REINHART
BOERNER▪VAN DEUREN s.c.
ATTORNEYS AT LAW

March 22, 2006

Donald P. Gallo, Esq., P.E.
Direct Dial: 262-951-4555
dgallo@reinhartlaw.com

Mr. John Stibal
City of West Allis
7525 West Greenfield Avenue
West Allis, WI 53214

Dear John:

Re: Request for Wisconsin Ready for Reuse Brownfields Program Loan

Per our telephone conversation today, we are submitting the Application Part I: Eligibility Determination Wisconsin Ready for Reuse Program (see attached) for you to complete. We have provided all the information that we have access to. This is the first phase of the application process. Upon approval by the Wisconsin Department of Natural Resources ("WDNR"), we will schedule a meeting with WDNR-RR staff to discuss eligibility. We appreciate your support of this project.

On behalf of our client, Dorothy G, Inc., operator of the Redi-Quik Drycleaners at 9508 West Greenfield Avenue, West Allis, we seek your assistance in securing a loan for clean-up of chlorinated solvents on this site. As you may be aware, the Wisconsin Department of Natural Resources' ("WDNR") newly created *Ready for Reuse Loan and Grant Program* has $4,000,000 available this year for the cleanup of contamination from hazardous substances or hazardous substances commingled with petroleum products and cleanup of petroleum contamination that is not eligible for Petroleum Environmental Cleanup Fund Act ("PECFA") reimbursement.

Eligible applicants must be a local government unit ("LGU"), must not have caused the contamination and may or may not own the land. If they do not, the property owner cannot have liability under CERCLA or have caused the contamination. The site meets all of the requirements to be eligible for a loan. Grants are available only if the LGU is the property owner.

Since the late 1950's, this commercial site has been operating as a drycleaning facility. Prior to that, it was a retail gasoline station. The site is bordered by residential properties to the north and west, 95th Street to the east and Greenfield Avenue to the south. The neighboring property line to the north abuts the building which is the highest concentration of contaminants. A significant percentage of the plume lies on the residential property to the north. They are very concerned that there is vapor migration pathways on their property and in their basement. They have suggested that Dorothy G, Inc., purchase their home/land for compensatory damages. The source of the release has been attributed to a 1000 gallon underground storage tank that stored perchloroethylene ("PCE") and which was abandoned in place prior to Dorothy G's occupancy which supports the requirement that Dorothy G did not cause the release. Dorothy G is eligible for reimbursement of costs associated with the investigation and cleanup via the Drycleaning Reimbursement Fund ("DERF"). They have competed the Site Investigation to WDNR satisfaction and have defined the vertical and horizontal limits of the PCE and its degradation products. DERF reimbursed them for all eligible costs this past month for activities related to completing the Site Investigation. Last year, they solicited proposals from three (3) environmental consultants to estimate remediation costs. These bids were also submitted to WDNR and a selection for a remedial plan is anticipated.

Dorothy G has diligently stayed in regulatory compliance but they have exhausted all of their available funds which now precludes them from contracting with a consultant to perform the cleanup. They will be reimbursed by the DERF but are not able to front that money for the remediation and reimbursement time frame (up to 3 years).

Due to the high levels of soil contamination on the neighbor's property, this site would require upwards of $250,000 for aggressive but focused cleanup costs. Dorothy G, Inc., simply does not have these resources to cash flow the required cleanup funds. They will be forced into an untenable situation which may result in foreclosure and vacancy of this property. Dorothy G., Inc. entered into a Land Contract agreement on October 30, 2003 for the 9508-9510 W. Greenfield properties. They also own a narrow strip of land that extends from Greenfield Avenue to the north between the garages. The address is 9518 W. Greenfield. Potentially all three parcels would

become undesirable and fall into tax delinquency. Completing the remediation would keep these properties viable.

Projects are selected by WDNR based on several criteria. This site meets at least three out of five of these:

- the project has submitted a remedial action plan to WDNR;
- this project is unlikely to advance without funding;
- This project will contribute to sustainable development.

The City of West Allis has proven to be innovative and supportive of similar projects and we appeal to you to sponsor this loan request.

Yours very truly,

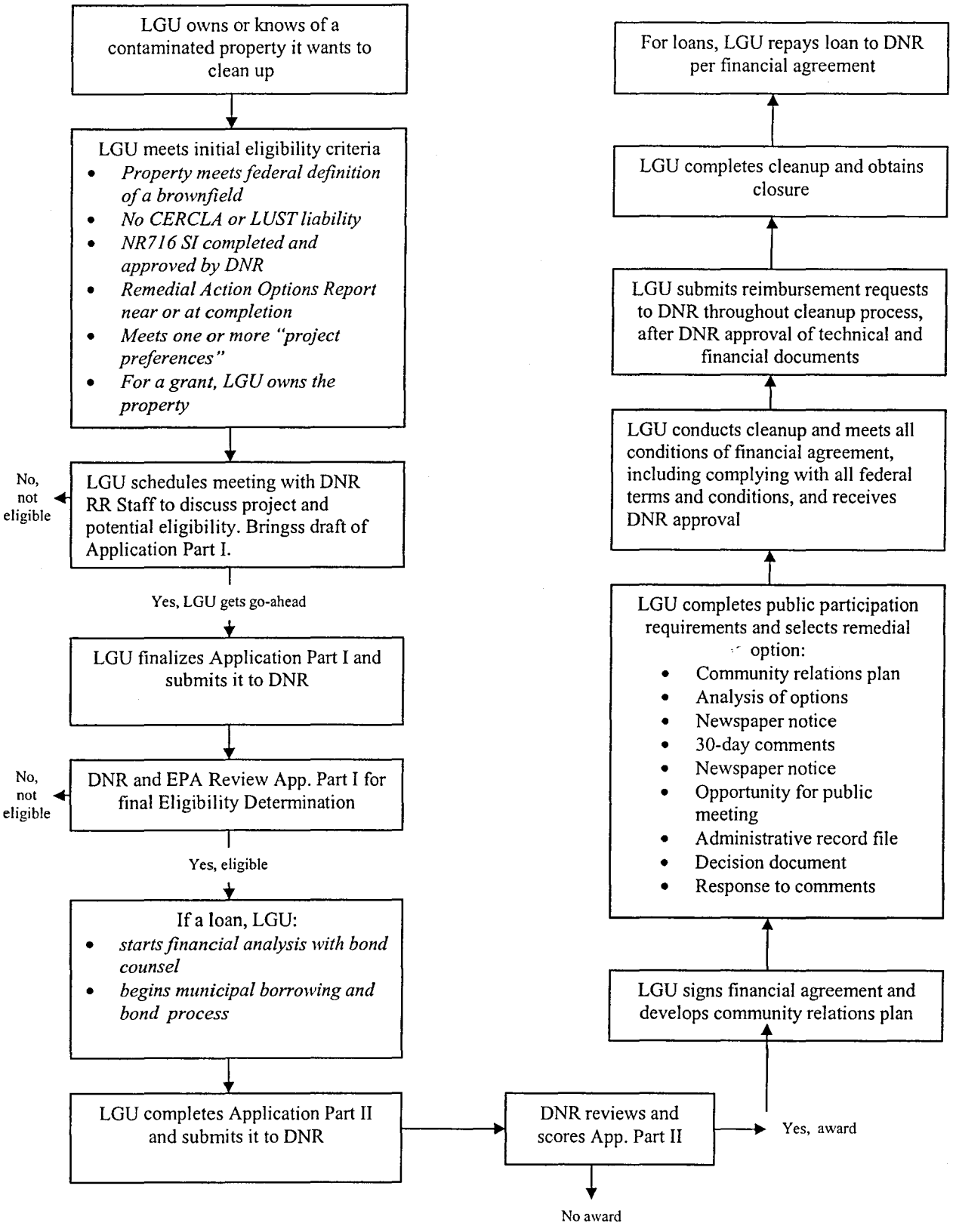
Donald P. Gallo

Donald P. Gallo

Waukesha\38198MLW:TMS

cc Mr. Sam Gruichich (w/ encs.)
Mr. James Schmidt (w/ encs.)
Mr. Binyoti Amungwafor (w/ encs.)

Wisconsin Ready for Reuse Brownfields Program
Loan & Grant Application Process



February, 2006

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

Application Part I: Eligibility Determination
Wisconsin Ready for Reuse Program

Form 4400-238 (2/06)

Notice: Use of this form is required by the DNR for any application filed pursuant to s. 292.72, Wis. Stats. Personally identifiable information collected will be used for loan and grant administration and will also be accessible by request under Wisconsin's Open Records law. [ss. 19.31 – 19.69, Wis. Stats.]. Applications must be complete in order to be processed.

DNR Use Only		
Region	Application No.	Eligible? ☐ Yes ☐ No
Project Manager	Telephone Number	EPA Contact Date
Contamination? ☐ Haz Substance ☐ Petroleum ☐ HS & P co-mingled ☐ HS & P distinct		

Instructions: Please complete the following information in order to receive an eligibility determination for a Ready for Reuse loan or grant. Submit the form to the DNR for a final eligibility determination, which is done in partnership with US EPA. Submit two copies of the application and all its attachments. For additional information about this program, visit us on the DNR's web site at: http://dnr.wi.gov/org/aw/rr/financial/epa_revolvingloan.htm. Use a separate form for each loan or grant.

This Application is a: ☒ Loan Request ☐ Grant Request (maximum of $200,000)
Amount of Request:_____

This is a request to clean up:
☒ Hazardous substances only ☐ Petroleum only ☐ Both hazardous substances and petroleum, co-mingled
☐ Both hazardous substances and petroleum, not co-mingled but in distinct areas of the property

Section 1: Applicant Information			
Type of Eligible Applicant ☐ County ☐ Village ☐ Tribe ☐ Community Development Authority under s.66.1335 ☒ City ☐ Town ☐ Redevelopment Authority under s.66.1333 ☐ Housing Authority under s.66.1201			
Applicant Name City of West Allis		County Milwaukee	
Address 7525 W. Greenfield Avenue			
City West Allis		State WI	Zip Code 53214
Web Site (if applicable) www.ci.west-alis.wi.us		Population	
State Assembly District	State Senate District		

Section 2: Contact Information	
Authorized Representative (Local Gov't or Tribe)	Title
Mailing address (if different from above)	
Phone	Fax
Email	

Contact Person	Title
Mailing address (if different from above)	
Phone	Fax
Email	

Environmental Consultant or Contractor (if applicable)	Title	
Address		
City	State	Zip code
Phone	Fax	
Email		

Bond Counsel (if applicable)	Title	
Address		
City	State	Zip code
Phone	Fax	
Email		

Section 3: Property Information		
Property Name Dorothy G, Inc.		
Address 9508 – 9510 W. Greenfield		
City West Allis	State WI	Zip code 53215
Size (acres) 0.17 acres	DNR BRRTS # (if applicable) 02-41-000676	
Tax Parcel #s 443-0217-000		

Section 4: Project Information

1. How do you propose to use the Ready for Reuse funds? Check all that apply:
   - ☐ Preparation of the Remedial Action Options Report
   - ☒ Remediation Activities (environmental cleanup)
   - ☒ Monitoring of Remedial Action
   - ☒ Environmental Consulting fees
   - ☐ Public Participation costs
   - ☐ DNR review fees

☐ Demolition (if necessary to access contaminated soil or groundwater)
☐ Asbestos Abatement (if necessary for demolition)
☐ Environmental Insurance
☐ Other:
☐ Other:

2. What is your proposed match percentage? (must be at least 22%)

Section 5: Ownership

1. Who currently owns the site?
   ☐ Applicant
      - o acquisition date: _____
      - o method of acquisition:
         ☐ purchase
         ☐ tax deed/foreclosure
         ☐ escheat
         ☐ DNR stewardship funds
         ☐ condemnation or other proceedings under ch. 32
         ☐ bankruptcy
         ☐ slum or blight
         ☐ other: _____

   ☐ Another local unit of government (name _____)
   ☐ Non-profit Organization (name _____)
   ☒ Other (name and contact information: Dorothy G, Inc._____)

2. If the applicant does not own the site, does the applicant plan to acquire it? ☐ Yes ☒ No
   - If yes, when and by what means?

   - If no, does the applicant have legal access to 100% of the site? ☐ Yes ☒ No
      - o If yes, please attach access agreements.
      - o If no, how does the applicant plan to conduct cleanup on the property? current owner is conducting cleanup

Section 6: Site History

1. Give a brief history of the site and the project.

Since the late 1950's, this commercial site has been operating as a drycleaning facility. Prior to that, it was a retail gasoline station. The site is bordered by residential properties to the north and west, 95th Street to the east and Greenfield Avenue to the south. The neighboring property line to the north abuts the building which is the highest concentration of contaminants. A significant percentage of the plume lies on the residential property to the north. They are very concerned that there is vapor migration pathways on their property and in their basement. They have suggested that Dorothy G, Inc., purchase their home/land for compensatory damages. The source of the release has been attributed to a 1000 gallon underground storage tank that stored perchloroethylene ("PCE") and which was abandoned in place prior to Dorothy G's occupancy which supports the requirement that Dorothy G did not cause the release. Dorothy G is eligible for reimbursement of costs associated with the investigation and cleanup via the Drycleaning Reimbursement Fund ("DERF"). They have competed the Site Investigation to WDNR satisfaction and have defined the vertical and horizontal limits of the PCE and its degradation products. DERF reimbursed them for all eligible costs this past month for activities related to completing the Site Investigation. Last year, they solicited proposals from four (4) environmental consultants to estimate remediation costs. These bids were also submitted to WDNR and a selection for a remedial plan was approved.

Dorothy G has diligently stayed in regulatory compliance but they have exhausted all of their available funds which now precludes them from contracting with a consultant to perform the cleanup. They will be reimbursed by the DERF but are not able to front that money for the remediation and reimbursement time frame (up to 3 years).

Due to the high levels of soil contamination on the neighbor's property, this site would require upwards of $250,000 for aggressive but focused cleanup costs. Dorothy G, Inc., simply does not have these resources to cash flow the required cleanup funds. They will be forced into an untenable situation which may result in foreclosure and vacancy of this property. Dorothy G., Inc. entered into a Land Contract agreement on October 30, 2003 for the 9508-9510 W. Greenfield properties. They also own a narrow strip of land that extends from Greenfield Avenue to the north between the garages. The address is 9518 W. Greenfield (see attached map). Potentially all three parcels would become undesirable and fall into tax delinquency. Completing the remediation would keep these properties viable.

2. Past Land Uses (select all that apply)

☒ service station	☐ agricultural co-op	☐ salvage yard	☐ pipeline
☐ coal gas manufacturer	☐ electroplater	☐ manufacturing	☒ dry cleaner
☐ petroleum bulk plant	☐ tannery	☐ landfill	☐ unknown
☐ other:			

3. What is the current use of the property?

☐ industrial	☒ commercial	☐ residential	☐ agricultural
☐ recreational	☐ public use	☐ other:	

a. Is the property currently vacant? No

b. What is the current zoning for the property? Commercial [C-2]

4. Describe the existing site conditions, including existing buildings. Storage warehouse 1020 sq. ft.; drycleaners 1070 sq. ft.; retail store 578 sq. ft.

5. What environmental contaminants are known to be present at the site or facility? If possible, give specific names. Perchloroethylene and some daughter products

6. Known or suspected sources/wastes (select all that apply)

☐ foundry sand	☒ surface spills	☐ routine industrial operations	☐ transformer
☐ dumping or buried drums	☐ burning of materials	☒ underground pipeline or tank	☐ aboveground pipeline or tank
☐ contaminated building	☐ industrial accident	☐ lagoon	☐ fly ash
☐ other:			

7. Has the State of Wisconsin ever been notified of the discharge of hazardous substance(s) at the site or facility? ☒ Yes ☐ No
   - If yes, when?

8. Did the applicant cause or contribute to the contamination on the site? ☐ Yes ☒ No
   - If yes, provide details.
   - If no, describe the possible causers of contamination, and their ability to clean it up.

9. Describe the possible causers of contamination, and their current ability to clean it up. A leaking underground storage perchloroethylene tank was used by previous drycleaners prior to 1981.

10. Does the applicant have any previous or current environmental non-compliance penalties for this site or for any site from the U.S. Environmental Protection Agency, the Wisconsin Department of Natural Resource, or any other regulatory jurisdiction?
    ☐ Yes ☒ No
    - If yes, provide details

Section 7: Site Eligibility Instructions

Applicants applying for hazardous substance (non-petroleum) funds or funds for sites where there are both petroleum and hazardous substances co-mingled must complete Site Eligibility Section A.

Applicants applying for petroleum-only sites must complete Site Eligibility Section B.

Section 7 – Part A: Site Eligibility

Applicants applying for hazardous substance (non-petroleum) funds or funds for sites where there are both petroleum and hazardous substances must complete Part A.

1. Sites must meet the following criteria in order to be eligible. Check all that apply.

☒ The site is not subject to a planned or ongoing federal CERCLA removal action.
☒ The site is not listed on the Superfund National Priorities List, and is not proposed for listing.
☒ The site is not the subject of a federal unilateral administrative order, a court order, or an administrative order on consent or judicial consent decree that has been issued or entered into.
☒ The site is not undergoing RCRA corrective action for hazardous waste per an order, permit or closure plan.

☒ The site is not a facility that is subject to the jurisdiction, custody, or control of a department, agency or instrumentality of the United States, except for land held in trust by the United States by an Indian tribe.

2. Is the applicant affiliated or related in any way with any former owner or operator of the property, or with any person who may have generated hazardous substances located at or near the property, or with any person who may have transported or arranged for the transportation of hazardous substances located at or near the property? ☐ Yes ☒ No
   - If yes, explain the affiliation or relationship.

If the applicant owns the property, answer questions 3, 4 and 5.

3. *If the applicant purchased the site outright, please answer the following question.*
   Prior to the time the applicant took title to the property, or any time thereafter, did the applicant conduct any due diligence activities (e.g. file reviews, interviews, on-site investigation) into the potential presence of pollutants or hazardous substances at or near the property? ☐ Yes ☐ No
   - If yes, describe those activities and attach Phase I and II Environmental Site Assessments or other appropriate due diligence documentation.

4. Describe whether or not the original hazardous substance discharges occurred prior to ownership, after ownership, or both?

5. What activities, if any, did the applicant take to prevent new discharges after taking ownership?

If the applicant does not own the property, answer questions 6 through 9.

6. Did the owner cause the discharge of a hazardous substance on the property? ☐ Yes ☒ No
   - If yes, please explain the discharge.

7. When did the current owner purchase the property? October 30, 2003

8. At the time of the current owner's purchase:
   a. what was the purchase price of the property? $150,000.00
   b. what was the official assessed value of the property? $121,800.00

9. What due diligence did the current owner conduct prior to the purchase of the property? Petroleum investigation started in 1989; chlorinated solvent investigation begun in 2001

Section 7 – Part B: Site Eligibility

Applicants applying for petroleum-only funds must complete Part B.

1. To your knowledge, have federal LUST Trust funds been used at this site? ☐ Yes ☐ No
   - If yes, please explain.

2. Has the applicant contributed to the contamination at the site? ☐ Yes ☐ No
   - If yes, please explain.

3. Is any person that may have caused this contamination subject to state or federal environmental enforcement or a citizen suit?
   ☐ Yes ☐ No
   - If yes, please explain.

4. Has this site received a PECFA eligibility determination from the Wisconsin Department of Commerce?
   ☐ Yes – answer 4a and attach the Department of Commerce letter.
   ☐ No – answer 4b.

   a. If yes, is this site eligible for PECFA reimbursement?
      ☐ Yes
      ☐ No
      ☐ Partial Eligibility

      Please explain your answer.

b. If no, why not?

Section 8: Cleanup Information

1. Has a ch. NR 716 Site Investigation been approved by the State of Wisconsin for this site?
   ☒ Yes: Approval Date 9/17/04 Approval Agency DNR Project Manager Binyoti Amungwafor

   ☐ No: Anticipated date of submittal _____ Approval Agency _____

2. Has a ch. NR 722 Remedial Actions Option Report been completed for this site?
   ☐ Yes - If yes, answer a, b and c below.
   ☐ No

   a. What are the estimated costs of each remedial option?
   b. Which cleanup option is preferred?
   c. Briefly describe the proposed cleanup plan. Include the start and end dates.

3. Has a ch. NR 722 Remedial Actions Option Report been submitted to the DNR for review and approval?
   ☒ Yes: Date of Submittal 03/16/04 Approval Date (if approved) _____ Project Manager Binyoti Amungwafor

   ☐ No: Anticipated date of submittal _____

4. If this application is for a grant, will all the cleanup funds be encumbered in a two-year timeframe?
   ☐ Yes
   ☐ No - If no, please explain.

5. If this application is for a grant, explain what cleanup work can be done in two years.

Section 9: Financial Information

1. Has this project received other financial assistance for environmental response activities? ☒ Yes ☐ No
   - If yes, list the sources, the amounts of assistance, and what activities were funded.

2. Has the applicant applied for or formally requested any other financial assistance to offset the environmental cleanup costs? ☐ Yes ☒ No
   - If yes, list the sources and amounts.

3. Are any environmental costs eligible for reimbursement by the Dry Cleaner Environmental Response Fund (DERP) or the Agricultural Chemical Cleanup Program (ACCP) ☒ Yes ☐ No
   - If yes, describe the reimbursement source, the costs and the amounts. DERF cost $44,691.87; Reimbursement $34,691.87

Section 10: Project Preferences

1. Please check all of the preferences that your site meets:
   ☐ Community Need: The community has high levels of economic distress, high unemployment rates, high poverty rates, has experienced plant closings, etc.
   ☐ Rural Project Location
   ☒ Low Financial Stability: This project would probably not happen without this funding.
   ☒ Success Probability: This project will have sufficient funding to complete the cleanup.
   ☐ Waterfront Location
   ☐ Project will contribute to publicly accessible greeenspace.
   ☒ Project will contribute to sustainable development (such as job creation, green building construction, low energy use, etc.)
   ☐ Project conforms to a local land use plan.

Section 11: Required Attachments

Include the following attachments at the end of your completed application form.

☒ A. Map (plat map preferred)
☒ B. Photographs of site and surrounding area
☒ C. Due diligence documentation (Phase I and II Environmental Site Assessments or other available documentation)

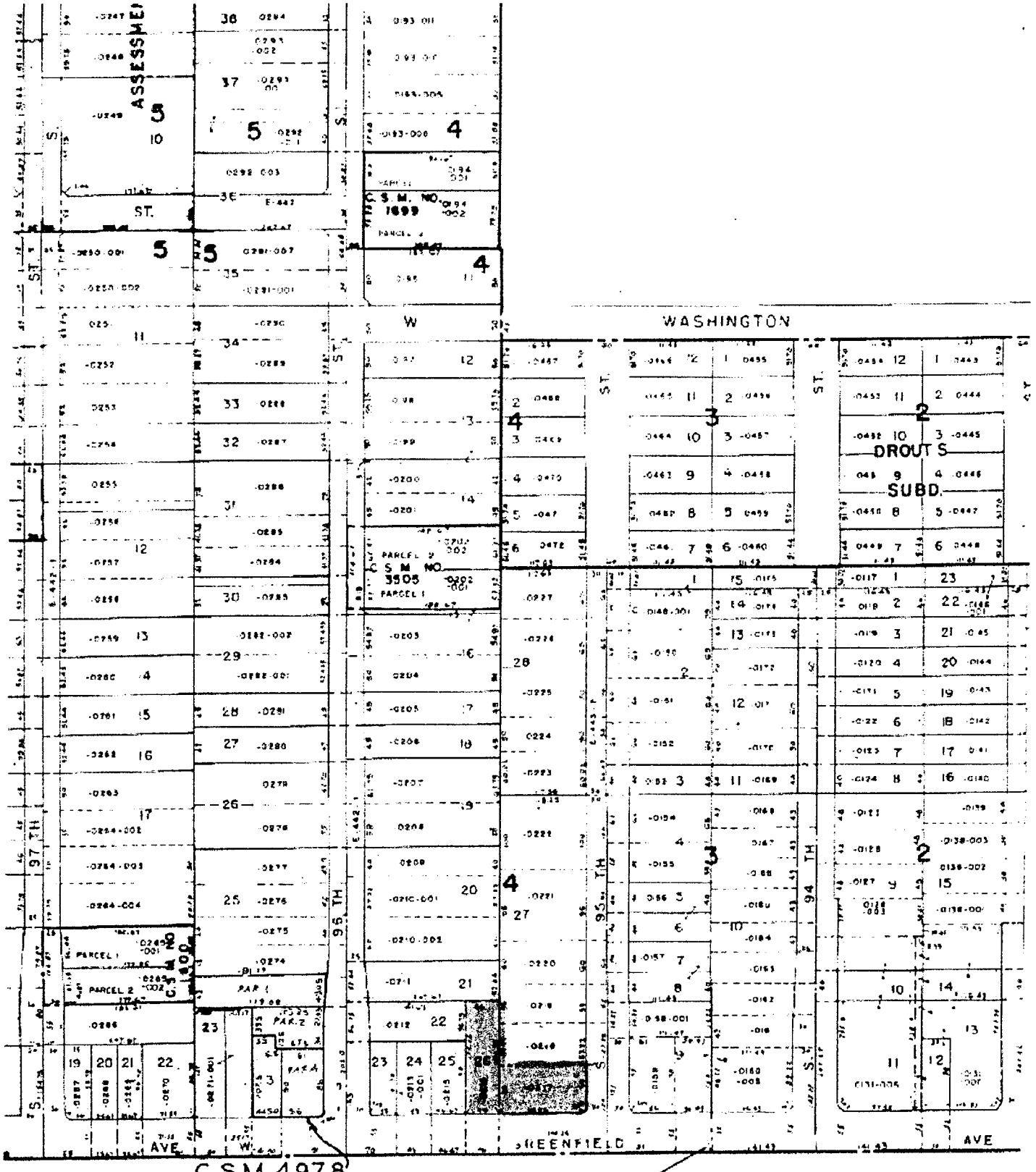
Section 12: Self-Certification

I certify that information in this application and all its attachments are true and correct and in conformity with applicable Wisconsin Statutes.

Print Name of Authorized Representative

Signature of Authorized Representative Date

Borrower/Client	Suzanne Dauer						
Property Address	1361 S. 95th St.						
City	West Allis	County	Milwaukee	State	WI	Zip Code	53214
Lender							



S.E. 1/4 SEC. 32 T. 7 N. R. 21 E.


DRY
CLEANERS

D2

July 11, 2001

Mr. Binyoti Amungwafor
Wisconsin Department of Natural Resources
Southeast Region Headquarters
P. O. Box 12436
Milwaukee, Wisconsin 53212

Re: Site Investigation Report
Redi-Quick Cleaners
9508 West Greenfield Avenue
West Allis, Wisconsin 53214
Facility No. 241170490 ERR/ERP
Envirogen Project No. P000876

Dear Mr. Amungwafor:

Enclosed please find a copy of Envirogen's "Site Investigation Report" for the Redi-Quick Cleaners site located in West Allis, Wisconsin.

Should you have any questions or require additional information, please contact me at (262) 549-6898.

Sincerely,
ENVIROGEN, INC.

_____

Laura Payne
Senior Project Engineer

LMP:ltc

Enclosure

cc: Mr. Sam Gruichich

SITE INVESTIGATION REPORT

REDI-QUICK CLEANERS SITE
West Allis, Wisconsin

ENVIROGEN Project No. P000076
Facility No. 241170490 ERR/ERP

July 2001

SITE INVESTIGATION REPORT

For the

REDI-QUICK CLEANERS SITE

9508 West Greenfield Avenue
West Allis, Wisconsin 53214

Submitted to:

MR. SAM GRUICHICH

9508 West Greenfield Avenue
West Allis, Wisconsin 53214

and

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Southeast Region Headquarters
2300 North Dr. Martin Luther King Drive
Milwaukee, Wisconsin 53212

Prepared by:

ENVIROGEN, INC.

ENVIROGEN Project No. P000076
Facility No. 241170490 ERR/ERP

July 2001

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF FIGURES

LIST OF TABLES

1.0 INTRODUCTION

This document presents a Site Investigation Report (SIR), prepared by Envirogen, Inc. (Envirogen), for the Redi-Quick Cleaners site in West Allis, Wisconsin. At this site, an active dry cleaning facility previously used a 1,000-gallon underground storage tank (UST) to handle dry cleaning solvents consisting primarily of tetrachloroethene (PCE) and trichloroethene (TCE). During an earlier environmental site investigation (SI), which was related to the former use of USTs on the property, soil and groundwater sample analyses indicated the presence of PCE and TCE. These chlorinated compounds were present in groundwater at levels exceeding Wisconsin Department of Natural Resources (WDNR) NR 140 groundwater cleanup enforcement standards (ESs).

The purpose of this SI was to investigate the source, nature, degree, and extent of soil and potential groundwater contamination at the site. This SIR outlines activities conducted and information gathered to date along with the data collection techniques and methods necessary to efficiently complete an investigation and develop an appropriate course of action for the site. This SIR has been designed to comply with the WDNR requirements for an investigation associated with the release of chlorinated solvents.

A list of parties involved in site environmental activities is provided in Appendix A.

2.0 GENERAL SITE INFORMATION

2.1 Site Location

The Redi-Quick Cleaners site is located in West Allis, Wisconsin. The site is located in the SE¼, SE¼, Section 32, T7N, R21E in Milwaukee County (United States Geological Survey [USGS] [1955] 1971). Figure 1 illustrates the site location. The site address is:

9508 West Greenfield Avenue
West Allis, Wisconsin 53214-2701

2.2 Site Description

The Redi-Quick Cleaners site currently operates as a dry cleaning facility. The site surface is a mix of concrete and asphalt. The site configuration is illustrated in Figure 2.

The site is bordered to the north by residential property. The site is bordered to the south by west Greenfield Avenue and to the east by 95th Street. Elite Portering (Complete Auto Detailing) is located immediately west of the site. Further west is residential property. The area surrounding the Redi-Quick Cleaners site is a mix of residential and commercial properties.

2.3 Site History

From the late 1950s until the present, the site has been operated as a dry cleaning facility. One 1,000-gallon dry cleaner solvent UST was formerly used on the site. Although no longer in use, the UST is still located inside the site building.

Prior to the late 1950s, a retail gasoline station operated on site. Four USTs were formerly used by the gasoline station, and included one 1000-gallon fuel oil UST, one 260-gallon waste oil UST, and two 4,000-gallon gasoline USTs. All four petroleum USTs were removed in December 1989.

In 1990, Miller Engineers was contracted by the owner's agent to perform a site investigation to determine the extent of petroleum contamination due to the use of the former petroleum USTs. Based on the investigation, a remedial action was performed to remove the petroleum contaminated soil. The investigation also revealed evidence of chlorinated solvent

contamination. Groundwater monitoring for petroleum contamination has been ongoing since 1990.

The following is a brief chronology of environmental activities performed by Envirogen and other environmental consultants at the site. This summary includes activities pertinent to the Envirogen's site investigation of chlorinated solvent contamination relating to the dry cleaning operations. Other environmental activities related to the petroleum contamination site investigation and remedial activities may have been performed. The reporting of such activities is available for further review at the WDNR.

December 1, 1989

Four petroleum USTs were removed. In addition, a recovery sump (RS-E) was installed in the excavation containing the two gasoline USTs. Another recovery sump (RS-W) was installed in the excavation containing the fuel oil and the waste oil USTs.

February 14-18, 1990

Petroleum contaminated soils were excavated and removed from the site by Buteyn Excavating and Grading under the direction of Miller Engineers.

April 17-18, 1990

Miller Engineers advanced eight borings at the site. Three of the borings were completed as groundwater monitoring wells (MW-2, MW-4, and MW-8). Eight soil samples were collected and analyzed for total petroleum hydrocarbons (TPH) and benzene, ethylbenzene, toluene, and total xylenes (BETX). Groundwater samples from the three monitoring wells were analyzed for volatile organic compounds (VOCs).

September 17, 1992

Miller Engineers collected groundwater samples from monitoring wells, MW-2, MW-4, and MW-8, and recovery sumps, RS-E and RS-W. Samples were analyzed for VOCs.

February 23, 1993

Miller Engineers collected groundwater samples from monitoring wells, MW-2, MW-4, and MW-8, and recovery sumps, RS-E and RS-W. Samples were analyzed for VOCs.

August 12, 1998

Environmental Professionals collected groundwater samples from monitoring wells, MW-2, MW-4, and MW-8, and recovery sumps, RS-E and RS-W. Samples were analyzed for VOCs.

May 10, 1999

JJS Environmental collected groundwater samples from monitoring wells, MW-2, MW-4, and MW-8, and recovery sumps, RS-E and RS-W. Samples were analyzed for VOCs.

October 28, 1999

JJS Environmental collected groundwater samples from monitoring wells, MW-2, MW-4, and MW-8, and recovery sumps, RS-E and RS-W. Samples were analyzed for VOCs.

May 19, 1999

JJS Environmental drilled four borings (SB-1 through SB-4) at the site. One soil sample was collected from each boring and submitted for laboratory analysis for VOCs.

August 30-31, 2000

Envirogen advanced five soil borings at and adjacent to the site. Four borings were completed as groundwater monitoring wells (MW-10 through MW-13). One boring was completed as a piezometer (PZ-10). Soil samples were collected and submitted to a WDNR-certified laboratory for analysis for VOCs.

September 14, 2000

Groundwater monitoring wells, MW-4, MW-8, MW-10 through MW-13 and piezometer PZ-10 were sampled and water level measurements recorded. Groundwater samples were submitted to a WDNR-certified laboratory for analysis for VOCs.

November 15, 2000

Monitoring wells were surveyed to a mean sea level datum, and water levels measurements were recorded for all wells at the site.

2.4 Local Contaminant Pathways and Receptors

The nearest surface water body that could potentially be affected by contamination from the site is the Menomonee River, located approximately 1,400 feet north of the site.

The Wisconsin Geological and Natural History Survey (WGNHS) was contacted regarding the presence of potable wells within 1,200 feet of the site. A number of wells exist in the vicinity of the site. However, a representative from the City of West Allis indicated that the city is now served by a municipal water supply. Copies of the well reports are available upon request.

There are no wetlands located on or immediately adjacent to the site (USGS 1994). Based on available information, there are no sensitive ecosystems or habitats and no state or federally listed endangered species on or adjacent to the site.

A review of The National Register of Historic Places and The State Register of Historic Places in Wisconsin indicates there are no historical or archeological sites on or adjacent to the site (State Historical Society of Wisconsin 1994). No outstanding resource waters or exceptional resource waters were identified on or near the site in chapters NR 102.10 or NR 102.11 of the Wisconsin Administrative Code.

2.5 Local Contaminant Sources Assessment

Envirogen reviewed an Environmental FirstSearch Report created by DataMap Technology Corporation. The report lists the potential off-site contaminant sources for a target site based upon the lists provided by several state and federal databases. A copy of the report is located in Appendix B. The potential for reported off-site contaminants sources to migrate onto the site was then evaluated. Envirogen reviewed the following databases:

- National Priority List Sites (EPA, January 2000)
- Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) List (EPA, April 2000)
- Resource Conservation and Recovery Act (RCRA) Lists (June 2000)
- Emergency Response Notification System (ERNS) (January 2000)
- State Sites (June 1999)
- State Spills Summary Report (1990 to present) (WDNR, April 2000)
- Solid Waste Landfills (SWL) (April 1999)
- Registered UST/Aboveground Storage Tanks (AST) sites (WDNR, April 2000)
- Leaking UST (LUST) sites (WDNR, April 2000)
- Receptors List (January 1995)

A review of the above lists identified the property as a LUST and "Other" site. Six sites within 0.125 miles of the Redi-Quick Cleaners site including four UST sites, one LUST site, and one RCRA Large Quantity Generator site. The UST site, located at 9510 West Greenfield Avenue, borders the Redi-Quick to the east. Four closed USTs were listed at this UST site. From a radius of 0.125 miles to 0.25 miles, 11 UST sites, two RCRA Small Quantity Generator sites, one LUST site, one school, and one "Other" site exist. Six LUST sites and two schools exist from a radius of 0.25 miles to 0.50 miles from the site. Soil and groundwater at the subject site do not appear to be receptors for contamination originating from these potential off-site sources. A copy of the Environmental FirstSearch Report is included as Appendix B.

3.0 SOIL INVESTIGATION

The purpose of the soil investigation is to delineate the source, nature, degree, and extent of chlorinated solvent soil contamination at the Redi-Quick Cleaners site. Envirogen's standard operating procedures are available upon request.

3.1 Field Activities

Envirogen contracted Giles Engineering to provide drilling services at the site. Envirogen directed the drilling and collected soil samples. Five soil borings were advanced at the site to a maximum depth of 45 feet below ground surface (bgs). Four of these test borings were converted into monitoring wells (MW-10 through MW-13). The remaining soil boring was converted into a piezometer (PZ-10). As shown in Figure 2, the five borings/monitoring wells were advanced in and around the known contamination area.

An Envirogen technician logged the soil borings noting color, texture, moisture content, odor, grain size, and standard geotechnical data. Each soil sample was also classified according to the Unified Soil Classification System (USCS). Copies of the soil boring logs and well installation forms are located in Appendix C.

Soil samples were continuously sampled to a maximum depth of 45 feet bgs. Portions of every two-foot soil sample were immediately placed in quart size plastic bags. Samples were then field-screened for the presence of VOCs with a portable photoionization detector (PID). As shown on the boring logs, PID readings ranged from <10 to 315 parts per million in vapor (ppmv). A total of eight soil samples collected between 2 feet and 45 feet bgs were selected for laboratory analysis. The samples were sent to Great Lakes Analytical Laboratory and were analyzed for VOCs. Proper chain of custody protocol was maintained.

3.2 Site Geology

Site geology consists primarily of a brown silty clay layer ranging from ground surface to approximately 20 to 25 feet below ground surface (bgs). This silty clay layer is underlined by a grey sandy clay layer, approximately 15 feet in thickness. The grey sandy clay layer dips to the north and is underlined by brown silty clay to the maximum depth of investigation, 45 feet bgs. Bedrock was not encountered during investigation activities. Figures 3 and 4 illustrate site geology in cross section view. Soil boring logs are included in Appendix C.

3.3 Soil Contaminant Distribution

On August 31, 2000, eight soil samples were submitted for laboratory analysis of VOCs. Soil laboratory analytical reports are included in Appendix D. These results, as well as analytical results for soil samples collected by JJS Environmental in May 1999, are summarized in Table 1. Plan views of the PCE and TCE distributions are shown on Figures 5 and 6, respectively. Cross sectional views of the PCE and TCE distributions across the site are illustrated in Figures 7 and 8. As summarized in Table 1 and in the figures, the highest soil contaminant concentrations are located near the former chlorinated solvent UST. Soil contamination was also detected on the eastern edge of the facility and the adjacent property to the north.

The maximum PCE concentration of all soil samples collected at the site to date is 230,000 parts per billion (ppb) detected in soil boring SB-3 near the former chlorinated solvent UST, collected from 14 to 16 feet bgs. The TCE concentration in this soil sample was below the detection limit of 1,000 ppb.

To the north of the Redi-Quick building, analytical results indicate a PCE concentration of 129,000 ppb and a TCE concentration of 180 ppb between 10 to 12 feet bgs at MW-12, located on the adjacent property at 1361 South 95th Street. A sample collected between 24-26 feet bgs at MW-12 indicated less than detectable contaminant concentrations. Further north, PCE and TCE were not detected at MW-13 in a sample collected between 20-22 feet bgs.

To the west of the building, PCE concentrations were below detection limits and TCE was detected at 30 ppb in soil sample collected in SB-4 from 16 to 18 feet bgs. To the east of the building, PCE was detected at 230 ppb and no TCE was detected in a sample from SB-1 between 18-20 feet bgs. No PCE or TCE were detected in the sample collected from MW-11, at 14 to 16 feet bgs.

PCE was also detected in shallow soils between 2 to 4 feet bgs at a concentration of 3,090 ppb, at PZ-10, located at the eastern end of the Redi-Quick building. It is possible that past solvent cleaning practices used by previous operators involved handling and/or disposing of spent solvent in this area.

4.0 GROUNDWATER INVESTIGATION

The purpose of the groundwater investigation at the site is to delineate the source, nature, degree, and extent of possible groundwater contamination on-site.

4.1 Field Activities

On August 30 and 31, 2000, four monitoring wells and one piezometer were installed at the site. One monitoring well (MW-12) was installed as close to the source area without placing it within the neighboring driveway. Three additional monitoring wells (MW-10, MW-11 and MW-13) were installed at an estimated plume perimeter. One piezometer (PZ-10) was installed in the expected downgradient direction of the source area to define the vertical extent of the chlorinated solvent contamination. Monitoring wells were also developed on that date. Monitoring well construction and development forms are located in Appendix C.

On September 14, 2000 and November 15, 2000, groundwater elevations were measured in all monitoring wells. The measurements are summarized in Table 2. A potentiometric surface map for November 15, 2000 is shown on Figure 9.

On September 14, 2000, Envirogen collected groundwater samples from the five monitoring wells installed by Envirogen, and MW-4 and MW-8 installed by Miller Engineers in April 1990. All samples were submitted to Great Lakes Analytical Laboratory and analyzed for VOCs. The laboratory analytical report is located in Appendix E. The results are summarized in Table 3. Also included in Table 3 are historical analytical results for groundwater samples collected by other consultants prior to 2000.

4.2 Site Hydrogeology

To characterize groundwater flow, groundwater elevations were measured. The groundwater elevation data recorded on September 14 and November 15, 2000 are summarized in Table 2. As shown, the depth to groundwater varies between 3 and 14 feet bgs. The groundwater elevations in all wells except for PZ-10 were fairly consistent for two monitoring periods. The potentiometric surface in PZ-10 rose from 38.72 feet below the top of casing (TOC) in September to 13.40 feet below TOC in November. It is Envirogen's opinion that, due to the tight clayey soils, the piezometer had not fully recharged by September 2000 from the well

development on August 31, 2000. The November measurement is most likely representative of the actual elevation in PZ-10.

The groundwater elevations measured on November 15, 2000 are shown on Figure 9. The groundwater table appears to be influenced by water and sanitary sewer lines and the coarse grained soils backfilled into the UST excavations. As expected, mounded groundwater is observed in the vicinity of the former petroleum UST cavity areas. The elevation measured in MW-4 is also higher relative to the other monitoring wells which may be due to influences from utility lines. Therefore, groundwater flow direction and velocity is difficult to determine with this data. However, the regional flow direction is to the north towards the Menomonee River (USGS 1973).

4.4 Groundwater Contaminant Distribution

On September 14, 2000, groundwater samples were collected and submitted for laboratory analysis for VOCs. The groundwater laboratory analytical report for this sampling event is included in Appendix E. Results of the current data are summarized in Table 3. In addition, historic data collected between 1990 and 1999 as part of the petroleum hydrocarbon release investigation are included in Table 3. Figures 10 and 11, respectively, depict the groundwater PCE and TCE distribution on September 14, 2000.

During the most recent sampling event in September 2000, the highest chlorinated contaminant concentrations were detected in MW-10 located on the east side of the building. No PCE, TCE, , cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl contaminant concentrations above the detection limit were observed in MW-8, MW-13, and PZ-10.

During the September 200 sampling event, PCE concentrations ranged from <0.5 ppb in MW-13 and PZ-10 to 24,700 ppb in MW-10. PCE concentrations exceeded the NR 140 ES of 5.0 for PCE in four monitoring wells; MW-4, MW-10, MW-11, and MW-12.

Degradation compounds of PCE, including TCE, cis-1,2-DCE, and vinyl chloride were also present in groundwater samples. TCE was present above the detection limit in four monitoring wells and ranged from 0.969 ppb in MW-4 to 4,670 ppb in MW-10. TCE concentrations in MW-10, and MW-12 exceeded the NR 140 ES of 5.0 ppb for TCE.

Cis-1,2-DCE was present in three monitoring wells. Concentrations ranged between 12 ppb in MW-12 and 2,630 ppb in MW-10. Cis-1,2-DCE concentration in MW-10 exceeded the NR 140 ES of 7 ppb for cis-1,2-DCE.

Vinyl chloride was present in four monitoring wells. Concentrations ranged between 0.27 ppb in RS-W and 9.13 ppb in MW-10. Vinyl chloride concentrations in MW-4, RS-E, RS-W, and MW-10 exceed the NR 140 ES of 0.2 for vinyl chloride.

Historically, PCE concentrations exceeding the NR 140 ES have been present in MW-4, RS-E and RS-W since 1992. TCE and vinyl chloride concentrations exceeding NR 140 ES have been present in RS-E and RS-W. Vinyl chloride has also been detected above the NR 140 ES in MW-2 since 1998.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The site investigation revealed soil and groundwater chlorinated solvent contamination to the north, west, and east of the former chlorinated solvent UST. Chlorinated solvent contamination is adequately defined laterally to the south, east, and west of the source area. However, additional definition is required to the northwest of the source area behind the property at 1361 95th Street and directly to the north of the source area near the property at 1349 95th Street. In addition, soil chlorinated solvent contamination has not been adequately defined vertically directly beneath the abandoned solvent UST.

In order to adequately define the extent of soil and groundwater contamination, Envirogen recommends installing three additional monitoring wells. The locations of the proposed monitoring wells are shown on Figure 12. To define the vertical extent of contamination in the source area, one monitoring well (MW-14) will be installed outside the building as close as possible to the former solvent UST. A previous boring, SB - 3, was advanced to a maximum depth of 16 feet in 1999 by JJS Environmental. The soil PCE concentration was detected at 230,000 ppb at a depth of 14 to 16 feet bgs. Envirogen will advance a boring in this general vicinity to the maximum depth of contamination. Four samples will be collected: one sample between 0 to 4 feet bgs, one sample at the soil/groundwater interface, one sample with the highest PID reading, and one sample at the bottom of the boring. Each soil sample will be sampled for VOCs. A monitoring well (MW-14) will then be installed in the boring.

To define the lateral extent of contamination, MW-15 will be installed to the northwest and MW-16 will be installed to the north of the source area. One soil sample from each boring will be collected at the soil/groundwater interface and will be submitted for laboratory analysis of VOCs.

After the three monitoring wells have been installed, Envirogen personnel will develop the wells and survey the well locations and top-of-casing elevations. Groundwater elevations will then be measured in the newly installed wells, and all existing wells at the site. Groundwater samples will be collected from MW-14, MW-15, and MW-16 and will be submitted for laboratory analysis of VOCs.

After the additional field work is complete, Envirogen will submit our findings in a Remedial Options Report (ROR). Envirogen's anticipated schedule to complete the scope of work is summarized below. These time frames are approximate and may deviate due to circumstances

such as Envirogen internal scheduling, subcontractor coordination, field results, and changes to the scope of services.

Schedule to Complete Additional Work

Activity	Months Following WNDR Approval for Additional Work
Install Monitoring Well Network and Sampling of Soils	1
Develop Monitoring Wells and Sampling of Groundwater	1.5
Review Laboratory Data from Soils and Groundwater	3
SIR/ROR Submittal	3.5

6.0 CONDITIONS AND CERTIFICATIONS

This Site Investigation Report has been prepared, in part, as an underground exploration evaluation for the Redi-Quick site. The evaluations and recommendations presented in this report were developed from a consideration of the project characteristics and an interpretation of available geologic, hydrogeologic, and boring data. Envirogen's description of the subsurface conditions is based on interpretation of the test boring data using normally accepted geologic/hydrogeologic practices and reasonable engineering judgement. Although boring data are considered to be representative of the subsurface conditions at the precise locations on the dates shown, they are not necessarily indicative of the subsurface conditions at other locations and/or at other times of the year.

Hydrogeologic representations and chemical distribution isoconcentration contours are approximate. They were generalized from and interpolated between the sampling locations. Information on actual hydrogeologic conditions and chemical concentrations exists only at the specific sampling locations and it is possible that conditions between sampling locations may vary from those indicated. Variations in soil and groundwater conditions typically exist at most sites between sampling locations and at different times, the extent of which may not become evident without further exploration or excavation. If variations are noted in the future, Envirogen should be informed. It may be necessary to conduct additional exploration activities and to determine the characteristics of these variations and provide an opportunity to make a re-evaluation of the conclusions in this report.

Envirogen's professional services have been performed, findings obtained, and recommendations prepared in accordance with generally accepted engineering and hydrogeologic principles and practices. This warranty is in lieu of all other warranties either implied or expressed. Envirogen assumes no responsibility for data or interpretations made by others. Envirogen assumes responsibility for the accuracy of the report's contents subject to what is stated elsewhere in this section but recommends that the report be used only for the purpose intended by the client and Envirogen when the report was prepared. The report may be unsuitable for other uses and reliance on its contents by anyone other than the client is done at the sole risk of the user. Envirogen accepts no responsibility for application or interpretation of the results by anyone other than the client.

The recommendations and conclusions presented herein have been developed from consideration of the project characteristics and interpretation of available information. Because only limited information is available, Envirogen reserves the right to modify actual site activities based on subsequent findings.

The recommendations contained in this Site Investigation Report represent our professional opinions.

This Site Investigation Report was prepared by ENVIROGEN, INC.

Your approval of the proposed additional site investigation activities is requested. Upon approval, Envirogen will submit costs to complete this scope of work. If you have any questions or require further information please contact me at (262) 549-6898.

I, Laura M. Payne, hereby certify that I am an Engineer as that term is defined in s. NR 712.03(3), Wis. Adm. Cod, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 169, Wis. Adm. Code.

Sincerely,
ENVIROGEN, INC.

_____

Laura M. Payne
Senior Project Engineer

LMP:ltc

7.0 REFERENCES

Envirogen, Inc., Site Investigation Work Plan for the Redi-Quick Dry Cleaners, West Allis, Wisconsin, June 2000.

Miller Engineers, Sheboygan, Wisconsin. Remedial Action Report. July 25, 1990.

Miller Engineers, Sheboygan, Wisconsin. Remedial Action Report. May 31, 1991.

Miller Engineers Scientists, Sheboygan, Wisconsin. Groundwater Sampling Results. October 26, 1992.

Miller Engineers Scientists, Sheboygan, Wisconsin. Groundwater Sampling Results. April 1, 1993.

Environmental Professionals Ltd., West Allis, Wisconsin. Groundwater Remediation Groundwater Sampling Report. September 21, 1998.

JJS Environmental, New Berlin, Wisconsin. Groundwater Sampling Report. November 16, 1999.

JJS Environmental, New Berlin, Wisconsin. Groundwater Sampling Report. June 13, 1999.

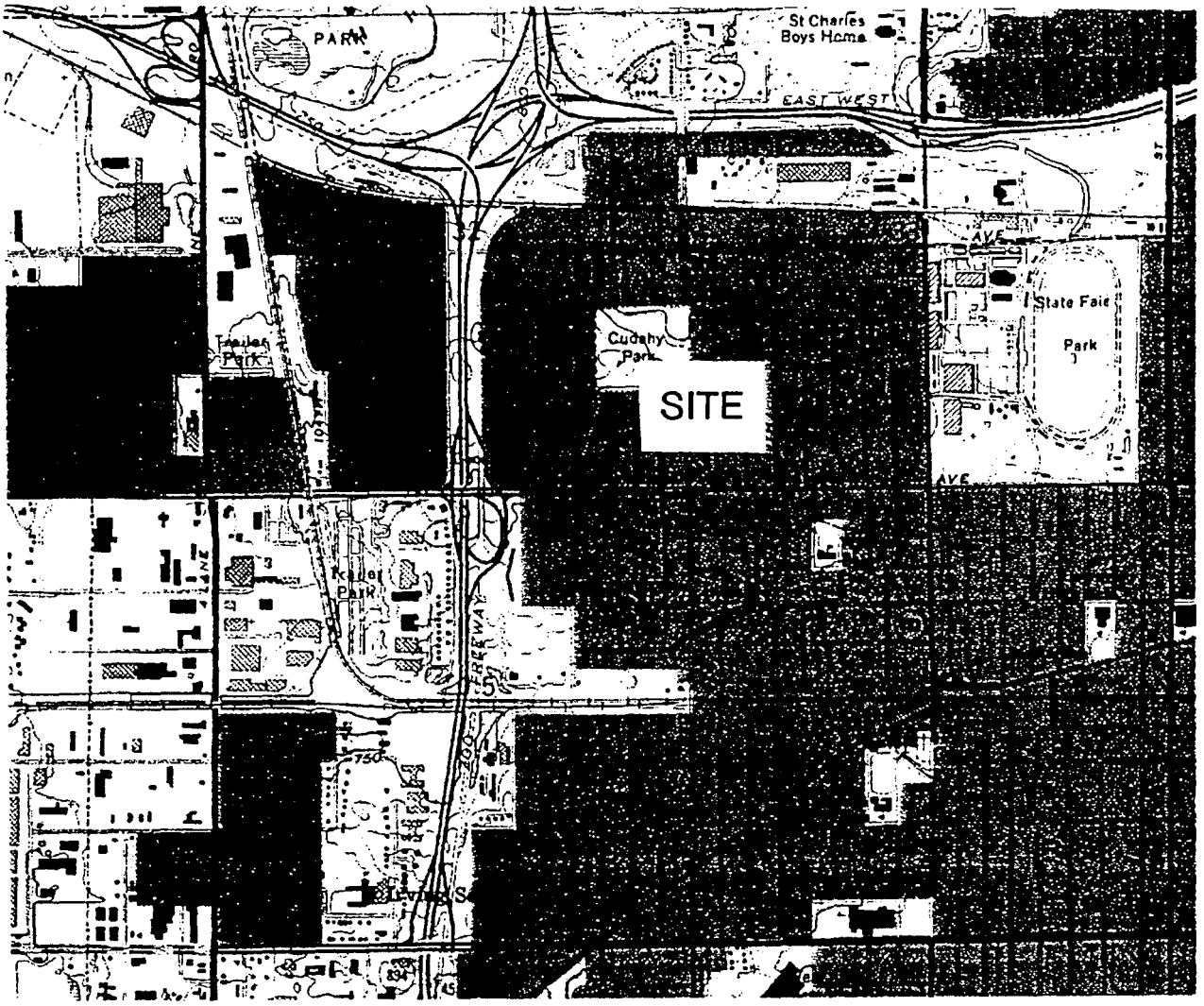
Envirogen, Inc., Site Investigation Work Plan for the Redi-Quik Dry Cleaners, West Allis, Wisconsin, June 2000.

FirstSearch. 2000. Environmental FirstSearch. Database search for 9508 West Greenfield Avenue, West Allis Wisconsin, DataMap Technology Corporation, Bedham, Massachusetts.

Hutchinson, R.D. 1970. Water Resources of Racine and West Allis Counties, Southeastern, Wisconsin: USGS. Map Scale: 1:125,000.

State Historical Society of Wisconsin. 1994. Division of Historic Preservation. National Register of Historic Places and State Register of Historic Places in Wisconsin. Madison, Wisconsin.

Young, H.L., and Ronald G. Borman. 1973. United States Geological Survey. University of Wisconsin-Extension. Geological and Natural History Survey. Water Resources of Wisconsin Lake Michigan Basin: Hydrologic Investigations Atlas HA-432. Washington, D.C.



(USGS [1958] 1994)
WAUWATOSA QUADRANGLE

SCALE
1:24000

1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET

N

LOCATION

ENVIROGEN
COST EFFECTIVE LEADERSHIP FOR A CLEANER ENVIRONMENT
2835 North Grandview Blvd.
Pewaukee, Wisconsin 53072-0090

SITE LOCATION MAP	FIGURE NO. 1
REDI-QUICK DRY CLEANERS SITE WEST ALLIS, WISCONSIN	

DRAWING NO.	000076R1
DRAWN BY:	RRT
	06/22/01
CHECKED BY:	
APPROVED BY:	
REVISIONS:	
ENGINEER	
DATE	
ENGINEER	
DATE	

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- UNDERGROUND STORAGE TANK (UST)
- MONITORING WELL
- TEST BORING, DRILLED 5/19/99 BY JJS & ASSOCIATES
- PIEZOMETER
- RECOVERY SUMP
- LIGHT POLE
- HYDRANT
- —W— WATER LINE
- —S— SEWER LINE
- ( ) TCE (TRICHLOROETHENE) CONCENTRATION IN ppb
- NS NOT SAMPLED
- 1000 TCE ISOCONCENTRATION CONTOUR

TANK LEGEND

- A FORMER 1,000-GALLON FUEL OIL UST (REMOVED 12/89)
- B FORMER 260-GALLON WASTE OIL UST (REMOVED 12/89)
- C FORMER 4,000-GALLON GASOLINE UST (REMOVED 12/89)
- D FORMER 4,000-GALLON GASOLINE UST (REMOVED 12/89)
- E 1,000-GALLON DRY CLEANER SOLVENT UST (NO LONGER IN USE)

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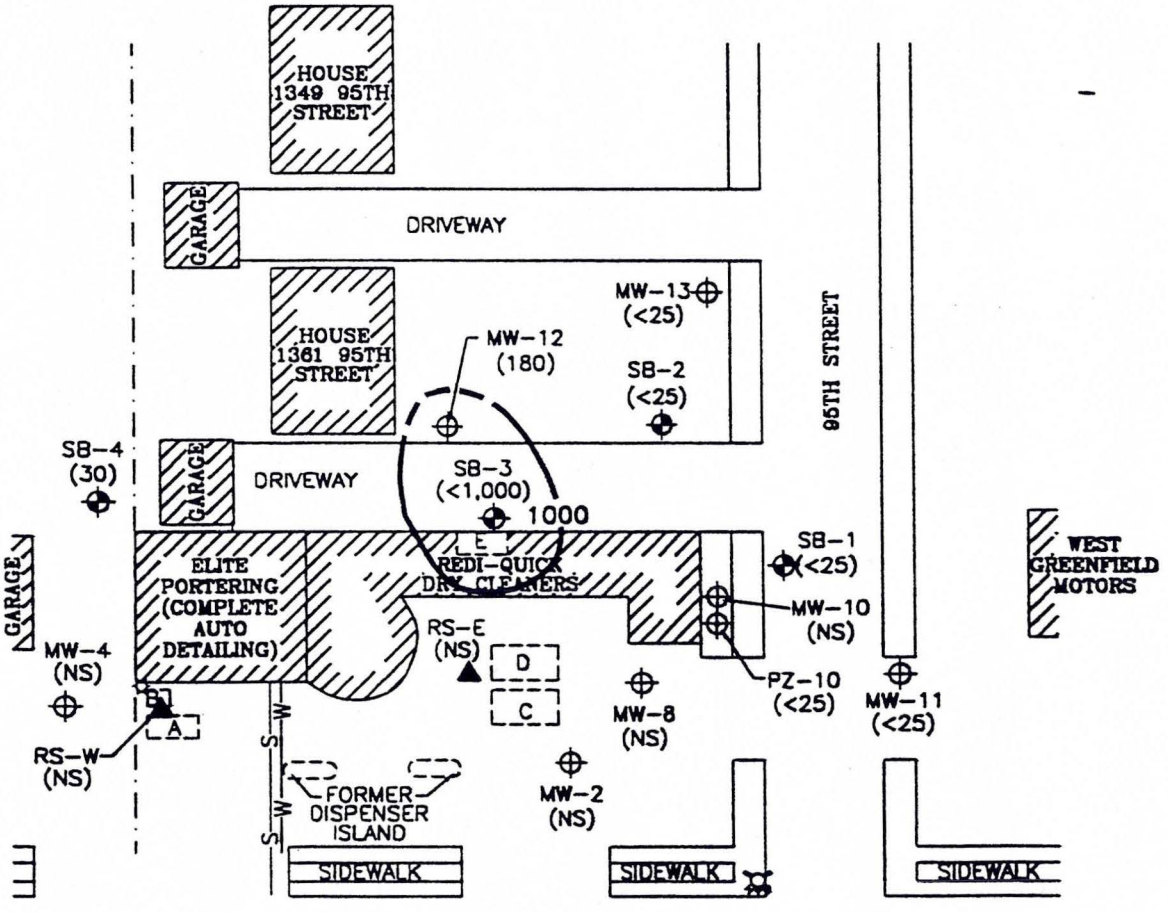

ENVIROGEN

COST EFFECTIVE LEADERSHIP FOR A CLEANER ENVIRONMENT

2835 North Grandview Blvd.
Pewaukee, Wisconsin 53072-0090

SCALE

0 10' 20' 30' 40'

SOIL TRICHLOROETHENE DISTRIBUTION

REDI-QUICK DRY CLEANERS SITE
WEST ALLIS, WISCONSIN

FIGURE NO. 6

DRAWING NO.	DRAWN BY:	CHECKED BY:	APPROVED BY:	REVISIONS:	ENGINEER	DATE	ENGINEER	DATE
000076R6	RRT	06/22/01						

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- UNDERGROUND STORAGE TANK (UST)
- MONITORING WELL
- TEST BORING, DRILLED 5/19/99 BY JJS & ASSOCIATES
- PIEZOMETER
- RECOVERY SUMP
- LIGHT POLE
- HYDRANT
- —W— WATER LINE
- —S— SEWER LINE

TANK LEGEND

- A FORMER 1,000-GALLON FUEL OIL UST (REMOVED 12/89)
- B FORMER 260-GALLON WASTE OIL UST (REMOVED 12/89)
- C FORMER 4,000-GALLON GASOLINE UST (REMOVED 12/89)
- D FORMER 4,000-GALLON GASOLINE UST (REMOVED 12/89)
- E 1,000-GALLON DRY CLEANER SOLVENT UST (NO LONGER IN USE)

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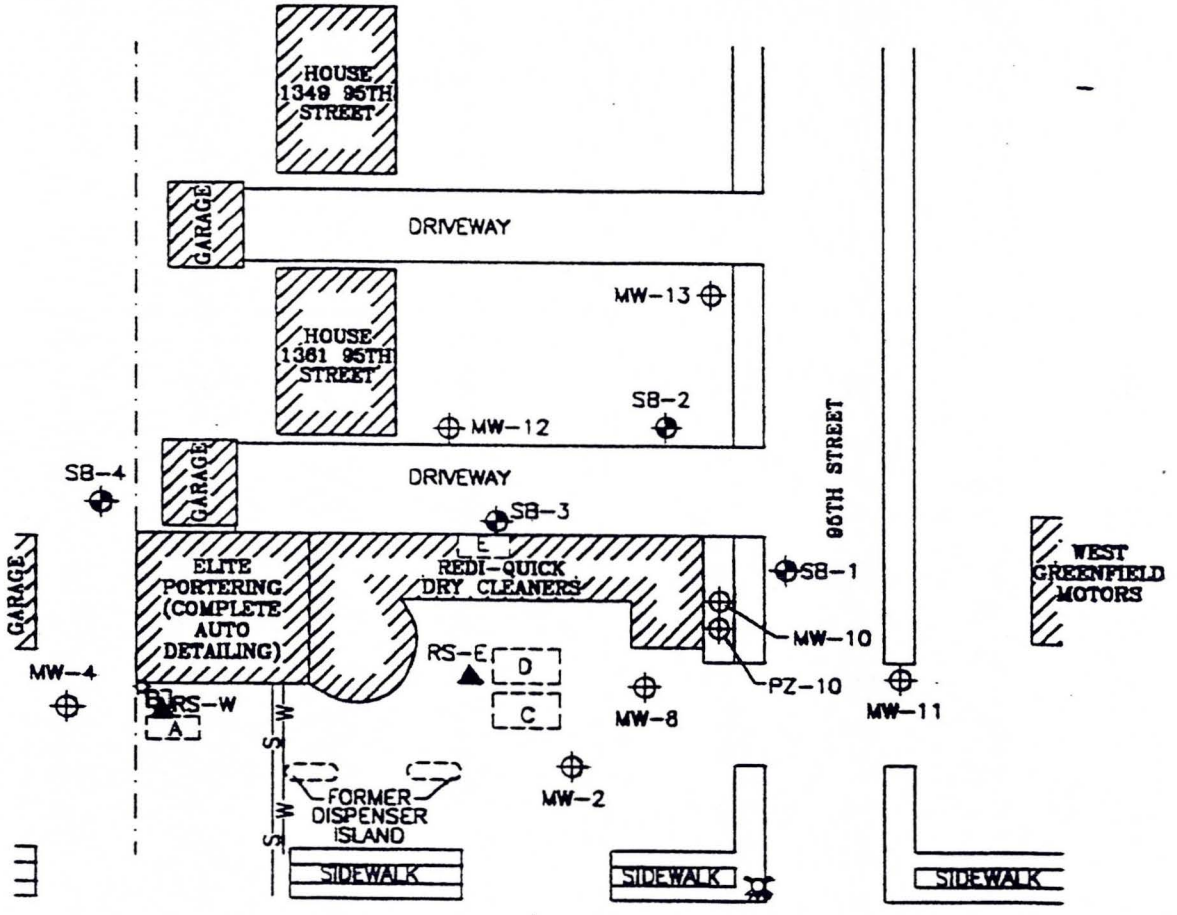

ENVIROGEN

COST EFFECTIVE LEADERSHIP FOR A CLEANER ENVIRONMENT

2835 North Grandview Blvd.
Pewaukee, Wisconsin 53072-0090

SCALE

0 10' 20' 30' 40'

SITE PLAN VIEW

REDI-QUICK DRY CLEANERS SITE
WEST ALLIS, WISCONSIN

FIGURE NO. 2

DRAWING NO.	DRAWN BY:	CHECKED BY:	APPROVED BY:	REVISIONS:	ENGINEER	DATE	ENGINEER	DATE
000076R2	RRT	06/22/01						

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- UNDERGROUND STORAGE TANK (UST)
- MONITORING WELL
- TEST BORING, DRILLED 5/19/99 BY JJS & ASSOCIATES
- PIEZOMETER
- RECOVERY SUMP
- LIGHT POLE
- HYDRANT
- —W— WATER LINE
- —S— SEWER LINE
- [ ] PCE (TETRACHLOROETHENE) CONCENTRATION IN ppb
- NS NOT SAMPLED
- 1000 PCE ISOCONCENTRATION CONTOUR

TANK LEGEND

- A FORMER 1,000-GALLON FUEL OIL UST (REMOVED 12/89)
- B FORMER 260-GALLON WASTE OIL UST (REMOVED 12/89)
- C FORMER 4,000-GALLON GASOLINE UST (REMOVED 12/89)
- D FORMER 4,000-GALLON GASOLINE UST (REMOVED 12/89)
- E 1,000-GALLON DRY CLEANER SOLVENT UST (NO LONGER IN USE)

NOTE:

MAXIMUM CONCENTRATION DETECTED SHOWN FOR EACH SAMPLE LOCATION

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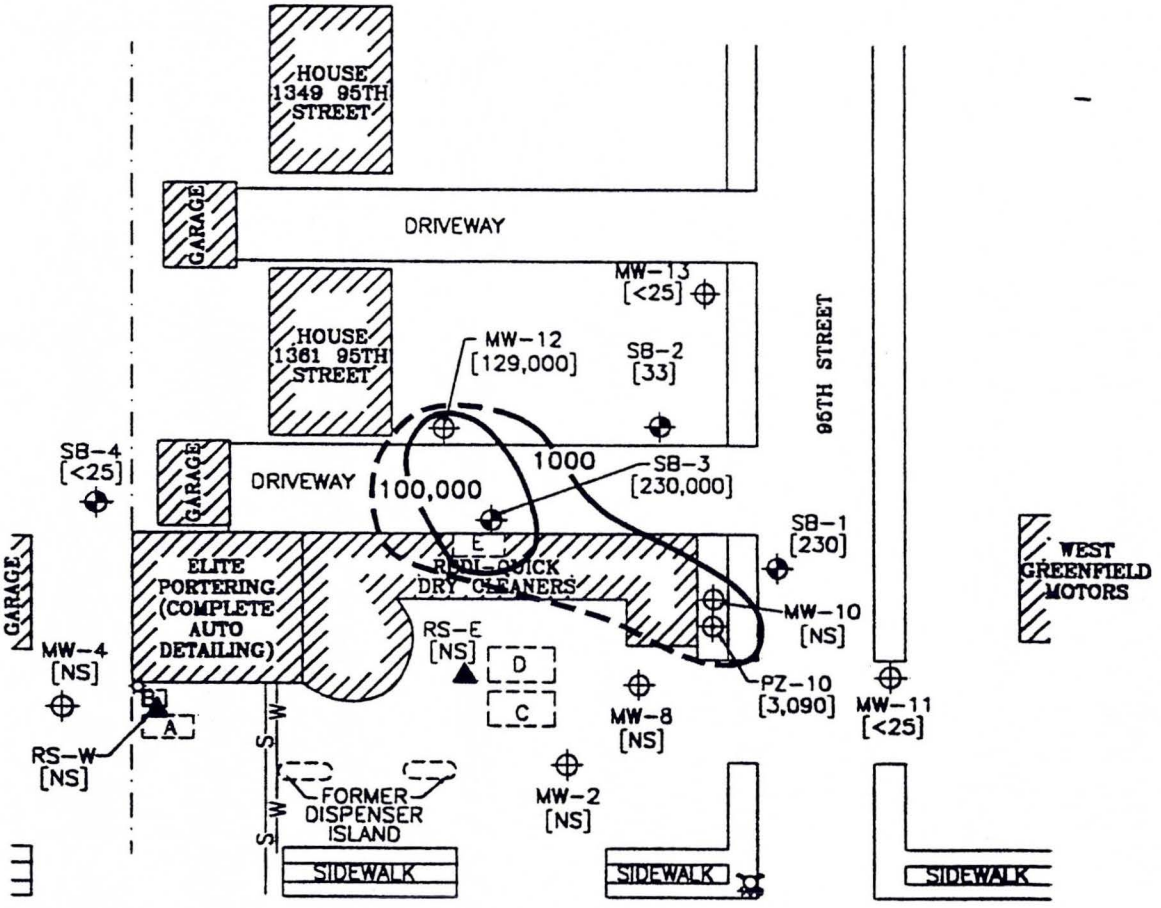

ENVIROGEN

COST EFFECTIVE LEADERSHIP FOR A CLEANER ENVIRONMENT

2835 North Grandview Blvd.
Pewaukee, Wisconsin 53072-0090

SCALE

0 10' 20' 30' 40'

SOIL TETRACHLOROETHENE DISTRIBUTION

REDI-QUICK DRY CLEANERS SITE
WEST ALLIS, WISCONSIN

FIGURE NO. 5

DRAWING NO.	0000766R5
DRAWN BY:	RRT
	06/22/01
CHECKED BY:	
APPROVED BY:	
REVISIONS:	
ENGINEER	DATE
ENGINEER	DATE

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- UNDERGROUND STORAGE TANK (UST)
- MONITORING WELL
- PIEZOMETER
- RECOVERY SUMP
- LIGHT POLE
- HYDRANT
- —W— WATER LINE
- —S— SEWER LINE
- ( ) ELEVATION IN FEET ABOVE MSL

TANK LEGEND

- A FORMER 1,000-GALLON FUEL OIL UST (REMOVED 12/89)
- B FORMER 260-GALLON WASTE OIL UST (REMOVED 12/89)
- C FORMER 4,000-GALLON GASOLINE UST (REMOVED 12/89)
- D FORMER 4,000-GALLON GASOLINE UST (REMOVED 12/89)
- E 1,000-GALLON DRY CLEANER SOLVENT UST (NO LONGER IN USE)

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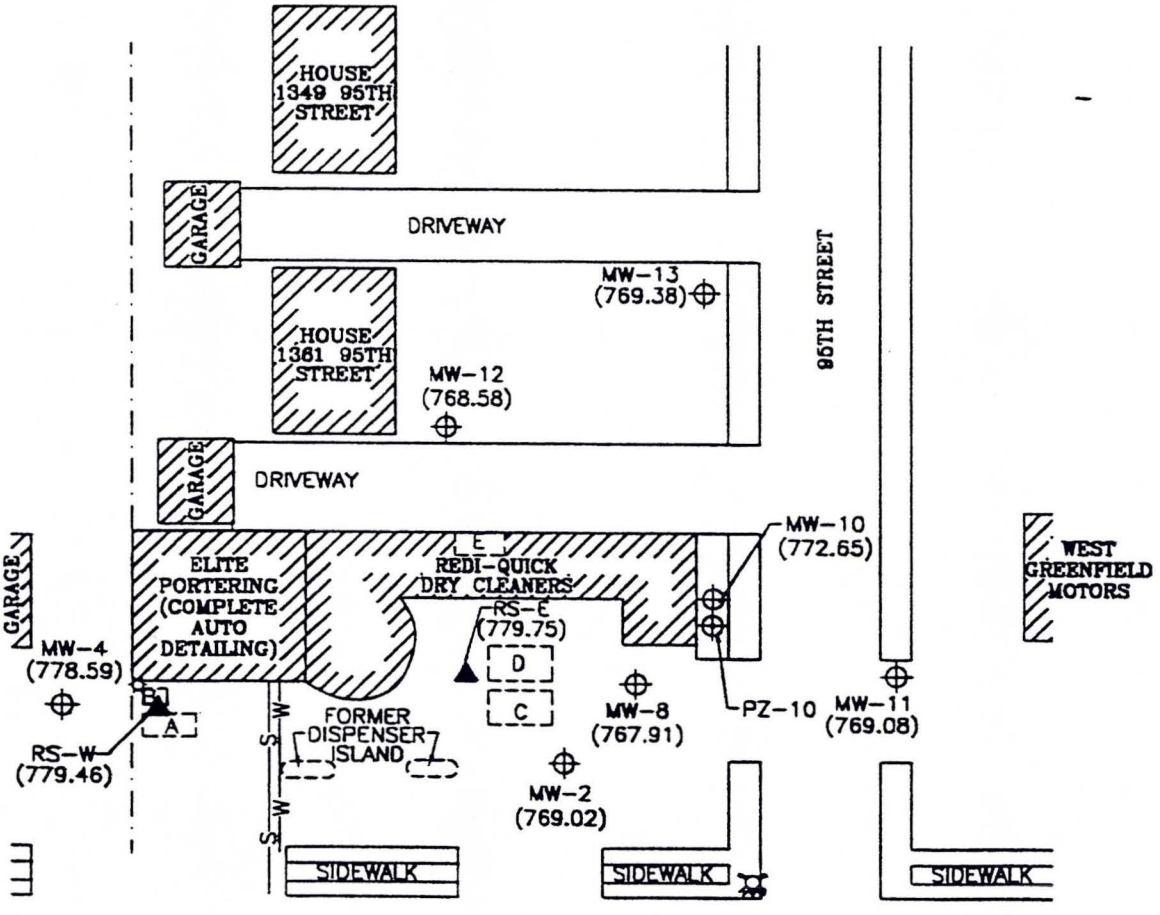


ENVIROGEN

COST EFFECTIVE LEADERSHIP FOR A CLEANER ENVIRONMENT

2835 North Grandview Blvd.
Pewaukee, Wisconsin 53072-0090

SCALE

0 10' 20' 30' 40'

POTENTIOMETRIC SURFACE
(11/15/00)
REDI-QUICK DRY CLEANERS SITE
WEST ALLIS, WISCONSIN

FIGURE NO.
9

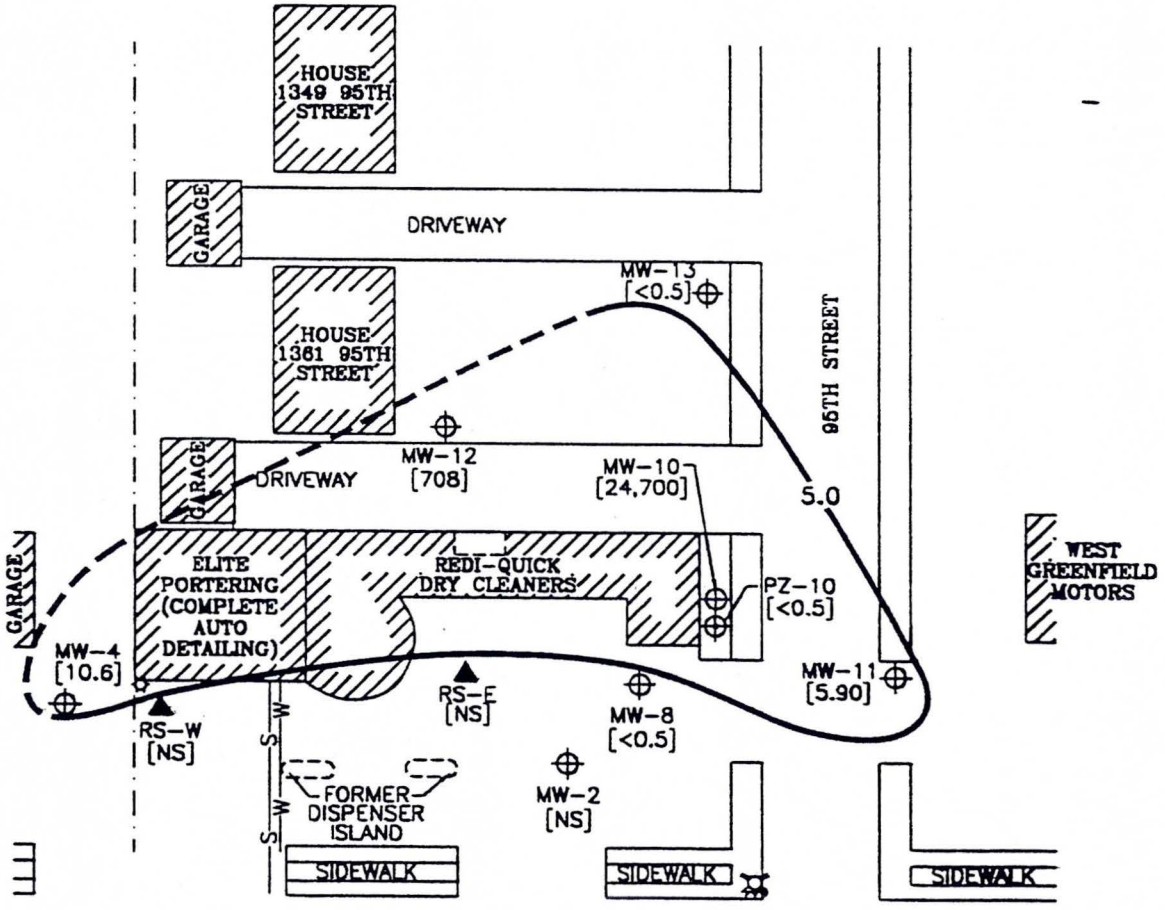
DRAWING NO.	DRAWN BY:	CHECKED BY:	APPROVED BY:	REVISIONS:	ENGINEER	DATE	ENGINEER	DATE
000076R9	RRT	06/22/01						

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- 1,000-GALLON DRY CLEANING SOLVENT UST (NO LONGER IN USE)
- MONITORING WELL
- PIEZOMETER
- RECOVERY SUMP
- LIGHT POLE
- HYDRANT
- —W— WATER LINE
- —S— SEWER LINE
- [ ] PCE (TETRACHLOROETHENE) CONCENTRATION IN ppb
- NS NOT SAMPLED
- 5.0 PCE ISOCONCENTRATION CONTOUR

NOTE:
THE NR 140 ENFORCEMENT STANDARD (ES) FOR PCE IS 5 ppb.

N



ENVIROGEN
COST EFFECTIVE LEADERSHIP FOR A CLEANER ENVIRONMENT
2835 North Grandview Blvd.
Waukesha, Wisconsin 53072-0090

SCALE
0 10' 20' 30' 40'

GROUNDWATER TETRACHLOROETHENE DISTRIBUTION
(9/14/00)
REDI-QUICK DRY CLEANERS SITE
WEST ALLIS, WISCONSIN

FIGURE NO.
10

DRAWING NO.	DRAWN BY:	CHECKED BY:	APPROVED BY:	REVISIONS:	ENGINEER	DATE	ENGINEER	DATE
000076R10	RRT	06/22/01						

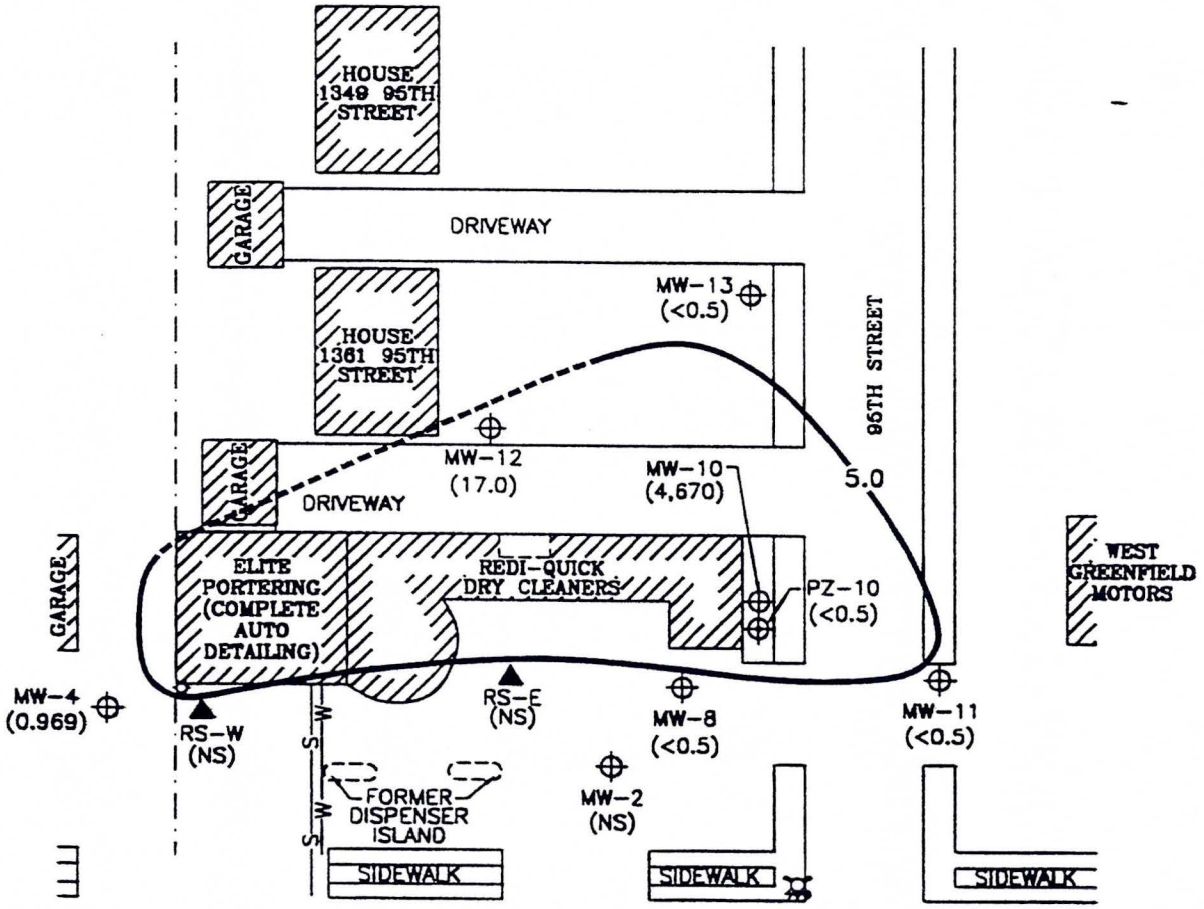
LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- 1,000-GALLON DRY CLEANING SOLVENT UST (NO LONGER IN USE)
- MONITORING WELL
- PIEZOMETER
- RECOVERY SUMP
- LIGHT POLE
- HYDRANT
- —W— WATER LINE
- —S— SEWER LINE
- ( ) TCE (TRICHLOROETHENE) CONCENTRATION IN ppb
- NS NOT SAMPLED
- 5.0 TCE ISOCONCENTRATION CONTOUR

NOTE:

THE NR 140 ENFORCEMENT STANDARD (ES) FOR TCE IS 5 ppb.

N



ENVIROGEN

COST EFFECTIVE LEADERSHIP FOR A CLEANER ENVIRONMENT

2835 North Grandview Blvd.
Pewaukee, Wisconsin 53072-0090

SCALE

0 10' 20' 30' 40'

GROUNDWATER TRICHLOROETHENE DISTRIBUTION
(9/14/00)

REDI-QUICK DRY CLEANERS SITE
WEST ALLIS, WISCONSIN

FIGURE NO. 1 1

DRAWING NO.	DRAWN BY:	CHECKED BY:	APPROVED BY:	REVISIONS:	ENGINEER	DATE	ENGINEER	DATE
000076R11	RRT	06/22/01						

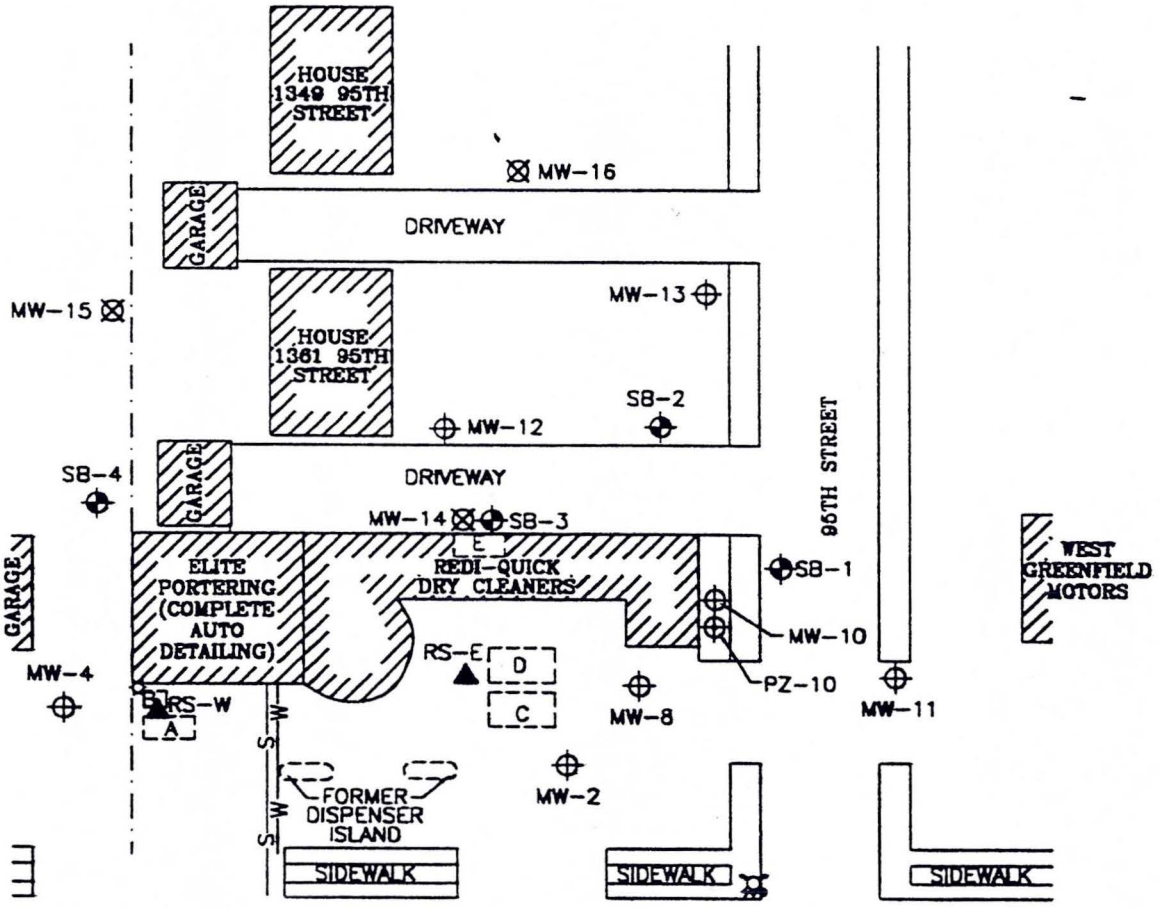
LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- UNDERGROUND STORAGE TANK (UST)
- MONITORING WELL
- TEST BORING, DRILLED 5/19/99 BY JJS & ASSOCIATES
- PIEZOMETER
- RECOVERY SUMP
- LIGHT POLE
- HYDRANT
- WATER LINE
- SEWER LINE
- PROPOSED GROUNDWATER MONITORING WELL

TANK LEGEND

- A FORMER 1,000-GALLON FUEL OIL UST (REMOVED 12/89)
- B FORMER 260-GALLON WASTE OIL UST (REMOVED 12/89)
- C FORMER 4,000-GALLON GASOLINE UST (REMOVED 12/89)
- D FORMER 4,000-GALLON GASOLINE UST (REMOVED 12/89)
- E 1,000-GALLON DRY CLEANER SOLVENT UST (NO LONGER IN USE)

N



ENVIROGEN

COST EFFECTIVE LEADERSHIP FOR A CLEANER ENVIRONMENT

2835 North Grandview Blvd.
Pewaukee, Wisconsin 53072-0090

SCALE

0 10' 20' 30' 40'

PROPOSED GROUNDWATER MONITORING WELL LOCATION REDI-QUICK DRY CLEANERS SITE WEST ALLIS, WISCONSIN	FIGURE NO. 12

DRAWING NO.	000076R12
DRAWN BY:	RRT
DATE	06/22/01
CHECKED BY:	
APPROVED BY:	
REVISIONS:	
ENGINEER	
DATE	
ENGINEER	
DATE	

TABLE 1

Soil Sample Laboratory Analytical Results
Redi-Quick Cleaners
West Allis, Wisconsin

Sample Location (Depth Interval - feet)	Sampling Date	Tetrachloroethene	Trichloroethene	Cis-1,2-Dichloroethene	Trans-1,2-Dichloroethene	Vinyl Chloride
SB – 1 (18' - 20')	5/19/99	**230**	<25	<25	<25	<25
SB – 2 (14' - 16')	5/19/99	**33**	<25	<25	<25	<25
SB – 3 (14' - 16')	5/19/99	**230,000**	<1,000	<1,000	<1,000	<1,000
SB – 4 (16' - 18')	5/19/99	<25	**30**	<25	<25	<25
MW-11 (14' - 16')	8/30/00	<25	<25	<25	<25	<25
MW-12 (10' - 12')	8/30/00	**129,000**	**180**	<25	<25	<25
MW-12 (24' - 26')	8/30/00	<25	<25	<25	<25	<25
MW-13 (20' - 22')	8/30/00	<25	<25	<25	<25	<25
PZ-10 (2' -4')	8/31/00	**3,090**	<25	<25	<25	<25
PZ-10 (16' - 18')	8/31/00	<25	<25	<25	<25	<25
PZ-10 (22' - 24')	8/31/00	<25	<25	<25	<25	<25
PZ-10 (43' - 45')	8/31/00	<25	<25	<25	<25	<25

Notes:

Results in parts per billion (ppb)
All soil samples collected on 5/19/99 are compiled from JJS Environmental Groundwater Sampling Report submitted 11/16/99.
All samples from 8/30/00 and 8/31/00 were collected by Envirogen.

Checked by:_____ Approved by:_____

TABLE 2

Groundwater Elevation Data
Redi-Quick Cleaners
West Allis, Wisconsin

Monitoring Well	Top of Casing Elevation	Top of Screen Elevation	September 2011		November 15, 2011	
			Depth to Water (from TOC)	Groundwater Elevation	Depth to Water (from TOC)	Groundwater Elevation
MW-2	781.58	765.08	NM	NM	12.56	769.02
MW-4	783.30	778.80	3.25	780.05	4.71	778.59
MW-8	781.13	764.13	12.94	768.19	13.22	767.91
RS-E	781.97	781.97	NM	NM	2.22	779.75
RS-W	782.45	782.45	NM	NM	2.99	779.46
MW-10	779.26	771.26	4.37	774.89	6.61	772.65
MW-11	777.89	769.89	8.60	769.29	8.81	769.08
MW-12	782.61	762.61	13.74	768.87	14.03	768.58
MW-13	780.08	763.08	9.50	770.58	10.70	769.38
PZ-10	779.44	739.44	38.72	740.72	13.40	766.04

Notes:

Elevations based on benchmark elevation of 782.16 at base of east window on 9501 West Greenfield building as provided by the City of West Allis.
NM: Not measured
bgs: below ground surface
TOC: Top of Casing

Checked by:_____ Approved by:_____

TABLE 3

Groundwater Laboratory VOC Analytical Results
Redi-Quick Cleaners
West Allis, Wisconsin

Monitoring Well	Date	Tetrachloroethene	Trichloroethene	Cis-1,2-Dichloroethene	Trans-1,2-Dichloroethene	Vinyl Chloride	1,1-Dichloroethene	1,2-Dichloroethane
MW-2	4/27/90	2.2	2.0	10	10	<0.5	<0.5	<0.5
	8/17/92	<1	<1	<1	<1	<5	<1	<1
	2/23/93	<1	<1	<1	<1	<1	<1	7.4
	8/12/98	<0.40	0.29	10	<0.36	2	<0.61	11
	5/10/99	<0.43	<0.37	13	<0.79	0.43	<0.43	13
	11/3/99	<0.43	1.4	10	<0.79	2.5	<0.43	11
	9/14/00	NA	NA	NA	NA	NA	NA	NA
MW-4	4/27/90	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5
	8/17/92	6.59	2.70	12.2	<1	<5	<1	<1
	2/23/93	2.8	1.4	3.2	<1	<1	<1	<1
	8/12/98	6	0.38	0.40	<0.36	<0.61	<0.61	<0.50
	5/10/99	3.7	0.77	0.50	<0.79	<0.20	<0.43	<0.37
	11/3/99	5.6	0.74	0.37	<0.79	<0.20	<0.43	<0.37
	9/14/00	10.6	1.26	<5.00	<5.00	0.586	<0.500	<0.500
MW-8	4/27/01	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5
	8/17/92	<1	<1	<1	<1	<5	<1	<1
	2/23/93	<1	<1	<1	<1	<1	<1	<1
	8/12/98	<0.40	<0.51	<0.41	<0.36	<0.61	<0.61	<0.50
	5/10/99	<0.43	<0.37	<0.28	<0.79	<0.20	<0.35	<0.37
	11/3/99	<0.43	<0.37	<0.28	<0.79	<0.20	<0.43	<0.37
	9/14/00	<0.500	<0.500	<5.00	<5.00	<0.170	<0.500	<0.500
NR 140 PAL		0.5	0.5	7	20	0.02	0.7	0.5
NR 140 ES		5	5	70	100	0.2	7	5

(Continued)

Notes: Results in parts per billion (ppb)
All monitoring wells were sampled on 9/14/00 by Envirogen. Analytical data for sampling events prior to 9/24/00 are compiled from previous consultant reports.
Shading indicates value equals or exceeds the NR 140 enforcement standard
Shading indicates value equals or exceeds the NR 140 preventive action limit
ES: Enforcement standard PAL: Preventive action limit NA: Not analyzed

Checked by:_____ Approved by:_____

TABLE 3
(Continued)

Groundwater Laboratory VOC Analytical Results
Redi-Quick Cleaners
West Allis, Wisconsin

Monitoring Well	Date	Tetrachloroethene	Trichloroethene	Cis-1,2-Dichloroethene	Trans-1,2-Dichloroethene	Vinyl Chloride	1,1-Dichloroethene	1,2-Dichloroethane
RS-E	8/17/92	50	13	<1	<1	<5	<1	<1
	2/23/93	220	29	44	<1	37	<1	3.9
	8/12/98	15	64	95	0.69	3	<0.61	2
	5/10/99	3	0.41	0.80	<0.79	0.86	<0.43	<0.37
	11/3/99	35	30	29	0.88	1.3	<0.43	0.75
	9/14/00	NA	NA	NA	NA	NA	NA	NA
RS-W	8/17/92	<1	<1	3.95	<1	<5	<1	<1
	2/23/93	<1	17	35	<1	17	2.4	1.1
	8/12/98	6	0.98	0.42	<0.36	<0.61	<0.61	<0.50
	5/10/99	44	21	23	<0.79	3.9	<0.43	0.76
	11/3/99	6.5	3.0	3.2	<0.79	0.27	<0.43	<0.37
	9/14/00	NA	NA	NA	NA	NA	NA	NA
NR 140 PAL		0.5	0.5	7	20	0.02	0.7	0.5
NR 140 ES		5	5	70	100	0.2	7	5

(Continued)

Notes:

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Checked by:_____
Approved by:_____

TABLE 3
(Continued)

Groundwater Laboratory VOC Analytical Results
Redi-Quick Cleaners
West Allis, Wisconsin

Monitoring Well	Date	Tetrachloroethene	Trichloroethene	Cis-1,2-Dichloroethene	Trans-1,2-Dichloroethene	Vinyl Chloride	1,1-Dichloroethene	1,2-Dichloroethane
MW-10	9/14/00	**24,700**	**4,670**	**2,630**	**28.5**	**9.13**	**2.11**	<0.500
MW-11	9/14/00	**5.90**	<0.500	<5.00	<5.00	<0.170	<0.500	<0.500
MW-12	9/14/00	**708**	**17.0**	**10**	<5.00	<0.170	<0.500	<0.500
MW-13	9/14/00	<0.500	<0.500	<5.00	<5.00	<0.170	<0.500	<0.500
PZ-10	9/14/00	<0.500	<0.500	<5.00	<5.00	<0.170	<0.500	<0.500
NR 140 PAL		0.5	0.5	7	20	0.02	0.7	0.5
NR 140 ES		5	5	70	100	0.2	7	5

(Continued)

Notes:

Results in parts per billion (ppb)
All monitoring wells were sampled on 9/14/00 by Envirogen. Analytical data for sampling events prior to 9/24/00 are compiled from previous consultant reports.

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