2-Oct-20	<0.5	<1	<1	**1.8**	<1	**240**	17	<0.5	<1	<1	<0.5	<1	**49**	10	**24**	<1
	2-Sep-22	<0.5	<1	<1	**2.7**	**0.74** J	**250**	**25**	<0.5	<1	<1	<0.5	<1	**31**	11	**50**	<1
TW-7	14-Jun-19	<0.5	<1	<1	**1.7**	**0.87** J	**290**	**24**	<0.5	<1	<1	0.21 J	<1	**54**	8.8	**15**	<1
	8-Nov-19	Temporary MonitorIng Well Abandoned															
TW-8	14-Jun-19	<0.5	<1	<1	<1	<1	**61**	3.6	<0.5	<1	<1	0.26 J	<1	**180**	4.6	<1	<1
TW-9	14-Jun-19	<0.5	<1	<1	<1	<1	5.2	<1	<0.5	<1	<1	<0.5	<1	**1.6**	<2	<1	<1
	8-Nov-19	Temporary MonitorIng Well Abandoned															
TW-10	14-Jun-19	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**9.5**	<2	<1	<1
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred ~40 feet Downgradient of TW-10															
	5-Oct-20	<0.5	<1	<1	<1	<1	**22**	0.8 J	<0.5	<1	<1	<0.5	<1	**22**	<2	<1	<1
	31-Aug-22	<0.5	<1	<1	**0.53** J	<1	**89**	3.2	<0.5	<1	<1	<0.5	<1	**37**	<2	<1	<1
TW-11	14-Jun-19	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**33**	<2	<1	<1
	8-Nov-19	Temporary MonitorIng Well Abandoned															
TW-12	14-Jun-19	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	**68**	<2	<1	<1
	7/23/19 - 8/6/19	Full-Scale Organic Carbon Injections Occurred at TW-12															
	5-Oct-20	0.17 J	<1	<1	<1	<1	**21**	0.84 J	<0.5	<1	<1	<0.5	<1	**0.57**	<2	**38**	<1
	31-Aug-22	<0.5	<1	<1	<1	<1	<1	<1	<0.5	<1	<1	<0.5	<1	<0.5	<2	<1	<1

Notes:
1. Samples from prior to 2011 were collected by MSA Professional Services, Inc. of Baraboo, Wisconsin and the samples were analyzed by TestAmerica of Watertown, Wisconsin. Samples from after 2011 were collected by GZA GeoEnvironmental, Inc. and the samples were analyzed by ECCS of Madison, Wisconsin. Samples were analyzed for volatile organic compounds (VOCs) in accordance with USEPA Method 8260B.
2. "J" denotes that the reported concentration is an estimated concentration between the Method Detection Limit (MDL) and Limit of Quantification (LOQ) and "D" denotes that the data are reported from a dilution.
3. "--" denotes sample not analyzed for that parameter, and "bg" denotes below grade.
4. Results are provided in micrograms pet liter (µg/l).
5. Concentrations that exceed the Wisconsin Administrative Code (WAC) Chapter NR 140 Preventive Action Limit (PAL) are provided in **bold font** and concentrations that exceed the WAC Chapter NR 140 Enforcement Standard (ES) are underlined.
6. Only detected volatile organic compounds are included in the summary.
7. The analytical results for MW-5 and P-5 for the August 30, 2010 sampling date are switched in this table from what was reported by MSA because the data comparison to earlier and later data for each well provides strong evidence that the data were reported for the incorrect wells.
8. HC flag indicates that the results may be biased high because of high continuing calibration verification (CCV).
9. F1= MS and/orMSD recovery exceeds control limits.
10. For the June 2013 groundwater sampling round, toluene was detected in most samples. The toluene concentrations were up to 16 µg/l and are attributed to toluene bring introduced into the sample due to the detection of toluene in the field blank.
11. CA denoted chloroethane, CM denotes chloromethane, 1,1-DCE denotes 1,1-dichloroethene, 1,2-DCA denotes 1,2-dichloroethane, c-1,2-DCE denotes cis-1,2-dichloroethene, t-1,2-DCE denotes trans-1,2-dichloroethene, 1,1,2,2-PCA denotes 1,1,2,2-tetrachloroethane, PCE denotes tetrachloroethene, 1,1,2-TCA denotes 1,1,2-trichloroethane, 1,2,3-TCP denotes 1,2,3-trichloropropane, TCE denotes trichloroethene, VC denotes vinyl chloride, DO denotes dissolved oxygen, and TOC denotes total organic carbon.

TABLE 4
ERD GROUNDWATER REMEDIATION MONITORING SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Parameter	Units	WAC NR 140		MW-2 (~40 feet UG of Injection Zone)										MW-3 (Immediately DG of Injection Zone)										MW-4 (~60 feet DG of Full-Scale Injection Zone)																					
		ES	PAL	16-Jul-19	7/23-8/6	30-Oct-19	13-Jan-20	30-Apr-20	30-Apr-20 Dup	30-Sep-20	16-Mar-21	16-Mar-21 Dup	29-Aug-22	15-Jul-19	7/23-8/6	30-Oct-19	13-Jan-20	13-Jan-20 Dup	30-Apr-20	30-Sep-20	16-Mar-21	3-Nov-21	29-Aug-22	27-Jul-17	########	5-Dec-17	12/5/17 Dup	########	2/21/18 Dup	########	2-Jul-18	15-Oct-18	16-Jul-19	7/23-8/6	28-Oct-19	13-Jan-20	30-Apr-20	30-Sep-20	16-Mar-21	3-Nov-21	30-Aug-22
VOCs																																												
1,1-DCE	µg/l	7.0	0.7	<0.39		<0.39	<0.39	<0.39	<0.39	0.5 J	<0.39	0.5 J	<0.39	<0.39		0.59 J	**0.89 J**	**0.90 J**	0.69 J	<0.39	<0.39		<0.39	<3.9	<3.9	<3.9	<3.9	<2.0	<2.0	<3.9	<3.9	<3.9	<3.9		<2.0	<3.9	<2.0	<3.9	<2.0	<2.0	<3.9
1,2-DCA	µg/l	5.0	0.5	**1.3**		<0.39	<0.39	**1.3**	**1.3**	**1.4**	**2.3**	**2.2**	**1.0**	<0.39		<0.39	<0.39	<0.39	<0.39	<0.39	<0.39		<0.39	<4.1	<4.1	<4.1	<4.1	<2.0	<2.0	<4.1	<4.1	<3.9	<3.9		<2.0	<3.9	<2.0	<3.9	<2.0	<2.0	<3.9
c-1,2-DCE	µg/l	70	7.0	**150**		**130**	**140**	**170**	**170**	**180**	**170**	**160**	**59**	**25**		**210**	**220**	**240**	**190**	**60**	**8.1**		6.9	**96**	**120**	**150**	**130**	**140**	**140**	**150**	**110**	**180**	**110**		**52**	**80**	**82**	**120**	**320**	**270**	**1,600**
t-1,2-DCE	µg/l	100	20	8.5		7.3	7.5	10	10	13	11	10	3.1	0.52 J		3.1	1.9	2.2	<0.35	1.3	<0.35		<0.35	<3.5	6.4	8.0	7.0	7.4	7.2	16	9.4 J	17	<3.5		4.1 J	<3.5	<1.7	8.2 J	**21**	13	**30**
1,2,3-TCP	µg/l	60	12	3.4		2.3	2.2	1.8 J	1.8 J	3.3	3.1	3.5	3.0	**26**		**28**	10	11	6.2	1.2 J	<0.41		<0.41	<4.1	<4.1	<4.1	<4.1	<2.1	<2.1	<4.1	<4.1	<4.1	<4.1		<2.1	<4.1	<2.1	<4.1	<2.1	<2.1	<4.1
PCE	µg/l	5.0	0.5	<0.37		<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	**0.95 J**		<0.37	<0.37	<0.37	<0.37	<0.37	<0.37		<0.37	<3.7	<3.7	<3.7	<3.7	<1.9	<1.9	<3.7	<3.7	<3.7	<3.7		<1.9	<3.7	<1.9	<3.7	<1.9	<1.9	<3.7
TCE	µg/l	5.0	0.5	**8.3**		**5.6**	**5.7**	**5.2**	**5.2**	**5.3**	**6.2**	**6.3**	**3.8**	**290**		**25**	**7.3**	**8.0**	**3.8**	**3.3**	**4.6**		**1.6**	**3,100**	**4,100**	**4,000**	**3,700**	**4,500**	**5,000**	**3,900**	**3,600**	**3,600**	**3,300**		**1,300**	**2,700**	**2,100**	**2,800**	**4,200**	**4,400**	**3,100**
VC	µg/l	0.2	0.02	**2.2**		**2.4**	<0.2	**2.2**	**2.2**	**11**	**7.8**	**8.1**	**1.3**	<0.22		**12**	**14**	**15**	**21**	**70**	**9.5**		**1.1**	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0		<1.0	<2.0	<1.0	**11**	**300**	**84**	**1,000**
Iron	µg/l	300	150	<47		<47	49 J F1	48 J	--	**300**	**210**	--	--	100		**55,000**	**75,000**	--	**49,000**	**37,000**	**47,000**	--	**26,000**	<47	<47	<47	--	<47	--	<47	<47	<47	<47		<47	<47	<47	<47	<47	<47	**390**
Ethane	µg/l	- - -	- - -	<1.5		<1.5	<1.5	<1.5	--	<1.5	<1.5	--	--	<1.5		2.2 J	<17	--	<33	<33	<66	--	<17	<0.14	<1.5	<1.5	--	<1.5	--	<1.5	<1.5	<1.5	<1.5		<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	14
Ethene	µg/l	- - -	- - -	<1.5		<1.5	<1.5	<1.5	--	<1.5	<1.5	--	--	<1.5		2.7 J	<17	--	<33	<33	<66	--	<17	<0.13	<1.5	<1.5	--	<1.5	--	<1.5	<1.5	<1.5	<1.5		<1.5	<1.5	<1.5	<1.5	36	5.4 J	460
Methane	µg/l	- - -	- - -	56		55	160	180	--	190	80	--	--	<1.0		320	11,000	--	15,000	13,000	16,000	--	6,600	<0.08	<1.0	<1.0	--	<1.0	--	15	<1.0	3.9 J	<1.0		<1.0	<1.0	<1.0	88	1,500	150	4,600
DO	mg/l	- - -	- - -	0.9		4.5	0.0	2.4	--	0.3	0.5	--	0.8	0.6		3.6	0.0	--	4.1	0.2	10.6	--	0.4	3.1	2.2	0.0	0.0	2.7	--	0.0	1.7	0.0	4.0		6.7	1.3	6.9	1.2	2.3	2.2	0.4
ORP	mV	- - -	- - -	--		99	88	87	--	-84	-5	--	98	--		-112	-126	--	-111	-142	-135	--	-94	93	111	118	118	295	--	127	-42	10	--		85	107	167	78	-22	39	-38
pH	s.u.	- - -	- - -	--		6.4	6.8	7.0	--	6.9	7.4	--	7.4	--		6.1	6.1	--	6.8	6.8	6.9	--	7.3	7.0	7.2	7.3	7.3	7.4	--	7.3	7.1	7.7	--		6.7	7.3	7.2	7.1	7.4	7.5	7.7
Arsenic	µg/l	10	1.0	0.53 J		0.68 J	0.51 J	0.82 JB	--	0.49 J	0.66 J	--	--	0.35 J		**7.8**	**13**	--	**15 B**	**16**	**18**	--	**16**	**1.5**	0.32 J	0.3	--	0.51 JB	--	0.37 J	<0.23	0.4 J	0.38 J		0.30 J	0.45 J	0.58 JB	0.36 J	0.3 J	0.34 J	**1.0**
Chromium	µg/l	100	10	<1.1		2.4 J	<1.1	<1.1	--	<1.1	<1.1	--	--	<1.1		2.9 J	5.2	--	<1.1	<1.1	<1.1	--	<1.1	3.1 J	<1.1	<1.1	--	<1.1	--	<1.1	<1.1	2 J		2.5 J	2.3 J	2.5 J	<1.1	<1.1	<1.1	<1.1
Sulfate	mg/l	250	125	33		20	27	21	--	38	39	--	--	9.8		0.13 J	<0.095	--	<0.095	<0.095	1.6	--	2.0 F1	19	21	23	--	26	--	24 B	26	23	17		16	17	15	18	15	14 F2 F1	9.8
TOC	mg/l	- - -	- - -	2.0		2.0	2.6	2.1	--	2.3	2.1	--	--	1.8		190	170	--	140	39	35	--	71	3.2	1.3	1.8	--	1.9	--	2	2.2	2.8	2.1		3.0	2.6	2.3	2.0	2.0	6.8	3.4

TABLE 4
ERD GROUNDWATER REMEDIATION MONITORING SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Parameter	Units	WAC NR 140		MW-5 (~40 feet DG of Full-Scale Injection Zone)															P-5 (~40 feet DG of Full-Scale Injection Zone)									MW-6 (Within Injection Zone)									P-6 (Within Injection Zone)								
		ES	PAL	20-May-16	20-May-16 Dup3	31-Jul-17	16-Oct-18	17-Jul-19	7/23-8/6	29-Oct-19	14-Jan-20	5-May-20	30-Sep-20	16-Mar-21	3-Nov-21	11/3/21 Dup	31-Aug-22	31-Aug-22 Dup #2	17-Jul-19	7/23-8/6	29-Oct-19	14-Jan-20	30-Sep-20	########	31-Aug-22	31-Aug-22 Dup #1	17-Jul-19	7/23-8/6	30-Oct-19	15-Jan-20	4-May-20	1-Oct-20	12-Mar-21	3-Nov-21	29-Aug-22	17-Jul-19	7/23-8/6	29-Oct-19	15-Jan-20	4-May-20	1-Oct-20	12-Mar-21	3-Nov-21	29-Aug-22
VOCs																																												
1,1-DCE	µg/l	7.0	0.7	<	<	<	5.9	0.7 J	E V O	0.68 J	<0.39	<0.39	2.1	1.9	8.2	8.7	6.1	7.1	3.6	E V O	3.1	<0.39	3.1	3.6	4.2	3.8	<0.39	E V O	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	1.0	E V O	1.1	<0.39	<0.39	<0.39	0.72 J	<0.39
1,2-DCA	µg/l	5.0	0.5	<0.39	<0.39	<0.39	<0.39	<0.39		<0.39	<0.39	<0.39	<0.39	<0.39	<0.78	<0.78	<2.0	<2.0	<0.39		<0.78	<0.39	<0.78	<0.78	<0.39	<0.39	<0.39		<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	1.7		1.3	<0.39	<0.39	<0.39	1.1	2.3
c-1,2-DCE	µg/l	70	7.0	310	310	29	150	54		63	23	17	250	290	820	800	610	650	680		700	680	630	800	890	1,000	52		98	180	13	1.7	1.4	0.7 J	<0.41	300		340	220	100	180	240	140
t-1,2-DCE	µg/l	100	20	<	<	<	4.5 J	1.1		1.0	<0.35	<0.35	3.6	4.0	13	13	9.6	10	140		130	140	130	130	120	110	1.2		1.4	2.6	1.1	0.66 J	1.2	0.39 J	<0.35	11		11	9.5	3.0	4.3	6.7	2.1
1,2,3-TCP	µg/l	60	12	<0.41	<0.41	<0.41	<0.41	<0.41		<0.41	<0.41	<0.41	<0.41	<0.41	<0.83	<0.83	<2.1	<2.1	<0.41		<0.83	<0.41	<0.83	<0.83	<0.41	<0.41	<0.41		<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41		<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
PCE	µg/l	5.0	0.5	23	18	6.3	6.9	6.2		3.3	<0.37	4.0	5.6	4.1	8.2	10	11	12	<0.37		<0.74	<0.37	<0.74	<0.74	<0.37	<0.37	<0.37		<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37		<0.37	<0.37	<0.37	<0.37	<0.37	<0.37
TCE	µg/l	5.0	0.5	5,200	5,700	700	1,200	670		400	340	290	400	420	1,500	1,400	4,100	4,100	53		52	57	69	53	66	65	71		4.7	0.69	0.23 J	<0.16	<0.16	<0.16	<0.16	7.2		1.6	1.6	1.4	1.1	1.5	1.1
VC	µg/l	0.2	0.02	8	8.9	<	26	1.7		5.8	<0.2	0.79 J	35	45	130	83	31	32	93		81	73	42	40	32	32	2.0		49	60	10	0.86 J	3.4	1.0	<0.2	94		180	180	120	280	160	92
Iron	µg/l	300	150	--	--	--	--	<47		100	120	<47	490	84 J	210	--	81 J	--	2,200		2,200	2,300	2,400	2,400	--	--	6,300		160,000	120,000	88,000	57,000	81,000	56,000	38,000	3,100		4,600	3,300	5,500	5,300	5,400	5,400
Ethane	µg/l	- - -	- - -	--	--	--	--	<1.5	I n j e c t i o n s	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	--	<1.5	--	100	I n j e c t i o n s	82	70 J	40	28 J	--	--	1.6 J	I n j e c t i o n s	<17	<33	<130	<33	76 J	55 J	30 J	8.6	I n j e c t i o n s	<33	45 J	19	43	22	3.0 J
Ethene	µg/l	- - -	- - -	--	--	--	--	<1.5		<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	--	<1.5	--	<17		19	<17	7.2	<17	--	--	<1.5		<17	<33	<130	<33	130 J	46 J	<17	23		<33	95 J	66	110	48	35
Methane	µg/l	- - -	- - -	--	--	--	--	<1.0		<1.0	<1.0	<1.0	6.1	32	120	--	480	--	400		310	350	270	310	--	--	310		4,500	9,500	21,000	12,000	15,000	14,000	15,000	190		440	700	740	520	550	600
DO	mg/l	- - -	- - -					0.8		3.8	0.0	1.5	0.2	0.4	1.8	--	2.7	--	0.2		3.7	0.0	0.2	0.6	0.4	--	0.1		3.6	0.0	1.7	0.2	3.7	3.6	2.9	0.1		3.9	0.0	2.1	0.2	4.6	0.7
ORP	mV	- - -	- - -					--		57	17	-25	-89	-1	-7	--	9	--	--		-66	-35	-89	-76	-29	--	--		-166	-126	-122	-158	-165	-153	-129	--		-142	-131	-141	-117	-98	-108
pH	s.u.	- - -	- - -					--		6.3	6.4	6.8	6.6	7.0	6.9	--	7.5	--	--		6.6	6.6	6.9	7.3	7.7	--	--		6.1	6.4	6.6	6.8	7.1	7.2	7.4	--		6.4	7.1	7.2	7.0	7.0	7.6
Arsenic	µg/l	10	1.0	--	--	--	--	0.79 J		0.99 J	0.73 J	0.57 JB	0.53 J	0.79 J	0.8 J	--	0.99 J	--	1.9		1.5	2.1	1.2	1.3	--	--	2.1		36	34	24 B	27	29	32	14	1.1		1.0	1.1	1.8 B	0.88 J	0.57 J	1.7
Chromium	µg/l	100	10	--	--	--	--	<1.1		<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	--	<1.1	--	<1.1		<1.1	<1.1	<1.1	<1.1	--	--	<1.1		1.7 J	2.5 J	1.1 J	1.3 J	1.4 J	1.3 J	<1.1	<1.1		<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
Sulfate	mg/l	250	125	--	--	--	--	85		220	120	85	460	310	250	--	170	--	110		120	140	210	240	--	--	7.7		0.12 J	0.11 J	0.12 J	0.28	1.7	<0.095	8.1	50		29	32	20	36	46	42
TOC	mg/l	- - -	- - -	--	--	--	--	3.4		5.6	5.4	3.7	6.1	6.3	16 F2 F1	--	4.5	--	3.6		3.7	4.4	4.0	3.7	--	--	4.4		290	200	100	20	110	74	20	2.4		12	5.5	4.3	4.5	2.4	2.1

TABLE 4
ERD GROUNDWATER REMEDIATION MONITORING SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Parameter	Units	WAC NR 140		MW-7 (~80 feet SG/DG of Full-Scale Injection Zone)									P-7 (~90 feet SG/DG of Full-Scale Injection Zone)							MW-10 (~40 feet DG of PT Injections and ~100 feet DG of Full-Scale Injection Zone)																	
		ES	PAL	17-Jul-19	7/23-8/6	30-Oct-19	10/30/19 Dup	13-Jan-20	4-May-20	1-Oct-20	16-Mar-21	2-Sep-22	18-Jul-19	7/23-8/6	30-Oct-19	13-Jan-20	1-Oct-20	16-Mar-21	2-Sep-22	31-Jul-17	8/21-8/24	########	5-Dec-17	########	########	2-Jul-18	15-Oct-18	18-Jul-19	7/23-8/6	28-Oct-19	14-Jan-20	4-May-20	2-Oct-20	11-Mar-21	3-Nov-21	31-Aug-22
VOCs																																			
1,1-DCE	µg/l	7.0	0.7	<0.39		<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39		0.52 J	<0.39	**0.84 J**	<0.39	0.57 J	**5.7 J**		**5.6 J**	<7.8	**6.4**	<7.8	<7.8	<7.8	**21**		**10**	**6.3 J**	<7.8	**3.7 J**	**6.7**	**6.4**	**4.5 J**
1,2-DCA	µg/l	5.0	0.5	<0.39		<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39		<0.39	<0.39	<0.39	<0.39	<0.39	<4.1		**11**	**12 J**	**11**	<8.2	<8.2	**9.7 J**	<3.9		<3.9	<3.9	<7.8	**3.2 J**	**2.4 J**	<2.0	<2.0
c-1,2-DCE	µg/l	70	7.0	2.7		3.7	3.3	0.6 J	<0.41	<0.41	1.3	2.8	**43**		**56**	**43**	**77**	**60**	**130**	**650**		**620**	**600**	**750**	**720**	**2,900**	**2,800**	**7,300**		**4,800**	**3,600**	**2,100**	**3,000**	**4,900**	**5,100**	**3,600**
t-1,2-DCE	µg/l	100	20	<0.35		<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	0.78 J		0.8 J	0.81 J	1.3	1.0	3.6	**64**		**61**	**59**	**79**	**58**	**93**	**77**	**44**		**36**	**31**	**24**	**65**	**94**	**83**	**42**
1,2,3-TCP	µg/l	60	12	<0.41		<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41		<0.41	<0.41	<0.41	<0.41	<0.41	11		<4.1	<8.3	**15**	<8.3	<8.3	<8.3	<4.1		<4.1	<4.1	<8.3	<2.1	<2.1	<2.1	<2.1
PCE	µg/l	5.0	0.5	<0.37		<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37		<0.37	<0.37	<0.37	<0.37	<0.37	<3.7		<3.7	<7.4	<1.9	<7.4	<7.4	<7.4	<3.7		<3.7	<3.7	<7.4	<2.1	<1.9	<1.9	<1.9
TCE	µg/l	5.0	0.5	**8.3**		**8.1**	**7.7**	**2.6**	**2.1**	**1.6**	**3.6**	**7.5**	**35**		**34**	**38**	**32**	**18**	**15**	**7,800**		**8,000**	**6,300**	**7,100**	**6,200**	**8,800**	**5,200**	**3,000**		**1,600**	**820**	**410**	**340**	**500**	**300**	**190**
VC	µg/l	0.2	0.02	<0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		**1.3**	**0.53 J**	**3.1**	**0.9 J**	**47**	<2.0		<2.0	<4.1	**3.2**	<4.1	<4.1	**810**	**3,400**		**6,600**	**4,800**	**5,600**	**5,600**	**2,200**	**4,900**	**3,800**
Iron	µg/l	300	150	<47		<47	--	<47	<47	<47	<47	--	**1,500**		**2,200**	**1,400**	**1,600**	**530**	--	<47		<47	<47	**310**	**700**	**530**	**850**	**880**		**3,700**	**4,800**	**3,800**	**4,400**	**3,400**	**3,200**	**6,800**
Ethane	µg/l	- - -	- - -	<1.5		<1.5	--	<1.5	<1.5	<1.5	<1.5	--	<1.5		<1.5	<1.5	<1.5	<1.5	--	1.0		<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<17		<17	<33	<17	<17	40 J	17	84
Ethene	µg/l	- - -	- - -	<1.5		<1.5	--	<1.5	<1.5	<1.5	<1.5	--	<1.5		<1.5	<1.5	<1.5	<1.5	--	<0.13		<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<17		330	260	410	500	370	650	1,600
Methane	µg/l	- - -	- - -	<1.0		<1.0	--	<1.0	<1.0	<1.0	<1.0	--	<1.0		<1.0	<1.0	<1.0	<1.0	--	7.7		8.0	12	12	9.8	11	20	680		6,900	5,500	4,400	4,900	4,800	6,200	11,000
DO	mg/l	- - -	- - -	0.3		3.5	--	0.0	2.2	0.3	1.5	0.5	0.2		3.7	0.0	0.2	2.4	0.5	3.8		3.8	1.1	4.5	1.6	5.1	1.0	0.0		5.8	5.0	3.4	--	--	5.1	4.1
ORP	mV	- - -	- - -	--		29	--	83	-53	42	-10	31	--		-100	-35	-76	-70	9	80		63	31	14	-11	-63	70	--		-68	-115	-104	-138	-102	-127	-95
pH	s.u.	- - -	- - -	--		6.4	--	6.6	7.1	6.8	7.0	7.4	--		6.8	6.8	7.1	7.5	7.8	6.6		7.1	7.0	7.1	7.2	7.1	7.6	--		6.5	7.2	7.5	7.5	7.0	7.6	8.2
Arsenic	µg/l	10	1.0	**1.2**		0.75 J	--	0.65 J	0.49 JB	0.43 J	0.24 J	--	**1.9**		**1.8**	**1.7**	**1.5**	0.77 J	--	0.78 J		0.84 J	0.79 J	**2.3 B**	**1.9**	**1.4**	**1.9**	**6.3**		**11**	**7.8**	**9.2 B**	**13**	**16**	**18**	**17**
Chromium	µg/l	100	10	<1.1		<1.1	--	<1.1	<1.1	<1.1	<1.1	--	<1.1		<1.1	<1.1	<1.1	<1.1	--	<1.1		<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1		<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	1.7 J
Sulfate	mg/l	250	125	69		44	--	35	25	23	28	--	42		43	49	61	55	--	72		77	72	49	34	20	4.1	1.9		0.82	6.7	6.1	2.3	2.5	1.3	0.27
TOC	mg/l	- - -	- - -	4.4		5.1	--	3.9	2.7	3.0	2.6	--	2.0		1.8	1.9	2.0	1.3	--	3.3		2.2	2.6	2.8	2.5	3.0	3.4	3.4		19	18	19	19	6	15	6.6

TABLE 4
ERD GROUNDWATER REMEDIATION MONITORING SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Parameter	Units	WAC NR 140		P-10 (~40 feet DG of PT Injections and ~100 feet DG of Full-Scale Injection Zone)														MW-18 (Within Injection Zone)				MW-21 (~7 feet SG of PT Injections and ~60 feet DG of Full-Scale Injection Zone)																			
		ES	PAL	########	8/21-8/24	#########	5-Dec-17	#########	#########	2-Jul-18	16-Oct-18	23-Jul-19	7/23-8/6	28-Oct-19	14-Jan-20	2-Oct-20	11-Mar-21	31-Aug-22	16-Jul-19	7/23-8/6	1-Oct-20	29-Aug-22	2-Aug-17	8/21-8/24	########	5-Dec-17	#########	#########	2-Jul-18	15-Oct-18	18-Jul-19	23-Jul-19	7/23/19 Dup	7/23-8/6	28-Oct-19	14-Jan-20	4-May-20	2-Oct-20	11-Mar-21	3-Nov-21	31-Aug-22
VOCs																																									
1,1-DCE	µg/l	7.0	0.7	**1.7**	E V O P T Injections	0.55 J	**1.2**	**2.0**	0.5 J	<0.39	<0.39	0.45 J	E V O Injections	0.47 J	<0.39	<0.39	**1.2**	<0.39	**3.7**	E V O Injections	<2.0	<2.0	<0.78	E V O P T Injections	<0.78	<0.78	0.61 J	**3.0**	<7.8	<3.9	<0.39	<0.39	0.52 J	E V O Injections	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39
1,2-DCA	µg/l	5.0	0.5	**30**		**29**	**37**	**31**	**31**	**31**	**30**	**42**		**32**	**46**	**36**	**41**	**33**	<0.39		<2.0	<2.0	<0.82		<0.82	**3.3**	**2.3**	**3.1**	<7.8	**5.6 J**	<0.39	<0.39	<0.39		**2.0**	**1.4**	**1.1**	**2.0**	**1.1**	0.49 J	<0.39
c-1,2-DCE	µg/l	70	7.0	**370**		**120**	**180**	**280**	**110**	**91**	**81**	**110**		**130**	**130**	**95**	**270**	**20**	**180**		2.2 J	<2.0	**11**		**56**	**83**	**150**	**1,200**	**920**	**140**	**140**	**320**	**290**		**100**	**22**	**8.0**	3.0	1.2	0.75 J	0.93 J
t-1,2-DCE	µg/l	100	20	18		11	14	10	9.6	11	5.6	7.3		6.3	8.0	4.2	8.5	<0.35	2.8		<1.7	<1.7	1.7 J		4.0	6.5	8.2	**29**	**56**	**43**	9.1	8.1	7.2		**20**	7.9	0.93 J	<0.35	<0.35	<0.35	<0.35
1,2,3-TCP	µg/l	60	12	<0.41		<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41		<0.41	<0.41	<0.41	<0.41	<0.41	<0.41		<2.1	<2.1	<0.83		<0.83	2.3	2.1	3.2	<8.3	<4.1	<0.41	<0.41	<0.41		<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
PCE	µg/l	5.0	0.5	<0.37		<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37		<0.37	<0.37	<0.37	<0.37	<0.37	<0.37		<1.9	<1.9	<0.74		<0.74	<0.74	<0.37	<0.74	<7.4	<3.7	<0.37	<0.37	<0.37		<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37
TCE	µg/l	5.0	0.5	**6.4**		**3.3**	**50**	**24**	**1.3**	**1.7**	**0.99**	**0.55**		**18**	**11**	**5.0**	**1.9**	0.21 J	**69**		<0.82	<0.82	**660**		**940**	**1,000**	**960**	**260**	<3.3	**3.0 J**	<0.16	**13**	**12**		**0.97**	<0.16	0.34 J	<0.16	**0.92**	**0.65**	**1.4**
VC	µg/l	0.2	0.02	**35**		**13**	**14**	**22**	**11**	**7.7**	**12**	**32**		**14**	**9.8**	**22**	**160**	**33**	**110**		<1.0	<1.0	<0.41		<0.41	<0.41	**0.77**	**190**	**7,500**	**5,100**	**230**	**310**	**370**		**370**	**190**	**47**	**18**	<0.2	**1.1**	**1.0**
Iron	µg/l	300	150	**5,300**		**14,000**	**4,300**	**2,300**	**2,600**	**3,500**	**2,000**	--		**2,300**	**3,300**	**3,900**	**14,000**	**3,000**	**2,900**		-	**25,000**	**9,400**		**1,600**	**6,500**	**8,900**	**18,000**	**28,000**	**35,000**	**41,000**	**29,000**	--		**34,000**	**32,000**	**34,000**	**24,000**	**22,000**	**12,000**	**15,000**
Ethane	µg/l	- - -	- - -	0.87		<1.5	<17	<1.5	<17	<1.5	<1.5	--		<1.5	<1.5	<1.5	2.7 J	<17	110		--	<33	<0.14		<1.5	<1.5	<1.5	<17	<1.5	<33	<17	<1.5	--		1.7 J	<17	<66	<66	120 J	180	130
Ethene	µg/l	- - -	- - -	1.8		<1.5	<17	<1.5	<17	<1.5	<1.5	--		<1.5	<1.5	<1.5	15	<17	34 J		--	<33	<0.13		<1.5	<1.5	<1.5	<17	230	400	<17	<1.5	--		560	240	300 J	960	520	<17	<1.5
Methane	µg/l	- - -	- - -	100		140	130	110	70	150	130	--		83	71	140	330	2,600	2,200		--	8,300	0.55		<1.0	<1.0	46	620	5,100	5,100	1,200	6,700	--		4,600	6,700	9,800	10,000	27,000	20,000	13,000
DO	mg/l	- - -	- - -	0.9		0.6	0.0	3.1	0.0	0.9	1.3	2.6		4.8	0.0	2.8	9.1	0.2	0.1		0.2	0.3	4.6		2.6	0.6	4.8	1.8	3.9	0.2	0.0	4.8	--		6.3	0.4	3.7	--	--	4.8	3.3
ORP	mV	- - -	- - -	-66		-57	-47	-50	-68	-115	-83	--		-40	-36	-50	-68	-80	--		-170	-120	77		9	-110	-79	-120	-139	-141	--	--	--		-138	-138	-118	-145	-172	-157	-141
pH	s.u.	- - -	- - -	7.4		7.0	7.0	7.4	7.1	7.0	7.3	--		6.4	7.9	7.1	6.6	7.7	--		6.9	7.4	6.9		7.2	7.1	7.0	7.2	7.0	7.5	--	--	--		6.7	6.9	7.3	7.2	7.5	7.6	8.2
Arsenic	µg/l	10	1.0	**1.8**		**3.8**	0.83 J	0.89 JB	0.84 J	0.69 J	0.9 J	--		**1.2**	0.89 J	0.65 J	**3.5**	**1.5**	**3.9**		--	**44**	**3.6**		**1.9**	**7.4**	**12 B**	**14**	**18**	**22**	**15**	**9.2**	--		**18**	**18**	**15 B**	**20**	**19**	**18**	**19**
Chromium	µg/l	100	10	2.0 J		**13**	1.7 J	<1.1	<1.1	1.6 J	<1.1	--		1.3	1.3 J	1.1 J	**12**	<1.1	1.9		--	2.7 J	6.0		1.3 J	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	--		<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
Sulfate	mg/l	250	125	90		97	89	84	88	100	83	--		81	80	96	59	3.7	100		--	71	13		36	23	8.4	2.4	0.18 J	0.49	0.12 J	0.67	--		0.86	0.7	0.45	0.51	0.69	1.7	0.14 J
TOC	mg/l	- - -	- - -	4.0		1.9	2.9	3.6	2.8	3.4	2.5	--		2.7	2.6	3.0	2.1	55	8.9		--	16	3.4		4.5	17	9.7	34	92	79	44	37	--		72	56	32	100	290	23	8.2

TABLE 4
ERD GROUNDWATER REMEDIATION MONITORING SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Parameter	Units	WAC NR 140		MW-22 (~260 feet DG of PT Injections and ~320 feet DG of Full-Scale Injection Zone)													MW-23 (~280 feet DG of PT Injections and ~350 feet DG of Full-Scale Injection Zone)													MW-24 (~40 DG of Full-Scale Injection Zone)									
		ES	PAL	########	8/21-8/24	########	5-Dec-17	########	########	4/23/18 Dup	2-Jul-18	7/02/18 Dup	15-Oct-18	22-Jul-19	7/23-8/6	5-Oct-20	1-Sep-22	########	8/21-8/24	########	9/19/17 Dup	5-Dec-17	########	########	2-Jul-18	15-Oct-18	22-Jul-19	7/23-8/6	5-Oct-20	########	1-Sep-22	2-Aug-17	16-Jul-19	7/23-8/6	29-Oct-19	14-Jan-20	4-May-20	1-Oct-20	DUP1 10/01/20	12-Mar-21	30-Aug-22
VOCs					EVO PT Injections										EVO Injections				EVO PT Injections								EVO Injections				EVO Injections								
1,1-DCE	µg/l	7.0	0.7	**6.2 J**		<7.8	<7.8	**3.5 J**	<7.8	<7.8	<2.0	<2.0	<0.39	<0.39		<0.39	<0.39	<3.9		<3.9	<3.9	<3.9	<2.0	<2.0	<3.9	<3.9	<2.0		<3.9	<2.0	<2.0	<2.0	<3.9		**5.5**	<0.39	<2.0	**6.3**	**6.1**	**7.7**	**5.8**
1,2-DCA	µg/l	5.0	0.5	<4.1		<8.2	<8.2	**3.2 J**	<8.2	<8.2	<2.1	<2.1	<0.39	<0.39		<0.39	<0.39	<4.1		<4.1	<4.1	<4.1	<2.0	<2.0	<4.1	<3.9	<2.0		<3.9	<2.0	<2.0	<2.0	<3.9		<0.78	<0.39	<2.0	<2.0	<2.0	<2.0	<2.0
c-1,2-DCE	µg/l	70	7.0	**420**		**310**	**170**	**240**	**210**	**220**	**46**	**50**	**7.0**	**27**		0.74 J	1.8	**43**		**44**	**46**	**38**	**39**	**39**	**53**	**49**	**82**		**160**	**140**	**430**	**570**	**76**		**1,700**	**150**	**140**	**1,800**	**2,000**	**2,300**	**1,700**
t-1,2-DCE	µg/l	100	20	**83**		**51**	**22**	**39**	**40**	**41**	7.8	8.5	0.95 J	5.1		<0.35	<0.35	12		12	12	9.8	9.4	8.4	12	18	18		**25**	**25**	**120**	**260**	<10		**190**	8.0	10	**240**	**230**	**310**	**170**
1,2,3-TCP	µg/l	60	12	<4.1		<8.3	<8.3	<2.1	<8.3	<8.3	<2.1	<2.1	<0.41	<0.41		<0.41	<0.41	<4.1		<4.1	<4.1	<4.1	<2.1	<2.1	<4.1	<4.1	<2.1		<4.1	<2.1	<2.1	<2.1	<4.1		<0.83	<0.41	<2.1	<2.1	<2.1	<2.1	<2.1
PCE	µg/l	5.0	0.5	<3.7		<7.4	<7.4	<1.9	<7.4	<7.4	<1.9	<1.9	0.49 J	<0.37		<0.37	<0.37	<3.7		<3.7	<3.7	<3.7	<1.9	<1.9	<3.7	<3.7	<1.9		<3.7	<1.9	<1.9	<1.9	**21**		**1.6 J**	**8.4**	**12**	<1.9	<1.9	**3.6 J**	<1.9
TCE	µg/l	5.0	0.5	**7,100**		**6,400**	**5,000**	**6,300**	**5,300**	**5,200**	**1,600**	**1,700**	**550**	**780**		**120**	**44**	**3,700**		**4,100**	**4,200**	**3,700**	**4,000**	**3,000**	**4,400**	**3,700**	**3,400**		**4,100**	**3,400**	**3,700**	**1,900**	**2,300**		**300**	**2,000**	**2,000**	**110**	**110**	**300**	**45**
VC	µg/l	0.2	0.02	<2.0		<4.1	<4.1	<1.0	<4.1	<4.1	<1.0	<1.0	<0.2	<0.2		<0.2	<0.2	<2.0		<2.0	<2.0	<2.0	<1.0	<1.0	<2.0	<2.0	<1.0		**4.2 J**	**45**	**450**	**24**	<2.0		**140**	<0.2	<1.0	**200**	**190**	**220**	**390**
Iron	µg/l	300	150	<47		<47	<47	<47	<47	--	<47	--	<47	--		--	--	<47		<47	--	<47	<47	<47	57 J	<47	--		--	75 J	140	--	<47		**1,400**	<47	<47	**1,900**	--	**1,300**	**11,000**
Ethane	µg/l	- - -	- - -	0.28 J		<1.5	<1.5	<1.5	<1.5	--	<1.5	--	<1.5	--		--	--	<0.14		<1.5	--	<1.5	<1.5	<1.5	<1.5	<1.5	--		--	<1.5	<1.5	--	<1.5		82 J	<1.5	<1.5	69	--	77	90
Ethene	µg/l	- - -	- - -	<0.13		<1.5	<1.5	<1.5	<1.5	--	<1.5	--	<1.5	--		--	--	<0.13		<1.5	--	<1.5	<1.5	<1.5	<1.5	<1.5	--		--	<1.5	7.8	--	<1.5		<33	<1.5	<1.5	77	--	42	180
Methane	µg/l	- - -	- - -	0.28 J		13	41	29	8.1	--	<1.0	--	<1.0	--		--	--	0.18 J		<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	--		--	71	980	--	<1.0		670	<1.0	<1.0	1,100	--	1,100	3,400
DO	mg/l	- - -	- - -	3.5		4.2	0.0	5.5	3.2	--	5.5	--	1.4	8.0		7.9	7.1	2.2		1.7	1.7	0.0	3.5	0.8	1.5	0.0	1.3		1.1	0.5	0.7	0.4	1.4		3.7	0.0	1.9	0.2	--	1.5	0.3
ORP	mV	- - -	- - -	57		69	76	135	100	--	-20	--	61	--		91	86	47		49	49	56	118	69	-22	55	--		63	-4	49	-14	--		-50	69	-55	-95.8	--	-65	-94
pH	s.u.	- - -	- - -	7.1		7.1	7.1	7.1	7.1	--	7.1	--	7.7	--		7.2	7.9	7.1		7.0	7.0	6.9	7.1	7.1	7.0	7.6	--		7.0	7	8	7.4	--		6.4	6.6	7.1	6.9	--	7.2	7.6
Arsenic	µg/l	10	1.0	0.77 J		0.7 J	0.37 J	0.46 JB	0.48 J	--	<0.23	--	0.43 J	--		--	--	0.73 J		0.69 J	--	0.6 J	0.77 JB	0.46 J	0.25 J	0.56 J	--		--	0.39 J	0.82 J	--	0.55 J		**1.8**	0.5 J	0.39 JB	**2.3**	--	**1.4**	**8.8**
Chromium	µg/l	100	10	<1.1		1.2 J	<1.1	<1.1	<1.1	--	1.6 J	--	1.6 J	--		--	--	<1.1		<1.1	--	<1.1	<1.1	<1.1	<1.1	<1.1	--		--	<1.1	<1.1	--	<1.1		<1.1	<1.1	<1.1	<1.1	--	<1.1	<1.1
Sulfate	mg/l	250	125	30		30	30	36	34 F1	--	18	--	27	--		--	--	72		74	--	71	71	66	65	66	--		--	50	36	--	22		72	22	22	68	--	63	1.1
TOC	mg/l	- - -	- - -	3.3		1.4	1.8	1.5	1.5	--	1.8	--	<0.47	--		--	--	2.4		1.0	--	1.8	1.6	1.6	1.8	1.8	--		--	1.5	2.3	--	3.2		3.2	3.3	3.3	2.6	--	2.9	19

TABLE 4
ERD GROUNDWATER REMEDIATION MONITORING SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Parameter	Units	WAC NR 140		MW-25 (Within Full-Scale Injection Zone)												MW-26 (Within Full-Scale Injection Zone)												MW-27 (Within Full-Scale Injection Zone)											
		ES	PAL	3-Aug-17	15-Oct-18	17-Jul-19	7/23-8/6	29-Oct-19	15-Jan-20	5-May-20	1-Oct-20	12-Mar-21	3-Nov-21	30-Aug-22	23-Jul-19	7/23-8/6	28-Oct-19	14-Jan-20	########	########	########	30-Aug-22	23-Jul-19	7/23-8/6	29-Oct-19	15-Jan-20	4-May-20	########	########	3-Nov-21	29-Aug-22
VOCs																																					
1,1-DCE	µg/l	7.0	0.7	<20	<39	<20		**1.7 J**	<20	**51 J**	**43**	**22 J**	**8.0 J**	**5.1**	<0.39		<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	**4.9**		**1.3**	**2.4**	**1.9**	<0.39	<0.39	<0.39	<0.39
1,2-DCA	µg/l	5.0	0.5	<20	<39	<20		<0.78	<20	<39	<7.8	<20	<3.9	<2.0	**1.8**		**2.2**	**1.8**	<0.39	<0.39	**0.51 J**	<0.39	<0.78		**2.1**	<0.78	**2.5**	**1.2**	**0.81 J**	**0.58 J**	<0.39
c-1,2-DCE	µg/l	70	7.0	**550**	**65 J**	**47 J**		**1,100**	**12,000**	**32,000**	**38,000**	**22,000**	**10,000**	**3,100**	**140**		**160**	**160**	**110**	**81**	0.5 J	<0.41	**1,300**		**490**	**680**	**730**	**60**	4.7	0.78 J	<0.41
t-1,2-DCE	µg/l	100	20	**100**	<35	<17		3.7	<17	**42 J**	**52**	**55**	**41**	**22**	4.6		5.8	4.6	3.0	2.7	<0.35	<0.35	**68**		**26**	**38**	**28**	3.6	4.7	<0.35	<0.35
1,2,3-TCP	µg/l	60	12	<21	<41	<21		<0.83	<21	<41	<8.3	<21	<4.1	<2.1	<0.41		1.1 J	<0.41	<0.41	<0.41	<0.41	<0.41	<0.83		2.1	2.2 J	2.8	<0.41	<0.41	<0.41	<0.41
PCE	µg/l	5.0	0.5	<19	**57 J**	**19 J**		<0.74	<19	<37	<7.4	<19	<3.7	<1.9	<0.37		<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.74		<0.37	<0.74	<0.37	<0.37	<0.37	<0.37	<0.37
TCE	µg/l	5.0	0.5	**26,000**	**36,000**	**20,000**		**36**	<8.2	**140**	**190**	**140**	**56**	**28**	**27**		**39**	**13**	<0.16	**1.5**	**2.4**	0.47 J	**430**		**11**	<0.33	**1.6**	**0.5**	0.43 J	<0.16	<0.16
VC	µg/l	0.2	0.02	**17 J**	<20	<10		**83**	<10	**1,300**	**10,000**	**5,700**	**4,300**	**1,000**	**0.57 J**		**10**	<0.2	**2.2**	**13**	**16**	**1.1**	**110**		**100**	**93**	**180**	**56**	**2.4**	<0.2	<0.2
Iron	µg/l	300	150	--	--	<47		**19,000**	**42,000**	**59,000**	**62,000**	**61,000**	**64,000**	**59,000**	**290**		**35,000**	**33,000**	**20,000**	**29,000**	**42,000**	**47,000**	49 J		**73,000**	**100,000**	**57,000**	**61,000**	**49,000**	**35,000**	**31,000**
Ethane	µg/l	- - -	- - -	--	--	<1.5		<130	1.6 J	<17	<170	<66	<66	<66	<1.5		1.6	1.5 J	<130	<33	<33	<17	12		<66	<17	<66	<66	21 J	<33	<33
Ethene	µg/l	- - -	- - -	--	--	<1.5		<130	<1.5	<17	<170	620	1,000	190 J	<1.5		<1.5	<1.5	<130	<33	35 J	<17	<1.5		<66	<17	<66	<66	<17	<33	<33
Methane	µg/l	- - -	- - -	--	--	<1.0		<88	4,100	7,400	9,100	8,800	9,200	5,100	26		44	170	8,200	9,100	9,100	18,000	520		710	2,500	9,700	5,000	13,000	11,000	12,000
DO	mg/l	- - -	- - -	0.7	1.0	4.9		3.6	0.0	1.2	0.2	0.9	2.5	0.4	4.2		3.7	0.0	1.2	0.1	2.0	0.3	1.4		3.6	0.0	1.1	0.2	0.8	1.6	0.4
ORP	mV	- - -	- - -	16	70	--		-68	-26	26	-63.6	5	-11	-5	--		-129	-120	-86	-144.4	-161	-131	--		-88	-57	-50	-183.1	-99	-52	-122
pH	s.u.	- - -	- - -	7.0	7.6	--		5.8	5.7	5.8	5.7	5.9	6.2	6.6	--		6.1	7.4	6.9	6.9	7.2	7.7	--		5.9	6.3	6.5	6.5	6.8	7.3	7.4
Arsenic	µg/l	10	1.0	--	--	0.76 J		0.97 J	0.94 J	**2.6 B**	**2.9 J**	**3.8**	**4.2**	**7.6**	0.76 J		**4.3**	**6.5**	**5.4 B**	**7.6**	**8.4**	**16**	0.82 J		**4.5**	**4.4**	**2.9 B**	**6.7**	**5.5**	**6.9**	**8.6**
Chromium	µg/l	100	10	--	--	**16**		2.9 J	1.8 J	3.1 J	<11	1.7 J	1.1 J	<1.1	<1.1		<1.1	<1.1	1.5 J	<1.1	<1.1	<1.1	<1.1		1.1 J	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
Sulfate	mg/l	250	125	--	--	120		0.18 J	0.11 J	0.21	0.19 J	0.43	0.28	<0.095	38		18	0.21	0.32	0.26	0.2	7.8	51		0.19 J	<0.095	<0.095	0.14 J	0.16 J	1.1	0.36
TOC	mg/l	- - -	- - -	--	--	2.5		220	340	1,200	4,600	3,400	1,300	440	1.6		150	72	130	140	280	24	2.9		530	390	290	240	220	170	13

Parameter	Units	MW-28 (~40 feet DG of Full-Scale Injection Zone)									MW-29 (~30' DG of Full-Scale Inj Zone)						
		18-Jul-19	7/23-8/6	30-Oct-19	15-Jan-20	########	2-Oct-20	12-Mar-21	3-Nov-21	30-Aug-22	23-Jul-19	7/23-8/6	########	12-Mar-21	30-Aug-22
VOCs															
1,1-DCE	µg/l	**1.9**		<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	**2.3**		**2.0**	**1.2**	<0.39
1,2-DCA	µg/l	<0.39		<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	<0.39	**15**		<0.78	**1.2**	**0.84 J**
c-1,2-DCE	µg/l	**500**		**110**	**37**	**47**	**46**	**16**	**8.4**	0.83 J	**800**		**620**	**400**	**38**
t-1,2-DCE	µg/l	**67**		5.5	2.9	<0.35	3.7	1.3	0.46 J	<0.35	**91**		**94**	**80**	**30**
1,2,3-TCP	µg/l	<0.41		<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	**14**		<0.83	<0.41	<0.41
PCE	µg/l	<0.37		<0.37	<0.37	<0.37	<0.37	<0.37	<0.37	<0.37			<0.74	<0.37	<0.37
TCE	µg/l	**170**		**13**	<0.16	**6.4**	<0.16	**3.5**	0.41 J	0.45 J	**3.3**		**0.56 J**	**1.4**	**0.54**
VC	µg/l	**61**		**36**	**18**	**23**	**53**	<0.2	**7.6**	**0.74 J**	**55**		**93**	**130**	**150**
Iron	µg/l	<47		**29,000**	**53,000**	**47,000**	**25,000**	**33,000**	**27,000**	**33,000**	--		**1,700**	**2,200**	**2,400**
Ethane	µg/l	77 J		22 J	<66	<33	190	<17	140 J	150	--		20	43	220
Ethene	µg/l	<17		<17	<66	<33	<17	<17	47 J	<17	--		74	49	30 J
Methane	µg/l	710		300	3,300	4,500	6,000	120	8,600	12,000	--		1,100	1,000	10,000
DO	mg/l	2.1		3.5	0.0	5.2	0.3	1.8	2.5	0.5	--		0.1	3.3	0.3
ORP	mV	--		-180	-145	-147	-177.5	-158	-135	-108	--		-336.2	-109	-86
pH	s.u.	--		6.4	7.0	7.0	6.7	7.2	6.9	7.4	--		7.0	7.1	7.6
Arsenic	µg/l	**19**		**6.3**	**6.2**	**6.9 B**	**7.4**	**6.1**	**55**	**16**	--		0.41 J	0.27 J	<0.23
Chromium	µg/l	<1.1		<1.1	<1.1	<1.1	<1.1	<1.1	2.4 J	<1.1	--		<1.1	<1.1	<1.1
Sulfate	mg/l	69		8.1	3.0	3.1	59	36	23	16	--		33	54	3.5
TOC	mg/l	4.3		31	62	57	15	16	32	14	--		10	2.4	63

TABLE 4
ERD GROUNDWATER REMEDIATION MONITORING SUMMARY
Former Gardner Manufacturing Property
263 Kansas Street
Horicon, Wisconsin

Parameter	Units	WAC NR 140		MW-30 (~20 feet DG of Full-Scale Injection Zone)							
		ES	PAL	23-Jul-19	7/23-8/6	15-Jan-20	30-Apr-20	30-Sep-20	12-Mar-21	3-Nov-21	30-Aug-22
VOCs											
1,1-DCE	µg/l	7.0	0.7	**4.1**		<7.8	<3.9	<0.39	<0.39	**1.1**	<7.8
1,2-DCA	µg/l	5.0	0.5	<0.78		<7.8	<3.9	<0.39	<0.39	<0.39	<7.8
c-1,2-DCE	µg/l	70	7.0	<20		**6,000**	**4,100**	**93**	**55**	**330**	**3,100**
t-1,2-DCE	µg/l	100	20	**140**		<7.0	**24**	**27**	**21**	**17**	**22**
1,2,3-TCP	µg/l	60	12	<0.83		<8.3	<4.1	<0.41	<0.41	<0.41	<8.3
PCE	µg/l	5.0	0.5	**4.4**		<7.4	<3.7	<0.37	<0.37	<0.37	<7.4
TCE	µg/l	5.0	0.5	**3,600**		**50**	<1.6	**0.9**	0.18 J	**6.5**	**13**
VC	µg/l	0.2	0.02	**52**		**190**	**670**	**120**	**410**	**170**	**5,800**
Iron	µg/l	300	150	--		**150,000**	**170,000**	**100,000**	**74,000**	**49,000**	**22,000**
Ethane	µg/l	- - -	- - -	--		<33	<170	<33	190	340	170
Ethene	µg/l	- - -	- - -	--		<33	<170	1,100	1,100	320	1,800
Methane	µg/l	- - -	- - -	--		2,400	4,600	6,000	7,600	12,000	9,500
DO	mg/l	- - -	- - -	--		0.0	1.2	0.2	0.7	1.3	0.3
ORP	mV	- - -	- - -	--		-68	-81	-165.8	-121	-101	-85
pH	s.u.	- - -	- - -	--		6.0	6.5	6.5	6.8	7.2	7.3
Arsenic	µg/l	10	1.0	--		**22**	**39 B**	**36**	**29**	**34**	**25**
Chromium	µg/l	100	10	--		<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
Sulfate	mg/l	250	125	--		4.1	0.18 J	1.1	2.6	5.0	4.5 F1
TOC	mg/l	- - -	- - -	--		740	660	410	220	92	69

EVO Injections

Notes:
1. Samples were collected on an approximately monthly basis by GZA GeoEnvironmental, Inc. (GZA) and analyzed by TestAmerica of Watertown, Wisconsin utilizing United States Environmental Protection Agency (USEPA) Method 8260B for volatile organic compounds (VOCs), Method RSK-175 for ethane, ethene and methane, Method 6020A for iron, USEPA Method 300.0 for sulfate, and Method 9060A for total organic carbon. Results are provided in micrograms per liter (µg/l) and milligrams per liter (mg/l), as indicated.
2. Water quality parameters including dissolved oxygen, oxygen reduction potential, and pH were also measured in the field by GZA personnel on an approximately biweekly basis. Results are provided in mg/l, millivolts (mV), and standard units (s.u.), as indicated.
3. Wisconsin Administrative Code (WAC) Chapter NR 140 Groundwater Enforcement Standards (ESs) and Preventive Action Limits (PALs) are provided for reference where established. The iron ES and PAL are provided from WAC Chapter NR140 Public Welfare Groundwater Quality Standards. **Bold font** for VOCs and metals indicates the parameter was detected above the PAL and **Bold and underlined font** for VOCs and metals indicates the parameter was detected above the ES.
4. "<" denotes that the constituent was not detected at a concentration greater than the listed Method Detection Limit (MDL).
5. J = Result reported between the MDL and Limit of Quantitation (LOQ) is less certain than results at or above the LOQ.
6. B = Compound was detected in the blank and the sample.
7. F1= MS and/orMSD recovery exceeds control limits.
8. Approximately 8,000 gallons of 9 percent EVO solution were direct injected in the upper 20 feet of the water table upgradient of MW-10 over the period August 21-24, 2017. Approximately 67,000 gallons of 9 percent EVO solution were direct injected in the upper 20 feet of the water table along profiles that transected the Site over the period of July 23 to August 6, 2019.
The pH and ORP probes were providing erroneous readings for the July 2019 groundwater sampling round and are not included in the table.
9. 1,1-DCE denotes 1,1-Dichloroethene, 1,2-DCA denotes 1,2-Dichloroethane, c-1,2-DCE denotes cis-1,2-Dichloroethene, t-1,2-DCE denotes trans-1,2-Dichloroethene, 1,2,3-TCP denotes 1,2,3-Trichloropropane, TCE denotes Trichloroethene, VC denotes Vinyl Chloride, DO denotes dissolved oxygen, and TOC denotes total organic carbon.

APPENDIX C

SAFETY DATA SHEETS FOR PROPOSED INJECTION PRODUCTS
(NEWMAN ZONE 55™ EVO, NEWMAN ZONE OS™ OXYGEN SCAVENGER,
AND BIOLOGICAL CULTURE SDC-9™)

SAFETY DATA SHEET

Newman Zone EVO

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Directives

1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED):	***Newman Zone EVO***
SYNONYMS:	None known
CAS#:	Mixture
PRODUCT USE:	This product is used for soil and ground water remediation. It is formulated and processed using food grade additives, following packaging, sanitation and storage as required by Best Practices used for Food products.
CHEMICAL SHIPPING NAME/CLASS:	Non-Regulated Material
U.N. NUMBER:	None
MANUFACTURER'S NAME:	**RNAS Remediation Products**
ADDRESS:	6712 West River Road, Brooklyn Center, MN 55430
BUSINESS PHONE:	1-763-585-6191
EMERGENCY PHONE:	1-800-424-9300 (Chemtrec 24 Hr Service – Emergency Only)
DATE OF CURRENT REVISION:	January 16, 2016
DATE OF LAST REVISION:	July 16, 2015

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is a white liquid with a vegetable oil odor.
Health Hazards: Not expected to cause adverse health effects when used as intended. Prolonged or repeated exposure may cause irritation to skin. May cause irritation to eyes upon contact. Inhalation of vapors/sprays or mist may cause respiratory irritation. Ingestion of large amounts of this product may cause gastrointestinal irritation.
Flammability Hazards: This product is a Non-Flammable liquid with a flash point of >540°F (>282°C).
Reactivity Hazards: None known
Environmental Hazards: The Environmental effects of this product have not been investigated. Release of this product is not anticipated to have significant adverse effects in the aquatic environment.

US DOT SYMBOLS	CANADA (WHMIS) SYMBOLS	EUROPEAN and (GHS) Hazard Symbols
		None
Non-Regulated Material	Complies with WHMIS 2015	Signal Word: **None**

GHS LABELING AND CLASSIFICATION:
This product does not meet the definition of a hazardous substance or preparation as defined by 29CFR 1910.1200 or the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

EU HAZARD CLASSIFICATION OF INGREDIENTS PER DIRECTIVE 1272/2008/EC:
None of the ingredients are listed in Annex VI
Substances not listed either individually or in group entries must be self classified.

Component(s) Contributing to Classification(s):
All Ingredients

GHS Hazard Classification(s):
None known

Hazard Statement(s):
None known

Precautionary Statement(s):
None known

HEALTH HAZARDS OR RISKS FROM EXPOSURE:
SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin or eyes, inhalation of vapors and ingestion. The symptoms of overexposure are described below.
ACUTE:
INHALATION: Not expected to cause adverse health effects when used as intended. Inhalation of vapors/mist/spray may cause respiratory irritation.
CONTACT WITH SKIN: Not expected to cause adverse health effects when used as intended. Prolonged and repeated contact may cause irritation to skin.
EYE CONTACT: Direct eye contact can cause irritation with redness, tearing and blurred vision.

INGESTION: Under normal conditions of intended use, this material is not expected to be an ingestion hazard. Ingestion of large quantities may cause gastrointestinal irritation, nausea and vomiting.
CHRONIC: None known

TARGET ORGANS: Acute: Skin, Respiratory System and Eyes **Chronic:** None known

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Ingredients:	WT%	CAS#	EINECS #	GHS Hazard Classification(s)
Food Grade Soybean Oil	45 - 55%	8001-22-7	232-274-4	None
Water	35 – 45%	7732-18-5	231-791-2	None
Food Grade Sodium-L-lactate	0 – 4%	867-56-1	212-762-3	None
Proprietary Food Grade Surfactant Blend	4 – 6%	Proprietary	Not Listed in ESIS	None
Sodium Bicarbonate	0 - 1%	144-55-8	205-633-8	None
Balance of other ingredients is less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).				

NOTE: This product has been classified in accordance with the hazard criteria of 29CFR1910.1200 and the SDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard *JIS Z 7250: 2000*.

4. FIRST-AID MEASURES

EYE CONTACT: If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical attention if irritation persists.
SKIN CONTACT: Wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.
INHALATION: If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.
INGESTION: If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known
RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure.

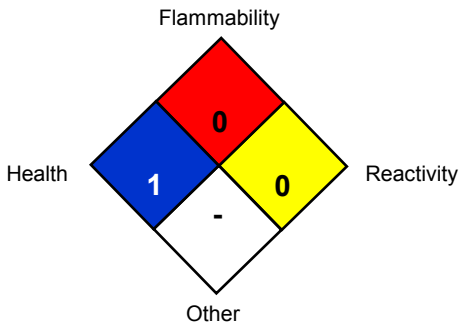
5. FIRE-FIGHTING MEASURES

FLASH POINT: Non-Flammable with flash point >540°F (>282°C)
AUTOIGNITION TEMPERATURE: Not Available
FLAMMABLE LIMITS (in air by volume, %): Lower NA Upper NA
FIRE EXTINGUISHING MATERIALS: Use fire extinguishing methods below:

Water Spray: Yes	Carbon Dioxide: Yes
Foam: Yes	Dry Chemical: Yes
Halon: Yes	Other: Any "C" Class

UNUSUAL FIRE AND EXPLOSION HAZARDS: Not considered a fire or explosion hazard.
Explosion Sensitivity to Mechanical Impact: No
Explosion Sensitivity to Static Discharge: No
SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

NFPA RATING SYSTEM



HMIS RATING SYSTEM

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

HEALTH HAZARD (BLUE)	1
FLAMMABILITY HAZARD (RED)	0
PHYSICAL HAZARD (YELLOW)	0

PROTECTIVE EQUIPMENT

EYES	RESPIRATORY	HANDS	BODY
	See Sect 8		See Sect 8

For Routine Industrial Use and Handling Applications

Hazard Scale: **0** = Minimal **1** = Slight **2** = Moderate **3** = Serious **4** = Severe * = Chronic hazard

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Stop the flow of material, if this can be done safely. Contain discharged material. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Place in a proper container for disposal. Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations).

7. HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Use good hygiene practices.

STORAGE AND HANDLING PRACTICES: Store in original container. Keep container closed when not in use. Store in a cool, dry location. Avoid freezing or extended storage in high temperatures and away from incompatible materials.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

Chemical Name	CAS#	ACGIH TLV	OSHA TWA
Blend of Food Grade Soybean Oil	8001-22-7	10 mg/m³ Oil Mists	15 mg/m³ Oil Mists
Food Grade Sodium-L-lactate	867-56-1	Not Listed	Not Listed
Proprietary Food Grade Surfactant Blend	Proprietary	Not Listed	Not Listed
Sodium Bicarbonate	144-55-8	Not Listed	Not Listed

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Not required when using this product. Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

EYE PROTECTION: Safety glasses or goggles are recommended to avoid eye contact. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

SKIN PROTECTION: Wear impervious gloves for prolonged or repeated exposure as appropriate to task when using this product. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

BODY PROTECTION: Use body protection appropriate to task being performed. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

9. PHYSICAL and CHEMICAL PROPERTIES

APPEARANCE (Physical State) and COLOR: This product is a white liquid with a vegetable oil odor.
ODOR: Slight
ODOR THRESHOLD: Not Applicable
pH: 7.0 – 9.0
MELTING/FREEZING POINT: Not Available
BOILING POINT: Not Available
FLASH POINT: >540°F / >282°C (For pure soybean oil)
EVAPORATION RATE (n-BuAc=1): Not Available
FLAMMABILITY (SOLID, GAS): Not Applicable
UPPER/LOWER FLAMMABILITY OR EXPLOSION LIMITS: Not Available
VAPOR PRESSURE (mm Hg @ 20°C (68°F)): Not Available
VAPOR DENSITY: Not Available
SPECIFIC GRAVITY: 0.98 – 0.99 @ 25°C
SOLUBILITY IN WATER: Dispersible in water
WEIGHT PER GALLON: 8.15 – 8.25 lb/gal
PARTITION COEFFICENT (n-octanol/water): Not Available
AUTO-IGNITION TEMPERATURE: Not Available
DECOMPOSITION TEMPERATURE: Not Available
VISCOSITY: 24 - 200 cPs @ 20°C

10. STABILITY and REACTIVITY

STABILITY: Stable under conditions of normal storage and use.
HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition products include oxides of carbon.
MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Strong oxidizing materials.
POSSIBILITY OF HAZARDOUS REACTIONS: Will not occur.
CONDITIONS TO AVOID: Incompatible materials

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA:
No LD50 Data available for this product.
SUSPECTED CANCER AGENT: Ingredients within this product are not found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are not considered to be, nor suspected to be, cancer-causing agents by these agencies.
IRRITANCY OF PRODUCT: No specific data available
SENSITIZATION TO THE PRODUCT: This product is not a skin and respiratory sensitizer
REPRODUCTIVE TOXICITY INFORMATION: No information concerning the effects of this product and its components on the human reproductive system.

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.
ENVIRONMENTAL STABILITY: No specific data available on this product.
CHEMICAL EFFECT ON PLANTS, ANIMALS AND AQUATIC LIFE: This product is not expected to cause significant harm to plants, animals or aquatic life.
WATER ENDANGERMENT CLASS: Water endangering in accordance with EU Guideline 91/155-EWG – Not Determined.
SPECIFIC AVAILABLE COMPONENT INFORMATION: No additional data available at this time.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.
EU Waste Code: Not determined

14. TRANSPORTATION INFORMATION

US DOT, IATA, IMO, ADR:

U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS: This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

PROPER SHIPPING NAME:	Non-Regulated Material
HAZARD CLASS NUMBER and DESCRIPTION:	None
UN IDENTIFICATION NUMBER:	None
PACKING GROUP:	NA
DOT LABEL(S) REQUIRED:	None

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER: None
RQ QUANTITY: None
MARINE POLLUTANT: The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA): This product is not considered as dangerous goods.

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is not considered as dangerous goods.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): This product is not considered by the United Nations Economic Commission for Europe to be dangerous goods.

15. REGULATORY INFORMATION

UNITED STATES REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act as follows: None
U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.
U.S. CERCLA REPORTABLE QUANTITY (RQ): None
U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory or are exempted from listing.
OTHER U.S. FEDERAL REGULATIONS: None
CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): Ingredients within this product are not on the Proposition 65 Lists.

CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: The components of this product are on the DSL Inventory, or are exempted from listing.
OTHER CANADIAN REGULATIONS: Not applicable.
CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.
CANADIAN WHMIS CLASSIFICATION and SYMBOLS: Complies with WHMIS 2015

EUROPEAN ECONOMIC COMMUNITY INFORMATION:

This product does not meet the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.
See Section 2 for Details

AUSTRALIAN INFORMATION FOR PRODUCT: The components of this product are listed on the International Chemical Inventory list.

JAPANESE INFORMATION FOR PRODUCT:

JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS: The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

JAPANESE ENCS INVENTORY: The components of this product are on the ENCS Inventory as indicated in the section on International Chemical Inventories, below.

POISONOUS AND DELETERIOUS SUBSTANCES CONTROL LAW: No component of this product is a listed Specified Poisonous Substance under the Poisonous and Deleterious Substances Control Law.

INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:
Asia-Pac: Listed or Exempt from listing
Australian Inventory of Chemical Substances (AICS): Listed or Exempt from listing
Korean Existing Chemicals List (ECL): Listed or Exempt from listing
Japanese Existing National Inventory of Chemical Substances (ENCS): Listed or Exempt from listing
Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed or Exempt from listing
Swiss Giftliste List of Toxic Substances: Listed or Exempt from listing
U.S. TSCA: Listed

16. OTHER INFORMATION

ABBREVIATIONS AND ACRONYMS:

EPA: United States Environmental Protection Agency
ARD: European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)

PREPARED BY: Paul Eigbrett – (**GHS MSDS Compliance PLUS)**
DATE OF PRINTING: January 16, 2016

END OF SDS SHEET

RNAS REMEDIATION PRODUCTS
6712 West River Road, Brooklyn Center, MN 55430
(763) 585.6191 www.RNASinc.com

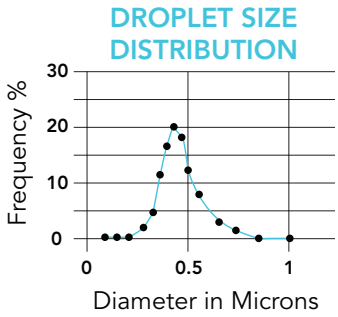
www.rnasinc.com

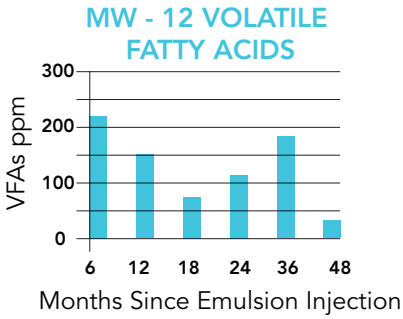
USDA CERTIFIED BIOBASED PRODUCT
PRODUCT 97%

Newman Zone 55™

A Balance Of Fast And Slow Release Electron Donors

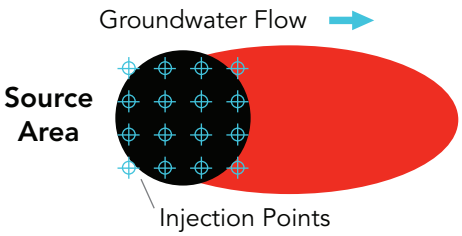
Newman Zone® 55 is an electron donor for enhancing the in situ anaerobic bioremediation of chlorinated solvents, nitrated explosives (RDX, HMX, TNT), selected toxic metals (chrome VI), perchlorate and nitrate. Newman Zone® 55 has both fast and slow-release electron donors. Lactate stimulates microbial growth within hours of injection and rapidly produces anaerobic conditions in the subsurface. Vegetable oil droplets are retained on soil particles and slowly ferment to hydrogen and volatile fatty acids which support anaerobic biodegradation for as long as five years after injection.

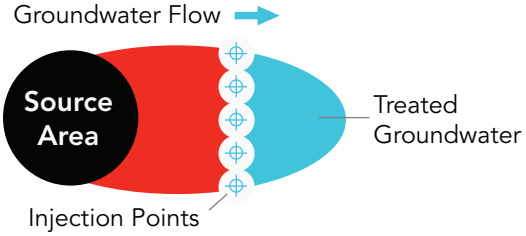




Application

Newman Zone® 55 emulsions contain approximately 60 percent vegetable oil by volume in concentrated form. The emulsion is usually diluted to 5 percent or less oil by volume prior to injection. After dilution the emulsion has a low viscosity similar to water allowing it to be applied by direct push injections, injection wells, water circulation systems and even direct application to source area excavations prior to backfilling. Common treatment configurations include an injection grid used to treat contaminant source areas and bio-barriers to treat dissolved plumes.





Benefits – The Smallest Emulsion Droplet Size in the Industry

Newman Zone® 55 is an oil-in-water emulsion consisting of oil droplets between 0.15 and 0.60 microns in size with a median size of 0.30 microns. Our uniquely small oil droplet size maximizes mobility in silt and clay soils and allows for excellent stability when blended with oxygen scavengers, buffers and other amendments prior to injection. The large droplet emulsions provided by other companies can result in oil/water separation, limited distribution or reduced soil permeability.

Experience – Over a Decade of Results From Millions of Pounds Delivered!

Newman Zone® was the first factory produced small droplet emulsified oil product on the market. Since the first production run in 2002 we have delivered millions of pounds of emulsion to thousands of sites around the world.

RNAS REMEDIATION PRODUCTS
6712 West River Road, Brooklyn Center, MN 55430
(763) 585.6191 www.RNASinc.com

www.rnasinc.com

Newman Zone 55

A Balance Of Fast And Slow Release Electron Donors

Product Content

Chemical Name	CAS Number	Composition (%wt)
Soybean Oil (food grade)	8001-22-7	>55%
Sodium-L-Lactate	867-56-1	4%
Food Additives / Emulsifiers / Preservatives	Proprietary	<10%
Water		Balance

Product Characteristics

Parameter	Unit	Specification
Density	g/cm³	0.98
Particle Size	µm	0.15 - 0.60
Flash Point	°F	>540 (closed cup)
Appearance		White opaque liquid

Packaging

Newman Zone® 55 is available in 5-gallon pails (40 pounds net) and 275-gallon totes (2,100 pounds net). For large projects bulk emulsion can be delivered in either iso-tanks or food grade tanker truck loads.

Storage

The small droplet Newman Zone® 55 emulsion is kinetically stable and pasteurization prevents microbial spoilage. We keep inventory in chilled storage where the shelf-life can exceed five years. Newman Zone® 55 can be stored on-site for 2-4 months without refrigeration. Avoid freezing conditions. Temperatures that average below 25 degrees Fahrenheit may result in frozen emulsion.

Safety

No protective equipment is necessary under normal use conditions. All ingredients consist of food or food grade additives.

SAFETY DATA SHEET

Newman Zone OS

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Directives

1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED):	**Newman Zone OS**
SYNONYMS:	Newman Zone Oxygen Scavenger
CAS#:	Mixture
PRODUCT USE:	This product is used to deoxygenate water for anaerobic subsurface injections.
CHEMICAL SHIPPING NAME/CLASS:	Non-Regulated Material
U.N. NUMBER:	None
MANUFACTURER'S NAME:	**RNAS Remediation Products**
ADDRESS:	6712 West River Road, Brooklyn Center, MN 55430
BUSINESS PHONE:	1-763-585-6191
EMERGENCY PHONE:	1-800-424-9300 (Chemtrec 24 Hr Service – Emergency Only)
DATE OF CURRENT REVISION:	July 19, 2016
DATE OF LAST REVISION:	New

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is a white and brownish-yellow powder with a mild, sweet odor.
Health Hazards: Not expected to cause adverse health effects when used as intended. Prolonged or repeated exposure may cause irritation to skin. May cause irritation to eyes upon contact. Inhalation may cause respiratory irritation. Ingestion of large amounts of this product may cause gastrointestinal irritation.
Flammability Hazards: This product is a Non-Flammable powder.
Reactivity Hazards: None known
Environmental Hazards: The Environmental effects of this product have not been investigated. Release of this product is not anticipated to have significant adverse effects in the aquatic environment.

US DOT SYMBOLS	CANADA (WHMIS) SYMBOLS	EUROPEAN and (GHS) Hazard Symbols
		None
Non-Regulated Material	Complies with WHMIS 2015	Signal Word: **None**

GHS LABELING AND CLASSIFICATION:
This product does not meet the definition of a hazardous substance or preparation as defined by 29CFR 1910.1200 or the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

EU HAZARD CLASSIFICATION OF INGREDIENTS PER DIRECTIVE 1272/2008/EC:
None of the ingredients are listed in Annex VI
Substances not listed either individually or in group entries must be self classified.

Component(s) Contributing to Classification(s):
All Ingredients

GHS Hazard Classification(s):
Not applicable

Hazard Statement(s):
Not applicable

Response Statement(s):
Not applicable

Prevention Statement(s):
Not applicable

Storage Statement(s):
Not applicable

Disposal Statement(s):
Not applicable

HEALTH HAZARDS OR RISKS FROM EXPOSURE:
SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin or eyes, inhalation of vapors and ingestion. The symptoms of overexposure are described below.
ACUTE:
INHALATION: Not expected to cause adverse health effects when used as intended. Inhalation of vapors/mist/spray may cause respiratory irritation.
CONTACT WITH SKIN: Not expected to cause adverse health effects when used as intended. Prolonged and repeated contact may cause irritation to skin.
EYE CONTACT: Direct eye contact can cause irritation with redness, tearing and blurred vision.

INGESTION: Under normal conditions of intended use, this material is not expected to be an ingestion hazard. Ingestion of large quantities may cause gastrointestinal irritation, nausea and vomiting.
CHRONIC: None known
TARGET ORGANS: **Acute:** Skin, Respiratory System and Eyes **Chronic:** None known

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Ingredients:	WT%	CAS#	EINECS #	GHS Hazard Classification(s)
All ingredients are either nonhazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).				

NOTE: This product has been classified in accordance with the hazard criteria of 29CFR1910.1200 and the SDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard *JIS Z 7250: 2000*.

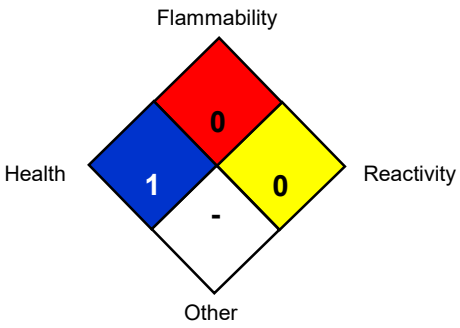
4. FIRST-AID MEASURES

EYE CONTACT: If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical attention if irritation persists.
SKIN CONTACT: Wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.
INHALATION: If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.
INGESTION: If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known
RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure.

5. FIRE-FIGHTING MEASURES

FLASH POINT: Non-Flammable
AUTOIGNITION TEMPERATURE: Not Available
FLAMMABLE LIMITS (in air by volume, %): Lower NA Upper NA
FIRE EXTINGUISHING MATERIALS: Use fire extinguishing methods below:
Water Spray: Yes Carbon Dioxide: Yes
Foam: Yes Dry Chemical: Yes
Halon: Yes Other: Any "C" Class
UNUSUAL FIRE AND EXPLOSION HAZARDS: Not considered a fire or explosion hazard.
Explosion Sensitivity to Mechanical Impact: No
Explosion Sensitivity to Static Discharge: No
SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

NFPA RATING SYSTEM



HMIS RATING SYSTEM

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

HEALTH HAZARD (BLUE)	1
FLAMMABILITY HAZARD (RED)	0
PHYSICAL HAZARD (YELLOW)	0

PROTECTIVE EQUIPMENT

EYES	RESPIRATORY	HANDS	BODY
	See Sect 8		See Sect 8

For Routine Industrial Use and Handling Applications

Hazard Scale: **0** = Minimal **1** = Slight **2** = Moderate **3** = Serious **4** = Severe * = Chronic hazard

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Personnel should be trained for spill response operations.

SPILLS: Contain spill if safe to do so. Sweep or vacuum up and place in an appropriate closed container. Clean up residual material by washing area with water and detergent. Dike or retain dilution water or water from firefighting for later disposal. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations).

7. HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Use good hygiene practices.

STORAGE AND HANDLING PRACTICES: Store in original container. Keep container closed when not in use. Store in a cool, dry location. Avoid freezing or extended storage in high temperatures and away from incompatible materials.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

PARTICULATES NOT OTHERWISE REGULATED RESPIRABLE FRACTION

	TWA	STEL
OSHA	5 mg/cu m	

PARTICULATES NOT OTHERWISE REGULATED TOTAL DUST

	TWA	STEL
OSHA	15 mg/cu m	

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Not required when using this product. Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

EYE PROTECTION: Safety glasses or goggles are recommended to avoid eye contact. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

SKIN PROTECTION: Wear impervious gloves for prolonged or repeated exposure as appropriate to task when using this product. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

BODY PROTECTION: Use body protection appropriate to task being performed. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

9. PHYSICAL and CHEMICAL PROPERTIES

APPEARANCE (Physical State) and COLOR: This product is a white and brownish-yellow powder. **ODOR:** Mild, sweet odor
ODOR THRESHOLD: Not Available
pH (in solution at 1.0 g/L): 7.0 - 8.0
MELTING/FREEZING POINT: Not Available
BOILING POINT: Not Available
FLASH POINT: Not Available
EVAPORATION RATE (n-BuAc=1): Not Available
FLAMMABILITY (SOLID, GAS): Not Available
UPPER/LOWER FLAMMABILITY OR EXPLOSION LIMITS: Not Available
VAPOR PRESSURE (mm Hg @ 20°C (68°F)): Not Available
VAPOR DENSITY: Not Available
DENSITY: 1.0-1.2 g/cm^3
SOLUBILITY IN WATER: Soluble in water
PARTITION COEFFICENT (n-octanol/water): Not Available
AUTO-IGNITION TEMPERATURE: Not Available
DECOMPOSITION TEMPERATURE: Not Available
VISCOSITY: Not Available

10. STABILITY and REACTIVITY

STABILITY: Stable under conditions of normal storage and use.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon oxides (monoxide, dioxide), Metal oxide fumes, Sodium oxides.
MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Strong oxidizing agents, strong bases, strong acids, lime.
POSSIBILITY OF HAZARDOUS REACTIONS: Will not occur.
CONDITIONS TO AVOID: Extreme heat and humidity.

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA:
No data available for this product.
SUSPECTED CANCER AGENT: Ingredients within this product are not found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are not considered to be, nor suspected to be, cancer-causing agents by these agencies.
IRRITANCY OF PRODUCT: No specific data available
SENSITIZATION TO THE PRODUCT: This product is not a skin and respiratory sensitizer.
REPRODUCTIVE TOXICITY INFORMATION: No information concerning the effects of this product and its components on the human reproductive system.

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.
TOXICITY DATA:
No data available for this product.
ENVIRONMENTAL STABILITY: This material will degrade in the environment.
CHEMICAL EFFECT ON PLANTS, ANIMALS AND AQUATIC LIFE: This product is not expected to cause significant harm to plants, animals or aquatic life.
WATER ENDANGERMENT CLASS: Water endangering in accordance with EU Guideline 91/155-EWG – Not Determined.
SPECIFIC AVAILABLE COMPONENT INFORMATION: No additional data available at this time.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.
EU Waste Code: Not determined

14. TRANSPORTATION INFORMATION

US DOT, IATA, IMO, ADR:

U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS: This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows:

PROPER SHIPPING NAME: Non-Regulated Material
HAZARD CLASS NUMBER and DESCRIPTION: None
UN IDENTIFICATION NUMBER: None
PACKING GROUP: NA
DOT LABEL(S) REQUIRED: None
NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER: None
RQ QUANTITY: None
MARINE POLLUTANT: The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA): This product is not considered as dangerous goods.

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is not considered as dangerous goods.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): This product is not considered by the United Nations Economic Commission for Europe to be dangerous goods.

15. REGULATORY INFORMATION

UNITED STATES REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act as follows: None

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): None

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory or are exempted from listing.

OTHER U.S. FEDERAL REGULATIONS: None

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): Ingredients within this product are not on the Proposition 65 Lists.

CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: The components of this product are on the DSL Inventory, or are exempted from listing.

OTHER CANADIAN REGULATIONS: Not applicable.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: Complies with WHMIS 2015.

EUROPEAN ECONOMIC COMMUNITY INFORMATION:
This product does not meet the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.
See Section 2 for Details

AUSTRALIAN INFORMATION FOR PRODUCT: The components of this product are listed on the International Chemical Inventory list.

JAPANESE INFORMATION FOR PRODUCT:

JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS: The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

JAPANESE ENCS INVENTORY: The components of this product are on the ENCS Inventory as indicated in the section on International Chemical Inventories, below.

POISONOUS AND DELETERIOUS SUBSTANCES CONTROL LAW: No component of this product is a listed Specified Poisonous Substance under the Poisonous and Deleterious Substances Control Law.

INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:
Asia-Pac: Listed or Exempt from listing
Australian Inventory of Chemical Substances (AICS): Listed or Exempt from listing
Korean Existing Chemicals List (ECL): Listed or Exempt from listing
Japanese Existing National Inventory of Chemical Substances (ENCS): Listed or Exempt from listing
Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed or Exempt from listing
Swiss Giftliste List of Toxic Substances: Listed or Exempt from listing
U.S. TSCA: Listed

16. OTHER INFORMATION

ABBREVIATIONS AND ACRONYMS:

EPA: United States Environmental Protection Agency
ARD: European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)

PREPARED BY: Chris Eigbrett – (**MSDS to GHS Compliance)**
DATE OF PRINTING: July 19, 2016

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. Remediation and Natural Attenuation Services Inc. assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, Remediation and Natural Attenuation Services Inc. assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed.

END OF SDS SHEET

RNAS REMEDIATION PRODUCTS
6712 West River Road, Brooklyn Center, MN 55430
(763) 585.6191 www.RNASinc.com

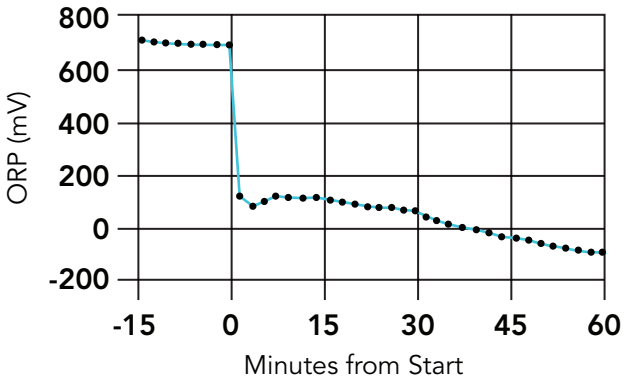
www.rnasinc.com

Newman Zone OS™

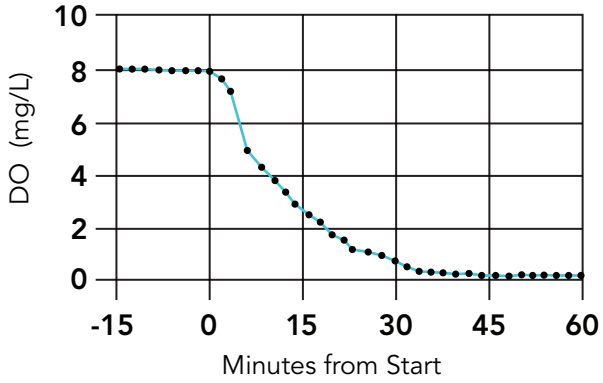
Oxygen Scavenger for Anaerobic Bioremediation

Newman Zone OS™ is a blend of food grade antioxidants, chelated ferrous iron catalyst and buffering agents used to prepare water for anaerobic injections. Newman Zone OS™ is specially formulated to quickly remove dissolved oxygen from water and create the reducing conditions necessary for successful anaerobic bioremediation. Newman Zone OS™ supports bioaugmentation cultures such as SDC-9™ and KB-1® by removing dissolved oxygen from injection water and allowing bacteria to thrive and grow.

ORP REDUCTION*



DISSOLVED OXYGEN REMOVAL*



*Tested in 1,000 Liter totes at 16° C

Application

Newman Zone OS™ comes in pre-measured foil pouches and is added to tanks prior to filling with water. For optimal results, stirring tanks with pumps or mixers is recommended until Newman Zone OS™ is fully dissolved. Typical applications result in anoxic water within one hour and a negative ORP within two hours.

Benefits - Added Vitamin B12

Newman Zone OS™ contains 25 µg/liter of Vitamin B12 (as applied), a required corrinoid vitamin demonstrated to enhance growth and dechlorination performance of Dehalococcoides strains (He et al., May 2007).

Benefits - Rapid Oxygen Scavenging

Newman Zone OS™ is a cost effective way to quickly prepare anaerobic water. Due to its high concentration of antioxidants, chelated ferrous iron catalyst and buffering agents, Newman Zone OS™ is effective even in cold, highly oxidized water. Higher temperatures will result in faster oxygen removal rates.

Benefits - Supports Bioaugmentation Cultures

Laboratory microcosm studies have confirmed Newman Zone OS™ presents no toxicity or inhibition to the SDC-9™ bioaugmentation culture. Additionally, the antioxidants and chelating agents degrade to provide a rapidly available electron donor (700 mg/liter glucose equivalent).

RNAS REMEDIATION PRODUCTS
6712 West River Road, Brooklyn Center, MN 55430
(763) 585.6191 www.RNASinc.com

Newman Zone OS™

Oxygen Scavenger for Anaerobic Bioremediation

Product Content

Chemical Name	Composition
Food Grade Antioxidants	70%
Food Grade Catalysts, Chelating Agents and Buffers	30%

Product Characteristics

Parameter	Unit	Specification
Appearance, packaged		White to brown powder or granules
Appearance, in solution		Dark grey to brown or yellow
Density	g/cm^3	1.0 - 1.2
pH, in solution	Standard Units	7.0 - 8.0

Packaging

Newman Zone OS™ is packaged in foil pouches and premeasured for 275 gallon (1,000 L) and 1,000 gallon (3,785 L) batches. Larger package sizes are available upon request.

Storage

Newman Zone OS™ may be stored under recommended conditions for months without activity loss. Keep containers tightly closed in a cool, well-ventilated area. Keep foil bags sealed to avoid exposure to oxygen or moisture.

Safety

Newman Zone OS™ is comprised of food grade, non-toxic ingredients. No known hazards are associated with exposure to this product. Nevertheless, appropriate personal protective equipment is recommended when handling this product.

SAFETY DATA SHEET

SDC-9

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Directives

1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED):	***SDC-9***
SYNONYMS:	None known
CAS#:	Mixture
PRODUCT USE:	This product is used for soil and ground water remediation.
CHEMICAL SHIPPING NAME/CLASS:	Non-Regulated Material
U.N. NUMBER:	None
MANUFACTURER'S NAME:	**CB&I**
ADDRESS:	17 Princess Road, Lawrencevill, NJ 08648
BUSINESS PHONE:	1-609-895-5340
SUPPLIER'S NAME:	**RNAS Remediation Products**
ADDRESS:	6712 West River Road, Brooklyn Center, MN 55430
BUSINESS PHONE:	1-763-585-6191
EMERGENCY PHONE:	1-800-424-9300 (Chemtrec 24 Hr Service – Emergency Only)
DATE OF CURRENT REVISION:	April 22, 2016
DATE OF LAST REVISION:	New

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is a light greenish murky liquid with a musty odor.
Health Hazards: Not expected to cause adverse health effects when used as intended. Prolonged or repeated exposure may cause irritation to skin. May cause irritation to eyes upon contact. Inhalation of vapors/sprays or mist may cause respiratory irritation. Ingestion of large amounts of this product may cause gastrointestinal irritation.
Flammability Hazards: This product is a Non-Flammable liquid.
Reactivity Hazards: None known
Environmental Hazards: The Environmental effects of this product have not been investigated. Release of this product is not anticipated to have significant adverse effects in the aquatic environment.

US DOT SYMBOLS	CANADA (WHMIS) SYMBOLS	EUROPEAN and (GHS) Hazard Symbols
		None
Non-Regulated Material	Complies with WHMIS 2015	Signal Word: **None**

GHS LABELING AND CLASSIFICATION:
This product does not meet the definition of a hazardous substance or preparation as defined by 29CFR 1910.1200 or the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

EU HAZARD CLASSIFICATION OF INGREDIENTS PER DIRECTIVE 1272/2008/EC:
None of the ingredients are listed in Annex VI
Substances not listed either individually or in group entries must be self classified.

Component(s) Contributing to Classification(s)
All Ingredients

GHS Hazard Classification(s):
None known

Hazard Statement(s):
None known

Precautionary Statement(s):
None known

HEALTH HAZARDS OR RISKS FROM EXPOSURE:
SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin or eyes, inhalation of vapors and ingestion. The symptoms of overexposure are described below.
ACUTE:
INHALATION: Not expected to cause adverse health effects when used as intended. Inhalation of vapors/mist/spray may cause respiratory irritation.
CONTACT WITH SKIN: Not expected to cause adverse health effects when used as intended. Prolonged and repeated contact may cause irritation to skin.
EYE CONTACT: Direct eye contact can cause irritation with redness, tearing and blurred vision.

INGESTION: Under normal conditions of intended use, this material is not expected to be an ingestion hazard. Ingestion of large quantities may cause gastrointestinal irritation, nausea and vomiting.
CHRONIC: None known

TARGET ORGANS: Acute: Skin, Respiratory System and Eyes **Chronic:** None known

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Ingredients:	WT%	CAS#	EINECS #	GHS Hazard Classification(s)
Non-toxic, naturally occurring, non-pathogenic, non-genitically altered anaerobic microbes in a water-based medium	100%	Not available	Not available	None
Balance of other ingredients is less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).				

NOTE: This product has been classified in accordance with the hazard criteria of 29CFR1910.1200 and the SDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard *JIS Z 7250: 2000*.

4. FIRST-AID MEASURES

EYE CONTACT: If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical attention if irritation persists.
SKIN CONTACT: Wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.
INHALATION: If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.
INGESTION: If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known
RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure.

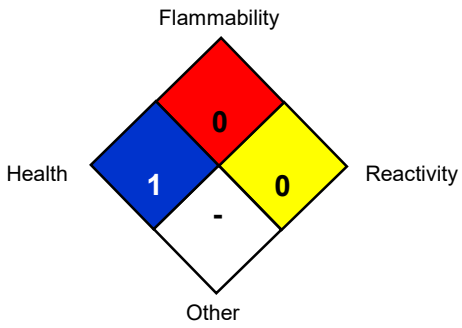
5. FIRE-FIGHTING MEASURES

FLASH POINT: Non-Flammable
AUTOIGNITION TEMPERATURE: Not Available
FLAMMABLE LIMITS (in air by volume, %): Lower NA Upper NA
FIRE EXTINGUISHING MATERIALS: Use fire extinguishing methods below:

Water Spray: Yes	Carbon Dioxide: Yes
Foam: Yes	Dry Chemical: Yes
Halon: Yes	Other: Any “C” Class

UNUSUAL FIRE AND EXPLOSION HAZARDS: Not considered a fire or explosion hazard.
Explosion Sensitivity to Mechanical Impact: No
Explosion Sensitivity to Static Discharge: No
SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

NFPA RATING SYSTEM



HMIS RATING SYSTEM

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

HEALTH HAZARD (BLUE)	1
FLAMMABILITY HAZARD (RED)	0
PHYSICAL HAZARD (YELLOW)	0

PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	See Sect 8		See Sect 8

For Routine Industrial Use and Handling Applications

Hazard Scale: **0** = Minimal **1** = Slight **2** = Moderate **3** = Serious **4** = Severe * = Chronic hazard

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Stop the flow of material, if this can be done safety. Contain discharged material. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Place in a proper container for disposal. Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations).

7. HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Use good hygiene practices.

STORAGE AND HANDLING PRACTICES: Store in original container. Keep container closed when not in use. Store in a cool, dry location. Avoid freezing or extended storage in high temperatures and away from incompatible materials. Do not exceed pressure of 15 psi during transfer of SDC-9 from kegs. Don't open keg when contents are under pressure.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

Chemical Name	CAS#	ACGIH TLV	OSHA TWA
Non-toxic, naturally occurring, non-pathogenic, non-genitically altered anaerobic microbes in a water-based medium	Not available	Not Listed	Not Listed

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Not required when using this product. Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

EYE PROTECTION: Safety glasses or goggles are recommended to avoid eye contact. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

SKIN PROTECTION: Wear impervious gloves for prolonged or repeated exposure as appropriate to task when using this product. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

BODY PROTECTION: Use body protection appropriate to task being performed. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

9. PHYSICAL and CHEMICAL PROPERTIES

APPEARANCE (Physical State) and COLOR: This product is a light greenish murky liquid with a musty odor.
ODOR: Musty odor
ODOR THRESHOLD: Not Applicable
pH: 6.0 – 8.0
MELTING/FREEZING POINT: 0°C (water)
BOILING POINT: 100°C (water)
FLASH POINT: Not Available
EVAPORATION RATE (n-BuAc=1): 0.9-1.1
FLAMMABILITY (SOLID, GAS): Not Applicable
UPPER/LOWER FLAMMABILITY OR EXPLOSION LIMITS: Not Available
VAPOR PRESSURE (mm Hg @ 20°C (68°F): 24mm Hg (water)
VAPOR DENSITY: Not Available
SPECIFIC GRAVITY: 0.9-1.1
SOLUBILITY IN WATER: Soluble in water
WEIGHT PER GALLON: 7.5 – 9.2 lbs/gal
PARTITION COEFFICENT (n-octanol/water): Not Available
AUTO-IGNITION TEMPERATURE: Not Available
DECOMPOSITION TEMPERATURE: Not Available
VISCOSITY: Not Available

10. STABILITY and REACTIVITY

STABILITY: Stable under conditions of normal storage and use.
HAZARDOUS DECOMPOSITION PRODUCTS: None
MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Water-reactive materials.
POSSIBILITY OF HAZARDOUS REACTIONS: Will not occur.
CONDITIONS TO AVOID: None

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA:
No LD50 Data available for this product.
*Note: This product has tested negative for pathogenic microorganisms such as bacillius cereus, listeria monocytogens, salmonella sp., fecal coliform, total coliform, yeast and mold and pseudomonas sp.
SUSPECTED CANCER AGENT: Ingredients within this product are not found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are not considered to be, nor suspected to be, cancer-causing agents by these agencies.
IRRITANCY OF PRODUCT: No specific data available
SENSITIZATION TO THE PRODUCT: This product is not a skin and respiratory sensitizer
REPRODUCTIVE TOXICITY INFORMATION: No information concerning the effects of this product and its components on the human reproductive system.

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.
TOXICITY DATA:
No data available for this product.
ENVIRONMENTAL STABILITY: This material will degrade in the environment.
CHEMICAL EFFECT ON PLANTS, ANIMALS AND AQUATIC LIFE: This product is not expected to cause significant harm to plants, animals or aquatic life.
WATER ENDANGERMENT CLASS: Water endangering in accordance with EU Guideline 91/155-EWG – Not Determined.
SPECIFIC AVAILABLE COMPONENT INFORMATION: No additional data available at this time.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan. To permanently inactivate microorganisms and reduce odors, mix 100 parts SDC-9 with 1 part bleach.
EU Waste Code: Not determined

14. TRANSPORTATION INFORMATION

US DOT, IATA, IMO, ADR:

U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS: This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

PROPER SHIPPING NAME:	Non-Regulated Material
HAZARD CLASS NUMBER and DESCRIPTION:	None
UN IDENTIFICATION NUMBER:	None
PACKING GROUP:	NA
DOT LABEL(S) REQUIRED:	None

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER: None
RQ QUANTITY: None
MARINE POLLUTANT: The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA): This product is not considered as dangerous goods.

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is not considered as dangerous goods.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): This product is not considered by the United Nations Economic Commission for Europe to be dangerous goods.

15. REGULATORY INFORMATION

UNITED STATES REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act as follows: None
U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.
U.S. CERCLA REPORTABLE QUANTITY (RQ): None
U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory or are exempted from listing.
OTHER U.S. FEDERAL REGULATIONS: None
CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): Ingredients within this product are not on the Proposition 65 Lists.

CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: The components of this product are on the DSL Inventory, or are exempted from listing.
OTHER CANADIAN REGULATIONS: Not applicable.
CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.
CANADIAN WHMIS CLASSIFICATION and SYMBOLS: Complies with WHMIS 2015

EUROPEAN ECONOMIC COMMUNITY INFORMATION:

This product does not meet the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.
See Section 2 for Details

AUSTRALIAN INFORMATION FOR PRODUCT: The components of this product are listed on the International Chemical Inventory list.

JAPANESE INFORMATION FOR PRODUCT:

JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS: The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

JAPANESE ENCS INVENTORY: The components of this product are on the ENCS Inventory as indicated in the section on International Chemical Inventories, below.

POISONOUS AND DELETERIOUS SUBSTANCES CONTROL LAW: No component of this product is a listed Specified Poisonous Substance under the Poisonous and Deleterious Substances Control Law.

INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:
Asia-Pac: Listed or Exempt from listing
Australian Inventory of Chemical Substances (AICS): Listed or Exempt from listing
Korean Existing Chemicals List (ECL): Listed or Exempt from listing
Japanese Existing National Inventory of Chemical Substances (ENCS): Listed or Exempt from listing
Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed or Exempt from listing
Swiss Giftliste List of Toxic Substances: Listed or Exempt from listing
U.S. TSCA: Listed

16. OTHER INFORMATION

ABBREVIATIONS AND ACRONYMS:

EPA: United States Environmental Protection Agency
ARD: European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)

PREPARED BY: Chris Eigbrett – (**MSDS to GHS Compliance)**
DATE OF PRINTING: April 22, 2016

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. Remediation and Natural Attenuation Services Inc. assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, Remediation and Natural Attenuation Services Inc. assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed.

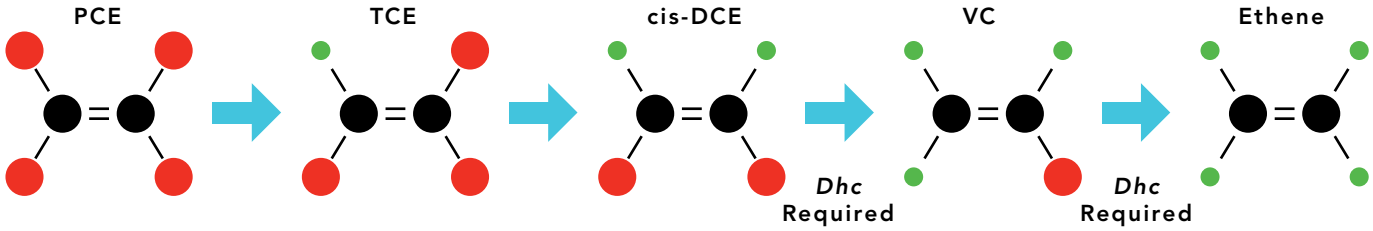
END OF SDS SHEET

RNAS REMEDIATION PRODUCTS
6712 West River Road, Brooklyn Center, MN 55430
(763) 585.6191 www.RNASinc.com

SDC-9

Bioaugmentation Culture for Groundwater Remediation

SDC-9™ is a field proven, highly effective consortium of microorganisms for in situ bioremediation of chlorinated solvents. SDC-9 contains multiple strains of *Dehalococcoides mccartyi* (*Dhc*), the only species known to completely biodegrade PCE and TCE to non-toxic ethene. For sites where *Dhc* are absent or present at low concentrations bioaugmentation provides the necessary bacteria for complete dechlorination. Even when *Dhc* is present bioaugmentation can provide substantial benefits by increasing dechlorination rates, using electron donor more efficiently and reaching site closure sooner.



Benefits - Higher Dechlorination Rates

SDC-9 contains a natural consortium of bacteria that includes not only dechlorinating microbes but other beneficial bacteria that support *Dhc* growth by supplying required substrates and growth factors. "*Dhc* in mixed cultures exhibit shorter lag times following transfers, grow faster and exhibit higher dechlorination rates than pure *Dhc* cultures" (Bioaugmentation for Groundwater Remediation, 2013).

Benefits - Low pH Tolerant

SDC-9 continues to perform at pH levels as low as 5.5 (Vainberg and Steffan, 2014), although pH levels above 6.0 are recommended for more effective dechlorination.

Application

SDC-9 is commonly injected between rounds of anaerobic water and electron donor, which minimizes exposure to oxygen while mixing SDC-9 throughout the treatment area. Recommended dosing for SDC-9 is $1x10^7$ *Dhc* cells per liter in target zones (Lu et al., 2006).

Contaminants Treated by SDC-9:

Tetrachloroethene (PCE)
Trichloroethene (TCE)
cis-Dichloroethene (cDCE)
trans-Dichloroethene (tDCE)
1,1-Dichloroethene (DCE)
Vinyl Chloride (VC)
Freon 11
Freon 113
1,1,2,2-Tetrachloroethane (TeCA)
1,1,1-Trichloroethane (TCA)
1,1-Dichloroethane (DCA)
Carbon Tetrachloride (CT)
Chloroform (CF)
Dichloromethane (DCM)
Hydrochlorofluorocarbon (HCFC)
Tetrafluoroethene (TFE)

SDC-9 Contains:

Dehalococcoides mccartyi
Dehalogenimonas spp.
Desulfovibrio spp.
Desulfitobacterium spp.
Methanogenic bacteria
Sulfate Reducing bacteria

RNAS REMEDIATION PRODUCTS
6712 West River Road, Brooklyn Center, MN 55430
(763) 585.6191 www.RNASinc.com

SDC-9

Bioaugmentation Culture for Groundwater Remediation

Product Characteristics

Parameter	Unit	Specification
Cell Count	*Dhc* Cells/Liter	>1 x 10^{11}
Density	g/cm^3	0.9 - 1.1
pH	Standard Units	6.0 - 8.0
Appearance		Light Greenish, Murky Liquid
Odor		Musty

Packaging

SDC-9 is shipped in 19L stainless steel kegs. Kegs are pressurized with Nitrogen and stored in chilled coolers. Calibrated delivery system (1, 2 or 3.5 L) and fittings are provided. Users will need to provide an inert gas cylinder (Nitrogen or Argon) and regulator.

Storage

Keep containers tightly closed in a cool, well-ventilated area. SDC-9 may be stored for up to 3 weeks at temperature 2-4° C. Avoid freezing conditions. Avoid exposure to oxygen.

Safety

SDC-9 is a non-toxic, non-pathogenic, non-genetically modified, naturally occurring consortium of microbes. No known hazards are associated with exposure to this product. Nevertheless, appropriate Personal Protective Equipment is recommended when handling this product.

APPENDIX D

DELEGATION OF SIGNATURE AUTHORITY - WPDES GENERAL PERMIT DISCHARGE

Note: In order to fill and save this form electronically, it must be opened using Adobe Reader or Acrobat software. Save a copy of the file, open Adobe Reader, select File > Open and browse for the file you saved.

State of Wisconsin
Department of Natural Resources
dnr.wi.gov

Delegation of Signature Authority (DSA) WPDES General Permit Discharge

Form 3400-220 (R 04/23)

Notice: This Delegation of Signature Authority (DSA) form is authorized by s. NR 205.07(1)(g), Wis. Adm. Code, to delegate signature authority for a Wisconsin Pollutant Discharge Elimination System (WPDES) submittal, which may include a Notice of Intent (NOI or request for coverage), Notice of Termination (NOT), or other permit compliance document. To delegate signature authority, submittal of this completed DSA form to the Department of Natural Resources (Department) is mandatory for any permittee, landowner, responsible executive or municipal officer, manager, partner, or proprietor as specified in s. 283.37(3), Wis. Stats., to be regulated under a WPDES general permit.

Submission of this DSA constitutes notice that the permittee, landowner, responsible executive or municipal officer, manager, partner, or proprietor identified in Section II has authorized the person identified in Section III as a duly authorized representative to sign the WPDES submittal for the landowner, responsible executive or municipal officer, manager, partner, or proprietor. The completed DSA form shall be submitted as an attachment to the WPDES submittal or when there are any changes to the authorized representative with the permitted facility or activity.

Note: Submission of a DSA form is not required when the permittee, landowner, responsible executive or municipal officer, manager, partner, or proprietor signs the WPDES submittal.

Please read all instructions before completing this form, and type or clearly print the information. All necessary information must be provided on this form. Submission of this DSA constitutes notice that the permittee identified in Section II has authorized the person identified in Section III to sign the WPDES submittal on behalf of the permittee. Failure to complete this form correctly will result in the Department's rejection of the WPDES submittal. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Public Records law (ss. 19.31 - 19.39, Wis. Stats.).

Section I: WPDES Submittal Information

WPDES Permit Type:

- ◯ Concentrated Animal Feeding Operation (CAFO) General Permit No. WI-0063274
- ◯ Concentrated Animal Feeding Operation (CAFO) Individual Permit No. _____
- ◯ Storm Water Construction Site General Permit No. WI-S067831
- ◯ Storm Water Industrial General Permit No. _____
- ◯ Storm Water Municipal (MS4) Permit No. _____
- ◯ Storm Water Transportation Construction Activities General Permit No. WI-S066796
- ◯ Storm Water Transportation TS4 General Permit No. WI-S066800
- ◉ Wastewater General Permit No. WI-00046566-07

WPDES Submittal Type:

- ◯ MS4 or TS4 Annual Report or other permit compliance document
- ◯ Notice of Intent (NOI)/Permit Application
- ◯ Notice of Termination (NOT)
- ◯ Wastewater Electronic Discharge Monitoring Report (eDMR)
- ◯ CAFO Plans and Specifications
- ◯ Nutrient Management Plans
- ◯ Other: _____

Section II: WPDES Permittee Responsible for Pollutant Discharge

WPDES Permittee (first and last name, title)	Individual, Company, Municipality, Organization, or Entity Name		
Robert Pitz	Gardner Manufacturing Company, Inc.		
Mailing Address	**City**	**State**	**ZIP Code**
1201 West lake Street	Horicon	WI	53032
Email Address	**Phone Number (area code)**	**Alternative Phone Number**	
BobPitz@gardnermfg.com	(920) 485-4303	(800) 558-8890	

Section III: Delegated Signatory Information

Signatory Name (first and last name, title)	Individual, Company, Municipality, Organization, or Entity Name		
Bernard Fenelon	GZA GeoEnvironmental, Inc.		
Mailing Address	**City**	**State**	**ZIP Code**
17975 West Sarah lane Suite 100	Brookfield	WI	53045
Email Address	**Phone Number (area code)**	**Alternative Phone Number**	
bernard.fenelon@gza.com	(262) 424-2045	(262) 754-2567	

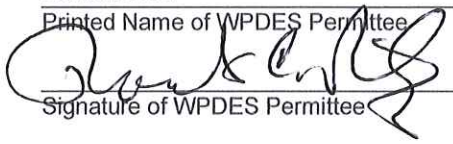
Section IV: Certification & Signature

This is to notify the Department that as the landowner, responsible executive or municipal officer, manager, partner, or proprietor, I delegate signature authority to the person identified in Section III for signature of the WPDES submittal under a WPDES general permit. I authorize the person identified in Section III pursuant to the delegation of signature authority process set forth in s. NR 205.07(1)(g), Wis. Adm. Code, as a duly authorized representative.

As required by s. NR 205.07(1)(g)2, Wis. Adm. Code, this form should be submitted to the Department with the WPDES submittal. I understand that if there are any changes to this authorization, a new complete DSA form shall be submitted to the Department. I understand that the landowner, responsible executive or municipal officer, manager, partner, or proprietor regulated under a WPDES general permit is the permittee, and as such, I am responsible for compliance with the WPDES General Permit. Further, I authorize the person identified in Section II to create a Wisconsin Management System (WAMS) ID and electronically sign an electronic WPDES submittal on my behalf and submit all required information and attachments, if electronic application or reporting is available.

For this DSA form, the WPDES submittal and all required information and attachments, I certify under penalty of law that these documents and all attachments were prepared under my direction or supervision with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NOTE: This form must be signed by a permittee, landowner, responsible executive or municipal officer, manager, partner, or proprietor as described in the instructions of page 3. Failure to properly complete and sign this form will result in its rejection.

Robert Pitz	General Manager
Printed Name of WPDES Permittee	Title
	11/29/2023.
Signature of WPDES Permittee	Date Signed

Instructions

Section I: WPDES Submittal Information

Provide the permit type, permit number, and submittal type that the delegated signatory is being granted delegation of signature authority.

Section II: WPDES Permittee Responsible for Pollutant Discharge

A permittee is defined as a person holding fee title, an easement or interest in the property or responsible executive or municipal officer, manager, partner, or proprietor with authority that allows the person to undertake permitted activities on the property. Please provide the legal name of the person and title that is a landowner, responsible executive or municipal officer, manager, partner, or proprietor regulated under the specified WPDES general permit. Please also provide the legal name of the individual, company, organization, or other entity that is permitted under the specified WPDES general permit. The mailing address and phone number given should be for the landowner, responsible executive or municipal officer, manager, partner, or proprietor.

Section III: Delegated Signatory Information

Provide the legal name of the person, company, organization, or any other entity and the legal name of the person and/or position who is the delegated signatory to be a duly authorized representative. This person or position must be responsible for the overall operation of the facility or activity regulated by the WPDES general permit. The mailing address and phone number given should be for the person who is delegated signature authority as a duly authorized representative.

Section IV: Certification & Signature

State regulations (s. 283.37, Wis. Stats) provide for severe penalties for submitting false information on this DSA form. State regulations require this form to be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president or by the principal executive officer's authorized representative responsible for the overall operation of the point source for which a permit is sought.
2. For a limited liability company, by a member or manager.
3. For a partnership, by a general partner.
4. For a sole proprietorship, by the proprietor.
5. For a unit of government, by a principal executive officer, or ranking elected official.

Sign the form, print or type the name of the individual signing the DSA form and the date of signature.

How to Submit

The completed DSA form must be submitted as an attachment with the WPDES document submitted electronically with the online WPDES submittal identified in Section I.

CAFO: The online water permit application and report system can be accessed at the Department's website at: dnr.wi.gov/permits/water/ or contact the regional CAFO specialist at: https://dnr.wi.gov/topic/agbusiness/cafo/contacts.html

Storm water: The online water permit application and report system can be accessed at the Department's website at: dnr.wi.gov/permits/water/.

Wastewater: The wastewater online system can be accessed at the Department's website at: dnr.wi.gov/topic/wastewater/GeneralPermits.html.

Paper mail copies can be sent to the Wisconsin Department of Natural Resources office associated with the county of the facility site or discharge location as listed on page 4. Be sure to note the appropriate water program.

Northern Region (NOR)			**Storm Water Permits:**	**Wastewater Permits:**
Ashland	Forest	Price	WDNR Eau Claire Service Center 1300 W Clairemont Ave Eau Claire, WI 54701 715-839-3700	WDNR NOR Headquarters Attn: Wastewater GP Program 810 W Maple St Spooner, WI 54801 715-635-2101
Barron	Iron	Rusk		
Bayfield	Langlade	Sawyer		
Burnett	Lincoln	Taylor		
Douglas	Oneida	Vilas		
Florence	Polk	Washburn		
Northeast Region (NER)			**Storm Water Permits:**	**Wastewater Permits:**
Brown	Manitowoc	Outagamie	WDNR NER Headquarters Attn: Storm Water Program 2984 Shawano Ave Green Bay, WI 54313 920-662-5100	WDNR NER Headquarters Attn: Wastewater GP Program 2984 Shawano Ave Green Bay, WI 54313 920-662-5100
Calumet	Marinette	Shawano		
Door	Marquette	Waupaca		
Fond du Lac	Menominee	Waushara		
Green Lake	Oconto	Winnebago		
Kewaunee	Oneida Reservation			
West Central Region (WCR)			**Storm Water Permits:**	**Wastewater Permits:**
Adams	Jackson	Portage	WDNR Eau Claire Service Center 1300 W Clairemont Ave Eau Claire, WI 54701 715-839-3700	WDNR WCR Headquarters Attn: Wastewater GP Program 1300 W Clairemont Ave Eau Claire, WI 54701 715-839-3700
Buffalo	Juneau	St. Croix		
Chippewa	La Crosse	Trempealeau		
Clark	Marathon	Vernon		
Crawford	Monroe	Wood		
Dunn	Pepin			
Eau Claire	Pierce			
South Central Region (SCR)			**Storm Water Permits:**	**Wastewater Permits:**
Columbia	Green	Richland	WDNR SCR Headquarters Attn: Storm Water Program 3911 Fish Hatchery Rd Fitchburg, WI 53711 608-275-3266	WDNR SCR Headquarters Attn: Wastewater GP Program 3911 Fish Hatchery Rd Fitchburg, WI 53711 608-275-3266
Dane	Iowa	Rock		
Dodge	Jefferson	Sauk		
Grant	LaFayette			
Southeast Region (SER)			**Storm Water Permits:**	**Wastewater Permits:**
Kenosha	Sheboygan		WDNR SER Headquarters Attn: Wastewater GP Program 1027 W St. Paul Ave Milwaukee, WI 53233 262-822-8227	WDNR SER Headquarters Attn: Wastewater GP Program 1027 W St. Paul Ave Milwaukee, WI 53233 414-263-8500
Milwaukee	Walworth			
Ozaukee	Washington			
Racine	Waukesha			