



October 3, 2019

Mr. Timothy Alessi  
Remediation and Redevelopment Program  
Wisconsin Department of Natural Resources  
2300 N. Dr. Martin Luther King, Jr. Drive  
Milwaukee, Wisconsin 53212-3128

Subject: Site Investigation Work Plan  
One Hour Martinizing – Milwaukee/  
Wisconsin Auto Title Loans  
233/235 W. Layton Avenue  
Milwaukee, Wisconsin 53207  
UEC Project No. 19006-2

Dear Mr. Alessi:

On behalf of Gottfried Real Estate LLC, United Engineering Consultants, Inc. (United) is pleased to submit this Site Investigation Work Plan (SIWP) for the above referenced property. The Wisconsin Department of Natural Resources (WDNR) requested the preparation and submittal of a SIWP in written correspondence dated July 31, 2019 due to the reported tetrachloroethylene (PCE) concentrations in the soil, groundwater and sub-slab vapor at the subject property. If you have any questions or would like to discuss any part of this submittal please contact us at (262) 785-1447.

Sincerely,  
**UNITED ENGINEERING CONSULTANTS, INC.**

*Nick Anderson*

Nicholas Anderson, E.I.T.  
Staff Engineer

*Timothy J. Anderson*

Timothy J. Anderson, P.E.  
Principal

**SITE INVESTIGATION WORK PLAN**

**PREPARED FOR:**

**ONE HOUR MARTINIZING – MILWAUKEE/  
WISCONSIN AUTO TITLE LOANS  
233/235 W. LAYTON AVENUE  
MILWAUKEE, WISCONSIN 53207**

**PREPARED BY:**

**UNITED ENGINEERING CONSULTANTS, INC.  
16237 W. RYERSON ROAD  
NEW BERLIN, WISCONSIN 53151**

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## 1.0 INTRODUCTION

United has prepared this Site Investigation Work Plan (SIWP) for the One Hour Martinizing – Milwaukee/Wisconsin Auto Title Loans property on behalf of Mr. Brian Gottfried of Gottfried Real Estate LLC, the current property owner. The SIWP summarizes a review of available information pertaining to the current and former activities at the subject property and the methodology to delineate the lateral and vertical extent of tetrachloroethylene (PCE) impacted soil and groundwater identified on the subject property and adjacent W. Layton Avenue right-of-way. This work plan has been prepared in general accordance with Wisconsin Administrative Code (WAC) NR 716.09.

Contact information for the responsible party, consultant and drilling and analytical service commodity providers for this project are indicated below:

<u>Responsible Party:</u>	Mr. Brian Gottfried Gottfried Real Estate LLC PO Box 26 Muskego, Wisconsin 53150 Phone: (414) 416-5665
<u>Consultant:</u>	Mr. Timothy J. Anderson, P.E. United Engineering Consultants, Inc. 16237 W. Ryerson Road New Berlin, Wisconsin 53151 Phone: (262) 785-1447
<u>Drilling Commodity Provider:</u>	Probe Technologies, Inc. 7781 Pathfinder Lane West Bend, Wisconsin 53090 Phone: (262) 470-4768
<u>Analytical Commodity Provider:</u>	Environmental Monitoring and Technologies, Inc. 509 N. 3 <sup>rd</sup> Avenue Des Plaines, Illinois 60016 Phone: (800) 246-0663

## 1.1 PURPOSE

The purpose of this SIWP is to summarize the proposed soil, groundwater and sub-slab vapor sample locations and laboratory analytical methodologies utilized to determine the lateral and vertical extent of the PCE impacts to the subsurface on the subject property and the adjacent W. Layton Avenue right-of-way.

## 1.2 SITE LOCATION

The subject property is located at 233 and 235 W. Layton Avenue which is within the Northeast  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  of Section 29, Township 6 North, Range 22 East of the City of Milwaukee in Milwaukee County, Wisconsin (See Figure 1: Site Location Map). The parcel's Wisconsin Transverse Mercator (WTM) X and Y coordinates are 690120 and 278340, respectively, as noted by the Bureau for Remediation and Redevelopment Tracking System (BRRTS).

The site is bordered to the north by the W. Layton Avenue followed by a restaurant (Taco Bell – 230 W. Layton Avenue) and a drainage canal (City of Milwaukee Sewerage - 300 W. Layton Avenue), to the west by a self-storage facility (Storage Masters – 307 W. Layton Avenue) followed by a trucking company (Old Dominion Freight Line – 401 W. Layton Avenue), to the south by a portion of a self-storage facility (Storage Masters – 307 W. Layton Avenue) followed by a drainage canal (City of Milwaukee Drainage – 4923 S. Howell Avenue) and a high school (St. Anthony High School – 4807 S. 2<sup>nd</sup> Street) and to the east by a drainage canal (City of Milwaukee Drainage – 203 W. Layton Avenue) followed by restaurants (McDonald's – 191 W. Layton Avenue and Burger King – 175 W. Layton Avenue).

## 1.3 SITE FEATURES

The subject property is approximately 0.75 acres in size and is currently developed with two (2) single story buildings, without basements, approximately one thousand four hundred forty (1,440) and one thousand eight hundred twelve (1,812) square feet (ft<sup>2</sup>) in plan dimension. The remainder of the site is covered with asphaltic concrete with the exception of several deciduous trees along the southern property line. The structure recorded with an address of 233 W. Layton Avenue is operating as One Hour Martinizing – Milwaukee (site building #1) and the structure recorded with an address of 235 W. Layton Avenue (site building #2) is operating as Wisconsin Auto Title Loans, Inc. (See Figure 2: Site Plan Map).

Site building #1 is currently configured with a customer entrance and reception area at the approximate northern quarter of the structure. The remainder of the building is configured with racks for incoming and outgoing clothes, an alteration area and a unisex restroom. A boiler room is located at the structure's southeast corner and is solely accessible from an exterior door along the southern elevation of the building. Although dry cleaning equipment is not currently located in the structure, the current business operators stated that dry cleaning equipment was formerly located in the southern portion of the building directly adjacent to the boiler and restrooms.

A review of the City of Milwaukee Building Inspection Department files for the subject property addresses indicated the former presence of two (2) structures consisting of a cooler building and refrigeration shed in the approximate center and southeastern corner of the parcel, respectively.

Underground natural gas and potable water service enter site building #1 along its eastern and northern elevations, respectively, and enter site building #2 along its western elevation and most likely its northern elevation, respectively. Underground combined sewer service extends to the northern elevation of both site buildings and to the western elevation of site building #2. A catch basin, with a lateral extending north to the W. Layton Avenue right-of-way, is located within the asphaltic concrete between the site buildings. Underground natural gas service, potable water service and combined sewer service laterals extend to apparent mains in the W. Layton Avenue right-of-way. Overhead electric service enters both structures at their southwest corners from a utility pole located along the subject property's western border.

The site is located in the eastern ridges and lowlands physical province of Wisconsin. This province is characterized by gently rolling to moderately hilly glacial deposits interspersed with relatively flat areas underlain by glacial lake or outwash deposits. A review of the information collected by the National Cooperative Soil Survey on behalf of the United States Department of Agriculture Natural Resources Conservation Service indicates the subject property is covered by clayey land. The clayey land is a moderately well-drained soil formed at depressions from clayey mine spoil or earthy fill. This soil is not considered prime farmland.

Topographic maps of the area indicate the site elevation ranges from approximately six hundred sixty (660) to six hundred seventy (670) feet above Mean Sea Level (MSL). A small portion at the northeast and southeast corners of the subject property are located within the Federal Emergency Management Agency (FEMA) one hundred (100) year flood plain. The site is not located within an environmentally sensitive area.

Depth to bedrock in this region reportedly ranges from fifty (50) to one hundred (100) feet below ground surface (bgs). The uppermost bedrock unit below the subject site is believed to be of the Silurian system. This formation is characterized by undivided dolomite including the Cayugan, Niagaran and Alexander series.

The subject property is bordered on the east by a drainage canal which flows to the Kinnickinnic River approximately three (3) miles northwest of the site. Based on information obtained from the temporary wells previously installed on the subject property, the depth to the water table is estimated to be between approximately fifteen (15) and sixteen (16) feet bgs. The shallow groundwater flow direction is expected to be to the northwest.

No private drinking water wells have been identified at the site. Potable water service is provided by the City of Milwaukee.

## 1.4 STORAGE TANKS

No Underground Storage Tanks (USTs) or Aboveground Storage Tanks (ASTs) were registered for the subject property's addresses on the Department of Agriculture and Consumer Trade Protection's (DATCP) Storage Tank Database. No evidence of USTs or ASTs existing or previously existing on the subject property was discovered during the initial site walkthrough or site investigation activities.

## 2.0 PREVIOUS INVESTIGATION ACTIVITIES

In preparation for the resurfacing of West Layton Avenue, the Wisconsin Department of Transportation (WisDOT) performed a Phase I ESA to identify areas within the proposed resurfacing boundaries which may have contaminated soil which would require proper handling and disposal. WisDOT identified the subject property as a small quantity hazardous waste generator due its current and/or former dry cleaning operations. The results of the subsequent Phase II ESA indicated the presence of PCE, a Volatile Organic Compound (VOC), in the soil at two (2) of the three (3) sample locations in the W. Layton Avenue right-of-way immediately adjacent to the subject property's northern border (See Figure 3: Soil Boring, Temporary Groundwater Monitoring Well and Sub-Slab Vapor Sample Location Map).

PCE was detected at GP-30 at the two (2) to four (4) and six (6) to eight (8) foot sample intervals at concentrations, of 0.060 and 0.890 mg/kg (parts per million), respectively. PCE was also detected at GP-31 at the sample interval ranging from two (2) to four (4) at a concentration of 0.330 mg/kg. These detected concentrations are in exceedance of its Groundwater Pathway Residual Contaminant Level (RCL) of 0.0045 mg/kg. It should be noted that the PCE concentration in the two (2) to four (4) foot sample interval at GP-30 was "J-flagged" by the laboratory indicating an estimated value due to the concentration between the Limit of Detection (LOD) and Limit of Quantitation (LOQ) (See Table 1 – VOC Analytical Results – Soil – 8/30/18).

Based on this information, the Wisconsin Department of Natural Resources (WDNR) recognized the possibility of PCE impacted soil documented in the W. Layton Avenue right-of-way may have originated from the subject property. The WDNR subsequently issued a Request for Additional Information letter dated November 16, 2018 requesting the collection and submission of evidence indicating the subject property is or is not the source of the PCE release.

On May 1, 2019, United personal advanced three (3) soil borings to approximate depths ranging from sixteen (16) to twenty (20) feet. The borings were subsequently converted to temporary groundwater monitoring wells (See Figure 3-Soil Boring, Temporary Groundwater Monitoring Well and Sub-Slab Vapor Sample Location Map). PCE was detected at GP-1, GP-2 and GP-3 at depths ranging from two (2) to sixteen (16) feet bgs at concentrations ranging from 0.100 mg/kg to 6.11 mg/kg. These concentrations are in exceedance of its Groundwater Pathway RCL.

PCE was not detected in exceedance of its LOD at the approximate sample interval of two (2) to three (3) feet bgs and three (3) to four (4) feet bgs at GP-2 and GP-3, respectively (See Table 2 – VOC Analytical Results – 5/1/19).

Laboratory analysis of collected groundwater samples indicate PCE was detected at TW-2 at a concentration of 52.8 µg/L which is in exceedance of its Enforcement Standard (ES) of 5 µg/L. PCE was identified at TW-1 at a concentration of 1.92 µg/L. It should be noted that the PCE concentration at TW-1 was “J-flagged” by the laboratory and due to the presence of its LOQ below the PCE’s PAL of 0.5 µg/L, it is not considered a PAL exceedance per NR 140.14(3). PCE was not detected in exceedance of its LOQ at TW-3 (See Table 3 – VOC Analytical Results – Groundwater).

The results of the sub-slab sampling indicate the presence of PCE in the vapor at 233 W. Layton Avenue at concentrations of one thousand five hundred ten (1510) µg/m<sup>3</sup> and eighteen thousand five hundred (18,500) µg/m<sup>3</sup>. These concentrations are in exceedance of the residential and small commercial Vapor Risk Screening Level (VRSL) for PCE, respectively (See Table 4 – VOC Analytical Results – Sub-Slab Vapor).

### **3.0 FIELD SAMPLING PLAN**

The following sections discuss the planned activities including soil boring advancement, groundwater monitoring well and sub-slab vapor sample installation, analytical sampling, sample handling, site survey and schedule.

#### **3.1 SOIL INVESTIGATION**

##### **3.1.1 Soil Boring Advancement**

In order to determine the lateral and vertical extents of the PCE impacted soil, United recommends the advancement of five (5) additional soil borings; immediately east of site building #2, west and south of GP-1, immediately north of site building #1 and at the northwest corner of the subject property. The borings will be advanced to approximate depths ranging from sixteen (16) to twenty (20) feet (See Figure 4: Proposed Soil Boring, Groundwater Monitoring Well and Sub-Slab Vapor Sample Location Map).

Soil borings will be advanced by a truck or track-mounted geo-probe utilizing direct push methods. Soil samples will be obtained continuously in four (4) foot lengths using a geo-probe sampler.

United personnel will log the soil borings using the Unified Soil Classification System. In addition, visual and olfactory observations such as staining and odor will be recorded along with other pertinent information.



### **3.1.2 Soil Analytical Sampling**

Each soil sample will be screened in the field for the presence of volatile vapors utilizing a Photoionization Detector (PID) with a 10.6 eV lamp. The soil samples will be collected in accordance with NR 716.13 and a minimum of two (2) samples from each soil boring will be submitted to a state-certified laboratory for VOC analysis.

## **3.2 GROUNDWATER INVESTIGATION**

### **3.2.1 Groundwater Monitoring Well Installation**

Three (3) NR 141 compliant monitoring wells, two (2) inches in diameter, will be installed by a truck or track-mounted drill rig utilizing continuous flight hollow stem augers. The monitoring wells are to be located directly adjacent to GP-1 and GP-2 and immediately north of site building #1 (233 W Layton Avenue).

The monitoring well construction will consist of a ten (10) foot section of two (2) inch diameter PVC screen, with 0.010 inch factory machine cut slots, and two (2) inch diameter PVC flush-threaded riser pipe extending to within approximately two (2) inches of the ground surface.

A medium-grained silica sand backfill will be utilized as a filter medium around the screened PVC to about six (6) inches above the top of the screen section, and an approximate six (6) inch layer of fine silica sand will be placed on top of the filter medium. The remaining annular space will be filled to within about one (1) foot of the ground surface with bentonite chips.

Subsequently, a protective cover will be installed. To reduce disturbance to the installation, a locking expandable cap will be fitted onto the top of the PVC riser.

### **3.2.2 Groundwater Analytical Sampling**

The groundwater samples will be collected with a Teflon bailer subsequent to development utilizing a submersible pump. Groundwater samples will be submitted to a state-certified laboratory for analysis for the presence of VOC. All analysis will be performed by WDNR approved methods.

### **3.3 VAPOR INVESTIGATION**

#### **3.3.1 Sub-Slab Vapor Point Installation**

One (1) sub-slab vapor point will be installed within the interior of site building #2 at a location nearest to the adjacent site building to the east (See Figure 4: Proposed Soil Boring, Groundwater Monitoring Well and Sub-Slab Vapor Sample Location Map). The sampling will be performed by installing a five-eighth (5/8) inch diameter brass vapor pin with an exterior silicon seal into the concrete slab. The airtightness of the probe seal is to be confirmed utilizing the water dam method. This method consists of sealing a small section of two (2) inch PVC pipe to the concrete floor with a soft pliable adhesive compound and subsequent placement of water in the pipe section. A constant water level indicates an airtight seal.

#### **3.3.2 Vapor Analytical Sampling**

The sub-slab vapor sample will be collected by connecting a semi-rigid, one-quarter (1/4) inch outside diameter silicone tube from the vapor pin to a six (6) liter Summa Canister regulated at a collection rate of approximately one hundred (100) mL/min. In addition an ambient air sample will be collected from site building #1. The ambient air sample will be collected over a twenty four (24) hour period utilizing a twenty four (24) hour summa canister placed at the approximate height of the breathing zone of the employees. Sub-slab vapor and ambient air samples will be submitted to Pace Analytical Services, Inc. for analysis for the presence of VOCs by EPA method TO-15.

### **3.4 SAMPLE HANDLING**

Samples will be collected in containers provided by the laboratories and following WDNR field sampling protocol and standard chain-of-custody procedures. Applicable field preservatives will be used as directed by laboratory methods. Additionally, soil and groundwater samples will be preserved on ice. Chain-of-custody forms will be included in the Site Investigation (SI) report.

### **3.5 SITE SURVEY**

United will complete a site survey including, but not limited to, the location of the site buildings, property lines, underground utilities and soil boring, temporary and NR 141 compliant groundwater monitoring wells and sub-slab vapor point locations. In addition, the elevation of the soil borings and groundwater monitoring wells will be determined. This information will be incorporated into figures and maps as required.

### **3.6 REPORTING**

Upon completion of the proposed investigative activities, an NR 716 compliant SI report will be submitted to the WDNR summarizing the investigation methods, analytical results and other pertinent field information collected during the investigative activities provided the lateral and vertical extent of the PCE impacts have been defined. The SI report will also include conclusions and recommendations for remediation and/or case closure. If additional site investigation activities are warranted to delineate the PCE contaminant plume, another SIWP will be prepared and submitted to the WDNR.

### **4.0 REFERENCES**

Wisconsin Administrative Code: Chapter NR 716  
Depth to Bedrock In Wisconsin - Compiled by L. C. Trotta and R. D. Cotter, 1973  
Bedrock Geology of Wisconsin - Geological and Natural History Survey, Revised 2006

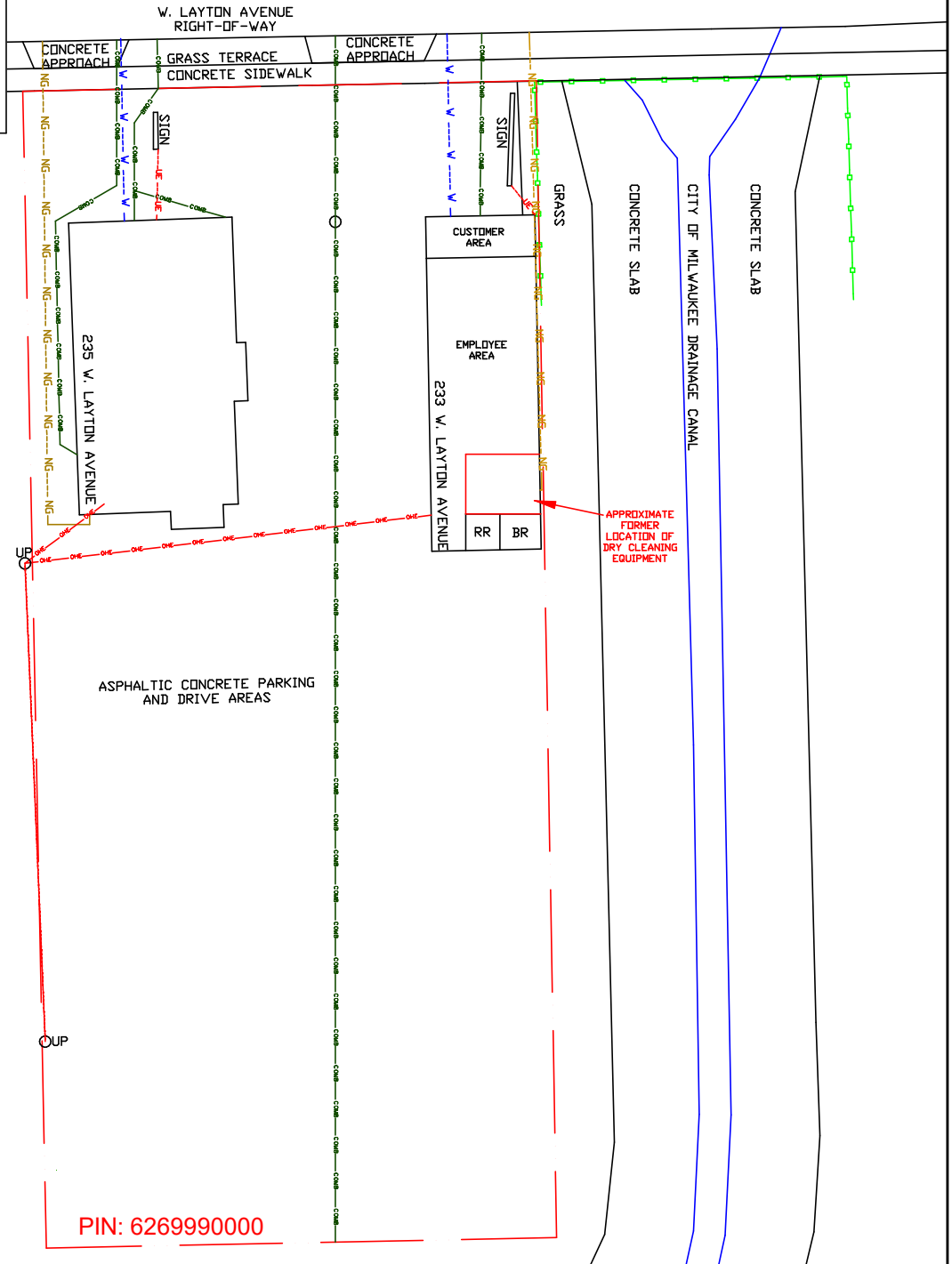
## **FIGURES**

**FIGURE 1:  
SITE LOCATION MAP**



# Legend

- Property Line
- COMB Combined Sewer Line
- NG Natural Gas Line
- W Water Line
- UE Underground Electric Line
- OHE Overhead Electric Line



PIN: 6269990000

**Figure 2: Site Plan Map**

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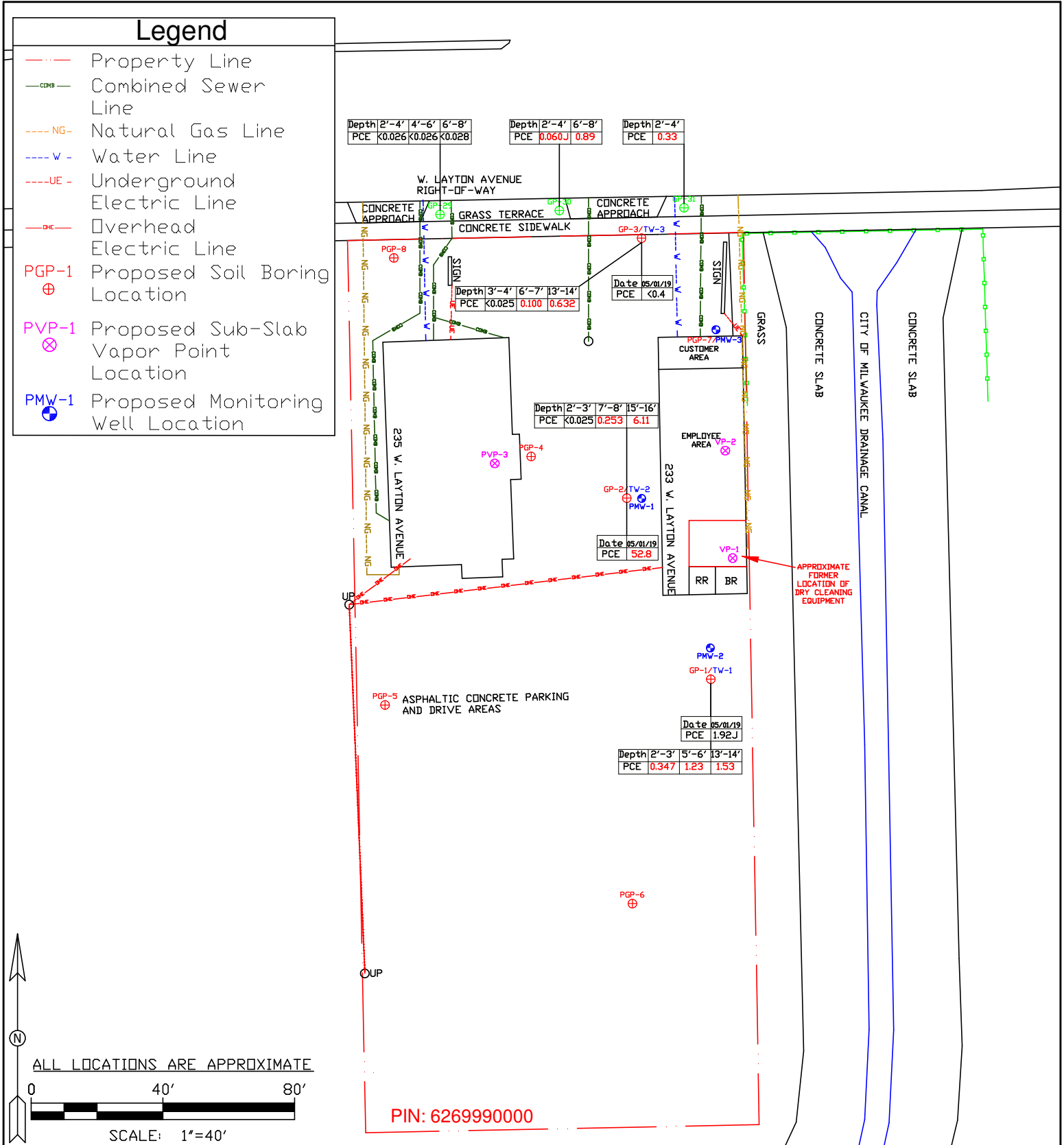
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DATE: 03/05/2019

**Site Investigation Work Plan  
One Hour Martinizing - Milwaukee /  
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**Figure 4: Proposed Soil Boring, Groundwater Monitoring Well and Sub-Slab Vapor Sample Location Map**

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**Site Investigation Work Plan  
One Hour Martinizing - Milwaukee /  
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233/235 W. Layton Avenue  
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## **TABLES**

Table 1  
VOC Analytical Results - Soil  
Site Investigation Work Plan  
233/235 W. Layton Avenue  
Milwaukee, Wisconsin 53207

Sample Date	August 30, 2018						RCL		
	GP-29	GP-29	GP-29	GP-30	GP-30	GP-31	GWP	NIDC	IDC
Sample Identification	2'-4'	4'-6'	6'-8'	2'-4'	6'-8'	2'-4'			
Sample Depth	2'-4'	4'-6'	6'-8'	2'-4'	6'-8'	2'-4'			
Soil Type	CL/ML	CL/ML	CL	CL/ML	CL/SP	FILL			
<b>Volatile Organic Compounds (VOC) (Method: 8260B)</b>									
Benzene	<0.010	<0.010	<0.011	<0.014	<0.012	<0.0094	0.0051	1.6	7.07
Bromobenzene	<0.025	<0.025	<0.027	<0.033	<0.029	<0.023	-	342	679
Bromochloromethane	<0.030	<0.031	<0.032	<0.040	<0.035	<0.028	-	216	906
Bromodichloromethane	<0.026	<0.027	<0.028	<0.035	<0.031	<0.024	0.0003	0.39	1.96
Bromoform	<0.034	<0.035	<0.036	<0.045	<0.040	<0.031	0.0023	23.6	115
Bromomethane	<0.055*	<0.057*	<0.059	<0.074*	<0.065*	<0.051*	0.0051	9.6	43
n-Butylbenzene	<0.027	<0.028	<0.029	<0.036	<0.032	<0.025	-	108	108
sec-Butylbenzene	<0.028	<0.028	<0.030	<0.037	<0.033	<0.026	-	145	145
tert-Butylbenzene	<0.028	<0.028	<0.030	<0.037	<0.033	<0.026	-	183	183
Carbon tetrachloride	<0.027	<0.027	<0.029	<0.036	<0.032	<0.025	0.0039	0.854	4.25
Chlorobenzene	<0.027	<0.028	<0.029	<0.036	<0.032	<0.025	-	392	761
Chloroethane	<0.035	<0.036	<0.038	<0.047	<0.041	<0.032	0.2266	-	-
Chloroform	<0.026	<0.026	<0.028	<0.035	<0.030	<0.024	0.0033	0.423	2.13
Chloromethane	<0.022	<0.023	<0.024	<0.030	<0.026	<0.021	0.0155	159	669
2-Chlorotoluene	<0.022	<0.022	<0.023	<0.029	<0.026	<0.020	-	-	-
4-Chlorotoluene	<0.024	<0.025	<0.026	<0.033	<0.029	<0.023	-	-	-
1,2-Dibromo-3-chloropropane	<0.140	<0.140	<0.150	<0.190	<0.160	<0.130	0.0002	0.008	0.099
1,2-Dibromoethane	<0.027	<0.028	<0.029	<0.036	<0.032	<0.025	0.0000282	0.05	0.221
Dibromochloromethane	<0.034	<0.035	<0.036	<0.046	<0.040	<0.031	0.032	8.28	38.9
Dibromomethane	<0.019	<0.019	<0.020	<0.025	<0.022	<0.017	-	34	143
1,2-Dichlorobenzene	<0.023	<0.024	<0.025	<0.031	<0.027	<0.022	1.168	376	376
1,3-Dichlorobenzene	<0.028	<0.029	<0.030	<0.037	<0.033	<0.026	1.1528	297	297
1,4-Dichlorobenzene	<0.025	<0.026	<0.027	<0.034	<0.030	<0.023	0.144	3.74	16.4
Dichlorodifluoromethane	<0.047	<0.048	<0.050	<0.063	<0.055	<0.043	3.0863	126	530
1,1-Dichloroethane	<0.029	<0.029	<0.031	<0.038	<0.034	<0.026	0.4834	4.72	23.7
1,2-Dichloroethane	<0.027	<0.028	<0.029	<0.037	<0.032	<0.025	0.0028	0.608	3.03
1,1-Dichloroethene	<0.027	<0.028	<0.029	<0.036	<0.032	<0.025	0.005	342	1190
cis-1,2-Dichloroethene	<0.028	<0.029	<0.030	<0.038	<0.034	<0.026	0.0412	156	2040
trans-1,2-Dichloroethene	<0.024	<0.025	<0.026	<0.033	<0.029	<0.023	0.0626	1560	1850
1,2-Dichloropropane	<0.030	<0.031	<0.032	<0.040	<0.035	<0.028	0.0033	3.4	15
1,3-Dichloropropane	<0.025	<0.026	<0.027	<0.034	<0.030	<0.023	-	1490	1490
2,2-Dichloropropane	<0.031	<0.032	<0.033	<0.041	<0.036	<0.029	-	191	191
1,1-Dichloropropene	<0.021	<0.021	<0.022	<0.028	<0.024	<0.019	-	-	-
cis-1,3-Dichloropropene	<0.029	<0.030	<0.031	<0.039	<0.034	<0.027	0.0003	1210	1210
trans-1,3-Dichloropropene	<0.025	<0.026	<0.027	<0.034	<0.030	<0.023	0.0003	1510	1510
Ethylbenzene	<0.013	<0.013	<0.014	<0.017	<0.015	<0.012	1.57	8.02	35.4
Hexachlorobutadiene	<0.031	<0.032	<0.033	<0.042	<0.037	<0.029	-	1.63	7.19
Isopropyl ether	<0.019	<0.020	<0.021	<0.026	<0.023	<0.018	-	-	-
Isopropylbenzene	<0.027	<0.027	<0.029	<0.036	<0.032	<0.025	-	-	-
p-Isopropyltoluene	<0.025	<0.026	<0.027	<0.034	<0.030	<0.023	-	162	162
Methyl tert-butyl ether	<0.027	<0.028	<0.029	<0.037	<0.032	<0.025	0.027	63.8	282
Methylene chloride	<0.110	<0.120	<0.120	<0.150	<0.130	<0.110	0.0026	60.7	1070
Naphthalene	<0.023	<0.024	<0.025	<0.031	<0.027	<0.022	0.6582	5.52	24.1
N-Propylbenzene	<0.029	<0.030	<0.031	<0.039	<0.034	<0.027	-	-	-
Styrene	<0.027	<0.028	<0.029	<0.036	<0.032	<0.025	0.22	867	867
1,1,1,2-Tetrachloroethane	<0.032	<0.033	<0.035	<0.043	<0.038	<0.030	0.0534	2.78	12.3
1,1,2,2-Tetrachloroethane	<0.028	<0.028	<0.030	<0.037	<0.033	<0.026	0.0002	0.753	3.69
Tetrachloroethylene	<0.026	<0.026	<0.028	<u>0.060J</u>	<u>0.890</u>	<u>0.330</u>	0.0045	33	145
Toluene	<0.010	<0.011	0.012J	<0.014	<0.012	0.011J	1.1072	818	818
1,2,3-Trichlorobenzene	<0.032	<0.033	<0.034	<0.043	<0.038	<0.030	-	62.6	934
1,2,4-Trichlorobenzene	<0.024	<0.024	<0.026	<0.032	<0.028	<0.022	0.408	24	113
1,1,1-Trichloroethane	<0.026	<0.027	<0.028	<0.035	<0.031	<0.024	0.1402	640	640
1,1,2-Trichloroethane	<0.025	<0.025	<0.026	<0.033	<0.029	<0.023	0.0032	1.48	7.34
1,2,3-Trichloropropane	<0.029	<0.030	<0.031	<0.039	<0.034	<0.027	0.0519	0.005	0.109
Trichloroethene	<0.011	<0.012	<0.012	<0.015	<0.013	<0.011	0.0036	1.26	8.81
Trichlorofluoromethane	<0.030	<0.031	<0.032	<0.040	<0.035	<0.028	-	1230	1230
1,2,4-Trimethylbenzene	<0.025	<0.024	<0.027	<0.033	<0.029	<0.023	-	219	219
1,3,5-Trimethylbenzene	<0.026	<0.027	<0.028	<0.035	<0.031	<0.024	-	182	182
Vinyl Chloride	<0.018	<0.019	<0.020	<0.024	<0.022	<0.017	0.0001	0.067	2.03
Xylenes, Total	<0.015	<0.016	<0.016	<0.021	<0.018	<0.014	3.96	260	260

Notes: All samples collected from the unsaturated zone  
All results expressed as mg/kg

RCL Residual Contaminant Level (December 2018 RCL Spreadsheet Update)  
GWP Groundwater Pathway RCL (Exceedances in underline)  
NIDC Non-Industrial Direct Contact RCL (Exceedances in **bold**)  
IDC Industrial Direct Contact Pathway RCL (Exceedances in **bold** and shaded)  
- RCL not established for this compound  
< Compound not detected at or above the limit of detection (LOD)  
\* Laboratory Control Sample or Laboratory Control Sample Duplicate outside of acceptance limits

Table 2  
VOC Analytical Results - Soil  
One Hour Martinizing - Milwaukee / Wisconsin Auto Title Loans  
233/235 W. Layton Avenue  
Milwaukee, Wisconsin 53207

Sample Date	May 1, 2019									RCL		
	GP-1	GP-1	GP-1	GP-2	GP-2	GP-2	GP-3	GP-3	GP-3	GWP	NIDC	IDC
Sample Identification	2'-3'	5'-6'	13'-14'	3'-4'	7'-8'	15'-16'	3'-4'	6'-7'	13'-14'			
Sample Depth												
Soil Type	SM	ML	SP	SM	SM	SP	SM	SM	SP			
Volatile Organic Compounds (VOC) (Method: SW-846 8260B / PUBL-FW-140)												
Acetone	<0.212	<0.172	<0.205	<0.194	<0.161	<0.198	<0.225	<0.177	<0.206	3.6766	63400	100000
Acrylonitrile	<0.0611	<0.0495	<0.0588	<0.0559	<0.0464	<0.057	<0.0646	<0.0508	<0.0594	-	0.388	1.5
Benzene	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.0051	1.6	7.07
Bromodichloromethane	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.0003	0.39	1.96
Bromoform	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.0023	23.6	115
1-Butanol	<0.498	<0.404	<0.48	<0.456	<0.379	<0.465	<0.527	<0.415	<0.484	-	14700	14700
2-Butanone	<0.124	<0.1	<0.119	<0.113	<0.0941	<0.116	<0.131	<0.103	<0.12	-	28400	28400
Carbon disulfide	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.5919	738	738
Carbon tetrachloride	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.0039	0.854	4.25
Chlorobenzene	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	-	392	761
Chloroform	<0.027	<0.025	<0.026	<0.025	<0.025	<0.0252	<0.0286	<0.025	<0.0263	0.0033	0.423	2.13
1,2-Dibromo-3-chloropropane	<0.0476	<0.0386	<0.0459	<0.0436	<0.0362	<0.025	<0.0504	<0.0396	<0.0463	0.0002	0.008	0.092
1,2-Dibromoethane	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.0000282	0.05	0.221
Dibromochloromethane	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.032	8.28	38.9
1,1-Dichloroethane	<0.0435	<0.0352	<0.0419	<0.0398	<0.0331	<0.0406	<0.046	<0.0362	<0.0423	0.4834	4.72	23.7
1,2-Dichloroethane	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.0028	0.608	2.87
1,1-Dichloroethene	<0.034	<0.0276	<0.0328	<0.0311	<0.0259	<0.0318	<0.036	<0.0283	<0.0331	0.005	342	1190
cis-1,2-Dichloroethene	<0.0298	<0.025	<0.0287	<0.0273	<0.025	<0.0278	<0.0315	<0.025	<0.029	0.0412	156	2040
trans-1,2-Dichloroethene	<0.041	<0.0332	<0.0395	<0.0375	<0.0312	<0.0383	<0.0434	<0.0342	<0.0399	0.0626	1560	1850
total-1,2-Dichloroethene	<0.0708	<0.0574	<0.0682	<0.0648	<0.0539	<0.0662	<0.075	<0.059	<0.0689	-	-	-
1,2-Dichloropropane	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.0033	3.4	15
Ethylbenzene	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	1.57	8.02	35.4
2-Hexanone	<0.0855	<0.0693	<0.0823	<0.0782	<0.065	<0.0798	<0.0905	<0.0711	<0.0831	-	237	1760
4-Methyl-2-pentanone	<0.0576	<0.0466	<0.0555	<0.0527	<0.0438	<0.0538	<0.0609	<0.0479	<0.056	-	3360	3360
Methyl tert-butyl ether	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.027	63.8	282
Methylene chloride	<0.0509	<0.0412	<0.049	<0.0466	<0.0387	<0.0475	<0.0538	<0.0423	<0.0494	0.0026	60.7	1150
Styrene	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.22	867	867
1,1,2,2-Tetrachloroethane	<0.028	<0.025	<0.0269	<0.0256	<0.025	<0.0261	<0.0296	<0.025	<0.0272	0.0002	0.753	3.69
Tetrachloroethene	<u>0.347</u>	<u>1.23</u>	<u>1.53</u>	<0.025	<u>0.253</u>	<u>6.11</u>	<0.025	<u>0.100</u>	<u>0.632</u>	0.0045	33	145
Toluene	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	1.1072	818	818
Trichloroethene	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	1.1072	818	818
1,1,1-Trichloroethane	<0.0289	<0.025	<0.0279	<0.0265	<0.025	<0.027	<0.0306	<0.025	<0.0281	0.1402	640	640
1,1,2-Trichloroethane	<0.0287	<0.025	<0.0277	<0.0263	<0.025	<0.0268	<0.0304	<0.025	<0.0279	0.0032	1.48	7.01
1,2,4-Trimethylbenzene	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	-	219	219
1,3,5-Trimethylbenzene	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	-	182	182
Vinyl acetate	<0.033	<0.027	<0.0321	<0.0305	<0.0253	<0.0311	<0.0353	<0.0277	<0.0324	-	1300	2750
Vinyl chloride	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.0001	0.067	2.03
m,p-Xylene	<0.0924	<0.0749	<0.0891	<0.0846	<0.0703	<0.0864	<0.0978	<0.077	<0.0899	-	388	388
o-Xylene	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	-	434	434
Xylenes, Total	<0.105	<0.0853	<0.101	<0.0964	<0.0801	<0.0984	<0.111	<0.0877	<0.102	3.96	260	260

- Notes: All samples collected from the unsaturated zone  
All results expressed as mg/kg
- RCL Residual Contaminant Level (December 2018 RCL Spreadsheet Update)
- GWP Groundwater Pathway RCL (Exceedances in underline)
- NIDC Non-Industrial Direct Contact RCL (Exceedances in **bold**)
- IDC Industrial Direct Contact Pathway RCL (Exceedances in **bold** and shaded)
- RCL not established for this compound
- < Compound not detected at or above the limit of detection (LOD)
- \* Laboratory Control Sample or Laboratory Control Sample Duplicate outside of acceptance limits

Table 3  
VOC Analytical Results - Groundwater  
One Hour Martinizing - Milwaukee / Wisconsin Auto Title Loans  
233/235 W. Layton Avenue  
Milwaukee, Wisconsin 53207

Analyte	TW-1	TW-2	TW-3	ES	PAL
	05/01/19	05/01/19	05/01/19		
<b>Volatile Organic Compounds (VOC) (Method: SW-846 8260B / PUBL-FW-140 / SW5030)</b>					
Acetone	<3.75	<3.75	<3.75	9000	1800
Acrolein	<6.63	<6.63	<6.63	-	-
Acrylonitrile	<0.742	<0.742	<0.742	-	-
Benzene	<0.37	<0.37	<0.37	5	0.5
Bromodichloromethane	<0.31	<0.31	<0.31	0.6	0.06
Bromoform	<0.254	<0.254	<0.254	4.4	0.44
Bromomethane	<3.3	<3.3	<3.3	10	1
1-Butanol	<6.69	<6.69	<6.69	-	-
2-Butanone	<1.38	<1.38	<1.38	-	-
Carbon disulfide	<0.259	<0.259	<0.259	1000	200
Carbon tetrachloride	<0.39	<0.39	<0.39	5	0.5
Chlorobenzene	<0.358	<0.358	<0.358	-	-
Chloroethane	<0.906	<0.906	<0.906	400	80
Chloroform	<0.397	<0.397	<0.397	6	0.6
Chloromethane	<2.23	<2.23	<2.23	30	3
1,2-Dibromo-3-chloropropane	<0.488	<0.488	<0.488	0.2	0.02
1,2-Dibromoethane (EDB)	<0.32	<0.32	<0.32	0.05	0.005
1,1-Dichloroethane	<1.94	<1.94	<1.94	850	85
1,2-Dichloroethane	<0.32	<0.32	<0.32	5	0.5
1,1-Dichloroethene	<1.02	<1.02	<1.02	7	0.7
cis-1,2-Dichloroethene	<0.421	<0.421	<0.421	70	7
trans-1,2-Dichloroethene	<0.433	<0.433	<0.433	100	20
1,2-Dichloropropane	<1.11	<1.11	<1.11	5	0.5
Dibromochloromethane	<0.492	<0.492	<0.492	700	140
cis-1,3-Dichloropropene	<0.278	<0.278	<0.278	-	-
trans-1,3-Dichloropropene	<0.314	<0.314	<0.314	-	-
1,3-Dichloropropene, Total	<0.592	<0.592	<0.592	0.4	0.04
Ethylbenzene	<0.431	<0.431	<0.431	700	140
2-Hexanone	<1.04	<1.04	<1.04	-	-
4-Methyl-2-pentanone	<0.66	<0.66	<0.66	-	-
Methyl tert-Butyl ether	<0.322	<0.322	<0.322	60	12
Methylene chloride	<0.358	<0.358	<0.358	5	0.5
Styrene	<0.534	<0.534	<0.534	100	10
1,1,1,2-Tetrachloroethane	<0.291	<0.291	<0.291	0.2	0.02
Tetrachloroethene	1.92J*	<b>52.8</b>	<0.4	5	0.5
1,2,4-Trimethylbenzene	<0.338	<0.338	<0.338	480	96
1,3,5-Trimethylbenzene	<0.31	<0.31	<0.31		
Toluene	<0.299	<0.299	<0.299	800	160
1,1,1-Trichloroethane	<0.349	<0.349	<0.349	200	40
1,1,2-Trichloroethane	<0.264	<0.264	<0.264	5	0.5
Trichloroethene	<0.439	<0.439	<0.439	5	0.5
Vinyl acetate	<1.01	<1.01	<1.01	-	-
Vinyl chloride	<0.316	<0.316	<0.316	0.2	0.02
m,p-Xylene	<0.31	<0.31	<0.31	-	-
o-Xylene	<0.349	<0.349	<0.349	-	-
Xylenes, Total	<0.66	<0.66	<0.66	2000	400

Notes: All results expressed as µg/L (parts per billion)  
ES NR140 Enforcement Standard (Exceedances in **bold**)  
PAL NR140 Preventive Action Limit (Exceedances in underline)  
- ES/PAL not established for this compound  
J Analyte detected between the Limit of Detection and Limit of Quantitation  
\* Not considered an exceedance per NR 140.14(3)

Table 4  
VOC Analytical Results - Sub-Slab Vapor  
One Hour Martinizing - Milwaukee / Wisconsin Auto Title Loans  
233/235 W. Layton Avenue  
Milwaukee, Wisconsin 53207

Sample Identification	VP-1	VP-2	Residential	Small Commercial	Large Commercial
Sample Type	SS	SS	Sub-Slab VRSL	Sub-Slab VRSL	Sub-Slab VRSL
Sample Date	5/1/2019	5/1/2019			
Sample Duration (Hours)	0.5	0.5			
<b>Volatile Organic Compounds (VOC) (Method: TO-15)</b>					
Carbon tetrachloride	<0.79	<0.79	160	670	2000
Chloroethane	<0.48	<0.48	333333	1466667	1000000
Chloroform	6.8	<0.36	3100	13000	39000
Chloromethane	<0.29	<0.29	3100	13000	39000
1,2-Dichlorobenzene	<0.91	<0.91	7000	29333	88000
1,4-Dichlorobenzene	<1.8	<1.8	87	367	1100
Dichlorodifluoromethane	2.3	2.3	3300	15000	44000
1,1-Dichloroethane	<0.41	<0.41	600	2600	7700
1,2-Dichloroethane	<0.27	<0.27	37	160	470
1,1-Dichloroethene	<0.50	<0.50	7000	29000	88000
cis-1,2-Dichloroethene	<0.40	<0.40	-	-	-
trans-1,2-Dichloroethene	<0.52	<0.52	-	-	-
Hexachloro-1,3-butadiene	<3.6	<3.6	43	187	560
Methylene Chloride	19.4	6.3J	21000	87000	260000
1,1,2,2-Tetrachloroethane	<0.53	<0.53	16	70	210
Tetrachloroethene	<b>18500</b>	<u>1510</u>	1400	6000	18000
1,2,4-Trichlorobenzene	<6.8	<6.8	70	293	880
1,1,1-Trichloroethane	4.1	11.9	170000	730000	2200000
1,1,2 -Trichloroethane	<0.46	<0.46	7	29	88
Trichloroethene	18.2	2.7	70	290	880
Trichlorofluoromethane	<0.67	<0.67	-	-	-
Vinyl chloride	<0.23	<0.23	57	930	2800

- Notes: All results expressed as µg/m<sup>3</sup>
- VRSL Vapor Risk Screening Level (November 2017 Version)
- Residential Sub-slab VRSL exceedances in underline (AF=0.03)
- Small Commercial Sub-slab VRSL exceedances in bold (AF=0.03)
- Large Commercial Sub-slab VRSL exceedances in bold and shaded (AF=0.01)
- Sub-slab VRSL not established for this compound
- J Analyte detected between the Limit of Detection and Limit of Quantitation