

49

**SITE INVESTIGATION WORK PLAN**

**REDI-QUICK DRY CLEANERS**  
West Allis, Wisconsin

**Envirogen Project No. P000076**

**August 2000**



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August 29, 2000

Ms. Gina Keenan  
Wisconsin Department of Natural Resources  
Southeast Region Headquarters  
2300 North Dr. Martin Luther King Drive  
Milwaukee, Wisconsin 53212

**Re: Redi-Quick Dry Cleaners  
9508 West Greenfield Boulevard  
West Allis, Wisconsin  
WDNR FID No. 241170490 ERR/ERP  
Envirogen Project No. P000076**

Dear Ms. Keenan:

This document presents a proposed work plan, prepared by Envirogen, Inc. (Envirogen), for a site investigation at the Redi-Quick Cleaners in West Allis, Wisconsin, where a dry cleaning facility has been operating since 1968. In 1981, the current operators purchased the business and retrofitted the dry cleaning equipment.

The Redi-Quick Cleaners site is located in West Allis, Wisconsin. The site is located in the SE1/4, SE1/4, Sec. 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

During an environmental site investigation, which was related to former petroleum underground storage tanks (USTs) used on the property, sample analyses indicated the presence of common dry cleaning solvents, trichloroethene and tetrachloroethene. These chlorinated compounds have been present at levels exceeding Wisconsin Department of Natural Resources NR 140 groundwater enforcement standards. The current business operator received a notice of responsibility, for the chlorinated solvent contamination, from the Wisconsin Department of Natural Resources (WDNR) dated December 7, 1994. Figure 2 illustrates the Site Plan to date.

This Site Investigation Work Plan (SIWP) outlines data collection techniques and methods necessary to complete an investigation for the site. This work plan has been designed to comply with the Wisconsin Department of Commerce (COMM) and the WDNR requirements for an investigation associated with the release of chlorinated solvents.

The purpose of the scope of services proposed in this SIWP is to investigate the source, nature, degree, and extent of soil and potential groundwater contamination at the site.

A Health and Safety Plan (HSP) has been assembled for the site in accordance with Occupational Safety and Health Administration (OSHA) regulations.

### **Local Geology and Hydrogeology**

Soils in the vicinity of the subject site are predominantly glacial ground moraine consisting of unstratified clay till. Undifferentiated dolomite bedrock typically underlies approximately 50 to 200 feet of soil overburden in this area.

Based on the results of previous investigations at the subject site, local geology consists of lean clay with varying amounts of sand, and sand lenses.

Depth to water historically observed in wells at the subject site has ranged between 14 and 16 feet below land surface (bls). The groundwater flow direction has been to the east, for the reporting period between 1990 and the present.

### **Local Contaminant Pathways and Receptors**

Envirogen is currently reviewing available resources and will present the results in the Site Investigation Report. The Wisconsin Geological and Natural History Survey (WGNHS) was contacted regarding the presence of potable wells within 1,200 feet of the site. The results of review of this information will be presented in the SIR.

Envirogen is reviewing available information regarding the presence of wetlands, sensitive ecosystems or habitats and state or federally listed endangered species on or adjacent to the site. Any outstanding resource waters or exceptional resource waters on or near the site, as defined in chapters NR 102.10 or NR 102.11 of the Wisconsin Administrative Code, will be identified and discussed in the SIR.

Envirogen will also review The National Register of Historic Places and The State Register of Historic Places in Wisconsin for the presence of historical or archeological sites on or adjacent to the site (State Historical Society of Wisconsin 1994).

### **Local Contaminant Sources Assessment**

Envirogen has ordered an Environmental FirstSearch Report, prepared 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. The potential for reported off-site contaminants sources to migrate onto the site will be evaluated. Envirogen will also review the following lists (the date each database was updated in parentheses):

- Superfund: Progress at National Priority List Sites: Wisconsin (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)
- SWL (April 1999)
- Registered UST/AST sites (WDNR, April 2000)
- Leaking UST sites (WDNR, April 2000)
- Receptors List (January 1995)

### **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. During investigation activities, Envirogen will follow its standard operating procedures, which are available upon request, to complete the investigation according NR 716 requirements.

### **Investigation Strategy**

Soil contaminant investigation will be performed using a drill rig equipped with a hollow-stemmed auger and split spoon. Five test borings will be placed in the demonstrated downgradient direction of the known contamination area, and to the north, to complete lateral

definition of contamination. Four of these test borings will be converted into monitoring wells. The remaining soil boring will be converted into a piezometer of approximately 40 feet. The proposed soil sampling locations may be modified based on field observations.

During sample collection, a portion of each sample collected will be field-screened for volatile organic vapors with a PID. To document the distribution and extent of soil contamination, select soil samples will be submitted for laboratory analysis.

### **Field Activities**

- Advance approximately five soil borings to be converted to four monitoring wells and one piezometer, as shown in Figure 3.
- Collect soil samples continuously to an estimated depth of 25 feet.
- Characterize the soil type of soil samples collected.
- Prepare boring logs indicating sample interval depths, observations, locations of various strata, saturation conditions, and other geologic information.
- Field-screen sample portions with a PID.
- Select and submit approximately three samples from each well boring to a state-certified laboratory for analysis.

### **Laboratory Analysis**

Samples collected for state-certified laboratory analysis will be selected and analyzed for VOCs, according to the rationale provided in Table 1. Additional soil samples may be selected for laboratory analysis to meet Wisconsin Administrative Code, Chapter NR 716 requirements.

### **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.

### **Investigation Strategy**

One monitoring well will be installed approximately 20 feet downgradient of the former area. Due to the location of the solvent UST beneath the building floor, this is the closest possible location in the downgradient direction of the source area. As the results of previous investigations indicate that groundwater contamination most likely exists in exceedance of NR 140 Enforcement Standards, three additional monitoring wells will be installed to facilitate definition and monitoring of the dissolved-phase contaminants. The piezometer will be installed adjacent to one monitoring well, approximately 20 feet downgradient of the source area to define the vertical extent of chlorinated solvent contamination. The soil borings described above will be used to construct the monitoring wells.

### **Field Activities**

- Install four monitoring wells and one piezometer, as shown in Figure 3.
- Perform well development and sample groundwater from the wells.
- Survey the well locations and top-of-casing elevations.
- Measure the depth to water from the top of the well casings.

### **Laboratory Analysis**

To document the results of the groundwater investigation, groundwater samples collected from the monitoring wells will be submitted to a state-certified laboratory for volatile organic compounds (VOCs).

### **SITE INVESTIGATION SCHEDULE**

Envirogen will submit a copy of this SIWP to the WDNR. The site investigation activities at the Redi-Quick Cleaner's site are estimated to proceed on the following schedule:

	<u>Months Following</u> <u>SIWP Submittal</u>
• Install Monitoring Well Network and Sampling of Soils	.5
• Develop Monitoring Wells and Sampling of Groundwater	1
• Review Laboratory Data from Soils and Groundwater	2.5
• Discuss Options For Next Phase of Project / Closure	3

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.

### **CONDITIONS AND CERTIFICATIONS**


This Site Investigation Work Plan has been prepared in accordance with generally accepted engineering and hydrogeologic principles and practices of this time and location.

The recommended scope of services presented herein has 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 locations of the monitoring wells have been selected to delineate the extent of contamination. If the contamination is found to be more or less than originally anticipated, appropriate modifications to the Site Investigation Work Plan may be necessary.

This Site Investigation Work Plan was prepared by ENVIROGEN, INC.

Sincerely,  
**ENVIROGEN, INC.**

A handwritten signature in cursive script, reading "Chris J. Jimieson (20)", written over a horizontal line.

Chris J. Jimieson  
Technical Engineer, Report Preparer

A handwritten signature in cursive script, reading "Adele Shepherd (20)", written over a horizontal line.

Adele Shepherd  
Project Environmental Specialist

CJJ/ARS:lrc

cc: Mr. Sam Gruichich (w/att)  
Redi-Quick Cleaners  
9508 West Greenfield Boulevard  
West Allis, Wisconsin 53214

**TABLE 1**

**Rationale for Proposed Well/Piezometer Locations  
Redi-Quick Cleaners Site  
West Allis, Wisconsin**

<b>Location</b>	<b>Boring ID</b>	<b>Sampling Objective</b>	<b>Sampling Strategy</b>	<b>Parameters</b>
Contaminant Source Area	Monitoring well (MW-10)	To characterize the nature and degree of soil and groundwater contamination in and downgradient of the source Area	One sample from 0-4 feet bls, to evaluate direct contact health risk	VOCs
			One sample from the soil/groundwater interface	VOCs
Horizontal and Downgradient Contaminant Extent	Three monitoring wells (MW-11 - MW-14)	To define the northern lateral and downgradient extent of soil and groundwater contamination	One sample from the soil/groundwater interface	VOCs
Vertical Contaminant Extent	PZ-10	To define the vertical extent of soil and groundwater contamination.	One sample from screened piezometer interval.	VOCs

Notes:

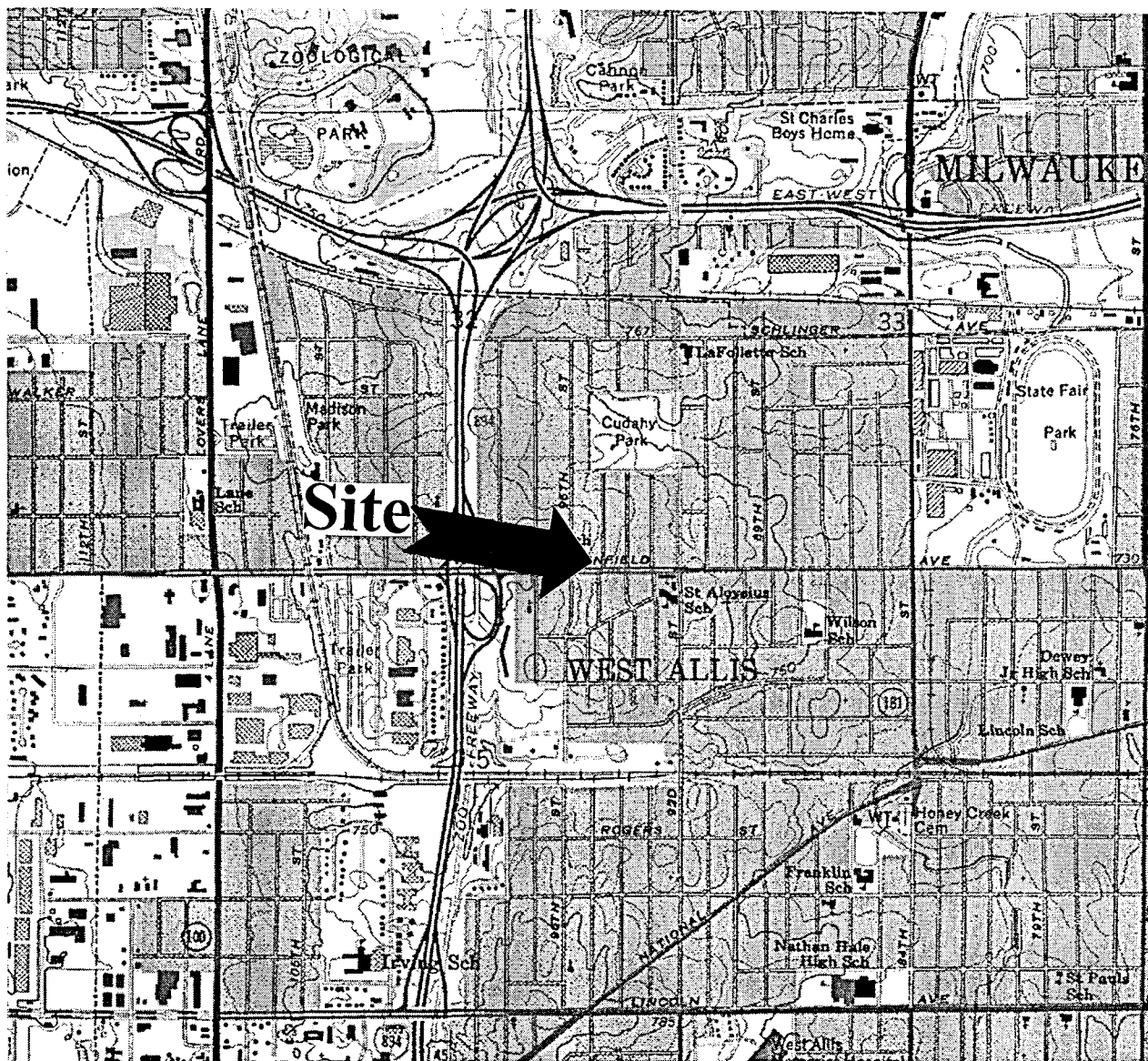
PID: Photoionization detector

VOC: Volatile organic compound

Checked by: \_\_\_\_\_

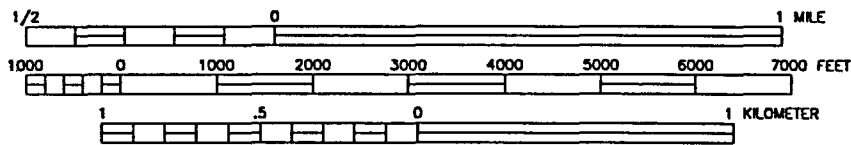
Approved by: \_\_\_\_\_





(USGS [1958] 1994)  
WAUWATOSA QUADRANGLE

SCALE  
1:24000



CONTOUR INTERVAL 10 FEET



LOCATION



**ENVIROGEN**

COST EFFECTIVE LEADERSHIP FOR A CLEANER ENVIRONMENT

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SITE LOCATION MAP

FIGURE NO.

REDI-QUICK DRY CLEANERS SITE  
WEST ALLIS, WISCONSIN

1

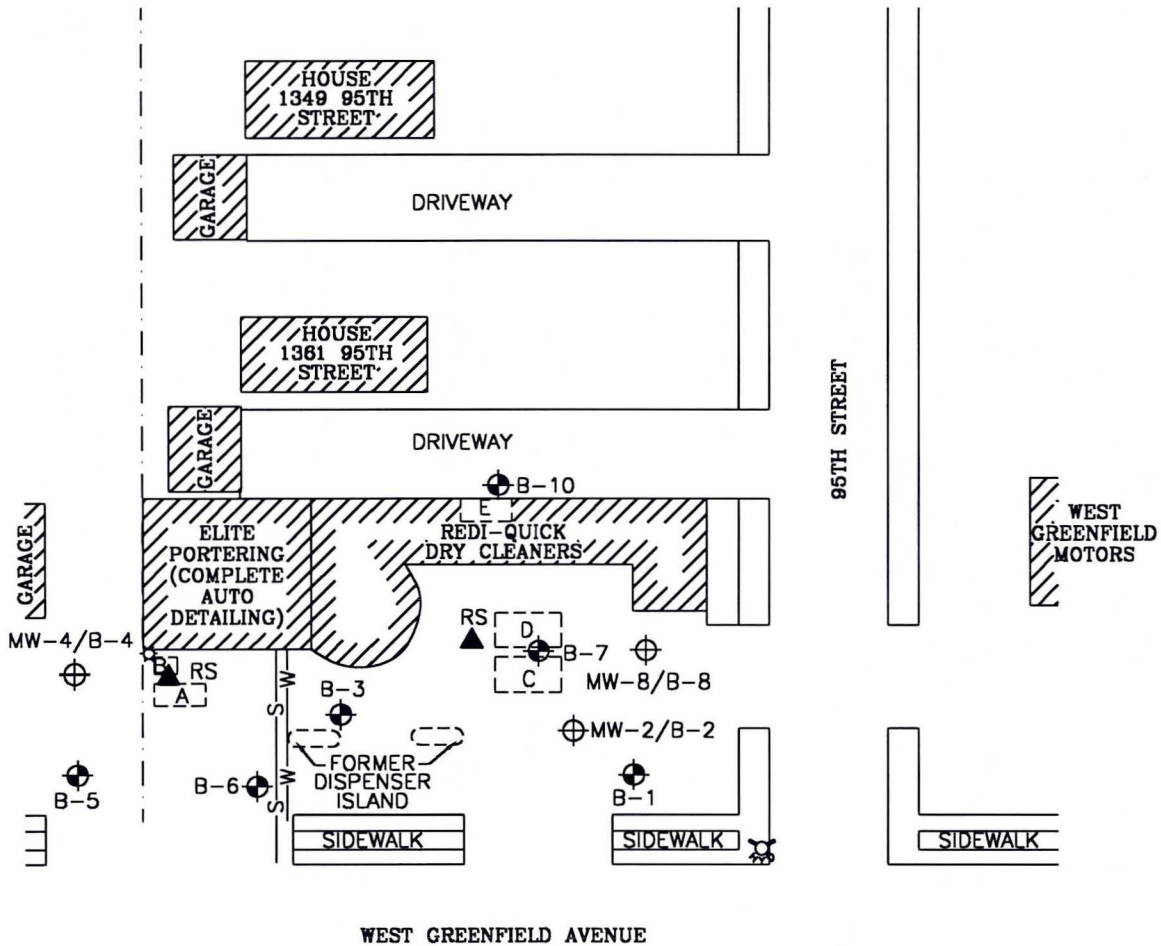
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**LEGEND**

- - - - - APPROXIMATE PROPERTY BOUNDARY
- UNDERGROUND STORAGE TANK
- ⊕ MONITORING WELL
- ⊙ TEST BORING
- ▲ 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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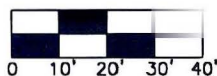


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**COST EFFECTIVE LEADERSHIP FOR A CLEANER ENVIRONMENT**

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SCALE



SITE PLAN VIEW

REDI-QUICK DRY CLEANERS SITE  
WEST ALLIS, WISCONSIN

FIGURE NO.

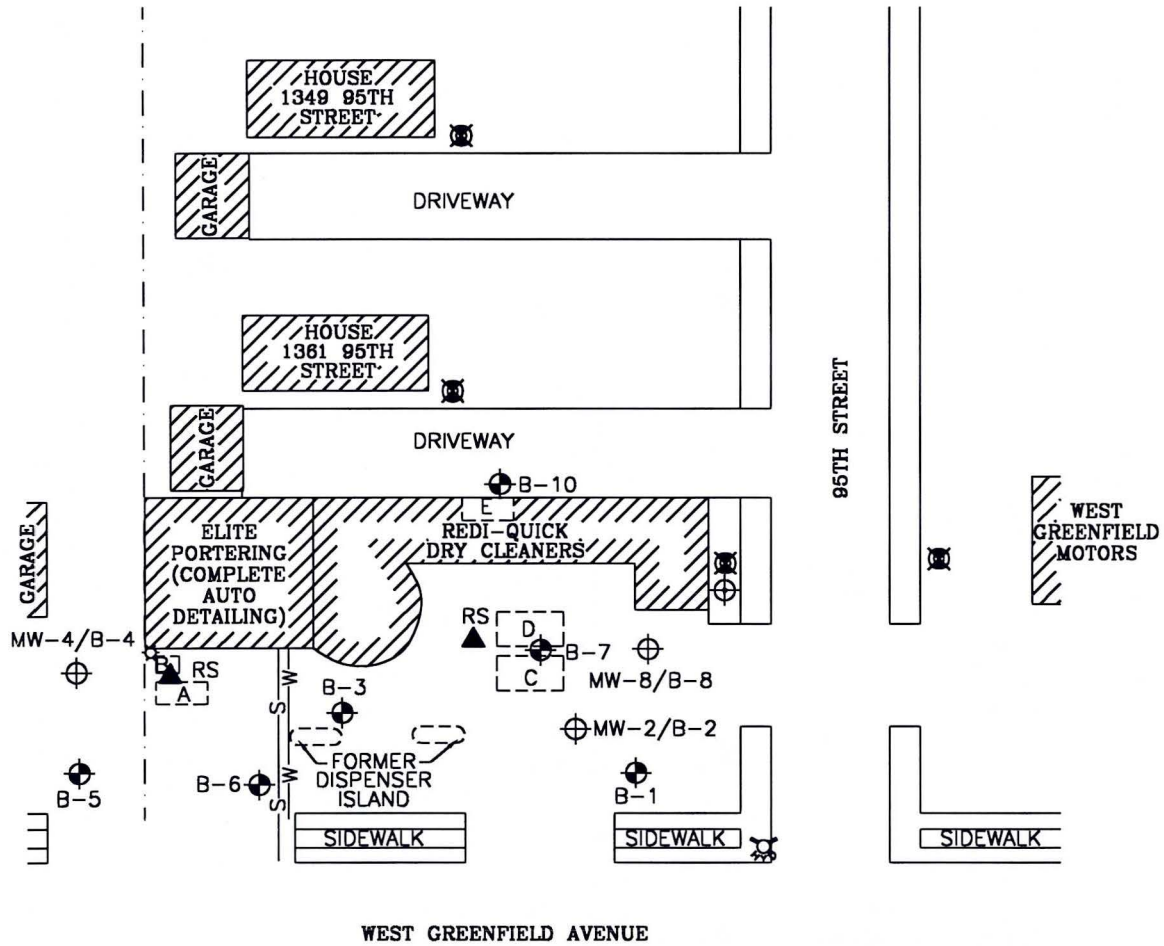
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**LEGEND**

- - - - - APPROXIMATE PROPERTY BOUNDARY
- UNDERGROUND STORAGE TANK
- ⊕ MONITORING WELL
- ⊕ TEST BORING
- ▲ RECOVERY SUMP
- ⊙ LIGHT POLE
- ⊙ HYDRANT
- W— WATER LINE
- S— SEWER LINE
- ⊕ PROPOSED MONITORING WELL
- ⊕ PROPOSED PIEZOMETER

**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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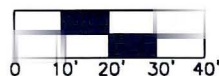


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SCALE



PROPOSED MONITORING WELL LOCATIONS

REDI-QUICK DRY CLEANERS SITE  
WEST ALLIS, WISCONSIN

FIGURE NO.

3