State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
2984 Shawano Avenue
Green Bay WI 54313-6727

Scott Walker, Governor
Daniel L. Meyer, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463

February 21, 2018

CINDA Corporation Inc.
Attn.: Mr. David Vander Zanden
W8918 Great Oak Ln
Hortonville WI 54944

KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS

SUBJECT: Final Case Closure with Continuing Obligations
Busy Bea Dry Cleaners, 1077 Racine Street, Menasha WI
DNR BRRTS Activity #: 02-71-536999

Dear Mr. Vander Zanden:

The Department of Natural Resources (DNR) considers Busy Bea Dry Cleaners closed, with continuing obligations. No further investigation or remediation is required at this time. However, you, future property owners, and occupants of the property must comply with the continuing obligations as explained in the conditions of closure in this letter. Please read over this letter closely to ensure that you comply with all conditions and other on-going requirements. Provide this letter and any attachments listed at the end of this letter to anyone who purchases, rents or leases this property from you.

This final closure decision is based on the correspondence and data provided, and is issued under chs. NR 726 and 727, Wis. Adm. Code. The Northeast Region Closure Committee reviewed the request for closure on November 16, 2017. The DNR Closure Committee reviewed this environmental remediation case for compliance with state laws and standards to maintain consistency in the closure of these cases.

The site is a former dry cleaner located in a multi-tenant commercial building. Chlorinated Volatile Organic Compound (CVOC) contamination was found in the soil and groundwater and indoor air on the site but did not extend off property. Remedial actions included underground injection and groundwater monitoring. A vapor mitigation system (VMS) was installed to mitigate indoor air which will be required to operate after case closure. The conditions of closure and continuing obligations required were based on the property being used for commercial purposes.

Continuing Obligations

The continuing obligations for this site are summarized below. Further details on actions required are found in the section Closure Conditions.

- Groundwater contamination is present at or above ch. NR 140, Wis. Adm. Code enforcement standards.
- Residual soil contamination exists that must be properly managed should it be excavated or removed.
- One or more monitoring wells were not located and must be properly filled and sealed if found.
- Pavement, building foundations, and flooring must be maintained over contaminated soil and the DNR must be notified and approve any changes to this barrier.
- A vapor mitigation system must be operated and maintained, and inspections must be documented.
- Remaining contamination could result in vapor intrusion if future construction activities occur. Future construction includes expansion or partial removal of current buildings as well as construction of new buildings. Vapor control technologies will be required for occupied buildings, unless the property owner assesses the potential for vapor intrusion, and the DNR agrees that vapor control technologies are not needed.

The DNR fact sheet "Continuing Obligations for Environmental Protection," RR-819, helps to explain a property owner's responsibility for continuing obligations on their property. The fact sheet may be obtained at http://dnr.wi.gov/files/PDF/pubs/rr/RR819.pdf.

GIS Registry

This site will be included on the Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web) at http://dnr.wi.gov/topic/Brownfields/wrrd.html, to provide public notice of residual contamination and of any continuing obligations. The site can also be viewed on the Remediation and Redevelopment Sites Map (RRSM), a map view, under the Geographic Information System (GIS) Registry layer, at the same web address.

DNR approval prior to well construction or reconstruction is required for all sites shown on the GIS Registry, in accordance with s. NR 812.09 (4) (w), Wis. Adm. Code. This requirement applies to private drinking water wells and high capacity wells. To obtain approval, complete and submit Form 3300-254 to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line at http://dnr.wi.gov/topic/wells/documents/3300254.pdf.

All site information is also on file at the Northeast Regional DNR office, at 2984 Shawano Avenue in Green Bay. This letter and information that was submitted with your closure request application, including any maintenance plan and maps, can be found as a Portable Document Format (PDF) in BRRTS on the Web.

Prohibited Activities

Certain activities are prohibited at closed sites because maintenance of a barrier is intended to prevent contact with any remaining contamination. When a barrier is required, the condition of closure requires notification of the DNR before making a change, in order to determine if further action is needed to maintain the protectiveness of the remedy employed. The following activities are prohibited on any portion of the property where pavement, building foundation and flooring, and a vapor mitigation system is required, as shown on the attached maps Figure D.2.a Site Vapor Mitigation Systems Map, December 21, 2016 and Figure D.2.b Site Plan and Cap Maintenance Area, January10, 2010, unless prior written approval has been obtained from the DNR:

- removal of the existing barrier or cover;
- replacement with another barrier or cover;
- excavating or grading of the land surface;
- filling on covered or paved areas;
- plowing for agricultural cultivation;
- construction or placement of a building or other structure;
- changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings; or
- changing the construction of a building that has a vapor mitigation system in place.

Closure Conditions

Compliance with the requirements of this letter is a responsibility to which you and any subsequent property owners must adhere. DNR staff will conduct periodic prearranged inspections to ensure that the conditions included in this letter and the attached maintenance plan are met. If these requirements are not followed, the DNR may take enforcement action under s. 292.11, Wis. Stats. to ensure compliance with the specified requirements, limitations or other conditions related to the property.

Please send written notifications and inspection reports in accordance with the following requirements to:

Department of Natural Resources
Attn: Remediation and Redevelopment Program Environmental Program Associate
2984 Shawano Avenue
Green Bay WI 54313-6727

Residual Groundwater Contamination (ch. NR 140, 812, Wis. Adm. Code)
Groundwater contamination greater than enforcement standards is present on this contaminated property, as shown on the attached map Figure B.3.b, Groundwater Isoconcentration, December 5, 2016. If you intend to construct a new well, or reconstruct an existing well, you'll need prior DNR approval.

Residual Soil Contamination (ch. NR 718, chs. 500 to 536, Wis. Adm. Code or ch. 289, Wis. Stats.)
Soil contamination remains as indicated on the attached map Figure B.2.b, Residual Soil Contamination, January. 19, 2010. If soil in the specific locations described above is excavated in the future, the property owner or right-of-way holder at the time of excavation must sample and analyze the excavated soil to determine if contamination remains. If sampling confirms that contamination is present, the property owner or right-of-way holder at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable standards and rules. Contaminated soil may be managed in accordance with ch. NR 718, Wis. Adm. Code, with prior DNR approval

In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken to prevent a direct contact health threat to humans.

Monitoring Wells that could not be Properly Filled and Sealed (ch. NR 141, Wis. Adm. Code)
Monitoring well TW-12 located on the south side of the building shown on the attached map Figure B.3.d, Groundwater Monitoring Well Map, January 19, 2010, could not be properly filled and sealed because it was missing due to being paved over, covered or removed during site development activities. Your consultant made a reasonable effort to locate the well and to determine whether it was properly filled and sealed, but was unsuccessful. You may be held liable for any problems associated with the monitoring wells if they create a conduit for contaminants to enter groundwater. If the groundwater monitoring well is found, the then current owner of the property on which the well is located is required to notify the DNR, to properly fill and seal the well and to submit the required documentation to the DNR.

Cover or Barrier (s. 292.12 (2) (a), Wis. Stats., s. NR 726.15, s. NR 727.07 Wis. Adm. Code)
The pavement, building foundation and flooring that exists in the location shown on the Figure D.2.b, Site Plan and Cap Maintenance Area, January 10, 2010, shall be maintained in compliance with the attached maintenance plan in order to minimize the infiltration of water and prevent additional groundwater contamination that would violate the groundwater quality standards in ch. NR 140, Wis. Adm. Code.

The cover approved for this closure was designed to be protective for a commercial or industrial use setting. Before using the property for residential purposes, you must notify the DNR at least 45 days before taking an action, to determine if additional response actions are warranted.

A request may be made to modify or replace a cover or barrier. Before removing or replacing the cover, you must notify the DNR at least 45 days before taking an action. The replacement or modified cover or barrier must be protective of the revised use of the property, and must be approved in writing by the DNR prior to implementation. A cover or barrier for certain types of commercial land uses may not be protective if the use of the property were to change such that a residential exposure would apply. This may include, but is not limited to single or multiple family residences, a school, day care, senior center, hospital or similar settings. In addition, a cover or barrier for multi-family residential housing use may not be appropriate for use at a single-family residence.

The attached maintenance plan and inspection log (DNR form 4400-305) are to be kept up-to-date and on-site. Inspections shall be conducted annually, in accordance with the attached maintenance plan. **Submit the inspection log to the DNR annually, starting one year after the date of this letter.**

Vapor Mitigation or Evaluation (s. 292.12 (2), Wis. Stats., s. NR 726.15, s. NR 727.07, Wis. Adm. Code)
Vapor intrusion is the movement of vapors coming from volatile chemicals in the soil or groundwater, into buildings where people may breathe air contaminated by the vapors. Vapor mitigation systems are used to interrupt the pathway, thereby reducing or preventing vapors from moving into the building.

Vapor Mitigation System: Soil vapor beneath the building contains CVOCs at levels that would pose a long-term risk to human health, if allowed to migrate into an occupied building on the property. The vapor mitigation system, installed in May 2007, must be operated, maintained and inspected in accordance with the attached maintenance plan. System components must be repaired or replaced immediately upon discovery of a malfunction. Annual inspections and any system repairs must be documented in the inspection log (DNR form 4400-305). The inspection log shall be kept up-to-date and on-site. Inspections shall be conducted annually, in accordance with the attached maintenance plan. Submit the inspection log to the DNR annually, starting one year after the date of this letter.

If a decision is made to no longer use the vapor mitigation system, or to make a change to the vapor mitigation system, the property owner must notify the DNR at least 45 days before shutting the vapor mitigation system off, or before making any other change to the system, and evaluate whether conditions are protective of public health and safety. Additional response actions may be necessary.

The integrity of the building foundation and flooring that exists on the property, shown on the attached map Figure D.2.b, Site Plan and Cap Maintenance Area, January10, 2010, must be maintained in compliance with the attached maintenance plan. This will help ensure proper functioning of the vapor mitigation system, limiting vapor intrusion to indoor air spaces.

Future Concern: CVOCs remain in soil and groundwater as shown on the attached maps Figure B.3.b, Groundwater Isoconcentration, December 5, 2016 and Figure B.2.b, Residual Soil Contamination, January. 19, 2010, at levels that may be of concern for vapor intrusion in the future, depending on construction and occupancy of a building. The site is currently a multi-tenant commercial building and parking lot. Therefore, before a building is constructed and/or an existing building is modified, the property owner must notify the DNR at least 45 days before the change. Vapor control technologies are required for construction of occupied buildings unless the property owner assesses the vapor pathway and DNR agrees that vapor control technologies are not needed.

Other Closure Information

General Wastewater Permits for Construction Related Dewatering Activities

The DNR's Water Quality Program regulates point source discharges of contaminated water, including discharges to surface waters, storm sewers, pits, or to the ground surface. This includes discharges from construction related dewatering activities, including utility and building construction.

If you or any other person plan to conduct such activities, you or that person must contact that program, and if necessary, apply for the necessary discharge permit. Additional information regarding discharge permits is available at http://dnr.wi.gov/topic/wastewater/GeneralPermits.html. If residual soil or groundwater contamination is likely to affect water collected in a pit/trench that requires dewatering, a general permit for Discharge of Contaminated Groundwater from Remedial Action Operations may be needed. If water collecting in a pit/trench that requires dewatering is expected to be free of pollutants other than suspended solids and oil and grease, a general permit for Pit/Trench Dewatering may be needed.

In Closing

Please be aware that the case may be reopened pursuant to s. NR 727.13, Wis. Adm. Code, for any of the following situations:

- if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, or welfare or to the environment,
- if the property owner does not comply with the conditions of closure, with any deed restrictions applied to the property, or with a certificate of completion issued under s. 292.15, Wis. Stats., or
- a property owner fails to maintain or comply with a continuing obligation (imposed under this closure approval letter).

The DNR appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact Kevin McKnight at 920-424-7890, or at kevin.mcknight@wisconsin.gov.

Sincerely,

Roxanne N. Chronert
Northeast Region Team Supervisor
Remediation & Redevelopment Program

Attachments:

- Figure B.3.b Groundwater Isoconcentration, December 5, 2016
- Figure B.2.b Residual Soil Contamination, January. 19, 2010
- Figure D.2.a Site Vapor Mitigation Systems Map, December 21, 2016
- Figure D.2.b Site Plan and Cap Maintenance Area, January10, 2010
- Figure B.3.d Groundwater Monitoring Well Map, January 19, 2010
- Attachment D, Vapor Mitigation Operation and Maintenance Plan, February 21, 2018

cc: Heidi Woelfel, APTIM (heidi.woelfel@aptim.com)

OFFICE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
Milwaukee, WI	01/13/10	TPW	BEB			124506-04

PZ-112
PP
GRASS
X X FENCE
TB
PROPERTY LINE
MW-103
MW-101
PZ-109
SEE DETAIL FIGURE 5
GM
SHED
GRASS
ASPHALT
WV
GP-17
TW-14
LAUNDROMAT
1089
MW-102
PZ-108
AC
VACANT
1083
MW-106
TW-13
IW-3
IW-2
PZ-104
TW-4
SUMP
MW-4
IW-1
IW-4
GP-6
MW-105
GP-15
GP-22
GP-10
PZ-114
B-1
GRASS
CONC PADS
DRY CLEANER
1077
PZ-115
ASPHALT
MW-110
PZ-111
TW-5
CONC WALK
GP-7
B-2
GP-16
TW-11
PATRICIA'S
HAIR SALON
1071
GRASS
GV
CONC WALK
ASPHALT
TW-6
GP-9
B-3
TRANSFORMER
AC
AC
PZ-113
SEE DETAIL FIGURE 5
PP
PDQ
GAS STATION
FORMER
PIZZA HUT
ASPHALT
GV
SIDEWALK
TW-12
MW-107
CB
GP-20
GP-21
GP-18
GP-19
PROPERTY LINE
RACINE STREET
GRASS
PHONE
ASPHALT
FUEL
DISPENSERS
(CANOPY)
ASPHALT
GRASS
SIGN
LP
LP
GRASS
PROPERTY LINE
12TH STREET
APPLETON STREET

LEGEND

- ABANDONED GEOPROBE BORING
- TEMPORARY WELL
- ABANDONED WELL
- NR141 MONITORING WELL/PIEZOMETER
- INJECTION WELL
- E — ELECTRIC LINE
- S — SEWER LINE
- GAS — NATURAL GAS LINE
- T — TELEPHONE LINE
- W — WATER LINE
- X — FENCE
- EXTENT OF RESIDUAL SOIL CONTAMINATION

APPROXIMATE SCALE IN FEET
0 15 30 45

NOTE:
1. SITE PLAN DERIVED FROM ALPHA TERRA SCIENCE DATED JUNE 16, 2006
2. WELL LOCATIONS WEST OF BUILDING FIELD VERIFIED JANUARY 2010

1" 1/2" 0" 1"

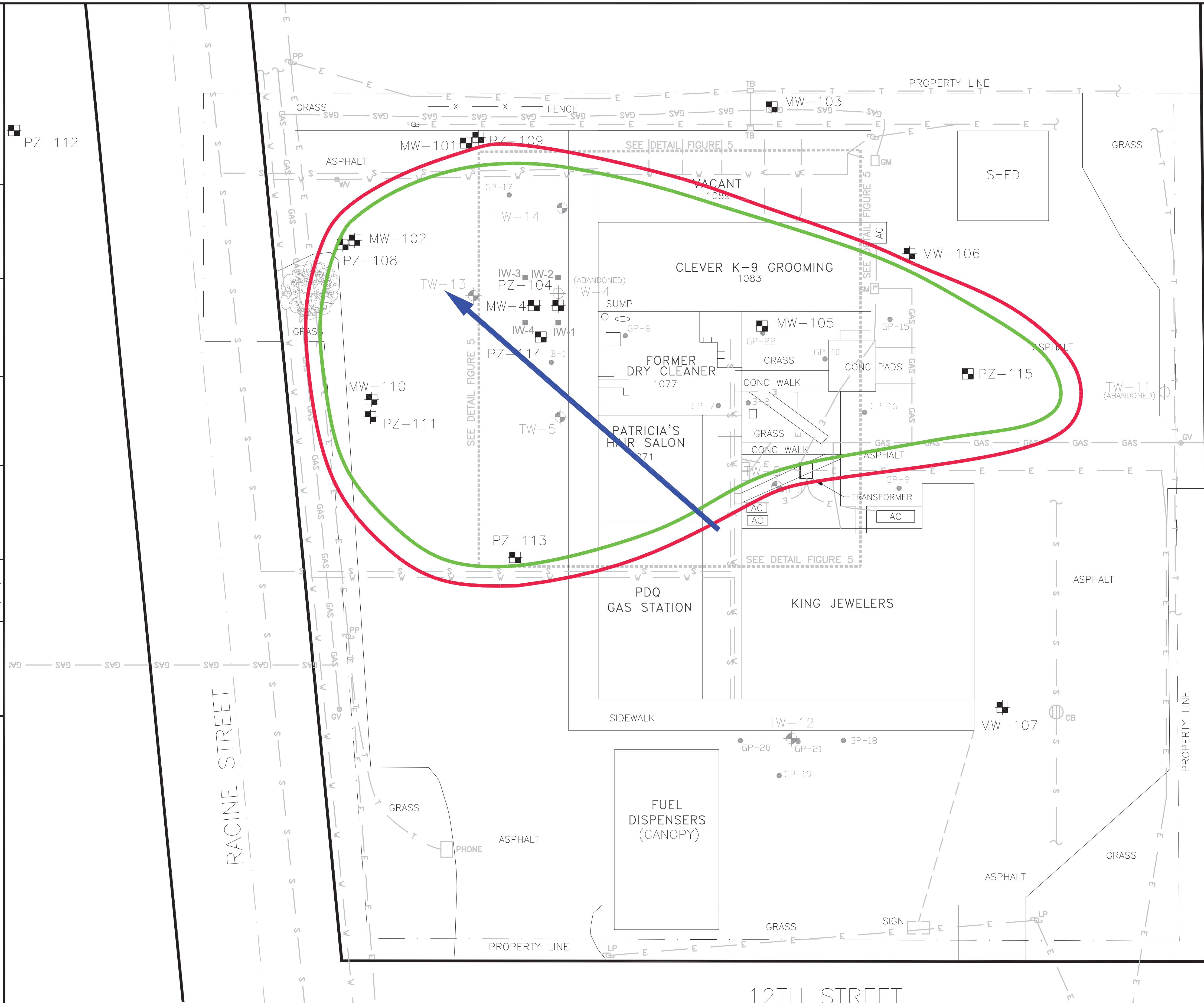
APTIM

BUSY BEA DRY CLEANERS
1077 RACINE STREET
MENASHA, WISCONSIN

FIGURE B.2.b
RESIDUAL SOIL CONTAMINATION

DESIGNED BY			CHECKED BY		
DRAWN BY	BEB	01/19/10	APPROVED BY		

SIZE:	SCALE:	DRAWING NO.	SHEET NO.	REVISION NO.
B	1"=30'	124506-04		2



LEGEND

- ABANDONED GEOPROBE BORING
- TEMPORARY WELL
- ABANDONED WELL
- NR141 MONITORING WELL/PIEZOMETER
- INJECTION WELL
- E — ELECTRIC LINE
- S — SEWER LINE
- GAS — NATURAL GAS LINE
- T — TELEPHONE LINE
- W — WATER LINE
- X — FENCE
- GROUNDWATER FLOW DIRECTION
- 5/22/2012 ES EXCEEDANCES WELLS SAMPLED: MW-4, TW-13, TW-14, MW-105, PZ-104, PZ-108, PZ-111, PZ-113, PZ-115
- 5/22/2012 PAL EXCEEDANCES

APPROXIMATE SCALE IN FEET

0 15 30 45

APTIM

BUSY BEA DRY CLEANERS
1077 RACINE STREET
MENASHA, WISCONSIN

FIGURE B.3.b
GROUNDWATER ISOCONCENTRATION

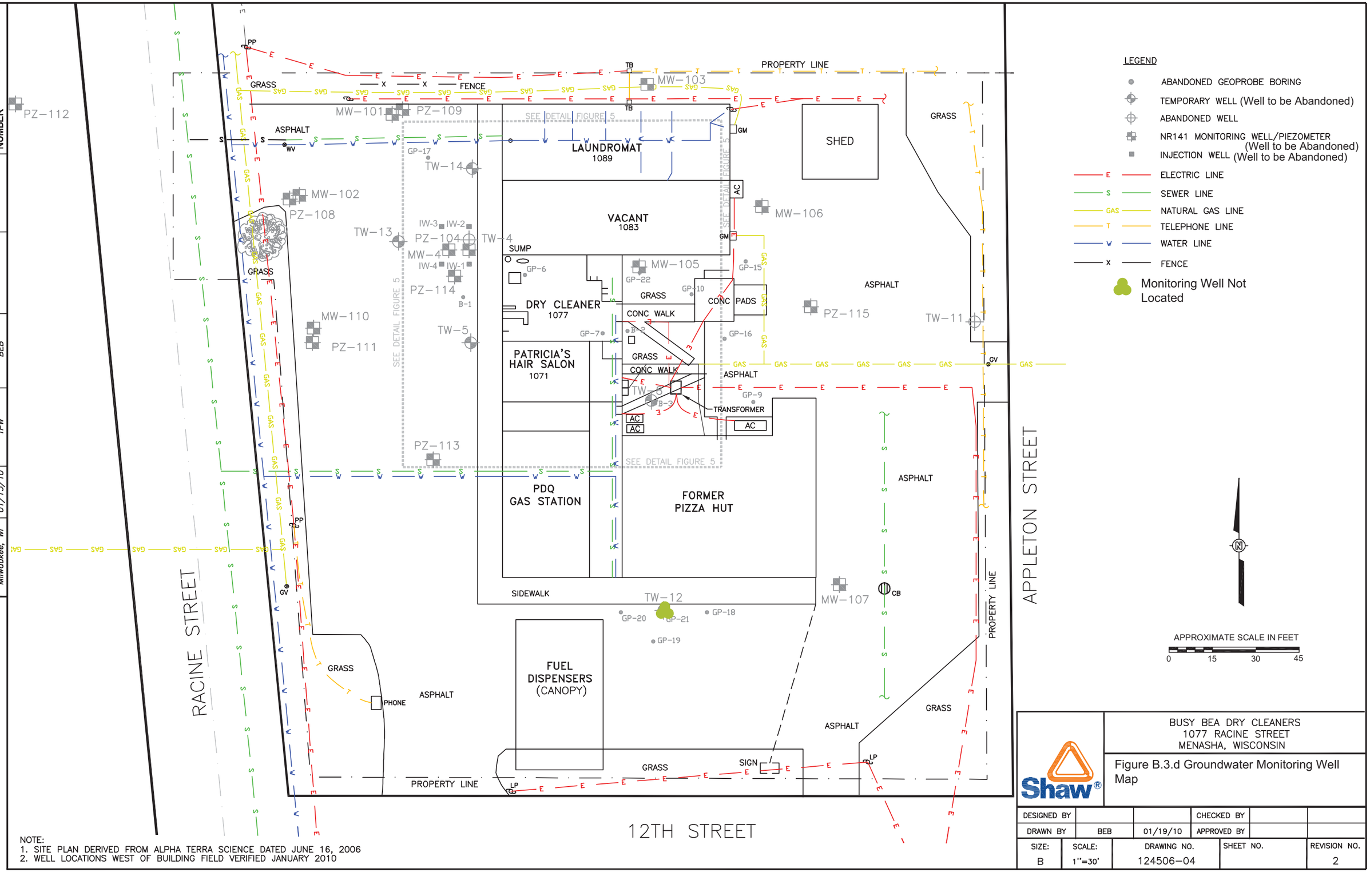
DESIGNED BY			CHECKED BY	
DRAWN BY	JRD	12/05/16	APPROVED BY	

SIZE:	SCALE:	DRAWING NO.	SHEET NO.	REVISION NO.
B	1"=30'	124506-05		–

OFFICE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
Milwaukee, WI	09/29/10	JMS	BEB	HAW		124506-05

File: \\trepfs01\seimilfps00\Data\Projects\100000\120000 to 129999\124506 - Busy Bea\CAD\124506-05.dwg Layout: FIG5 B.3.b rev User: jill.c

NOTE:
1. SITE PLAN DERIVED FROM ALPHA TERRA SCIENCE DATED JUNE 16, 2006
2. WELL LOCATIONS WEST OF BUILDING FIELD VERIFIED JANUARY 2010



NOTE:
1. SITE PLAN DERIVED FROM ALPHA TERRA SCIENCE DATED JUNE 16, 2006
2. WELL LOCATIONS WEST OF BUILDING FIELD VERIFIED JANUARY 2010

BUSY BEA DRY CLEANERS
1077 RACINE STREET
MENASHA, WISCONSIN

Figure B.3.d Groundwater Monitoring Well Map

DESIGNED BY			CHECKED BY		
DRAWN BY	BEB	01/19/10	APPROVED BY		
SIZE: B	SCALE: 1"=30'	DRAWING NO. 124506-04	SHEET NO.	REVISION NO. 2	

OFFICE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
Milwaukee, WI	TPW	BEB			124506-04
DATE					
01/13/10					

File: Q:\Projects\100000\124506 — Busy Bea\CAD\124506-04.dwg Layout: FIG 1 SITE PLAN new User: bruce.benoit Mar 01, 2010 – 9:29am

1" 1/2" 0" 1"

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Revelopment ☐ Other ☐ ________

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Busy Bea's Drycleaners/ Cinda Corp		TW-12

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dave Last Name: Paulson Firm: Soil Essentials	04/14/2005	04/14/2005	Geoprobe (Direct Push)

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			____ Feet MSL	____ Feet MSL	2 inches

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

Facility ID	County	County Code	Civil Town/City/ or Village
	Winnebago		City of Menasha

Location: South of POQ bldg
Surface: Asphalt

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1	48"/34"		0–4	0-2.5": Asphalt 2.5-1': Lt brown fine to coarse sand & gravel mixed w/ brown silty clay FILL 1-1.7': Reddish brown silty clay w/ traces of angular gravel. FILL 1.7-2.25': Brown silty clay w/ fibrous organic material @ 1.7-1.8'. NATIVE moist, firm, high plast. 2.25-4': Reddish-brown silty clay. moist, firm, moderate plasticity. Gray streaks in clay (few). Traces of roots.	ASPHALT SW/GW CL CL CL	0-1' 1-1.7' 1.7-4'		14 80 28						1-1.7': strong sewer odor
2	48"/38"		4–8	4-8': Same as 2.25-4'	CL			Ø Ø						
3	48"/47"		8–12	8-12': Same as previous. waterbearing @ 11.5'???	CL			Ø Ø						

GEOLOGIC SUMMARY
0-2.5" ASPHALT
2.5-1' SAND/GRAVEL
1-1.7' SILTY CLAY Reddish-brown w/ traces of angular gravel. (FILL, CL)
1.7-16' SILTY CLAY Brown w/ high plasticity (1.7-2.25') to reddish-brown & moderate plasticity (2.25-12'). moist throughout. Clay is firm (1.7-13.5') to soft (13.5-18'). Fibrous organic material (traces of) from 1.7-1.8'. Traces of roots & gray streaking in clay from 2.25-4'. Clay is reddish brown (12-15.5) to 50% reddish brown & 50% gray (15.5-16').
(NATIVE, CL)

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

Signature	Firm
[signature]	Alpha Terra Science

TW-12

Sample and Type	Length Au. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1	48" / 47"		13	12-16' Reddish-brown silty clay, moist, firm (12-13.5') & soft (13.5-16'). Hi L (12-13.5') to moderate (13.5-16') plasticity clay a mix of reddish-brown & gray from 15.5-16' (½ & ½)	CL			Ø						reddish-brown 15.5' gray 16'
			14											
			15					Ø						
			16	16' EOB										
			17	Screened from 5.5-15.5'										
			18											
			19											
			20											
			21											
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			27											
			28											
			29											
			30											
			31											
			32											

VAPOR MITIGATION OPERATION AND CAP MAINTENANCE PLAN

Attachment D

D-1:
The Property is located at: 1077 Racine Street, Menasha, Wisconsin

BRRTS No. 02-71-536999

Tax Parcel ID : 008035414

Introduction:
This document is the Maintenance Plan (Plan) for the Cover Barrier and Vapor Mitigation system installed at the above referenced property in accordance with the requirements of NR. 724, Wisconsin Administrative Code. The Plan outlines the system design, maintenance, inspections, notifications and contacts.

More site-specific information about this property/site may be found in:

- The case file in the DNR Region office
- BRRTS on the Web (DNR's internet based data base of contaminated sites)for the link to a PDF for site-specific information at the time of closure and on continuing obligations;
- RR Sites Map/GIS Registry layer for a map view of the site, and
- The DNR project manager for Winnebago County.

Descriptions

Description of Contamination
The former Busy Bea's Dry Cleaning facility had conducted dry clearing operations at the site for approximately 20 years. Busy Bea's is situated within a multi-tenant commercial "strip-mall" structure. Busy Bea's occupies one, centrally located tenant unit within the six tenant-unit structure. Based on findings from Alpha Terra Consulting, there are two apparent source areas where elevated concentrations of Tetrachloroethene (PCE) and associated degradation products have been detected in the soil. The highest soil contaminant concentrations are located adjacent to the dry cleaning machine and may be related to a "sump" located inside the building. The maximum PCE concentration of all soil samples collected at the site to date is 360,000 parts per billion (ppb) detected at 5 feet bgs, at the base of the "sump". PCE concentrations in the vicinity range from 12,000-58,000 ppb, at depths ranging from 4-10 feet bgs. The second source area is located east of the building adjacent to the concrete pad at GP-10 and MW-105. Soil samples from this location do not contain any PCE; however, degradation products including Trichloroethene (TCE), cis- Dichloroethene (DCE) and Vinyl Chloride (VC) are present at concentrations ranging from 200- 2,500 ppb. The vertical extent of soil contamination appears to range from 4-14 feet bgs.

On May 8, 2007, Shaw E&I subcontracted Radon Abatement of West Allis, Wisconsin to install a sub-slab depressurization vapor mitigation system (VMS) in the northwest corner of the former Busy Bea dry cleaning tenant space and in the east end of the Natural Health Concepts health care\vitamin store that is located immediately north of the former dry cleaner. Prior to installation, the contractor inspected the basement floor and walls for cracks, and evaluated other potential areas of vapor intrusion. There were

no major cracks or holes. To address the sub-slab vapor pathway into the building units 1077 and 1083, two active depressurization systems were installed in those building units. **Figures D.2.a** present the vapor sampling locations and the locations of the vapor mitigation systems. Radon Abatement cored two sub slab drop pits into units (077 and 1083 Racine Street consisting of three inch diameter holes through the concrete slab. Three inch diameter, schedule 40 PVC piping was placed in the core holes and sealed with silicone caulk. The piping extended vertically until the ceiling, where the piping transitioned to a horizontal run to the east box sill area, where a 3-inch diameter hole was drilled to access the exterior wall. Radon Abatement installed a RadonAway™ DynaVac RP 265 VMS in the northwest corner of the dry cleaning tenant space, and in the east end of the Natural Health Concepts store. Radon Abatement recommended the two extraction locations based upon contaminant distribution, store layout and suspected bearing wall locations

The vapor extraction fans were secured on the outside of the building in-line with the ventilation pipe. During operation and maintenance activities conducted on the system in 2016, two separate 85 watt, RP265 Series vapor extraction suction fan, manufactured by Spruce Environmental of Massachusetts, were utilized and was sized to the job based on manufacturer's recommendations. The fan requires a 15 amp service and will pull up to 410 cubic feet per minute (CFM), running 24-hours a day. The 2016 fans replaced the previously installed fans. Additionally, a total of five communication testing ports were installed, three in unit 1077 and two in unit 1083. The ports will remain in place for additional subslab communication testing as needed.

The exhaust pipe then exits the fan and is carried up to approximately eighteen (18) inches above the eave of the roof, in accordance with USEPA and American Association of Radon Scientists and Technologists-National Radon Proficiency Program AARST-NRPP safety recommendations. Additionally, a condensate bypass was also installed to assist in the removal of condensate before the fan system.

A U-tube manometer was installed on the drop pipe in 1077 Racine Street. The U-tube manometer presents the inches of water for the system at the drop pipe. Additionally, a flow hole was installed to allow for a Pitot Tube to measure the air flow up the ventilation pipe. Information placards were placed adjacent to the monitor and warning system explaining how to evaluate them, the system specifics, and the installer's and owner's contact information.

The VMS was installed in general accordance with local and state building codes and state regulations, and in accordance with United States Environmental Protection Agency standard practices.

<u>System Maintenance and Inspection</u>

The system will be annually inspected to ensure the fan is properly operating and the pressure points in the floor of the building and garage will be tested to monitor the sub-slab airflow. The fan cut sheet is presented at the end of this Plan. System parts to be inspected include:

- RP 265 Fan
- Piping and exhaust pipe at roof line
- Electrical connections
- U-tube manometer
- Floor

The floor of the building will serve as a barrier to break the pathway of soil and groundwater vapors into the building. The floor will be inspected annually for any cracks or issues that would need to be repaired. If for any reason, the floor needs to be repaired in any way, the floor is to remain as impermeable as at

the time closure was granted. Additionally, if the use of the building changes, a reassessment of the vapor intrusion potential needs to be re-evaluated.

The system is required to continuously operate and be maintained until the time the WDNR approves the shut-down of the system.

A log of the maintenance and inspections, as **Form 4400-305, Continuing Obligations Inspection and Maintenance Log,** will be kept onsite. The building occupant, if applicable, will also have a copy of the logs for their records. The log will include recommendations for necessary repairs of the fan, floor, piping, or pressure points. Once repairs are completed, they will be photographed and documented in the inspection log. If any issues or problems occur with the system, the site owner will contact the Wisconsin Department of Natural Resources. A copy of the inspection log will be submitted to the DNR on an annual basis according to the requirements of the case closure letter.

Contacts

Kevin McKnight – Hydrogeologist
Wisconsin Department of Natural Resources
625 E County Road Y, Suite 700
Oshkosh, WI 54901
(920) 424-7890

Cinda Corporation – Contact Cindy Vander Zanden
W8918 Great Oak Lane
Hortonville, WI 54944
Phone: (920) 788-4656

Heidi Woelfel, APTIM (Environmental Consultant)
Project Manager
7330 W. 33rd Street North, Suite 106
Wichita, KS 67205
Phone: 414-687-3313

Tom Heine, Radon Abatement, Inc. (VI System installation contractor)
12221 West Rockne Avenue
Hales Corners, WI 53130
Phone: 414-546-3691

Cover Barrier for Groundwater Infiltration Pathway

The strip mall space for units 1077 and 1083 as well as the parking area located to the west of the units (as identified in Figure D.2.B Cap Maintenance Area) will need to remain in place to act as an infiltration barrier to minimize future soil-to-groundwater contamination migration that would violate the groundwater standards in ch. NR 140, Wisconsin Administrative Code. Based on the current use of the property as commercial, the barrier should function as intended unless disturbed.

If removal or repair of the Cap Maintenance Area is needed, you will need to follow the requirements of Wis. Admin. Code ch. NR727. DNR guidance document RR-987, Post-Closure Modifications: Changes to Property Conditions after a State-Approved Cleanup discusses these requirements and should be reviewed prior to removal or repair of the Cap Maintenance Area. DNR RR-987 is available at

http://dnr.wi.gov/files/PDF/pubs/rr/RR987.pdf.

Annual Inspection

The building units and the floor overlying the soil and as depicted in **Figure D.2.b** will be inspected once a year, normally in the spring after all snow and ice is gone, for deterioration, cracks and other potential problems that can cause additional infiltration into or exposure to underlying soils. The inspections will be performed by the property owner or their designated representative. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed and where infiltration from the surface will not be effectively minimized will be documented.

A log of the inspections and any repairs will be maintained by the property owner and is included as D.4, **Form 4400-305, Continuing Obligations Inspection and Maintenance Log**. The log will include recommendations for necessary repair of any areas where underlying soils are exposed and where infiltration from the surface will not be effectively minimized. Once repairs are completed, they will be documented in the inspection log. A copy of the maintenance plan and inspection log will be kept at the site. A copy of the inspection log will be submitted to the DNR on an annual basis according to the requirements of the case closure letter.

Maintenance Activities

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling or larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment (PPE). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

In the event that the paved parking area and/or the unit's building floor overlying the contaminated groundwater plume or soil is removed or replaced, the replacement barrier must be equally impervious. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the DNR or its successor.

The property owner, in order to maintain the integrity of the building, will maintain a copy of this Maintenance Plan at the site and make it available to all interested parties (i.e. on-site employees, contractors, future property owners, etc.) for viewing.

Prohibition of Activities and Notification of DNR Prior to Actions Affecting a Cover/Barrier

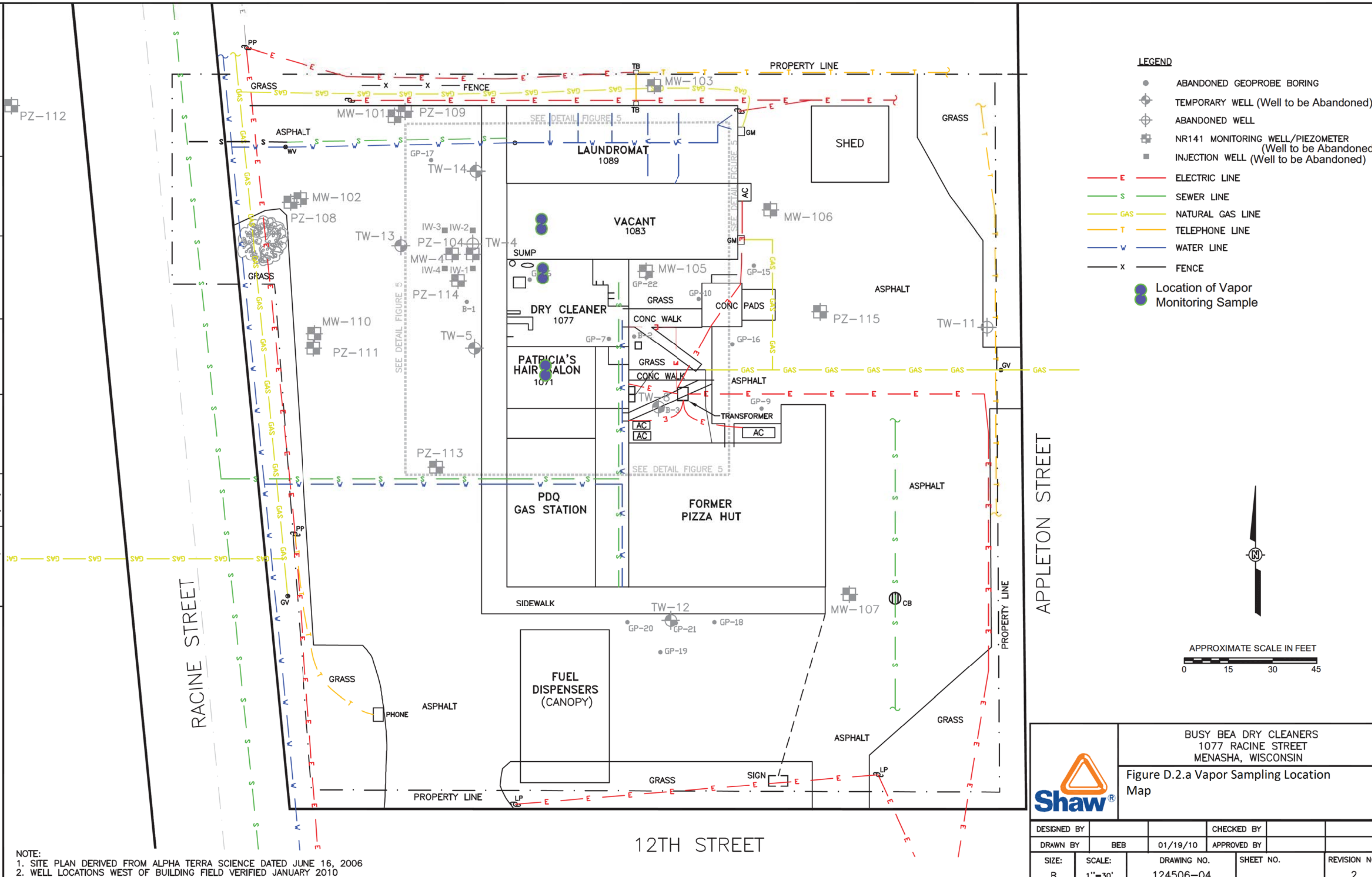
The following activities are prohibited on any portion of the property where [pavement, a building foundation, soil cover, engineered cap or other barrier] is required as shown on the attached map, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; 6) construction or placement of a building or other structure; 7) changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings; or 8) changing the construction of a building that has a vapor mitigation system in place which would

compromise the effectiveness of the vapor mitigation system.

If removal, replacement or other changes to a cover, or a building which is acting as a cover, are considered, the property owner will contact DNR at least 45 days before taking such an action, to determine whether further action may be necessary to protect human health, safety, or welfare or the environment, in accordance with s. NR 727.07, Wis. Adm. Code.

Amendment or Withdrawal of Maintenance Plan

This Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of DNR.



File: Q:\Projects\100000\124506 – Busy Bea\CAD\124506-04.dwg Layout: FIG 1 SITE PLAN new User: bruce.benoit Mar 01, 2010 – 9:29am

DRAWING NUMBER	APPROVED BY	CHECKED BY	DRAWN BY	DESIGNED BY	DATE	OFFICE
124506-04			BEB	TPW	01/13/10	Milwaukee, WI

NOTE:
1. SITE PLAN DERIVED FROM ALPHA TERRA SCIENCE DATED JUNE 16, 2006
2. WELL LOCATIONS WEST OF BUILDING FIELD VERIFIED JANUARY 2010

BUSY BEA DRY CLEANERS
1077 RACINE STREET
MENASHA, WISCONSIN

Figure D.2.a Vapor Sampling Location Map

DESIGNED BY			CHECKED BY	
DRAWN BY	BEB	01/19/10	APPROVED BY	

SIZE:	SCALE:	DRAWING NO.	SHEET NO.	REVISION NO.
B	1"=30'	124506–04		2

12221 West Rockne Avenue Hales Corners Wisconsin 53130 414-303-4038 radabt1@wi.rr.com

PRESSURE FIELD EXTENTION AS DEFINED BY COMMUNICATION TESTING **Date of Production 122116**

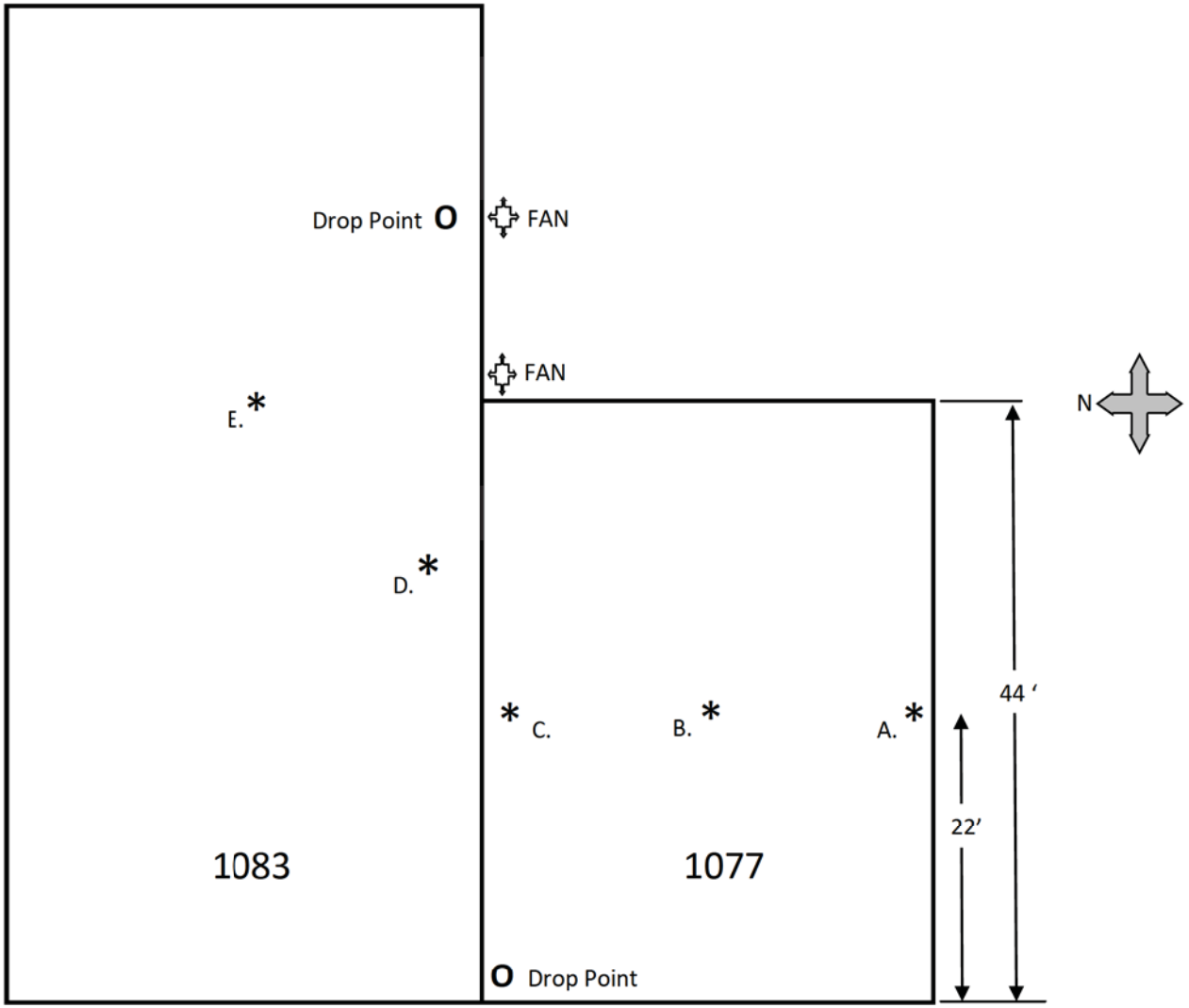
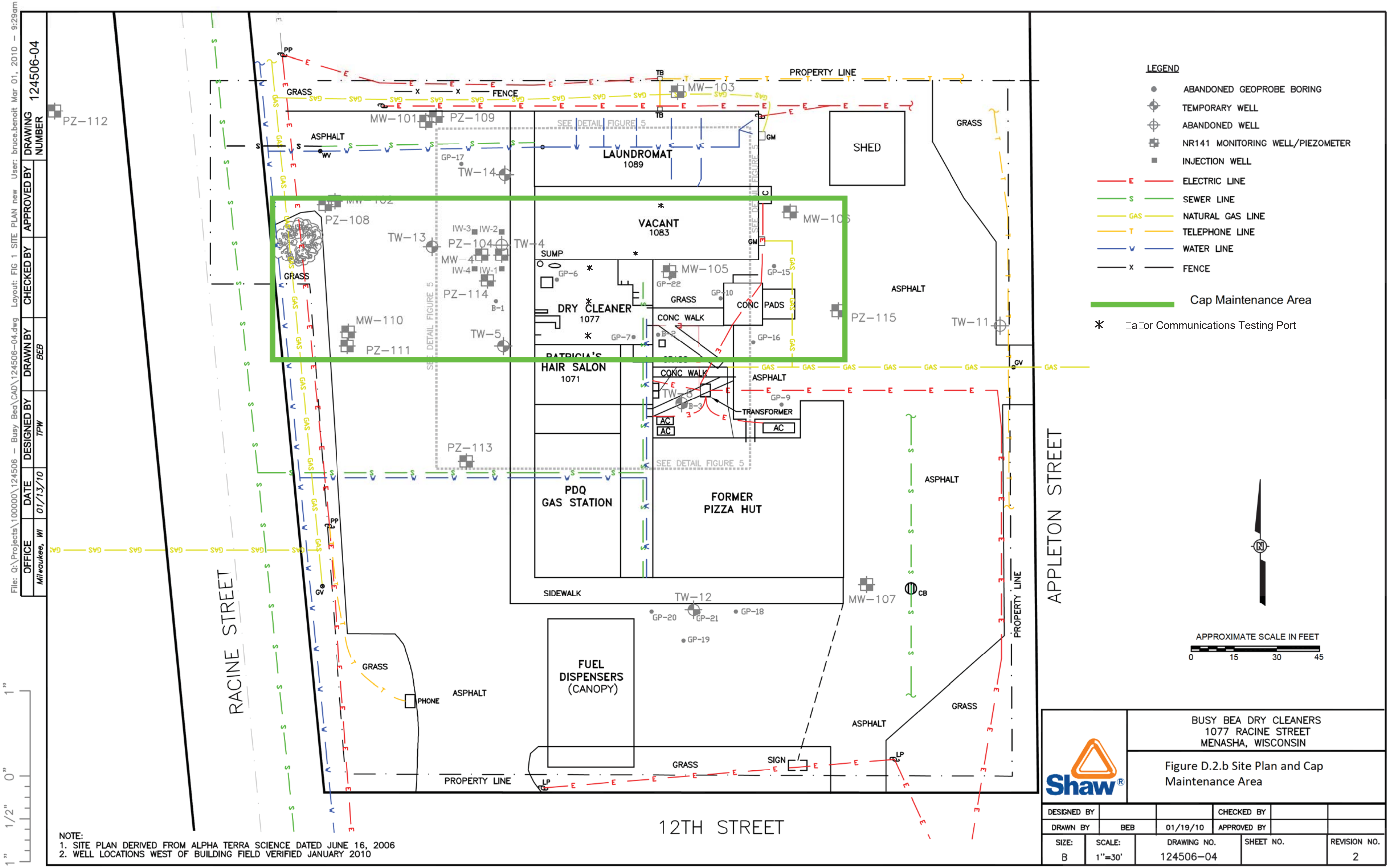


Figure D.2.a Site Vapor Mitigation Systems Map

✱ Communications Testing Port

not to scale

THOMAS J. HEINE 101878RT 101879MT


LEGEND
ABANDONED GEOPROBE BORING
TEMPORARY WELL
ABANDONED WELL
NR141 MONITORING WELL/PIEZOMETER
INJECTION WELL
ELECTRIC LINE
SEWER LINE
NATURAL GAS LINE
TELEPHONE LINE
WATER LINE
FENCE
Cap Maintenance Area
□a□or Communications Testing Port
APPROXIMATE SCALE IN FEET
0 15 30 45
RACINE STREET
APPLETON STREET
12TH STREET
PROPERTY LINE
LAUNDROMAT 1089
VACANT 1083
DRY CLEANER 1077
PATRICIA'S HAIR SALON 1071
PDQ GAS STATION
FORMER PIZZA HUT
FUEL DISPENSERS (CANOPY)
SHED
SEE DETAIL FIGURE 5
MW–101
PZ–109
MW–103
PZ–112
MW–102
PZ–108
MW–106
TW–13
PZ–104
TW–4
TW–14
MW–4
MW–105
PZ–114
MW–110
PZ–111
TW–5
PZ–115
TW–11
PZ–113
TW–12
MW–107
TW–6
TRANSFORMER
SIDEWALK
NOTE:
1. SITE PLAN DERIVED FROM ALPHA TERRA SCIENCE DATED JUNE 16, 2006
2. WELL LOCATIONS WEST OF BUILDING FIELD VERIFIED JANUARY 2010
File: Q:\Projects\100000\124506 – Busy Bea\CAD\124506-04.dwg Layout: FIG 1 SITE PLAN new User: bruce.benoit Mar 01, 2010 – 9:29am
DRAWING NUMBER 124506-04
OFFICE Milwaukee, WI
DATE 01/13/10
DESIGNED BY TPW
DRAWN BY BEB
Shaw
BUSY BEA DRY CLEANERS
1077 RACINE STREET
MENASHA, WISCONSIN
Figure D.2.b Site Plan and Cap Maintenance Area
DESIGNED BY
CHECKED BY
DRAWN BY BEB 01/19/10
APPROVED BY
SIZE: B
SCALE: 1"=30'
DRAWING NO. 124506–04
SHEET NO.
REVISION NO. 2

D.3 Former Busy Vapor Mitigation System and Cover Barrier Photographic Record

Location: Former Bus Bea r C eaner
acine treet enas a

Photo No: **Photo Direction** ast

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D.3 Vapor Mitigation Photographic Record

Client:	Cin□a□Cor□oration□	**Project Number:**	□□□□□□
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D.3 Vapor Mitigation Photographic Record

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

Continuing Obligations Inspection and Maintenance Log

Form 4400-305 (2/14)

Directions: In accordance with s. NR 727.05 (1) (b) 3., Wis. Adm. Code, use of this form for documenting the inspections and maintenance of certain continuing obligations is required. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.]. When using this form, identify the condition that is being inspected. See the closure approval letter for this site for requirements regarding the submittal of this form to the Department of Natural Resources. A copy of this inspection log is required to be maintained either on the property, or at a location specified in the closure approval letter. Do NOT delete previous inspection results. This form was developed to provide a continuous history of site inspection results. The Department of Natural Resources project manager is identified in the closure letter. The project manager may also be identified from the database, BRRTS on the Web, at http://dnr.wi.gov/botw/SetUpBasicSearchForm.do, by searching for the site using the BRRTS ID number, and then looking in the "Who" section.

Activity (Site) Name	BRRTS No.

Inspections are required to be conducted (see closure approval letter):	When submittal of this form is required, submit the form electronically to the DNR project manager. An electronic version of this filled out form, or a scanned version may be sent to the following email address (see closure approval letter):
○ annually ○ semi-annually ○ other – specify ______	

Inspection Date	Inspector Name	Item	Describe the condition of the item that is being inspected	Recommendations for repair or maintenance	Previous recommendations implemented?	Photographs taken and attached?
		☐ monitoring well ☐ cover/barrier ☐ vapor mitigation system ☐ other:			○ Y ○ N	○ Y ○ N
		☐ monitoring well ☐ cover/barrier ☐ vapor mitigation system ☐ other:			○ Y ○ N	○ Y ○ N
		☐ monitoring well ☐ cover/barrier ☐ vapor mitigation system ☐ other:			○ Y ○ N	○ Y ○ N
		☐ monitoring well ☐ cover/barrier ☐ vapor mitigation system ☐ other:			○ Y ○ N	○ Y ○ N
		☐ monitoring well ☐ cover/barrier ☐ vapor mitigation system ☐ other:			○ Y ○ N	○ Y ○ N
		☐ monitoring well ☐ cover/barrier ☐ vapor mitigation system ☐ other:			○ Y ○ N	○ Y ○ N

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Title:	Title:

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

SUBMIT AS UNBOUND PACKAGE IN THE ORDER SHOWN

Notice: Pursuant to ch. 292, Wis. Stats., and chs. NR 726 and 746, Wis. Adm. Code, this form is required to be completed for case closure requests. The closure of a case means that the Department of Natural Resources (DNR) has determined that no further response is required at that time based on the information that has been submitted to the DNR. All sections of this form must be completed unless otherwise directed by the Department. DNR will consider your request administratively complete when the form and all sections are completed, all attachments are included, and the applicable fees required under ch. NR 749, Wis. Adm. Code, are included, and sent to the proper destinations. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31 - 19.39, Wis. Stats.). Incomplete forms will be considered "administratively incomplete" and processing of the request will stop until required information is provided.

Site Information

BRRTS No.	VPLE No.		
02-71-536999			
Parcel ID No.			
008035414			
FID No.	**WTM Coordinates**		
	X	Y	
471042660	644313	417405	
BRRTS Activity (Site) Name	**WTM Coordinates Represent:**		
Former Busy Bea Dry Cleaners	☐ Source Area ☒ Parcel Center		
Site Address	**City**	**State**	**ZIP Code**
1065 RACINE RD (1077 Racine St)	Menasha	WI	53214
Acres Ready For Use			
1.5			

Responsible Party (RP) Name			
David Vander Zanden			
Company Name			
CINDA CORPORATION INC			
Mailing Address	**City**	**State**	**ZIP Code**
W8918 GREAT OAK LN	Hortonville	WI	54944
Phone Number	**Email**		
(920) 470-1195	cindyjvanderzanden@gmail.com		

☒ Check here if the RP is the owner of the source property.

Environmental Consultant Name			
Heidi Woelfel			
Consulting Firm			
CB&I			
Mailing Address	**City**	**State**	**ZIP Code**
11206 Thompson	Lenexa	KS	66219
Phone Number	**Email**		
(414) 687-3313	heidi.woelfel@cbi.com		

Fees and Mailing of Closure Request

1. **Send a copy of page one** of this form and the applicable ch. NR 749, Wis. Adm. Code, fee(s) to the DNR Regional EPA (Environmental Program Associate) at **http://dnr.wi.gov/topic/Brownfields/Contact.html#tabx3**. Check all fees that apply:

   ☐ $1,050 Closure Fee

   ☐ $350 Database Fee for Groundwater or Monitoring Wells (Not Abandoned)

   ☐ $300 Database Fee for Soil

   Total Amount of Payment $ _____

   ☒ Resubmittal, Fees Previously Paid

2. **Send one paper copy and one e-copy on compact disk of the entire closure package** to the Regional Project Manager assigned to your site. Submit as *unbound, separate documents* in the order and with the titles prescribed by this form. For electronic document submittal requirements, see **http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf**.

Site Summary

If any portion of the Site Summary Section is not relevant to the case closure request, you must fully explain the reasons why in the relevant section of the form. All information submitted shall be legible. Providing illegible information will result in a submittal being considered incomplete until corrected.

1. General Site Information and Site History

A. Site Location: Describe the physical location of the site, both generally and specific to its immediate surroundings.

The Busy Bea drycleaner facility is located in a multi-tenant building on the northeast corner of 12th Street and Racine Street in Menasha, WI. The street address of the 1.46-acre property is 1077 Racine Street. The site is located in the W1/2, SW1/4, Section 11, Township 20 North, Range 17 East, in the town of Menasha, Winnebago County, Wisconsin. The former Busy Bea unit is currently unoccupied and it is bordered by a hair salon to the south and a dog groomer to the north within a strip mall located in a general business district. The building is "C"-shaped and houses six businesses, with addresses spanning from 1065 Racine Street for the PDQ gas station to 1089 Racine Street for the northernmost unit. The entire building is slab on grade construction with no basement. The majority of the property consists of asphalt surfaces with grass strips adjacent to the streets and in part of the eastern courtyard of the building. Racine Street borders the mall to the west, 12th Street borders the mall to the south, and Appleton Street borders to the east. General business zoned area is located to the north, west, with residential properties located to the east and south of the site.

B. Prior and current site usage: Specifically describe the current and historic occupancy and types of use.

The drycleaning facility was an active business from 1981 until approximately 2006. The former drycleaning machine was located on the northwest corner of the store along the western building wall, and tetrachloroethene (PCE) was utilized. The unit is currently unoccupied.

C. Current zoning (e.g., industrial, commercial, residential) for the site and for neighboring properties, and how verified (Provide documentation in Attachment G).

The site is zoned B-3 General Business District, which is based upon the City of Menasha zoning map dated 2013. The site is bordered by other properties zoned as B-3, general business to the north, and west (City of Menasha zoning). To the south and east of the Site are R-1 properties zoned for single family residential (Town of Menasha zoning).

D. Describe how and when site contamination was discovered.

In October 2004, Terracon performed the initial subsurface investigation at the Site which included the advancement of three soil borings. Chlorinated hydrocarbon impacted soil (cis-1,2- Dichloroethene (cis-1,2-DCE) and Vinyl Chloride(VC)) was reported at two boring locations (B-1 - west of the Busy Bea's tenant unit, and B-3 - southeast of the Busy Bea's tenant unit and drum storage area). Alpha Terra Science ("Alpha Terra") of Plymouth, Wisconsin performed a subsurface investigation at the Site between April 2005 and May 2006. Alpha Terra advanced and sampled 26 direct-push soil borings which were installed to approximately 13-15 feet below ground surface (bgs). Nine of the direct push borings were converted to temporary groundwater monitoring wells. Six Wisconsin Administrative Code compliant Natural Resource (NR) 141 groundwater monitoring wells, and four WAC NR 141 compliant piezometers were installed. Several hand auger borings were also advanced within the building. Trichloroethene (TCE) is present in the soil, groundwater, and sub-slab vapors beneath the building.

E. Describe the type(s) and source(s) or suspected source(s) of contamination.

The main area where PCE was formerly stored was at the dry cleaning machine inside the building. The dry cleaning machine was located at the same location for the history of the operation. PCE was delivered to the dry cleaning machine using drummed product that was delivered to the site through the rear double doors. Filters and spent solvent, if any, was picked up at the time of solvent delivery. No drums of PCE were stored at the site. Spills at the dry cleaning machine may have occurred, and are likely responsible for the observed contamination at the Site.

F. Other relevant site description information (or enter Not Applicable).

Not Applicable

G. List BRRTS activity/site name and number for BRRTS activities at this source property, including closed cases.

BRRTS #: 02-71-536999 Open ERP case is listed for the Site.

H. List BRRTS activity/site name(s) and number(s) for all properties immediately adjacent to (abutting) this source property.

BRRTS #: 02-71-543567 Closed ERP case is listed for the PDQ site located in the strip mall at 1065 Racine Street.
BRRTS #: 03-71-000810 Closed LUST case is listed for the PDQ site located in the strip mall at 1065 Racine Street.

2. General Site Conditions

A. Soil/Geology

i. Describe soil type(s) and relevant physical properties, thickness of soil column across the site, vertical and lateral variations in soil types.

The site geology consists of approximately one to two feet of fill present outside the building, consisting of asphalt or topsoil fill to approximately three inches, sand and coarse gravel base to approximately one foot, and occasionally silty clay with gravel fill is present beneath the sand and gravel fill. The native silty clay soil is brown to reddish brown, high to moderately plastic, and has a topsoil layer with some organics present in the upper few inches. The clay was

noticeably
softer below approximately 13 feet. The native silty clay material is glacial till and appears relatively uniform across the investigation area, with no mapable layers of sand or silt noted. The silty clay extends to approximately 15 feet, where it grades to clayey silt to approximately 23 feet. A thin black peat layer, with abundant wood, was present at approximately 23 feet, and was underlain by sandy silt with gravel to the sampled depth of 28 feet.

ii. Describe the composition, location and lateral extent, and depth of fill or waste deposits on the site.
Beneath the building, three locations were evaluated, GP-6, GP-7, and the sump cut into the floor near the former drycleaning machine. There is approximately four inches of concrete underlain by sand and gravel fill to a depth of 2.7 to 4.5 feet below grade.

iii. Describe the depth to bedrock, bedrock type, competency and whether or not it was encountered during the investigation.
The depth to bedrock, which consists of Ordovician-age Sinnipee Group carbonates, is mapped as being between 50 feet and 100 feet thick. Bedrock was not encountered during site investigation activities.

iv. Describe the nature and locations of current surface cover(s) across the site (e.g., natural vegetation, landscaped areas, gravel, hard surfaces, and buildings).
The entire building is slab on grade construction with no basement. The majority of the property consists of asphalt parking surfaces with grass strips adjacent to the streets and in part of the eastern courtyard of the building. Approximately 90% of the property is covered by the building and/or pavement.

B. Groundwater

i. Discuss depth to groundwater and piezometric elevations. Describe and explain depth variations, including high and low water table elevation and whether free product affects measurement of water table elevation. Describe the stratigraphic unit(s) where water table was found or which were measured for piezometric levels.
Depth to groundwater stabilizes at approximately 1 to 6 feet below grade in the water table wells, and approximately 29 feet below grade in the piezometers. The groundwater elevations indicate a mound of water is present beneath the building and courtyard area, with the highest water elevations in MW-105 and TW-8 in the courtyard. There is likely ponded water within the fill beneath the building, and water flows radially outward from the building.

ii. Discuss groundwater flow direction(s), shallow and deep. Describe and explain flow variations, including fracture flow if present.
The direction of flow in the vicinity of the former dry cleaner machine is to the northwest, and from the courtyard the flow is primarily to the northeast. Given the approximately 25-foot difference in water elevations between the water table well MW-102 and the piezometer PZ-108, the shallow contaminated groundwater represents a perched flow condition. The vertical flow gradient is strongly downward (approximately 2.0 ft / ft) at well nest MW-102 / PZ-108, the only piezometer nest to consistently have water in both wells. The pieziometric groundwater flow is the the southeast.

iii. Discuss groundwater flow characteristics: hydraulic conductivity, flow rate and permeability, or state why this information was not obtained.
Hydraulic conductivity test results indicate the formation does not readily yield water, with values of approximately 10-6 cm/sec at most wells. Due to the tight native silty clay formation and the shallow depth to water, groundwater migration will likely be controlled by the shallow fill that disrupt the native soil and provide a conduit for groundwater migration.

iv. Identify and describe locations/distance of potable and/or municipal wells within 1200 feet of the site. Include general summary of well construction (geology, depth of casing, depth of screened or open interval).
According to the Water Utility for the Town of Menasha, there are no municipal wells within 1200 feet of the site. There are no potable wells on site or nearby as the area is serviced with municipal sewer and water.

3. Site Investigation Summary

A. General

i. Provide a brief summary of the site investigation history. Reference previous submittals by name and date. Describe site investigation activities undertaken since the last submittal for this project and attach the appropriate documentation in Attachment C, if not previously provided.
*In October 2004, Terracon performed the initial subsurface investigation at the Site which included the advancement of three soil borings. Chlorinated hydrocarbon impacted soil (cis-1,2-DCE and VC) was reported at two boring locations (B-1 - west of the Busy Bea's tenant unit, and B-3 - southeast of the Busy Bea's tenant unit and drum storage area).
*Alpha Terra Science ("Alpha Terra") of Plymouth, Wisconsin performed a subsurface investigation at the Site between April 2005 and May 2006. Alpha Terra advanced and sampled 26 direct-push soil borings which were installed to approximately 13-15 feet below ground surface (bgs). Nine of the direct push borings were converted to temporary groundwater monitoring wells. Six Wisconsin Administrative Code ("WAC") compliant Natural Resource (NR) 141 groundwater monitoring wells, and four WAC NR 141 compliant piezometers were installed. Several hand auger borings were also advanced within the building.
*On February 9, 2007, Shaw E&I (Shaw) submitted a Remedial Action Work Plan outlining the site remedial work plan.
*On May 8, 2007, Shaw provided oversight to Radon Abatement Inc. installation of a sub-slab Vapor Mitigation

System (VMS) venting the former Busy Bea Dry Cleaners and the adjacent vacant retail space to the north. On May 23, 2007, Shaw oversaw the injection pilot test in four injection points (IW-1 through IW-4) which were advanced using geoprobe direct push technology. The vertical treatment zone extended to a depth of 15 to 20 ft bgs. The injection points were installed adjacent to the former location of temporary well TW-4. A 10% solution of Newman Zone treatment chemistry was injected into the subsurface via a manifold system. A total of approximately 411 gallons of the Newman Zone solution was injected into the subsurface during the pilot test.
*On June 11 and 12, 2007, Shaw collected a passive ambient indoor air sample from the vacant former dry cleaning tenant space. The results of the volatile organic compounds (VOCs) analysis of the air sample collected reported PCE concentration above the WDNR Indoor Air October 31, 2012 2 Action Levels at 1,740 µg/m3. The cumulative target index for cancerous compounds was also exceeded, although the hazard index for noncancerous compounds was not exceeded for the indoor ambient air sample. It is important to note that the complete dry cleaning machine, including the evaporator, was still installed at the time of the sampling activities.
*On November 29, 2007, Shaw submitted the Remediation Documentation Report - Vapor Mitigation System and Amendment Injection Pilot Test to the WDNR.
*On June 3, 2008, Shaw collected passive ambient indoor air samples from the vacant former dry cleaning tenant space, the vacant tenant space located to the north (1083 Racine Street), and the active Patricia's Hair Salon (1071 Racine Street) located to the south. The air sample collected from the former dry cleaner tenant space contained PCE and benzene at 1.9 µg/m3 and 0.86 µg/m3, respectively. The air sample from Patricia's Hair Salon contained TCE at 15 µg/m3, PCE at 1.9 µg/m3, and benzene at 0.99 µg/m3. The air sample from the vacant tenant space contained PCE and benzene at 01.7 µg/m3 and 0.79 µg/m3, respectively. The reported PCE, TCE and benzene concentrations from the three sample locations did not exceed the WDNR Indoor Air Action Levels. Neither the target index for cancerous compounds nor the hazard index for noncancerous compounds was exceeded for any of the ambient air samples collected. These ambient air samples represent the current indoor air conditions following the pilot injection test and resultant reduction of the chlorinated hydrocarbons as well as the VMS system installation and operation.
*On July 29, 2008, Shaw provided oversight to ORIN Remediation Technologies and Probe Technologies chemical amendment injection. Twenty-five injection points (IW-5 through IW- 29) were advanced using geoprobe direct push technology. The vertical treatment zone extended from 16 ft bgs up to 6 ft bgs. ORIN injected approximately a 10- 20% concentration of Newman's Zone treatment chemistry into the injection wells to enhance the naturally occurring reductive dechlorination of chlorinated solvents in the targeted treatment area. A total of approximately 4,405 gallons of 10-20% Newman Zone treatment chemistry was injected into the 25 injection locations.
*On February 5, 2009, Shaw submitted the Remediation Documentation Report #2 - Subsurface Amendment Injection.
*Between January 5 and January 15, 2010 Shaw supervised the installation of groundwater monitoring well MW-4 and piezometers PZ-112, PZ-113, PZ-114 and PZ-115. The monitoring well and piezometers were installed to assess the soil and groundwater conditions on-Site and off-Site following the amendment injection activities.
*In September 2010, Shaw submitted the Supplementary Site Investigation and Groundwater Sampling Report.
*On January 12, 2012, Shaw submitted a Status Update Letter.
*On October 29, 2012, Shaw submitted a Closure Assessment Report, closure was denied on January 3, 2013 due to the need for additional groundwater data.
* On October 30, 2013, Shaw submitted a Case Closure Request, the closure was denied on December 9, 2013 due to the need for additional groundwater data and vapor mitigation operation and maintenance (O&M).
*On February 7, 2017, CB&I (formerly Shaw) submitted a Status Update for Vapor Mitigation System and Groundwater Sampling. The Status update presented the groundwater sampling information from the October 2016 sampling event as well as the O&M activities conducted on the vapor mitigation systems.

ii. Identify whether contamination extends beyond the source property boundary, and if so describe the media affected (e.g., soil, groundwater, vapors and/or sediment, etc.), and the vertical and horizontal extent of impacts.

The October 2016 groundwater sampling activities identified a reduced dissolved chlorinated VOC (CVOC) plume for the site. The edges of the plume have retreated from the property boundary. Therefore, the groundwater impacts do not affect any off-site properties. Additionally, given the defined groundwater impacts onsite, the probability of vapor impacts off-site are limited as the groundwater CVOCs for the sentinel wells (MW-106, MW-107) are very low levels below standards or non-detect.

iii. Identify any structural impediments to the completion of site investigation and/or remediation and whether these impediments are on the source property or off the source property. Identify the type and location of any structural impediment (e.g., structure) that also serves as the performance standard barrier for protection of the direct contact or the groundwater pathway.

The unit, and strip mall as a whole, will serve as a protective barrier to direct contact and to the infiltration of water thru the underlying soils.

B. Soil

i. Describe degree and extent of soil contamination. Relate this to known or suspected sources and known or potential receptors/migration pathways.

*West of the Building
The most contaminated area outside the building is immediately west of the former dry cleaning machine at TW-4. Concentrations of PCE range from 12,000 to 58,000 ug/kg in soil at a depth of 4 to 10 feet below grade at TW-4, GP-6,

and TW-14 in the western parking lot. The horizontal extent of contamination to the west appears defined by the declining concentrations of PCE at GP-17 (6,200 ug/kg), and no detectable VOCs in soil from MW-101/ PZ-109 and MW-102 / PZ-108. The sewer and water lateral runs east to west between GP-17 and MW-101/PZ-109, and likely prevented further migration of contamination to the north. The vertical extent of soil contamination in this area appears defined by the non-detectable concentrations at depths of 15 to 16 feet at borings TW-13 and TW-14 and the low concentrations of VOCs in soil at 14 to 16 feet in borings TW-4 and GP-17 (300 ug/kg PCE, 1,600 ug/kg cis-1,2-DCE 42 ug/kg VC in TW-4). Lower concentrations are present to the east, west, north, and south of TW-4.
*Under the Building
Native clay soil at a depth of five feet beneath the building floor at the sump contained the highest concentrations of PCE in the soil, 360 mg/kg. PCE was also detected in one boring installed indoors east of the DCM at GP-6, where 12 mg/kg PCE was present at a depth of 6 to 8 feet. The sand fill at a depth of 1 to 1.5 feet at the sump contained only 1.9 mg/kg PCE. The vertical extent of contamination beneath the DCM is defined by the nearly clean results at boring GP-6 at a depth of 15 to 16 feet.
*East of the Building in the Courtyard
For the soil contamination within the Courtyard area (Area F, Figure 3), PCE is not present, only the breakdown products TCE, cis-1,2-DCE, trans-1,2-DCE, and VC. The extent of contamination is defined by the results from MW-106 to the northeast, GP-15 to the north, GP-16 and TW-11 to the east, GP-9 to the southeast, and B-2 to the south. A small area of contamination in the southern courtyard was noted at boring B-3, but subsequent samples obtained from TW-8 at this location did not support the initial results.

ii. Describe the concentration(s) and types of soil contaminants found in the upper four feet of the soil column.

The soil investigation at the Site took place in 2004 and 2005, therefore few samples were collected in the upper four feet of the soil column. The main focus of the investigation at that time was to investigate and delineate impacts to groundwater. The direct contact samples which were collected (B-2, TW-5, TW-8, GP-9, TW-11, TW-12, GP-18, GP-19, GP-20, PZ-112, PZ-113, PZ-114 and PZ-115) all reported below detection limits.

iii. Identify the ch. NR 720, Wis. Adm. Code, method used to establish the soil cleanup standards for this site. This includes a soil performance standard established in accordance with s. NR 720.08, a Residual Contaminant Level (RCL) established in accordance with s. NR 720.10 that is protective of groundwater quality, or an RCL established in accordance with s. NR 720.12 that is protective of human health from direct contact with contaminated soil. Identify the land use classification that was used to establish cleanup standards. Provide a copy of the supporting calculations/ information in Attachment C.

Contaminants in soils were compared to the 2002 DNR issued guidance RR-682 entitled Determining Residual Contaminant Levels Using the EPA Soil Screening Level Web Site. The results were compared to non-industrial values for inhalation and ingestion. The RCLs were calculated via the Web Site by consultants at the time conducting the soil investigation work.

C. Groundwater

i. Describe degree and extent of groundwater contamination. Relate this to known or suspected sources and known or potential receptors/migration pathways. Specifically address any potential or existing impacts to water supply wells or interception with building foundation drain systems.

Groundwater contamination has been observed in wells in the parking lot to the west of the former dry cleaner, as well as in the Courtyard area to the east of the building. The highest groundwater contamination concentrations are located directly adjacent and directly down gradient to the former dry cleaner building.
In July 2008 one round of amendment injection was completed in the parking lot west of the former dry cleaner. The groundwater contamination summarized in this report contains information collected after the closure request dated 10/30/2013. The following sampling is in response to the December 9, 2013 WDNR closure denial letter and was performed on October 27, 2016.
*West of the Building:
Piezometers PZ-111 and PZ-113 were non-detect for all CVOCs analyzed and PZ-108 was non-detect for CVOCs except for a minimal concentration of cis-1,2-DCE which was below the Preventative Action Limit (PAL). Monitoring well MW-4 was non-detect for CVOCs except for cis-1,2-DCE and VC. The concentration of vinyl chloride was 2,060 micrograms per liter (ug/l) and cis-1,2-DCE was reported at 79 ug/l. Both of these compounds were above the Enforcement Standard (ES).
*East of building in Courtyard:
Monitoring well MW-105 had a reported concentration of cis-1,2-DCE at 34.5 ug/l which exceeds the PAL, and a concentration of vinyl chloride at 183 ug/l which exceeds the ES. Additionally, a concentration of benzene was reported at 2.1 ug/l which exceeds the PAL. Benzene has not been reported in MW-105 since the sampling conducted in 2007 at concentrations over the PAL. All other CVOC compounds in MW-105 were non-detect.

ii. Describe the presence of free product at the site, including the thickness, depth, and locations. Identify the depth and location of the smear zone.

No free product has been observed at the site.

D. Vapor

i. Describe how the vapor migration pathway was assessed, including locations where vapor, soil gas, or indoor air samples were collected. If the vapor pathway was not assessed, explain reasons why.

On June 11 and 12, 2007, Shaw collected a passive ambient indoor air sample from the vacant former dry cleaning tenant space using a 6-liter evacuated Summa canister obtained from Pace Analytical Services, Inc.(Pace) of Green Bay, Wisconsin. The Summa canister's regulator and restrictor were calibrated to draw the ambient air sample over a 24-hour period. The ambient air sample collected within the Summa canister was submitted to Pace for VOC analysis by gas chromatography/mass spectroscopy (US EPA Method TO-15). It is important to note that at the time of sample collection, the complete dry cleaning machine, including the evaporator, was still installed.
On June 3, 2008, Shaw collected passive ambient indoor air samples from the vacant former dry cleaning tenant space (1077 Racine Street), the vacant tenant space located to the north (1083 Racine Street), and the active Patricia's Hair Salon (1071 Racine Street) located to the south using 6-liter evacuated Summa canisters obtained from TestAmerica Laboratory of Knoxville, Tennessee. Each Summa canister's regulator and restrictor were calibrated to draw the ambient air sample over a 24-hour period. The ambient air samples collected within the Summa canisters were submitted to TestAmerica for VOC analysis by US EPA Method TO-15.

ii. Identify the applicable DNR action levels and the land use classification used to establish them. Describe where the DNR action levels were reached or exceeded (e.g., sub slab, indoor air or both).

In June 2007, the VOC constituents Propylene (121 micrograms per meter cubed [µg/m3] and PCE at 1,740 µg/m3 were the only VOCs reported at concentrations above the laboratory analytical method detection limit within the ambient indoor air sample collected from the former dry cleaning tenant space area. The reported PCE concentration was detected at concentrations above the USEPA Generic Screening Levels for indoor air concentrations USEPA OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance), November 2002, Table 2c. There is no established standard for Propylene.

In June 2008, the air sample collected from the former dry cleaner tenant space contained PCE and Benzene at 1.9 µg/m3 and 0.86 µg/m3, respectively. The air sample from Patricia's Hair Salon contained TCE at 15 µg/m3, PCE at 1.9 µg/m3 and Benzene at 0.99 µg/m3. The air sample from the vacant tenant space contained PCE and Benzene at 1.7 µg/m3 and 0.79 µg/m3, respectively. The reported PCE, TCE and Benzene concentrations are all above the USEPA Generic Screening Levels for indoor air concentrations USEPA OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance), November 2002, Table 2c. No other VOCs were reported at concentrations exceeding USEPA screening levels.

The air data table was updated to compare the air sample data to the 2016 Indoor Air Vapor Action Levels Based on May 2016 USEPA Regional Screening Level Tables for Small Commercial Settings. This comparison identified that TCE concentrations in the indoor air samples collected from Patricia's Hair Salon 2008 and TCE concentrations from the indoor air sample from the former Busy Bea's unit in 2007 exceed the 2016 USEPA standards.

E. Surface Water and Sediment

i. Identify whether surface water and/or sediment was assessed and describe the impacts found. If this pathway was not assessed, explain why.

There is no sediment or surface water on site to be assessed as part of the investigation.

ii. Identify any surface water and/or sediment action levels used to assess the impacts for this pathway and how these were derived. Describe where the DNR action levels were reached or exceeded.

There is no sediment or surface water on site to be assessed as part of the investigation.

4. Remedial Actions Implemented and Residual Levels at Closure

A. General: Provide a brief summary of the remedial action history. List previous remedial action report submittals by name and date. Identify remedial actions undertaken since the last submittal for this project and provide the appropriate documentation in Attachment C.

On May 23, 2007, Shaw supervised the installation of four injection wells (designated as IW-1 through IW-4) by On-site Environmental Services and completed amendment injection activities as part of a pilot test.

On May 8, 2007, Shaw subcontracted Radon Abatement of West Allis, Wisconsin to install a sub-slab depressurization vapor mitigation system (VMS) in the northwest corner of the former Busy Bea dry cleaning tenant space and in the east end of the Natural Health Concepts health care\vitamin store that is located immediately north of the former dry cleaner. Prior to installation, the contractor inspected the basement floor and walls for cracks, and evaluated other potential areas of vapor intrusion. There were no major cracks or holes. Radon Abatement cored three inch diameter holes through the concrete slab. Three inch diameter, schedule 40 PVC piping was placed in the core holes and sealed with silicone caulk. The piping extended vertically up to the ceiling, where the piping transitioned to a horizontal run to the east box sill area, where a 3-inch diameter hole was drilled to access the exterior wall. Radon Abatement installed a RadonAway(tm) DynaVac RP 265 VMS in the northwest corner of the dry cleaning tenant space, and in the east end of the Natural Health Concepts store. Radon Abatement recommended the two extraction locations based upon contaminant distribution, store layout and suspected bearing wall locations.
The VMS was installed in general accordance with local and state building codes and state regulations, and in accordance

with United States Environmental Protection Agency standard practices.
This data was presented in the Shaw Remediation Documentation #1 Report dated November 2007.

On July 29 and 30, 2008, 25 injection wells (designated as IW-5 through IW-29) were installed by Probe Technologies, Inc. Under the supervision of Shaw, ORIN Remediation Technologies, LLC (ORIN) of McFarland, Wisconsin completed the amendment injection activities. The data from this remedial activity was presented in the Shaw Remediation Documentation Report #2 dated February 2009.

B. Describe any immediate or interim actions taken at the site under ch NR 708, Wis. Adm. Code.
No immediate or interim actions taken at the site under ch NR 708.

C. Describe the *active* remedial actions taken at the source property, including: type of remedial system(s) used for each media affected; the size and location of any excavation or in-situ treatment; the effectiveness of the systems to address the contaminated media and substances; operational history of the systems; and summarize the performance of the active remedial actions. Provide any system performance documentation in Attachment A.7.

On July 29 and 30, 2008, 25 injection wells (designated as IW-5 through IW-29) were installed by Probe Technologies, Inc. Under the supervision of Shaw, ORIN Remediation Technologies, LLC (ORIN) of McFarland, Wisconsin completed the amendment injection activities. ORIN supplied the amendment injection equipment. In general, the mechanical components of the injection system were comprised of a centralized pump, a distribution manifold, and individual regulator valves contained within a trailer. Individual flow meters and pressure gauges were utilized at each injection well head location.
A non-electric centralized pump mixes water and the Newman Zone carbon source amendment concentrate. The centralized pump is driven by the water and water pressure supplied from a typical hose-bib (water source being the City of Menasha). The carbon source amendment concentrate is drawn by vacuum into the operating centralized pump and combined / mixed into a 10 to 20% solution prior to discharge via hose connection to the distribution manifold.
The distribution manifold allows for the regulation and distribution of the water / amendment solution to individual or various injection well head locations. Injection wells are connected to the distribution manifold via respective hose connections.
Each injection well is fitted with an in-line primary flow meter, a secondary (back-up flow meter), a regulator valve, pressure gauge and a connecting pressure gasket fitting. The primary and secondary flow meters and the regulator valve are connected in-line along the hose connection from the distribution manifold. A "T-shaped" fitting allows for connection of the supply hose and a pressure gauge with connection to the pressure gasket fitting on the injection well riser pipe. The attached pressure gauge (which its placement is beyond the regulator valve) reflects down-hole injection well pressures. Pressurization of the injection system is regulated and managed by three means, the water pressure source, the four-port distribution manifold and/or by individual injection well regulator valves. A system-wide increase / decrease in pressure occur upon the change of water pressure from the source (hose-bib valve or municipal pumping factors). Pressures at individual injection well locations can be increased / decreased and managed with the closure / opening of regulator valves on the four-port distribution manifold or at regulator valves located at individual injection well locations. Considering the presence of a centralized pump, it should be noted that changes to the pressure at one injection well location affects the pressure throughout the system, including other injection well locations.

Twenty-five injection points were advanced using direct-push technology throughout the treatment area. The vertical treatment zone extended from 16 ft bgs to 6 ft bgs. ORIN injected an approximate 10 - 20% initial concentration of Newman Zone into the injection wells to enhance the naturally occurring reductive dechlorination of chlorinated solvents in the targeted treatment area. After injecting into six points, the concentration of Newman Zone was increased to 15 - 20% for the remainder of the injection wells. Some injection wells received different volumes and concentrations of Newman Zone due to subsurface conditions, surface breakthrough, and/or short circuiting. A total of 4,405 gallons of Newman Zone solution was injected into the 25 injection locations.

Following completion of the amendment injection, each injection well was abandoned in accordance with the requirements of Chapter NR 141.

D. Describe the alternatives considered during the Green and Sustainable Remediation evaluation in accordance with NR 722.09 and any practices implemented as a result of the evaluation.
The timeframe of the remedial activities at the site for the amendment injection was in 2008. At that time no alternatives were considered in accordance with NR 722.09.

E. Describe the nature, degree and extent of residual contamination that will remain at the source property or on other affected properties after case closure.
Soils with residual CVOCs will remain beneath the 1077 Unit in the northwest corner and to the west of the strip mall in the parking area. Soils from 6 to 8 ft bgs underneath the building have CVOC results exceeding the NR 720 RCLs. Impacts in soil in the parking area extend down to 16 ft bgs with elevated concentrations of VC. Soils with reported CVOC concentration will also remain on-site in the courtyard area to the east of the former dry cleaner unit. TCE and VC were reported in the soils in the courtyard down to 10 ft bgs above the RCLs. No impacted soils have been identified off-site.

F. Describe the residual soil contamination within four feet of ground surface (direct contact zone) that attains or exceeds RCLs established under s. NR 720.12, Wis. Adm. Code, for protection of human health from direct contact.

Direct contact exceedances for soil remain underneath the 1077 Unit (former dry cleaner) with concentrations of CVOCs reported beneath the sump which was located by the former dry cleaning machine. TW-14, located to the west of the strip mall in the parking lot, reported concentrations of PCE, cis-1,2-DCE, and TCE above standards within the direct contact zone.

G. Describe the residual soil contamination that is above the observed low water table that attains or exceeds the soil standard(s) for the groundwater pathway.

TW-14, located in the western parking area, contains CVOCs at concentrations greater than the groundwater pathway RCL. All other soil samples collected at depth were from depths below the observed low water table.

H. Describe how the residual contamination will be addressed, including but not limited to details concerning: covers, engineering controls or other barrier features; use of natural attenuation of groundwater; and vapor mitigation systems or measures.

The residual soil contamination will be address by leaving the strip mall in place as a cover to the underlying soils to protect from direct contact and infiltration to the groundwater pathway. Additionally, the parking area to the west and the paved walkways in the courtyard will provide a cover for infiltration to the groundwater pathway. Two vapor mitigation systems have also been installed in Units 1077 and 1083 to prevent vapor intrusion into the overlying units. A total of five vapor testing ports are installed between the two units for future use as needed to measure the sub slab pressure. Residual impacts to groundwater will be addressed with natural attenuation.

I. If using natural attenuation as a groundwater remedy, describe how the data collected supports the conclusion that natural attenuation is effective in reducing contaminant mass and concentration (e.g., stable or receding groundwater plume).

The groundwater dissolved CVOC plume has shown reduction in extent, is stable, and has not migrated off site. Figure B.3.b presents the VC isconcentration for the 2016 sampling event as compared to the 2013 and 2012 sampling events. The plume is continuing to show reducing conditions as evident by the negative oxidation potential (ORP) readings. The negative ORP will assist with the biodegredation of the TCE into daughter products. The elevated dissolved oxygen readings reported in the piezometers PZ-108, PZ-111, and PZ-113 have assisted in the breakdown of VC to concentrations which are no longer detected in these wells. The source area near MW-4 still shows elevated TCE and vinyl chloride dissolved concentrations, but data of the aquifer geochemical parameters supports the continued biodegradation of the CVOCs within the groundwater.

J. Identify how all exposure pathways (soil, groundwater, vapor) were removed and/or adequately addressed by immediate, interim and/or remedial action(s).

In May 2007 a sub-slab Vapor Mitigation System (VMS) was installed venting the former dry cleaner unit and the adjacent vacant retail space to the north (1083 Racine Street). These activities were detailed in the Shaw Environmental October 2012 Closure Assessment Report.
In December 2016, the VMS was inspected by the original installer and the fans in each unit were replaced. Additionally, the floors cracks, joints, and drain pipes in each unit were sealed to improve the slab seal and five floor pressure ports were installed between the two units for sub-slab pressure testing of the system. The results of the testing showed negative pressure beneath the floor slabs of the two units indicating the vapor mitigation systems were properly pulling vapor from beneath the units.

K. Identify any system hardware anticipated to be left in place after site closure, and explain the reasons why it will remain.

The VMS and the floor pressure ports will remain on site after closure and will continue to operate and be maintained in order to continually break the pathway of vapors from soil or groundwater into the overlying building.

L. Identify the need for a ch. NR 140, Wis. Adm. Code, groundwater Preventive Action Limit (PAL) or Enforcement Standard (ES) exemption, and identify the affected monitoring points and applicable substances.

An ES exemption is needed for monitoring wells PZ-104 for VC, MW-4 for cis-1,2-DCE and VC and for MW-105 for VC. A PAL exemption is needed for monitoring well MW-105 for benzene and cis-1,2-DCE and for PZ-104 for cis-1,2-DCE.

M. If a DNR action level for vapor intrusion was exceeded (for indoor air, sub slab, or both) describe where it was exceeded and how the pathway was addressed.

The indoor air sample collected from the Busy Bea unit exceeded the 2016 USEPA standards for TCE. A vapor mitigation subslab depressurization unit was installed within the Busy Bea and the Patricia's Hair Solon unit to break the pathway for vapor phase migration into the building. The vapor mitigation system was inspected and repaired in 2016.

N. Describe the surface water and/or sediment contaminant concentrations and areas after remediation. If a DNR action level was exceeded, describe where it was exceeded and how the pathway was addressed.

Surface water and sediment were not assessed during the Site investigation as no surface water bodies are located near or on the Site.

5. Continuing Obligations: Situations where sites, including all affected properties and rights-of-way (ROWs), are included on the DNR's GIS Registry. In certain situations, maintenance plans are also required, and must be included in Attachment D.

Directions: For each of the 3 property types below, check all situations that apply to this closure request.

(NOTE: Monitoring wells to be transferred to another site are addressed in Attachment E.)

	This situation applies to the following property or Right of Way (ROW):			Case Closure Situation - Continuing Obligation Inclusion on the GIS Registry is Required (ii. - xiv.)	Maintenance Plan Required
	Property Type:				
	Source Property	Affected Property (Off-Source)	ROW		
i.	☐	☒	☒	None of the following situations apply to this case closure request.	NA
ii.	☒	☐	☐	Residual groundwater contamination exceeds ch. NR 140 ESs.	NA
iii.	☒	☐	☐	Residual soil contamination exceeds ch. NR 720 RCLs.	NA
iv.				Monitoring Wells Remain:	
	☒	☐	☐	• Not Abandoned (filled and sealed)	NA
	☐	☐	☐	• Continued Monitoring (requested or required)	Yes
v.	☐	☐	☐	Cover/Barrier/Engineered Cover or Control for (soil) direct contact pathways (includes vapor barriers)	Yes
vi.	☒	☐	☐	Cover/Barrier/Engineered Cover or Control for (soil) groundwater infiltration pathway	Yes
vii.	☐	☐	☐	Structural Impediment: impedes completion of investigation or remedial action (not as a performance standard cover)	NA
viii.	☐	☐	☐	Residual soil contamination meets NR 720 industrial soil RCLs, land use is classified as industrial	NA
ix.	☒	☐	NA	Vapor Mitigation System (VMS) required due to exceedances of vapor risk screening levels or other health based concern	Yes
x.	☐	☐	NA	Vapor: Dewatering System needed for VMS to work effectively	Yes
xi.	☐	☐	NA	Vapor: Compounds of Concern in use: full vapor assessment could not be completed	NA
xii	☐	☐	NA	Vapor: Commercial/industrial exposure assumptions used.	NA
xiii.	☐	☐	☐	Vapor: Residual volatile contamination poses future risk of vapor intrusion	NA
xiv.	☐	☐	☐	Site-specific situation: (e. g., fencing, methane monitoring, other) (*discuss with project manager before submitting the closure request*)	Site specific

6. Underground Storage Tanks

A. Were any tanks, piping or other associated tank system components removed as part of the investigation or remedial action? ○ Yes ◉ No

B. Do any upgraded tanks meeting the requirements of ch. ATCP 93, Wis. Adm. Code, exist on the property? ○ Yes ◉ No

C. If the answer to question 6.B. is yes, is the leak detection system currently being monitored? ○ Yes ○ No

General Instructions

All information shall be legible. Providing illegible information will result in a submittal being considered incomplete until corrected. For each attachment (A-G), provide a Table of Contents page, listing all 'applicable' and 'not applicable' items by Closure Form titles (e.g., A.1. Groundwater Analytical Table, A.2. Soil Analytical Results Table, etc.). If any item is 'not applicable' to the case closure request, you must fully explain the reasons why.

Data Tables (Attachment A)

Directions for Data Tables:

- Use **bold** and italics font for information of importance on tables and figures. Use **bold** font for ch. NR 140, Wis. Adm. Code ES attainments or exceedances, and *italicized font* for ch. NR 140, Wis. Adm. Code, PAL attainments or exceedances.
- Use **bold** font to identify individual ch. NR 720 Wis. Adm. Code RCL exceedances. Tables should also include the corresponding groundwater pathway and direct contact pathway RCLs for comparison purposes. Cumulative hazard index and cumulative cancer risk exceedances should also be tabulated and identified on Tables A.2 and A.3.
- Do not use shading or highlighting on the analytical tables.
- Include on Data Tables the level of detection for results which are below the detection level (i.e., do not just list as no detect (ND)).
- Include the units on data tables.
- Summaries of all data must include information collected by previous consultants.
- Do not submit lab data sheets unless these have not been submitted in a previous report. Tabulate all data required in s. NR 716.15 (3)(c), Wis. Adm. Code, in the format required in s. NR 716.15(4)(e), Wis. Adm. Code.
- Include in Attachment A all of the following tables, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: A.1. Groundwater Analytical Table; A.2. Soil Analytical Results Table, etc.).
- For required documents, each table (e.g., A.1., A.2., etc.) should be a separate Portable Document Format (PDF).

A. Data Tables

A.1. **Groundwater Analytical Table(s):** Table(s) showing the analytical results and collection dates for all groundwater sampling points (e.g., monitoring wells, temporary wells, sumps, extraction wells, potable wells) for which samples have been collected.

A.2. **Soil Analytical Results Table(s):** Table(s) showing **all** soil analytical results and collection dates. Indicate if sample was collected above or below the observed low water table (unsaturated versus saturated).

A.3. **Residual Soil Contamination Table(s):** Table(s) showing the analytical results of only the residual soil contamination at the time of closure. This table shall be a subset of table A.2 and should include only the soil sample locations that exceed an RCL. Indicate if sample was collected above or below the observed low water table (unsaturated versus saturated). Table A.3 is optional only if a total of fewer than 15 soil samples have been collected at the site.

A.4. **Vapor Analytical Table(s)**: Table(s) showing type(s) of samples, sample collection methods, analytical method, sample results, date of sample collection, time period for sample collection, method and results of leak detection, and date, method and results of communication testing.

A.5. **Other Media of Concern (e.g., sediment or surface water)**: Table(s) showing type(s) of sample, sample collection method, analytical method, sample results, date of sample collection, and time period for sample collection.

A.6. **Water Level Elevations:** Table(s) showing all water level elevation measurements and dates from all monitoring wells. If present, free product should be noted on the table.

A.7. **Other:** This attachment should include: 1) any available tabulated natural attenuation data; 2) data tables pertaining to engineered remedial systems that document operational history, demonstrate system performance and effectiveness, and display emissions data; and (3) any other data tables relevant to case closure not otherwise noted above. If this section is not applicable, please explain the reasons why.

Maps, Figures and Photos (Attachment B)

Directions for Maps, Figures and Photos:

- Provide on paper no larger than 11 x 17 inches, unless otherwise directed by the Department. Maps and figures may be submitted in a larger electronic size than 11 x 17 inches, in a PDF readable by the Adobe Acrobat Reader. However, those larger-size documents must be legible when printed.
- Prepare visual aids, including maps, plans, drawings, fence diagrams, tables and photographs according to the applicable portions of ss. NR 716.15(4), 726.09(2) and 726.11(3), (5) and (6), Wis. Adm. Code.
- Include all sample locations.
- Contour lines should be clearly labeled and defined.
- Include in Attachment B all of the following maps and figures, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: B.1. Location Map; B.2. Detailed Site Map, etc).
- For the electronic copies that are required, each map (e.g., B.1.a., B.2.a, etc.,) should be a separate PDF.
- Maps, figures and photos should be dated to reflect the most recent revision.

B.1. Location Maps

B.1.a. **Location Map:** A map outlining all properties within the contaminated site boundaries on a United States Geological Survey (U.S.G.S.) topographic map or plat map in sufficient detail to permit easy location of all affected and/or adjacent parcels. If groundwater standards are exceeded, include the location of all potable wells, including municipal wells, within 1200 feet of the area of contamination.

B.1.b. **Detailed Site Map:** A map that shows all relevant features (buildings, roads, current ground surface cover, individual property boundaries for all affected properties, contaminant sources, utility lines, monitoring wells and potable wells) within the contaminated area. This map is to show the location of all contaminated public streets, and highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination attaining or exceeding a ch. NR 140 ES, and/or in relation to the boundaries of soil contamination attaining or exceeding a RCL. Provide parcel identification numbers for all affected properties.

B.1.c. **RR Sites Map:** From RR Sites Map (http://dnrmaps.wi.gov/sl/?Viewer=RR Sites) attach a map depicting the source property, and all open and closed BRRTS sites within a half-mile radius or less of the property.

B.2. Soil Figures

B.2.a. **Soil Contamination:** Figure(s) showing the location of **all** identified unsaturated soil contamination. Use a single contour to show the horizontal extent of each area of contiguous soil contamination that exceeds a soil to groundwater pathway RCL as determined under ch. NR 720.Wis. Adm. Code. A separate contour line should be used to indicate the horizontal extent of each area of contiguous soil contamination that exceeds a direct contact RCL exceedances (0-4 foot depth).

B.2.b. **Residual Soil Contamination:** Figure(s) showing only the locations of soil samples where unsaturated soil contamination remains at the time of closure (locations represented in Table A.3). Use a single contour to show the horizontal extent of each area of contiguous soil contamination that exceeds a soil to groundwater pathway RCL as determined under ch. NR 720 Wis. Adm. Code. A separate contour line should be used to indicate the horizontal extent of each area of contiguous soil contamination that exceeds a direct contact RCL exceedence (0-4 foot depth).

B.3. Groundwater Figures

B.3.a. **Geologic Cross-Section Figure(s):** One or more cross-section diagrams showing soil types and correlations across the site, water table and piezometric elevations, and locations and elevations of geologic rock units, if encountered. Display on one or more figures all of the following:

- Source location(s) and vertical extent of residual soil contamination exceeding an RCL. Distinguish between direct contact and the groundwater pathway RCLs.
- Source location(s) and lateral and vertical extent if groundwater contamination exceeds ch. NR 140 ES.
- Surface features, including buildings and basements, and show surface elevation changes.
- Any areas of active remediation within the cross section path, such as excavations or treatment zones.
- Include a map displaying the cross-section location(s), if they are not displayed on the Detailed Site Map (Map B.1.b.)

B.3.b. **Groundwater Isoconcentration:** Figure(s) showing the horizontal extent of the post-remedial groundwater contamination exceeding a ch. NR 140, Wis. Adm. Code, PAL and/or an ES. Indicate the date and direction of groundwater flow based on the most recent sampling data.

B.3.c. **Groundwater Flow Direction:** Figure(s) representing groundwater movement at the site. If the flow direction varies by more than 20° over the history of the site, submit two groundwater flow maps showing the maximum variation in flow direction.

B.3.d. **Monitoring Wells:** Figure(s) showing all monitoring wells, with well identification number. Clearly designate any wells that: (1) are proposed to be abandoned; (2) cannot be located; (3) are being transferred; (4) will be retained for further sampling, or (5) have been abandoned.

B.4. Vapor Maps and Other Media

B.4.a. **Vapor Intrusion Map:** Map(s) showing all locations and results for samples taken to investigate the vapor intrusion pathway in relation to residual soil and groundwater contamination, including sub-slab, indoor air, soil vapor, soil gas, ambient air, and communication testing. Show locations and footprints of affected structures and utility corridors, and/or where residual contamination poses a future risk of vapor intrusion.

B.4.b. **Other media of concern (e.g., sediment or surface water):** Map(s) showing all sampling locations and results for other media investigation. Include the date of sample collection and identify where any standards are exceeded.

B.4.c. **Other:** Include any other relevant maps and figures not otherwise noted above. (This section may remain blank).

B.5. Structural Impediment Photos: One or more photographs documenting the structural impediment feature(s) which precluded a complete site investigation or remediation at the time of the closure request. The photographs should document the area that could not be investigated or remediated due to a structural impediment. The structural impediment should be indicated on Figures B.2.a and B.2.b.

Documentation of Remedial Action (Attachment C)

Directions for Documentation of Remedial Action:

- Include in Attachment C all of the following documentation, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: C.1. Site Investigation Documentation; C.2. Investigative Waste, etc.).
- If the documentation requested below has already been submitted to the DNR, please note the title and date of the report for that particular document requested.

C.1. **Site investigation documentation,** that has not otherwise been submitted with the Site Investigation Report.

C.2. **Investigative waste** disposal documentation.

C.3. Provide a **description of the methodology** used along with all supporting documentation if the RCLs are different than those contained in the Department's RCL Spreadsheet available at: http://dnr.wi.gov/topic/Brownfields/Professionals.html.

C.4. **Construction documentation** or as-built report for any constructed remedial action or portion of, or interim action specified in s. NR 724.02(1), Wis. Adm. Code.

C.5. **Decommissioning of Remedial Systems.** Include plans to properly abandon any systems or equipment.

C.6. **Other**. Include any other relevant documentation not otherwise noted above (This section may remain blank).

Maintenance Plan(s) and Photographs (Attachment D)

Directions for Maintenance Plans and Photographs:

Attach a maintenance plan for each affected property (source property, each off-source affected property) with continuing obligations requiring future maintenance (e.g., direct contact, groundwater protection, vapor intrusion). See Site Summary section 5 for all affected property(s) requiring a maintenance plan. Maintenance plan guidance and/or templates for: 1) Cover/barrier systems; 2) Vapor intrusion; and 3) Monitoring wells, can be found at: http://dnr.wi.gov/topic/Brownfields/Professionals.html#tabx3

D.1. **Descriptions of maintenance action(s) required for maximizing effectiveness of the engineered control, vapor mitigation system, feature or other action for which maintenance is required:**

- Provide brief descriptions of the type, depth and location of residual contamination.

- Provide a description of the system/cover/barrier/monitoring well(s) to be maintained.
- Provide a description of the maintenance actions required for maximizing effectiveness of the engineered control, vapor mitigation system, feature or other action for which maintenance is required.
- Provide contact information, including the name, address and phone number of the individual or facility who will be conducting the maintenance.

D.2. **Location map(s) which show(s):** (1) the feature that requires maintenance; (2) the location of the feature(s) that require(s) maintenance - on and off the source property; (3) the extent of the structure or feature(s) to be maintained, in relation to other structures or features on the site; (4) the extent and type of residual contamination; and (5) all property boundaries.

D.3. **Photographs** for site or facilities with a cover or other performance standard, a structural impediment or a vapor mitigation system, include one or more photographs documenting the condition and extent of the feature at the time of the closure request. Pertinent features shall be visible and discernible. Photographs shall be submitted with a title related to the site name and location, and the date on which it was taken.

D.4. **Inspection log**, to be maintained on site, or at a location specified in the maintenance plan or approval letter. The inspection and maintenance log is found at: http://dnr.wi.gov/files/PDF/forms/4400/4400-305.pdf.

Monitoring Well Information (Attachment E)

Directions for Monitoring Well Information:
For all wells that will remain in use, be transferred to another party, or that could not be located; attach monitoring well construction and development forms (DNR Form 4400-113 A and B: http://dnr.wi.gov/topic/groundwater/documents/forms/4400_113_1_2.pdf)

Select One:

◯ No monitoring wells were installed as part of this response action.

◯ All monitoring wells have been located and will be properly abandoned upon the DNR granting conditional closure to the site

◉ ***Select One or More:***

☒ Not all monitoring wells can be located, despite good faith efforts. Attachment E must include a description of efforts made to locate the wells.

☐ One or more wells will remain in use at the site after this closure. Attachment E must include documentation as to the reason (s) the well(s) will remain in use. When one or more monitoring wells will remain in use this is considered a continuing obligation and a maintenance plan will be required and must be included in Attachment D.

☐ One or more monitoring wells will be transferred to another owner upon case closure being granted. Attachment E should include documentation identifying the name, address and email for the new owner(s). Provide documentation from the party accepting future responsibility for monitoring well(s).

Source Legal Documents (Attachment F)

Directions for Source Legal Documents:
Label documents with the specific closure form titles (e.g., F.1. Deed, F.2. Certified Survey Map, etc.). Include all of the following documents, in the order listed:

F.1. **Deed:** The most recent deed with legal description clearly listed.

Note: *If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.*

F.2. **Certified Survey Map:** A copy of the certified survey map or the relevant section of the recorded plat map for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map. In cases where the certified survey map or recorded plat map are not legible or are unavailable, a copy of a parcel map from a county land information office may be substituted. A copy of a parcel map from a county land information office shall be legible, and the parcels identified in the legal description shall be clearly identified and labeled with the applicable parcel identification number.

F.3. **Verification of Zoning**: Documentation (e.g., official zoning map or letter from municipality) of the property's or properties' current zoning status.

F.4. **Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description(s) accurately describe(s) the correct contaminated property or properties. This section applies to the source property only. Signed statements for Other Affected Properties should be included in Attachment G.

Notifications to Owners of Affected Properties (Attachment G)

Directions for Notifications to Owners of Affected Properties:
Complete the table on the following page for sites which require notification to owners of affected properties pursuant to ch. 292, Wis. Stats. and ch. NR 725 and 726, Wis. Adm. Code. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31- 19.39,Wis. Stats.]. The DNR's "Guidance on Case Closure and the Requirements for Managing Continuing Obligations" (PUB-RR-606) lists specific notification requirements http://dnr.wi.gov/files/PDF/pubs/rr/RR606.pdf.

State law requires that the responsible party provide a 30-day, written advance notification to certain persons prior to applying for case closure. This requirement applies if: (1) the person conducting the response action does not own the source property; (2) the contamination has migrated onto another property; and/or (3) one or more monitoring wells will not be abandoned. Use form 4400-286, Notification of Continuing Obligations and Residual Contamination, at http://dnr.wi.gov/files/PDF/forms/4400/4400-286.pdf

Include a copy of each notification sent and accompanying proof of delivery, i.e., return receipt or signature confirmation. (These items will not be placed on the GIS Registry.)

Include the following documents for each property, keeping each property's documents grouped together and labeled with the letter G and the corresponding ID number from the table on the following page. (Source Property documents should only be included in Attachment F):

- **Deed:** The most recent deed with legal descriptions clearly listed for all affected properties.
  Note: If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.
- **Certified Survey Map:** A copy of the certified survey map or the relevant section of the recorded plat map for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map. In cases where the certified survey map or recorded plat map are not legible or are unavailable, a copy of a parcel map from a county land information office may be substituted. A copy of a parcel map from a county land information office shall be legible, and the parcels identified in the legal description shall be clearly identified and labeled with the applicable parcel identification number.
- **Verification of Zoning:** Documentation (e.g., official zoning map or letter from municipality) of the property's or properties' current zoning status.
- **Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes the attached legal description(s) accurately describe(s) the correct contaminated property or properties.

Notifications to Owners of Affected Properties (Attachment G)

							Reasons Notification Letter Sent:													
ID	Address of Affected Property	Parcel ID No.	Date of Receipt of Letter	Type of Property Owner	WTMX	WTMY	Residual Groundwater Contamination = or > ES	Residual Soil Contamination Exceeds RCLs	Monitoring Wells: Not Abandoned	Monitoring Wells: Continued Monitoring	Cover/Barrier/Engineered Control	Structural Impediment	Industrial RCLs Met/Applied	Vapor Mitigation System(VMS)	Dewatering System Needed for VMS	Compounds of Concern in Use	Commercial/Industrial Vapor Exposure Assumptions Applied	Residual Volatile Contamination Poses Future Risk of Vapor Intrusion	Site Specification Situation
A																				
B																				
C																				
D																				

Signatures and Findings for Closure Determination

Check the correct box for this case closure request, and have either a professional engineer or a hydrogeologist, as defined in ch. NR 712, Wis. Adm. Code, sign this document.

☐ A response action(s) for this site addresses groundwater contamination (including natural attenuation remedies).

☐ The response action(s) for this site addresses media other than groundwater.

Engineering Certification

I Scott Kenneth Knoepke hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this case closure request has been prepared by me or prepared under my supervision in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this case closure request is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code. Specifically, with respect to compliance with the rules, in my professional opinion a site investigation has been conducted in accordance with ch. NR 716, Wis. Adm. Code, and all necessary remedial actions have been completed in accordance with chs. NR 140, NR 718, NR 720, NR 722, NR 724 and NR 726, Wis. Adm. Codes."

Scott Kenneth Knoepke	Project Manager	
Printed Name	Title	
Signature	7/17/2017 Date	E-41848-6 P.E. Stamp and Number

Hydrogeologist Certification

I _____ hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this case closure request is correct and the document was prepared by me or prepared by me or prepared under my supervision and, in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code. Specifically, with respect to compliance with the rules, in my professional opinion a site investigation has been conducted in accordance with ch. NR 716, Wis. Adm. Code, and all necessary remedial actions have been completed in accordance with chs. NR 140, NR 718, NR 720, NR 722, NR 724 and NR 726, Wis. Adm. Codes."

Printed Name	Title
Signature	Date

Table of Contents – BRRTs No. 02-71-536999

This closure submittal is the third request for the site and it covers the closure oriented work from 2013 until 2017. The work covers groundwater sampling as requested by the WDNR and the vapor mitigation system (VMS) operation and maintenance. The previous closure requests conducted in 2012 and in 2013 have been reviewed by the WDNR and the groundwater sampling data conducted in 2017 supports site closure and the VMS system is optimally working.

Table A.1 Groundwater Analytical Table

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

					Alpha Terra Sampling			Shaw Pilot Testing Program				Full-Scale Testing Program				Quarterly Performance Monitoring Program									
TW-4/MW-4					4/20/2005	8/23/2005	11/21/2005	5/10/2006	Baseline 3/22/2007	3 Month Performance 6/12/2007	7/24/2007	8/23/2007	Baseline 7/28/2008	3 Month Performance 11/14/2008	2/18/2009	3/25/2009	1Q 6/25/2009	2Q 1/21/2010	3Q 4/21/2010	4Q 8/5/2010	1Q 11/2/2011	2Q 2/22/2012	3Q 5/22/2012	4/4/2013	7/30/2013	10/27/2016
			NR 140.10 Table 1														**MW-4**									
			PAL	ES																						
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	ND	ND	< 14	ND	< 20	< 40	*4.1*	**7.3**	< 28.5	< 57	< 114	< 57	< 114	< 57	< 57	< 57	< 57	< 57	< 57	< 28.5	< 42.7	<8.2
	Benzene	µg/l	*0.5*	**5**	ND	ND	< 10	ND	< 20	< 16	< 0.2	< 0.2	< 20.5	< 41	< 82	< 41	< 82.0	< 41	< 41	< 41	< 41	< 41	< 41	NA	NA	<10
	Chloroform	µg/l	*0.6*	**6**	ND	ND	< 9.2	ND	< 20	< 16	< 0.2	< 0.2	< 18.5	< 130	< 260	< 130	< 260.0	< 130	< 130	< 130	< 130	< 130	< 130	NA	NA	<10
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	**1800**	**1400**	**2000**	**3000**	**2700**	**2400**	**3800**	**3800**	**9960**	**15800**	**21700**	**21700**	**43000**	**15300**	**14500**	**12800**	**876**	**754**	**676**	**440**	**266**	**79**
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	**1100**	**1400**	**2000**	**4700**	**4300**	**3800**	**6700**	**5800**	**6630**	**3610**	**2150**	**2410**	**3130**	< 45	< 45	< 45	< 45	< 45	< 45	< 22.5	< 47.2	<10
	Toluene	µg/l	*200*	**1000**	ND	ND	< 17	ND	< 20	< 16	0.41	0.25	< 33.5	< 67	< 134	< 67	< 134.0	< 67	< 67	< 67	< 67	< 67	< 67	NA	NA	<10
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	*34*	*31*	**130**	*48*	< 50	< 40	*41*	*65*	**109**	**157**	**246**	**265**	**523**	**414**	**457**	**329**	< 89	< 89	< 89	< 44.5	< 37.1	<5.1
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	**730**	**480**	**760**	**1400**	**1500**	**1100**	**2500**	**2400**	**2880**	**1140**	**2030**	**2220**	**3860**	61.2	< 48	< 48	< 48	< 48	< 48	< 24	< 42.9	<6.6
	Vinyl Chloride	µg/l	*0.02*	**0.2**	**200**	**130**	**130**	**160**	**74**	**140**	**150**	**130**	**238**	**309**	**843**	**566**	**1570**	**453**	**1160**	**2550**	**8890**	**8720**	**8080**	**8070**	**6740**	**2060**
Field Measurements	Temperature	deg. C	--	--	--	--	--	--	9.56	13.72	NA*	15.79	NA*	NA*	NA*	NA*	NA*	9.44	8.65	19.82	15.31	8.64	20.4	6.2	20.4	15.6
	pH		--	--	--	--	--	--	7.75	7.32	NA*	7.14	NA*	NA*	NA*	NA*	NA*	7.03	7.03	4.92*	6.79	6.87	6.79	6.78	6.79	6.81
	Dissolved Oxygen	mg/l	--	--	--	--	--	--	1.98	1.37	NA*	0.65	NA*	NA*	NA*	NA*	NA*	2.05	0.43	1.57	0.26	0.64	1.74	1.02	17.4	0.34
	Specific Conductivity	µs/cm	--	--	--	--	--	--	924	923	NA*	1698	NA*	NA*	NA*	NA*	NA*	1717	1976	1985	1872	4400	1930	2014	1930	1910
	ORP	mV	--	--	--	--	--	--	13.3	285.5	NA*	381.1	NA*	NA*	NA*	NA*	NA*	109.90	-79	-89.1*	-66.8	-120	-99.1	-159	-99.1	-139.9
Geochemical Parameters	TOC	mg/l	--	--	--	--	--	--	NA*	1.56	NA*	2.62	NA*	NA*	NA*	697	613	138	109	75	NA	NA	NA	NA	NA	NA
	Ammonia as N	mg/l	--	--	--	--	--	--	NA*	NA	NA	NA	NA*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Iron	µg/l	--	--	--	--	--	--	NA*	<0.042	<0.042	0.048	NA*	NA*	NA*	< 0.026	< 0.018	0.50^	NA	< 5.0^	NA	NA	NA	NA	NA	NA
	Dissolved Manganese	µg/l	--	--	--	--	--	--	NA*	NA	NA	NA	NA*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	--	--	--	--	NA*	NA	NA	NA	NA*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	--	--	--	--	NA*	NA	NA	NA	NA*	NA	NA	NA	< 0.12	< 0.12	< 0.12	< 0.12	NA	NA	NA	NA	NA	NA
	Dissolved Sulfate	mg/l	--	--	--	--	--	--	NA	NA	NA	NA	NA*	NA	NA	NA	3.2 J	24.2	4.8	2.6 J	NA	NA	NA	NA	NA	NA
	Dissolved Ethane	µg/l	--	--	--	--	--	--	<14	NA	<14.0	<14.0	5.0 J	NA	5.5	22.5	2.4	J < 0.32	< 0.32	< 0.32	NA	NA	NA	< 0.36	< 0.36	NA
	Dissolved Ethene	µg/l	--	--	--	--	--	--	<11	NA	27	<11.0	< 1.4	NA	< 1.4	5.9	48.8	24.1	51.4	55	NA	NA	NA	843	617	NA
	Dissolved Methane	µg/l	--	--	--	--	--	--	<15	182	106	126	52.7	NA*	239	875	3610	5470	9160	8920	NA	NA	NA	10000	4570	NA
	Acetic Acid	mg/l	--	--	--	--	--	--	NA	< 1.0	< 1.0	< 1.0	NA	NA*	130	120	210	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	--	--	--	--	NA	< 1.0	< 1.0	< 1.0	NA	NA*	16	3.2	4	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	--	--	--	--	NA	< 25.0	< 25.0	< 25.0	NA	NA*	< 250	UN < 25 U	< 25 U	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	--	--	--	--	NA	< 1.0	< 1.0	< 1.0	NA	NA*	180	140	86	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	--	--	--	--	NA	< 10.0	< 10.0	< 10.0	NA	NA*	< 100	U < 10 U	< 10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NA = not analyzed, per SAP
NA*=not analyzed, well ran dry during sampling
ND = Not detected
^ = Ferrous Iron by Hach Kit
* = Suspected YSI probe reading errors
Well Abandoned 1/14/2010, Replaced with MW-4
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

					Alpha Terra Sampling				Full-Scale Testing Program				Quarterly Performance Monitoring Program					
TW-5									Baseline	3 Month Performance			1Q	2Q	3Q	4Q	1Q	2Q
			NR 140.10 Table 1		4/20/2005	8/23/2005	11/21/2005	5/10/2006	7/28/2008	11/14/2008	2/18/2009	3/25/2009	6/25/2009	1/21/2010	4/21/2010	8/5/2010	11/2/2011	2/22/2012
			PAL	ES														
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	ND	ND	< 0.57	ND	0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.75	< 0.57	< 0.57
	Benzene	µg/l	*0.5*	**5**	ND	ND	< 0.41	ND	0.4	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
	Chloroform	µg/l	*0.6*	**6**	ND	ND	< 0.37	ND	0.4	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	5.5	*25*	*17*	*17*	*28.5*	*29.7*	*15.4*	*15.5*	*32.6*	*39.9*	*29.8*	*55.9*	*25.6*	< 0.83
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 0.45	< 0.45	< 0.45	**15**	0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
	Toluene	µg/l	*200*	**1000**	ND	ND	< 0.67	ND	3.3	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	< 0.89	2.0	< 0.89	< 0.89	3.0	1.2	< 0.89	< 0.89	1.7	3.1	2.8	5.2	2.7	< 0.89
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	< 0.48	< 0.48	< 0.48	*3.9*	0.5	< 0.48	< 0.48	< 0.48	< 0.5	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
	Vinyl Chloride	µg/l	*0.02*	**0.2**	< 0.18	< 0.18	< 0.18	< 0.18	0.2	< 0.18	< 0.18	< 0.18	< 0.2	< 0.18	< 0.18	**0.43** J	< 0.18	< 0.18
Field Measurements	Temperature	deg. C	--	--	--	--	--	--	NA*	13.76	NA*	NA*	NA*	NA*	NA	NA*	14.64	9.17
	pH	--	--	--	--	--	--	--	NA*	7.15	NA*	NA*	NA*	NA*	NA	NA*	7.15	7.31
	Dissolved Oxygen	mg/l	--	--	--	--	--	--	NA*	1.95	NA*	NA*	NA*	NA*	NA	NA*	0.63	0.88
	Specific Conductivity	µs/cm	--	--	--	--	--	--	NA*	1303	NA*	NA*	NA*	NA*	NA	NA*	1.389	-21.5
	ORP	mV	--	--	--	--	--	--	NA*	26	NA*	NA*	NA*	NA*	NA	NA*	-17.7	-88.9
Geochemical Parameters	TOC	mg/l	--	--	--	--	--	--	2.1	2.5	2.0	2.3	NA*	2.7	< 1	2.5	NA	NA
	Ammonia as N	mg/l	--	--	--	--	--	--	0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Iron	µg/l	--	--	--	--	--	--	0.026	NA*	NA*	< 0.026	NA	NA	NA	NA	NA	NA
	Dissolved Manganese	µg/l	--	--	--	--	--	--	11.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	--	--	--	--	546	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	--	--	--	--	0.12	NA	NA	NA	NA	< 0.12	< 0.12	< 0.12	NA	NA
	Dissolved Sulfate	mg/l	--	--	--	--	--	--	59.9	NA	NA	NA	NA	20.2	16.0	20.8	NA	NA
	Dissolved Ethane	µg/l	--	--	--	--	--	--	NA	< 1.6	< 1.6	< 1.6	NA	< 0.32	< 0.32	< 0.32	NA	NA
	Dissolved Ethene	µg/l	--	--	--	--	--	--	NA	< 1.4	< 1.4	< 1.4	NA	< 0.47	< 0.47	< 0.47	NA	NA
	Dissolved Methane	µg/l	--	--	--	--	--	--	153	< 2.0	< 2	< 2	NA	3280	5130	3430	NA	NA
	Acetic Acid	mg/l	--	--	--	--	--	--	NA	NA	NA	< 1.0 U	NA	NA	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	--	--	--	--	NA	NA	NA	< 1.0 U	NA	NA	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	--	--	--	--	NA	NA	NA	< 25 U	NA	NA	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	--	--	--	--	NA	NA	NA	0.4 J	NA	NA	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	--	--	--	--	NA	NA	NA	< 10 U	NA	NA	NA	NA	NA	NA

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NS=not sampled, per SAP
NA = not analyzed, per SAP
NA*= not analyzed, well ran dry during sampling
ND = Not detected
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

					Alpha Terra Sampling			Full-Scale Testing Program				erly Performance Monitoring Pr		
TW-8								Baseline	3 Month Performance			1Q	4Q	1Q
					4/20/2005	8/23/2005	11/21/2005	7/29/2008	11/14/2008	2/18/2009	3/23/2009	6/25/2009	8/5/2010	11/3/2011
			NR 140.10 Table 1											
			PAL	ES										
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	ND	< 0.57	ND	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57
	Benzene	µg/l	*0.5*	**5**	ND	< 0.41	ND	< 0.4	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
	Chloroform	µg/l	*0.6*	**6**	ND	< 0.37	ND	< 0.4	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	< 0.83	< 0.83	< 0.83	< 0.8	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
	Toluene	µg/l	*200*	**1000**	ND	< 0.67	ND	0.85 J	1.9	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	< 0.48	< 0.48	< 0.48	< 0.5	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
	Vinyl Chloride	µg/l	*0.02*	**0.2**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Field Measurements	Temperature	deg. C	--	--	--	--	--	NA*	NA*	NA*	NA*	NA*	NA*	11.87
	pH	--	--	--	--	--	--	NA*	NA*	NA*	NA*	NA*	NA*	6.79
	Dissolved Oxygen	mg/l	--	--	--	--	--	NA*	NA*	NA*	NA*	NA*	NA*	2.07
	Specific Conductivity	µs/cm	--	--	--	--	--	NA*	NA*	NA*	NA*	NA*	NA*	1.208
	ORP	mV	--	--	--	--	--	NA*	NA*	NA*	NA*	NA*	NA*	11.5
Geochemical Parameters	TOC	mg/l	--	--	--	--	--	1.5 J	NA*	NA*	196	NA*	27.9	NA
	Ammonia as N	mg/l	--	--	--	--	--	< 0.12	NA	NA	NA	NA	NA	NA
	Dissolved Iron	µg/l	--	--	--	--	--	< 0.026	NA*	NA*	< 0.026	NA	NA	NA
	Dissolved Manganese	µg/l	--	--	--	--	--	81.2	NA	NA	NA	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	--	--	--	784	NA	NA	NA	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	--	--	--	< 0.096	NA	NA	NA	NA	NA	NA
	Dissolved Sulfate	mg/l	--	--	--	--	--	22.8	NA	NA	NA	NA	NA	NA
	Dissolved Ethane	µg/l	--	--	--	--	--	NA	< 1.6	< 1.6	< 1.6	NA	< 0.32	NA
	Dissolved Ethene	µg/l	--	--	--	--	--	NA	< 1.4	< 1.4	< 1.4	NA	< 0.47	NA
	Dissolved Methane	µg/l	--	--	--	--	--	85.3	1130	3230	1900	NA	22700	NA
	Acetic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NS= not sampled, per SAP
NA = not analyzed, per SAP
NA*= not analyzed, well ran dry during sampling
ND = Not detected
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

					Alpha Terra Sampling	
TW-11					4/20/2005	8/23/2005
			NR 140.10 Table 1			
			PAL	ES		
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	ND	ND
	Benzene	µg/l	*0.5*	**5**	ND	ND
	Chloroform	µg/l	*0.6*	**6**	ND	ND
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	< 0.83	< 0.83
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 0.45	< 0.45
	Toluene	µg/l	*200*	**1000**	ND	ND
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	< 0.89	< 0.89
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	< 0.48	< 0.48
	Vinyl Chloride	µg/l	*0.02*	**0.2**	< 0.18	< 0.18
Field Measurements	Temperature	deg. C	--	--	--	--
	pH	--	--	--	--	--
	Dissolved Oxygen	mg/l	--	--	--	--
	Specific Conductivity	µs/cm	--	--	--	--
	ORP	mV	--	--	--	--
Geochemical Parameters	TOC	mg/l	--	--	--	--
	Ammonia as N	mg/l	--	--	--	--
	Dissolved Iron	µg/l	--	--	--	--
	Dissolved Manganese	µg/l	--	--	--	--
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	--	--
	Dissolved Nitrate/Nitrite	mg/l	--	--	--	--
	Dissolved Sulfate	mg/l	--	--	--	--
	Dissolved Ethane	µg/l	--	--	--	--
	Dissolved Ethene	µg/l	--	--	--	--
	Dissolved Methane	µg/l	--	--	--	--
	Acetic Acid	mg/l	--	--	--	--
	Butyric Acid	mg/l	--	--	--	--
	Lactic Acid	mg/l	--	--	--	--
	Propionic Acid	mg/l	--	--	--	--
	Pyruvic Acid	mg/l	--	--	--	--

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NA = not analyzed, well was damaged and plugged with sand. Field crew topped well off with bentonite and abandoned on 7/28/2008.
ND = Not detected
Well Adandoned 2010
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

					Alpha Terra Sampling		Full-Scale Testing Program				Quarterly Performance Monitoring
TW-12							Baseline	3 Month Performance			1Q
			NR 140.10 Table 1								
			PAL	ES	4/20/2005	8/23/2005	7/29/2008	11/14/2008	2/18/2009	3/25/2009	6/25/2009
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**			< 0.57	< 0.57	< 0.57	< 0.57	< 0.57
	Benzene	µg/l	*0.5*	**5**	ND	ND	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
	Chloroform	µg/l	*0.6*	**6**	ND	ND	< 0.37	< 1.3	< 1.3	< 1.3	< 1.3
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
	Toluene	µg/l	*200*	**1000**	ND	ND	1	1.6	< 0.67	1.1	< 0.67
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.5
	Vinyl Chloride	µg/l	*0.02*	**0.2**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Field Measurements	Temperature	deg. C	--	--	--	--	NA*	NA*	NA*	NA*	NA*
	pH	--	--	--	--	--	NA*	NA*	NA*	NA*	NA*
	Dissolved Oxygen	mg/l	--	--	--	--	NA*	NA*	NA*	NA*	NA*
	Specific Conductivity	µs/cm	--	--	--	--	NA*	NA*	NA*	NA*	NA*
	ORP	mV	--	--	--	--	NA*	NA*	NA*	NA*	NA*
Geochemical Parameters	TOC	mg/l	--	--	--	--	5.7	2.8	4.2	3.3	NA*
	Ammonia as N	mg/l	--	--	--	--	< 0.12	NA	NA	NA	NA
	Dissolved Iron	µg/l	--	--	--	--	< 0.026	NA*	< 0.026	< 0.026	NA
	Dissolved Manganese	µg/l	--	--	--	--	194	NA	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	--	--	688	NA	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	--	--	< 0.096	NA	NA	NA	NA
	Dissolved Sulfate	mg/l	--	--	--	--	58.8	NA	NA	NA	NA
	Dissolved Ethane	µg/l	--	--	--	--	NA	< 1.6	< 1.6	< 1.6	NA
	Dissolved Ethene	µg/l	--	--	--	--	NA	< 1.4	< 1.4	< 1.4	NA
	Dissolved Methane	µg/l	--	--	--	--	9.2	16.6	7.1	2.3	NA
	Acetic Acid	mg/l	--	--	--	--	NA	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	--	--	NA	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	--	--	NA	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	--	--	NA	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	--	--	NA	NA	NA	NA	NA

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NS= not sampled, per SAP
NS* = Not sampled, well paved over
NA = not analyzed, per SAP
NA*=not analyzed, well ran dry during sampling
ND = Not detected
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

					Alpha Terra Sampling				Pilot Testing Program	Full-Scale Testing Program			Quarterly Performance Monitoring Program								
TW-13					5/13/2005	8/23/2005	11/21/2005	5/16/2006	Baseline 3/22/2007	Baseline 7/28/2008	3 Month Performance 11/14/2008	2/18/2009	1Q 6/25/2009	2Q 1/21/2010	3Q 4/21/2010	4Q 8/5/2010	1Q 11/2/2011	2Q 2/22/2012	3Q 5/22/2012	4Q 4/4/2013	1Q 7/30/2013
			NR 140.10 Table 1																		
			PAL	ES																	
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	ND	ND	< 28	ND	< 16.0	< 11.4	< 11.4	< 11.4	< 5.7	< 5.7	< 11.4	< 11.4	< 11.4	< 11.4	< 15	< 11.4	< 4.3
	Benzene	µg/l	*0.5*	**5**	ND	ND	< 20	ND	< 6.4	< 8.2	< 8.2	< 8.2	< 4.1	< 4.1	< 8.2	< 8.2	< 8.2	< 8.2	< 8.2	NA	NA
	Chloroform	µg/l	*0.6*	**6**	ND	ND	< 18	ND	< 6.4	< 7.4	< 26	< 26	< 13.0	< 13	< 26	< 26	< 26	< 26.0	< 26	NA	NA
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	**660**	**3200**	**2800**	**2700**	**2300**	**2910**	**2400**	**1310**	**722**	**2930**	**2900**	**2140**	**2020**	**2100**	**3060**	**1330**	**377**
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 4.5	< 11	< 22	< 9	< 16.0	< 9	< 9	< 9	< 4.5	< 4.5	< 9	< 9	< 9	< 9.0	< 9.0	< 9.0	< 4.7
	Toluene	µg/l	*200*	**1000**	ND	ND	< 34	ND	< 6.4	< 13.4	< 13.4	< 13.4	< 6.7	< 6.7	< 13.4	< 13.4	< 13.4	< 13.4	< 13.4	NA	NA
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	*24*	**120**	*99*	*89*	*77*	**194**	**120**	*63.2*	*31.6*	**195**	**209**	**134**	*56.9*	*89.5*	**188**	*71.7*	*33.3*
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	**23**	**120**	**95**	**81**	**16**	< 9.6	< 9.6	< 9.6	< 4.8	< 4.8	< 9.6	< 9.6	< 9.6	< 9.6	< 9.6	< 9.6	< 4.3
	Vinyl Chloride	µg/l	*0.02*	**0.2**	**100**	**280**	**260**	**220**	**220**	**333**	**255**	**206**	**194**	**361**	**520**	**557**	**450**	**402**	882	1270	1170
Field Measurements	Temperature	deg. C	--	--	--	--	--	--	10.06	NA*	NA*	NA*	NA*	8.98	NA	NA*	12.76	9.5	NA	NA*	NA*
	pH		--	--	--	--	--	--	7.32	NA*	NA*	NA*	NA*	7.20	NA	NA*	6.96	6.94	NA	NA*	NA*
	Dissolved Oxygen	mg/l	--	--	--	--	--	--	0.89	NA*	NA*	NA*	NA*	2.80	NA	NA*	3.50	1.13	NA	NA*	NA*
	Specific Conductivity	µs/cm	--	--	--	--	--	--	1820	NA*	NA*	NA*	NA*	2840	NA	NA*	1.778	0.8	NA	NA*	NA*
	ORP	mV	--	--	--	--	--	--	-3.7	NA*	NA*	NA*	NA*	-30.00	NA	NA*	-34.2	-90.1	NA	NA*	NA*
Geochemical Parameters	TOC	mg/l	--	--	--	--	--	--	NA*	120	NA*	NA*	45.6	18.6	10	21	NA	NA	NA	NA	NA
	Ammonia as N	mg/l	--	--	--	--	--	--	NA*	< 0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Iron	µg/l	--	--	--	--	--	--	NA*	1.7	NA	NA	< 0.09	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Manganese	µg/l	--	--	--	--	--	--	NA*	389	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	--	--	--	--	NA*	601	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	--	--	--	--	NA*	< 0.096	NA	NA	0.2	J < 0.12	< 0.12	< 0.12	NA	NA	NA	NA	NA
	Dissolved Sulfate	mg/l	--	--	--	--	--	--	NA*	5.1	NA	NA	< 2.5	2.1	4.6	2.4 J	NA	NA	NA	NA	NA
	Dissolved Ethane	µg/l	--	--	--	--	--	--	< 14	19.3	16.7	NA	< 0.32	< 0.32	< 0.32	< 0.32	NA	NA	NA	< 0.36	< 0.36
	Dissolved Ethene	µg/l	--	--	--	--	--	--	19	< 1.4	< 1.4	NA	6.6	49.3	30.9	15.4	NA	NA	NA	61.7	26.7
	Dissolved Methane	µg/l	--	--	--	--	--	--	132	15300	5570	NA*	14000	12200	15100	8050	NA	NA	NA	6690	1110
	Acetic Acid	mg/l	--	--	--	--	--	--	NA	NA	NA*	NA*	3.5	NA	NA	NA	NA	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	--	--	--	--	NA	NA	NA*	NA*	< 1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	--	--	--	--	NA	NA	NA*	NA*	< 25 U	NA	NA	NA	NA	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	--	--	--	--	NA	NA	NA*	NA*	< 1.0 U	NA	NA	NA	NA	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	--	--	--	--	NA	NA	NA*	NA*	< 10 U	NA	NA	NA	NA	NA	NA	NA	NA

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NA= not analyzed, per SAP
NA* = not analyzed, well ran dry during sampling
ND = Not detected
NS=not sampled, well full of injection material
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

TW-14

			NR 140.10 Table 1 PAL	NR 140.10 Table 1 ES	Alpha Terra Sampling 5/13/2005	8/23/2005	11/21/2005	5/16/2006	Pilot Testing Program Baseline 3/22/2007	3 Month Performance 6/12/2007	7/24/2007	8/23/2007	Full-Scale Testing Program Baseline 7/28/2008	3 Month Performance 11/14/2008	2/18/2009	3/25/2009	Quarterly Performance Monitoring Program 1Q 6/25/2009	2Q 1/21/2010	3Q 4/21/2010	4Q 8/5/2010	1Q 11/2/2011	2Q 2/22/2012	3Q 5/22/2012	4/4/2013	7/30/2013
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	ND	ND	< 5.7	ND	< 16.0	< 10.0	*5.8*	**7.1**	< 11.4	< 37.5	< 14.2	< 28.5		< 71.2	< 71.2	< 75	< 22.8	< 22.8	< 37.5	< 0.57	< 0.43
	Benzene	µg/l	*0.5*	**5**	ND	ND	< 4.1	ND	< 6.4	< 4.0	< 0.2	< 0.2	< 8.2	< 20.5	< 10.2	< 20.5	< 20.5	< 51.2	< 51.2	< 41	< 16.4	< 16.4	< 20.5	NA	NA
	Chloroform	µg/l	*0.6*	**6**	ND	ND	< 3.7	ND	< 6.4	< 4.0	0.48 J	< 0.2	< 7.4	< 65	< 32.5	< 65	< 65.0	< 162	< 162	< 130	< 52	< 52	< 65	NA	NA
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	**720**	**320**	**680**	**2300**	**1500**	**1300**	**3100**	**3900**	**4580**	**7310**	**6300**	**8770**	**12600**	**19500**	**14200**	**9210**	**3860**	**6620**	**2550**	2.0	3.2
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	**370**	**230**	**330**	**2000**	**1100**	**1700**	**5200**	**2400**	**2630**	< 22.5	< 11.2	< 22.5	< 22.5	< 56.2	< 56.2	< 45	< 18	< 18	< 22.5	< 0.45	< 0.47
	Toluene	µg/l	*200*	**1000**	ND	ND	< 6.7	ND	< 6.4	< 4.0	< 0.2	< 0.2	< 13.4	< 33.5	< 16.8	< 33.5	< 33.5	< 83.8	< 83.8	< 67	< 26.8	< 26.8	< 33.5	NA	NA
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	*20*	6.5	14	*36*	< 16.0	11.0	*30*	*35*	**129**	*82.3*	*94.9*	**153**	**267**	**479**	**402**	**383**	**181**	**452**	**215**	14.8	5.6
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	**320**	**180**	**330**	**1700**	**950**	**1200**	**3300**	**2400**	**3300**	**758**	**35.4**	< 24	26.0 J	< 60	< 60	< 48	< 19.2	< 19.2	< 24	< 0.48	*0.58J*
	Vinyl Chloride	µg/l	*0.02*	**0.2**	**110**	**61**	**73**	**130**	**130**	**79**	**140**	**170**	**411**	**362**	**461**	**377**	**1210**	**832**	**704**	**533**	**1130**	**5270**	**4840**	**30.8**	**7.7**
Field Measurements	Temperature	deg. C	--	--	--	--	--	--	10.23	13.41	NA*	NA*	NA*	NA*	NA*	NA*	NA*	9.61	NA	NA*	NA*	NA*	NA*	NA*	NA*
	pH		--	--	--	--	--	--	7.46	6.87	NA*	NA*	NA*	NA*	NA*	NA*	NA*	6.58	NA	NA*	NA*	NA*	NA*	NA*	NA*
	Dissolved Oxygen	mg/l	--	--	--	--	--	--	2.00	0.79	NA*	NA*	NA*	NA*	NA*	NA*	NA*	3.00	NA	NA*	NA*	NA*	NA*	NA*	NA*
	Specific Conductivity	µs/cm	--	--	--	--	--	--	1016	929	NA*	NA*	NA*	NA*	NA*	NA*	NA*	2941	NA	NA*	NA*	NA*	NA*	NA*	NA*
	ORP	mV	--	--	--	--	--	--	68.8	101	NA*	NA*	NA*	NA*	NA*	NA*	NA*	-36.6	NA	NA*	NA*	NA*	NA*	NA*	NA*
Geochemical Parameters	TOC	mg/l	--	--	--	--	--	--	NA*	15.7	4.6	NA*	2.2	NA*	NA*	NA*	NA	596	93.5	474	NA	NA	NA	NA	NA
	Ammonia as N	mg/l	--	--	--	--	--	--	NA*	NA	NA	NA	< 0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Iron	µg/l	--	--	--	--	--	--	NA*	0.27	0.27	.023	< 0.026	NA*	NA*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Manganese	µg/l	--	--	--	--	--	--	NA*	NA	NA	NA	1280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	--	--	--	--	NA*	NA	NA	NA	346	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	--	--	--	--	NA*	NA	NA	NA	< 0.096	NA	NA	NA	< 0.12	NA	< 0.12	< 0.12	NA	NA	NA	NA	NA
	Dissolved Sulfate	mg/l	--	--	--	--	--	--	NA*	NA	NA	NA	18.8	NA	NA	NA	< 2.5	< 2	3.8	2.9 J	NA	NA	NA	NA	NA
	Dissolved Ethane	µg/l	--	--	--	--	--	--	< 14	NA	< 14	< 14	25.8	20.6	NA	16.8	< 0.32	< 0.32	< 0.32	< 0.32	NA	NA	NA	< 0.36	< 0.36
	Dissolved Ethene	µg/l	--	--	--	--	--	--	20	NA	100	34	< 1.4	4.9 J	NA	< 1.4	27.6	6.3	5.0	3 J	NA	NA	NA	448	816
	Dissolved Methane	µg/l	--	--	--	--	--	--	546	300	200	869	1390	3110	NA*	6230	20600	4290	20600	23100	NA	NA	NA	4680	9030
	Acetic Acid	mg/l	--	--	--	--	--	--	< 1.0	< 1.0	< 1.0	NA*	NA	NA*	NA*	NA*	550	NA	NA	NA	NA	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	--	--	--	--	< 1.0	< 1.0	< 1.0	NA*	NA	NA*	NA*	NA*	63	NA	NA	NA	NA	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	--	--	--	--	< 25.0	< 25.0	< 25.0	NA*	NA	NA*	NA*	NA*	< 25 U	NA	NA	NA	NA	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	--	--	--	--	< 1.0	< 1.0	< 1.0	NA*	NA	NA*	NA*	NA*	75	NA	NA	NA	NA	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	--	--	--	--	< 10.0	< 10.0	< 10.0	NA*	NA	NA*	NA*	NA*	< 10 U	NA	NA	NA	NA	NA	NA	NA	NA

NOTES
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mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NA = not analyzed, per SAP
NA*=not analyzed, well ran dry during sampling
ND = Not detected
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

					Alpha Terra Sampling			Full-Scale Testing Program				Quarterly Performance Monitoring Program						
MW-101					8/23/2005	11/21/2005	5/10/2006	Baseline 7/28/2008	3 Month Performance 11/14/2008	2/18/2009	3/24/2009	1Q 6/25/2009	2Q 1/21/2010	3Q 4/21/2010	4Q 8/5/2010	1Q 11/2/2011	4/4/2013	7/30/2013
			NR 140.10 Table 1 PAL	NR 140.10 Table 1 ES														
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	ND	< 0.57	ND	< 0.57	< 0.57	< 0.75	< 0.57	< 0.57	< 0.57	NA	< 0.57	< 0.57	< 0.57	< 0.43
	Benzene	µg/l	*0.5*	**5**	ND	< 0.41	ND	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	NA	< 0.41	< 0.41	NA	NA
	Chloroform	µg/l	*0.6*	**6**	ND	< 0.37	ND	< 0.37	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	NA	< 1.3	< 1.3	NA	NA
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	NA	< 0.83	< 0.83	< 0.83	< 0.42
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	NA	< 0.45	< 0.45	< 0.45	< 0.47
	Toluene	µg/l	*200*	**1000**	ND	< 0.67	ND	< 0.67	1.1	< 0.67	< 0.67	< 0.67	< 0.67	NA	< 0.67	< 0.67	NA	NA
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	NA	< 0.89	< 0.89	< 0.89	< 0.37
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	NA	< 0.48	< 0.48	< 0.48	< 0.43
	Vinyl Chloride	µg/l	*0.02*	**0.2**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	NA	< 0.18	< 0.18	< 0.18	< 0.18
Field Measurements	Temperature	deg. C	--	--	14.02	15.1	--	14.05	NA*	6.70	6.27	15.12	8.24	NA	16.99	14.73	7.5	14.4
	pH	--	--	--	6.43	6.29	--	6.31	NA*	6.70	6.86	6.63	6.78	NA	6.77	6.77	6.87	6.8
	Dissolved Oxygen	mg/l	--	--	3.23	0.88	--	1.64	NA*	3.97	4.99	3.17	1.01	NA	0.33	0.18	1.72	4.9
	Specific Conductivity	µs/cm	--	--	5.744	6.237	--	6392	NA*	5879	6631	7195	7218	NA	6513	4373	4993	5460
	ORP	mV	--	--	103.5	176.4	--	-240	NA*	68	221	49.1	29.4	NA	-185	-10.6	-30	-23.5
Geochemical Parameters	TOC	mg/l	--	--	--	--	--	< 1.4	6.5	3.3	3.4	NA	< 1	NA	< 1	NA	NA	NA
	Ammonia as N	mg/l	--	--	--	--	--	< 0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Iron	µg/l	--	--	200	NA	--	< 0.026	NA*	< 0.026	< 0.026	NA	NA	NA	NA	NA	NA	NA
	Dissolved Manganese	µg/l	--	--	410	NA	--	164	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	--	--	--	746	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	<0.061	NA	--	< 0.096	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Sulfate	mg/l	--	--	88	NA	--	118	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Ethane	µg/l	--	--	<10	NA	--	NA	< 1.6	< 1.6	< 1.6	NA	< 0.32	NA	< 0.32	NA	< 0.36	< 0.36
	Dissolved Ethene	µg/l	--	--	<10	NA	--	NA	< 1.4	< 1.4	< 1.4	NA	< 0.47	NA	< 0.47	NA	0.34	0.38J
	Dissolved Methane	µg/l	--	--	<10	NA	--	2.4	J < 2	< 2	< 2	NA	< 0.93	NA	< 0.93	NA	2.3	4.5
	Acetic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NS= not sampled, per SAP
NA = not analyzed
NA*= not analyzed, well ran dry during sampling
ND = Not detected
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

MW-102

			NR 140.10 Table 1		Alpha Terra Sampling			Full-Scale Testing Program				Quarterly Performance Monitoring Program							
								Baseline	3 Month Performance			1Q	2Q	4Q	1Q	2Q			
			PAL	ES	8/23/2005	11/21/2005	5/12/2006	7/28/2008	11/13/2008	2/18/2009	3/25/2009	6/25/2009	1/21/2010	8/5/2010	11/2/2011	2/22/2012	4/4/2013	7/30/2013
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	ND	< 0.57	ND	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.43
	Benzene	µg/l	*0.5*	**5**	ND	< 0.41	ND	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	NA	NA
	Chloroform	µg/l	*0.6*	**6**	ND	< 0.37	ND	< 0.37	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	NA	NA
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	*8.8*	< 0.83	< 0.83	< 0.42
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.47
	Toluene	µg/l	*200*	**1000**	ND	< 0.67	ND	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	NA	NA
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.37
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43
	Vinyl Chloride	µg/l	*0.02*	**0.2**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	**3.6**	< 0.18	< 0.18	< 0.18
Field Measurements	Temperature	deg. C	--	--	15.82	15.09	--	17.34	13.58	7.97	6.02	15.92	9.16	17.0	13.24	8.00	5.64	15.8
	pH	--	--	--	6.77	6.59	--	7.20	6.57	6.76	6.95	6.67	6.93	6.87	6.98	6.97	7.58	7.19
	Dissolved Oxygen	mg/l	--	--	3.44	1.33	--	1.13	0.94	0.52	0.45	2.33	0.98	0.37	3.94	0.45	0.81	16.3
	Specific Conductivity	µs/cm	--	--	2.604	2.685	--	960	2599	3596	3119	3284	3245	3346	7740	700	4318	5890
	ORP	mV	--	--	173	-31.1	--	-259	-77.8	-64	-43	-93.6	-101.2	-183	-37.2	-133.5	-167	-152.5
Geochemical Parameters	TOC	mg/l	--	--	--	--	--	14.8	316	99.7	66.6	NA	3.2	2.2	NA	NA	NA	NA
	Ammonia as N	mg/l	--	--	--	--	--	0.21 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Iron	µg/l	--	--	<17	NA	--	< 0.026	12.0	< 0.026	1.4	NA	NA	NA	NA	NA	NA	NA
	Dissolved Manganese	µg/l	--	--	54	NA	--	117	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	--	--	--	295	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	<0.061	NA	--	< 0.096	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Sulfate	mg/l	--	--	84	NA	--	22.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Ethane	µg/l	--	--	<10	NA	--	NA	< 1.6	< 1.6	< 1.6	NA	< 0.32	< 0.32	NA	NA	0.55	2.8J
	Dissolved Ethene	µg/l	--	--	<10	NA	--	NA	< 1.4	< 1.4	< 1.4	NA	< 0.47	< 0.47	NA	NA	2.7	0.69J
	Dissolved Methane	µg/l	--	--	<10	NA	--	< 2.0	6200	10700	6130	NA	7890	9300	NA	NA	45.8	337
	Acetic Acid	mg/l	--	--	--	--	--	NA	NA	NA	120	NA	NA	NA	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	--	--	--	NA	NA	NA	0.7 J	NA	NA	NA	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	--	--	--	NA	NA	NA	< 25.0 U	NA	NA	NA	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	--	--	--	NA	NA	NA	0.3 J	NA	NA	NA	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	--	--	--	NA	NA	NA	< 10.0 U	NA	NA	NA	NA	NA	NA	NA

NOTES
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µg/l = micrograms per liter
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TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NS= not sampled, per SAP
NA = not analyzed, per SAP
ND = Not detected
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

					Alpha Terra Sampling			Full-Scale Testing Program			Quarterly Performance Monitoring Program						
MW-103					8/23/2005	11/21/2005	5/16/2006	Baseline 7/29/2008	3 Month Performance 11/14/2008	2/18/2009	1Q 6/25/2009	2Q 1/21/2010	4Q 8/5/2010	1Q 11/2/2011
			NR 140.10 Table 1 PAL	ES										
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	ND	< 0.57	ND	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57
	Benzene	µg/l	*0.5*	**5**	ND	< 0.41	ND	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
	Chloroform	µg/l	*0.6*	**6**	ND	< 0.37	ND	< 0.37	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
	Toluene	µg/l	*200*	**1000**	ND	< 0.67	ND	0.82 J	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
	Vinyl Chloride	µg/l	*0.02*	**0.2**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Field Measurements	Temperature	deg. C	--	--	--	--	--	NA*	NA*	NA*	NA*	9.41	NA*	12.80
	pH	--	--	--	--	--	--	NA*	NA*	NA*	NA*	6.98	NA*	7.21
	Dissolved Oxygen	mg/l	--	--	--	--	--	NA*	NA*	NA*	NA*	1.98	NA*	3.78
	Specific Conductivity	µs/cm	--	--	--	--	--	NA*	NA*	NA*	NA*	1127	NA*	1.157
	ORP	mV	--	--	--	--	--	NA*	NA*	NA*	NA*	33.1	NA*	49.6
Geochemical Parameters	TOC	mg/l	--	--	--	--	--	< 1.4	2.7	3.8	NA*	NA	NA	NA
	Ammonia as N	mg/l	--	--	--	--	--	< 0.12	NA	NA*	NA*	NA	NA	NA
	Dissolved Iron	µg/l	--	--	--	--	--	< 0.026	< 0.026	< 0.026	NA*	NA	NA	NA
	Dissolved Manganese	µg/l	--	--	--	--	--	22.6	NA	NA*	NA*	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	--	--	--	695	NA	NA*	NA*	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	--	--	--	< 0.096	NA	NA*	NA*	NA	NA	NA
	Dissolved Sulfate	mg/l	--	--	--	--	--	58	NA	NA*	NA*	NA	NA	NA
	Dissolved Ethane	µg/l	--	--	--	--	--	NA	1.6 <	1.6	NA*	< 0.32	< 0.32	NA
	Dissolved Ethene	µg/l	--	--	--	--	--	NA	1.4 <	1.4	NA*	< 0.47	< 0.47	NA
	Dissolved Methane	µg/l	--	--	--	--	--	5.2	6.9 <	2	NA*	< 0.93	22.8	NA
	Acetic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NS= not sampled, per SAP
NS*=not sampled, well under water from rain and snowmelt
NA = not analyzed, per SAP
NA*=not analyzed, well ran dry during sampling
ND = Not detected
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

MW-105			NR 140.10 Table 1		Alpha Terra Sampling			Pilot Testing Program				Full-Scale Testing Program				Quarterly Performance Monitoring Program									
								Baseline	3 Month Performance			Baseline	3 Month Performance			1Q	2Q	3Q	4Q	1Q	2Q	3Q			
			PAL	ES	8/23/2005	11/21/2005	5/12/2006	3/22/2007	6/12/2007	7/24/2007	8/23/2007	7/29/2008	11/14/2008	2/18/2009	3/25/2009	6/25/2009	1/21/2010	4/21/2010	8/5/2010	11/3/2011	2/22/2012	5/22/2012	4/4/2013	7/30/2013	10/27/2016
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	ND	< 28	ND	< 20	< 20	*6.7*	*5.4*	< 11.4	< 28.5	< 22.8	< 14.2	< 15	< 14.2	< 14.2	< 14.2	< 14.2	< 11.4	< 5.7	< 0.57	< 4.3	<1
	Benzene	µg/l	*0.5*	**5**	ND	< 20	ND	< 8.0	< 8.0	*4.1*	*3.6*	< 8.2	< 20.5	< 16.4	< 10.2	< 8.2	< 10.2	< 10.2	< 10.2	< 10.2	< 8.2	< 4.1	NA	NA	*2.1*
	Chloroform	µg/l	*0.6*	**6**	ND	< 18	ND	< 8.0	< 8.0	0.5	J < 0.2	< 7.4	< 65	< 52	< 32.5	< 26.0	< 32.5	< 32.5	< 32.5	< 32.5	< 26	< 13	NA	NA	<6.2
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	**3800**	**3900**	**3200**	**3100**	**3200**	**3100**	**2800**	**3920**	**5300**	**3410**	**3780**	**3140**	**2830**	**2230**	**1790**	**1060**	**1010**	**960**	2.8	*36.7*	*34.5*
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 9	< 22	< 11	< 20	< 20	< 25	< 0.5	< 9	< 22.5	< 18	< 11.2	< 9.0	< 11.2	< 11.2	< 11.2	< 11.2	< 9	< 4.5	< 0.45	< 4.7	<1.2
	Toluene	µg/l	*200*	**1000**	ND	< 34	ND	< 8.0	< 8.0	0.27	J < 0.2	< 13.4	< 33.5	< 26.8	< 16.8	< 13.4	< 16.8	< 16.8	< 16.8	< 16.8	< 13.4	< 6.7	NA	NA	<1.2
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	*88*	*82*	*82*	*36*	J< 20	*36*	*25*	**162**	**104**	*93.8*	*93.0*	*75.9*	*43.7*	*28.1*	< 22.2	< 22.2	< 17.8	< 8.9	< 0.89	< 3.7	<0.64
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	**64**	< 24	**12**	< 8.0	< 8.0	< 10	*4.6*	**27.3**	< 24	< 19.2	< 12	< 9.6	< 12	< 12	< 12	< 12	< 9.6	< 4.8	< 0.48	< 4.3	<0.83
	Vinyl Chloride	µg/l	*0.02*	**0.2**	**510**	**620**	**750**	**750**	**680**	**640**	**340**	**973**	**1190**	**1090**	**927**	**1140**	**1310**	**1480**	**1200**	**1430**	**1560**	**1390**	**119**	**1270**	**183**
Field Measurements	Temperature	deg. C	--	--	17.15	18.08	--	11.16	15.71	18.10	18.86	15.92	14.41	9.87	9.89	14.93	9.49	10.31	16.86	13.77	9.43	17.4	8.03	17.4	15.2
	pH	--	--	--	6.88	6.61	--	7.29	5.8	5.29	6.95	6.88	6.78	6.40	6.69	6.46	6.85	6.83	2.17*	6.67	6.8	6.89	6.79	6.89	6.8
	Dissolved Oxygen	mg/l	--	--	0.85	0.09	--	0.37	0.27	0.56	1.12	1.50	1.28	0.65	0.37	2.58	1.25	0.57	1.02	0.24	0.76	3.63	0.79	36.3	0.25
	Specific Conductivity	µs/cm	--	--	1.096	1.154	--	1160	1225	1276	1295	1471	1938	2434	2292	2100	2814	2425	2294	1865	8700	1720	1773	1720	1600
	ORP	mV	--	--	-19.2	-59.7	--	-13.9	290.04	614.8	-67.3	-201	-64.9	-25	-52	-91.0	32.8	-72	-66.7*	-74.2	-102.2	-110.7	-96	-110.7	-203.1
Geochemical Parameters	TOC	mg/l	--	--	--	--	--	4.12	4.07	4.60	10.8	2.5	832	763	521	383	540	194	34.6	NA	NA	NA	NA	NA	NA
	Ammonia as N	mg/l	--	--	--	--	--	0.36	NA	NA	NA	< 0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Iron	µg/l	--	--	200	NA	--	0.53	1.3	0.27	0.19	< 0.026	83.4	37.5	17.6	10.3	4.5^	NA	4.5^	NA	NA	NA	NA	NA	NA
	Dissolved Manganese	µg/l	--	--	130	NA	--	0.39	NA	NA	NA	265	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	--	--	--	550	NA	NA	NA	498	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	<0.061	NA	--	<10	NA	NA	NA	< 0.096	NA	NA	NA	0.22	J < 0.12	< 0.12	< 0.12	NA	NA	NA	NA	NA	NA
	Dissolved Sulfate	mg/l	--	--	43	NA	--	30	J NA	NA	NA	23.1	NA	NA	NA	< 2.5	3.8	< 2	2	J NA	NA	NA	NA	NA	NA
	Dissolved Ethane	µg/l	--	--	<10	NA	--	<14	NA	<14.0	<14.0	293	217	150	165	< 0.32	< 0.32	< 0.32	< 0.32	NA	NA	NA	< 0.36	63.8	NA
	Dissolved Ethene	µg/l	--	--	<10	NA	--	193	NA	100	68	< 1.4	3.1	< 1.4	< 1.4	76.6	133	47.8	86.6	NA	NA	NA	753	701	NA
	Dissolved Methane	µg/l	--	--	<10	NA	--	2250	1900	200	404	2080	6070	11200	8410	9170	15700	13500	16000	NA	NA	NA	8930	7880	NA
	Acetic Acid	mg/l	--	--	--	--	--	NA	< 1.0	< 1.0	< 1.0	NA	330	890	640	480	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	--	--	--	NA	< 1.0	< 1.0	< 1.0	NA	9.6	110.0	79	59	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	--	--	--	NA	< 25.0	< 25.0	< 25.0	NA	< 25	< 250	UM < 25 U	2.3	J NA	NA	NA	NA	NA	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	--	--	--	NA	< 1.0	< 1.0	< 1.0	NA	200	120.0	77	39	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	--	--	--	NA	< 10.0	< 10.0	< 10.0	NA	1.1	< 100	U < 10 U	< 10	U NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NA = not analyzed, per SAP
ND = Not detected
^ = Ferrous Iron by Hach Kit
* = Suspected YSI probe reading errors
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

					Alpha Terra Sampling			Full-Scale Testing Program				Quarterly Performance Monitoring Program		
MW-106								Baseline	3 Month Performance			1Q	4Q	1Q
					8/23/2005	11/21/2005	5/12/2006	7/29/2008	11/14/2008	2/18/2009	3/24/2009	6/25/2009	8/5/2010	11/2/2011
			NR 140.10 Table 1											
			PAL	ES										
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	ND	< 0.57	ND	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57
	Benzene	µg/l	*0.5*	**5**	ND	< 0.41	ND	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
	Chloroform	µg/l	*0.6*	**6**	ND	< 0.37	ND	< 0.37	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
	Toluene	µg/l	*200*	**1000**	ND	< 0.67	ND	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
	Vinyl Chloride	µg/l	*0.02*	**0.2**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Field Measurements	Temperature	deg. C	--	--	16.86	16.71	--	19.56	14.46	5.90	4.60	16.71	19.77	14.42
	pH	--	--	--	7.12	6.68	--	6.72	6.7	6.76	7.02	6.67	6.97	6.88
	Dissolved Oxygen	mg/l	--	--	5.37	0.13	--	1.71	0.83	0.47	0.39	2.54	0.32	0.32
	Specific Conductivity	µs/cm	--	--	0.977	1.129	--	1390	1286	1304	1478	1329	1421	1.370
	ORP	mV	--	--	136.4	208.7	--	-203	43.0	157	91	-39.1	-166	-34.4
Geochemical Parameters	TOC	mg/l	--	--	--	--	--	4.8	5.2	3.9	15.5	NA	6.2	NA
	Ammonia as N	mg/l	--	--	--	--	--	< 0.12	NA	NA	NA	NA	NA	NA
	Dissolved Iron	µg/l	--	--	40	NA	--	< 0.026	< 0.026	< 0.026	< 0.026	NA	NA	NA
	Dissolved Manganese	µg/l	--	--	37	NA	--	266	NA	NA	NA	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	--	--	--	720	NA	NA	NA	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	<0.061	NA	--	< 0.096	NA	NA	NA	NA	NA	NA
	Dissolved Sulfate	mg/l	--	--	40	NA	--	31.5	NA	NA	NA	NA	NA	NA
	Dissolved Ethane	µg/l	--	--	<10	NA	--	NA	< 1.6	< 1.6	< 1.6	NA	< 0.32	NA
	Dissolved Ethene	µg/l	--	--	<10	NA	--	NA	< 1.4	< 1.4	< 1.4	NA	< 0.47	NA
	Dissolved Methane	µg/l	--	--	<10	NA	--	767	268	1710	1480	NA	1230	NA
	Acetic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NS= not sampled, per SAP
NA = not analyzed, per SAP
ND = Not detected
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

					Alpha Terra Sampling			Full-Scale Testing Program				Quarterly Performance Monitoring Program		
MW-107					8/23/2005	11/21/2005	5/12/2006	Baseline 7/29/2008	3 Month Performance 11/13/2008	2/18/2009	3/24/2009	1Q 6/25/2009	4Q 8/5/2010	1Q 11/2/2011
			NR 140.10 Table 1 PAL	ES										
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	ND	< 0.57	ND	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57
	Benzene	µg/l	*0.5*	**5**	ND	< 0.41	ND	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
	Chloroform	µg/l	*0.6*	**6**	ND	< 0.37	ND	< 0.37	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83
	Methylene Chloride	µg/l	*0.5*	**5**	ND	< 0.43	ND		< 0.43	< 0.43	< 0.43			< 0.43
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
	Toluene	µg/l	*200*	**1000**	ND	< 0.67	ND	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
	Vinyl Chloride	µg/l	*0.02*	**0.2**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Field Measurements	Temperature	deg. C	--	--	15.96	16.95	--	20.04	15.18	5.89	4.79	17.44	21.39	15.10
	pH	--	--	--	6.52	6.6	--	6.80	6.78	6.90	7.19	6.99	5.45*	6.94
	Dissolved Oxygen	mg/l	--	--	4.91	0.39	--	1.60	1.16	1.72	2.87	2.76	1.13	0.62
	Specific Conductivity	µs/cm	--	--	1.276	1.416	--	1428	1382	1343	1311	1296	1355	1.294
	ORP	mV	--	--	218.2	206.8	--	-205	22.9	156	225	29.2	61.8*	84.0
Geochemical Parameters	TOC	mg/l	--	--	--	--	--	7.6	2.4	1.8	< 1.4	NA	NA	NA
	Ammonia as N	mg/l	--	--	--	--	--	< 0.12	NA	NA	NA	NA	NA	NA
	Dissolved Iron	µg/l	--	--	18	NA	--	< 0.026	< 0.026	< 0.026	< 0.026	NA	NA	NA
	Dissolved Manganese	µg/l	--	--	41	NA	--	47.3	NA	NA	NA	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	--	--	--	664	NA	NA	NA	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	<0.061	NA	--	< 0.096	NA	NA	NA	NA	NA	NA
	Dissolved Sulfate	mg/l	--	--	61	NA	--	51.4	NA	NA	NA	NA	NA	NA
	Dissolved Ethane	µg/l	--	--	<10	NA	--	NA	< 1.6	< 1.6	< 1.6	NA	< 0.32	NA
	Dissolved Ethene	µg/l	--	--	<10	NA	--	NA	< 1.4	< 1.4	< 1.4	NA	< 0.47	NA
	Dissolved Methane	µg/l	--	--	<10	NA	--	3.5	< 2.0	< 2	< 2	NA	28.5	NA
	Acetic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NS= not sampled, per SAP
NA = not analyzed, per SAP
ND = Not detected
* = Suspected YSI probe reading errors
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

PZ-104

			NR 140.10 Table 1 PAL	NR 140.10 Table 1 ES	Alpha Terra Sampling 9/23/2005	Alpha Terra Sampling 5/10/2006	Full-Scale Testing Program Baseline 7/28/2008	Full-Scale Testing Program 3 Month Performance 11/14/2008	Quarterly Performance Monitoring Program 1Q 6/25/2009	3Q 4/21/2010	4Q 8/5/2010	1Q 11/2/2011	2Q 2/22/2012	3Q 5/22/2012	4/4/2013	7/30/2013
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	ND	ND	< 0.57	< 0.57	< 0.57	< 0.57	< 0.75	< 0.57	< 0.57	< 0.57	< 0.57	< 0.43
	Benzene	µg/l	*0.5*	**5**	ND	ND	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	NA	NA
	Chloroform	µg/l	*0.6*	**6**	ND	ND	< 0.37	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	NA	NA
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	*20*	*7.6*	*8.3*	10.9	*13.6*	*15.5*	*12.4*	*12.8*	*22.5*	*24.6*	*29.9*	*26.3*
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	**26**	**6.1**	< 0.45	*2.0*	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.47
	Toluene	µg/l	*200*	**1000**	ND	ND	< 0.67	4.4	< 0.7	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	NA	NA
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	1.0	0.94J
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	**14**	*1.6*	*1.7*	*1.8*	< 0.5	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43
	Vinyl Chloride	µg/l	*0.02*	**0.2**	**7.6**	**3.9**	**3.90**	**1.3**	**8**	**5.2**	**7**	**7.3**	**11.1**	**11.6**	**13.4**	**13.3**
Field Measurements	Temperature	deg. C	--	--	--	--	13.19	NA*	15.85	NA	NA*	NA*	11.55	NA	NA*	NA*
	pH	--	--	--	--	--	7.21	NA*	7.23	NA	NA*	NA*	7.41	NA	NA*	NA*
	Dissolved Oxygen	mg/l	--	--	--	--	1.36	NA*	1.92	NA	NA*	NA*	0.78	NA	NA*	NA*
	Specific Conductivity	µs/cm	--	--	--	--	1263	NA*	1144	NA	NA*	NA*	-25.6	NA	NA*	NA*
	ORP	mV	--	--	--	--	-196	NA*	-87.5	NA	NA*	NA*	-135.2	NA	NA*	NA*
Geochemical Parameters	TOC	mg/l	--	--	--	--	1.7 J	6.7	2.5	NA	NA	NA	NA	NA	NA	NA
	Ammonia as N	mg/l	--	--	--	--	0.46 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Iron	µg/l	--	--	--	--	< 0.026	< 0.026	< 0.018	NA	NA	NA	NA	NA	NA	NA
	Dissolved Manganese	µg/l	--	--	--	--	203	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	--	--	575	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	--	--	0.11 J	NA	< 0.12	NA	NA	NA	NA	NA	NA	NA
	Dissolved Sulfate	mg/l	--	--	--	--	42.9	NA	27.6	NA	NA	NA	NA	NA	NA	NA
	Dissolved Ethane	µg/l	--	--	--	--	< 1.6	< 1.6	< 0.32	< 0.32	< 0.32	NA	NA	NA	< 0.36	< 0.36
	Dissolved Ethene	µg/l	--	--	--	--	< 1.4	1.5 J	1.1 J	< 0.47	< 0.47	NA	NA	NA	4.9	6.9
	Dissolved Methane	µg/l	--	--	--	--	36.1	32.1	107	3650	3900	NA	NA	NA	4280	4210
	Acetic Acid	mg/l	--	--	--	--	NA	1.4	< 1.0 U	NA	NA	NA	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	--	--	NA	< 1.0	< 1.0 U	NA	NA	NA	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	--	--	NA	< 25	< 25 U	NA	NA	NA	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	--	--	NA	< 1	< 1.0 U	NA	NA	NA	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	--	--	NA	2.4	< 10.0 U	NA	NA	NA	NA	NA	NA	NA

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NA= not analyzed, per SAP
NA* = not analyzed, well dry
ND = Not detected
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

					Alpha Terra Sampling			Full-Scale Testing Program				Quarterly Performance Monitoring Program									
PZ-108								Baseline	3 Month Performance			1Q	2Q	3Q	4Q	1Q	2Q	3Q			
			NR 140.10 Table 1		8/23/2005	11/21/2005	5/10/2006	7/28/2008	11/13/2008	2/18/2009	3/25/2009	6/25/2009	1/21/2010	4/21/2010	8/5/2010	11/2/2011	2/22/2012	5/22/2012	4/4/2013	7/30/2013	10/27/2016
			PAL	ES																	
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	ND	< 0.57	ND	< 0.57	< 0.57	< 1.1	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.43	<0.24
	Benzene	µg/l	*0.5*	**5**	ND	< 0.41	ND	< 0.41	< 0.41	< 0.82	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	NA	NA	<0.5
	Chloroform	µg/l	*0.6*	**6**	ND	< 0.37	ND	< 0.37	< 1.3	< 2.6	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	NS	NS	<2.5
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	*59*	*58*	*40*	*40.9*	**95.5**	**112**	**110**	*44.5*	57.1	**82.0**	*65.9*	*13.0*	*16.7*	*3.7*	*9.9*	*24.4*	0.28
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.9	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.47	<0.5
	Toluene	µg/l	*200*	**1000**	ND	< 0.67	ND	< 0.67	0.68	< 1.3	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	NS	NS	<0.5
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	< 0.89	0.94	< 0.89	2.4	4.5	7.2	6.4	2.9	1.6	4.8	4.5	< 0.89	0.94	< 0.89	< 0.89	1.7	<0.26
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	< 0.48	*0.54*	< 0.48	*1.1*	*1.9*	*2.6*	*2.1*	*0.66* J	*0.72*	*1.0*	*0.96* J	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	<0.33
	Vinyl Chloride	µg/l	*0.02*	**0.2**	**3.6**	**2.4**	**4.5**	**4.50**	**7.5**	**9.9**	**8.1**	**5**	**2.3**	**8.2**	**9**	**3.9**	**3.5**	< 0.18	**2.0**	**6.1**	<0.18
Field Measurements	Temperature	deg. C	--	--	11.9	11.1	--	12.95	11.24	9.53	11.22	16.38	NA*	11.77	12.49	10.81	10.06	14	12.39	14	11
	pH	--	--	--	7.06	7.11	--	7.04	7.14	7.29	7.33	7.13	NA*	7.39	7.26	7.42	7.42	7.33	7.24	7.33	7.33
	Dissolved Oxygen	mg/l	--	--	2.29	1.95	--	1.16	0.69	0.53	0.38	2.01	NA*	0.42	0.25	0.50	0.6	9.7	0.56	9.7	1.98
	Specific Conductivity	µs/cm	--	--	1.143	1.158	--	1890	1489	1441	1525	2109	NA*	2032	2439	989	2630	2890	5983	2890	117
	ORP	mV	--	--	222.3	70.8	--	-185	-76.9	-18	-54	-71.3	NA*	-71	-171	-98.2	-135.4	-115.3	-156	-155.3	-134.3
Geochemical Parameters	TOC	mg/l	--	--	--	--	--	3.0	3.1	3.2	2.5	NA	5.4	< 1	2.7	NA	NA	NA	NS	NS	NS
	Ammonia as N	mg/l	--	--	--	--	--	0.15 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	NS
	Dissolved Iron	µg/l	--	--	<17	NA	--	< 0.026	< .026	< 0.026	< 0.026	NA	NA*	NA	3.2	NA	NA	NA	NS	NS	NS
	Dissolved Manganese	µg/l	--	--	52	NA	--	199	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	NS
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	--	--	--	543	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	NS
	Dissolved Nitrate/Nitrite	mg/l	--	--	<0.061	NA	--	< 0.096	NA	NA	NA	NA	< 0.12	< 0.12	< 0.12	NA	NA	NA	NS	NS	NS
	Dissolved Sulfate	mg/l	--	--	54	NA	--	199	NA	NA	NA	NA	136	177	161	NA	NA	NA	NS	NS	NS
	Dissolved Ethane	µg/l	--	--	<10	NA	--	NA	1.6	< 1.6	< 1.6	NA	< 0.32	< 0.32	< 0.32	NA	NA	NA	< 0.36	< 0.36	NS
	Dissolved Ethene	µg/l	--	--	<10	NA	--	NA	1.4	< 1.4	< 1.4	NA	< 0.47	< 0.47	< 0.47	NA	NA	NA	0.48	1.1J	NS
	Dissolved Methane	µg/l	--	--	21	NA	--	27	86.1	147	173	NA	479	1790	1840	NA	NA	NA	65.4	154	NS
	Acetic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	NS
	Butyric Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	NS
	Lactic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	NS
	Propionic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	NS
	Pyruvic Acid	mg/l	--	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NS	NS	NS

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NS= not sampled, per SAP
NA = not analyzed, per SAP
NA* = not analyzed, well ran dry during sampling
ND = Not detected
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

					Alpha Terra Sampling	Pilot Testing Program				Full-Scale Testing Program	Quarterly Performance Monitoring Program			
PZ-109						Baseline	3 Month Performance			Baseline	1Q	4Q		
			NR 140.10 Table 1 PAL	ES	5/16/2006	3/22/2007	6/12/2007	7/24/2007	8/23/2007	7/28/2008	6/25/2009	8/5/2010	4/4/2013	7/30/2013
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	ND	NS	NS	NS	NS	< 0.57	< 0.57	< 0.57	< 0.57	< 0.43
	Benzene	µg/l	*0.5*	**5**	ND	NS	NS	NS	NS	< 0.41	< 0.41	< 0.41	NS	NS
	Chloroform	µg/l	*0.6*	**6**	ND	NS	NS	NS	NS	< 0.37	< 1.3	< 1.3	NS	NS
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	< 0.83	NS	NS	NS	NS	< 0.83	< 0.83	< 0.83	< 0.83	< 0.42
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 0.45	NS	NS	NS	NS	< 0.45	< 0.45	< 0.45	< 0.45	< 0.47
	Toluene	µg/l	*200*	**1000**	ND	NS	NS	NS	NS	4.7	< 0.67	< 0.67	NS	NS
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	< 0.89	NS	NS	NS	NS	< 0.89	< 0.89	< 0.89	< 0.89	< 0.37
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	< 0.48	NS	NS	NS	NS	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43
	Vinyl Chloride	µg/l	*0.02*	**0.2**	< 0.18	NS	NS	NS	NS	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Field Measurements	Temperature	deg. C	--	--	--	NS	NS	NS	NS	NA**	18.29	NA*	NA*	NA*
	pH	--	--	--	--	NS	NS	NS	NS	NA**	7.14	NA*	NA*	NA*
	Dissolved Oxygen	mg/l	--	--	--	NS	NS	NS	NS	NA**	2.27	NA*	NA*	NA*
	Specific Conductivity	µs/cm	--	--	--	NS	NS	NS	NS	NA**	1531	NA*	NA*	NA*
	ORP	mV	--	--	--	NS	NS	NS	NS	NA**	24.7	NA*	NA*	NA*
Geochemical Parameters	TOC	mg/l	--	--	--	NS	NS	NS	NS	3.3	NA	NA*	NS	NS
	Ammonia as N	mg/l	--	--	--	NS	NS	NS	NS	< 0.12	NA	NA	NS	NS
	Dissolved Iron	µg/l	--	--	--	NS	NS	NS	NS	< 0.026	NA	NA*	NS	NS
	Dissolved Manganese	µg/l	--	--	--	NS	NS	NS	NS	44.9	NA	NA	NS	NS
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	--	NS	NS	NS	NS	827	NA	NA	NS	NS
	Dissolved Nitrate/Nitrite	mg/l	--	--	--	NS	NS	NS	NS	1.7	NA	NA*	NS	NS
	Dissolved Sulfate	mg/l	--	--	--	NS	NS	NS	NS	129	NA	NA*	NS	NS
	Dissolved Ethane	µg/l	--	--	--	NS	NS	NS	NS	NA	NA	< 0.32	0.47	0.66J
	Dissolved Ethene	µg/l	--	--	--	NS	NS	NS	NS	NA	NA	< 0.47	0.3	0.39J
	Dissolved Methane	µg/l	--	--	--	NS	NS	NS	NS	< 2.0	NA	2110	126	152
	Acetic Acid	mg/l	--	--	--	NS	NS	NS	NS	NA	NA	NA	NS	NS
	Butyric Acid	mg/l	--	--	--	NS	NS	NS	NS	NA	NA	NA	NS	NS
	Lactic Acid	mg/l	--	--	--	NS	NS	NS	NS	NA	NA	NA	NS	NS
	Propionic Acid	mg/l	--	--	--	NS	NS	NS	NS	NA	NA	NA	NS	NS
	Pyruvic Acid	mg/l	--	--	--	NS	NS	NS	NS	NA	NA	NA	NS	NS

NOTES
deg. C = degrees Celsius
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µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NS= not sampled, per SAP
NA = not analyzed, per SAP
NA*=not analyzed, well dry
NA**=not analyzed, well ran dry during sampling
ND = Not detected
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

					Alpha Terra	Full-Scale Testing Program				Quarterly Performance Monitoring Program			
MW-110						Baseline	3 Month Performance			1Q	2Q	4Q	1Q
			NR 140.10 Table 1		5/10/2006	7/28/2008	11/13/2008	2/18/2009	3/24/2009	6/25/2009	1/21/2010	8/5/2010	11/2/2011
			PAL	ES									
Detected VOCs	Methyl-tert-butyl-ether (MTBE)		12	60	ND	0.87 J	0.80	0.63			0.62		
	1,1-Dichloroethene	µg/l	*0.7*	**7**	ND	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57
	Benzene	µg/l	*0.5*	**5**	ND	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
	Chloroform	µg/l	*0.6*	**6**	ND	< 0.37	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83
	Methylene Chloride	µg/l	*0.5*	**5**	ND		< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
	Toluene	µg/l	*200*	**1000**	ND	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
	Vinyl Chloride	µg/l	*0.02*	**0.2**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Field Measurements	Temperature	deg. C	--	--	--	17.24	13.06	8.75	5.92	14.82	8.39	18.92	14.66
	pH	--	--	--	--	6.72	6.70	6.87	7.04	6.84	6.97	6.93	7.02
	Dissolved Oxygen	mg/l	--	--	--	1.48	0.99	0.92	0.32	1.97	0.89	0.45	0.23
	Specific Conductivity	µs/cm	--	--	--	3014	2896	2845	2820	2968	2973	3250	3.090
	ORP	mV	--	--	--	-244	-55.0	32	61	-15	-34.9	-174	-12.1
Geochemical Parameters	TOC	mg/l	--	--	--	4.6	8.0	6.2	5.6	NA	3.0	2.4	NA
	Ammonia as N	mg/l	--	--	--	< 0.12	NA	NA	NA	NA	NA	NA	NA
	Dissolved Iron	µg/l	--	--	--	< 0.026	< 0.026	< 0.026	< 0.026	NA	NA	NA	NA
	Dissolved Manganese	µg/l	--	--	--	400	NA	NA	NA	NA	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	--	780	NA	NA	NA	NA	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	--	< 0.096	NA	NA	NA	NA	NA	NA	NA
	Dissolved Sulfate	mg/l	--	--	--	174	NA	NA	NA	NA	NA	NA	NA
	Dissolved Ethane	µg/l	--	--	--	NA	< 1.6	< 1.6	< 1.6	NA	< 0.32	< 0.32	NA
	Dissolved Ethene	µg/l	--	--	--	NA	< 1.4	< 1.4	< 1.4	NA	< 0.47	< 0.47	NA
	Dissolved Methane	µg/l	--	--	--	32.8	248	708	1230	NA	584	463	NA
	Acetic Acid	mg/l	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon

J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.

NA = not analyzed, per SAP

ND = Not detected

NS= not sampled, per SAP

Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence

Blue/Italic = ch. NR 140 Wis. Adm. Code Preventive Action Limit (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

PZ-111

			NR 140.10 Table 1 PAL	NR 140.10 Table 1 ES	Alpha Terra	Full-Scale Testing Program				Quarterly Performance Monitoring Program							
						Baseline	3 Month Performance			1Q	2Q	3Q	4Q	1Q	2Q	3Q	
					5/10/2006	7/28/2008	11/14/2008	2/18/2009	3/24/2009	6/25/2009	1/21/2010	4/21/2010	8/5/2010	11/2/2011	2/22/2012	5/22/2012	10/27/2016
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	ND	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	<0.41
	Benzene	µg/l	*0.5*	**5**	ND	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	<0.5
	Chloroform	µg/l	*0.6*	**6**	ND	< 0.37	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	<2.5
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	< 0.83	< 0.83	3.2	1.5	2.4	1.9	1.1	1.0	1.5	< 0.83	2.3	0.84	<0.26
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	<0.5
	Toluene	µg/l	*200*	**1000**	ND	0.78	J < 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	<0.5
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89	<0.26
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	<0.33
	Vinyl Chloride	µg/l	*0.02*	**0.2**	< 0.18	< 0.18	**1.1**	< 0.18	**0.38**	**0.54** J	**0.22**	< 0.18	**0.61** J	< 0.18	**1.3**	**0.55**	<0.18
Field Measurements	Temperature	deg. C	--	--	--	13.39	13.43	7.95	8.98	14.27	6.75	12.05	12.56	9.84	10.66	NA	10.9
	pH	--	--	--	--	7.00	7.34	7.37	7.41	7.31	7.41	7.40	7.24	7.99	7.59	NA	7.93
	Dissolved Oxygen	mg/l	--	--	--	1.14	1.11	3.29	1.06	1.67	0.85	0.54	0.26	11.84	0.55	NA	2.02
	Specific Conductivity	µs/cm	--	--	--	1295	1415	1451	1356	1301	1215	1644	1473	0.116	-35.6	NA	307
	ORP	mV	--	--	--	-249	-62.2	24	327	2.4	69.4	8	-164	70.9	-102.3	NA	-10.9
Geochemical Parameters	TOC	mg/l	--	--	--	2.0	2.6	2.9	3.2	NA	3.8	< 1	4.4	NA	NA	NA	NA
	Ammonia as N	mg/l	--	--	--	0.51	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Iron	µg/l	--	--	--	< 0.026	< 0.026	< 0.026	< 0.026	NA	NA*	NA	0.5	NA	NA	NA	NA
	Dissolved Manganese	µg/l	--	--	--	207	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	--	568	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	--	< 0.096	NA	NA	NA	NA	< 0.12	< 0.12	< 0.12	NA	NA	NA	NA
	Dissolved Sulfate	mg/l	--	--	--	69.4	NA	NA	NA	NA	53.7	63.0	68.9	NA	NA	NA	NA
	Dissolved Ethane	µg/l	--	--	--	NA	1.6	< 1.6	< 1.6	NA	< 0.32	< 0.32	< 0.32	NA	NA	NA	NA
	Dissolved Ethene	µg/l	--	--	--	NA	1.4	< 1.4	< 1.4	NA	< 0.47	< 0.47	< 0.47	NA	NA	NA	NA
	Dissolved Methane	µg/l	--	--	--	45.2	19.9	< 2	25.3	NA	204	75.6	235	NA	NA	NA	NA
	Acetic Acid	mg/l	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NS= not sampled, per SAP
NA = not analyzed, per SAP
NA* = not analyzed, well ran dry during sampling
ND = Not detected
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Approved by:___ Checked by:___.

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

PZ-112					2Q 1/21/2010	3Q 4/21/2010	4Q 8/5/2010	1Q 11/2/2011	2Q 2/22/2012
			NR 140.10 Table 1 PAL	ES					
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57
	Benzene	µg/l	*0.5*	**5**	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
	Chloroform	µg/l	*0.6*	**6**	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
	Toluene	µg/l	*200*	**1000**	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
	Vinyl Chloride	µg/l	*0.02*	**0.2**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Field Measurements	Temperature	deg. C	--	--	7.52	10.97	11.74	10.49	8.97
	pH	--	--	--	7.61	7.73	7.46	7.44	7.64
	Dissolved Oxygen	mg/l	--	--	2.39	0.48	0.69	0.92	1.11
	Specific Conductivity	µs/cm	--	--	1277	1183	1196	1.066	-38.4
	ORP	mV	--	--	37.6	-88	-162	-41.5	-70.4
Geochemical Parameters	TOC	mg/l	--	--	3.0	1.6	2.4	NA	NA
	Ammonia as N	mg/l	--	--	NA	NA	NA	NA	NA
	Dissolved Iron	µg/l	--	--	1.9^	NA	0.9	NA	NA
	Dissolved Manganese	µg/l	--	--	NA	NA	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	NA	NA	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	< 0.12	< 0.12	< 0.12	NA	NA
	Dissolved Sulfate	mg/l	--	--	84.8	92.9	80.2	NA	NA
	Dissolved Ethane	µg/l	--	--	< 0.32	< 0.32	< 0.32	NA	NA
	Dissolved Ethene	µg/l	--	--	< 0.47	< 0.47	< 0.47	NA	NA
	Dissolved Methane	µg/l	--	--	12.9	10.9	49.7	NA	NA
	Acetic Acid	mg/l	--	--	NA	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	NA	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	NA	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	NA	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	NA	NA	NA	NA	NA

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NS= not sampled, per SAP
NA = not analyzed, per SAP
^ = Ferrous Iron by Hach Kit
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

	PZ-113		NR 140.10 Table 1 PAL	NR 140.10 Table 1 ES	2Q 1/21/2010	3Q 4/21/2010	4Q 8/5/2010	1Q 11/3/2011	2Q 2/22/2012	3Q 5/22/2012	10/27/2016
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	< 0.57	< 0.57	< 0.75	< 0.57	< 0.57	< 0.57	<0.24
	Benzene	µg/l	*0.5*	**5**	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	<0.5
	Chloroform	µg/l	*0.6*	**6**	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	<2.5
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	*11.7*	*8.8*	*8.4*	*17.5*	*33.1*	4.5	<0.26
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	<0.5
	Toluene	µg/l	*200*	**1000**	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67	<0.5
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	< 0.89	< 0.89	< 0.89	1.0	0.98	< 0.89	<0.26
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	<0.33
	Vinyl Chloride	µg/l	*0.02*	**0.2**	**0.59**	**0.61**	**0.72** J	**2.1**	**14.7**	**0.64**	<0.18
Field Measurements	Temperature	deg. C	--	--	NA*	NA*	14.36	NA**	9.73	NA	11.3
	pH	--	--	--	NA*	NA*	2.69*	NA**	7.35	NA	7.74
	Dissolved Oxygen	mg/l	--	--	NA*	NA*	0.58	NA**	1.04	NA	7.84
	Specific Conductivity	µs/cm	--	--	NA*	NA*	1538	NA**	-20.7	NA	0.078
	ORP	mV	--	--	NA*	NA*	-84.7*	NA**	-117.9	NA	22.1
Geochemical Parameters	TOC	mg/l	--	--	12.6	6.7					
	Ammonia as N	mg/l	--	--	NA	NA	NA	NA	NA	NA	NA
	Dissolved Iron	µg/l	--	--	NA	NA	3.2^	NA	NA	NA	NA
	Dissolved Manganese	µg/l	--	--	NA	NA	NA	NA	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	NA	NA	NA	NA	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	NA	< 0.12	< 0.12	NA	NA	NA	NA
	Dissolved Sulfate	mg/l	--	--	NA	279	181	NA	NA	NA	NA
	Dissolved Ethane	µg/l	--	--	< 0.32	< 0.32	< 0.32	NA	NA	NA	NA
	Dissolved Ethene	µg/l	--	--	< 0.47	< 0.47	< 0.47	NA	NA	NA	NA
	Dissolved Methane	µg/l	--	--	139	70.1	98.2	NA	NA	NA	NA
	Acetic Acid	mg/l	--	--	NA	NA	NA	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	NA	NA	NA	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	NA	NA	NA	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	NA	NA	NA	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	NA	NA	NA	NA	NA	NA	NA

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NS= not sampled, per SAP
NA = not analyzed, per SAP
NA* = not analyzed, well ran dry during sampling
NA** = not analyzed, well was hand bailed
* = Suspected YSI probe reading errors
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

PZ-114			NR 140.10 Table 1 PAL	NR 140.10 Table 1 ES	2Q 1/21/2010	3Q 4/21/2010	4Q 8/5/2010	1Q 11/3/2011	2Q 2/22/2012
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	< 0.57	< 0.57	< 0.75	< 0.57	< 0.57
	Benzene	µg/l	*0.5*	**5**	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
	Chloroform	µg/l	*0.6*	**6**	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	< 0.83	< 0.83	< 0.83	< 0.83	< 0.83
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
	Toluene	µg/l	*200*	**1000**	< 0.67	< 0.67	< 0.67	< 0.67	< 0.67
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	< 0.89	< 0.89	< 0.89	< 0.89	< 0.89
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
	Vinyl Chloride	µg/l	*0.02*	**0.2**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
Field Measurements	Temperature	deg. C	--	--	10.88	11.02	13.99	NA**	NA**
	pH	--	--	--	7.14	7.11	2.78*	NA**	NA**
	Dissolved Oxygen	mg/l	--	--	0.40	0.37	0.58	NA**	NA**
	Specific Conductivity	µs/cm	--	--	1972	1910	1775	NA**	NA**
	ORP	mV	--	--	56.7	-55	-29.5*	NA**	NA**
Geochemical Parameters	TOC	mg/l	--	--	2.1	< 1	1.4 J	NA	NA
	Ammonia as N	mg/l	--	--	NA	NA	NA	NA	NA
	Dissolved Iron	µg/l	--	--	1.4^	NA	3.2^	NA	NA
	Dissolved Manganese	µg/l	--	--	NA	NA	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	NA	NA	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	< 0.12	< 0.12	< 0.12	NA	NA
	Dissolved Sulfate	mg/l	--	--	174	160	172	NA	NA
	Dissolved Ethane	µg/l	--	--	< 0.32	< 0.32	< 0.32	NA	NA
	Dissolved Ethene	µg/l	--	--	< 0.47	< 0.47	< 0.47	NA	NA
	Dissolved Methane	µg/l	--	--	16.1	14.3	10.9	NA	NA
	Acetic Acid	mg/l	--	--	NA	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	NA	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	NA	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	NA	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	NA	NA	NA	NA	NA

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NS= not sampled, per SAP
NA = not analyzed, per SAP
NA** = not analyzed, well was hand bailed
^ = Ferrous Iron by Hach Kit
* = Suspected YSI probe reading errors
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.1 Groundwater Analytical Table (continued)

Summary of Groundwater Data
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

	PZ-115				4Q 8/5/2010	1Q 11/3/2011	2Q 2/22/2012	3Q 5/22/2012
			NR 140.10 Table 1					
			PAL	ES				
Detected VOCs	1,1-Dichloroethene	µg/l	*0.7*	**7**	< 0.57	< 0.57	< 0.57	< 0.57
	Benzene	µg/l	*0.5*	**5**	< 0.41	< 0.41	< 0.41	< 0.41
	Chloroform	µg/l	*0.6*	**6**	< 1.3	< 1.3	< 1.3	< 1.3
	cis-1,2-Dichloroethene (DCE)	µg/l	*7*	**70**	2.3	2.0	1.8	1.9
	Tetrachloroethene (PCE)	µg/l	*0.5*	**5**	< 0.45	< 0.45	< 0.45	< 0.45
	Toluene	µg/l	*200*	**1000**	< 0.67	< 0.67	< 0.67	< 0.67
	trans-1,2-Dichloroethene (DCE)	µg/l	*20*	**100**	< 0.89	< 0.89	< 0.89	< 0.89
	Trichloroethene (TCE)	µg/l	*0.5*	**5**	< 0.48	< 0.48	< 0.48	< 0.48
	Vinyl Chloride	µg/l	*0.02*	**0.2**	**4**	**2.1**	**1.5**	**2.7**
Field Measurements	Temperature	deg. C	--	--	NA*	NA*	NA*	NA*
	pH	--	--	--	NA*	NA*	NA*	NA*
	Dissolved Oxygen	mg/l	--	--	NA*	NA*	NA*	NA*
	Specific Conductivity	µs/cm	--	--	NA*	NA*	NA*	NA*
	ORP	mV	--	--	NA*	NA*	NA*	NA*
Geochemical Parameters	TOC	mg/l	--	--	13.6	NA	NA	NA
	Ammonia as N	mg/l	--	--	NA	NA	NA	NA
	Dissolved Iron	µg/l	--	--	NA	NA	NA	NA
	Dissolved Manganese	µg/l	--	--	NA	NA	NA	NA
	Total Alkalinity ($CaCO_3$)	mg/l	--	--	NA	NA	NA	NA
	Dissolved Nitrate/Nitrite	mg/l	--	--	< 0.12	NA	NA	NA
	Dissolved Sulfate	mg/l	--	--	180	NA	NA	NA
	Dissolved Ethane	µg/l	--	--	< 0.32	NA	NA	NA
	Dissolved Ethene	µg/l	--	--	< 0.47	NA	NA	NA
	Dissolved Methane	µg/l	--	--	< 122	NA	NA	NA
	Acetic Acid	mg/l	--	--	NA	NA	NA	NA
	Butyric Acid	mg/l	--	--	NA	NA	NA	NA
	Lactic Acid	mg/l	--	--	NA	NA	NA	NA
	Propionic Acid	mg/l	--	--	NA	NA	NA	NA
	Pyruvic Acid	mg/l	--	--	NA	NA	NA	NA

NOTES
deg. C = degrees Celsius
mg/l = milligrams per liter
µs/cm = micro siemens per centimeter
µg/l = micrograms per liter
mV = milli-volts
ORP = oxidation-reduction potential
TOC = Total Organic Carbon
J = results reported between the Method Detection Limit (MDL) and the Limit of Quantitation (LOQ) are less certain that results at or above the LOQ.
NS= not sampled, per SAP
NA = not analyzed, per SAP
NA* = not analyzed, well dry
Red/Bold = *ch. NR 140 Wis. Adm. Code Enforcement Standard* (ES) exceedence
Blue/Italic = *ch. NR 140 Wis. Adm. Code Preventive Action Limit* (PAL) exceedence

Table A.2.
Soil Analytical Results

Summary of Soil VOC Results (Detected Compounds Only)
Busy Bea Dry Cleaners
1077 Racine Street
Menasha, Wisconsin

Boring/Well Number		NR 720.09	EPA Generic Soil Screening Level			PZ-112	PZ-112	PZ-113	PZ-113	PZ-114	PZ-114	PZ-115	PZ-115
Sample Date		Generic	Ingestion	Inhalation	Groundwater	1/6/2010	1/6/2010	1/11/2010	1/11/2010	1/5/2010	1/5/2010	1/15/2010	1/15/2010
Sample Depth	Units	RCLs	(Contact)	(Contact)	Path - 20 DAF	0'-4'	12'-14'	2'-4'	16'-18'	0'-4'	12'-14'	2'-4'	12'-14'
Saturated/Unsaturated						Unsaturated	Saturated	Unsaturated	Saturated	Unsaturated	Saturated	Unsaturated	Saturated
PID	ppm/v					0	0	0	0	0	8	0	0
cis-1,2-Dichloroethene (DCE)	µg/kg	NES	156000	7.14E+11	27	< 25	< 25	< 25	< 25	< 25	1820	< 25	< 25
trans- 1,2 Dichloroethene	µg/kg	NES	313000	7.14E+11	49	< 25	< 25	< 25	< 25	< 25	225	< 25	< 25

Table A.2.
Soil Analytical Results

TABLE 2
SOIL ANALYTICAL RESULTS - SELECTED CHLORINATED VOLATILE ORGANIC COMPOUNDS
BUSY BEA'S DRY CLEANER, MENASHA, WI

Boring ID	Site Location	Depth (ft bgs)	Depth to Water* (ft bgs)	Soil Type	PID Reading (su)	cis-1,2 DCE (ug/kg)	trans-1,2 DCE (ug/kg)	PCE (ug/kg)	TCE (ug/kg)	Vinyl Chloride (ug/kg)	Total Organic Carbon (%)	COMMENTS
Terracon Investigation October 2004												
B-1	W of DCM	5' +	NA	NA	NA	38	<25	<25	<25	<25	NA	Unsaturated
B-2	E of Building at rear door	3'	NA	NA	NA	<25	<25	<25	<25	<25	NA	Unsaturated
B-3	E of Building at Drum Storage	5' +	NA	NA	NA	**1,000**	<25	<25	<25	**270**	NA	Unsaturated
Alpha Terra Investigation March and August 2005												
TW-4	NW of DCM	7-8' ++	3-5'	Silty Clay	61	NA	NA	NA	NA	NA	0.39	Saturated
TW-4	NW of DCM	8-10' ++	3-5'	Silty Clay	81	**1,800**	<200	**58,000**	**4,300**	<200	NA	Saturated
TW-4	NW of DCM	14-16' ++	3-5'	Silty Clay	11	**1,600**	69	**300**	**590**	**42**	NA	Saturated
						TCLP RESULTS AT MOST CONTAMINATED SAMPLE						Saturated
PZ-104	NW of DCM	9.5-11'	3-5'	Silty Clay	43	NA	NA	0.51	0.13	<0.0050	NA	TCLP Results
TW-5	SW of DCM	1-2'	3-5'	Silty Clay Fill	0	<25	<25	<25	<25	<25	NA	Unsaturated
GP-6	Next to DCM	6-8' ++	Est 3-5'	Silty Clay	42	**400**	<50	**12,000**	**1,300**	<50	NA	Saturated
GP-6	Next to DCM	15-16' ++	Est 3-5'	Silty Clay	0	**250**	34	<25	<25	<25	NA	Saturated
GP-7	SE of DCM	9-10' ++	Est 3-5'	Silty Clay	0	**120**	<25	<25	<25	<25	NA	Saturated
TW-8	Drum Storage Area	1-2'	2-4'	Silty Clay Fill	0	<25	<25	<25	<25	<25	NA	Unsaturated
TW-8	Drum Storage Area	15-16' ++	2-4'	Silty Clay	0	<25	<25	<25	<25	<25	NA	Saturated
GP-9	E of Drum Storage	1-2'	Est 2-4'	Silty Clay / Gravel Fill	0	<25	<25	<25	<25	<25	NA	Unsaturated
GP-9	E of Drum Storage	7-8' ++	Est 2-4'	Silty Clay	0	NA	NA	NA	NA	NA	0.15	Saturated
GP-10	E of DCM, End of Sidewalk	8-10' ++	Est 2-4'	Silty Clay	13	**1,300**	54	<25	**55**	**32**	NA	Saturated
GP-10	E of DCM, End of Sidewalk	15-16' ++	Est 2-4'	Silty Clay	5.6	**2,500**	**160**	<25	**45**	**130**	NA	Saturated
TW-11	Near E Property Line in Grass	11"-2'	5-7'	Silty Clay	0	<25	<25	<25	<25	<25	NA	Saturated
TW-11	Near E Property Line in Grass	7-8' ++	5-7'	Silty Clay	0	NA	NA	NA	NA	NA	0.62	Saturated
TW-12	S of PDQ Station	1-1.7'	2-4'	Silty Clay / Gravel Fill	80	<250	<250	<250	<250	<250	NA	Petroleum Compounds Present Unsaturated
TW-13	W of DCM	9-10' ++	4.5 - 7'	Silty Clay	31	**3,800**	140	<25	**930**	**160**	NA	Saturated
TW-13	W of DCM	15-16' ++	4.5 - 7'	Silty Clay	0	<25	<25	<25	<25	<25	NA	Saturated
TW-14	NW of DCM	4-6'	4.3 - 9'	Silty Clay	89	**870**	<62	**20,000**	**2,300**	<62	NA	Saturated
TW-14	NW of DCM	15-16' ++	4.3 - 9'	Silty Clay	0	<25	<25	<25	<25	<25	NA	Saturated
GP-15	E of Bldg	8-10' ++	2.5 - 4'	Silty Clay	0	<25	<25	<25	<25	<25	NA	Saturated
GP-15	E of Bldg	15.5-16' ++	2.5 - 4'	Silty Clay	0	<25	<25	<25	<25	<25	NA	Saturated
GP-16	E of Bldg	8-10' ++	2.5 - 4'	Silty Clay	0	<25	<25	<25	<25	<25	NA	Saturated
GP-16	E of Bldg	15.5-16' ++	2.5 - 4'	Silty Clay	0	<25	<25	<25	<25	<25	NA	Saturated
GP-17	Sewer laterals, W of Bldg	8-10' ++	3.5 - 6'	Silty Clay	13	**960**	<25	**6,200**	**2,900**	**40**	NA	Saturated
GP-17	S of Water & Sewer laterals, W	15.5-16' ++	3.5 - 6'	Silty Clay	8	**360**	38	<25	<25	**38**	NA	Saturated
GP-18	15' East of TW-12	1.25-1.75'	Est 2-4'	Silty Clay Fill	0	<25	<25	<25	<25	<25	NA	Unsaturated
GP-19	10' SW of TW-12	1.25-2.25'	Est 2-4'	Silty Clay Fill	0	<25	<25	<25	<25	<25	NA	Unsaturated
GP-20	15' West of TW-12	1-2'	Est 2-4'	Silty Clay Fill	0	<25	<25	<25	<25	<25	NA	Unsaturated
GP-21	1.5' East of TW-12	1.25-2.25'	Est 2-4'	Silty Clay Fill	36	<1200	<1200	<1200	<1200	<1200	NA	Petroleum Compounds Present Unsaturated
GP-21	1.5' East of TW-12	7.5-8'	Est 2-4'	Native Silty Clay	0	<25	<25	<25	<25	<25	NA	Saturated
MW-103	N of Bldg	8-9.5' ++	3'	Silty Clay	0	<25	<25	<25	<25	<25	NA	Saturated
PZ-104	NW of DCM	22.25-23' ++	29.9'	Clayey Silt	0	<25	<25	<25	<25	<25	NA	Unsaturated
MW-105	Courtyard NW corner	8-10' ++	2.5'	Silty Clay	42	**2,300**	33	<25	**360**	**200**	NA	Saturated
MW-105	Courtyard NW corner	16.5-17' ++	2.5'	Silty Clay	0	<25	<25	<25	<25	<25	NA	Saturated
MW-106	E of Bldg	6-8' ++	4'	Silty Clay	0	<25	<25	<25	<25	<25	NA	Saturated
MW-107	SE corner Bldg	6-8' ++	3.1'	Silty Clay	0	<25	<25	<25	<25	<25	NA	Saturated
PZ-108	West by Driveway	6-8'	28.5'	Silty Clay	0	<25	<25	<25	<25	<25	NA	Unsaturated
PZ-108	West by Driveway	26-27'	28.5'	Silty Clay	0	<25	<25	<25	<25	<25	NA	Unsaturated
PZ-109	NW of Bldg	6-8'	>26.9'	Silty Clay	0	<25	<25	<25	<25	<25	NA	Unsaturated
PZ-109	NW of Bldg	26-27'	>26.9'	Sandy Silt / Gravel	0	<25	<25	<25	<25	<25	NA	Unsaturated
										AVERAGE	0.39	
WDNR RR-682 Generic RCL Migration to Groundwater						**27**	**98**	**4**	**4**	**0.1**		
Calculated Site Specific RCL Migration to Groundwater using Average Site TOC						**42**	**160**	**8.6**	**8.5**	**0.15**		
NR746 & RR682 Soil Screening Levels - Potential Free Product						1,300,000		240,000	1,300,000	1,200,000		
WDNR RR-682 SSL Inhalation Volatiles Industrial						1,300,000	NS	**33,000**	14,000	870		
WDNR RR-682 SSL Inhalation Volatiles Non-Industrial						NS	NS	**19,000**	**850**	**52**		
WDNR RR-682 SSL Soil Ingestion Industrial						156,000	NS	55,000	260,000	2,040		

Notes:

Xylenes reported as total of m-, o-, p-xylenes
NA= Not analyzed for parameter
RCL = Residual Contaminant Level
SSL = Soil Screening Level
BOLD indicates exceedance of residual contaminant level for migration to groundwater
BOLD and BOXED indicates exceedence of SSL inhalation volatiles industrial
(ug/kg) = parts per billion
* Water level range from April to Sept 2005
TMB= trimethylbenzene
NS = No standard established
+ : SOIL SAMPLE AT WATER TABLE INTERFACE
++ : SOIL SAMPLE BELOW WATER TABLE
RR 682 - WDNR Guidance, Determining Residual Contaminant Levels using the EPA Soil Screening Level Web Site, Jan 11, 2002
Soil at TW-12 and B-21 had petroleum constituents.

data.xls
soilVOC

Table A.4

Detected Indoor Air VOC Results
Summary of Ambient Air VOC Results (Detects Only)
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

Sample Location		Indoor Air Vapor Action Levels Based on May 2016 USEPA Regional Screening Level Tables for Small Commercial Settings	Former Busy Bee 1077 Racine Road		Patricia's Hair Salon 1071 Racine Road		Vacant 1083 Racine Road	
Sample Date	Units		6/12/2007	6/3/2008	6/3/2008		6/3/2008	
Sample Duration			24-hr	24-hr	24-hr		24-hr	
Benzene	ug/m^3	16	<32	0.86	0.99		0.79	
Carbon Tetrachloride	ug/m^3	20	<61	0.81 J	0.59 J		0.68 J	
Chloroform	ug/m^3	5.3	<48	0.26 J	0.39 J		0.18 J	
Chloromethane	ug/m^3	390	<20	2.3	<1.0		2.0	
Dichlorodifluoromethane	ug/m^3	440	<48	3.9	4.5		3.9	
Ethylbenzene	ug/m^3	49	<43	<0.87	0.6 J		0.4 J	
Methylene Chloride	ug/m^3	2600	<35	1.4 JB	1.7 JB		1.4 JB	
Propylene	ug/m^3	NES	121	NA	NA		NA	
Tetrachloroethene (PCE)	ug/m^3	180	<68	1.9	1.9		1.7	
Toluene	ug/m^3	22000	<38	2.3	26		2.6	
1,1,1-Trichloroethane	ug/m^3	22000	<54	<1.1	0.35 J		<1.1	
Trichloroethene (TCE)	ug/m^3	8.8	1740	<1.1	15		<1.1	
Trichlorofluormethane	ug/m^3	NES	<54	2.0	5.8		1.9	
1,1,2-Trichlorotrifluoroethane	ug/m^3	NES	<76	0.8 J	0.67 J		0.8 J	
Vinyl Chloride	ug/m^3	28	<25	0.25 J	<0.51		<0.51	
Xylene, o	ug/m^3	440	<43	<0.87	0.58 J		0.38 J	
Xylenes, m + p	ug/m^3	440	<83	<0.87	1.7 J		1.1	

NOTES:
NES = no established standard
Red/Bold = Exceeds the Indoor Air Vapor Action Levels

Table A.6 Groundwater Elevations Table
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

Well Number	Measurement Date	Top of Casing Elevation (ft msl)	Screen Interval Top (ft msl)	Screen Interval Bottom (ft msl)	Depth to Water (ft btoc)	Water Elevation (ft msl)	Change in Water Elevation (ft)
PZ-104	3/22/2007	757.4	732.1	727.1	29.42	727.98	
	6/12/2007	757.4	732.1	727.1	29.45	727.95	-0.03
	7/24/2007	757.4	732.1	727.1	29.75	727.65	-0.3
	8/23/2007	757.4	732.1	727.1	29.45	727.95	0.3
	7/28/2008	757.4	732.1	727.1	24.09	733.31	-5.36
	11/14/2008	757.4	732.1	727.1	27.75	729.65	-3.66
	2/18/2009	757.4	732.1	727.1	29.39	728.01	-1.64
	3/24/2009	757.4	732.1	727.1	29.68	727.72	-0.29
	6/25/2009	757.4	732.1	727.1	26.81	730.59	2.87
	1/21/2010	757.4	732.1	727.1	29.49	727.91	-2.68
	4/21/2010	757.4	732.1	727.1	28.77	728.63	0.72
	8/5/2010	757.4	732.1	727.1	24.09	733.31	4.68
	11/2/2011	757.4	732.1	727.1	27.68	729.72	-3.59
	2/22/2012	757.4	732.1	727.1	27.24	730.16	0.44
	5/22/2012	757.4	732.1	727.1	23.72	733.68	3.52
	4/4/2013	757.4	732.1	727.1	27.38	730.02	-3.66
	7/30/2013	757.4	732.1	727.1	24.96	732.44	2.42
	10/27/2016	757.4	732.1	727.1	24.79	732.61	0.17
TW-4	3/22/2007	759.63	754.73	744.73	4.67	754.96	
	6/12/2007	759.63	754.73	744.73	3.09	756.54	1.58
	7/24/2007	759.63	754.73	744.73	3.63	756.00	-0.54
	8/23/2007	759.63	754.73	744.73	3.53	756.10	0.1
	7/28/2008	759.63	754.73	744.73	2.66	756.97	0.087
	11/14/2008	759.63	754.73	744.73	3.65	755.98	-0.99
	2/18/2009	759.63	754.73	744.73	7.88	751.75	-4.23
	3/25/2009	759.63	754.73	744.73	10.74	748.89	-2.86
	6/25/2009	759.63	754.73	744.73	3.46	756.17	7.28
	Abandoned 1/14/2010, Replaced with MW-4						
TW-14	3/22/2007	759.65	754.55	744.55	14.95	744.70	
	6/12/2007	759.65	754.55	744.55	5.04	754.61	9.91
	7/24/2007	759.65	754.55	744.55	4.69	754.96	0.35
	8/23/2007	759.65	754.55	744.55	4.14	755.51	0.55
	7/28/2008	759.65	754.55	744.55	3.84	755.81	0.03
	11/14/2008	759.65	754.55	744.55	6.67	752.98	-2.83
	2/18/2009	759.65	754.55	744.55	11.11	748.54	-4.44
	3/25/2009	759.65	754.55	744.55	11.05	748.60	0.06
	6/25/2009	759.65	754.55	744.55	3.44	756.21	7.61
	1/21/2010	759.65	754.55	744.55	6.48	753.17	-3.04
	4/21/2010	759.65	754.55	744.55	3.38	756.27	3.1
	8/5/2010	759.65	754.55	744.55	2.2	757.45	1.18
	11/2/2011	759.65	754.55	744.55	4.53	755.12	-2.33
	2/22/2012	759.65	754.55	744.55	5.33	754.32	-0.8
	5/22/2012	759.65	754.55	744.55	2.58	757.07	2.75
	4/4/2013	759.65	754.55	744.55	3.64	756.01	-1.06
	7/30/2013	759.65	754.55	744.55	4.73	754.92	-1.09
	10/27/2016	No Elevation Collected -Top of Well Filled with Mud and Missing Well Cap					
TW-13	3/22/2007	759.15	753.75	743.75	5.15	754.00	
	6/12/2007	759.15	753.75	743.75	3.38	755.77	1.77
	7/24/2007	759.15	753.75	743.75	4.89	754.26	-1.51
	8/23/2007	759.15	753.75	743.75	4.65	754.5	0.24
	7/28/2008	759.15	753.75	743.75	3.54	755.61	1.11
	11/14/2008	759.15	753.75	743.75	9.01	750.14	-5.47
	2/18/2009	759.15	753.75	743.75	11.06	748.09	-2.05
	3/25/2009	759.15	753.75	743.75	DRY	DRY	DRY
	6/25/2009	759.15	753.75	743.75	3.79	755.36	NA
	1/21/2010	759.15	753.75	743.75	9.52	749.63	-5.73
	4/21/2010	759.15	753.75	743.75	3.77	755.38	5.75
	8/5/2010	759.15	753.75	743.75	3.58	755.57	0.19
	11/2/2011	759.15	753.75	743.75	4.74	754.41	-1.16
	2/22/2012	759.15	753.75	743.75	6.51	752.64	-1.77
	5/22/2012	759.15	753.75	743.75	3.52	755.63	2.99
	4/4/2013	759.15	753.75	743.75	2.22	756.93	1.3
	7/30/2013	759.15	753.75	743.75	4.36	754.79	-2.14
	10/27/2016	Could not Locate					

Table A.6 Groundwater Elevations Table
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

Well Number	Measurement Date	Top of Casing Elevation (ft msl)	Screen Interval Top (ft msl)	Screen Interval Bottom (ft msl)	Depth to Water (ft btoc)	Water Elevation (ft msl)	Change in Water Elevation (ft)
PZ-109	3/22/2007	758.87	737.07	732.07	26.15	732.72	
	6/12/2007	758.87	737.07	732.07	26.16	732.71	-0.01
	7/24/2007	758.87	737.07	732.07	26.2	732.67	-0.04
	8/23/2007	758.87	737.07	732.07	26.43	732.44	-0.23
	7/28/2008	758.87	737.07	732.07	24.25	734.62	2.18
	11/14/2008	758.87	737.07	732.07	26.27	732.60	-2.02
	2/18/2009	758.87	737.07	732.07	26.51	732.36	-0.24
	3/24/2009	758.87	737.07	732.07	26.24	732.63	0.27
	6/25/2009	758.87	737.07	732.07	25.17	733.7	1.07
	1/21/2010	758.87	737.07	732.07	26.26	732.61	-1.09
	4/21/2010	758.87	737.07	732.07	26.21	732.66	0.05
	8/5/2010	758.87	737.07	732.07	23.57	735.3	2.64
	11/2/2011	758.87	737.07	732.07	26.18	732.69	-2.61
	5/22/2012	758.87	737.07	732.07	22.51	736.36	3.67
	4/4/2013	758.87	737.07	732.07	23.71	735.16	-1.2
	7/30/2013	758.87	737.07	732.07	23.65	735.22	0.06
	10/27/2016	758.87	737.07	732.07	23.78	735.09	-0.13
MW-101	3/22/2007	758.79	754.89	744.89	2.81	755.98	
	6/12/2007	758.79	754.89	744.89	7.42	751.37	-4.61
	7/24/2007	758.79	754.89	744.89	10.61	748.18	-3.19
	8/23/2007	758.79	754.89	744.89	10.13	748.66	0.48
	7/28/2008	758.79	754.89	744.89	7.17	751.62	2.96
	11/14/2008	758.79	754.89	744.89	12.91	745.88	-5.74
	2/18/2009	758.79	754.89	744.89	2.95	755.84	9.96
	3/24/2009	758.79	754.89	744.89	2.78	756.01	0.17
	6/25/2009	758.79	754.89	744.89	4.10	754.69	-1.32
	1/21/2010	758.79	754.89	744.89	4.34	754.45	-0.24
	4/21/2010	758.79	754.89	744.89	3.09	755.7	1.25
	8/5/2010	758.79	754.89	744.89	5.72	753.07	-2.63
	11/2/2011	758.79	754.89	744.89	8.79	750.00	-3.07
	5/22/2012	758.79	754.89	744.89	4.79	754.00	4
	4/4/2013	758.79	754.89	744.89	3.62	755.17	1.17
	7/30/2013	758.79	754.89	744.89	7.24	751.55	-3.62
	10/27/2016	758.79	754.89	744.89	8.35	750.44	-1.11
MW-110	3/22/2007	757.49	753.49	743.49	5.10	752.39	
	6/12/2007	757.49	753.49	743.49	2.65	754.84	2.45
	7/24/2007	757.49	753.49	743.49	3.73	753.76	-1.08
	8/23/2007	757.49	753.49	743.49	NM	NM	
	7/28/2008	757.49	753.49	743.49	2.68	754.81	1.05
	11/14/2008	757.49	753.49	743.49	2.82	754.67	-0.14
	2/18/2009	757.49	753.49	743.49	7.00	750.49	-4.18
	3/24/2009	757.49	753.49	743.49	5.02	752.47	1.98
	6/25/2009	757.49	753.49	743.49	3.76	753.73	1.26
	1/21/2010	757.49	753.49	743.49	5.69	751.80	-1.93
	4/21/2010	757.49	753.49	743.49	3.79	753.70	1.9
	8/5/2010	757.49	753.49	743.49	3.57	753.92	0.22
	11/2/2011	757.49	753.49	743.49	3.39	754.10	0.18
	5/22/2012	757.49	753.49	743.49	2.32	755.17	1.07
	4/4/2013	757.49	753.49	743.49	3.05	754.44	-0.73
	7/30/2013	757.49	753.49	743.49	1.81	755.68	1.24
	10/27/2016	757.49	753.49	743.49	3.99	753.50	-2.18
PZ-111	3/22/2007	757.57	735.77	722.85	30.55	727.02	
	6/12/2007	757.57	735.77	722.85	29.02	728.55	1.53
	7/24/2007	757.57	735.77	722.85	30.64	726.93	-1.62
	8/23/2007	757.57	735.77	722.85	31.09	726.48	-0.45
	7/28/2008	757.57	735.77	722.85	24.02	733.55	7.07
	11/14/2008	757.57	735.77	722.85	29.03	728.54	-5.01
	2/18/2009	757.57	735.77	722.85	29.23	728.34	-0.2
	3/24/2009	757.57	735.77	722.85	27.54	730.03	1.69
	6/25/2009	757.57	735.77	722.85	25.54	732.03	2.00
	1/21/2010	757.57	735.77	722.85	30.30	727.27	-4.76
	4/21/2010	757.57	735.77	722.85	27.64	729.93	2.66
	8/5/2010	757.57	735.77	722.85	23.25	734.32	4.39
	11/2/2011	757.57	735.77	722.85	27.52	730.05	-4.27
	2/22/2012	757.57	735.77	722.85	27.26	730.31	0.26
	5/22/2012	757.57	735.77	722.85	23.50	734.07	3.76
	4/4/2013	757.57	735.77	722.85	25.75	731.82	-2.25
	7/30/2013	757.57	735.77	722.85	25.20	732.37	0.55
	10/27/2016	757.57	735.77	722.85	24.50	733.07	0.70

Table A.6 Groundwater Elevations Table
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

Well Number	Measurement Date	Top of Casing Elevation (ft msl)	Screen Interval Top (ft msl)	Screen Interval Bottom (ft msl)	Depth to Water (ft btoc)	Water Elevation (ft msl)	Change in Water Elevation (ft)
MW-102	3/22/2007	758.07	754.57	745.13	5.45	752.62	
	6/12/2007	758.07	754.57	745.13	4.40	753.67	1.05
	7/24/2007	758.07	754.57	745.13	4.62	753.45	-0.22
	8/23/2007	758.07	754.57	745.13	4.23	753.84	0.39
	7/28/2008	758.07	754.57	745.13	4.21	753.86	0.02
	11/14/2008	758.07	754.57	745.13	5.49	752.58	-1.28
	2/18/2009	758.07	754.57	745.13	6.30	751.77	-0.81
	3/24/2009	758.07	754.57	745.13	5.62	752.45	0.68
	6/25/2009	758.07	754.57	745.13	5.51	752.56	0.11
	1/21/2010	758.07	754.57	745.13	6.34	751.73	-0.83
	4/21/2010	758.07	754.57	745.13	4.33	753.74	2.01
	8/5/2010	758.07	754.57	745.13	5.46	752.61	-1.13
	11/2/2011	758.07	754.57	745.13	3.66	754.41	1.8
	2/22/2012	758.07	754.57	745.13	5.29	752.78	-1.63
	5/22/2012	758.07	754.57	745.13	3.31	754.76	1.98
	4/4/2013	758.07	754.57	745.13	0.84	757.23	2.47
	7/30/2013	758.07	754.57	745.13	5.00	753.07	-4.16
	10/27/2016	758.07	754.57	745.13	4.90	753.17	0.1
PZ-108	3/22/2007	757.43	732.13	727.7	29.09	728.34	
	6/12/2007	757.43	732.13	727.7	27.97	729.46	1.12
	7/24/2007	757.43	732.13	727.7	28.15	729.28	-0.18
	8/23/2007	757.43	732.13	727.7	28.03	729.40	0.12
	7/28/2008	757.43	732.13	727.7	23.40	734.03	4.63
	11/14/2008	757.43	732.13	727.7	27.23	730.20	-3.83
	2/18/2009	757.43	732.13	727.7	28.32	729.11	-1.09
	3/25/2009	757.43	732.13	727.7	27.17	730.26	1.15
	6/25/2009	757.43	732.13	727.7	24.64	732.79	2.53
	1/21/2010	757.43	732.13	727.7	28.9	728.53	-4.26
	4/21/2010	757.43	732.13	727.7	27.21	730.22	1.69
	8/5/2010	757.43	732.13	727.7	22.55	734.88	4.66
	11/2/2011	757.43	732.13	727.7	26.29	731.14	-3.74
	2/22/2012	757.43	732.13	727.7	25.81	731.62	0.48
	5/22/2012	757.43	732.13	727.7	22.12	735.31	3.69
	4/4/2013	757.43	732.13	727.7	25.69	731.74	-3.57
	7/30/2013	757.43	732.13	727.7	23.95	733.48	1.74
	10/27/2016	757.43	732.13	727.7	23.32	734.11	0.63
MW-103	3/22/2007	NM	NM	NM	NM	NM	
	6/12/2007	NM	NM	NM	NM	NM	
	7/24/2007	NM	NM	NM	NM	NM	
	8/23/2007	NM	NM	NM	NM	NM	
	7/29/2008	NM	NM	NM	1.34	NM	
	11/14/2008	NM	NM	NM	4.14	NM	
	2/18/2009	NM	NM	NM	0.51	NM	
	3/25/2009	NM	NM	NM	NM	NM	
	6/25/2009	NM	NM	NM	NM	NM	
	1/21/2010	NM	NM	NM	1.6	NM	
	4/21/2010	NM	NM	NM	1.38	NM	
	8/5/2010	NM	NM	NM	1.33	NM	
	11/2/2011	NM	NM	NM	1.25	NM	
	5/22/2012	NM	NM	NM	1.78	NM	
	4/4/2013	NM	NM	NM	NM	NM	
	7/30/2013	NM	NM	NM	NM	NM	
	10/27/2016	NM	NM	NM	NM	NM	

Table A.6 Groundwater Elevations Table
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

Well Number	Measurement Date	Top of Casing Elevation (ft msl)	Screen Interval Top (ft msl)	Screen Interval Bottom (ft msl)	Depth to Water (ft btoc)	Water Elevation (ft msl)	Change in Water Elevation (ft)
TW-5	3/22/2007	759.64	754.64	744.99	5.14	754.50	
	6/12/2007	759.64	754.64	744.99	5.22	754.42	-0.08
	7/24/2007	759.64	754.64	744.99	5.79	753.85	-0.57
	8/23/2007	759.64	754.64	744.99	3.19	756.45	2.6
	7/28/2008	759.64	754.64	744.99	3.05	756.59	0.14
	11/14/2008	759.64	754.64	744.99	5.41	754.23	-2.36
	2/18/2009	759.64	754.64	744.99	8.23	751.41	-2.82
	3/25/2009	759.64	754.64	744.99	8.44	751.20	-0.21
	6/25/2009	759.64	754.64	744.99	3.19	756.45	5.25
	1/21/2010	759.64	754.64	744.99	7.8	751.84	-4.61
	4/21/2010	759.64	754.64	744.99	2.37	757.27	5.43
	8/5/2010	759.64	754.64	744.99	2.11	757.53	0.26
	11/2/2011	759.64	754.64	744.99	3.09	756.55	-0.98
	2/22/2012	759.64	754.64	744.99	4.82	754.82	-1.73
	5/22/2012	759.64	754.64	744.99	2.53	757.11	2.29
	4/4/2013	759.64	754.64	744.99	2.04	757.60	0.49
	7/30/2013	759.64	754.64	744.99	2.69	756.95	-0.65
	10/27/2016	759.64	754.64	744.99	3.83	755.81	-1.14
TW-12	3/22/2007	759.63	754.63	744.96	1.47	758.16	
	6/12/2007	759.63	754.63	744.96	1.49	758.14	-0.02
	7/24/2007	759.63	754.63	744.96	1.92	757.71	-0.43
	8/23/2007	759.63	754.63	744.96	1.59	758.04	0.33
	7/29/2008	759.63	754.63	744.96	1.20	758.43	0.39
	11/14/2008	759.63	754.63	744.96	2.14	757.49	-0.94
	2/18/2009	759.63	754.63	744.96	2.45	757.18	-0.31
	3/25/2009	759.63	754.63	744.96	0.70	758.93	1.75
	6/25/2009	759.63	754.63	744.96	0.79	758.84	-0.09
	1/21/2010	759.63	754.63	744.96	2.79	756.84	-2
	4/21/2010	759.63	754.63	744.96	1.18	758.45	1.61
	11/2/2011	Could not Locate - Well likely Damaged / Destroyed					
	5/22/2012	Could not Locate - Well likely Damaged / Destroyed					
	4/4/2013	Could not Locate - Well likely Damaged / Destroyed					
	7/30/2013	Could not Locate - Well likely Damaged / Destroyed					
	10/27/2016	Could not Locate - Well likely Damaged / Destroyed					
MW-107	3/22/2007	759.88	756.48	746.96	2.32	757.56	
	6/12/2007	759.88	756.48	746.96	2.21	757.67	0.11
	7/24/2007	759.88	756.48	746.96	2.79	757.09	-0.58
	8/23/2007	759.88	756.48	746.96	2.87	757.01	-0.08
	7/29/2008	759.88	756.48	746.96	2.17	757.71	0.70
	11/14/2008	759.88	756.48	746.96	2.62	757.26	-0.45
	2/18/2009	759.88	756.48	746.96	4.10	755.78	-1.48
	3/24/2009	759.88	756.48	746.96	1.26	758.62	2.84
	6/25/2009	759.88	756.48	746.96	2.33	757.55	-1.07
	1/21/2010	759.88	756.48	746.96	4.72	755.16	-2.39
	4/21/2010	759.88	756.48	746.96	2.04	757.84	2.68
	8/5/2010	759.88	756.48	746.96	2.11	757.77	-0.07
	11/3/2011	759.88	756.48	746.96	2.25	757.63	-0.14
	5/22/2012	759.88	756.48	746.96	2.11	757.77	0.14
	4/4/2013	759.88	756.48	746.96	1.39	758.49	0.72
	7/30/2013	759.88	756.48	746.96	2.02	757.86	-0.63
	10/27/2016	759.88	756.48	746.96	2.29	757.59	-0.27
TW-8	3/22/2007	760.16	755.16	745.51	2.24	757.92	
	6/12/2007	760.16	755.16	745.51	1.68	758.48	0.56
	7/24/2007	760.16	755.16	745.51	2.29	757.87	-0.61
	8/23/2007	760.16	755.16	745.51	1.42	758.74	0.87
	7/29/2008	760.16	755.16	745.51	1.62	758.54	-0.2
	11/14/2008	760.16	755.16	745.51	3.93	756.23	-2.31
	2/18/2009	760.16	755.16	745.51	3.79	756.37	0.14
	3/25/2009	760.16	755.16	745.51	7.09	753.07	-3.3
	6/25/2009	760.16	755.16	745.51	2.63	757.53	4.46
	1/21/2010	760.16	755.16	745.51	3.76	756.4	-1.13
	4/21/2010	760.16	755.16	745.51	1.68	758.48	2.08
	8/5/2010	760.16	755.16	745.51	1.94	758.22	-0.26
	11/3/2011	760.16	755.16	745.51	0*	760.16	1.94
	5/22/2012	760.16	755.16	745.51	1.42	758.74	-1.42
	4/4/2013	760.16	755.16	745.51	0.90	759.26	0.52
	7/30/2013	760.16	755.16	745.51	1.45	758.71	-0.55
	10/27/2016	Could not Locate					

Table A.6 Groundwater Elevations Table
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

Well Number	Measurement Date	Top of Casing Elevation (ft msl)	Screen Interval Top (ft msl)	Screen Interval Bottom (ft msl)	Depth to Water (ft btoc)	Water Elevation (ft msl)	Change in Water Elevation (ft)
MW-105	3/22/2007	760.34	756.74	747.33	2.81	757.53	
	6/12/2007	760.34	756.74	747.33	2.18	758.16	0.63
	7/24/2007	760.34	756.74	747.33	2.90	757.44	-0.72
	8/23/2007	760.34	756.74	747.33	2.02	758.32	0.88
	7/29/2008	760.34	756.74	747.33	2.02	758.32	0
	11/14/2008	760.34	756.74	747.33	3.36	756.98	-1.34
	2/18/2009	760.34	756.74	747.33	5.97	754.37	-2.61
	3/25/2009	760.34	756.74	747.33	7.44	752.9	-1.47
	6/25/2009	760.34	756.74	747.33	2.23	758.11	5.21
	1/21/2010	760.34	756.74	747.33	5.78	754.56	-3.55
	4/21/2010	760.34	756.74	747.33	3.49	756.85	2.29
	8/5/2010	760.34	756.74	747.33	5.24	755.1	-1.75
	11/3/2011	760.34	756.74	747.33	4.85	755.49	0.39
	2/22/2012	760.34	756.74	747.33	5.64	754.7	-0.79
	5/22/2012	760.34	756.74	747.33	2.80	757.54	2.84
	4/4/2013	760.34	756.74	747.33	1.58	758.76	1.22
	7/30/2013	760.34	756.74	747.33	1.73	758.61	-0.15
	10/27/2016	760.34	756.74	747.33	2.01	758.33	-0.28
MW-106	3/22/2007	759.36	755.66	746.41	2.89	756.47	
	6/12/2007	759.36	755.66	746.41	2.49	756.87	0.4
	7/24/2007	759.36	755.66	746.41	3.75	755.61	-1.26
	8/23/2007	759.36	755.66	746.41	2.94	756.42	0.81
	7/29/2008	759.36	755.66	746.41	2.51	756.85	0.43
	11/14/2008	759.36	755.66	746.41	2.46	756.9	0.05
	2/18/2009	759.36	755.66	746.41	3.80	755.56	-1.34
	3/24/2009	759.36	755.66	746.41	2.21	757.15	1.59
	6/25/2009	759.36	755.66	746.41	2.81	756.55	-0.6
	1/21/2010	759.36	755.66	746.41	4.25	755.11	-1.44
	4/21/2010	759.36	755.66	746.41	3.03	756.33	1.22
	8/5/2010	759.36	755.66	746.41	3.29	756.07	-0.26
	11/2/2011	759.36	755.66	746.41	3.60	755.76	-0.31
	5/22/2012	759.36	755.66	746.41	2.54	756.82	1.06
	4/4/2013	759.36	755.66	746.41	1.60	757.76	0.94
	7/30/2013	759.36	755.66	746.41	3.28	756.08	-1.68
	10/27/2016	759.36	755.66	746.41	2.39	756.97	0.89
TW-11	3/22/2007	759.1	753.9	744.35	5.79	753.31	
	6/12/2007	759.1	753.9	744.35	3.98	755.12	1.81
	7/24/2007	759.1	753.9	744.35	4.17	754.93	-0.19
	8/23/2007	759.1	753.9	744.35	3.82	755.28	0.35
	7/29/2008	NM	NM	NM	NM	NM	ABANDONED
PZ-112	1/21/2010	755.50	727.5	722.50	28.42	727.08	
	4/21/2010	755.50	727.5	722.50	26.77	728.73	1.65
	8/5/2010	755.50	727.5	722.50	22.05	733.45	4.72
	11/2/2011	755.50	727.5	722.50	25.60	729.9	-3.55
	2/22/2012	755.50	727.5	722.50	25.30	730.2	0.3
	5/22/2012	755.50	727.5	722.50	21.70	733.8	3.6
	4/4/2013	755.50	727.5	722.50	25.40	730.1	-3.7
	7/30/2013	755.50	727.5	722.50	23.09	732.41	2.31
	10/27/2016				Could not Locate		
PZ-113	1/21/2010	756.84	729.92	724.92	31.2	725.64	
	4/21/2010	756.84	729.92	724.92	28.59	728.25	2.61
	8/5/2010	756.84	729.92	724.92	24.55	732.29	4.04
	11/3/2011	756.84	729.92	724.92	27.60	729.24	-3.05
	2/22/2012	756.84	729.92	724.92	27.23	729.61	0.37
	5/22/2012	756.84	729.92	724.92	23.35	733.49	3.88
	4/4/2013	756.84	729.92	724.92	26.58	730.26	-3.23
	7/30/2013	756.84	729.92	724.92	25.86	730.98	0.72
	10/27/2016	756.84	729.92	724.92	24.47	732.37	1.39
PZ-114	1/21/2010	757.4	710.4	705.4	31.38	726.02	
	4/21/2010	757.4	710.4	705.4	28.73	728.67	2.65
	8/5/2010	757.4	710.4	705.4	24.59	732.81	4.14
	11/3/2011	757.4	710.4	705.4	28.81	728.59	-4.22
	2/22/2012	757.4	710.4	705.4	28.54	728.86	0.27
	5/22/2012	757.4	710.4	705.4	24.30	733.10	4.24
	4/4/2013	757.4	710.4	705.4	26.87	730.53	-2.57
	7/30/2013	757.4	710.4	705.4	26.38	731.02	0.49
	10/27/2016	757.4	710.4	705.4	25.43	731.97	0.95

Table A.6 Groundwater Elevations Table
Busy Bea Cleaners
1077 Racine Street
Menasha, Wisconsin

Well Number	Measurement Date	Top of Casing Elevation (ft msl)	Screen Interval Top (ft msl)	Screen Interval Bottom (ft msl)	Depth to Water (ft btoc)	Water Elevation (ft msl)	Change in Water Elevation (ft)
PZ-115	1/21/2010	757.39	736.38	731.38	DRY		
	4/21/2010	757.39	736.38	731.38	DRY		
	8/5/2010	757.39	736.38	731.38	24.95	732.44	
	11/3/2011	757.39	736.38	731.38	25.48	731.91	-0.53
	2/22/2012	757.39	736.38	731.38	25.71	731.68	-0.23
	5/22/2012	757.39	736.38	731.38	23.61	733.78	2.1
	4/4/2013	757.39	736.38	731.38	25.32	732.07	-1.71
	7/30/2013	757.39	736.38	731.38	24.57	732.82	0.75
	10/27/2016	757.39	736.38	731.38	24.63	732.76	-0.06
MW-4	1/21/2010	757.44	752.89	742.89	10.28	747.16	
	4/21/2010	757.44	752.89	742.89	2.56	754.88	7.72
	8/5/2010	757.44	752.89	742.89	3.35	754.09	-0.79
	11/2/2011	757.44	752.89	742.89	4.60	752.84	-1.25
	2/22/2012	757.44	752.89	742.89	4.82	752.62	-0.22
	5/22/2012	757.44	752.89	742.89	2.15	755.29	2.67
	4/4/2013	757.44	752.89	742.89	1.43	756.01	0.72
	7/30/2013	757.44	752.89	742.89	3.11	754.33	-1.68
	10/27/2016	757.44	752.89	742.89	4.40	753.04	-1.29

NOTES
ft bgs = feet below ground surface
ft bm = feet relative to benchmark
ft btoc = feet below top of casing
ft msl = feet relative to mean sea level
NM = not measured
* = Well filled with rainwater

Attachment B – Maps, Figures Photos

B.1 – Location Maps

B.1.a – Location Map

B.1.b – Site Plan Map

B.1.c – RR Sites Map

B.2 – Soil Maps

B.2.a – Alpha Terra Soil Chemistry Results

B.2.b – Not Applicable, no soils were removed so there are no residual soils to map.

B.3 – Groundwater Maps

B.3.a – Geologic Cross Section Map – Alpha Terra North-Southeast Cross Section A-A'

B.3.a – Geologic Cross Section Map – Alpha Terra West-East Cross Section B-B'

B.3.b – Groundwater Isoconcentration Map Vinyl Chloride

B.3.c – Groundwater Flow Direction 10/27/16 Map

B.3.c – Potentiometric Groundwater Flow Direction 10/27/16 Map

B.3.d – Groundwater Monitoring Wells Map

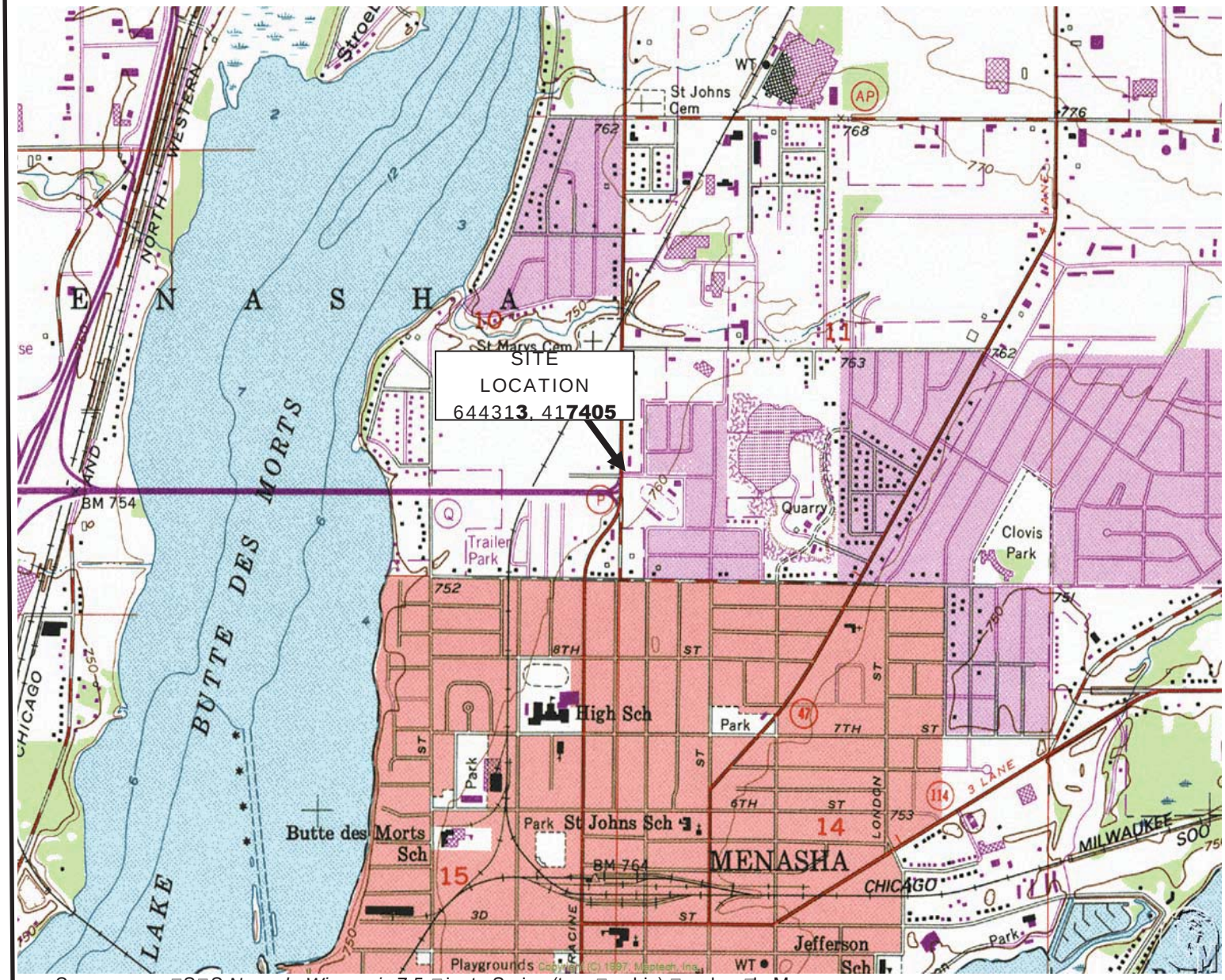
B.4 – Vapor Maps and Other Media

B.4.a – Vapor Monitoring Map

B.4.a – Communications Testing Map

B.4.b – Other Media of Concern Map – Not Applicable, no other media was sampled

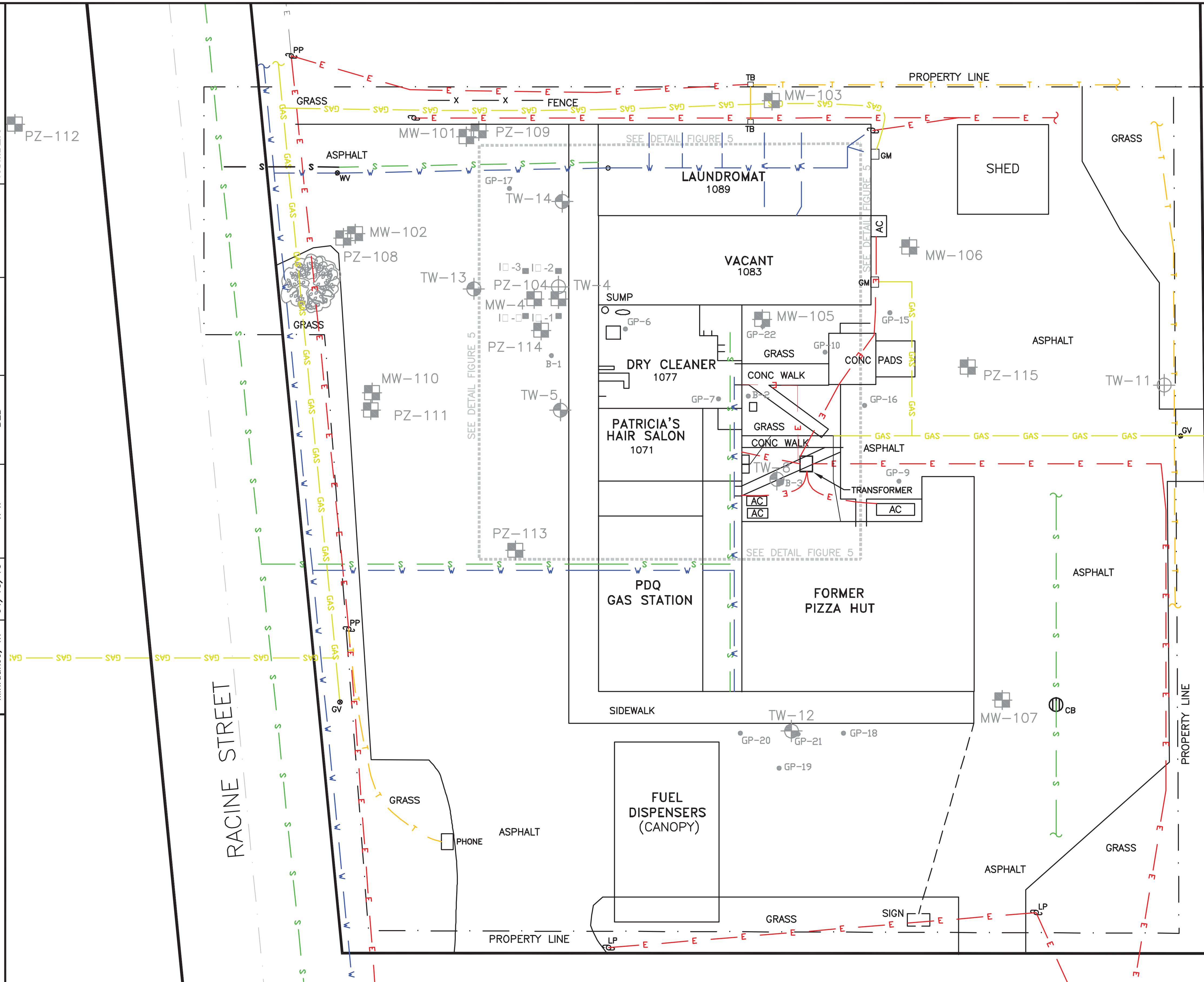
B.5 – Structural Impediment Photos – Not Applicable



Source: USGS *Neenah, Wisconsin* 7.5-minute Series (topographic) quadrangle Map
Scale: 1:24000
Contour Interval 10 feet

SITE LOCATION
Busy Bee Cleaners
1077 Racine Street
Menasha, Wisconsin
Shaw Project No. 120500

Figure No.
B.1.a



LEGEND

- ABANDONED GEOPROBE BORING
- TEMPORARY WELL
- ABANDONED WELL
- NR141 MONITORING WELL/PIEZOMETER
- INJECTION WELL
- E — ELECTRIC LINE
- S — SEWER LINE
- GAS — NATURAL GAS LINE
- T — TELEPHONE LINE
- W — WATER LINE
- X — FENCE

APPROXIMATE SCALE IN FEET

0 15 30 45

NOTE:
1. SITE PLAN DERIVED FROM ALPHA TERRA SCIENCE DATED JUNE 16, 2006
2. WELL LOCATIONS WEST OF BUILDING FIELD VERIFIED JANUARY 2010

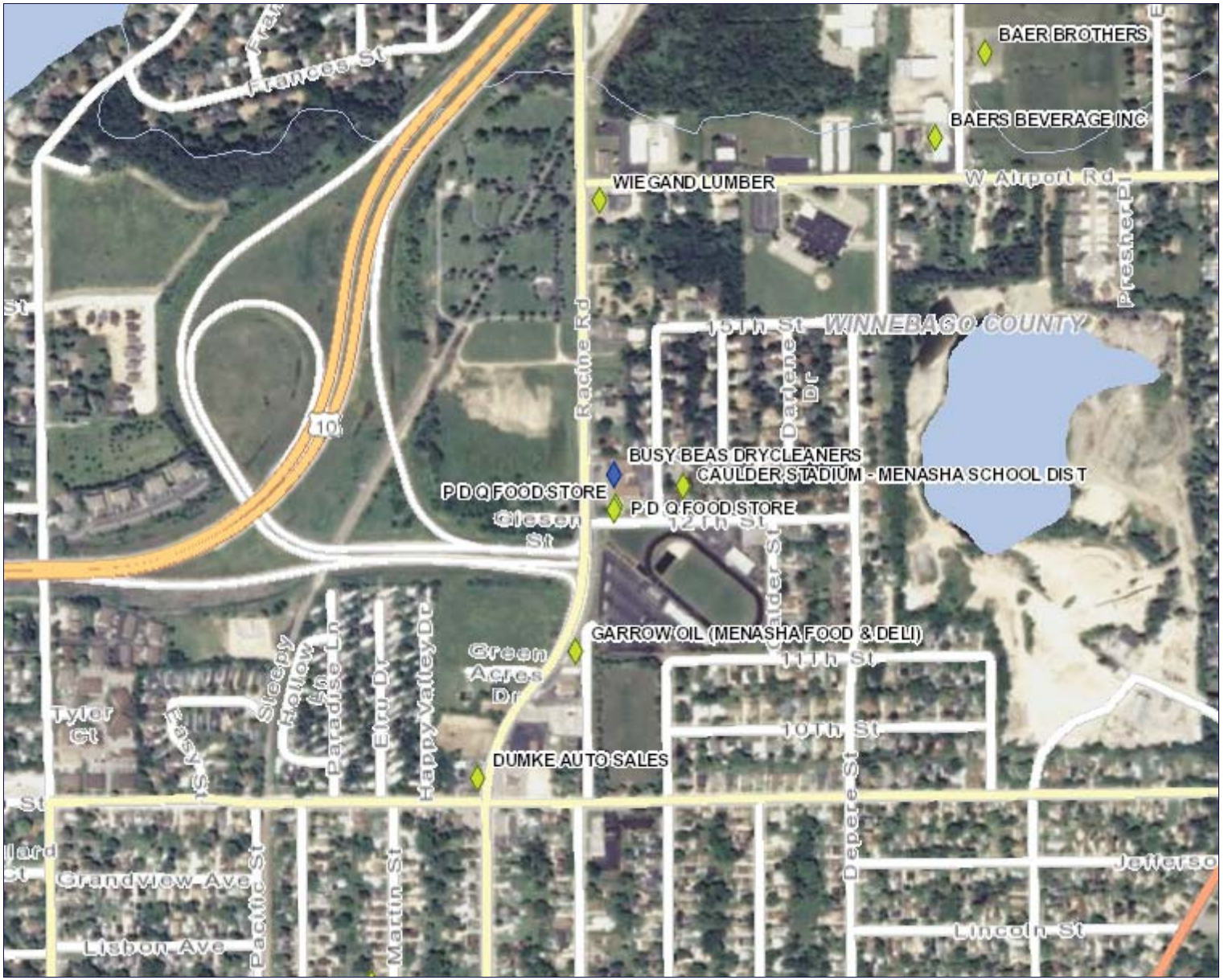
BUSY BEA DRY CLEANERS
1077 RACINE STREET
MENASHA, WISCONSIN

Figure B.1.b
SITE PLAN MAP

DESIGNED BY			CHECKED BY	
DRAWN BY	BEB	01/19/10	APPROVED BY	
SIZE: B	SCALE: 1"=30'	DRAWING NO. 124506-04	SHEET NO.	REVISION NO. 2

OFFICE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
Milwaukee, WI	01/13/10	TPW	BEB			125050-01

□i□ure B.1.c - □□ Sites Map



Le□end

- Open Site (on□oin□ cleanup)
- Open Site Boundary
- Closed Site (co□pleted cleanup)
- Closed Site Boundary
- Airport
- Cities and Villa□es
  - Cities
  - Villa□es

Notes

0.3 0 0.13 0.3 Miles

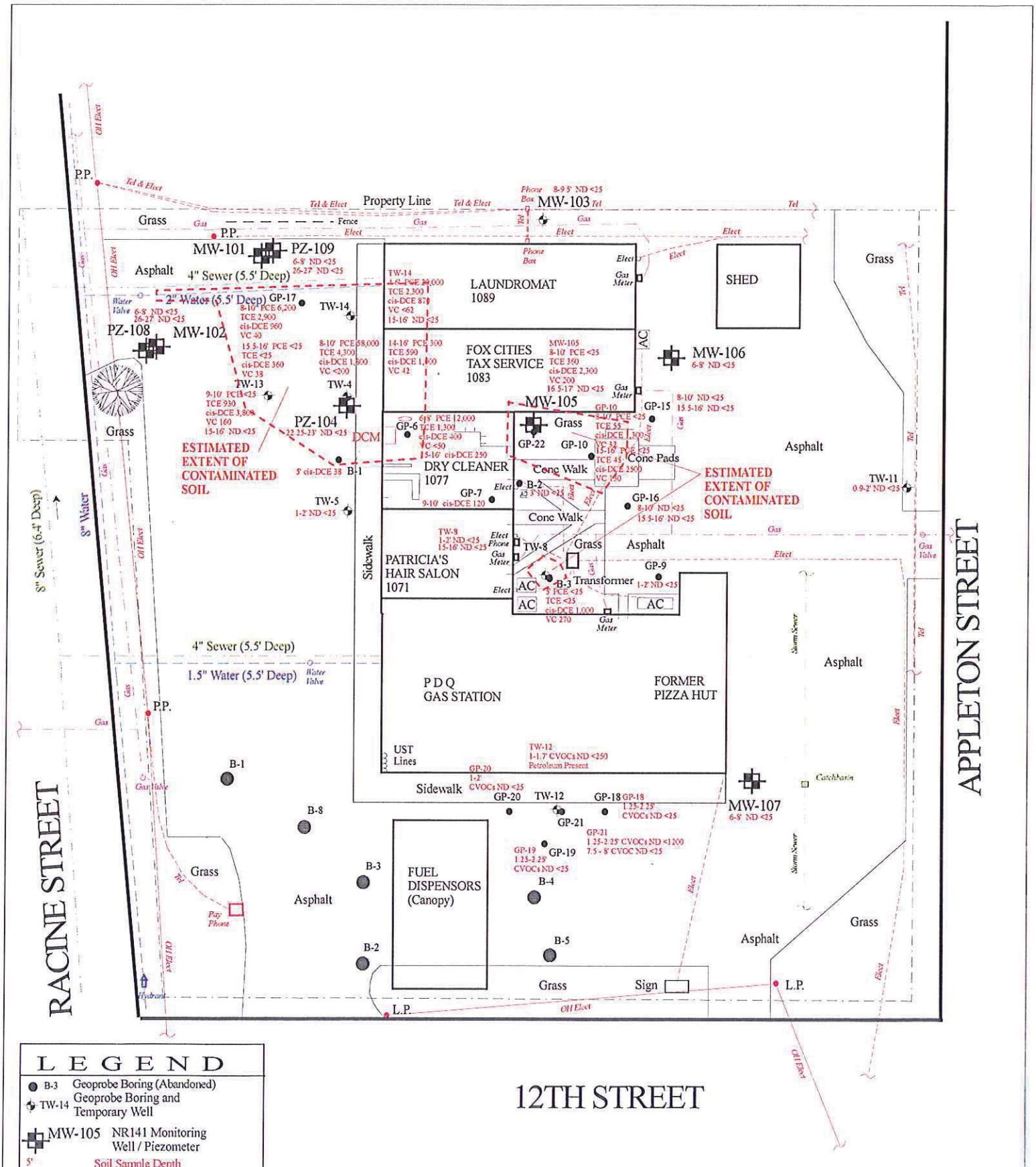
NAD□1□□3□□A□N□□ isconsin□TM

□ Latitude □eo□raphics □roup Ltd.

1: 7□□20

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made aregarding accuracy, applicability for a particular use, completemenss, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: http://dnr.wi.gov/org/legal/

Note: Not all sites are mapped.



LEGEND

- B-3 — Geoprobe Boring (Abandoned)
- TW-14 — Geoprobe Boring and Temporary Well
- MW-105 — NR141 Monitoring Well / Piezometer
- 5' cis-DCE 1000 VC 270 — Soil Sample Depth and Chemical Concentration (ug/kg)

PCE: Tetrachloroethene
TCE: Trichloroethene
cis-DCE: cis 1,2-Dichloroethene
VC: Vinyl Chloride
ND: No Chlorinated VOCs Detected

-N-

John's base map(2).skf

SOIL CHEMISTRY RESULTS

SITE INVESTIGATION
1077 Racine Street

CINDA CORP., MENASHA, WI

ALPHA TERRA SCIENCE

Approx: 1" = 40'

FIGURE 7

JPM

January 20, 2006

OFFICE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
Milwaukee, WI	01/13/10	TPW	BEB			124506-04

PZ-112
PP
GRASS
X X FENCE
TB
PROPERTY LINE
MW-103
MW-101
PZ-109
SEE DETAIL FIGURE 5
GM
SHED
GRASS
ASPHALT
WV
GP-17
TW-14
LAUNDROMAT
1089
MW-102
PZ-108
AC
VACANT
1083
MW-106
TW-13
IW-3
IW-2
PZ-104
TW-4
SUMP
MW-4
IW-1
IW-4
GP-6
MW-105
GP-15
GP-22
GP-10
PZ-114
B-1
GRASS
CONC PADS
DRY CLEANER
1077
PZ-115
ASPHALT
MW-110
PZ-111
TW-5
CONC WALK
GP-7
B-2
GP-16
TW-11
PATRICIA'S
HAIR SALON
1071
GRASS
GV
CONC WALK
ASPHALT
TW-6
GP-9
B-3
TRANSFORMER
AC
AC
PZ-113
SEE DETAIL FIGURE 5
PP
PDQ
GAS STATION
FORMER
PIZZA HUT
ASPHALT
GV
SIDEWALK
TW-12
MW-107
CB
GP-20
GP-21
GP-18
GP-19
PROPERTY LINE
RACINE STREET
GRASS
PHONE
ASPHALT
FUEL
DISPENSERS
(CANOPY)
ASPHALT
GRASS
SIGN
LP
LP
GRASS
PROPERTY LINE
12TH STREET
APPLETON STREET

LEGEND

- ABANDONED GEOPROBE BORING
- TEMPORARY WELL
- ABANDONED WELL
- NR141 MONITORING WELL/PIEZOMETER
- INJECTION WELL
- E — ELECTRIC LINE
- S — SEWER LINE
- GAS — NATURAL GAS LINE
- T — TELEPHONE LINE
- W — WATER LINE
- X — FENCE
- EXTENT OF RESIDUAL SOIL CONTAMINATION

APPROXIMATE SCALE IN FEET
0 15 30 45

NOTE:
1. SITE PLAN DERIVED FROM ALPHA TERRA SCIENCE DATED JUNE 16, 2006
2. WELL LOCATIONS WEST OF BUILDING FIELD VERIFIED JANUARY 2010

1" 1/2" 0" 1"

APTIM

BUSY BEA DRY CLEANERS
1077 RACINE STREET
MENASHA, WISCONSIN

FIGURE B.2.b
RESIDUAL SOIL CONTAMINATION

DESIGNED BY			CHECKED BY		
DRAWN BY	BEB	01/19/10	APPROVED BY		

SIZE:	SCALE:	DRAWING NO.	SHEET NO.	REVISION NO.
B	1"=30'	124506-04		2

NORTH
A

SOUTHEAST
A'

RESIDENTIAL PROPERTY

Busy Bea's Dry Cleaners
Former DCM

Courtyard

Former Pizza Hut

GRASS LAWN

Grass | Asphalt | Concrete Sidewalk | Grass | Concrete | Asphalt | Asphalt

PZ-109 | MW-101 | GP-17 | TW-4 | PZ-104 | GP-6 | GP-7 | TW-8 B-3 | MW-107

Tel & Elec | Gas Elec | Sew Wat | Gas | Elec | Sewer

100 | 95 | 90 | 85 | 80 | 75 Ft MSL | 70 Ft MSL

SAND / GRAVEL FILL
SILTY CLAY FILL
WATER TABLE SURFACE
NATIVE SILTY CLAY
NATIVE SILTY CLAY
SILTY CLAY
SILTY CLAY
SILTY CLAY
CLAYEY SILT
PEAT
SILTY CLAY
SANDY SILT / GRAVEL

CVOC ND
MW-101 H20 VOCs ND
PCE 6200 *
TCE 2900 *
c-DCE 960 *
t-DCE <25
VC 40 *
PCE 58,000 **
TCE 4,300 *
c-DCE 1,800 *
PCE <25
TCE <25
c-DCE 360*
t-DCE 38
VC 38 *
PCE 300 *
TCE 590 *
c-DCE 1,600 *
t-DCE 69
VC 42 *
TW-4 H20
PCE 2000++
TCE 760++
c-DCE 2000++
t-DCE 130++
VC 130++
PCE 12,000 *
TCE 1,300 *
c-DCE 400 *
c-DCE 250 *
t-DCE 34
c-DCE 120 *
CVOC ND
c-DCE 1,000 *
VC 270 *
TW-8 H20 VOCs ND
CVOC ND
MW-107 H20 VOCs ND
CVOC ND
CVOC ND
CVOC ND
PZ-109 H20 DRY
No Recovery
PZ-104 H20 9/23/05
PCE 26++
TCE 14++
c-DCE 20+
t-DCE <0.89
VC 7.6 ++
*PZ-104 DRY 11/05 Level and Chemistry from 9/05

EXTENT OF CVOC IN SATURATED SOIL

Figure B.3.a

SCALE : Horizontal 1 " = 20 ft
Vertical 1" = 5 ft

Title: NORTH / SOUTHEAST CROSS SECTION A-A'

Project: BUSY BEA'S DRYCLEANER, NEENAH, WI

Client: CINDA CORPORATION

ALPHA TERRA SCIENCE

Scale: See Figure	Dwg No: FIGURE 3
Drawn By: JPM	Date: Jan 22, 2006

KEY

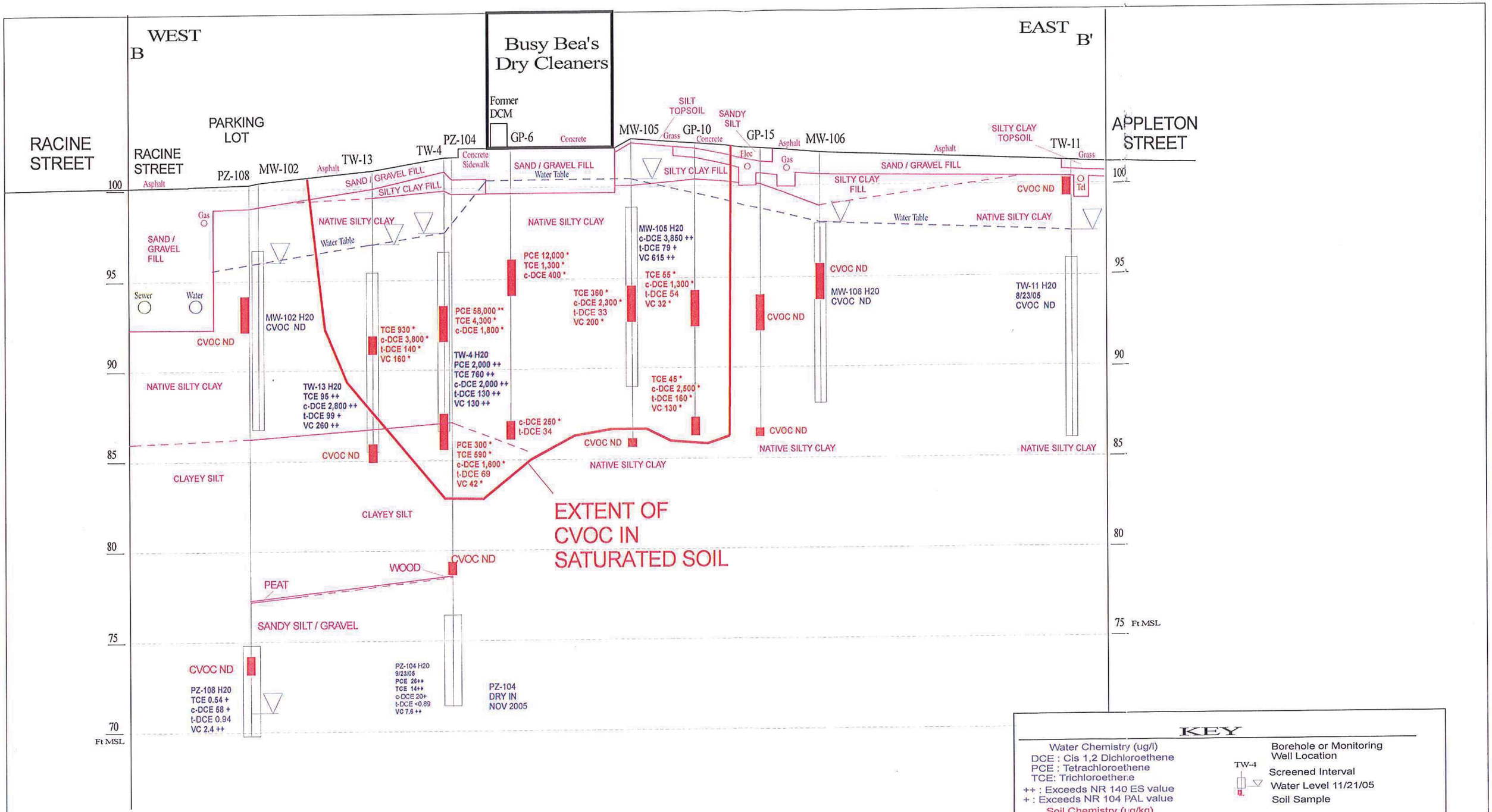
Water Chemistry
DCE : Cis 1,2 Dichloroethene
PCE : Tetrachloroethene
TCE: Trichloroethene
++ : Exceeds NR 140 ES value
+ : Exceeds NR 104 PAL value

Soil Chemistry
PCE : Tetrachloroethene
TCE : Trichloroethene
c-DCE : cis-1,2 Dichloroethene
t-DCE : trans-1,2 Dichloroethene
VC : Vinyl Chloride
* : Exceeds WDNR RR-682 Generic RCL Migration to Groundwater

GEOLOGIC CONTACT, ESTIMATED
GEOLOGIC CONTACT, INFERRED

Borehole or Monitoring Well Location
TW-4
Screened Interval
Water Level 8/23/05
Soil Sample

All soil chemistry in ug/kg
Groundwater chemistry from Nov 21, 2005, ug/l
Only detected compounds shown
VOC ND = No detect for All VOC's
CVOC ND = No detect for Chlorinated VOCs



□i□ure B.3.a

SCALE : Horizontal 1 " = 30 ft
Vertical 1" = 5 ft

Title: WEST / EAST CROSS SECTION B-B'

Project: BUSY BEA'S DRYCLEANER, MENASHA, WI

Client: CINDA CORPORATION

ALPHA TERRA SCIENCE

Scale: See Figure	Dwg No: FIGURE 4
Drawn By: JPM	Date: January 22, 2006

KEY

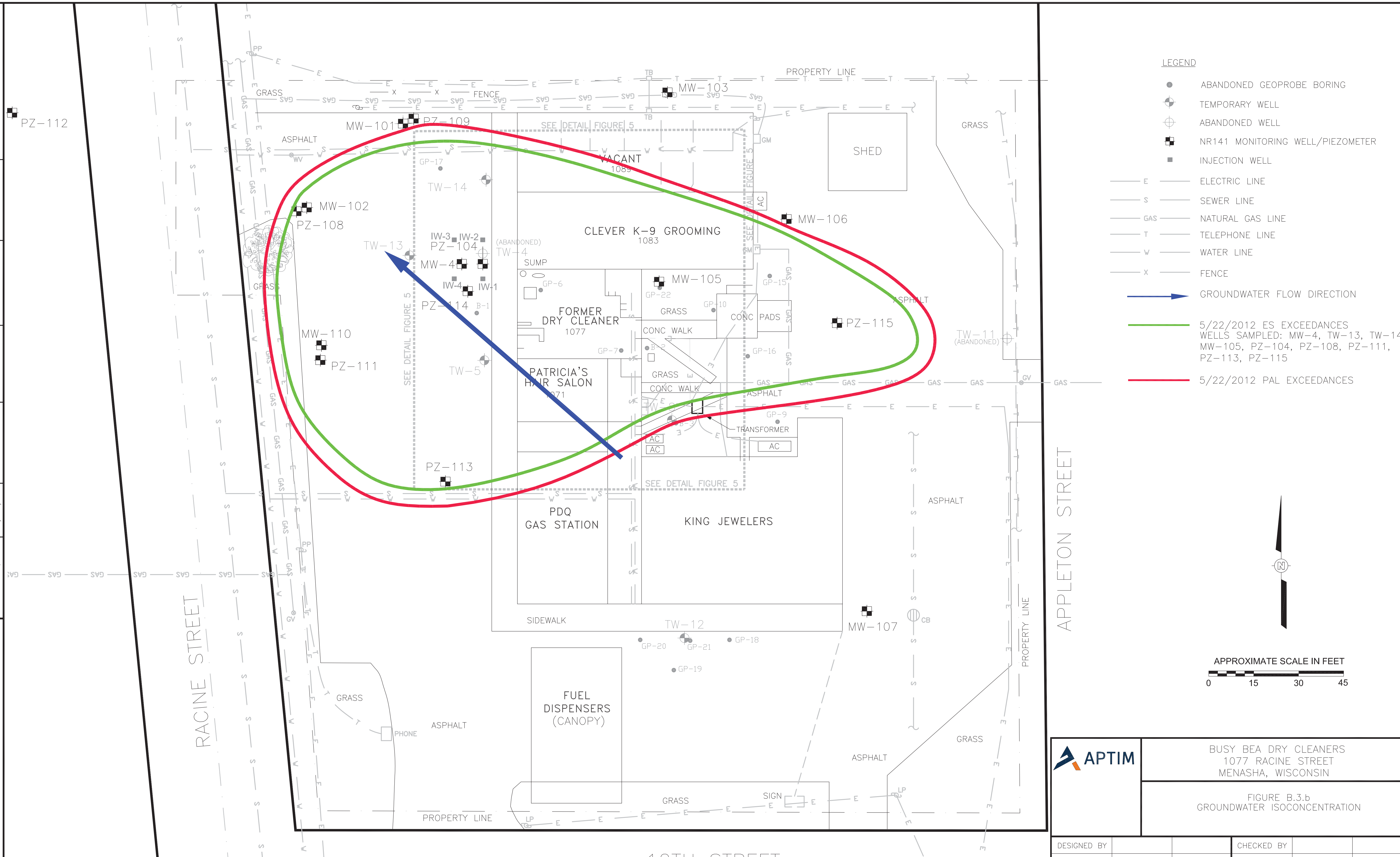
Water Chemistry (ug/l)
DCE : Cis 1,2 Dichloroethene
PCE : Tetrachloroethene
TCE: Trichloroethene
++ : Exceeds NR 140 ES value
+ : Exceeds NR 104 PAL value

Soil Chemistry (ug/kg)
PCE : Tetrachloroethene
TCE : Trichloroethene
c-DCE : cis-1,2 Dichloroethene
t-DCE : trans-1,2 Dichloroethene
VC : Vinyl Chloride
* : Exceeds WDNR RR-682 Generic RCL Migration to Groundwater
** : Exceeds WDNR RR-682 SSL Inhalation Volatiles Industrial

GEOLOGIC CONTACT, ESTIMATED
GEOLOGIC CONTACT, INFERRED

Borehole or Monitoring Well Location
TW-4
Screened Interval
Water Level 11/21/05
Soil Sample

All groundwater chemistry from November 21, 2005, except TW-11 (August 23, 2005)
Only detected compounds shown
CVOC ND = No detect for Chlorinated VOC's



NOTE:
1. SITE PLAN DERIVED FROM ALPHA TERRA SCIENCE DATED JUNE 16, 2006
2. WELL LOCATIONS WEST OF BUILDING FIELD VERIFIED JANUARY 2010

APTIM

BUSY BEA DRY CLEANERS
1077 RACINE STREET
MENASHA, WISCONSIN

FIGURE B.3.b
GROUNDWATER ISOCONCENTRATION

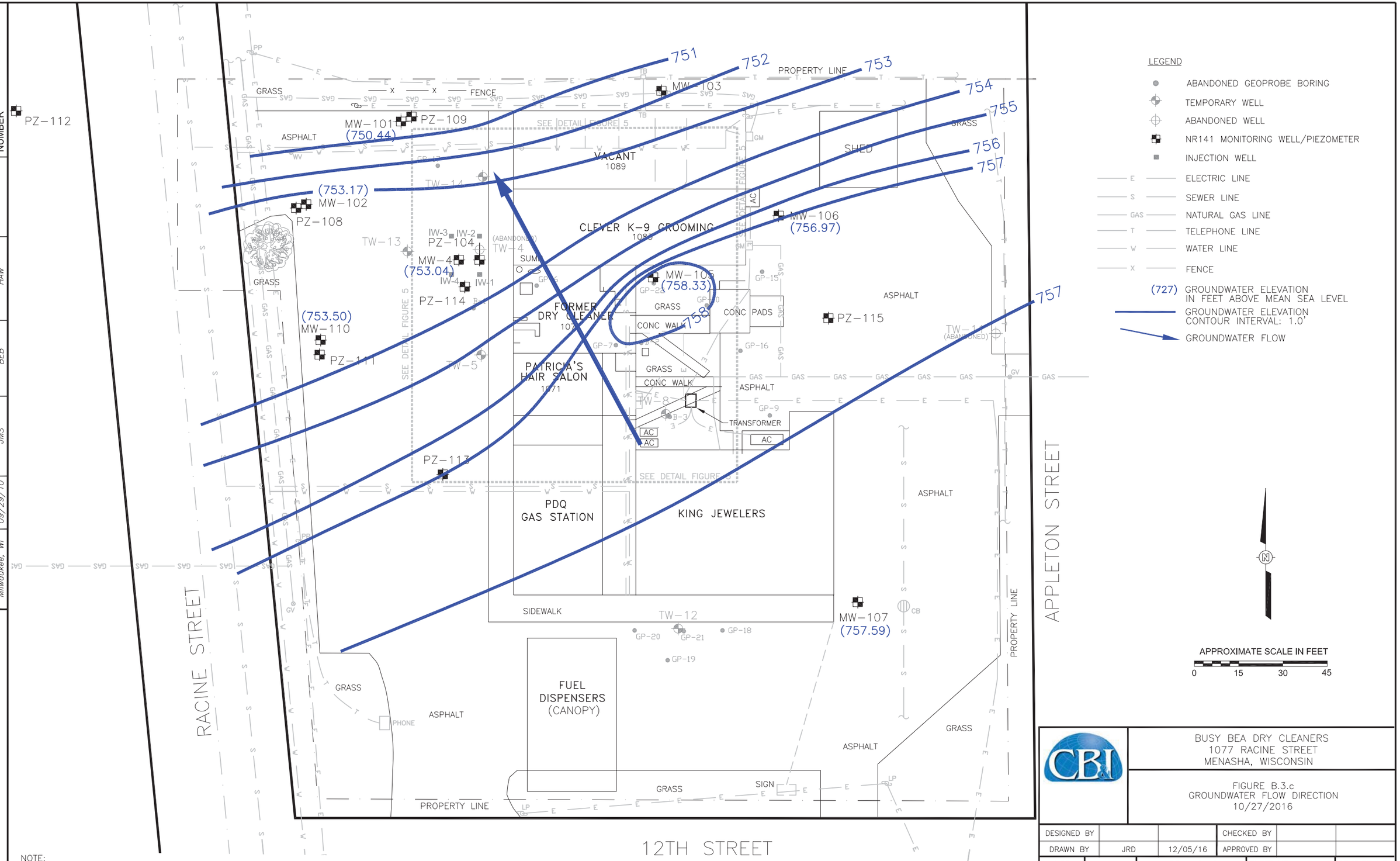
DESIGNED BY			CHECKED BY	
DRAWN BY	JRD	12/05/16	APPROVED BY	

SIZE:	SCALE:	DRAWING NO.	SHEET NO.	REVISION NO.
B	1"=30'	124506-05		–

OFFICE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
Milwaukee, WI	09/29/10	JMS	BEB	HAW		124506-05

File: W:\SFEMILFPS00\Data\Projects\100000\120000 to 129999\124506 — Busy Bea\CAD\124506-05.dwg Layout: FIG5 B.3.c (2) User: jill.deitchler

OFFICE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
Milwaukee, WI	09/29/10	JMS	BEB	HAW		124506-05



LEGEND

●	ABANDONED GEOPROBE BORING
⊕	TEMPORARY WELL
⊕	ABANDONED WELL
▣	NR141 MONITORING WELL/PIEZOMETER
■	INJECTION WELL
—— E ——	ELECTRIC LINE
—— S ——	SEWER LINE
—— GAS ——	NATURAL GAS LINE
—— T ——	TELEPHONE LINE
—— W ——	WATER LINE
—— X ——	FENCE
(727)	GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
——	GROUNDWATER ELEVATION CONTOUR INTERVAL: 1.0'
→	GROUNDWATER FLOW

NOTE:
1. SITE PLAN DERIVED FROM ALPHA TERRA SCIENCE DATED JUNE 16, 2006
2. WELL LOCATIONS WEST OF BUILDING FIELD VERIFIED JANUARY 2010

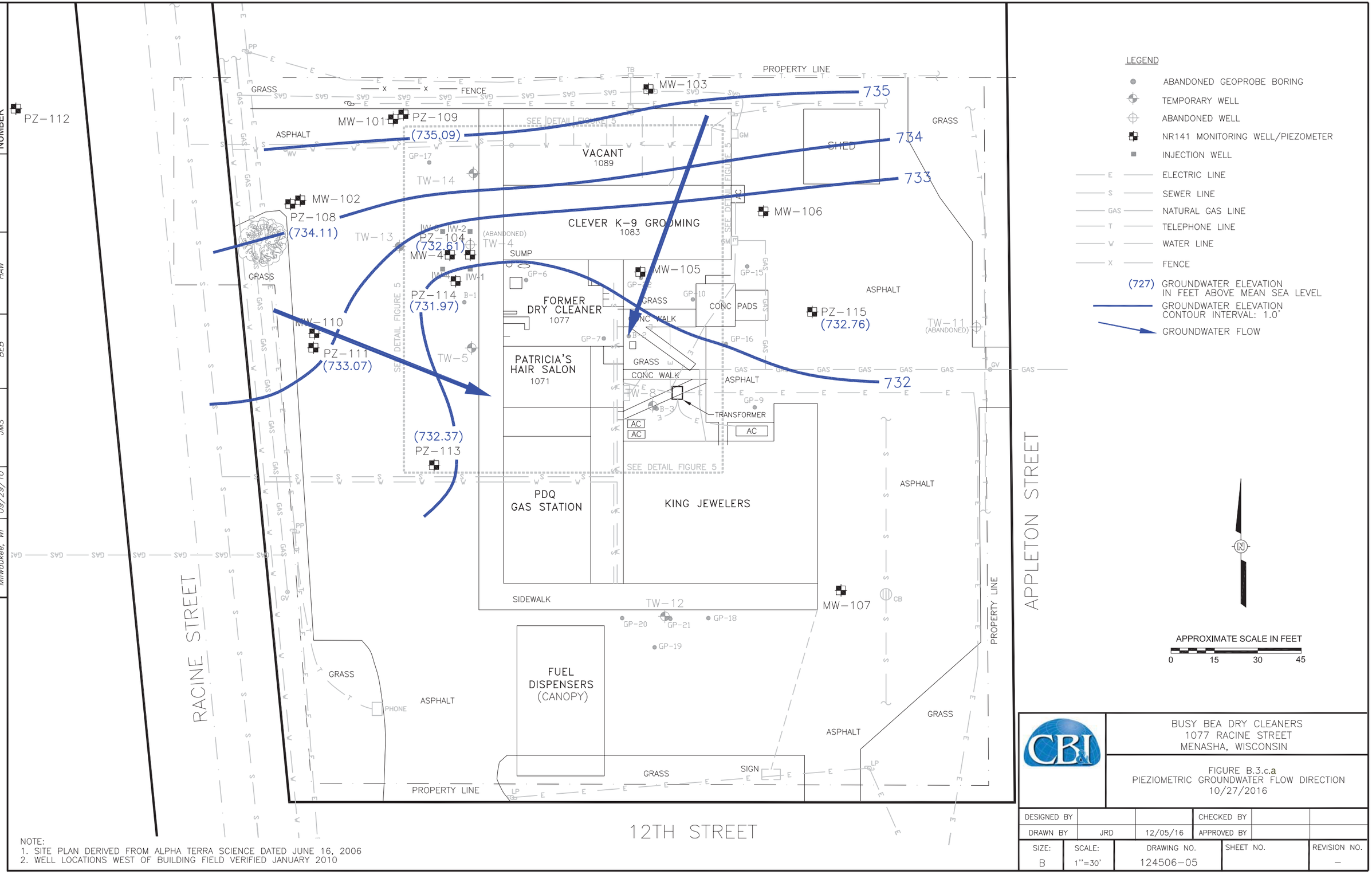
CB&I

BUSY BEA DRY CLEANERS
1077 RACINE STREET
MENASHA, WISCONSIN

FIGURE B.3.c
GROUNDWATER FLOW DIRECTION
10/27/2016

DESIGNED BY			CHECKED BY		
DRAWN BY	JRD	12/05/16	APPROVED BY		

SIZE:	SCALE:	DRAWING NO.	SHEET NO.	REVISION NO.
B	1"=30'	124506-05		—



NOTE:
1. SITE PLAN DERIVED FROM ALPHA TERRA SCIENCE DATED JUNE 16, 2006
2. WELL LOCATIONS WEST OF BUILDING FIELD VERIFIED JANUARY 2010

DRAWING NUMBER	124506-05
APPROVED BY	
CHECKED BY	HAW
DRAWN BY	BEB
DESIGNED BY	JMS
DATE	09/29/10
OFFICE	Milwaukee, WI

File: W:\SEIMILEPS00\Data\Projects\100000\120000 to 129999\124506 - Busy Bea\CAD\124506-05.dwg Layout: FIG5 B.3.c User: jill.deitchler Dec

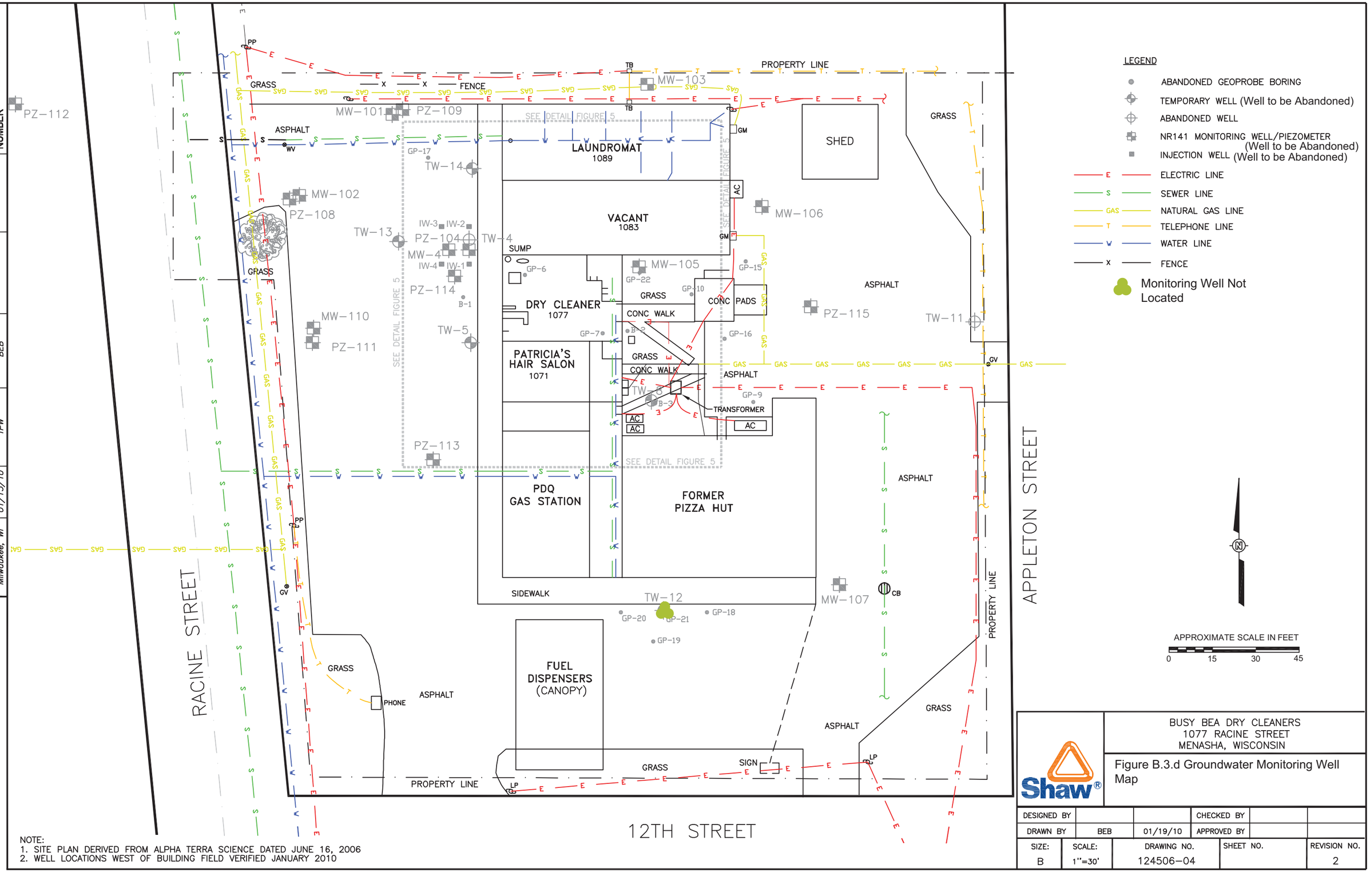
1" 1/2" 0" 1"

BUSY BEA DRY CLEANERS
1077 RACINE STREET
MENASHA, WISCONSIN

FIGURE B.3.c.a
PIEZIOMETRIC GROUNDWATER FLOW DIRECTION
10/27/2016

DESIGNED BY			CHECKED BY		
DRAWN BY	JRD	12/05/16	APPROVED BY		

SIZE:	SCALE:	DRAWING NO.	SHEET NO.	REVISION NO.
B	1"=30'	124506-05		–



NOTE:
1. SITE PLAN DERIVED FROM ALPHA TERRA SCIENCE DATED JUNE 16, 2006
2. WELL LOCATIONS WEST OF BUILDING FIELD VERIFIED JANUARY 2010

BUSY BEA DRY CLEANERS
1077 RACINE STREET
MENASHA, WISCONSIN

Figure B.3.d Groundwater Monitoring Well Map

DESIGNED BY			CHECKED BY		
DRAWN BY	BEB	01/19/10	APPROVED BY		
SIZE: B	SCALE: 1"=30'	DRAWING NO. 124506-04	SHEET NO.	REVISION NO. 2	

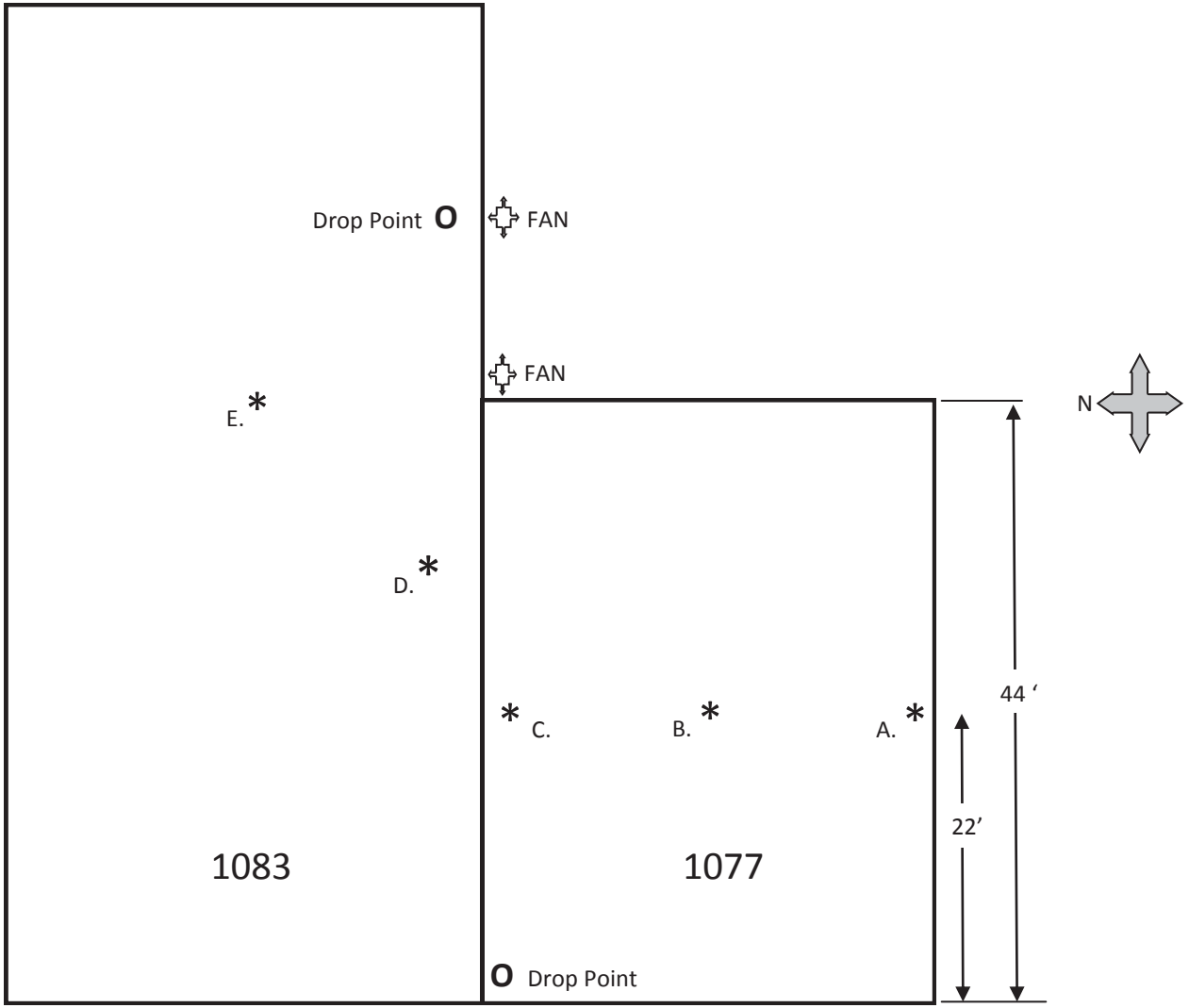
OFFICE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
Milwaukee, WI	TPW	BEB			124506-04
DATE					
01/13/10					

File: Q:\Projects\100000\124506 — Busy Bea\CAD\124506-04.dwg Layout: FIG 1 SITE PLAN new User: bruce.benoit Mar 01, 2010 – 9:29am

1" 1/2" 0" 1"

12221 West Rockne Avenue Hales Corners Wisconsin 53130 414-303-4038 radabt1@wi.rr.com

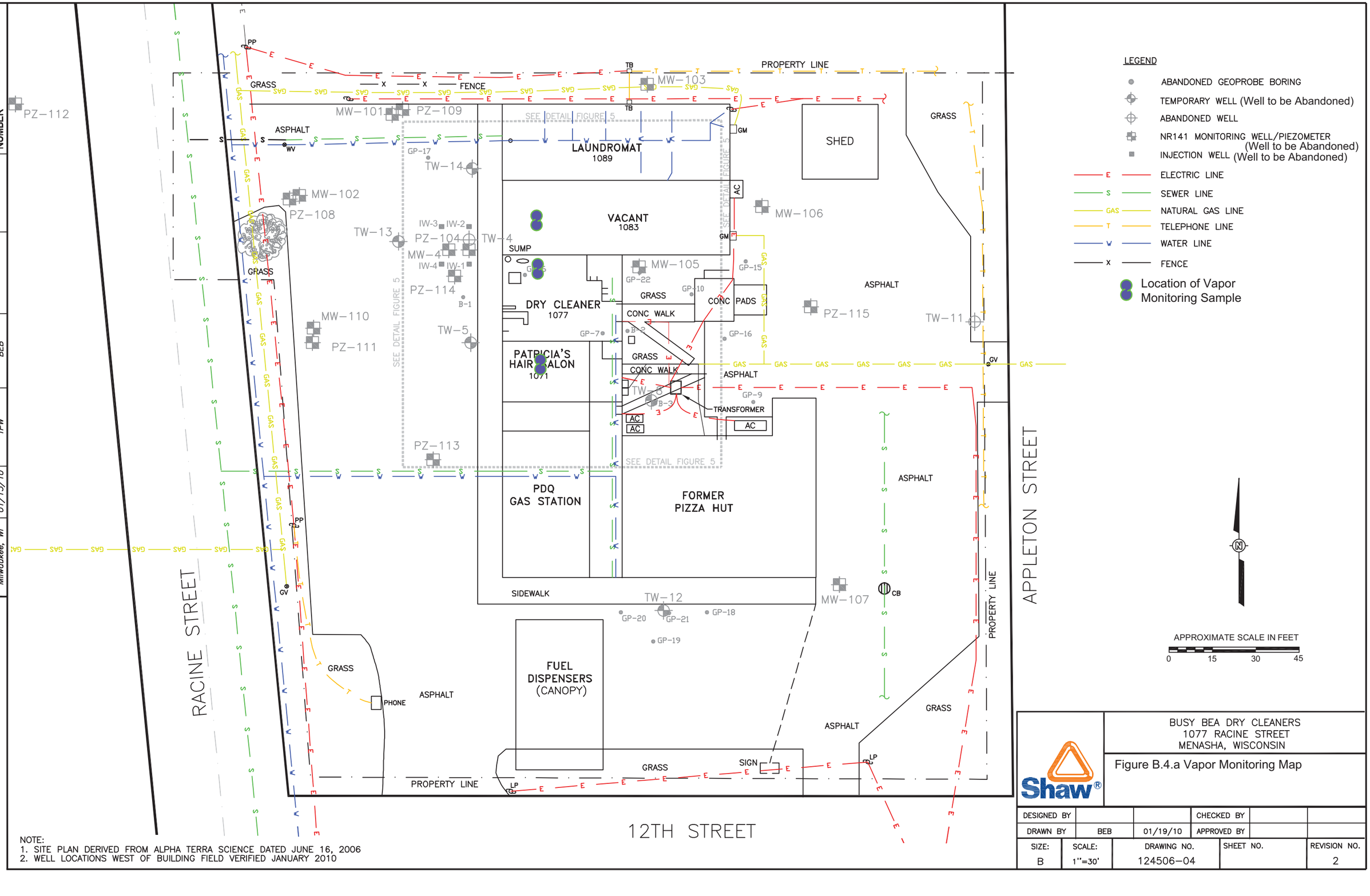
PRESSURE FIELD EXTENTION AS DEFINED BY COMMUNICATION TESTING **Date of Production 122116**



□i□ure B.□.a - Vapor Co□ □unications Testin□ Map

not to scale

THOMAS J. HEINE 101878RT 101879MT



LEGEND

- ABANDONED GEOPROBE BORING
- TEMPORARY WELL (Well to be Abandoned)
- ABANDONED WELL
- NR141 MONITORING WELL/PIEZOMETER (Well to be Abandoned)
- INJECTION WELL (Well to be Abandoned)
- E — ELECTRIC LINE
- S — SEWER LINE
- GAS — NATURAL GAS LINE
- T — TELEPHONE LINE
- W — WATER LINE
- X — FENCE
- Location of Vapor Monitoring Sample

APPROXIMATE SCALE IN FEET

0 15 30 45

NOTE:
1. SITE PLAN DERIVED FROM ALPHA TERRA SCIENCE DATED JUNE 16, 2006
2. WELL LOCATIONS WEST OF BUILDING FIELD VERIFIED JANUARY 2010

BUSY BEA DRY CLEANERS
1077 RACINE STREET
MENASHA, WISCONSIN

Figure B.4.a Vapor Monitoring Map

DESIGNED BY			CHECKED BY		
DRAWN BY	BEB	01/19/10	APPROVED BY		
SIZE: B	SCALE: 1"=30'	DRAWING NO. 124506-04	SHEET NO.	REVISION NO. 2	

OFFICE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
Milwaukee, WI	TPW	BEB			124506-04
DATE					
01/13/10					

File: Q:\Projects\100000\124506 — Busy Bea\CAD\124506-04.dwg Layout: FIG 1 SITE PLAN new User: bruce.benoit Mar 01, 2010 - 9:29am

1" 1/2" 0" 1"

Attachment C – Documentation of Remedial Action

C.1 – Site Investigation Documentation – Not Applicable, All Site Investigation documentation has been previously submitted.

C.2 – Investigation Waste Disposal Documentation – Not Applicable, All waste disposal documentation has been previously submitted.

C.3 – RCL Calculations – Not Applicable, no RCLs were calculated for the site.

C.4 – Vapor Mitigation System Construction Documentation – Remediation Documentation Report Vapor Mitigation System and Amendment Injection Pilot Test November 29, 2007 Previously submitted

C.5 – Decommissioning of Remedial Systems – Not Applicable, the vapor mitigation system will remain in use.

C.6 – Other – Not Applicable

Attachment D – Maintenance Plan and Photographs – Former Busy Bea Vapor Mitigation System

D.1 – Description – Former Busy Bea Vapor Mitigation Systems and Cover Barrier

D.2.a – Location Maps –Former Busy Bea Vapor Sampling Location and Mitigation Systems Map

D.2.b – Former Busy Bea Cap Barrier Maintenance Area

D.3 –Photographic Log – Former Busy Vapor Mitigation System and Cover Barrier

D.4 – Inspection Log – Former Busy Bea Vapor Mitigation System and Cover Barrier

VAPOR MITIGATION OPERATION AND CAP MAINTENANCE PLAN

Feb. 21, 2018

Attachment D

D-1:
The Property is located at: 1077 Racine Street, Menasha, Wisconsin

BRRTS No. 02-71-536999

Tax Parcel ID : 008035414

Introduction:
This document is the Maintenance Plan (Plan) for the Cover Barrier and Vapor Mitigation system installed at the above referenced property in accordance with the requirements of NR. 724, Wisconsin Administrative Code. The Plan outlines the system design, maintenance, inspections, notifications and contacts.

More site-specific information about this property/site may be found in:

- The case file in the DNR Region office
- BRRTS on the Web (DNR's internet based data base of contaminated sites)for the link to a PDF for site-specific information at the time of closure and on continuing obligations;
- RR Sites Map/GIS Registry layer for a map view of the site, and
- The DNR project manager for Winnebago County.

Descriptions

Description of Contamination
The former Busy Bea's Dry Cleaning facility had conducted dry clearing operations at the site for approximately 20 years. Busy Bea's is situated within a multi-tenant commercial "strip-mall" structure. Busy Bea's occupies one, centrally located tenant unit within the six tenant-unit structure. Based on findings from Alpha Terra Consulting, there are two apparent source areas where elevated concentrations of Tetrachloroethene (PCE) and associated degradation products have been detected in the soil. The highest soil contaminant concentrations are located adjacent to the dry cleaning machine and may be related to a "sump" located inside the building. The maximum PCE concentration of all soil samples collected at the site to date is 360,000 parts per billion (ppb) detected at 5 feet bgs, at the base of the "sump". PCE concentrations in the vicinity range from 12,000-58,000 ppb, at depths ranging from 4-10 feet bgs. The second source area is located east of the building adjacent to the concrete pad at GP-10 and MW-105. Soil samples from this location do not contain any PCE; however, degradation products including Trichloroethene (TCE), cis- Dichloroethene (DCE) and Vinyl Chloride (VC) are present at concentrations ranging from 200- 2,500 ppb. The vertical extent of soil contamination appears to range from 4-14 feet bgs.

On May 8, 2007, Shaw E&I subcontracted Radon Abatement of West Allis, Wisconsin to install a sub-slab depressurization vapor mitigation system (VMS) in the northwest corner of the former Busy Bea dry cleaning tenant space and in the east end of the Natural Health Concepts health care\vitamin store that is located immediately north of the former dry cleaner. Prior to installation, the contractor inspected the basement floor and walls for cracks, and evaluated other potential areas of vapor intrusion. There were

no major cracks or holes. To address the sub-slab vapor pathway into the building units 1077 and 1083, two active depressurization systems were installed in those building units. **Figures D.2.a** present the vapor sampling locations and the locations of the vapor mitigation systems. Radon Abatement cored two sub slab drop pits into units (077 and 1083 Racine Street consisting of three inch diameter holes through the concrete slab. Three inch diameter, schedule 40 PVC piping was placed in the core holes and sealed with silicone caulk. The piping extended vertically until the ceiling, where the piping transitioned to a horizontal run to the east box sill area, where a 3-inch diameter hole was drilled to access the exterior wall. Radon Abatement installed a RadonAway™ DynaVac RP 265 VMS in the northwest corner of the dry cleaning tenant space, and in the east end of the Natural Health Concepts store. Radon Abatement recommended the two extraction locations based upon contaminant distribution, store layout and suspected bearing wall locations

The vapor extraction fans were secured on the outside of the building in-line with the ventilation pipe. During operation and maintenance activities conducted on the system in 2016, two separate 85 watt, RP265 Series vapor extraction suction fan, manufactured by Spruce Environmental of Massachusetts, were utilized and was sized to the job based on manufacturer's recommendations. The fan requires a 15 amp service and will pull up to 410 cubic feet per minute (CFM), running 24-hours a day. The 2016 fans replaced the previously installed fans. Additionally, a total of five communication testing ports were installed, three in unit 1077 and two in unit 1083. The ports will remain in place for additional subslab communication testing as needed.

The exhaust pipe then exits the fan and is carried up to approximately eighteen (18) inches above the eave of the roof, in accordance with USEPA and American Association of Radon Scientists and Technologists-National Radon Proficiency Program AARST-NRPP safety recommendations. Additionally, a condensate bypass was also installed to assist in the removal of condensate before the fan system.

A U-tube manometer was installed on the drop pipe in 1077 Racine Street. The U-tube manometer presents the inches of water for the system at the drop pipe. Additionally, a flow hole was installed to allow for a Pitot Tube to measure the air flow up the ventilation pipe. Information placards were placed adjacent to the monitor and warning system explaining how to evaluate them, the system specifics, and the installer's and owner's contact information.

The VMS was installed in general accordance with local and state building codes and state regulations, and in accordance with United States Environmental Protection Agency standard practices.

<u>System Maintenance and Inspection</u>

The system will be annually inspected to ensure the fan is properly operating and the pressure points in the floor of the building and garage will be tested to monitor the sub-slab airflow. The fan cut sheet is presented at the end of this Plan. System parts to be inspected include:

- RP 265 Fan
- Piping and exhaust pipe at roof line
- Electrical connections
- U-tube manometer
- Floor

The floor of the building will serve as a barrier to break the pathway of soil and groundwater vapors into the building. The floor will be inspected annually for any cracks or issues that would need to be repaired. If for any reason, the floor needs to be repaired in any way, the floor is to remain as impermeable as at

the time closure was granted. Additionally, if the use of the building changes, a reassessment of the vapor intrusion potential needs to be re-evaluated.

The system is required to continuously operate and be maintained until the time the WDNR approves the shut-down of the system.

A log of the maintenance and inspections, as **Form 4400-305, Continuing Obligations Inspection and Maintenance Log,** will be kept onsite. The building occupant, if applicable, will also have a copy of the logs for their records. The log will include recommendations for necessary repairs of the fan, floor, piping, or pressure points. Once repairs are completed, they will be photographed and documented in the inspection log. If any issues or problems occur with the system, the site owner will contact the Wisconsin Department of Natural Resources. A copy of the inspection log will be submitted to the DNR on an annual basis according to the requirements of the case closure letter.

Contacts

Kevin McKnight – Hydrogeologist
Wisconsin Department of Natural Resources
625 E County Road Y, Suite 700
Oshkosh, WI 54901
(920) 424-7890

Cinda Corporation – Contact Cindy Vander Zanden
W8918 Great Oak Lane
Hortonville, WI 54944
Phone: (920) 788-4656

Heidi Woelfel, APTIM (Environmental Consultant)
Project Manager
7330 W. 33rd Street North, Suite 106
Wichita, KS 67205
Phone: 414-687-3313

Tom Heine, Radon Abatement, Inc. (VI System installation contractor)
12221 West Rockne Avenue
Hales Corners, WI 53130
Phone: 414-546-3691

Cover Barrier for Groundwater Infiltration Pathway

The strip mall space for units 1077 and 1083 as well as the parking area located to the west of the units (as identified in Figure D.2.B Cap Maintenance Area) will need to remain in place to act as an infiltration barrier to minimize future soil-to-groundwater contamination migration that would violate the groundwater standards in ch. NR 140, Wisconsin Administrative Code. Based on the current use of the property as commercial, the barrier should function as intended unless disturbed.

If removal or repair of the Cap Maintenance Area is needed, you will need to follow the requirements of Wis. Admin. Code ch. NR727. DNR guidance document RR-987, Post-Closure Modifications: Changes to Property Conditions after a State-Approved Cleanup discusses these requirements and should be reviewed prior to removal or repair of the Cap Maintenance Area. DNR RR-987 is available at

http://dnr.wi.gov/files/PDF/pubs/rr/RR987.pdf.

Annual Inspection

The building units and the floor overlying the soil and as depicted in **Figure D.2.b** will be inspected once a year, normally in the spring after all snow and ice is gone, for deterioration, cracks and other potential problems that can cause additional infiltration into or exposure to underlying soils. The inspections will be performed by the property owner or their designated representative. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed and where infiltration from the surface will not be effectively minimized will be documented.

A log of the inspections and any repairs will be maintained by the property owner and is included as D.4, **Form 4400-305, Continuing Obligations Inspection and Maintenance Log**. The log will include recommendations for necessary repair of any areas where underlying soils are exposed and where infiltration from the surface will not be effectively minimized. Once repairs are completed, they will be documented in the inspection log. A copy of the maintenance plan and inspection log will be kept at the site. A copy of the inspection log will be submitted to the DNR on an annual basis according to the requirements of the case closure letter.

Maintenance Activities

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling or larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment (PPE). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

In the event that the paved parking area and/or the unit's building floor overlying the contaminated groundwater plume or soil is removed or replaced, the replacement barrier must be equally impervious. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the DNR or its successor.

The property owner, in order to maintain the integrity of the building, will maintain a copy of this Maintenance Plan at the site and make it available to all interested parties (i.e. on-site employees, contractors, future property owners, etc.) for viewing.

Prohibition of Activities and Notification of DNR Prior to Actions Affecting a Cover/Barrier

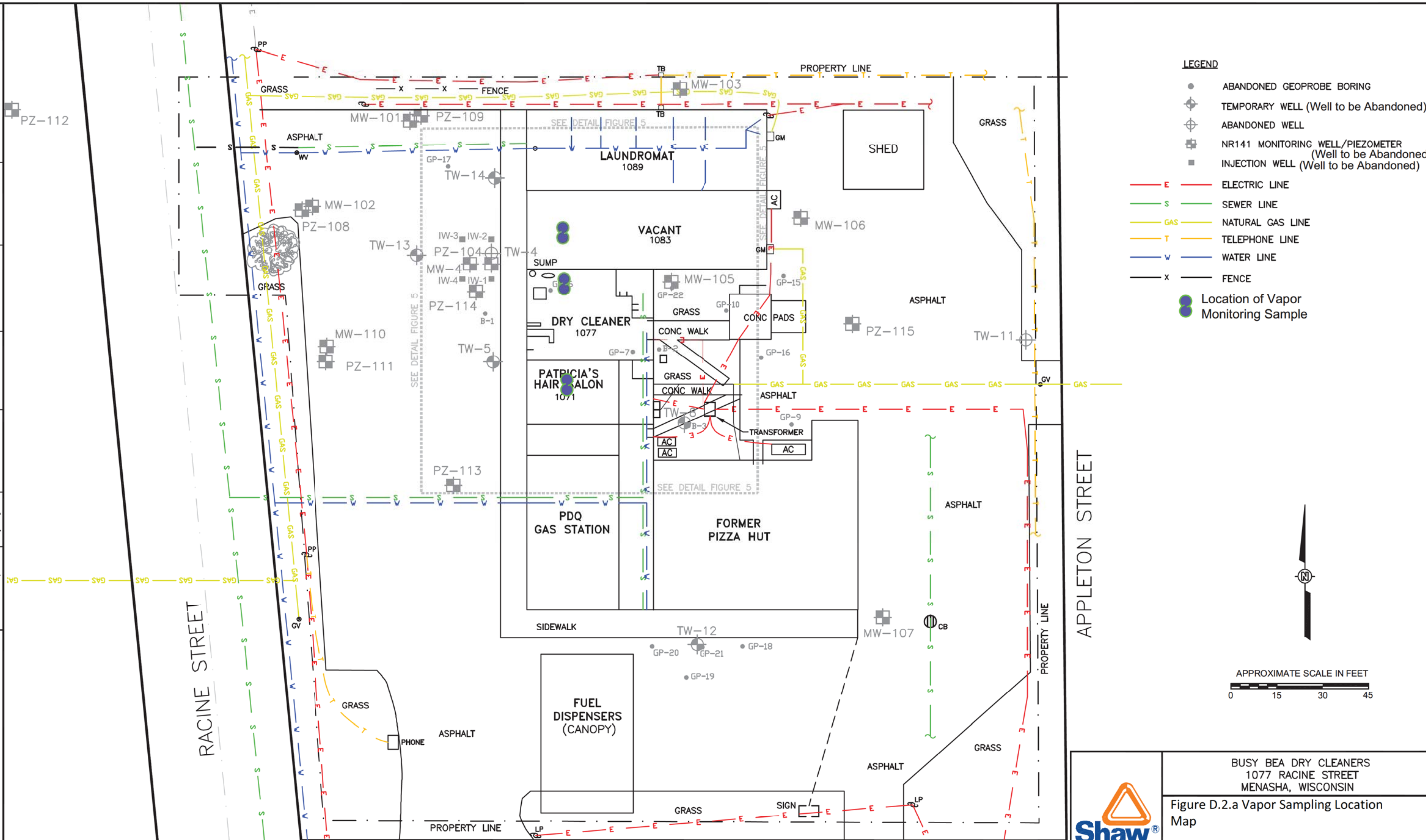
The following activities are prohibited on any portion of the property where [pavement, a building foundation, soil cover, engineered cap or other barrier] is required as shown on the attached map, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; 6) construction or placement of a building or other structure; 7) changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings; or 8) changing the construction of a building that has a vapor mitigation system in place which would

compromise the effectiveness of the vapor mitigation system.

If removal, replacement or other changes to a cover, or a building which is acting as a cover, are considered, the property owner will contact DNR at least 45 days before taking such an action, to determine whether further action may be necessary to protect human health, safety, or welfare or the environment, in accordance with s. NR 727.07, Wis. Adm. Code.

Amendment or Withdrawal of Maintenance Plan

This Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of DNR.



NOTE:
1. SITE PLAN DERIVED FROM ALPHA TERRA SCIENCE DATED JUNE 16, 2006
2. WELL LOCATIONS WEST OF BUILDING FIELD VERIFIED JANUARY 2010

BUSY BEA DRY CLEANERS
1077 RACINE STREET
MENASHA, WISCONSIN

Figure D.2.a Vapor Sampling Location Map

DESIGNED BY			CHECKED BY	
DRAWN BY	BEB	01/19/10	APPROVED BY	

SIZE:	SCALE:	DRAWING NO.	SHEET NO.	REVISION NO.
B	1"=30'	124506–04		2

File: Q:\Projects\100000\124506 – Busy Bea\CAD\124506-04.dwg Layout: FIG 1 SITE PLAN new User: bruce.benoit Mar 01, 2010 – 9:29am

OFFICE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
Milwaukee, WI	01/13/10	TPW	BEB			124506-04

12221 West Rockne Avenue Hales Corners Wisconsin 53130 414-303-4038 radabt1@wi.rr.com

PRESSURE FIELD EXTENTION AS DEFINED BY COMMUNICATION TESTING **Date of Production 122116**

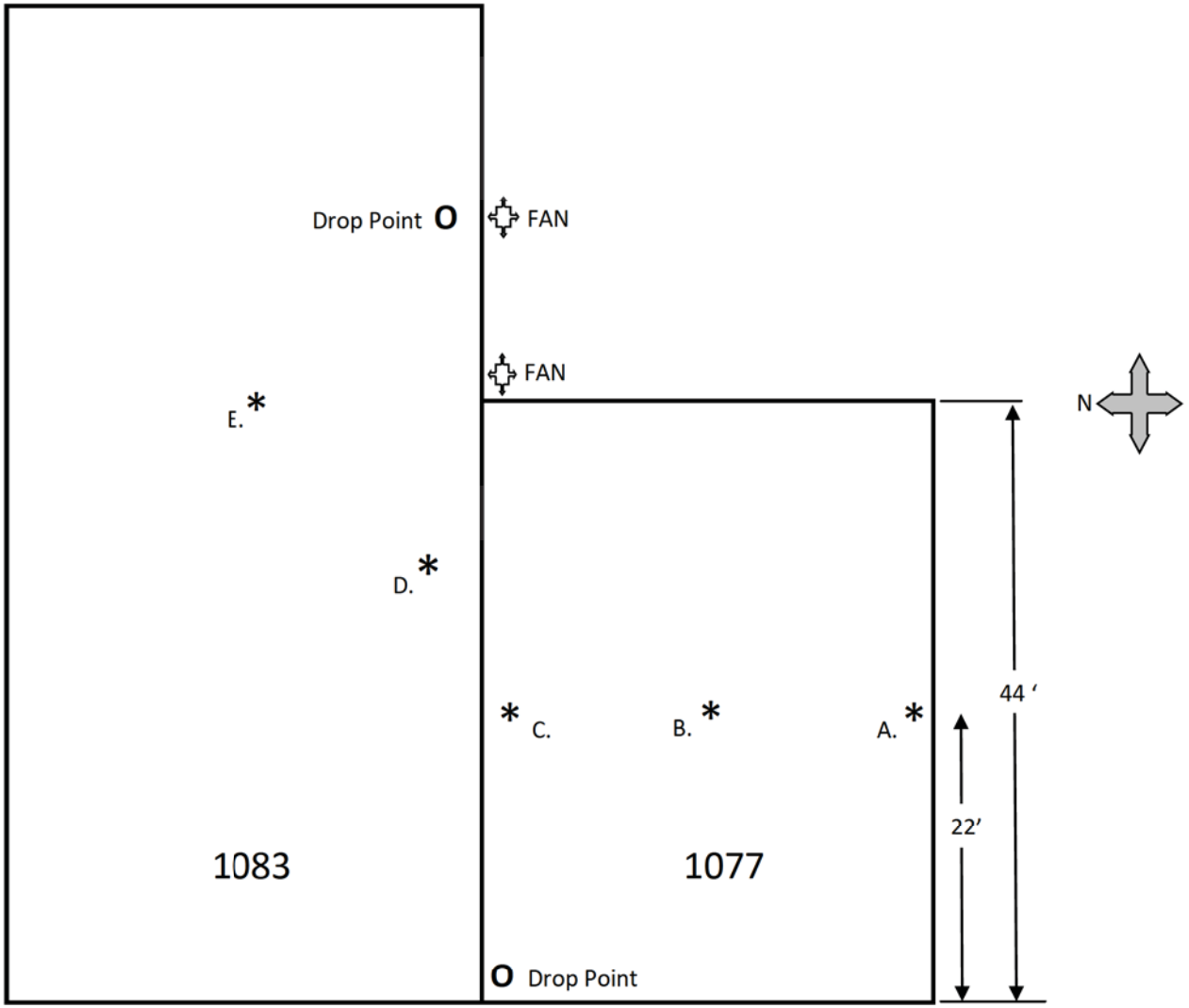
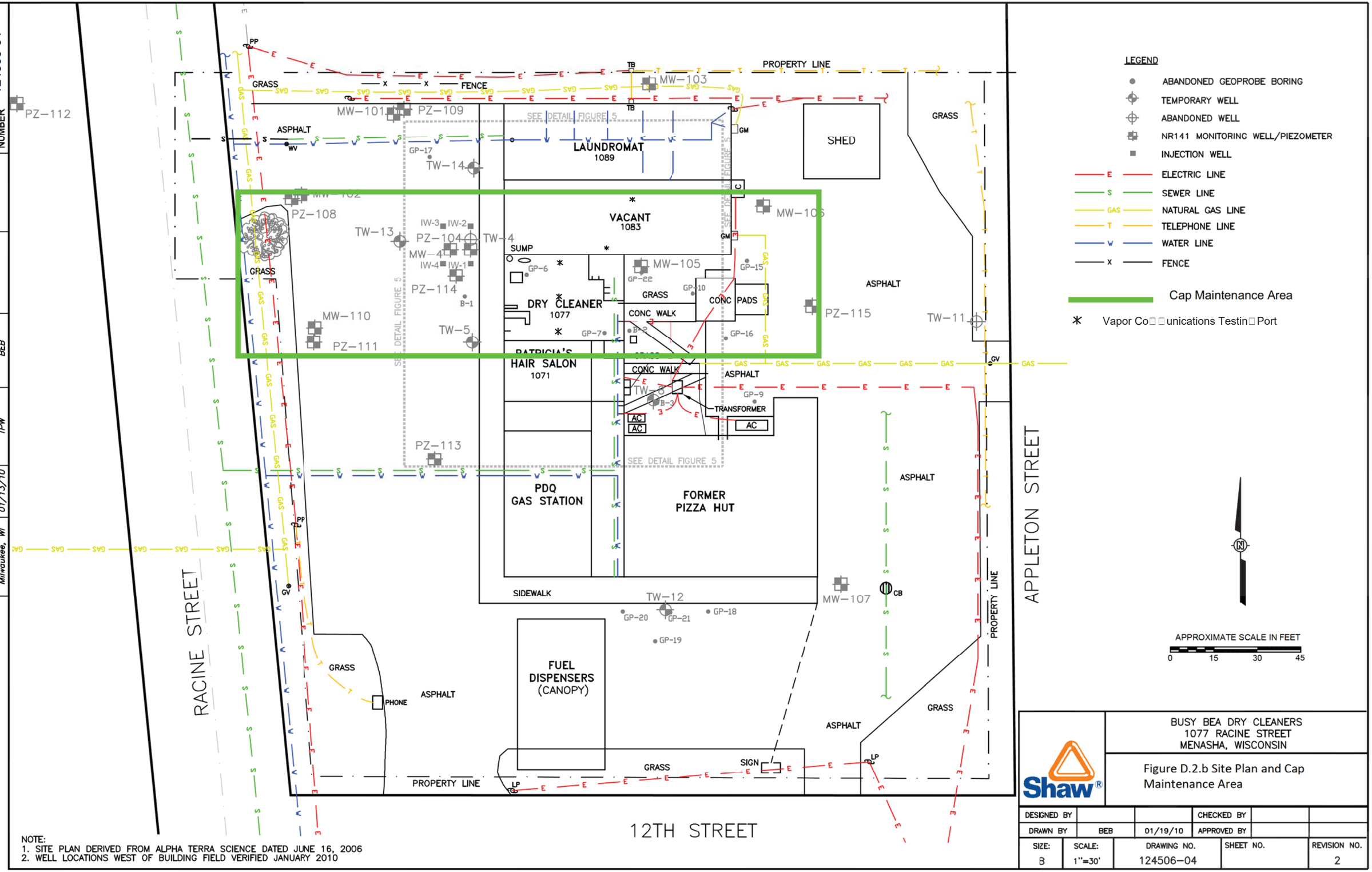


Figure D.2.a Site Vapor Mitigation Systems Map

✱ Co□□unications Testin□Port

not to scale

THOMAS J. HEINE 101878RT 101879MT



NOTE:
1. SITE PLAN DERIVED FROM ALPHA TERRA SCIENCE DATED JUNE 16, 2006
2. WELL LOCATIONS WEST OF BUILDING FIELD VERIFIED JANUARY 2010

DESIGNED BY	DATE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
TPW	01/13/10	BEB			124506-04

OFFICE: Milwaukee, WI

File: Q:\Projects\100000\124506 -- Busy Bea\CAD\124506-04.dwg Layout: FIG 1 SITE PLAN new User: bruce.benoit Mar 01, 2010 -- 9:29am

1" 1/2" 0" 1"

BUSY BEA DRY CLEANERS
1077 RACINE STREET
MENASHA, WISCONSIN

Figure D.2.b Site Plan and Cap Maintenance Area

DESIGNED BY			CHECKED BY		
DRAWN BY	BEB	01/19/10	APPROVED BY		

SIZE:	SCALE:	DRAWING NO.	SHEET NO.	REVISION NO.
B	1"=30'	124506-04		2

D.3 Former Busy Vapor Mitigation System and Cover Barrier Photographic Record

Location: □or□er Busy Bea Dry Cleaner
1077 □acine Street□Menasha □ I

Photo No: 1 **Photo Direction**: East

Description: Vie□ of the for□er Busy Bea□s Dry Cleaner □ithin the Strip Mall. □or□er Site and the Strip Mall are a structural i□pedi□ent to the Site □or□.

D.3 Vapor Mitigation Photographic Record

Client:	Cinda Corporation	**Project Number:**	12□50□
Site Name:	Busy Bea Dry Cleaners	**Site Location:**	1077 □acine Street□Menasha□□ I
Photographer:	Chris Peshe□	**Date:**	May □□2007

Photo #: 1

Direction: Interior

Comments:

Vie□ of sub-slab penetration in the Natural □eath Concepts tenant space.

Photo #: 2

Direction: Interior

Comments:

Vie□ of interior vapor □iti□ation pipin□ run in the dry cleaner tenant space. Pipin□ run proceeds left□ard to the north□est corner su□p in the tenant space and ri□ht□ard exitin□ to the exterior fan □echanis□.

D.3 Vapor Mitigation Photographic Record

Client:	Cinda Corporation	**Project Number:**	12□50□
Site Name:	Busy Bea Dry Cleaners	**Site Location:**	1077 □acine Street□Menasha□□ I
Photographer:	Chris Peshe□	**Date:**	May □□2007

Photo #: 3

Direction: North

Comments:

Vie□ of exterior ventilation and fan syste□ s alon□ east side of structure.

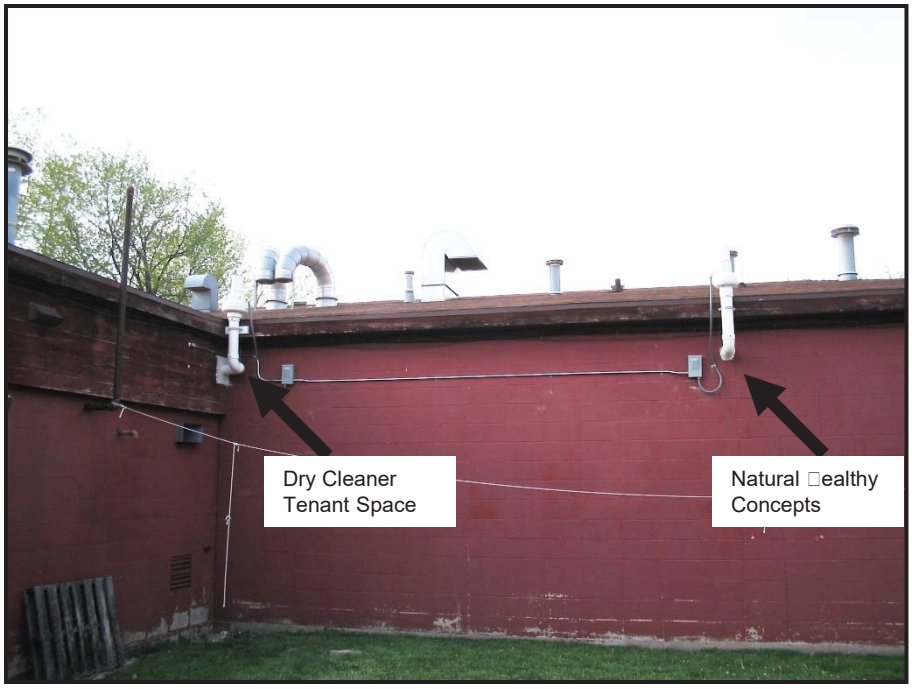


Photo #: □

Direction: North□est

Comments:

Vie□ of ventilation and fan syste□ located on east side of Natural □ealthy Concepts tenant space.

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

Continuing Obligations Inspection and Maintenance Log

Form 4400-305 (2/14)

Directions: In accordance with s. NR 727.05 (1) (b) 3., Wis. Adm. Code, use of this form for documenting the inspections and maintenance of certain continuing obligations is required. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.]. When using this form, identify the condition that is being inspected. See the closure approval letter for this site for requirements regarding the submittal of this form to the Department of Natural Resources. A copy of this inspection log is required to be maintained either on the property, or at a location specified in the closure approval letter. Do NOT delete previous inspection results. This form was developed to provide a continuous history of site inspection results. The Department of Natural Resources project manager is identified in the closure letter. The project manager may also be identified from the database, BRRTS on the Web, at http://dnr.wi.gov/botw/SetUpBasicSearchForm.do, by searching for the site using the BRRTS ID number, and then looking in the "Who" section.

Activity (Site) Name	BRRTS No.

Inspections are required to be conducted (see closure approval letter):

- ◯ annually
- ◯ semi-annually
- ◯ other – specify ____________________

When submittal of this form is required, submit the form electronically to the DNR project manager. An electronic version of this filled out form, or a scanned version may be sent to the following email address (see closure approval letter):

Inspection Date	Inspector Name	Item	Describe the condition of the item that is being inspected	Recommendations for repair or maintenance	Previous recommendations implemented?	Photographs taken and attached?
		☐ monitoring well ☐ cover/barrier ☐ vapor mitigation system ☐ other:			◯ Y ◯ N	◯ Y ◯ N
		☐ monitoring well ☐ cover/barrier ☐ vapor mitigation system ☐ other:			◯ Y ◯ N	◯ Y ◯ N
		☐ monitoring well ☐ cover/barrier ☐ vapor mitigation system ☐ other:			◯ Y ◯ N	◯ Y ◯ N
		☐ monitoring well ☐ cover/barrier ☐ vapor mitigation system ☐ other:			◯ Y ◯ N	◯ Y ◯ N
		☐ monitoring well ☐ cover/barrier ☐ vapor mitigation system ☐ other:			◯ Y ◯ N	◯ Y ◯ N
		☐ monitoring well ☐ cover/barrier ☐ vapor mitigation system ☐ other:			◯ Y ◯ N	◯ Y ◯ N

{Click to Add/Edit Image} Date added:	{Click to Add/Edit Image} Date added:
Title:	Title:

Attachment E – Monitoring Well Information – Monitoring well TW-12 boring log is included, but the forms for construction and development could not be located. This well was installed in 2005- 2006 by Alpha Terra, and it is believed the well was paved over. The Abandonment Forms (3300-005) for the rest of the Monitoring Well network are provided.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Revelopment ☐ Other ☐ ____________

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Busy Bea's Drycleaners / CINDA Corp		TW-12

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name: Dave Last Name: Paulson Firm: Soil Essentials	04/14/2005	04/14/2005	Geoprobe (Direct Push)

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			____ Feet MSL	____ Feet MSL	2 inches

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

Facility ID	County	County Code	Civil Town/City/ or Village
	Winnebago		City of Menasha

Location: South of PDQ bldg

Surface: Asphalt

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (Below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength / Moisture Content / Liquid Limit / Plasticity Index / P 200	RQD/ Comments
1	48"/34"		0-4	0-2.5": Asphalt	ASPHALT	0	1'	14	GEOLOGIC SUMMARY	
				2.5-1': Lt brown fine to coarse sand & gravel mixed w/ brown silty clay FILL	SW/GW	1	1.7'	80	0-2.5" ASPHALT; 2.5-1' SAND/GRAVEL	
				1-1.7': Reddish brown silty clay w/ traces of angular gravel. FILL	CL	1.7	4'	28	1-1.7' SILTY CLAY Reddish-brown w/ traces of angular gravel. (FILL, CL)	1-1.7': strong solvent odor
				1.7-2.25': Brown silty clay w/ fibrous organic material @ 1.7-1.8'. NATIVE moist, firm, high plast.	CL				1.7-16' SILTY CLAY Brown w/ high plasticity (1.7-2.25') to reddish-brown & moderate plasticity (2.25-12'). moist throughout. Clay is firm (1.7-13.5') to soft (13.5-18'). Fibrous organic material (traces of) from 1.7-1.8'. Traces of roots & gray streaking in clay from 2.25-4'. Clay is reddish brown (12-15.5) to 50% reddish brown & 50% gray (15.5-16'). (NATIVE, CL)	
2	48"/38"		4-8	2.25-4': Reddish-brown silty clay. moist, firm, moderate plasticity. Gray streaks in clay (few). Traces of roots.				Ø		
				4-8': Same as 2.25-4'				Ø		
3	48"/47"		8-12	8-12': Same as previous. Waterbearing @ 11.5' ???	CL			Ø		
								Ø		

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

Signature: [illegible] Firm: Alpha Terra Science

TW-12

Sample and Type	Length Au. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1	48" / 47"		13	12-16' Reddish-brown silty clay, moist, firm (12-13.5') & soft (13.5-16'). Hi L (12-13.5') to moderate (13.5-16') plasticity clay a mix of reddish-brown & gray from 15.5-16' (½ & ½)	CL			Ø						reddish-brown 15.5' gray 16'
			14											
			15					Ø						
			16	16' EOB										
			17	Screened from 5.5-15.5'										
			18											
			19											
			20											
			21											
			22											
			23											
			24											
			25											
			26											
			27											
			28											
			29											
			30											
			31											
			32											

Attachment F – Source Legal Documents

F.1 – Deed

F.2 – Certified Survey Map

F.3 – Verification Of Zoning

F.4 – Signed Statement

F.1 Deed

DOCUMENT NO.

STATE BAR OF WISCONSIN FORM 3 — 1982
QUIT CLAIM DEED

THIS SPACE RESERVED FOR RECORDING DATA

Register's Office
Winnebago County, Wis.
Received for record
this 15th Day of
February
A.D., 1991 at
8:40 o'clock AM
Marjorie Dahms
REGISTER OF DEEDS

760532

Egret Corporation, a Wisconsin corporation ("Grantor"),

quit-claims to Cinda Corporation, a Wisconsin corporation ("Grantee"),

the following described real estate in Winnebago County, State of Wisconsin:

RETURN TO
John J. Russo
P.O. Box 860
Kaukauna WI 54130

Pd $10

Tax Parcel No: 008-0273-06

See legal description on Exhibit A attached hereto and incorporated herein.

FEE
$6
EXEMPT

Note: This quit claim deed is being given by Grantor to Grantee to evidence of record the transfer of the above-described real estate from Grantor to Grantee pursuant to the statutory merger of Grantor into Grantee, which merger became effective at 11:59 o'clock p.m. on December 31, 1990, pursuant to Articles of Merger of Egret Corporation into Cinda Corporation filed in the Office of the Secretary of STate of Wisconsin on December 26, 1990.

ENERGY CODE
W-7

This is not (is) (is not) homestead property.

Dated this 1st day of January 19 91

(SEAL)

* (No Corporate Seal)

(SEAL)

*

EGRET CORPORATION

By: Thomas Brophy (SEAL)

* Thomas Brophy, President

By: David J. Vander Zanden (SEAL)

* David J. Vander Zanden, Secretary

AUTHENTICATION

Signature(s) of Thomas Brophy, President, and David J. Vander Zanden, Secretary, of Egret Corporation

authenticated this 12th day of January February 19 91

ACKNOWLEDGMENT

STATE OF WISCONSIN } ss.

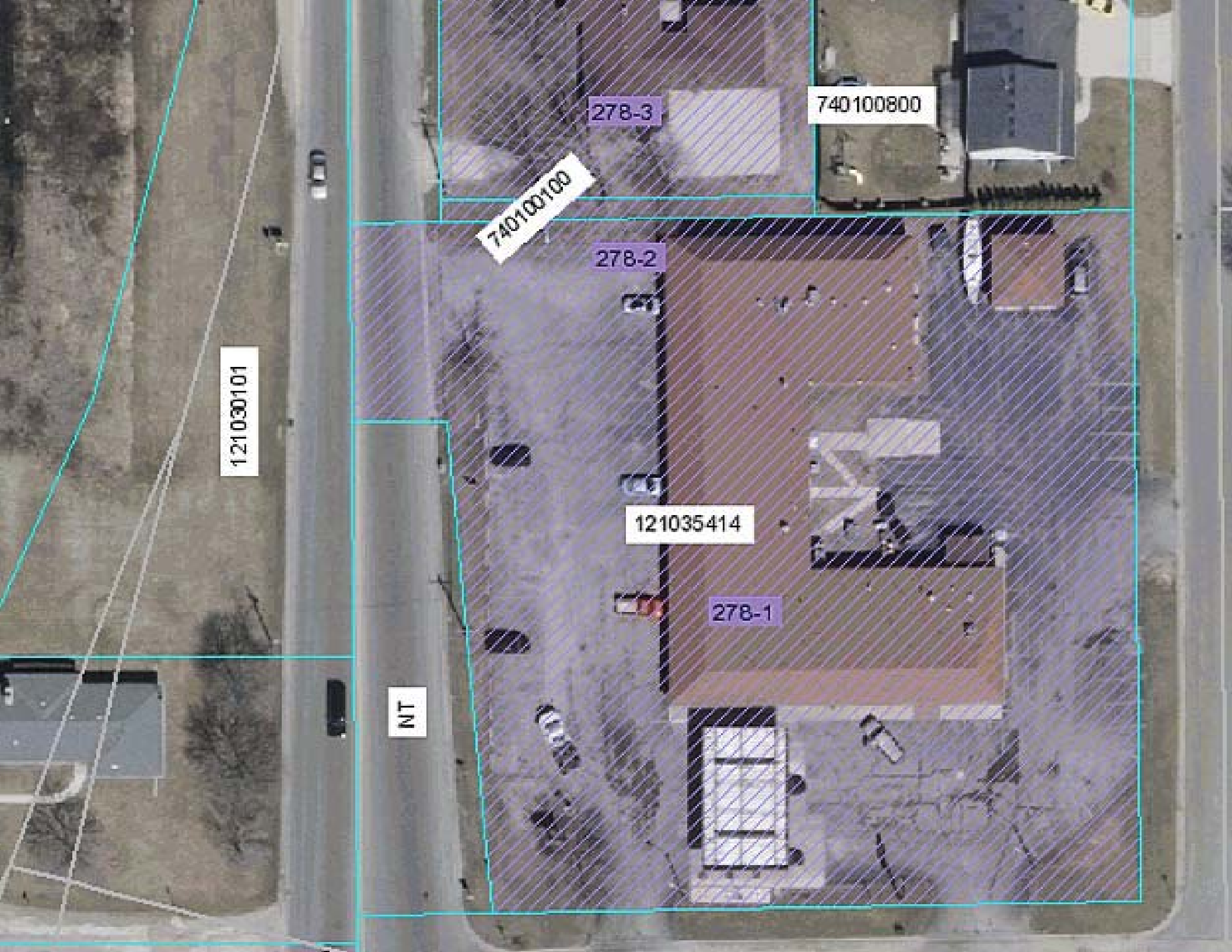
County.

EXHIBIT A

Lot Two (2), of a Certified Survey Map recorded in Volume One (1) of Certified Survey Maps on Page 897 as Document No. 563648, being a part of the Southeast ¼ of the Southwest ¼, Section 9, Town 20 North, Range 17 East, Town of Menasha, Winnebago County, Wisconsin.

****

44-060


278-3
740100800
740100100
278-2
121030101
121035414
278-1
NT

□.3 Verification of □onin□

City of Menasha Zoning Map - 2016

The City of Menasha makes every effort to produce and publish the most current and accurate information possible. However, no warranties, expressed or implied, are provided for the data herein, its use, or its interpretation.

0 0.25 0.5 1

Miles

Zoning Districts

- C1-General Commercial
- C2-Central Business
- C3-Business and Office
- C4-Business Park
- GU-Government Use
- I1-Heavy Industrial
- I2-General Industrial
- PUD-Planned Unit Development
- R1-Single Family
- R1A-Low-Density Single-Family
- R2-Two-Family
- R2A-Multi-Family Zero Lot Line
- R3-Multi-Family Medium Density
- R4-Multi-Family High Density
- RMH-Mobile Home

DJR 5/24/16

Attachment G – Notifications to Owners of Affected Properties - Not applicable. RP owns entire strip mall and impacts are not going off-site.