

# SITE INVESTIGATION WORK PLAN

**Tidy Cleaners & Laundry  
818 S. Broadway  
Green Bay, WI 54304**

**Project No.: 21-768  
BRRTS # 02-05-552220  
FID # 405009220**

**August 20, 2021**



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**909 N. 8<sup>th</sup> Street, Suite 101  
Sheboygan, Wisconsin 53081**

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**Prepared for:**

**Ms. Josie Schultz**

**Wisconsin Department of Natural  
Resources**

**Department of Remediation and  
Redevelopment**

**Green Bay Service Center**

**2984 Shawano Avenue**

**Green Bay, Wisconsin 54313-6727**

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Figure 1 – Site Layout and Proposed Sub-Slab Vapor Sample Locations

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I, Matt Dahlem, PG, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code (WAC), and that, to the best of my knowledge, all the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, WAC.



\_\_\_\_\_  
Matt Dahlem, PG  
Branch Manager

August 20, 2021  
\_\_\_\_\_  
Date



## 1.0 INTRODUCTION

Fehr Graham Engineering & Environmental (Fehr Graham) was retained by Tidy Cleaners & Laundry (Tidy, Inc.) to perform site investigation activities from 2008 to 2019 including soil, groundwater, and vapor sampling at the site to determine the degree and extent of the chlorinated volatile organic compound (CVOC) contamination. At this point in the site investigation, the degree and extent has not been defined.

The most recent soil results from 2019 show detects of tetrachloroethene (PCE) above NR720 Groundwater Pathway Residual Contact Levels (RCLs) in samples MW-9 11-12' (169 microgram/kilogram [ug/kg]), PZ-12 11-12' (2920 ug/kg), PZ-12 19-20' (1890 ug/kg), and B-13 11-12' (376 ug/kg). No other Volatile Organic Compounds (VOCs) were detected in the soil samples. The unsaturated soil samples collected did not have any detections for VOCs. Contamination does not appear to be following utility corridors adjacent to MW-11/PZ-12 and B-13 due to clean results in the shallow soil samples.

The most recent groundwater results from September 2019 show Enforcement Standard (ES) exceedances for PCE in wells MW-7 (41.2 ug/L), MW-9 (12.4 ug/L), MW-10 (9.9 ug/L), MW-11 (15.9 ug/L), and B-13 (17.1 ug/L). Monitoring wells MW-6, MW-7, MW-8, MW-9, MW-10, and MW-11 show Preventive Action Limit (PAL) exceedances for PCE and/or trichloroethene (TCE). No other CVOCs were detected in groundwater. The two deeper piezometers, wells PZ-5 and PZ-12, had no detections of any VOCs.

Contaminant concentrations appear to be stable in wells MW-7 and MW-8 and decreasing in well MW-6. Also, contamination does not appear to be traveling vertically downward to the deeper aquifer, as there were no detects in PZ-5 or PZ-12 during the past round of sampling.

One sub-slab vapor sample (SS-1) was collected in September 2019. The vapor sample did contain detections for PCE and TCE but was not above commercial building standards. However, it did exceed residential standards that would warrant additional sub-slab vapor sampling.

This Work Plan presents the proposed scope of work to complete the additional site investigation.

## **1.1 Contacts**

The project contacts are as follows:

### Responsible Party

Mr. Jim Mohr  
Tidy, Inc.  
818 S. Broadway  
Green Bay, WI 54304  
920.432.7738  
Jmohr5@new.rr.com

### Wisconsin Department of Natural Resources Project Manager

Department of Remediation and Redevelopment  
Ms. Josie Schultz  
Green Bay Service Center  
2984 Shawano Avenue  
Green Bay, WI 54313-6727  
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### Consultant

Fehr Graham & Associates, LLC  
Mr. Matt Dahlem, PG  
Project Manager  
909 North 8<sup>th</sup> Street, Suite 101  
Sheboygan, WI 53081  
920.453.0700  
mdahlem@fehrgraham.com

## **1.2 Site Description**

The Tidy Cleaners & Laundry site (the Site) is located at 818 S. Broadway Avenue in Green Bay, Wisconsin. The Site is bounded on the west and north by a vacant lots, to the south by an unoccupied storage building, and to the east by S. Broadway Avenue.

The approximately 0.25-acre site is located on the southwest corner of West Mason Street (along off-ramp) and S. Broadway Avenue with all access from Broadway Avenue. The single story, slab-on-grade facility building is located on the southwestern part of the Site with driveway and parking areas to the east and north of the building.

The Site is in Brown County, in the City of Green Bay, at the NW ¼ of the SW ¼ of Section 36, T24N, R20E. The WTM coordinates for the release location from the Wisconsin Department of Natural Resources (WDNR) Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the web are 676868 X and 450303 Y.

The site elevation is approximately 785 feet above mean sea level and the ground surface slopes slightly to the north and west.

### **1.3 Detected Contaminants**

Terracon completed a preliminary environmental investigation of the property in July of 2008. One boring (B-1) was advanced through the floor in the area adjacent to the drycleaning machine and soil and groundwater samples were collected from this boring. PCE was detected in the soil at a concentration of 3,020 ug/kg and in the groundwater at a concentration of 2,550 ug/l. None of the typical PCE breakdown products such as TCE, cis-1,2 dichloroethene (cis-DCE), or vinyl chloride were detected in either the soil or groundwater samples from this preliminary investigation.

A release to the environment was reported to the WDNR in August 2008. Due to the presence of contamination, a site investigation needs to be completed to determine the degree and extent of contamination in the soil, groundwater, and soil vapors.

Investigation activities have also been completed as part of the Masse, Inc. (BRRTS #03-05-002022) and Koehler Property (BRRTS #03-05-150876) petroleum evaluations. These sites are located approximately 150 feet northeast and 300 feet southeast of the Tidy Cleaners & Laundry site. At the Masse, Inc. site, four monitoring wells were installed surrounding a former underground storage tank (UST) excavation. Test results for VOCs revealed the presence of petroleum constituents, but no drycleaning-related compounds. The soils consisted of silty clay to silt, the depth to water was approximately 4 to 6 feet below grade, and the flow direction was to the southwest. The case was closed by the WDNR in 1999 with no further action required and a notification placed on the deed identifying remaining soil and groundwater containing petroleum constituents.

At the Koehler Property, a UST excavation revealed the presence of petroleum contamination. The case was closed in 2000 by the Department of Commerce after a Notice of Contamination was placed on the property deed. The remaining contamination consists of petroleum compounds in the soil and groundwater, but no drycleaning related compounds were present. The direction of groundwater flow was identified as trending to the northwest, but little information is available regarding the depth to water or soil types at this property.

Refer to Section 2.2 Current Site Investigation Status below for recently detected contaminants at the Site, including soil chemistry results (Section 2.2.1), groundwater chemistry results (Section 2.2.2), and vapor chemistry results (Section 2.2.3).

#### **1.4 § NR 716 Emerging Contaminants Scoping Statement**

As stated by the WDNR in an email from July 13, 2021, in lieu of the 2019 decision to require PFAS sampling, the WDNR is requesting that a stand-alone PFAS scoping statement be submitted that conforms with our current process (includes discussion of site history, operations, chemical use, waterproofing, etc.).

To comply with site investigation emerging contaminants requirements, Fehr Graham presents the following § NR716 scoping statement regarding emerging contaminants at this Environmental Repair Property (ERP) site:

The property history is not fully known. Information from the City of Green Bay web site indicates the building was constructed in 1960 and was expanded to the north in 1986. Tidy Cleaners & Laundry has been owned by the Mohr family for about 50 years. Mr. Jim Mohr is the current owner and operator. Mr. Mohr has been around the premises since 1972 and is generally familiar with operations since that time. PCE is the cleaning agent that has historically been used for drycleaning at the facility, with no waterproofing operations.

The drycleaning machine has historically been located in the southwestern part of the building (Figure 1). A new dry-cleaning machine was installed circa 1994 in essentially the same location as the old machine. Prior to regulations regarding disposal, dry-cleaning lint and filters were discarded in the garbage with other general waste. All chemicals enter the building through doors located on the east side of the building.

Information about dry cleaning chemical use at the Site was shared with Fehr Graham by Mr. Mohr and included in the *PFAS Site Investigation Work Plan* submitted to the WDNR on February 3, 2020. Records reviewed include safety data sheets (SDSs) and chemical storage information dating back to 1970. The following summarizes the chemical use at the site:

- SDSs received from Mr. Mohr include Staticol® and *Injectable Sizing*, as these are the commonly used products for the facility.
- The facility has historically used both Staticol® and *Injectable Sizing*, or products similar to these, since the start of the site use as a drycleaner (circa 1970).

An open records request was made to the City of Green Bay Fire Department for the Site. The response received from Mr. Joe Gabe, the Fire Marshall Captain for the City of Green Bay Fire Department, stated that they do not have any tank records, have two response records for medical issues, and no other type of records related to tanks, leaks, spills, fires, or cleanups for the Tidy Cleaners & Laundry located at 818 South Broadway Avenue. A copy of the response is included in Appendix A.

Based on the known site history, all potential contaminants associated with a hazardous substance discharge and/or environmental pollution, including emerging contaminants, have been evaluated at the site. The facility has always been a small-scale drycleaning operation with no waterproofing operations, there is no indication that any products containing emerging contaminants, including PFAS, are presently or were produced, used, handled, or stored at the site or used in any process services.



## **2.0 PREVIOUS FINDINGS**

### **2.1 Site Background**

The Site is currently listed as an open ERP case on the WDNR BRRTS database (TIDY CLEANERS & LAUNDRY, BRRTS #02-05-552220). There are no additional cases for this Site.

Site Investigation activities have been completed at the Site for dry cleaning operations and the associated BRRTS case since 2008. The activity has included: site investigation for the identified dry cleaner operations at the Site (2008 to present), groundwater monitoring (2011 to 2019), soil investigation activities (2011 to 2019), and vapor assessment activities including a sub-slab vapor sample (2019).

Currently, there are nine existing site NR141 code compliant monitoring wells on the Site (MW-6 to MW-11, PZ-5, PZ-12, and B-13).

The Site history is not fully known. Information from the City of Green Bay web site indicates the building was constructed in 1960 and was expanded to the north in 1986.

Tidy Cleaners & Laundry has been owned by the Mohr family for about 50 years. Mr. Mohr is the current owner and operator. Mr. Mohr has been around the premises since 1972 and is generally familiar with operations since that time. PCE is the cleaning agent that has historically been used for drycleaning at the facility.

The drycleaning machine has historically been located in the southwestern part of the building (Figure 1). A new dry-cleaning machine was installed circa 1994 in essentially the same location as the old machine. Prior to regulations regarding disposal, drycleaning lint and filters were discarded in the garbage with other general waste. All chemicals enter the building through doors located on the east side of the building.

Two vacant lots owned by the Green Bay Redevelopment Authority are located to the west of the site and a small storage rental unit owned by a private party is located on the property to the south. Across Broadway Avenue, Masse's, a flooring installation company, is located to the northeast of Tidy Cleaners & Laundry and two taverns are located to the east and southeast.

## **2.2 Current Site Investigation Status**

Fehr Graham performed Site Investigation activities in June and September 2019 to further define the degree and extent of contamination at the Site due to the historic and current dry cleaner operations conducted at the Site, occurring since at least 1960.

The site investigation activities completed up to September 2019 include the following:

- Installation of 13 soil borings to depths of up to 30 feet on and off the former drycleaner site.
- Obtain 25 soil samples for VOC analysis.
- Installation of seven NR141-compliant groundwater monitoring wells up to 14 feet.
- Installation of two NR141-compliant piezometer wells up to 30 feet.
- Obtain one to five rounds of groundwater samples (36 samples total) for VOC analysis from nine NR141-compliant groundwater monitoring wells and four one-time grab groundwater samples from geoprobe borings.
- Obtain one sub-slab vapor sample for analysis of VOCs (TO-15).
- Proper disposal of drummed investigative waste.
- Survey elevations at nine monitoring well locations.
- Record groundwater elevations on five occasions.
- Evaluate the location of utilities.

All site investigation results up to September 2019 have been previously submitted to the WDNR.

### **2.2.1 Soil Chemistry Results**

The most elevated concentrations are located at boring GP-2 at a depth of 11 to 12 feet below grade, where concentrations of PCE range up to 8,730 ug/kg. Elevated concentrations of PCE are also present at GP-1, GP-3, and boring PZ-12. The most contaminated locations are near the former dry-cleaning machine and east of the building, where dry cleaning chemicals were delivered, stored, and handled over the 40-year operation as a drycleaner.

Because the depth to water is shallow (3 to 5 feet below grade), the observed soil concentrations represent saturated soil conditions and the contamination is likely present as a result of the migration of groundwater and does not represent soil contamination.

The vertical extent of soil impacts has been adequately defined. Soil chemistry results from the deepest sample, PZ-5, indicate no detections for CVOCs, at 29 to 30 feet below grade.

PCE is the main contaminant of concern for soil. TCE and other breakdown constituents have only been detected in soil samples from B-2, B-3, B-4, and PZ-5. The limited detection of breakdown constituents indicates minimal PCE degradation has occurred at the Site.

### 2.2.2 Groundwater Chemistry Results

Groundwater chemistry results from the site wells indicate the extent of contamination may not be defined horizontally and will require additional groundwater sampling events to confirm or refute this. Elevated concentrations of PCE and TCE are present in the groundwater. The compound TCE is a degradation product of PCE. The extent of groundwater contamination has been defined vertically.

The current groundwater chemistry (September 2019) groundwater plume for PCE that exceeds NR140 ES extends off-site to the south to wells MW-9 and MW-10, and to the north and east up to the property lines at wells MW-11 and B-13. The location of elevated PCE in groundwater correlates with the easterly groundwater flow direction.

Levels of PCE in groundwater below ES, but above PALs are present north and west of the building at monitoring wells MW-6 and MW-8. All detections of TCE in groundwater are below the ES, but above the PAL.

Groundwater from both piezometers (PZ-5 and PZ-12) do not have any detections of CVOCs, indicating that the high levels observed at the adjacent water table well are not migrating downward to any significant extent.

Groundwater contaminant trends over time indicate MW-6, MW-7, and MW-10 are generally decreasing over time, while levels at wells MW-8, MW-11, and B-13 are increasing. Contaminant concentrations at MW-7 and MW-9 appear to be stable.

Concentrations of PCE are highest in the same locations where elevated levels in soil were observed, namely B-1 and B-2, near the dry-cleaning machine.

### 2.2.3 Vapor Chemistry Results

Vapor chemistry samples were obtained in 2019 from the one sub-slab vapor probe (SS-1) between the dry-cleaning machine and the office in the Tidy Cleaners & Laundry building. The samples were compared to the WDNR/Wisconsin Department of Health and Family Services (WDHFS) non-residential sub-slab vapor standards.

The results from SS-1 indicate the presence of 1,920 ug/m<sup>3</sup> of PCE, which is below the standard of 6,000 ug/m<sup>3</sup>. TCE contamination was detected at 5.1 ug/m<sup>3</sup>, also below the standard of 290 ug/m<sup>3</sup>.

Based on the sub-slab vapor results, the contaminant vapors in the soil beneath the building do not appear to require abatement at this time. However, additional sub-slab vapor sampling is warranted in accordance with WDNR guidance in RR-986.

### **2.3 Geology and Hydrogeology**

The Site's topography and surface drainage is described as follows: The Site is asphalt paved and slopes southeast away from the building to storm sewer drains. The overall topography in the area is flat. A concrete sidewalk is located along the east property boundaries adjacent to South Broadway Avenue.

The Site geology has been evaluated to a depth of 30 feet at piezometer PZ-12. The geology at the Site consists of approximately 2 to 3 feet of sand, sandy silt, and sandy clay fill underlain by native clay till. There are occasional lenses of sandy clay within the generally low-permeability, high plasticity clay till. The glacial deposits are mapped as glaciolacustrine<sup>1</sup>.

Bedrock was not encountered during the site investigation; boreholes were advanced to a maximum depth of 30 feet below grade. The depth to bedrock is mapped as between 0 and 50 feet below grade<sup>2</sup> and the bedrock geology consists of Ordovician-age dolomite of the Sinnipee group<sup>3</sup>.

The depth to groundwater is approximately 3 to 5 feet below grade and occurs near the contact between the native till and the overlying fill. Water levels have fluctuated only a little over time, approximately 1 foot over the past five years of monitoring.

The groundwater flow direction in the shallow water table is to the northeast. The deeper groundwater flow direction is to the east.

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<sup>1</sup> Hadley, D.W., and Pelham, J. H., 1976, "Glacial Deposits of Wisconsin, WGNHS / UW Extension Map # 10

<sup>2</sup> Trotta, L.C., and Cotter, R. D., 1973, "Depth to Bedrock in Wisconsin", WGNHS Map

<sup>3</sup> Mudrey, M.G., et al., 1982, "Bedrock Geologic Map of Wisconsin, WGNHS / UW Extension Map

Vertical hydraulic gradients as determined by the water levels in the water table well MW-6 and the 30-foot-deep piezometer PZ-5 are downward, typical for silty clay formations where the shallow water table may reflect a perched groundwater condition. The horizontal hydraulic gradient across the site (MW-6 to B-13) is approximately 0.056 feet/foot. The native formation has a low hydraulic conductivity, and all the wells can be purged dry using a bailer. The hydraulic conductivity is estimated at  $1 \times 10^{-6}$  centimeters/second (cm/sec).

Using the horizontal hydraulic gradient, the hydraulic conductivity of  $1 \times 10^{-6}$  cm/sec, and an assumed porosity of 25 percent, the estimated advective groundwater velocity is very low, less than 1 foot per year.

### **3.0 PROPOSED SITE INVESTIGATION**

#### **3.1 Project Objectives**

Environmental issues identified on the property need to be further assessed and addressed. The objectives of the project include the following:

1. Define the extent and degree of impacts in the soil, groundwater, and vapor.
2. Determine if further investigation or remediation is necessary. If remediation is required, options range from source removal and disposal or using the existing concrete and asphalt as a cap. If vapor testing yields exceedances, installation of a sub-slab system may be needed.
3. To obtain closure, a GIS listing for remaining soil and groundwater contamination will likely be required with associated drawings that define where remaining impacts are located. Closure might require a cap maintenance plan if a cap is needed for protection of human health and the environment. Identification of any structural impediment, if present, or vapor mitigation system operation and maintenance plan may also be required if contamination is known to be present beneath a structure.

#### **3.2 Proposed Scope of Work and Dry Cleaner Environmental Response Fund Declaration**

The scope of work and cost estimate has been broken down on a task-by-task basis for your convenience.

As required by the WDNR, the following statements must be included in environmental services proposals for Dry Cleaner Environmental Response Fund (DERF) projects. Services will be performed in accordance with Chapters NR169, NR140, NR141, and NR700 *et seq* of the Wisconsin Administrative Code. Fehr Graham will provide to the WDNR, upon request, all documents and records related to the contracted services. We will make available to the WDNR for inspection and copying, upon request, all documents and records related to the contract services. Fehr Graham has and will maintain the necessary insurance and deductible coverages specified by NR169.

As the project unfolds and results become known, the site conditions may necessitate changes to the project. To maintain DERF eligibility, all changes to the scope of the project and the budget will be discussed and approved by Tidy Cleaners & Laundry (Tidy, Inc.) and the WDNR project manager prior to implementation.

We have reviewed the previous site investigation information and are aware of the site conditions. Per NR169.23(3)(b), we are fully informed about the project scope, have the expertise to analyze alternatives and design the most suitable response actions, and will provide the necessary staff to plan, design, construct, and complete the site investigation.

The proposed investigation consists of the following tasks:

1. Task 7: Project Management, Scope/WDNR Site Investigation Work Plan
2. Task 4A and 5A: Additional Site Investigation
3. Task 6: Data Evaluation and NR716 Site Investigation Report

Depending on the findings, there may be a need for additional phases of investigation to define the site conditions. More than one round of groundwater monitoring may prove necessary.

### 3.2.1 Task 7: Project Management, Scope/WDNR Site Investigation Work Plan

This task includes setting up the project steps with the regulatory authorities and Tidy Cleaners & Laundry. Discussions will be held with the project manager to review the site conditions and the scope of additional efforts and will include completion of occasional correspondence and status updates to the WDNR, invoicing, and budget tracking.

This document serves as the Site Investigation Work Plan (SIWP, or “Work Plan”), which will be submitted to the WDNR project manager through the electronic submittal portal for review and input, as required in an email from WDNR on July 8, 2021. In email communication from WDNR, it is required that the SIWP be submitted by September 6, 2021. In addition, review of the scope of work, sample locations, and parameters of analysis will be discussed with the WDNR project manager to determine the scope outlined in this SIWP meets the requirements of the WDNR prior to initiating field investigation activities.

Under this task, emails, phone calls, figures, budgets, and contracts will be prepared and finalized as needed to keep the project moving forward.

Please note that additional charges will be needed under this task if the project duration exceeds an estimated nine months to complete the Site Investigation.

### 3.2.2 Task 4A and 5A: Additional Site Investigation

The monitoring wells installed in 2019 (MW-9, MW-10, MW-11, PZ-12, and B-13) have only been sampled twice. Per general WDNR requirements, at least four rounds of groundwater sampling are needed to adequately establish stable to decreasing trends necessary to obtain case closure.

It is proposed that two additional quarterly rounds of groundwater sampling be collected from the monitoring well network at the Site, including the nine monitoring wells/piezometers (PZ-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, PZ-12, and B-13) for analysis of CVOCs. Per discussions with the WDNR, the compounds included as CVOCs are PCE, TCE, cis-DCE, trans-1,2-dichloroethene (trans-DCE), and vinyl chloride.

The first round will be collected as soon as authorization to proceed has been received. The second round will be collected approximately three months after the first round. Sampling of the groundwater will be performed for laboratory analysis of CVOCs at the identified nine locations using laboratory provided containers and standard WDNR required methods.

Following discussions with the project manager, the WDNR also recommends that additional vapor investigation be conducted at the Site, which should include sub-slab sampling beneath the on-site building and a vapor assessment within the sanitary sewer adjacent to MW-11/PZ-12.

For the sub-slab vapor sampling, WDNR guidance RR-986 recommends three vapor ports be installed and sampled within a commercial building with a footprint of 5,000 sq ft or less and two rounds of sampling be completed, with one round occurring during heating season (i.e., winter). To complete these requirements, it is recommended that two new locations with vapor sampling ports are installed within the Site building, one located between the dry cleaner machine and sanitary sewer and one located within the area of the washers in the northern portion of the building that includes overhead doors. These locations are displayed on the attached figure as SS-2 and SS-3.

Once the new vapor ports have been established, the first round of sub-slab vapor sampling would be collected at SS-2 and SS-3 only, for analysis of CVOCs. The second round of vapor samples would be performed during heating season at all three locations (SS-1, SS-2, and SS-3) for analysis of CVOCs. All the sub-slab vapor samples will be collected using a 6-liter summa canister, with sampling conducted per WDNR guidance methods (flow regulators, 30-minute grab sampler, shut-in tightness testing of connections, water dam sealing of floor penetration). The samples were analyzed by Environmental Protection Agency (EPA) Method TO-15 for CVOCs.

As part of the recommended vapor investigation, the WDNR also recommended vapor assessment within the sanitary sewer lateral coming east out of the building towards South Broadway, which may be acting as a preferential pathway for vapors to travel.



The WDNR's guidance document RR-649 provides guidance on sampling of the sanitary sewer. A vapor sample will be collected from within the sanitary sewer via access through a cleanout or manhole; an access point will be assessed during the first round of groundwater sampling/sub-slab sampling, and the sample will be collected during the second round of groundwater sampling/sub-slab sampling. The sanitary sewer vapor sample will also be analyzed for dry cleaner CVOCs.

The sanitary sewer vapor sample will be collected using a 6-liter summa canister, with sampling conducted per WDNR guidance methods (flow regulators, 30-minute grab sampler, shut-in tightness testing of connections). The samples will be analyzed by EPA Method TO-15 for CVOCs

### 3.2.3 Task 6: Data Evaluation and NR 716 Site Investigation Report

Upon completion of the sampling, the groundwater and vapor laboratory analytical results will be received. Tables and figures showing the findings will be prepared and provided to Tidy Cleaners & Laundry and the WDNR. Fehr Graham will interpret the results and submit the findings to the WDNR.

Upon agreement that the extent of impacts has been adequately defined, a Site Investigation Report compliant with NR716 requirements will be prepared and submitted to the WDNR. The Site Investigation Report will summarize the site conditions and the magnitude and extent of impacts. Comments will be made on the need for additional actions and how future activities should accommodate known contamination. This report is a requirement prior to requesting case closure. The site investigation report requirements include the preparation of geologic cross sections and several figures that document the nature and extent of contamination, and the site geology.

Depending on the findings, we may recommend completion of a remedial action. A discussion of remedial action options will be provided, if warranted. If it appears the site may merely need to obtain further rounds of groundwater sampling to establish trends, then pursue closure once trends are suitable, that approach will be described in the Site Investigation Report, but no involved discussion of remedial action options will be prepared.

Upon completion, the final formal Site Investigation Report will be sent to the WDNR project manager for input and feedback. If appropriate, the report will recommend pursuit of case closure. Closure will require preparation of a separate submittal with extensive WDNR required forms, tables, and information, and a \$1,050 WDNR review fee. In addition, WDNR database registry fees for soil and groundwater will likely be required, which are \$300 and \$350, respectively.

#### 4.0 SCHEDULE AND COSTS

Based on Dry Cleaner Environmental Response Program (DERP) rules, WDNR approval of the Work Plan and costs needs to be completed prior to implementation of the work. The WDNR has up to 60 days for this review. It is expected the WDNR will respond relatively quickly to this Work Plan, and the field activities can be initiated following the response.

Once WDNR approval has been received, the work can proceed as follows:

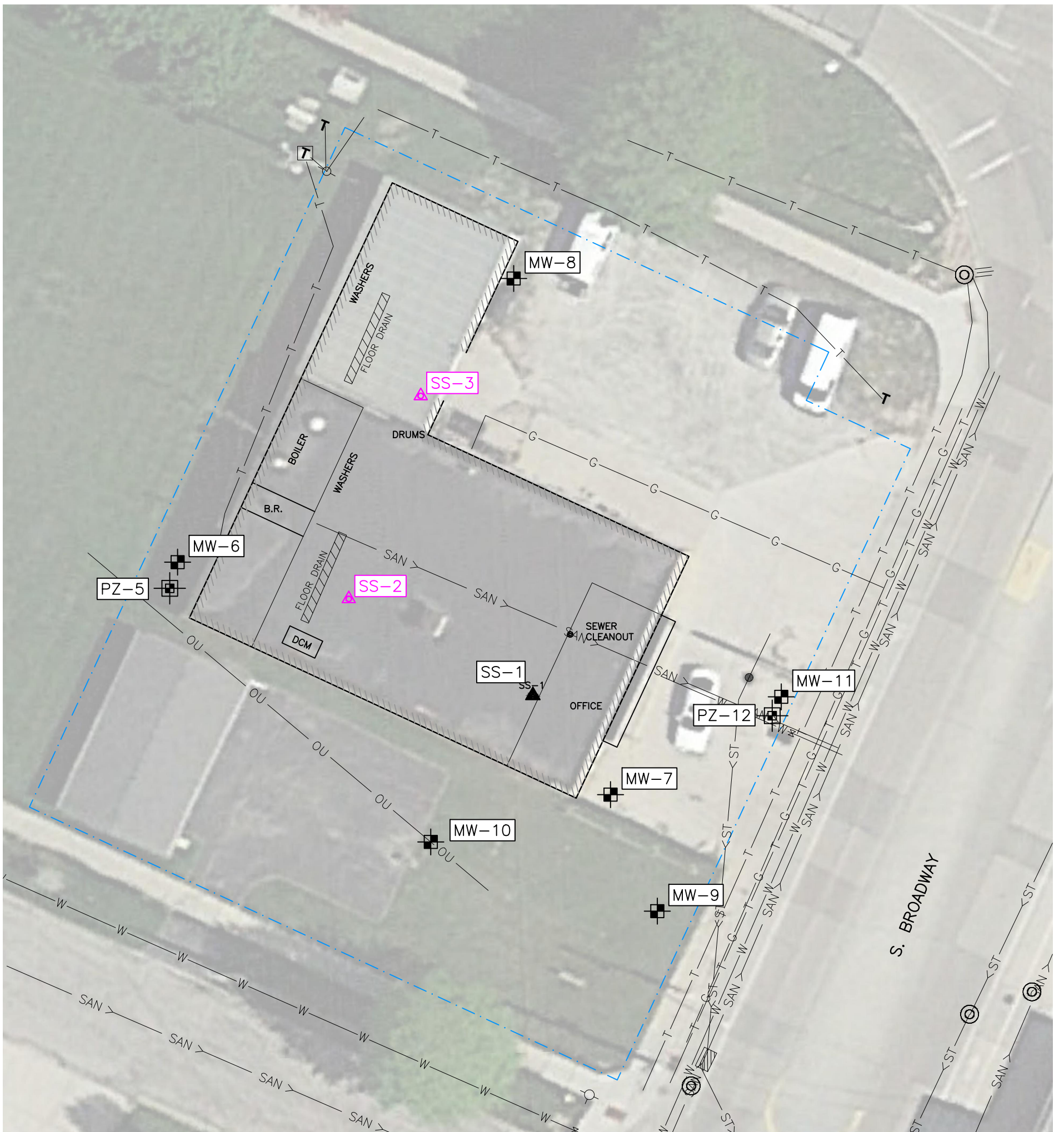
Task	Duration	Completion
Site Investigation Work Plan Submittal to WDNR	2 weeks	August 2021
WDNR Work Plan Approval	60 days	October 2021
First Round Groundwater and Vapor Field Activities	1 day	October 2021
First Round Lab Analysis	5-7 days	October 2021
First Round Data Evaluation	2 weeks	November 2021
Second Round of Groundwater and Vapor Field Activities	1 day	January 2022
Second Round Lab Analysis	5-7 days	January 2022
Site Investigation Report	2 months	March 2022
WDNR Response to Site Investigation Report	60 days	May 2022

The current Dry Cleaner Environmental Response Fund (DERF) linking spreadsheet, the cost estimate details for Change Order #4, and the DERF project totals are included in Appendix B.

## **5.0 RESPONSIBLE PARTY APPROVAL**

Tidy Cleaners & Laundry (Tidy, Inc.) has approved the proposed investigation activities and costs, which includes all consultant and subcontractor charges, at standard laboratory turnaround timeframes of approximately 5 to 7 business days.

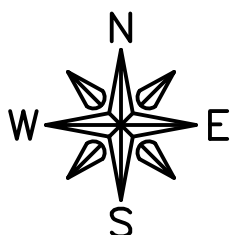
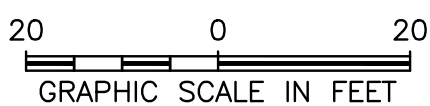
**Figure**



**LEGEND**

- MONITORING WELL
- PIEZOMETER
- ▲ EXISTING SUB-SLAB VAPOR SAMPLE
- ▲ PROPOSED SUB-SLAB VAPOR SAMPLE

**FIGURE 1**  
 SITE LAYOUT AND PROPOSED  
 SUB-SLAB VAPOR SAMPLE LOCATIONS  
 TIDY CLEANERS  
 818 S. BROADWAY  
 GREEN BAY, WI 54303  
 BRRTS NO.: 02-05-552220



8/6/21

**FEHR GRAHAM**  
ENGINEERING & ENVIRONMENTAL

ILLINOIS  
IOWA  
WISCONSIN

## **Appendices**

## **Appendix A**

### **City of Green Bay Fire Department Open Records Response**

## Dillon Plamann

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**From:** Joe Gabe <Joe.Gabe@greenbaywi.gov>  
**Sent:** Monday, August 16, 2021 10:48 AM  
**To:** Dillon Plamann  
**Subject:** FW: Open Records Request - 818 S. Broadway, Green Bay, WI 54304

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dillon,

I have checked our old paper files and have not come up with any tank records. I also checked our response records and we have been called to that address twice over the years both times for medical issues. I have no other type of records related to tanks, leaks, spills, fires, or cleanups for the Tidy Cleaners Laundry located at 818 South Broadway.

Thanks,

### ***Captain Joe Gabe IAAI-CFI***

Fire Marshal's Office  
Green Bay Metro Fire Department  
Green Bay, WI 54301  
Phone-920-448-3289  
[joe.gabe@greenbaywi.gov](mailto:joe.gabe@greenbaywi.gov)



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**From:** Lynn Beno  
**Sent:** Monday, August 16, 2021 10:37 AM  
**To:** Dillon Plamann <dplamann@fehr-graham.com>  
**Cc:** Joe Gabe <Joe.Gabe@greenbaywi.gov>  
**Subject:** RE: Open Records Request - 818 S. Broadway, Green Bay, WI 54304

Dillon,

I have copied in Fire Marshal Captain Joe Gabe for response to your request.

### **Lynn Beno**

**Administrative Assistant**  
City of Green Bay  
Green Bay Metro Fire Department  
(920) 448-3277 Office  
(920) 530-5516 Mobile  
[greenbaywi.gov/fire](http://greenbaywi.gov/fire)





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**From:** Dillon Plamann <[dplamann@fehr-graham.com](mailto:dplamann@fehr-graham.com)>  
**Sent:** Monday, August 16, 2021 10:32 AM  
**To:** Lynn Beno <[Lynn.Beno@greenbaywi.gov](mailto:Lynn.Beno@greenbaywi.gov)>  
**Subject:** Open Records Request - 818 S. Broadway, Green Bay, WI 54304

Good morning Lynn,

Please consider this an open record request for the property at 818 S. Broadway, Green Bay, WI 54304.

Please provide copies of any environmental significant records that your department has related to the above property including, but not limited to, fires, groundwater wells, underground and aboveground chemical storage tanks, and chemical spills, releases, or cleanups.

Thank you for your time,

**DILLON PLAMANN | Project Hydrogeologist**  
**Fehr Graham | Engineering & Environmental**

909 North 8th Street, Suite 101  
Sheboygan, WI 53081  
C: 920.946.2407  
[fehrgraham.com](http://fehrgraham.com)

**Appendix B**  
**Change Order #4**

Site Name: Tidy Cleaners  
 BRRS #: 02-05-552220  
 Type of Action: Site Investigation

Rates: 95, 75, 55, 50

Dry Cleaner Environmental Response Program  
 Reimbursement Cost Detail Linking Spreadsheet Form 4400-214D (R 05/12)

TASKS Bid / Budgeted Description	BUDGET Bid / Budgeted Amount	CO 2 Approved 2017	CO 3 Approved 1/17/19	CO 4 Pending 8/10/2021	INSERT	Total Approved Budget	Previous Claims (If applicable)	INVOICES										INSERT	Total Invoiced Costs	DERF COST BREAKOUT (this claim)								Budget Remaining Use (-) to indicate cost over-run	% Task Complete, Remarks	
								Geiss Drilling'	FG	Pace	FG	FG	FG	FG	FG	FG	FG			FG	FG	A Soil Inv	B Soil Rem	C GW Inv	D GW Rem	E Air/Vapor Inv	F Air/Vapor Rem			G Lab & Other Analysis
Invoice Date								4/26/2019	4/30/2019	5/3/2019	5/31/2019	6/28/2019	7/31/2019	8/30/2019	9/30/2019	10/31/2019	12/31/2019													
Invoice #								2840																						
Consultant Costs																														
Task						\$ -	\$ -																							
Initial Discovery	\$ -					\$ -	\$ 2,200.00																							
Task 1: NR 716 Work Plan / Access	\$ 277.50		\$ 1,605.00			\$ 1,882.50	\$ 287.50	\$ 427.50	\$ 237.50	\$ 150.00																				
Task 2: Boring Installation (3 borings with 3 grab water samples)	\$ 840.00		\$ -			\$ 840.00	\$ 1,005.00																							
Task 3: Monitoring Well Installation (3 wells, 1 piezo), Development & Survey	\$ 1,571.00		\$ 2,426.00			\$ 3,997.00	\$ 2,131.50	\$ 1,738.75	\$ 693.75	\$ 20.38																				
Task 4: Groundwater Monitoring	\$ 3,984.00	\$ 750.00	\$ 2,302.00			\$ 7,036.00	\$ 2,399.75		\$ 93.75	\$ 605.30																				
Task 5: Install & Sample Vapor Probe	\$ 395.00		\$ 665.00			\$ 1,060.00	\$ -																							
Task 4A and 5A: Additional Field Investigation				\$ 4,768.00		\$ 4,768.00	\$ -																							
Task 6: Data Evaluation & Site Investigation Report Preparation	\$ 3,530.00	\$ 650.00	\$ 3,200.00	\$ 5,260.00		\$ 12,640.00	\$ 4,790.00		\$ 232.50	\$ 96.25	\$ 27.50	\$ 371.25	\$ 1,238.75	\$ 191.25																
Task 7: Project Management, Scope/Work Plan	\$ 570.00		\$ 1,300.00	\$ 1,960.00		\$ 3,830.00	\$ 472.50	\$ 325.00	\$ 47.50	\$ 165.00			\$ 47.50	\$ 265.00	\$ 665.00															
						\$ -	\$ -																							
Consultant Cost Total	\$ 11,167.50	\$ 1,400.00	\$ 11,498.00	\$ 11,988.00	\$ -	\$ 36,053.50	\$ 13,286.25																							
Sub-Contractor Costs																														
Service	\$ -																													
Task 2: Boring Installation (3 borings)																														
Geoprobe Drilling Services	\$ 1,195.00		\$ -			\$ 1,195.00	\$ 979.00																							
Laboratory Services	\$ 462.00		\$ -			\$ 462.00	\$ 462.00																							
Task 3: Monitoring Well Installation (3 wells, 1 Piezo) Development, Surveying																														
Drilling Services	\$ 3,244.00		\$ 4,658.00			\$ 7,902.00	\$ 3,172.00																							
Laboratory Services	\$ 416.00		\$ 468.00			\$ 884.00	\$ 468.00	\$ 468.00																						
Investigative Waste Disposal - 5 Drums Soil (assume non-hazardous)	\$ 550.00		\$ 775.00			\$ 1,325.00	\$ 400.00																							
Task 4: Groundwater Monitoring (4 quarterly rounds)																														
Laboratory Services per Round	\$ 1,308.00	\$ 200.00	\$ 900.00			\$ 2,408.00	\$ 884.00		\$ 450.00				\$ 450.00	\$ 200.00																
Task 5: Install and Sample Vapor Probe																														
Laboratory Services	\$ 200.00		\$ 250.00			\$ 450.00	\$ -																							
Task 4A and 5A: Additional Field Investigation																														
Laboratory Services				\$ 2,100.00		\$ 2,100.00	\$ -																							
Sub-Contractor Cost Total	\$ 7,375.00	\$ 200.00	\$ 7,051.00	\$ 2,100.00	\$ -	\$ 16,726.00	\$ 6,365.00																							
DERF ELIGIBLE SUB-TOTALS	\$ 18,542.50	\$ 1,600.00	\$ 18,549.00	\$ 14,088.00	\$ -	\$ 52,779.50	\$ 19,651.25	\$ -	\$ 2,166.25	\$ 468.00	\$ 1,582.50	\$ 1,349.05	\$ 212.88	\$ 371.25	\$ 2,753.75	\$ 656.25	\$ 665.00	\$ -	\$ -	\$ 15,958.68	\$ 2,652.50	\$ -	\$ 11,380.68	\$ -	\$ -		\$ 1,568.00	\$ -	\$ 12,859.07	
Non-DERF Eligible Expenses																														
Non-DERF Cost Total						\$ -	\$ -	\$ -																						
INVOICE GRAND TOTAL						#####	\$ -	\$ 2,166.25	\$ 468.00	\$ 1,582.50	\$ 1,349.05	\$ 212.88	\$ 371.25	\$ 2,753.75	\$ 656.25	\$ 665.00	\$ -	\$ -	\$ 15,958.68	\$ 2,652.50	\$ -	\$ 11,380.68	\$ -	\$ -		\$ 1,568.00	\$ -	\$ 12,859.07		

Total DERF Eligible Costs This Cla \$ 15,601.18  
 WARNING - Double Check Total Invoiced Costs column to DERF Cost Breakout figures - possible errors found!

Check or Statement Numbers	7315	2752	263	3798	7335	3884	9021	9021
Payment Method	Check	Credit Recpt	Bank Stmtnt	Credit Recpt	Bank Stmtnt	Bank Stmtnt	Credit Recpt	Check

**TABLE 1**  
**CHANGE ORDER #4 - Tidy Cleaners**  
**Site Investigation Work Plan and Additional Site Investigation**  
**818 South Broadway, Green Bay, WI**

CONSULTANT SERVICES	Rate	Units	Estimated Amount	Estimated Cost
<b>Task 7: Project Management, Scope / Work Plan</b>				
Nine Months, Correspondence with DNR, etc.				
Hydrogeologist V	\$95.00	hour	18	\$1,710
Drafting/CAD	\$55.00	hour	2	\$110
Technician II	\$70.00	hour	2	\$140
<b>Task Subtotal:</b>				<b>\$1,960</b>
<b>Task 4A and 5A Additional Field Investigation</b>				
Two (2) rounds of groundwater sampling (9 wells per round), Two (2) rounds sub-slab vapor sampling (2 first round, 3 second round), one (1) round sanitary sewer vapor sampling (1 location), complete vapor sampling with groundwater sampling				
<u>First Round GW and Vapor Sampling</u>				
Hydrogeologist V	\$95.00	hour	4	\$380
Hydrogeologist II				
Field Work (Groundwater and Vapor Sampling)	\$75.00	hour	20	\$1,500
Equipment				
Vehicle	\$68.00	day	1	\$68
Water Level Indicator	\$21.00	day	1	\$21
Disposable Bailers	\$20.00	each	9	\$180
YSI Meter	\$125.00	day	1	\$125
PID	\$75.00	day	1	\$75
Sample Supplies (ice, h2O, gloves, filter)	\$20.00	day	1	\$20
<u>Second Round GW and Vapor Sampling</u>				
Hydrogeologist V	\$95.00	hour	4	\$380
Hydrogeologist II				
Field Work (Groundwater and Vapor Sampling)	\$75.00	hour	20	\$1,500
Equipment				
Vehicle	\$68.00	day	1	\$68
Water Level Indicator	\$21.00	day	1	\$21
Disposable Bailers	\$20.00	each	9	\$180
YSI Meter	\$125.00	day	1	\$125
PID	\$75.00	day	1	\$75
Sample Supplies (ice, h2O, gloves, filter)	\$50.00	day	1	\$50
<b>Task Subtotal:</b>				<b>\$4,768</b>
<b>Task 6: Data Evaluation and NR 716 Site Investigation Report</b>				
Tables, Maps of Data, Cross Sections (2)				
Hydrogeologist V	\$95.00	hour	24	\$2,280
Hydrogeologist II	\$75.00	hour	16	\$1,200
Technician II	\$70.00	hour	16	\$1,120
Drafting/CAD	\$55.00	hour	12	\$660
<b>Task Subtotal:</b>				<b>\$5,260</b>
<b>Total Estimated Consultant Cost</b>				<b>\$11,988</b>

COMMODITY SERVICES	Rate	Units	Estimated Amount	Estimated Cost
<b>Task 4A and 5A Additional Field Investigation</b>				
Two (2) rounds of groundwater sampling (9 wells per round), Two (2) rounds sub-slab vapor sampling (2 first round, 3 second round), one (1) round sanitary sewer vapor sampling (1 location), complete vapor sampling with groundwater sampling				
Lab				
CVOCs (groundwater)	\$50	each	18	\$900
CVOCs (sub-slab vapor)	\$200	each	5	\$1,000
CVOCs (sanitary sewer vapor)	\$200	each	1	\$200
Lab Subtotal				\$2,100
<b>Task Subtotal:</b>				<b>\$2,100</b>
<b>Total Estimated Commodity Cost</b>				<b>\$2,100</b>

**TOTAL ESTIMATED COST \$14,088**

Tidy Cleaners approves of the site investigation costs described above and authorizes Fehr Graham to proceed with these activities. Fehr Graham shall not exceed any of these costs without receiving written authorization. The terms and conditions of the original contract for this project will apply to these services.

\_\_\_\_\_ Date

Mr. Jim Mohr, Tidy Cleaners

This approval does not guarantee the reimbursement of costs. Final determination regarding the eligibility of costs will be determined at the time of claim review.

\_\_\_\_\_ Date

Ms. Josie Schultz, WDNR

**CHANGE ORDER 4: November 4, 2019**  
Tidy Cleaners and Laundry, Green Bay, WI  
DERF Site, BRRTS #02-05-552220

ITEM DESCRIPTION	Original Appvd Cost	CO 2 email Approved 2017	CO 3 Approved 2019	CO 4 Request Aug 10 2021	Total Cost	DERF Ineligible?
<b>CONSULTING SERVICES</b>						
Task 1: NR716 Work Plan	\$277.50	0	\$1,605.00	\$ -	\$277.50	
Task 1A : Access Agreements Off-Site Locations					\$1,605.00	
Task 2: Field Investigation: Borings and Grab Water Samples, Vapor	\$840.00	0	\$0.00	\$ -	\$840.00	
Task 3: Monitoring Well Installations	\$1,571.00	0	\$2,426.00	\$ -	\$3,997.00	
Task 4: Groundwater Monitoring	\$3,984.00	750	\$2,302.00	\$ -	\$7,036.00	
Task 5: Install / Sample Indoor Vapor Probes	\$395.00	0	\$665.00	\$ -	\$1,060.00	
Task 4A and 5A Additional Field Investigation	\$0.00	0	\$0.00	\$ 4,768.00	\$4,768.00	
Task 6: Data Evaluation and SI Report	\$3,530.00	650	\$3,200.00	\$ 5,260.00	\$12,640.00	
Task 7: Project Management	\$570.00	0	\$1,300.00	\$ 1,960.00	\$3,830.00	
Consultant Total: Task 1-7	<b>\$11,167.50</b>	<b>1400</b>	<b>\$11,498.00</b>	<b>\$11,988.00</b>	<b>\$36,053.50</b>	
<b>CONTRACTOR SERVICES</b>						
Task 2: Field Investigation: Borings and Grab Water Samples						
Drilling	\$1,195.00	0	\$0.00	\$ -	\$1,195.00	
Lab	\$462.00	0	\$0.00	\$ -	\$462.00	
Task 3: Monitoring Well Installations						
Drilling	\$3,244.00	0	\$4,658.00	\$ -	\$7,902.00	
Lab	\$416.00	0	\$468.00	\$ -	\$884.00	
Drum Disposal	\$550.00	0	\$775.00	\$ -	\$1,325.00	
Task 4: Groundwater Monitoring (4 Events at 4 Wells) Plus 2 Events at 3 wells						
Lab	\$1,308.00	200	\$900.00	\$ -	\$2,408.00	
Task 5: Install / Sample Indoor Vapor Probes (not needed)						
Task 4A and 5A Additional Field Investigation	\$0.00	0	\$0.00	\$ 2,100.00	\$2,100.00	
Contractor Total: Task 1-7	\$200.00	0	\$250.00	\$ -	\$450.00	
	<b>\$7,375.00</b>	<b>\$200.00</b>	<b>\$7,051.00</b>	<b>\$2,100.00</b>	<b>\$16,726.00</b>	
<b>TOTAL SITE</b>	Consulting	\$11,167.50	\$1,400.00	\$11,498.00	\$11,988.00	\$36,053.50
<b>INVESTIGATION BUDGET</b>	Commodity	\$7,375.00	\$200.00	\$7,051.00	\$2,100.00	\$16,726.00
	<b>TOTAL</b>	<b>\$18,542.50</b>	<b>\$1,600.00</b>	<b>\$18,549.00</b>	<b>\$14,088.00</b>	<b>\$52,779.50</b>

**FEHR GRAHAM**  
ENGINEERING & ENVIRONMENTAL

[www.fehr-graham.com](http://www.fehr-graham.com)