# GIS REGISTRY (Cover Sheet) Form 4400-280 (R 6/13)

Source Proper	ty In	form	ation				CLOSURE DATE: 11/06/2014			
BRRTS #:	02-13	-55196	64							
ACTIVITY NAME:	KLINKI	E DRY (	CLEANER	RS CA	MPUS		FID #: 113224540			
PROPERTY ADDRESS:	2875 L	INIVER:	SITY AVE	:			DATCP #: NA			
MUNICIPALITY:				-			PECFA#: NA			
	MADISON									
PARCEL ID #:	60-070	9-212-0	609-5							
	*WTM (	COORD	INATES:			WTM COORD	INATES REPRESENT:			
X: 5	565715	Y:	289229	9	•	Approximate Cent	er Of Contaminant Source			
		rdinates 8, NAD83				Approximate Sour	ce Parcel Center			
Please check as approp	oriate: (	BRRTS	Action Co	ode)						
			CON	TINU	IING OE	<u>LIGATIONS</u>				
Contaminated	d Medi	a for F	Residua	l Coi	ntamina	tion:				
☐ Groundwater	Contam	ination :	> ES (236	S)		Soil Contaminati	ion > *RCL or **SSRCL (232)			
☐ Contamin	nation in	ROW				☐ Contamination in ROW				
Off-Source	ce Conta	minatio	n			☐ Off-Source Contamination				
( <b>note:</b> for list see "Impacted Form 4400-24	l Off-Sou			ation,		( <b>note:</b> for list of off-source properties see "Impacted Off-Source Property Information, Form 4400-246")				
Site Specific	Obliga	tions:								
☐ Soil: maintair	n industr	ial zonir	ng <i>(220)</i>		[		(222)			
(note: soil contam						□ Direct Conta	act			
between non-indus	striai and	industria	i ieveis)			☐ Soil to GW F	Pathway			
☐ Structural Imp	edimen	t <i>(224)</i>			[		(226)			
☐ Site Specific (	Conditio	n <i>(228)</i>			[	Maintain Liability	Exemption (230)			
					(	i <b>note:</b> local governme development corporat ake a response action	tion was directed to			
					Monit	oring Wells:				
		Are al	l monitorii	ng we	lls proper	y abandoned per N	IR 141? <i>(</i> 23 <i>4)</i>			
			•	Yes	○ No	○ N/A				
							* Residual Contaminant Level			

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
3911 Fish Hatchery Road
Fitchburg WI 53711-5397

Scott Walker, Governor Cathy Stepp, Secretary Telephone 608-266-2621 Toll Free 1-888-936-7463 TTY Access via relay - 711



November 6, 2014

Richard Klinke Klinke Enterprises 4518 Monona Drive Madison, WI 53716

# KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS

SUBJECT:

Final Case Closure with Continuing Obligations

Klinke Dry Cleaners - Campus, 2875 University Avenue, Madison, Wisconsin

DNR BRRTS Activity # 02-13-551964

Dear Mr. Klinke:

The Department of Natural Resources (DNR) considers the Klinke Dry Cleaners – Campus site 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 South Central Region (SCR) Closure Committee reviewed the request for closure on September 4, 2014. The Closure Committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. A conditional closure letter was issued by the DNR on September 4, 2014, and documentation that the conditions in that letter were met was received on October 14, 2014.

This active dry cleaner site had soil and sub-slab vapor contaminated with chlorinated volatile organic compounds (VOCs). Chlorinated VOC vapors were also found in indoor air which were likely from a spotting agent in use at the dry cleaner. No remedial actions were taken. A vapor mitigation system was installed at the site to address the sub-slab vapors. 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 <u>Closure Conditions</u>.

- Residual soil contamination exists that must be properly managed should it be excavated or removed.
- A cover or barrier is needed for proper sub-slab vapor mitigation system operation. The
  concrete slab/on-site building foundation must be maintained over contaminated soil and the
  DNR must approve any changes to this barrier.
- A sub-slab vapor mitigation system must be operated and maintained, and inspections must be documented.



Richard Klinke November 6, 2014 WDNR # 02-13-551964 Page 2 of 5

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 <a href="http://dnr.wi.gov/topic/Brownfields/clean.html">http://dnr.wi.gov/topic/Brownfields/clean.html</a>, 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 <a href="http://dnr.wi.gov/topic/wells/documents/3300254.pdf">http://dnr.wi.gov/topic/wells/documents/3300254.pdf</a>.

All site information is also on file at the SCR Regional DNR office, at 3911 Fish Hatchery Road, Fitchburg, Wisconsin. 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 or to ensure a vapor mitigation system operates properly. 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 a building slab foundation and a vapor mitigation system are required, as shown on the **attached map**, Vapor Intrusion Assessment Results Summary, Figure B.4.a, dated March 19, 2014, unless prior written approval has been obtained from the <u>DNR</u>:

- 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.
- 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.

Richard Klinke November 6, 2014 WDNR # 02-13-551964 Page 3 of 5

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

Department of Natural Resources
Attn: Remediation and Redevelopment Program Environmental Program Associate
3911 Fish Hatchery Road
Fitchburg, WI 53711

Residual Soil Contamination (ch. NR 718, chs. 500 to 536, Wis. Adm. Code or ch. 289, Wis. Stats.) Soil contamination remains underneath and in back of the on-site building as indicated on the **attached map**, Pre/Post Remaining Soil Contamination, Figure B.2.c, dated July 15, 2013. 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 and right-of-way holders 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.

Depending on site-specific conditions, construction over contaminated soils or groundwater may result in vapor migration of contaminants into enclosed structures or migration along newly placed underground utility lines. The potential for vapor inhalation and means of mitigation should be evaluated when planning any future redevelopment, and measures should be taken to ensure the continued protection of public health, safety, welfare and the environment at the site.

<u>Cover or Barrier</u> (s. 292.12 (2) (a), Wis. Stats., s. NR 726.15, s. NR 727.07 Wis. Adm. Code) The concrete slab building foundation that exists in the location shown on the **attached map**, Vapor Intrusion Assessment Results Summary, Figure B.4.a, dated March 19, 2014, shall be maintained in compliance with the **attached** Active Vapor Mitigation System Maintenance Plan, dated June 13, 2014, in order to prevent or limit vapor intrusion into the building.

A cover or barrier for industrial land uses, or 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 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. 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.

Richard Klinke November 6, 2014 WDNR # 02-13-551964 Page 4 of 5

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 semi-annually, in accordance with the attached maintenance plan. Submit the inspection log to the DNR only upon request.

<u>Vapor Mitigation or Evaluation</u> (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 chlorinated VOCs 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 on May 3, 2014, must be operated, maintained and inspected in accordance with the **attached** Active Vapor Mitigation System Maintenance Plan, dated June 13, 2014. System components must be repaired or replaced immediately upon discovery of a malfunction. Semi-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 semi-annually in accordance with the attached maintenance plan. Submit the inspection log to the DNR only upon request.

The integrity of the building and concrete slab foundation that exists on the property, shown on the **attached map**, Vapor Intrusion Assessment Results Summary, Figure B.4.a, dated March 19, 2014, 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.

# Operating Dry Cleaners

In order to remain eligible for future reimbursement of cleanup costs from the Dry Cleaner Environmental Response Fund (DERF), the owner or operator of the dry cleaning facility must implement enhanced pollution prevention measures within 90 days of the date of this letter. These measures are found in Section 292.65 (5) (a) 2, Wis. Statutes, and s. NR 169.11 (2), Wis Adm. Code. In accordance with Section 292.65 (8) (f), Wis. Stats., the maximum amount of money that DERF can reimburse to any facility is \$500,000. The enhanced pollution prevention measures include:

- all wastes must be managed in accordance with federal and state hazardous waste rules;
- dry cleaning product or wastewater may not be discharged into any sanitary sewers, septic tanks, or any waters of the State;
- a containment structure must entirely surround and be capable of containing any spill or release of a dry cleaning product from a dry cleaning machine or other equipment;
- the floor within any containment structure must be sealed and be impervious to dry cleaning product;
- perchloroethene must be delivered to the dry cleaning facility by means of a closed, direct coupled delivery system.

In order to retain eligibility, you will need to verify that you have implemented these pollution prevention measures. Additional documentation, such as invoices and photographs of any enhanced pollution prevention measures you implement, can be used to provide verification.

Richard Klinke November 6, 2014 WDNR # 02-13-551964 Page 5 of 5

# 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 Denise Nettesheim at (608) 275-3209, or at Denise.Nettesheim@wisconsin.gov.

Sincerely,

Linda Hanefeld, Team Supervisor

SCR Remediation & Redevelopment Program

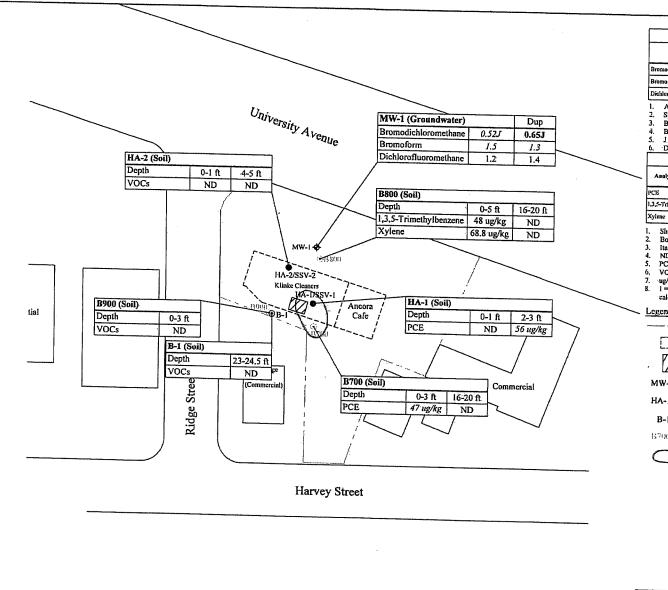
# Attachments:

- Pre/Post Remaining Soil Contamination, Figure B.2.c, dated July 15, 2013

- Active Vapor Mitigation System Maintenance Plan, dated June 13, 2014 (includes maps, inspection and maintenance log, photos of system, etc.)

cc: Brian Kappen, Environmental Forensic Investigations, N16 W23390 Stone Ridge Drive, Suite G, Waukesha, WI 53188

Case File



Detected Componer	is in Groundwater	Sumples
Analytes (ug/L)	Enforcement Standard	Preventive Action Limit
Bronsedichloromethnoc	0.6	0.06
Bromologo	4.4	0.4
Dichlerofluoromethane	1,000	200

All concentrations reported in micrograms per liter (ug/L) Samples analyzed using EPA SW-846 Method 8260

Bolded values exceed the preventive action limit Bolded and shaded values exceed the Public Fleath Enforcement Standard

J. ... Analyte concentration detected between the laboratory Method Detection Limit and Reporting Limit DUP = Duplicate sample

Detected Compounds in Soft Samples							
Applytes (ug/kg)	Industrial RCL 1	Non-Industrial RCL :	Soll to Groundwater RCL 1				
PCI	153,000	38,708	4.5				
1.3.5-Trimethylbenzene	J82,000	182,000	1,380				
Xylene	258,000	258,000	19,700				

Shaded and Bolded values exceed the Industrial Residual Contaminant Level Bolded values exceed Residential Residual Contaminant Level

Italicized values exceed Soil to groundwater Residual Contaminant Level

ND = Compound not detected PCE = Tetrachlomethene

VOCs = Volatile Organic Compounds

ug/kg = Micrograms per kilogram

1 = Residual Cuntaminant Levels are determined using the EPA Residual Screening Levels (RSL) calculator according to procedures described in WDNR Publication RR-890

#### Legend

Approximate property boundary

Site building

Approximate location of dry cleaning machine

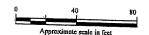
MW-I-Monitoring well sample location

HA-I Hand auger soil boring location

Direct-push soil boring location B-1 (1)

13700 🐵 Soil boring location (by others)

Extent of soil impacts exceeding the soil to groundwater RCL



# PRE/POST REMAINING SOIL CONTAMINATION

Klinke Cleaners 2875 University Avenue Madison, Wisconsin

Date:	7/15/13
Designed:	МММ
Drawn:	ммм
Checked:	WF
DWG file:	59103-10

ENVIRO Perensics	
INVIRONMENTAL FORENSIC INVESTIGATIONS, INC.	

B.2.c Project 602 N. Capitol Ave., Sto. 210 • Indianapolis, IN 46204 EnviroForepaics.com 6272

Figure



# ACTIVE VAPOR MITIGATION SYSTEM MAINTENANCE PLAN

2875 University Avenue Madison, WI 53705 PARCEL ID# 60070921206095 WDNR BRRTS# 02-13-551964

# INTRODUCTION

This Maintenance Plan for the active vapor mitigation system (VMS) at 2875 University Avenue in Madison, Wisconsin (Site) has been prepared in accordance with the requirements of s. NR 724.13(2), Wisconsin Administrative Code and Wisconsin Department of Natural Resources (WDNR) Publication RR-981. Additional information about the Site can be obtained from the following sources:

- BRRTS on the Web (WDNR internet based data of contaminated sites):
   <a href="http://dnr.wi.gov/botw/GetActivityDetail.do?adn=0213551964&siteId=2042000&crumb=1&search=b">http://dnr.wi.gov/botw/GetActivityDetail.do?adn=0213551964&siteId=2042000&crumb=1&search=b</a>
- WDNR Project Manager Jim Walden at 608-267-7572 or james.walden@wisconsin.gov

# DESCRIPTION AND PURPOSE OF ACTIVE VAPOR MITIGATION SYSTEM

The Site is located at 2875 University Avenue adjacent to the University of Wisconsin campus in the City of Madison, Wisconsin. The property is owned by Klinke Cleaners (Klinke). The Site consists of a 3,090 square foot slab-on-grade, one-story commercial building and asphalt paved parking area with drive thru service. The Site building is currently occupied by Klinke and Ancora Coffee Roasters (Ancora), which leases a portion of the Site building. The Site is bound by University Avenue to the north, a parking lot and commercial building to the east, two houses (including one house entirely converted into office spaces) and Harvey Street to the south, and Ridge Street to the west. The Site is situated in an area of mixed commercial and residential land use.

Soil contaminated by tetrachloroethene (PCE), a common dry-cleaning solvent, is located at a depth of approximately 2-3 feet below ground surface (bgs) in the area under the Site building and directly behind (within 10 feet) the building. Groundwater has not been encountered at depths of less than 20 feet bgs. The results of sub-slab vapor samples collected from beneath the building slab indicated a potential vapor intrusion risk. The sub-slab vapor results are depicted on **Figure B.4.a** (attached).



Installation of the VMS was completed on May 3, 2014. The VMS installed at the Site is a subslab depressurization system (SSDS) that consists of a fan and piping induce a negative pressure beneath the building slab and discharge vapors to the atmosphere. The purpose of the VMS is to prevent impacted soil vapors from entering the indoor air space. Proper operation and maintenance of the VMS is needed to ensure protection of public health and safety.

Two (2) extraction points installed beneath the concrete slab on the south side of the building. A hammer drill with a 3.5-inch core bit was used to drill through the concrete floor and sub-slab material was excavated with a wet/dry vacuum to create a void space. Vent piping, consisting of 3-inch diameter schedule 40 poly-vinyl chloride (PVC), extends from the extraction points, up the adjacent walls, and through the south exterior wall of the building. The pipe was sealed into place in the floor and exterior wall using a clear weather-resistant expandable epoxy resin material. The vent pipe discharge was positioned approximately 16 feet above the ground surface and extended above the roofline. A RadonAway model GP 501 centrifugal fan was installed in line with the outside vent pipe approximately 17 feet above the ground surface. The fan was wired to an exterior 15 ampere electrical toggle switch, which was placed in an outdoor electrical switch box located just below the fan. Power to the switch comes from a 15-amp breaker in the breaker box located in the mechanical room. Photographs of the system are attached. A plan view schematic and additional photographs of the VMS are provided in **Attachment A**.

# MAINTENANCE ACTIVITIES

The VMS will be inspected on a semi-annual basis to determine and maintain proper system operation. Maintenance will include the following activities:

- 1. Testing the system alarm. The alarm unit is essentially comprised of a pressure switch that detects pressure differential through a tubing connection installed on Extraction Point 1. Test the alarm as follows: with the system alarm plugged in, disconnect the clear tubing from the piping at Extraction Point 1. Both the red indicator light and the audible alarm should activate. Reconnect the clear pressure tubing to the piping. The red light and the audible alarm will go off and the green light will come on.
- 2. Visual inspection of the fan and PVC piping to identify any obvious damage affecting operation.
- 3. Inspect the existing concrete slab of the building foundation for deterioration, cracks and other potential problems that can cause exposure to underlying soil. The concrete slab serves as a barrier to vapor intrusion and it must be maintained in good condition. The inspections will be performed to evaluate damage due to settling, exposure to wear from traffic, increasing age, and other factors.

If problems are noted during the inspections or at any other time, repairs will be scheduled as soon as practical. Repairs may include replacing VMS components or patching the concrete



slab. In the event that necessary maintenance activities expose the underlying soil, maintenance workers must be informed of the soil contamination.

Inspection, maintenance, and repair activities will be documented on Form 4400-305: Continuing Obligations Inspection and Maintenance Log, included as **Attachment B**. The log will be maintained by the property owner at the Site and will be available for submittal or inspection by WDNR representatives or other parties (i.e., employees, future property owners, etc.) upon request. If any problem occurs for more than two (2) successive inspections, the WNDR must be notified.

# PROHIBITION OF ACTIVITIES AND NOTIFICATION

THE WDNR MUST BE NOTIFIED PRIOR TO ACTIONS AFFECTING THE VAPOR MITIGATION SYSTEM

The following activities are prohibited on any portion of the property where the active VMS is located and is required, unless prior written approval has been obtained from the WDNR:

- 1) Removal of the existing system;
- 2) Replacement with another system;
- 3) Modifications to the existing system;
- 4) Construction or placement of a building or other structure; or
- 5) Changes in land use or property use.

Any replacement system will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the WDNR or its successor.

# 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 the WDNR.

## CONTACT INFORMATION

Site Owner and Operator: Richard Klinke

Klinke Cleaners Inc. 4518 Monona Dr Madison, WI 53716



**Property Owner:** 

Richard Klinke

Klinke Cleaners Inc. 4518 Monona Dr Madison, WI 53716

Consultant:

Environmental Forensic Investigations, Inc.

Brian Kappen, PG

N16 W23390 Stone Ridge Dr, Suite G

Waukesha, WI 53188

(414)326-4412

bkappen@enviroforensics.com

WDNR:

Jim Walden

101 S Webster St Madison WI 53716 (608) 267-7572

James.walden@wisconsin.gov

SSDS Maintenance:

Vapor Protection Services

Nicholas Martinez

6544 Ferguson Street, Suite A,

Indianapolis, IN 46220

(317) 252-5295



# **PHOTOGRAPHS**





Photograph 1: Extraction Point 2. May 13, 2013

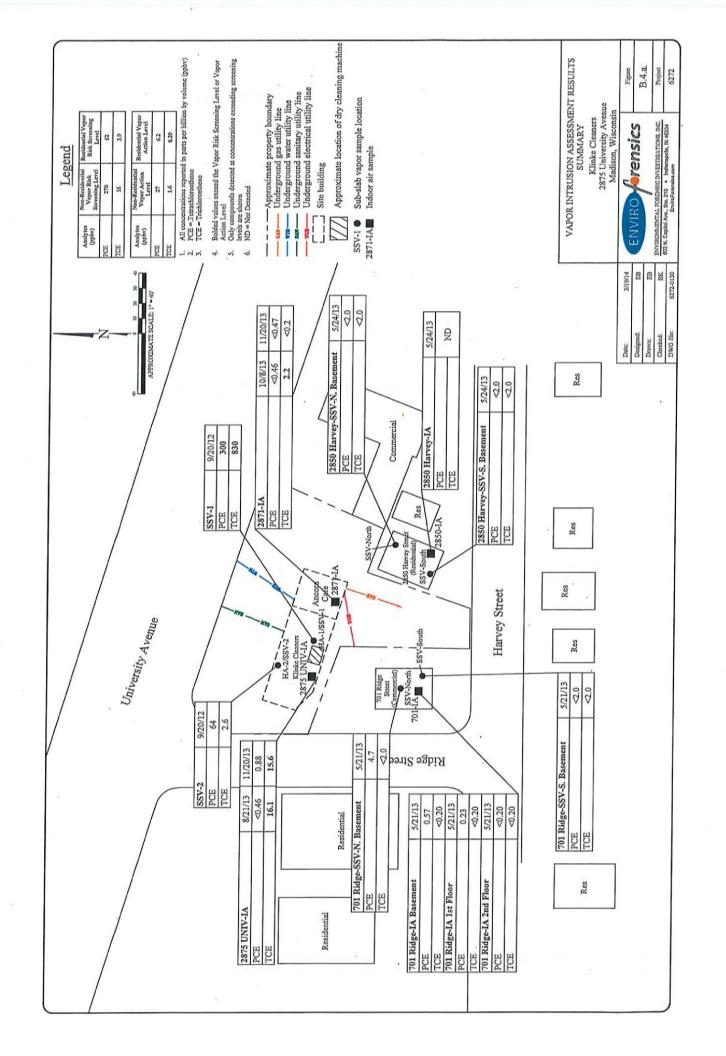




Photograph 2: VMS Fan, Electrical Switch and Exhaust. May 3, 2013



**FIGURE** 





# ATTACHMENT A

# VAPOR MITIGATION SYSTEM INSTALLATION REPORT



# INSTALLATION REPORT

May 15, 2013

Mr. Wayne Fassbender EnviroForensics 602 N Capitol Ave Indianapolis, IN



Vapor Mitigation System Installation Report 2871-2875 University Ave, Madison, Wisconsin

Date of SSDS Installation: May 2 - 3, 2013

Vapor Protection Services (VPS) is pleased to provide a Vapor Mitigation System Installation Report that summarizes the scope of services performed at 2871-2875 University Ave, Madison, Wisconsin. The scope of services performed at the Site is detailed in VPS Proposal No. 20130128 and is noted below.

# Scope of Service:

- VPS utilized a sub-slab depressurization system (SSDS) and RadonAway Model GP501 fan to depressurize the soil beneath the 3090 square foot concrete slab to meet performance criteria.
- The SSDS utilizes 2 extraction points, approximately 75 feet of 3 inch schedule 40 PVC pipe, and 1 model GP501 fan with a system alarm.
- The fan was hardwired to a dedicated circuit breaker in an existing electrical panel with a dedicated on/off switch located next to the mitigation fan.

# Please Note:

- A figure depicting the SSDS layout is included as Figure 1.
- Photos taken during the installation have been included as Attachment 1.
- VPS's radon mitigation certification is included as Attachment 2.
- RadonAway fan 5-year warranty is included as Attachment 3.

# **Vapor Mitigation System Monitoring and Periodic Inspections**

We advise consultants, maintenance personnel or property owners to conduct inspections of all SSDS and SMDS on a semi-annual basis to verify that vapor mitigation system components are operating properly. The inspection should include the following:

- 1. Test the system alarm. With the system alarm plugged in, disconnect the clear tubing from the PVC pipe. Both the read indicator light and the audible alarm will be on. Reconnect the clear pressure tubing to the piping. The red light and the audible alarm will go off. The green light will come one. Contact VPS immediately for repair and/or maintenance.
- 2. Never open a RadonAway fan, which is factory sealed and designed to be maintenance-free for the life of the fan. Should the fan's casing be opened or the factory seal broken, the five-year factory warranty and any service warranty may be voided.
- 3. Observe the Radonway fan(s) and note any abnormal sounds or noises coming from the fan including buzzing, scraping, rattling, or et cetera. If any abnormal noises or sounds are audible, contact VPS.
- 4. Inspect the PVC piping of the system for damage or cracks. If any damage occurs to the PVC piping, contact VPS. If any cracks are apparent or noticeable during inspection, seal the cracks.

Contact VPS for Additional Service & Maintenance should any occasion arise that may causes concern that the SSDS is not functioning properly as vapor intrusion may no longer be mitigated to meet performance criteria provided to VPS by consultant.

# **Conclusion:**

VPS submits this report as written and visual documentation that the contracted work scope for vapor mitigation as detailed in Proposal No. 20130128 was successfully completed to the approval of EnviroForensics at Site. Please do not hesitate to contact me with any questions you might have regarding this report. nick@vaporprotection.com

Respectfully Submitted,

**Nick Martinez** 

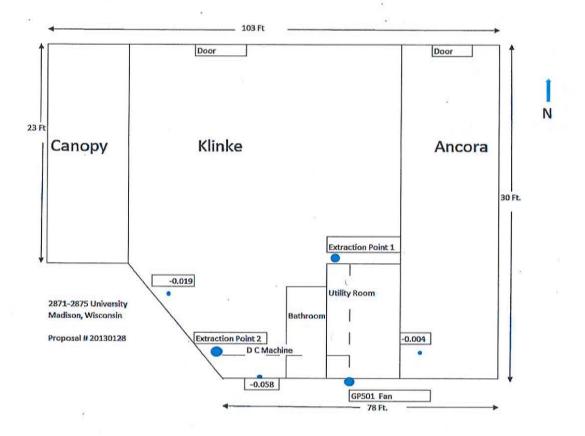
Director of Technical Services Vapor Protection Services® 6507 Ferguson Street Indianapolis, IN 46220

317.252.5295

VaporProtection.com

Figure 1

# **Vapor Mitigation System Layout**



# Attachment 1

# **Installation Photographs**



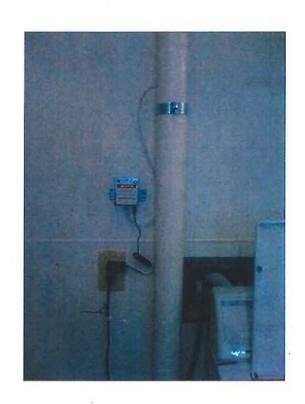
Extraction Point 1



Extraction Point 2



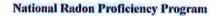
Fan



Alarm System

# Attachment 2 Mitigation Certification







#### Nicolas Martinez

Residential Mitigation Provider

ID Number: 106792 RMT Expiration: 1/31/2015

To confirm validity of this certification call (400) 209-4174. Verification of adherence to state and local regulations is advised. See reverse for specific certification designations.

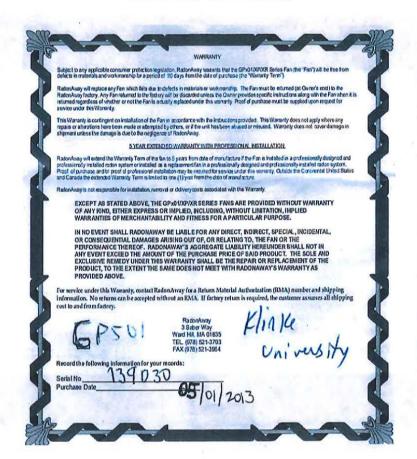
Indiana Nate Department of Health
Lead and Healthy Homes
2 N. Meridian Street, 53
Indianapolis, IN 46204 (317) 234-4423

Radon Mitigator License

Cernicalo Number (Status Expiration Date
RTM00633 Active 12/31/2015

NICOLAS MARTINEZ

# Attachment 3 RadonAway Fan Warranty





# ATTACHMENT B INSPECTION AND MAINTENANCE LOG

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

# Continuing Obligations Inspection and Maintenance Log

Form 4400-305 (2/14)

Page 1 of 2

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 <a href="http://dnr.wi.gov/botw/SetUpBasicSearchForm.do">http://dnr.wi.gov/botw/SetUpBasicSearchForm.do</a>, by searching for the site using the BRRTS ID number, and then looking in the "Who" section.

Activity (Site	e) Name			В	RRTS No.	7	
Inspections are required to be conducted (see closure approval letter):  O annually O semi-annually O other – specify				When submittal of this form is required, submit the form electronically to the DNR proje manager. An electronic version of this filled out form, or a scanned version may be sen 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 mainten	Previous recommendation implemented?	Photographs taken and attached?	
		monitoring well cover/barrier vapor mitigation system other:			. OY ON	OYÓN	
		monitoring well cover/barrier vapor mitigation system other:	10		OY ON	OYON	
		monitoring well cover/barrier vapor mitigation system other:			OY ON	OY ON	
		monitoring well cover/barrier vapor mitigation system other:	112		OY ON	OYON	
		monitoring well cover/barrier vapor mitigation system other:			OY ON	OYON	
		monitoring well cover/barrier vapor mitigation system other:			OY ON	OYON	

BRRTS No.	Activity (Site) Name		
{Click to Add/E	Edit Image}	Date added:	

Title:

# Continuing Obligations Inspection and Maintenance Log Form 4400-305 (2/14) Page 2 of 2

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

Site Information

# Case Closure - GIS Registry Form 4400-202 (R 11/13) Page 1 of 12

Page 1 of 12

# 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. Incomplete forms will be considered "administratively incomplete" and processing of the request will stop until required information is provided. Any section of the form not relevant to the case closure request must be fully filled out or explained on a separate page and attached to the relevant section of this form. 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.).

BRRTS No.	Parcel ID No.	Parcel ID No.				
02-13-551964	60-0709-212-0609-5					
BRRTS Activity (Site) Name		// Coordinates				
Klinke Dry Cleaners Campus	X 565721.6	Y 2	289229.6			
Street Address	City	•	State 2	IP Code		
2875 University Avenue	Madison		WI	53705		
Responsible Party (RP) Name						
Richard Klinke						
Company Name						
Klinke Enterprises						
Street Address	City		State	ZIP Code		
4518 Monona Drive	Madison		WI	53716		
Phone Number	Email					
(608) 620-7659	richard@klinkecleaners.com	1				
Check here if the RP is the owner of the source pro	perty.					
Environmental Consultant Name						
Brian Kappen						
Consulting Firm						
Environmental Forensic Investigations, Inc.	_					
Street Address	City		State	ZIP Code		
N16 W23390 Stone Ridge Drive, Snite G	Waukesha		WI	53188		
Phone Number	Email	•				
(317) 972-7870	bkappen@enviroforensics.c	om				
Acres Ready For Use	Voluntary Party Liability Exe	emption Site? (	) Yes	<ul><li>No</li></ul>		
Fees and Mailing of Closure Request			40.00			
If any section is not relevant to the case closure requestive relevant section of the form. All information submitted considered incomplete until corrected.	st, you must fully explain the reasons why shall be legible. Providing illegible inform	and attach that ex ation may result in	cplanatio n a subn	on to the nittal being		
<ol> <li>Send a copy of page one of this form and the app Program Associate at http://dnr.wi.gov/topic/Bro</li> </ol>	plicable ch. NR 749, Wis. Adm. Code, fee wnfields/Contact.html. Check all fees t	(s) to the DNR reg nat apply:	ional Er	nvironmental		
∑ \$1,050 Closure Fee	🔀 \$300 Database Fe	e for Soil				
\$350 Database Fee for Groundwater or Other Condition (MW Not Abandoned)	Total Amount of Paymo	ent \$ _\$1,350.00		<u>.</u>		
2. Send one paper copy and one e-copy on comp assigned to your site. Submit as <u>unbound</u> , <u>separa</u>	act disk of the entire closure package the documents in the order and with the title	to the Regional Pr es prescribed by t	oject Ma	anager 1. For		

electronic document submittal requirements, see http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf.

Case Closure - GIS Registry Activity (Site) Name

Form 4400-202 (R 11/13)

Page 2 of 12

Site Summary

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may 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 Site is located at 2875 University Avenue in the City of Madison, Dane County. The Site is bound by University Avenue to the north, a parking lot and commercial building to the east, two houses (including one house entirely converted into commercial office spaces) and Harvey Street to the south, and Ridge Street to the west. The Site is situated in an area of mixed commercial and residential land use. The nearest surface water body is Lake Mendota located approximately 3,500 feet to the northeast of the Site.
- Prior and current site usage: Specifically describe the current and historic occupancy and types of use. The Site is improved with a single slab-on-grade, one-story, commercial building and asphalt paved parking area with drive thru service. The Site building is divided into two spaces: the dry cleaning operation occupies the majority of the building, and a smaller leased space is present on the east end of the building, which is currently occupied by a cafe. The site has been occupied by a dry cleaner since the early 1990's. The property record indicates prior ownership by Amoco Oil Co.
- C. Describe how and when site contamination was discovered. Northern Euvironmental, Inc. conducted a Phase II ESA in June 2008. The ESA included the collection of soil samples from three soil borings. Tetrachloroethene was detected in one sample at a concentrations exceeding the soil to groundwater
- D. Describe the type(s) and source(s) or suspected source(s) of contamination. The contaminants of concern (COCs) at the Site are the dry cleaning solvent tetrachloroethene (PCE) and its degradation product trichloroethene (TCE). PCE was the main dry cleaning solvent used in the cleaning process until its use was discontinued in 2003. PCE was detected in subsurface soil, indicating a release of PCE at the Site. The amount of chemical released, the duration of the release, and the specific release areas or locations are unknown.
- E. Other relevant site description information (or enter Not Applicable). Not applicable.
- F. List BRRTS activity site name and number for all other BRRTS activities at this property, including closed cases. 02-13-551964 KLINKE DRY CLEANERS CAMPUS 03-13-001178 AMOCO #15567 (Closed 7/30/1996)
- G. List BRRTS activity/site name(s) and number(s) for all properties immediately adjacent to this site, and those impacted by contamination from this site.

None

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

Site is zoned commercial based on City of Madison zoning map and the property record updated April 5, 2014. Properties to the south (701 Ridge Street and 2850 Harvey Street) are also zoned commercial; however, 2850 Harvey St is a single family residence.

## 2. General Site Conditions

- A. Soil/Geology
  - Describe soil type(s) and relevant physical properties, thickness of soil column across the site, vertical and lateral variations in soil types.
    - Site soil below the building slab was observed to be fine to coarse-grained sand with little fine gravel to a depth of 5 feet bgs. Lithology encountered during advancement of the preliminary site assessment soil borings around the exterior of the building included a clay layer from 2 feet bgs to between 7-9 feet bgs followed hy fine to medium-grained sand to the maximum boring depth of 20 feet bgs.
  - Describe the composition, location and lateral extent, and depth of fill or waste deposits on the site. None noted.
  - iii. Depth to bedrock, bedrock type, and whether or not it was encountered during the investigation. Sandstone bedrock was encountered at approximately 22 feet hgs. Bedrock is Cambrian sandstone.
  - 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 site is entirely covered by the building and asphalt, with the exception of a narrow strip of grass and a rock landscape feature along the west edge of the site.

Activity (Site) Name

Form 4400-202 (R 11/13)

#### B. Groundwater

BRRTS No.

Discuss depth to groundwater and piezometric elevations. Describe and explain depth variations, and whether free
product affects measurement or water table elevation. Describe the stratigraphic unit(s) where water table was found or
which were measured for piezometric levels.

The water table was encountered within the sandstone bedrock at a depth of approximately 28 feet bgs. No free product was observed.

 Discuss groundwater flow direction(s), shallow and deep. Describe and explain flow variations, including fracture flow if present.

Only one monitoring well was installed at the site; therefore, the groundwater flow direction was not identified.

iii. Discuss groundwater flow characteristics: hydraulic conductivity, flow rate and permeability, or state why this information was not obtained.

Groundwater flow characteristics were not measured or calculated. Only one monitoring well was installed and the groundwater was not impacted by PCE. Therefore, investigation into groundwater flow characteristics was not deemed necessary.

iv. Identify and describe locations/distance of potable and/or municipal Wells within 1200 feet of the site.
 City of Madison Well #6 is located at 2757 University Avenue, approximately 650 feet east-southeast of the site.

## 3. Site Investigation Summary

#### A. General

 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.

Between 2008 and 2013 Northern Environmental and EnviroForensics performed site investigation activities including the collection of soil, groundwater, sub-slab soil vapor, and indoor air samples to fully delineate impacts. The following is a chronological sequence of site investigation activities:

June 16, 2008 Northern Environmental conducted a Phase II ESA, consisting of soil sample collection from three soil borings. Notification of Release, July 3, 2008; Phase II ESA Results, August 7, 2008.

September 20, 2012 EnviroForensics conducted site investigation activities including:

• Soil boring and sampling beneath the Site building using hand auger and direct-push methods;

• Sub-slab vapor sampling at the Site building.

Submitted Site Investigation Progress Report 1 and Work Scope for Phase II Site Investigations, March 6, 2013

May, 2013 EnviroForensics conducted further site investigation activities including:

- Vapor intrusion assessments (including sub-slab vapor and indoor air sampling) at two adjacent off-site buildings;
- Installation of a sub-slab depressurization system (SSDS) at the Site building; and
- Installation, development, and sampling of one (1) groundwater monitoring well.

Submitted Site Investigation Progress Report 2, July 18, 2013

August - November, 2013 EnviroForensics conducted confirmation indoor air sampling at the Site building.

Submitted the Site Investigation Report on April 4, 2014.

No additional investigation activities have been conducted since submittal of the Site Investigation Report.

- ii. Identify whether contamination extends beyond the source property boundary, describe the off-site media (e.g., soil, groundwater, etc.) impacted, and the vertical and horizontal extent of off-site impacts.

  PCE was detected in sub-slab vapor and indoor air samples collected at 710 Ridge St, a non-residential property south of the site. The concentrations of PCE in the vapor/air samples collected from 701 Ridge St were below non-residential.
  - of the site. The concentrations of PCE in the vapor/ air samples collected from 701 Ridge St were below non-residential and residential vapor risk screening/ action levels. Based on these results, no additional actions are needed regardless of use or occupancy of the building. No other off-site contamination was identified.
- 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.

Not applicable.

BRRTS No.

Activity (Site) Name

Form 4400-202 (R 11/13)

Page 4 of 12

#### B. Soil

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

PCE was detected in two soil borings located within 15 feet of the former PCE dry cleaning machine. The maximum concentration of PCE detected was 56 ug/kg. The source of PCE impacts was likely incidental spills during dry cleaning operations. Minor concentrations of xylene and and 1,2,4-trimethylbenzene were detected in one sample on the north side of the building. These petroleum-related compounds are likely associated with release(s) from the former Amoco Oil operation at the site.

- ii. Describe the level and types of soil contaminants found in the upper four feet of the soil column. All of the soil contamination described in Section B.i. was found in the upper four feet.
- 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.

The RCLs used at this site were calculated according to the procedures described in publication RR-890 using default input parameters.

## C. Groundwater

 Describe degree and extent of groundwater contamination at or from this site. 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.

Three (3) VOCs were detected in the duplicate samples collected from the single monitoring well at the site (MW-1): dichlorodifluoromethane, bromoform and bromodichloromethane. Dichlorodifluoromethane was detected at concentrations less than public health standards. Bromoform was detected at concentrations of 1.3 and 1.5 micrograms per liter (ug/L), respectively, in the duplicate samples, which are above the preventive action limit (PAL) of 0.4 ug/L but below the enforcement standard (ES) of 4.4 ug/L. Bromodichloromethane was detected at estimated concentrations of 0.52 and 0.65 ug/L. Bromodichloromethane is frequently a byproduct of chlorine disinfection in municipal water supplies. None of the compounds detected in groundwater are associated with dry cleaning processes or the degradation of PCE.

ii. Describe the presence of free product at the site, including the thickness, depth, and locations. Free product was not observed.

#### D. Vapor

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

Sub-slab vapor and indoor air samples were collected from the site building. Two sub-slab vapor samples were collected from the dry cleaning part of the building, and a total of four indoor air samples were collected from both the cry cleaning part of the building and the leased space. All samples were collected in vacuum canisters following the guidance in Publication RR-800 and analyzed for VOCs.

Vapor intrusion assessments, including sub-slab vapor and indoor/ outdoor air sampling, were also conducted at two (2) adjacent properties to the south to evaluate potential vapor intrusion risk. Assessments were conducted at 701 Ridge Street, a house completely converted into eommercial office space, and 2850 Harvey Street, a single family residence. The off-site buildings at which assessments were performed were constructed with a partial or full basement. The following sub-slab vapor samples were collected:

- Samples "6272-701 Ridge SSV-South Basement" and "6272-701 Ridge SSV-North Basement" were collected at 701 Ridge Street; and
- Samples "6272-2850 Harvey-SSV-South Basement" and "6272-2850 Harvey-SSV-North Basement" were collected at 2850 Harvey Street.

The following indoor air samples were collected:

- 701 Ridge Street (8-hour samples)
- o 6272-701 Ridge-IA-Basement
- o 6272-701 Ridge-IA-1st Floor
- o 6272-701 Ridge-IA-2nd Floor
- 2850 Harvey Street (24-hour samples)
- o 6272-2850 Harvey-ÎA-Basement
- o 6272-2850 Harvey-IA-1st Floor

Activity (Site) Name

Form 4400-202 (R 11/13)

Page 5 of 12

o 6272-2850 Harvey-IA-2nd Floor

All samples were collected in vacuum canisters following the guidance in Publication RR-800 and analyzed for VOCs.

 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).

The sub-slab vapor analytical results were compared to residential and non-residential vapor risk screening levels (VRSLs), as appropriate for the use of the structure. Likewise, indoor air analytical results were compared to Vapor Action Levels (VALs). The levels are based on US EPA's regional screening levels with an attenuation factor of 0.1 for sub-slab samples and a 0.1 adjustment for a 1 x 10-5 lifetime cancer risk for carcinogens.

At the site building, PCE, TCE and dichlorodiflouromethane were detected above laboratory detection limits in sub-slab vapor samples "6272-SSV-1", "6272-SSV-2" collected beneath the dry cleaner building slab. The concentrations of PCE (300 parts per billion by volume (ppbv)) and TCE (830 ppbv) detected in sample "6272-SSV-1" exceed the VRSLs of 270 ppbv and 16 ppbv, respectively. The concentrations of PCE and TCE in sample "6272-SSV-2" were below VRSLs.

The initial confirmation indoor air sample collected from the Klinke space on August 21, 2013 coutained TCE at concentrations above the VAL of 1.6 ppbv. Likewise, the concentration of TCE in the indoor air samples collected from the leased space on October 8, 2013 was 2.2 ppbv, which is just above the VAL. Following collection of these initial samples, the property owner indicated that Laidlaw brand Volatile Dry Spotter (VDS), which consists primarily of TCE, was actively being used at the facility. The VDS was subsequently removed from the building and follow-up indoor air samples were collected on November 20, 2013 to confirm the initial results. The follow-up sample collected from the Klinke space contained TCE at a concentration similar to that in the initial sample, still exceeding the VAL. However, TCE was not detected in the follow-up sample collected from the leased (Ancora) space.

In the indoor air samples collected from 2850 Harvey St, benzene and 1,2-dichlorocthane (1,2-DCA) were detected in the 1st floor and 2nd floor samples at concentrations just above their respective VALs. Neither benzene nor 1,2-DCA were detected in the sub-slab vapor samples, indicating that vapor intrusion is not the source of these compounds in indoor air. In addition, these compounds are not associated with dry cleaning solvent.

#### E. Surface Water and Sediment

- Identify whether surface water and/or sediment was assessed and describe the impacts found. If this pathway was not assessed, explain why.
  - Surface water features are not present on the site or adjacent properties.
- 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.
   Not applicable.

# 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.

No remedial actions were implemented.

- B. Describe any immediate or interim actions taken at the site under ch NR 708, Wis. Adm. Code. A vapor mitigation system was installed at the site building.
- C. Describe the active remedial actions taken at the site, including: type of remedial system(s) used for each media impacted; 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.

No active remedial actions were implemented.

D. Provide a discussion of the nature, degree and extent of residual contamination that will remain at the site or on off-site affected properties after case closure.

PCE is present in soil within 15 of the dry cleaning machine at a maximum concentration of 56 ug/kg. PCE and TCE are present in sub-slab vapor; however, the installed vapor mitigation system will continue to operate after closure. TCE has been present in indoor air in the site building. However, it is suspected that a residual source of TCE vapor may exist in the building due to the long-term use of a spot cleaner containing TCE.

Case Closure - GIS Registry

Activity (Site) Name

Form 4400-202 (R 11/13)

Page 6 of 12

E. Describe the remaining soil contamination within four feet of ground surface (direct contact zone) that attains or exceeds Residual Contaminant Levels established under s. NR 720. 12, the ch. NR720, Wis. Adm. Code, for protection of human health from direct contact.

PCE is present in soil within 4 feet of the ground surface at a maximum concentration of 56 ug/kg, which is well below the established residential and industrial residual contaminant levels for direct contact exposure.

- F. Describe the remaining soil contamination in the vadose zone that attains or exceeds the soil standard(s) for the groundwater pathway.
  - PCE is present in soil within 4 feet of the ground surface at a maximum concentration of 56 ug/kg, which exceeds the current residual contaminant level of 4.5 ug/kg for PCE.
- G. 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 vertical extent of PCE inspact appears to have attenuated within a shallow clay layer and did not extend to the depth of the water table. The separation between the detected soil impacts and the water table is approximately 23 feet. Based on site lithology and the limited depth of the soil impacts, there is very limited risk for future impacts to groundwater. Long term maintenance of a cover or other engineering control does not appear to be warranted at this site.

- H. 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).

  Not applicable.
- I. Identify how all exposure pathways were removed and/or adequately addressed by immediate and/or remedial action(s) described above in paragraphs, B, C, D, E and F.

Exposure pathways consist of direct contact with soil and groundwater, and inhalation of vapors. Low concentrations of PCE detected in soil are well below the direct contact soil standards established by the WDNR for this compound. There is no private water well at the Site, shallow groundwater is not extracted or used in any way, and PCE and associated degradation products were not detected in groundwater. There are no surface water features at the Site or surrounding properties. An SSDS was installated at the Site building to interrupt the vapor intrusion pathway.

- J. Identify any system hardware anticipated to be left in place after site closure, and explain the reasons why it will remain. The vapor mitigation system piping and fan will be left in place after closure to interrupt the vapor intrusion pathway.
- K. 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.
   Not applicable. None of the compounds detected in groundwater are associated with current or past site operations.
- L. 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.

At the site building, PCE and TCE were detected in sub-slab vapor at concentrations exceeding risk screening levels. The concentrations of PCE (300 ppbv) and TCE (830 ppbv) detected in sample "6272-SSV-1" exceed the VRSLs of 270 ppbv and 16 ppbv, respectively. A vapor mitigation system was installed to interrupt the vapor intrusion pathway.

The initial confirmation indoor air sample collected from the Klinke space on August 21, 2013 contained TCE at concentrations above the VAL of 1.6 ppbv. Likewise, the concentration of TCE in the indoor air samples collected from the leased space on October 8, 2013 was 2.2 ppbv, which is just above the VAL. Following collection of these initial samples, the property owner indicated that Laidlaw brand Volatile Dry Spotter (VDS), which consists primarily of TCE, was actively being used at the facility. The VDS was subsequently removed from the building and follow-up indoor air samples were collected on November 20, 2013 to confirm the initial results. The follow-up sample collected from the Klinke space contained TCE at a concentration similar to that in the initial sample, still exceeding the VAL. However, TCE was not detected in the follow-up sample collected from the leased space.

The vapor mitigation system will continue to operate after closure until such time as the results of sub-slab vapor samples indicate that the vapor intrusion pathway is no longer a threat to indoor air quality.

At 2850 Harvey St (an off-Site residence) benzene and 1,2-dichloroehtane (1,2-DCA) were detected in the 1st floor and 2nd floor indoor air samples at concentrations just above their respective VALs. Neither benzene nor 1,2-DCA were detected in the sub-slab vapor samples, indicating that vapor intrusion is not the source of these compounds in indoor air. In addition, these compounds are not known to be associated with dry cleaning solvents.

M. 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.

Not applicable. Surface water features are not present on the site or adjacent properties.

BRRTS No.

Activity (Site) Name

Form 4400-202 (R 11/13)

Page 7 of 12

5.	Continuing Obligations: Situations where a maintenan	ce plan(s	) and inclusion or	n DNR's GIS Regist	ry are required
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Directions: Check all that apply to this case closure request:

	This scenario Applies to this Case Closure		Case Closure Scenario: Maintenance Plans and GIS Registry	Maintenance Plan (s) Required in	GIS Registry	
	A. On-Site	B. Off-Site	Maintenance Plans and Old Registry	Attachment D	Listing	
i.			Engineering Control/Barrier for Direct Contact	✓	✓	
ii.			Engineering Control/Barrier for Groundwater Infiltration	<b>✓</b>	✓	
iii.			Vapor Mitigation - post closure passive system	<b>✓</b>	✓	
iv.	$\boxtimes$		Vapor Mitigation - post closure active system	<b>√</b>	✓	
٧.			None of the above scenarios apply to this case closure	NA	NA	

# 6. Continuing Obligations; Situations where inclusion on DNR's GIS Registry is required.

Directions: Check all that apply to this case closure request:

:	This scenario Applies to this Case Closure		Case Closure Scenario:	GIS Registry
	A. On-Site	B. Off-Site	GIS Registry Only	Listing
i.	$\boxtimes$		Residual soil contamination exceeds ch. NR 720 generic or site-specific RCLs	✓
ii.			Sites with groundwater contamination equal to or greater than the ch. NR 140, enforcement standards (ES)	✓
iii.			Monitoring wells: lost, transferred or remaining in use	✓
iv.			Structural Impediment (not as a performance standard)	✓
٧,			Residual soil contamination remaining at ch. NR 720 Industrial Use levels	✓
vi.			Vapor intrusion may be future, post-closure issue if building use or land use changes	✓
vii.			None of the above scenarios apply to this case closure	NA

#### 7. Underground Storage Tanks

A.	Were any tanks, piping or other associated tank system components rem	oved as part of the investigation
	or remedial action?	** *** *** *** *** *** *** *** *** ***

$\bigcirc$	Yes	(•)	No

- B. Do any upgraded tanks meeting the requirements of ch. SPS 310, Wis. Adm. Code, exist on the property?
- Yes N
- C. If the answer to question 7b is yes, is the leak detection system currently being monitored?

_		_	
$\cap$	Vac	$\cap$	N

# considered incomplete until corrected. General directions for Data Tables:

Data Tables (Attachment A)

Use bold and italics font on information of importance on tables and figures. Use bold font for ch. NR 140, Wis. Adm. Code, groundwater enforcement standard (ES) attainments or exceedances, and italicized font for ch. NR 140, Wis. Adm. Code, groundwater preventive action limit (PAL) standard attainments or exceedances.

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form.All information submitted shall be legible. Providing illegible information may result in a submittal being

- 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 <u>must</u> include information collected by previous consultants.

Activity (Site) Name

Case Closure - GIS Registry

Form 4400-202 (R 11/13)

Page 8 of 12

• 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. Pre-remedial Soil Analytical Table, etc).
- For required documents, each table (e.g., A.1., A.2., etc.,) should be a separate 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, any potable wells and any other wells, extraction wells and any potable wells for which samples have been collected.
- A.2. **Pre-remedial Soil Analytical Table(s):** Table(s) showing the soil analytical results and collection dates prior to conducting the interim and/or remedial action. Indicate if sample was collected above or below the all-time low water table (unsaturated verses saturated).
- A.3. Post-remedial Soil Analytical Table(s): Table(s) showing the post-remedial action soil analytical results and collection dates. Indicate if sample was collected above or below the all-time low water table (unsaturated verses saturated).
- A.4. Pre and Post Remaining Soil Contamination Soil Analytical Table(s): Table(s) showing only the pre and post remedial action soil analytical results that exceed a Residual Contaminate Level (RCL) or a Site-Specific Residual Level (SSRCL).
- A.5. **Vapor Analytical Table**: 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.6. 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, time period for sample collection, method and results sampling.
- A.7. 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.8. 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 and Figures (Attachment B)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

## General Directions for all Maps and Figures:

- If any map or figure is not relevant to the case closure request, you must fully explain the reason(s) why and attach that explanation (properly labeled with the map/ figure title) in Attachment B.
- 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 11x17 inches, in a portable document format (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.
- Do not use shading or highlights on any of the analytical tables.
- · 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.

## **B.1.** Location Maps

- B.1.a. Location Map: A map outlining all properties within the contaminated site boundaries on a U.S.G.S. topographic map or plat map in sufficient detail to permit easy location of all impacted 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 on-site and applicable off-site 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 exceeding a ch. NR 140 Enforcement Standard (ES), and/or in relation to the boundaries of soil contamination exceeding a Residual Contaminant Level (RCL) established in accordance with the provisions contained in s. NR 720.10 or s. NR 720.12, Wis. Adm. Code.
- B.1.c. RR Site Map: From RR Sites Map (http://dnrmaps.wi.gov/sl/?Viewer=RR Sites) attach a map depicting the source

02-13-551964 BRRTS No.

Activity (Site) Name

Form 4400-202 (R 11/13)

Page 9 of 12

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. **Pre-remedial Soil Contamination:** Figure(s) showing the sample location of all pre-remedial, unsaturated contaminated soil and a <u>single contour</u> showing the horizontal extent of each area of contiguous residual soil contamination that exceeded a Residual Contaminant Level (RCL) established in accordance with the provisions contained in s. NR 720.10 or s. NR 720.12, Wis. Adm. Code.
- B.2.b. Post-remedial Soil Contamination: Figure(s) showing the sample location of all post-remedial, unsaturated contaminated soil and a <u>single contour</u> showing the horizontal extent of each area of contiguous residual soil contamination that exceeds a Residual Contaminant Level (RCL) established in accordance with the provisions contained in s. NR 720.10 or s. NR 720.12, Wis. Adm. Code. A separate contour line should be used to indicate the extent of residual direct contact exceedances.
- B.2.c. Pre/Post Remaining Soil Contamination: Figure(s) showing the only location of all pre and post remedial residual soil sample location(s) where unsaturated contaminated soil remains after remediation and a single contour showing the horizontal extent of each area of contiguous residual soil contamination that exceeds a Residual Contaminate Level (RCL) established in accordance with the provisions contained in s. NR 720.10 or s. NR 720.12, Wis. Adm. Code. A separate contour line should be used to indicate the extent of residual direct contact exceedances.

#### **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 a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL).
  - Source location(s) and lateral and vertical extent if groundwater contamination exceeds a ch. NR 140 Enforcement Standard (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.1b)
- 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, Preventive Action Limit (PAL) and/or an Enforcement Standard (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 previously 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 remaining soil and groundwater contamination, including sub-slab, indoor air, soil vapor, 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)

#### Documentation of Remedial Action (Attachment C)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

#### General Directions:

- 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 is "not applicable" to the site-specific circumstances, include a brief explanation to support that conclusion.
- If the documentation requested below has already been submitted to the Department, please note the title and date of the report for that particular document requested.
  - C.1. Site investigation documentation, that has not otherwise been previously submitted.
  - C.2. Investigative waste disposal documentation.

Klinke Dry Cleaners Campus

Case Closure - GIS Registry Form 4400-202 (R 11/13)

Page 10 of 12

BRRTS No.

Activity (Site) Name

- C.3. Provide a description of the methodology used along with all supporting documentation if the Residual Contaminant Levels 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 upon receiving conditional closure.
- C.6. Photos. For sites 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 should be visible and discernible. Photographs must be labeled with the site name, the features shown, location and the date on which the photograph was taken.
- C.7. Other. Include any other relevant documentation not otherwise noted above. (This section may remain blank)

#### Maintenance Plan(s) and Photographs (Attachment D)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submitted being considered incomplete until corrected.

When one or more "maintenance plans" are required for a site closure, include in each maintenance plan all required information listed below, and attach the plan(s) in Attachment D. The following "model" maintenance plans can be located at: (1) Maintenance plan for a engineering control or cover: http://dnr.wi.gov/topic/Brownfields/documents/maintenance-plan.pdf; and (2) Maintenance plan for vapor intrusion: http://dnr.wi.gov/topic/Brownfields/documents/appendix5\_606.pdf.

- D.1. 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) and all property boundaries.
- D.2. Brief descriptions of the type, depth and location of residual contamination.
- D.3. Description of maintenance action(s) required for maximizing effectiveness of the engineered control, vapor mitigation system, feature or other action for which maintenance is required.
- D.4. Inspection log, to be maintained on site, or at a location specified in the maintenance plan or approval letter.
- D.5. Contact information, including the name, address and phone number of the individual or facility who will be conducting the maintenance.
- Photographs D.6
  - D.6.a. 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.
  - D.6.b. Photographs shall be submitted with a title related to the site name and location, and the date on which it was taken.

#### Monitoring Well Information (Attachment E)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

#### General Directions:

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) for all wells that will remain in-use, be transferred to another party or that could not be located. A figure of these wells should be included in Attachment B.3.d.

#### Select One:

0	Νοг	monitoring wells were required as part of this response action.
•	All n	nonitoring wells have been located and will be properly abandoned upon the DNR granting conditional closure to the site
$\bigcirc$		ect One or More;
		Not all monitoring wells can be located, despite good faith efforts. Attachment E must include description of efforts made to locate the "lost" wells.
		One or more 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).
		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

02-13-551964	
BRRTS No.	

Klinke Dry Cleaners Campus

Activity (Site) Name

#### Case Closure - GIS Registry Form 4400-202 (R 11/13)

Page 11 of 12

#### Notifications to Owners of Impacted Properties (Attachment F)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

#### General Directions:

- State law requires that the responsible party provide a 30-day, written advance notice (i.e., a letter) 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 of Form 4400-286, Notification of Residual Contamination and Continuing Obligations, is required under ch. NR 725 for notifying property owners and right-of-way holders about residual contamination affecting their properties, and of continuing obligations which may be imposed. This form can be downloaded at http://dnr.wi.gov/files/PDF/forms/4400/4400-286.pdf.

Check all that apply to the site-specific circumstances of this case closure:

	A. Impacted Source Property and Owner is not Conducting Cleanup	B. Impacted Right of Way	C. Impacted Off-Site Property Owner	Impacted Property Notification Situations: Ch. NR 726 Appendix A Letter
1.				Residual groundwater contamination exceeds Ch. NR 140 Wis. Administrative Code enforcement standards.
2.				Residual soil contamination that attains or exceeds standards is present after the remedial action is complete, and must be properly managed should it be excavated or removed.
3.				An engineered cover or a soil barrier (e.g. pavement) must be maintained over contaminated soil for direct contact or groundwater infiltration concerns.
4.				Industrial land use soil standards were used for the clean-up standard.
5.				A vapor mitigation system (or other specific vapor protection) must be operated and maintained.
6.				Vapor assessment needed if use changes.
7.				Structural impediment.
8.				Lost, transferred or open monitoring wells.
9.		$\boxtimes$	$\boxtimes$	Not Applicable.

If any of the previous boxes in rows 1 thru 8 were checked, include the following as part of Attachment F:

- FORM 4400-246;
- Copy of each letter sent, 30 days or more prior to requesting closure; and
- · Proof of receipt for each letter.
- For this site closure, \_\_\_\_\_\_ (number) property (ies) has/have been impacted, the owners have been notified, and copies of the letters and receipts are included in Attachment F.

#### Source Legal Documents (Attachment G)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

Include all of the following documents, in this order, in Attachment G:

- Deeds Source Property and Other Impacted Properties: The most recent deed with legal descriptions clearly labeled for (1) the Source Property (where the contamination originated) and (2) all off-source (off-site) properties where letters were required to be sent per the ch. NR 700, Wis. Adm. Code, rule series (e.g., off-site cover maintenance required, lost monitoring well, off-site cover property impacts to groundwater exceeding the ch. NR 140, Wis. Adm. Code.
  - 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.
- G.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. (Lots on subdivided or platted property (e.g. lot 2 of xyz subdivision)).
- G.3. Verification of Zoning: Documentation (e.g., official zoning map or letter from municipality) of the property's or properties' current zoning status.
- G.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.

02-13-551964
BRRTS No.

Klinke Dry Cleaners Campus

Signature

Case Closure - GIS Registry

Date

Activity (Site) Name

Form 4400-202 (R 11/13)

Page 12 of 12

#### Signatures and Findings for Closure Determination

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

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 of	ontamination (incl	uding natural attenuation remedies).
The response action(s) for this site addresses media other	than groundwater	г.
Engineering Certification		
in the State of Wisconsin, registered in accordance with closure request has been prepared by me or prepared un Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the biclosure request is correct and the document was prepare to 726, Wis. Adm. Code. Specifically, with respect to coinvestigation has been conducted in accordance with ch. have been completed in accordance with chs. NR 140, N Codes."	the requirements nder my supervi- best of my know ed in compliance ompliance with the NR 716, Wis. A	sion in accordance with the Rules of Professional ledge, all information contained in this case with all applicable requirements in chs. NR 700 ne rules, in my professional opinion a site Adm. Code, and all necessary remedial actions
Printed Name		Title
Signature	Date	P.E. Stamp and Number
Hydrogeologist Certification		
Brian Kappen defined in s. NR 712.03 (1), Wis. Adm. Code, and that, to this case closure request is correct and the document we supervision and, in compliance with all applicable require with respect to compliance with the rules, in my profession accordance with ch. NR 716, Wis. Adm. Code, and all no with chs. NR 140, NR 718, NR 720, NR 722, NR 724 and	to the best of my as prepared by rements in chs. No onal opinion a si ecessary remed	me or prepared by me or prepared under my NR 700 to 726, Wis. Adm. Code. Specifically, ite investigation has been conducted in ial actions have been completed in accordance
Brian Kappen		Project Manager
Printed Name		Title

#### Table A.1.

#### **Groundwater Analytical Summary**

Klinke Cleaners - Campus Madison, Wisconsin

Well Identification	Sample Date	Bromodichloromethane	Bromoform	Dichlorodifluoromethane
MW-1	5/23/2013	0.52 J	1.5	1.2
MW-1 (Dup)	5/23/2013	0.65 J	1.3	1.4
Enforcement S	tandard	0.6	4.4	1,000
Preventive Action	on Limit	0.06	0.4	200

#### **Notes:**

All concentrations reported in micrograms per liter  $\mu g/l$  Samples analyzed using EPA SW-846 Method 8260 **Bolded** values exceed the Public Health Enforcement Standard *Italicized* values exceed the Public Health Preventive Action Limit J = Analyte concentration detected between the laboratory Method Detection Limit and Reporting Limit



## Table A.2. Pre-Remedial Soil Analytical Summary

Klinke Cleaners - Campus Madison, Wisconsin

Boring Identification	Sample Depth (feet bgs)	Sample Date	Saturation	Tetrachloroethene	Xylenes	1,2,4-Trimethylbenzene
B700, S101	0-5	6/16/2008	Unsaturated	47	<48	<20
B700, S104	15-20	6/16/2008	Unsaturated	<18	<48	<20
B800, S101	0-5	6/16/2008	Unsaturated	<18	66.8	48
B800, S104	15-20	6/16/2008	Unsaturated	<18	<48	<20
B900, S101	0-5	6/16/2008	Unsaturated	<18	<48	<20
6272-B-1(23'-24.5')	23-24.5	9/20/2012	Unsaturated	<17	<7.0	<21
6272-HA-1(0'-1')	0.5-1	9/20/2012	Unsaturated	<24	<9.6	<53
6272-HA-1(23)	2-3	9/20/2012	Unsaturated	56 J	< 6.9	<21
6272-HA-2(0'-1')	0.5-1	9/20/2012	Unsaturated	<25	<10	<31
6272-HA-2(4'-5')	4-5	9/20/2012	Unsaturated	<16	<6.5	<20
Residual	Contaminant	Level - Indus	trial	153,000	258,000	219,000
Residual C	ontaminant L	30,700	258,000	89,800		
Residual Con	taminant Leve	l - Soil to Groui	ndwater	4.5	19,700	1,380

#### Notes:

WDNR Residual Contaminant Levels (RCLs) were calculated according to the procedures described in WDNR Publication RR-890.

Samples analyzed using EPA SW-846 Method 8260

Samples/constiuents not shown were not detected

ug/kg = micrograms per kilogram

bgs = below ground surface

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

**Bolded** and shaded values exceed generic Industrial Residual Contaminat Level

**Bolded** values exceed generic Non-Industrial Residual Contminant Level

Italicized values exceed the Soil to Groundwater Residual Contaminant Level



### **A.3.**

### **Post Remedial Soil Analytical Table**

Not relevant, no remediation activities implemented.

### Table A.4.

### Pre and Post Remaining Soil Analytical Summary

Klinke Cleaners - Campus Madison, Wisconsin

Boring Identification	Sample Depth (feet bgs)	Sample Date	Saturation	Tetrachloroethene	Xylenes	1,2,4-Trimethylbenzene
B700, S101	0-5	6/16/2008	Unsaturated	47	<48	<20
B700, S104	15-20	6/16/2008	Unsaturated	<18	<48	<20
B800, S101	0-5	6/16/2008	Unsaturated	<18	66.8	48
B800, S104	15-20	6/16/2008	Unsaturated	<18	<48	<20
B900, S101	0-5	6/16/2008	Unsaturated	<18	<48	<20
6272-B-1(23'-24.5')	23-24.5	9/20/2012	Unsaturated	<17	<7.0	<21
6272-HA-1(0'-1')	0.5-1	9/20/2012	Unsaturated	<24	<9.6	<53
6272-HA-1(23)	2-3	9/20/2012	Unsaturated	56 J	< 6.9	<21
6272-HA-2(0'-1')	0.5-1	9/20/2012	Unsaturated	<25	<10	<31
6272-HA-2(4'-5')	4-5	9/20/2012	Unsaturated	<16	< 6.5	<20
Residual	Contaminant	Level - Indus	trial	153,000	258,000	219,000
Residual C	ontaminant L	30,700	258,000	89,800		
Residual Con	taminant Leve	l - Soil to Groui	ndwater	4.5	19,700	1,380

#### Notes:

WDNR Residual Contaminant Levels (RCLs) were calculated according to the procedures described in WDNR Publication RR-890.

Samples analyzed using EPA SW-846 Method 8260

Samples/constiuents not shown were not detected

ug/kg = micrograms per kilogram

bgs = below ground surface

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

**Bolded** and shaded values exceed generic Industrial Residual Contaminat Level

**Bolded** values exceed generic Non-Industrial Residual Contminant Level

Italicized values exceed the Soil to Groundwater Residual Contaminant Level



# **Table A.5.**Vapor Analytical Summary - On-Site

Klinke Cleaners - Campus Madison, Wisconsin

Sample Address	Sample Identification	Sample Location	Applicable Criteria	Sample Date	Sampling Duration	Tetrachloroethene	Trichloroethene	Dichlorodifluoromethane				
	Sub-Slab Vapor Samples											
	Vapor Risk Screening Level <sup>1</sup>											
	6272-SSV-1	Klinke Cleaners	Non-Residential	9/20/2012	5 min	300	830	27				
2875 University Ave	6272-SSV-2	Klinke Cleaners	Non-Residential	9/20/2012	5 min	64	2.6	5.1				
	6272-SSDS STACK	Klinke Cleaners	Non-Residential	11/20/2013	5 min	2.28	1.19	NA				
		Indoo	/Outdoor Air Samp	les								
	Va	por Action Level				27	1.6	88				
2075 University Ave	6272-2875 UNIV-OA	Outdoor	Non-Residential	8/21/2013	8 hour	< 0.46	< 0.20	NA				
2875 University Ave	6272-2875 UNIV-OA	Outdoor	Non-Residential	11/20/2013	8 hour	< 0.47	< 0.20	NA				
2875 University Ave	6272-2875 UNIV-IA	Klinke Cleaners	Non-Residential	8/21/2013	8 hour	< 0.46	16.1	NA				
2013 Offiversity Ave	6272-2875 UNIV-IA	Klinke Cleaners	Non-Residential	11/20/2013	8 hour	0.88	15.6	NA				
2871 University Ave	6272-2871-IA	Ancora Café	Non-Residential	10/8/2013	8 hour	< 0.46	2.2	<9.8				
2071 Offiversity Ave	6272-2871-IA	Ancora Café	Non-Residential	11/20/2013	8 hour	< 0.47	< 0.2	NA				

#### **Notes:**

All samples analyzed by US EPA Method TO-15

All concentrations reported in units in parts per billion by volume (ppbv)

All sub-slab vapor samples were collected following pass of leak detection test using helium

NA = Not Analyzed

**Bolded** values exceed the Vapor Risk Screening Level or Vapor Action Level



<sup>&</sup>lt;sup>1</sup> The Vapor Risk Screeing Levels and Vapor Action Levels were calculated in accordance with WDNR Publication RR-800

# Table A.5. Vapor Analytical Summary - Off-Site Non-Residential

Klinke Cleaners - Campus Madison, Wisconsin

Sample Address	Sample Identification	Sample Location	Sample Date	Sampling Duration	Tetrachloroethene	Chloromethane	Dichlorodifluoromethane	1,2-Dichloroethane	Ethylbezene	Methylene Chloride	Styrene	Toluene	Trichlorofluoromethane	1,2,4-Trimethylbenzene	m-&p- Xylenes	o-Xylene
					Sub-S	Slab Vapor S	Samples									
	Vapor Risk Screening	Level 1			270	1,900	880	11	110	7,400	10,160	57,000	5,400	62	1000	1000
701 Ridge St	6272-701 Ridge-SSV-South Basement	Basement	5/21/2013	5 min	<2.0	< 2.0	<2.0	<2.0	<2.0	19	<2.0	2.6	<2.0	<2.0	<2.0	<2.0
701 Kluge St	6272-701 Ridge-SSV-North Basment	Basement	5/21/2013	5 min	4.7	<2.0	<2.0	<2.0	<2.0	12	<2.0	3.6	<2.0	<2.0	<2.0	<2.0
					Indoor	Outdoor Ai	r Samples									
	Vapor Action Level <sup>1</sup>				27	190	88	1.1	11	740	1,016	5,700	540	6.2	100	100
	6272-701 Ridge-IA-Basement	Basement	5/21/2013	8 hour	0.57	0.57	0.48	< 0.20	1.6	4.2	0.27	1.0	0.38	0.27	5.3	1.6
701 Ridge St	6272-701 Ridge-IA-1st Floor	1st Floor	5/21/2013	8 hour	0.23	0.67	0.47	0.66	1.0	2.1	0.68	2.8	0.30	0.86	3.2	1.4
	6272-701 Ridge-IA-2nd Floor	2nd Floor	5/21/2013	8 hour	< 0.20	0.66	0.49	0.85	0.65	1.7	0.41	1.3	0.29	< 0.20	2.0	0.64

#### **Notes:**

All samples analyzed by US EPA Method TO-15

All concentrations reported in units in parts per billion by volume (ppbv)

All sub-slab vapor samples were collected following pass of leak detection test using helium

NA = Not Analyzed

**Bolded** values exceed the Vapor Risk Screening Level or Vapor Action Level



<sup>&</sup>lt;sup>1</sup> The Vapor Risk Screeing Levels and Vapor Action Levels were calculated in accordance with WDNR Publication RR-800

#### Table A.5.

#### Vapor Analytical Summary - Off-Site Residential

Klinke Cleaners - Campus Madison, Wisconsin

Sample Address	Sample Identification	Sample Location	Sample Date	Sampling Duration	Benzene	Chloromethane	1,4-Dichlorobenzene	Dichlorodifluoromethane	1,2-Dichloroethane	Ethylbezene	Methylene Chloride	Styrene	Toluene	Trichlorofluoromethane	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	m-&p- Xylenes	o-Xylene
	Sub-Slab Vapor Samples																	
	Vapor Risk Screening Level <sup>1</sup>				9.5	450	3.6	200	2.3	22	1,800	2,310	14,000	1,300	NE	15	230	230
2850 Harvey St	6272-2850 Harvey-SSV-South Basement	Basement	5/24/2013	5 min	<2.0	<2.0	<2.0	23	<2.0	3.2	5.8	<2.0	170	< 2.0	<2.0	<2.0	< 2.0	3.3
2830 Harvey St	6272-2850 Harvey-SSV-North Basement	Basement	5/24/2013	5 min	<2.0	<2.0	<2.0	6.7	<2.0	<2.0	10	<2.0	74	< 2.0	<2.0	<2.0	< 2.0	2.4
						Indoor/Ou	tdoor Air S	amples										
	Vapor Action Level <sup>1</sup>				0.95	45	0.36	20	0.23	2.2	180	231	1,400	130	NE	1.5	23	23
	6272-2850 Harvey-OA	Outside	5/24/2013	24 hour	< 0.20	0.58	< 0.20	0.47	< 0.20	< 0.20	0.70	< 0.20	0.48	0.30	< 0.20	< 0.20	< 0.20	< 0.20
2850 Harvey St	6272-2850 Harvey-IA-Basement	Basement	5/24/2013	24 hour	0.31	0.67	< 0.20	0.48	< 0.20	0.30	< 0.50	0.23	1.3	0.25	< 0.20	0.29	0.98	0.31
2030 Harvey St	6272-2850 Harvey-IA-1st Floor	1st Floor	5/24/2013	24 hour	1.1	0.77	< 0.20	0.48	0.28	< 0.20	< 0.50	< 0.20	1.9	0.27	< 0.20	< 0.20	0.38	< 0.20
	6272-2850 Harvey-IA-2nd Floor	2nd Floor	5/24/2013	24 hour	1.5	0.99	0.20	0.48	0.59	0.75	< 0.50	0.49	6.1	0.26	0.27	0.75	2.6	0.93

#### **Notes:**

All samples analyzed by US EPA Method TO-15

All concentrations reported in units in parts per billion by volume (ppbv)

All sub-slab vapor samples were collected following pass of leak detection test using helium

NA = Not Analyzed

**Bolded** values exceed the Vapor Risk Screening Level or Vapor Action Level



<sup>&</sup>lt;sup>1</sup> The Vapor Risk Screeing Levels and Vapor Action Levels were calculated in accordance with WDNR Publication RR-800

### **A.6**

### **Other Media of Concern**

Not relevant, no samples for other media of concern were collected.

#### Table A.7.

#### **Water Level Elevation Summary**

Klinke Cleaners - Campus Madison, Wisconsin

Well Identification	Date	Top of Casing Elevation (feet AMSL)	Top of Screen Elevation (feet AMSL)	Bottom of Screen Elevation (feet AMSL)	Depth to Water (feet below TOC)	Groundwater Elevation (feet AMSL)
MW-1	5/23/2013	880.76	848.46	838.46	28.08	852.68
	8/21/2013	880.76	848.46	838.46	27.21	853.55

#### **Notes:**

AMSL = Above Mean Sea Level

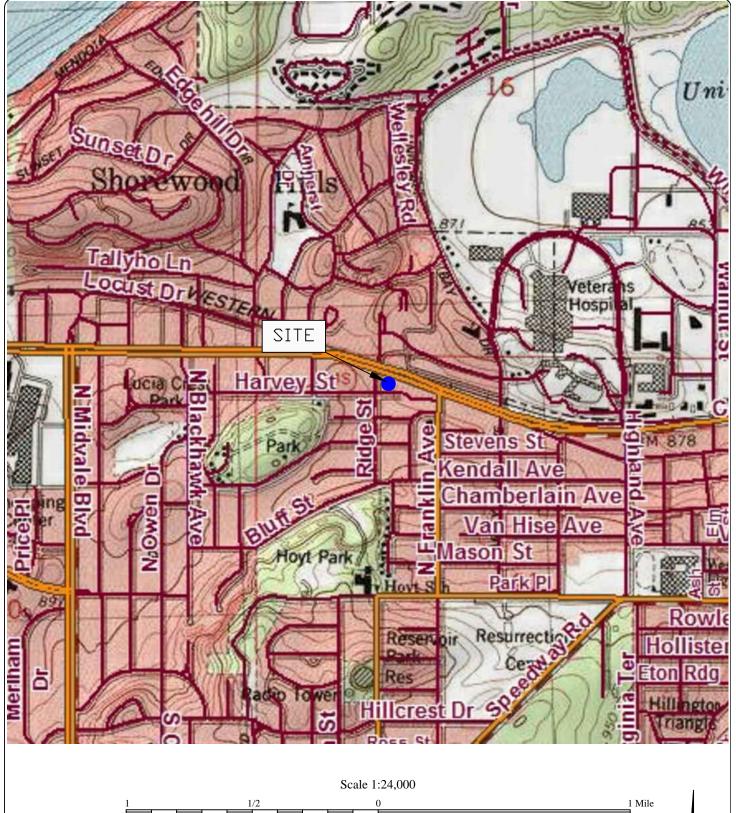
TOC = Top of casing



### **A.8**

### Other

Not relevant, no additional data were generated or collected.



Source: US Geological Survey, Madison West, Wisconsin Quadrangle, 7.5 Minute Series, 1983

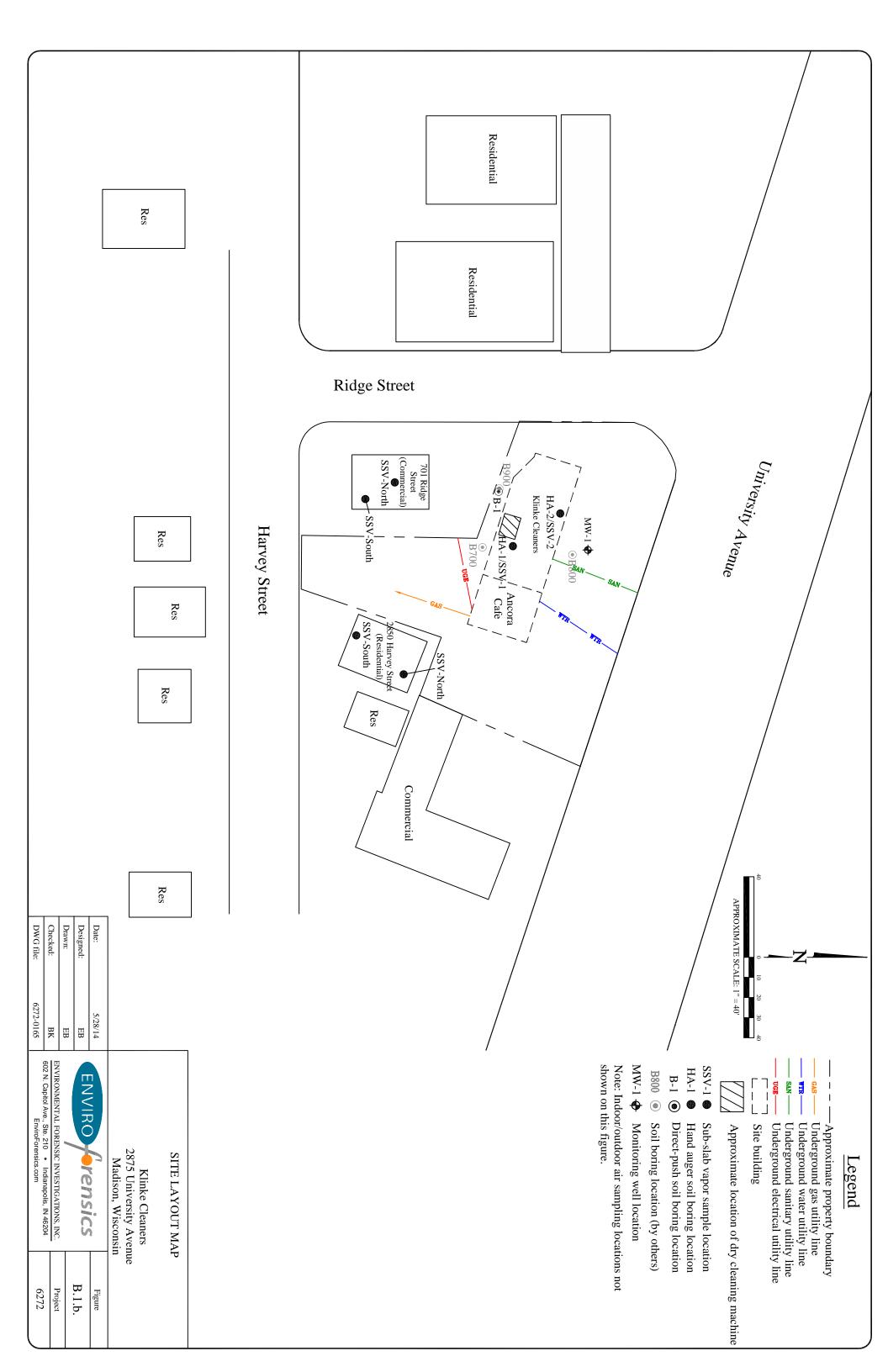
No.	Date	Revision	Approved	Anancies	1
				ENVIRO <b>Fensics</b>	l
					I
				ENVIRONMENTAL FORENSIC INVESTIGATIONS, INC.	I
				601 N Capitol Ave., Ste 210 ◆ Indianapolis, IN 46204 EnviroForensics.com	l

Date:	07/03/12
Designed:	NJ
Drawn:	NJ
Checked:	WF
DWG file:	

SITE LOCATION	MAP
Klinke Cleaners	

Klinke Cleaners 2875 University Avenue Madison, Wisconsin

Figure
B.1.a.
Project
6272





NAD\_1983\_HARN\_Wisconsin\_TM

© Latitude Geographics Group Ltd.

### B.1.c. RR Site Map



1: 13,001



#### Legend

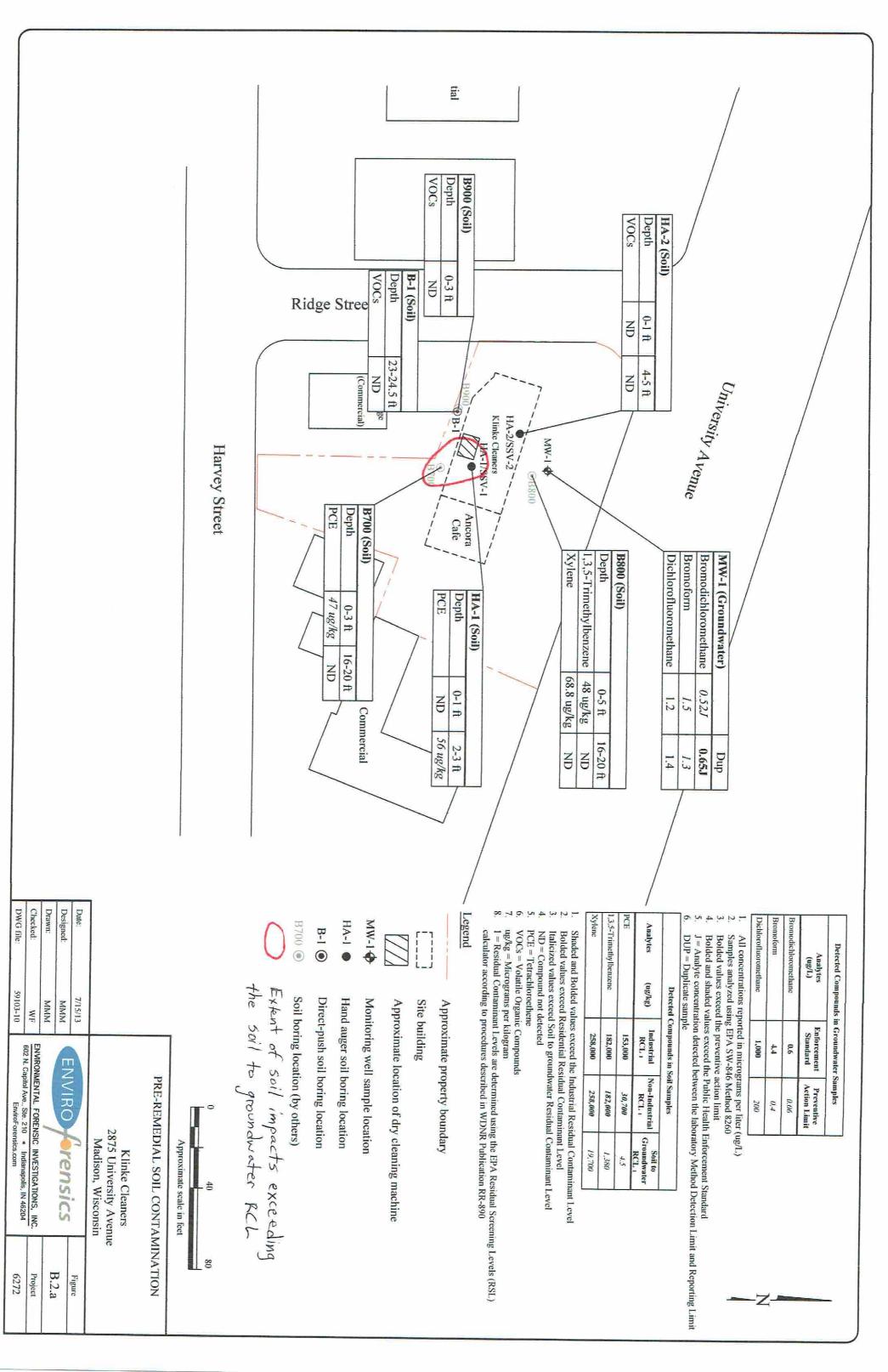
- Open Site (ongoing cleanup)
- Open Site Boundary
- Closed Site (completed cleanup)
- Closed Site Boundary
- Airport
  - 2010 Air Photos (WROC)
- Cities
- Villages

**Notes** 

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

Note: Not all sites are mapped.

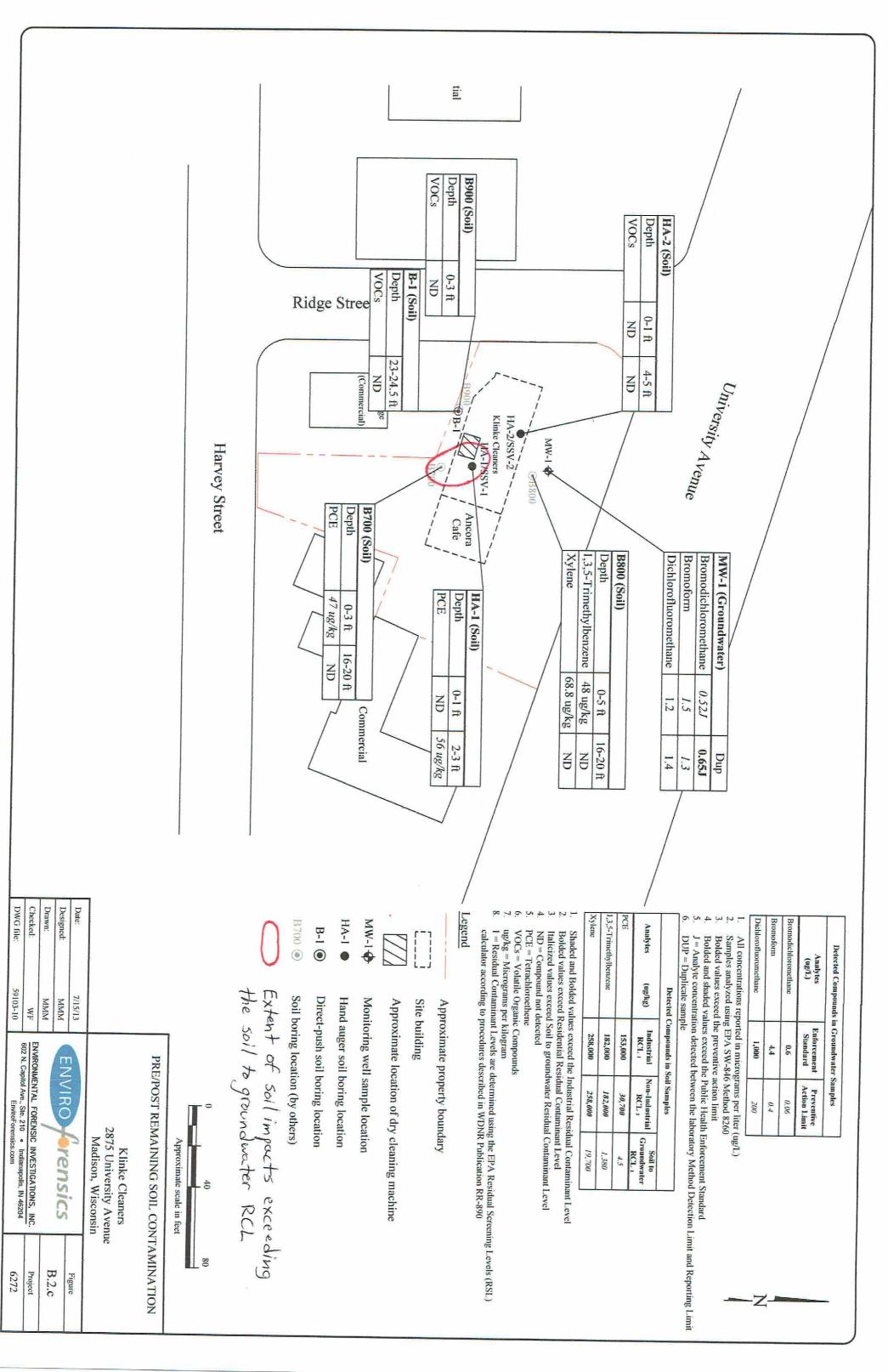
information, see the DNR Legal Notices web page: http://dnr.wi.gov/org/legal/

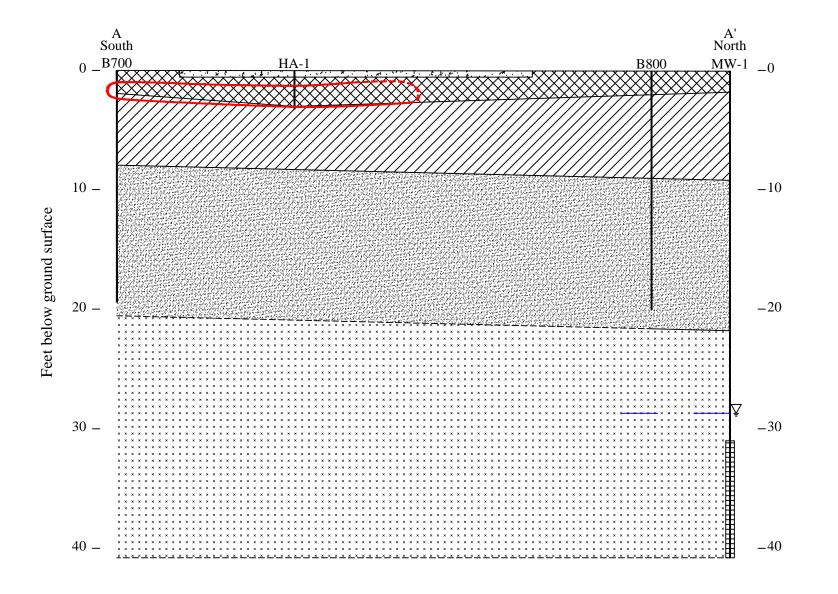


### **B.2.b**

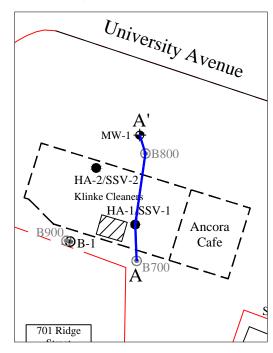
### **Post-remedial Soil Contamination**

Not relevant, no remediation activities implemented.

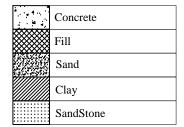




#### Geologic Transect Scale 1" = 40'



### Legend



Extent of impacts to soil above the soil to groundwater RCL.

---- Dashed boundaries are inferred

Vertical Exaggeration x2

Monitoring well screen

Observed groundwater elevation in monitoring well

#### GEOLOGIC CROSS SECTION A-A'

Klinke Cleaners 2875 University Avenue Madison, Wisconsin

Date:	2/13/14
Designed:	EB
Drawn:	EB
Checked:	BK
DWG file:	6272-0112

ENVIRO <b>Frensics</b>	
ENVIRONMENTAL FORENSIC INVESTIGATIONS, INC.	
602 N. Capitol Ave., Ste. 210 • Indianapolis, IN 46204	
EnviroForensics.com	

B.3.a.
Project
6272

### **B.3.b**

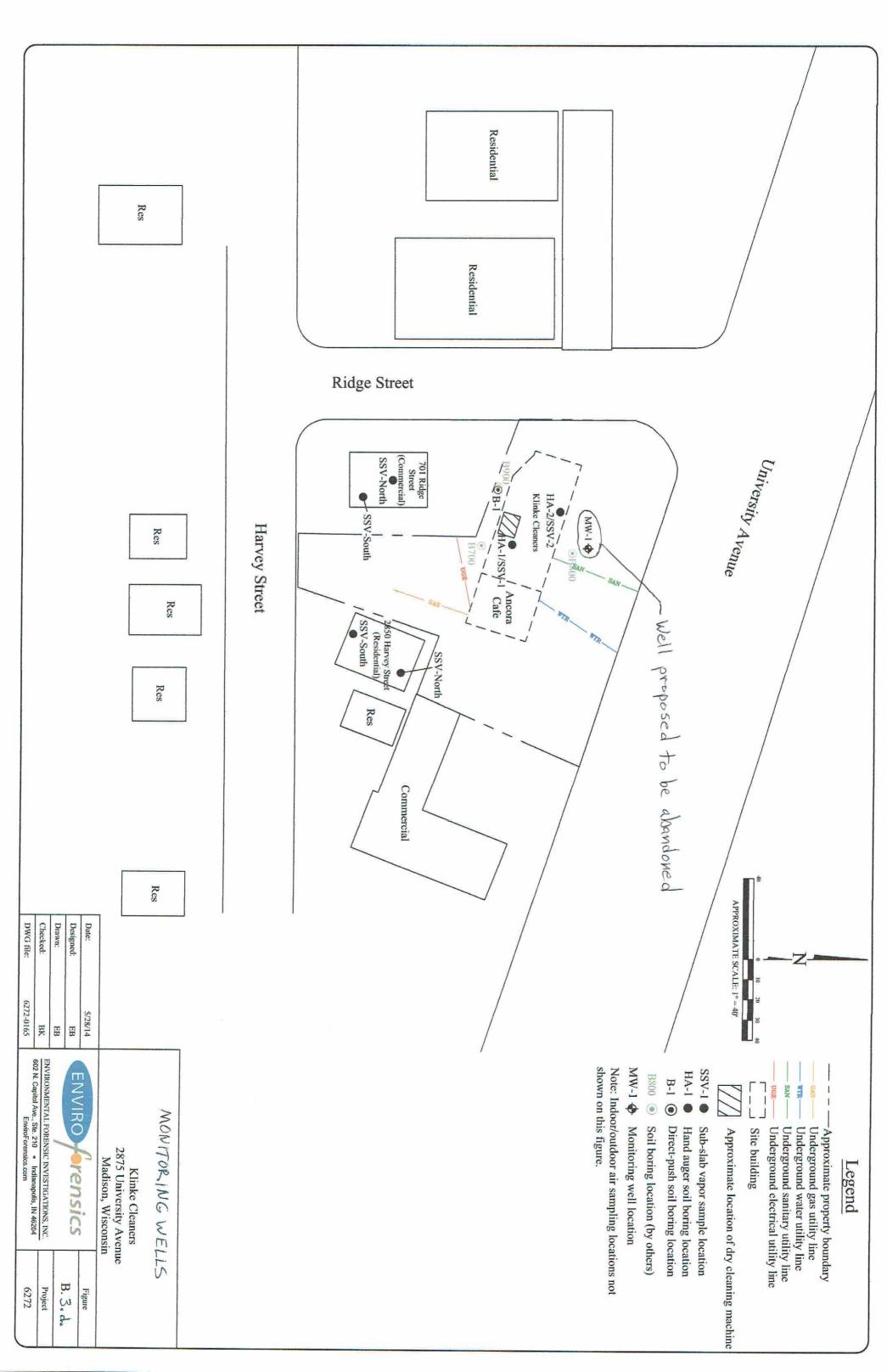
### **Groundwater Isoconcentration**

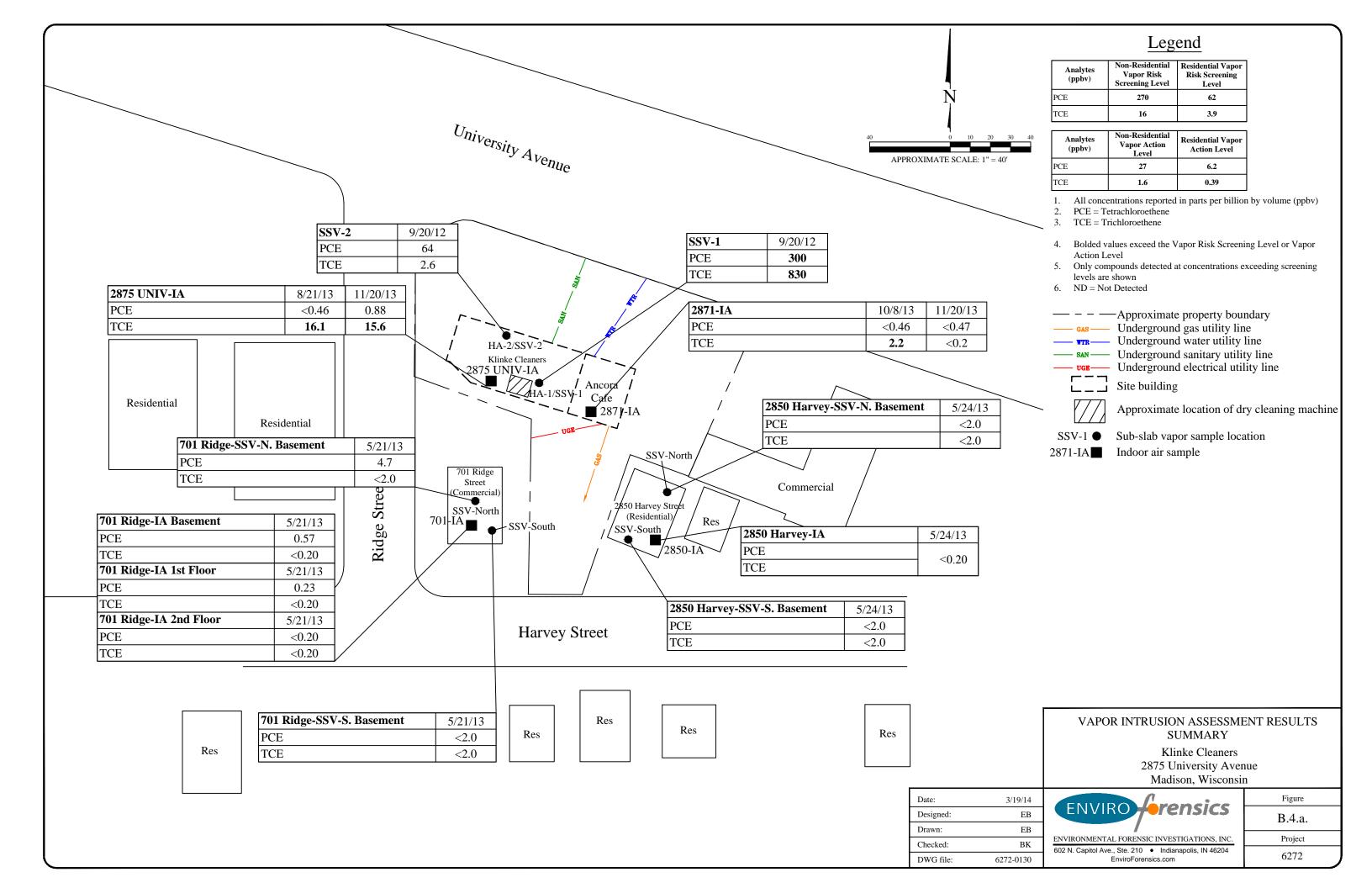
One monitoring well (MW-1) was installed at the Site. Tetrachloroethene and associated degradation compounds were not detected in the samples collected from MW-1. Bromodichloromethane, bromoform, and dichlorofluoromethane were detected; however, the presence of these compounds in groundwater are not associated with dry cleaning operations at the site.

### **B.3.c**

### **Groundwater Flow Direction**

A single well was installed at the site. Groundwater flow direction was not determined.





### **B.4.**b

### **Other Media of Concern**

Not relevant, all media of concern are reported.

### **B.4.**c

### Other

Not Applicable.

### **Documentation of Remedial Action (Attachment C)**

# **DISCLAIMER**

Documents contained in Attachment C of the Case Closure – GIS Registry (Form 4400-202) are not included in the electronic version (GIS Registry Packet) available on RR Sites Map to limit file size.

For information on how to obtain a copy or to review the file, please contact the Remediation & Redevelopment (RR) Environmental Program Associate (EPA) at <a href="mailto:dnr.wi.gov/topic/Brownfields/Contact.html">dnr.wi.gov/topic/Brownfields/Contact.html</a>



### C.1. Site investigation documentation

Not relevant, all site investigation documentation has been submitted previously. The Site Investigation Report was dated April 4, 2014.



# ACTIVE VAPOR MITIGATION SYSTEM MAINTENANCE PLAN

2875 University Avenue Madison, WI 53705 PARCEL ID# 60070921206095 WDNR BRRTS# 02-13-551964

#### INTRODUCTION

This Maintenance Plan for the active vapor mitigation system (VMS) at 2875 University Avenue in Madison, Wisconsin (Site) has been prepared in accordance with the requirements of s. NR 724.13(2), Wisconsin Administrative Code and Wisconsin Department of Natural Resources (WDNR) Publication RR-981. Additional information about the Site can be obtained from the following sources:

- BRRTS on the Web (WDNR internet based data of contaminated sites):
   <a href="http://dnr.wi.gov/botw/GetActivityDetail.do?adn=0213551964&siteId=2042000&crumb=18earch=b">http://dnr.wi.gov/botw/GetActivityDetail.do?adn=0213551964&siteId=2042000&crumb=18earch=b</a>
- WDNR Project Manager Jim Walden at 608-267-7572 or james.walden@wisconsin.gov

#### DESCRIPTION AND PURPOSE OF ACTIVE VAPOR MITIGATION SYSTEM

The Site is located at 2875 University Avenue adjacent to the University of Wisconsin campus in the City of Madison, Wisconsin. The property is owned by Klinke Cleaners (Klinke). The Site consists of a 3,090 square foot slab-on-grade, one-story commercial building and asphalt paved parking area with drive thru service. The Site building is currently occupied by Klinke and Ancora Coffee Roasters (Ancora), which leases a portion of the Site building. The Site is bound by University Avenue to the north, a parking lot and commercial building to the east, two houses (including one house entirely converted into office spaces) and Harvey Street to the south, and Ridge Street to the west. The Site is situated in an area of mixed commercial and residential land use.

Soil contaminated by tetrachloroethene (PCE), a common dry-cleaning solvent, is located at a depth of approximately 2-3 feet below ground surface (bgs) in the area under the Site building and directly behind (within 10 feet) the building. Groundwater has not been encountered at depths of less than 20 feet bgs. The results of sub-slab vapor samples collected from beneath the building slab indicated a potential vapor intrusion risk. The sub-slab vapor results are depicted on **Figure B.4.a** (attached).



Installation of the VMS was completed on May 3, 2014. The VMS installed at the Site is a subslab depressurization system (SSDS) that consists of a fan and piping induce a negative pressure beneath the building slab and discharge vapors to the atmosphere. The purpose of the VMS is to prevent impacted soil vapors from entering the indoor air space. Proper operation and maintenance of the VMS is needed to ensure protection of public health and safety.

Two (2) extraction points installed beneath the concrete slab on the south side of the building. A hammer drill with a 3.5-inch core bit was used to drill through the concrete floor and sub-slab material was excavated with a wet/dry vacuum to create a void space. Vent piping, consisting of 3-inch diameter schedule 40 poly-vinyl chloride (PVC), extends from the extraction points, up the adjacent walls, and through the south exterior wall of the building. The pipe was sealed into place in the floor and exterior wall using a clear weather-resistant expandable epoxy resin material. The vent pipe discharge was positioned approximately 16 feet above the ground surface and extended above the roofline. A RadonAway model GP 501 centrifugal fan was installed in line with the outside vent pipe approximately 17 feet above the ground surface. The fan was wired to an exterior 15 ampere electrical toggle switch, which was placed in an outdoor electrical switch box located just below the fan. Power to the switch comes from a 15-amp breaker in the breaker box located in the mechanical room. Photographs of the system are attached. A plan view schematic and additional photographs of the VMS are provided in **Attachment A**.

#### MAINTENANCE ACTIVITIES

The VMS will be inspected on a semi-annual basis to determine and maintain proper system operation. Maintenance will include the following activities:

- 1. Testing the system alarm. The alarm unit is essentially comprised of a pressure switch that detects pressure differential through a tubing connection installed on Extraction Point 1. Test the alarm as follows: with the system alarm plugged in, disconnect the clear tubing from the piping at Extraction Point 1. Both the red indicator light and the audible alarm should activate. Reconnect the clear pressure tubing to the piping. The red light and the audible alarm will go off and the green light will come on.
- 2. Visual inspection of the fan and PVC piping to identify any obvious damage affecting operation.
- 3. Inspect the existing concrete slab of the building foundation for deterioration, cracks and other potential problems that can cause exposure to underlying soil. The concrete slab serves as a barrier to vapor intrusion and it must be maintained in good condition. The inspections will be performed to evaluate damage due to settling, exposure to wear from traffic, increasing age, and other factors.

If problems are noted during the inspections or at any other time, repairs will be scheduled as soon as practical. Repairs may include replacing VMS components or patching the concrete



slab. In the event that necessary maintenance activities expose the underlying soil, maintenance workers must be informed of the soil contamination.

Inspection, maintenance, and repair activities will be documented on Form 4400-305: Continuing Obligations Inspection and Maintenance Log, included as **Attachment B**. The log will be maintained by the property owner at the Site and will be available for submittal or inspection by WDNR representatives or other parties (i.e., employees, future property owners, etc.) upon request. If any problem occurs for more than two (2) successive inspections, the WNDR must be notified.

#### PROHIBITION OF ACTIVITIES AND NOTIFICATION

## THE WDNR MUST BE NOTIFIED PRIOR TO ACTIONS AFFECTING THE VAPOR MITIGATION SYSTEM

The following activities are prohibited on any portion of the property where the active VMS is located and is required, unless prior written approval has been obtained from the WDNR:

- 1) Removal of the existing system;
- 2) Replacement with another system;
- 3) Modifications to the existing system;
- 4) Construction or placement of a building or other structure; or
- 5) Changes in land use or property use.

Any replacement system will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the WDNR or its successor.

#### 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 the WDNR.

#### **CONTACT INFORMATION**

**Site Owner and Operator:** Richard Klinke

Klinke Cleaners Inc. 4518 Monona Dr Madison, WI 53716



**Property Owner:** Richard Klinke

Klinke Cleaners Inc. 4518 Monona Dr Madison, WI 53716

**Consultant:** Environmental Forensic Investigations, Inc.

Brian Kappen, PG

N16 W23390 Stone Ridge Dr, Suite G

Waukesha, WI 53188

(414)326-4412

bkappen@enviroforensics.com

**WDNR:** Jim Walden

101 S Webster St Madison WI 53716 (608) 267-7572

James.walden@wisconsin.gov

**SSDS Maintenance:** Vapor Protection Services

Nicholas Martinez

6544 Ferguson Street, Suite A,

Indianapolis, IN 46220

(317) 252-5295



### **PHOTOGRAPHS**





Photograph 1: Extraction Point 2. May 13, 2013

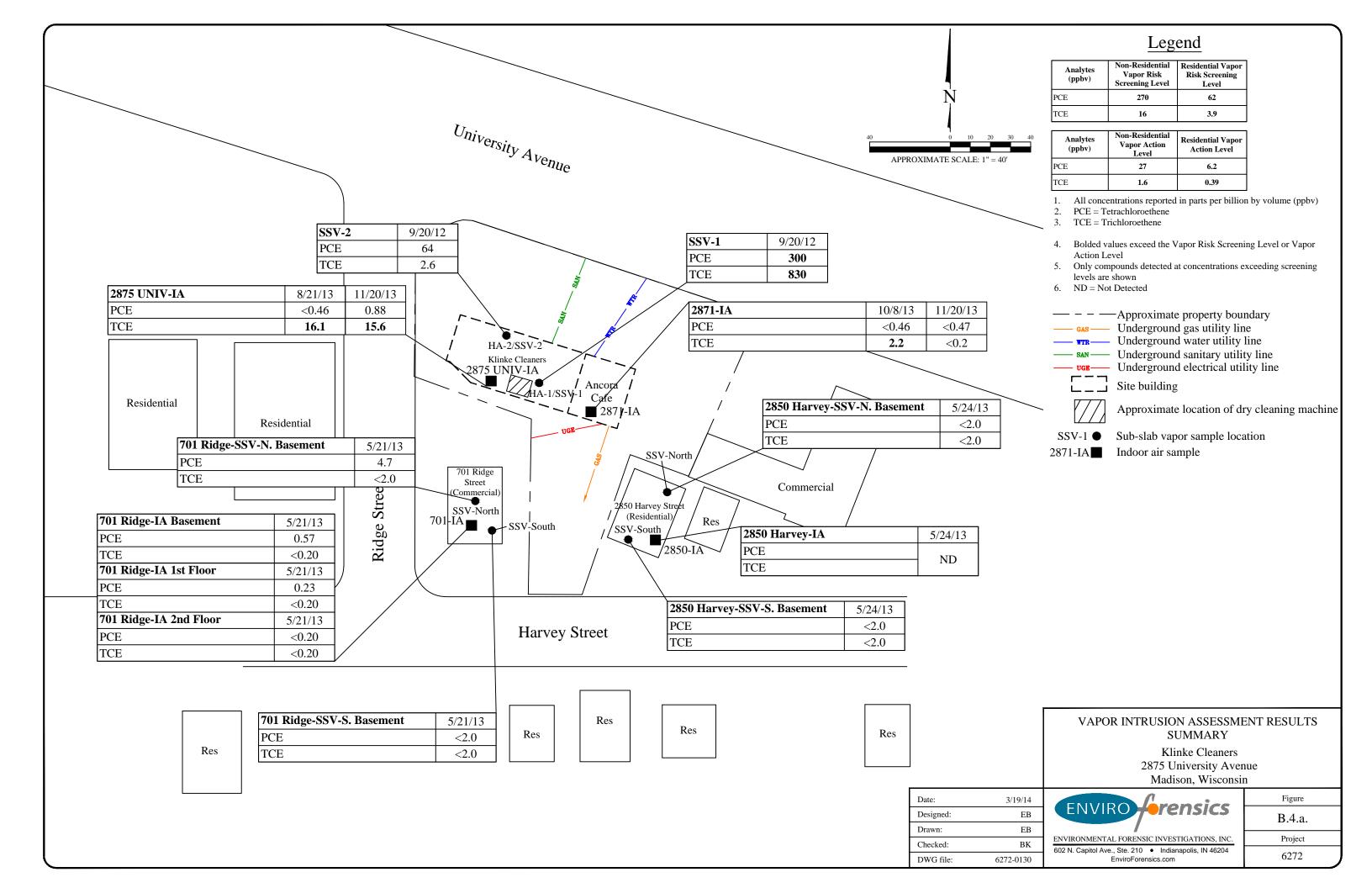




Photograph 2: VMS Fan, Electrical Switch and Exhaust. May 3, 2013



## **FIGURE**





## **ATTACHMENT A**

## VAPOR MITIGATION SYSTEM INSTALLATION REPORT



## INSTALLATION REPORT



### **Vapor Mitigation System Installation Report**

2871-2875 University Ave, Madison, Wisconsin

Date of SSDS Installation: May 2 - 3, 2013

Vapor Protection Services (VPS) is pleased to provide a Vapor Mitigation System Installation Report that summarizes the scope of services performed at 2871-2875 University Ave, Madison, Wisconsin. The scope of services performed at the Site is detailed in VPS Proposal No. 20130128 and is noted below.

### **Scope of Service:**

- VPS utilized a sub-slab depressurization system (SSDS) and RadonAway Model GP501 fan to depressurize the soil beneath the 3090 square foot concrete slab to meet performance criteria.
- The SSDS utilizes 2 extraction points, approximately 75 feet of 3 inch schedule 40 PVC pipe, and 1 model GP501 fan with a system alarm.
- The fan was hardwired to a dedicated circuit breaker in an existing electrical panel with a dedicated on/off switch located next to the mitigation fan.

### Please Note:

- A figure depicting the SSDS layout is included as **Figure 1**.
- Photos taken during the installation have been included as Attachment 1.
- VPS's radon mitigation certification is included as Attachment 2.
- RadonAway fan 5-year warranty is included as Attachment 3.

### **Vapor Mitigation System Monitoring and Periodic Inspections**

We advise consultants, maintenance personnel or property owners to conduct inspections of all SSDS and SMDS on a semi-annual basis to verify that vapor mitigation system components are operating properly. The inspection should include the following:

- Test the system alarm. With the system alarm plugged in, disconnect the clear tubing from the PVC pipe. Both the read indicator light and the audible alarm will be on. Reconnect the clear pressure tubing to the piping. The red light and the audible alarm will go off. The green light will come one. Contact VPS immediately for repair and/or maintenance.
- 2. Never open a RadonAway fan, which is factory sealed and designed to be maintenance-free for the life of the fan. Should the fan's casing be opened or the factory seal broken, the five-year factory warranty and any service warranty may be voided.
- 3. Observe the Radonway fan(s) and note any abnormal sounds or noises coming from the fan including buzzing, scraping, rattling, or et cetera. If any abnormal noises or sounds are audible, contact VPS.
- 4. Inspect the PVC piping of the system for damage or cracks. If any damage occurs to the PVC piping, contact VPS. If any cracks are apparent or noticeable during inspection, seal the cracks.

Contact VPS for Additional Service & Maintenance should any occasion arise that may causes concern that the SSDS is not functioning properly as vapor intrusion may no longer be mitigated to meet performance criteria provided to VPS by consultant.

### **Conclusion:**

VPS submits this report as written and visual documentation that the contracted work scope for vapor mitigation as detailed in Proposal No. 20130128 was successfully completed to the approval of EnviroForensics at Site. Please do not hesitate to contact me with any questions you might have regarding this report. nick@vaporprotection.com

Respectfully Submitted,

Nick Martinez

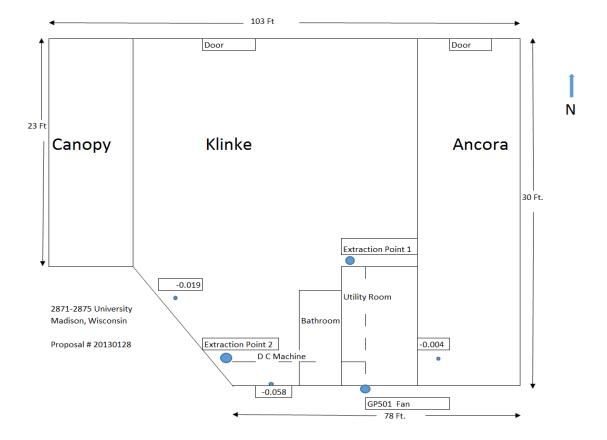
**Director of Technical Services** Vapor Protection Services® 6507 Ferguson Street Indianapolis, IN 46220

317.252.5295

VaporProtection.com

Figure 1

## **Vapor Mitigation System Layout**



## Attachment 1

## **Installation Photographs**



Extraction Point 1



Extraction Point 2



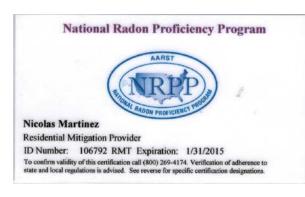
Fan



Alarm System

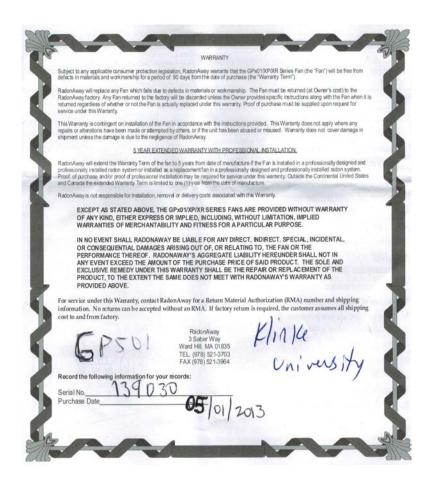
# Attachment 2 Mitigation Certification







# Attachment 3 RadonAway Fan Warranty





# ATTACHMENT B INSPECTION AND MAINTENANCE LOG

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

## **Continuing Obligations Inspection and Maintenance Log**

Form 4400-305 (2/14)

Page 1 of 2

**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 <a href="http://dnr.wi.gov/botw/SetUpBasicSearchForm.do">http://dnr.wi.gov/botw/SetUpBasicSearchForm.do</a>, by searching for the site using the BRRTS ID number, and then looking in the "Who" section.

using the bi	(IX I S ID Hullibel,	and then looking in the W	TIO SECTION.		-					
Activity (Site	e) Name				BRRTS No.					
Inspections	○ annual	conducted (see closure a ly nnually - specify	ipproval letter):	When submittal of this form is required, submit the form electronically to the DNR proje manager. An electronic version of this filled out form, or a scanned version may be sen 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 mainte	rece enance in	Previous ommendations nplemented?	Photographs taken and attached?			
		monitoring well cover/barrier vapor mitigation system other:			C	) Y () N	○ Y ○ N			
		monitoring well cover/barrier vapor mitigation system other:			C	) Y () N	O Y O N			
		monitoring well cover/barrier vapor mitigation system other:			C	) Y () N	OY ON			
		monitoring well cover/barrier vapor mitigation system other:			C	) Y () N	O Y O N			
		monitoring well cover/barrier vapor mitigation system other:			C	) Y () N	O Y O N			
		monitoring well cover/barrier vapor mitigation system other:			C	) Y () N	OY ON			

BRRTS No.	Activity (Site) Name		Continuing Obligations Inspection and Mainte						
{Click to Add/E	dit lmage}	Date added:	{Cli	ick to Add/Edit Image}	Date added:				
Title:			Title	e:					

# Attachment E

# **Monitoring Well Information**

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

# Attachment F

# **Notifications to Owners of Impacted Properties**

Notifications of Residual Contamination and Continuing Obligations are not applicable to this case.

Attachment G.1

Deed



DOCUMENT NO.

State of Wisconsin:

## **QUIT CLAIM DEED**

JAMES M. KLINKE and MARSHA L. KLINKE, husband and wife

quit-claims to KLINKE CAMPUS, LLC

the following described real estate in Dane County,

DANE COUNTY REGISTER OF DEEDS

Doc No 3031948

1998-10-19 10:42 AN Trans. Fee EXEMPT #15S Rec. Fee 10.00 Pages 1

000457

Recording Area

Name and Return Address

Atty. Craig R. Johnson 900 John Nolen Dr., #130 Madison, WI 53713

60-0709-212-0609-5 (Parcel Identification Number)

Lots One (1), Two (2), Three (3), Four (4), Five (5), and Twelve (12), Block One (1), Findlay Park, in the Town of Madison, now in the City of Madison, Dane County, Wisconsin, except the following: Commencing at the Southwest corner of said Lot 12; thence Easterly along Harvey Street a distance of 50 feet; thence Northerly 84.9 feet to a point which is 53.6 feet Southeasterly along the Northerly line of said Lot from the Northwest corner of said Lot; thence Northwesterly to the Northwest corner of said Lot; thence South 103.4 feet to the Southwest corner of said Lot and place of beginning.

ALSO

The Northerly 100 feet of Lot Six (6), Block One (1), Findlay Park, in the City of Madison, except all that land lying between the Northerly property line of Lot 6 and a line located 65 feet Southerly of and parallel to the following described reference line: Commencing at a point on the North-South quarter line of Section 21, Township 7 North, Range 9 East, 628.77 feet South of the North quarter corner of said Section 21; thence North 69° 34' West, 996.65 feet; thence North 72° 48' West 269.17 feet to the point of beginning; thereon continuing North 72° 43' West, 30 feet.

EXCEPT from above, those lands conveyed to the State of Wisconsin by Deed recorded February 2, 1971 in Volume 226 of Misc., page 413 as Document Number 1282290.

This is not homestead property.		
Dated this 26th day of December,	1997	_ to take effect January 1, 1998.
• JAMES M. KLINKE		
Marsha L. KLINKE		*
AUTHENTICATION		ACKNOWLEDGMENT
Signature(s) of James M. Klinke and Marsha L. Klinke		STATE OF WISCONSIN COUNTY
		Personally came before me this day of, the above named
authenticated this 25th day of December 19 97.		to me known to be the person(s) who executed the foregoing instrument and acknowledge the same.
signature CRAIG A JOHUSON type or print name		signature type or print name
TITLE: MEMBER STATE BAR OF WISCONSIN (If not,		Notary Public County, Wisconsin.  My commission is permanent. (If not, state expiration date:
THIS INSTRUMENT WAS DRAFTED BY Attorney Craig R. Johnson Madison, Wisconsin		*Names of persons signing in any capacity should be typed or printed below their signatures.

ANDLOT 35 LAKELAND, -PLATS NOW OF RECORD LYING IN THE NW SECTION 21, TYN.R.9E. REPLAT OF LOT'S 12.13.1415.16,17, QUARRYTOWN Z. 15 11 10 # 1 5 10 b 10 SCALE BOFT TOLIN. 16 16 16 9 Mº KINLEY 71 00 17 00 STEVENS BARLOW HARVEY 8 18 4 4 4 18 15 19 CT See 19 20 21 30 30 4 2 22 4 R co 73 Ç 22 co 33 10 33 2 ß 33. 5 T. ALISHANANNI ; 16.15 20 6 15 N ço C Ž 4 50 13 13 13 13 13 4 5 ೧೭ ತ್ರ H G. 6 4 Ò

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Owner	KLINKE CAMPUS LLC	Parcel Class:	Commercial	Property Type:	Cleaner, small
		Parcel Code:		Property Code:	033
	4518 MONONA DR	School District:	Madison	Property Data Revised:	04/05/2014
	MADISON WI 53716-1051	TIF District:	0	Building Data Revised:	

Record of Transfer of Ownership											
Grantor	Document #	Date	Parcels	Consideration	Convey	Mkt	Ratio				
KLINKE, JAMES & MARSHA	93031948	12/1997	1	0	OTHER	I	I				
AMOCO OIL CO	22313027	4/1993	1	235,000	W.D.	V	V				

Zoning: CC-T WP-06	Lot Characteristics	Utilities	Street	l	Frontage
Width: 0	2-Irregular	Water: 2-Stubbed In	Paved	Primary: 181.67	University Ave
Depth: 0	0-None	Sewer: 2-Stubbed In	Curb-gutter	Secondary: 45.8	Harvey St
Lot Size: 20,808 sqft	1-Level	Gas: 2-Stubbed In	Sidewalk	Other 1: 121.9	Ridge St
Acreage: 0.48 acres	2-Medium Traffic		No Alley	Other 2: 0	
Buildability: 1-Buildable Lot	0-None Wooded			Water: 0	0-No Water Frontage

	Parcel B	uilding Summa	ary	
Floor Area	GFA	PFA	Apartme	nts
1st Floor:	2,694	2,694	Total Units:	
2nd Floor:			Rooms:	
3rd Floor:			Efficiency:	
4th Floor:			1 Bdrm:	
5th Floor:			2 Bdrm:	
Above:			3 Bdrm:	
Mezz Loft:			4 Bdrm:	
Basement:			Other:	
			<b>Building Sur</b>	nmary
Parking			Buildings:	1
Level 1:			Retail	2,694
Level 2:				
Level 3:				
Other lvls.:				
Total:				
Total:	2,694	2,694		



Notes:

Building Remarks: Klinke's Cleaners

	Assessment changes									
Year										
Hearing #										
Schedule #										
Change										

Assessment Record											
	2012	2013	2014								
Change Code			/								
Land	310,000	310,000	310,000								
Improvement	191,000	191,000	191,000								
Total	501,000	501,000	501,000								

Assessment Area

Building

Basement Apartment Units:

Roof Cover:

Floor Frame: Floor Deck:

**RStl** 

None

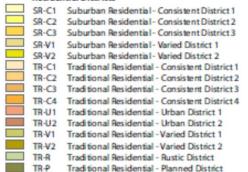
Building						
GFA:						
PFA:						
Yr. Built:						
Yr. Remodeled:						
Quality:						
Exterior Condition:						
Stories:						
Story Height:						
Frame:						
Wall Type:						
Wall Type 2:						
Foundation:						
Roof Type:						
Roof Frame:						
Roof Cover:						
Floor Frame:						
Floor Deck:						
Basement						
Apartment Units:						

Bldg	Area Type	SqFt	Lights	Heat	A/C	Fire Protection	Quality	Floor Type	Wall Finish	Ceiling	Elev	Cond	Bat Full		FP
1	Retail	2,694		Forced Air	Central		Ave	Tile	Drywall	Ac Tile		Ave		2	
	·														

Assessment Area

## **Zoning Districts**

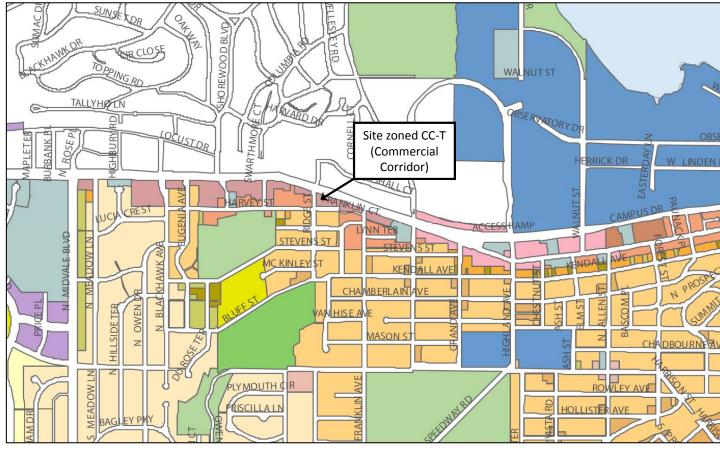
#### Residential Districts



#### Commercial and Mixed-Use Districts



CC Commercial Center District



# Attachment G.4 Responsible Party Signed Statement

## Responsible Party Statement

Parcel Identification No. 60-0709-212-0609-5

2875 University Ave

Madison, WI 53705

Lots One (1), Two (2), Three (3), Four (4), Five (5), and Twelve (12), Block One (1), Findlay Park, in the Town of Madison, now in the City of Madison, Dane County, Wisconsin, except the following: Commencing at the Southwest corner of said Lot 12; thence Easterly along Harvey Street a distance of 50 feet; thence Northerly 84.9 feet to a point which is 53.6 feet Southeasterly along the Northerly line of said Lot from the Northwest corner of said Lot; thence Northwesterly to the Northwest corner of said Lot; thence South 103.4 feet to the Southwest corner of said Lot and place of beginning.

### ALSO

The Northerly 100 feet of Lot Six (6), Block One (1), Findlay Park, in the City of Madison, except all that land lying between the Northerly property line of Lot 6 and a line located 65 feet Southerly of and parallel to the following described reference line: Commencing at a point on the North-South quarter line of Section 21, Township 7 North, Range 9 East, 628.77 feet South of the North quarter corner of said Section 21; thence North 69° 34' West, 996.65 feet; thence North 72° 48' West, 269.17 feet to the point of beginning; thereon continuing North 72° 43' West, 30 feet.

EXCEPT from above, those lands conveyed to the State of Wisconsin by Deed recorded February 2, 1971 in Volume 226 of Misc., page 413 as Document Number 1282290.

I, Richard Klinke, believe that the legal description provided above and on Dane County Register of Deeds Doc No. 3031948 (Attachment G.1) accurately describes the contaminated property.