

DATE: December 11, 2019

TO: Chris Saari-Ashland Mark Pauli-Rhineland John Sager -Superior Kathleen Shafel – Antigo

FROM: Carrie Stoltz-Rhineland

SUBJECT: Former Dry Cleaner (#02-35-560159) **DISCUSSION ONLY**

Consultant: None of record

Recommendation:

- Approval
 Not Ready for Closure
 Pause for Corrections

Continuing Obligations (56):

- Soil at Industrial Use (220)
 Maintain Cap (222)
 Structural Impediment (224)
 Vapor Intrusion (226) Option(s) _____
 Site Specific Condition (228)
 Maintain LGU Exemption (230)
 Maintenance/Inspection Report Required (238)
 Residual Soil Exceeds Standards (232)
 Residual GW Exceeds Standards (236)
 MW Needs Abandonment (234) Option _____

Yet to be Completed:

- Enforcement
 Permits

Closure Conditions (84):

- Monitoring Well Abandonment
 Removal of Soil Piles/Purge Water

Recommendation Summary:

I am bringing this Site to the Closure Committee because it has been stalled since 2013. I would like the Committee to determine if a cost recovery letter, lien or deed notice is appropriate. The RP, Michael Chelf has no monies for an investigation.

The Site was home to a dry- cleaning business approximately 30+ years ago. The 2-story building was converted into a 2- bedroom apartment until the building was destroyed by a fire in 2002. Currently, the lot is vacant.

The Department was notified in 2013 after a soil boring investigation performed by MSA for a DOT road project, detected PCE (0.32 mg/kg) in soil boring B-12 at 10 to 12 feet bgs. A GW sample was obtained from B-11 but was only tested for PVOCs-no detects were noted. No other GW samples were collected.

A Phase 2 was performed in 1996 by Drake Environmental, but the Department did not receive a copy of this report until April 1st, 2013. Drake's borings were installed behind and to the side of the former dry-cleaning building-not close to the more recent MSA borings. Mr. Chelf was sent an RP letter on April 25, 2013, because staff determined the sampling results and boring locations in the Phase 2 investigation was insufficient to support the conclusion that the Site was not the source of PCE. Also, the Phase 2 was performed in the winter in snow covered conditions, so it is unknown if there were spills or stressed vegetation.

According to the Phase 2 report (Drake) GW was encountered at 10 feet bgs. Groundwater flow is unknown, but maybe to the northwest towards Lake Mohawksin.

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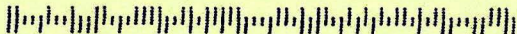
State Of Wisconsin

Department of Natural Resources

107 Sutliff Ave.

Rhineland, WI 54501-3349

(C. Stoltz)



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Michael & Dianne Chelf
 17498 CTH H
 Irma, 54442

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Diane Chelf

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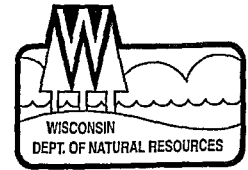
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State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
Northern Region Headquarters
107 Sutliff Ave
Rhineland, WI 54501

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 715-365-8900
FAX 715-365-8932
TTY Access via relay - 711



CERTIFIED MAIL/RETURN RECEIPT REQUESTED

September 3, 2015

Michael & Dianne Chelf
N7498 CTH H
Irma, WI 54442

Re: Status update request for the Former Dry Cleaners, 114 N 4th Street, Tomahawk, WI
WDNR BRRTS #02-35-560159

Dear Mr. and Mrs. Chelf:

The WI Department of Natural Resources (DNR) - Remediation and Redevelopment Program in the Northern Region is undergoing some changes to the distribution of workload among our staff. This letter is to introduce myself as the new project manager for the above mentioned case and to update the status of the case.

This letter is to request an update as to the progress being made toward the investigation and clean-up of known tetrachloroethene (PCE) from the former dry cleaning business located at 114 North 4th Street, Tomahawk, The Department has not heard from you since 2013.

Be advised; *Section 292.11(3) Wisconsin Stats. (known as the hazardous substance spill law) requires a responsible party to investigate and take appropriate remedial action to restoring the environment. Wisconsin Administrative Code NR 700 through NR 749 further establishes guidelines and time frames for moving the sites toward closure and a lack of response to this letter may result in our recommendation for enforcement action.*

Please contact me by October 3, 2015 with your plans to remedy this situation.

I can be reached at (715) 365-8942, email: Carrie.Stoltz@wisconsin.gov or you may send an update in writing to my attention at the address listed above. Thank you for your cooperation in this matter.

Sincerely,

A handwritten signature in cursive script that reads 'Carrie Stoltz'.

Carrie Stoltz
Hydrogeologist
Remediation & Redevelopment Program
Air, Waste, and Remediation & Redevelopment Division (AWaRe)
/cs

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
Antigo Service Center
223 E Steinfest Rd
Antigo WI 54409

Scott Walker, Governor
Cathy Stepp, Secretary
John Gozdzialski, Regional Director
Telephone 715-365-8900
FAX 715-365-8932
TTY Access via relay - 711



April 16, 2014

Michael & Dianne Chelf
N7498 CTH H
Irma WI 54442

SUBJECT: Transfer of Project Management
FMR DRY CLEANER, 114 N 4TH ST, TOMAHAWK, WI
WDNR BRRTS # BRRTS #02-35-560159

Greetings.

The WI Department of Natural Resources - Remediation and Redevelopment Program in the Northern Region is undergoing some changes to the distribution of workload among our staff.

This letter is to inform you that a new project manager has been assigned to the above mentioned case.

The new Project Manager for your case is:

Gena Larson
WI DNR
101 S Webster St
PO Box 7921
Madison, WI 53707-7921
(608) 261-5404
Gena.Larson@wisconsin.gov

Please inform your consultant of this change and direct all future submittals and/or inquiries regarding your case to your new project manager.

The Department appreciates your effort at cleaning up the environment at your site.

cc: File

Sager, John E - DNR

From: Christopher Rog <christopher.rog@sand-creek.com>
Sent: Wednesday, November 06, 2013 10:16
To: Sager, John E - DNR
Subject: RE: Chefl Property, 4th St., Tomahawk
Attachments: 20130311 WDNR PRP Letter.PDF

John:

See attached, and this is the header. It is misspelled in my email. Should have been CHELF

March 11, 2013

Mr. and Mrs. Michael Chefl
N7498 County Rd H
Irma, WI 54442

**Subject: Former Dry Cleaner, 114 N. 4th Street, Tomahawk, WI
WDNR BRRTS #01-35-560159**

Regards,

Christopher J. Rog, P.G. CPG, Sr. Project Manager, Principal
Sand Creek Consultants, Inc. | 108 E. Davenport St. | Rhinelander, WI 54501
main 715.365.1818 | direct 715.365.1828 | cell 715.360.1827 | fax 866.608.6473
www.sand-creek.com | christopher.rog@sand-creek.com

From: Sager, John E - DNR [<mailto:John.Sager@wisconsin.gov>]
Sent: Wednesday, November 06, 2013 10:12 AM
To: Christopher Rog
Subject: RE: Chefl Property, 4th St., Tomahawk

Do you happen to have the BRRTs # for this site handy? I am having trouble finding it.

From: Christopher Rog [<mailto:christopher.rog@sand-creek.com>]
Sent: Wednesday, November 06, 2013 09:54
To: Sager, John E - DNR
Subject: Chefl Property, 4th St., Tomahawk

John

We have not heard anything from the above RP for months now. If we don't hear before long, we will be closing the project out.

Recall he was issued an RP letter for DOT work on 4th street. There was talk of some borings, but that has faded. Last I heard he was going to do the borings himself somehow.

No response needed. I just don't like having Sand Creeks name on BRRTS when there is a possible NOV associated with the project.

Regards,

Christopher J. Rog, P.G. CPG, Sr. Project Manager, Principal

Sand Creek Consultants, Inc. | 108 E. Davenport St. | Rhinelander, WI 54501

main 715.365.1818 | direct 715.365.1828 | cell 715.360.1827 | fax 866.608.6473

www.sand-creek.com | christopher.rog@sand-creek.com

Sand Creek Consultants, Inc. | Environmental and Geological Scientists and Engineers

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Sager, John E - DNR

From: Christopher Rog <christopher.rog@sand-creek.com>
Sent: Wednesday, June 12, 2013 3:28 PM
To: Sager, John E - DNR
Subject: RE: 114 N 4th St, Tomahawk, PRP=Mike Chelf

John – Are we on for tomorrow at 3? If not, some other time? Thanks!

Regards,

Christopher J. Rog, P.G. CPG, Sr. Project Manager, Principal
Sand Creek Consultants, Inc. | 108 E. Davenport St. | Rhinelander, WI 54501
main 715.365.1818 | direct 715.365.1828 | cell 715.360.1827 | fax 866.608.6473
www.sand-creek.com | christopher.rog@sand-creek.com

From: Christopher Rog
Sent: Tuesday, June 11, 2013 9:08 AM
To: 'Sager, John E - DNR'
Cc: Hollie DePuydt
Subject: 114 N 4th St, Tomahawk, PRP=Mike Chelf

Hi John; **(requested action items are in red)**

As you may know, Mike Chelf owns the above ERP site, which was identified in the 2009 MSA corridor borings in Downtown Tomahawk with PCE in soils.

Mike has retained Sand Creek to take the next steps and respond to the PRP letter. We would like to discuss our proposed approach with you, which we tentatively suggest will be 4 to 6 Geoprobe borings, onsite and off, testing groundwater.

We would like to send you a map of what we have proposed and discuss it on a brief phone call. **Can we schedule a call for this Thursday 6/13, at 3PM?** If this is not a good time, let me know a better one and I'll get it arranged.

On the call would be Mike (owner), Hollie and I from Sand Creek, and you I would guess. I know Brenda signed some of the early letters and we don't know if she is still involved.

Please advise on the availability for the call time. Thanks.

Regards,

Christopher J. Rog, P.G. CPG, Sr. Project Manager, Principal
Sand Creek Consultants, Inc. | 108 E. Davenport St. | Rhinelander, WI 54501
main 715.365.1818 | direct 715.365.1828 | cell 715.360.1827 | fax 866.608.6473
www.sand-creek.com | christopher.rog@sand-creek.com



April 25, 2013

Mr. and Mrs. Michael Chelf
N7498 County Rd H
Irma, WI 54442

file copy

Subject: Reported Contamination at Former Dry Cleaner, 114 N. 4th St., Tomahawk, WI
WDNR BRRTS #02-35-560159

Dear Mr. and Mrs. Chelf:

Thank you for responding to my letter to you dated March 11, 2013. You confirmed that the property you own, located at 114 N. 4th Street in Tomahawk, was used as a dry cleaning facility in the past. You also sent me a Phase II Environmental Assessment report prepared by Drake Environmental (Drake) detailing activities conducted at the site in 1996. I am returning that original report to you with this letter. I have made a copy for the file.

The Wisconsin Department of Natural Resources (WDNR) has reviewed the Phase II report, and has determined that the sampling conducted in 1996 is insufficient to support the conclusion that your property is not the source of the tetrachloroethene (PCE) detected in a soil sample collected from boring B-12 installed in the right-of-way adjacent to your property. The assessment conducted by Drake in 1996 is described as a "limited Phase II Environmental Assessment." The report indicated that "a thorough evaluation of the ground surface was hindered by the presence of snow and ice. Normally, areas of stained soil or stressed vegetation are noted." In addition, no reasoning was presented as to why the two soil borings were installed in the particular locations shown on Figure 2. It is therefore impossible to determine if the borings were installed in areas likely to have been impacted from a release of PCE at the site.

Based on the information that has been submitted to the WDNR regarding this site, we believe you are responsible for investigating and restoring the environment at the above-described site under Section 292.11, Wisconsin Statutes, known as the hazardous substances spills law.

This letter describes the legal responsibilities of a person who is responsible under section 292.11, Wis. Stats., explains what you need to do to investigate and clean up the contamination, and provides you with information about cleanups, environmental consultants, possible financial assistance, and working cooperatively with the WDNR, Department of Safety and Professional Services (DSPS) or the Department of Agriculture, Trade and Consumer Protection (DATCP).

Legal Responsibilities:

Your legal responsibilities are defined both in statute and in administrative codes. The hazardous substances spill law, Section 292.11 (3) Wisconsin Statutes, states:

- **RESPONSIBILITY.** A person who possesses or controls a hazardous substance which is discharged or who causes the discharge of a hazardous substance shall take the actions necessary to restore the environment to the extent practicable and minimize the harmful effects from the discharge to the air, lands, or waters of the state.

Wisconsin Administrative Code chapters NR 700 through NR 749 establish requirements for emergency and interim actions, public information, site investigations, design and operation of remedial action systems, and case closure. Wisconsin Administrative Code chapter NR 140 establishes groundwater standards for contaminants that reach groundwater.

Steps to Take:

The longer contamination is left in the environment, the farther it can spread and the more it may cost to clean up. Quick action may lessen damage to your property and neighboring properties and reduce your costs in investigating and cleaning up the contamination. To ensure that your cleanup complies with Wisconsin's laws and administrative codes, you should hire a professional environmental consultant who understands what needs to be done. These are the first steps to take:

1. Within the next **30 days**, by May 25, 2013, you should submit written verification (such as a letter from the consultant) that you have hired an environmental consultant. If you do not take action within this time frame, the WDNR may initiate enforcement action against you.
2. Within the next **60 days**, by June 25, 2013, your consultant should submit a work plan and schedule for the investigation. The consultant must comply with the requirements in the NR 700 Wis. Adm. Code rule series and should adhere to current WDNR technical guidance documents.

In addition, within 30 days of completion of the site investigation, your consultant should submit a Site Investigation Report to the WDNR.

Sites where discharges to the environment have been reported are entered into the Bureau for Remediation and Redevelopment Tracking System ("BRRTS"), a version of which appears on the WDNR's internet site. You may view the information related to your site at any time (<http://dnr.wi.gov/botw/SetUpBasicSearchForm.do>) and use the feedback system to alert us to any errors in the data.

If you want a formal written response from the Department on a specific submittal, please be aware that a review fee is required in accordance with ch. NR 749, Wis. Adm. Code. If a fee is not submitted with your reports, you should proceed under the advice of your consultant to complete the site investigation and cleanup to maintain your compliance with the spills law and chapters NR 700 through NR 749. **Do not delay the investigation of your site by waiting for an agency response.** We have provided detailed technical guidance to environmental consultants. Your consultant is expected to know our technical procedures and administrative rules and should be able to answer your questions on meeting cleanup requirements.

All correspondence regarding this site should be sent to:

Brenda S. Halminiak
Remediation and Redevelopment Program
Wisconsin Department of Natural Resources
107 Sutliff Avenue
Rhineland, WI 54501
Brenda.Halminiak@Wisconsin.gov

Unless otherwise requested, please send only one copy of plans and reports. In addition to the paper copy, an electronic copy may also be submitted. To speed processing, correspondence should reference the BRRTS and FID numbers (if assigned) shown at the top of this letter.

Site Investigation and Vapor Pathway Analysis

As you develop the site investigation work plan, we want to remind you to include an assessment of the vapor intrusion pathway. Chapter NR 716, Wisconsin Administrative Code outlines the requirements for investigation of contamination in the environment. Specifically, s. NR 716.11(3)(a) requires that the field investigation determine the "nature, degree and extent, both areal and vertical, of the hazardous substances or environmental pollution in all affected media". In addition, section NR 716.11(5) specifies that the field investigation include an evaluation of the "pathways for migration of the contamination, including drainage improvements, utility corridors, bedrock and permeable material or soil along which vapors, free product or contaminated water may flow".

You will need to include documentation with the Site Investigation Report that explains how the assessment was done. If the pathway is being ruled out, then the report needs to provide the appropriate justification for reaching this conclusion. If the pathway cannot be ruled out, then investigation and, if appropriate, remedial action must be taken to address the risk presented prior to submitting the site for closure. The WDNR has developed guidance to help responsible parties and their consultants comply with the requirements described above. The guidance includes a detailed explanation of how to assess the vapor intrusion pathway and provides criteria which identify when an investigation is necessary. The guidance is available at: <http://dnr.wi.gov/files/PDF/pubs/rr/RR800.pdf>.

Additional Information for Site Owners

We encourage you to visit our website at <http://dnr.wi.gov/topic/Brownfields/>, where you can find information on selecting a consultant, financial assistance and understanding the cleanup process. You will also find information there about liability clarification letters, post-cleanup liability and more.

If you have questions, call the DNR Project Manager, Brenda Halminiak, at 715-365-8929 for more information or visit the RR web site at the address above.

Thank you for your cooperation.

Sincerely,



Brenda S. Halminiak, P.G.

Hydrogeologist

Remediation & Redevelopment Program

Rec'd 3-25-13

3/19/13

Dear Brenda,

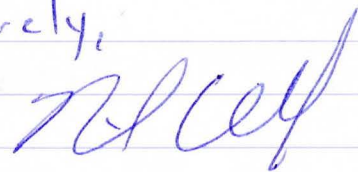
We bought the property that is question on 4/6/1996. We bought the property from George Youtsos, his address at that time was PO Box 506, Lake Geneva, WI 53147.

When we bought the property there was a 2 BR apartment on the slab you mentioned. There were no chemicals stored there. The building burnt down around 2002. There was a dry cleaning facility in the past before someone else converted it to a rental unit.

If you need to know past owners you might want to call Larry Jacobson, he was the ~~owner~~ realtor we dealt with. His number is (715)-453-3733.

If you have further questions please call me at (715)-612-8034.

Sincerely,



MIKE & DIANE CHELF
CHELF'S MINK RANCH
N7498 CO RD H
JRNA, WI 54442



file copy

March 11, 2013

Mr. and Mrs. Michael Chelf
N7498 County Rd H
Irma, WI 54442

Subject: Former Dry Cleaner, 114 N. 4th Street, Tomahawk, WI
WDNR BRRTS #01-35-560159

Dear Mr. and Mrs. Chelf:

Prior to the planned utility work and pavement project on 4th Street in Tomahawk, the City of Tomahawk hired MSA Professional Services to perform a subsurface investigation in the right-of-way of the project area. Two soil borings (B-11 and B-12) were installed adjacent to property you own located at 114 N. 4th Street (which is currently a vacant lot). Soil samples were analyzed for volatile organic compounds (VOCs). The sample collected from boring B-12 at 10 to 12 feet below ground surface exhibited a detection of tetrachloroethene (PCE) of 0.32 mg/kg. PCE is a chemical commonly used at dry cleaning facilities.

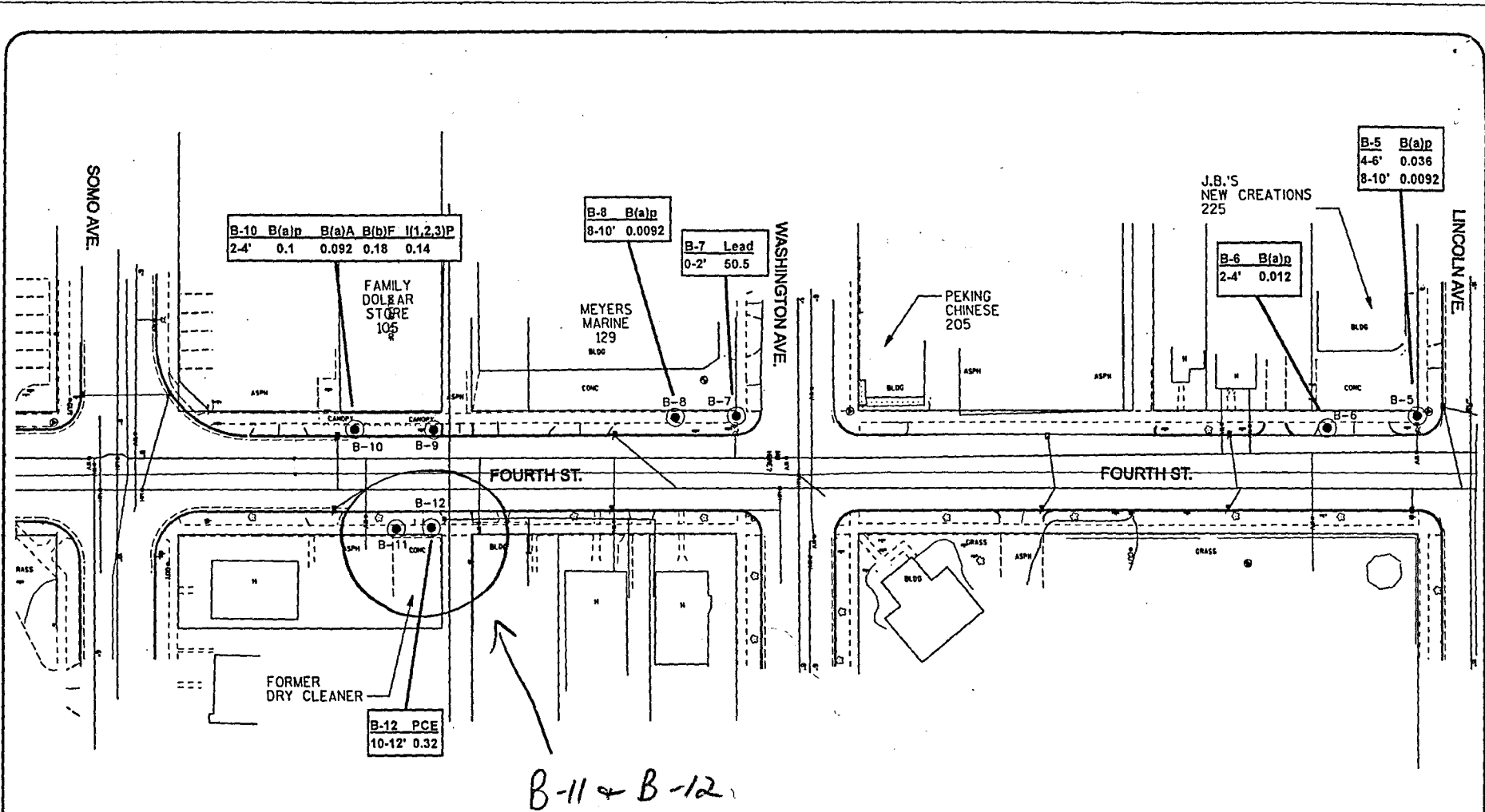
The attached Figure 3 prepared by MSA shows the locations of borings B-11 and B-12. Table 1, also attached, provides the soil sample analytical results, and Table 2 provides the groundwater results for the sample collected from B-11. The groundwater sample was only analyzed for petroleum volatile organic compounds (PVOCs), which does not include PCE.

Information provided in the Phase 2 report indicates that a dry cleaning business was operated on your property approximately 30 years ago. The existing concrete slab apparently outlines the footprint of the former building. As part of the on-going investigation of the PCE contamination, the Department is looking for potential sources of this contamination, of which your property at 114 N. 4th Street has been identified, due to its proximity to borings B-11 and B-12 and its historical use as a dry cleaning business.

The Department is investigating whether you and any past owners or occupants of your property may potentially be responsible for causing or contributing to the PCE contamination. The Department is sending this letter to request any information that you can provide regarding the use or storage of PCE by yourself or other past owners or occupants of your property.

The Department also requests that you provide us with a history of the owners, occupants and land uses of your property. Please provide any information that you may have as to any manufacturing that occurred on your property in the past and the years of its operation. Also include a description of any documented hazardous substance spills, groundwater or surface water contamination, and any environmental investigation or remediation efforts that have occurred on your property. Please provide any additional information that may aid in determining the source of contamination of the above-referenced site.

Within 45 days of receipt of this notice, please provide me with a letter containing the information requested above. This information is requested by the Department under the authority of s. 292.11(7) (a) and s. 292.11(8), Wis. Stats.



B-10	B(a)p	B(a)A	B(b)F	I(1,2,3)P
2-4'	0.1	0.092	0.18	0.14

B-8	B(a)p
8-10'	0.0092

B-7	Lead
0-2'	50.5

B-5	B(a)p
4-6'	0.036
8-10'	0.0092

B-6	B(a)p
2-4'	0.012

B-12	PCE
10-12'	0.32

LEGEND

● PROPOSED SOIL BORING LOCATION

NOTES

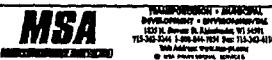
Only compounds exceeding soil standards are shown.
 Concentrations are in mg/Kg.
 B(a)p = Benzo(a)pyrene
 B(a)A = Benzo(a)anthracene
 B(b)F = Benzo(b)fluoranthene
 I(1,2,3)P = Indeno(1,2,3-cd)pyrene
 PCE = Tetrachloroethene

B-11 & B-12



FIGURE 3

PROJECT LOCATION (SOUTH)
TOMAHAWK, WISCONSIN



DRAWN BY PJK DATE 4/09 SHEET 3 OF 3
 CHECKED BY BH SCALE AS SHOWN FILE NO.

TABLE 1
Soil Sample Analytical Results
4th Street, Somo Avenue to River Street
Tomahawk, WI

Petroleum Volatile Organic Compounds (PVOCs), DRO, GRO & Lead

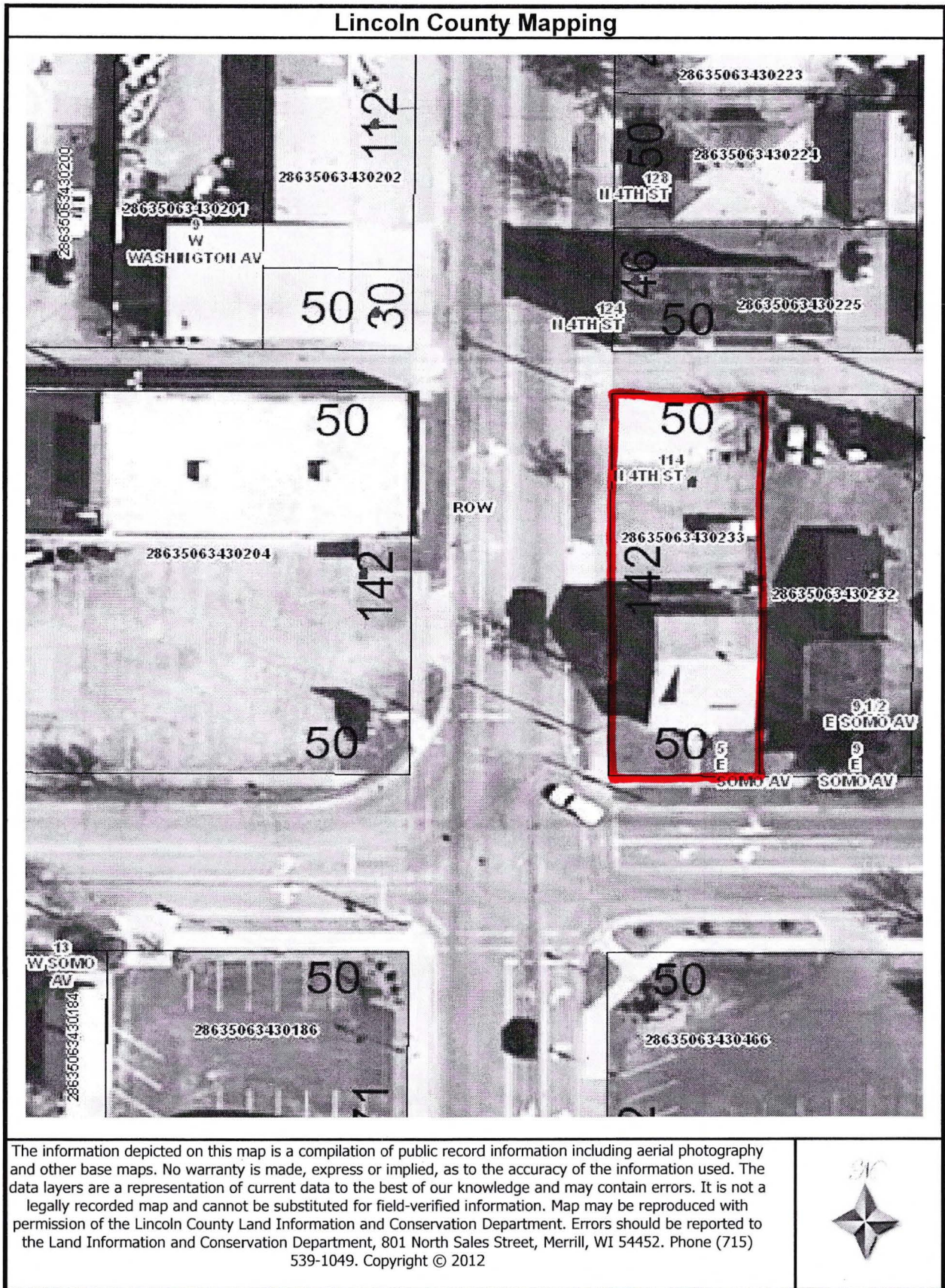
Location	Sample Depth (Feet)	Date	Benzene	Ethyl-benzene	Methyl-tert-butyl ether	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	M&P Xylene	O Xylene	Naphthalene	Tetra-chloro-ethene	DRO	GRO	Lead	PID Readings
NR 746 Table 1			8.5	4.6		38	83	11	42*	42*	2.7					
NR 746 Table 2			1.10													
NR 720 GRCL's			0.0055	2.9		1.5			4.1*	4.1*	0.4		100	100	500/50	
B-1	4-6	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.037		<1.0	<1.5	1.2	
B-1	8-10	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.028		<1.0	<1.2	8.30	
B-2	4-6	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		<1.0	<1.2	1.2	
B-2	8-10	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		7.3	<1.2	2.6	
B-3	4-6	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		<1.0	<1.2	2.2	
B-3	8-10	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		<1.1	<1.3	3.6	
B-4	0-2	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.053	0.035		24	<1.3	188	
B-4	8-10	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		<1.0	<1.2	2.9	
B-5	4-6	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		<1.1	<1.3	5.4	
B-5	8-10	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		<1.0	<1.3	13.8	
B-6	2-4	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		<1.1	<1.3	2.5	
B-6	8-10	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		<1.0	<1.3	5.8	
B-7	0-2	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		<1.1	<1.3	50.5	
B-7	8-10	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		<1.0	<1.2	1.7	
B-8	4-6	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		<1.0	<1.3	1.5	
B-8	8-10	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		<1.2	<1.4	2	
B-9	4-6	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		<1.1			
B-9	8-10	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		<1.0			
B-10	2-4	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		<1.1			
B-10	8-10	4/30/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		<1.1			
B-11	4-6	5/1/2009	<0.007	<0.007	<0.009	<0.009	<0.006	<0.007	<0.015	<0.013	<0.025	<0.009				
B-11	8-10	5/1/2009	<0.007	<0.007	<0.009	<0.009	<0.006	<0.007	<0.015	<0.013	<0.025	<0.009				
B-12	8-10	5/1/2009	<0.007	<0.007	<0.009	<0.009	<0.006	<0.007	<0.015	<0.013	<0.025	<0.009				
B-12	10-12	5/1/2009	<0.0078	<0.0078	<0.01	<0.01	<0.0067	<0.0078	<0.017	<0.014	<0.028	0.32				
B-13	4-6	5/1/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.035		<1.1	<1.3	95.4	
B-13	8-10	5/1/2009	<0.025	0.55	<0.034	<0.03	2.5	1.2	1.2	0.43	0.99		<1.2	96	94.3	
B-14	2-4	5/1/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.03		<1.1	<1.3	11.3	
B-14	8-10	5/1/2009	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		<1.0	<1.3	2.2	

TABLE 2
Groundwater Soil Sample Analytical Results
 4th Street, Somo Avenue to River Street
 Tomahawk, WI

Petroleum Volatile Organic Compounds (PVOCs)

Location	Date	Benzene	Ethyl- benzene	Methyl- tert- butyl ether	Toluene	1,2,4- Tri- methyl- benzene	1,3,5- Tri- methyl- benzene	M&P Xylene	O Xylene	Naph- thalene	Lead
NR 140 ES		5	700	60	1000	480*	480*	10000*	10000*	100	15
NR 140 PAL		0.50	140	12	200	96	96	1000	1000	10	1.5
B-1	4/30/2009	<0.5	<0.5	<0.5	<0.5	<0.4	<0.5	<0.5	<1.0	<2.8	<i>11.4</i>
B-3	4/30/2009	<0.5	<0.5	<0.5	<0.5	<0.4	<0.5	<0.5	<1.0	<2.8	<i>4.3</i>
B-6	4/30/2009	<0.5	<0.5	<0.5	<0.5	<0.4	<0.5	<0.5	<1.0	<2.8	<1.5
B-8	4/30/2009	<0.5	<0.5	<0.5	<0.5	<0.4	<0.5	<0.5	<1.0	<2.8	<i>18.4</i>
B-9	4/30/2009	<0.5	<0.5	<0.5	<0.5	<0.4	<0.5	<0.5	<1.0	<2.8	<i>31</i>
B-11	5/1/2009	<0.5	<0.5	<0.5	<0.5	<0.4	<0.5	<0.5	<1.0	<2.8	
B-13	5/1/2009	5.8	42	<2.5	16	<i>160</i>	51	130	46	29	
B-14	5/1/2009	<0.5	<0.5	<0.5	<0.5	<0.4	<0.5	<0.5	<1.0	<2.8	<1.5

Notes: ES = NR 140 Enforcement Standard
 PAL = NR 140 Preventive Action Limit
 Concentrations are in ug/L.
 Bold numbers indicated concentrations exceeding the ES.
Italic numbers indicated concentrations exceeding the PAL.
 " * " indicates groundwater standards are for total compound concentrations.





Rec'd 4-1-13

April 3, 1996

DRAKE
ENVIRONMENTAL, INC.
Common Sense. Uncommon Service.

Mr. D.C. Schulz
Town & Country Realty
P.O. Box 375
Tomahawk, WI 54487

RE: Phase II Environmental Assessment at the Former Tomahawk Cleaners Property
in Tomahawk, Wisconsin — Drake Project No. B96011

Dear Mr. Schulz:

Drake Environmental, Inc. has completed a limited Phase II Environmental Assessment at the above-referenced property, located at 114 North 4th Street in Tomahawk, Wisconsin. The site is located in the NE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 34, Township 35 North, Range 6 East (reference 1). The attached Figure 1 illustrates the location of the site.

This letter presents the results of field testing and laboratory analysis completed for the project. Also provided are Drake's conclusions and recommendations based on the results.

Existing Site Conditions

A dry cleaning facility was formerly operated at the subject property. A two-story, approximately 925-square foot in plan view size building is located at the property. The building is currently utilized as an apartment complex. The area of the property to the south of the building consists of an asphalt paved parking lot. The existing site features are illustrated on the attached Figure 2.

The site is bordered on the north by an alleyway, on the west by North 4th Street, and on the south and east by residential properties.

P. O. Box 610
Minocqua, WI 54548
Phone: (715) 358-7018
Fax: (715) 358-7612

Scope of Work

Drake was retained to conduct a limited Phase II Environmental Assessment for the former Tomahawk Cleaners property to evaluate subsurface soils for the presence or absence of volatile organic compound (VOC) contamination associated with dry cleaning solvents formerly utilized at the site. The following list presents the services Drake provided.

- Conducted a visual reconnaissance of the property for indications of potential contamination.
- Drilled two soil borings with a hammer drill and flighted auger sampling system.
- Collected representative soil samples from the borings.
- Field screened the soil samples.
- Submitted one soil sample from each boring for laboratory analysis.

Investigation Procedures and Results

No visual indications of the presence of underground storage tanks (USTs) were observed. However, a thorough evaluation of the ground surface was hindered by the presence of snow and ice. Normally, areas of stained soils or stressed vegetation are noted.

On March 5, 1996, Drake drilled two soil borings (designated nos. B-1 and B-2) with a hand-operated electric, flighted-stem auger system. The boring locations are illustrated on the attached Figure 2. The borings were drilled on the east and south sides of the existing building at the property to depths of 10 feet. A description of the flighted auger system sampling procedure is attached.

Drake collected a total of twelve soil samples from the borings. Each sample was transferred to four separate containers: an 8-ounce glass jar and three 2-ounce glass jars. Drake filled the 8-ounce jars approximately halfway, and filled the 2-ounce jars completely. The 2-ounce jars were placed in a cooler filled with ice for possible submittal to an independent DNR-certified laboratory for analytical testing. Drake followed Chain of Custody procedures as outlined in the DNR's LUST guidance

(PUBL-SW-130 93) dated July 1993 throughout sample handling and laboratory submittal. A copy of the Chain of Custody record is attached.

Drake evaluated the 8-ounce samples to identify the general soil types and presence or absence of solvent odors and/or staining in the soils. The fill materials and natural soils encountered in the borings consisted of fine sand with a trace to some fine and coarse gravel. Chemical odors or staining were not noted in the samples collected from the two borings. Groundwater was encountered in the borings at 10 feet. Based upon the elevation of the subject site in relation to Lake Mohawksin, the depth to groundwater at the site is estimated to be within 10 to 15 feet of the ground surface. Lake Mohawksin is located approximately 2,500 feet northwest of the property.

Following completion of drilling and soil sampling, the boreholes were backfilled with bentonite and capped with sand and gravel. Copies of the boring logs and borehole abandonment forms are attached.

Drake personnel screened the 8-ounce samples with a photoionization detector (PID) to evaluate the presence of petroleum contamination. A description of the PID screening procedure is also attached. PID screening provides a qualitative measurement of volatile organic vapors which suggest the presence of VOCs with ionization potentials equal to or less than 10.6 electron volts (eV). VOCs include compounds commonly present in dry cleaning solvents. One soil sample collected at the groundwater table from each boring was submitted to a laboratory for analysis to confirm the presence or absence of contamination. Soil sample nos. B-1:S-6 and B-2:S-6 (collected at depths of 9.5 to 10 feet) were submitted to U. S. Oil Company, Inc., a certified analytical laboratory in Kimberly, Wisconsin for analysis. U.S. Oil analyzed the samples for VOCs following EPA Method 8021.

Table 1 presents the results of the PID field screening and analytical testing of the samples.

TABLE 1
PID Field Screening and Laboratory Analysis Results
Former Tomahawk Cleaners Property
Tomahawk, Wisconsin
Drake Project No. B96011

<u>Sample No.</u>	<u>Sample Interval (ft.)</u>	<u>Time Collected</u>	<u>PID Reading (instrument units)</u>	<u>VOCs (ppb)</u>
B-1:S-1	1-1.5	0950	1.7	NA
B-1:S-2	3-3.5	1000	<1	NA
B-1:S-3	5-5.5	1016	<1	NA
B-1:S-4	6.5-7	1200	<1	NA
B-1:S-5	8.5-9	1230	<1	NA
B-1:S-6*	9.5-10	1300	<1	ND**
B-2:S-1	1-1.5	1320	<1	NA
B-2:S-2	3-3.5	1345	<1	NA
B-2:S-3	5-5.5	1357	<1	NA
B-2:S-4	6.5-7	1442	<1	NA
B-2:S-5	8.5-9	1451	<1	NA
B-2:S-6*	9.5-10	1500	<1	ND**

ppb = parts per billion

NA = not analyzed

*Sample submitted for laboratory analysis.

**None detected above laboratory method detection limits. See attached laboratory reports for a list of the VOC parameters and their respective detection limits.

To evaluate the significance of the PID screening, we compared the results to 10, a guideline limit frequently used by the DNR to identify the presence of contamination.

The PID was calibrated with isobutylene to benzene equivalents and the results are expressed in instrument units (iu). All field screened soil samples produced PID responses of less than 2 iu. These results suggest that contaminated soil did not exist in any of the borings.

The laboratory analysis results indicated no detectable concentrations of VOCs above the laboratory method detection limits. The U.S. Oil laboratory report is attached.

Conclusions and Recommendations

Based on the results of the PID field screening and laboratory results, soil contamination due to dry cleaning solvents does not exist at the locations and depths of the borings drilled during this limited Phase II Environmental Assessment. Due to the

lack of indications of soil contamination at the groundwater table, groundwater contamination does not likely exist at the site. Therefore, it is Drake's opinion that no further investigation or remediation is warranted at the former Tomahawk Cleaners property at this time.

General Qualifications

Drake conducts their services with that degree of care and skill ordinarily exercised by members of the environmental consulting community practicing under similar conditions at the same time in the same or similar locality.

The field procedures Drake followed in completing this limited Phase II Environmental Assessment are in general accordance with applicable regulations of the Wisconsin DNR at the time the work was conducted.

The results and conclusions presented in this letter are based on the data obtained from the specific sampling locations at the time and under the conditions stated in this letter. Variations in soil conditions typically exist at most sites. If variations are noted in the future, Drake should be informed. It may be necessary to conduct additional explorations and observations to determine the characteristics of these variations, and provide a re-evaluation of the conclusions in this letter.

This study was also completed to identify potential environmental liabilities. Drake assumes no responsibility for the discovery and elimination of hazards that could possibly cause accidents, injuries, or damage. Compliance with the recommendations and/or suggestions contained in this letter in no way assures elimination of hazards or a fulfillment of a property owner's obligation under local, state, or federal laws. It is the responsibility of the property owner to notify authorities of any conditions that are in violation of the current legal standards.

The findings and conclusions contained in this letter are based on various factors as they existed at the time of this study. Changes or modifications to the site and/or facilities made after the site visit are not included.

Drake prepared this letter at the request of their client. Drake assumes responsibility for the accuracy of the contents of this letter subject to what is stated elsewhere in this

section, but recommends the letter be used only for the purpose intended by the client and Drake when the letter was prepared. Drake accepts no responsibility for application or interpretation of the results by anyone other than the client

We appreciate the opportunity to provide environmental consulting services.

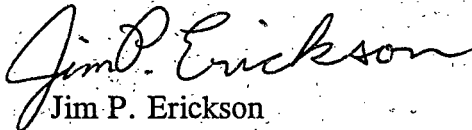
If you have any questions regarding this letter, please feel free to call Todd Troskey at 1-800-358-7018.

Respectfully,

DRAKE ENVIRONMENTAL, INC.



Todd D. Troskey
Associate Project Manager

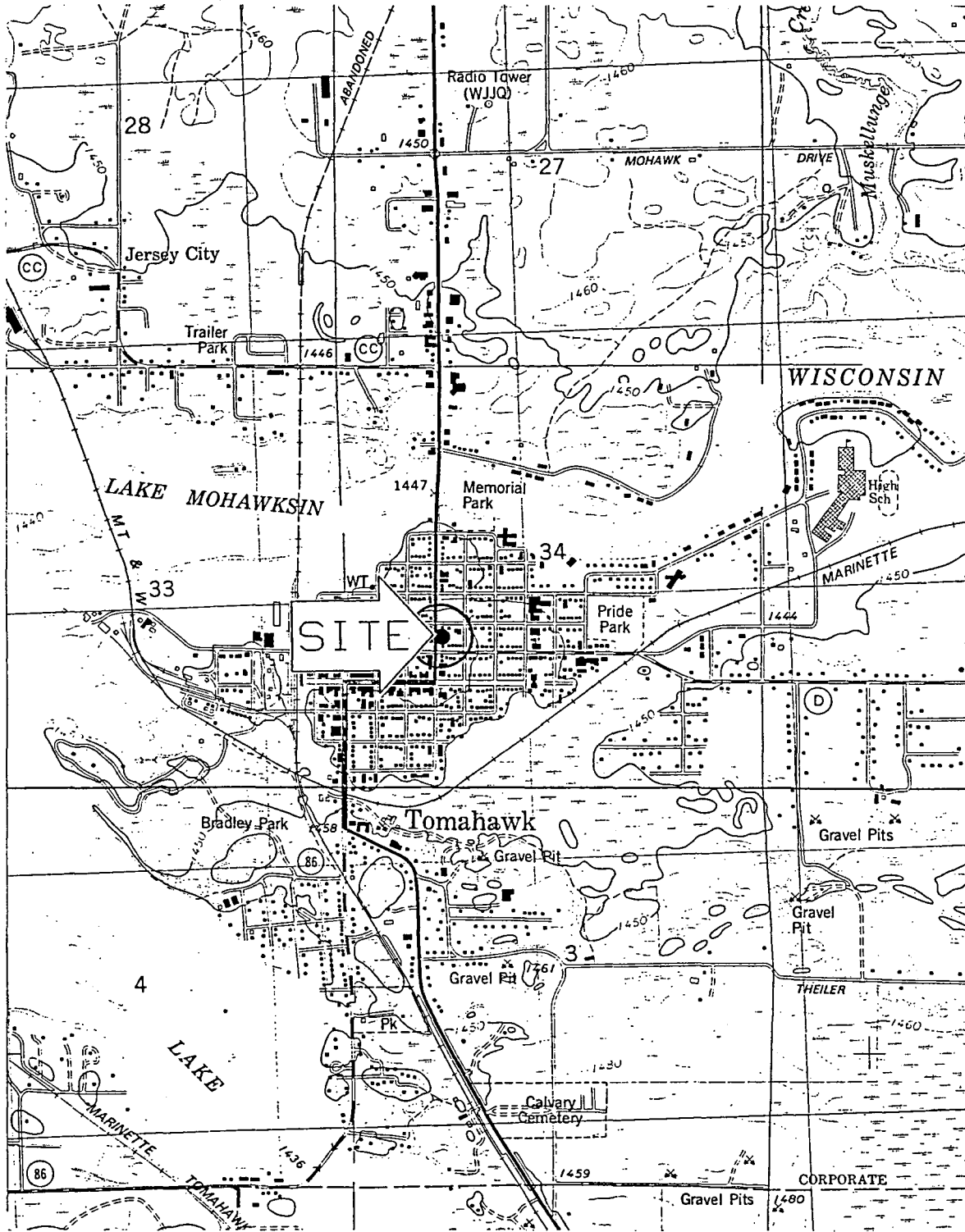


Jim P. Erickson
Branch Director

Attachments
10/B96002A

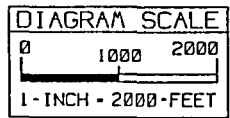
References

- 1) United States Geological Survey, Tomahawk, Wisconsin, 7.5 Minute Quadrangle Topographic Map, 1982.



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TOMAHAWK - WISCONSIN
 NE 1/4 SW 1/4 SEC 34 T35N R6E



FORMER TOMAHAWK CLEANERS
 PHASE II

PROJECT NO. B95011	PA TDT
TOPO COPIED DATE: 03/05/96	
CHECKED BY	DATE:
APPRVD BY	DATE:

VICINITY
 DIAGRAM

FIGURE
 1

FILE:



DIAGRAM SCALE

0 5 10

1-INCH = 10-FEET

ALL DIMENSIONS ON THIS DIAGRAM ARE APPROXIMATE

BUILDING

ALLEY

NORTH 4th STREET

SIDEWALK

SITE ADDRESS
 114 NORTH 4TH STREET
 TOMAHAWK, WISCONSIN

NATURAL GAS LINE

B-2

GAS METER STAIRS
 OVERHEAD ELECTRIC AND TELEPHONE

FENCE

B-1

NATURAL GAS LINE

ASPHALT PARKING LOT

• BORING LOCATION

RESIDENCE



FORMER TOMAHAWK CLEANERS
 PHASE II

PROJECT NO. B96011 | PA TOT
 DRAWN BY RJP DATE: 03/05/96
 CHECKED BY DATE:
 APPRVD BY DATE:

SITE
 DIAGRAM

FIGURE
 2

SOIL SAMPLING AND SCREENING PROCEDURES

Hand-Operated Flighted-Stem Auger System Sampling Method

The hand-operated flighted-stem auger system uses a Bosch electromechanical rotary hammer, 3-foot sections of 2-inch outside diameter (OD) flighted augers, 4-foot sections of 1-inch OD sampling rods, one 6-inch long, 1.5-inch OD core sampler, and a 15-pound hammer attachment.

The flighted auger sections are advanced into the ground to the top of the desired sampling depth. The augers are then extracted from the boring. The required length of sampling rod and the core sampler are assembled and inserted into the boring. The hammer attachment is threaded onto the top of the sampling rod apparatus. The sampling rod apparatus is then driven into the ground approximately 6 inches (the length of the core sampler). The core sampler is then extracted from the boring. An aluminum retaining cylinder is withdrawn from inside the core sampler and the required samples can be collected. Following sample collection, the core sampler and retaining cylinder are decontaminated with an Alconox detergent/water wash and a double-rinse in potable water. All sampling rods and auger sections are decontaminated with an Alconox detergent/water wash and a double-rinse in potable water.

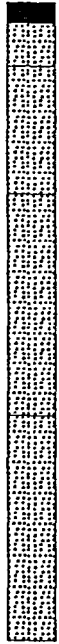
PID SCREENING PROCEDURE

To evaluate soils for the presence of volatile organic compounds (VOCs), soil samples are screened with an OVM Model 580B photoionization detector (PID) equipped with a 10.6 electron-volt (eV) lamp calibrated to isobutylene. The PID provides a qualitative measure of VOCs with ionization potentials less than 10.6 eV, which include those present in the more volatile petroleum fuels and solvents.

A representative portion of soil is placed in an 8-ounce glass jar and sealed with an air tight (inner lined) metal lid. The jar is filled about half full. The sealed jar is allowed to warm to approximately 70°F for a minimum period of 15 minutes, dependent on the ambient air temperature. The actual time period the samples are allowed to warm is in general accordance with the Wisconsin Department of Natural Resources (DNR) guidelines set forth in "LUST Field Screening Procedures," PUBL-SW-176, September 1992. Following agitation of the container for 60 seconds, the lid of the jar is slightly opened, the PID probe tip is inserted into the headspace (area in the jar above the soil), and the highest reading on the meter is recorded.

The DNR considers PID readings greater than 10 an indication of contamination by VOCs. However, lower readings do not necessarily indicate the absence of contamination, because nonvolatile contaminants may be present. PID readings are not as meaningful in such cases. In addition, the PID does not identify the types of chemicals present. All results should be evaluated by considering the contaminants present and the limitations of the PID meter.


PROJECT NAME FORMER TOMAHAWK CLEANERS PHASE II		FIELD TEC TDT	DRAWN BY TDT	BORING NUMBER
CLIENT TOWN & COUNTRY REALTY		PROJECT NUMBER B96011		B-1
LOCATION 114 NORTH 4th STREET, TOMAHAWK, WISCONSIN			LOCATION DESCRIPTION NE 1/4 SW 1/4 SEC 34 T35N R6E	

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0					4-INCHES ASPHALT			
1	1				FILL: FINE SAND WITH FINE TO COARSE GRAVEL - DARK BROWN (10YR 2/2) - MOIST	SP	1.7	
2					FILL: FINE SAND WITH FINE TO COARSE GRAVEL, TRACE PIECES OF BUILDING STYROFOAM - YELLOW BROWN (10YR 5/6) - MOIST	SP		
3	2				FILL: FINE SAND WITH FINE GRAVEL - BROWN YELLOW (10YR 6/6) - MOIST	SP	<1	
4								
5	3						<1	
6								
7	4				FINE SAND WITH FINE GRAVEL - LIGHT YELLOW BROWN (10YR 6/4) - MOIST TO 10 FEET, WET BELOW 10 FEET	SP	<1	
8	5						<1	
9								
10	6						<1	
11					BORING TERMINATED AT 10 FEET			
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.

DRILLING DATE: 3/5/96	DRILL RIG: BOSCH HAMMER	NOTES
DRILLED BY: DRAKE ENVIRONMENTAL, INC.		
BORING DRILLED WITH 2 IN. O.D. SOLID STEM AUGERS		
BOREHOLE ABANDONED WITH GRANULAR BENTONITE		
GROUND SURFACE AT N/A DURING DRILLING		
GROUNDWATER AT 10 FEET DURING DRILLING		

PROJECT NAME FORMER TOMAHAWK CLEANERS PHASE II		FIELD TEC TDT	DRAWN BY TDT	BORING NUMBER
CLIENT TOWN & COUNTRY REALTY		PROJECT NUMBER B96011		B-2
LOCATION 114 NORTH 4th STREET, TOMAHAWK, WISCONSIN		LOCATION DESCRIPTION NE 1/4 SW 1/4 SEC 34 T35N R6E		

DEPTH	SAMPLE	TYPE	N	QP	DESCRIPTION	USCS	PID	GRAPHIC
0					FILL: ORGANIC SILT (TOPSOIL), TRACE FINE GRAVEL - BLACK (10YR 2/1) - MOIST	SP		
1	1				FILL: FINE SAND WITH FINE GRAVEL, TRACE COARSE GRAVEL - YELLOW BROWN (10YR 5/6) - MOIST	SP	<1	
2								
3	2						<1	
4								
5	3						<1	
6					FINE SAND, TRACE FINE GRAVEL - YELLOW BROWN (10YR 5/6) - MOIST TO 10 FEET, WET BELOW 10 FEET	SP		
7	4						<1	
8								
9	5						<1	
10	6						<1	
11					BORING TERMINATED AT 10 FEET			
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								

NOTE: THE STRATIFICATION LINES ARE APPROXIMATE BOUNDARIES. ACTUAL TRANSITION MAY BE GRADUAL.

DRILLING DATE: 3/5/96	DRILL RIG: BOSCH HAMMER	NOTES
DRILLED BY: DRAKE ENVIRONMENTAL, INC.		
BORING DRILLED WITH 2 IN. O.D. SOLID STEM AUGERS		
BOREHOLE ABANDONED WITH GRANULAR BENTONITE		
GROUND SURFACE AT N/A DURING DRILLING		
GROUNDWATER AT 10 FEET DURING DRILLING		

B-1

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

(1) GENERAL INFORMATION		(2) FACILITY NAME	
Well/Drillhole/Borehole Location	County <u>LINCOLN</u>	Original Well Owner (If Known)	
NE 1/4 of SW 1/4 of Sec. <u>34</u> ; T. <u>35</u> N.; R. <u>6</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W (If applicable)		Present Well Owner	
Gov't Lot _____ Grid Number _____		Street or Route	
Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S., _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		City, State, Zip Code	
Civil Town Name <u>TOMAHAWK</u>		Facility Well No. and/or Name (If Applicable) WI Unique Well No. <u>B-1</u> _____	
Street Address of Well <u>114 N. 4TH STREET</u>		Reason For Abandonment <u>EXPLORATORY BERING</u>	
City, Village <u>TOMAHAWK</u>		Date of Abandonment <u>3/5/96</u>	

WELL/DRILLHOLE/BOREHOLE INFORMATION		(4) Depth to Water (Feet) <u>10.0</u>	
(3) Original Well/Drillhole/Borehole Construction Completed On (Date) <u>3/5/96</u>		Pump & Piping Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Drillhole <input checked="" type="checkbox"/> Borehole		Liner(s) Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	
Construction Report Available? <input type="checkbox"/> Yes <input type="checkbox"/> No		Screen Removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug		Casing Left in Place? <input type="checkbox"/> Yes <input type="checkbox"/> No <u>NA</u>	
Other (Specify) _____		If No, Explain _____	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Was Casing Cut Off Below Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Total Well Depth (ft.) <u>10.0</u> Casing Diameter (ins.) _____		Did Sealing Material Rise to Surface? <input type="checkbox"/> Yes <input type="checkbox"/> No	
(From ground surface)		Did Material Settle After 24 Hours? <input type="checkbox"/> Yes <input type="checkbox"/> No <u>NA</u>	
Casing Depth (ft.) _____		If Yes, Was Hole Retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Was Well Annular Space Grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		(5) Required Method of Placing Sealing Material	
If Yes, To What Depth? _____ Feet		<input checked="" type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped	
		<input type="checkbox"/> Dump Bailer <input type="checkbox"/> Other (Explain) _____	
		(6) Sealing Materials For monitoring wells and monitoring well boreholes only	
		<input type="checkbox"/> Neat Cement Grout	
		<input type="checkbox"/> Sand-Cement (Concrete) Grout	
		<input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite Pellets	
		<input type="checkbox"/> Clay-Sand Slurry <input checked="" type="checkbox"/> Granular Bentonite	
		<input type="checkbox"/> Bentonite-Sand Slurry	
		<input type="checkbox"/> Chipped Bentonite	

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
<u>NATIVE SOIL</u>	Surface	<u>.2</u>		
<u>GRANULAR BENTONITE</u>	<u>.2</u>	<u>10</u>	<u>2 QTS.</u>	

(8) Comments: _____

(9) Name of Person or Firm Doing Sealing Work
DRAKE ENVIRONMENTAL

Signature of Person Doing Work <u>T. Coakley</u>	Date Signed <u>3/5/96</u>
Street or Route <u>P.O. Box 610</u>	Telephone Number <u>(715) 358-7018</u>
City, State, Zip Code <u>MILWAUKEE, WI 53248</u>	

(10) FOR DNR OR COUNTY USE ONLY	
Date Received/Inspected	District/County
Reviewer/Inspector	
Follow-up Necessary	

All abandonment work shall be performed in accordance with the provisions of Chapters NR 111, NR 112 or NR 141, Wis. Admin. Code, whichever is applicable. Also, see instructions on back.

B-2

1) GENERAL INFORMATION		(2) FACILITY NAME	
Well/Drillhole/Borehole Location	County <u>LINCOLN</u>	Original Well Owner (If Known)	
<u>NE 1/4 of SW 1/4 of Sec. 34 ; T. 35 N; R. 6</u> (If applicable)	<input checked="" type="checkbox"/> E <input type="checkbox"/> W	Present Well Owner	
Gov't Lot	Grid Number	Street or Route	
Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		City, State, Zip Code	
Civil Town Name <u>TOMAHAWK</u>		Facility Well No. and/or Name (If Applicable)	WI Unique Well No.
Street Address of Well <u>114 N. 4TH STREET</u>		<u>B-2</u>	
City, Village <u>TOMAHAWK</u>		Reason For Abandonment <u>EXPLORATORY BRINE</u>	
		Date of Abandonment <u>3/5/96</u>	

WELL/DRILLHOLE/BOREHOLE INFORMATION

3) Original Well/Drillhole/Borehole Construction Completed On
(Date) 3/5/96

Monitoring Well
 Water Well
 Drillhole
 Borehole

Construction Report Available?
 Yes No

Construction Type:
 Drilled Driven (Sandpoint) Dug
 Other (Specify)

Formation Type:
 Unconsolidated Formation Bedrock

Total Well Depth (ft.) 10 Casing Diameter (ins.)
(From ground surface)

Casing Depth (ft.)

Was Well Annular Space Grouted? Yes No Unknown
If Yes, To What Depth? Feet

(4) Depth to Water (Feet) 10.0

Pump & Piping Removed? Yes No Not Applicable
Liner(s) Removed? Yes No Not Applicable
Screen Removed? Yes No Not Applicable
Casing Left in Place? Yes No NA
If No, Explain

Was Casing Cut Off Below Surface? Yes No
Did Sealing Material Rise to Surface? Yes No NA
Did Material Settle After 24 Hours? Yes No
If Yes, Was Hole Retopped? Yes No

(5) Required Method of Placing Sealing Material
 Conductor Pipe (Gravity) Conductor Pipe-Pumped
 Dump Bailer Other (Explain)

(6) Sealing Materials For monitoring wells and monitoring well boreholes only
 Neat Cement Grout
 Sand-Cement (Concrete) Grout
 Concrete
 Clay-Sand Slurry
 Bentonite-Sand Slurry
 Chipped Bentonite
 Bentonite Pellets
 Granular Bentonite

(7) Sealing Material Used	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	Mix Ratio or Mud Weight
<u>NATIVE SOIL</u>	<u>Surface</u>	<u>3</u>	<u> </u>	
<u>GRANULAR BENTONITE</u>	<u>3</u>	<u>10.0</u>		

(8) Comments:

(9) Name of Person or Firm Doing Sealing Work
DRAKE ENVIRONMENTAL

Signature of Person Doing Work T. Murphy Date Signed 3/5/96

Street or Route P.O. Box 610 Telephone Number (800) 358-7018

City, State, Zip Code

(10) FOR DNR OR COUNTY USE ONLY

Date Received/Inspected District/County

Reviewer/Inspector

Follow-up Necessary

CHAIN OF CUSTODY RECORD



Analytical Lab

425 S. Washington St., P.O. Box 25
Combined Locks, WI 54113 (414) 735-8295

Chain # No 2958

Page 1 of 1

Lab I.D. # 5012668
Account No.: _____ Quote No.: NO QUOTE

Project #: B96011 Sample Integrity - To completed by receiving lab.
Method of Shipment: Courier Temp. of Temp. Blank. _____ °C On Ice:
Sampler: (signature) Todd Trostkey Sample Condition: (good) cracked/broken bottle, improper seal): Seal intact

Project (Name / Location): FORMER TOMAHAWK / 114 N. 4TH STREET
CLEANERS / TOMAHAWK, WI Analysis Requested

Reports To: TODD TROSTKEY Invoice To: D.C. SCHULZ
Company: DRAKE ENVIRONMENTAL Company: TOWN & COUNTRY REALTY
Address: P.O. Box 610 Address: P.O. Box 375
City State Zip: MINOCQUA WI, 54548 City State Zip: TOMAHAWK WI 54487
Phone: (715) 358-7018 Phone: (715) 453-3733

Sample Handling Request										Other Analysis	
Rush Analysis Date Required _____											
<input checked="" type="checkbox"/> Normal Turn Around											
DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8020)	BTEX (EPA 8020)	VOC (EPA 8021)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point			PID/FID

Lab I.D.	Sample I.D.	Collection		No. of Containers Size and Type	Description			Preservation	DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8020)	BTEX (EPA 8020)	VOC (EPA 8021)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point	PID/FID
		Date	Time		Water	Soil	Other (specify)											
<u>5012668 A</u>	<u>B-1; S-6</u>	<u>3/5</u>	<u>1300</u>	<u>3-202 glass</u>		<u>X</u>							<u>X</u>					
<u>↓ B</u>	<u>B-2; S-6</u>	<u>3/5</u>	<u>1500</u>	<u>3-202 glass</u>		<u>X</u>							<u>X</u>					

Department Use Only
Split Samples: Offered? Yes ___ No ___
Accepted? Yes ___ No ___
Accepted By: _____
Comments/ Special Instructions: Voc preserved in laboratory. Run unmodified per Todd T. 545 3-7-96

Department Use Optional for Soil Samples
Disposition of unused portion of sample
Lab Should: _____
____ Dispose _____ Retain for ___ days
____ Return _____ Other _____
Relinquished By: (sign) _____ Time _____ Date 3/6 Received By: (sign) _____ Time _____ Date 12:17 3-6-96

Received in Laboratory By: Scott Dequan Date: 3-7-96 Time: 9:20

Analytical Laboratory

1090 Kennedy Ave. Kimberly, WI 54136
414-735-8295

WI DNR Certified Lab #445027660

Method 8021 Volatile Organic Compounds (Methanol Preserved in Laboratory)

Todd Trosky
Drake Environmental
8554 Hwy. 51 North
Minocqua, WI 54548-0610

Project #: B96011
Project: Former Tomahawk Cleaners
Sample ID: B-1; S-6
Lab Code: 5012668A
Sample Type: Soil
Sample Date: 05-Mar-96
Date Analyzed: 07-Mar-96

Report Date: 12-Mar-96
Analyzed By: C. Rotar

ANALYTE	RESULT UG/KG	MDL UG/KG	PQL UG/KG	CONFIRMED METHOD
Benzene	< 25	5	14	
Bromobenzene	< 25	4	11	
Bromodichloromethane	< 25	2	7	
n-Butylbenzene	< 25	5	17	
sec-Butylbenzene	< 25	5	15	
tert-Butylbenzene	< 25	6	19	
Carbon Tetrachloride	< 25	6	20	
Chlorobenzene	< 25	3	9	
Chloroethane	< 25	6	19	
Chloroform	< 25	3	10	
Chloromethane	< 25	8	24	
2-Chlorotoluene	< 25	4	13	
4-Chlorotoluene	< 25	4	12	
1,2-Dibromo-3-Chloropropane	< 25	9	30	
Dibromochloromethane	< 25	5	15	
1,2-Dichlorobenzene	< 25	5	15	
1,3-Dichlorobenzene	< 25	4	11	
1,4-Dichlorobenzene	< 25	4	11	
Dichlorodifluoromethane	< 25	3	10	
1,1-Dichloroethane	< 25	3	10	
1,2-Dichloroethane	< 25	3	11	
1,1-Dichloroethene	< 25	5	15	
cis-1,2-Dichloroethene	< 25	2	6	
trans-1,2-Dichloroethene	< 25	4	13	
1,2-Dichloropropane	< 25	3	9	
1,3-Dichloropropane	< 25	7.9	25	

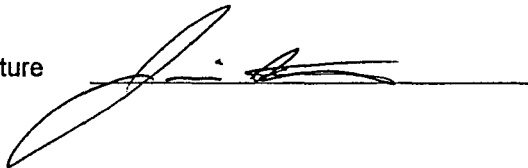
ANALYTE	RESULT UG/KG	MDL UG/KG	PQL UG/KG	CONFIRMED METHOD
2,2-DCP, cis-1,2-Dichloroethene	< 25	7	22	
Di-Isopropyl Ether	< 25	6	18	
Ethylbenzene	< 25	4	14	
EDB (1,2-Dibromoethane)	< 25	8	24	
Hexachlorobutadiene	< 25	3	11	
Isopropylbenzene	< 25	5	14	
p-Isopropyltoluene	< 25	5	15	
Methylene Chloride	< 100	5	17	
MTBE	< 25	5	15	
Naphthalene	< 25	13	41	
n-Propylbenzene	< 25	7	22	
1,1,2,2-Tetrachloroethane	< 25	14	43	
Tetrachloroethene	< 25	3	9	
Toluene	< 25	11	35	
1,2,3-Trichlorobenzene	< 25	8	24	
1,2,4-Trichlorobenzene	< 25	6	20	
1,1,1-Trichloroethane	< 25	8	26	
1,1,2-Trichloroethane	< 25	8	24	
Trichloroethene	< 25	2	7	
Trichlorofluoromethane	< 25	22	71	
1,2,4-Trimethylbenzene	< 25	5	14	
1,3,5-Trimethylbenzene	< 25	4	14	
Vinyl Chloride	< 25	5	16	
m & p-Xylene	< 50	9	28	
o-Xylene	< 25	4	11	

Fluorobenzene Surrogate 107 % Rec.
1,4-Dichlorobutane Surrogate 105 % Rec.
Total % Solids 96.4 %

ND = Compound Not Detected
MDL = Method Detection Limit
PQL = Practical Quantitation Limit

C = Confirmed
NC = Not Confirmed
NA = Not Applicable

Authorized Signature



Analytical Laboratory

 1090 Kennedy Ave. Kimberly, WI 54136
 414-735-8295

WI DNR Certified Lab #445027660

QC Summary
Method 8021 Volatile Organic Compounds

 Project #: B96011 Report Date: 11-Mar-96
 Sample ID: B-1; S-6 Lab Code: 5012668A

ANALYTE	INITIAL CALIBRATION	KNOWN STANDARD	MATRIX SPIKE	REPLICATE SPIKE	BLANK	PID SURROGATE	HALL SURROGATE
Benzene	P	P	P	P	P	P	P
Bromobenzene	P	P	P	P	P	P	P
Bromodichloromethane	P	P	P	P	P	P	P
n-Butylbenzene	P	P	P	P	P	P	P
sec-Butylbenzene	P	P	P	P	P	P	P
tert-Butylbenzene	P	P	P	P	P	P	P
Carbon Tetrachloride	P	P	P	P	P	P	P
Chlorobenzene	P	P	P	P	P	P	P
Chloroethane	P	P	P	P	P	P	P
Chloroform	P	P	P	P	P	P	P
Chloromethane	P	F	P	P	P	P	P
2-Chlorotoluene	P	P	P	P	P	P	P
4-Chlorotoluene	P	P	P	P	P	P	P
1,2-Dibromo-3-Chloropropane	P	F	P	P	P	P	P
Dibromochloromethane	P	F	P	P	P	P	P
1,2-Dichlorobenzene	P	P	P	P	P	P	P
1,3-Dichlorobenzene	P	P	P	P	P	P	P
1,4-Dichlorobenzene	P	P	P	P	P	P	P
Dichlorodifluoromethane	P	F	P	P	P	P	P
1,1-Dichloroethane	P	P	P	P	P	P	P
1,2-Dichloroethane	P	P	P	P	P	P	P
1,1-Dichloroethene	P	P	P	P	P	P	P
cis-1,2-Dichloroethene	P	P	P	P	P	P	P
trans-1,2-Dichloroethene	P	P	P	P	P	P	P
1,2-Dichloropropane	P	P	P	P	P	P	P
1,3-Dichloropropane	P	P	P	P	P	P	P
2,2-Dichloropropane, cis-1,2-Dichloroethene	P	P	P	P	P	P	P
Di-Isopropyl Ether	P	P	P	P	P	P	P
Ethylbenzene	P	P	P	P	P	P	P
EDB (1,2-Dibromoethane)	P	F	P	P	P	P	P
Hexachlorobutadiene	P	P	P	P	P	P	P
Isopropylbenzene	P	P	P	P	P	P	P
p-Isopropyltoluene	P	P	P	P	P	P	P
Methylene Chloride	P	P	P	P	P	P	P
MTBE	P	P	P	P	P	P	P
Naphthalene	P	P	P	P	P	P	P
n-Propylbenzene	P	P	P	P	P	P	P
1,1,2,2-Tetrachloroethane	P	F	P	P	P	P	P
Tetrachloroethene	P	P	P	P	P	P	P
Toluene	P	P	P	P	P	P	P
1,2,3-Trichlorobenzene	P	F	F	P	P	P	P
1,2,4-Trichlorobenzene	P	P	P	P	P	P	P
1,1,1-Trichloroethane	P	P	P	P	P	P	P
1,1,2-Trichloroethane	P	P	P	P	P	P	P
Trichloroethene	P	F	P	P	P	P	P
Trichlorofluoromethane	P	F	P	P	P	P	P
1,2,4-Trimethylbenzene	P	P	P	P	P	P	P
1,3,5-Trimethylbenzene	P	P	P	P	P	P	P
Vinyl Chloride	P	F	P	P	P	P	P
m & p-Xylene	P	P	P	P	P	P	P
o-Xylene	P	P	P	P	P	P	P

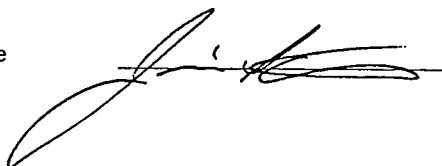
NA = Not Applicable

 P = Passed QC Limits.
 F = Failed QC Limits.

VOC analysis detected unidentified peaks.

VOC data generated from an unmodified sample.

Authorized Signature





Analytical Laboratory

1090 Kennedy Ave. Kimberly, WI 54136
414-735-8295

WI DNR Certified Lab #445027660

Method 8021 Volatile Organic Compounds
(Methanol Preserved in Laboratory)

Todd Trosky
Drake Environmental
8554 Hwy. 51 North
Minocqua, WI 54548-0610

Project #: B96011
Project : Former Tomahawk Cleaners
Sample ID: B-2; S-6
Lab Code: 5012668B
Sample Type: Soil
Sample Date: 05-Mar-96
Date Analyzed: 08-Mar-96

Report Date: 12-Mar-96
Analyzed By: C. Rotar

ANALYTE	RESULT UG/KG	MDL UG/KG	PQL UG/KG	CONFIRMED METHOD
Benzene	< 25	5	14	
Bromobenzene	< 25	4	11	
Bromodichloromethane	< 25	2	7	
n-Butylbenzene	< 25	5	17	
sec-Butylbenzene	< 25	5	15	
tert-Butylbenzene	< 25	6	19	
Carbon Tetrachloride	< 25	6	20	
Chlorobenzene	< 25	3	9	
Chloroethane	< 25	6	19	
Chloroform	< 25	3	10	
Chloromethane	< 25	8	24	
2-Chlorotoluene	< 25	4	13	
4-Chlorotoluene	< 25	4	12	
1,2-Dibromo-3-Chloropropane	< 25	9	30	
Dibromochloromethane	< 25	5	15	
1,2-Dichlorobenzene	< 25	5	15	
1,3-Dichlorobenzene	< 25	4	11	
1,4-Dichlorobenzene	< 25	4	11	
Dichlorodifluoromethane	< 25	3	10	
1,1-Dichloroethane	< 25	3	10	
1,2-Dichloroethane	< 25	3	11	
1,1-Dichloroethene	< 25	5	15	
cis-1,2-Dichloroethene	< 25	2	6	
trans-1,2-Dichloroethene	< 25	4	13	
1,2-Dichloropropane	< 25	3	9	
1,3-Dichloropropane	< 25	7.9	25	

ANALYTE	RESULT UG/KG	MDL UG/KG	PQL UG/KG	CONFIRMED METHOD
2,2-DCP, cis-1,2-Dichloroethene	< 25	7	22	
Di-Isopropyl Ether	< 25	6	18	
Ethylbenzene	< 25	4	14	
EDB (1,2-Dibromoethane)	< 25	8	24	
Hexachlorobutadiene	< 25	3	11	
Isopropylbenzene	< 25	5	14	
p-Isopropyltoluene	< 25	5	15	
Methylene Chloride	< 100	5	17	
MTBE	< 25	5	15	
Naphthalene	< 25	13	41	
n-Propylbenzene	< 25	7	22	
1,1,2,2-Tetrachloroethane	< 25	14	43	
Tetrachloroethene	< 25	3	9	
Toluene	< 25	11	35	
1,2,3-Trichlorobenzene	< 25	8	24	
1,2,4-Trichlorobenzene	< 25	6	20	
1,1,1-Trichloroethane	< 25	8	26	
1,1,2-Trichloroethane	< 25	8	24	
Trichloroethene	< 25	2	7	
Trichlorofluoromethane	< 25	22	71	
1,2,4-Trimethylbenzene	< 25	5	14	
1,3,5-Trimethylbenzene	< 25	4	14	
Vinyl Chloride	< 25	5	16	
m & p-Xylene	< 50	9	28	
o-Xylene	< 25	4	11	

Fluorobenzene Surrogate 105 % Rec.
1,4-Dichlorobutane Surrogate 106 % Rec.
Total % Solids 95.4 %

ND = Compound Not Detected
MDL = Method Detection Limit
PQL = Practical Quantitation Limit

C = Confirmed
NC = Not Confirmed
NA = Not Applicable

Authorized Signature

Analytical Laboratory

 1090 Kennedy Ave. Kimberly, WI 54136
 414-735-8295

WI DNR Certified Lab #445027660

QC Summary
Method 8021 Volatile Organic Compounds

 Project #: B96011 Report Date: 11-Mar-96
 Sample ID: B-2; S-6 Lab Code: 5012668B

ANALYTE	INITIAL CALIBRATION	KNOWN STANDARD	MATRIX SPIKE	REPLICATE SPIKE	BLANK	PID SURROGATE	HALL SURROGATE
Benzene	P	P	P	P	P	P	P
Bromobenzene	P	P	P	P	P	P	P
Bromodichloromethane	P	P	P	P	P	P	P
n-Butylbenzene	P	P	P	P	P	P	P
sec-Butylbenzene	P	P	P	P	P	P	P
tert-Butylbenzene	P	P	P	P	P	P	P
Carbon Tetrachloride	P	P	P	P	P	P	P
Chlorobenzene	P	P	P	P	P	P	P
Chloroethane	P	P	P	P	P	P	P
Chloroform	P	P	P	P	P	P	P
Chloromethane	P	F	P	P	P	P	P
2-Chlorotoluene	P	P	P	P	P	P	P
4-Chlorotoluene	P	P	P	P	P	P	P
1,2-Dibromo-3-Chloropropane	P	F	P	P	P	P	P
Dibromochloromethane	P	F	P	P	P	P	P
1,2-Dichlorobenzene	P	P	P	P	P	P	P
1,3-Dichlorobenzene	P	P	P	P	P	P	P
1,4-Dichlorobenzene	P	P	P	P	P	P	P
Dichlorodifluoromethane	P	F	P	P	P	P	P
1,1-Dichloroethane	P	P	P	P	P	P	P
1,2-Dichloroethane	P	P	P	P	P	P	P
1,1-Dichloroethene	P	P	P	P	P	P	P
cis-1,2-Dichloroethene	P	P	P	P	P	P	P
trans-1,2-Dichloroethene	P	P	P	P	P	P	P
1,2-Dichloropropane	P	P	P	P	P	P	P
1,3-Dichloropropane	P	P	P	P	P	P	P
2,2-Dichloropropane, cis-1,2-Dichloroethene	P	P	P	P	P	P	P
Diisopropyl Ether	P	P	P	P	P	P	P
Ethylbenzene	P	P	P	P	P	P	P
EDB (1,2-Dibromoethane)	P	F	P	P	P	P	P
Hexachlorobutadiene	P	P	P	P	P	P	P
Isopropylbenzene	P	P	P	P	P	P	P
p-Isopropyltoluene	P	P	P	P	P	P	P
Methylene Chloride	P	P	P	P	P	P	P
MTBE	P	P	P	P	P	P	P
Naphthalene	P	P	P	P	P	P	P
n-Propylbenzene	P	P	P	P	P	P	P
1,1,2,2-Tetrachloroethane	P	F	P	P	P	P	P
Tetrachloroethene	P	P	P	P	P	P	P
Toluene	P	P	P	P	P	P	P
1,2,3-Trichlorobenzene	P	F	F	P	P	P	P
1,2,4-Trichlorobenzene	P	P	P	P	P	P	P
1,1,1-Trichloroethane	P	P	P	P	P	P	P
1,1,2-Trichloroethane	P	P	P	P	P	P	P
Trichloroethene	P	P	P	P	P	P	P
Trichlorofluoromethane	P	F	P	P	P	P	P
1,2,4-Trimethylbenzene	P	P	P	P	P	P	P
1,3,5-Trimethylbenzene	P	P	P	P	P	P	P
Vinyl Chloride	P	F	P	P	P	P	P
m & p-Xylene	P	P	P	P	P	P	P
o-Xylene	P	P	P	P	P	P	P

NA = Not Applicable

P = Passed QC Limits.

F = Failed QC Limits.

VOC analysis detected unidentified peaks.

VOC data generated from an unmodified sample.

Authorized Signature

