FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL

QUARTERLY GROUNDWATER MONITORING REPORT

FORMER ONE HOUR MARTINIZING
1923 MAIN ST
GREEN BAY, WI

BRRTS # 02-05-217276

Prepared for:
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay, WI 54313

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1.0 INTRODUCTION AND BACKGROUND

1.1 Site Description and History

The former One Hour Martinizing (OHM) Main Street facility was located on the north side of Main Street at 1923 Main Street. The property was irregularly shaped and consisted of approximately 1.2 acres. The former trapezoidal building was slab on grade in a vacant small strip mall that formerly contained four stores with various businesses.

The property history is not fully known, but based on information from previous reports; a structure was built in approximately 1960, with expansions to the west in the mid 1960's to 1970's. The drycleaner was always present on the western end of the building, and operated from 1979 to 2008. The dry-cleaning machine was present approximately 20 feet east of the west wall along the eastern edge of the dry-cleaning store space. The former dry-cleaning operations utilized tetrachloroethene (PCE).

The dry-cleaning machine has been removed, the above-grade structures of the building were demolished by the owner in 2013, and the building concrete floor and footings remained intact until redevelopment of the property began in Spring-Summer 2016.

The property is currently irregularly shaped, consists of approximately 1.07 acres, owned by Floss Daily, LLC and has been redeveloped as Familia Dental with associated asphalt, concrete, a 5,000-square foot building and landscaped areas (Appendix A).

1.2 Project Background

Soil samples were obtained in 1999, and a release to the environment was reported to the Wisconsin Department of Natural Resources (WDNR). Due to the presence of contamination, a site investigation was required to determine the degree and extent of contamination in the soil and groundwater.

The site investigation was completed primarily by STS, Inc., Green Bay, WI, with borings and wells installed from 1999 to 2001. Groundwater sampling occurred at the ten-well monitoring network through 2007, including off-site wells to the west and south. In October 2010, an additional round of groundwater samples and two soil borings were advanced to evaluate more recent conditions. The results were compiled in reports that have been previously submitted to the WDNR.

As part of the remedial action that was won by competitive bid by Alpha Terra Science (now Fehr-Graham), soil borings and an additional round of groundwater samples were obtained in December 2012.

Historical Soil Contamination

In an effort to delineate the historic soil contamination on the property, Fehr-Graham collected 27 soil samples from 12 soil borings (B10 to B21) located within and outside the former building in December 2012. Groundwater samples from the ten (10) site groundwater monitoring wells (MW-1 to MW-9 and PZ-1) were also obtained in December 2012.

Soil chemistry results indicated relatively low concentrations of PCE were present in soil as there were no PCE concentrations that exceeded the non-industrial direct contact Residual Contaminant Level (RCL). However, the PCE in soil presented a risk for leaching to

groundwater at many locations on the property. Per WDNR, the generic concentration of PCE that can be present in soil and leach contaminants to the groundwater at levels above the NR 140 standards is only 4.5 micrograms per kilogram (ug/kg), which is the groundwater pathway soil RCL.

The most contaminated soil sample was obtained from boring HA1, located under the floor of the former building immediately west of the former dry-cleaning machine. In 1999, the soil at this location contained approximately 4,100 ug/kg PCE in soil from depths of approximately 1.5 to 2.5 feet below grade. In 2010, follow up soil samples were obtained from this location (HA-1R), with a detection of approximately 410 ug/kg PCE in soil from a depth of 3.5 to 4 feet below grade. The depth to water at this location was between approximately 3 and 5 feet below grade.

The highest detection of PCE in soil outside the former building was from boring B16, located just to the east of MW-3, which had the most contaminated groundwater levels at the site. The soil at this location contained approximately 2,320 ug/kg PCE in soil from depths of approximately 4 to 4.5 feet below grade. Soil at MW-3 contained 122 ug/kg PCE at a depth of 3 to 5 feet, so the extent of elevated PCE was not widespread. The depth to water at this location was approximately 5 feet below grade.

The soil chemistry results are attached on Table A.2 and Figure 1.

Historical Groundwater Contamination

Groundwater monitoring has been ongoing since June 1999 / January 2000 from a network of nine (9) water table wells and a piezometer. In April 2015, a network of groundwater monitoring wells were installed property wide by General Engineering Company (GEC) as part of a separate petroleum release site investigation. Fehr Graham has been sampling two of these wells (GEC TW-4 and GEC TW-5) since September 2015 in order to aid in contaminant plume delineation (Table A.1).

Remedial Excavation Activities

The excavation activities took place on August 5-6, 2015. Per the WDNR approved Scope of Work, the excavation extended to a depth of 6 feet below grade, which was slightly below the water table. A total of 570.86 tons of PCE impacted soil was removed from the site, with direct loading and hauling to Advanced Disposal's Hickory Meadows subtitle D landfill in Hilbert, Wisconsin.

Soil chemistry results from the August 2015 remedial excavation have been summarized on Table A.2 and Figure 1. As expected, a majority of the excavation sidewall sample results indicated the soil contained elevated PCE concentrations above the groundwater pathway RCLs at all four excavation areas due to the approximate water table interface fluctuating between two and seven feet below grade since 1999. These results may represent saturated soil that is reflective of groundwater contamination and not residual soil contamination. The remaining confirmation samples are substantially below the PCE non-industrial direct contact (0-4') standard of 30,700 µg/kg. The remaining soil contamination present at the site after remedial excavation activities are summarized on Table A.3 and Figure 2.

2.0 GEOLOGIC CONDITIONS

2.1 Geology

The Property is located approximately 0.90-miles east of the East River and approximately 2.7-miles south of Lake Michigan. Underlying the surface fill soils at the site is the Glenmore Member of the Kewaunee Formation, which consists of dull reddish-brown sand, silt, and clay. Till of this member was deposited by glacial ice of the Green Bay Lobe. Sand and gravel associated with the till was fluvially deposited between about 12,500 and 14,000 years ago.[1] The combination of the Glenmore Member of the Kewaunee Formation and the other underlying unconsolidated sediments in the area are approximately 50-100-feet thick [2] and are bounded below by Ordovician Prairie du Chien Group bedrock, consisting primarily of dolomite with some sandstone and shale. [3]

2.1.1 Site-Specific Geological Characteristics

The description of the subsurface conditions provided herein was derived from on-site observations of soil samples during the December 2012 environmental investigation. Representative environmental soil samples were obtained from the soil borings and visually classified using the Unified Soil Classification System (USCS) as a guideline.

The borehole log results (Appendix B) indicate that the site has 2–8-feet of fill material consisting of sand, silt, clayey sand, silty clay, sandy silt, clayey silt and silty gravel. Beneath the fill material, the site soils consisted of native silt, silty clay, sandy silt and clayey silt. Bedrock was not encountered in any of the borings to the maximum depth explored (8-feet below grade).

The above subsurface descriptions are generalized in nature to highlight the major subsurface stratification features and material characteristics. The boring logs included in Appendix B should be reviewed for specific information at individual boring locations. These records include soil descriptions, stratifications, recovery percentage, PID readings and water levels. The stratifications shown on the boring logs represent the conditions only at the actual boring locations. Variations may occur and should be expected between boring locations. The stratifications represent the approximate boundary between subsurface materials and the actual transition may be gradual.

2.2 Hydraulic Gradient

The depths to water measurements and groundwater elevations from this sampling event are summarized in Table A.6. The depth to groundwater on the nearly flat-lying Property ranged between 4.90 and 6.52 feet below grade. The direction of groundwater flow is to the northwest, toward the East River (Figure 3).

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[1] Mickelson, D.M., Clayton, Lee, Baker, R.W., Mode, W.N., and Schneider, A.F., 1984, Pleistocene stratigraphic units of Wisconsin: Wisconsin Geological and Natural History Survey Miscellaneous Paper, no. 84-1, 15 p.
[2] Schmidt, R.R., 1987, Groundwater Contamination Susceptibility Map and Evaluation: Wisconsin Department of Natural Resources. Wisconsin's Groundwater Management Plan Report 5, PUBL-WR-177-87, 27p.
[3] Mudrey, M.G., Brown, B.A., and Greenberg, J.K., 1982, Bedrock Geologic Map of Wisconsin, WGNHS

The highest hydraulic head on June 21, 2017 was observed at GEC TW-5 (597.27-feet amsl) and the lowest hydraulic head was observed at MW-9 (593.64-feet amsl). The hydraulic gradient is a vector gradient between two or more hydraulic head measurements over the length of the flow path where:

$$i = \frac{dh}{dl} = \frac{h2 - h1}{length}$$

i = hydraulic gradient GEC TW-5 to MW-9
dh = difference between two hydraulic heads
dl = flow path length between the two wells

$$i = \frac{597.27\ feet - 593.64\ feet}{105\ feet} = 0.03\ feet/foot$$

2.3 Groundwater Velocity Calculations

An accurate estimate of groundwater velocity can be calculated using Darcy's Law. Darcy's law is an equation that describes groundwater movement in aquifers based on three variables: horizontal hydraulic conductivity, horizontal hydraulic gradient and effective porosity. The equation for calculating ground water velocity is:

$$V = \frac{Ki}{n}$$

V = average linear ground-water flow velocity
K = average hydraulic conductivity
i = dh/dl = hydraulic gradient GEC TW-5 to MW-9 (0.03 feet/foot)
n = porosity

Site specific hydraulic conductivity tests were not performed, but the native formation where the groundwater column resides mainly consists of silt, silty clay, sandy silt and clayey silt. These soils most likely have low hydraulic conductivities, as all wells completed in the native materials could be purged dry using a bailer. These native deposits are assumed to have a hydraulic conductivity range of 10^{-6} to 10^{-4} cm/sec[4]. To provide an estimate, a mean value of 10^{-5} was used for calculation purposes, which is equivalent to 0.00001 cm/sec, or approximately 0.03 feet per day.

According to Morris and Johnson (1967)[5], the silt, silty clay, sandy silt and clayey silt, which is the primary formation in which the water column resides, has a mean porosity percentage of 45%.

$$V = \frac{(0.03\frac{ft}{day})(0.03\frac{ft}{ft})}{0.45}$$

V = 0.002 feet/day = 0.73 feet/year

[4] Fetter, C. W. (1994). Applied Hydrogeology, 3rd ed. Upper Saddle River, NJ: Prentice Hall, Inc.
[5] Morris, D.A. and A.I. Johnson, 1967, Summary of hydrologic and physical properties of rock and soil materials as analyzed by the Hydrologic Laboratory of the U.S. Geological Survey, U.S. Geological Survey Water-Supply Paper 1839-D, 42p.

The estimated groundwater velocity at the site is considered low as it is ≤1-foot per day.[6]

The groundwater level at the site, as well as perched water levels and volumes, will likely fluctuate throughout the year based on variations in rainfall, snowmelt, evaporation, surface run-off and other related hydrogeological factors. The water level measurements presented in this report are the levels that were measured at the time of Fehr Graham's field activities.

[6]Alley, W.M., Reilly, T.E., and Franke, O.L., 1999, Sustainability of Ground-Water Resources, U.S. Geological Survey Circular 1186, 79p.

3.0 GROUNDWATER SAMPLING AND RESULTS

3.1 Groundwater Chemistry Results

Fehr Graham staff has completed post-remedial excavation quarterly groundwater sampling within the groundwater monitoring well network for VOCs on six occasions (November 2015, June 2016, September 2016, December 2016, March 2017 and June 2017). In addition to the existing site groundwater monitoring wells, two additional samples were taken from temporary wells that were installed by GEC at the east side of the property as part of an independent petroleum release site investigation. Sampling was performed using standard sample procedures, with individually dedicated bailers or tubing with peristaltic pump for sampling.

Public health groundwater quality standards are established in WAC Chapter NR 140. Two water quality standards, the Enforcement Standard (ES) and the Preventative Action Limit (PAL) have been established for substances of public health and welfare concern. The ES represents the concentration that requires the implementation of response measures, which typically consist of remedial action or additional investigations. The PAL represents a lower concentration, which typically requires an assessment of the potential for concentrations to exceed the enforcement standards and implementation of responses to prevent an exceedance of the enforcement standards.

Groundwater samples were obtained from groundwater monitoring wells MW-1, MW-2, SMW-3, MW-4 through MW-9, GEC TW-4, GEC TW-5 and piezometer PZ-1. The groundwater chemistry results indicated the following:

- PCE exceeds the ES in groundwater monitoring well MW-1 and SMW-3 and exceeds the PAL in groundwater monitoring wells MW-4 and MW-7.
- TCE exceeds the ES in groundwater monitoring well SMW-3 and exceeds the PAL in groundwater monitoring wells MW-7 and MW-9.
- Cis-1,2-dichloroethene (cis-1,2-DCE) exceeds the ES in groundwater monitoring well SMW-3.

The PAL exceedance for PCE in MW-4 and the PAL exceedance for TCE in MW-7 and MW-9 are extremely low and falls between the laboratory limit of detection (LOD) and limit of quantification (LOQ). Concentrations this low relative to the laboratory analytical sensitivities may not always be reproducible, meaning the quantity reported is an estimate of the concentration and is not considered to be substantial.

The analytical results are summarized on Table A.1 and shown on Figure 4. The laboratory report is included in Appendix C.

3.2 Geochemical Indicators

Natural attenuation depends upon both the contaminant's reactivity and the site's geologic and chemical characteristics. Assessment of the changes in a site's geochemical environment constitutes a secondary line of evidence. Geochemical parameters including temperature, dissolved oxygen, specific conductance (conductivity and electric conductance), pH, and oxidation/reduction potential were recorded during this sampling event to help in characterizing the groundwater quality at the site. Because other parameters listed below can affect the occurrence and the rate of natural biodegradation, they were collected to help

understand the status of the chlorinated solvent degradation in the aquifer at the former OHM site (Table A.7).

Temperature: Effective biodegradation can generally occur within a temperature range of 5˚C to 45˚C[7]. The optimal temperature for complete reductive dechlorination of PCE to ethene is between 10 and 30˚C[8]. Groundwater temperatures at the site ranged between 6.28 and 10.43˚C, indicating conditions are right for biological activity and reductive dechlorination.

pH: Most natural ground waters have pH of 4 to 9, with the optimal range for microbial activity in groundwater being 5 to 9[9]. Groundwater at the site had a pH range between 6.48 and 7.14 pH units, which means pH conditions are favorable for the degradation of contaminated groundwater.

Dissolved Oxygen (DO): Generally, a water sample is "oxic" (oxidized, aerobic or oxygen-bearing) if its dissolved oxygen exceeds 0.5 mg/L[10]. The DO measured in the site groundwater ranges from 0.48 to 5.92 mg/L, indicating that oxygen is present in the aquifer.

Oxidation-Reduction Potential (ORP): The potential values for ORP in groundwater can range from –400 to +800 millivolts (mV)[11]. Solutions with higher ORP are more likely to oxidize new species, and solutions with lower ORP are more likely to reduce them. More negative values (reductive dechlorination), preferably below -200 mVs, indicate reducing reactions are occurring (loss of electrons, more positive ion results). Oxidizing reactions or aerobic oxidation (gain of electrons, more negative ion results) have a positive ORP. Positive readings suggest that a reaction is more likely to occur spontaneously without the need of extra energy and is an indication that aerobic biodegradation may be occurring[12]. The ORP in the site groundwater ranges between 78.2 and 175.3 mV. The positive ORP values generally indicate the groundwater is oxidizing (aerobic).

DO/ORP: "DO and ORP readings need to be agreeable for oxidizing conditions. Readings should show a DO value less than 1mg/L when ORP is negative or a value greater than 1 when ORP is positive. As seen by the existing data, this relationship is true of the site groundwater, verifying that oxidizing (aerobic) conditions exist.

Specific Conductivity: This is a measure of water's ability to transmit electric current while indirectly measuring the amount of total dissolved solids in groundwater[13]. Typical ranges of values for groundwater field measurements is 50 to 50,000 microSiemens per centimeter (µS/cm)[14]. The site wells had values between 428 and 5,548 µS/cm.

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[7] Colorado Department of Labor and Employment – Division of Oil and Public Safety, 2002, Monitored Natural Attenuation in Groundwater Guidance Document. 40 p.
[8] Dennis, P., J. Roberts, and S. Dworatzek, 2011, How Low Can You Go? Bioremediation of Chlorinated Ethenes in Cold Groundwater Abstract and Platform Presentation: REMTEC, Chicago, Illinois. May 16-19.
[9] WDNR Guidance Memorandum, 1993, Natural Biodegradation as a Remedial Action Option-Interim Guidance. Wisconsin Release News 3(1).
[10] Barker, J.F., Patrick, G.C., & D. Mayor, 1987, Natural Attenuation of Aromatic Hydrocarbons in a Shallow Sand Aquifer. Ground Water Monitoring Review, pp. 64- 71.
[11] Wiedemeier, T.H., 1999, Natural Attenuation of Fuels and Chlorinated Solvents in the Subsurface. John Wiley & Sons. 617 pages.
[12] American Petroleum Institute, 1997, Methods for Measuring Indicators of Intrinsic Bioremediation: Guidance Manual. Publ. No. 4658.
[13] Freeze, R.A. and Cherry, J.A., 1979, Groundwater. Prentice-Hall, Englewood Cliffs, NJ.
[14] Sanders, L.L., 1998, A Manual of Field Hydrogeology: Prentice-Hall, NJ, 381p.

4.0 DISCUSSION

4.1 Groundwater Chemistry Results

MW-1

MW-1 is side gradient to the contaminant source and was above the ES for PCE groundwater contamination. The current PCE concentrations in MW-1 (11.5 µg) is significantly lower than that from the initial June 1999 results of 71.9 µg/L. Additionally, the vertical extent of PCE contamination has been defined based on groundwater chemistry results by the deeper piezometer PZ-1.

MW-3/SMW-3

At groundwater monitoring well MW-3/SMW-3 (replacement sump for MW-3), the PCE and TCE concentrations were much higher at the time of groundwater sampling in December 2012 compared to the initial sample results from June 1999:

- PCE - 2,600 µg/L in June 1999 compared to 13,700 µg/L in December 2012
- TCE – <35.3 µg/L in June 1999 compared to 1,500 µg/L in December 2012

These increasing groundwater concentrations from 1999 to 2012 indicated active source removal remediation was needed at this site. Remedial excavations took place in August 2015.

The first post-remediation groundwater sample taken from SMW-3 after the August 2015 remedial excavations revealed the PCE and TCE concentrations were much lower at the time of post-remediation groundwater sampling in November 2015 compared to the pre-remedial sample results from December 2012:

- PCE - 13,700 µg/L in December 2012 compared to 3,100 µg/L in November 2015
- TCE – 1,500 µg/L in December 2012 compared to 504 µg/L in November 2015

The June 2017 data revealed the PCE was much lower than during the November 2015 sample event while the TCE concentrations in June 2017 appear to stay relatively stable with the November 2015 data:

- PCE - 3,100 µg/L in November 2015 compared to 1,790 µg/L in June 2017
- TCE – 504 µg/L in November 2015 compared to 512 µg/L in June 2017

TCE concentrations were much lower at the time of post-remediation groundwater sampling in November 2015 compared to the pre-remedial sample results from December 2012.

Conversely, concentrations of cis-1,2-dichloroethene (cis-1,2-DCE), a compound indicating degradation of PCE, has been detected in SMW-3 above the NR140 ES in five out of the last seven post-excavation sampling events.

Degradation of PCE into its daughter products TCE and cis-1,2-DCE can be readily observed in SMW-3 since the August 2015 remedial excavations. The results are shown in Table A.1.

MW-4

MW-4 is located hydraulically side-gradient from the excavation area that contained the location of the dry-cleaning machine. Currently levels of PCE in MW-4 are present at levels above the PAL, but below the ES. However, the PCE concentration in MW-4 is extremely low and falls between the LOD and LOQ and is not considered to be substantial.

MW-7

MW-7 is located hydraulically down-gradient from the excavation area that contained the location of the dry-cleaning machine. Currently levels of PCE and TCE in MW-7 are present at levels above the PAL, but below the ES. The PCE concentrations are currently similar to those detected in December 2012 (prior to remedial excavations) but lower than those detected in November 2015 (after remedial excavations). This data likely demonstrates the disturbance and re-introduction of PCE from the soil into the groundwater pathway.
The TCE concentration in MW-7 is extremely low and falls between the LOD and LOQ and is not considered to be substantial.

MW-9

Monitoring well MW-9 is located further down-gradient from of areas containing high levels of PCE and TCE. Currently, the TCE concentration in MW-9 is extremely low and falls between the LOD and LOQ and is not considered to be substantial. Additionally, PCE was not detected in MW-9 above laboratory method detection limits. The horizontal extent of contamination has been defined in that PCE and TCE have never been observed above the ES in this farthest down-gradient well.

Remaining Wells

The remaining sampled wells did not indicate the presence of PCE or TCE.

Both up-gradient wells GES TW-4 and GES TW-5 have never showed concentrations of dry cleaning compounds or compounds associated with chlorinated solvent degradation.

Groundwater Contamination Delineation

The vertical and horizontal extent of contamination has been defined based on groundwater chemistry results from further downgradient (MW-6 and MW-9) and deeper wells (PZ-1). Table A.1 and Figure 4 illustrate the groundwater findings.

4.2 Geochemical Indicators

Under strictly anaerobic conditions, both TCE and PCE are subject to reductive dechlorination[15]. The geochemical data suggests that the groundwater at the site is oxygen-rich (aerobic). In the presence of oxygen, bacteria can use the carbon found in contaminants as their primary food source. However, PCE's four chlorine atoms surround and block its two carbon atoms so the bacteria in the groundwater are not able to use the carbon as their primary food source, suggesting reductive dechlorination is not occurring. However, the

[15] Kastner, M., 1991, Reductive Dechlorination of Tri- and Tetrachloroethylenes Depends on Transition from Aerobic to Anaerobic Conditions, APPLIED AND ENVIRONMENTAL MICROBIOLOGY, July 1991, p. 2039-2046.

presence of PCE degradation compounds TCE and cis-1,2-DCE above the ES in the most contaminated well (SMW-3) may suggest that PCE is being broken down by chemical processes such as hydrolysis, which is a non-biological chemical substitution reaction in which hydrogen ions in water react with organic molecules, replacing the chlorine atoms, and dechlorinating the PCE to the lesser chlorinated TCE, cis-1,2-DCE, Vinyl Chloride (VC) and eventually to non-toxic ethenes.[16]

4.3 Contaminant Trend Analysis

Semi-log plots of contaminant concentration vs. time and contaminant concentration vs. groundwater elevation were created for the groundwater monitoring wells where groundwater contamination currently exceeds the ES for PCE in MW-1 and PCE / TCE / cis-1,2-DCE in monitoring well MW-3/SMW-3. These plots were assessed to determine if contaminant trends are stable or decreasing. The logarithm (to the base 10) of the PCE, TCE and cis-1,2-DCE concentration data were plotted as a function of time (in days) in order to establish a trend[17]. This trend line is the semi-$\log_{10}$-transformed regression line. In addition, the groundwater elevation data has been superimposed on the concentration data. Charts of water level and chemistry results versus time are displayed in Appendix D, along with select trend analysis plots.

- At groundwater monitoring well MW-1, the PCE concentrations are decreasing over time.

- At groundwater monitoring well MW-3/SMW-3, the PCE concentrations are relatively stable over time. Additionally, PCE degradation compounds TCE and cis-1,2-DCE are increasing over time. The decreasing PCE trends of late and the increasing breakdown compounds are most likely due to the remedial excavations and natural attenuation processes at play. To note, the PCE, TCE and cis-1,2-DCE concentrations show decreasing trends since December 2012, which was the last sampling event prior to remedial excavations.

[16] Strauss, P., 1998, Natural Attenuation of Organic Compounds, Center for Public Environmental Oversight
[17] WDNR (2014). Guidance On Natural Attenuation For Petroleum Releases. PUB RR-614. 98 pages.

5.0 POTENTIAL CONTAMINANT RECEPTORS

Potential contaminant migration pathways of concern include direct contact with contaminated soil via ingestion, migration of contaminants to groundwater (which may be ingested by humans), vapor migration or inhalation of particulates, and the potential migration of contaminants to surface water.

5.1 Protection from Direct Contact with Soil Contaminants

Direct contact concerns usually apply to those soils located in the upper 4-feet of the ground surface that exceed WDNR non-industrial direct contact values. As shown on Figure 2, soil chemistry results indicated relatively low concentrations of PCE were present in soil as there were no PCE concentrations that exceeded the non-industrial direct contact Residual Contaminant Level (RCL). In addition, exposure to contaminated soil is not a significant migratory pathway of concern, as human contact to soil is limited by the site conditions, including the presence of asphalt, concrete, gravel and vegetative barriers across the property. Surface soils at the site are not impacted and do not pose a health concern unless redevelopment of the property brings people into direct contact with contamination.

5.2 Potential Groundwater Receptors

The main migratory pathway of concern is migration of contaminants to the groundwater. Utility corridors may intersect areas of soil or groundwater contamination and provide a preferential contaminant migration pathway. Sanitary and storm sewers, municipal water, and natural gas service the site via underground piping. The site has 2–8-feet of fill material consisting of sand, silt, clayey sand, silty clay, sandy silt, clayey silt and silty gravel underlain by low permeability of native silt, silty clay, sandy silt and clayey silt. Depending on the depth of the underground piping, the utility corridors may be more permeable than the surrounding native soil and could provide a preferential contaminant migration pathway. However, offsite migration is also inhibited by the low permeability native material as well. Based on soil and groundwater analytical data collected on site, the contaminant plumes do not appear to be migrating along utility corridors.

Additionally, there are no known private water supply wells functional within a ½-mile of the site. All homes and businesses in Green Bay are connected to the municipal supply. The City of Green Bay uses surface water from Lake Michigan to supply virtually all of their drinking water needs. Given the hydrogeological conditions at the property and the drinking water source for the area, the site does not appear to pose a risk to human health via groundwater ingestion.

5.3 Potential Surface Water Receptors

The site is located approximately 0.90-miles east of the East River. The East River discharges into the Fox River approximately 2.5-miles northeast of the site. The Fox River discharges into Lake Michigan approximately 1.3-miles north-northeast of the confluence of the East and Fox Rivers. Based on the analytical results and distance from the site, it is unlikely the site will adversely affect any surface water.

5.4 Potential Vapor Migration or Inhalation of Particulates

As part of redevelopment activities, a sub-slab vapor mitigation system was installed beneath the current “Familia Dentistry” building by American Radon Reduction. The system consists of

a piping network beneath the slab-on-grade "Familia Dentistry" building consisting of 3-inch diameter Schedule 30 PVC that is connected to a 4-inch diameter Schedule 40 4-inch riser pipe extending through the roof line that is connected to a "Radon Away" electric fan blower. The piping was embedded in approximately 10 to 12-inches of clear stone gravel. Two sub-slab vapor testing ports were installed by GEC personnel at the northeastern (VP-1) and southwestern (VP-2) portions of the building.

Subslab vapors beneath the floor of the current "Familia Dentistry" building was tested as part of the site investigation activities by GEC. Laboratory samples were obtained from two locations (VP-1 and VP-2) on September 2, 2016 and January 30, 2017.

The subslab vapor detections have been compared to standards for inhalation of air in a small commercial building, as shown on Table A.4. Standards were derived using the risk-based assessment methods of the United States Environmental Protection Agency (USEPA) and the modification of these values that has been determined by the WDNR and the Wisconsin Department of Health and Family Services (WDHFS).

Ethylbenzene in VP-1 exceeded May 2016 USEPA Regional Sub-Slab Vapor Risk Screening Levels during the September 2016 sampling event. However, as shown on Table A.4, subslab compounds during GEC's most recent sampling event (January 30, 2017) were are all below the comparative standards of the WDNR for subslab air. So currently, there are no elevated levels of VOCs in the subslab air beneath the building.

Additional subslab vapor information can be found in GEC's "VPLE Site Investigation Update" dated September 26, 2016. GEC submitted the most recent vapor analytical data to Ms. Kristin DuFresne of the WDNR on February 24, 2017.

6.0 CONCLUSIONS

Based on the site investigation and remediation activities, the following conclusions have been reached:

1. The site geology consists of 2–8-feet of fill material overlying native silt, silty clay, sandy silt and clayey silt, with a depth to groundwater between 4.90 and 6.52 feet below grade. The direction of groundwater flow is to the northwest, toward the East River.

2. The majority of chlorinated solvent contaminated soil has been removed from the property and properly disposed in August 2015.

3. There is no unsaturated soil above direct contact standard RCLs within upper 4-feet at the site.

4. Soil chemistry results indicate remaining soils at the site contain levels of the chlorinated solvent PCE at levels above the regulatory groundwater pathway RCL. The observed concentrations are present in soil within and beyond the limits of the excavations (Figure 2). The observed soil above groundwater RCLs do not pose a risk to human health or the environment due to the limited potential for direct contact exposure as the site is currently capped with asphalt, concrete, a building and landscaped surfaces (Appendix A).

5. Post-excavation groundwater samples of the existing groundwater monitoring well network illustrate that concentrations at the site have shown improvements since remedial excavation activities in August 2015. The vertical and horizontal extent of groundwater contamination exceeding the ES has been defined. Additionally, the most contaminated well (SMW-3) shows a relatively stable PCE trend with breakdown products TCE and cis-1,2-DCE showing increasing trends, indicating natural attenuation processes are taking place.

7.0 RECOMMENDATIONS

Based on the completed actions, Fehr Graham is requesting if case closure can be pursued at this time. If this request is granted, we anticipate that closure would include continuing obligations related to the soil and groundwater contamination and the site be placed on WDNR's GIS Registry.

The site is in the DERF program, and thus far, Fehr Graham and other subcontractors have invoiced approximately $107,144.18 in expenses on this project, with a total DERF approved remedial action budget of $128,013.80.

Future charges are anticipated to be fully covered by DERF up to $200,000. Charges above $200,000 are still eligible for DERF coverage, but an additional 8% deductible on charges above $200,000 are not eligible for reimbursement.

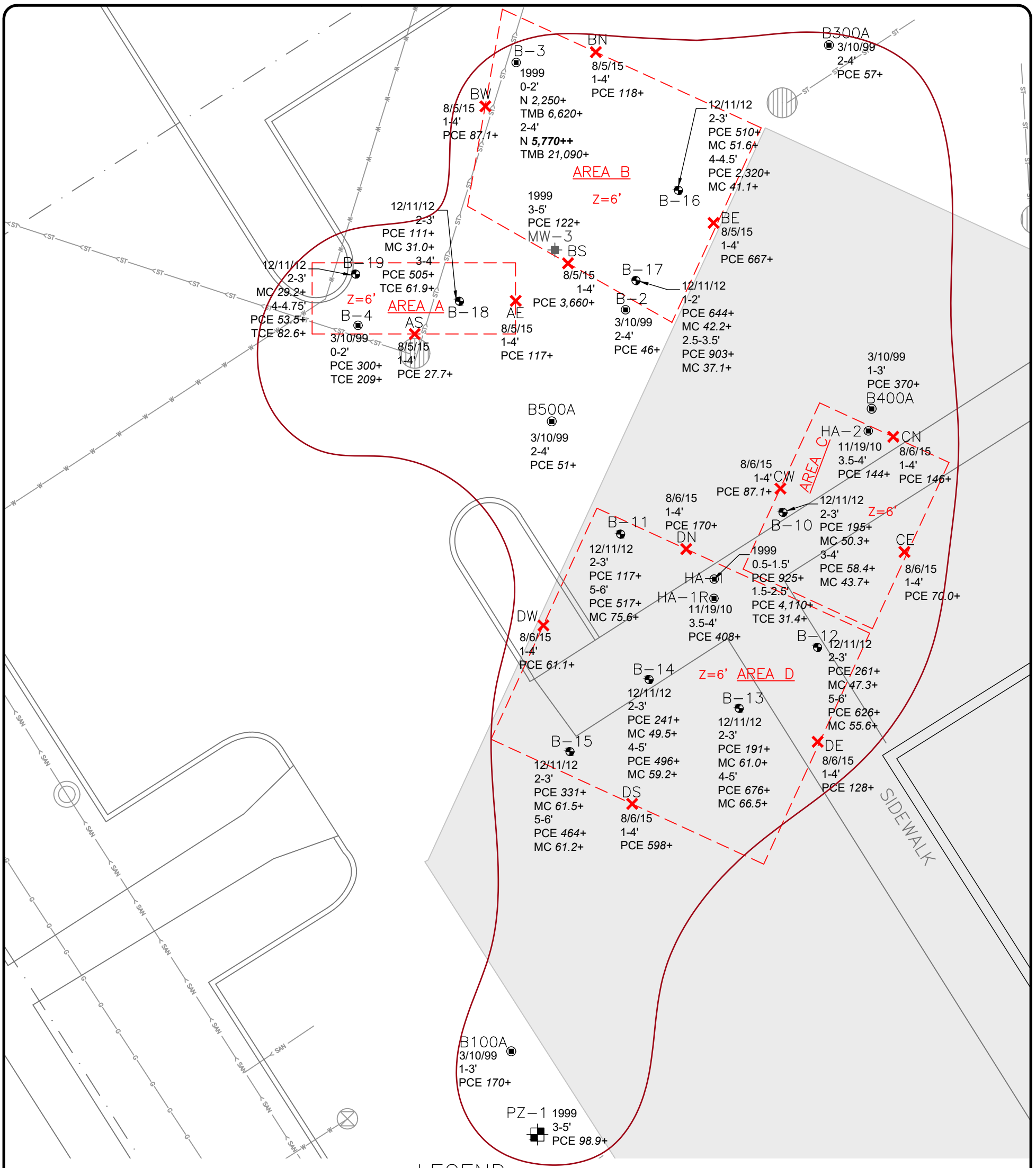
8.0 INTERPRETATION OF RESULTS

The field observations, measurements, and research reported herein are considered sufficient in detail and scope to form a reasonable basis for the work performed at this site. The assessment, conclusions, and recommendations presented herein are based upon the subjective evaluation of limited data. They may not represent all conditions at the site as they reflect the information gathered from specific locations. Fehr Graham warrants that the findings and conclusions contained herein have been promulgated in accordance with generally accepted environmental investigation methodology and only for the site described in this report.

The soil, groundwater and vapor investigation of this site has been developed to provide the client and WDNR with information regarding apparent indications of environmental concerns relating to the site. It is necessarily limited to the conditions observed and to the information available at the time of the work.

Due to the limited nature of the work, there is a possibility that there may exist conditions which could not be identified within the scope of the assessment or which were not apparent at the time of report preparation. It is also possible that the testing methods employed at the time of the report may later be superseded by other methods. The description, type, and composition of what are commonly referred to as "hazardous materials or conditions" can also change over time. Fehr Graham does not accept responsibility for changes in the state of the art, nor for changes in the scope of various lists of hazardous materials or conditions. Fehr Graham believes that the findings and conclusions provided in this report are reasonable.

Figures



LEGEND

- SOIL BORING (PREVIOUS CONSULTANTS)
- MONITORING WELL / PIEZOMETER (ABANDONED)
- SOIL BORING (ALPHA TERRA / FEHR GRAHAM)
- EXCAVATION SAMPLE
- GAS LINE
- STORM SEWER
- SANITARY SEWER
- WATERMAIN
- CATCH BASIN
- POWER POLE
- WATER VALVE

12/11/12	SAMPLE DATE
2-3'	SAMPLE DEPTH
PCE	TETRACHLOROETHENE (ug/kg)
TCE	TRICHLOROETHENE (ug/kg)
MC	METHYLENE CHLORIDE (ug/kg)
N	NAPHTHALENE (ug/kg)
TMB	TRIMETHYLBENZENES, TOTAL (ug/kg)
ITALICS+	EXCEEDS GROUNDWATER PATHWAY RCL
BOLD++	EXCEEDS NON-INDUSTRIAL DIRECT CONTACT (0-4') RCL

- ESTIMATED EXTENT OF SOIL EXCEEDING PCE GROUNDWATER PATHWAY RCL
- ONE HOUR MARTINIZING FOOTPRINT (DEMOLISHED)
- Z=6' REMEDIAL EXCAVATION OUTLINE & DEPTH

N W E S

10 0 10

GRAPHIC SCALE IN FEET

FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL
ILLINOIS IOWA WISCONSIN

ONE HOUR MARTINIZING
1923 MAIN STREET
GREEN BAY, WI 54302

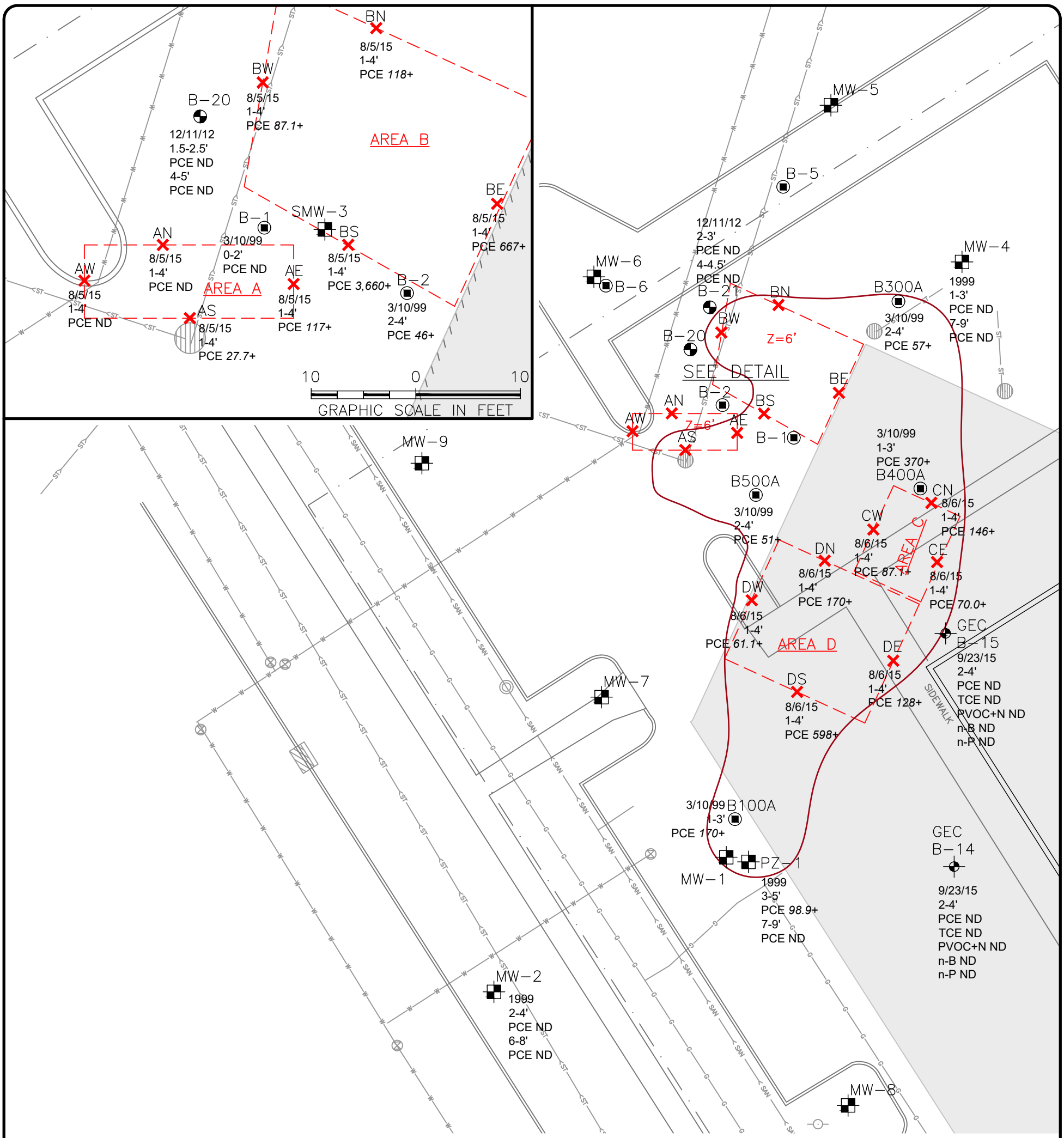
DRWN: MKH DATE:10/08/16 APPD: XXX

TITLE:
PRE-REMEDIAL SOIL CONTAMINATION

BRRTS: 02-05-217276
JOB NO.:14-1138
PLOT DATE: 5/16/17

FIGURE: 1

G:\C3D\14\14-1138 Rice\Exhibits\14-1138_BASE MAP.dwg, FIG 1_SI SOIL CHEM



LEGEND

- SOIL BORING (PREVIOUS CONSULTANTS)
- MONITORING WELL / PIEZOMETER (ABANDONED)
- SOIL BORING (ALPHA TERRA / FEHR GRAHAM)
- EXCAVATION SAMPLE
- GAS LINE
- STORM SEWER
- SANITARY SEWER
- WATERMAIN
- CATCH BASIN
- POWER POLE
- WATER VALVE

12/11/12	SAMPLE DATE
2-3'	SAMPLE DEPTH
PCE	TETRACHLOROETHENE (ug/kg)
TCE	TRICHLOROETHENE (ug/kg)
MC	METHYLENE CHLORIDE (ug/kg)
N	NAPHTHALENE (ug/kg)
TMB	TRIMETHYLBENZENES, TOTAL (ug/kg)
n-B	n-BUTYLBENZENE (ug/kg)
n-P	n-PROPYLBENZENE (ug/kg)
ITALICS+	EXCEEDS GROUNDWATER PATHWAY RCL
BOLD++	EXCEEDS NON-INDUSTRIAL DIRECT CONTACT (0-4') RCL
ND	NO DETECT

- ESTIMATED EXTENT OF SOIL EXCEEDING PCE GROUNDWATER PATHWAY RCL
- ONE HOUR MARTINIZING FOOTPRINT (DEMOLISHED)
- Z=6' REMEDIAL EXCAVATION OUTLINE & DEPTH

N W E S

20 0 20

GRAPHIC SCALE IN FEET

FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL
ILLINOIS IOWA WISCONSIN

ONE HOUR MARTINIZING
1923 MAIN STREET
GREEN BAY, WI 54302

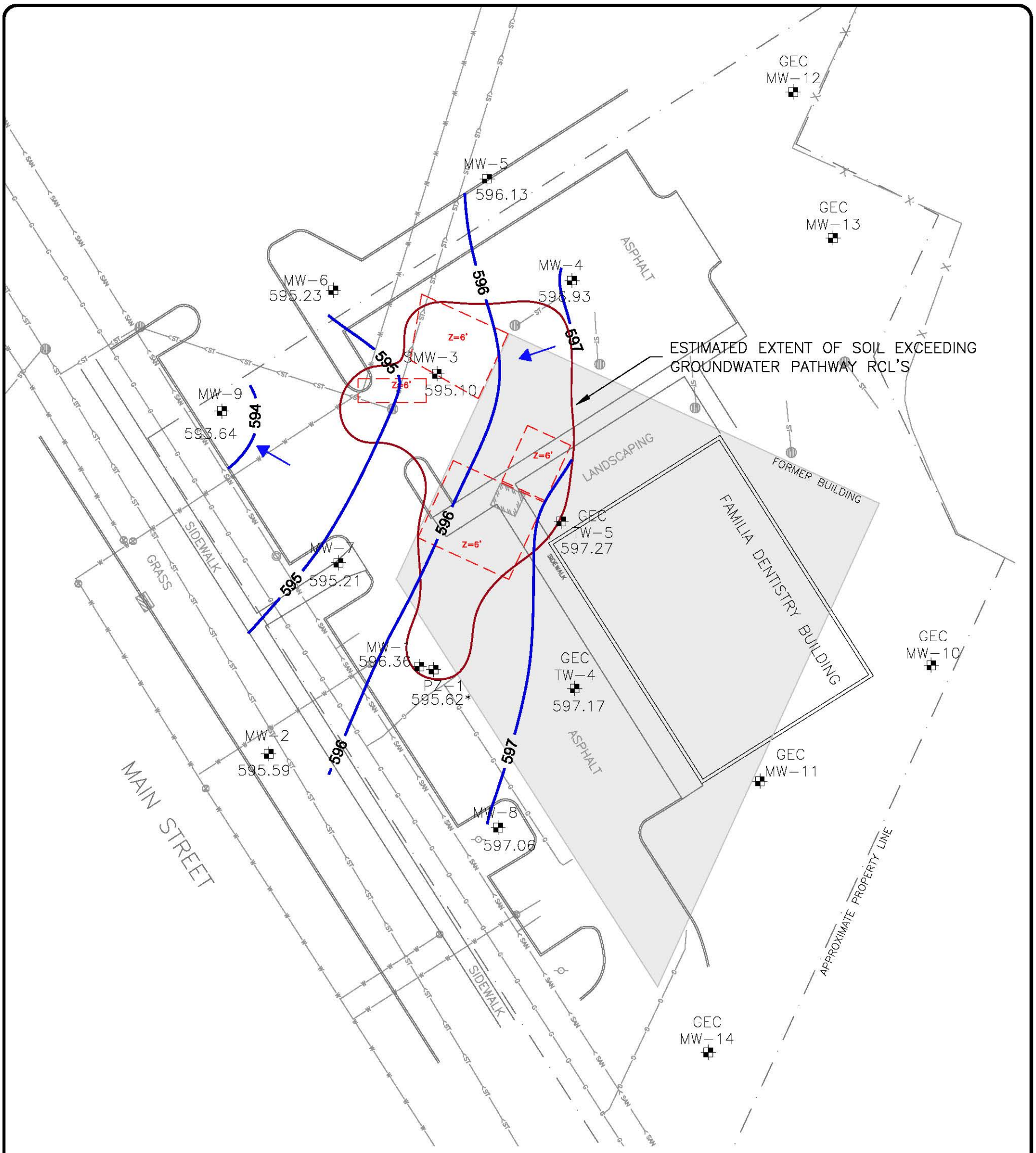
DRWN: MKH DATE:10/08/16 APPD: XXX

TITLE:
REMAINING SOIL CONTAMINATION

BRRTS: 02-05-217276
JOB NO.:14-1138
PLOT DATE: 5/16/17

FIGURE: 2

G:\C3D\14\14-1138 Rice\Exhibits\14-1138_BASE MAP.dwg, FIG 2_REMAINING SOIL CHEM



LEGEND

MW-14	MONITORING WELL
G	GAS LINE
ST	STORM SEWER
SAN	SANITARY SEWER
W	WATERMAIN
	CATCH BASIN
	POWER POLE
	WATER VALVE
596.29	GROUNDWATER ELEVATION (ft/msl)
594.87*	NOT USED IN CONTOUR
	GROUNDWATER FLOW DIRECTION
	JULY 2015 EXCAVATION
	ONE HOUR MARTINIZING BUILDING FOOTPRINT (DEMOLISHED)
	LOCATION OF FORMER DRY CLEANING MACHINE

N W E S

30 0 30

GRAPHIC SCALE IN FEET

G:\C3D\14\14-1138 Rice\Exhibits\14-1138_BASE MAP.dwg, GW ELEV 6.21.17

FEHR GRAHAM ENGINEERING & ENVIRONMENTAL ILLINOIS IOWA WISCONSIN

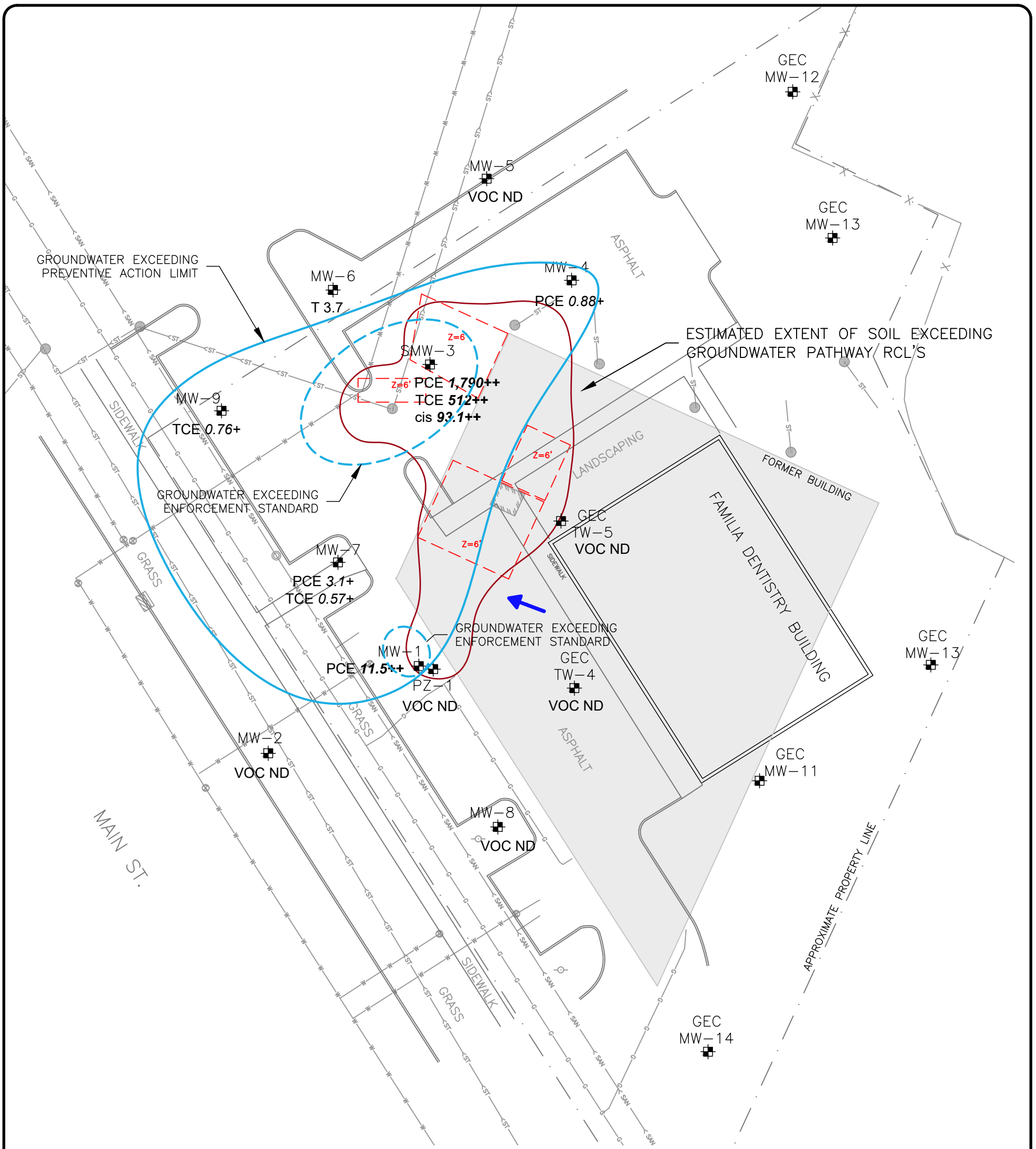
ONE HOUR MARTINIZING
1923 MAIN STREET
GREEN BAY, WI 54302

DRWN: MKH DATE: 10/06/16 APPD: XXX

TITLE: GROUNDWATER ELEVATION JUNE 21, 2017

BRRTS: 02-05-217276
JOB NO.: 14-1138
PLOT DATE: 7/6/17

FIGURE: 3



LEGEND

MW–14	MONITORING WELL
—G—	GAS LINE
—ST—	STORM SEWER
—SAN—	SANITARY SEWER
—W—	WATERMAIN
	CATCH BASIN
	POWER POLE
	WATER VALVE

PCE	TETRACHLOROETHENE (ug/L)
TCE	TRICHLOROETHEN (ug/L)
cis	cis-1,2-DICHLOROETHENE (ug/L)
VC	VINYL CHLORIDE (ug/L)
T	TOLUENE (ug/L)
VOC	VOLATILE ORGANIC COMPOUNDS
ITALICS+	EXCEEDS NR140 PREVENTIVE ACTION LIMIT
BOLD++	EXCEEDS NR140 ENFORCEMENT STANDARD
ND	NO DETECT

GROUNDWATER FLOW DIRECTION (JUNE 21, 2017)

REMEDIAL EXCAVATION AUGUST 2015

ONE HOUR MARTINIZING BUILDING FOOTPRINT (DEMOLISHED)

LOCATION OF FORMER DRY CLEANING MACHINE

N W E S

30 0 30

GRAPHIC SCALE IN FEET

G:\C3D\14\14–1138 Rice\Exhibits\14–1138_BASE MAP.dwg, GW CHEM 6.21.17

FEHR GRAHAM ENGINEERING & ENVIRONMENTAL ILLINOIS IOWA WISCONSIN

ONE HOUR MARTINIZING
1923 MAIN STREET
GREEN BAY, WI 54302

DRWN: MKH DATE: 10/06/16 APPD: XXX

TITLE: GROUNDWATER CHEMISTRY JUNE 21, 2017

BRRTS: 02–05–217276
JOB NO.: 14–1138
PLOT DATE: 6/27/17

FIGURE: 4

Tables

A.1
Groundwater Analytical Table - VOCs
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	HA-1	MW-1																
Date				6/8/99	6/17/99	1/3/00	4/22/04	7/22/04	10/28/04	1/25/05	10/31/06	4/30/07	10/15/10	10/15/10	12/12/12	11/15/15	4/20/16	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				NA	597.18	595.40	598.03	597.96	596.94	596.17	597.91	598.58	598.03	--	597.32	598.79	599.24	598.31	596.29	595.99	596.48	596.36
Notes														Dup			GEC					
Tetrachloroethene (PCE)	(ug/L)	*0.5*	**5**	*84.7*	*71.9*	*20*	*16*	*21*	*22*	*17*	*16*	*16*	*19.9*	*17*	*6.5*	*6.8*	*7.6*	*6.1*	*10.1*	*5.8*	*4.8*	*11.5*
Trichloroethene (TCE)	(ug/L)	*0.5*	**5**	*1.79P*	0.29P	<0.21	<0.48	<0.48	*0.52*	*0.60*	<0.48	<0.48	<0.48	<0.48	<0.48	<0.33	<0.47	<0.33	<0.33	<0.33	<0.33	<0.33
cis-1,2-Dichloroethene	(ug/L)	*7*	**70**	<0.93	<0.19	<0.19	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.26	<0.45	<0.26	<0.26	<0.26	<0.26	<0.26
trans-1,2-Dichloroethene	(ug/L)	*20*	**100**	--	--	--	--	--	--	--	--	--	--	--	<0.89	<0.26	<0.44	<0.26	<0.26	<0.26	<0.26	<0.26
Vinyl Chloride	(ug/L)	*0.02*	**0.2**	<0.70	<0.14	<0.14	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.17	<0.18	<0.18	<0.18	<0.18	<0.18
Methylene Chloride	(ug/L)	*0.5*	**5**	--	--	--	--	--	--	--	--	--	--	--	<0.43	<0.23	NA	<0.23	<0.23	<0.23	<0.23	<0.23
Benzene	(ug/L)	*0.5*	**5**	<0.94	<0.19	<0.19	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.50	<0.44	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	(ug/L)	*140*	**700**	<0.97	<0.19	<0.19	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.50	<0.71	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	(ug/L)	*160*	**800**	<0.55	0.14P	<0.11	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.50	<0.44	<0.50	<0.50	<0.50	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	*400*	**2,000**	<2.85	<0.57	<0.39	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<1.5	<3.1	<1.5	<1.5	<1.5	<1.5	<1.5
m&p-Xylene	(ug/L)	NS	NS	--	--	--	--	--	--	--	--	--	--	--	<1.8	<1.0	<0.9	<1.0	<1.0	<1.0	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	--	--	--	--	--	--	--	--	--	--	--	<0.83	<0.50	<2.2	<0.50	<0.50	<0.50	<0.50	<0.50
Naphthalene	(ug/L)	*10*	**100**	<0.41	<0.08	<0.082	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.89	<0.89	<0.89	<2.5	--	<2.5	<2.5	<2.5	<2.5	<2.5
MTBE	(ug/L)	*12*	**60**	--	--	--	--	--	--	--	--	--	--	--	<0.61	<0.17	<1.1	<0.17	<0.17	<0.17	<0.17	<0.17
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	--	--	--	--	--	--	<0.97	<0.50	<1.6	<0.5	<0.50	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	--	--	--	--	--	--	<0.83	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<0.50
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	*96*	**480**	<4.05	<0.81	<0.81	<1.80	<1.80	<1.80	<1.80	<1.80	<1.80	<1.80	<1.80	<1.80	<1.0	<3.1	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:
NS = No standard established
-- = Not analyzed or reported for parameter
J = Between Limit of Detection & Limit of Quantification
ITALICS indicates exceedance of NR 140.10 Preventive Action Limit
BOLD indicates exceedance of NR 140.10 Enforcement Standard

A.1
Groundwater Analytical Table - VOCs
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	PZ-1															
Date				6/17/99	1/3/00	4/22/04	7/22/04	10/28/04	1/25/05	10/31/06	4/30/07	10/15/10	12/12/12	11/12/15	4/20/16	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				589.43	595.17	596.87	596.91	596.15	595.17	597.00	597.18	596.78	594.27	597.21	--	596.97	594.87	595.19	595.48	595.62
Notes															GEC					
Tetrachloroethene (PCE)	(ug/L)	*0.5*	**5**	<0.34	<0.34	<0.45	<0.45	*4.8*	*15*	<0.45	<0.45	<0.45	<0.45	<0.50	NOT SAMPLED	NOT SAMPLED	<0.50	<0.50	<0.50	<0.50
Trichloroethene (TCE)	(ug/L)	*0.5*	**5**	<0.21	<0.21	<0.48	<0.48	*0.56*	*1.1*	<0.48	<0.48	<0.48	<0.48	<0.33			<0.33	<0.33	<0.33	<0.33
cis-1,2-Dichloroethene	(ug/L)	*7*	**70**	<0.19	<0.19	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.26			<0.26	<0.26	<0.26	<0.26
trans-1,2-Dichloroethene	(ug/L)	*20*	**100**	--	--	--	--	--	--	--	--	--	<0.89	<0.26			<0.26	<0.26	<0.26	<0.26
Vinyl Chloride	(ug/L)	*0.02*	**0.2**	<0.14	<0.14	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18			<0.18	<0.18	<0.18	<0.18
Methylene Chloride	(ug/L)	*0.5*	**5**	--	--	--	--	--	--	--	--	--	<0.43	<0.23			<0.23	<0.23	<0.23	<0.23
Benzene	(ug/L)	*0.5*	**5**	<0.19	<0.19	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.50			<0.50	<0.50	<0.50	<0.50
Ethylbenzene	(ug/L)	*140*	**700**	<0.19	<0.19	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.50			<0.50	<0.50	<0.50	<0.50
Toluene	(ug/L)	*160*	**800**	<0.11	<0.11	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.50			<0.50	<0.50	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	*400*	**2,000**	<0.57	<0.39	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<1.5			<1.5	<1.5	<1.5	<1.5
m&p-Xylene	(ug/L)	NS	NS	--	--	--	--	--	--	--	--	--	<1.8	<1.0			<1.0	<1.0	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	--	--	--	--	--	--	--	--	--	<0.83	<0.50			<0.50	<0.50	<0.50	<0.50
Naphthalene	(ug/L)	*10*	**100**	<0.08	<0.082	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.89	<0.89	<2.5			<2.5	<2.5	<2.5	<2.5
MTBE	(ug/L)	*12*	**60**	--	--	--	--	--	--	--	--	--	<0.61	<0.17			<0.17	<0.17	<0.17	<0.17
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	--	--	--	--	<0.97	<0.50			<0.50	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	--	--	--	--	<0.83	<0.50			<0.50	<0.50	<0.50	<0.50
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	*96*	**480**	<0.81	<0.81	<1.80	<1.80	<1.80	<1.80	<1.80	<1.80	<1.80	<1.80	<1.0			<1.0	<1.0	<1.0	<1.0

Notes:
NS = No standard established
-- = Not analyzed or reported for parameter
J = Between Limit of Detection & Limit of Quantification
ITALICS indicates exceedance of NR 140.10 Preventive Action Limit
BOLD indicates exceedance of NR 140.10 Enforcement Standard

A.1
Groundwater Analytical Table - VOCs
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	MW-2															
Date				6/17/99	1/3/00	4/22/04	7/22/04	10/28/04	1/25/05	10/31/06	4/30/07	10/15/10	12/12/12	11/12/15	4/20/16	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				595.74	593.77	595.79	595.53	594.90	593.88	595.64	596.12	595.75	594.58	595.95	--	595.71	595.75	594.87	595.80	595.59
Notes															GEC					
Tetrachloroethene (PCE)	(ug/L)	*0.5*	**5**	<0.34	<0.34	<0.45	<0.45	*9.8*	*15*	<0.45	<0.45	<0.48	<0.45	<0.50	NOT SAMPLED	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethene (TCE)	(ug/L)	*0.5*	**5**	<0.21	<0.21	<0.48	<0.48	*0.8*	*1.2*	<0.48	<0.48	<0.48	<0.48	<0.33		<0.33	<0.33	<0.33	<0.33	<0.33
cis-1,2-Dichloroethene	(ug/L)	*7*	**70**	<0.19	<0.19	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.83	<0.26		<0.26	<0.26	<0.26	<0.26	<0.26
trans-1,2-Dichloroethene	(ug/L)	*20*	**100**	--	--	--	--	--	--	--	--	--	<0.89	<0.26		<0.26	<0.26	<0.26	<0.26	<0.26
Vinyl Chloride	(ug/L)	*0.02*	**0.2**	<0.14	<0.14	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18		<0.18	<0.18	<0.18	<0.18	<0.18
Methylene Chloride	(ug/L)	*0.5*	**5**	--	--	--	--	--	--	--	--	--	<0.43	<0.23		<0.23	<0.23	<0.23	<0.23	<0.23
Benzene	(ug/L)	*0.5*	**5**	<0.19	<0.19	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	(ug/L)	*140*	**700**	<0.19	<0.19	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	(ug/L)	*160*	**800**	<0.11	<0.11	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	<0.67	1.6	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	*400*	**2,000**	<0.57	<0.39	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<2.63	<1.5		<1.5	<1.5	<1.5	<1.5	<1.5
m&p-Xylene	(ug/L)	NS	NS	--	--	--	--	--	--	--	--	--	<1.8	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	--	--	--	--	--	--	--	--	--	<0.83	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
Naphthalene	(ug/L)	*10*	**100**	<0.08	<0.082	<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	<0.89	<0.89	<2.5		<2.5	<2.5	<2.5	<2.5	<2.5
MTBE	(ug/L)	*12*	**60**	--	--	--	--	--	--	--	--	--	<0.61	<0.17		<0.17	<0.17	<0.17	<0.17	<0.17
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	--	--	--	--	<0.97	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	--	--	--	--	<0.83	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	*96*	**480**	<0.81	<0.81	<1.80	<1.80	<1.80	<1.80	<1.80	<1.80	<1.80	<1.80	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0

Notes:
NS = No standard established
-- = Not analyzed or reported for parameter
J = Between Limit of Detection & Limit of Quantification
ITALICS indicates exceedance of NR 140.10 Preventive Action Limit
BOLD indicates exceedance of NR 140.10 Enforcement Standard

A.1
Groundwater Analytical Table - VOCs
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	MW-3											SMW-3						
Date				6/17/99	1/3/00	4/22/04	7/22/04	10/28/04	1/25/05	10/31/06	4/30/07	10/15/10	12/12/12	11/12/15	11/12/15	4/20/16	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				598.60	596.31	598.68	598.47	597.51	596.15	598.19	599.04	598.06	596.33	--	595.57	595.62	595.69	595.07	594.96	595.10	595.10
Notes																GEC					
Tetrachloroethene (PCE)	(ug/L)	*0.5*	**5**	*2,600*	*76*	*4,400*	*2,800*	*10,000*	*12,000*	*4,700*	*5,200*	*602*	*13,700*	REMOVED DURING 2015 EXCAVATION	*3,100*	*760*	*1,790*	*2,450*	*3,680*	*4,150*	*1,790*
Trichloroethene (TCE)	(ug/L)	*0.5*	**5**	<35.3	*89*	*190*	*200*	*450*	*570*	*360*	*410*	*191*	*1,500*		*504*	*197*	*425*	*616*	*785*	*1,050*	*512*
cis-1,2-Dichloroethene	(ug/L)	*7*	**70**	<31	1.6	<21	<21	<83	<170	<42	<83	*34.4*	<208		*86.5*	*24.3*	*54.7*	*201*	*145*	*148*	*93.1*
trans-1,2-Dichloroethene	(ug/L)	*20*	**100**	--	--	--	--	--	--	--	--	--	<222		<10.3	2.22	<10.3	18.5 J	10.0 J	12.0 J	9.8 J
Vinyl Chloride	(ug/L)	*0.02*	**0.2**	<23.3	*1.2*	<4.5	<4.5	<18	<36	<9.0	<18	<0.9	<45.0		<7.0	*0.40 J*	<7.0	*5.8 J*	<3.5	<4.4	<3.5
Methylene Chloride	(ug/L)	*0.5*	**5**	--	--	--	--	--	--	--	--	--	<108		<9.3	--	<9.3	<4.7	<4.7	<5.8	<4.7
Benzene	(ug/L)	*0.5*	**5**	<31.3	<0.19	<10	<10	<41	<82	<20	<41	<2.0	<102		<20.0	<0.44	<20.0	<10.0	<10.0	<12.5	<10.0
Ethylbenzene	(ug/L)	*140*	**700**	<32.3	<0.19	<14	<14	<54	<110	<27	<54	<2.7	<135		<20.0	<0.71	<20.0	<10.0	<10.0	<12.5	<10.0
Toluene	(ug/L)	*160*	**800**	<18.3	0.75	<17	<17	<67	<130	<34	<67	<3.4	<168		<20.0	<0.44	<20.0	<10.0	<10.0	<12.5	<10.0
Xylenes (TOTAL)	(ug/L)	*400*	**2,000**	<95	2.2	<66	<66	<263	<530	<132	<263	<13.2	<658		<60.0	<3.1	<60.0	<30.0	<30.0	<37.5	<30.0
m&p-Xylene	(ug/L)	NS	NS	--	--	--	--	--	--	--	--	--	<450		<40.0	<0.9	<40.0	<20.0	<20.0	<25.0	<20.0
o-Xylene	(ug/L)	NS	NS	--	--	--	--	--	--	--	--	--	<208		<20.0	<2.2	<20.0	<10.0	<10.0	<12.5	<10.0
Naphthalene	(ug/L)	*10*	**100**	<13.7	<0.082	<18	<18	<74	<150	<37	<74	<4.4	<222		<100	--	<100	<50.0	<50.0	<62.5	<50.0
MTBE	(ug/L)	*12*	**60**	--	--	--	--	--	--	--	--	--	<152		<7.0	<1.1	<7.0	<3.5	<3.5	<4.4	<3.5
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	--	--	--	--	<242		<20.0	<1.6	<20.0	<10.0	<10.0	<12.5	<10.0
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	--	--	--	--	<208		<20.0	<1.5	<20.0	<10.0	<10.0	<12.5	<10.0
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	*96*	**480**	<135	5.4	<45	<45	<180	<360	<90	<180	<9.0	<450		<40.0	<3.1	<40.0	<20.0	<20.0	<25.0	<20.0

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ITALICS indicates exceedance of NR 140.10 Preventive Action Limit
BOLD indicates exceedance of NR 140.10 Enforcement Standard

A.1
Groundwater Analytical Table - VOCs
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	MW-4													
Date				6/17/99	1/3/00	4/22/04	10/28/04	10/31/06	10/15/10	12/12/12	11/12/15	4/20/16	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				598.67	596.26	598.96	597.43	598.16	598.23	597.07	597.29	597.90	297.27	596.90	596.33	597.34	596.93
Notes												GEC					
Tetrachloroethene (PCE)	(ug/L)	*0.5*	**5**	<0.34	<0.34	*1.9*	*2.0*	*3.0*	<0.45	<0.45	*1.4*	*0.89 J*	*1.1*	*1.3*	*0.63 J*	<0.50	*0.88 J*
Trichloroethene (TCE)	(ug/L)	*0.5*	**5**	<0.21	<0.21	<0.48	<0.48	<0.48	<0.48	<0.48	<0.33	<0.47	<0.33	<0.33	<0.33	<0.33	<0.33
cis-1,2-Dichloroethene	(ug/L)	*7*	**70**	<0.19	<0.19	<0.83	<0.83	<0.83	<0.83	<0.83	<0.26	<0.45	<0.26	<0.26	<0.26	<0.26	<0.26
trans-1,2-Dichloroethene	(ug/L)	*20*	**100**	--	--	--	--	--	--	<0.89	<0.26	<0.54	<0.26	<0.26	<0.26	<0.26	<0.26
Vinyl Chloride	(ug/L)	*0.02*	**0.2**	<0.14	<0.14	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.17	<0.18	<0.18	<0.18	<0.18	<0.18
Methylene Chloride	(ug/L)	*0.5*	**5**	--	--	--	--	--	--	<0.43	<0.23	--	<0.23	<0.23	<0.23	<0.23	<0.23
Benzene	(ug/L)	*0.5*	**5**	<0.19	<0.19	<0.41	<0.41	<0.41	<0.41	<0.41	<0.50	<0.44	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	(ug/L)	*140*	**700**	<0.19	<0.19	<0.54	<0.54	<0.54	<0.54	<0.54	<0.50	<0.71	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	(ug/L)	*160*	**800**	<0.11	<0.11	<0.67	<0.67	<0.67	<0.67	<0.67	<0.50	<0.44	<0.50	<0.50	<0.50	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	*400*	**2,000**	<0.57	<0.39	<2.63	<2.63	<2.63	<2.63	<2.63	<1.5	<3.1	<1.5	<1.5	<1.5	<1.5	<1.5
m&p-Xylene	(ug/L)	NS	NS	--	--	--	--	--	--	<1.8	<1.0	<0.9	<1.0	<1.0	<1.0	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	--	--	--	--	--	--	<0.83	<0.50	<2.2	<0.50	<0.50	<0.50	<0.50	<0.50
Naphthalene	(ug/L)	*10*	**100**	<0.08	<0.082	<0.74	<0.74	<0.74	<0.89	<0.89	<2.5	--	<2.5	<2.5	<2.5	<2.5	<2.5
MTBE	(ug/L)	*12*	**60**	--	--	--	--	--	--	--	<0.17	<1.1	<0.17	<0.17	<0.17	<0.17	<0.17
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	--	--	<0.50	<1.6	<0.50	<0.50	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	--	--	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<0.50
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	*96*	**480**	<0.81	<0.81	<1.80	<1.80	<1.80	<1.80	<1.80	<1.0	<3.1	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:
NS = No standard established
-- = Not analyzed or reported for parameter
J = Between Limit of Detection & Limit of Quantification
ITALICS indicates exceedance of NR 140.10 Preventive Action Limit
BOLD indicates exceedance of NR 140.10 Enforcement Standard

A.1
Groundwater Analytical Table - VOCs
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	MW-5												
Date				1/3/00	4/22/04	10/28/04	10/31/06	10/15/10	12/12/12	11/12/15	4/20/16	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				596.86	599.56	598.05	598.63	598.73	596.62	596.69	--	596.69	596.19	595.74	596.41	596.13
Notes											GEC					
Tetrachloroethene (PCE)	(ug/L)	*0.5*	**5**	<0.34	*1.9*	<0.45	<0.45	<0.45	<0.45	<0.50	NOT SAMPLED	NOT SAMPLED	<0.50	<0.50	<0.50	<0.50
Trichloroethene (TCE)	(ug/L)	*0.5*	**5**	<0.21	<0.48	<0.48	<0.48	<0.48	<0.48	<0.33			<0.33	<0.33	<0.33	<0.33
cis-1,2-Dichloroethene	(ug/L)	*7*	**70**	<0.19	<0.83	<0.83	<0.83	<0.83	<0.83	<0.26			<0.26	<0.26	<0.26	<0.26
trans-1,2-Dichloroethene	(ug/L)	*20*	**100**	--	--	--	--	--	<0.89	<0.26			<0.26	<0.26	<0.26	<0.26
Vinyl Chloride	(ug/L)	*0.02*	**0.2**	<0.14	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18			<0.18	<0.18	<0.18	<0.18
Methylene Chloride	(ug/L)	*0.5*	**5**	--	--	--	--	--	<0.43	<0.23			<0.23	<0.23	<0.23	<0.23
Benzene	(ug/L)	*0.5*	**5**	<0.19	<0.41	<0.41	<0.41	<0.41	<0.41	<0.50			<0.50	<0.50	<0.50	<0.50
Ethylbenzene	(ug/L)	*140*	**700**	<0.19	<0.54	<0.54	<0.54	<0.54	<0.54	<0.50			<0.50	<0.50	<0.50	<0.50
Toluene	(ug/L)	*160*	**800**	<0.11	<0.67	<0.67	<0.67	<0.67	<0.67	<0.50			<0.50	<0.50	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	*400*	**2,000**	<0.39	<2.63	<2.63	<2.63	<2.63	<2.63	<1.5			<1.5	<1.5	<1.5	<1.5
m&p-Xylene	(ug/L)	NS	NS	--	--	--	--	--	<1.8	<1.0			<1.0	<1.0	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	--	--	--	--	--	<0.83	<0.50			<0.50	<0.50	<0.50	<0.50
Naphthalene	(ug/L)	*10*	**100**	<0.082	<0.74	<0.74	<0.74	<0.89	<0.89	<2.5			<2.5	<2.5	<2.5	<2.5
MTBE	(ug/L)	*12*	**60**	--	--	--	--	--	<0.61	<0.17			<0.17	<0.17	<0.17	<0.17
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	<0.97	<0.50			<0.50	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	<0.83	<0.50			<0.50	<0.50	<0.50	<0.50
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	*96*	**480**	<0.81	<1.80	<1.80	<1.80	<1.80	<1.80	<1.0			<1.0	<1.0	<1.0	<1.0

Notes:
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ITALICS indicates exceedance of NR 140.10 Preventive Action Limit
BOLD indicates exceedance of NR 140.10 Enforcement Standard

A.1
Groundwater Analytical Table - VOCs
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	MW-6												
Date				1/3/00	4/22/04	10/28/04	10/31/06	10/15/10	12/12/12	11/12/15	4/20/16	6/23/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				596.29	598.63	597.49	597.85	597.84	596.34	596.56	--	596.60	594.44	594.95	594.91	595.23
Notes											GEC					
Tetrachloroethene (PCE)	(ug/L)	*0.5*	**5**	<0.34	<0.45	<0.45	<0.45	<0.45	<0.45	<0.50	NOT SAMPLED	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethene (TCE)	(ug/L)	*0.5*	**5**	<0.21	<0.48	<0.48	<0.48	<0.48	<0.48	<0.33		<0.33	<0.33	<0.33	<0.33	<0.33
cis-1,2-Dichloroethene	(ug/L)	*7*	**70**	<0.19	<0.83	<0.83	<0.83	<0.83	<0.83	<0.26		<0.26	<0.26	<0.26	<0.26	<0.26
trans-1,2-Dichloroethene	(ug/L)	*20*	**100**	--	--	--	--	--	<0.89	<0.26		<0.26	<0.26	<0.26	<0.26	<0.26
Vinyl Chloride	(ug/L)	*0.02*	**0.2**	<0.14	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18		<0.18	<0.18	<0.18	<0.18	<0.18
Methylene Chloride	(ug/L)	*0.5*	**5**	--	--	--	--	--	<0.43	<0.23		<0.23	<0.23	<0.23	<0.23	<0.23
Benzene	(ug/L)	*0.5*	**5**	<0.19	<0.41	<0.41	<0.41	<0.41	<0.41	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	(ug/L)	*140*	**700**	<0.19	<0.54	<0.54	<0.54	<0.54	<0.54	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	(ug/L)	*160*	**800**	<0.11	<0.67	<0.67	<0.67	<0.67	<0.67	<0.50		<0.50	<0.50	<0.50	4.1	3.7
Xylenes (TOTAL)	(ug/L)	*400*	**2,000**	<0.39	<2.63	<2.63	<2.63	<2.63	<2.63	<1.5		<1.5	<1.5	<1.5	<1.5	<1.5
m&p-Xylene	(ug/L)	NS	NS	--	--	--	--	--	<1.8	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	--	--	--	--	--	<0.83	<0.50		<0.49	<0.50	<.50	<0.50	<0.50
Naphthalene	(ug/L)	*10*	**100**	<0.082	<0.74	<0.74	<0.74	<0.89	<0.89	<2.5		<2.4	<2.5	<2.5	<2.5	<2.5
MTBE	(ug/L)	*12*	**60**	--	--	--	--	--	<0.61	<0.17		<0.17	<0.17	<0.17	<0.17	<0.17
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	<0.97	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	<0.83	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	*96*	**480**	<0.81	<1.80	<1.80	<1.80	<1.80	<1.80	<1.0		<1.1	<1.0	<1.0	<1.0	<1.0

Notes:
NS = No standard established
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ITALICS indicates exceedance of NR 140.10 Preventive Action Limit
BOLD indicates exceedance of NR 140.10 Enforcement Standard

A.1
Groundwater Analytical Table - VOCs
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	MW-7												
Date				1/3/00	4/22/04	10/28/04	10/31/06	10/15/10	12/12/12	11/12/15	4/21/16	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				594.78	597.68	596.48	597.28	597.20	596.63	597.81	597.68	597.21	595.00	594.77	595.26	595.21
Notes											GEC					
Tetrachloroethene (PCE)	(ug/L)	*0.5*	**5**	<0.34	<0.45	*30*	<0.45	*1.3*	*2*	*16.5*	*14.3*	*14.8*	*4.0*	*2.0*	*1.7*	*3.1*
Trichloroethene (TCE)	(ug/L)	*0.5*	**5**	<0.21	<0.48	*2.0*	<0.48	*0.78J*	<0.48	0.49 J	<0.47	0.33 J	*0.54 J*	<0.33	<0.33	*0.57 J*
cis-1,2-Dichloroethene	(ug/L)	*7*	**70**	<0.19	<0.83	<0.83	<0.83	2.2	<0.83	<0.26	<0.45	<0.26	<0.26	<0.26	<0.26	<0.26
trans-1,2-Dichloroethene	(ug/L)	*20*	**100**	--	--	--	--	--	<0.89	<0.26	<0.54	<0.26	<0.26	<0.26	<0.26	<0.26
Vinyl Chloride	(ug/L)	*0.02*	**0.2**	<0.14	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.17	<0.18	<0.18	<0.18	<0.18	<0.18
Methylene Chloride	(ug/L)	*0.5*	**5**	--	--	--	--	--	<0.43	<0.23	--	<0.23	<0.23	<0.23	<0.23	<0.23
Benzene	(ug/L)	*0.5*	**5**	<0.19	<0.41	<0.41	<0.41	<0.41	<0.41	<0.50	<0.44	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	(ug/L)	*140*	**700**	<0.19	<0.54	<0.54	<0.54	<0.54	<0.54	<0.50	<0.71	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	(ug/L)	*160*	**800**	<0.11	<0.67	<0.67	<0.67	<0.67	<0.67	<0.50	<0.44	<0.50	<0.50	<0.50	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	*400*	**2,000**	<0.39	<2.63	<2.63	<2.63	<2.63	<2.63	<1.5	<3.1	<1.5	<1.5	<1.5	<1.5	<1.5
m&p-Xylene	(ug/L)	NS	NS	--	--	--	--	--	<1.8	<1.0	<0.9	<1.0	<1.0	<1.0	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	--	--	--	--	--	<0.83	<0.50	<2.2	<0.50	<0.50	<0.50	<0.50	<0.50
Naphthalene	(ug/L)	*10*	**100**	<0.082	<0.74	<0.74	<0.74	<0.89	<0.89	<2.5	--	<2.5	<2.5	<2.5	<2.5	<2.5
MTBE	(ug/L)	*12*	**60**	--	--	--	--	--	<0.61	<0.17	<1.1	<0.17	<0.17	<0.17	<0.17	<0.17
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	<0.97	<0.50	<1.6	<0.50	<0.50	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	<0.83	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<0.50
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	*96*	**480**	<0.81	<1.80	<1.80	<1.80	<1.80	<1.80	<1.0	<3.1	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:
NS = No standard established
-- = Not analyzed or reported for parameter
J = Between Limit of Detection & Limit of Quantification
ITALICS indicates exceedance of NR 140.10 Preventive Action Limit
BOLD indicates exceedance of NR 140.10 Enforcement Standard

A.1
Groundwater Analytical Table - VOCs
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	MW-8												
Date				1/3/00	4/22/04	10/28/04	10/31/06	10/15/10	12/12/12	11/12/15	4/20/16	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				595.83	598.21	596.98	598.17	598.35	597.46	599.12	599.49	597.28	596.73	596.64	597.27	597.06
Notes											GEC					
Tetrachloroethene (PCE)	(ug/L)	*0.5*	**5**	<0.34	<0.45	<0.45	<0.45	<0.45	<0.45	<0.50	<0.49	NOT SAMPLED	<0.50	<0.50	<0.50	<0.50
Trichloroethene (TCE)	(ug/L)	*0.5*	**5**	<0.21	<0.48	<0.48	<0.48	<0.48	<0.48	<0.33	<0.47		<0.33	<0.33	<0.33	<0.33
cis-1,2-Dichloroethene	(ug/L)	*7*	**70**	<0.19	<0.83	<0.83	<0.83	<0.83	<0.83	<0.26	<0.45		<0.26	<0.26	<0.26	<0.26
trans-1,2-Dichloroethene	(ug/L)	*20*	**100**	--	--	--	--	--	<0.89	<0.26	<0.54		<0.26	<0.26	<0.26	<0.26
Vinyl Chloride	(ug/L)	*0.02*	**0.2**	<0.14	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.17		<0.18	<0.18	<0.18	<0.18
Methylene Chloride	(ug/L)	*0.5*	**5**	--	--	--	--	--	<0.43	<0.23	--		<0.23	<0.23	<0.23	<0.23
Benzene	(ug/L)	*0.5*	**5**	<0.19	<0.41	<0.41	<0.41	<0.41	<0.41	<0.50	<0.44		<0.50	<0.50	<0.50	<0.50
Ethylbenzene	(ug/L)	*140*	**700**	<0.19	<0.54	<0.54	<0.54	<0.54	<0.54	<0.50	<0.71		<0.50	<0.50	<0.50	<0.50
Toluene	(ug/L)	*160*	**800**	<0.11	<0.67	<0.67	<0.67	<0.67	<0.67	<0.50	<0.44		<0.50	<0.50	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	*400*	**2,000**	<0.39	<2.63	<2.63	<2.63	<2.63	<2.63	<1.5	<3.1		<1.5	<1.5	<1.5	<1.5
m&p-Xylene	(ug/L)	NS	NS	--	--	--	--	--	<1.8	<1.0	<0.9		<1.0	<1.0	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	--	--	--	--	--	<0.83	<0.50	<2.2		<0.50	<0.50	<0.50	<0.50
Naphthalene	(ug/L)	*10*	**100**	<0.082	<0.74	<0.74	<0.74	<0.89	<0.89	<2.5	--		<2.5	<2.5	<2.5	<2.5
MTBE	(ug/L)	*12*	**60**	--	--	--	--	--	<0.61	<0.17	<1.1		<0.17	<0.17	<0.17	<0.17
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	<0.97	<0.50	<1.6		<0.50	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	<0.83	<0.50	<1.5		<0.50	<0.50	<0.50	<0.50
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	*96*	**480**	<0.81	<1.80	<1.80	<1.80	<1.80	<1.80	<1.0	<3.1		<1.0	<1.0	<1.0	<1.0

Notes:
NS = No standard established
-- = Not analyzed or reported for parameter
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A.1
Groundwater Analytical Table - VOCs
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	MW-9												
Date				8/28/01	4/22/04	10/28/04	10/31/06	10/15/10	12/12/12	11/12/15	4/20/16	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				NA	595.58	594.65	595.89	593.86	593.15	595.32	--	594.24	594.50	593.79	593.71	593.64
Notes											GEC					
Tetrachloroethene (PCE)	(ug/L)	*0.5*	**5**	<0.34	<0.45	<0.45	<0.45	<0.45	<0.45	*0.94 J*	NOT SAMPLED	*0.73 J*	*0.60 J*	<0.50	<0.50	<0.50
Trichloroethene (TCE)	(ug/L)	*0.5*	**5**	<0.098	*0.55*	*2.6*	*0.7*	<0.48	<0.48	*1.7*		*1.0*	*0.78 J*	*0.67 J*	*0.58 J*	*0.76 J*
cis-1,2-Dichloroethene	(ug/L)	*7*	**70**	<0.19	1.2	3.4	<0.83	<0.83	<0.83	<0.26		<0.26	<0.26	<0.26	<0.26	<0.26
trans-1,2-Dichloroethene	(ug/L)	*20*	**100**	--	--	--	--	--	<0.89	<0.26		<0.26	<0.26	<0.26	<0.26	<0.26
Vinyl Chloride	(ug/L)	*0.02*	**0.2**	<23	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18		<0.18	<0.18	<0.18	<0.18	<0.18
Methylene Chloride	(ug/L)	*0.5*	**5**	--	--	--	--	--	<0.43	<0.23		<0.23	<0.23	<0.23	<0.23	<0.23
Benzene	(ug/L)	*0.5*	**5**	<0.19	<0.41	<0.41	<0.41	<0.41	<0.41	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	(ug/L)	*140*	**700**	<0.19	<0.54	<0.54	<0.54	<0.54	<0.54	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	(ug/L)	*160*	**800**	<0.11	<0.67	<0.67	<0.67	<0.67	<0.67	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	*400*	**2,000**	<0.39	<2.63	<2.63	<2.63	<2.63	<2.63	<1.5		<1.5	<1.5	<1.5	<1.5	<1.5
m&p-Xylene	(ug/L)	NS	NS	--	--	--	--	--	<1.8	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	--	--	--	--	--	<0.83	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
Naphthalene	(ug/L)	*10*	**100**	<0.082	<0.74	<0.74	<0.74	<0.89	<0.89	<2.5		<2.5	<2.5	<2.5	<2.5	<2.5
MTBE	(ug/L)	*12*	**60**	--	--	--	--	--	<0.61	<0.17		<0.17	<0.17	<0.17	<0.17	<0.17
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	<0.97	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	--	--	--	--	--	<0.83	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	*96*	**480**	<0.81	<1.80	<1.80	<1.80	<1.80	<1.80	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0

Notes:
NS = No standard established
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BOLD indicates exceedance of NR 140.10 Enforcement Standard

A.1
Groundwater Analytical Table - VOCs
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	GEC TW-4							GEC TW-5					
Date				9/24/15	11/12/15	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17	9/24/15	11/12/15	6/24/16	9/22/16	3/21/17	6/21/17
Groundwater Elevation				--	598.16	597.91	596.76	596.57	597.37	597.17	--	599.03	598.87	596.88	597.68	597.27
Notes																
Tetrachloroethene (PCE)	(ug/L)	*0.5*	**5**	<0.49	<0.50	NOT SAMPLED	<0.50	<0.50	<0.50	<0.50	<0.49	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethene (TCE)	(ug/L)	*0.5*	**5**	<0.47	<0.33		<0.33	<0.33	<0.33	<0.33	<0.47	<0.33	<0.33	<0.33	<0.33	<0.33
cis-1,2-Dichloroethene	(ug/L)	*7*	**70**	<0.45	<0.26		<0.26	<0.26	<0.26	<0.26	<0.45	<0.26	<0.26	<0.26	<0.26	<0.26
trans-1,2-Dichloroethene	(ug/L)	*20*	**100**	--	<0.26		<0.26	<0.26	<0.26	<0.26	--	<0.26	<0.26	<0.26	<0.26	<0.26
Vinyl Chloride	(ug/L)	*0.02*	**0.2**	--	<0.18		<0.18	<0.18	<0.18	<0.18	--	<0.18	<0.18	<0.18	<0.18	<0.18
Methylene Chloride	(ug/L)	*0.5*	**5**	--	<0.23		<0.23	<0.23	<0.23	<0.23	--	<0.23	<0.23	<0.23	<0.23	<0.23
Benzene	(ug/L)	*0.5*	**5**	<0.44	<0.50		<0.50	<0.50	<0.50	<0.50	<0.44	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	(ug/L)	*140*	**700**	<0.71	<0.50		<0.50	<0.50	<0.50	<0.50	<0.71	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	(ug/L)	*160*	**800**	<0.44	<0.50		<0.50	<0.50	<0.50	<0.50	<0.44	<0.50	<0.50	<0.50	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	*400*	**2,000**	<3.1	<1.5		<1.5	<1.5	<1.5	<1.5	<3.1	<1.5	<1.5	<1.5	<1.5	<1.5
m&p-Xylene	(ug/L)	NS	NS	<2.2	<1.0		<1.0	<1.0	<1.0	<1.0	<2.2	<1.0	<1.0	<1.0	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	<0.9	<0.50		<0.50	<0.50	<0.50	<0.50	<0.9	<0.50	<0.50	<0.50	<0.50	<0.50
Naphthalene	(ug/L)	*10*	**100**	--	<2.5		<2.5	<2.5	<2.5	<2.5	--	<2.5	<2.5	<2.5	<2.5	<2.5
MTBE	(ug/L)	*12*	**60**	<1.1	<0.17		<0.17	<0.17	<0.17	<0.17	<1.1	<0.17	<0.17	<0.17	<0.17	<0.17
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	<1.6	<0.50		<0.50	<0.50	<0.50	<0.50	<1.6	<0.50	<0.50	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	<1.5	<0.50		<0.50	<0.50	<0.50	<0.50	<1.5	<0.50	<0.50	<0.50	<0.50	<0.50
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	*96*	**480**	<3.1	<1.0		<1.0	<1.0	<1.0	<1.0	<3.1	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:
NS = No standard established
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ITALICS indicates exceedance of NR 140.10 Preventive Action Limit
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A.1
Groundwater Analytical Table - VOCs
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140.10 Preventive Action Limit	NR 140.10 Enforcement Standard	GEC MW-10	GEC MW-11	GEC MW-12	GEC MW-13	GEC MW-14	W-1	Trip Blank					
Date				4/21/16	4/21/16	4/21/16	4/21/16	4/21/16	6/20/16	11/12/15	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				--	--	--	--	--	--	--	--	--	--	--	--
Notes															
Tetrachloroethene (PCE)	(ug/L)	*0.5*	**5**	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethene (TCE)	(ug/L)	*0.5*	**5**	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
cis-1,2-Dichloroethene	(ug/L)	*7*	**70**	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26
trans-1,2-Dichloroethene	(ug/L)	*20*	**100**	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26
Vinyl Chloride	(ug/L)	*0.02*	**0.2**	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
Methylene Chloride	(ug/L)	*0.5*	**5**	--	--	--	--	--	<1.3	<0.23	<0.23	<0.23	<0.23	<0.23	<0.23
Benzene	(ug/L)	*0.5*	**5**	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	(ug/L)	*140*	**700**	<0.71	<0.71	<0.71	<0.71	<0.71	<0.71	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	(ug/L)	*160*	**800**	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Xylenes (TOTAL)	(ug/L)	*400*	**2,000**	<3.1	<3.1	<3.1	<3.1	<3.1	<3.1	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
m&p-Xylene	(ug/L)	NS	NS	<0.9	<0.9	<0.9	<0.9	<0.9	<2.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
o-Xylene	(ug/L)	NS	NS	<2.2	<2.2	<2.2	<2.2	<2.2	<0.9	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Naphthalene	(ug/L)	*10*	**100**	--	--	--	--	--	<1.6	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
MTBE	(ug/L)	*12*	**60**	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
1,2,4-Trimethylbenzene	(ug/L)	NS	NS	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	(ug/L)	NS	NS	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/L)	*96*	**480**	<3.1	<3.1	<3.1	<3.1	<3.1	<3.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

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TABLE A.2
Soil Analytical Results
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

				Site Investigation - Northern Environmental				Site Investigation - STS Consultants								
Sample ID		Groundwater Pathway RCL	Non-Industrial Direct-Contact RCL	B100A	B300A	B400A	B500A	PZ-1		MW-2		MW-3		MW-4		MW-6
Date				3/10/99	3/10/99	3/10/99	3/10/99	1999	1999	1999	1999	1999	1999	1999	1999	1999
Depth				1-3'	2-4'	1-3'	2-4'	3-5'	7-9'	2-4'	6-8'	3-5'	7-9'	1-3'	7-9'	0-2'
Description				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DEPTH to Seasonal Low Water Table (ft BGS)				6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'
Saturated (S) or Unsaturated (U)				U	U	U	U	U	S	U	S	U	S	U	S	U
PID Reading				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Notes						*RMVD*						*RMVD*	*RMVD*			
Benzene	(ug/kg)	*5.1*	**1,490**	<25	<25	<25	<25	<12.8	<13.1	<11.5	<13.8	<12.7	<12.6	<11.8	<12.0	NA
Ethylbenzene	(ug/kg)	*1570*	**7,470**	<25	<25	<25	<25	<13.2	<13.6	<11.9	<14.2	<13.1	<19.0	<12.2	<12.3	NA
Toluene	(ug/kg)	*1107.2*	**818,000**	<25	<25	<25	<25	<7.5	<7.69	<6.74	<8.07	<7.41	<7.36	<6.93	<7.0	NA
Xylenes (TOTAL)	(ug/kg)	*3940*	**258,000**	<75	<75	<75	<25	<38.8	<39.8	<34.9	<41.9	<38.4	<38.1	<35.9	<36.2	NA
m&p-Xylene	(ug/kg)	NS	**778,000**	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA
o-Xylene	(ug/kg)	NS	**434,000**	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA
Naphthalene	(ug/kg)	*658.2*	**5,150**	<25	<25	<25	<25	<5.59	<5.73	<5.03	<6.02	<5.52	38	<5.17	<5.22	NA
MTBE	(ug/kg)	*27*	**59,400**	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA
1,2,4-Trimethylbenzene	(ug/kg)	*408*	**89,800**	<25	<25	<25	<25	<31.6	<32.4	<28.4	<34	<31.3	<31.1	<29.2	<22	NA
1,3,5-Trimethylbenzene	(ug/kg)	NS	**182,000**	<25	<25	<25	<25	<23.6	<24.2	<21.2	<25.4	<23.3	<23.2	<21.2	<5.22	NA
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/kg)	*1382.1*	NS	<50	<50	<50	<50	<55.2	<56.6	<49.6	<59.4	<54.6	<54.3	<50.4	<27.22	NA
Tetrachloroethene (PCE)	(ug/kg)	*4.5*	**30,700**	*170*	*57*	*370*	*51*	*98.9*	<23.5	<20.6	<24.7	*122*	<22.5	<21.2	<21.4	NA
Trichloroethene (TCE)	(ug/kg)	*3.6*	**1,260**	NR	NR	NR	NR	<14.5	<14.8	<13.0	<15.6	<14.3	<14.2	<13.4	<13.5	NA
cis-1,2-Dichloroethene	(ug/kg)	*41.2*	**156,000**	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA
trans-1,2-Dichloroethene	(ug/kg)	*58.8*	**1,560,000**	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA
Vinyl Chloride	(ug/kg)	*0.1*	**67**	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA
Methylene Chloride	(ug/kg)	*2.6*	**60,700**	NR	NR	NR	NR	<17.3	<17.8	<15.6	<18.6	74.9	<17.0	<16.0	<16.2	NA
Total Organic Carbon	(mg/kg)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	36400
No. of Individual Exceedances (DC)				0	0	0	0	0	--	--	--	0	0	--	--	--
Cumulative Hazard Index (DC)				0.0015	0.0005	0.0032	0.0004	0.0009	--	--	--	0.0011	0.0002	--	--	--
Cumulative Cancer Risk (DC)				5.5E-09	1.9E-09	1.2E-08	1.7E-09	3.2E-09	--	--	--	4.0E-09	7.4E-09	--	--	--

Exceedance Highlights:

Red font indicates DC RCL exceedance, and BTV exceedance for metals. **B1** : Cumulative exceedance (HI > 1), eventhough no individual DC RCL was exceeded.

Italic font indicates GW RCL Exceedance. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.

Notes:
Xylenes reported as total of m-, o-, p-xylenes
NS = No standard established
NA = Not analyzed for parameter
NR = Not Reported
ITALICS indicates exceedance of Groundwater Pathway RCL
BOLD indicates exceedance of Non-industrial Direct Contact RCL

TABLE A.2
Soil Analytical Results
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

				Site Investigation - STS Consultants												
Sample ID		Groundwater Pathway RCL	Non-Industrial Direct-Contact RCL	MW-7	HA-1		B-1	B-2	B-3		B-4	B-5	B-6	HA-1R	HA-2
Date				1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	11/19/10	11/19/10
Depth				0-2'	0.5-1.5'	1.5-2.5'	0-2'	2-4'	0-2'	2-4'	0-2'	0-2'	0-2'	3.5-4'	3.5-4'
Description				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DEPTH to Seasonal Low Water Table (ft BGS)				6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'
Saturated (S) or Unsaturated (U)				U	U	U	U	U	U	U	U	U	U	U	U
PID Reading				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Notes					*RMVD*	*RMVD*			*RMVD*	*RMVD*	*RMVD*			*RMVD*	*RMVD*
Benzene	(ug/kg)	*5.1*	**1,490**	NA	<11.0	<12.1	<11	<11	<58	<127	<11	<12	<10	<25.0	<25.0
Ethylbenzene	(ug/kg)	*1570*	**7,470**	NA	<11.3	<12.5	<11	<12	397	1,370	<12	<12	<11	<25.0	<25.0
Toluene	(ug/kg)	*1107.2*	**818,000**	NA	<6.41	<7.07	<6.5	<6.7	<34	<74	<6.6	<7.0	<6.1	<25.0	<25.0
Xylenes (TOTAL)	(ug/kg)	*3940*	**258,000**	NA	<33.3	16.6P	<23	<24	776	2,030	<24	<25	<22	<75.0	<75.0
m&p-Xylene	(ug/kg)	NS	**778,000**	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
o-Xylene	(ug/kg)	NS	**434,000**	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Naphthalene	(ug/kg)	*658.2*	**5,150**	NA	5.99J	17.7	<32	<33	*2,250*	*5,770*	<32	<34	<30	<25.0	<25.0
MTBE	(ug/kg)	*27*	**59,400**	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,2,4-Trimethylbenzene	(ug/kg)	*408*	**89,800**	NA	<27.1	<29.8	<27	<28	*4,280*	*16,200*	<28	<29	<26	<25.0	<
1,3,5-Trimethylbenzene	(ug/kg)	NS	**182,000**	NA	<20.2	<22.2	<20	<21	2,340	4,890	<21	<22	<19	<25.0	<25.0
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/kg)	*1382.1*	NS	NA	<47.2	<52.0	<47	<49	*6,620*	*21,090*	<49	<51	<45	<50.0	<50.0
Tetrachloroethene (PCE)	(ug/kg)	*4.5*	**30,700**	NA	*925*	*4,110*	<20	*46J*	<103	<228	*300*	<21	<19	*408*	*144*
Trichloroethene (TCE)	(ug/kg)	*3.6*	**1,260**	NA	<12.4	*31.4J*	<13	<13	<65	<144	*209*	<13	<12	<25.0	<25.0
cis-1,2-Dichloroethene	(ug/kg)	*41.2*	**156,000**	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	<25.0	<25.0
trans-1,2-Dichloroethene	(ug/kg)	*58.8*	**1,560,000**	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	<25.0	<25.0
Vinyl Chloride	(ug/kg)	*0.1*	**67**	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	<25.0	<25.0
Methylene Chloride	(ug/kg)	*2.6*	**60,700**	NA	<14.8	<16.3	<47	<48	<245	<538	<48	<50	<44	<25.0	<25.0
Total Organic Carbon	(mg/kg)			24700	NA	NA	NA	NA	NA	NA	NA	NA	NA		
No. of Individual Exceedances (DC)				--	0	0	--	0	0	1	0	--	--	0	0
Cumulative Hazard Index (DC)				--	0.0081	0.041	--	0.0004	0.0636	0.22	0.0372	--	--	0.0035	0.0013
Cumulative Cancer Risk (DC)				--	3.1E-08	1.6E-07	--	1.5E-09	4.9E-07	1.3E-06	1.8E-07	--	--	1.3E-08	4.7E-09

Exceedance Highlights:

Red font indicates DC RCL exceedance, and BTV exceedance for metals. **B1** : Cumulative exceedance (HI > 1), eventhough no individual DC RCL was exceeded.

Italic font indicates GW RCL Exceedance. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.

Notes:
Xylenes reported as total of m-, o-, p-xylenes
NS = No standard established
NA = Not analyzed for parameter
NR = Not Reported
ITALICS indicates exceedance of Groundwater Pathway RCL
BOLD indicates exceedance of Non-industrial Direct Contact RCL

TABLE A.2
Soil Analytical Results
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

				Site Investigation - Alpha Terra Science (Fehr-Graham)													
Sample ID		Groundwater Pathway RCL	Non-Industrial Direct-Contact RCL	B-10		B-11			B-12			B-13		B-14		B-15	
Date				12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12
Depth				2-3'	3-4'	2-3'	3-4'	5-6'	2-3'	4-5'	3.5-4'	2-3'	4-5'	2-3'	4-5'	2-3'	5-6'
Description				clay	clay	silty clay	silty clay	silt	sand	sandy silt	sandy silt	sandy silt	sand	clay	silt	sandy silt	sandy silt
DEPTH to Seasonal Low Water Table (ft BGS)				6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'
Saturated (S) or Unsaturated (U)				U	U	U	U	U	U	U	U	U	U	U	U	U	U
PID Reading				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Notes				*RMVD*	*RMVD*	*RMVD*	*RMVD*	*RMVD*	*RMVD*	*RMVD*	*RMVD*	*RMVD*	*RMVD*	*RMVD*	*RMVD*	*RMVD*	*RMVD*
Benzene	(ug/kg)	*5.1*	**1,490**	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Ethylbenzene	(ug/kg)	*1570*	**7,470**	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Toluene	(ug/kg)	*1107.2*	**818,000**	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Xylenes (TOTAL)	(ug/kg)	*3940*	**258,000**	<75.0	<75.0	<75.0	NA	<75.0	<75.0	<75.0	NA	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0
m&p-Xylene	(ug/kg)	NS	**778,000**	<50.0	<50.0	<50.0	NA	<50.0	<50.0	<50.0	NA	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
o-Xylene	(ug/kg)	NS	**434,000**	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Naphthalene	(ug/kg)	*658.2*	**5,150**	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
MTBE	(ug/kg)	*27*	**59,400**	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
1,2,4-Trimethylbenzene	(ug/kg)	*408*	**89,800**	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
1,3,5-Trimethylbenzene	(ug/kg)	NS	**182,000**	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/kg)	*1382.1*	NS	<50.0	<50.0	<50	NA	<50	<50	<50	NA	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Tetrachloroethene (PCE)	(ug/kg)	*4.5*	**30,700**	*195*	*58.4J*	*117*	NA	*517*	*261*	*626*	NA	*191*	*676*	*241*	*496*	*331*	*464*
Trichloroethene (TCE)	(ug/kg)	*3.6*	**1,260**	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
cis-1,2-Dichloroethene	(ug/kg)	*41.2*	**156,000**	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
trans-1,2-Dichloroethene	(ug/kg)	*58.8*	**1,560,000**	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Vinyl Chloride	(ug/kg)	*0.1*	**67**	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	NA	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Methylene Chloride	(ug/kg)	*2.6*	**60,700**	*50.3J*	*43.7J*	*73*	NA	*75.6*	*47.3J*	*55.6J*	NA	*61.0J*	*66.5J*	*49.5J*	*59.2J*	*61.5J*	*61.2J*
Total Organic Carbon	(mg/kg)			NA	NA	NA	7,165	NA	NA	NA	4,240	NA	NA	NA	NA	NA	NA
No. of Individual Exceedances (DC)				0	0	0	--	0	0	0	--	0	0	0	0	0	0
Cumulative Hazard Index (DC)				0.0018	0.0006	0.0012	--	0.0047	0.0024	0.0056	--	0.0018	0.0061	0.0022	0.0045	0.003	0.0042
Cumulative Cancer Risk (DC)				7.2E-09	2.6E-09	5.0E-09	--	1.8E-08	9.3E-09	2.1E-08	--	7.2E-09	2.3E-08	8.7E-09	1.7E-08	1.2E-08	1.6E-08

Exceedance Highlights:

Red font indicates DC RCL exceedance, and BTV exceedance for metals. **B1** : Cumulative exceedance (HI > 1), eventhough no individual DC RCL was exceeded.

Italic font indicates GW RCL Exceedance. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.

Notes:
Xylenes reported as total of m-, o-, p-xylenes
NS = No standard established
NA = Not analyzed for parameter
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ITALICS indicates exceedance of Groundwater Pathway RCL
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TABLE A.2
Soil Analytical Results
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

				Site Investigation - Alpha Terra Science (Fehr-Graham)													
Sample ID		Groundwater Pathway RCL	Non-Industrial Direct-Contact RCL	B-16		B-17		B-18		B-19		B-20			B-21		
Date				12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12
Depth				2-3'	4-4.5'	1-2'	2.5-3.5'	2-3'	3-4'	2-3'	4-4.75'	1.5-2.5'	4-5'	4-4.5'	2-3'	4-4.5'
Description				sandy silt	sandy silt	sandy silt	sandy silt	silty gravel	silty gravel	silty gravel	silt	silty gravel	silt	silt	silty gravel	silt
DEPTH to Seasonal Low Water Table (ft BGS)				6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'
Saturated (S) or Unsaturated (U)				U	U	U	U	U	U	U	U	U	U	U	U	U
PID Reading				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Notes				*RMVD*	*RMVD*	*RMVD*	*RMVD*	*RMVD*	*RMVD*	*RMVD*	*RMVD*					
Benzene	(ug/kg)	*5.1*	**1,490**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	NA	<25.0	<25.0
Ethylbenzene	(ug/kg)	*1570*	**7,470**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	NA	<25.0	<25.0
Toluene	(ug/kg)	*1107.2*	**818,000**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	NA	<25.0	<25.0
Xylenes (TOTAL)	(ug/kg)	*3940*	**258,000**	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	NA	<75.0	<75.0
m&p-Xylene	(ug/kg)	NS	**778,000**	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	NA	<50.0	<50.0
o-Xylene	(ug/kg)	NS	**434,000**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	NA	<25.0	<25.0
Naphthalene	(ug/kg)	*658.2*	**5,150**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	NA	<25.0	<25.0
MTBE	(ug/kg)	*27*	**59,400**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	NA	<25.0	<25.0
1,2,4-Trimethylbenzene	(ug/kg)	*408*	**89,800**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	NA	<25.0	<25.0
1,3,5-Trimethylbenzene	(ug/kg)	NS	**182,000**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	NA	<25.0	<25.0
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/kg)	*1382.1*	NS	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	NA	<50.0	<50.0
Tetrachloroethene (PCE)	(ug/kg)	*4.5*	**30,700**	*510*	*2,320*	*644*	*903*	*111*	*505*	<25.0	*53.5J*	<25.0	<25.0	NA	<25.0	<25.0
Trichloroethene (TCE)	(ug/kg)	*3.6*	**1,260**	<25.0	<25.0	<25.0	<25.0	<25.0	*61.9J*	<25.0	*82.6*	<25.0	<25.0	NA	<25.0	<25.0
cis-1,2-Dichloroethene	(ug/kg)	*41.2*	**156,000**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	NA	<25.0	<25.0
trans-1,2-Dichloroethene	(ug/kg)	*58.8*	**1,560,000**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	NA	<25.0	<25.0
Vinyl Chloride	(ug/kg)	*0.1*	**67**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	NA	<25.0	<25.0
Methylene Chloride	(ug/kg)	*2.6*	**60,700**	*51.6J*	*41.1J*	*42.2J*	*37.1J*	*31.0J*	<25.0	*29.2J*	<25.0	<25.0	<25.0	NA	<25.0	<25.0
Total Organic Carbon	(mg/kg)			NA	NA	NA	5,220	NA	NA	NA	NA	NA	NA	1,785	NA	NA
No. of Individual Exceedances (DC)				0	0	0	0	0	0	0	0	--	--	--	--	--
Cumulative Hazard Index (DC)				0.0046	0.0203	0.0067	0.0079	0.001	0.0158	0.0001	0.0141	--	--	--	--	--
Cumulative Cancer Risk (DC)				1.7E-08	7.6E-08	2.8E-08	3.0E-08	4.1E-09	7.1E-08	4.8E-10	6.7E-08	--	--	--	--	--

Exceedance Highlights:

Red font indicates DC RCL exceedance, and BTV exceedance for metals. **B1** : Cumulative exceedance (HI > 1), eventhough no individual DC RCL was exceeded.

Italic font indicates GW RCL Exceedance. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.

Notes:
Xylenes reported as total of m-, o-, p-xylenes
NS = No standard established
NA = Not analyzed for parameter
NR = Not Reported
ITALICS indicates exceedance of Groundwater Pathway RCL
BOLD indicates exceedance of Non-industrial Direct Contact RCL

TABLE A.2
Soil Analytical Results
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

				August 5-6, 2015 Remedial Action Excavation														
Sample ID		Groundwater Pathway RCL	Non-Industrial Direct-Contact RCL	AN	AS	AE	AW	BN	BS	BE	BW	CN	CE	CW	DN	DS	DE	DW
Date				8/5/15	8/5/15	8/5/15	8/5/15	8/5/15	8/5/15	8/5/15	8/5/15	8/6/15	8/6/15	8/6/15	8/6/15	8/6/15	8/6/15	8/6/15
Depth				1-4'	1-4'	1-4'	1-4'	1-4'	1-4'	1-4'	1-4'	1-4'	1-4'	1-4'	1-4'	1-4'	1-4'	1-4'
Description				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DEPTH to Seasonal Low Water Table (ft BGS)				6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'
Saturated (S) or Unsaturated (U)				U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
PID Reading				0.2	0.7	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Notes																		
Benzene	(ug/kg)	*5.1*	**1,490**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Ethylbenzene	(ug/kg)	*1570*	**7,470**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Toluene	(ug/kg)	*1107.2*	**818,000**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Xylenes (TOTAL)	(ug/kg)	*3940*	**258,000**	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0
m&p-Xylene	(ug/kg)	NS	**778,000**	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
o-Xylene	(ug/kg)	NS	**434,000**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Naphthalene	(ug/kg)	*658.2*	**5,150**	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0
MTBE	(ug/kg)	*27*	**59,400**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
1,2,4-Trimethylbenzene	(ug/kg)	*408*	**89,800**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
1,3,5-Trimethylbenzene	(ug/kg)	NS	**182,000**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/kg)	*1382.1*	NS	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Tetrachloroethene (PCE)	(ug/kg)	*4.5*	**30,700**	<25.0	*27.7 J*	*117*	<25.0	*118*	*3,660*	*667*	*87.1*	*146*	*70.0 J*	*87.1*	*170*	*598*	*128*	*61.1 J*
Trichloroethene (TCE)	(ug/kg)	*3.6*	**1,260**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
cis-1,2-Dichloroethene	(ug/kg)	*41.2*	**156,000**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
trans-1,2-Dichloroethene	(ug/kg)	*58.8*	**1,560,000**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Vinyl Chloride	(ug/kg)	*0.1*	**67**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Methylene Chloride	(ug/kg)	*2.6*	**60,700**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Total Organic Carbon	(mg/kg)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
No. of Individual Exceedances (DC)				--	0	0	--	0	0	0	0	0	0	0	0	0	0	0
Cumulative Hazard Index (DC)				--	0.0002	0.001	--	0.001	0.0318	0.0058	0.0008	0.0013	0.0006	0.0008	0.0015	0.0052	0.0011	0.0005
Cumulative Cancer Risk (DC)				--	9.0E-10	3.8E-09	--	3.8E-09	1.2E-07	2.2E-08	2.8E-09	4.8E-09	2.3E-09	2.8E-09	5.5E-09	1.9E-08	4.2E-09	2.0E-09

Exceedance Highlights:

Red font indicates DC RCL exceedance, and BTV exceedance for metals. **B1** : Cumulative exceedance (HI > 1), eventhough no individual DC RCL was exceeded.

Italic font indicates GW RCL Exceedance. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.

Notes:
Xylenes reported as total of m-, o-, p-xylenes
NS = No standard established
NA = Not analyzed for parameter
NR = Not Reported
ITALICS indicates exceedance of Groundwater Pathway RCL
BOLD indicates exceedance of Non-industrial Direct Contact RCL

TABLE A.3
Residual Soil Contamination - VOCs
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

				Site Investigation - Northern Environmental			Site Investigation - STS Consultants																
Sample ID		Groundwater Pathway RCL	Non-Industrial Direct-Contact RCL	B100A	B300A	B500A	PZ-1		MW-2		MW-4		MW-6	MW-7	B-1	B-2	B-5	B-6	B-20			B-21	
Date				3/10/99	3/10/99	3/10/99	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	12/11/12	12/11/12	12/11/12	12/11/12	12/11/12
Depth				1-3'	2-4'	2-4'	3-5'	7-9'	2-4'	6-8'	1-3'	7-9'	0-2'	0-2'	0-2'	2-4'	0-2'	0-2'	1.5-2.5'	4-5'	4-4.5'	2-3'	4-4.5'
Description				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	silty gravel	silt	silt	silty gravel	silt
DEPTH to Seasonal Low Water Table (ft BGS)				6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'
Saturated (S) or Unsaturated (U)				U	U	U	U	S	U	S	U	S	U	U	U	U	U	U	U	U	U	U	U
PID Reading				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0	0.0	0.0	0.0	0.0
Notes																							
Benzene	(ug/kg)	*5.1*	**1,490**	<25	<25	<25	<12.8	<13.1	<11.5	<13.8	<11.8	<12.0	NA	NA	<11	<11	<12	<10	<25.0	<25.0	NA	<25.0	<25.0
Ethylbenzene	(ug/kg)	*1570*	**7,470**	<25	<25	<25	<13.2	<13.6	<11.9	<14.2	<12.2	<12.3	NA	NA	<11	<12	<12	<11	<25.0	<25.0	NA	<25.0	<25.0
Toluene	(ug/kg)	*1107.2*	**818,000**	<25	<25	<25	<7.5	<7.69	<6.74	<8.07	<6.93	<7.0	NA	NA	<6.5	<6.7	<7.0	<6.1	<25.0	<25.0	NA	<25.0	<25.0
Xylenes (TOTAL)	(ug/kg)	*3940*	**258,000**	<75	<75	<25	<38.8	<39.8	<34.9	<41.9	<35.9	<36.2	NA	NA	<23	<24	<25	<22	<75.0	<75.0	NA	<75.0	<75.0
m&p-Xylene	(ug/kg)	NS	**778,000**	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NA	NR	NR	NR	NR	<50.0	<50.0	NA	<50.0	<50.0
o-Xylene	(ug/kg)	NS	**434,000**	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NA	NR	NR	NR	NR	<25.0	<25.0	NA	<25.0	<25.0
Naphthalene	(ug/kg)	*658.2*	**5,150**	<25	<25	<25	<5.59	<5.73	<5.03	<6.02	<5.17	<5.22	NA	NA	<32	<33	<34	<30	<25.0	<25.0	NA	<25.0	<25.0
MTBE	(ug/kg)	*27*	**59,400**	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NA	NR	NR	NR	NR	<25.0	<25.0	NA	<25.0	<25.0
1,2,4-Trimethylbenzene	(ug/kg)	*408*	**89,800**	<25	<25	<25	<31.6	<32.4	<28.4	<34	<29.2	<22	NA	NA	<27	<28	<29	<26	<25.0	<25.0	NA	<25.0	<25.0
1,3,5-Trimethylbenzene	(ug/kg)	NS	**182,000**	<25	<25	<25	<23.6	<24.2	<21.2	<25.4	<21.2	<5.22	NA	NA	<20	<21	<22	<19	<25.0	<25.0	NA	<25.0	<25.0
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/kg)	*1382.1*	NS	<50	<50	<50	<55.2	<56.6	<49.6	<59.4	<50.4	<27.22	NA	NA	<47	<49	<51	<45	<50.0	<50.0	NA	<50.0	<50.0
Tetrachloroethene (PCE)	(ug/kg)	*4.5*	**30,700**	*170*	*57*	*51*	*98.9*	<23.5	<20.6	<24.7	<21.2	<21.4	NA	NA	<20	*46J*	<21	<19	<25.0	<25.0	NA	<25.0	<25.0
Trichloroethene (TCE)	(ug/kg)	*3.6*	**1,260**	NR	NR	NR	<14.5	<14.8	<13.0	<15.6	<13.4	<13.5	NA	NA	<13	<13	<13	<12	<25.0	<25.0	NA	<25.0	<25.0
cis-1,2-Dichloroethene	(ug/kg)	*41.2*	**156,000**	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NA	NR	NR	NR	NR	<25.0	<25.0	NA	<25.0	<25.0
trans-1,2-Dichloroethene	(ug/kg)	*58.8*	**1,560,000**	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NA	NR	NR	NR	NR	<25.0	<25.0	NA	<25.0	<25.0
Vinyl Chloride	(ug/kg)	*0.1*	**67**	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA	NA	NR	NR	NR	NR	<25.0	<25.0	NA	<25.0	<25.0
Methylene Chloride	(ug/kg)	*2.6*	**60,700**	NR	NR	NR	<17.3	<17.8	<15.6	<18.6	<16.0	<16.2	NA	NA	<47	<48	<50	<44	<25.0	<25.0	NA	<25.0	<25.0
Total Organic Carbon	(mg/kg)			NA	NA	NA	NA	NA	NA	NA	NA	NA	36400	24700	NA	NA	NA	NA	NA	NA	1,785	NA	NA
No. of Individual Exceedances (DC)				0	0	0	0	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--
Cumulative Hazard Index (DC)				0.0015	0.0005	0.0004	0.0009	--	--	--	--	--	--	--	--	0.0004	--	--	--	--	--	--	--
Cumulative Cancer Risk (DC)				5.5E-09	1.9E-09	1.7E-09	3.2E-09	--	--	--	--	--	--	--	--	1.5E-09	--	--	--	--	--	--	--

Exceedance Highlights:

Red font indicates DC RCL exceedance, and BTV exceedance for metals. **B1** : Cumulative exceedance (HI > 1), eventhough no individual DC RCL was exceeded.

Italic font indicates GW RCL Exceedance. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.

Notes:

Xylenes reported as total of m-, o-, p-xylenes
NS = No standard established
NA = Not analyzed for parameter
NR = Not Reported
ITALICS indicates exceedance of Groundwater Pathway RCL; WDNR RCL calculator 7/14/14

BOLD indicates exceedance of Non-industrial Direct Contact Residual Contaminant Level; WDNR RCL calculator 7/14/14

TABLE A.3
Residual Soil Contamination - VOCs
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

				August 5-6, 2015 Remedial Action Excavation														
Sample ID		Groundwater Pathway RCL	Non-Industrial Direct-Contact RCL	AN	AS	AE	AW	BN	BS	BE	BW	CN	CE	CW	DN	DS	DE	DW
Date				8/5/15	8/5/15	8/5/15	8/5/15	8/5/15	8/5/15	8/5/15	8/5/15	8/6/15	8/6/15	8/6/15	8/6/15	8/6/15	8/6/15	8/6/15
Depth				1-4'	1-4'	1-4'	1-4'	1-4'	1-4'	1-4'	1-4'	1-4'	1-4'	1-4'	1-4'	1-4'	1-4'	1-4'
Description				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DEPTH to Seasonal Low Water Table (ft BGS)				6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'
Saturated (S) or Unsaturated (U)				U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
PID Reading				0.2	0.7	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Notes																		
Benzene	(ug/kg)	*5.1*	**1,490**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Ethylbenzene	(ug/kg)	*1570*	**7,470**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Toluene	(ug/kg)	*1107.2*	**818,000**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Xylenes (TOTAL)	(ug/kg)	*3940*	**258,000**	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0	<75.0
m&p-Xylene	(ug/kg)	NS	**778,000**	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
o-Xylene	(ug/kg)	NS	**434,000**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Naphthalene	(ug/kg)	*658.2*	**5,150**	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0	<40.0
MTBE	(ug/kg)	*27*	**59,400**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
1,2,4-Trimethylbenzene	(ug/kg)	*408*	**89,800**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
1,3,5-Trimethylbenzene	(ug/kg)	NS	**182,000**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Trimethylbenzene Total (1,2,4- & 1,3,5-)	(ug/kg)	*1382.1*	NS	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Tetrachloroethene (PCE)	(ug/kg)	*4.5*	**30,700**	<25.0	*27.7 J*	*117*	<25.0	*118*	*3,660*	*667*	*87.1*	*146*	*70.0 J*	*87.1*	*170*	*598*	*128*	*61.1 J*
Trichloroethene (TCE)	(ug/kg)	*3.6*	**1,260**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
cis-1,2-Dichloroethene	(ug/kg)	*41.2*	**156,000**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
trans-1,2-Dichloroethene	(ug/kg)	*58.8*	**1,560,000**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Vinyl Chloride	(ug/kg)	*0.1*	**67**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Methylene Chloride	(ug/kg)	*2.6*	**60,700**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0
Total Organic Carbon	(mg/kg)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
No. of Individual Exceedances (DC)				--	0	0	--	0	0	0	0	0	0	0	0	0	0	0
Cumulative Hazard Index (DC)				--	0.0002	0.001	--	0.001	0.0318	0.0058	0.0008	0.0013	0.0006	0.0008	0.0015	0.0052	0.0011	0.0005
Cumulative Cancer Risk (DC)				--	9.0E-10	3.8E-09	--	3.8E-09	1.2E-07	2.2E-08	2.8E-09	4.8E-09	2.3E-09	2.8E-09	5.5E-09	1.9E-08	4.2E-09	2.0E-09

Exceedance Highlights:

Red font indicates DC RCL exceedance, and BTV exceedance for metals. **B1** : Cumulative exceedance (HI > 1), eventhough no individual DC RCL was exceeded.

Italic font indicates GW RCL Exceedance. Groundwater quality (> NR 140 ES) may be affected when GW RCLs are exceeded.

Notes:

Xylenes reported as total of m-, o-, p-xylenes
NS = No standard established
NA = Not analyzed for parameter
NR = Not Reported
ITALICS indicates exceedance of Groundwater Pathway RCL; WDNR RCL calculator 7/14/14

BOLD indicates exceedance of Non-industrial Direct Contact Residual Contaminant Level; WDNR RCL calculator 7/14/14

TABLE A.4
GEC SUMMARY OF SUB-SLAB VAPOR SOIL ANALYTICAL RESULTS
FORMER ONE HOUR MARTINIZING

TABLE 1 REGIONAL SCREENING LEVEL SUMMARY					
Sample No.	**Small Commerical**	**VP-1**		**VP-2**	
Sampling Date		**09/02/16**	**01/30/17**	**09/02/16**	**01/30/17**
Units (ug/m3)					
VOLATILE ORGANIC COMPOUNDS (VOC) (ug/m3)					
Benzene	530	8.58	0.800	<48.9	0.894
Carbon Tetrachloride	670	<1.23	<1.23	<123	<1.23
Chloroform	180	<0.930	<0.930	<93	<0.930
Chloromethane	13000	<0.374	0.739	<37.4	1.26
Dichlorodifluoromethane	15000	<0.989	1.38	<98.9	1.41
1,1 Dichloroethane	2600	<0.685	<0.685	<68.5	<0.685
1,2 Dichloroethane	160	<0.830	<0.830	<83	<0.830
1,1-Dichloroethene	29000	<0.646	<0.646	<64.6	<0.646
cis-1,2-Dichloroethene	NE	<0.515	<0.515	<51.5	<0.515
trans-1,2-Dichloroethene	NE	<0.614	<0.614	<61.4	<0.614
Ethylbenzene	1600	**4420**	4.52	313	2.13
Methylene Chloride	87000	12.7	<0.538	<53.8	<0.538
Methy Tert Butyl Ether	16000	<0.605	<0.605	196	<0.605
Naphthalene	120	4.37	<2.69	<269	<2.69
Tetrachloroethylene	6000	1.47	1.22	<113	<1.13
Toluene	730000	25.5	5.73	149	2.58
1,1,1-Trichloroethane	73000	<1.21	<1.21	<121	<1.21
Trichloroethylene	290	<0.975	<0.975	<97.5	<0.975
Trichlorofluoromethane	NE	1.3	1.36	<126	1.37
1,2,4-Trimethylbenzene	1000	16.8	7.64	<79	3.85
1,3,5-Trimethylbenzene	NE	3.58	1.57	<103	<1.03
Vinyl chloride	930	<0.389	<0.389	<38.9	<0.389
m&p-Xylene	15000	33.6	7.97	<137	3.32
o-Xylene	15000	18.2	3.62	<91.5	1.54

UG/M^{3} - Micrograms per Cubic Meter of Air
Bold indicates analytical results exceed May 2016 USEPA Regional Sub-Slab Vapor Risk Screening Level

TABLE A.6
Water Level Elevations
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Well Identification	MW-1	PZ-1	MW-2	MW-3	SMW-3	MW-4	MW-5
Top of Casing Elevation (ft MSL)	98.61	99.15	98.31	98.29	--	99.27	98.92
Top of Casing Elevation (ft MSL)*	602.01	602.07	600.55	--	601.25	601.51	601.69
Ground Surface Elevation (ft. MSL)	99.01	99.51	98.63	98.71	--	99.71	99.19
Ground Surface Elevation (ft. MSL)*	602.28	602.26	600.80	--	601.45	601.83	601.95
Total Well Depth	12.43	22.23	12.70	12.89	15.30	12.30	12.64
Stickup	-0.40	-0.36	-0.32	-0.42		-0.44	-0.27
Stickup*	-0.27	-0.19	-0.25	--	-0.20	-0.32	-0.26
Screened Elevation (ft MSL)							

Well Identification	MW-6	MW-7	MW-8	MW-9	GEC TW-4	GEC TW-5
Top of Casing Elevation (ft MSL)	97.65	97.83	98.91	97.43		
Top of Casing Elevation (ft MSL)*	601.23	601.39	602.24	599.89	602.19	602.80
Ground Surface Elevation (ft. MSL)	97.93	98.13	99.29	97.77	0.00	0.00
Ground Surface Elevation (ft. MSL)*	601.27	601.66	602.38	600.16	602.70	603.26
Total Well Depth	12.55	12.26	12.54	13.50	12.88	12.68
Stickup	-0.28	-0.30	-0.38	-0.34	0.00	
Stickup*	-0.04	-0.27	-0.14	-0.27	-0.51	-0.46
Screened Elevation (ft MSL)						

	MW-1			PZ-1			MW-2		
Sample Date	Depth to Water (ft below PVC Lip)	Depth to Water (below grade)	Groundwater Elev. (ft msl)	Depth to Water (ft below PVC Lip)	Depth to Water (below grade)	Groundwater Elev. (ft msl)	Depth to Water (ft below PVC Lip)	Depth to Water (below grade)	Groundwater Elev. (ft msl.)
6/8/1999	4.83	5.23	597.18	12.64	13.00	589.43	4.81	5.13	595.74
1/3/2000	6.61	7.01	595.40	6.90	7.26	595.17	6.78	7.10	593.77
4/22/2004	3.98	4.38	598.03	5.20	5.56	596.87	4.76	5.08	595.79
7/22/2004	4.05	4.45	597.96	5.16	5.52	596.91	5.02	5.34	595.53
10/27/2004	5.07	5.47	596.94	5.92	6.28	596.15	5.65	5.97	594.90
1/25/2005	5.84	6.24	596.17	6.90	7.26	595.17	6.67	6.99	593.88
10/31/2006	4.10	4.50	597.91	5.07	5.43	597.00	4.91	5.23	595.64
4/30/2007	3.43	3.83	598.58	4.89	5.25	597.18	4.43	4.75	596.12
10/15/2010	3.98	4.38	598.03	5.29	5.65	596.78	4.80	5.12	595.75
12/12/2012	4.69	5.09	597.32	7.80	8.16	594.27	5.97	6.29	594.58
11/12/2015	3.22	3.62	598.79	4.86	5.22	597.21	4.60	4.92	595.95
4/21/2016	2.77	3.17	599.24		No Data			No Data	
6/24/2016	3.70	4.10	598.31	5.10	5.46	596.97	4.84	5.16	595.71
9/22/2016*	5.72	5.99	596.29	7.20	7.39	594.87	4.80	5.05	595.75
12/22/2016*	6.02	6.29	595.99	6.88	7.07	595.19	5.68	5.93	594.87
3/21/2017*	5.53	5.80	596.48	6.59	6.78	595.48	4.75	5.00	595.80
6/21/2017*	5.65	5.92	596.36	6.45	6.64	595.62	4.96	5.21	595.59

	MW-3			SMW-3			MW-4		
Sample Date	Depth to Water (ft below PVC Lip)	Depth to Water (below grade)	Groundwater Elev. (ft msl)	Depth to Water (ft below PVC Lip)	Depth to Water (below grade)	Groundwater Elev. (ft msl)	Depth to Water (ft below PVC Lip)	Depth to Water (below grade)	Groundwater Elev. (ft msl.)
6/8/1999	2.65	3.07	598.60		Not Installed		2.84	3.28	598.67
1/3/2000	4.94	5.36	596.31		Not Installed		5.25	5.69	596.26
4/22/2004	2.57	2.99	598.68		Not Installed		2.55	2.99	598.96
7/22/2004	2.78	3.20	598.47		Not Installed			No Data	
10/27/2004	3.74	4.16	597.51		Not Installed		4.08	4.52	597.43
1/25/2005	5.10	5.52	596.15		Not Installed			No Data	
10/31/2006	3.06	3.48	598.19		Not Installed		3.35	3.79	598.16
4/30/2007	2.21	2.63	599.04		Not Installed			No Data	
10/15/2010	3.19	3.61	598.06		Not Installed		3.28	3.72	598.23
12/12/2012	4.92	5.34	596.33		Not Installed		4.44	4.88	597.07
11/12/2015	Abandoned 2015 Excavation			5.68	5.68	595.57	4.22	4.66	597.29
4/21/2016	Abandoned 2015 Excavation			5.63	5.63	595.62	3.61	4.05	597.90
6/24/2016	Abandoned 2015 Excavation			5.56	5.56	595.69	4.24	4.68	597.27
9/22/2016*	Abandoned 2015 Excavation			6.18	6.38	595.07	4.61	4.93	596.90
12/22/2016*	Abandoned 2015 Excavation			6.29	6.49	594.96	5.18	5.50	596.33
3/21/2017*	Abandoned 2015 Excavation			6.15	6.35	595.10	4.17	4.49	597.34
6/21/2017*	Abandoned 2015 Excavation			6.15	6.35	595.10	4.58	4.90	596.93

TABLE A.6
Water Level Elevations
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Well Identification	MW-1	PZ-1	MW-2	MW-3	SMW-3	MW-4	MW-5
Top of Casing Elevation (ft MSL)	98.61	99.15	98.31	98.29	--	99.27	98.92
Top of Casing Elevation (ft MSL)*	602.01	602.07	600.55	--	601.25	601.51	601.69
Ground Surface Elevation (ft. MSL)	99.01	99.51	98.63	98.71	--	99.71	99.19
Ground Surface Elevation (ft. MSL)*	602.28	602.26	600.80	--	601.45	601.83	601.95
Total Well Depth	12.43	22.23	12.70	12.89	15.30	12.30	12.64
Stickup	-0.40	-0.36	-0.32	-0.42		-0.44	-0.27
Stickup*	-0.27	-0.19	-0.25	--	-0.20	-0.32	-0.26
Screened Elevation (ft MSL)							

Well Identification	MW-6	MW-7	MW-8	MW-9	GEC TW-4	GEC TW-5
Top of Casing Elevation (ft MSL)	97.65	97.83	98.91	97.43		
Top of Casing Elevation (ft MSL)*	601.23	601.39	602.24	599.89	602.19	602.80
Ground Surface Elevation (ft. MSL)	97.93	98.13	99.29	97.77	0.00	0.00
Ground Surface Elevation (ft. MSL)*	601.27	601.66	602.38	600.16	602.70	603.26
Total Well Depth	12.55	12.26	12.54	13.50	12.88	12.68
Stickup	-0.28	-0.30	-0.38	-0.34	0.00	
Stickup*	-0.04	-0.27	-0.14	-0.27	-0.51	-0.46
Screened Elevation (ft MSL)						

	MW-5			MW-6			MW-7		
Sample Date	Depth to Water (ft below PVC Lip)	Depth to Water (below grade)	Groundwater Elev. (ft msl)	Depth to Water (ft below PVC Lip)	Depth to Water (below grade)	Groundwater Elev. (ft msl)	Depth to Water (ft below PVC Lip)	Depth to Water (below grade)	Groundwater Elev. (ft msl.)
6/8/1999		Not Installed			Not Installed			Not Installed	
1/3/2000	4.83	5.10	596.86	4.94	5.22	596.29	6.61	6.91	594.78
4/22/2004	2.13	2.40	599.56	2.60	2.88	598.63	3.71	4.01	597.68
7/22/2004		No Data			No Data			No Data	
10/27/2004	3.64	3.91	598.05	3.74	4.02	597.49	4.91	5.21	596.48
1/25/2005		No Data			No Data			No Data	
10/31/2006	3.06	3.33	598.63	3.38	3.66	597.85	4.11	4.41	597.28
4/30/2007		No Data			No Data			No Data	
10/15/2010	2.96	3.23	598.73	3.39	3.67	597.84	4.19	4.49	597.20
12/12/2012	5.07	5.34	596.62	4.89	5.17	596.34	4.76	5.06	596.63
11/12/2015	5.00	5.27	596.69	4.67	4.95	596.56	3.58	3.88	597.81
4/21/2016		No Data			No Data		3.71	4.01	597.68
6/24/2016	5.00	5.27	596.69	4.63	4.91	596.60	4.18	4.48	597.21
9/22/2016*	5.50	5.76	596.19	6.79	6.83	594.44	6.39	6.66	595.00
12/22/2016*	5.95	6.21	595.74	6.28	6.32	594.95	6.62	6.89	594.77
3/21/2017*	5.28	5.54	596.41	6.32	6.36	594.91	6.13	6.40	595.26
6/21/2017*	5.56	5.82	596.13	6.00	6.04	595.23	6.18	6.45	595.21

	MW-8			MW-9			GEC TW-4		
Sample Date	Depth to Water (ft below PVC Lip)	Depth to Water (below grade)	Groundwater Elev. (ft msl)	Depth to Water (ft below PVC Lip)	Depth to Water (below grade)	Groundwater Elev. (ft msl)	Depth to Water (ft below PVC Lip)	Depth to Water (below grade)	Groundwater Elev. (ft msl.)
6/8/1999		Not Installed			Not Installed			No Data	
1/3/2000	6.41	6.79	595.83		Not Installed			No Data	
4/22/2004	4.03	4.41	598.21	4.31	4.65	595.58		No Data	
7/22/2004		No Data			No Data			No Data	
10/27/2004	5.26	5.64	596.98	5.24	5.58	594.65		No Data	
1/25/2005		No Data			No Data			No Data	
10/31/2006	4.07	4.45	598.17	4.00	4.34	595.89		No Data	
4/30/2007		No Data			No Data			No Data	
10/15/2010	3.89	4.27	598.35	6.03	6.37	593.86		No Data	
12/12/2012	4.78	5.16	597.46	6.74	7.08	593.15		No Data	
11/12/2015	3.12	3.50	599.12	4.57	4.91	595.32	4.03	4.03	598.16
4/21/2016	2.75	3.13	599.49		No Data		3.40	3.40	598.79
6/24/2016	4.96	5.34	597.28	5.65	5.99	594.24	4.28	4.28	597.91
9/22/2016*	5.51	5.65	596.73	5.39	5.66	594.50	5.43	5.94	596.76
12/22/2016*	5.60	5.74	596.64	6.10	6.37	593.79	5.62	6.13	596.57
3/21/2017*	4.97	5.11	597.27	6.18	6.45	593.71	4.82	5.33	597.37
6/21/2017*	5.18	5.32	597.06	6.25	6.52	593.64	5.02	5.53	597.17

	GEC TW-5		
Sample Date	Depth to Water (ft below PVC Lip)	Depth to Water (below grade)	Groundwater Elev. (ft msl)
11/12/2015	3.77	4.23	599.03
4/21/2016	3.51	3.97	599.29
6/24/2016	3.93	4.39	598.87
9/22/2016*	5.92	6.38	596.88
12/22/2016*		Not Sampled	
3/21/2017*	5.12	5.58	597.68
6/21/2017*	5.53	5.99	597.27

NOTES:
ft MSL - Feet below Mean Sea Level
* = Elevations resurveyed after construction (10/13/16)

TABLE A.7
Groundwater Natural Attenuation
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140 Preventive Action Limit	NR 140 Enforcement Standard	MW-1														
Sample Date				1/3/00	4/22/04	7/22/04	10/28/04	1/25/05	10/31/06	4/30/07	10/15/10	12/12/12	11/15/15	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				595.40	598.03	597.96	596.94	596.17	597.91	598.58	598.03	597.32	598.79	598.31	596.29	595.99	596.48	596.36
FIELD PARAMETERS																		
Temperature	C°	NS	NS	8.8	13.8	23.9	18.3	9.6	16.2	14.9	19.1	14.74	14.68	15.46	16.48	13.24	6.38	7.21
Specific Conductivity	mS/cm	NS	NS	1005	1652	1618	1691	1767	1463	1121	1217	900	476	--	781	886	2542	2456
Dissolved Oxygen (field)	mg/l	NS	NS	1	5	5	4	4	3	6	--	5.73	7.77	6.07	1.10	4.12	3.72	3.69
pH		NS	NS	7.05	7.11	7.14	7.41	7.15	7.26	7.18	6.85	7.18	7.42	7.34	6.93	5.69	6.57	6.62
ORP	eV	NS	NS	--	--	--	--	--	--	--	--	-30.6	195.9	87.0	170.0	144.4	163.6	158.3

Notes:

NS = No standard established

Bold value indicates exceedance of NR 140.10 or 140.12 Enforcement Standard

ITALICS value exceeds NR 140.10 or 140.12 PAL

*: Public Welfare Standard from Table 2, NR 140.12

**: Values beyond standard range of concentration, meter operation suspect

TABLE A.7
Groundwater Natural Attenuation
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140 Preventive Action Limit	NR 140 Enforcement Standard	PZ-1														
Sample Date				1/3/00	4/22/04	7/22/04	10/28/04	1/25/05	10/31/06	4/30/07	10/15/10	12/12/12	11/12/15	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				595.17	596.87	596.91	596.15	595.17	597.00	597.18	596.78	594.27	597.21	596.97	594.87	595.19	595.48	595.62
FIELD PARAMETERS																		
Temperature	C°	NS	NS	8.9	14.1	23.4	15.1	10.7	15.4	15.0	14.1	14.87	15.77	NOT SAMPLED	14.33	13.69	11.36	10.43
Specific Conductivity	mS/cm	NS	NS	192	261	261	233	257	275	236	332	187	190		161	425	6063	5548
Dissolved Oxygen (field)	mg/l	NS	NS	1	4	4	3	3	4	5	--	1.40	3.90		1.32	3.33	0.67	0.48
pH		NS	NS	8.35	7.98	8.13	8.50	8.20	8.18	8.04	7.36	8.00	7.73		6.28	5.49	6.51	6.48
ORP	eV	NS	NS	--	--	--	--	--	--	--	--	-61.6	191.2		224.0	148.6	130.3	132.7

Notes:

NS = No standard established

Bold value indicates exceedance of NR 140.10 or 140.12 Enforcement Standard

ITALICS value exceeds NR 140.10 or 140.12 PAL

*: Public Welfare Standard from Table 2, NR 140.12

**: Values beyond standard range of concentration, meter operation suspect

TABLE A.7
Groundwater Natural Attenuation
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140 Preventive Action Limit	NR 140 Enforcement Standard	MW-2														
Sample Date				1/3/00	4/22/04	7/22/04	10/28/04	1/25/05	10/31/06	4/30/07	10/15/10	12/12/12	11/12/15	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				593.77	595.79	595.53	594.90	593.88	595.64	596.12	595.75	594.58	595.95	595.71	595.75	594.87	595.80	595.59
FIELD PARAMETERS																		
Temperature	C°	NS	NS	8.1	8.2	19.1	15.3	7.2	13.3	9.9	15.6	13.52	13.89	14.55	16.25	11.58	5.93	6.28
Specific Conductivity	mS/cm	NS	NS	3030	6690	4120	5190	4690	3420	3110	3730	2285	1679	1717	2349	1589	2442	2561
Dissolved Oxygen (field)	mg/l	NS	NS	<1	3	5	2	5	3	4	--	2.54	7.30	3.88	1.69	12.93	2.72	2.89
pH		NS	NS	6.83	6.86	6.99	7.28	7.10	7.19	7.25	7.03	7.04	6.64	5.90	6.27	5.19	6.58	6.67
ORP	eV	NS	NS	--	--	--	--	--	--	--	--	-42.3	155.9	134.0	188.0	144.8	162.4	160.1

Notes:

NS = No standard established

Bold value indicates exceedance of NR 140.10 or 140.12 Enforcement Standard

ITALICS value exceeds NR 140.10 or 140.12 PAL

*: Public Welfare Standard from Table 2, NR 140.12

**: Values beyond standard range of concentration, meter operation suspect

TABLE A.7
Groundwater Natural Attenuation
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140 Preventive Action Limit	NR 140 Enforcement Standard	MW-3										SMW-3					
Sample Date				1/3/00	4/22/04	7/22/04	10/28/04	1/25/05	10/31/06	4/30/07	10/15/10	12/12/12	11/12/15	11/12/15	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				596.31	598.68	598.47	597.51	596.15	598.19	599.04	598.04	596.33	--	595.57	595.69	595.07	594.96	595.10	595.10
FIELD PARAMETERS																			
Temperature	C°	NS	NS	7.8	7.4	16.7	16.5	9.0	13.2	10.6	18.2	12.54	REMOVED DURING 2015 EXCAVATION	15.19	13.48	20.10	12.21	6.63	7.01
Specific Conductivity	mS/cm	NS	NS	710	901	929	801	919	811	665	633	604		501	996	918	1767	772	805
Dissolved Oxygen (field)	mg/l	NS	NS	<1	6	5	2	4	3	6	--	4.21		6.17	4.01	0.96	5.19	1.31	1.62
pH		NS	NS	7.23	7.31	7.36	7.60	7.47	7.30	7.18	6.89	7.28		7.41	6.70	7.16	5.56	6.66	6.71
ORP	eV	NS	NS	--	--	--	--	--	--	--	--	-48.3		182.4	118.7	167.0	142.9	116.5	120.0

Notes:

NS = No standard established

Bold value indicates exceedance of NR 140.10 or 140.12 Enforcement Standard

ITALICS value exceeds NR 140.10 or 140.12 PAL

*: Public Welfare Standard from Table 2, NR 140.12

**: Values beyond standard range of concentration, meter operation suspect

TABLE A.7
Groundwater Natural Attenuation
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140 Preventive Action Limit	NR 140 Enforcement Standard	MW-4											
Sample Date				1/3/00	4/22/04	10/28/04	10/31/06	10/15/10	12/12/12	11/12/15	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				596.26	598.96	597.43	598.16	598.23	597.07	597.29	597.27	596.90	596.33	597.34	596.93
FIELD PARAMETERS															
Temperature	C°	NS	NS	8.0	9.4	16.9	13.4	19.5	13.38	16.24	16.92	23.13	12.14	6.41	6.98
Specific Conductivity	mS/cm	NS	NS	713	760	757	776	659	433	532	659	585	566	477	428
Dissolved Oxygen (field)	mg/l	NS	NS	1	5	4	5	--	6.60	3.84	4.64	1.12	15.66	2.59	2.84
pH		NS	NS	7.19	7.20	7.57	7.38	6.38	7.46	7.15	7.49	7.88	5.99	6.98	6.92
ORP	eV	NS	NS	--	--	--	--	--	-48.6	185.9	70.1	188.0	202.6	85.9	83.7

Notes:

NS = No standard established

Bold value indicates exceedance of NR 140.10 or 140.12 Enforcement Standard

ITALICS value exceeds NR 140.10 or 140.12 PAL

*: Public Welfare Standard from Table 2, NR 140.12

**: Values beyond standard range of concentration, meter operation suspect

TABLE A.7
Groundwater Natural Attenuation
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140 Preventive Action Limit	NR 140 Enforcement Standard	MW-5												
Sample Date				1/3/00	4/22/04	10/28/04	10/31/06	10/15/10	12/12/12	11/12/15	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				596.86	599.56	598.05	598.63	598.73	596.62	596.69	596.69	596.19	595.74	596.41	596.13
FIELD PARAMETERS																
Temperature	C°	NS	NS	10.5	8.4	17.2	13.5	17.6	12.93	14.57	NOT SAMPLED	20.60	11.72	5.86	6.54
Specific Conductivity	mS/cm	NS	NS	598	1039	896	828	722	560	501		482	554	3736	3814
Dissolved Oxygen (field)	mg/l	NS	NS	5	5	4	2	--	576.00	7.45		5.06	15.32	6.03	5.92
pH		NS	NS	7.58	7.24	7.55	7.25	6.41	7.34	7.05		7.08	5.35	6.54	6.83
ORP	eV	NS	NS	--	--	--	--	--	-41.2	189.5		197.0	196.8	79.7	78.2

Notes:

NS = No standard established

Bold value indicates exceedance of NR 140.10 or 140.12 Enforcement Standard

ITALICS value exceeds NR 140.10 or 140.12 PAL

*: Public Welfare Standard from Table 2, NR 140.12

**: Values beyond standard range of concentration, meter operation suspect

TABLE A.7
Groundwater Natural Attenuation
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140 Preventive Action Limit	NR 140 Enforcement Standard	MW-6											
Sample Date				1/3/00	4/22/04	10/28/04	10/31/06	10/15/10	12/12/12	11/12/15	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				596.29	598.63	597.49	597.85	597.84	596.34	596.56	596.60	594.44	594.95	594.91	595.23
FIELD PARAMETERS															
Temperature	C°	NS	NS	9.8	8.2	17.5	14.9	17.3	12.12	13.96	13.01	16.26	12.41	7.29	7.92
Specific Conductivity	mS/cm	NS	NS	1321	4350	2170	1246	877	518	558	433	117	530	497	521
Dissolved Oxygen (field)	mg/l	NS	NS	4	4	3	3.5	--	1.73	1.47	2.08	4.34	1.21	0.91	0.87
pH		NS	NS	7.27	7.00	7.67	7.37	6.64	7.43	7.00	5.56	5.74	4.75	6.87	6.75
ORP	eV	NS	NS	--	--	--	--	--	-65.4	31.3	166.4	233.0	195.6	86.3	89.4

Notes:

NS = No standard established

Bold value indicates exceedance of NR 140.10 or 140.12 Enforcement Standard

ITALICS value exceeds NR 140.10 or 140.12 PAL

*: Public Welfare Standard from Table 2, NR 140.12

**: Values beyond standard range of concentration, meter operation suspect

TABLE A.7
Groundwater Natural Attenuation
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140 Preventive Action Limit	NR 140 Enforcement Standard	MW-7												
Sample Date				1/3/00	4/22/04	10/28/04	10/31/06	10/15/10	12/12/12	11/12/15	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				594.78	597.68	596.48	597.28	597.20	596.63	597.81	597.21	595.00	594.77	595.26	595.21
FIELD PARAMETERS																
Temperature	C°	NS	NS	8.8	6.8	17.7	15.6	18.9	14.45	15.27	16.25	17.20	12.97	7.73	8.48
Specific Conductivity	mS/cm	NS	NS	448	1979	1611	1175	782	992	606	712	917	879	2160	1986
Dissolved Oxygen (field)	mg/l	NS	NS	<1	3	4	5	--	3.77	5.29	4.03	1.67	9.38	6.24	7.11
pH		NS	NS	7.49	6.77	7.26	7.17	6.78	7.14	6.97	6.95	6.62	5.41	6.81	6.83
ORP	eV	NS	NS	--	--	--	--	--	-30.8	217.8	104.2	178.0	141.3	165.2	168.7

Notes:

NS = No standard established

Bold value indicates exceedance of NR 140.10 or 140.12 Enforcement Standard

ITALICS value exceeds NR 140.10 or 140.12 PAL

*: Public Welfare Standard from Table 2, NR 140.12

**: Values beyond standard range of concentration, meter operation suspect

TABLE A.7
Groundwater Natural Attenuation
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140 Preventive Action Limit	NR 140 Enforcement Standard	MW-8											
Sample Date				1/3/00	4/22/04	10/28/04	10/31/06	10/15/10	12/12/12	11/12/15	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				595.83	598.21	596.98	598.17	598.35	597.46	599.12	597.28	596.73	596.64	597.27	597.06
FIELD PARAMETERS															
Temperature	C°	NS	NS	10.1	9.5	17.8	16.0	18.3	14.84	15.46	NOT SAMPLED	16.94	11.98	6.42	6.81
Specific Conductivity	mS/cm	NS	NS	745	1462	1573	1207	905	841	643		609	487	400	428
Dissolved Oxygen (field)	mg/l	NS	NS	6	6	4	5	--	5.06	4.37		1.57	16.06	3.38	3.96
pH		NS	NS	7.21	7.29	7.41	7.35	7.10	7.27	7.02		6.83	5.70	7.10	7.14
ORP	eV	NS	NS	--	--	--	--	--	-30.0	104.9		183.0	142.1	145.0	149.1

Notes:

NS = No standard established

Bold value indicates exceedance of NR 140.10 or 140.12 Enforcement Standard

ITALICS value exceeds NR 140.10 or 140.12 PAL

*: Public Welfare Standard from Table 2, NR 140.12

**: Values beyond standard range of concentration, meter operation suspect

TABLE A.7
Groundwater Natural Attenuation
One Hour Martinizing
1923 Main St., Green Bay, WI 54302
BRRTS #02-05-217276

Sample ID		NR 140 Preventive Action Limit	NR 140 Enforcement Standard	MW-9										
Sample Date				4/22/04	10/28/04	10/31/06	10/15/10	12/12/12	11/12/15	6/24/16	9/22/16	12/22/16	3/21/17	6/21/17
Groundwater Elevation				595.58	594.65	595.89	593.86	593.15	595.32	594.24	594.50	593.79	593.71	593.64
FIELD PARAMETERS														
Temperature	C°	NS	NS	9.7	16.8	15.8	17.1	12.84	13.60	12.95	17.62	11.61	7.86	8.20
Specific Conductivity	mS/cm	NS	NS	11280	3340	2790	1394	824	678	667	705	835	648	620
Dissolved Oxygen (field)	mg/l	NS	NS	--	7	--	--	2.08	8.90	2.75	1.14	2.67	2.27	2.58
pH		NS	NS	7.02	7.74	7.49	7.14	7.78	7.31	6.79	5.68	2.19	7.07	6.95
ORP	eV	NS	NS	--	--	--	--	-48.5	117.1	101.2	205.0	117.1	162.1	175.3

Notes:

NS = No standard established

Bold value indicates exceedance of NR 140.10 or 140.12 Enforcement Standard

ITALICS value exceeds NR 140.10 or 140.12 PAL

*: Public Welfare Standard from Table 2, NR 140.12

**: Values beyond standard range of concentration, meter operation suspect

Appendices

Appendix A: Site Plan

Appendix B: Boring Logs

Appendix C: Laboratory Analytical Reports

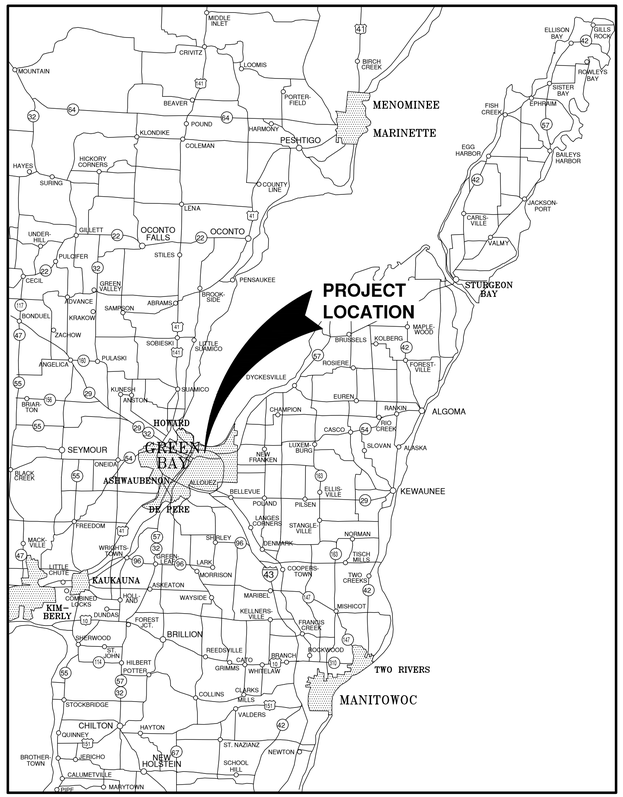
Appendix D: Contaminant Trend Analysis

Appendix A

Site Plan

PROPOSED FAMILIA DENTAL FOR
GB REAL ESTATE INVESTMENTS, LLC
CITY OF GREEN BAY, BROWN COUNTY WISCONSIN

ATTENTION!
DOWNLOADED PLANS ARE NOT SCALEABLE, NEITHER THE OWNER OR THE ENGINEER SHALL BE HELD RESPONSIBLE FOR THE SCALE OR PRINT QUALITY OF DOWNLOADED PLANS. ONLY PRINTED PLANS FROM BLUE PRINT SERVICE CO., INC. SHALL BE CONSIDERED TO BE SCALEABLE PLANS.

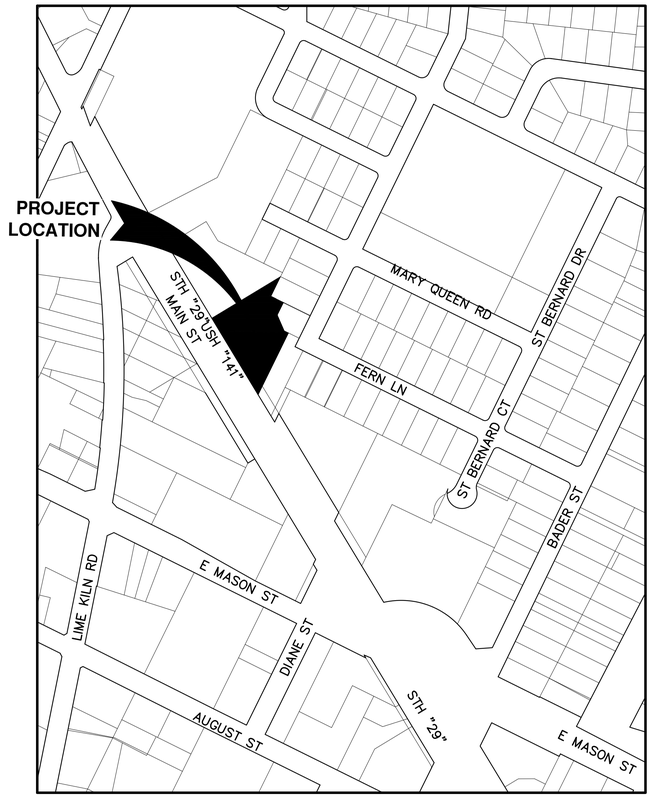


VICINITY MAP

NOTE:
EXISTING UTILITIES SHOWN ON PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING EXACT LOCATIONS AND ELEVATIONS OF ALL UTILITIES, WHETHER SHOWN OR NOT, FROM THE OWNERS OF THE RESPECTIVE UTILITIES. ALL UTILITY OWNERS SHALL BE NOTIFIED FOR LOCATES BY THE CONTRACTOR 72 HOURS PRIOR TO EXCAVATION.

NOTE:
ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO CONSTRUCTION AND SHALL CONFORM TO THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES CONSTRUCTION SITE EROSION CONTROL AND TECHNICAL STANDARDS.

INDEX TO DRAWINGS



LOCATION MAP

NO.	DATE	APPROV.	REVISION
1	5-10-16	JGS	CITY SUBMITTAL
2	5-25-16	JGS	FINAL CITY SUBMITTAL

DRAWN BLT | CHECKED JGS | DESIGNED BLT

PROPOSED FAMILIA DENTAL FOR
GB REAL ESTATE INVESTMENTS, LLC.
CITY OF GREEN BAY
BROWN COUNTY, WISCONSIN

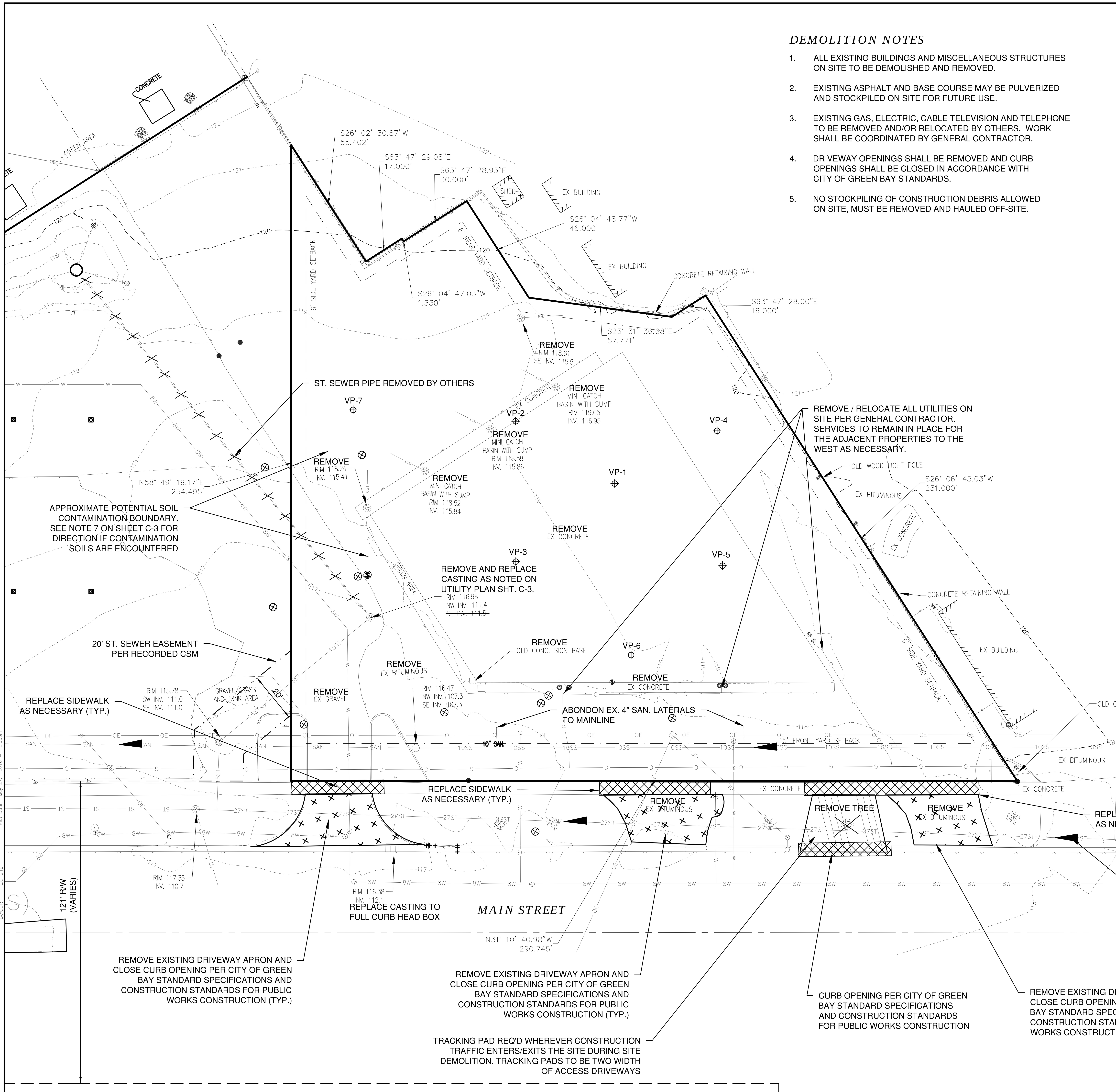
LOCATION MAP AND INDEX TO DRAWINGS

DATE 05/2016 | FILE 5642001C | JOB NO. 5642002

Robert E. Lee & Associates, Inc.
ENGINEERING, SURVEYING, ENVIRONMENTAL SERVICES
1250 CENTENNIAL CENTRE BOULEVARD
HOBART, WI 54155 PHONE:(920) 662-9641
INTERNET: www.releeinc.com FAX:(920) 662-9141

SHEET NO. C-0

File: R:\5600\5642\5642002\drwg\5642002c.dwg
Plot Date: May 25, 2016 - 9:00am



DEMOLITION NOTES

1. ALL EXISTING BUILDINGS AND MISCELLANEOUS STRUCTURES ON SITE TO BE DEMOLISHED AND REMOVED.
2. EXISTING ASPHALT AND BASE COURSE MAY BE PULVERIZED AND STOCKPILED ON SITE FOR FUTURE USE.
3. EXISTING GAS, ELECTRIC, CABLE TELEVISION AND TELEPHONE TO BE REMOVED AND/OR RELOCATED BY OTHERS. WORK SHALL BE COORDINATED BY GENERAL CONTRACTOR.
4. DRIVEWAY OPENINGS SHALL BE REMOVED AND CURB OPENINGS SHALL BE CLOSED IN ACCORDANCE WITH CITY OF GREEN BAY STANDARDS.
5. NO STOCKPILING OF CONSTRUCTION DEBRIS ALLOWED ON SITE, MUST BE REMOVED AND HAULED OFF-SITE.

LEGEND

FIRE HYDRANT
WATER VALVE/CURB STOP
WATER MANHOLE
REDUCER/INCREASER
SANITARY MANHOLE
AIR RELIEF MANHOLE
STORM MANHOLE
OPEN STORM MANHOLE
STORM INLET
STORM INLET MANHOLE
TANK COVER
SOIL BORING
POST
IRON PIPE/ROD
PK NAIL

POWER POLE
POWER POLE W/GUY WIRE
LIGHT POLE
TRAFFIC SIGNAL POLE
ELECTRIC MANHOLE
ELECTRIC METER
TELEPHONE MANHOLE
TELEPHONE PEDESTAL
CABLE TV MANHOLE
CABLE TV PEDESTAL
GAS VALVE
GAS METER
MAILBOX
SIGN
BOLLARD

DECIDUOUS TREE
CONIFEROUS TREE
BUSH
RIP RAP
CULVERT
CONCRETE
WETLANDS
HANDICAP PARKING

EDGE OF ASPHALT
EDGE OF GRAVEL
CURB & GUTTER
TREE/BRUSH LINE
CONTOUR LINE
RETAINING WALL
GUARD RAIL
FENCE

SANITARY SEWER (SIZE NOTED)
FORCEMAIN (SIZE NOTED)
STORM SEWER (SIZE NOTED)
WATERMAIN (SIZE NOTED)
GAS LINE
OVERHEAD TELEPHONE LINE
UNDERGROUND TELEPHONE LINE
OVERHEAD ELECTRIC LINE
UNDERGROUND ELECTRIC LINE
OVERHEAD CABLE TV LINE
CABLE TV LINE
FIBER OPTIC LINE
R/W LINE
PROPERTY LINE
EASEMENT LINE
BUILDING SETBACK LINE
SECTION LINE

GR.	GRAVEL	WM	WATERMAIN	VPC	VERTICAL POINT OF CURVATURE	B-B	BACK TO BACK (OF CURB)
BIT.	BITUMINOUS	HYD.	HYDRANT	VPI	VERTICAL POINT OF INTERSECTION	F-F	FACE TO FACE (OF CURB)
ASPH.	ASPHALT	WV	WATER VALVE	VPT	VERTICAL POINT OF TANGENCY	R/W	RIGHT OF WAY
CONC.	CONCRETE	SAN	SANITARY SEWER	PC	POINT OF CURVATURE	T/C	TOP OF CURB
SW	SIDEWALK	MH	MANHOLE	PI	POINT OF INTERSECTION	F/L	FLOW LINE
BLDG	BUILDING	ST	STORM SEWER	PT	POINT OF TANGENCY	C/L	CENTERLINE
HSE	HOUSE	CB	CATCH BASIN	R	RADIUS	R/L	REFERENCE LINE
PED	PEDESTAL	TELE	TELEPHONE	EX	EXISTING	INV.	INVERT
PP	POWER POLE	ELEC	ELECTRIC	PR	PROPOSED	CMP	CORRUGATED METAL PIPE
LP	LIGHT POLE	TV	TELEVISION	EOR	END OF RADIUS	RCP	REINFORCED CONCRETE PIPE
BM	BENCH MARK	STA.	STATION	BOC	BACK OF CURB	CULV.	CULVERT

BENCHMARK	BENCHMARK ESTABLISHED BY: ROBERT E. LEE & ASSOCIATES, INC. FIELD VERIFY BENCHMARKS FOR ACCURACY.	
NO.	DESCRIPTION	EL.
1	TOP NUT ON FIRE HYDRANT	119.88

OWNER INFORMATION:

GB REAL EASTATE INVETMENTS, LLC
300 NORTH VAN BUREN ST.
GREEN BAY, WI 54301

(813)500-02-96

CONTACT: GARRITT BADER

SURVEYOR'S NOTES:

ALL SURVEY WORK WAS CONDUCTED BY CAROW LAND SURVEYING. (920)731-4168 PLEASE CONTACT ENGINEER IF THERE IS ANY DISCREPANCIES WITHIN THE PLAN.

NORTH

0' 20' 40'
SCALE IN FEET

NO.	DATE	APPROV.	REVISION
1	5-10-16	JGS	CITY SUBMITTAL
2	5-25-16	JGS	FINAL CITY SUBMITTAL

DRAWN BLT
CHECKED JGS
DESIGNED BLT

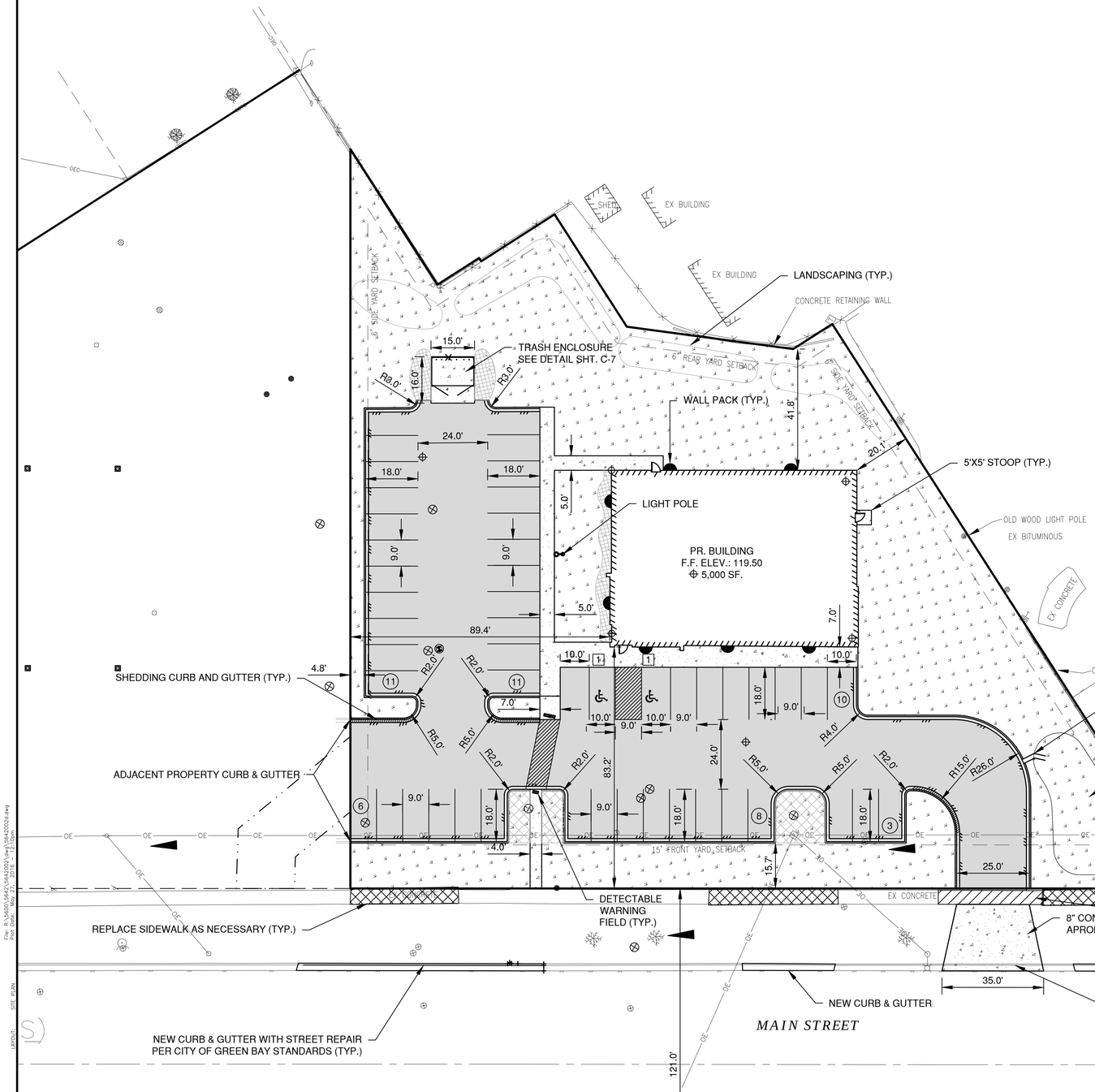
PROPOSED FAMILIA DENTAL FOR
GB REAL ESTATE INVESTMENTS, LLC.
CITY OF GREEN BAY
BROWN COUNTY, WISCONSIN

EXISTING SITE CONDITIONS

DATE 05/2016
FILE 5642002T
JOB NO. 5642002

Robert E. Lee & Associates, Inc.
ENGINEERING, SURVEYING, ENVIRONMENTAL SERVICES
1250 CENTENNIAL CENTRE BOULEVARD HOBART, WI 54155
920-662-9641 www.releeinc.com
Celebrating 60 Years of Excellence

SHEET NO.
C-1



NOTE

ALL AREAS DESIGNATED AS "GREEN SPACE" OR "LAWN", SHALL BE TOPSOILED TO A DEPTH OF 6 INCHES, SEEDED AND MULCHED. AREA TO BE RAKED FREE OF STONES AND CLUMPS.

PARKING DATA

TOTAL PARKING SPACES PROVIDED = 49

HANDICAP ACCESSIBLE PARKING SPACES = 2

TOTAL PARKING SPACES REQUIRED = 17 (SPACE PER 300 SF. $\frac{5000}{300}$=16.67)

SITE DATA

TOTAL AREA = 1.07 ACRES, 46,637 S.F.

BUILDING AREA = .11 ACRES, 5,000 S.F. (10.3%)

SIDEWALK/PARKING LOT AREA = 0.46 ACRES, 19,654 S.F. (42.0%)

GREEN SPACE = 0.50 ACRES, 21,983 S.F. (47.7%)

ZONING

C-1 COMMERCIAL ONE

CONSTRUCTION CLASSIFICATION

VB NON-SPRINKLED

PARCEL NO.

21-1323-1 LOT 1 57CSM357

LEGEND

- CONCRETE PAVEMENT (3,076 S.F.)
- ASPHALT PAVEMENT (16,578 S.F.)
- LANDSCAPE AREA
- GREEN SPACE
- PROPOSED 18" CURB & GUTTER (UNLESS OTHERWISE NOTED)
- PROPOSED SHEDDING CURB & GUTTER
- TRAFFIC FLOW ARROW
- HANDICAPPED PARKING
- (12) INDICATES NUMBER OF PARKING STALLS
- LIGHT POLE
- WALL PACK

1

*NOTE:

ALL DIMENSIONS ARE TO THE FACE OF CURB, UNLESS NOTED OTHERWISE

1. THE CITY OF GREEN BAY DEPARTMENT OF PUBLIC WORKS MUST BE NOTIFIED (3) THREE WORKING DAYS BEFORE THE START OF ANY CONSTRUCTION WITHIN A PUBLIC RIGHT OF WAY OR EASEMENT. CONTACT MATT HECKENLAIBLE, (920) 448-3100.

NORTH

0' 20' 40'

SCALE IN FEET

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
1	5-10-16	JGS	CITY SUBMITTAL				
2	5-25-16	JGS	FINAL CITY SUBMITTAL				

DRAWN BLT
CHECKED JGS
DESIGNED BLT

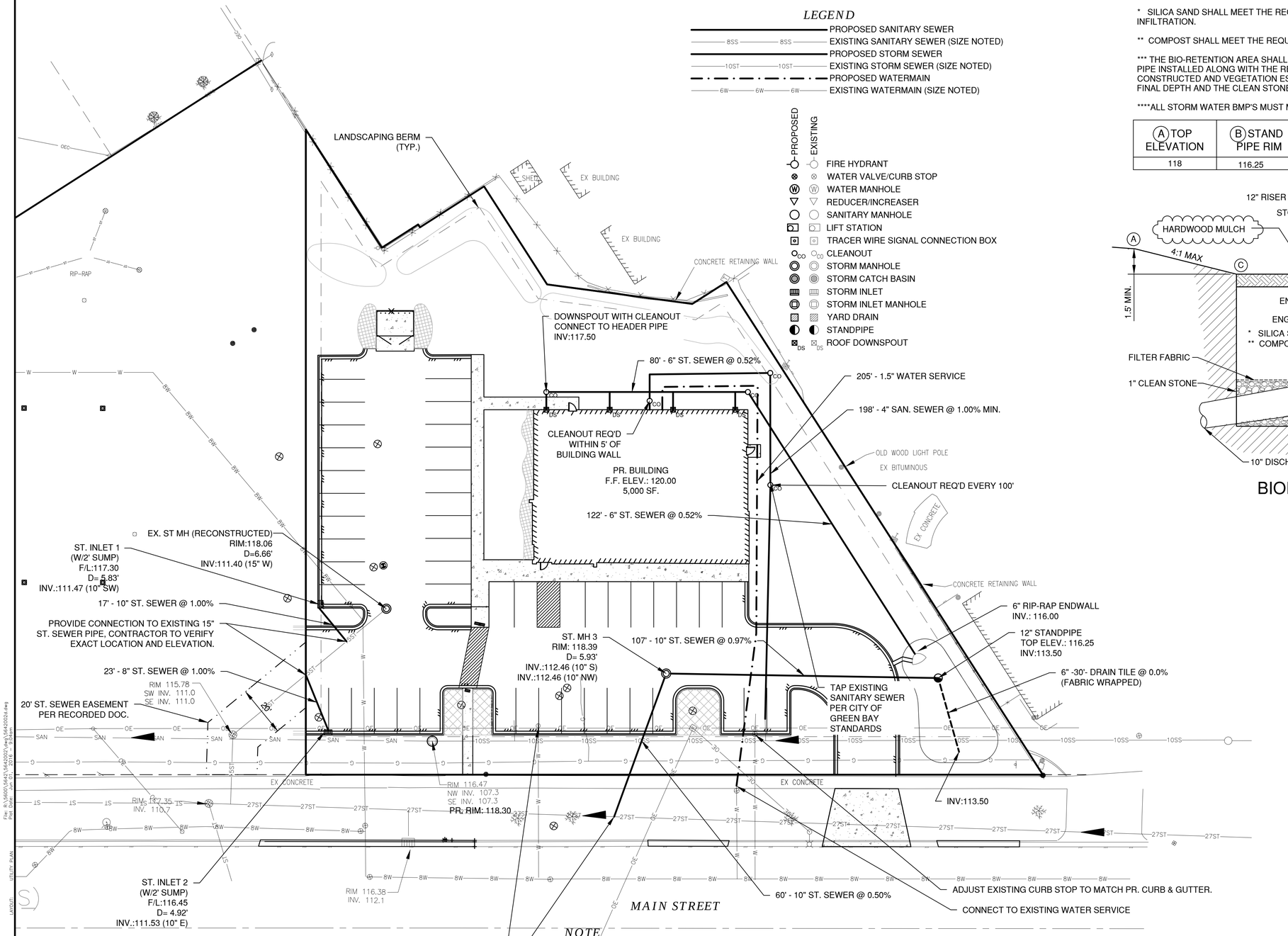
PROPOSED FAMILIA DENTAL FOR
GB REAL ESTATE INVESTMENTS, LLC.
CITY OF GREEN BAY
BROWN COUNTY, WISCONSIN

SITE PLAN

DATE 05/2016
FILE 5642002D
JOB NO. 5642002

Robert E. Lee & Associates, Inc.
ENGINEERING, SURVEYING, ENVIRONMENTAL SERVICES
1250 CENTENNIAL CENTRE BOULEVARD HOBART, WI 54155
920-662-9641 www.releeinc.com
Celebrating 60 Years of Excellence

SHEET NO. C-2



NOTE:

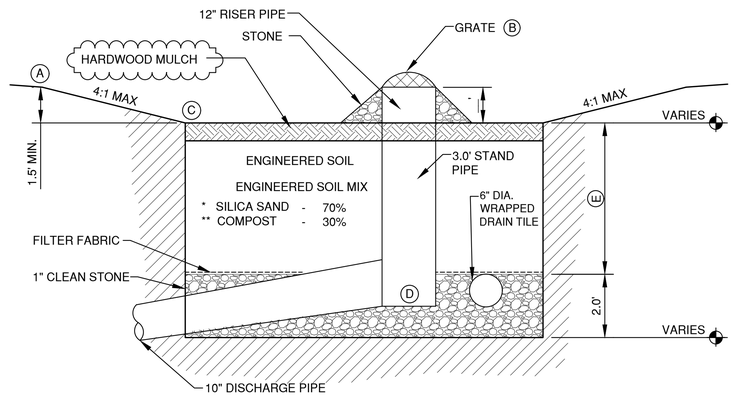
* SILICA SAND SHALL MEET THE REQUIREMENTS OF WDNR TECHNICAL STANDARD 1004, BIORETENTION FOR INFILTRATION.

** COMPOST SHALL MEET THE REQUIREMENTS OF WDNR SPECIFICATION S100.

*** THE BIO-RETENTION AREA SHALL BE EXCAVATED TO THE ENGINEERED SOIL DEPTH AND THE 4" DISCHARGE PIPE INSTALLED ALONG WITH THE REMAINDER OF THE STORM SEWER ON SITE. AFTER THE SITE HAS BEEN CONSTRUCTED AND VEGETATION ESTABLISHED, THE BIO-RETENTION AREA SHALL THEN BE EXCAVATED TO FINAL DEPTH AND THE CLEAN STONE, DRAIN TILE, ENGINEERED SOIL, AND HARDWOOD MULCH INSTALLED.

****ALL STORM WATER BMP'S MUST MEET WDNR STANDARDS

(A) TOP ELEVATION	(B) STAND PIPE RIM	(C) BOTTOM AREA (S.F.), ELEV.	(D) DISCHARGE PIPE INV.	(E) ENGINEERED SOIL DEPTH
118	116.25	630, 116	113.50	2.0



BIORETENTION POND DETAIL

Scientific Name	Common Name	No. of Plants
Forbs		
Anemone canadensis	Canada Anemone	19
Asclepias incarnata	Marsh Milkweed	11
Aster novae-angliae	New England Aster	19
Aster umbellatus	Flat-topped Aster	11
Chelone glabra	Turtlehead	22
Eupatorium maculatum	Spotted Joe-Pye Weed	22
Eupatorium perfoliatum	Boneset	33
Geranium maculatum	Wild Geranium	26
Helenium autumnale	Sneezeweed	26
Iris versicolor	Northern Blue Flag Iris	37
Liatris pycnostachya	Prairie Blazing Star	30
Lobelia cardinalis	Cardinal Flower	11
Lobelia siphilitica	Great Blue Lobelia	22
Physostegia virginiana	Obedient Plant	7
Pycnanthemum virginianum	Common Mountain Mint	37
Solidago riddellii	Riddell's Goldenrod	7
Verbena hastata	Blue Vervain	30
Zizia aurea	Golden Alexanders	7
Grasses		
Anthoxanthum hirtum	Sweet Grass	26
Calamagrostis canadensis	Bluejoint	59
Carex bebbii	Bebb's Sedge	19
Carex cristatella	Crested Oval Sedge	33
Carex vulpinoidea	Brown Fox Sedge	74
Elymus virginicus	Virginia Wild Rye	30
Spartina pectinata	Prairie Cord Grass	11
	TOTAL	**629**

PLUMBING DATA

DRAINAGE FIXTURE UNITS = 67
WATER FIXTURE UNITS = 29 GPM.

NOTE

1. SANITARY SEWER, WATERMAIN AND STORM SEWER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN AND ADMINISTRATIVE CODE CHAPTERS COMM 81-87.
2. FIELD VERIFY LOCATION OF EXISTING UTILITIES. IF EXISTING LOCATIONS DIFFER FROM WHAT IS INDICATED ON THE PLANS, **CONTACT ENGINEER,** PRIOR TO CONTINUED WORK.
3. ALL SANITARY SEWER, STORM SEWER AND WATER SERVICES / MAINS SHALL BE PROVIDED WITH TRACER WIRE OR OTHER METHOD TO BE LOCATED.
4. THE CITY OF GREEN BAY DEPARTMENT OF PUBLIC WORKS MUST BE NOTIFIED (3) THREE WORKING DAYS BEFORE THE START OF ANY SANITARY OR STORM SEWER CONSTRUCTION WITHIN A PUBLIC RIGHT OF WAY OR EASEMENT. CONTACT MATT HECKENLAIBLE, (920) 448-3100.
5. DURING CONSTRUCTION, ALL EXCAVATIONS SHALL BE MONITORED FOR CONTAMINATION. IF PETROLEUM ODORS ARE NOTICED OR IF STAINED SOILS ARE VISIBLE, IMMEDIATELY NOTIFY THE OWNER'S ENVIRONMENTAL PROFESSIONAL. THE CONTRACTOR AND AN ENVIRONMENTAL PROFESSIONAL (EP) WILL MOBILIZE TO THE SITE. THE EP WILL GUIDE THE EXCAVATION OF IMPACTED MATERIAL. SOIL DEEMED IMPACTED WILL BE STOCKPILED ON SITE ON PLASTIC AND COVERED WITH PLASTIC PENDING PROPER OFF-SITE DISPOSAL.
6. CONTRACTOR TO ACQUIRE REQUIRED PERMITS PRIOR TO START OF CONSTRUCTION, TO INCLUDE STREET EXCAVATION, STREET CONSTRUCTION, CURB CUT, SIDEWALK BUILDING GRADE, ETC.

NORTH

0' 20' 40'

SCALE IN FEET

NO.	DATE	APPROV.	REVISION
1	5-10-16	JGS	CITY SUBMITTAL
2	5-25-16	JGS	FINAL CITY SUBMITTAL

DRAWN BLT
CHECKED JGS
DESIGNED BLT

PROPOSED FAMILIA DENTAL FOR
GB REAL ESTATE INVESTMENTS, LLC.
CITY OF GREEN BAY
BROWN COUNTY, WISCONSIN

UTILITY PLAN

DATE 05/2016
FILE 5642002D
JOB NO. 5642002

Robert E. Lee & Associates, Inc.
ENGINEERING, SURVEYING, ENVIRONMENTAL SERVICES
1250 CENTENNIAL CENTRE BOULEVARD HOBART, WI 54155
920-662-9641 www.releeinc.com
Celebrating 60 Years of Excellence

SHEET NO. C-3

BENCHMARK	BENCHMARK ESTABLISHED BY: ROBERT E. LEE & ASSOCIATES, INC. **FIELD VERIFY BENCHMARKS FOR ACCURACY.**	
NO.	DESCRIPTION	EL.
1	TOP NUT ON FIRE HYDRANT	119.88

CONSTRUCTION SEQUENCE

1. INSTALL INLET PROTECTION AS IDENTIFIED ON CITY INLETS ALONG MAIN STREET. (SPRING 2016)
2. INSTALL TRACKING PADS. (SPRING 2016)
3. INSTALL PERIMETER SILT FENCE (SPRING 2016)
4. BEGIN FOUNDATION FOOTING AND WALLS (SPRING 2016) WALLS TO BE DUG INTO EXISTING HARD SURFACE.
5. INSTALL SITE UTILITIES (SUMMER 2016) STORM SEWER DRAINAGE TO UNDERGROUND STORAGE. INSTALL INLET PROTECTION IN NEWLY CONSTRUCTED CATCH BASINS.
6. BACKFILL FOUNDATIONS (SUMMER 2016) TOPSOIL, SEED AND MULCH. GERMINATION IN FALL 2016
7. PAVE/CONCRETE (SUMMER/FALL 2016) PROJECT COMPLETION.

EROSION CONTROL

ALL EROSION CONTROL PRACTICES INDICATED ON THIS PLAN ARE APPROXIMATE LOCATIONS ONLY. THE ACTUAL SITE MAY REQUIRE MORE OR LESS EROSION CONTROL DEPENDING ON THE CURRENT CONDITION OF THE SITE.

1. SILT FENCE IS REQUIRED DOWNSLOPE OF ANY DISTURBED LAND THAT MAY CARRY SEDIMENTS OFF SITE.
2. A TRACKING PAD IS REQUIRED AT ANY INGRESS/EGRESS LOCATION, WHERE SEDIMENT MAY BE TRACKED OFF-SITE.
3. PROPER INLET PROTECTION SHALL BE USED DEPENDING ON THE INLET TYPE.
4. ALL NECESSARY SITE DEWATERING SHALL BE PERFORMED IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1061.

LEGEND

T/C 999.99	TOP OF CURB ELEVATION
F/L 888.88	FLOW LINE ELEVATION
S/W 666.66	TOP OF SIDEWALK ELEVATION
E/P 555.55	EDGE OF PAVEMENT ELEVATION
R/W 444.44	TOP OF RETAINING WALL ELEVATION
333.33	GROUND ELEVATION
	DRAINAGE SWALE
	DRAINAGE DIVIDE
	SILT FENCE
	BALE DITCH CHECK
	FLOW ARROW
	TRACKING PAD
	INLET PROTECTION

GRADE AREAS TO DRAIN
SILT FENCE (TYP.)
200' SWALE @ 1.00%
CREATE BERM OVER ST. SEWER PIPE FOR 2' COVER.
TIE INTO ADJACENT CURB AND GUTTER
INLET PROTECTION (TYP.) TYPE D ALSO REQ'D AT FIRST INLET DOWNSTREAM OF CONSTRUCTION ENTRANCE BOTH SIDES OF THE ROAD.
TRACKING PAD PER WDNR STANDARD 1057, FULL WIDTH OF ACCESS ENTRANCE (TYP.)
PR. BUILDING F.F. ELEV.: 120.00 5,000 SF.
MAIN STREET
EX BUILDING
CONCRETE RETAINING WALL
OLD WOOD LIGHT POLE
EX BITUMINOUS
EX CONCRETE
RIP-RAP
RIM 115.78 SW INV. 111.0 SE INV. 111.0
RIM 117.35 INV. 110.7
RIM 116.38 INV. 112.1
RIM 117.45
MATCH EX. E.P. ±117.07
MATCH EX. E.P. ±116.56
MATCH EX. S/W ±116.66
MATCH EX. S/W ±116.67
MATCH EX. S/W ±117.49
MATCH EX. S/W ±117.46
MATCH EX. S/W ±117.64
MATCH EX. S/W ±117.68
MATCH EX. E.P. ±117.54
MATCH EX. E.P. ±117.62

NORTH

0' 20' 40'
SCALE IN FEET

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
1	5-10-16	JGS	CITY SUBMITTAL				
2	5-25-16	JGS	FINAL CITY SUBMITTAL				

DRAWN BLT | CHECKED JGS | DESIGNED BLT

PROPOSED FAMILIA DENTAL FOR
GB REAL ESTATE INVESTMENTS, LLC.
CITY OF GREEN BAY
BROWN COUNTY, WISCONSIN

GRADING AND EROSION CONTROL PLAN

DATE 05/2016 | FILE 5642002D | JOB NO. 5642002

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920-662-9641 www.releeinc.com
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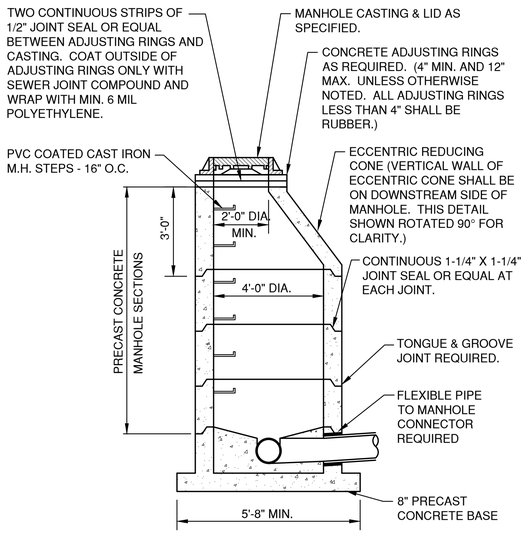
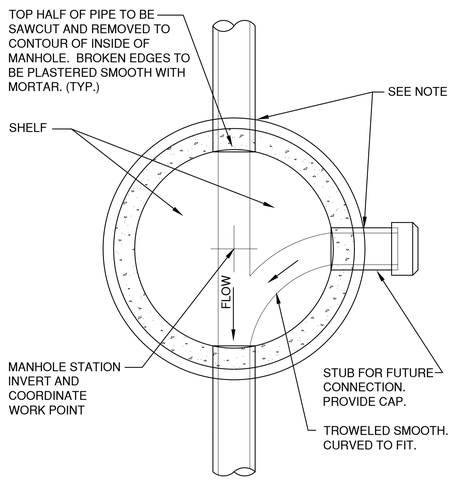
SHEET NO. C-4

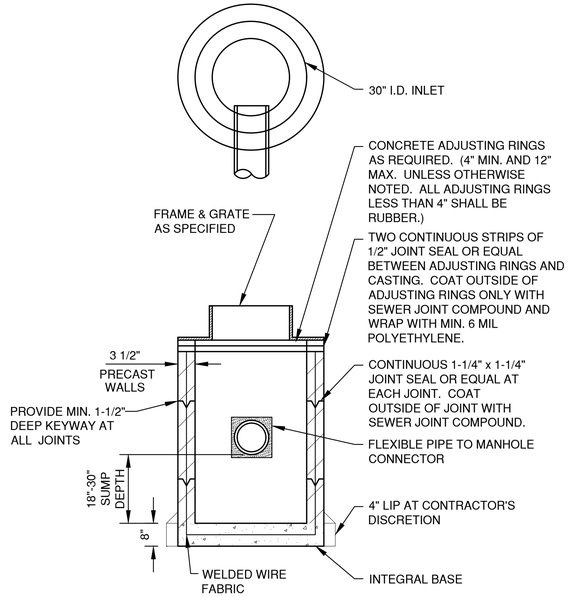


SANITARY AND STORM STANDARD MANHOLE 8"-24" (INCLUSIVE)



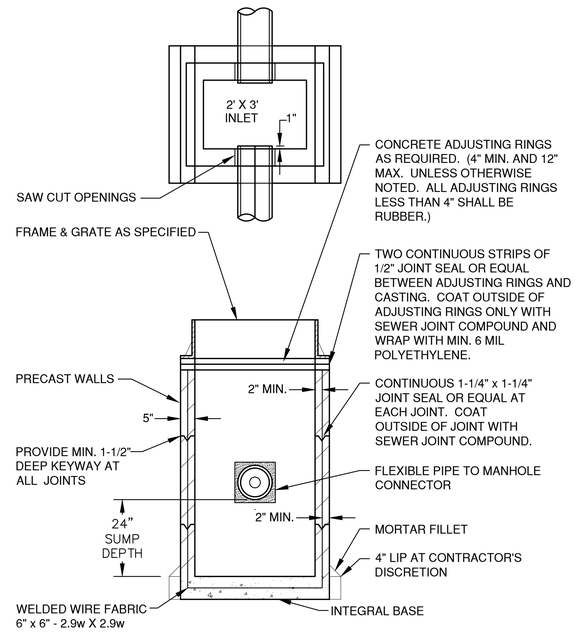
NOTE:
FOR PVC PIPE PROVIDE AN APPROVED FLEXIBLE JOINT.

MANHOLE BASE PLAN 8" - 60" (INCLUSIVE)



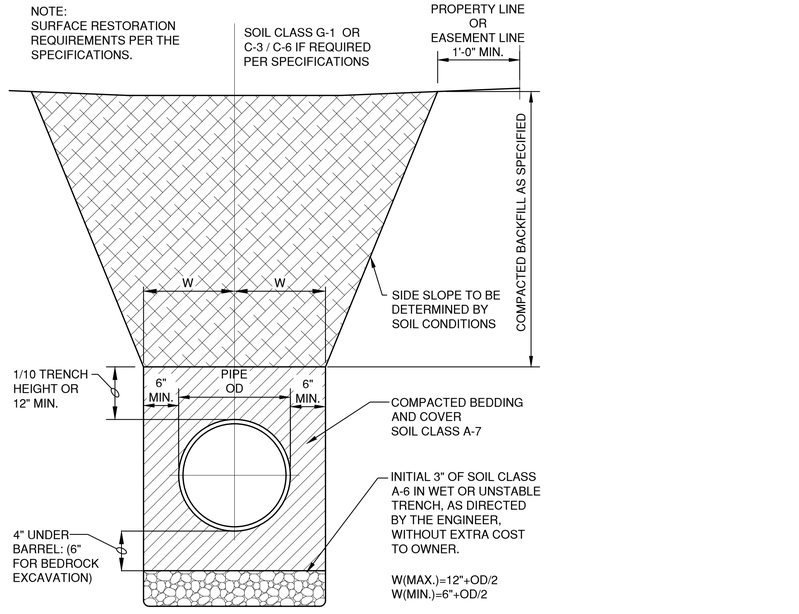
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199

TYPE 'A' STORM INLET



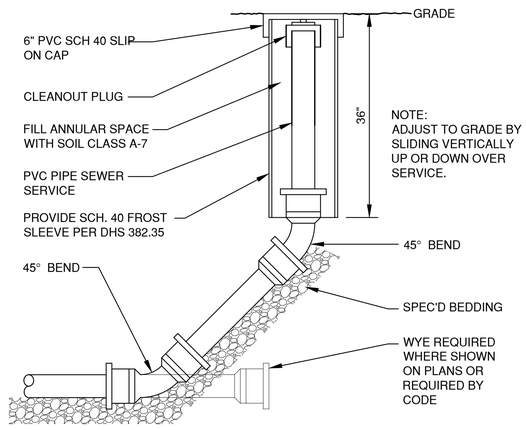
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199

TYPE 'B' STORM INLET



HDPE /PVC SEWER & WATERMAIN & FORCEMAIN BEDDING & TRENCH SECTION

NOTE: CLEANOUT LINE TO BE THE SAME SIZE & MATERIAL AS SEWER MAIN



CLEAN-OUT DETAIL (NON-TRAVELED AREAS)

File: R:\5640\5642\5642002\Land\DETAILS.dwg
Plot Date: May 25, 2016 - 9:53am
Layout: DETAILS 1

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
1	5-10-16	JGS	CITY SUBMITTAL				
2	5-25-16	JGS	FINAL CITY SUBMITTAL				

DRAWN BLT
CHECKED JGS
DESIGNED BLT

PROPOSED FAMILIA DENTAL FOR
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CITY OF GREEN BAY
BROWN COUNTY, WISCONSIN

MISCELLANEOUS DETAILS

DATE 05/2016
FILE DETAILS
JOB NO. 5642002

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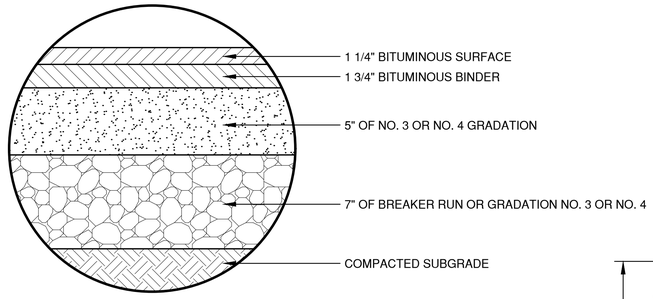
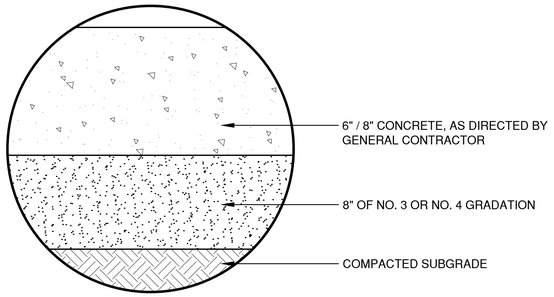
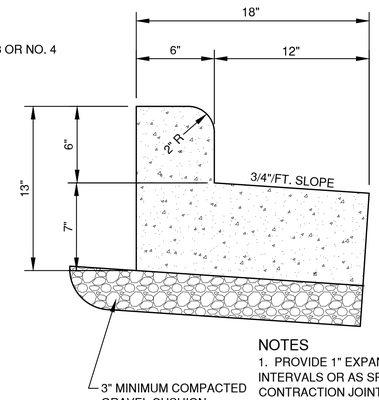
SHEET NO. C-5



ASPHALT PAVEMENT DETAIL



6" / 8" CONCRETE PAVEMENT DETAIL

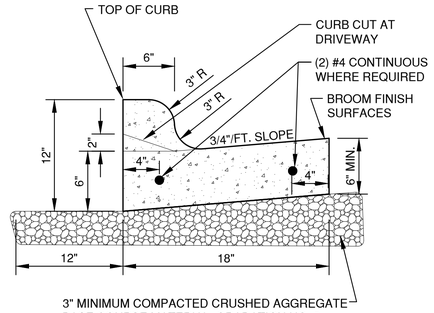


NOTES

1. PROVIDE 1" EXPANSION JOINTS AT 300' INTERVALS OR AS SPECIFIED. PROVIDE CONTRACTION JOINTS EVERY 30' OR AS DIRECTED.

2. AT REMOVAL AND REPLACEMENT AREAS AND AT TIES TO EXISTING CURB & GUTTER PROVIDE 2-#5 BARS, 18" LONG. DRILL AND GROUT INTO EXISTING CURB AND GUTTER 9 INCHES.

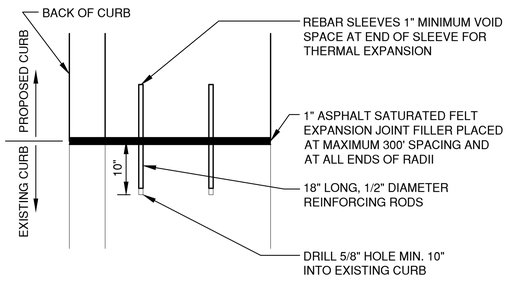
SHEDDING CURB DETAIL



NOTE:
PROVIDE 1" EXPANSION JOINTS AT 300' INTERVALS AND 3 FEET EACH SIDE OF INLET CASTINGS OR AS SPECIFIED. PROVIDE CONTRACTION JOINTS EVERY 10' OR AS DIRECTED.

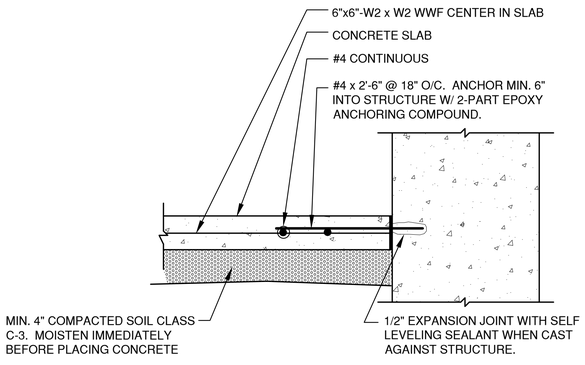
STANDARD CURB & GUTTER

NOTE:
PROVIDE CONTRACTION JOINTS AT MAXIMUM 20' SPACING
BY SAW CUTTING OR INSERTION OF DIVIDER PLATES

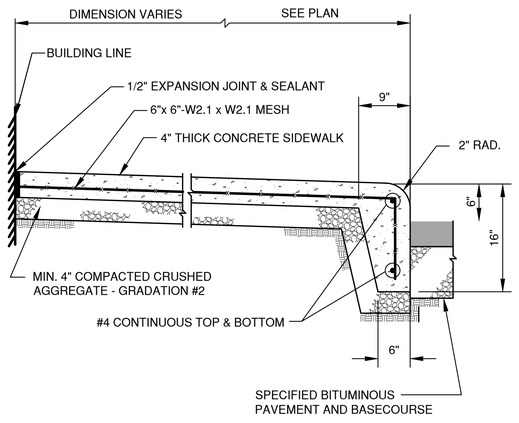


CURB TIE-IN DETAIL

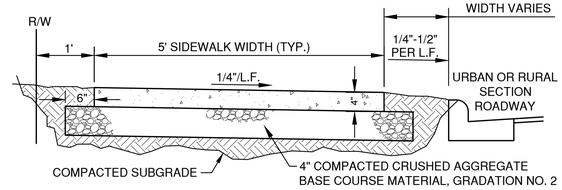
(PROPOSED TO EXISTING)



TYPICAL SIDEWALK ADJACENT TO STRUCTURE

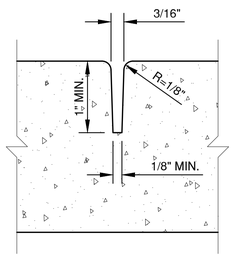


SIDEWALK WITH INTEGRAL CURB

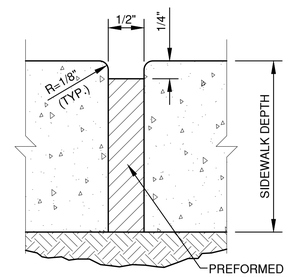


TYPICAL SECTION

NOTE:
REFER TO SPECIFICATIONS
FOR REINFORCEMENTS.



TOOLED CONTRACTION JOINT



EXPANSION JOINT

WALK WIDTH	CONTRACTION JOINT SPACING		EXPANSION JOINT SPACING
	TRANSVERSE	LONGITUDINAL	
4'	4'	NOT REQ'D	100' MAX.
5'	5'	NOT REQ'D.	100' MAX.
6'	6'	NOT REQ'D.	100' MAX.
8'	4'	4'	100' MAX.
10'	5'	5'	100' MAX.
12'	6'	6'	100' MAX.

SIDEWALK DETAIL

NO.	DATE	APPROV.	REVISION
1	5-10-16	JGS	CITY SUBMITTAL
2	5-25-16	JGS	FINAL CITY SUBMITTAL

DRAWN BLT
CHECKED JGS
DESIGNED BLT

PROPOSED FAMILIA DENTAL FOR
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CITY OF GREEN BAY
BROWN COUNTY, WISCONSIN

MISCELLANEOUS DETAILS

DATE 05/2016
FILE DETAILS
JOB NO. 5642002

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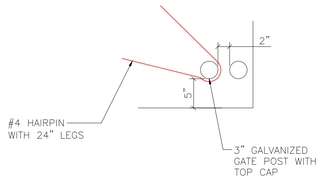
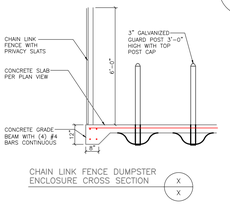
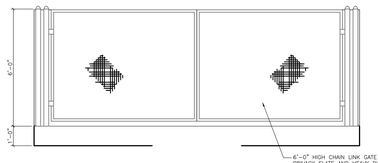
SHEET NO. C-6



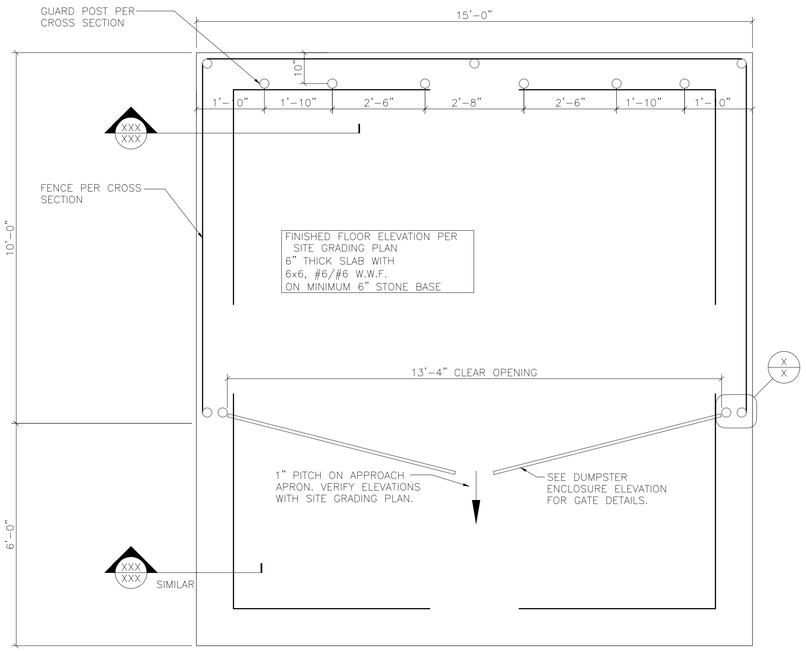
CHAIN LINK FENCE DUMPSTER ENCLOSURE GATE POST DETAIL (X/X)



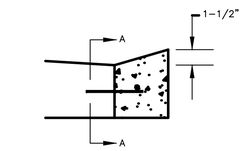
CHAIN LINK FENCE DUMPSTER ENCLOSURE CROSS SECTION (X/X)



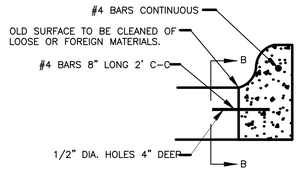
CHAIN LINK FENCE DUMPSTER ENCLOSURE ELEVATION (X/X)



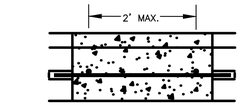
CHAIN LINK FENCE DUMPSTER ENCLOSURE PLAN VIEW (X/X)



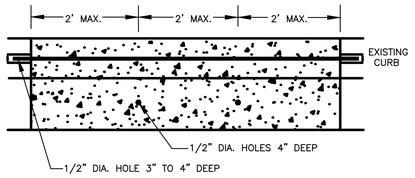
–AT DRIVEWAY OPENING AND CURB RAMPS–



NORMAL CROSS–SECTION

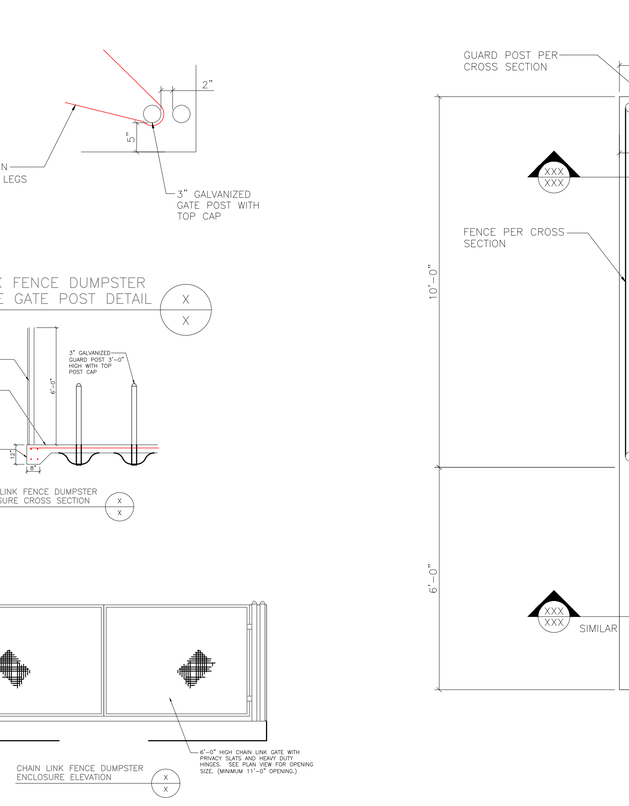


SECTION A–A



SECTION B–B

CITY OF GREEN BAY DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION	RECONSTRUCT CURB	CREATED: 1/1/04 8/24/06	
		DETAIL DRAWING NO. 603-D-03	

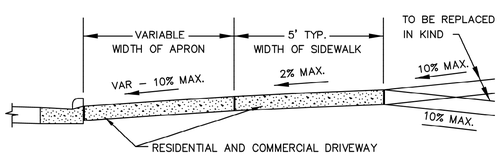


PLAN VIEW

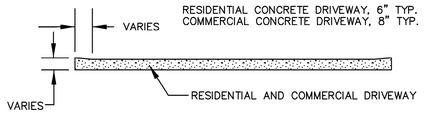
MAX D = 12' SINGLE WIDTH RESIDENTIAL
MAX D = 20' DOUBLE WIDTH RESIDENTIAL
MAX D = 15' COMMERCIAL ONE–WAY
MAX D = 25' COMMERCIAL TWO–WAY
MAX CO = 17' SINGLE WIDTH RESIDENTIAL
MAX CO = 25' DOUBLE WIDTH RESIDENTIAL
MAX CO = 25' COMMERCIAL ONE–WAY OR AS SHOWN ON APPROVED SITE PLAN
MAX CO = 35' COMMERCIAL TWO–WAY OR AS SHOWN ON AN APPROVED SITE PLAN

NOTES:

1. ALL DRIVEWAYS REQUIRE A 5' CONCRETE SIDEWALK SECTION.
2. ALL PARKING LOT CURBING MUST BE TAPERED TO MEET THE BACK OF THE SIDEWALK.



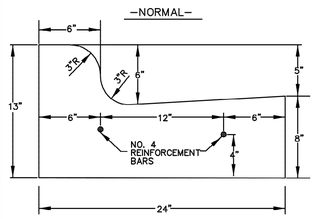
SECTION A–A

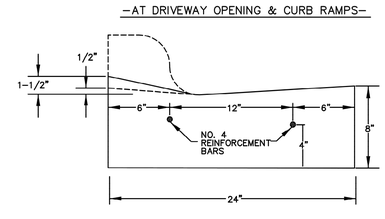


SECTION B–B

CITY OF GREEN BAY DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION	URBAN DRIVEWAY	CREATED: 1/1/04 REVISED: 2/4/08	
		DETAIL DRAWING NO. 602-D-09	

FOR CITY STREETS ONLY

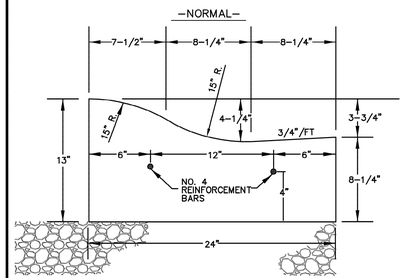


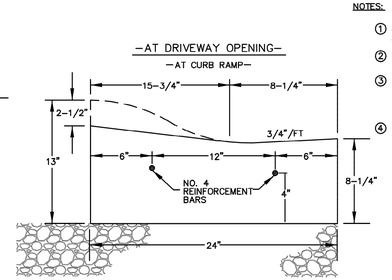


NOTES:

1. CONTRACTION JOINTS SHALL BE EVERY 15' MAXIMUM OR DESIGNATED BY ENGINEER IN FIELD.
2. 6"x6" EXPANSION JOINTS (3/4") SHALL BE PLACED AT CURB HEAD AT END OF RADII.
3. NO. 4 REINFORCEMENT BARS SHALL BE 20' LONG WITH A 3/4" EXPANSION TUBE REQUIRED ON ONE END AT EXPANSION JOINTS
4. NO. 4 REINFORCEMENT BARS SHALL BE OVERLAPPED A MINIMUM OF 1'.
5. 1–1/2" CURB HEIGHT APPLIES TO DRIVEWAY OPENINGS, 1/2" CURB HEIGHT APPLIES TO CURB RAMPS

STANDARD CURB AND GUTTER 24"





NOTES:

1. CONTRACTION JOINTS SHALL BE EVERY 15' MAXIMUM OR DESIGNATED BY ENGINEER IN FIELD.
2. 4–1/4"x7–1/2" EXPANSION JOINTS (3/4") SHALL BE PLACED AT CURB HEAD AT END OF RADII.
3. NO. 4 REINFORCEMENT BARS SHALL BE 20' LONG WITH A 3/4" EXPANSION TUBE REQUIRED ON ONE END AT EXPANSION JOINTS
4. NO. 4 REINFORCEMENT BARS SHALL BE OVERLAPPED A MINIMUM OF 1'.

ROLLED CURB AND GUTTER, 24"

CITY OF GREEN BAY DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION	CURB AND GUTTER SECTIONS	CREATED: 11/09/04 REVISED: 3/15/07	
		DETAIL DRAWING NO. 603-D-01	

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
1	5-10-16	JGS	CITY SUBMITTAL				
2	5-25-16	JGS	FINAL CITY SUBMITTAL				

DRAWN BLT
CHECKED JGS
DESIGNED BLT

PROPOSED FAMILIA DENTAL FOR
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BROWN COUNTY, WISCONSIN

MISCELLANEOUS DETAILS

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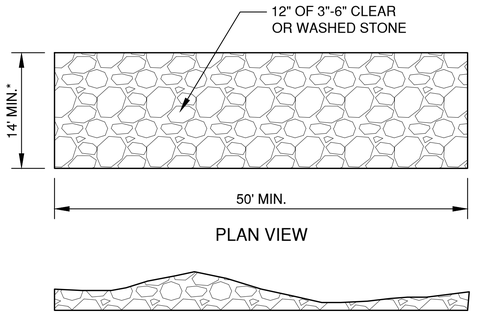
SHEET NO. C-7



*14' MIN. OR FULL WIDTH OF THE EGRESS POINT.
REFERENCE WDNR TECHNICAL STANDARD 1057.

TRACKING PAD DETAIL

(IF APPLICABLE)

INLET PROTECTION NOTES:

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE WDOT PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2"X4".

INSTALLATION NOTES:
TYPE "B" & "C"

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

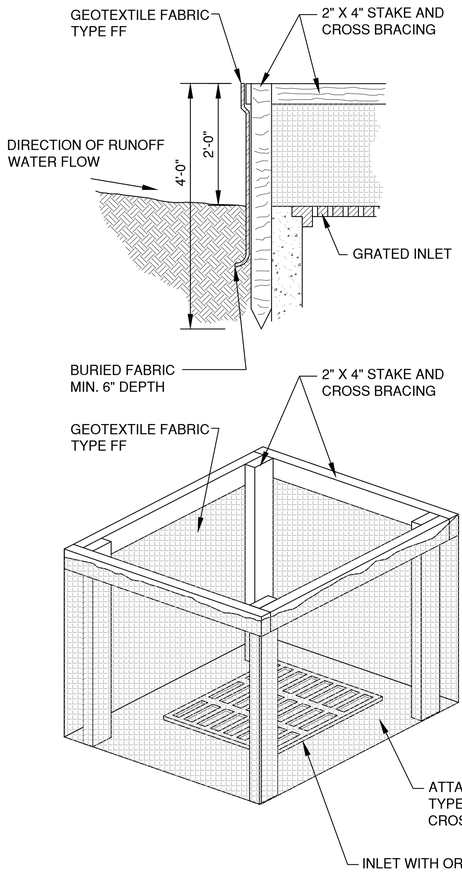
DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE "D"

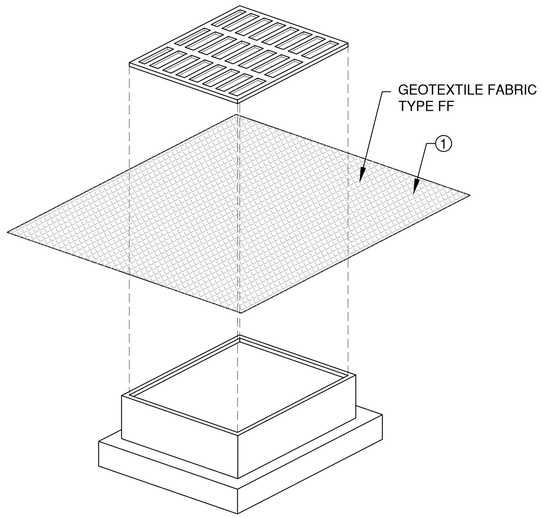
DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30" MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY, CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE, THE TIES SHALL BE PLACED AT THE MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

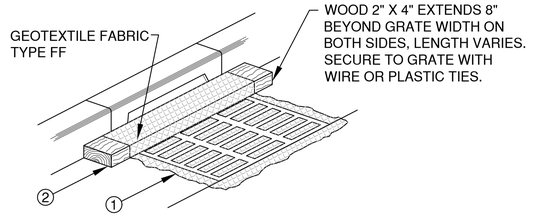


INLET PROTECTION, TYPE A

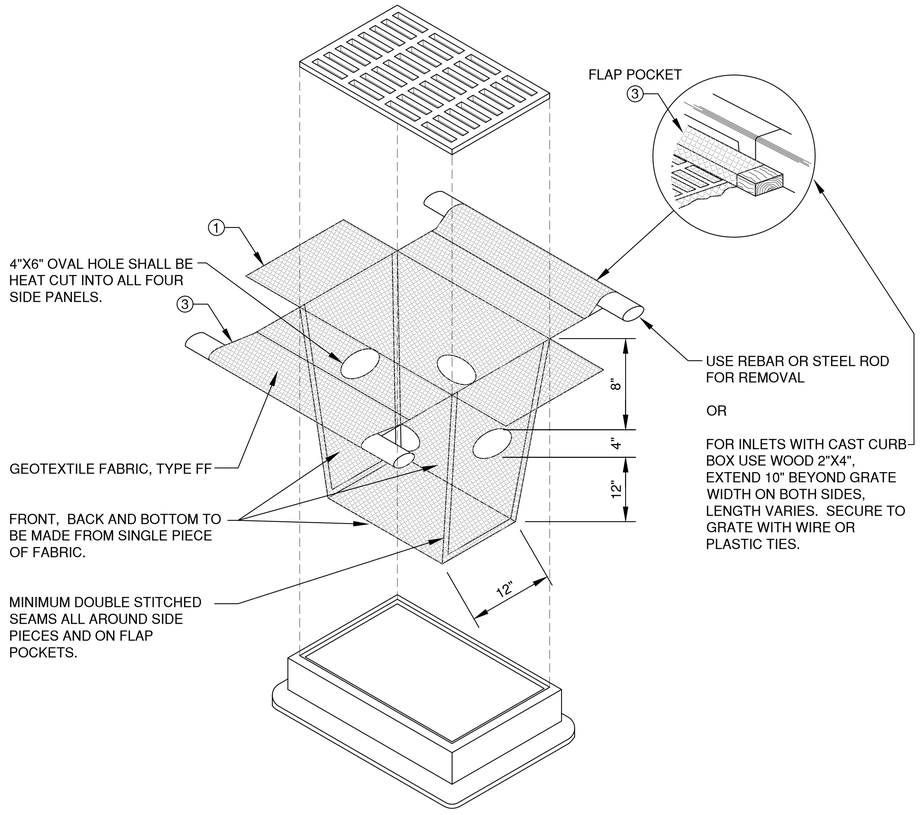


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C
(WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT CURB BOX AS PER NOTE "2")

NO.	DATE	APPROV.	REVISION
1	5-10-16	JGS	CITY SUBMITTAL
2	5-25-16	JGS	FINAL CITY SUBMITTAL

NO.	DATE	APPROV.	REVISION

DRAWN BLT
CHECKED JGS
DESIGNED BLT

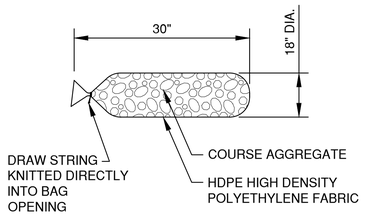
PROPOSED FAMILIA DENTAL FOR
GB REAL ESTATE INVESTMENTS, LLC
CITY OF GREEN BAY
BROWN COUNTY, WISCONSIN

EROSION CONTROL
INLET PROTECTION AND
MISCELLANEOUS DETAILS

DATE 05/2016
FILE EROSION CONTROL
JOB NO. 5642002

Robert E. Lee & Associates, Inc.
ENGINEERING, SURVEYING, ENVIRONMENTAL SERVICES
1250 CENTENNIAL CENTRE BOULEVARD
HOBART, WI 54155 PHONE:(920) 662-9641
INTERNET: www.releeinc.com FAX:(920) 662-9141

SHEET NO. C-8



FILTER BAG DETAIL

COURSE AGGREGATE INFORMATION

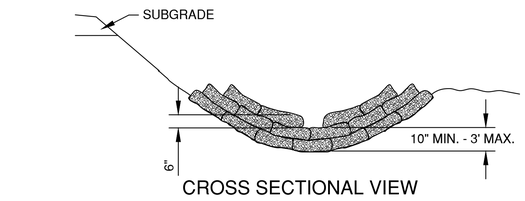
SIEVE SIZE	SIZE NO. AASHTO No. 67 (1)
2 INCH (50 mm)	-
1 1/2 INCH (37.5mm)	-
1 INCH (25.0 mm)	100
3/4 INCH (19.0mm)	90-100
3/8 INCH (9.5mm)	20-55
No. 4 (4.75mm)	0-10
No. 8 (2.36mm)	0-5

(1) SIZE No. ACCORDING TO AASHTO M 43

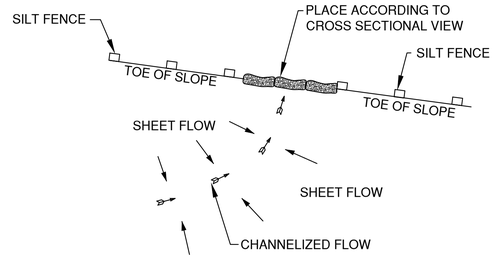
NOTES:

18" X 30" ROCK FILLED FILTER BAG SHALL BE COMPRISED OF THE FOLLOWING:
HDPE HIGH DENSITY POLYETHYLENE
HDPE HIGH DENSITY POLYETHYLENE DRAW STRING KNITTED DIRECTLY INTO BAG OPENING.
80% FABRIC CLOSURE WITH APPARENT OPENING SIZE NO LARGER THAN 1/8 " X 1/8 "
ROLLED SEAM USING A MINIMUM OF 480 DENIER POLYESTER SEWING YARN FOR STRENGTH AND DURABILITY.

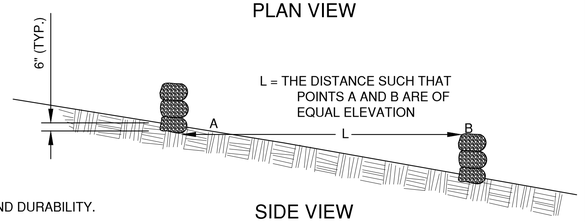
USE WELL GRADED COURSE AGGREGATE CONFORMING TO THE FOLLOWING GRADATION REQUIREMENTS



CROSS SECTIONAL VIEW



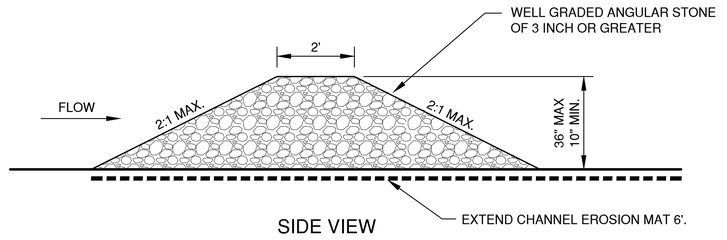
PLAN VIEW



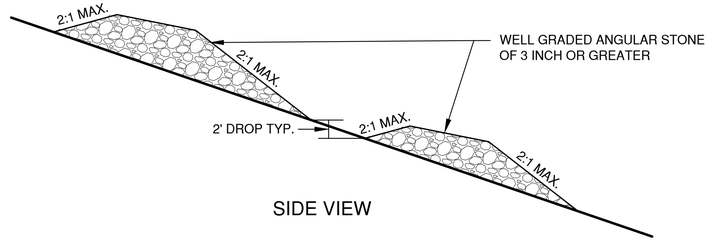
SIDE VIEW

DITCH CHECK DETAIL

ROCK FILLED EROSION CONTROL BAGS TYPE B



SIDE VIEW



SIDE VIEW

TEMPORARY DITCH CHECK USING STONE TYPE C

NO.	DATE	APPROV.	REVISION
1	5-10-16	JGS	CITY SUBMITTAL
2	5-25-16	JGS	FINAL CITY SUBMITTAL

DRAWN BLT
CHECKED JGS
DESIGNED BLT

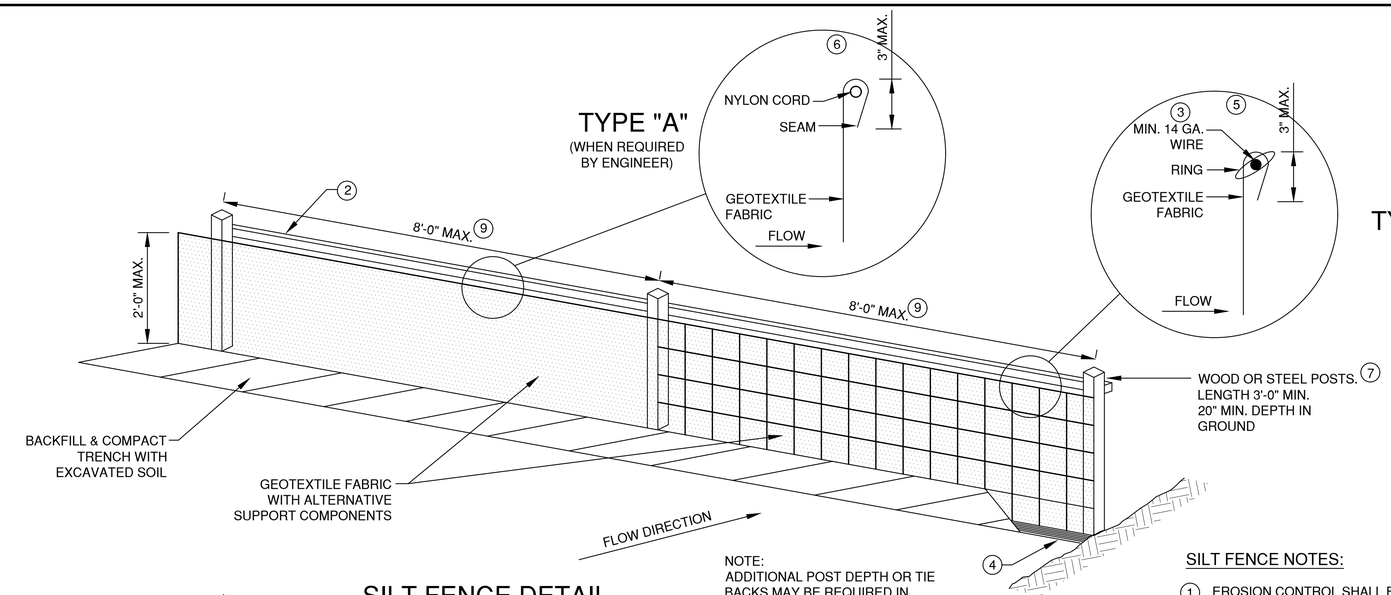
PROPOSED FAMILIA DENTAL FOR
GB REAL ESTATE INVESTMENTS, LLC
CITY OF GREEN BAY
BROWN COUNTY, WISCONSIN

EROSION CONTROL
DITCH CHECK DETAILS

DATE 05/2016
FILE EROSION CONTROL
JOB NO. 5642002

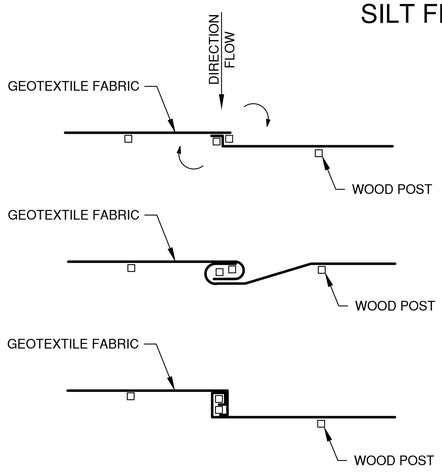
Robert E. Lee & Associates, Inc.
ENGINEERING, SURVEYING, ENVIRONMENTAL SERVICES
1250 CENTENNIAL CENTRE BOULEVARD
HOBART, WI 54155 PHONE:(920) 662-9641
INTERNET: www.releeinc.com FAX:(920) 662-9141

SHEET NO. C-9

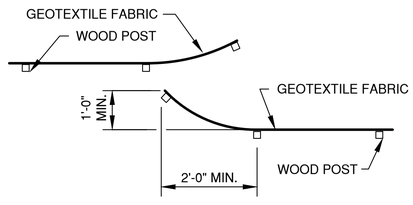


SILT FENCE DETAIL

NOTE:
ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS.

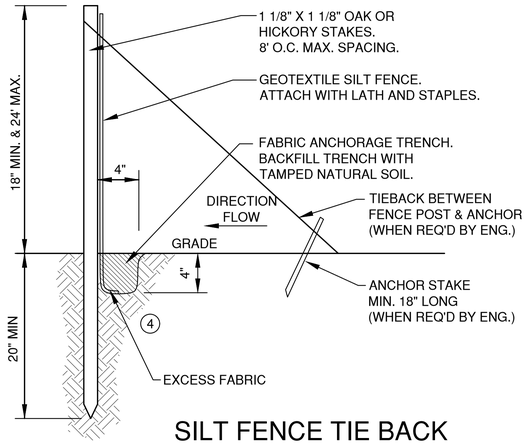


TWIST METHOD 8



HOOK METHOD 8

JOINING TWO LENGTHS OF SILT FENCE



SILT FENCE TIE BACK

SILT FENCE NOTES:

1. EROSION CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH WDNR TECHNICAL STANDARD.
2. CROSS BRACE WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS AS DIRECTED BY THE ENGINEER.
3. MINIMUM 14 GAUGE WIRE REQUIRED, FOLD FABRIC 3" OVER THE WIRE AND STAPLE OR PLACE WIRE RINGS ON 12" C.C.
4. EXCAVATE A TRENCH A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
5. WIRE SUPPORT FENCE SHALL BE 14 GAUGE MINIMUM WOVEN WIRE WITH A MAXIMUM MESH SPACING OF 6". SECURE TOP OF GEOTEXTILE FABRIC TO TOP OF FENCE WITH STAPLES OR WIRE RINGS AT 12" C.C. (TYPE B)
6. GEOTEXTILE FABRIC SHALL BE REINFORCED WITH AN INDUSTRIAL POLYPROPYLENE NETTING WITH A MAXIMUM MESH SPACING OF 3/4" OR EQUAL. A HEAVY DUTY NYLON TOP SUPPORT CORD OR EQUIVALENT IS REQUIRED. (TYPE A)
7. STEEL POSTS SHALL BE STUDDED "TEE" OR "U" TYPE WITH A MINIMUM WEIGHT OF 1.28 LBS./LIN. FT. (WITHOUT ANCHOR) FIN ANCHORS SUFFICIENT TO RESIST POST MOVEMENT ARE REQUIRED. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
8. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL, IF POSSIBLE, BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY, USE ONE OF THE FOLLOWING TWO METHODS: A.) TWIST METHOD -- OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B:) HOOK METHOD -- HOOK THE END OF EACH SILT FENCE LENGTH.
9. THE MAXIMUM SPACING OF POSTS FOR WOVEN FABRIC SILT FENCE SHALL BE 8 FEET AND FOR NON-WOVEN FABRIC, 3 FEET.

EROSION CONTROL SHEET FLOW NOTES:

1. ANY SOIL STOCKPILED THAT REMAINS FOR MORE THAN 7 DAYS SHALL BE COVERED OR TREATED WITH STABILIZATION PRACTICES SUCH AS TEMPORARY OR PERMANENT SEEDING AND MULCHING.
2. A MINIMUM OF 4 INCHES OF TOPSOIL MUST BE APPLIED TO ALL AREAS TO BE SEEDED OR SODDED.
3. ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, WASTEWATER, TOXIC MATERIALS, OR HAZARDOUS MATERIALS) SHALL BE PROPERLY DISPOSED OF AND NOT ALLOWED TO BE CARRIED OFF-SITE BY RUNOFF OR WIND.
4. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION WORK OR A STORM EVENT SHALL BE CLEANED UP BY THE END OF EACH DAY. **FLUSHING SHALL NOT BE ALLOWED.**
5. ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR THE APPLICATION OF STABILIZATION MEASURES MUST BE REPAIRED AND THE STABILIZATION WORK REDONE.
6. FOR ANY DISTURBED AREA THAT REMAINS INACTIVE FOR GREATER THAN 7 WORKING DAYS, OR WHERE GRADING WORK EXTENDS BEYOND THE PERMANENT SEEDING DEADLINES, THE SITE MUST BE TREATED WITH TEMPORARY STABILIZATION MEASURES SUCH AS SOIL TREATMENT, TEMPORARY SEEDING AND/OR MULCHING.
7. ALL TEMPORARY EROSION CONTROL PRACTICES SHALL BE MAINTAINED UNTIL THE SITE IS STABILIZED WITH 70% VEGETATION AND A NOTICE OF TERMINATION HAS BEEN APPROVED BY THE DNR.
8. WIND EROSION SHALL BE KEPT TO A MINIMUM DURING CONSTRUCTION. WATERING, MULCH OR A TACKING AGENT MAY NEED TO BE UTILIZED TO PROTECT NEARBY RESIDENCES/WATER RESOURCES.
9. CONTRACTOR RESPONSIBLE FOR MAINTAINING ALL THE EROSION CONTROL MEASURES IN CONFORMANCE WITH THE WDNR CONSERVATION PRACTICE STANDARDS, LATEST EDITION.
10. UPON COMPLETION OF STORM INLET CONSTRUCTION, INSTALL STORM DRAIN INLET PROTECTION FOR CONSTRUCTION SITE AS SPECIFIED.
11. FINE SEDIMENT ACCUMULATIONS SHALL BE CLEANED FROM STREETS, PRIVATE DRIVES, OR PARKING AREAS BY MANUAL OR MECHANICAL SWEEPING A MINIMUM OF ONCE PER WEEK AND BEFORE ALL IMMINENT RAINS.
12. EROSION AND SEDIMENT CONTROL STRUCTURES SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS OF RAINFALL OF 0.5 INCH OR MORE.

NO.	DATE	APPROV.	REVISION
1	5-10-16	JGS	CITY SUBMITTAL
2	5-25-16	JGS	FINAL CITY SUBMITTAL

NO.	DATE	APPROV.	REVISION

DRAWN BLT
CHECKED JGS
DESIGNED BLT

PROPOSED FAMILIA DENTAL FOR
GB REAL ESTATE INVESTMENTS, LLC
CITY OF GREEN BAY
BROWN COUNTY, WISCONSIN

EROSION CONTROL
SHEET FLOW DETAILS

DATE 05/2016
FILE EROSION CONTROL
JOB NO. 5642002

Robert E. Lee & Associates, Inc.
ENGINEERING, SURVEYING, ENVIRONMENTAL SERVICES
1250 CENTENNIAL CENTRE BOULEVARD
HOBART, WI 54155 PHONE:(920) 662-9641
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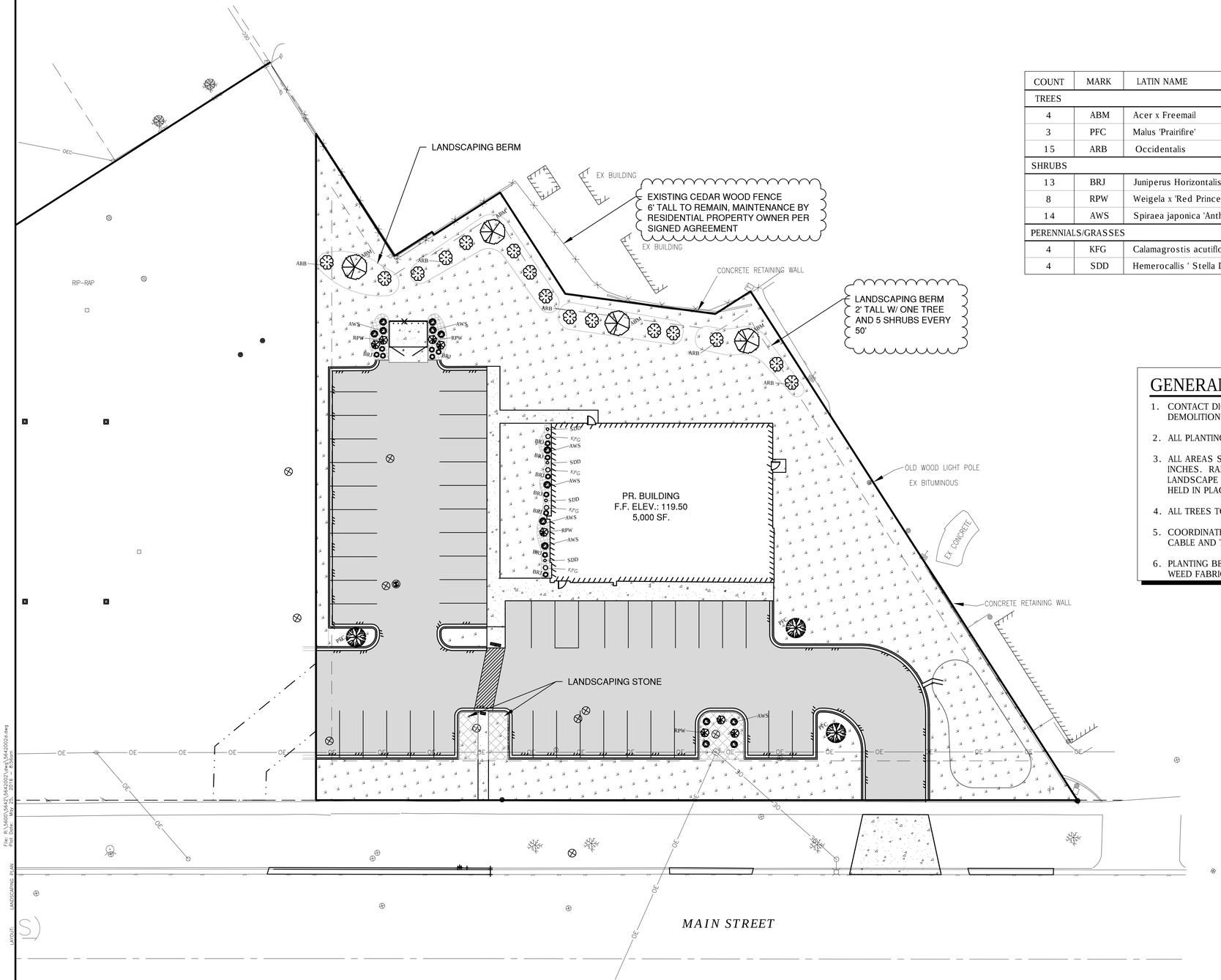
SHEET NO. C-10



COUNT	MARK	LATIN NAME	COMMON NAME	SIZE	ROOT	MATURE SIZE
TREES						
4	ABM	Acer x Freemail	Autumn Blaze Maple	2" CAL	BB	2" CAL
3	PFC	Malus 'Prairifire'	Prariefire Crab Tree	2" CAL. 7'	BB	2" CAL. 7'
15	ARB	Occidentalis	Technito Arborvitae	4-5' Wide		8-10'
SHRUBS						
13	BRJ	Juniperus Horizontalis 'Wiltonii'	Blue Rug Juniper	5 GAL.	POT	1'-2'
8	RPW	Weigela x 'Red Prince'	Red Prince Weigela	2'-3'	POT	4'-5'
14	AWS	Spiraea japonica 'Anthony Waterer'	Anthony Waterer Spirea	2'-3'	POT	3'-5'
PERENNIALS/GRASSES						
4	KFG	Calamagrostis acutiflora 'Karl Foerster'	Karl Foetster Reed Grass	#2	POT	4'-5'
4	SDD	Hemerocallis ' Stella D'Oro'	Stella D'Oro Daylily	#1	POT	2'

GENERAL NOTES

1. CONTACT DIGGER'S HOTLINE 5 WORKING DAYS PRIOR TO THE START OF DEMOLITION / CONSTRUCTION.
2. ALL PLANTINGS SHALL MEET THE NURSERYMEN'S ASSOCIATION STANDARDS
3. ALL AREAS SHOWN AS GREEN SPACE TO BE TOPSOILED TO A DEPTH OF 6 INCHES. RAKE FREE OF STONES AND CLUMPS. ALL AREAS NOT SHOWN WITH LANDSCAPE BEDS TO BE SEEDED AND MULCHED FOR LAWN. MULCH SHALL BE HELD IN PLACE BY CRIMPING OR BY USE OF A TACKIFIER.
4. ALL TREES TO BE STAKED WITH A MINIMUM OF 3 STAKES.
5. COORDINATE LANDSCAPE WORK WITH ALL TRADES (EXAMPLE: GAS, ELECTRIC, CABLE AND TELEPHONE).
6. PLANTING BEDS SHALL BE MULCHED WITH SHREDDED HARDWOOD MULCH WITH WEED FABRIC BELOW AND EDGING WHERE NEEDED.

NORTH

0' 20' 40'

SCALE IN FEET

File: R:\5600\5642\5642002\Land\5642002d.dwg
Plot Date: May 25, 2016 - 8:36am
LANDSCAPING PLAN
Layout: S)

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
1	5-10-16	JGS	CITY SUBMITTAL				
2	5-25-16	JGS	FINAL CITY SUBMITTAL				

DRAWN BLT
CHECKED JGS
DESIGNED BLT

PROPOSED FAMILIA DENTAL FOR
GB REAL ESTATE INVESTMENTS, LLC.
CITY OF GREEN BAY
BROWN COUNTY, WISCONSIN

LANDSCAPING PLAN

DATE 05/2016
FILE 5642002D
JOB NO. 5642002

Robert E. Lee & Associates, Inc.
ENGINEERING, SURVEYING, ENVIRONMENTAL SERVICES
1250 CENTENNIAL CENTRE BOULEVARD HOBART, WI 54155
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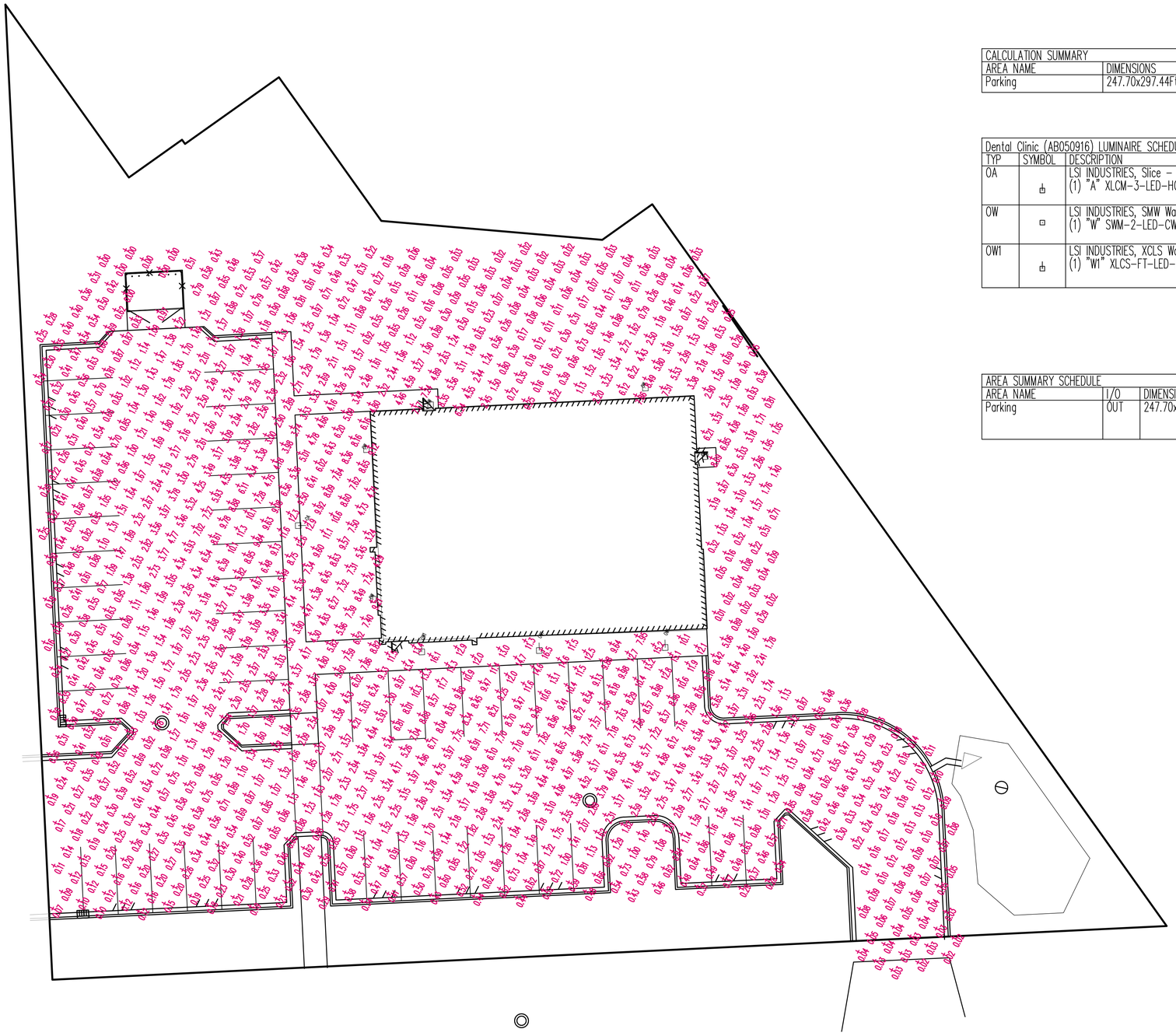
SHEET NO. L-0



CALCULATION SUMMARY										
AREA NAME	DIMENSIONS	GRID / TYPE	# PTS	SPAC	GROUP	AVE	MAX	MIN	MAX/MIN	AVE/MIN
Parking	247.70x297.44Ft	Grade / H-H	1161	5.00	<+>	2.61	16.50	0.00	N/A	N/A

Dental Clinic (AB050916) LUMINAIRE SCHEDULE							
TYP	SYMBOL	DESCRIPTION	LAMP	LUMENS	MOUNTING/BALLAST	LLF	QTY
OA		LSI INDUSTRIES, Slice - Single (1) "A" XLCM-3-LED-HO-NW	(1)	27916	25' SSS 3' Conc. Pour	1.00	1
OW		LSI INDUSTRIES, SMW Wall (1) "W" SWM-2-LED-CW-UE	(1)	4145	LSI	1.00	5
OW1		LSI INDUSTRIES, XCLS Wall (1) "W1" XLCS-FT-LED-HO-NW	(1)	15570	LSI	1.00	3

AREA SUMMARY SCHEDULE					
AREA NAME	I/O	DIMENSIONS	LUMS / <ASMS>	WATTS / SQ FT	QTY
Parking	OUT	247.70x297.44Ft	<OA > (1) <OW > (5) <OW1 > (3)	0.02	1

LIGHTING PLAN BY:

D□□□ □□c□□r□
Pr□sid□□□
Visu□□l□ □□c□Lig□i□g, LLC
□20-4□□-20□□
Gr□□□ □□□- Mi□□u□□□- M□dis□□

NO.	DATE	APPROV.	REVISION	NO.	DATE	APPROV.	REVISION
1	5-10-16	JGS	CITY SUBMITTAL				
2	5-25-16	JGS	FINAL CITY SUBMITTAL				

DRAWN BLT | CHECKED JGS | DESIGNED BLT

PROPOSED FAMILIA DENTAL FOR
GB REAL ESTATE INVESTMENTS, LLC.
CITY OF GREEN BAY
BROWN COUNTY, WISCONSIN

LIGHTING PLAN

DATE 05/2016 | FILE 5642002D | JOB NO. 5642002

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Celebrating 60 Years of Excellence

SHEET NO. L-1

Appendix B

Boring Logs

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
One Hour Martinizing	02-05-217276	B-10

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Bendorf Probe Technologies, Inc.	12/11/2012	12/11/2012	geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S/C/N
NW 1/4 of SE 1/4 of Section 5, T 23 N, R 21 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Brown	5	Green Bay

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	48 40		0.5	0.0-0.25' CONCRETE 0.25-1.25' CLAYEY SAND, red, fined grained sand, cohesive, low plasticity, dry, med. dense (FILL, SC)	SC									
			1.0											
			1.5	1.25-2.0' As above. Color grades to dark brown / black.	SC									
			2.0	2.0-2.5' SILTY CLAY, red, cohesive, high plasticity, stiff, dry (FILL, CH)	CH			0.0						
			2.5	2.5-3.0' SILTY SAND, med. grained, red, dry, loose (FILL, SM)	SM									
			3.0		CH			0.0						
			3.5	3.0-3.5' SILTY CLAY, red, cohesive, high plasticity, stiff, dry (FILL, CH)	SM									
2 CS	48 37		4.0	3.5-4.0' SILTY SAND, med. grained, red, dry, loose (FILL, SM)			▼							
			4.5											
			5.0	4.0-7.0' CLAYEY SILT w/ SAND, fine grained, brown, non-cohesive, low plasticity, wet (TILL, ML)										
			5.5		ML									
			6.0											
			6.5											
			7.0											
			7.5	7.0-8.0' As above. Color grades to grey brown.	ML									
			8.0	8.0' End of Boring. Abandoned with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel:
	Alpha Terra Science 1237 Pilgrim Rd. Plymouth, WI 53073	Tel: 920-892-2444 Fax: 920-892-2620

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
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Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Bendorf Probe Technologies, Inc.	12/11/2012	12/11/2012	geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S/C/N
NW 1/4 of SE 1/4 of Section 5, T 23 N, R 21 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Brown	5	Green Bay

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	48 34		0.5 1.0 1.5 2.0 2.5	0.0-0.25' CONCRETE 0.25-2.75' CLAYEY SILT w/ SAND, reddish brown, slightly cohesive, non plastic, dry, dense (FILL, ML)	ML			0.0						
			3.0 3.5	2.75-4.0' As above. Color grades to dark brown.	ML			0.0						
2 CS	48 32		4.0 4.5 5.0 5.5	4.0-6.0' SILT, reddish brown, non-cohesive, non-plastic, loose, moist (TILL, ML)	ML		▼	0.0						
			6.0 6.5 7.0 7.5	6.0-8.0' As above. Color grades to brown. Wet at 6'	ML									
			8.0	8.0' End of Boring. Abandoned with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
	Alpha Terra Science 1237 Pilgrim Rd. Plymouth, WI 53073	Tel: 920-892-2444 Fax: 920-892-2620

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
One Hour Martinizing	02-05-217276	B-12

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Bendorf Probe Technologies, Inc.	12/11/2012	12/11/2012	geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S/C/N
NW 1/4 of SE 1/4 of Section 5, T 23 N, R 21 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Brown	5	Green Bay

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	48 34		0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0	0.0-0.25' CONCRETE 0.25-0.75' POORLY GRADED SAND, medium grained, reddish brown (FILL, SP) 0.75-1.25' SILT, dark brown, non-cohesive, non-plastic, dry (FILL, ML) 1.25-3.5' POORLY GRADED SAND, medium grained, reddish brown (FILL, SP) 3.5-4.25' SANDY SILT, fined grained sand, dark brown / brown, non-cohesive, non-plastic, dense, moist (TILL, ML) 4.25-6.0' As above. Color grades to reddish brown. Wet at 5' 6.0-8.0' As above. Color grades to brown. 8.0' End of Boring. Abandoned with bentonite.	SP ML SP ML ML		▼	0.0 0.0 0.0						
2 CS	48 39													

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
	Alpha Terra Science 1237 Pilgrim Rd. Plymouth, WI 53073	Tel: 920-892-2444 Fax: 920-892-2620

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
One Hour Martinizing	02-05-217276	B-13

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Bendorf Probe Technologies, Inc.	12/11/2012	12/11/2012	geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S/C/N
NW 1/4 of SE 1/4 of Section 5, T 23 N, R 21 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Brown	5	Green Bay

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	48 / 40		0.5	0.0-0.25' CONCRETE										
			1.0	0.25-0.6' POORLY GRADED SAND, medium grained, reddish brown (FILL, SP)	SP									
			1.5	0.6-1.0' SILT, dark brown / black, non-cohesive, non-plastic, dry (FILL, ML)	ML									
			2.0	1.0-2.25' POORLY GRADED SAND, medium grained, reddish brown (FILL, SP)	SP			0.0						
			2.5	2.25-3.5' SANDY SILT, fined grained sand, dark brown / brown, non-cohesive, non-plastic, dense, moist (TILL, ML)	ML									
			3.0											
			3.5											
2 CS	48 / 39		4.0	3.5-5.0' POORLY GRADED SAND, fine to medium grained, reddish brown (FILL, SP)	SP			0.0						
			4.5											
			5.0				▼							
			5.5	5.0-6.0' SILT, brownish yellow, non-cohesive, non-plastic, loose, wet (TILL, ML)	ML									
			6.0	6.0-8.0' As above. Color grades to brown. Med. stiff.	ML									
			6.5											
			7.0											
			7.5											
			8.0	8.0' End of Boring. Abandoned with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel:
	Alpha Terra Science 1237 Pilgrim Rd. Plymouth, WI 53073	920-892-2444 Fax: 920-892-2620

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
One Hour Martinizing	02-05-217276	B-14

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Bendorf Probe Technologies, Inc.	12/11/2012	12/11/2012	geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S/C/N
NW 1/4 of SE 1/4 of Section 5, T 23 N, R 21 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Brown	5	Green Bay

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	48 40		0.5 1.0 1.5 2.0	0.0-0.25' CONCRETE 0.25-2.25' CLAYEY SILTY SAND, red / black, fine grained sand, cohesive, low plasticity, stiff, dry (FILL, ML-CL)	ML-CL			0.0						
			2.5 3.0 3.5 4.0	2.25-4.0' SILTY CLAY, red, cohesive, high plasticity, stiff, dry, fine grained sand seam at 3.0' (FILL, CH)	CH									
2 CS	48 37		4.5 5.0 5.5 6.0	4.0-6.0' SILT, light brown, non-cohesive, non-platic, loose, wet at 5.0' (TILL, ML)	ML		▼	0.0						
			6.5 7.0 7.5 8.0	6.0-8.0' CLAYEY SILT, brown, cohesive, low plasticity, stiff (TILL, ML-CL)	ML									
				8.0' End of Boring. Abandoned with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
	Alpha Terra Science 1237 Pilgrim Rd. Plymouth, WI 53073	Tel: 920-892-2444 Fax: 920-892-2620

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
One Hour Martinizing	02-05-217276	B-15

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Bendorf Probe Technologies, Inc.	12/11/2012	12/11/2012	geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S/C/N
NW 1/4 of SE 1/4 of Section 5, T 23 N, R 21 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Brown	5	Green Bay

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	48 38		0.5 1.0 1.5 2.0 2.5 3.0	0.0-0.25' CONCRETE 0.25-3.0' SANDY SILT, fine to med. grained sand, brown, non-cohesive, non-plastic, dry, dense (FILL, ML)	ML			0.0						
2 CS	48 39		3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0	3.0-4.25' As above. Color grades to dark brown. 4.25-6.5' As above. Color grades to reddish light brown, water at 6.5' 6.5-8.0' As above. Color grades to brown. 8.0' End of Boring. Abandoned with bentonite.	ML ML ML		▼	0.0						

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
	Alpha Terra Science 1237 Pilgrim Rd. Plymouth, WI 53073	Tel: 920-892-2444 Fax: 920-892-2620

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
One Hour Martinizing	02-05-217276	B-16

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Bendorf Probe Technologies, Inc.	12/11/2012	12/11/2012	geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S/C/N
NW 1/4 of SE 1/4 of Section 5, T 23 N, R 21 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Brown	5	Green Bay

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	48 42		0.5 1.0 1.5 2.0	0.0-2.0' CLAYEY SILT w/ GRAVEL (topsoil), 10% 1/4" subrounded gravel, black, non-cohesive, non-plastic, roots, dense (FILL, OL)	OL									
			2.5 3.0 3.5 4.0	2.0-6.5' SANDY SILT, very fine grained sand, non-cohesive, non-plastic, dense, moist, wet at 4.5' (TILL, ML)				0.0						
2 CS	48 48		4.5 5.0 5.5 6.0 6.5		ML		▼	0.0						
			7.0 7.5 8.0	6.5-8.0' As above. Color grades to grey brown.	ML									
				8.0' End of Boring. Abandoned with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
	Alpha Terra Science 1237 Pilgrim Rd. Plymouth, WI 53073	Tel: 920-892-2444 Fax: 920-892-2620

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
One Hour Martinizing	02-05-217276	B-17

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Bendorf Probe Technologies, Inc.	12/11/2012	12/11/2012	geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S/C/N
NW 1/4 of SE 1/4 of Section 5, T 23 N, R 21 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Brown	5	Green Bay

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	48 38		0.5	0.0-0.25' CLAYEY SILT (topsoil), black, roots (FILL, OL)	OL									
			1.0	0.25-0.5' SILTY GRAVEL, grey, 3/4" angular gravel, dry (FILL, GM)	GM									
			1.5	0.5-2.0' SANDY SILT, very fine grained sand, brown, non-cohesive, non-plastic, dense, dry (FILL, ML)	ML			0.0						
			2.0											
			2.5	2.0-2.25' ASPHALT				0.0						
			3.0	2.25-8.0' SANDY SILT, very fine grained sand, brown, non-cohesive, non-plastic, dense, wet at 4.0' (FILL, ML)										
			3.5											
2 CS	48 44		4.0				▼							
			4.5											
			5.0		ML									
			5.5											
			6.0											
			6.5											
			7.0											
			7.5											
			8.0	8.0' End of Boring. Abandoned with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
	Alpha Terra Science 1237 Pilgrim Rd. Plymouth, WI 53073	Tel: 920-892-2444 Fax: 920-892-2620

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
One Hour Martinizing	02-05-217276	B-18

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Bendorf Probe Technologies, Inc.	12/11/2012	12/11/2012	geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S/C/N
NW 1/4 of SE 1/4 of Section 5, T 23 N, R 21 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Brown	5	Green Bay

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	48 / 28		0.5	0.0-4.25' SILTY GRAVEL, brown, 3/4" angular gravel, dry (FILL, GM)	GM			0.0						
			1.0											
			1.5											
			2.0											
			2.5											
			3.0					0.0						
			3.5											
			4.0											
2 CS	48 / 40		4.5	4.25-6.5' SILT, brown, non-cohesive, non-plastic, dense, moist, wet at 4.75' (TILL, ML)	ML		▼							
			5.0											
			5.5											
			6.0											
			6.5	6.5-8.0' SILTY CLAY, brown, cohesive, high plasticity, tight, moist (TILL, CH)	CH									
			7.0											
			7.5											
			8.0	8.0' End of Boring. Abandoned with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel:
	Alpha Terra Science 1237 Pilgrim Rd. Plymouth, WI 53073	Tel: 920-892-2444 Fax: 920-892-2620

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
One Hour Martinizing	02-05-217276	B-19

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Bendorf Probe Technologies, Inc.	12/11/2012	12/11/2012	geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S/C/N
NW 1/4 of SE 1/4 of Section 5, T 23 N, R 21 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Brown	5	Green Bay

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	48 34		0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0	0.0-4.25' SILTY GRAVEL, brown, 3/4" angular gravel, dry (FILL, GM)	GM			0.0						
2 CS	48 48		4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0	4.25-6.5' SILT, brown, non-cohesive, non-plastic, dense, moist, wet at 4.75' (TILL, ML) 6.5-8.0' SILTY CLAY, brown, moist, cohesive, high plasticity, very stiff, (TILL, CH) 8.0' End of Boring. Abandoned with bentonite.	ML CH		▼	0.0						

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
	Alpha Terra Science 1237 Pilgrim Rd. Plymouth, WI 53073	Tel: 920-892-2444 Fax: 920-892-2620

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
One Hour Martinizing	02-05-217276	B-20

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Bendorf Probe Technologies, Inc.	12/11/2012	12/11/2012	geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S/C/N
NW 1/4 of SE 1/4 of Section 5, T 23 N, R 21 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Brown	5	Green Bay

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	48 40		0.5	0.0-0.75' ASPHALT										
			1.0 1.5 2.0	0.75-2.5' SILTY GRAVEL, brown, 3/4" angular gravel, dry (FILL, GM)	GM			0.0						
			2.5	2.5-3.0' ASPHALT										
			3.0	3.0-3.25' SILTY GRAVEL, brown, 3/4" angular gravel, dry (FILL, GM)	GM									
			3.5	3.25-3.75' ASPHALT										
2 CS	48 18		4.0 4.5 5.0	3.75-5.5' SILT, dark brown / green, non-cohesive, non-plastic, dense, water at 4' (TILL, ML)	ML		▼	0.0						
			5.5 6.0 6.5 7.0 7.5	5.5-8.0' No recovery, soil slid out of tube.										
			8.0	8.0' End of Boring. Abandonded with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	
	Alpha Terra Science 1237 Pilgrim Rd. Plymouth, WI 53073	Tel: 920-892-2444 Fax: 920-892-2620

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
One Hour Martinizing	02-05-217276	B-21

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Dan Bendorf Probe Technologies, Inc.	12/11/2012	12/11/2012	geoprobe

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒
State Plane N, E S/C/N
NW 1/4 of SE 1/4 of Section 5, T 23 N, R 21 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Brown	5	Green Bay

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 CS	48 33		0.5 1.0 1.5 2.0 2.5 3.0	0.75-3.0' SILTY GRAVEL, brown, 3/4" angular gravel, dry (FILL, GM)	GM			0.0						
			3.0	3.0-3.25' ASPHALT										
			3.5	3.25-3.75' SILTY GRAVEL, brown, 3/4" angular gravel, dry (FILL, GM)	GM									
2 CS	48 35		4.0 4.5 5.0 5.5 6.0	3.75-4.25' SANDY SILT, very fine grained sand, brown, non-cohesive, non-plastic, dense, dry (FILL, ML)	ML		▼	0.0						
				4.25-6.0' SILT, dark brown / green, non-cohesive, non-plastic, dense, water at 4.5' (TILL, ML)	ML									
			6.5 7.0 7.5 8.0	6.0-8.0' SILTY CLAY, brown, cohesive, high plasticity, very stiff, moist to wet (TILL, CH)	CH									
				8.0' End of Boring. Abandoned with bentonite.										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm	Tel:
	Alpha Terra Science 1237 Pilgrim Rd. Plymouth, WI 53073	920-892-2444 Fax: 920-892-2620

Appendix C

Laboratory Analytical Reports

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

June 26, 2017

Matt Dahlem
Fehr Graham Engineering and Environmental
1237 Pilgrim Road
Plymouth, WI 53073

RE: Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Dear Matt Dahlem:
Enclosed are the analytical results for sample(s) received by the laboratory on June 21, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christopher Hyska

Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Megan Hansen, Fehr Graham Engineering and Environmental

Pace Analytical Services, LLC
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(920)469-2436

CERTIFICATIONS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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SAMPLE SUMMARY

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40152056001	**MW-1**	Water	06/21/17 15:20	06/21/17 16:25
40152056002	**PZ-1**	Water	06/21/17 14:20	06/21/17 16:25
40152056003	**MW-2**	Water	06/21/17 14:30	06/21/17 16:25
40152056004	**SMW-3**	Water	06/21/17 15:25	06/21/17 16:25
40152056005	**MW-4**	Water	06/21/17 14:15	06/21/17 16:25
40152056006	**MW-5**	Water	06/21/17 14:05	06/21/17 16:25
40152056007	**MW-6**	Water	06/21/17 14:55	06/21/17 16:25
40152056008	**MW-7**	Water	06/21/17 15:10	06/21/17 16:25
40152056009	**MW-8**	Water	06/21/17 14:35	06/21/17 16:25
40152056010	**MW-9**	Water	06/21/17 15:00	06/21/17 16:25
40152056011	**GEC TW-4**	Water	06/21/17 14:40	06/21/17 16:25
40152056012	**GEC TW-5**	Water	06/21/17 14:45	06/21/17 16:25
40152056013	**TRIP BLANK**	Water	06/21/17 00:00	06/21/17 16:25

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SAMPLE ANALYTE COUNT

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40152056001	**MW-1**	EPA 8260	LAP	64	PASI-G
40152056002	**PZ-1**	EPA 8260	LAP	64	PASI-G
40152056003	**MW-2**	EPA 8260	LAP	64	PASI-G
40152056004	**SMW-3**	EPA 8260	LAP	64	PASI-G
40152056005	**MW-4**	EPA 8260	LAP	64	PASI-G
40152056006	**MW-5**	EPA 8260	LAP	64	PASI-G
40152056007	**MW-6**	EPA 8260	LAP	64	PASI-G
40152056008	**MW-7**	EPA 8260	LAP	64	PASI-G
40152056009	**MW-8**	EPA 8260	LAP	64	PASI-G
40152056010	**MW-9**	EPA 8260	LAP	64	PASI-G
40152056011	**GEC TW-4**	EPA 8260	LAP	64	PASI-G
40152056012	**GEC TW-5**	EPA 8260	LAP	64	PASI-G
40152056013	**TRIP BLANK**	EPA 8260	LAP	64	PASI-G

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SUMMARY OF DETECTION

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40152056001	**MW-1**					
EPA 8260	Tetrachloroethene	11.5	ug/L	1.0	06/23/17 19:19	
40152056004	**SMW-3**					
EPA 8260	cis-1,2-Dichloroethene	93.1	ug/L	20.0	06/23/17 20:50	
EPA 8260	trans-1,2-Dichloroethene	9.8J	ug/L	20.0	06/23/17 20:50	
EPA 8260	Tetrachloroethene	1790	ug/L	20.0	06/23/17 20:50	
EPA 8260	Trichloroethene	512	ug/L	20.0	06/23/17 20:50	
40152056005	**MW-4**					
EPA 8260	Tetrachloroethene	0.88J	ug/L	1.0	06/23/17 19:42	
40152056007	**MW-6**					
EPA 8260	Toluene	3.7	ug/L	1.0	06/23/17 17:49	
40152056008	**MW-7**					
EPA 8260	Tetrachloroethene	3.1	ug/L	1.0	06/23/17 20:05	
EPA 8260	Trichloroethene	0.57J	ug/L	1.0	06/23/17 20:05	
40152056010	**MW-9**					
EPA 8260	Trichloroethene	0.76J	ug/L	1.0	06/23/17 20:27	

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: MW-1 **Lab ID: 40152056001** Collected: 06/21/17 15:20 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 19:19	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/23/17 19:19	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/23/17 19:19	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 19:19	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/23/17 19:19	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/23/17 19:19	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/23/17 19:19	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/23/17 19:19	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/23/17 19:19	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/23/17 19:19	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/23/17 19:19	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/23/17 19:19	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/23/17 19:19	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/23/17 19:19	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		06/23/17 19:19	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 19:19	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 19:19	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/23/17 19:19	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/23/17 19:19	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/23/17 19:19	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 19:19	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 19:19	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/23/17 19:19	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	99-87-6	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/23/17 19:19	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/23/17 19:19	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/23/17 19:19	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 19:19	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: MW-1 **Lab ID: 40152056001** Collected: 06/21/17 15:20 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/23/17 19:19	79-34-5	
Tetrachloroethene	**11.5**	ug/L	1.0	0.50	1		06/23/17 19:19	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 19:19	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 19:19	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		06/23/17 19:19	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		06/23/17 19:19	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 19:19	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/23/17 19:19	75-01-4	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/23/17 19:19	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:19	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	61-130		1		06/23/17 19:19	460-00-4	
Dibromofluoromethane (S)	105	%	67-130		1		06/23/17 19:19	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		06/23/17 19:19	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: PZ-1 **Lab ID: 40152056002** Collected: 06/21/17 14:20 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 16:41	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/23/17 16:41	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/23/17 16:41	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 16:41	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/23/17 16:41	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/23/17 16:41	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/23/17 16:41	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/23/17 16:41	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/23/17 16:41	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/23/17 16:41	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/23/17 16:41	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/23/17 16:41	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/23/17 16:41	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/23/17 16:41	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		06/23/17 16:41	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 16:41	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 16:41	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/23/17 16:41	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/23/17 16:41	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/23/17 16:41	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 16:41	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 16:41	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/23/17 16:41	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	99-87-6	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/23/17 16:41	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/23/17 16:41	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/23/17 16:41	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 16:41	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: PZ-1 **Lab ID: 40152056002** Collected: 06/21/17 14:20 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/23/17 16:41	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 16:41	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 16:41	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		06/23/17 16:41	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		06/23/17 16:41	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 16:41	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/23/17 16:41	75-01-4	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/23/17 16:41	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:41	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	61-130		1		06/23/17 16:41	460-00-4	
Dibromofluoromethane (S)	99	%	67-130		1		06/23/17 16:41	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		06/23/17 16:41	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: MW-2 **Lab ID: 40152056003** Collected: 06/21/17 14:30 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 17:03	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/23/17 17:03	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/23/17 17:03	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 17:03	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/23/17 17:03	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/23/17 17:03	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/23/17 17:03	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/23/17 17:03	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/23/17 17:03	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/23/17 17:03	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/23/17 17:03	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/23/17 17:03	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/23/17 17:03	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/23/17 17:03	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		06/23/17 17:03	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 17:03	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 17:03	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/23/17 17:03	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/23/17 17:03	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/23/17 17:03	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 17:03	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 17:03	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/23/17 17:03	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	99-87-6	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/23/17 17:03	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/23/17 17:03	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/23/17 17:03	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 17:03	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: MW-2 **Lab ID: 40152056003** Collected: 06/21/17 14:30 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/23/17 17:03	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 17:03	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 17:03	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		06/23/17 17:03	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		06/23/17 17:03	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 17:03	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/23/17 17:03	75-01-4	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/23/17 17:03	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:03	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	61-130		1		06/23/17 17:03	460-00-4	
Dibromofluoromethane (S)	104	%	67-130		1		06/23/17 17:03	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		06/23/17 17:03	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: SMW-3 **Lab ID: 40152056004** Collected: 06/21/17 15:25 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	71-43-2	
Bromobenzene	**<4.6**	ug/L	20.0	4.6	20		06/23/17 20:50	108-86-1	
Bromochloromethane	**<6.8**	ug/L	20.0	6.8	20		06/23/17 20:50	74-97-5	
Bromodichloromethane	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	75-27-4	
Bromoform	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	75-25-2	
Bromomethane	**<48.7**	ug/L	100	48.7	20		06/23/17 20:50	74-83-9	
n-Butylbenzene	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	104-51-8	
sec-Butylbenzene	**<43.7**	ug/L	100	43.7	20		06/23/17 20:50	135-98-8	
tert-Butylbenzene	**<3.6**	ug/L	20.0	3.6	20		06/23/17 20:50	98-06-6	
Carbon tetrachloride	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	56-23-5	
Chlorobenzene	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	108-90-7	
Chloroethane	**<7.5**	ug/L	20.0	7.5	20		06/23/17 20:50	75-00-3	
Chloroform	**<50.0**	ug/L	100	50.0	20		06/23/17 20:50	67-66-3	
Chloromethane	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	74-87-3	
2-Chlorotoluene	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	95-49-8	
4-Chlorotoluene	**<4.3**	ug/L	20.0	4.3	20		06/23/17 20:50	106-43-4	
1,2-Dibromo-3-chloropropane	**<43.3**	ug/L	100	43.3	20		06/23/17 20:50	96-12-8	
Dibromochloromethane	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	124-48-1	
1,2-Dibromoethane (EDB)	**<3.6**	ug/L	20.0	3.6	20		06/23/17 20:50	106-93-4	
Dibromomethane	**<8.5**	ug/L	20.0	8.5	20		06/23/17 20:50	74-95-3	
1,2-Dichlorobenzene	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	95-50-1	
1,3-Dichlorobenzene	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	541-73-1	
1,4-Dichlorobenzene	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	106-46-7	
Dichlorodifluoromethane	**<4.5**	ug/L	20.0	4.5	20		06/23/17 20:50	75-71-8	
1,1-Dichloroethane	**<4.8**	ug/L	20.0	4.8	20		06/23/17 20:50	75-34-3	
1,2-Dichloroethane	**<3.4**	ug/L	20.0	3.4	20		06/23/17 20:50	107-06-2	
1,1-Dichloroethene	**<8.2**	ug/L	20.0	8.2	20		06/23/17 20:50	75-35-4	
cis-1,2-Dichloroethene	**93.1**	ug/L	20.0	5.1	20		06/23/17 20:50	156-59-2	
trans-1,2-Dichloroethene	**9.8J**	ug/L	20.0	5.1	20		06/23/17 20:50	156-60-5	
1,2-Dichloropropane	**<4.7**	ug/L	20.0	4.7	20		06/23/17 20:50	78-87-5	
1,3-Dichloropropane	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	142-28-9	
2,2-Dichloropropane	**<9.7**	ug/L	20.0	9.7	20		06/23/17 20:50	594-20-7	
1,1-Dichloropropene	**<8.8**	ug/L	20.0	8.8	20		06/23/17 20:50	563-58-6	
cis-1,3-Dichloropropene	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	10061-01-5	
trans-1,3-Dichloropropene	**<4.6**	ug/L	20.0	4.6	20		06/23/17 20:50	10061-02-6	
Diisopropyl ether	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	108-20-3	
Ethylbenzene	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	100-41-4	
Hexachloro-1,3-butadiene	**<42.1**	ug/L	100	42.1	20		06/23/17 20:50	87-68-3	
Isopropylbenzene (Cumene)	**<2.9**	ug/L	20.0	2.9	20		06/23/17 20:50	98-82-8	
p-Isopropyltoluene	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	99-87-6	
Methylene Chloride	**<4.7**	ug/L	20.0	4.7	20		06/23/17 20:50	75-09-2	
Methyl-tert-butyl ether	**<3.5**	ug/L	20.0	3.5	20		06/23/17 20:50	1634-04-4	
Naphthalene	**<50.0**	ug/L	100	50.0	20		06/23/17 20:50	91-20-3	
n-Propylbenzene	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	103-65-1	
Styrene	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	100-42-5	
1,1,1,2-Tetrachloroethane	**<3.6**	ug/L	20.0	3.6	20		06/23/17 20:50	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: SMW-3 **Lab ID: 40152056004** Collected: 06/21/17 15:25 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	20.0	5.0	20		06/23/17 20:50	79-34-5	
Tetrachloroethene	**1790**	ug/L	20.0	10.0	20		06/23/17 20:50	127-18-4	
Toluene	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	108-88-3	
1,2,3-Trichlorobenzene	**<42.7**	ug/L	100	42.7	20		06/23/17 20:50	87-61-6	
1,2,4-Trichlorobenzene	**<44.2**	ug/L	100	44.2	20		06/23/17 20:50	120-82-1	
1,1,1-Trichloroethane	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	71-55-6	
1,1,2-Trichloroethane	**<3.9**	ug/L	20.0	3.9	20		06/23/17 20:50	79-00-5	
Trichloroethene	**512**	ug/L	20.0	6.6	20		06/23/17 20:50	79-01-6	
Trichlorofluoromethane	**<3.7**	ug/L	20.0	3.7	20		06/23/17 20:50	75-69-4	
1,2,3-Trichloropropane	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	96-18-4	
1,2,4-Trimethylbenzene	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	95-63-6	
1,3,5-Trimethylbenzene	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	108-67-8	
Vinyl chloride	**<3.5**	ug/L	20.0	3.5	20		06/23/17 20:50	75-01-4	
m&p-Xylene	**<20.0**	ug/L	40.0	20.0	20		06/23/17 20:50	179601-23-1	
o-Xylene	**<10.0**	ug/L	20.0	10.0	20		06/23/17 20:50	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	61-130		20		06/23/17 20:50	460-00-4	
Dibromofluoromethane (S)	105	%	67-130		20		06/23/17 20:50	1868-53-7	
Toluene-d8 (S)	95	%	70-130		20		06/23/17 20:50	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: MW-4 **Lab ID: 40152056005** Collected: 06/21/17 14:15 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 19:42	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/23/17 19:42	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/23/17 19:42	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 19:42	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/23/17 19:42	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/23/17 19:42	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/23/17 19:42	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/23/17 19:42	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/23/17 19:42	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/23/17 19:42	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/23/17 19:42	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/23/17 19:42	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/23/17 19:42	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/23/17 19:42	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		06/23/17 19:42	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 19:42	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 19:42	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/23/17 19:42	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/23/17 19:42	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/23/17 19:42	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 19:42	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 19:42	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/23/17 19:42	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	99-87-6	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/23/17 19:42	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/23/17 19:42	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/23/17 19:42	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 19:42	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: MW-4 **Lab ID: 40152056005** Collected: 06/21/17 14:15 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/23/17 19:42	79-34-5	
Tetrachloroethene	**0.88J**	ug/L	1.0	0.50	1		06/23/17 19:42	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 19:42	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 19:42	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		06/23/17 19:42	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		06/23/17 19:42	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 19:42	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/23/17 19:42	75-01-4	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/23/17 19:42	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 19:42	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	87	%	61-130		1		06/23/17 19:42	460-00-4	
Dibromofluoromethane (S)	100	%	67-130		1		06/23/17 19:42	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		06/23/17 19:42	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: MW-5 **Lab ID: 40152056006** Collected: 06/21/17 14:05 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 17:26	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/23/17 17:26	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/23/17 17:26	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 17:26	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/23/17 17:26	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/23/17 17:26	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/23/17 17:26	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/23/17 17:26	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/23/17 17:26	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/23/17 17:26	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/23/17 17:26	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/23/17 17:26	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/23/17 17:26	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/23/17 17:26	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		06/23/17 17:26	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 17:26	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 17:26	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/23/17 17:26	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/23/17 17:26	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/23/17 17:26	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 17:26	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 17:26	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/23/17 17:26	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	99-87-6	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/23/17 17:26	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/23/17 17:26	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/23/17 17:26	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 17:26	630-20-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: MW-5 **Lab ID: 40152056006** Collected: 06/21/17 14:05 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/23/17 17:26	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 17:26	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 17:26	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		06/23/17 17:26	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		06/23/17 17:26	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 17:26	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/23/17 17:26	75-01-4	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/23/17 17:26	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:26	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	61-130		1		06/23/17 17:26	460-00-4	
Dibromofluoromethane (S)	102	%	67-130		1		06/23/17 17:26	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		06/23/17 17:26	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: MW-6 **Lab ID: 40152056007** Collected: 06/21/17 14:55 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 17:49	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/23/17 17:49	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/23/17 17:49	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 17:49	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/23/17 17:49	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/23/17 17:49	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/23/17 17:49	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/23/17 17:49	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/23/17 17:49	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/23/17 17:49	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/23/17 17:49	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/23/17 17:49	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/23/17 17:49	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/23/17 17:49	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		06/23/17 17:49	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 17:49	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 17:49	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/23/17 17:49	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/23/17 17:49	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/23/17 17:49	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 17:49	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 17:49	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/23/17 17:49	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	99-87-6	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/23/17 17:49	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/23/17 17:49	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/23/17 17:49	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 17:49	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: MW-6 **Lab ID: 40152056007** Collected: 06/21/17 14:55 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/23/17 17:49	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	127-18-4	
Toluene	**3.7**	ug/L	1.0	0.50	1		06/23/17 17:49	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 17:49	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 17:49	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		06/23/17 17:49	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		06/23/17 17:49	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 17:49	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/23/17 17:49	75-01-4	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/23/17 17:49	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 17:49	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	89	%	61-130		1		06/23/17 17:49	460-00-4	
Dibromofluoromethane (S)	103	%	67-130		1		06/23/17 17:49	1868-53-7	
Toluene-d8 (S)	94	%	70-130		1		06/23/17 17:49	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: MW-7 **Lab ID: 40152056008** Collected: 06/21/17 15:10 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 20:05	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/23/17 20:05	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/23/17 20:05	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 20:05	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/23/17 20:05	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/23/17 20:05	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/23/17 20:05	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/23/17 20:05	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/23/17 20:05	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/23/17 20:05	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/23/17 20:05	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/23/17 20:05	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/23/17 20:05	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/23/17 20:05	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		06/23/17 20:05	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 20:05	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 20:05	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/23/17 20:05	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/23/17 20:05	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/23/17 20:05	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 20:05	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 20:05	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/23/17 20:05	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	99-87-6	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/23/17 20:05	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/23/17 20:05	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/23/17 20:05	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 20:05	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: MW-7 **Lab ID: 40152056008** Collected: 06/21/17 15:10 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/23/17 20:05	79-34-5	
Tetrachloroethene	**3.1**	ug/L	1.0	0.50	1		06/23/17 20:05	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 20:05	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 20:05	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		06/23/17 20:05	79-00-5	
Trichloroethene	**0.57J**	ug/L	1.0	0.33	1		06/23/17 20:05	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 20:05	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/23/17 20:05	75-01-4	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/23/17 20:05	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:05	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	61-130		1		06/23/17 20:05	460-00-4	
Dibromofluoromethane (S)	107	%	67-130		1		06/23/17 20:05	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		06/23/17 20:05	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: MW-8 **Lab ID: 40152056009** Collected: 06/21/17 14:35 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 18:12	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/23/17 18:12	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/23/17 18:12	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 18:12	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/23/17 18:12	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/23/17 18:12	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/23/17 18:12	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/23/17 18:12	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/23/17 18:12	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/23/17 18:12	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/23/17 18:12	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/23/17 18:12	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/23/17 18:12	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/23/17 18:12	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		06/23/17 18:12	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 18:12	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 18:12	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/23/17 18:12	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/23/17 18:12	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/23/17 18:12	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 18:12	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 18:12	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/23/17 18:12	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	99-87-6	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/23/17 18:12	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/23/17 18:12	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/23/17 18:12	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 18:12	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: MW-8 **Lab ID: 40152056009** Collected: 06/21/17 14:35 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/23/17 18:12	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 18:12	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 18:12	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		06/23/17 18:12	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		06/23/17 18:12	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 18:12	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/23/17 18:12	75-01-4	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/23/17 18:12	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:12	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	61-130		1		06/23/17 18:12	460-00-4	
Dibromofluoromethane (S)	104	%	67-130		1		06/23/17 18:12	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		06/23/17 18:12	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: MW-9 **Lab ID: 40152056010** Collected: 06/21/17 15:00 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 20:27	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/23/17 20:27	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/23/17 20:27	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 20:27	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/23/17 20:27	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/23/17 20:27	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/23/17 20:27	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/23/17 20:27	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/23/17 20:27	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/23/17 20:27	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/23/17 20:27	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/23/17 20:27	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/23/17 20:27	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/23/17 20:27	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		06/23/17 20:27	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 20:27	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 20:27	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/23/17 20:27	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/23/17 20:27	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/23/17 20:27	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 20:27	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 20:27	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/23/17 20:27	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	99-87-6	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/23/17 20:27	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/23/17 20:27	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/23/17 20:27	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 20:27	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: MW-9 **Lab ID: 40152056010** Collected: 06/21/17 15:00 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/23/17 20:27	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 20:27	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 20:27	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		06/23/17 20:27	79-00-5	
Trichloroethene	**0.76J**	ug/L	1.0	0.33	1		06/23/17 20:27	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 20:27	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/23/17 20:27	75-01-4	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/23/17 20:27	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 20:27	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	61-130		1		06/23/17 20:27	460-00-4	
Dibromofluoromethane (S)	103	%	67-130		1		06/23/17 20:27	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		06/23/17 20:27	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: GEC TW-4 **Lab ID: 40152056011** Collected: 06/21/17 14:40 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 18:34	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/23/17 18:34	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/23/17 18:34	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 18:34	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/23/17 18:34	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/23/17 18:34	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/23/17 18:34	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/23/17 18:34	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/23/17 18:34	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/23/17 18:34	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/23/17 18:34	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/23/17 18:34	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/23/17 18:34	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/23/17 18:34	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		06/23/17 18:34	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 18:34	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 18:34	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/23/17 18:34	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/23/17 18:34	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/23/17 18:34	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 18:34	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 18:34	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/23/17 18:34	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	99-87-6	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/23/17 18:34	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/23/17 18:34	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/23/17 18:34	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 18:34	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: GEC TW-4 **Lab ID: 40152056011** Collected: 06/21/17 14:40 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/23/17 18:34	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 18:34	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 18:34	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		06/23/17 18:34	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		06/23/17 18:34	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 18:34	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/23/17 18:34	75-01-4	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/23/17 18:34	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:34	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	61-130		1		06/23/17 18:34	460-00-4	
Dibromofluoromethane (S)	106	%	67-130		1		06/23/17 18:34	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		06/23/17 18:34	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: GEC TW-5 **Lab ID: 40152056012** Collected: 06/21/17 14:45 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 18:57	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/23/17 18:57	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/23/17 18:57	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 18:57	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/23/17 18:57	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/23/17 18:57	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/23/17 18:57	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/23/17 18:57	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/23/17 18:57	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/23/17 18:57	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/23/17 18:57	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/23/17 18:57	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/23/17 18:57	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/23/17 18:57	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		06/23/17 18:57	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 18:57	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 18:57	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/23/17 18:57	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/23/17 18:57	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/23/17 18:57	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 18:57	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 18:57	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/23/17 18:57	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	99-87-6	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/23/17 18:57	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/23/17 18:57	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/23/17 18:57	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 18:57	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: GEC TW-5 **Lab ID: 40152056012** Collected: 06/21/17 14:45 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/23/17 18:57	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 18:57	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 18:57	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		06/23/17 18:57	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		06/23/17 18:57	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 18:57	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/23/17 18:57	75-01-4	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/23/17 18:57	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 18:57	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	61-130		1		06/23/17 18:57	460-00-4	
Dibromofluoromethane (S)	105	%	67-130		1		06/23/17 18:57	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		06/23/17 18:57	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: TRIP BLANK **Lab ID: 40152056013** Collected: 06/21/17 00:00 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 16:18	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		06/23/17 16:18	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		06/23/17 16:18	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 16:18	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		06/23/17 16:18	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		06/23/17 16:18	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		06/23/17 16:18	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		06/23/17 16:18	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		06/23/17 16:18	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		06/23/17 16:18	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		06/23/17 16:18	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		06/23/17 16:18	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		06/23/17 16:18	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		06/23/17 16:18	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		06/23/17 16:18	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 16:18	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		06/23/17 16:18	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		06/23/17 16:18	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		06/23/17 16:18	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		06/23/17 16:18	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		06/23/17 16:18	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 16:18	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		06/23/17 16:18	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	99-87-6	
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		06/23/17 16:18	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		06/23/17 16:18	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		06/23/17 16:18	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 16:18	630-20-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Sample: TRIP BLANK **Lab ID: 40152056013** Collected: 06/21/17 00:00 Received: 06/21/17 16:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		06/23/17 16:18	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		06/23/17 16:18	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		06/23/17 16:18	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		06/23/17 16:18	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		06/23/17 16:18	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		06/23/17 16:18	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		06/23/17 16:18	75-01-4	
m&p-Xylene	**<1.0**	ug/L	2.0	1.0	1		06/23/17 16:18	179601-23-1	
o-Xylene	**<0.50**	ug/L	1.0	0.50	1		06/23/17 16:18	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	61-130		1		06/23/17 16:18	460-00-4	
Dibromofluoromethane (S)	103	%	67-130		1		06/23/17 16:18	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		06/23/17 16:18	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

QC Batch: 259532 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40152056001, 40152056002, 40152056003, 40152056004, 40152056005, 40152056006, 40152056007, 40152056008, 40152056009, 40152056010, 40152056011, 40152056012, 40152056013

METHOD BLANK: 1528753 Matrix: Water
Associated Lab Samples: 40152056001, 40152056002, 40152056003, 40152056004, 40152056005, 40152056006, 40152056007, 40152056008, 40152056009, 40152056010, 40152056011, 40152056012, 40152056013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	06/23/17 12:08	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	06/23/17 12:08	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	06/23/17 12:08	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	06/23/17 12:08	
1,1-Dichloroethane	ug/L	<0.24	1.0	06/23/17 12:08	
1,1-Dichloroethene	ug/L	<0.41	1.0	06/23/17 12:08	
1,1-Dichloropropene	ug/L	<0.44	1.0	06/23/17 12:08	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	06/23/17 12:08	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	06/23/17 12:08	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	06/23/17 12:08	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	06/23/17 12:08	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	06/23/17 12:08	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	06/23/17 12:08	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	06/23/17 12:08	
1,2-Dichloroethane	ug/L	<0.17	1.0	06/23/17 12:08	
1,2-Dichloropropane	ug/L	<0.23	1.0	06/23/17 12:08	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	06/23/17 12:08	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	06/23/17 12:08	
1,3-Dichloropropane	ug/L	<0.50	1.0	06/23/17 12:08	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	06/23/17 12:08	
2,2-Dichloropropane	ug/L	<0.48	1.0	06/23/17 12:08	
2-Chlorotoluene	ug/L	<0.50	1.0	06/23/17 12:08	
4-Chlorotoluene	ug/L	<0.21	1.0	06/23/17 12:08	
Benzene	ug/L	<0.50	1.0	06/23/17 12:08	
Bromobenzene	ug/L	<0.23	1.0	06/23/17 12:08	
Bromochloromethane	ug/L	<0.34	1.0	06/23/17 12:08	
Bromodichloromethane	ug/L	<0.50	1.0	06/23/17 12:08	
Bromoform	ug/L	<0.50	1.0	06/23/17 12:08	
Bromomethane	ug/L	<2.4	5.0	06/23/17 12:08	
Carbon tetrachloride	ug/L	<0.50	1.0	06/23/17 12:08	
Chlorobenzene	ug/L	<0.50	1.0	06/23/17 12:08	
Chloroethane	ug/L	<0.37	1.0	06/23/17 12:08	
Chloroform	ug/L	<2.5	5.0	06/23/17 12:08	
Chloromethane	ug/L	<0.50	1.0	06/23/17 12:08	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	06/23/17 12:08	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	06/23/17 12:08	
Dibromochloromethane	ug/L	<0.50	1.0	06/23/17 12:08	
Dibromomethane	ug/L	<0.43	1.0	06/23/17 12:08	
Dichlorodifluoromethane	ug/L	<0.22	1.0	06/23/17 12:08	
Diisopropyl ether	ug/L	<0.50	1.0	06/23/17 12:08	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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QUALITY CONTROL DATA

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

METHOD BLANK: 1528753 Matrix: Water

Associated Lab Samples: 40152056001, 40152056002, 40152056003, 40152056004, 40152056005, 40152056006, 40152056007, 40152056008, 40152056009, 40152056010, 40152056011, 40152056012, 40152056013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	<0.50	1.0	06/23/17 12:08	
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	06/23/17 12:08	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	06/23/17 12:08	
m&p-Xylene	ug/L	<1.0	2.0	06/23/17 12:08	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	06/23/17 12:08	
Methylene Chloride	ug/L	<0.23	1.0	06/23/17 12:08	
n-Butylbenzene	ug/L	<0.50	1.0	06/23/17 12:08	
n-Propylbenzene	ug/L	<0.50	1.0	06/23/17 12:08	
Naphthalene	ug/L	<2.5	5.0	06/23/17 12:08	
o-Xylene	ug/L	<0.50	1.0	06/23/17 12:08	
p-Isopropyltoluene	ug/L	<0.50	1.0	06/23/17 12:08	
sec-Butylbenzene	ug/L	<2.2	5.0	06/23/17 12:08	
Styrene	ug/L	<0.50	1.0	06/23/17 12:08	
tert-Butylbenzene	ug/L	<0.18	1.0	06/23/17 12:08	
Tetrachloroethene	ug/L	<0.50	1.0	06/23/17 12:08	
Toluene	ug/L	<0.50	1.0	06/23/17 12:08	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	06/23/17 12:08	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	06/23/17 12:08	
Trichloroethene	ug/L	<0.33	1.0	06/23/17 12:08	
Trichlorofluoromethane	ug/L	<0.18	1.0	06/23/17 12:08	
Vinyl chloride	ug/L	<0.18	1.0	06/23/17 12:08	
4-Bromofluorobenzene (S)	%	96	61-130	06/23/17 12:08	
Dibromofluoromethane (S)	%	102	67-130	06/23/17 12:08	
Toluene-d8 (S)	%	98	70-130	06/23/17 12:08	

LABORATORY CONTROL SAMPLE: 1528754

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.4	97	70-130	
1,1,2,2-Tetrachloroethane	ug/L	20	20.8	104	70-130	
1,1,2-Trichloroethane	ug/L	20	21.2	106	70-130	
1,1-Dichloroethane	ug/L	20	19.4	97	71-132	
1,1-Dichloroethene	ug/L	20	18.8	94	75-130	
1,2,4-Trichlorobenzene	ug/L	20	18.1	91	70-130	
1,2-Dibromo-3-chloropropane	ug/L	20	17.3	87	63-123	
1,2-Dibromoethane (EDB)	ug/L	20	19.2	96	70-130	
1,2-Dichlorobenzene	ug/L	20	20.9	105	70-130	
1,2-Dichloroethane	ug/L	20	21.6	108	70-131	
1,2-Dichloropropane	ug/L	20	20.2	101	80-120	
1,3-Dichlorobenzene	ug/L	20	19.3	97	70-130	
1,4-Dichlorobenzene	ug/L	20	21.0	105	70-130	
Benzene	ug/L	20	19.5	98	73-145	
Bromodichloromethane	ug/L	20	20.4	102	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

LABORATORY CONTROL SAMPLE: 1528754

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromoform	ug/L	20	20.2	101	67-130	
Bromomethane	ug/L	20	14.4	72	26-128	
Carbon tetrachloride	ug/L	20	18.7	94	70-133	
Chlorobenzene	ug/L	20	20.5	103	70-130	
Chloroethane	ug/L	20	21.0	105	58-120	
Chloroform	ug/L	20	19.6	98	80-121	
Chloromethane	ug/L	20	16.2	81	40-127	
cis-1,2-Dichloroethene	ug/L	20	20.0	100	70-130	
cis-1,3-Dichloropropene	ug/L	20	17.8	89	70-130	
Dibromochloromethane	ug/L	20	19.8	99	70-130	
Dichlorodifluoromethane	ug/L	20	16.6	83	20-135	
Ethylbenzene	ug/L	20	20.2	101	87-129	
Isopropylbenzene (Cumene)	ug/L	20	20.6	103	70-130	
m&p-Xylene	ug/L	40	42.6	106	70-130	
Methyl-tert-butyl ether	ug/L	20	20.6	103	66-143	
Methylene Chloride	ug/L	20	19.6	98	70-130	
o-Xylene	ug/L	20	21.0	105	70-130	
Styrene	ug/L	20	20.4	102	70-130	
Tetrachloroethene	ug/L	20	19.9	99	70-130	
Toluene	ug/L	20	19.8	99	82-130	
trans-1,2-Dichloroethene	ug/L	20	19.5	97	75-132	
trans-1,3-Dichloropropene	ug/L	20	18.6	93	70-130	
Trichloroethene	ug/L	20	19.7	98	70-130	
Trichlorofluoromethane	ug/L	20	20.8	104	76-133	
Vinyl chloride	ug/L	20	18.5	93	57-136	
4-Bromofluorobenzene (S)	%			102	61-130	
Dibromofluoromethane (S)	%			100	67-130	
Toluene-d8 (S)	%			99	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-1138 RICE ENTERPRISES
Pace Project No.: 40152056

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40152056001	**MW-1**	EPA 8260	259532		
40152056002	**PZ-1**	EPA 8260	259532		
40152056003	**MW-2**	EPA 8260	259532		
40152056004	**SMW-3**	EPA 8260	259532		
40152056005	**MW-4**	EPA 8260	259532		
40152056006	**MW-5**	EPA 8260	259532		
40152056007	**MW-6**	EPA 8260	259532		
40152056008	**MW-7**	EPA 8260	259532		
40152056009	**MW-8**	EPA 8260	259532		
40152056010	**MW-9**	EPA 8260	259532		
40152056011	**GEC TW-4**	EPA 8260	259532		
40152056012	**GEC TW-5**	EPA 8260	259532		
40152056013	**TRIP BLANK**	EPA 8260	259532		

40152056

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Pace Analytical®
www.pacelabs.com

SSM

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	Fehr-Graham
Branch/Location:	Plymouth, WI
Project Contact:	Matt Dahlem
Phone:	(920) 892-2444
Project Number:	
Project Name:	Rice Enterprises
Project State:	WI
Sampled By (Print):	Justin Schuemann
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Matt Dahlem
Mail To Company:	Fehr-Graham
Mail To Address:	mdahlem@fehr-graham.co
Invoice To Contact:	
Invoice To Company:	a/c
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

FILTERED? (YES/NO) — Y/N: N
PRESERVATION (CODE)* — Pick Letter: B
Analyses Requested: VOC

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)
001	MW-1	6/21	1520	GW		3-40mlVB
002	PZ-1		1420			
003	MW-2		1430			
004	SMW-3		1525			
005	MW-4		1415			
006	MW-5		1405			
007	MW-6		1455			
008	MW-7		1570			
009	MW-8		1435			
010	MW-9		1500			
011	GEC TW-4		1440			
012	GEC TW-5		1445			
013	Trip Blank					2-40mlVB

Profile #:

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	6/21/17 1625		6/21/17 1625
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.: 40152056

Receipt Temp = RO °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / ~~Not Present~~

Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Pace Analytical™

Project: **WO# : 40152056**

40152056

Client Name: Fehr Graham

Courier: ☐ Fed Ex ☐ UPS ~~Client~~ ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ~~no~~ Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☐ no Seals intact: ☐ yes ~~no~~

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

Thermometer Used NA **Type of Ice:** Wet Blue Dry None ☐ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: /Corr: 2.0 **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 6/21/17
Initials: [illegible]

Comments:

Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes	☐No		Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
-Pace IR Containers Used:	☐Yes	☐No	☑N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W				
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☐Yes	☐No	☑N/A	13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☐Yes	☐No	☑N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☑Yes	☐No		Initial when completed / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes	☑No	☐N/A	14.
Trip Blank Present:	☑Yes	☐No	☐N/A	15. Expired 9/14/16
Trip Blank Custody Seals Present	☑Yes	☐No	☐N/A	6/21/17
Pace Trip Blank Lot # (if purchased):				

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

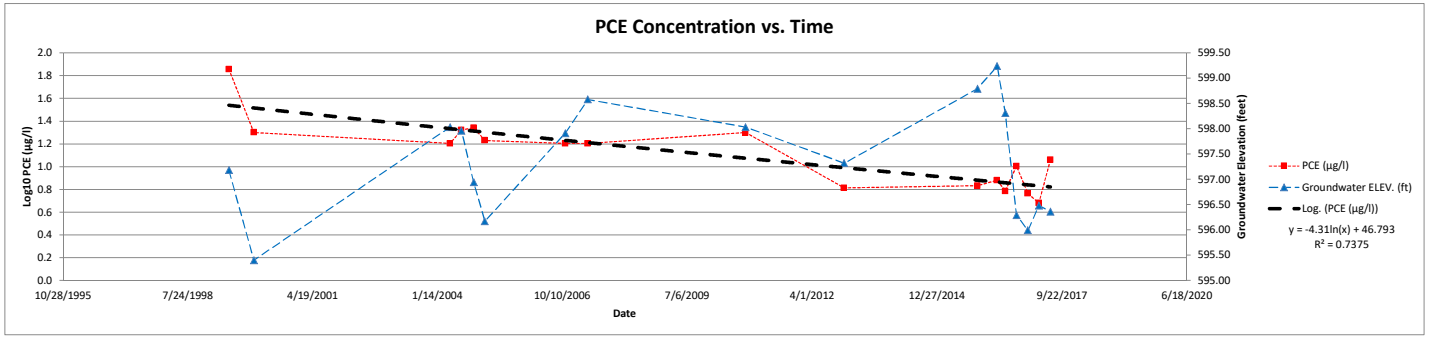
Project Manager Review: [signature] **Date:** 6.22.17

Appendix D

Contaminant Trend Analysis

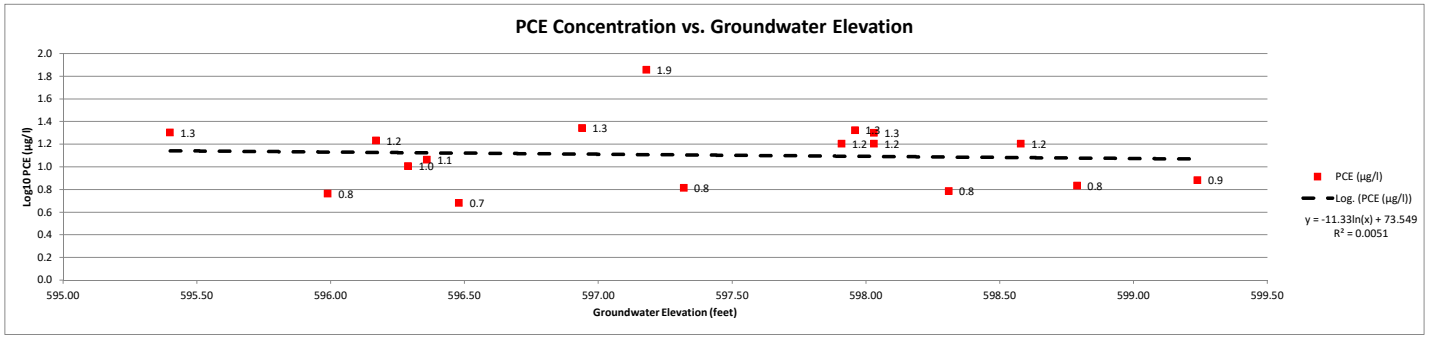
Groundwater monitoring data (ug/l)

MW 1																				
Groundwater ELEV. (ft)	597.18	595.40	598.03	597.96	596.94	596.17	597.91	598.58	598.03	597.32	598.79	599.24	598.31	596.29	595.99	596.48	596.36			
Sampling Dates	6/17/1999	1/3/2000	4/22/2004	7/22/2004	10/28/2004	1/25/2005	10/31/2006	4/30/2007	10/15/2010	12/12/2012	11/15/2015	4/20/2016	6/24/2016	9/22/2016	12/22/2016	3/21/2017	6/21/2017			
																		Max	Min	
PCE (µg/l)	71.9	20.0	16.0	21.0	22.0	17.0	16.0	16.0	19.9	6.5	6.8	7.6	6.1	10.1	5.8	4.8	11.5	71.9	5.8	
Log_{10} [PCE(µg/l)]	1.9	1.3	1.2	1.3	1.3	1.2	1.2	1.2	1.3	0.8	0.8	0.9	0.8	1.0	0.8	0.7	1.1			



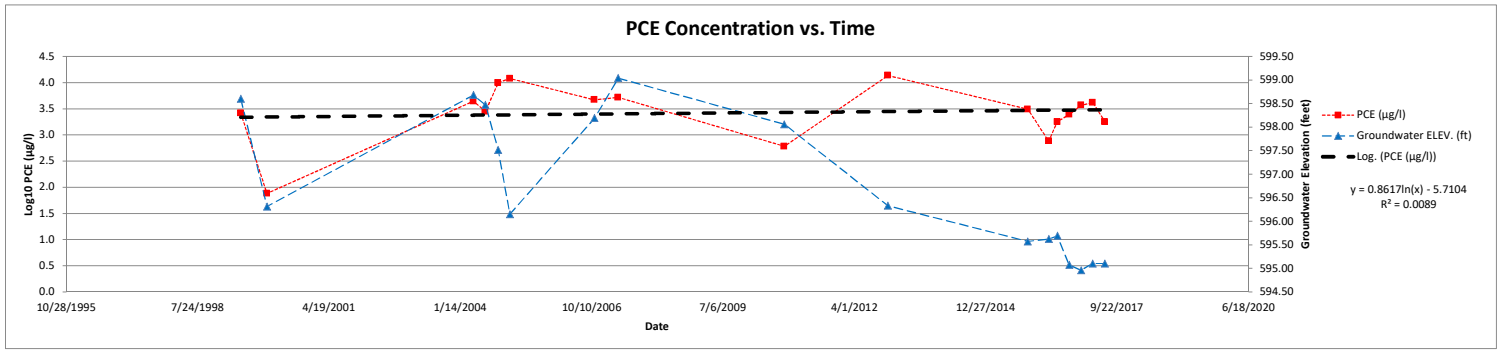
Notes:

The logarithm (to the base 10) of the PCE concentration data is plotted as a function of time.
The trend line is the semi-log10-transformed regression line.
Groundwater elevation data is superimposed on the concentration data.
For the graph above, PCE concentrations appear to be decreasing, and there seems to be a decreasing water level with time.
For the graph below, PCE concentrations appear to decrease as a function of increasing water levels.



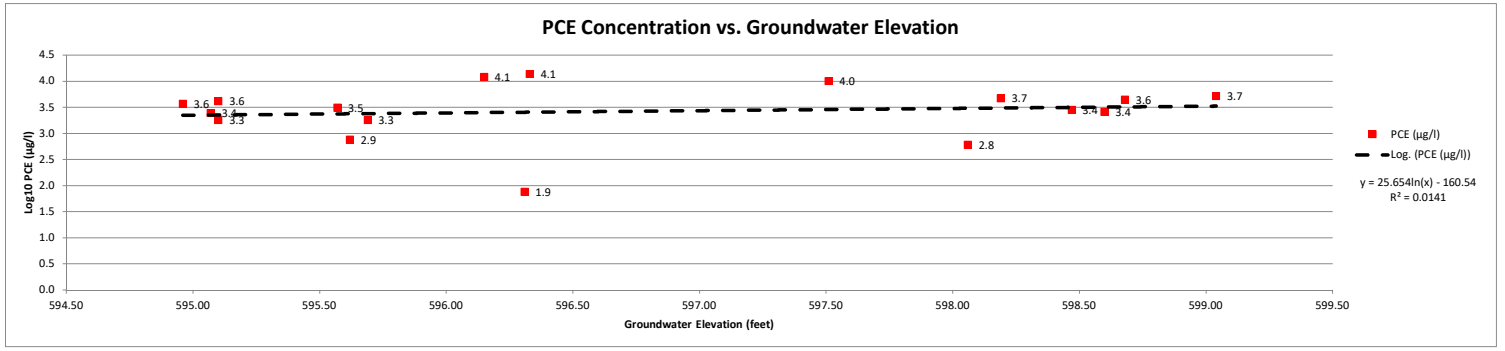
Groundwater monitoring data (ug/l)

MW 3																				
Groundwater ELEV. (ft)	598.60	596.31	598.68	598.47	597.51	596.15	598.19	599.04	598.06	596.33	595.57	595.62	595.69	595.07	594.96	595.1	595.1			
Sampling Dates	6/17/1999	1/3/2000	4/22/2004	7/22/2004	10/28/2004	1/25/2005	10/31/2006	4/30/2007	10/15/2010	12/12/2012	11/12/2015	4/20/2016	6/24/2016	9/22/2016	12/22/2016	3/21/2017	6/21/2017			
																		Max	Min	
PCE (µg/l)	2,600.0	76.0	4,400.0	2,800.0	10,000.0	12,000.0	4,700.0	5,200.0	602.0	13,700.0	3,100.0	760.0	1,790.0	2,450.0	3,680.0	4,150.0	1,790.0	13,700.0	76.0	
Log_{10} [PCE(µg/l)]	3.4	1.9	3.6	3.4	4.0	4.1	3.7	3.7	2.8	4.1	3.5	2.9	3.3	3.4	3.6	3.6	3.3			



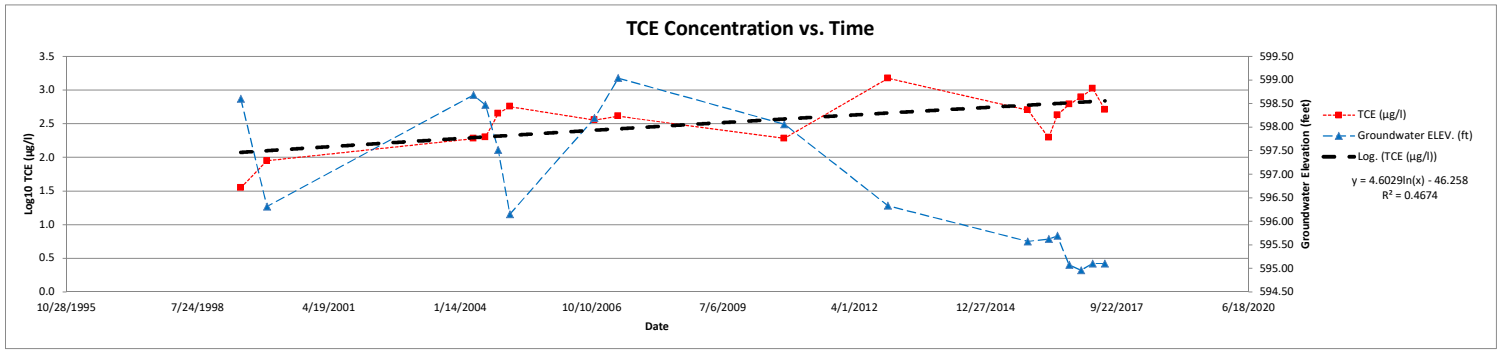
Notes:

The logarithm (to the base 10) of the PCE concentration data is plotted as a function of time.
The trend line is the semi-log10-transformed regression line.
Groundwater elevation data is superimposed on the concentration data.
For the graph above, PCE concentrations appear to be slightly increasing but relatively stable, and there seems to be a decreasing water level with time.
For the graph below, PCE concentrations appear to increase as a function of increasing water levels.



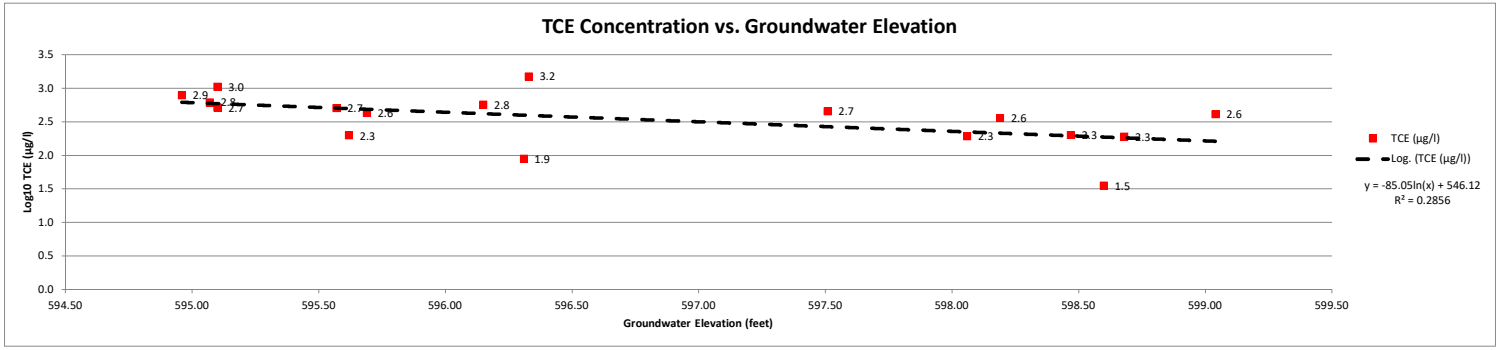
Groundwater monitoring data (ug/l)

MW 3																			
Groundwater ELEV. (ft)	598.60	596.31	598.68	598.47	597.51	596.15	598.19	599.04	598.06	596.33	595.57	595.62	595.69	595.07	594.96	595.1	595.1		
Sampling Dates	6/17/1999	1/3/2000	4/22/2004	7/22/2004	10/28/2004	1/25/2005	10/31/2006	4/30/2007	10/15/2010	12/12/2012	11/12/2015	4/20/2016	6/24/2016	9/22/2016	12/22/2016	3/21/2017	6/21/2017		
																		Max	Min
TCE (µg/l)	35.3	89.0	190.0	200.0	450.0	570.0	360.0	410.0	191.0	1,500.0	504.0	197.0	425.0	616.0	785.0	1,050.0	512.0	1,500.0	35.3
Log_{10} [TCE(µg/l)]	1.5	1.9	2.3	2.3	2.7	2.8	2.6	2.6	2.3	3.2	2.7	2.3	2.6	2.8	2.9	3.0	2.7		



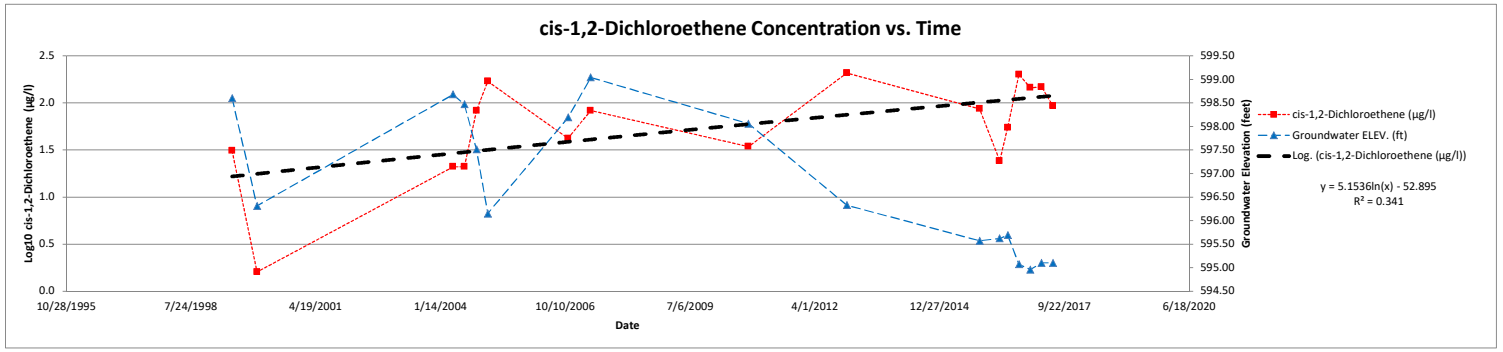
Notes:

The logarithm (to the base 10) of the TCE concentration data is plotted as a function of time.
The trend line is the semi-log10-transformed regression line.
Groundwater elevation data is superimposed on the concentration data.
For the graph above, TCE concentrations appear to be increasing, and there seems to be a decreasing water level with time.
For the graph below, TCE concentrations appear to decrease as a function of increasing water levels.



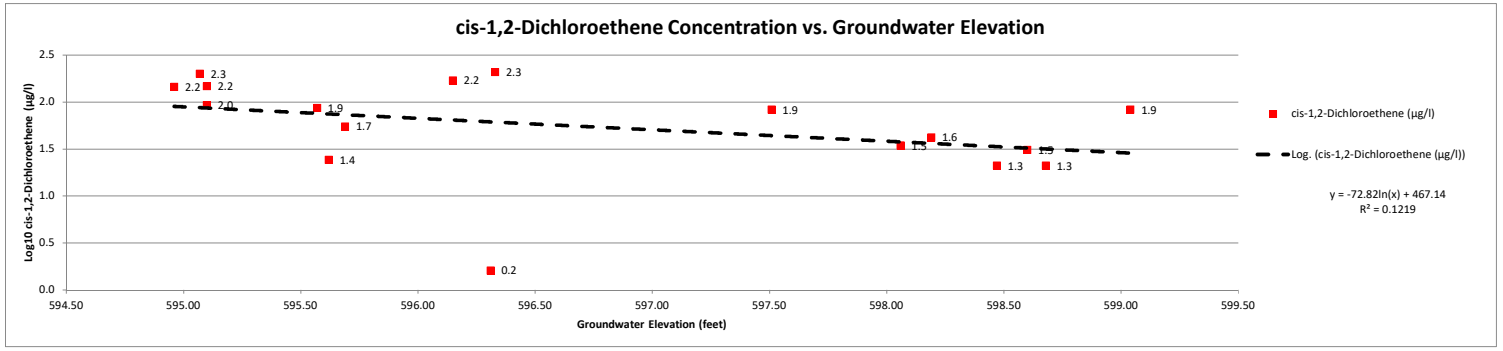
Groundwater monitoring data (ug/l)

MW 3																			
Groundwater ELEV. (ft)	598.60	596.31	598.68	598.47	597.51	596.15	598.19	599.04	598.06	596.33	595.57	595.62	595.69	595.07	594.96	595.1	595.1		
Sampling Dates	6/17/1999	1/3/2000	4/22/2004	7/22/2004	10/28/2004	1/25/2005	10/31/2006	4/30/2007	10/15/2010	12/12/2012	11/12/2015	4/20/2016	6/24/2016	9/22/2016	12/22/2016	3/21/2017	6/21/2017		
																		Max	Min
cis-1,2-Dichloroethene (µg/l)	31.0	1.6	21.0	21.0	83.0	170.0	42.0	83.0	34.4	208.0	86.5	24.3	54.7	201.0	145.0	148.0	93.1	208.0	1.6
Log_{10} [cis-1,2-Dichloroethene(µg/l)]	1.5	0.2	1.3	1.3	1.9	2.2	1.6	1.9	1.5	2.3	1.9	1.4	1.7	2.3	2.2	2.2	2.0		



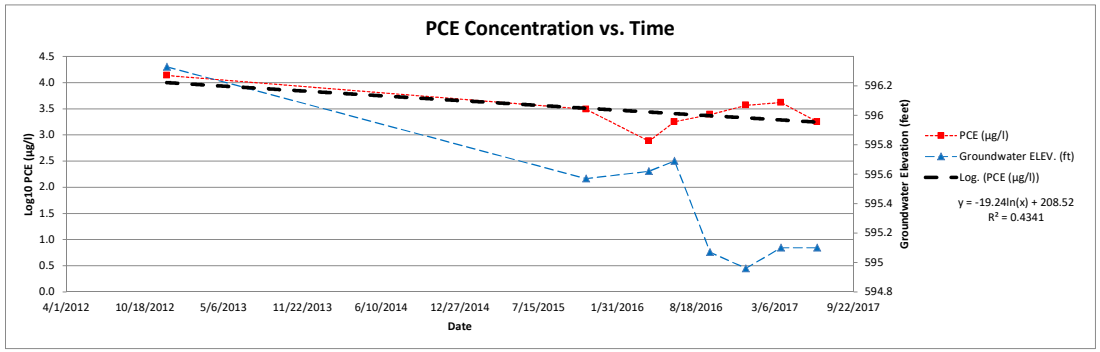
Notes:

The logarithm (to the base 10) of the cis-1,2-DCE concentration data is plotted as a function of time.
The trend line is the semi-log10-transformed regression line.
Groundwater elevation data is superimposed on the concentration data.
For the graph above, cis-1,2-DCE concentrations appear to be increasing, and there seems to be a decreasing water level with time.
For the graph below, cis-1,2-DCE concentrations appear to decrease as a function of increasing water levels.



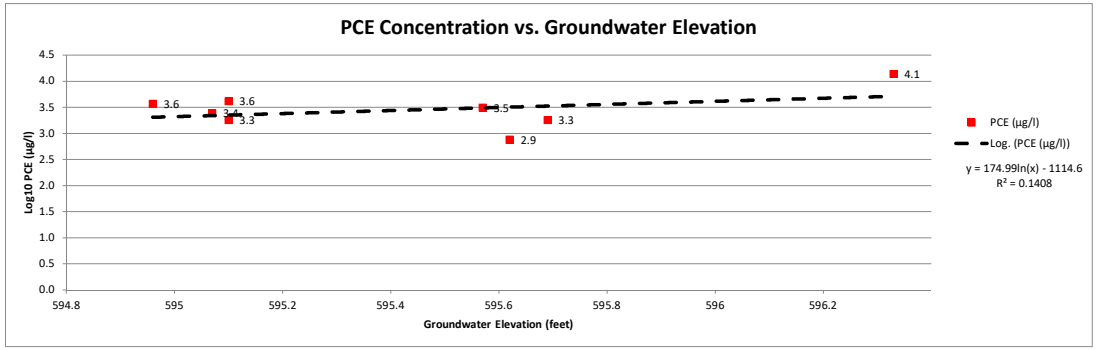
Groundwater monitoring data (ug/l)

MW 3										
Groundwater ELEV. (ft)	596.33	595.57	595.62	595.69	595.07	594.96	595.1	595.1		
Sampling Dates	12/12/2012	11/12/2015	4/20/2016	6/24/2016	9/22/2016	12/22/2016	3/21/2017	6/21/2017		
									Max	Min
PCE (µg/l)	13,700.0	3,100.0	760.0	1,790.0	2,450.0	3,680.0	4,150.0	1,790.0	13,700.0	76.0
Log_{10} [PCE(µg/l)]	4.1	3.5	2.9	3.3	3.4	3.6	3.6	3.3		



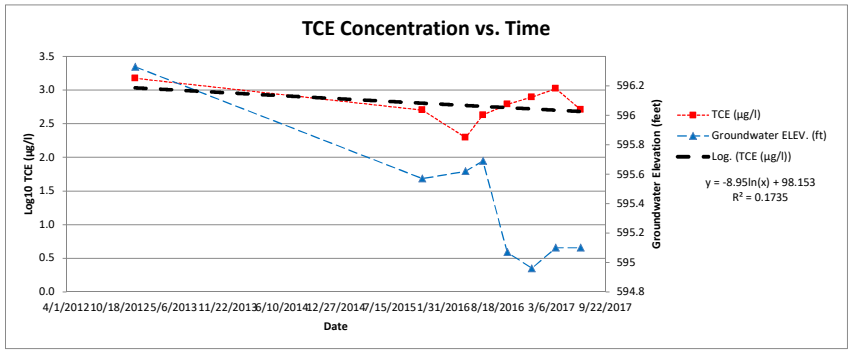
Notes:

The logarithm (to the base 10) of the PCE concentration data is plotted as a function of time.
The trend line is the semi-log10-transformed regression line.
Groundwater elevation data is superimposed on the concentration data.
For the graph above, PCE concentrations appear to be decreasing, and there seems to be a decreasing water level with time.
For the graph below, PCE concentrations appear to increase as a function of increasing water levels.



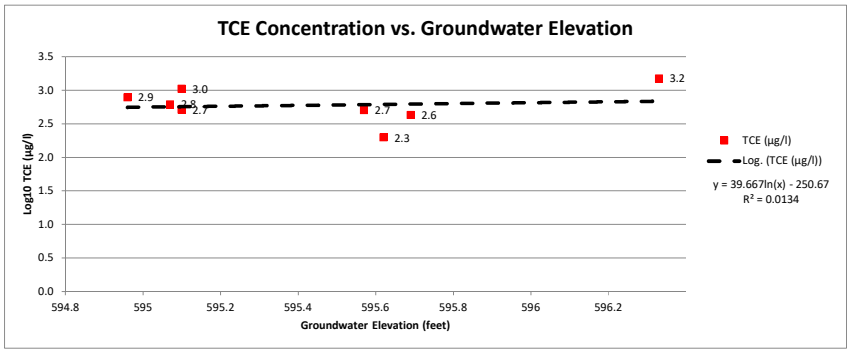
Groundwater monitoring data (ug/l)

MW *3*										
Groundwater ELEV. (ft)	*596.33*	*595.57*	*595.62*	*595.69*	*595.07*	*594.96*	*595.1*	*595.1*		
Sampling Dates	*12/12/2012*	*11/12/2015*	*4/20/2016*	*6/24/2016*	*9/22/2016*	*12/22/2016*	*3/21/2017*	*6/21/2017*		
									Max	Min
TCE (µg/l)	*1,500.0*	*504.0*	*197.0*	*425.0*	*616.0*	*785.0*	*1,050.0*	*512.0*	*1,500.0*	*35.3*
Log_{10} [TCE(µg/l)]	*3.2*	*2.7*	*2.3*	*2.6*	*2.8*	*2.9*	*3.0*	*2.7*		



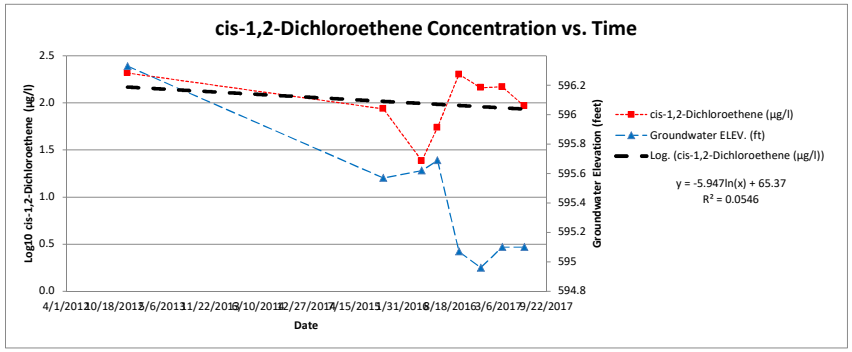
Notes:

The logarithm (to the base 10) of the TCE concentration data is plotted as a function of time.
The trend line is the semi-log10-transformed regression line.
Groundwater elevation data is superimposed on the concentration data.
For the graph above, TCE concentrations appear to be increasing, and there seems to be a decreasing water level with time.
For the graph below, TCE concentrations appear to decrease as a function of increasing water levels.



Groundwater monitoring data (ug/l)

MW 3										
Groundwater ELEV. (ft)	596.33	595.57	595.62	595.69	595.07	594.96	595.1	595.1		
Sampling Dates	12/12/2012	11/12/2015	4/20/2016	6/24/2016	9/22/2016	12/22/2016	3/21/2017	6/21/2017		
									Max	Min
cis-1,2-Dichloroethene (µg/l)	208.0	86.5	24.3	54.7	201.0	145.0	148.0	93.1	208.0	1.6
Log_{10} [cis-1,2-Dichloroethene(µg/l)]	2.3	1.9	1.4	1.7	2.3	2.2	2.2	2.0		



Notes:

The logarithm (to the base 10) of the cis-1,2-DCE concentration data is plotted as a function of time.
The trend line is the semi-log10-transformed regression line.
Groundwater elevation data is superimposed on the concentration data.
For the graph above, cis-1,2-DCE concentrations appear to be decreasing, and there seems to be a decreasing water level with time.
For the graph below, cis-1,2-DCE concentrations appear to decrease as a function of increasing water levels.