









OBG | There's a Way

May 3, 2017

Mr. John Feeney, Hydrogeologist Wisconsin Department of Natural Resources 1155 Pilgrim Road Plymouth, WI 53073

Subject: Supplemental Vapor Intrusion Assessment

Former Peters=Johnson Property (a.k.a. Gaslight Square and Corcoran Lofts Apartments) –

A Portion of the Former Third Ward MGP

425 East Menomonee Street and 444 East Corcoran Avenue, Milwaukee, Wisconsin

BRRTS # 02-41-000320 NRT Project No. 2357

Dear Mr. Feeney:

On behalf of WEC Energy Group – Business Services (WEC), Natural Resource Technology, Inc. (NRT, an OBG Company) is pleased to provide this Supplemental Vapor Intrusion (VI) Assessment letter report for the Former Peters=Johnson property (Property) located at 425 East Menomonee Street (Gaslight Square Apartments) and 444 East Corcoran Avenue (Corcoran Lofts Apartments) in the City of Milwaukee, Wisconsin. The Property is a portion of the former We Energies Third Ward MGP Site. The general property layout is depicted in Figure 1.

EXECUTIVE SUMMARY

In March 2017, an evaluation of the VI pathway was completed at the Property per the January 27, 2017 *Soil Vapor Investigation Work Plan* prepared by NRT. The assessment included exterior soil gas screening, interior building and parking garage ambient air screening as well as review of building construction details, previous soil remediation activities and recent groundwater data. The results of the exterior soil gas screening assessment indicate that sufficient clean, unsaturated, and aerated soil exists horizontally and vertically between the residual petroleum contamination and the Property buildings. In addition, the interior building and parking garage ambient air screening assessment did not identify any preferential VI pathways within the buildings. None of the building foundations or elevator pits are in contact with groundwater. Based on the results of these assessments coupled with the building construction and operating ventilation system, there is low probability for VI potential to the Gaslight Square and Corcoran Lofts buildings; therefore, VI can be ruled out as a complete exposure pathway at the Property.

PROPERTY AND BUILDING CONSTRUCTION INFORMATION

GASLIGHT SQUARE

The Gaslight Square apartment complex, which was completed in 2004, is comprised of three buildings surrounding an open central courtyard which is elevated above the street elevation. The Gaslight Square building foundations are constructed of 18-inch thick post-tension concrete. A review of the construction drawings prepared by Eppstein Uhen indicates that the elevators on the ground floor of each of the three Gaslight Square buildings are located approximately four feet above ground surface and the floors and walls of the pits are constructed of 12-inch thick concrete and externally lined with a moisture barrier. The elevator pits are four feet deep which makes the bottom of the elevator pits at approximately ground surface. Beneath the







central courtyard of the Gaslight Square buildings is a ground-level parking garage that is accessible by an overhead door located along East Menomonee Street. The parking garage is equipped with a carbon monoxide detection system and a ventilation system. Based on information provided by maintenance personnel, the ventilation system operates daily during peak traffic hours and additionally as needed in conformance with City and national building codes, based on the carbon monoxide concentrations within the parking garage (a minimum 5 out of 24 hours per day with 4-6 air exchanges per hour per code requirement). Commercial units are located in the northern most building adjoining East Menomonee Street and are directly accessible to the parking garage. There are limited ground-level residential units which are not open to or directly accessible from the parking garage.

CORCORAN LOFTS

The Corcoran Lofts building was constructed in 2010. The building foundation is constructed of 18-inch thick post-tension concrete. Review of the construction drawings prepared by Engberg Anderson indicates that the two elevator pits in the Corcoran Lofts building are approximately four feet below ground surface and the floors and walls of the pits are constructed of 12-inch thick concrete and externally lined with a moisture barrier. There is a two-level parking garage associated with the Corcoran Lofts which is accessible from East Corcoran Avenue. The parking garage is equipped with a carbon monoxide detection system and a ventilation system. Based on information provided by maintenance personnel, the ventilation system operates daily during peak traffic hours and additionally as needed in conformance with City and national building codes. There are no residential units located on the ground floor of the Corcoran Lofts property, and the limited commercial units located on the ground floor are not directly accessible from the garage.

PRIOR REMEDIAL ACTIVITIES

A summary of the remedial activities that have taken place was previously provided in the January 27, 2017 *Soil Vapor Investigation Work Plan* that was prepared by NRT. In general:

- Soil remedial activities for the Property were completed in August 1999.
- Impacted material was excavated to a minimum depth of seven feet below ground surface across the Property and the soil was thermally treated and used to backfill the open excavation.
- In their January 2015 Case Closure Request, ARCADIS indicates that groundwater is in an anaerobic state. Specifically, measured groundwater parameters indicate that anaerobic biological activity is occurring and that activity will continue to decrease contaminant concentrations in the groundwater. Recently measured methane concentrations in August 2016 by NRT support the occurrence of anaerobic biodegradation at well nest W-22S/I just south of the Property in the E. Corcoran Avenue right-of-way (methane ranging from 1,520 to 9,860 ug/L).
- Dense non-aqueous phase liquid (DNAPL) has historically been observed at well W-53D, which was constructed as a product recovery well and is located in the southern portion of the Gaslight Square parking garage, at a depth of typically greater than 30 feet below ground surface. DNAPL was pumped from the well on an approximate monthly basis from May 2004 to June 2008. Also, DNAPL was pumped from the well on March 6, 2017 just prior to the interior ambient air screening described below.

VAPOR INTRUSION BACKGROUND

The VI pathway at the Property is associated with potential exposure resulting from petroleum volatile organic compounds (PVOCs) emanating from subsurface sources and migrating through the soil column to potentially enter buildings through sumps, foundation walls, floor cracks, concrete expansion joints, etc. and being present



in human breathing space within structures. Regulatory guidance (WDNR, Publication RR-800 "Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin" and Interstate Technology & Regulatory Council (ITRC), October 2014 "Petroleum Vapor Intrusion Fundamentals of Screening, Investigation, and Management"), indicates that VI by PVOCs can be ruled out based on the presence of 5 feet of clean, unsaturated soil with an oxygen content of >5% and a methane content of <1% between the residual petroleum contamination and the building slab. However, further assessment of the VI pathway investigation should be undertaken if clean, aerated soils are not present or when any of the following conditions exist:

- Free-phase product that has the potential for off-gassing vapors underlies a building or is within 15 feet vertically or 30 feet horizontally of a building foundation.
- Petroleum contaminated soils with the potential for off-gassing vapors are within 5 feet or less of a building foundation.
- Benzene concentration in groundwater underlying a building is >1,000 ppb and there is less than 20 feet of unsaturated soil between the groundwater and the building foundation.
- Groundwater contaminated with petroleum product above Wisconsin's groundwater preventive action limit (PAL) is entering a building or in contact with the building's foundation, or is in water intercepted by the building's foundation drain system, including sumps.
- Petroleum vapors are present that may migrate from the petroleum source and move through preferential pathways (sewer lines, fractured bedrock, etc.) into a building.

The potential for petroleum impacted soils within 5 feet of the foundation (i.e., residual MGP-impacted soils located in the public right-of-way) and elevated benzene concentration in the groundwater, which may be within 20 feet of the foundation, exist at the Property. However, as agreed upon at the January 26, 2016 meeting with the WDNR, VI can be ruled out as a complete exposure pathway at the Property provided that clean (i.e., thermally treated), and sufficiently aerated soils are present beneath the building slab. In addition, the potential for VI is further mitigated due to the building construction methods (post-tension slab) and ongoing operation of the parking garage ventilation system. Therefore, the VI pathway was assessed by installing and screening exterior soil gas probes to evaluate whether there is a sufficient layer of clean, biologically active soil to degrade vapor-phase petroleum compounds prior to entering the building. Additionally, an interior ambient air and VI screening assessment was also completed.

SUBSURFACE CONDITIONS ASSESSMENT

EXTERIOR SOIL GAS SCREENING PROCEDURES

Prior to mobilization for the exterior gas intrusion assessment, permit applications to work in the city right-of-way were completed and approved by the City of Milwaukee and Wisconsin Diggers Hotline was contacted to mark public utilities. On March 7, 2017, ten temporary soil gas probes were installed in the public right-of-way around the Property to determine if 5 feet of clean unsaturated/aerated soil is present per the WDNR vapor guidance. The probes were installed at least 5 feet horizontally from the buildings as well. The soil gas probe locations around the Property are depicted on Figure 1 and include:

- Two soil gas probes were installed in the southern right-of-way of East Menomonee Avenue.
- Two soil gas probes were installed in the western right-of-way of North Jefferson Street.
- Two soil gas probes were installed in the northern right-of-way of East Corcoran Avenue (south of the Corcoran Lofts building).



- Two soil gas probes were installed in the eastern right-of-way of North Milwaukee Street.
- In addition, two soil gas probes were also installed along the eastern property line of the Patsy & Paul building in the western right-of-way of North Milwaukee Street.

A track mounted Geoprobe[™], which is a hydraulic soil probe system, was used to install borings and collect continuous soil samples from each soil boring from the ground surface to a depth of approximately 5 feet below ground surface. Soil samples were collected at one-foot intervals, logged for soil type and visual description, and field screened using a photoionization detector (PID). The soil encountered during the installation consisted of fill material comprised of sand, silt, clay, gravel, bricks, and thermally treated soil. Visual observations of the soil samples did not indicate visible hydrocarbon impacts at any of the locations and no discernable hydrocarbon odors were noted. Groundwater was not encountered at the boring locations.

Soil gas probes were constructed in each borehole using of ¼-inch solid Teflon tubing cut to length and connected to a six-inch long stainless steel sampling screen. Filter pack sand was placed in the borehole to approximately three inches above the sampling screen and wetted granular bentonite was used to fill and seal the remainder of the borehole. The tubing associated with the soil gas probes was fitted with a valve for purging and sampling. The soil gas probes were allowed to stabilize at least 24 hours prior to sampling. Boring logs for the soil vapor sampling points are included in Appendix A.

On March 8, 2017, NRT returned to the Property to purge and screen the ten soil gas probes. Prior to screening, a leak test was performed for each soil gas location to ensure that the probe assembly was properly set and not leaking. The leak test entailed placing a plastic shroud filled with helium tracer gas over the soil gas probe while collecting one liter of purged soil gas in a Tedlar^M bag. The shroud atmosphere was continuously monitored for the presence of helium using a Dielectric MGD 2002 Helium Detector and the final helium concentration inside the shroud was multiplied by 10 percent (0.1) to determine the allowable concentration of helium in the Tedlar $^{\text{M}}$ bag sample. According to NRT's Standard Operating Procedure (SOP), if the helium within the Tedlar bag exceeded the allowable concentration, corrective actions including checking and tightening all connections and otherwise enhancing the seal should be performed in the field to reduce infiltration of ambient air. Once the leak test was performed, a liter of soil gas was purged from each location and screened for oxygen (O_2), carbon dioxide (O_2), and methane (O_2), with a Landtec GEM 2000 Landfill Gas Meter. Field screening results were recorded on the appropriate field form and the probes were properly abandoned following collection of representative samples for screening measurements.

EXTERIOR SOIL GAS SCREENING RESULTS

The results of the soil gas screening are as follows:

- Approximately 2 liters of soil gas was purged from each location.
- Helium tracer gas was not detected in any of the purged samples which indicates that the soil gas samples were representative of sub-surface soil gas.
- Oxygen was detected at concentrations that ranged from 18.6% to 21.7%.
- Carbon dioxide was detected at concentrations that ranged from 0.3% to 2.3%.
- Methane was not detected in any soil gas sample.

The soil gas screening results are summarized on Table 1.



INTERIOR POTENTIAL PREFERENTIAL VI PATHWAYS ASSESSMENT

INTERIOR AMBIENT AIR SCREENING PROCEDURES

On March 7 and 8, 2017, NRT completed an interior building and parking garage screening survey at both the Gaslight Square and Corcoran Lofts apartment buildings in order to assess the potential preferential VI pathways for these buildings. As part of the screening survey, the ambient air was screened with a 10.6 eV MiniRAE 3000 photo-ionization detector. The weather conditions during the survey included partly cloudy skies, around 45 degrees Fahrenheit, and very windy conditions with wind gusts of up to 50 miles per hour. The survey took place during early afternoon hours while traffic entered and exited the garages.

The ambient air readings for first floor building common spaces (including vestibules, lobbies, hallways, elevators, and stairwells) and parking garages (including storage rooms, trash rooms, and utility rooms) for both buildings were recorded. In addition, readily accessible surface penetrations such as floor drains, cracks in the floor, and pipe penetrations for both buildings were identified, documented, and screened. Pipe penetrations were observed in both parking garages near the exterior walls and adjacent to several interior concrete support columns. In addition, several floor drains and storm drains were observed in both garages. Outdoor ambient air readings were also recorded adjacent to the entrances to each lobby. The different common spaces and the PID results are indicated on Figure 2. A smoke pen was used to assess air flow directions between the first floor common spaces and the parking garages for both buildings.

INTERIOR AMBIENT AIR SCREENING RESULTS

During the building survey, no interior sources of volatile organic compounds, with the exception of well W-53D (product recovery well), were noted. However, interior storage areas were locked and so the contents of these areas were not assessed. The ambient air readings recorded for the interior common spaces are summarized on Table 2. Due to the size of the parking garages and the number of readings recorded, the Gaslight Square parking garage was divided into four quadrants (northwest, northeast, southwest, and southeast quadrants) and the Corcoran Lofts parking garage was divided into two quadrants (east and west quadrants). The ambient air readings recorded for parking garages are summarized on Table 3. The ambient air PID screening results of the interior building screening are as follows:

- Gaslight Square common areas (lobbies, vestibules, elevators, etc.): 0.0 ppm
- Gaslight Square hallways and stairways: 0.0 ppm
- Gaslight Square parking garage: 0.0-0.8 ppm
- Gaslight Square recovery well (W-53D) just above the flushmount cover: 18.0 ppm
- Gaslight Square trash, utility, and storage rooms: 0.1-0.3
- Corcoran Lofts common areas (lobbies, vestibules, elevators, etc.): 0.0 ppm
- Corcoran Lofts hallways and stairways: 0.0 ppm
- Corcoran Lofts parking garage: 0.0 ppm
- Corcoran Lofts trash, utility, and storage rooms: 0.0 ppm

The interior building and parking garage ambient air screening assessment did not identify preferential VI pathways such as cracks or drains within the buildings that had elevated PID screening results. In general, slightly lower ambient air readings were recorded in the northern portion of the Gaslight Square parking garage



which is likely due to dilution of the garage air when the overhead doors are opened for automobile traffic. No significant readings were recorded during the assessment of the Corcoran Lofts parking garage.

In addition, a smoke pen was used to assess the air flow movement between indoor spaces. In general, the air flow direction was observed to flow from the parking garages into the lobbies and elevator shafts in both buildings. The exterior air flowed from outside the building into the indoor common spaces such as the vestibules and hallways and into the building lobbies. The air flow direction was identified as moving from the parking garage into both tenant spaces in the Gaslight Square building. Windy conditions observed during the assessment may have had an impact on air flow direction; however, the overall observations made during the assessment indicate positive pressure in the parking garages for both buildings. The air flow direction for both buildings is summarized in Table 4.

FINDINGS AND CONCLUSIONS

FINDINGS

Building Construction:

- The Gaslight Square and Corcoran Lofts building foundations were constructed of approximately 18-inch thick post-tension concrete.
- The Gaslight Square and Corcoran Lofts buildings are constructed above approximately seven feet of the previously remediated (via thermal desorption) soil that was reused as backfill material.
- The elevator pits at the Gaslight Square buildings are constructed of 12-inch thick concrete and externally lined with a moisture barrier. The bottoms of the elevator pits are at approximately ground surface and are not in contact with groundwater.
- The Corcoran Lofts building elevator pits are approximately 4 feet below ground surface and the floors and walls of the pits are constructed of 12-inch thick concrete and externally lined with a moisture barrier. Recent February 2017 groundwater elevation measurements collected in the vicinity of the buildings indicate that groundwater levels in the area of the Property are between 6 and 9 feet below ground surface. The bottoms of the elevator pits are therefore approximately 2 to 3 feet above the groundwater table and are not in contact with groundwater.

Exterior Soil Gas Screening Assessment Results:

- Fill material consisting of sand, silt, clay, gravel, bricks, and thermally treated soil to a depth of 5 feet below ground surface was observed around the Property.
- Visual observations of the soil samples did not indicate visible hydrocarbon impacts at any of the locations and no discernable hydrocarbon odors were noted.
- Soil gas screening results identified the presence of oxygen at concentrations between 18.6% to 21.7% and carbon dioxide concentrations that ranged from 0.3% to 2.3%.
- Methane was not detected in any soil gas sample.
- The conditions for aerobic biodegradation of petroleum compounds exists to 5 feet below ground surface around the building foundations.



Interior Ambient Air Screening Assessment Results:

- No interior sources of volatile organic compounds, with the exception of well W-53D, were noted. DNAPL was pumped from the well on March 6, 2017 (one day prior to the interior ambient air screening), which likely accounts for the slightly higher PID reading just above the well cover.
- No preferential VI pathways (floor drains, cracks in the floor, or pipe penetrations) were identified within the buildings as having elevated PID screening results.
- No elevated PID readings were recorded in the interior building common spaces (including vestibules, lobbies, hallways, elevators, and stairwells) or the parking garages (including storage rooms, trash rooms, and utility rooms) in either building with the exception of well W-53D (18.0 ppm).
- In general, slightly lower ambient air readings were recorded in the northern portion of the Gaslight Square parking garage in the vicinity of the overhead doors.
- Air flow observations indicated positive pressure in the parking garages and interior building areas.

CONCLUSIONS

The Gaslight Square and Corcoran Lofts building foundations consist of approximately 18-inch thick post-tension concrete and the buildings are constructed above approximately seven feet of the previously remediated soil. None of the building foundations or elevator pits are in contact with groundwater. The results of the exterior soil gas screening assessment indicate that sufficient clean, unsaturated, and aerated soil with an oxygen content of >5% and a methane content of <1% exists horizontally and vertically between the residual petroleum contamination and the Property buildings. In addition, the interior building and parking garage ambient air screening assessment did not identify any preferential VI pathways within the buildings. Since the building foundations and elevator pits are not in contact with groundwater and based on the results of the assessments, there is low probability for VI potential to the Gaslight Square and Corcoran Lofts buildings; therefore, VI can be ruled out as a complete exposure pathway at the Property.

Principal Engineer

Sincerely,

NRT | An OBG Company

Andrew G. Cawrse

Environmental Scientist

Julie A. Zimdars, PF Principal Engineer

cc: Mr. Frank Dombrowski, WEC Energy Group



ATTACHMENTS:

Tables

Table 1	Soil Gas Probe Screening Results
Table 2	Interior Building Ambient Air Screening
Table 3	Parking Garage Ambient Air Screening
Table 4	Indoor Air Flow Direction

Figures

Figure 1 Soil Gas Probe Locations

Figure 2 Interior Ambient Air Screening Results

Appendices

Appendix A Boring Logs



Tables

OBG

Table 1. Soil Gas Probe Screening Results

WBS/We Energies - Peters=Johnson
Gaslight Square and Corcoran Lofts
425 East Menomonee Street and 444 East Corcoran Avenue, Milwaukee, WI
BRRTS 02-41-000320

Soil Gas Probe	Installation Date	Sample Date	Probe Depth	Purge Volume	Helium (He)	Oxygen (O ₂)	Carbon Dioxide (CO ₂)	Methane (CH ₄)
Soli Gas Frobe	ilistaliation Date	Sample Date	(ft bgs)	(Liters)	(%)	(%)	(%)	(%)
SV01	3/7/2017	3/8/2017	4.5-5.0	2.0	0.0	20.9	0.3	0.0
SV02	3/7/2017	3/8/2017	4.5-5.0	2.0	0.0	20.7	0.7	0.0
SV03	3/7/2017	3/8/2017	4.5-5.0	2.0	0.0	21.1	0.4	0.0
SV04	3/7/2017	3/8/2017	4.5-5.0	2.0	0.0	18.6	2.3	0.0
SV05	3/7/2017	3/8/2017	4.5-5.0	2.0	0.0	19.1	1.8	0.0
SV06	3/7/2017	3/8/2017	4.5-5.0	2.0	0.0	21.1	0.3	0.0
SV07	3/7/2017	3/8/2017	4.5-5.0	2.0	0.0	21.7	0.5	0.0
SV08	3/7/2017	3/8/2017	4.5-5.0	2.0	0.0	20.9	0.5	0.0
SV09	3/7/2017	3/8/2017	4.5-5.0	2.0	0.0	20.5	0.8	0.0
SV10	3/7/2017	3/8/2017	4.5-5.0	2.0	0.0	20.6	0.5	0.0

(O:AGC 4/7/17, C:JFK 4/18/17)

WDNR/ITRC Screening Criteria

Oxygen content > 5%
Methane content < 1%

Notes:

He screened with Dielectric MGD 2002 Helium Detector O_2 , CO_2 , CH_4 screened with Landtec GEM 2000 Landfill Gas Meter ft = feet

bgs = below ground surface



Table 2. Interior Building Ambient Air Screening

WBS/We Energies - Peters=Johnson
Gaslight Square and Corcoran Lofts
425 East Menomonee Street and 444 East Corcoran Avenue, Milwaukee, WI
BRRTS 02-41-000320

Gaslight Square				PID Screenin	g Results (ppm)		
Interior Building Location	Screening Date	Outdoor Ambient Air	Vestibule	Lobby	Clubroom	Elevator Pit	Parking Garage
North Lobby	3/7/2017	0.0	0.0	0.0	0.0	0.0	0.2
East Lobby	3/7/2017	0.0	0.0	0.0	NA	0.0	0.2
West Lobby	3/7/2017	0.0	0.0	0.0	NA	0.0	0.2

Corcoran Lofts			PID Scr	eening Results	s (ppm)	
Interior Building Location	Screening Date	Outdoor Ambient Air	Vestibule	Lobby	Elevator Pit	Parking Garage
South Lobby - 1st Floor	3/7/2017	0.0	0.0	0.0	0.0	0.0
South Lobby - 2nd Floor	3/7/2017	0.0	0.0	0.0	0.0	0.0

(O:AGC 4/7/17, C:JFK 4/18/17)

Notes:

Screening completed with 10.6 eV MiniRAE 3000 photo-ionization detector

Parking garage readings recorded immediately outside the lobby doors in the parking garages

ppm = Parts per million

NA = Not applicable



Table 3. Parking Garage Ambient Air Screening

WBS/We Energies - Peters=Johnson
Gaslight Square and Corcoran Lofts
425 East Menomonee Street and 444 East Corcoran Avenue, Milwaukee, WI
BRRTS 02-41-000320

Gaslight Square				Range of PID Scree	ning Results (ppm)		
Interior Building Location	Screening Date	Garage Ambient Air	Storm/Floor Drains	Surface Penetrations	Trash Rooms	Utility Rooms	Monitoring Well (W-53D)
Northwest Quadrant	3/7/2017	0.0-0.2	0.0-0.2	0.0-0.2	0.2	0.1	NA
Northeast Quadrant	3/7/2017	0.1-0.8	0.0-0.3	0.1-0.2	0.1	0.1	NA
Southeast Quadrant	3/7/2017	0.2	0.0-0.3	0.1-0.3	0.2	0.2-0.3	18.0
Southwest Quadrant	3/7/2017	0.2	0.1-0.2	0.1-0.2	0.1	0.2-0.3	NA

Corcoran Lofts		Range of PID Screening Results (ppm)											
Interior Building Location	Screening Date	Garage Ambient Air	Storm/Floor Drains	Surface Penetrations	Trash Rooms	Utility Rooms							
East Quadrant - 1st Floor	3/7/2017	0.0	0.0	0.0	0.0	0.0							
West Quadrant - 1st Floor	3/7/2017	0.0	0.0	0.0	0.0	0.0							
East Quadrant - 2nd Floor	3/7/2017	0.0	0.0	0.0	0.0	0.0							
West Quadrant - 2nd Floor	3/7/2017	0.0	0.0	0.0	0.0	0.0							

(O:AGC 4/7/17, C:JFK 4/18/17)

Notes:

Screening completed with 10.6 eV MiniRAE 3000 photo-ionization detector ppm = Parts per million

NA = Not applicable

Table 4. Indoor Air Flow Direction

WBS/We Energies - Peters=Johnson
Gaslight Square and Corcoran Lofts
425 East Menomonee Street and 444 East Corcoran Avenue, Milwaukee, WI
BRRTS 02-41-000320

Gaslight Square	!							
North Office/Lob	by		East Lobby			West Lobby		
Parking Garage	\rightarrow	Lobby	Parking Garage	\rightarrow	Lobby	Parking Garage	\rightarrow	Lobby
Vestibule	\rightarrow	Lobby	Vestibule	\rightarrow	Lobby	Vestibule	\rightarrow	Lobby
Outdoor Air	\rightarrow	Vestibule	Outdoor Air	\rightarrow	Vestibule	Outdoor Air	\rightarrow	Vestibule
Lobby	\rightarrow	Elevator	Lobby	\rightarrow	Elevator	Lobby	\rightarrow	Elevator
Outdoor Air	\rightarrow	Clubroom						
North Stairwell			East Stairwell			West Stairwell		
Parking Garage	\rightarrow	Stairwell	Parking Garage	\rightarrow	Stairwell	Parking Garage	\rightarrow	Stairwell
Outdoor Air	\rightarrow	Stairwell	Outdoor Air	\rightarrow	Stairwell	Outdoor Air	\rightarrow	Stairwell
North Auto Exit		_	411 E. Menomo	nee	Ave.	415 E. Menomor	nee	Ave.
Parking Garage	\rightarrow	Outdoor Air	Parking Garage	\rightarrow	Tenant Space	Parking Garage	\rightarrow	Tenant Space

Corcoran Lofts					
North Lobby			2nd Floor Lobby	у	
Parking Garage	\rightarrow	Lobby	Parking Garage	\rightarrow	Lobby
Vestibule	\rightarrow	Lobby	Lobby	\rightarrow	Elevators
Outdoor Air	\rightarrow	Vestibule			
Lobby	\rightarrow	Elevators			
East Stairwell			West Stairwell		
Outdoor Air	\rightarrow	Hallway	Outdoor Air	\rightarrow	Hallway
Tenant Space	\rightarrow	Hallway	Tenant Space	\rightarrow	Hallway
Hallway	\rightarrow	Stairwell	Hallway	\rightarrow	Stairwell
Parking Garage	\rightarrow	Stairwell	Parking Garage	\rightarrow	Stairwell

(O:AGC 4/7/17, C:JFK 4/18/17)

Notes:

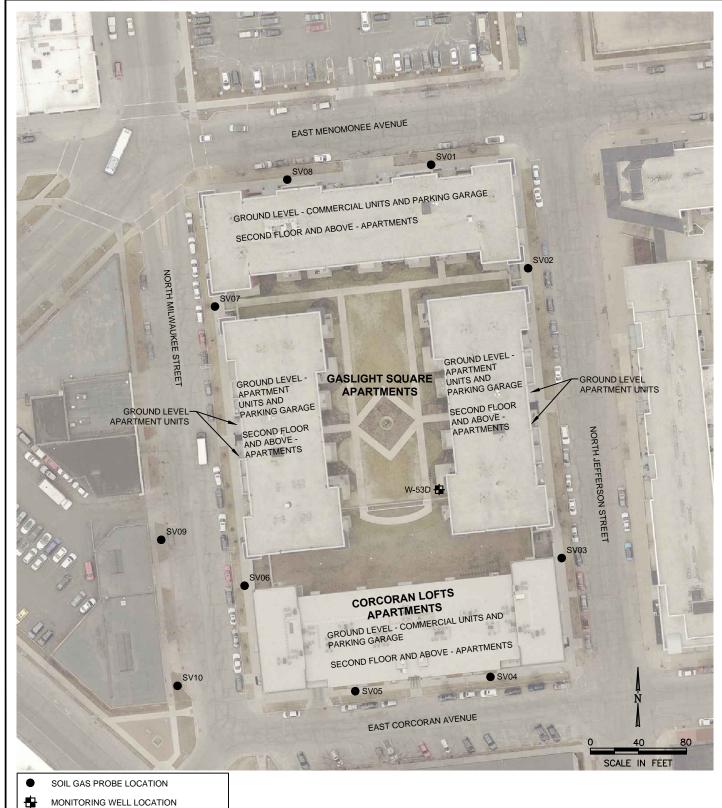
Air flow movement was assessed using a smoke pen

 \rightarrow = Air flow direction



Figures

OBG



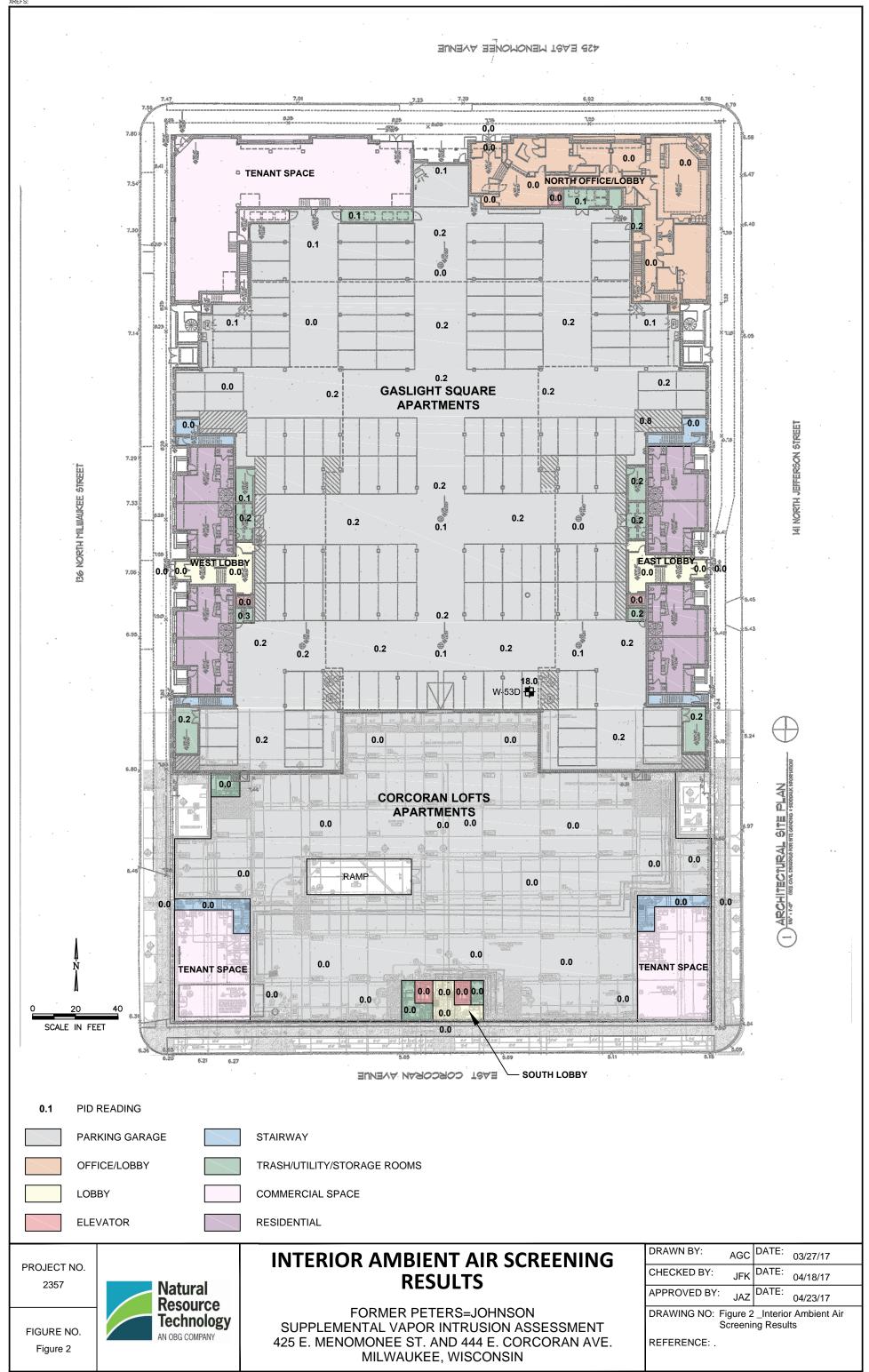


SOIL GAS PROBE LOCATIONS

FORMER PETERS=JOHNSON SUPPLEMENTAL VAPOR INTRUSION ASSESSMENT 425 E. MENOMONEE ST. AND 444 E. CORCORAN AVE. MILWAUKEE, WISCONSIN

PROJECT NO. 2357

FIGURE NO.



Appendix A
Boring Logs

OBG

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

			Ro	oute To:		Wastewater			_	ement								
					Remediation	n/Redevelop	oment 🗵	Other	Ш									
															Pag		of	1
	y/Proje			MCD	Former Per	ore—Iohne	non.	License	Permit,	/Monito	ring Nu	ımber		Boring	$_{ m SV0}$			
					hief (first, last)		5011	Date Dr	illing S	tarted		Dat	e Drilli				Drilli	ing Method
	ch Par		nin a	Ina					2/7	2017				3/7/2				eoProbe
WI Ur	tra En ique W	ell No			Well ID No.	Common	Well Name	Final St			el S	Surface	Elevat		017	Во		Diameter
	-								Feet I	MCD				t MCl			1.5	inches
Local State	Grid Or	igin	☐ (e	stimated:	: 🗌) or B N,		on ⊠ ′C/N	1.	at	0	,	,, []	Local C	Grid Lo				
State	1/4	of		1/4 of Sec		_	N, R	Lon		0	,	"		Fee	l □ N t □ S		Ţ	□ E Feet □ W
Facilit		01		174 01 50	County	1 1	. 1, IX	County Co		Civil T	own/Ci	ty/ or V	/illage	100	· 🗀 5			- CCI - W
241	49653	80			Milwauke	e		41		Milw	aukee	:						
San	nple											dun		Soil	Prope	erties		
	& (in)	ts	set			/Rock Descr	-					PID 10.6 eV Lamp	e, ce					
r pe	Att.	Joun	ln Fe			Geologic Ori	_		S	ွ	 E	.6 e	essiv h (ts	5 t		ity		ents
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet		E	Each Major U	Jnit		SC	Graphic Log	Well Diagram	D 10	Compressive Strength (tsf)	Moisture Content	Liquid Limit	Plasticity Index	200	RQD/ Comments
N R	Le	Bl	Ď	0 11		JEDED COL	NODETE: //	ГПТ	Þ	Grap Log	≱ Ö	PI	S _E	Σŏ	ĒĒ	Pla	P.	R C
			E	Sidew	FILL, WEATI valk.	TERED COI	NCREIE. (rill),	(FILL)									
1 □	24		-1	1 2'	FILL, SILTY	CAND: SM	Black					0						
1 CS	16		E	1-2	FILL, SILT	SAND. SIVI,	DIACK.		SM			U						
			-2	2 - 5'	FILL, SAND		V WITH G	DAVEL -	- - -			0						
			E		g, brown, trac			NAVEL.				U						
2	24		-3									0						
2 CS	18		E						s(CL)			0						
			-4									0						
			E															
L			_5	4.9' d	lark brown.			/	-	7/2								
					d of Boring.													
I herel	y certif	y that	the info	ormation	on this form is	true and cor	rect to the be	est of my k	nowled	ge.								
Signat	ure /	1	^				Firm Nati	ural Reso	ource	Techn	ologv				Tel	: (414)	837-36	07
	U	ndre	w Co	inse			234	W. Florida	Street,	Floor 5.	Milwa	ukee, V	VI 532	04		: (414)		

234 W. Florida Street, Floor 5, Milwaukee, WI 53204 Fax: (414) 837-3608

Date Modified: 3/22/2017 Template: WDNR SBL 1998 MKE ADDRESS - Project: 2357_ALL_PROPERTIES.GPJ
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.

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

			Ro	oute To:	Watershed/V	Vastewater		Waste !	Manage	ement								
					Remediation	/Redevelopment 🗵]	Other										
															Pag	re 1	of	1
Facilit	y/Proje	ct Nam	ne					License/	Permit/	'Monito	ring N	umber		Boring	_			-
					Former Pete										SV02			
		-	Name o	of crew ch	nief (first, last) a	nd Firm		Date Dri	lling St	arted		Da	te Drilli	ng Con	npleted		Drill	ing Method
	ch Pai tra En		rino	Inc					3/7/	2017				3/7/2	017		Ge	eoProbe
WI Ur	nique W	ell No			Well ID No.	Common Well Na	me	Final Sta			el	Surfac	e Elevat		017	Во		Diameter
	•								Feet N	ИCD			Fee	t MCl	D		1.5	inches
	Grid Oı	rigin	(e	stimated:		ring Location 🖂			,	0	,	"	Local C	Grid Lo	cation			
State					N,	E S/C/N		La						_				□Е
Facilit	1/4	of		1/4 of Sec	ction , County	T N, R	- 1	Long County Co				ity/ or	Village	Fee	t 🗌 S		I	Feet W
	у во 49653	30			Milwaukee			41	de	Milw		-	village					
	nple				1viii vaakee			11			laket		Τ	Soil	Prope	erties		
	T	-			Soil/F	Rock Description						Lam						
	tt. & d (ir	ınts	Feet			eologic Origin For						eV]	ive (tsf)					×
oer ype	h A	Cor	I In			ch Major Unit			S	nic.	am	9.0	oress gth (ure	-5	city	_	, nent
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet		La	en major emit			SC	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength (tsf)	Moisture Content	Liquid Limit	Plasticity Index	200	RQD/ Comments
<u> </u>	R	<u> </u>		0-07	7' FILL WEAT	HERED CONCRET	ΓF: Λ	(FILL)	D	Q 4 +	7 A	Ь	S	20		ПП	Ь	R C
_			_						(FILL)									
1 CS	24 8		-1		4.5' FILL, SILT , brown.	Y SAND WITH GR	AVE	L:		9 4	ì	0						
				(Sivi)g	, DIOWII.													
			-2															
			F _						(0.1)			0						
2 CS	24		_3						(SM)g	וון ואי								
CS	12											0						
			F ,							Шр								
			_4	4.01	allano la dala fan f	211						0						
3	4		_		ellow brick for 3	Y LEAN CLAY: s(C	<u></u> _ c	/ dark	s(CL)		1							
3 CS	2		-5	brown	, trace gravel a	nd bricks, moist.					1	1						
				5' End	d of Boring.													
	-	fy that	the info	ormation o	on this form is t	rue and correct to th	e bes	st of my kı	nowled	ge.								
Signat	ure /			n //####		Firm N	Vatu	ral Resc	urce '	Techn	ology	,			Tel:	(414)	837-36	07

Fax: (414) 837-3608

Date Modified: 3/22/2017 Template: WDNR SBL 1998 MKE ADDRESS - Project: 2357_ALL_PROPERTIES.GPJ
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.

234 W. Florida Street, Floor 5, Milwaukee, WI 53204

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

			R	oute To:		Wastewater	_		_	ement								
					Remediation	n/Redevelopment	\boxtimes	Other										
E 111	/D :	4 NT						T .	(D. :	(D. #		1		D :	Pag		of	1
	y/Proje mer T			MGP -	Former Peter	ers=Iohnson		License/	Permit	Monito	ring N	umber		Boring	SV0			
					hief (first, last)			Date Dri	illing St	tarted		Da	ate Drilli				Drilli	ing Method
	ch Par			т					2/7/	0017				2/7/2	017			. D I
	stra En nique W				Well ID No.	Common Well N	ame	Final Sta		2017 ter Leve	el	Surfac	ce Eleva	3/7/2	017	Во	- 1	eoProbe Diameter
	•								Feet N	MCD				t MCl	D			inches
	Grid Or Plane	rigin	(e	estimated:	: 🗌) or Bo N,	ring Location 🖂 E (S)/C/N		La	at	0	,	"	Local C	Grid Lo	_	,		
State	Piane 1/4	of		1/4 of Sec	*	E S/C/N T N, R		Lon		0	,	"		Fee	l □ N t □ S		ī	☐ E Feet ☐ W
Facilit	y ID			17 + 01 50	County	1 11,10	(County Co				-	Village	- 100	<u> </u>			- сет 🗀 🗤
	49653	80	1		Milwaukee			41		Milw	auke			~				
Sar	nple											PID 10.6 eV Lamp		Soil	Prope	erties		
	t. & I (in)	nts	eet			Rock Description						No.	ive tsf)					100
er ype	h At vereα	Cou	Inl			eologic Origin For ach Major Unit			S	nic	am	0.6	gth (ure	-	city		/ nent
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet		La	en Major Onit			USC	Graphic Log	Well Diagram	, 1 Of	Compressive Strength (tsf)	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	I			0 - 0.	.5' FILL, WEAT	HERED CONCRE	TE: ((FILL).	(FILL)	1.4. 4. · · ·				20	1 1	H		<u> </u>
1 CS	24		E	0.5 -	1' FILL, SILTY	CLAY CL/ML, dar	rk bro	wn to	CL/ML									
CS	18		-1		, some gravel.	CLAY CL/ML, light	browr	/ n.	01 /041			0						
- 1			_2			_			CL/ML									
			-		FILL, SILTY Sinders.	AND: SM, black, t	trace	gravel				0						
2 CS	24 22		_3						SM		:							
- 1			E								:	0						
- 1			-4	1 1	E'EUL QUTV	CLAY CL/ML, ligh	at bro	1470				0						
3	6		E			SAND: SM, dark			CL/ML	-								
3 CS	3		-5	black,	, trace clay.	CAND: OW, dark	DIOWI	/	SM									
				5' En	d of Boring.													
	-	y that	the inf	ormation	on this form is	true and correct to the												
Signat	ure A	ndre	w C	mrse		Firm	Natu	ral Reso	ource '	Techn	ology	/ nukee	W/I 522	04		(414)		

Template: WDNR SBL 1998 MKE ADDRESS - Project: 2357_ALL_PROPERTIES.GPJ

Fax: (414) 837-3608

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.

234 W. Florida Street, Floor 5, Milwaukee, WI 53204

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

			Ro	ute To:	Waters	shed/Was	tewater			Manage	ement								
					Remed	liation/Re	developm	nent 🛚	Other										
																Pag		of	1
	y/Proje								License	/Permit/	Monito	ring Nu	mber		Boring			,	
							Johnso	n	D . D	'11' G	. 1		l 5	D :11:		SV0		TD 111	
_		-	Name o	f crew ch	ief (first,	last) and	Firm		Date Dr	illing St	arted		Dat	e Drilli	ng Con	npleted		Drill	ing Method
	ch Pai tra Er		ering,	Inc.						3/7/	2017				3/7/2	017		G€	eoProbe
	ique W				Well ID N	lo. C	ommon V	Vell Name	Final St			el S	Surface	Elevat			Во		Diameter
										Feet N	ИCD				t MCI			1.5	inches
	Grid Oı	rigin	(es	stimated:	_	_	Location		_T	at	0	,	,,]	Local C	Grid Lo				
State 1	Piane 1/4	o f	1	/4 of Sec		N, E	\$/C				0	,	,,		Faa	□ N t □ S		1	☐ E Feet ☐ W
Facilit		01			County	Т	N,		Lor County C		Civil T	own/Ci	 ty/ or \	/illage	1.66	ı 🗆 S			reet 🗀 w
	49653	30			Milwau	ıkee			41			aukee	-	J					
San	nple							<u> </u>					du		Soil	Prope	erties		
	& in)		#			Soil/Roc	k Descrip	tion					PID 10.6 eV Lamp						
o	Length Att. & Recovered (in)	Blow Counts	Depth In Feet		A	and Geolo	ogic Origi	n For					eV (ssive (tsf	Moisture Content		>		ıts
Number and Type	gth /	ζ ×	th In			Each I	Major Uni	it		CS	ohic	Well Diagram	10.6	npres	sture	it it	Plasticity Index	0	RQD/ Comments
Nun and '	Leng	Blov	Depi							S U	Graphic Log	Well Diagr	PID	Con	Moi	Liquid Limit	Plasi	P 200	RQI
			F	0 - 0.5	5' FILL, V	VEATHE	RED CO	NCRETE:	(FILL).	(FILL)	(A) (4) +			0 01					
1 CS	24		E					ED GRAVE	EL .	(GP)s									
cs	20		-1		SAND: (H GRAVEL	/	′	9 4		0						
Ш			F	(SM)g	, black.	ILI I SA	MD WILL	IGNAVEL	•										
Ш			-2							(SM)g	IIIIP)		0						
2 H	24		-								l d l								
2 CS	22		-3	3 5'1	EII I EII	TV CL AY	V CL/MI	, brown, tra					0						
			E	gravel		.II CLA	I CL/IVIL	, DiOWii, lia	Ce				U						
Ш			-4							CL/ML			•						
. H			F									a La	0						
3 CS	6 4		E_5	│ ├ 4.8' m	oist.														
					d of Borin	g.													
	-	fy that	the info	rmation o	on this for	rm is true	and corre	ect to the be	st of my k	nowled	ge.								
Signat	ure /	1		wse					ral Res									837-36	
	U	nare	w Ca	wrse				234 V	V. Florida	Street, 1	Floor 5,	Milwa	ukee, V	VI 532	04	Fax:	(414)	837-36	808

Date Modified: 3/22/2017

234 W. Florida Street, Floor 5, Milwaukee, WI 53204 Fax: (414) 837-3608

Template: WDNR SBL 1998 MKE ADDRESS - Project: 2357_ALL_PROPERTIES.GPJ

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.

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

			Ro	oute To:	Watershed/V	Vastewater]	Waste 1	Manage	ement										
					Remediation	/Redevelopme	nt 🛚	Other												
															Pag	re 1	of	1		
Facilit	y/Proje	et Nam	ne					License/	Permit/	'Monito	ring N	umber		Boring	Numbe			1		
				MGP -	Former Pete	rs=Johnson								SV05						
Boring	g Drilleo	l By:	Name o	of crew ch	nief (first, last) a	and Firm		Date Dri	lling St	arted		Da	te Drilli	ng Con	npleted	Drill	ing Method			
	ch Par																			
	tra En			Inc.		1	44.5.5			2017		~ 2	3/7/2017					GeoProbe		
WI Ur	nique W	ell No		DNR V	Well ID No.	Common We	ell Name	Final Sta	Surfac	e Elevat		D	rehole Diameter 1.5 inches							
Local	Crid Or	igin		etimeted:	Or Po	\square	J	Feet N	VICD			Feet MCD Local Grid Location					ıncnes			
Local Grid Origin ☐ (estimated: ☐) or Boring Location State Plane N, E (S)/C/N									t	0	<u>'</u>		Local	JIIG LO						
State	1/4	of		1/4 of Sec	· · · · · · · · · · · · · · · · · · ·	T N, R		Long	o	0	•	"		Fee	l □ N t □ S		I	☐ E Feet ☐ W		
Facilit		-			County	1 1,,1,		County Co		Civil T	own/C	ity/ or	Village							
241	49653	80			Milwaukee			41		Milw	aukee	9								
San	nple						·					du		Soil	Prope	erties				
	& n)		+		Soil/I	Rock Description	on					Lar								
	tt. ¿	unts	Fee			eologic Origin						eV	sive (tsf)					ts		
ber 「ype	th A	သို	h In			ch Major Unit			CS	hic	ram	10.6	pres	ture	.g _	icity		/ mer		
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet						O S O	Graphic Log	Well Diagram	PID 10.6 eV Lamp	Compressive Strength (tsf)	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments		
<u></u>	I H	Щ		0 - 0.	5' FILL, WEAT	HERED CON	CRETE:	(FILL).	(FILL)	1.44 +		Щ		20		дд		<u> </u>		
1 ∏	24		-		0.8' FILL, POC															
CS	20		-1	-\WITH	SAND: (GP)s	white.		/г	(SM)g			0								
			E	0.8 - 1	1' FILL, SILTY , black.	SAND WITH	GRAVEL:	: /												
			-2		FILL, SILTY C	LAY CL/ML, r	eddish br	own,												
			F	trace of	gravel.			•	CL/ML			0								
2 CS	24 12		_3	2.3 0	rganics for for	۷.														
			_3									0								
			- .																	
			- 4	4 - 5'	FILL, SILTY C	LAY CL/ML, b	orown.				ا.	0								
3 CS	6		E	4.71	:				CL/ML											
CS L	3		-5	4.7' m	d of Boring.							1								
				J LIN	a or borning.															
I haral	N cortif	v that	the info	rmation	on this form is t	rue and correct	to the box	et of my le	nowled	ge.										
Signat	ure o			ninatiOII (O11 U118 10f1II IS I						1					/4- **	005.5	-0-		
Signal	die /	ndo		100		LI	''' Natu	ral Reso	urce '	I'echn	ology	7			Tel:	(414)	837-36	07		

234 W. Florida Street, Floor 5, Milwaukee, WI 53204 Fax: (414) 837-3608 Template: WDNR SBL 1998 MKE ADDRESS - Project: 2357_ALL_PROPERTIES.GPJ

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.

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

			R	oute To:	Watershed/	Wastev	water \square			_	ement									
					Remediation	n/Rede	evelopment 🛛	(Other											
																Pag	_{re} 1	of	1	
Facilit	y/Proje	ct Nan	ne					Li	icense/	Permit/	Monito	ring Nu	ımber		Boring			01	1	
				MGP -	Former Pete	ers=Jo	ohnson		SV06											
Boring	g Drilleo	l By:	Name	of crew cl	hief (first, last)	and Fi	rm	D	Date Drilling Started Date Drilling C									Drill	ing Method	
Mit	ch Par	nfil																		
	tra En							2017				3/7/2	017		GeoProbe					
WI Uı	nique W	ell No		DNR	nmon Well Nam	ne Fi									Borehole Diameter					
Local	Grid Or	igin		etimeted	: 🗌) or Bo	ocation M			Feet N	MCD			Local C	t MC			1.5 inches			
State		ıgııı	☐ (¢	stimated.) ог вс N,	E	S/C/N		La	ıt	o	<u>'</u>		Local	JIIu Lo		r			
State	1/4	of		1/4 of Sec	· ·	T	N, R		Long	o	0	,	"		Fee	l □ N t □ S		ī	☐ E Feet ☐ W	
Facilit		01		174 01 50	County		11, 10	Cou	unty Co		Civil T	own/Ci	ity/ or `	Village		· 🗆 5				
241	49653	80			Milwaukee	;		41			Milw	aukee	2							
Sar	nple												ďυ		Soil	Prope	erties	ies		
) (n		1		Soil/	Rock I	Description						PID 10.6 eV Lamp							
	tt. 8 sd (i	unts	Fee		And C						eV	sive (tsf)					ts			
ber	th A	ပိ	ı In			_	ajor Unit			CS	hic	am.	9.01	gth	ture	ъ.,	city		/ nen	
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet				gor eme			S	Graphic Log	Well Diagram		Compressive Strength (tsf)	Moisture Content	Liquid Limit	Plasticity Index	200	RQD/ Comments	
<u>Z</u>	R			0 - 0	5' FILL WEAT	THERE	ED CONCRETE	=- (FII	11)	(FILL)	(A. A. A.			S	20		P II	Ь	L R	
1	24		-				GRADED GRA	,		(GP)s										
cs	20		-1	 \with	I SAND: (GP)s	s, white	Э.		/	10.70		Ĭ								
			E			SANI	D: SM, brown,	trace		SM		:	0							
			_2	grave						L										
	24 16		L _	2 - 3' grave		CLAY	CL/ML, brown,	trace		CL/ML			0							
2 CS			F _	giavo	,ı.					CL/IVIL										
CS			_3			Y-GR	ADED SAND:	SP, lig	ht		(5/2)		0							
			-	browr	n, trace silt.					SP										
			-4	4 - 5'	FILL, SILTY	CLAY	to POORLY-GF	RADE	<u> </u>				0							
3	6		F	GRA	VEL: CL/ML, g	ray.				CL/ML										
3 CS	2		<u>-</u> 5		cinders.								-							
				5' En	nd of Boring.															
	-	y that	the inf	ormation	on this form is	true an	nd correct to the	best of	f my kr	nowled	ge.									
Signat	ure /	1		1			Firm Na	atural	Reso	urce	Гесhn	ology					(414)			
	U	nach	w C	unse)		234	4WF	lorida S	Street 1	Floor 5.	Milwa	nkee V	WI 532	04	Fax	(414)	837-36	808	

Date Modified: 3/22/2017 Template: WDNR SBL 1998 MKE ADDRESS - Project: 2357_ALL_PROPERTIES.GPJ
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.

234 W. Florida Street, Floor 5, Milwaukee, WI 53204

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

			Ro	oute To:	Watershed/V	Vastewater		Waste	Manag	ement										
					Remediation	/Redevelopn	nent 🛚	Other												
															Pag	re 1	of	1		
Facilit	y/Proje	ct Nan	ne					License/	Permit/	/Monito	ring N	umber		Boring	_			1		
				MGP -	Former Pete	rs=Johnso	n				Ü				SV07					
Boring	g Drilleo	l By:	Name o	of crew ch	nief (first, last) a	ınd Firm		Date Dri	lling St	tarted		D	ate Drilli	ng Con	npleted		Drilli	ing Method		
Mit	ch Par	nfil																		
	tra En									2017			3/7/2017					GeoProbe		
WI Ur	nique W	ell No		DNR V	Well ID No.	Vell Name	Final Static Water Level Surface Ele							-	rehole Diameter					
Lagal	Crist Or	ا مانہ		atima ata da	D) on Do	Feet MCD						t MCl Grid Loo	1.5 inches							
Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐ State Plane N, E (\$)/C/N									nt	0	'	"	Local	ли со						
State	1/4	of		1/4 of Sec	.41	T N,		Lon		0	,	"		Fee	l □ N t □ S		Ţ	☐ E Feet ☐ W		
Facilit		01			County	1 11,		County Co		Civil T	own/C	ity/ or	Village	100	· 🗆 5					
241	49653	80			Milwaukee			41		Milw		-								
San	nple								Π			du		Soil	Prope	erties				
) (n				Soil/F	Rock Descrip	tion					PID 10.6 eV Lamp								
	tt. 8 d (i	unts	Fee			eologic Origi						e	sive (tsf)					ts		
ber	th A	ပိ	ı In			ch Major Un			CS	hic	.am	9.01	gth	ture	ਰ	city		/ nen		
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet		Lu	en major en			S	Graphic Log	Well Diagram	, E	Compressive Strength (tsf)	Moisture Content	Liquid Limit	Plasticity Index	200	RQD/ Comments		
<u>Z</u> 8	R			0 - 0 6	6' FILL, WEAT	HERED CO	NCRETE:	(FILL)	<u> </u>	A 4 +	1 P A	_ A	S	20		ПП	Ь			
			_						(FILL)	0 0										
1 CS	24 18		-1	0.6 - 3	3.5' FILL, SILT sand and yellow	Y CLAY CL w bricks	/ML, dark b	rown,												
			F		Junu unu , Junu							0								
			\mathbb{L}_2						CL /NAI											
									CL/MI			0								
2 CS	24		F _																	
CS	10		-3									0								
			E		4.5' FILL, POC		ED SAND:	SP,												
			-4	light b	rown, trace silt				SP			0								
3	5		E	4.5 - 5	5' FILL, SILTY	CLAY CL/N	IL, brown, r	noist.	CL/ML			:								
3 CS	2		-5		d of Boring.				OBINI	7/11		-								
I hand	axi contit	Sy that	the inf	rmotion	on this forms :- 4	mia and	ot to the b	ot of my 1-	nowlad	go.	<u> </u>			<u> </u>	I					
Signat	-	y ınat	me info	ommanon (on this form is t					_										
signat	ure A	ad a	. 1	4			^{Firm} Natu	ral Resc	ource '	Techn	ology	7			Tel:	(414)	837-36	07		

234 W. Florida Street, Floor 5, Milwaukee, WI 53204 Fax: (414) 837-3608 Template: WDNR SBL 1998 MKE ADDRESS - Project: 2357_ALL_PROPERTIES.GPJ

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.

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

			Ro	ute To:	Watershed/W	Vastewater		Waste 1	Manage	ement										
					Remediation	/Redevelopn	nent 🛚	Other												
															Pag	e 1	of	1		
Facili	ty/Proje	ct Nam	ie					License/	Permit/	Monito	ring Nı	ımber			Numbe	er				
					Former Pete		on													
	_	•	Name o	f crew ch	nief (first, last) a	nd Firm		Date Dri	lling St	arted		Da	te Drilli	ng Con	Drilli	ing Method				
	ch Par stra En		rino	Inc					3/7/	2017			3/7/2017					GeoProbe		
	nique W				Well ID No.	Common V	Well Name	Final Sta			el	Surfac	e Elevat		017	Во	orehole Diameter			
]	Feet N	ИCD			Fee	t MC	1.5 inches						
Local Grid Origin ☐ (estimated: ☐) or Boring Location ☒										0	,	"	" Local Grid Location							
State	Plane				· · · · · · · · · · · · · · · · · · ·	E \$/0		La							□ N			□Е		
Facili	1/4	of	1	/4 of Sec		T N.	, R	Long		Civil T	oven/C	its:/ on \	V:11000	Fee	t 🗌 S		F	Feet W		
	.49653	80			County Milwaukee			County Co 41	de	Milw		-	vinage							
	nple				Willwaukee			41		VIIIW	aukce	1	Т	Soil	Prope	rties				
	T				0.11/0	1. 1. 1.						PID 10.6 eV Lamp			l Topc	Tues				
	t. & I (in	nts	eet			Rock Descrip						1 %	ive tsf)							
er /pe	. At ered	Cou	In F			eologic Origi			S	. <u>2</u>	E E).6 e	ressi th (i	ıre ıt	_	ity		lents		
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet		Eac	ch Major Un	ııt		SC	Graphic Log	Well Diagram	D 1(Compressive Strength (tsf)	Moisture Content	Liquid Limit	Plasticity Index	200	RQD/ Comments		
<u>z e</u>	Le Re	Bl	Ď	0.01		JEDED 00	NODETE	/EU L \	Þ	4.4.4	≱ Ö	PI	<u>2</u> <u>2</u>	Σŏ	22	E II	P :	ZC RC		
			F		5' FILL, WEAT				(FILL)											
1 CS	24 16		_ 1		0.8' FILL, POO SAND: (GP)s,		ED GRAVE	:L /	(GP)s	IIIIII										
			- 1	0.8 - 2	2' FILL, SILTY		, brown, tra	ce	SM		:	0								
2 CS					s and gravel. - — — — — —				L	ЩЩ										
			-	2 - 3.8	B' FILL, POOR , trace silt.	LY-GRADE	D SAND : S	SP,				0								
	24 22		F ,	Diowii.	, ardoo onc.				SP											
	22		_3									0								
			- ,	20.5	TIELL CAND	/ L E A N OL	A.V. - (OL) - I	l												
			<u> </u>	3.8 - 3	5' FILL, SAND '	r LEAN CLA	41: S(CL), I	orown.	s(CL)			0								
3 CS	6		E						S(CL)		11									
CS L	6		-5	5' End	d of Boring.					/.//	1									
I here	by certif	y that	the info	rmation o	on this form is t	rue and corre	ect to the bes	st of my kr	owled	ge.										
Signa	ture /	1		- 22-22			Firm Natu	ral Reso	urce '	Гесhn	ologv	,			Tel:	(414)	837-36	607		

Fax: (414) 837-3608

Date Modified: 3/22/2017 Template: WDNR SBL 1998 MKE ADDRESS - Project: 2357_ALL_PROPERTIES.GPJ
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.

234 W. Florida Street, Floor 5, Milwaukee, WI 53204

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

			Ro	ute To:	Watershed/W	astewater	Waste	Manag	ement									
					Remediation	Redevelopment 🛛	Other											
														Pag	re 1	of	1	
Facilit	y/Proje	ct Nan	ne				License/	Permit/	/Monito	ring Nu	ımber		Boring	Numbe		-01	1	
	-			MGP -	Former Peter	rs=Johnson				0				SV09				
					nief (first, last) a		Date Dri	lling St	tarted		Da	te Drilli				Drill	ing Method	
Mit	ch Pai	nfil																
			ering,						2017				3/7/2		GeoProbe			
WI Un	ique W	ell No		DNR V	Well ID No.	Common Well Name				el	Surfac	e Elevat		Bo	Borehole Diameter			
								Feet N	MCD				t MCl		1.5 inches			
	Grid Oı	rigin	(es	stimated:		ing Location 🖂	10	ıt	0	,	"	Local C	Grid Lo					
State 1						E			0	_	"		-	□ N			□ E	
Facilit	1/4	of	1	/4 of Sec	County	Lon County Co		Civil T	oxym/Ci	trul on	Villaga	Fee	t 🗌 S		I	Feet W		
	у ID 49653	80		- 1	Milwaukee		41	de		aukee	•	village						
San			1		Willwaukee		41		WIIIW	aukee		1	Coil	Prope				
San	r -									PID 10.6 eV Lamp		3011	Prope	rues				
	Length Att. & Recovered (in)	ıts	eet			lock Description					\ \	ve Sf.						
r pe	Att	Jonn	n. H		And Ge	eologic Origin For		N N	0	я	.6 e	essi h (ts	ر و د		ξ.		ents	
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet		Eac	ch Major Unit		C	Graphic Log	Well Diagram	10	Compressive Strength (tsf)	Moisture Content	Liquid Limit	Plasticity Index	200	RQD/ Comments	
Nun	Len	Blo	Deg					S O	Gra Log	Well Diagr	PIC	Cor	Cor	Lig	Plastic Index	P 20	RQ	
1 CS	24		E			SAND: SM, dark brow	vn,	SM			0							
cs	10		E	↑ organi	cs. loot for 2".		<i>[</i>											
Ш			-1			Y CLAY CL/ML, dark	brown,				0							
Ш			_	gravel.														
. H			_2					CL/ML										
2 CS	24 16		F								0							
ا			F ₂															
Ш			-3	-3-3	5 5' EUT EAR	CLAY: CL, brown, to		-cL			0							
Ш			E			CLAY CL/ML, dark bi		T										
3 H	12		_4	trace g		 , aa	· · · · · · · · · · · · · · · · · · ·	CL/ML			0							
3 CS	6		-					CL/IVIL										
Ш			_5															
				5' End	d of Boring.													
hereb	y certif	fy that	the info	rmation o	on this form is to	rue and correct to the b	est of my kı	nowled	ge.									
Signat	ure /	1	0			Firm Nat	ural Resc	urce '	Techn	ology				Tel:	(414)	837-36	507	
	U	ndre	w Ca	wse		234	W Florida	Street	Floor 5	Milwa	ukee '	W/I 532	04		(414)			

234 W. Florida Street, Floor 5, Milwaukee, WI 53204

Fax: (414) 837-3608

Date Modified: 3/22/2017 Template: WDNR SBL 1998 MKE ADDRESS - Project: 2357_ALL_PROPERTIES.GPJ
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.

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

			Ro	oute To:	Watershed/\	Vastewater		Waste 1	Manage	ement									
					Remediation	/Redevelopment	\boxtimes	Other											
															Pag	e 1	of	1	
Facili	ty/Proje	ct Nam	ie					License/	Permit/	Monito	ring Nu	ımber		Boring	Numbe		- 01	1	
	-			MGP -	Former Pete	rs=Johnson					C								
Borin	g Drille	d By:	Name o	of crew ch	nief (first, last) a	and Firm		Date Dri	lling St	arted		Da	te Drilli	ng Con	npleted		Drilling Method		
Mi	tch Pai	nfil																	
	stra Er									2017				3/7/2	017		GeoProbe		
WI Unique Well No. DNR Well ID No. Common Well Name									Final Static Water Level Surface Feet MCD						_	Bo		Diameter	
T 1	C::10			-4:41-				Feet N	ACD .				t MCI			1.5 inches			
Local Grid Origin □ (estimated: □) or Boring Location □ State Plane N, E (\$)/C/N									t	0	<u>'</u>	"	Local C	III LO					
State	1/4	of	1	1/4 of Sec	-41	T N, R		Long		0	,	"		Fee	□ N t □ S		1	□ E Feet □ W	
Facili		01			County	1 11,10		County Co		Civil T	own/Ci	ty/ or `	Village	100	· 🗆 5				
	149653	30			Milwaukee			41		Milw		-							
Sa	mple			T '										Soil	Prope	rties			
	T				Soil/	Rock Description						PID 10.6 eV Lamp			1				
	Length Att. & Recovered (in)	Blow Counts	Depth In Feet			eologic Origin Fo						eV]	Compressive Strength (tsf)					,xq	
er	h A	Cor	Г			ch Major Unit	J1		S	ic.	am	9.0	ress gth (ure	_	city		nent	
Number and Type	engt ecov	low	epth		Ea	cii Major Oliit			SC	Graphic Log	Well Diagram	D 1	omp	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments	
1	24	В	Ω	0 1	FILL CILTY C	LAV CL/ML do	rlı brazzı		D	C C	≱ □	<u> </u>	SC	ΣÚ	ÜÜ	Pl In	Ь	Č Š	
cs	18		E	organi		LAY CL/ML, da	IK DIOWI	11,	CL/ML			U							
			_ 1																
			<u> </u>	1 - 1.4 SAND	4' FILL, POOR): (GP)s, dark l	LY-GRADED G	RAVEL	WITH	(GP)s			0							
			Ė,			Y CLAY CL/ML	, dark bi	rown.	CL/ML										
2 CS	24		_2	1.7 - 3	3.6' FILL, LEA	N CLAY: CL, bro						0							
CS	22		E	and gr	ravel.				CL										
			_3									0							
			F	2.0	4 EL EUL CU I	V CAND. CM b	سنم باماد			111111									
3	12		_4	3.0 - 2	4.0 FILL, SILI	Y SAND: SM, b	nack, cii	iueis.	SM			0							
cs	9		L	4.5.1	F' FULL OUTV	CLAY CL/ML, li	iaht bras												
L	1		<u>-</u> 5			CLAT CL/IVIL, II	ignit brov	WII.	CL/ML										
				5 End	d of Boring.														
I here	by certif	fy that	the info	rmation	on this form is	rue and correct to	o the bes	st of my kr	nowledg	ge.									
Signa	ture	,	0			Firm	ⁿ Natu	ral Reso	urce '	Гесhn	ology				Tel:	(414)	837-36	607	
	11		1			1					~5]					/	0		

Date Modified: 3/22/2017

234 W. Florida Street, Floor 5, Milwaukee, WI 53204 Template: WDNR SBL 1998 MKE ADDRESS - Project: 2357_ALL_PROPERTIES.GPJ

Fax: (414) 837-3608

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.