02-41-525029

PHASE I ENVIRONMENTAL SITE ASSESSMENT

FORMER MOBILE BLASTING SITE
1604 SOUTH 43RD STREET
WEST MILWAUKEE, WISCONSIN

Prepared for
Real Estate Recycling
Dain Bosworth Plaza
60 South Sixth Street, Suite 2110
Minneapolis, MN 55402

November 20, 1998

URS Greiner Woodward Clyde

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2312 N. Grandview Blvd.
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Waukesha, WI 53188
7E09675

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1.1 PROJECT BACKGROUND

Woodward-Clyde International-Americas (Woodward-Clyde) was retained by Real Estate Recycling (RER) to conduct a Phase I Environmental Site Assessment (ESA) of the property located at 1604 South 43rd Street in the Village of West Milwaukee, Milwaukee County, Wisconsin (the "Property"). Specifically, the Property consists of a 3.2 acre parcel located on the east side of South 43rd Street, north of West Mitchell Street, and south of the centerline of West Lapham Street. The property is currently occupied by a vacant building. The vicinity of the Property is shown in Figure 1-General Vicinity Map.

A Phase I ESA was performed by the Wisconsin Department of Natural Resources (WDNR) in 1996. Findings associated with the Phase I ESA led WDNR to perform a Phase II Investigation in 1997. Details regarding these 2 previous investigations will be provided in later sections of this report.

This ESA was performed in accordance with our Agreement No. 7E09675-A, dated April 1, 1997, and executed by RER on July ....., 1998. We understand that RER is interested in acquiring the Property for redevelopment under the Wisconsin Brownfields Program. This Phase I ESA was performed as a requirement of the Brownfields Program.

1.2 PROJECT OBJECTIVE

The objective of this ESA was to identify "recognized environmental conditions" that may exist on the Property. ASTM Practice E 1527-97, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process defines *recognized environmental conditions* as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property." The extent of research to identify recognized environmental conditions is limited by the scope of services.

The scope of services conducted for this Phase I ESA consisted of the following tasks:

- Site Reconnaissance - A site reconnaissance was conducted by Woodward-Clyde staff members experienced in hazardous materials surveys. Surface conditions and current activities on the Property and adjoining properties were observed. An inventory of potential contaminant sources on and adjoining the Property was completed on the basis of visual observations.
- Records Review and Interviews - During the record review, readily ascertainable information was obtained from public agencies (federal, state, and local) to assess whether current and past property usage within the study area may have created a potential for contamination of the Property. Our study area for the records review is based on the ASTM Practice and consists of the following:
    - — The subject property and adjoining properties (Figure 1) for registered underground storage tanks (USTs) and Resource Conservation and Recovery Act (RCRA) generators.
    - — 1/2-mile radius for leaking USTs, landfill sites, Non-Corrective Action RCRA treatment, storage and disposal facilities and Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) sites.
    - — 1-mile radius for Corrective Action RCRA treatment, storage and disposal facilities, and state and federal superfund sites.
- We also used interviews, local street directories, fire insurance maps, historical topographic maps, and historical aerial photographs to characterize past activities on and around the Property. Aerial photography sources included Southeastern Wisconsin Regional Planning Commission (SEWRPC), and Woodward-Clyde's in-house photograph collection. Private data sources included Woodward-Clyde's geologic, hydrogeologic, and hazardous waste project experience.
- Evaluation, Analysis and Report - Information collected during the above activities was evaluated and analyzed. This ESA report addresses our findings, and presents our conclusions.

This ESA was performed in accordance with ASTM Practice E 1527-97; no exceptions to or deletions from the Practice were made.

3.1 LOCATION AND TOPOGRAPHY

The Property is located at 1604-1650 South 43rd Street in the Village of West Milwaukee, Milwaukee County, Wisconsin. The Property is located in a mixed - use area which includes residential, commercial and light industrial properties.

According to the Milwaukee, Wisconsin 7.5 minute topographic quadrangle, the Property is generally level at an elevation of 650 ft mean sea level (MSL). The general vicinity of the Property is depicted in Figure 1.

3.2 SITE IMPROVEMENTS

At present a single structure occupies the north 1/3 of the Property. The structure is brick construction with a wood roof. A wood frame addition to the main structure is present to the east of the northeast corner of the brick structure. The structure is in disrepair with all of the windows either broken out or boarded up, major structural failures in the roof, and major vandalism to the interior. The southern 2/3 of the Property contains the remnant floor slab from the former Sivyer Steel Casting facility, razed in 1984.

3.3 ENVIRONMENTAL SETTING

The regional geology in the vicinity of the Property is the result of glaciation. Advances and retreats of glaciers deposited till materials comprised of clays, silts, sand, gravel, cobbles and boulders. Surficial features include glacial drumlins and terminal moraines. The glacial deposits approach 100 feet in thickness in southeastern Wisconsin. According to the Water Resources Atlas of the Lake Michigan Basin produced by the US Geological Survey in 1969, groundwater flow in the basin moves within the water table (shallow) system and the artesian (deep) system simultaneously. Groundwater flow in the water table system flows in general agreement with surface water divides and typically discharges to local surface water bodies. Groundwater in the artesian system flows eastward confined in the sandstone aquifer by the overlying shale. Recharge for the artesian system occurs along the eastern edge of the Rock-Fox River Basin and discharge occurs through wells in eastern Milwaukee, Racine and Kenosha Counties. The shallow groundwater typically follows surface contours.

Identification of historical uses of Property and adjoining properties are based on interviews, review of historical aerial photographs, historical city directories, and Sanborn Fire Insurance (SFI) maps. Aerial photographs were reviewed at Woodward-Clyde offices. Historical city directories and SFI maps were researched by EDR Sanborn Co.

4.1 AERIAL PHOTOGRAPHS

Readily available aerial photographs which cover the years 1963, 1967, and 1970 through 1990 in 5-year increments were obtained from the Southeastern Wisconsin Regional Planning Commission (SEWRPC) and were reviewed. All of the photographs have a scale of 1"=400'. A summary of the Property conditions on each photograph follows:

- **1963:** This photo is of poor quality, however, major site features are noticeable. Two major structures occupy the Property. The existing former Mobile Blasting facility is located in the northwest corner of the Property, and the former Sivyer Steel Casting facility is located on the southern portion of the Property. A railroad spur divides the Property from the northeast corner to a point on the west property line which is approximately 200 feet south of the north property line. The vicinity of the Property appears to be a mix-use area which includes heavy industrial and residential. Several large above-ground storage tanks (ASTs) are observed east of the Property across the railroad right-of-way. A large pond is present east of the Property across the railroad right-of-way.
- **1967:** The Property and areas surrounding the Property appear in similar conditions in this photograph to the conditions observed in the 1963 aerial photograph. However, the pond present east of the Property appears to be in the process of being filled in. The extent of the pond has been reduced from the east since the 1963 aerial photograph was taken.
- **1970:** The conditions on the Property observed in this aerial photograph appear similar to the conditions observed in the 1967 photograph. The area of the pond (located east of the Property) continues to decrease. Also, several residences formerly present west of the Property between 43rd Street and 44th Street are no longer present.
- **1975:** The conditions on the Property observed in this aerial photograph appear similar to the conditions observed on previous aerial photographs. The pond formerly located east of the Property is now entirely filled in, and trucks are observed parking in the area. Also, the large AST formerly present immediately east of the Property is no longer present.

- **1980:** The conditions on the Property observed in this aerial photograph appear similar to the conditions observed on previous aerial photographs. Nearly all of the residences between 43rd Street and 44th Street are no longer present.
- **1985:** This photograph provides the first indication of demolition of the Sivyer Steel Casting structure. Since the 1980 aerial photograph was taken, the northeast corner of the Sivyer facility has been demolished. The remainder of the site features observed appear similar to those observed in the 1980 aerial photograph.
- **1990:** The entire Sivyer Steel Castings facility is demolished in this aerial photograph. The Mobile Blasting facility remains.

Copies of several of the aerial photographs are attached as Figures 2 and 3.

4.2 SFI MAPS

A Sanborn Company Fire Insurance Map search was conducted by EDR for the Property. Sanborn Company Fire Insurance Maps were initially produced for the insurance industry to provide information on the fire risks of buildings and other structures. Fire insurance maps were produced form the 1850s to the present. The map search yielded SFI maps from 1910, 1927, 1950, and 1968 for the vicinity of the Property. A detailed description of the features observed on the Sanborn maps are provided below. Copies of the SFI Maps discussed below are attached as Figures 4 through 7.

- **1910:** The 1910 SFI map indicated that the current South 43rd Street was previously identified as 37th Avenue. No structures were present on the northern 1/3 of the Property where the Mobile Blasting facility is located. A small foundry with several outbuildings were located on the southern 2/3 of the Property, and are labeled "Sivyer Steel Casting Co.". Two objects appear as cylindrical tank structures on the Sivyer Steel Casting portion of the Property. However, the text associated with this symbol is illegible.
- **1927:** The Sivyer Steel Casting facility occupies the entire area form Mitchell Street north to the railroad spur, and 37th Avenue (43rd Street) east to the railroad right-of-way. A notation is included at the northernmost extent of the Sivyer facility of the presence of one 12,000 gallon oil AST, and three 8,000 gallon oil USTs located in a concrete pit. This map also provides the first indication of a structure located on the northern 1/3 of the Property. the Cream City Boiler Co. boiler works and a storage building are present.

- **1950:** The Sivyer Steel Casting portion of the Property appears similar to that observed on the 1927 map. However, there no longer is any indication of the AST or USTs described on the 1927 map. An addition to the Cream City Boiler Co. facility has been constructed to the east of the original facility.
- **1968:** Conditions on both portions of the Property appear similar to those observed on the 1950 map. An underground passageway has been constructed beneath 43rd Street between the main Sivyer Steel Casting facility to a repair shop located on the west side of 43rd Street.

4.3 HISTORICAL CITY DIRECTORIES

The history of the property was researched through city directories for the past 53 years. Due to address number variations, no listings were identified at 1604 South 43rd Street. However, both Cream City Boiler Co. and Sivyer Steel Castings appear in the historic directories. Cream City Boiler is identified at 1603 South 43rd Street in the 1940 through 1960 directories. Sivyer Steel Castings is located at 1675 South 43rd Street in the 1940 through 1970 directories. In the 1970 directory, Sivyer Steel Castings is also listed as being located at 1603 South 43rd Street. There is no listing for either structure in the 1975 directory. In 1980, Specialty Coating, Inc. is listed at 1600 South 43rd Street, and Global Manufacturing is located at 1645 South 43rd Street. In 1985, Specialty Coating, Inc. continues to be located at 1600 South 43rd Street, and Global Manufacturing is now listed at 1675 South 43rd Street. In 1993, the 1600 South 43rd street site is listed as vacant, and there is no listing for any other structure on the 1600 block of South 43rd Street.

The City Directory Abstract compiled by EDR is included in Appendix A.

Mr. Robert Cigale and Mr. Daniel Scudder of Woodward-Clyde conducted a site reconnaissance of the Property on July 22, 1998. Mr. Cigale and Mr. Scudder were not accompanied during the site reconnaissance.

The walk-over site reconnaissance of the Property and the adjoining properties included photo documentation of the present conditions of the Property. Details of the observations made are presented below.

5.1 ADJOINING PROPERTIES

The Property is bounded to the south by the Mitchell Street right-of-way, and Krause Milling on the south side of Mitchell Street. To the west, the Property is bounded by the South 43rd Street right-of-way. Vacant land is present on the west side of South 43rd Street. Hometown Ice abuts the Property to the north. To the south, the Property is bounded by a railroad right-of-way. Several small light manufacturing facilities, which have been developed on the former Wadhams Oil Co. parcel, are located on the east side of the railroad right-of-way.

5.2 SUBJECT PROPERTY

5.2.1 Exterior Areas

Conditions on the Property were observed during a walking reconnaissance of the exterior and interior areas. The entire Sivyer Steel Casting facility has been demolished. The only indication on the Property of the former location of the Sivyer Steel Casting facility is the concrete floor slab. Machinery foundations and floor drains were also observed in the floor slab from the former Sivyer Steel Casting facility. The floor drains observed contained soil from surficial runoff.

Access to the Property is not controlled at any of the driveways, and therefore, illegal dumping has occurred on the Property. Piles of railroad ties, soil with asphalt inclusions, and tree limbs were observed along the east Property line near the railroad right-of-way. Numerous other piles of asphalt shingles, partially full 5 gallon buckets of roofing tar, 1 gallon paint cans, household rubbish, automobile tires, and wood are located in the vicinity of the Mobile Blasting facility.

The reference to the presence of underground tanks on the 1927 Sanborn Fire Insurance Map was investigated. However, piles of rubbish and asphalt patches made identifying the former location of the underground tanks difficult. A square opening at ground surface was discovered within a grassy area just north of the former Sivyer Steel Casting facility. The square opening appeared

to have a metal liner which began at approximately 1 ft below the ground surface. The opening contained soil in the base. Possible petroleum odors were noted in the vicinity of the opening.

In general, the exterior portions of the Property appeared to be similar to the description provided in the *Phase I Report for the Mobile Blasting Facility* - Wisconsin Department of Natural Resources, August 27, 1996, with the exception of additional materials illegally disposed of on the Property. A copy of the *Phase I Report*, completed by the Wisconsin Department of Natural Resources is attached in Appendix B.

5.2.2 Interior Areas

The former Mobile Blasting facility doors are locked; however, access to the interior is available through a broken panel on the overhead door located on the south side of the facility, broken-out walls on the south side of the eastern addition, and through a partially open sliding door on the north side of the eastern addition.

Examination of the interior of the structure indicates a structure in a state of disrepair. Holes in the roof, walls, and broken windows have allowed precipitation to accelerate the deterioration of the structure. Based on the presence of graffiti on all interior surfaces, and the presence of numerous empty spray paint cans, it is obvious that entry into the structure continues. It also appears that all salvageable metals, including all copper wiring, have been removed from the structure.

A large pile of spent sandblast sand remains in the eastern portion of the east addition to the main structure. In general, the interior of the structure appears to be in the same condition as that described in the *Phase I Report for the Mobile Blasting Facility* - Wisconsin Department of Natural Resources, August 27, 1996, with the exception of additional empty spray paint cans from continued vandalism in the facility. No indications of underground storage tanks or floor drains, sumps, or pits were noted during the reconnaissance. However, the presence of possible asbestos containing material accumulated on the floor of the facility may have disguised these features.

6.1 ENVIRONMENTAL DATABASE

During the records review portion of this ESA, we reviewed records/database listings maintained by the following agencies (by database search, direct contact, telephone, or written requests):

- Village of West Milwaukee
- Wisconsin Department of Natural Resources (WDNR)
- Wisconsin Department of Industry, Labor and Human Relations (WDIHLR)
- United States Environmental Protection Agency (USEPA)

The purpose of our records review was to assess the potential presence of hazardous substance contamination on the property as the result of activities conducted on properties within the study area defined in the Scope of Services section of this report. The rationale for contacting these agencies, descriptions of the records available for review, and acronyms are identified in Appendices C and D. Many of the state and federal database listings were searched by EDR. Each list searched by EDR is referenced in Appendix C. Information gathered from the Village of West Milwaukee was sparse. The results of the records review are presented in the EDR report in Appendix D and are summarized below Table 2. No sites were identified in EDR's search of available government records either on the Property, or within the ASTM E 1527-97 search radius around the Property for the following databases:

- NPL
- Delisted NPL
- RCRIS-TSD
- SHWS
- CERCLIS
- CERC-NFRAP
- RAATS
- HMIRS
- PADS
- ERNS
- FINDS
- TRIS
- NPL Lien
- TSCA
- MLTS
- WI Spills
- WI WRRSER
- WI ERP
- ROD
- CONSENT

Table 2

Site Distribution Summary Agency/Database	<1/8 mile	1/8 to 1/4 mile	1/4 to 1/2 mile	1/2 to 1 mile	Unmapped
NPL Sites	0	0	0	0	0
Delisted NPL sites	0	NR	NR	NR	0
RCRIS-TSD sites	0	0	0	NR	0
State Haz Waste sites	0	0	0	0	0
CERCLIS sites	0	0	0	NR	0
CERC-NFRAP	0	NR	NR	NR	0
CORRACTS	0	0	1	2	0
State Landfill sites	0	0	2	NR	0
LUST sites	1	9	12	NR	0
UST sites	2	18	NR	NR	1
RAATS sites	0	NR	NR	NR	0
RCRIS generators	1	8	NR	NR	0
HMIRS sites	0	NR	NR	NR	0
PADS sites	0	NR	NR	NR	0
ERNS sites	0	NR	NR	NR	0
FINDS sites	0	NR	NR	NR	0
TRIS sites	0	NR	NR	NR	0
NPL liens	0	NR	NR	NR	0
TSCA sites	0	NR	NR	NR	0
MLTS sites	0	NR	NR	NR	0
Wisconsin Spills	0	NR	NR	NR	0
Wisconsin WRRSER	0	NR	NR	NR	0
WI ERP	0	NR	NR	NR	0
WI WDS	0	0	2	NR	0
ROD sites	0	0	0	0	0
CONSENT sites	0	0	0	0	0
Coal Gas sites	0	0	1	0	0

A brief discussion of the identified sites follows:

6.1.1 CORRACTS Sites

Three sites within 1-mile of the Property are identified on the CORRACTS database as hazardous waste handlers with RCRA corrective action activity. These sites are as follows:

- **Harnischfeger** 4400 West National Avenue
  low priority 1/4 to 1/2-mile north
- **General Electric Co.** 4855 West Electric Avenue
  low priority 1/2 to 1-mile southwest
- **General Electric Appliances** 2205 South 43rd Street
  medium priority 1/2 to 1-mile south

Based on the distance these sites are from the Property, and the side gradient direction to the Property, it is our opinion that these sites have probably not impacted the soil or groundwater on the Property.

6.1.2 Solid Waste Facilities

Two SWF/LF were sites were identified within 1/2-mile of the Property. However, the sites identified have the same address, therefore, only one SWF/LF site is located within 1/2-mile of the Property. This site is located at:

- **West Milwaukee Village Hall** 4755 West Beloit Road
  Inactive 1/4-1/2-mile northwest

Based on the distance from this site to the Property, and the side-gradient direction to the Property, it is our opinion that this site has probably not impacted the soil or groundwater on the Property.

6.1.3 LUST Sites

A total of 22 LUST sites were identified within 1/2-mile of the Property. WDNR prioritizes LUST sites based on the level of impacts observed at a site. Typically, LUST sites which have documented groundwater impacts receive a high priority ranking. It is our opinion that LUST sites with no groundwater impacts (low priority sites) do not typically pose a threat to the Property. LUST sites which have been ranked as either a moderate or high priority, or have an unknown ranking are as follows:

- **AH Krueger** 1627 South 44th Street
  moderate priority <1/8-mile west-southwest

- **National School Bus Service** 4100 West Mitchell Street
  unknown priority 1/8 to 1/4-mile south-southwest
- **Milwaukee Plate Glass** 4440 West Mitchell Street
  moderate priority 1/8 to 1/4-mile south-southwest
- **Harnischfeger Corp.** 4107 West Orchard Street
  moderate and high priority 1/8 to 1/4-mile northeast
- **Reilly Cartage** 4100 West Orchard Street
  high priority 1/8 to 1/4-mile northeast
- **Greenfield Site** 43rd and Greenfield
  moderate and unknown priority 1/8 to 1/4-mile north
- **Szymanski Village Service** 4250 West Greenfield Avenue
  high priority 1/8 to 1/4-mile north
- **Thaus Discount Service** 4229 West Greenfield Avenue
  high priority 1/8 to 1/4-mile north
- **J&J Electric** 4534 West Greenfield Avenue
  unknown priority 1/8 to 1/4-mile north-northwest
- **Sentry Foods** 4140 West Greenfield Avenue
  high priority 1/8 to 1/4-mile north-northeast
- **Linde Gases** 1623 South 38th Street
  moderate priority 1/4 to 1/2-mile east
- **Rexnord Corp.** 4751 west Greenfield Avenue
  2 high priorities 1/4 to 1/2-mile northwest
- **Mobil Oil** 1547 South 38th Street
  high priority 1/4 to 1/2-mile east-northeast
- **Miller Bros. Trucking** 4600 West Burnham Street
  moderate priority 1/4 to 1/2-mile south-southwest
- **Donahue Trucking** 4653 West Electric Avenue
  moderate priority 1/4 to 1/2-mile southwest

- **Dings Company** 4740 West Electric Avenue
  moderate priority 1/4 to 1/2-mile southwest
- **Harnischfeger** 4400 West National Avenue
  high (2) and moderate priority 1/4 to 1/2-mile north
- **US Total Station** 3633 West Burnham Street
  high priority 1/4 to 1/2-mile east-southeast

6.1.4 UST Sites

The database review indicated that 20 sites with registered USTs are located within 1/4-mile of the Property. Due to monitoring, spill containment, and installation requirements related to registered USTs, it is our opinion that these sites do not pose a threat to the soil or groundwater on the Property. Monitoring requirements are meant to identify releases before they become a regional problem.

6.1.5 RCRIS Generators

A total of 9 sites were identified as RCRIS hazardous waste generators within 1/4-mile of the Property. These sites are required to keep detailed records regarding the amount of waste produced and the ultimate disposition of that waste. Therefore, it is our opinion that these sites do not pose a threat to the soil or groundwater on the Property.

6.1.6 WI Registry of Waste Disposal Sites

Two sites located within 1/2-mile of the Property were identified on the WI WDS database. These are sites where solid or hazardous waste may have been deposited. The sites are as follows:

- **Village of West Milwaukee** 4755 West Beloit Road
  1/4 to 1/2-mile northwest
- **Babcock & Wilcox Co.** 3839 West Burnham Street
  1/4 to 1/2-mile southeast

It is our opinion that these sites would not impact the soil and shallow groundwater on the Property. However, these sites could be contributing to deeper, regional groundwater impacts.

6.1.7 Former Manufactured Gas Sites

One former Manufactured Gas Site was identified within 1-mile of the Property. The **Linde Air Products** site located at 1613-1633 South 38th Street is located between 1/8 and 1/2-mile east of the Property. Based on the distance and downgradient direction of this site to the Property, it is unlikely that this site has impacted the soil or groundwater on the Property.

6.2 PREVIOUS INVESTIGATIONS

6.2.1 Phase I Environmental Assessment

As discussed earlier, a Phase I Environmental Assessment was performed on the Property in 1996 by the Wisconsin Department of Natural Resources. A copy of the *Phase I Report* is attached in Appendix B.

6.2.2 Phase II Environmental Assessment

Based on the results of the Phase I Environmental Assessment performed in 1996 by the Wisconsin Department of Natural Resources, a Phase II Environmental Assessment was performed in 1997. The Phase II Environmental Assessment consisted of collecting 19 soil samples from 10 soil boring locations between the ground surface and 5 feet below the ground surface. All subsurface soil sampling was performed outside of the Mobile Blasting facility. No soil borings were advanced through the floor slab of the existing Mobile Blasting facility. Three groundwater monitoring wells were also installed as part of the Phase II.

Results of the soil and groundwater sampling indicated the presence of polycyclic aromatic hydrocarbons (PAH)s, pesticides, and polychlorinated biphenyls (PCBs) in the soils on the Property, and volatile organic compounds (VOCs) in the groundwater on the Property. A copy of the *Phase II Report* is attached in Appendix E.

The conclusions and recommendations presented below are based on the site reconnaissance and the records review conducted for this ESA:

7.1 CONCLUSIONS

- The Property has a long history of use for metals manufacturing. Operations performed on the site include: boiler manufacturing, steel casting, sandblasting, and painting.
- The Sivyer Steel Casting facility was demolished in the mid-1980s. The former Mobile Blasting facility remains; however, in a state of disrepair.
- Our observations made during the Phase I Site Reconnaissance agree with the observations included in the Phase I Environmental Assessment conducted on the site by the Wisconsin Department of Natural Resources in 1996.
- A Phase II Environmental Investigation conducted on the Property by the Wisconsin Department of Natural Resources in 1997 confirmed the presence of soil and groundwater impacts. Asbestos containing pipe insulation and waste sandblast abrasive were also identified within the former Mobile Blasting facility.
- The 1927 Sanborn Fire Insurance Map indicates the presence of several USTs and one AST on the Property.
- The site reconnaissance revealed the presence of an opening in the ground surface in the vicinity of the USTs identified on the 1927 Sanborn Map. Odors may have been emanating from the opening.
- Illegal disposal of household rubbish, building materials, and various other materials continues to occur on the Property

7.2 RECOMMENDATIONS

We have performed a Phase I ESA of former Mobile Blasting facility located at 1604 South 43rd Street in West Milwaukee, Wisconsin, the Property, in conformance with the scope and limitations of ASTM Practice E 1527-97. Exceptions to or deletions from this practice are described in the Scope of Services section of this report. This assessment has revealed evidence of recognized potential environmental conditions in connection with the Property, and additional investigative action is recommended at this time. Recommendations for additional investigative actions include the following:

- Drilling several soil borings in the vicinity of the former location of a UST vault in the northern portion of the former Sivyer Steel Casting facility.
- Advancing soil borings through the floor slab of the former Mobile Blasting facility.
- Installation of several groundwater monitoring wells on the Property to determine upgradient water quality, and groundwater quality across the Property.
- Collect and analyze samples of the spent sandblast sand to determine proper handling requirements.
- Collect and analyze several samples of potential asbestos containing materials to determine proper handling requirements.

Details regarding the scope of services for the Phase II investigation will be presented in the NR 716 Work Plan to be submitted under separate cover.

We have performed our services for this project in accordance with our Agreement, and with ASTM Practice E 1527-97 for ESA investigations; no guarantees are either expressed or implied.

The records search was limited to information that is reasonably ascertainable from public sources; this information is changing continually and is frequently incomplete. Unless we have actual knowledge to the contrary, information obtained from interviews or provided to us by has been assumed to be correct and complete. We do not assume any liability for information that has been misrepresented to us or for items not visible, accessible, or present on the Property at the time of the site visit.

There is no investigation which is thorough enough to preclude the presence of materials on the Property which presently, or in the future, may be considered hazardous. Because regulatory evaluation criteria are constantly changing, concentrations of contaminants present and considered to be acceptable may, in the future, become subject to different regulatory standards and require remediation.

Where records indicate that prior remedial work or tank removals have occurred, there is a risk that the work may not have been performed correctly or completely. In these cases, if the regulatory agency has approved the closure of the tank or other work done, we have assumed that the work was done correctly and completely.

Opinions and judgments expressed herein, which are based on our understanding and interpretation of current regulatory standards, should not be construed as legal opinions. Unless site conditions change, this document and the information contained herein are valid for a period of 180 days according to the ASTM Practice, and have been prepared solely for the use of RER. No third party shall have the right to rely on Woodward-Clyde opinions rendered in connection with there services or in this document without Woodward-Clyde's written consent and the third party's agreement to be bound to the same conditions and limitations as client.

9.1 CORPORATE

Woodward-Clyde Group, Inc. is the parent firm for three subsidiaries: Woodward-Clyde Federal Services (WCFS), to serve U.S. federal government clients world-wide; Woodward Constructors (WCO), for construction services; and Woodward-Clyde International-Americas (Woodward-Clyde), to serve private sector and local government clients world-wide. The firm, founded in 1950 and with over 60 offices worldwide, provides professional services in engineering and sciences applied to the earth and its environment. One of the main areas of practice is West Management and Engineering, which involves the application of science and engineering to contamination assessment an d cleanup; the management , minimization, treatment, and disposal of hazardous, solid and industrial waste; and regulatory compliance. Phase I ESAs are a part of this practice area and have been conducted by Woodward-Clyde nationwide.

9.2 INDIVIDUAL

The qualifications of the Project Manager and of the other Environmental Professionals involved in this ESA meet the Woodward-Clyde corporate requirements for performing ESAs. Resumes of these Environmental Professionals are provided in Appendix D.

US Geological Survey. 1958. Milwaukee, Wisconsin 7.5 Minute Series Topographic Quadrangle, Photorevised 1971.

Southeastern Wisconsin Regional Planning Commission. 1963, 1967, 1970, 1975, 1980, 1985, 1990. Aerial Photographs, scale 1" = 400'.

US Geological Survey. 1973. Water Resources of Wisconsin - Lake Michigan Basin.

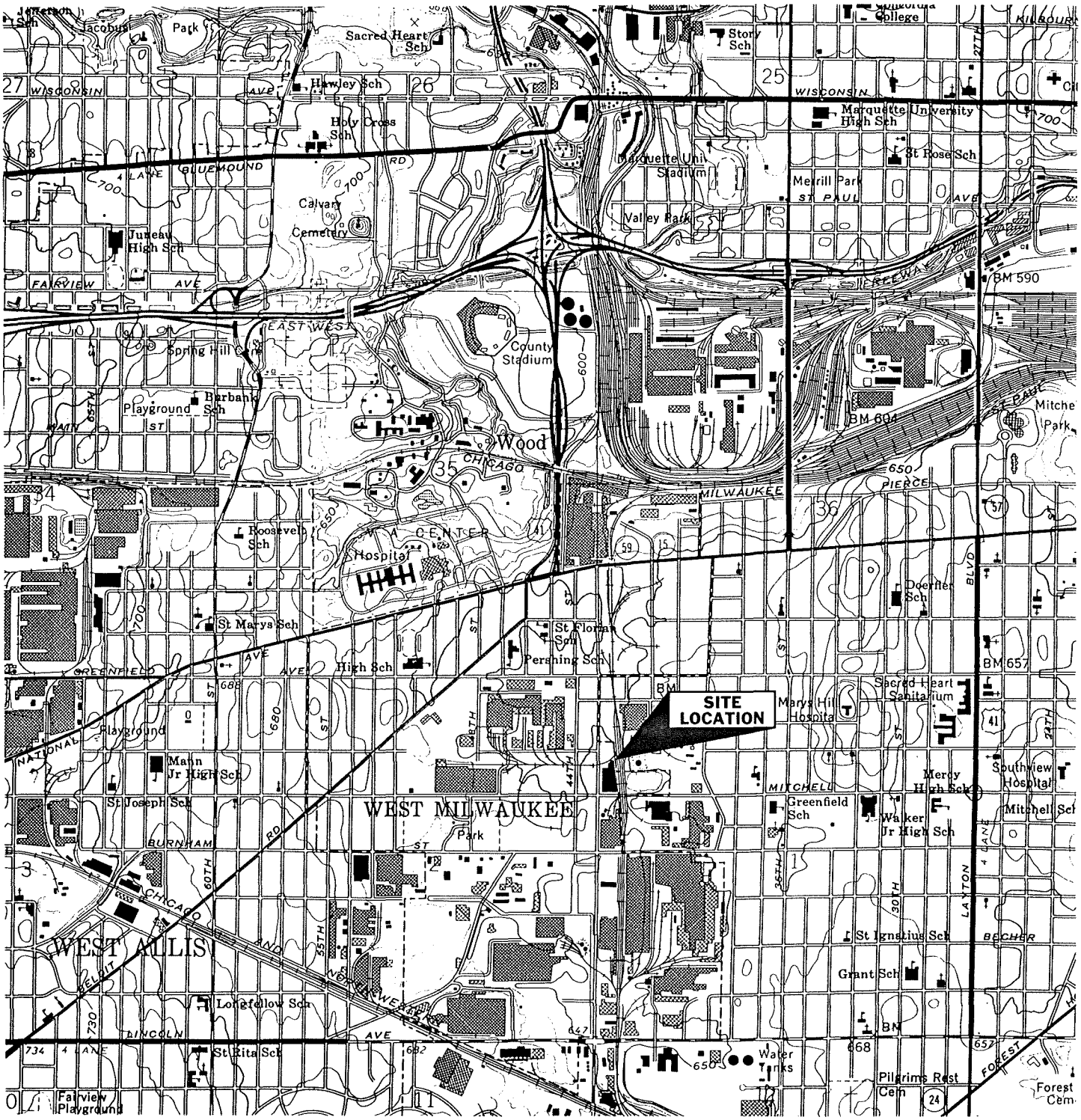
Sanborn Fire Insurance Maps. 1910, 1927, 1950, and 1968.

Phase I Report for Former Mobile Blasting Site. Wisconsin Department of Natural Resources. August 27, 1996.

Phase II Environmental Assessment for Former Mobile Blasting Site. Wisconsin Department of Natural Resources. April 8, 1997.

City Directory Abstract. EDR. July 16, 1998.

Radius Map with GeoCheck. EDR. July 14, 1998.



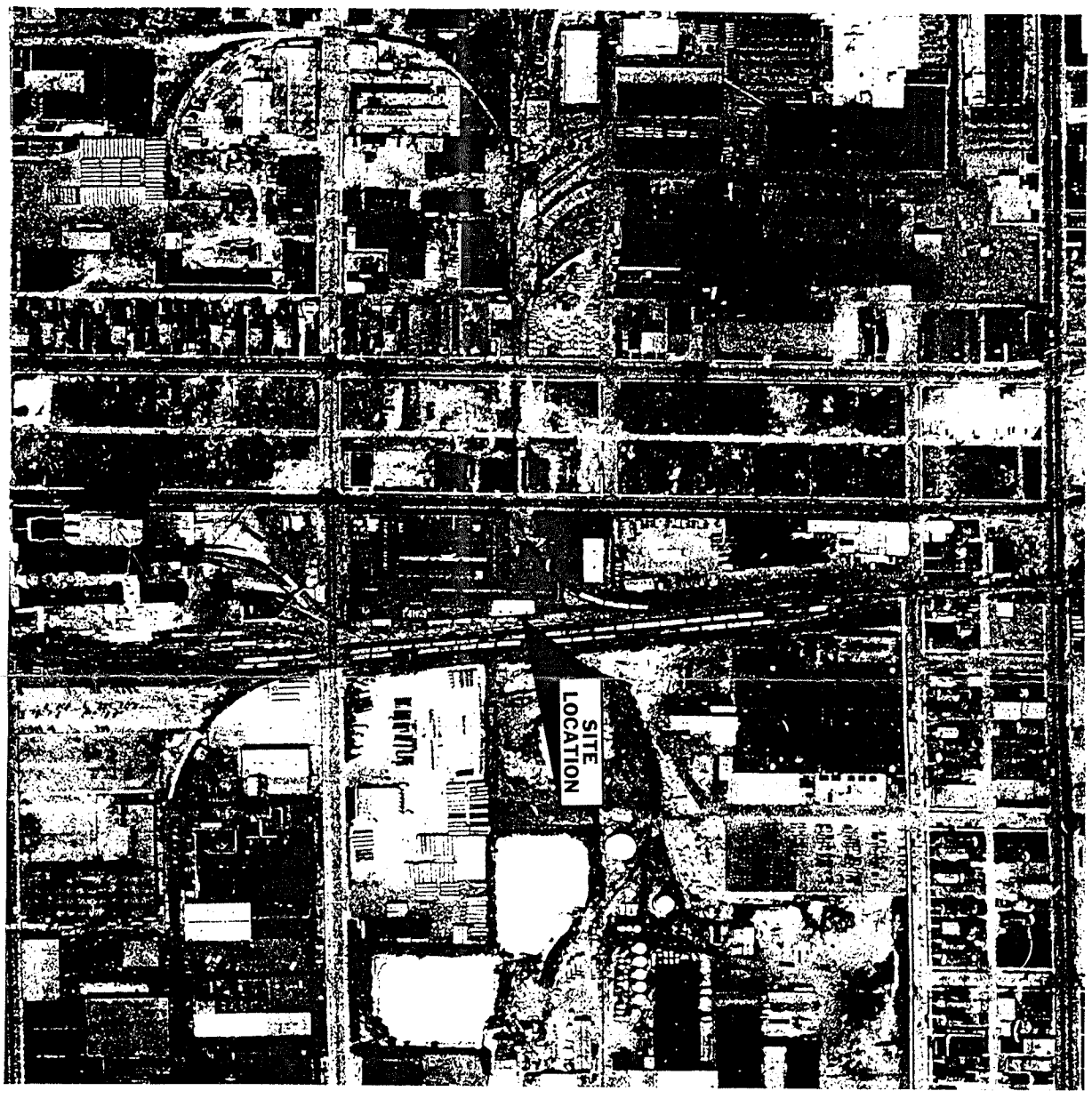
URS GREINER WOODWARD-CLYDE	FIGURE 1 SITE LOCATION PLAN MOBLE BLASTING 1604 SOUTH 43RD STREET WEST MILWAUKEE, WISCONSIN

DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:	PROJECT NO.:
RAC	DFS		Jul-98	7E09675

1967

N

1975



WCC

Project Number 7E09675

Sheet Number Figure 2

Aerial Photographs - 1967 and 1975

Revisions

Mobile Blasting
1604 South 43rd Street
West Milwaukee, Wisconsin

Woodward-Clyde

Designed By: RAC | Drawn By: RAC | Checked By: DFS

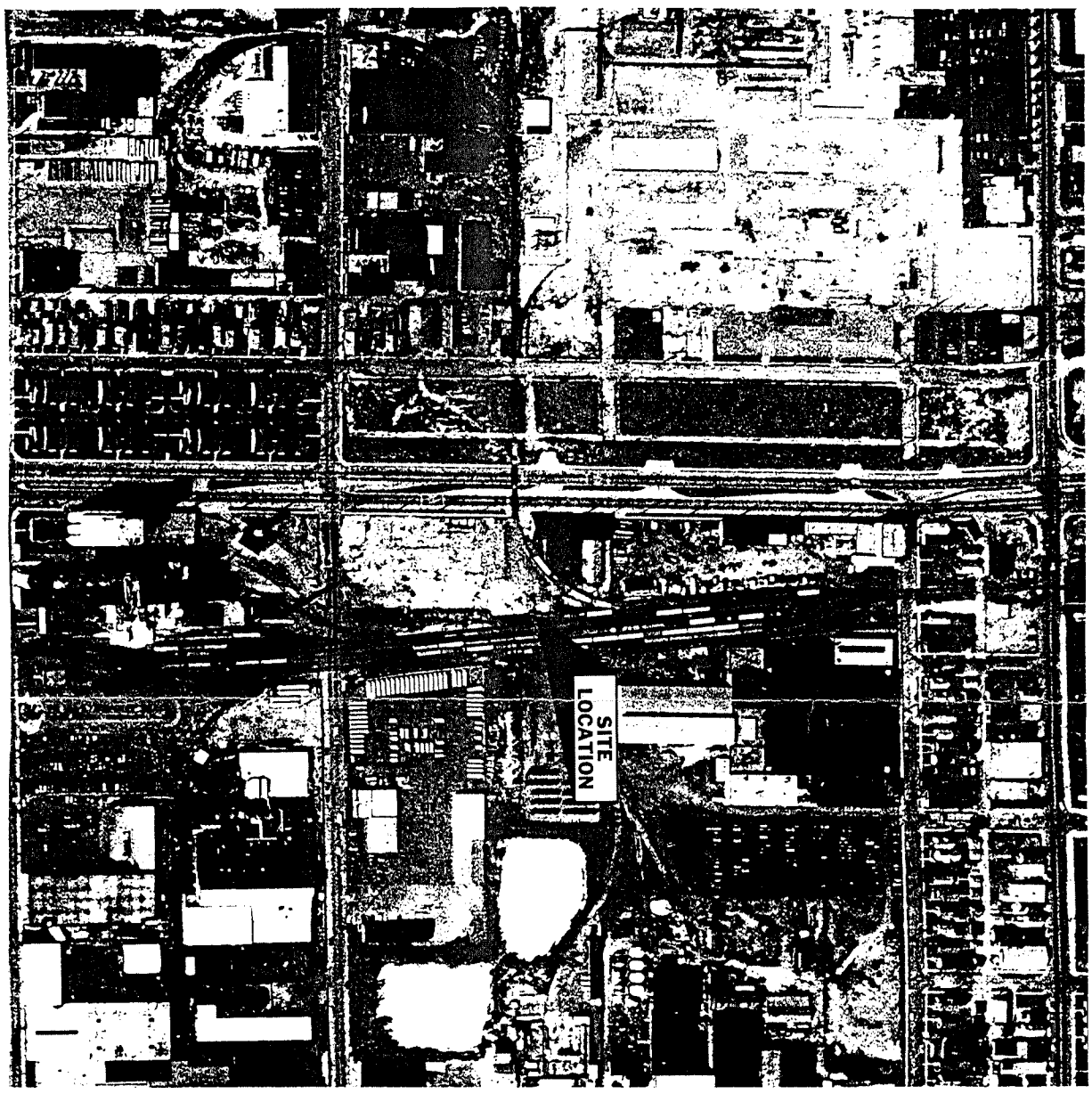
Approved By | Date: Jul-98

Scale: 1"=400' | Reference:

1985

N

1990



WCC

Project Number 7E09675

Sheet Number Figure 3

Aerial Photographs - 1985 and 1990

Revisions

Mobile Blasting
1604 South 43rd Street
West Milwaukee, Wisconsin

Woodward-Clyde

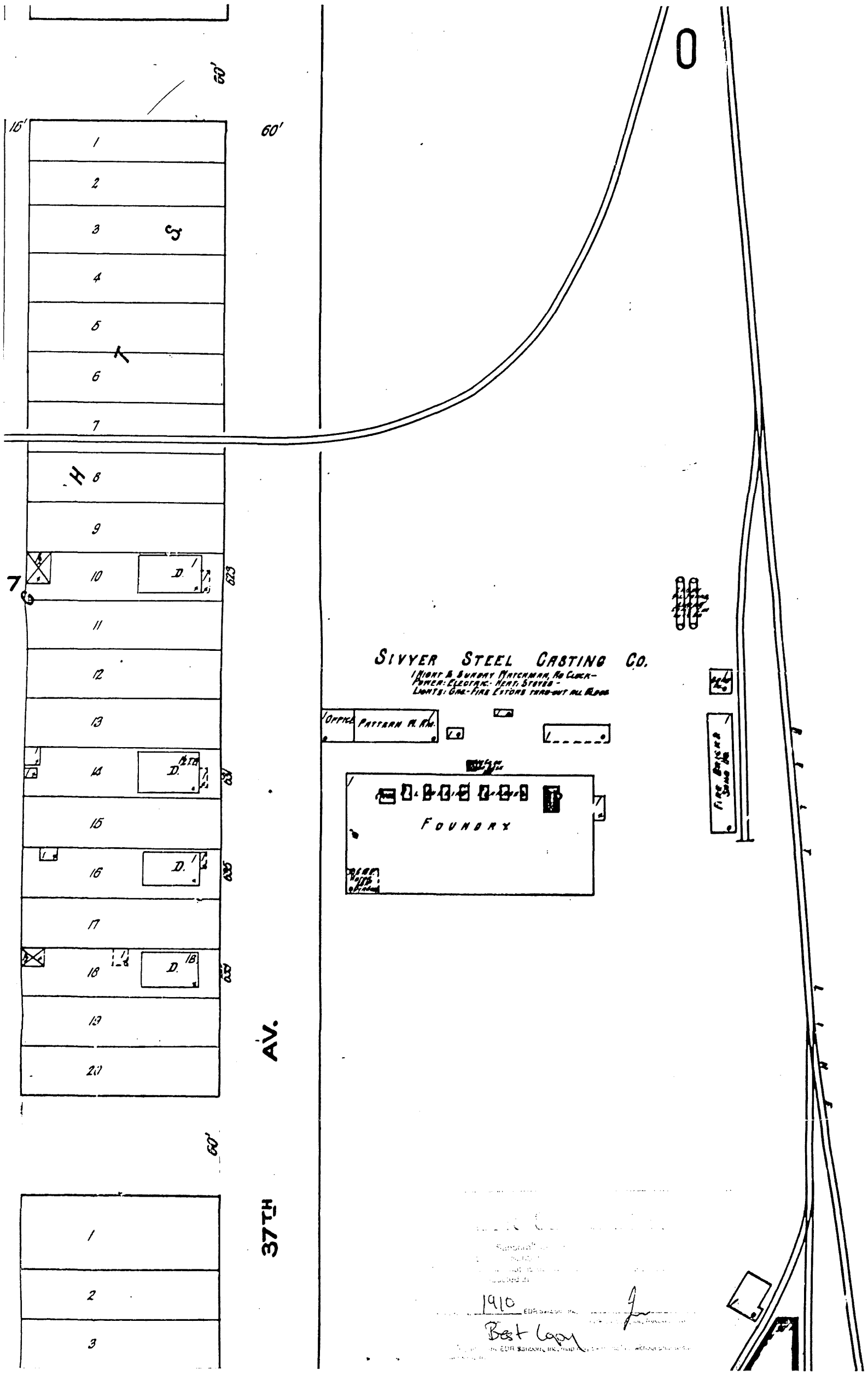
Designed By: RAC | Drawn By: RAC | Checked By: DFS

Approved By:

Date: Jul-98

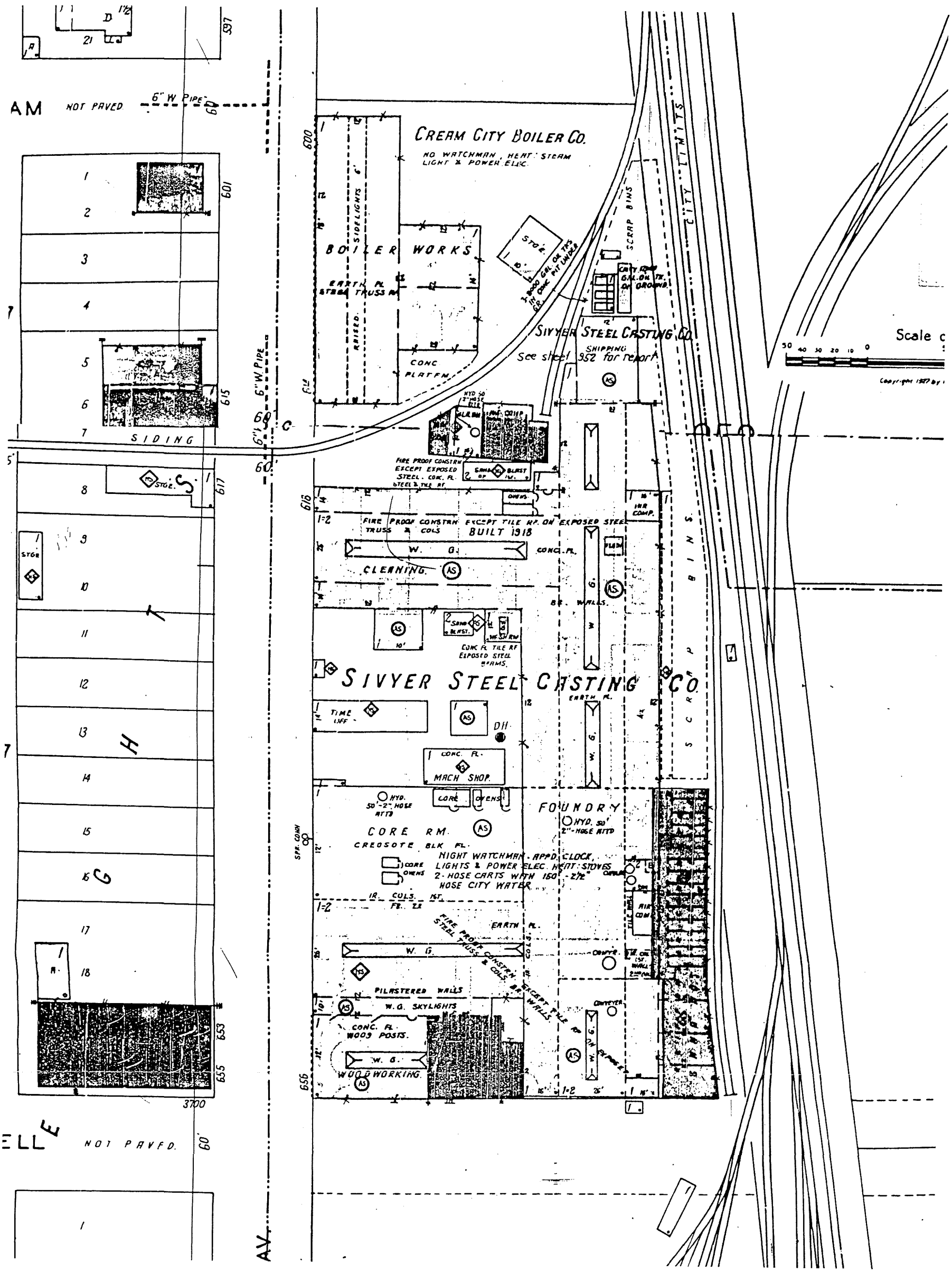
Scale: 1"=400'

Reference:



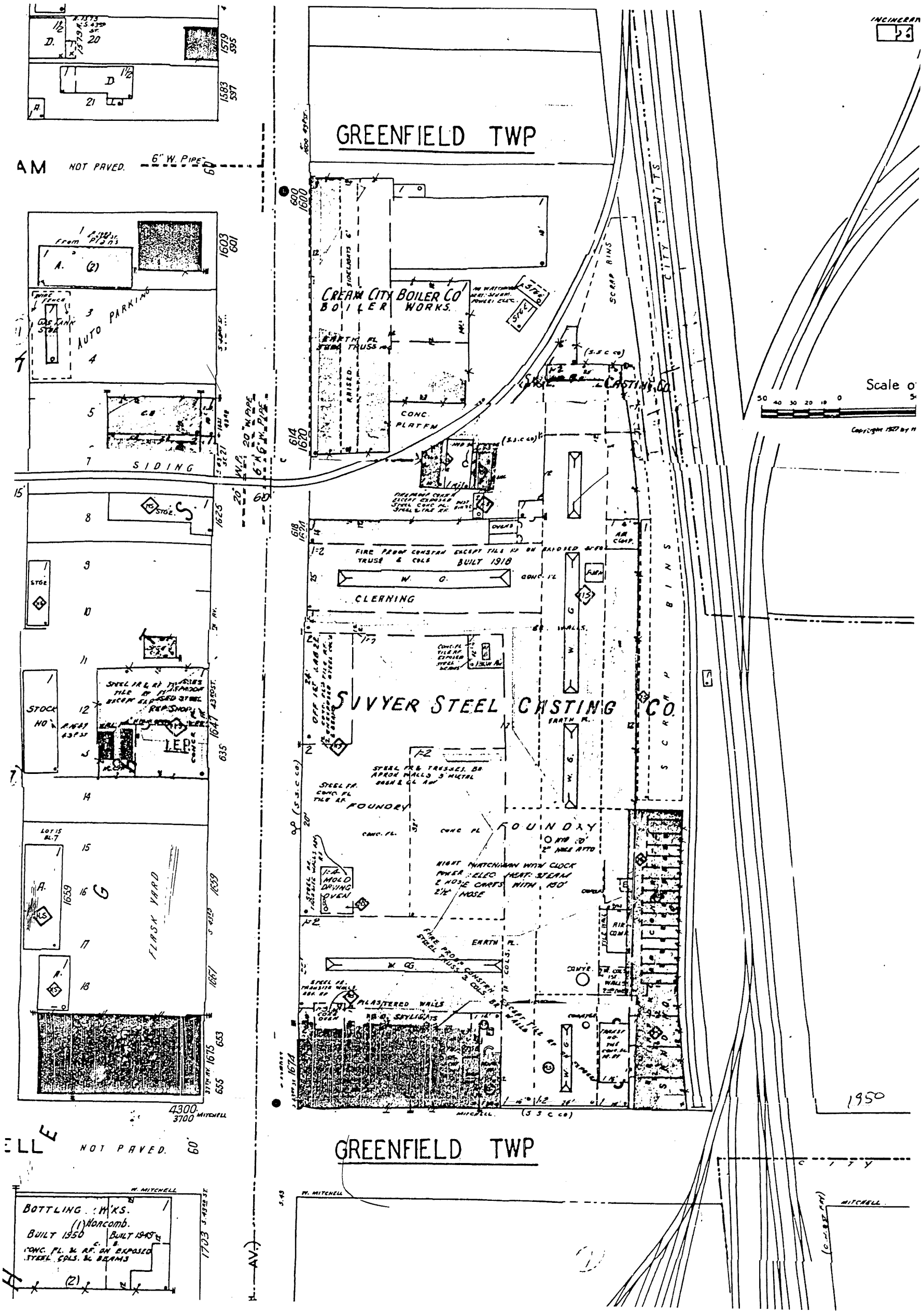
WCC	Project Number: 7E09675	Sheet Number: Figure 4	Sanborn Fire Insurance Map - 1910 Mobile Blasting 1604 South 43rd Street West Milwaukee, Wisconsin	Revisions	Woodward-Clyde

Designed By: RAC	Drawn By: RAC	Checked By: DFS
Approved By:		Date: Jul-98
Scale: 1"=63'		Reference:



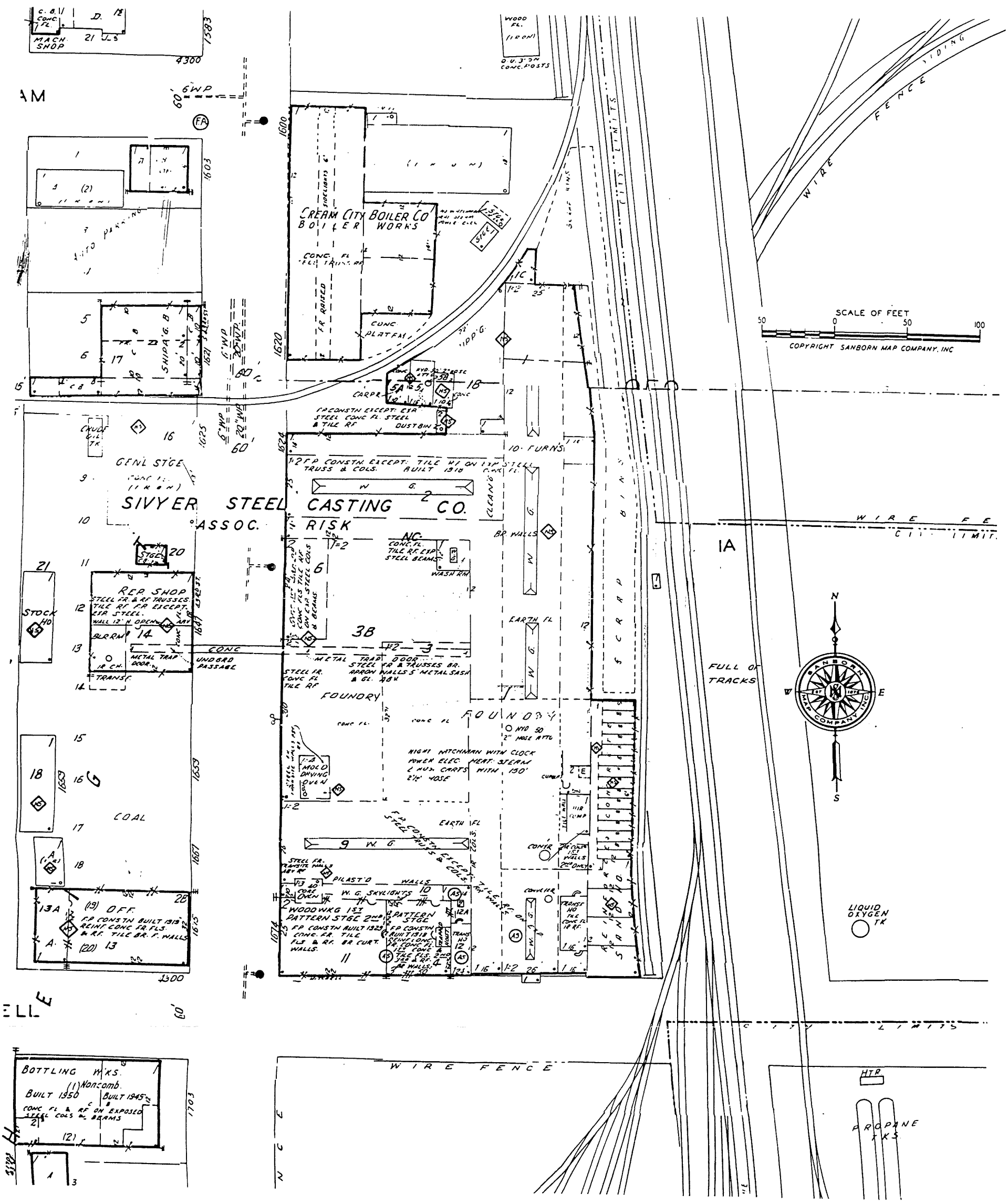
WCC	Project Number 7E09675	Sheet Number Figure 5	Sanborn Fire Insurance Map - 1927 Mobile Blasting 1604 South 43rd Street West Milwaukee, Wisconsin	Revisions	Woodward-Clyde

Designed By: RAC	Drawn By: RAC	Checked By: DFS	
Approved By:		Date: Jul-98	
Scale: 1"=63'		Reference:	



WCC	Project Number: 7E09675	Sheet Number: Figure 6	Sanborn Fire Insurance Map - 1950 Mobile Blasting 1604 South 43rd Street West Milwaukee, Wisconsin	Revisions	Woodward-Clyde

Designed By: RAC	Drawn By: RAC	Checked By: DFS	
Approved By:		Date: Jul-98	
Scale: 1"=63'		Reference:	



WCC	Project Number: 7E09675	Sheet Number: Figure 7	Sanborn Fire Insurance Map - 1968 Mobile Blasting 1604 South 43rd Street West Milwaukee, Wisconsin	Revisions

Woodward-Clyde

Designed By: RAC	Drawn By: RAC	Checked By: DFS	
Approved By:		Date: Jul-98	
Scale: 1"=63'		Reference:	

Appendix A
City Directory Abstract

The EDR-City Directory
Abstract

Mobile Blasting
1604 South 43rd Street
West Milwaukee, WI 53214

July 16, 1998

Inquiry Number: 272771-5

Environmental Data Resources, Inc.
an edr company

The Source For Environmental Risk Management Data

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802

Environmental Data Resources, Inc.
City Directory Abstract

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist professionals in evaluating potential liability on a target property resulting from past activities. ASTM E 1527-97, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of *reasonably ascertainable standard historical sources. Reasonably ascertainable means information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.*

To meet the prior use requirements of ASTM E 1527-97, Section 7.3.2, the following *standard historical sources* may be used: aerial photographs, fire insurance maps, property tax files, land title records (although these cannot be the sole historical source consulted), topographic maps, city directories, building department records, or zoning/land use records. ASTM E 1527-97 requires *"All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful."* (ASTM E 1527-97, Section 7.3.2, page 11.

EDR's City Directory Abstract includes a search and abstract of available city directory data.

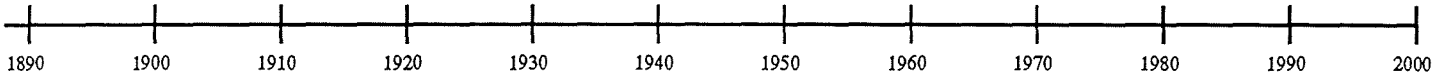
City Directories
City directories have been published for cities and towns across the U.S. since the 1700s. Originally a list of residents, the city directory developed into a sophisticated tool for locating individuals and businesses in a particular urban or suburban area. Twentieth century directories are generally divided into three sections: a business index, a list of resident names and addresses, and a street index. With each address, the directory lists the name of the resident or, if a business is operated from this address, the name and type of business (if unclear from the name). While city directory coverage is comprehensive for major cities, it may be spotty for rural areas and small towns. ASTM E 1527-97 specifies that a *"review of city directories (standard historical sources) at less than approximately five year intervals is not required by this practice." (ASTM E 1527-97, Section 7.3.2.1, page 11.)*

Please call EDR Sanborn, Inc. Nationwide Customer Service at
1-800-352-0050 (8am-8pm EST)
with questions or comments about your report.
Thank you for your business!

Environmental Data Resources, Inc.
an edr company

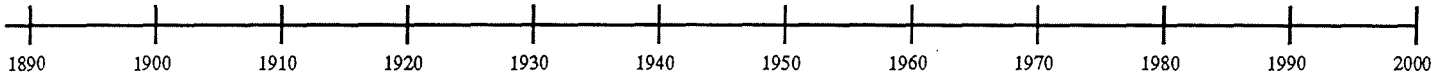
Prior Use Report™ Timeline

Target Property

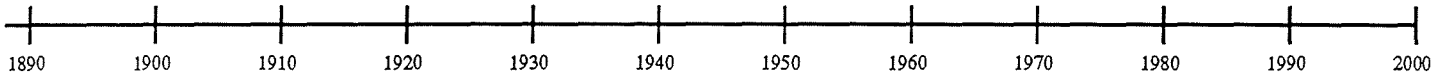


Adjoining Property Not Available

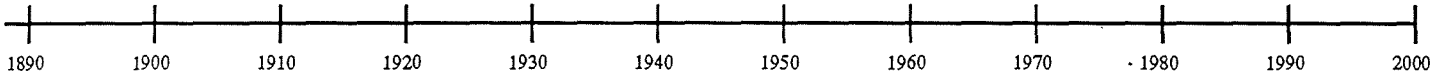
Front



Back



Left



Right

Legend:

= Historical Topographic Map (HT)*

= National Wetland Inventory Map (WT)*

= Flood Prone/FEMA Maps (FP/FR)*

= Aerial Photos Included (P)*

= Aerial Photos Available*

= Residential (R)

= Commercial or Industrial (C)

Superscript number corresponds to graph ID in text

**Displayed on timeline when aerial photos, historical topos, flood prone, FEMA, wetland maps, or Aerial Research Summary are purchased.*

Target Property:	Mobile Blasting	**Customer:**	Woodward-Clyde Consultants
Address:	1604 South 43rd Street	**Contact:**	Bob Cigale
City/State/Zip:	West Milwaukee, WI 53214	**Inquiry #:**	272771-5
		Date:	07/16/98

SUMMARY

- *City Directories:*

EDR reviewed available national city and cross reference directory collections at approximately five year intervals for the years spanning 1940 through 1993. (These years are not necessarily inclusive.) A summary of the information obtained is provided in the text of this report.

Date EDR Searched Historical Sources:
City Directories July 16, 1998

Target Property:
1604 South 43rd Street
West Milwaukee, WI 53214

PUR ID Year	*Uses*	*Portion-Findings (FIM Information Only)*	*Source*
1940	Address not Listed in Research Source		Wright's City Directory
1945	Address not Listed in Research Source		Wright's City Directory
1950	Address not Listed in Research Source		Wright's City Directory
1955	Address not Listed in Research Source		Wright's City Directory
1960	Address not Listed in Research Source		Wright's City Directory
1970	Address not Listed in Research Source		Wright's City Directory
1975	Address not Listed in Research Source		Wright's City Directory
1980	Address not Listed in Research Source		Wright's City Directory
1985	Address not Listed in Research Source		Wright's City Directory
1993	Address not Listed in Research Source		Polk's City Directory

Adjoining Properties

SURROUNDING AREA
S 43rd St
West Milwaukee, WI 53214

PUR ID Year	*Uses*	*Portion-Findings (FIM Information Only)*	*Source*
1940	** S 43rd St **	N/A	Wright's City Directory
	Residence (1583)		
	Cream City Boiler (1603)		
	Sivyer Steel Casting Co (1675)		
	Residence (1579)		
	** W Orchard St **		
	Residence (4230)		
	Malinowski Tavern (4238)		
	Residence (4320)		
	Residence (4322)		
1945	** S 43rd St **	N/A	Wright's City Directory
	Boelter Painter (1583)		
	Cream City Boiler (1603)		
	Sivyer Steel Casting Co (1675)		

PUR ID *Year*	*Uses*	*Portion-Findings (FIM Information Only)*	*Source*
1945 (continued)	Residence (1579)		
	** W Orchard St **		
	Residence (4230)		
	Malinowski Tavern (4238)		
	Residence (4320)		
	Residence (4322)		
1950	** S 43rd St **	N/A	Wright's City Directory
	Chapel Machine Co (1583)		
	Cream City Boiler (1603)		
	Sivyer Steel Casting Co (1675)		
	Residence (1579)		
	** W Orchard St **		
	Residence (4230)		
	Malinowski Tavern (4238)		
	Residence (4320)		
	Residence (4322)		
1955	** S 43rd St **	N/A	Wright's City Directory
	Chapel Machine Co (1583)		
	Cream City Boiler (1603)		
	Sivyer Steel Casting Co (1675)		
	Vacant (1579)		
	** W Orchard St **		
	Residence (4230)		
	Ice House Tavern (4238)		
	Residence (4320)		
	Residence (4322)		
1960	** S 43rd St **	N/A	Wright's City Directory
	Chapel Machine Co (1583)		
	Cream City Boiler (1603)		
	Sivyer Steel Casting Co (1675)		
	Residence (1579)		
	** W Orchard St **		
	Residence (4230)		
	Ice House Tavern (4238)		
	Residence (4320)		
	Residence (4322)		
1970	** S 43rd St **	N/A	Wright's City Directory
	No Return (1583)		
	Sivyer Steel Casting Co (1603)		
	Sivyer Steel Casting Co (1675)		

PUR ID *Year*	*Uses*	*Portion-Findings (FIM Information Only)*	*Source*
1970 (continued)			
	Residence (1579)		
	** W Orchard St **		
	Residence (4230)		
	Ice House Tavern (4238)		
1975	** S 43rd St **	N/A	Wright's City Directory
	(No Addresses 1500 Block)		
	PS Electric Service (1645)		
	** W Orchard St **		
	Residence (4230)		
	Ice House Tavern (4238)		
1980	** S 43rd St **	N/A	Wright's City Directory
	(No Addresses 1500 Block)		
	Specialty Coating Inc (1600)		
	Global Manufacturing (1645)		
	** W Orchard St **		
	Residence (4230)		
	Ice House Tavern (4238)		
1985	** S 43rd St **	N/A	Wright's City Directory
	(No Addresses 1500 Block)		
	Specialty Coating Inc (1600)		
	Global Manufacturing (1675)		
	** W Orchard St **		
	Residence (4230)		
	Ice House Tavern (4238)		
1993	** S 43rd St **	N/A	Polk's City Directory
	Marc's Big Boy Express (1403)		
	Vacant (1600)		
	Residence (1701)		
	** W Orchard St **		
	Residence (4230)		
	Ice House Tavern (4238)		

Glossary of Terms

A.A.A.

Aerial photograph flyer: Agriculture Adjustment Administration (Federal).

A.S.C.S

Aerial photograph flyer: Agricultural Stabilization and Conservation Service (Federal)

Address Change

Indicates that a change of address has occurred; indicates new address. A change of address may occur when a city, street, or the address ranges of a street are restructured.

Address in Research Source

Indicates that a property is listed at a different address than the one provided by the user. Generally occurs when a property is located on a corner or, when the physical address of a property is different than its mailing address.

Address Not Listed in Research Source

Occurs when a specific site address is not listed in city directories and/or fire insurance maps.

Adjoining

Any property that is contiguous, or a property that would be contiguous if not for a public thoroughfare, to the target property. *To differentiate from each adjoining property, stand at the target property's "front door" facing the street.*

Adjoining Back

Property directly to the rear of the target property.

Adjoining Front

Property directly in front of the target property.

Adjoining Left

Property directly to the left of the target property.

Adjoining Right

Property directly to the right of the target property.

Adjoining Surrounding Area

Property that may adjoin the target property but due to lack of specific map information cannot be located precisely. This situation typically occurs when city directory information, but not fire insurance map information, is available.

C.A.S

Aerial photograph flyer: Chicago Aerial Survey (private).

C.S.S.

Aerial photograph flyer: Commodity Stabilization Service (Federal).

Cartwright

Aerial photograph flyer: Cartwright (private)

CD

City Directory

Commercial

Any property including, but not limited to, property used for industrial, retail, office, agricultural, other commercial, medical, or educational purposes; property used for residential purposes that has more than four residential dwelling units.

Commercial or Industrial

Property that has either a commercial *or* an industrial use. Examples include retail stores, manufacturing facilities, factories, and apartment buildings.

D.N.R.

Aerial photograph flyer: Department of National Resources (state).

D.O.T.

Aerial photograph flyer: Department of Transportation (state).

Fairchild

Aerial photograph flyer: Fairchild (private).

FIM

Fire Insurance Map

Flood Insurance Rate Maps

Flood Insurance Rate Maps are produced by the Federal Emergency Management Agency (FEMA). These maps indicate special flood hazard areas, base flood elevations and flood insurance risk zones.

Flood Prone Area Maps

Flood Prone Area maps are produced by the United States Geological Survey (USGS). Areas identified as flood prone have been determined by available information gathered from past floods.

F.S.

Aerial photograph flyer: Forest Service (Federal).

Geonex

Aerial photograph flyer: Geonex (private).

M.C.

Aerial photograph flyer: Metropolitan Council of the Twin Cities Area (state).

Map Required Not Available in Local Collection

Property is located on a fire insurance map sheet not available in local and/or microfilm collection.

Mark Hurd

Aerial photograph flyer: Mark Hurd (private)

Multiple Locations

Indicates that there are two or more sites adjoining the target property's border.

N.A.P.P.

Aerial photograph flyer: National Aerial Photography Program (Federal).

National Wetland Inventory Maps

National Wetland Inventory Maps are produced by the U.S. Fish and Wildlife Service, a division of the U.S. Department of the Interior. Wetland and deepwater habitat information is identified on a 7.5 minute U.S.G.S. topographic map. The classification system used categorizes these habitats into five systems: marine, estuarine, riverine, lacustrine and palustrine.

No Return

Indicates that site owner was unavailable at time of surveyor's contact. *Applies only to city directories.*

No Structure Identified on Parcel

Used when site boundaries and/or site address is indicated on a fire insurance map; no structure details exist.

Other

Occurs when the site's classification is different that EDR's standard categories. Examples may include undeveloped land and buildings with no specified function.

P.M.A.

Aerial photograph flyer: Production and Marketing Administration (Federal).

Pacific Aerial

Aerial photograph flyer: Pacific Aerial (private)

Portion

Refers to the fire insurance map information identified on the four quadrants of a target or adjoining property. The portions are referred to as *Frontright*, *Frontleft*, *Backright*, and *Backleft* and are determined as if one were standing at the front door, facing the street.

Property Not Defined

Used when property is not clearly demarcated on a fire insurance map.

Residential

Any property having fewer than five dwelling units used exclusively for residential purposes.

Residential with Commercial Uses (a.k.a. Multiple Purpose Address)

A business (firm) and residence at the same address. Examples include a doctor, attorney, etc. working out of his/her home.

Sidwell

Aerial photograph flyer: Sidwell (private).

Site Not Mapped

Occurs when an adjoining property has not been mapped by fire insurance map surveyors.

Teledyne

Aerial photograph flyer: Teledyne (private)

Topographic Maps

Topographic maps are produced by the United States Geological Survey (USGS). These maps are color coded line and symbol representations of natural and selected artificial features plotted to scale.

Turnbow

Aerial photograph flyer: Michael Turnbow (private)

U.S.D.A.
Aerial photograph flyer: United States Department of Agriculture (Federal).

U.S.D.I.
Aerial photograph flyer: United States Department of the Interior (Federal).

U.S.G.S.
Aerial photograph flyer: United States Geological Survey (Federal).

Vacant
May refer to an unoccupied structure or land. *Used only when fire insurance map or city directory specifies 'vacant.'*

W.P.A.
Aerial photograph flyer: Works Progress Administration (Federal).

WALLACE
Aerial photograph flyer: Wallace (private).

Appendix B
WDNR Phase I Report

Brownfields Environmental Assessment Pilot

Phase I Report

for

FORMER MOBILE BLASTING SITE

Wisconsin Department of Natural Resources

August 27, 1996

Kimberly A. White

Kimberly A. White, Project Manager

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FIGURES

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APPENDICES

I. INTRODUCTION

A. Purpose

A Phase I Environmental Assessment is a report that includes record reviews, interviews, and physical property inspections to identify areas of potential hazardous substance contamination that is of environmental significance. The Phase I is used to identify areas from which samples may be collected for analysis for a Phase II Environmental Assessment. A Phase II Environmental Assessments a report that details the environmental conditions at the property. The details of environmental assessments will depend on the past usage of the property, present use of the property, and other site specific factors.

This Phase I was conducted utilizing guidance from the following documents:

> American Standards for Testing Materials (ASTM) 1527-94, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process; and
>
> Department of Natural Resources, Recycling Contaminated Lands in Wisconsin, Fact Sheet 3: Step One of Conducting a Thorough Environmental Investigation: Phase I Environmental Assessment and a Phase II Scope of Work.

B. Objectives

This Phase I Property Environmental Assessment was conducted by the Wisconsin Department of Natural Resources (WDNR) for the Village of West Milwaukee as part of the U.S. Environmental Protection Agency and WDNR funded Brownfield Environmental Assessment Pilot conducted in Fiscal Year 1996. A Memorandum of Agreement was signed between the municipality and the WDNR to ensure cooperation and define responsibilities for various aspects of the assessment.

The purpose of the pilot is to conduct a Phase I Environmental Assessment (and Phase II Assessment if necessary) for municipalities to assess site conditions and to help market abandoned and/or delinquent properties that are under-utilized. The Former Mobile Blasting Site is a vacant and tax delinquent site owned by West Milwaukee Associates Limited Partnership. The WDNR has performed this Phase I Environmental Assessment at the site to determine whether there is potential contamination at the property. Knowledge gained from the Environmental Assessment will help the Village market the property for cleanup and redevelopment, hopefully returning the property to productive use and to the Village's tax roll.

The site contacts are:

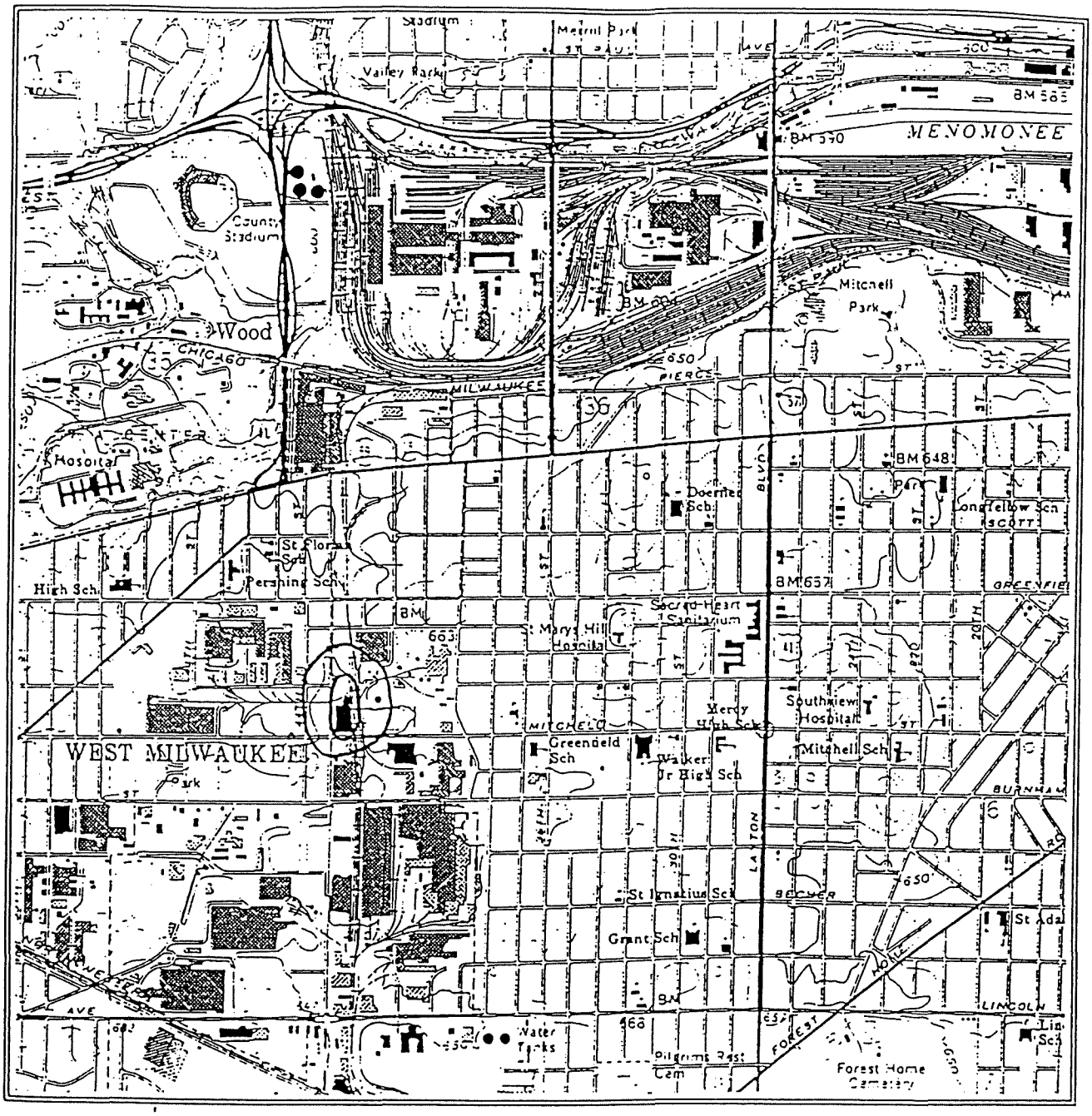
Kim White, Project Manager
Wisconsin Department of Natural Resources
(608)264-6012

Thomas Tollaksen, Village Administrator/Attorney
Village of West Milwaukee
(414)645-1530

C. Background

The site, located in an industrial area of the Village of West Milwaukee, has been occupied by a boiler company, steel casting operation, and most recently by a sand blasting and painting operation. See **Figure 1** for the site location map. The site has been vacant since August 1988 and is currently owned by West Milwaukee Associates Limited Partnership. The owner was issued a Raze and Repair Order by the Village of West Milwaukee for the building at 1604 S. 43rd Street in July 1993, though the building is still standing. There are currently no specific plans for redevelopment of the site. A more thorough review of the historical use of the site will be provided in the Property History section.

FIGURE 1



N

MILWAUKEE QUADRANGLE
7.5 Minute Series (Topographic)
Scale 1:24 000
Contour Interval 10 Feet

SCALE 1 24 000

1 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
5 0 1 KILOMETER

II. PROPERTY OVERVIEW

A. Site Features

The Former Mobile Blasting site at 1604 and 1650 S. 43rd Street is approximately 3.2 acres or 140,000 square feet, located at NW 1/4, Section 1, Township 6N, Range 21E on the Milwaukee, WI 7.5 minute USGS topographic quadrangle. During the site's history, the parcel identified as 1604 S. 43rd Street has also been referred to as 1600 S. 43rd Street. To remain consistent, this report will refer to the property as 1604 S. 43rd Street. See **Figure 2** for a site features map. The map was prepared from the 1968 Sanborn Fire Insurance Map since no other site map was available. See **Appendix D** for recent photodocumentation of the site, which provides a more detailed view of site features. The southern part of the map shows the building layout for Sivyer Steel, which was razed in 1984. The parcel is bisected into two sites by a rail spur 17 feet wide and 270 feet long, running from the northeastern part of the property toward the west-southwest. The property is mostly level, though the southern portion is several feet below the grade of the northern portion. The site is bounded to the east by railroad tracks, to the south by Mitchell Street, to the west by South 43rd Street, and to the north by a fence.

The northern part of the property contains a brick building with a wood roof which is deteriorating in places, last occupied by Mobile Blasting. The original building was constructed in approximately 1920, though the exact date is not known. Building inspection reports indicate that between 1927 and 1950, there was a 4000 square foot east-wing addition made to the northern end of the building. The total building area is 15,720 square feet. In 1991, it was recommended by the Village Building Inspection Code Enforcement office that the building be razed since the structure had reached the end of its economic life and was not suitable for use. The building was condemned in July 1993.

At one time, there was an underground storage tank located on the 1604 S.43rd St. property. In a letter dated January 5, 1987, regarding improvements made to the Mobile Blasting property, it was noted that the underground tank had been located and was being removed. A memo to Village files indicated that a 2,000 gallon underground poured concrete pit was pumped out and filled with sand on January 15, 1987. The memo did not indicate the location, and was not clear whether the structure was a tank or pit.

The southern part of the property is covered by the cement foundation from the Sivyer Steel facility, which was razed in 1985. There are storm drains and pits partially-filled with soil on the cement surface. There is not much open ground on the property, most of the land surface is covered by the cement foundation or the existing northern building. There is some grass and stressed vegetation along the perimeter of the site and along the railroad corridor. There is no indication of fill on the site, though there are piles of sand which remain outside the building from activities which occurred on the site, such as sand blasting and foundry operations.

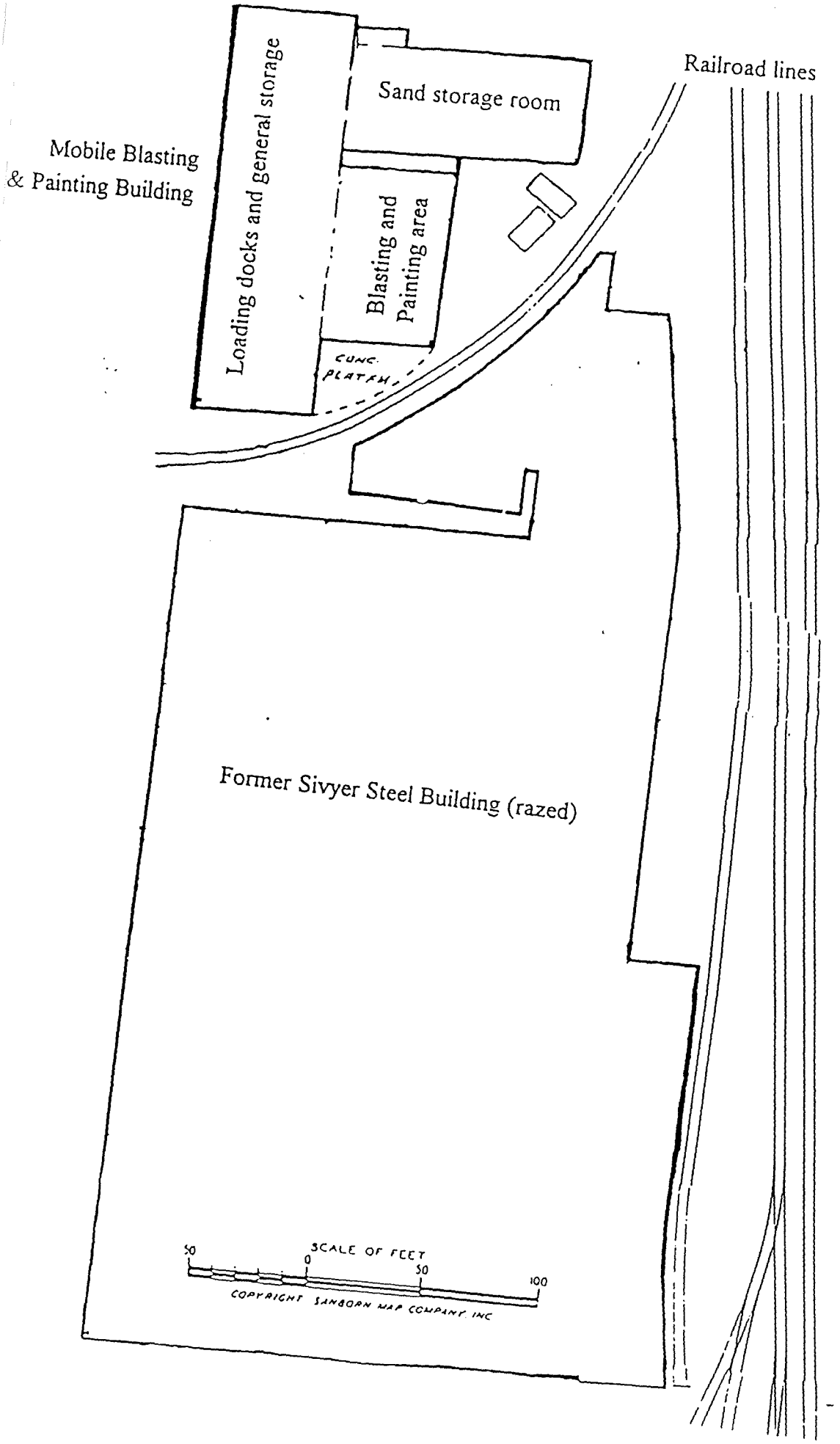
B. Land Use and Zoning

The property is zoned as a Shopping Center Business District. This zoning designation permits a wide variety of commercial uses, but does not allow for industrial development. Adjacent properties to the east, north, and west have the same zoning classification. Property due south is zoned General Manufacturing, and to the southwest is zoned High-Rise Multi-Family Residential.

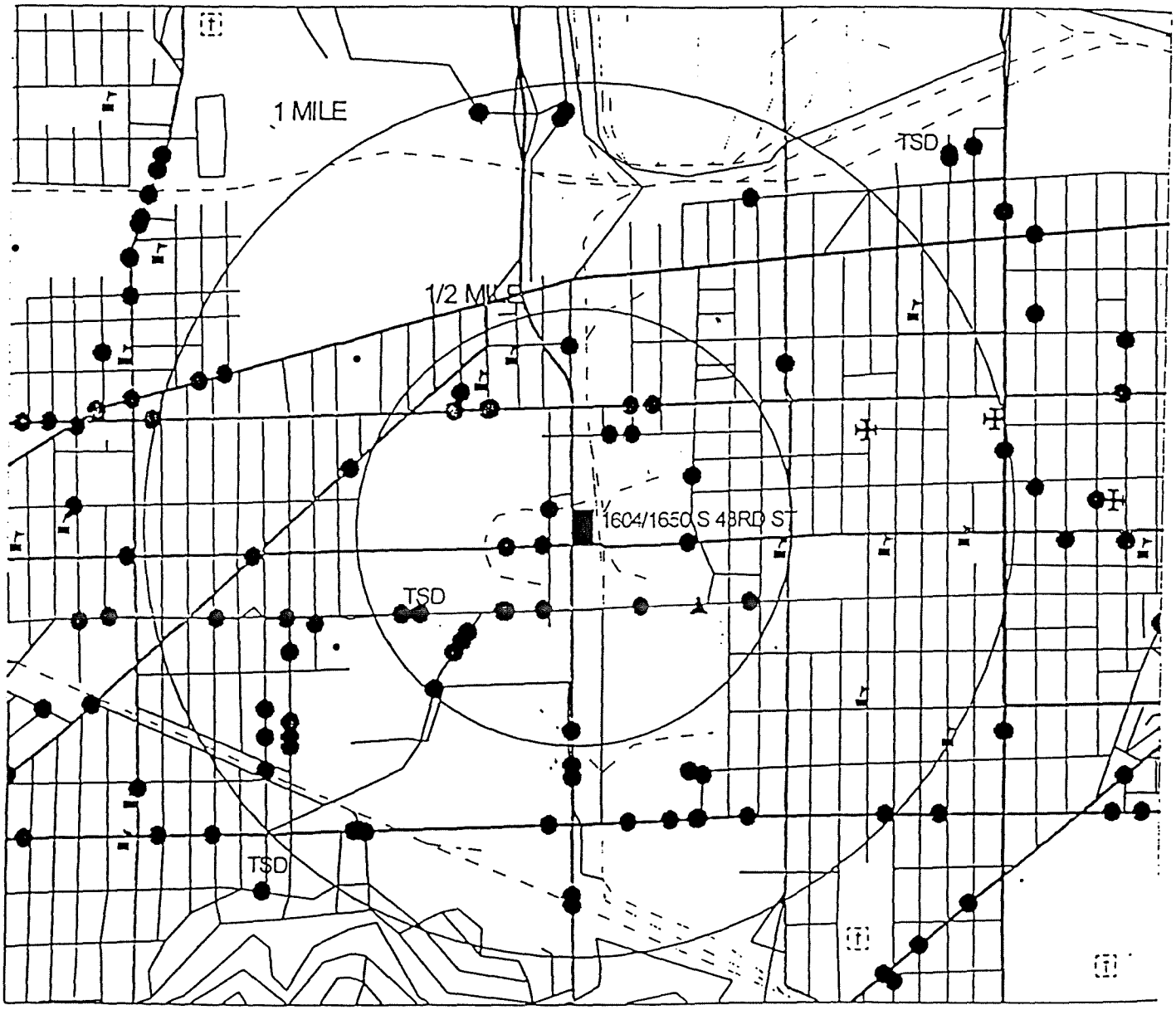
C. Records Review

A review of selected state and federal government lists of potentially contaminated sites was conducted to identify sites within specified distances of the Brownfields site that may be a source of contamination impacting the property. **Table 1** presents the lists which were used and the corresponding search distances. A discussion of the results of the search follows. A visual presentation of some of the sites located within the searched databases is provided in **Figures 3, 4, and 5.**

FIGURE 2 - Site Features Map



RCRIS AND CERCLIS LISTED SITES LOCATED WITHIN ONE MILE OF 1604 AND 1650 SOUTH 43RD STREET, WEST MILWAUKEE, WI



LUST CASES WITHIN ONE MILE OF 1604 AND 1650 SOUTH 43RD STREET WEST MILWAUKEE, WI

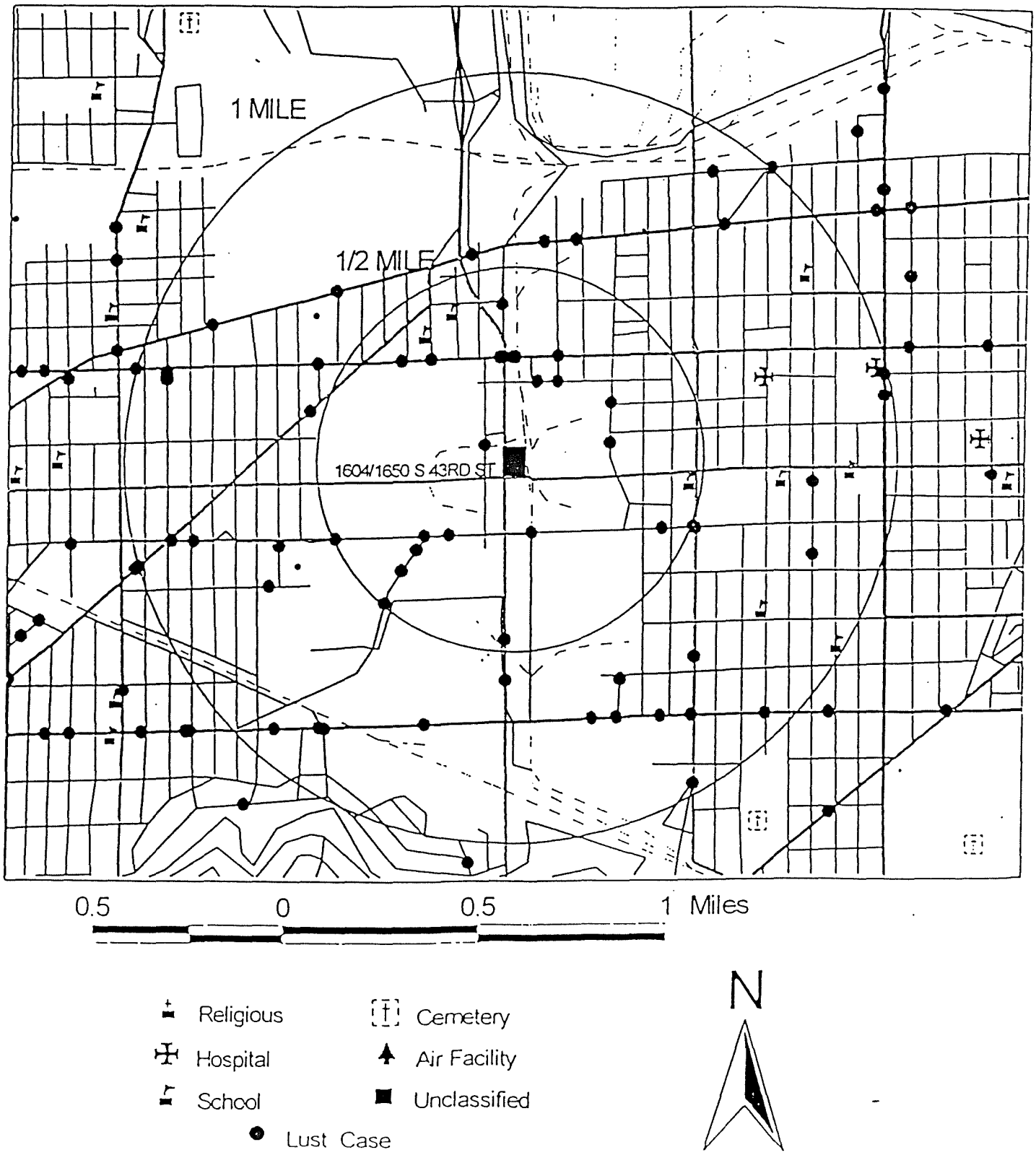


Figure 5

ERP CASES WITHIN ONE MILE OF 1604 AND 1650 SOUTH 43RD STREET WEST MILWAUKEE, WI

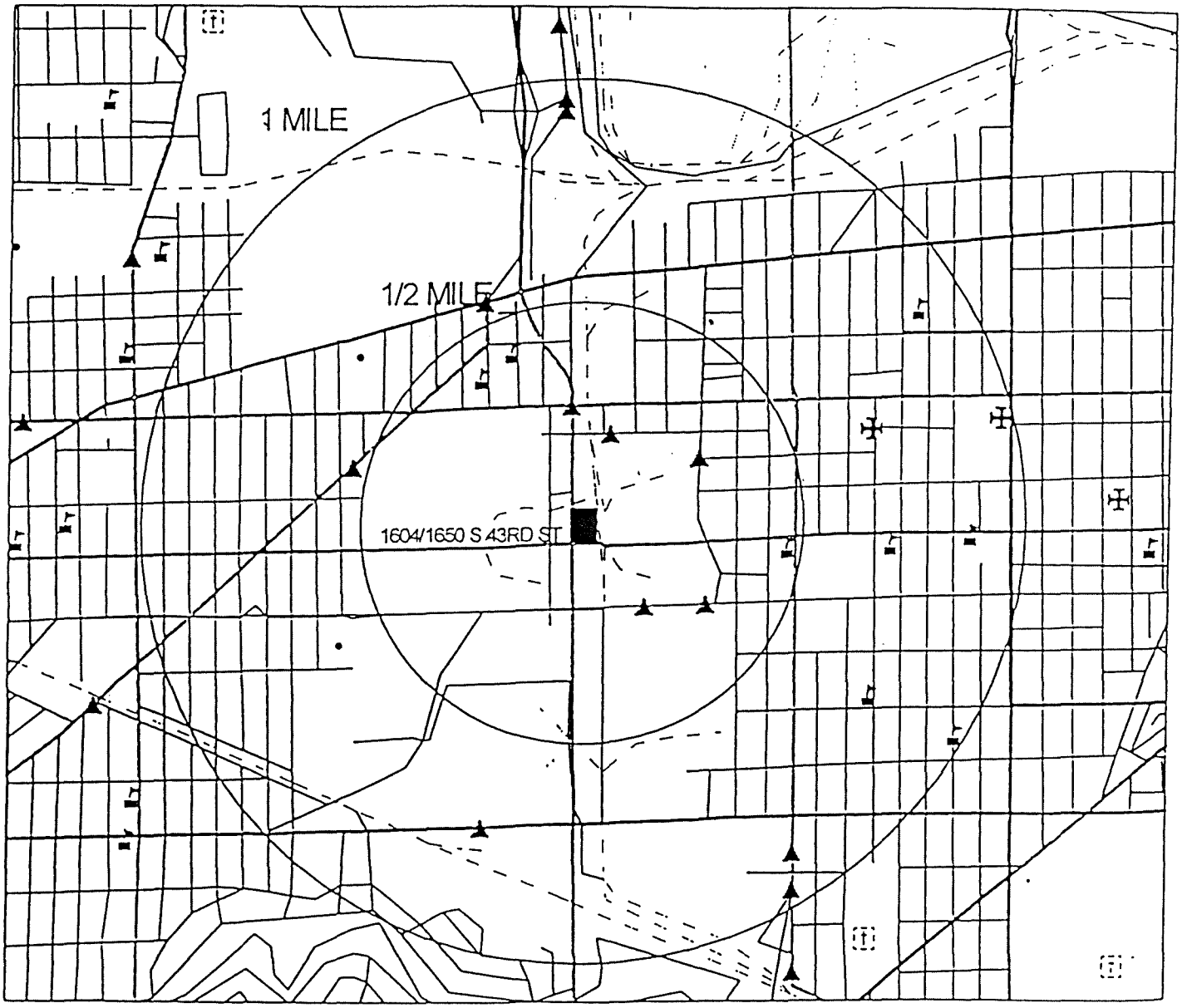


Table 1 - Records Review Summary

Type of Site	Search Distance	Number Found
NPL	1.0 mile	0
CERCLIS	0.5 mile	1 - identified below
RCRA-TSD	1.0 mile	1 - identified below
RCRA-Gen	Property and adjoining	nearest on 1600-1700 blocks S. 44th Street
ERNS	Property	0
ERP	1.0 mile	11-identified below
Spills	Property and adjoining	0
Solid Waste	0.5 mile	1 - small 6 acre landfill, inactive
UST	Property and adjoining	2 - identified below
LUST	0.5 mile	23

NPL - NPL stands for the National Priorities List, a federal list of sites that are being cleaned up under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), also known as Superfund. There were no NPL sites identified within one mile of the site.

CERCLIS - CERCLIS stands for the Comprehensive Environmental Response, Compensation and Liability Information System, a federal list of sites which have the potential to become Superfund sites. There was one CERCLIS site identified within one-half mile of the site. The facility is Babcock and Wilcox Co., located southeast of the Brownfield site at 3839 West Burnham Street.

RCRA-TSD - RCRA stands for the Resource Conservation and Recovery Act, a federal law addressing hazardous waste management. TSD designates the facilities which treat, store, and/or dispose of hazardous waste. There was one TSD site identified within one mile of the site. The facility, Kenway Services Inc., is located approximately one-half mile southwest of the Brownfield site at 4841 West Burnham Street.

RCRA-Gen -This term refers to the generators of hazardous waste. The Brownfield property itself is not listed as a RCRA generator, however, there are two facilities nearby on the 1600-1700 blocks of South 44th Street which were listed.

ERNS - ERNS stands for the Emergency Response Notification System. This is a federal program which responds to emergencies, including spills of hazardous materials. The Brownfield property was not identified on the ERNS list.

ERP - ERP stands for the Environmental Repair Program. This is a state program administered by the WDNR in order to clean up sites containing a variety of environmental contamination. There were 11 ERP sites, though two were at the same address, located within one mile of the Brownfield site, identified in Table 2 below:

Table 2 - ERP Sites Within One Mile of Property

FID #	ERP Site Name	Address
241840170	Veterans Admin. Stadium Project	4600 W. National Ave.
241838190	WI DH&SS Stadium project Areas B & C	554 S. 44th Street
241517870	Stimac Brothers Stadium Project Area E1	600 S. 44th Street
241031670	Ampco Metals	4100 W. Burnham/ 1745 S. 38th St.
241012200	Rexnord Corporation-Building K	5101 W. Beloit Rd.
241014840	Babcock & Wilcox (2 different cases)	3839 W. Burnham St.
241496310	RHI Holdings/Sams Club/Rexnord	S. 43rd & Greenfield Ave.
241016270	Mobil Lube Plant	1547 S. 38th St.
241043880	Harnischfeger P&E	4107 W. Orchard St.
241038050	Norris Industries Inc.	4601 W. Lincoln Ave.

Spills - A list of spills which have occurred in the state is maintained by WDNR. There are no spills on record for the site.

Solid Waste - This is a list of solid waste disposal sites (i.e. landfills) which are licensed by WDNR. Within one-half mile of the site, there is a six acre inactive landfill. There were no other solid waste facilities identified.

UST - UST stands for Underground Storage Tank. The Wisconsin Department of Industry, Labor, and Human Relations (DILHR) maintains a list of USTs in the state. The database search identified two USTs near the site: one at 4227 West Orchard Ave., and the other at 4237 West Orchard Ave., both due north of the site.

LUST - LUST stands for Leaking Underground Storage Tank. WDNR keeps a record of LUSTs in the state. There were 23 LUST sites identified, with several cases at the same address, within one-half mile of the Brownfield site, as identified in Table 3 below:

Table 3 - LUST Sites Within One-half Mile of Property

FID #	LUST Site Name	Address
241535030	Greenfield Site	43rd & Greenfield
241012200	Rexnord Corporation (Bldg J)	4710 W. Greenfield Ave.
241010990	Harnischfeger Corp (6 different cases)	4400 W. National Ave.
241379710	Sentry Foods	41st & Greenfield
241016270	Mobil Oil Corp - Lube Plant	1547 S. 38th St.
241593220	Szymanski Village Service/One Stop	4250 W. Greenfield Ave.
241585080	Schellgell Food Service	1200 Old S. 43rd St.
241588380	Miller Brothers Trucking ZZ	4600 W. Burnham St.
241031560	Krause Milling Co.	4200 W. Burnham St.
241566270	Donahue Trucking	4653 W. Electric Ave.
241413370	Meyers Truck Depot	4525 W. Burnham St.
241535030	Village of West Milwaukee	4320 W. Greenfield Ave.
241348030	Dings Corporation	4740 W. Electric Ave.
241247270	Linde Gases of the Midwest, Inc.	1623 S. 38th St.
241453520	West Milwaukee High School	5104 W. Greenfield Ave.
241043880	Harnischfeger Corporation	4107 W. Orchard St.
241128910	U S Total Station	3633 W. Burnham St.
241492350	Reilly Cartage, Inc.	4100 W. Orchard St.
241667580	Milwaukee Co.-West Milwaukee Park	5000 W. Burnham St.
241746120	Motor Service & Machine Inc.	4810 W. Greenfield Ave.
241815200	A.H. Krueger, Inc.	1627 S. 44th St.
241146400	Thau's Discount Muffler	4229 W. Greenfield Ave.

FID #	LUST Site Name	Address
241012200	Rexnord Corp. (Bldg K)	5101 W. Beloit Rd.

D. Potential Receptors/Environmentally Sensitive Areas

WDNR records indicate that there are no water supply wells on the site, and there are no known potable water supply wells in the area since the Village of Milwaukee relies on Lake Michigan and other surface sources for its water supply. The Menomonee River is approximately 5000 feet northeast and downgradient of the site. There are no known conservation or preserve areas in the vicinity of the site. Additionally, there are no wetlands or other environmentally sensitive areas identified near the site.

E. Geologic and Physiographic Features

1. TOPOGRAPHY

As shown on the USGS 7.5 minute Milwaukee quadrangle, the land surface in the immediate area of the site is relatively flat. However, in the vicinity of the site, the land slopes gently to the north-northeast, toward the Menomonee River located approximately 5000 feet away. It is assumed that surface water drainage patterns mimic the dominant topography and flow is to the north-northeast.

2. GEOLOGY

Information for the following sections was compiled from *Ground-Water Conditions in the Milwaukee-Waukesha Area, Wisconsin,* Geological Survey Water-Supply Paper 1229 and *Late Pleistocene History of Southeastern Wisconsin*, Geoscience Wisconsin, Volume 7, Geological and Natural History Survey.

Bedrock in the vicinity of the site is the Silurian age Niagara dolomite. Formations older than the Niagara dolomite do not outcrop at the surface in the Milwaukee area. The Niagara formation is a white to grey dolomite with an extensive system of joints and fractures which have been enlarged through solution. The Niagara dolomite serves as an important aquifer to the area, though its yield may be variable, determined by the interconnectedness of the fractures.

Overlying the dolomite are unconsolidated Quaternary deposits, a heterogeneous mixture which ranges in size from clay to boulders. These deposits consist of glacial till interbedded with proglacial lake sediments. In general, the till sheets are coarser in texture with a greater percentage of sand and gravel, though still poorly sorted with some silt and fine particles, than what is found in the lacustrine sediments, which are more silty and clayey. The oldest and deepest till sheet is the New Berlin Formation. There have been three layers identified within this formation, though it is not certain whether all three underlie the site. The New Berlin Formation is a sandy dolomitic till. Finer proglacial lake sediments separate the New Berlin from the

overlying Oak Creek till formation. There have been three till sheets identified within the Oak Creek Formation. These till deposits are interbedded with lacustrine sediments, producing a complex stratigraphy which may change rapidly within short distances. There may also be some finer alluvial and estuarine deposits overlying the till in the area of the site. However, because of the complex interbedded nature of the sediments in this area, it is difficult to determine the actual stratigraphy at the site.

3. HYDROGEOLOGY

The glacial till does not serve as an aquifer, but does allow for the percolation of water to recharge underlying aquifers. The predominant aquifer is the Niagara dolomite, which has an extensive system of joints and fractures serving to enhance the productivity of wells. Shallow groundwater flow in the vicinity of the site is believed to be to the northeast, mimicking surface topography, in the direction of the Menomonee River. Deeper, more regional groundwater flow paths probably trend more to the east toward the Milwaukee Bay and Lake Michigan. WDNR records indicate that there are no wells in the vicinity of the site which provide drinking water, since the Village of West Milwaukee depends on Lake Michigan and other surface water sources for its water supply.

III. PROPERTY HISTORY

Table 4 provides the historical sources which were consulted to gather information regarding the history of land use and activities which occurred on the site.

Table 4 - Historical Sources

Source	Dates Reviewed and Scale	Comments
Aerial photographs	1950, 1:20,000, B&W 1956, 1:20,000, B&W 1969, 1:20,000, B&W 1979, 1:40,000, B&W 1992, 1:24,000, color IR	Provides information on land use changes as well as other large scale features.
Topographic maps	1906 - 15' topo quadrangle 1934 - 15' topo quadrangle 1958 - 7.5' topo quadrangle 1971 - 7.5' topo quadrangle	Provides information on the relative growth and industrial development of the area.
Sanborn Fire Insurance Maps	1927 - 1"~60' 1950 - 1"~60' 1968 - 1"~60'	Provides detailed information on building features, and therefore potential industrial processes which occurred.

Source	Dates Reviewed and Scale	Comments
City Street Directories	1935-1993 at five year intervals	Name of business located at both target property and limited surrounding area

A. Sanborn Fire Insurance Maps

Copies of the Sanborn Fire Insurance maps for the years 1927, 1950, and 1968 are presented in Appendix A.

1927: At the time this map was made, what is now referred to as the 1600 block of South 43rd Street was referred to as the 600 block of 37th Avenue, which appeared to be one of the few paved roads in that area. The name of the business occupying the 600 37th Ave. location was Cream City Boiler Company. The immediate property boundary to the east was defined by a north-south oriented railroad line. There was a railroad spur which cut southwest through the property and continued in an east-west direction. Some of the features of the Cream City Boiler Company which were identified on the Sanborn map were an earthen floor in the main building, a 12,000-gallon above-ground oil tank near the railroad tracks on the east end of the property, and three 8,000-gallon oil tanks in a concrete pit underground, also near the railroad tracks. There were also scrap bins located on the east end of the property near the railroad tracks.

The name of the business which occupied the 618 37th Avenue location was Sivyer Steel Casting Company. This was an operation much larger than the Cream City Boiler Company, and it occupied the remainder of the 600 block. Some of the features related to this business which were identified on the Sanborn map were: a large area for scrap bins along the tracks to the east, a foundry, a machine shop, a sand blasting room, core ovens, a woodworking room, and a creosote block floor. Mitchell Street marks the property's southern boundary.

To the east of both properties are railroad tracks, and a little further east was a 2.5 million-gallon above ground oil tank belonging to Wadhams Oil Company. The area to the northwest, west, and southwest appeared to be subdivided into residential units referred to as Juneau Heights. On the block south of the Sivyer Steel Casting Company was a meal and stock food manufacturer named Chas. Krause Milling Company. On the block north of the Cream City Boiler Company was the Wisconsin Ice & Coal Company, which had several coal storage sheds in the yard. To the northeast of the Cream City Boiler Company was the Cutler-Hammer Manufacturing Company which manufactured electrical appliances.

1950:By this time, the 600 block of 37th Avenue had become the 1600 block of South 43rd Street. The Cream City Boiler Company still occupied the site at 1604 South 43rd Street. Since the 1927 map was made, there was an east-wing addition to the northern end of the building. There was no mention of the above and below ground oil tanks which were identified in the 1927 map on the east end of the property near the railroad tracks. No other significant changes were

noted.

Sivyer Steel Casting Company still occupied the site referred to as 1624 South 43rd Street. There appeared to be some minor changes in the internal layout of the building, but they did not seem to alter the processes which occurred in the facility.

There were no changes noticed to the east of the site, the 2.5 million-gallon oil tank was still present, with no additional development. The blocks to the northwest, west, and southwest, appeared to be transforming from residential to slightly more industrial in a few areas. Due west of the Cream City Boiler Company was an auto parking lot with an above-ground storage tank surrounded by a wire fence. Within a few blocks, there was also a flask yard, buildings for metal fabrication, and a few warehouses. The block due west of Sivyer Steel, on the other side of 43rd Street, appeared to become more industrial. However, the rest of the area remained primarily residential. The Chas. Kraus Milling Company was still located south of Sivyer Steel, and appeared to have expanded its operation by the presence of additional buildings and grain storage tanks. The Wisconsin Ice & Coal Company was still located north of the Cream City Boiler Company. Wisconsin Ice nearly doubled its building space, and there was the addition of ten concrete silos for coal storage. There was also the addition of a private garage on that block. The Cutler-Hammer Manufacturing Company changed its name to Cutler-Hammer Inc., but was still located northeast of the Cream City Boiler Company. Cutler-Hammer expanded its operation and several new buildings were noted.

1968: Cream City Boiler Company still occupied the 1604 South 43rd Street location, and there were no noticeable changes in the building structure or surrounding features from the 1950 Sanborn Map. Sivyer Steel Casting Company still occupied the 1624 South 43rd Street location. The only noticeable change was an underground passageway beneath 43rd Street to additional shop space on the other side of 43rd Street.

There was no change east of the properties. To the northwest, west, and southwest, there was further loss of residential lots to additional parking space and light industry. The block due west of Sivyer Steel, on the other side of 43rd Street, seemed to be incorporated into that company's property in order to provide additional storage and shop space. The Chas. Kraus Milling Company, located south of Sivyer Steel, changed its name to the Krause Milling Company, but there were no apparent changes in the facility's buildings or other features. There were no changes to the Wisconsin Ice & Coal Company north of the Cream City Boiler Company, or to Cutler-Hammer Inc. located northeast of the Cream City Boiler Company. There were no other changes from the 1950 Sanborn map.

B. Aerial Photography/Historical Topographic Maps

Historic aerial photographs and topographic maps were reviewed at the A.H. Robinson Map Library. Aerial photographs from 1950, 1956, 1969, 1979, and 1992 were reviewed. Topographic maps were reviewed from 1906, 1934, 1958, and 1971. The following section is a synthesis of observations made from these two historic sources.

Photographs

In the 1950 photograph, most of the surrounding area appeared to be manufacturing and industrial except for about a three block wide patchy residential area to the northwest, west, and southwest. Many rail cars were visible in the photo near the Brownfields properties. Due east of the Sivyer Steel property, on the other side of the railroad tracks, there was a large surface water body about as large as the Sivyer Steel structure. There was also a large storage tank visible in the photograph east of the site, which was a 2.5 million-gallon oil storage tank according to the Sanborn maps. At the former Mobile Blasting site, a building addition which was made to the northern part of the structure and extended east stood out because it was white, not dark grey like the rest of the structure, suggesting the addition was constructed with different building material.

The 1956 photograph contained no noticeable changes from the 1950 photograph, except the area to the west was becoming less residential.

The area to the northwest, west, and southwest of the site continued to show fewer residences in the 1969 photograph. There was still evidence of heavy rail use in the area. The pond east of the Sivyer Steel facility had become smaller. It could not be determined if the pond was a waste-water collector, storm water detention, or natural depression which collected rainwater.

In the 1979 photograph, the pond had disappeared, and what appeared to be parking lot was in its place. The 2.5 million-gallon tank east of Sivyer Steel had also been removed. There were no noticeable changes to the site itself. The area was almost completely industrial, with virtually no trees west of the site where there had been some residential developments in the past.

The Sivyer Steel building was demolished and no longer standing in the 1992 photograph. It was difficult to detect any other changes to the site or in its vicinity due to the smaller scale of the photograph.

Topographic Maps

In the 1906 15 minute topographic quadrangle, only the main rail lines appeared. The smaller rail spurs which lead to the site today were not visible. Wetlands, associated with the headwaters of the Kinnickinnic River, abutted the site.

The 1934 map was also a 15 minute quadrangle. There were more buildings marked on the map, indicating more development, but there were no other noticeable changes. The wetland extending to the site was still present, and there were no additional rail lines leading to the site.

More development, as well as rail spurs running to the site and other area industry, was apparent in the 1958 7.5 minute quadrangle. The wetland area was no longer identified, but the pond east of the site was identified. The large storage tank east of the site first appeared on this map.

In the 1971 7.5 minute quadrangle, the pond east of the site is just shown as a depression, not as a water body. Other than this observation, there were no other noticeable changes to the site or in

the vicinity of the site.

C. City Street Directories

Environmental Data Resources, Inc. (EDR) was retained by the WDNR to review city directories for this site and adjoining properties. City directories, including Polk, Wright, and other cross reference directories, were reviewed at five year intervals from 1935 through 1993. The search was complicated by the fact that the site has changed street addresses at least once during the known history of the site. Results from the searches are summarized below in Tables 5 and 6 below.

Table 5 - Property Use at Site

Year	Address	Property Use/Occupant
1936	1603 S. 43rd St. 1675 S. 43rd St.	Cream City Boiler Co. Sivyer Steel Casting Co.
1941	1603 S. 43rd St. 1675 S. 43rd St.	Cream City Boiler Co. Sivyer Steel Casting Co.
1945	1603 S. 43rd St. 1675 S. 43rd St.	Cream City Boiler Co. Sivyer Steel Casting Co.
1955	1603 S. 43rd St. 1675 S. 43rd St.	Cream City Boiler Co. Sivyer Steel Casting Co.
1960	1603 S. 43rd St. 1675 S. 43rd St.	Cream City Boiler Co. Sivyer Steel Casting Co.
1965	1603 S. 43rd St. 1675 S. 43rd St.	Cream City Boiler Co. Sivyer Steel Casting Co.
1970	1603 S. 43rd St. 1675 S. 43rd St.	Sivyer Steel Casting Co. Sivyer Steel Casting Co.
1975	1650 S. 43rd St. 1650 S. 43rd St. 1650 S. 43rd St.	Mitchell Industries Rexnord Warehouse SDK Properties
1980	1604 S. 43rd St. 1650 S. 43rd St.	Specialty Coating Inc. Inryco Warehouse
1985	1604 S. 43rd St.	Specialty Coating Inc.
1990	1604 S. 43rd St.	Mobile Blasting & Painting

1993	Address not listed	Vacant

In addition to the site property, there were also searches for the surrounding areas and adjoining properties. Results from the surrounding area searches are summarized below:

Table 6 - Property Use in Vicinity of Site

Year	Address	Property Use/Occupant
1936	4229 W. Greenfield Ave. 4227 W. Orchard St. 4238 W. Orchard St.	Anchor Oil Co. Wisconsin Ice & Coal Co. Tavern
1941	4229 W. Greenfield Ave. 4227 W. Orchard St. 4238 W. Orchard St.	Black Eagle Oil Co. Wisconsin Ice & Coal Co. Tavern
1945	1583 S. 43rd St. 4229 W. Greenfield Ave. 4229 W. Greenfield Ave. 4227 W. Orchard St. 4238 W. Orchard St.	Boelter Painter Black Eagle Oil Co. City Tire & Battery Co. Wisconsin Ice & Coal Co. Tavern
1955	1583 S. 43rd St. 1703 S. 43rd. St. 4229 W. Greenfield Ave. 4229 W. Greenfield Ave. 4227 W. Orchard St. 4238 W. Orchard St.	Chapel Machine Co. American Soda Water Co. Bob's 66 Service Station Kelly Brothers Movers Wisconsin Ice & Coal Co. Ice House Tavern
1960	1583 S. 43rd St. 1703 S. 43rd. St. 4229 W. Greenfield Ave. 4250 W. Greenfield Ave. 4320 W. Greenfield Ave. 4227 W. Orchard St. 4238 W. Orchard St.	Chapel Machine Co. American Soda Water Co. Burke & Castran Service Sation Kalan's Standard Service Wisconsin Independent Oil Co. Wisconsin Ice & Coal Co. Ice House Tavern

1965	1583 S. 43rd St. 1703 S. 43rd. St. 4229 W. Greenfield Ave. 4250 W. Greenfield Ave. 4320 W. Greenfield Ave. 4227 W. Orchard St. 4238 W. Orchard St.	Chapel Machine Co. American Soda Water Co. Thau's 66 Service Station Kalan's Standard Service Wisconsin Independent Oil Co. Hometown Ice Inc. Ice House Tavern
1970	1703 S. 43rd. St. 4229 W. Greenfield Ave. 4227 W. Orchard St. 4238 W. Orchard St.	American Soda Water Co. R & R Service Station Hometown Ice Inc. Ice House Tavern
1975	1645 S. 43rd St. 1675 S. 43rd St. 4229 W. Greenfield Ave. 4250 W. Greenfield Ave. 4227 W. Orchard St. 4238 W. Orchard St.	P S Electric Service Inc. Global Manufacturing Corp. R & R Service Station Village Standard Service Hometown Ice Inc. Ice House Tavern
1980	1645-1675 S. 43rd St. 4229 W. Greenfield Ave. 4250 W. Greenfield Ave. 4227 W. Orchard St. 4238 W. Orchard St.	Global Manufacturing Corp. R & R Service Station Village Service Gas Station Hometown Ice Inc. Ice House Tavern
1985	1675 S. 43rd St. 4229 W. Greenfield Ave. 4250 W. Greenfield Ave. 4227 W. Orchard St. 4238 W. Orchard St.	Global Manufacturing Corp. Thau 66 Service Station Village Service Gas Station Hometown Ice Inc. Ice House Tavern
1990	4229 W. Greenfield Ave. 4250 W. Greenfield Ave. 4238 W. Orchard St.	Thau Discount Brake & Muffler Village Service Gas Station Ice House Tavern
1993	4227 W. Orchard St. 4238 W. Orchard St.	Hometown Ice Inc. Ice House Tavern

D. Title Search

The following record of title for the properties at 1604 and 1650 South 43rd Street was compiled from the review of WDNR and Village of West Milwaukee files. A complete record of title for the properties covering the history of the sites was not available.

- **August 16, 1972** - Certificate of Occupancy granted to Wacho Manufacturing Co., Inc., Michael Wilkinson, President. Permit was granted for a pickling facility.
- 1975 - Title to Lots 2 and 4 - 1604 and 1650 S. 43rd St. properties, respectively - transferred from Sivyer Steel Casting Company to SKD Properties. Title to Lot 3 held by Rexnord.
- **October 1980 - December 1984** - Specialty Coating, sandblasting company, occupied building at 1604 S. 43rd.
- **April 1, 1985** - Mobile Blasting and Painting began plant operations on site. Property owned by SDK Properties (Randy Klein - managing partner). Business owned by David Rhode (general partner) and Bill Larson.
- **July 1990** - Owner on record was West Milwaukee Associates Limited Partnership (Donald Ogilvie). Mobile Blasting vacated property between July 11 and August 22, 1988.
- **June 1996** - Title to properties at 1604 and 1650 S. 43rd St. held by West Milwaukee Associates Limited Partnership, an Illinois Partnership. See **Appendix B** for the record of property title, including the legal description of the property and record of the unsatisfied encumbrances for the property.

- From **1984** Real Estate Assessment Roll for the Village of West Milwaukee:
  1) 1650 S. 43rd (SDK Properties): 3.11 acres; $120,900 land value; $54,100 improvement value; $175,000 total value
  2) 1604 S. 43rd (SDK Properties): 0.587 acres; $22,800 land value; $52,200 improvement value; $75,000 total value
- From **1992** Statement of Real Estate Taxes for Village of West Milwaukee:
  1) 1650 S. 43rd (West Milwaukee Associates): $233,200 assessed land value; $0 assessed value improvements; $287,400 estimated fair market value
  2) 1604 S. 43rd (West Milwaukee Associates): $44,000 assessed land value; $29,100 assessed value improvements; $73,100 total assessed value; $90,100 estimated fair market value

IV. REGULATORY HISTORY

The following section provides a brief summary of the recorded regulatory history for the site. There are extensive records available for the most recent period during which Mobile Blasting and Painting occupied the property. Unfortunately, there is not much information available prior to this period. **Appendix C** presents a more detailed account of these records in a chronological timeline.

Mobile Blasting and Painting operated on the 1604 South 43rd Street property from April 1985 until August 1988. During this time, there were many complaints from nearby businesses and residents, as well as Village ordinance violations, regarding sandblasting activities and the associated smoke emissions and offensive odors outside the building. During some periods, there were daily, blatant violations due to both the time at which the activities occurred, as well as the amount of noise and air emissions generated. As a result, Village Police issued many citations, and there were two separate Circuit Court cases regarding the outdoor sandblasting activities.

There were also numerous instances of fire code and building code violations detected by both the Village Fire Department and Village Building Inspection Code Enforcement. In November 1987, the occupancy permit was revoked by the Village due to the negative impact on public health and safety posed by the building and business operations. A revised occupancy permit was issued in May 1988 following some improvements which were made to the facility by Mobile Blasting and Painting.

V. ENVIRONMENTAL INVESTIGATIONS AND CLEANUPS

According to the available records, there have been no environmental investigations or cleanups conducted at the site. While Mobile Painting and Blasting occupied the site, there were incidences when air emissions were monitored during periods of operation to determine whether the business was violating air emissions standards. There are no records which indicate that soil or groundwater investigations have been conducted at the site.

VI. CONTACT INTERVIEWS

Because of the rather extensive historical information available in the files from the period during which Mobile Blasting occupied the site, interviews primarily focused on trying to gather information prior to this period, as well as filling in gaps from the written record.

Randy Klein is a managing partner of SDK Properties partnership, which owned the property during the time in which Mobile Blasting occupied the building. Mr. Klein said that Sivyer Steel occupied the site before Mobile Blasting, and he believed that mostly storage occurred on the site, though he is not certain. He was not aware of any existing waste piles at the time Mobile Blasting

moved into the building. According to Mr. Klein, there were no paint or other chemicals left on the site when Mobile Blasting left. He does not know about the origin of the large pile of sand inside the building. Mr. Klein has noticed a lot of dumping around the building over the past few years since it became vacant. He has noticed that there appears to be no control over the property. Additionally, he is surprised that the building at 1604 S. 43rd Street is still standing, because he believed that it was in worse condition than the building formerly located at 1650 S. 43rd Street was in when it was razed in 1985.

Denese Helgeland, with WDNR's Bureau of Air Management, is familiar with the site, though only during Mobile Blasting's occupation. Regarding the large sand pile in one of the rooms in the building, Ms. Helgeland believes that the sand is used blasting sand. She said that it was Mobile Blasting's practice to use sand for blasting, then just pile the waste sand in a corner of the building. She is not aware of Mobile Blasting following proper disposal practices for the waste sand. The main objects which were blasted on the site were rail cars, automobiles, trucks, and steel beams. Given this information, metal flakes and paint, possibly containing lead, are probably the primary contaminants present in the waste sand.

Four separate attempts were made to contact Mr. David Rhode, operating partner of the Former Mobile Blasting and Painting. Messages were left for him, but the calls were never returned.

VII. PHYSICAL RECONNAISSANCE

A physical reconnaissance of the site was conducted on March 12, 1996 by site investigators Amy Parkinson and Cara Norland, who were met by Tom Tollackson, Attorney for West Milwaukee and Eugene Oldenburg, West Milwaukee Police Chief. See **Appendix D** for photos taken during the site reconnaissance.

The main building is constructed of brick on a cement slab, with a 25 foot ceiling of unknown material which is broken out, and boarded windows. The floor is covered with a ½ inch crusty layer of dirt or fine sand, suspect asbestos containing insulation (approximately 10 linear feet), and broken cinder blocks. There are also air venting units, two drums, and other miscellaneous debris littering the floor. The main building has two garage doors entering from S. 43rd Street, one with a ramp up the main floor, and another with a sunken ramp for unloading trucks. There is a small office area, a second floor restroom with storage below, and four bays at the east end of the room. The bays appear to have been rooms at one time, possibly for storage, as indicated by the damaged cinderblock walls and the partially damaged ceiling. There is a 4'x4' lift in the floor of the main building containing sand-like material. There are numerous spray painted symbols and designs on the walls in the main room and throughout the remainder of the building. Spent spray paint cans litter the floor.

There are three other rooms off the main building: a painting/storage room, blasting room, and a sand storage room. The paint/storage room has approximately 1/4 inch of paint waste on the

floor (see Photo 8). There were also puddles of water, ice, and snow at the time of the inspection, due to two damaged areas of the roof and the broken window panes in the skylights (see Photos 9 and 10). Approximately 20 pails are strewn across the floor in this area (it was not noted whether there were lids or not) which were frozen into the ice. A small storage room, 10'x10', is located in the northwest corner of this room. To the north of the paint/storage room is a long narrow room with an overhead door which appears to have been a sandblasting room. Pails, debris, and ice/water cover the floor.

The sand storage room is constructed with steel I-beams, asbestos containing transite wall board with an exterior of corrugated metal sheeting, and a corrugated metal roof. The roof appears to be intact. The transite panels have been damaged by vandals, allowing easy access to the building (see Photos 4 and 12). Broken transite panels lay around the outside of the building as well. In addition, a horizontally sliding wall panel is open about two to three feet, allowing easy entrance to the room and remainder of the building. The southern half of the room contains a pile of blasting sand about six to seven feet deep, running the width of the room (see Photo 11). A vehicle ramp links the sand storage room with the main building. At the time of the inspection, a puddle of water/ice covered the center of the middle portion of the sand storage room.

Outside of the building, along the concrete alley on the north side and separated from the adjacent property by a six foot chain link fence, there are piles of woodscraps (approximately 6'x8'x3'), asphalt shingles (approximately 4'x6'x3'), concrete chunks (approximately 5'x5'x4'), and a pile of fill (approximately 6'x4'x4') (see Photo 3). A railroad spur runs from the northeast corner of the building to the southwest, around the building, and across S. 43rd Street (see Photo 6). This spur may have been used to transport blasting sand to the site, as well as other industrial supplies and products during the history of the property.

Table 7 documents disposal sites and other features not observed on the Mobile Blasting and Painting site during the reconnaissance.

Table 7 - Features Not Observed as of March 12, 1996

lagoons, dumps, dry wells	grease traps
burning pits	sump outlets
past and present waste water treatment	spray fields
facilities and septic systems	incinerators
oil/water separator	open pipe discharges
condensate disposal	landfarming areas
underground and above ground storage	settling ponds
tanks and associated piping	fill pipes
silos	transformers
chemical waste storage pads	degreasers

VIII. FINDINGS AND RECOMMENDATIONS

A. Findings

Based on the information gathered during the Phase I assessment, the following areas and concerns have been identified, and will be discussed in further detail below:

- Building not secure, broken windows encourage building to be used as place of human and animal habitation, as well as a dumping ground.
- Suspected asbestos-containing pipe insulation hanging from pipes and falling to floor, and damaged suspect asbestos-containing transite board in add-on room.
- Holes in roof, water stains visible, wood throughout building rotting from exposure. Extensive deterioration of building exterior including brick, mortar, steel, and wood.
- Large pile of blasting sand inside building, possible blasting sand in area behind building near railroad spur.
- Paint cans containing unknown substances inside building.

Illegal access into the building is one of the greatest problems identified at the site. Spray painted graffiti on the walls indicates that people are using the building and potentially being exposed to environmental contaminants, thereby posing a possible health concern for those individuals. Restricting access into the building would greatly reduce this concern, as well as prevent the spread of asbestos fibers or other potential contaminants to trespassers and nearby residents and workers. The problem of trespassing has been identified since 1990.

Building inspections by Village Building Inspection Code Enforcement have found numerous building code violations as well as serious deterioration of the building's exterior. It has been noted that it would be a great financial burden to bring the building up to code. The building has been condemned, and a Raze and Repair Order was issued in 1993, but the building still remains.

The piles of blasting sand and unknown substance from the paint cans have not been sampled, so it is not known whether there are any hazardous substances present.

B. Recommendations for Further Action

Some general recommendations for further investigation and cleanup which resulted from records review and the site reconnaissance are:

- Secure site to prevent access into building.
- Contain and remove the suspected asbestos-containing materials.
- Sample both the blasting sand inside and outside of the building, and the unidentified substances in the building for proper disposal.
- Sample soil at surface and depth with geoprobe.
- Install three monitoring wells and sample shallow groundwater.

Since a Raze and Repair Order has been issued and the building has been condemned due to its deteriorated state, it would be prudent to remove the building before development of the site occurs.

C. Recommendations for Phase II Sampling

Since the northern part of the site's history prior to Mobile Blasting is uncertain, it is recommended that soil at the surface and to a depth of five feet be sampled. Likewise, historical property use is uncertain at the southern part of the site, formerly occupied by Sivyer Steel, so soil to a depth of five feet should be sampled. Most of this southern part of the property is still covered by the building foundation, though drains and some holes filled-in with soil are present, from which the soil samples may be collected (see Photos 2 and 5, **Appendix D**). The collected soil samples should be analyzed for the full range of parameters since there is such uncertainty about what waste may have been generated in the past.

Limited groundwater sampling should also be conducted. It is recommended that three monitoring wells be installed on the property for groundwater collection. Two of the wells should be located on the northeastern part of the property, and the other on the southern part of the property. Like the soil samples, the groundwater samples should be analyzed for the full range of parameters since there is uncertainty about what waste was generated during the site's history and what contamination may be present now.

IX. LIMITATIONS OF THIS PHASE 1 SITE ASSESSMENT

This report was prepared by the Department of Natural Resources (WDNR) in cooperation with the Village of West Milwaukee as part of a pilot project to assist municipalities wishing to market potentially contaminated properties for redevelopment. This study is not intended to be a definitive study of environmental conditions at the site. The information contained in this report is based on readily available, practically reviewable information as defined in ASTM 1527-94, "Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process". Information provided by others has been accepted as true and correct. The conclusions presented in this report are professional opinions of Department of Natural Resources' staff which are based on the information reviewed for this report.

Users of this report are cautioned that site conditions may change over time due to natural processes or activity on the site or adjacent properties. Additional conditions may also exist at the site that could not be identified based on the limited scope of this investigation.

If you have additional questions concerning this report you may contact the Department of Natural Resources, Bureau for Remediation and Redevelopment, 101 South Webster Street, P.O. Box 7921, Madison, Wisconsin 53707-7921. Information reviewed for this report is available as a public record from the Department of Natural Resources.

APPENDIX A

SANBORN FIRE INSURANCE MAPS

APPENDIX B

RECORD OF PROPERTY TITLE

CHICAGO TITLE INSURANCE COMPANY

Letter Report # 1056825

To: VILLAGE OF WEST MILWAUKEE
4755 W. BELOIT ROAD
WEST MILWAUKEE, WISCONSIN 53214
ATTN: TOM TOLLAKSEN

Legal Description:
Lots 2 and 4, Block 2 in Assessors Plat No. 296 in the Northwest 1/4 of Section 1 in Town 6 North, Range 21 East, in the Village of West Milwaukee, County of Milwaukee, State of Wisconsin.

DLE/JC/JT

Address: 1604 S. 43RD STREET (Lot 2) and 1650 S. 43RD STREET (Lot 4)
WEST MILWAUKEE, WISCONSIN

Tax Key No.: 457-1003-000 (Lot 2) and 457-1001-001 (Lot 4)

From an examination of the records in the Office of the Register of Deeds for MILWAUKEE County we find that the grantee(s) named in the latest recorded conveyance of the real estate described above (is) (are)
WEST MILWAUKEE ASSOCIATES LIMITED PARTNERSHIP, an Illinois Partnership

The following are all of the unsatisfied encumbrances of record in the public offices of MILWAUKEE County affecting the real estate described above, filed or recorded since the afore-mentioned grantee(s) took title, including all unsatisfied mortgages, outstanding real estate taxes, judgments and liens, including state and federal t liens, docketed or filed, against said grantee(s):
Mortgage and Security Agreement, according to the terms and provisions thereof, from West Milwaukee Associates Limited Partnership, an Illinois Limited Partnership to Bank of Northern Illinois, to secure the originally stated indebtedness of $385,000.00, and any other amount payable under the terms thereof, dated October 16, 1989 and recorded on

- CONTINUED -

Dated at MILWAUKEE County, Wisconsin, this 18TH day of June , 1995 at 7:00 A.M. the effective date hereof.

The Company's liability for this report is limited to a maximum of $1,000.00. This report and the legal description given herein are based upon information supplied by the applicant as to the location and identification of the premises in question, and no liability is assumed for any discrepancies resulting therefrom. This report does not represent either commitment to insure title or an opinion as to the marketability of title to the subject premises.

Issued By:
MILWAUKEE METRO OFFICE
20900 Swenson Drive
P.O. Box 987
Waukesha, WI 53187-0987
(414)796-3800

CHICAGO TITLE INSURANCE COMPANY
By:
DONNA L. EASTLUND

APPENDIX C

SITE REGULATORY HISTORY TIMELINE

The following section chronicles the recorded regulatory history for the site. The available information covered the period during which Mobile Blasting and Painting occupied the site. For ease of review, the regulatory history is presented in a chronological timeline below, extending from 1980 to 1994:

- November 12, 1980 - Violation notice to Spencer Thomas (1604 and 1650 S. 43rd St.) regarding several different building code violations.
- November 16, 1984 - Formal notice issued to raze Sivyer Steel Foundry (owned by SDK Properties-Randy Klein) at 1650 S. 43rd St. Site vacant since 1971 when foundry sold to investor. Building razed March 1985.
- April 1, 1985 - Plant operations began for Mobile Blasting and Painting.
- June 10, 1985 - Occupancy Permit issued to David Rhode of Mobile Blasting and Painting Co. at 1604 South 43rd.
- October 17, 1985 - First verbal order issued to David Rhode to stop outdoor sandblasting.
- February through April 1986 - Repeated observations by Village Police and Fire Department of violations regarding sandblasting activities and the associated smoke emissions and offensive odors outside the building. Citations issued by Village Police.
- March 6, 1986 - Letter from Village to David Rhode and Bill Larson regarding Village Ordinance violations for outside sandblasting activities. Village threatened to revoke Occupancy Permit upon further violations.
- March 11, 1986 - Reapplication for Occupancy Permit submitted by David Rhode for Mobile Blasting and Painting, 1604 and 1650 S. 43rd
- March 12, 1986 - Circuit Court case Mobile Blasting and Painting (Plaintiff) vs. Frederick Patrie and Village of West Milwaukee (Defendant). Resulting orders included:
  1) the defendants refrain from seeking a restraining order against the plaintiff concerning outdoor sandblasting, air-blowing and spray painting activities, and may not issue more than one citation per day
  2) plaintiff will file an application for a revised occupancy permit in order to include outdoor sandblasting, air-blowing, and spray painting activities
  3)plaintiff will arrange with WDNR to measure the level of particulate emissions from outdoor sandblasting
- April 10, 1986 - Outdoor sandblasting demonstration for WDNR representative Bernie Wood was found to be in violation and not acceptable.
- May 6, 1986 - Indoor sandblasting activities observed by WDNR representatives and found to be in compliance. However, Mobile Blasting was in violation of air pollution control rules since they had constructed and were operating an air pollution source without a permit.
- June 1986-September 1987 - Continued complaints about dust and paint/solvent fumes, insufficient building ventilation probable. Blatant violations due to time of activities (ie. late at night-1:00 a.m. in one instance) and amount of noise and air pollution generated due to outdoor activities. Many citations issued by Village Police. In several instances, activities at Mobile Blasting resulted in a large cloud of dust which created dangerous traffic conditions. When this cloud traveled to a nearby warehouse, the fog was described

as having a gritty consistency which made the employees' eyes water and burn, and it tasted like acid.

- August 21, 1986 - Circuit Court case Village of West Milwaukee vs. David Rhode regarding fines for citations. David Rhode sentenced to pay $50 for each of 16 violations.
- October 17, 1986 - Violations issued to 1604 S. 43rd St.:
  Fire code: 1) improper use of extension cord
  2)electrical box needs cover for stripped and exposed wires
  3)air compressor needs rewiring because exposed wiring
  Building code: spray booth operated without filters, resulting in spray paint fumes being pumped outside without being filtered.
- April 28, 1987 - Letter from WDNR to Village stated that an air pollution control permit was not required for Mobile Blasting and Painting facility, and none had been obtained.
- May 12, 1987 - Defects found from fire inspection including: flammable paint and oils not stored in an isolated room, gas fired furnace not isolated from the rest of the building. The defects were later found to be corrected during a reinspection.
- July 16, 1987 - Mobile Blasting (1604 S.43rd) filed for Chapter 11 Bankruptcy: $288,882 in liabilities, $336,957 in assets.
- November 4, 1987 - Occupancy Permit for 1604 S.43rd St. revoked by Village due to negative impact on public health and safety, specifically:
  1. Inadequate space for semi-tractor trailer truck loading and unloading, causing unsafe traffic conditions.
  2. Unwilling to install dust control equipment to eliminate discharge into the air.
  3. Mobile Blasting trespassing on property owned by Rexnord Corporation (railroad track spur).
  4. Original Permit assumed property would be used primarily for vehicle storage, rather than sandblasting operations.
  5. Citizen complaints regarding operations and discharge of waste material.
- January 26, 1988 - Village Board of Appeals met regarding appeal of decision to revoke Occupancy Permit for Mobile Blasting at 1604 S.43rd St. David Rhode and Randy Klein appealing. The Board affirmed the decision to revoke the Certificate of Occupancy, stating that it did not appear that Mobile Blasting could not operate at that location without violating Village ordinances and posing a threat to public health and safety.
- May 24, 1988 - Occupancy Permit issued to David Rhode and William Larson of Mobile Blasting and Painting Co. at 1604 and 1650 South 43rd. Business operation of removing substances and materials via sandblasting or blasting with other materials, painting of metal or other materials, and outside storage of inventory. All blasting and painting activities and associated noise, odor, dust, sand, paint, products and by-products must be fully contained within the building. No blasting or painting activities will be allowed outside of the building.
- June 9, 1988 - An inspection by the Occupational Safety and Health Administration found sandblasting operations properly contained, an effective exhaust ventilation system, and employees properly protected.
- July 11, 1988 - Citation issued for emitting smoke into the air.
- August 22, 1988 - Mobile Blasting has vacated premises, and Randy Klein seeking to lease property. Village refused to issue Occupancy Permit due to forced illegal access to

property through the Rexnord parcel.

- July 26, 1990 - Inspection by Village Building Inspection Code Enforcement found building not secure. Additionally, asbestos was found hanging from pipes, broken windows throughout the building, deteriorated roof with holes, no interior walls, and no fire protection. Cost to bring building up to code would be exorbitant.
- April 2, 1991 - Inspection by Village Building Inspection Code Enforcement found serious deterioration of building including: broken windows; holes in roof including water stains; wood throughout building rotted from exposure; brick and steel throughout building containing holes; asbestos on deteriorated pipes; extensive deterioration of building exterior including brick, mortar, steel, and wood; building used as place of human and animal habitation, as well as a dumping ground. A consulting engineer who inspected the building for the Village recommended that the building be razed, lacking a feasible occupant, in order to eliminate potential hazards.
- September 18, 1992 - Ray Otto, Village Code Enforcement Officer, recommended building at 1604 S. 43rd be condemned again (first time in 1988) and secured to prevent access into building until building can be razed. He was worried that someone could gain entrance to the building and become injured, which would pose legal problems for the Village since they were aware of the problem but did nothing to solve it.
- July 19, 1993 - Mr. Don Ogilvie of West Milwaukee Associates Limited Partnership, representing the owners of Mobile Blasting, was served a Raze and Repair Order on July 7, 1993. Mobile Blasting was given 30 days in which to comply, after which legal action would be taken by the Code Enforcement Officer.
- July 11, 1994 - Letter from Tom Tollaksen to Chip Krohn at WDNR regarding inspection in which empty 55 gallon drums were found, milk containers filled with used motor oil, as well as a large quantity of debris including lumber, broken glass, old tires, old furniture, as well as scrap building materials.

APPENDIX D

PHOTO DOCUMENTATION FROM SITE RECONNAISSANCE

FIELD PHOTOGRAPHY LOG SHEET

①

SITE: Mobile Blasting

DATE: 3/12/96

TIME: —

DIR: North

PHOTOGRAPHED BY:

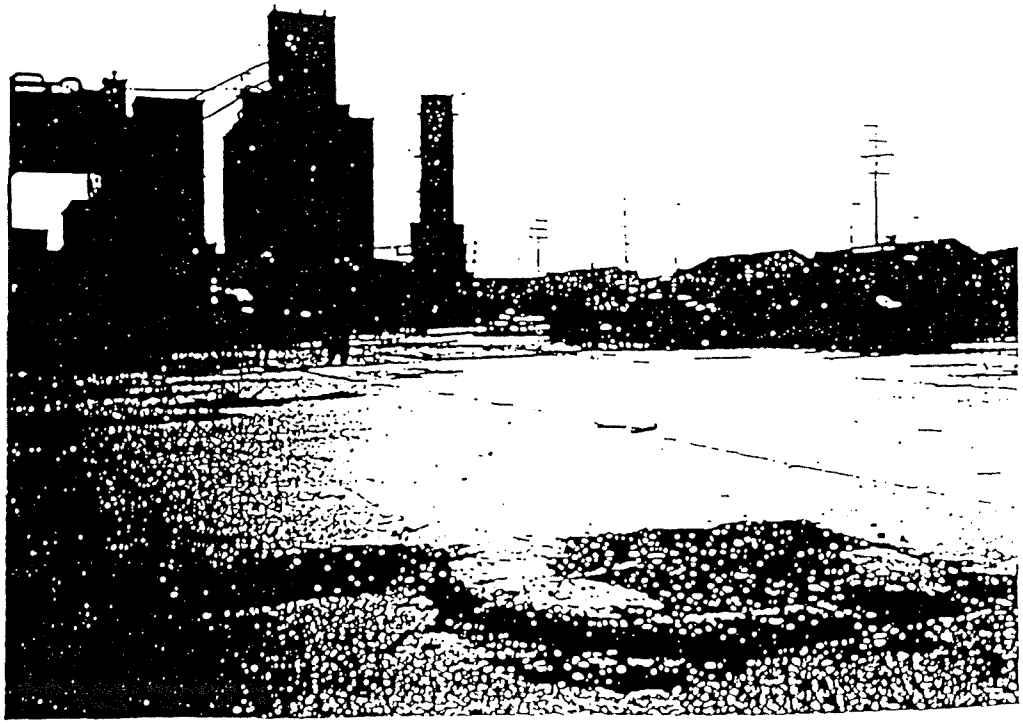
Cara Norland

SAMPLE ID #: NA

DESCRIPTION:

Former location of Swyer Steel facility in foreground, Mobile Blasting building in background

②



SITE: Mobile Blasting

DATE: 3/12/96

TIME: —

DIR: South

PHOTOGRAPHED BY:

Cara Norland

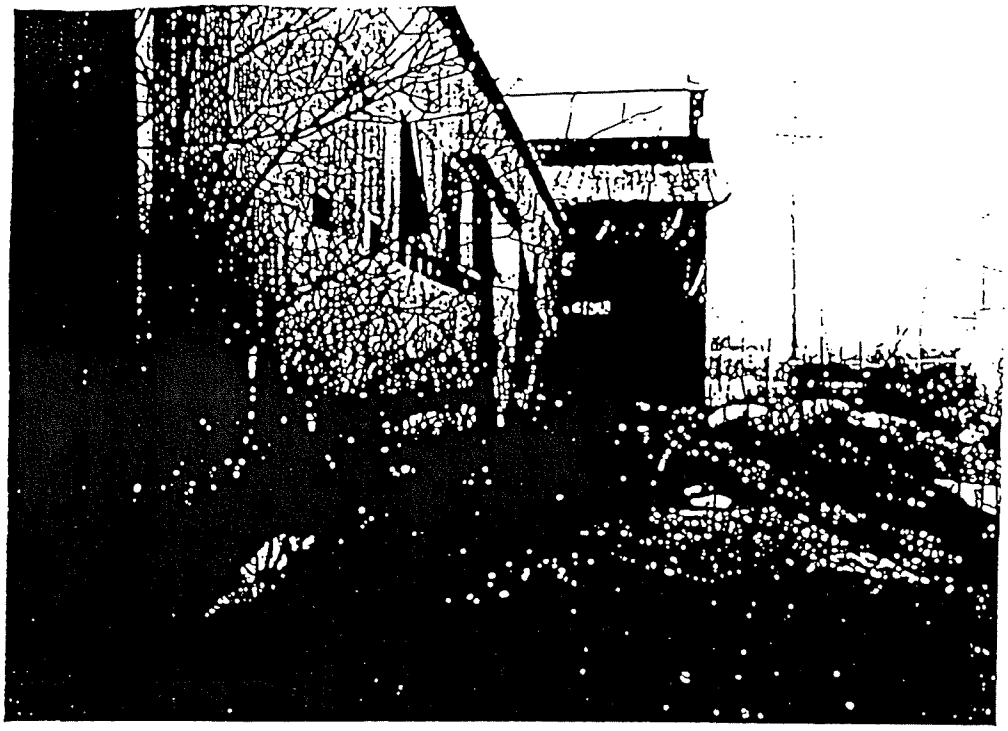
SAMPLE ID #: NA

DESCRIPTION:

Former location of Swyer Steel facility, Note earth-filled hole in foreground, possibly from building structure support.

FIELD PHOTOGRAPHY LOG SHEET

(3)



SITE: Mobile Blasting

DATE: 3/12/96

TIME: —

DIR: West

PHOTOGRAPHED BY:

Cara Norland

SAMPLE ID #: NA

DESCRIPTION:

Looking northeast property line. Note damaged building exterior, pile of waste concrete slabs in background and pile of blasting sand in foreground.

(4)

SITE: Mobile Blasting

DATE: 3/12/96

TIME: —

DIR: Northwest

PHOTOGRAPHED BY:

Cara Norland

SAMPLE ID #: NA

DESCRIPTION:

Waste dumped in foreground, damaged building exterior, blasting areas.

FIELD PHOTOGRAPHY LOG SHEET

(5)

SITE: Mobile Blasting

DATE: 3/12/96

TIME: —

DIR: North

PHOTOGRAPHED BY:

Cara Norland

SAMPLE ID #: NA

DESCRIPTION:

Looking [illegible] from [illegible]

Sivyer Steel facility. Mobile Blasting

building in background.

(6)

SITE: Mobile Blasting

DATE: 3/12/96

TIME: —

DIR: Northeast

PHOTOGRAPHED BY:

Cara Norland

SAMPLE ID #: NA

DESCRIPTION:

Railroad spur alongside Mobile Blasting building.

FIELD PHOTOGRAPHY LOG SHEET

(7)

SITE: [illegible]

DATE: [illegible]

TIME: —

DIR: NA

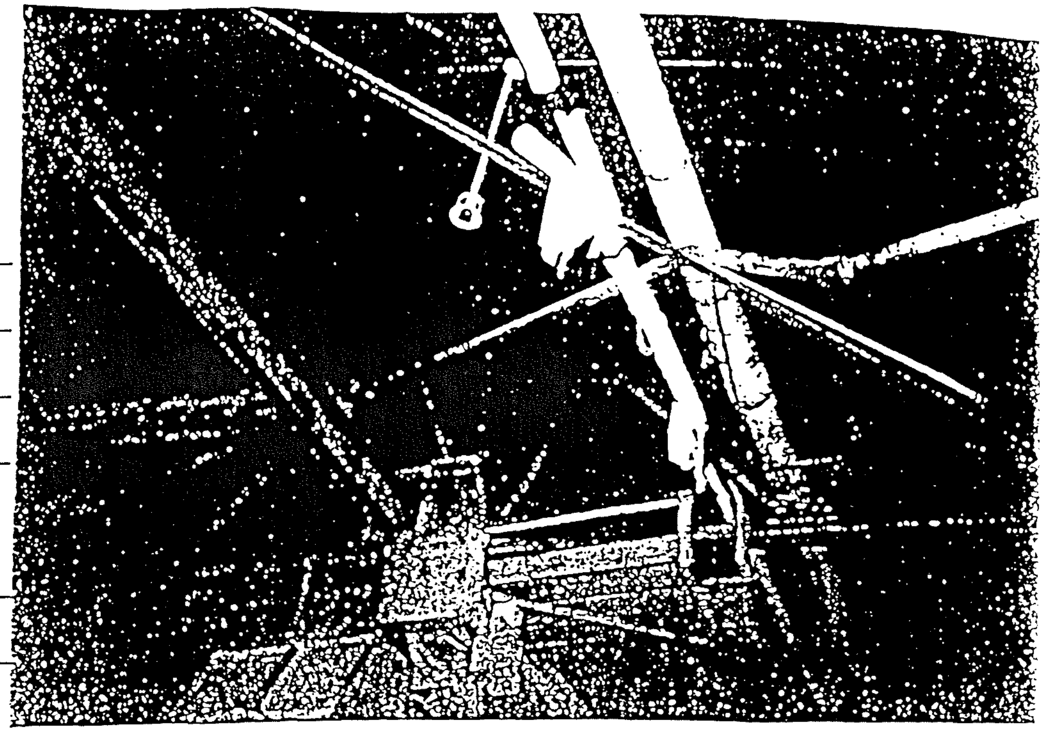
PHOTOGRAPHED BY:

[illegible]

SAMPLE ID #: NA

DESCRIPTION:

[illegible]



(8)

SITE: [illegible]

DATE: [illegible]

TIME: —

DIR: NA

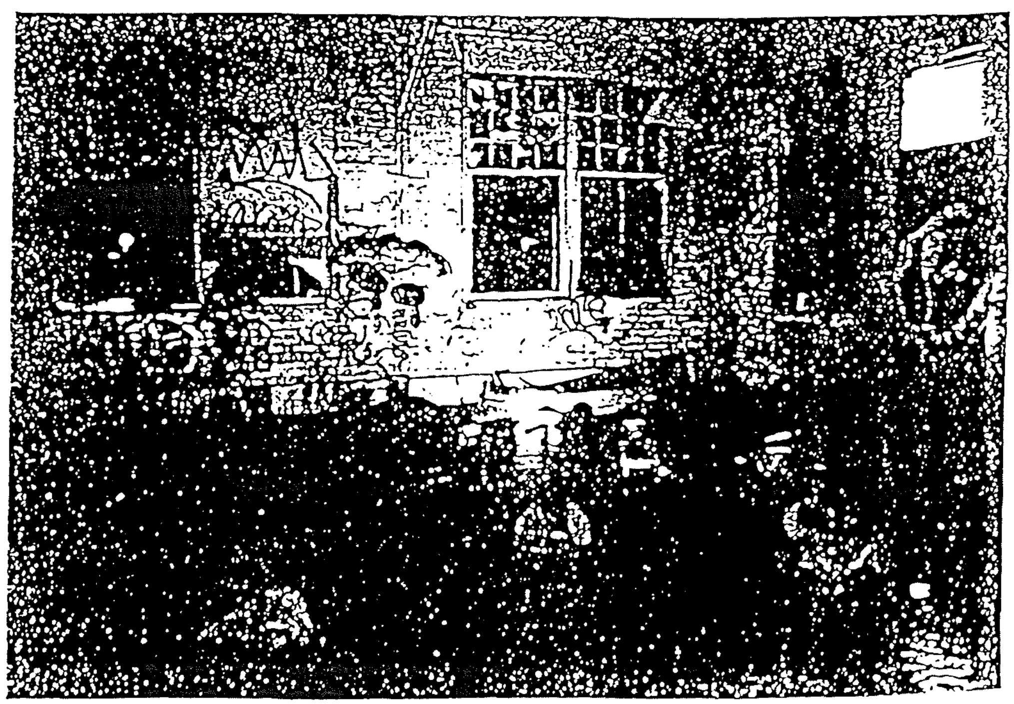
PHOTOGRAPHED BY:

[illegible]

SAMPLE ID #: NA

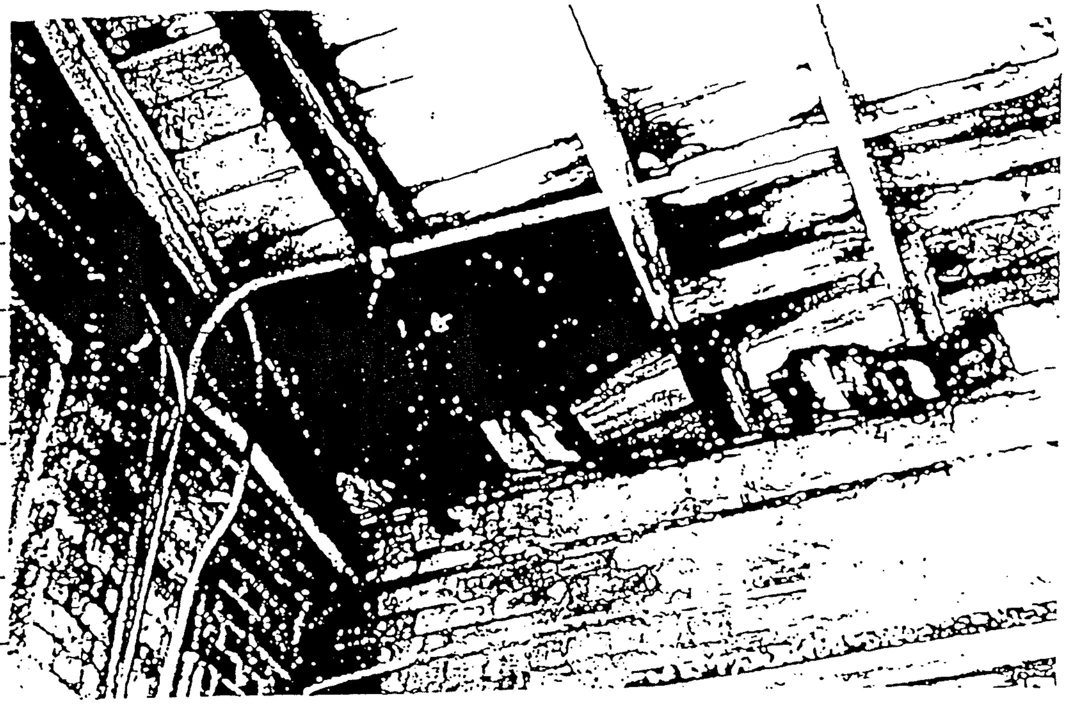
DESCRIPTION:

[illegible]



FIELD PHOTOGRAPHY LOG SHEET

(9)



SITE: Mobile Blasting

DATE: 3/12/96

TIME: —

DIR: NA

PHOTOGRAPHED BY:

Cara Norland

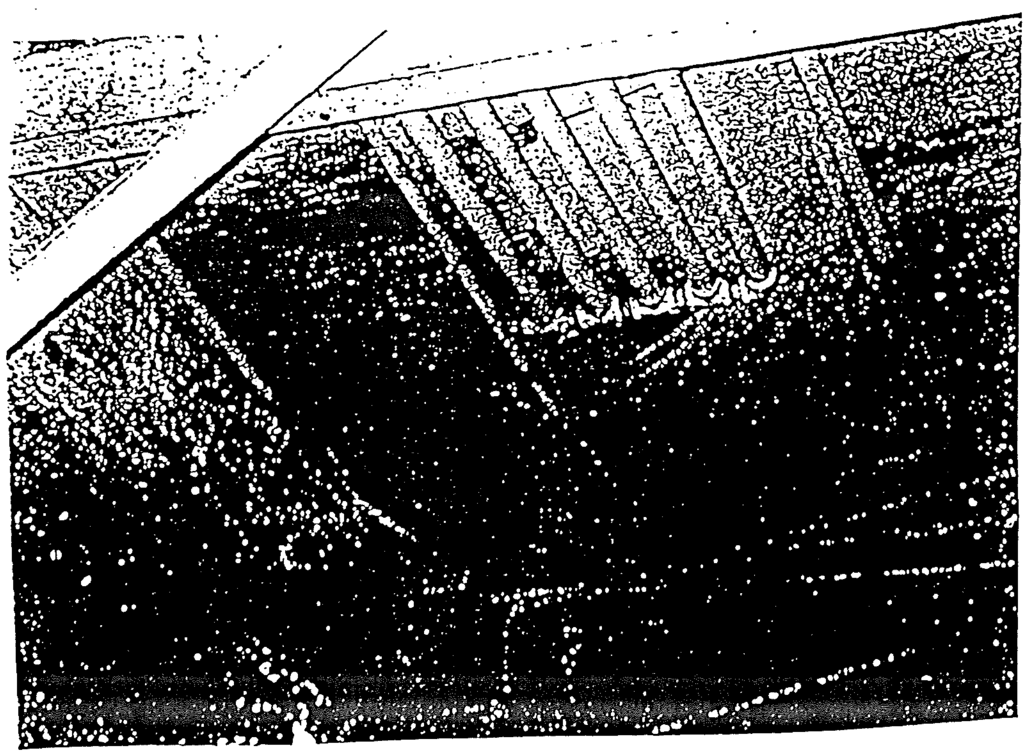
SAMPLE ID #: NA

DESCRIPTION:

[illegible]

[illegible]

(10)



SITE: Mobile Blasting

DATE: 3/12/96

TIME: —

DIR: NA

PHOTOGRAPHED BY:

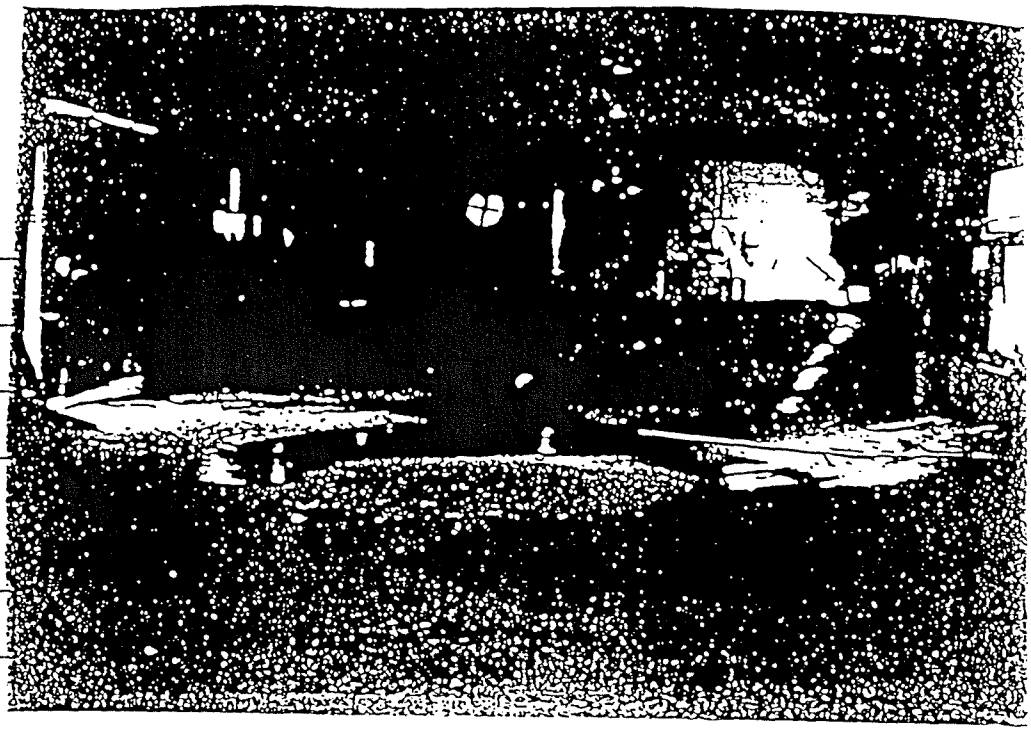
Cara Norland

SAMPLE ID #: NA

DESCRIPTION:

Damaged roof with water staining

FIELD PHOTOGRAPHY LOG SHEET



SITE:

DATE:

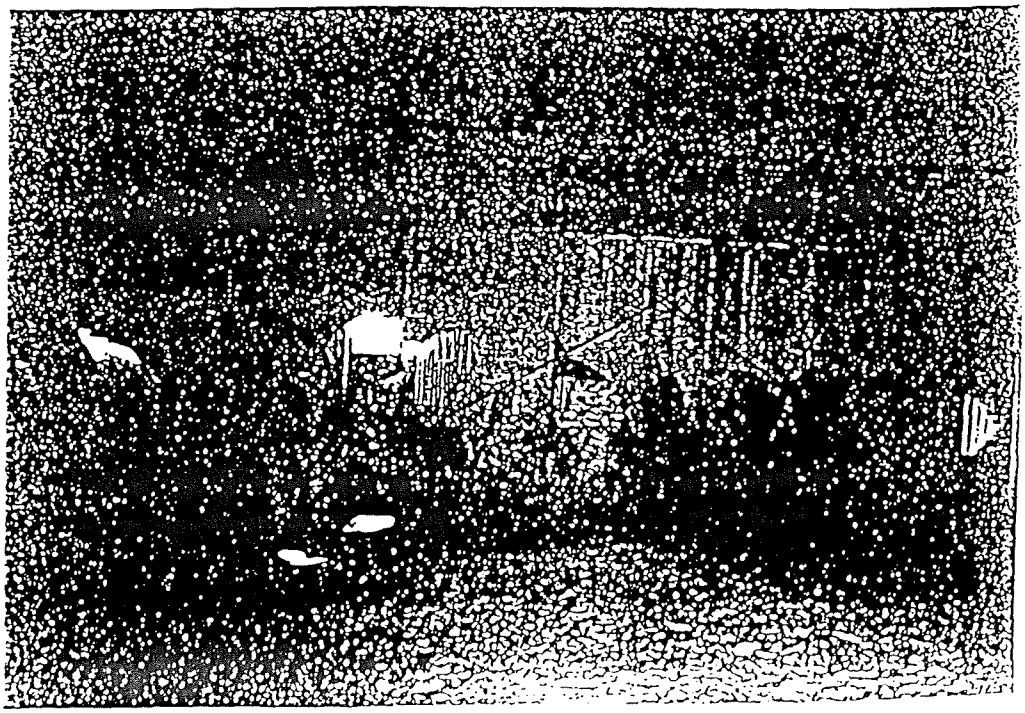
TIME:

DIR:

PHOTOGRAPHED BY:

SAMPLE ID #:

DESCRIPTION:



SITE:

DATE:

TIME:

DIR:

PHOTOGRAPHED BY:

SAMPLE ID #:

DESCRIPTION:

APPENDIX E

ENVIRONMENTAL SITE ASSESSOR QUALIFICATIONS

ENVIRONMENTAL SITE ASSESSOR QUALIFICATIONS

Site Assessor

Kim White, Hydrogeologist, Wisconsin Department of Natural Resources

Education

Degrees

B.S. Geology, 1993, University of North Carolina-Chapel Hill
M.S. Water Resources Management, 1997, University of Wisconsin-Madison
Concentration: Hydrogeology

Relevant Coursework

Hydrogeology
Contaminant Hydrogeology
Field Methods in Hydrogeology
Fluvial Geomorphology
Hydrology
Field Geology

Experience

- Wisconsin Department of Natural Resources - July 1994 to Present
  - Brownfields Environmental Assessment Pilot - January 1996 to Present
    - Phase I and Phase II Environmental Assessment Training
    - Project Management
  - Superfund Site Evaluation - July 1994 to December 1995
    - Project Management
    - Prepare workplans, conduct field investigations, report writing

- U.S. Geological Survey - May 1993 to October 1993
  - National Water Quality Assessment Project (NAWQA)
    - Water quality data collection in field, monitoring well installation, database management

- ATEC Environmental Consultants - May 1991 to October 1991
  - Monitoring well installation, groundwater and soil sampling, report writing

The purpose of the records review was to assess the potential presence of hazardous substance contamination on the Property. The records search was limited to information available to us from public sources and previous project experience. The public sources are updated regularly, but are frequently incomplete. During the records review, we engaged in telephone consultation with public agencies, made written requests for agency information and reviewed records maintained by the following agencies:

- City of West Milwaukee
- Wisconsin Department of Natural Resources
- Wisconsin Department of Industry, Labor, and Human Relations
- U.S. Environmental Protection Agency.

The rationale for contacting each agency during our records review are discussed in the following paragraphs.

CITY

The City of West Milwaukee maintain building plans and records for buildings located at specific addresses. However, the available records are sparse and do not cover and extended period of time. These records were reviewed because they provide general information about past ownership and/or occupancy of buildings. In addition, building records contain information concerning tenant electrical, mechanical and plumbing improvements to buildings. Building plans, if available in the records maintained, may show the location of underground or aboveground storage tanks and underground utilities at a particular building. The use of asbestos-containing-building materials during construction may also be indicated in building plans.

STATE AND FEDERAL DATABASES

Please refer to pages A11 through A16 of EDR's Site Assessment Report for an explanation of what is contained in each of the state and federal databases searched.

Appendix D
EDR Radius Map

The EDR-Radius Map
with GeoCheck™

Mobile Blasting
1604 South 43rd Street
West Milwaukee, WI 53214

Inquiry Number: 272771.3s

July 14, 1998

Environmental Data Resources, Inc.
an edr company

The Source For Environmental Risk Management Data

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-97. Search distances are per ASTM standard or custom distances requested by the user.

The address of the subject property for which the search was intended is:

1604 SOUTH 43RD STREET
WEST MILWAUKEE, WI 53214

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the subject property or within the ASTM E 1527-97 search radius around the subject property for the following Databases:

NPL:	National Priority List
Delisted NPL:	NPL Deletions
RCRIS-TSD:	Resource Conservation and Recovery Information System
SHWS:	State Haz. Waste
CERCLIS:	Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP:	Comprehensive Environmental Response, Compensation, and Liability Information System
RAATS:	RCRA Administrative Action Tracking System
HMIRS:	Hazardous Materials Information Reporting System
PADS:	PCB Activity Database System
ERNS:	Emergency Response Notification System
FINDS:	Facility Index System
TRIS:	Toxic Chemical Release Inventory System
NPL Lien:	NPL Liens
TSCA:	Toxic Substances Control Act
MLTS:	Material Licensing Tracking System
WI Spills:	WI Spills
WI WRRSER:	Wisconsin WRRSER
WI ERP:	Emergency Response Program Database
ROD:	ROD
CONSENT:	Superfund (CERCLA) Consent Decrees

Unmapped (orphan) sites are not considered in the foregoing analysis.

Search Results:

Search results for the subject property and the search radius, are listed below:

Subject Property:

The subject property was not listed in any of the databases searched by EDR.

EXECUTIVE SUMMARY

Surrounding Properties:

Elevations have been determined from the USGS 1 degree Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. EDR's definition of a site with an elevation equal to the subject property includes a tolerance of -10 feet. Sites with an elevation equal to or higher than the subject property have been differentiated below from sites with an elevation lower than the subject property (by more than 10 feet). Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 12/15/1997 has revealed that there are 3 CORRACTS sites within approximately 1 Mile of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
GENERAL ELECTRIC CO	*4855 W ELECTRIC AVE*	*1/2 - 1 SW*	*51*	*60*
GENERAL ELECTRIC APPLIANCES	*2205 SOUTH 43RD STREET*	*1/2 - 1 S*	*52*	*61*
Lower Elevation	**Address**	**Dist / Dir**	**Map ID**	**Page**
HARNISCHFEGER CORP	*4400 W NATIONAL AVE*	*1/4 - 1/2 N*	*I48*	*51*

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Department of Natural Resources' List: All Landfills on License with Location Information/Registry of Waste Disposal Sites.

A review of the SWF/LF list, as provided by EDR, and dated 11/25/1997 has revealed that there are 2 SWF/LF sites within approximately 0.5 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
WEST MILWAUKEE VILLAGE HALL	*4755 W BELOIT RD*	*1/4 - 1/2 NW*	*H42*	*49*
WEST MILWAUKEE VIL	4755 W BELOIT RD	1/4 - 1/2 NW	H44	50

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Natural Resource's LUST Database.

A review of the LUST list, as provided by EDR, and dated 04/15/1998 has revealed that there are 22 LUST sites within approximately 0.5 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
A H KRUEGER INC	*1627 S 44TH ST*	*0 - 1/8 WSW*	*A1*	*9*
NATIONAL SCHOOL BUS SERVICE	4100 W MITCHELL ST	1/8 - 1/4 SSE	B9	14
MILWAUKEE PLATE GLASS CO PROPE	4440 W MITCHELL ST	1/8 - 1/4 SSW	C11	15
HARNISCHFEGER CORP	*4107 W ORCHARD ST*	*1/8 - 1/4 NE*	*14*	*16*
REILLY CARTAGE INC	*4100 W ORCHARD ST*	*1/8 - 1/4 NE*	*16*	*18*
GREENFIELD SITE	43RD / GREENFIELD	1/8 - 1/4 N	D17	20
SZYMANSKI VILLAGE SERVICE/ONE	*4250 W GREENFIELD AVE*	*1/8 - 1/4 N*	*D21*	*23*

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
THAUS DISCOUNT SERVICE	*4229 W GREENFIELD AVE*	*1/8 - 1/4 N*	*E25*	*28*
J & J ELECTRIC CO INC	*4534 W GREENFIELD*	*1/8 - 1/4 NNW*	*F27*	*36*
SENTRY FOODS	4140 W GREENFIELD AVE	1/8 - 1/4 NNE	29	38
KRAUSE MILLING CO.	*4200 W BURNHAM ST.*	*1/4 - 1/2 SSE*	*34*	*43*
LINDE GASES OF THE MIDWEST INC	*1623 S 38TH ST*	*1/4 - 1/2 E*	*35*	*43*
REXNORD CORP	*4751 W GREENFIELD AVE*	*1/4 - 1/2 NW*	*36*	*44*
MOBIL OIL CORP MILWAUKEE	*1547 S 38TH ST*	*1/4 - 1/2 ENE*	*37*	*45*
TRUCK TERMINAL VACANT	4525 W BURNHAM ST	1/4 - 1/2 SSW	38	46
MOTOR SVC AND MACHINE INC	*4810 W GREENFIELD AVE*	*1/4 - 1/2 NW*	*39*	*46*
MILLER BROTHERS TRUCKING	*4600 W BURNHAM ST*	*1/4 - 1/2 SSW*	*40*	*48*
DONAHUE TRUCKING	*4653 W ELECTRIC AVE*	*1/4 - 1/2 SW*	*41*	*48*
WINDY LANE FARM	1911S WINDY LANE	1/4 - 1/2 SW	46	50
DINGS CO	*4740 W ELECTRIC AVE*	*1/4 - 1/2 SW*	*47*	*50*
U S TOTAL STATION	*3633 W BURNHAM ST*	*1/4 - 1/2 ESE*	*50*	*59*

Lower Elevation	Address	Dist / Dir	Map ID	Page
HARNISCHFEGER CORP	*4400 W NATIONAL AVE*	*1/4 - 1/2 N*	*I49*	*52*

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Industry, Labor & Human Resources' List: All Underground Storage Tanks Except for Fuel Oil.

A review of the UST list, as provided by EDR, and dated 10/01/1997 has revealed that there are 20 UST sites within approximately 0.25 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
A H KRUEGER INC	*1627 S 44TH ST*	*0 - 1/8 WSW*	*A1*	*9*
A H KRUEGER INC	1631 S 44TH ST	0 - 1/8 SW	A3	9
NATIONAL SCHOOL BUS	4150 W MITCHELL	1/8 - 1/4 SSE	B4	10
NATIONAL SCHOOL BUS SERV INC	4150 W MITCHELL ST	1/8 - 1/4 SSE	B5	11
G A CARLEY ADVERTISING CO	4424 W MITCHELL ST	1/8 - 1/4 SSW	C7	12
KLUG PLUS SMITH CO	*4425 W MITCHELL ST.*	*1/8 - 1/4 SSW*	*C8*	*13*
MILWAUKEE PLATE GLASS CO	4440 W MITCHELL ST	1/8 - 1/4 SSW	C10	14
HOMETOWN INC	4227 W ORCHARD	1/8 - 1/4 NNE	12	15
REILLY CARTAGE INC	*4100 W ORCHARD ST*	*1/8 - 1/4 NE*	*16*	*18*
WISCO/UNION OIL OF CA	4320 W GREENFIELD AVE	1/8 - 1/4 N	D18	20
SZYMANSKI SERVICE INC	4250 W GREENFIELD AVE	1/8 - 1/4 N	D19	22
SZYMANSKI SERV INC	4250 W GREENFIELD AVE	1/8 - 1/4 N	D20	22
JIMS VILLAGE SERVICE	4250 W GREENFIELD AVE	1/8 - 1/4 N	D22	23
ONE STOP	4250 W GREENFIELD AVE	1/8 - 1/4 N	D23	25
THAUS 66 SERVICE	*4229 W GREENFIELD AVE*	*1/8 - 1/4 N*	*E24*	*27*
THAUS DISCOUNT SERVICE	*4229 W GREENFIELD AVE*	*1/8 - 1/4 N*	*E25*	*28*
REXNORD CORP	4400 W GREENFIELD AVE	1/8 - 1/4 NNW	26	36
J & J ELECTRIC CO INC	*4534 W GREENFIELD*	*1/8 - 1/4 NNW*	*F27*	*36*
VACANT FORMER SERVICE STATION	4104 W GREENFIELD	1/8 - 1/4 NE	G31	38
GODFREY CO	41 ST & GREENFIELD AVE	1/8 - 1/4 NE	G33	39

EXECUTIVE SUMMARY

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-SQG list, as provided by EDR, and dated 01/01/1998 has revealed that there are 6 RCRIS-SQG sites within approximately 0.25 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
NATIONAL SCHOOL BUS SVC	4150 W MITCHELL	1/8 - 1/4 SSE	B6	12
ENVIRONMENTAL SPECIALISTS	4500 W MITCHELL	1/8 - 1/4 SW	13	16
PRINTING EQUIPMENT SERVICE INC	*4600 W MITCHELL ST*	*1/8 - 1/4 SW*	*15*	*18*
REILLY CARTAGE INC	*4100 W ORCHARD ST*	*1/8 - 1/4 NE*	*16*	*18*
J & J ELECTRIC CO	4534 W GREENFIELD AVE	1/8 - 1/4 NNW	F28	37
MALONE & HYDE INC	*4104 W GREENFIELD AVE*	*1/8 - 1/4 NE*	*G30*	*38*

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-LQG list, as provided by EDR, and dated 01/01/1998 has revealed that there are 3 RCRIS-LQG sites within approximately 0.25 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
WEST MILWAUKEE AUTO BODY	*1631 S 44TH ST*	*0 - 1/8 SW*	*A2*	*9*
HARNISCHFEGER CORP	*4107 W ORCHARD ST*	*1/8 - 1/4 NE*	*14*	*16*
THAUS DISCOUNT SERVICE	*4229 W GREENFIELD AVE*	*1/8 - 1/4 N*	*E25*	*28*

WI WDS:The Registry was created by the DNR to serve as a comprehensive listing of all sites where solid or hazardous wastes have been or may have been deposited.

A review of the WI WDS list, as provided by EDR, and dated 06/01/1996 has revealed that there are 2 WI WDS sites within approximately 0.5 Miles of the subject property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
VIL WEST MILW.	4755 W BELOIT RD	1/4 - 1/2 NW	H43	50
BABCOCK & WILCOX CO	3839 W BURNHAM ST	1/4 - 1/2 SE	45	50

(Coal Gas) Former Manufactured gas (Coal Gas) Sites:

The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative

A review of the Coal Gas list, as provided by EDR, has revealed that there is 1 Coal Gas site within approximately 1 Mile of the subject property.

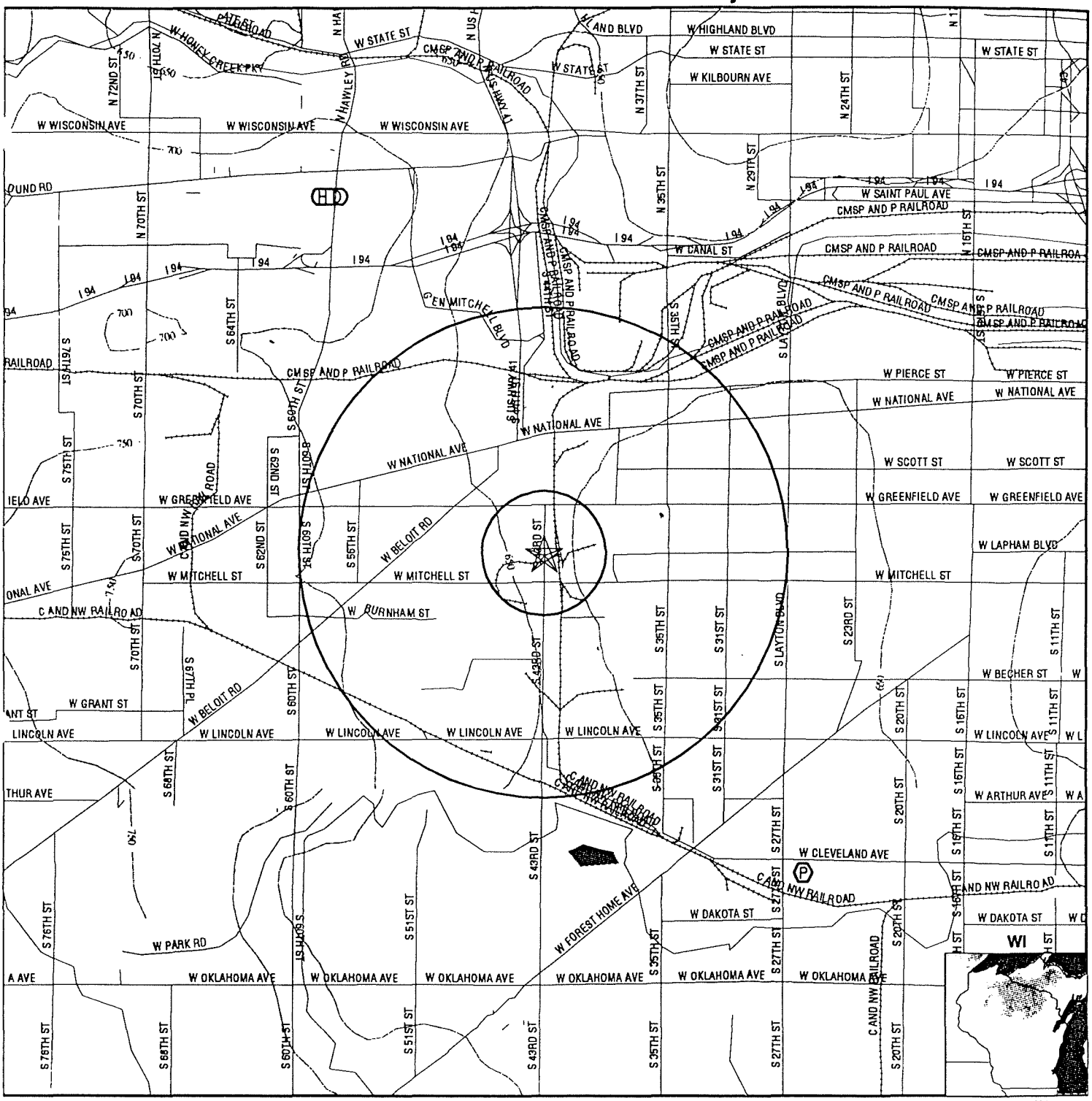
Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
THE LINDE AIR PRODUCTS CO. GAS	1613-1633 S. 38TH ST.	1/8 - 1/4 E	32	39

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
NATIONAL SCHOOL BUS	UST

TOPOGRAPHIC MAP - 272771.3s - Woodward-Clyde Consultants



- Major Roads
- Contour Lines
- Waterways
- Earthquake epicenter, Richter 5 or greater
- Closest Federal Well in quadrant
- Closest State Well in quadrant
- Closest Public Water Supply Well
- Closest Hydrogeological Data

TARGET PROPERTY:	Mobile Blasting	CUSTOMER:	Woodward-Clyde Consultants
ADDRESS:	1604 South 43rd Street	CONTACT:	Bob Cigale
CITY/STATE/ZIP:	West Milwaukee WI 53214	INQUIRY #:	272771.3s
LAT/LONG:	43.0140 / 87.9677	DATE:	July 14, 1998 5:46 pm

GEOCHECK VERSION 2.1
SUMMARY

TARGET PROPERTY COORDINATES

Latitude (North):	43.013988 - 43° 0' 50.4"
Longitude (West):	87.967659 - 87° 58' 3.6"
Universal Transverse Mercator:	Zone 16
UTM X (Meters):	-13326312.0
UTM Y (Meters):	56793248.0

USGS TOPOGRAPHIC MAP ASSOCIATED WITH THIS SITE

Target Property:	2443087-A8 MILWAUKEE, WI

GEOLOGIC AGE IDENTIFICATION†

Geologic Code:	S2
Era:	Paleozoic
System:	Silurian
Series:	Middle Silurian (Niagoaran)

ROCK STRATIGRAPHIC UNIT†

Category:	Stratifed Sequence

GROUNDWATER FLOW INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, including well data collected on nearby properties, regional groundwater flow information (from deep aquifers), or surface topography.‡

AQUIFLOW™•• Search Radius: 2.000 Miles

MAP ID	DISTANCE FROM TP	DIRECTION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported			

General Topographic Gradient at Target Property: General West
General Hydrogeologic Gradient at Target Property: No hydrogeologic data available.
Site-Specific Hydrogeological Data*:

Search Radius:	2.0 miles
Location Relative to TP:	1 - 2 Miles NNW
Site Name:	Hawley Road Dump
Site EPA ID Number:	WID980610539
Surficial Aquifer Flow Dir.:	N TOWARD THE MENOMONEE RIVER.
Measured Depth to Water:	10 feet to 17 feet.
Hydraulic Connection:	The aquifer in the near-surface glacial drift is hydraulically connected to the underlying Dolomite bedrock aquifer that is encountered at depths of 16 feet to 20 feet. A confining shale formation underlies the bedrock aquifer.
Sole Source Aquifer:	A sole source aquifer is persent at or near the site
Data Quality:	Information based on site-specific subsurface investigations is documented in the CERCLIS investigation report(s)

FEDERAL DATABASE WELL INFORMATION

WELL QUADRANT	DISTANCE FROM TP	LITHOLOGY	DEPTH TO WATER TABLE
NO WELLS FOUND			

GEOCHECK VERSION 2.1
SUMMARY

STATE DATABASE WELL INFORMATION

WELL QUADRANT	DISTANCE FROM TP
Eastern	>2 Miles

PUBLIC WATER SUPPLY SYSTEM INFORMATION

Searched by Nearest PWS.
NOTE: PWS System location is not always the same as well location.

PWS Name: CAMP INDIAN SANDS - DINING HALL
NESHKORO, WI 54960
Location Relative to TP: 1 - 2 Miles South
PWS currently has or has had major violation(s): No

AREA RADON INFORMATION

EPA Radon Zone for MILWAUKEE County: 2

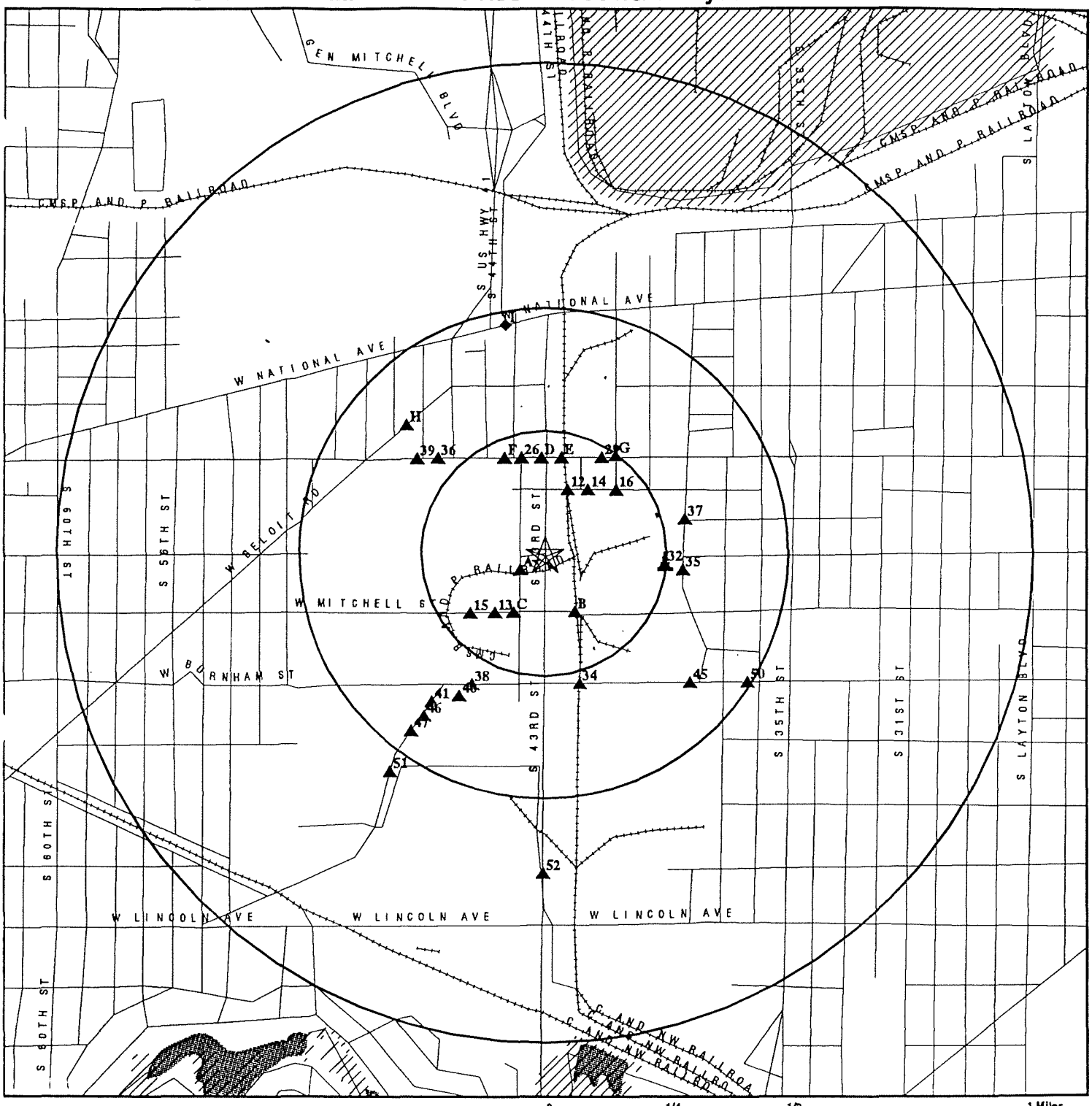
Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Zip Code: 53214

Number of sites tested: 4

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	Not Reported	Not Reported	Not Reported	Not Reported
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	1.250 pCi/L	100%	0%	0%

OVERVIEW MAP - 272771.3s - Woodward-Clyde Consultants



★ Target Property

▲ Sites at elevations higher than or equal to the target property

◆ Sites at elevations lower than the target property

Coal Gasification Sites (if requested)

National Priority List Sites

Landfill Sites

Power transmission lines

Oil & Gas pipelines

100-year flood zone

500-year flood zone

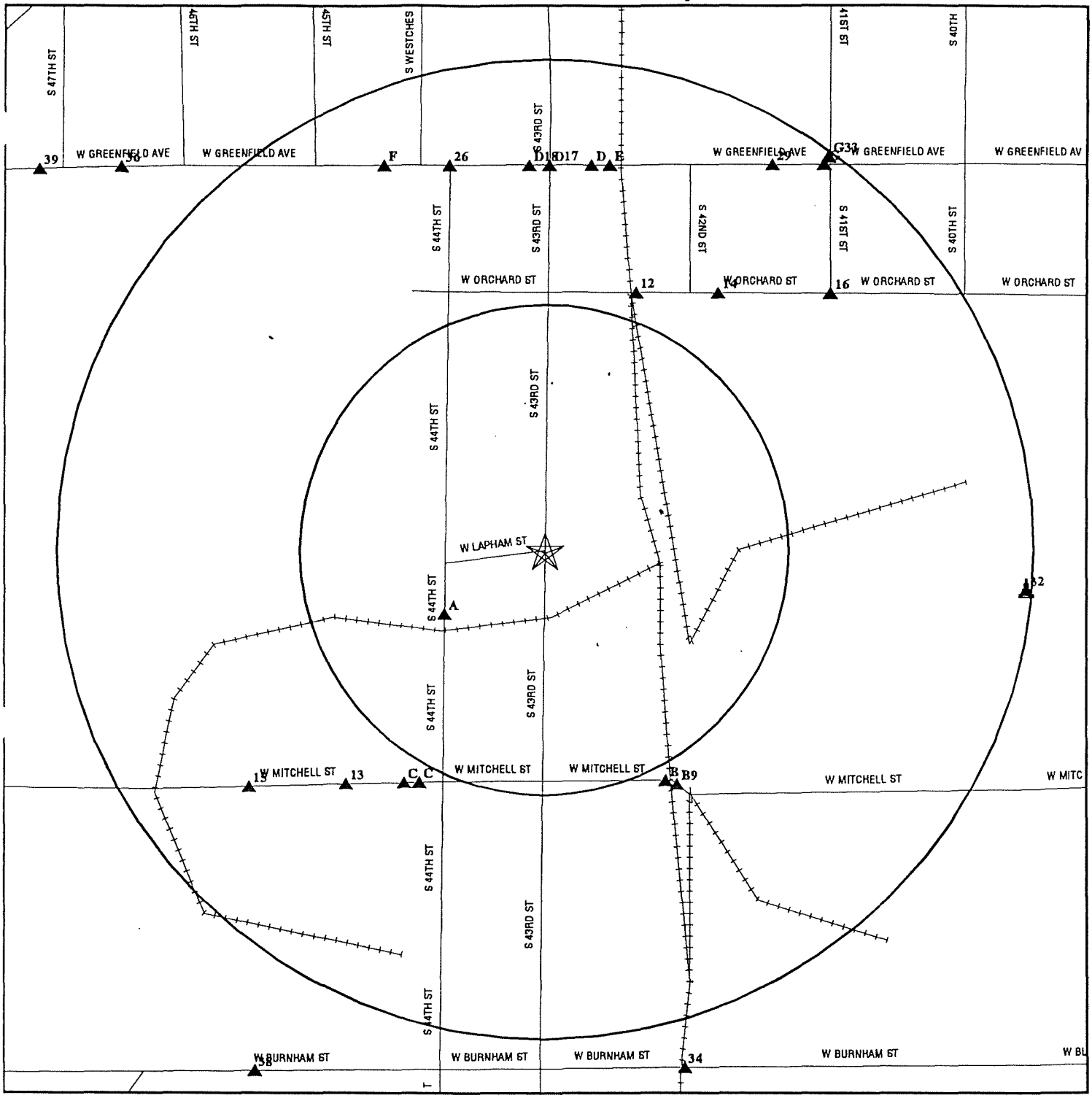
Wetlands per National Wetlands Inventory (1994)

0 1/4 1/2 1 Miles

N

TARGET PROPERTY:	Mobile Blasting	CUSTOMER:	Woodward-Clyde Consultants
ADDRESS:	1604 South 43rd Street	CONTACT:	Bob Cigale
CITY/STATE/ZIP:	West Milwaukee WI 53214	INQUIRY #:	272771.3s
LAT/LONG:	43.0140 / 87.9677	DATE:	July 14, 1998 5:40 pm

DETAIL MAP - 272771.3s - Woodward-Clyde Consultants



★ Target Property

▲ Sites at elevations higher than or equal to the target property

◆ Sites at elevations lower than the target property

Coal Gasification Sites (if requested)

Sensitive Receptors

National Priority List Sites

Landfill Sites

Power transmission lines

Oil & Gas pipelines

100-year flood zone

500-year flood zone

TARGET PROPERTY:	Mobile Blasting	CUSTOMER:	Woodward-Clyde Consultants
ADDRESS:	1604 South 43rd Street	CONTACT:	Bob Cigale
CITY/STATE/ZIP:	West Milwaukee WI 53214	INQUIRY #:	272771.3s
LAT/LONG:	43.0140 / 87.9677	DATE:	July 14, 1998 5:43 pm

MAP FINDINGS SUMMARY SHOWING ALL SITES

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPL		1.000	0	0	0	0	NR	0
Delisted NPL		TP	NR	NR	NR	NR	NR	0
RCRIS-TSD		0.500	0	0	0	NR	NR	0
State Haz. Waste		1.000	0	0	0	0	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		TP	NR	NR	NR	NR	NR	0
CORRACTS		1.000	0	0	1	2	NR	3
State Landfill		0.500	0	0	2	NR	NR	2
LUST		0.500	1	9	12	NR	NR	22
UST		0.250	2	18	NR	NR	NR	20
RAATS		TP	NR	NR	NR	NR	NR	0
RCRIS Sm. Quan. Gen.		0.250	0	6	NR	NR	NR	6
RCRIS Lg. Quan. Gen.		0.250	1	2	NR	NR	NR	3
HMIRS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
ERNS		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
NPL Liens		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
WI Spills		TP	NR	NR	NR	NR	NR	0
Wisconsin WRRSER		TP	NR	NR	NR	NR	NR	0
WI ERP		TP	NR	NR	NR	NR	NR	0
WI WDS		0.500	0	0	2	NR	NR	2
ROD		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
Coal Gas		1.000	0	1	0	0	NR	1

TP = Target Property

NR = Not Requested at this Search Distance

* Sites may be listed in more than one database

MAP FINDINGS SUMMARY SHOWING
ONLY SITES HIGHER THAN OR THE SAME ELEVATION AS TP

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPL		1.000	0	0	0	0	NR	0
Delisted NPL		TP	NR	NR	NR	NR	NR	0
RCRIS-TSD		0.500	0	0	0	NR	NR	0
State Haz. Waste		1.000	0	0	0	0	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		TP	NR	NR	NR	NR	NR	0
CORRACTS		1.000	0	0	0	2	NR	2
State Landfill		0.500	0	0	2	NR	NR	2
LUST		0.500	1	9	11	NR	NR	21
UST		0.250	2	18	NR	NR	NR	20
RAATS		TP	NR	NR	NR	NR	NR	0
RCRIS Sm. Quan. Gen.		0.250	0	6	NR	NR	NR	6
RCRIS Lg. Quan. Gen.		0.250	1	2	NR	NR	NR	3
HMIRS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
ERNS		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
NPL Liens		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
WI Spills		TP	NR	NR	NR	NR	NR	0
Wisconsin WRRSER		TP	NR	NR	NR	NR	NR	0
WI ERP		TP	NR	NR	NR	NR	NR	0
WI WDS		0.500	0	0	2	NR	NR	2
ROD		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
Coal Gas		1.000	0	1	0	0	NR	1

TP = Target Property

NR = Not Requested at this Search Distance

* Sites may be listed in more than one database

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
A1 WSW < 1/8 Higher	A H KRUEGER INC 1627 S 44TH ST WEST MILWAUKEE, WI 53214	UST LUST	U002201556 N/A

LUST:

Facility ID:	32337	Priority:	MODERATE
Contact:	Not reported	FID:	241815200
Activity Name:	A. H. KRUEGER, INC.		
Activity Number:	0341004934		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

UST:

Tank ID:	401700207	Fire Dept Cover:	Village
Fed Regulated:	Yes	Capacity:	1000
User Type:	Industrial	Contents:	Leaded
Date Abandoned:	01/01/1990	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	05/11/1995
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1999	Spill Cont:	N
Owner Name:	TOM KRUEGER		
Owner Address:	7426 W JACKSON DR WEST ALLIS, WI 53219		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Bare Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Bare Steel		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
A2 SW < 1/8 Higher	WEST MILWAUKEE AUTO BODY 1631 S 44TH ST WEST MILWAUKEE, WI 53214	FINDS RCRIS-LQG	1000393094 WID114107287

RCRIS:

Owner:	RICKERT DAVID A (312) 555-1212
Contact:	DAVID RICKERS (414) 643-8210
Record Date:	05/15/86
Classification:	Large Quantity Generator
Used Oil Recyc:	No
Violation Status:	No violations found

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
A3 SW < 1/8 Higher	A H KRUEGER INC 1631 S 44TH ST MILWAUKEE, WI 53214	UST	U001969215 N/A

A H KRUEGER INC (Continued) U001969215

UST:

Tank ID:	402005057	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	800
User Type:	Industrial	Contents:	Gasohol
Date Abandoned:	01/01/1980	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	01/23/1991
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1999	Spill Cont:	No
Owner Name:	A H KRUEGER INC		
Owner Address:	1631 S 44TH ST MILWAUKEE, WI 53214		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Coated Steel		
Chemical CAS #:	Not reported		
Piping Type:	Suction Piping with Check Value at Tank		
Piping Construction:	Bare Steel		
Piping Leak Detect:	Not Required		
Tank Leak Detect:	Not Defined, Not Defined		

B4 **NATIONAL SCHOOL BUS** UST U003226186
SSE **4150 W MITCHELL** N/A
1/8-1/4 **WEST MILWAUKEE, WI 53214**
Higher

UST:

Tank ID:	402009072	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	1000
User Type:	Mercantile	Contents:	Waste Oil
Date Abandoned:	06/04/1997	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	06/26/1997
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1999	Spill Cont:	N
Owner Name:	LAIDLAW TRANSIT		
Owner Address:	1240 E DIEHL RD STE 104 NAPERVILLE, IL 60563		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Fiberglass		
Chemical CAS #:	Not reported		
Piping Type:	Suction Piping with Check Value at Tank		
Piping Construction:	Bare Steel		
Piping Leak Detect:	Not Required, Not Defined		
Tank Leak Detect:	Tightness Testing, Not Defined		

NATIONAL SCHOOL BUS (Continued) U003226186

Tank ID:	402009071	Fire Dept Cover:	Village
Fed Regulated:	Yes	Capacity:	10000
User Type:	Other	Contents:	Diesel
Date Abandoned:	06/04/1997	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	06/26/1997
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1973	Spill Cont:	N
Owner Name:	LAIDLAW TRANSIT		
Owner Address:	1240 E DIEHL STE 104 NAPERVILLE, IL 60563		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Unknown		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Unknown		
Piping Leak Detect:	Not Defined, Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

B5 NATIONAL SCHOOL BUS SERV INC UST U002211321
SSE 4150 W MITCHELL ST N/A
1/8-1/4 MILWAUKEE, WI 53215
Higher

UST:

Tank ID:	402008338	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	12000
User Type:	Bulk Storage	Contents:	Diesel
Date Abandoned:	Not reported	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	09/30/1996
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1999	Spill Cont:	N
Owner Name:	NATIONAL SCHOOL BUS SERV INC		
Owner Address:	4100 W MITCHELL ST MILWAUKEE, WI 53215		
Facility Status:	In Use		
Construction Material:	Fiberglass		
Chemical CAS #:	Not reported		
Piping Type:	Pressurized Piping, Flow Restrictor		
Piping Construction:	Bare Steel		
Piping Leak Detect:	Tightness Testing		
Tank Leak Detect:	Tightness Testing, Not Defined		

NATIONAL SCHOOL BUS SERV INC (Continued) U002211321

Tank ID:	402008339	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	10000
User Type:	Bulk Storage	Contents:	Diesel
Date Abandoned:	Not reported	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	06/26/1997
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1999	Spill Cont:	N

Owner Name: LAIDLAW TRANSIT
Owner Address: 1240 E DIEHL STE 104
NAPERVILLE, IL 60563
Facility Status: In Use
Construction Material: Bare Steel
Chemical CAS #: Not reported
Piping Type: Pressurized Piping, Flow Restrictor
Piping Construction: Bare Steel
Piping Leak Detect: Tightness Testing, Not Defined
Tank Leak Detect: Tightness Testing, Not Defined

B6
SSE
1/8-1/4
Higher

NATIONAL SCHOOL BUS SVC
4150 W MITCHELL
WEST MILWAUKEE, WI 53215

RCRIS-SQG 1001204208
WIR000026872

RCRIS:
Owner: NATIONAL SCHOOL BUS
(414) 649-2620
Contact: DENNIS SHORTER
(414) 649-2620
Record Date: 08/05/97
Classification: Small Quantity Generator
Used Oil Recyc: No
Violation Status: No violations found

C7
SSW
1/8-1/4
Higher

G A CARLEY ADVERTISING CO
4424 W MITCHELL ST
WEST MILWAUKEE, WI 53215

UST U001933071
N/A

G A CARLEY ADVERTISING CO (Continued) U001933071

UST:

Tank ID:	401700092	Fire Dept Cover:	Village
Fed Regulated:	Yes	Capacity:	99
User Type:	Industrial	Contents:	Leaded
Date Abandoned:	01/01/1999	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	11/13/1989
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1999	Spill Cont:	No
Owner Name:	MARY K BENTON		
Owner Address:	401 EAU CLAIRE BLVD WAUSAU, WI 54401		
Facility Status:	Abandoned with Product		
Construction Material:	Unknown		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Unknown		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

C8 SSW 1/8-1/4 Higher | **KLUG PLUS SMITH CO**
4425 W MITCHELL ST.
MILWAUKEE, WI 53214 | FINDS
UST | 1000662315
WID988585113

FINDS:

Other Pertinent Environmental Activity Identified at Site:

- Facility is monitored or permitted for air emissions under the Clean Air Act (under AFS/AIRS)

UST:

Tank ID:	401700011	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	500
User Type:	Other	Contents:	Leaded
Date Abandoned:	01/17/1989	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	09/22/1997
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1970	Spill Cont:	N
Owner Name:	WILLIAM J MEYER		
Owner Address:	1910 CHURCH VIEW DR BROOKFIELD, WI 53005		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Bare Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Unknown		
Piping Leak Detect:	Not Defined, Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

KLUG PLUS SMITH CO (Continued) 1000662315

Tank ID:	401700012	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	500
User Type:	Other	Contents:	Unleaded
Date Abandoned:	01/17/1989	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	05/17/1995
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1970	Spill Cont:	N
Owner Name:	WILLIAM J MEYER		
Owner Address:	1910 CHURCH VIEW DR BROOKFIELD, WI 53005		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Bare Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Unknown		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

B9 NATIONAL SCHOOL BUS SERVICE LUST S102323189
SSE 4100 W MITCHELL ST N/A
1/8-1/4 MILWAUKEE, WI
Higher

LUST:

Facility ID:	108065	Priority:	UNKNOWN
Contact:	Not reported	FID:	241896160
Activity Name:	NATIONAL SCHOOL BUS SERVICE		
Activity Number:	0341108065		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

C10 MILWAUKEE PLATE GLASS CO UST U003226093
SSW 4440 W MITCHELL ST N/A
1/8-1/4 WEST MILWAUKEE, WI 53214
Higher

MILWAUKEE PLATE GLASS CO (Continued) U003226093

UST:

Tank ID:	401700219	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	600
User Type:	Industrial	Contents:	Unknown
Date Abandoned:	08/18/1997	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	09/08/1997
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1999	Spill Cont:	N
Owner Name:	MILWAUKEE PLATE GLASS CO		
Owner Address:	4440 W MITCHELL ST WEST MILWAUKEE, WI 53214		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Bare Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Unknown		
Piping Leak Detect:	Not Defined, Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

C11
SSW
1/8-1/4
Higher

MILWAUKEE PLATE GLASS CO PROPERTY
4440 W MITCHELL ST
WEST MILWAUKEE, WI

LUST S102850913
N/A

LUST:

Facility ID:	171364	Priority:	MODERATE
Contact:	Not reported	FID:	241935210
Activity Name:	MILWAUKEE PLATE GLASS CO PROPERTY		
Activity Number:	0341171364		
Lat/Long:	Not reported		
1/4 Section:	NE	1/4 1/4 Section:	SE
Range:	21E	Survey Section:	2
Survey Township:	6	Survey Range:	6

12
NNE
1/8-1/4
Higher

HOMETOWN INC
4227 W ORCHARD
MILWAUKEE, WI 53215

UST U002207866
N/A

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

HOMETOWN INC (Continued) — U002207866

UST:

Tank ID:	402007660	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	8000
User Type:	Mercantile	Contents:	Unleaded
Date Abandoned:	Not reported	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	05/09/1995
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1970	Spill Cont:	N

Owner Name: HOMETOWN INC J MUELLER
Owner Address: 1518 W NORTH AV
MILWAUKEE, WI 53202
Facility Status: In Use
Construction Material: Bare Steel
Chemical CAS #: Not reported
Piping Type: Suction Piping with Check Value at Pump and Inspectable
Piping Construction: Bare Steel
Piping Leak Detect: Not Required
Tank Leak Detect: Tightness Testing, Not Defined

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13 SW 1/8-1/4 Higher — **ENVIRONMENTAL SPECIALISTS**, **4500 W MITCHELL**, **WEST MILWAUKEE, WI 53214** — RCRIS-SQG — 1001092521 / WIR000011940

RCRIS:

Contact: Not reported
Record Date: 03/28/96
Classification: Not reported
Used Oil Recyc: No
Violation Status: No violations found

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14 NE 1/8-1/4 Higher — **HARNISCHFEGER CORP**, **4107 W ORCHARD ST**, **MILWAUKEE, WI 53215** — FINDS, RCRIS-LQG, TRIS, WI ERP, LUST — 1000316249 / WID000808808

RCRIS:

Owner: HARNISCHFEGER CORPORATION
(312) 555-1212
Contact: VERN GROSS
(414) 671-4400
Record Date: 08/18/80
Classification: Large Quantity Generator

BIENNIAL REPORTS:
Last Biennial Reporting Year: 1995

Waste	Quantity (Lbs)	Waste	Quantity (Lbs)
F002	7700.00	F003	3850.00

HARNISCHFEGER CORP (Continued) **1000316249**

Used Oil Recyc: No

Violation Status: Violations exist

There are 1 compliance/violation record(s) reported at this site:

Evaluation	Area of Violation	Date of Compliance
Compliance Evaluation Inspection (CEI)	Generator-All Requirements	07/05/96

FINDS:

Other Pertinent Environmental Activity Identified at Site:

- Facility is monitored or permitted for air emissions under the Clean Air Act (under AFS/AIRS)

LUST:

Facility ID:	30208	Priority:	MODERATE
Contact:	Not reported	FID:	241043880
Activity Name:	HARNISCHFEGER CORPORATION		
Activity Number:	0341002690		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

Facility ID:	30208	Priority:	HIGH
Contact:	Not reported	FID:	241043880
Activity Name:	HARNISCHFEGER CORPORATION		
Activity Number:	0341002690		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

WI ERP:

Facility ID:	33619	Contact:	MARGARET M GRAEFE
Action Detail #:	0241000227	Act. Det. Name:	HARNISCHFEGER P & E
Action Name:	Notification	Action Date:	01-AUG-91
Action Comment:	Not reported		
Priority:	UNKNOWN		
FID:	Not reported	Lat/Long:	Not reported
Q Section:	Not reported	QQ Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Twnshp:	Not reported	Survey Range:	Not reported
Substance:	Not reported		
Subst Comment:	Not reported		
Substance Code:	Not reported	Impact Code:	05
Impact:	Soil Contamination		
Impact Comment:	Not reported		
Responsible Prty:	HARNISCHFEGER CORP		
RP Contact:	Not reported	RP Title:	Not reported
RP Address:	4400 W NATIONAL AVE MILWAUKEE, WI 53201		
RP Telephone:	(414)671-7	RP Extension:	Not reported
RP Fax Number:	Not reported	RP E-MAIL:	Not reported
Consultant Tele:	Not reported	Consultant Fax:	Not reported
Consultant State:	Not reported	Consultant Email:	Not reported

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
15 SW 1/8-1/4 Higher	PRINTING EQUIPMENT SERVICE INC 4600 W MITCHELL ST MILWAUKEE, WI 53214	RCRIS-SQG FINDS	1000322385 WID023426174

RCRIS:
Owner: PRINTING EQUIP SERVICES
(414) 645-8670
Contact: EDWARD MADSON
(414) 645-8670
Record Date: 06/06/97
Classification: Small Quantity Generator
Used Oil Recyc: No
Violation Status: No violations found

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
16 NE 1/8-1/4 Higher	REILLY CARTAGE INC 4100 W ORCHARD ST MILWAUKEE, WI 53215	RCRIS-SQG FINDS UST LUST	1000839924 WID988634952

RCRIS:
Owner: REILLY JOHN
(414) 645-6701
Contact: JOHN REILLY
(414) 645-6701
Record Date: 01/26/93
Classification: Small Quantity Generator
Used Oil Recyc: No
Violation Status: No violations found

LUST:

Facility ID:	30671	Priority:	HIGH
Contact:	CHARLES J KROHN	FID:	241492350
Activity Name:	REILLY CARTAGE, INC.		
Activity Number:	0341003167		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

REILLY CARTAGE INC (Continued) **1000839924**

UST:

Tank ID:	402001779	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	4000
User Type:	Industrial	Contents:	Diesel
Date Abandoned:	08/06/1992	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	09/08/1992
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1974	Spill Cont:	No

Owner Name: JOHN L REILLY
Owner Address: 4100 W ORCHARD ST
MILWAUKEE, WI 53215
Facility Status: Abandoned - Tank Removed
Construction Material: Coated Steel
Chemical CAS #: Not reported
Piping Type: Suction Piping with Check Value at Pump and Inspectable
Piping Construction: Bare Steel
Piping Leak Detect: Not Required
Tank Leak Detect: Not Required at Present, Not Defined

Tank ID:	402001780	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	10000
User Type:	Industrial	Contents:	Diesel
Date Abandoned:	08/06/1992	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	09/08/1992
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1999	Spill Cont:	No

Owner Name: JOHN L REILLY
Owner Address: 4100 W ORCHARD ST
MILWAUKEE, WI 53215
Facility Status: Abandoned - Tank Removed
Construction Material: Coated Steel
Chemical CAS #: Not reported
Piping Type: Suction Piping with Check Value at Pump and Inspectable
Piping Construction: Bare Steel
Piping Leak Detect: Not Required
Tank Leak Detect: Not Required at Present, Not Defined

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

REILLY CARTAGE INC (Continued) — 1000839924

Tank ID:	402001781	Fire Dept Cover:	City
Fed Regulated:	No	Capacity:	4000
User Type:	Industrial	Contents:	Empty
Date Abandoned:	01/01/1999	Site Assessment:	Not reported
Out of Serv Date:	03/92	Last Inspection:	04/14/1992
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1999	Spill Cont:	No
Owner Name:	JOHN REILLY		
Owner Address:	4100 W ORCHARD ST MILWAUKEE, WI 53215		
Facility Status:	Out of Service		
Construction Material:	Unknown		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Unknown		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

D17 North 1/8-1/4 Higher — **GREENFIELD SITE**, **43RD / GREENFIELD**, **MILWAUKEE, WI** — LUST — S102451420 / N/A

LUST:

Facility ID:	20359	Priority:	UNKNOWN
Contact:	Not reported	FID:	241535030
Activity Name:	GREENFIELD SITE		
Activity Number:	0341000082		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

Facility ID:	27674	Priority:	MODERATE
Contact:	Not reported	FID:	241535030
Activity Name:	WEST MILWAUKEE, VILLAGE		
Activity Number:	0341001625		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

D18 North 1/8-1/4 Higher — **WISCO/UNION OIL OF CA**, **4320 W GREENFIELD AVE**, **WEST MILWAUKEE, WI 53214** — UST — U002152821 / N/A

WISCO/UNION OIL OF CA (Continued) **U002152821**

UST:

Tank ID:	401700175	Fire Dept Cover:	Village
Fed Regulated:	Yes	Capacity:	6000
User Type:	Gas Station	Contents:	Leaded
Date Abandoned:	12/04/1970	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	10/18/1995
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1960	Spill Cont:	N
Owner Name:	VILLAGE OF W MILWAUKEE		
Owner Address:	4755 W BELOIT RD WEST MILWAUKEE, WI 53214		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Bare Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Bare Steel		
Piping Leak Detect:	Not Required		
Tank Leak Detect:	Not Required at Present, Not Defined		

Tank ID:	401700176	Fire Dept Cover:	Village
Fed Regulated:	Yes	Capacity:	8000
User Type:	Gas Station	Contents:	Leaded
Date Abandoned:	12/04/1970	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	10/18/1995
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1960	Spill Cont:	N
Owner Name:	VILLAGE OF W MILWAUKEE		
Owner Address:	4755 W BELOIT RD WEST MILWAUKEE, WI 53214		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Bare Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Bare Steel		
Piping Leak Detect:	Not Required		
Tank Leak Detect:	Not Required at Present, Not Defined		

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

WISCO/UNION OIL OF CA (Continued) — U002152821

Tank ID:	401700177	Fire Dept Cover:	Village
Fed Regulated:	Yes	Capacity:	12000
User Type:	Gas Station	Contents:	Leaded
Date Abandoned:	12/04/1970	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	10/18/1995
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1960	Spill Cont:	N
Owner Name:	VILLAGE OF W MILWAUKEE		
Owner Address:	4755 W BELOIT RD WEST MILWAUKEE, WI 53214		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Bare Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Bare Steel		
Piping Leak Detect:	Not Required		
Tank Leak Detect:	Not Required at Present, Not Defined		

D19 North 1/8-1/4 Higher — **SZYMANSKI SERVICE INC**, **4250 W GREENFIELD AVE**, **WEST ALLIS, WI 53214** — UST — U003284245 / N/A

UST:

Tank ID:	401700192	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	8000
User Type:	Gas Station	Contents:	Leaded
Date Abandoned:	03/22/1990	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	11/16/1993
Double Wall:	No	Overfill Prot:	No
Date Installed:	11/01/1973	Spill Cont:	No
Owner Name:	JIM SZYMANSKI		
Owner Address:	4250 W GREENFIELD AVE WEST ALLIS, WI 53214		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Coated Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Unknown		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

D20 North 1/8-1/4 Higher — **SZYMANSKI SERV INC**, **4250 W GREENFIELD AVE**, **WEST ALLIS, WI 53214** — UST — U003284244 / N/A

SZYMANSKI SERV INC (Continued) U003284244

UST:

Tank ID:	401700191	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	8000
User Type:	Gas Station	Contents:	Unleaded
Date Abandoned:	03/22/1990	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	11/16/1993
Double Wall:	No	Overfill Prot:	No
Date Installed:	11/01/1973	Spill Cont:	No
Owner Name:	JIM SZYMANSKI		
Owner Address:	4250 W GREENFIELD AVE WEST ALLIS, WI 53214		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Coated Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Unknown		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

D21 **SZYMANSKI VILLAGE SERVICE/ONE STOP** WI WRRSER S100672963
North **4250 W GREENFIELD AVE** LUST N/A
1/8-1/4 **WEST MILWAUKEE, WI**
Higher

LUST:

Facility ID:	23867	Priority:	HIGH
Contact:	Not reported	FID:	241593220
Activity Name:	SZYMANSKI VILLAGE SERVICE/ONE STOP		
Activity Number:	0341000754		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

WRRSER:

Route/Concern:	Not reported		
Repair Action:	Not reported		
Added/Inventory:	Not reported	Added/HRS List:	Not reported
Scoring System:	Not reported		
Begin Date:	03/23/90	Site Priority:	MEDIUM

D22 JIMS VILLAGE SERVICE UST U002208672
North 4250 W GREENFIELD AVE N/A
1/8-1/4 WEST MILWAUKEE, WI 53215
Higher

JIMS VILLAGE SERVICE (Continued) **U002208672**

UST:

Tank ID:	401700155	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	550
User Type:	Gas Station	Contents:	Waste Oil
Date Abandoned:	03/28/1990	Site Assessment:	04/11/1990
Out of Serv Date:	Not reported	Last Inspection:	01/14/1992
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1964	Spill Cont:	No
Owner Name:	JIM SZYSMANSKY		
Owner Address:	4250 W GREENFIELD AVE WEST MILWAUKEE, WI 53215		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Coated Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Other		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Required at Present, Not Defined		

Tank ID:	401700156	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	3000
User Type:	Gas Station	Contents:	Unleaded
Date Abandoned:	03/28/1990	Site Assessment:	04/11/1990
Out of Serv Date:	Not reported	Last Inspection:	01/14/1992
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1964	Spill Cont:	No
Owner Name:	JIM SZYSMANSKY		
Owner Address:	4250 W GREENFIELD AVE WEST MILWAUKEE, WI 53215		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Coated Steel		
Chemical CAS #:	Not reported		
Piping Type:	Suction Piping with Check Value at Tank		
Piping Construction:	Other		
Piping Leak Detect:	Not Required		
Tank Leak Detect:	Not Required at Present, Not Defined		

JIMS VILLAGE SERVICE (Continued) U002208672

Tank ID:	401700157	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	3000
User Type:	Gas Station	Contents:	Unleaded
Date Abandoned:	03/28/1990	Site Assessment:	04/11/1990
Out of Serv Date:	Not reported	Last Inspection:	01/14/1992
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1964	Spill Cont:	No
Owner Name:	JIM SZYSMANSKY		
Owner Address:	4250 W GREENFIELD AVE WEST MILWAUKEE, WI 53215		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Coated Steel		
Chemical CAS #:	Not reported		
Piping Type:	Suction Piping with Check Value at Pump and Inspectable		
Piping Construction:	Other		
Piping Leak Detect:	Not Required		
Tank Leak Detect:	Not Required at Present, Not Defined		

Tank ID:	401700158	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	3000
User Type:	Gas Station	Contents:	Leaded
Date Abandoned:	03/28/1990	Site Assessment:	04/11/1990
Out of Serv Date:	Not reported	Last Inspection:	01/14/1992
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1964	Spill Cont:	No
Owner Name:	JIM SZYSMANSKY		
Owner Address:	4250 W GREENFIELD AVE WEST MILWAUKEE, WI 53215		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Coated Steel		
Chemical CAS #:	Not reported		
Piping Type:	Suction Piping with Check Value at Tank		
Piping Construction:	Other		
Piping Leak Detect:	Not Required		
Tank Leak Detect:	Not Required at Present, Not Defined		

D23
North
1/8-1/4
Higher

ONE STOP
4250 W GREENFIELD AVE
WEST MILWAUKEE, WI 53214

UST

U001806819
N/A

ONE STOP (Continued) **U001806819**

UST:

Tank ID:	401700184	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	10000
User Type:	Gas Station	Contents:	Unleaded
Date Abandoned:	Not reported	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	10/22/1996
Double Wall:	Yes	Overfill Prot:	Yes
Date Installed:	10/10/1991	Spill Cont:	Yes
Owner Name:	CDS INVESTMENTS		
Owner Address:	N30 W22377 GREEN RD WAUKESHA, WI 53186		
Facility Status:	In Use		
Construction Material:	Cathodically Protected and Coated Steel		
Chemical CAS #:	Not reported		
Piping Type:	Pressurized Piping, Flow Restrictor		
Piping Construction:	Fiberglass		
Piping Leak Detect:	Interstitial Monitoring		
Tank Leak Detect:	Automatic Tank Gauging, Not Defined		

Tank ID:	401700185	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	8000
User Type:	Gas Station	Contents:	Unleaded
Date Abandoned:	Not reported	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	10/22/1996
Double Wall:	Yes	Overfill Prot:	Yes
Date Installed:	10/10/1991	Spill Cont:	Yes
Owner Name:	CDS INVESTMENTS		
Owner Address:	N30 W22377 GREEN RD WAUKESHA, WI 53186		
Facility Status:	In Use		
Construction Material:	Cathodically Protected and Coated Steel		
Chemical CAS #:	Not reported		
Piping Type:	Pressurized Piping, Flow Restrictor		
Piping Construction:	Fiberglass		
Piping Leak Detect:	Interstitial Monitoring		
Tank Leak Detect:	Automatic Tank Gauging, Not Defined		

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

ONE STOP (Continued) U001806819

Tank ID:	401700186	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	8000
User Type:	Gas Station	Contents:	Unleaded
Date Abandoned:	Not reported	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	10/22/1996
Double Wall:	Yes	Overfill Prot:	Yes
Date Installed:	10/10/1991	Spill Cont:	Yes

Owner Name: CDS INVESTMENTS
Owner Address: N30 W22377 GREEN RD
WAUKESHA, WI 53186
Facility Status: In Use
Construction Material: Cathodically Protected and Coated Steel
Chemical CAS #: Not reported
Piping Type: Pressurized Piping, Flow Restrictor
Piping Construction: Fiberglass
Piping Leak Detect: Interstitial Monitoring
Tank Leak Detect: Automatic Tank Gauging, Not Defined

E24 North 1/8-1/4 Higher — **THAUS 66 SERVICE**, **4229 W GREENFIELD AVE**, **MILWAUKEE, WI 53215** — FINDS, UST — 1000661119, WID023442346

FINDS:
Other Pertinent Environmental Activity Identified at Site:
- Facility is monitored or permitted for air emissions under the Clean Air Act (under AFS/AIRS)

UST:

Tank ID:	402008630	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	6000
User Type:	Gas Station	Contents:	Diesel
Date Abandoned:	Not reported	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	08/12/1996
Double Wall:	No	Overfill Prot:	Yes
Date Installed:	05/23/1996	Spill Cont:	Yes

Owner Name: A&A PETROLEUM INC
Owner Address: 11840 W SILVER SPRING DR
MILWAUKEE, WI 53225
Facility Status: In Use
Construction Material: Fiberglass
Chemical CAS #: Not reported
Piping Type: Pressurized Piping, Flow Restrictor
Piping Construction: Fiberglass
Piping Leak Detect: Tightness Testing
Tank Leak Detect: Automatic Tank Gauging, Not Defined

THAUS 66 SERVICE (Continued) **1000661119**

Tank ID:	402008631	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	10000
User Type:	Gas Station	Contents:	Unleaded
Date Abandoned:	Not reported	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	08/12/1996
Double Wall:	No	Overfill Prot:	Yes
Date Installed:	05/23/1996	Spill Cont:	Yes
Owner Name:	A&A PETROLEUM INC		
Owner Address:	11840 W SILVER SPRING DR MILWAUKEE, WI 53225		
Facility Status:	In Use		
Construction Material:	Fiberglass		
Chemical CAS #:	Not reported		
Piping Type:	Pressurized Piping, Flow Restrictor		
Piping Construction:	Fiberglass		
Piping Leak Detect:	Tightness Testing		
Tank Leak Detect:	Automatic Tank Gauging, Not Defined		

Tank ID:	402008632	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	12000
User Type:	Gas Station	Contents:	Unleaded
Date Abandoned:	Not reported	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	08/12/1996
Double Wall:	No	Overfill Prot:	Yes
Date Installed:	05/23/1996	Spill Cont:	Yes
Owner Name:	A&A PETROLEUM INC		
Owner Address:	11840 W SILVER SPRING DR MILWAUKEE, WI 53225		
Facility Status:	In Use		
Construction Material:	Fiberglass		
Chemical CAS #:	Not reported		
Piping Type:	Pressurized Piping, Flow Restrictor		
Piping Construction:	Fiberglass		
Piping Leak Detect:	Tightness Testing		
Tank Leak Detect:	Automatic Tank Gauging, Not Defined		

E25
North
1/8-1/4
Higher

THAUS DISCOUNT SERVICE **RCRIS-LQG** **1001092581**
4229 W GREENFIELD AVE **UST** **WIR000012542**
MILWAUKEE, WI 53215 **LUST**

RCRIS:

Owner:	A AND A PETROLEUM (414) 462-1816
Contact:	DANIEL FURDEK (414) 571-9100
Record Date:	04/11/96
Classification:	Large Quantity Generator

THAUS DISCOUNT SERVICE (Continued) 1001092581

Used Oil Recyc: No

Violation Status: No violations found

LUST:

Facility ID:	32389	Priority:	HIGH
Contact:	Not reported	FID:	241146400
Activity Name:	THAU'S DISCOUNT MUFFLER		
Activity Number:	0341004986		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

UST:

Tank ID:	402006297	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	12000
User Type:	Gas Station	Contents:	Unleaded
Date Abandoned:	03/01/1996	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	05/03/1996
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1999	Spill Cont:	N

Owner Name:	CHARLES THAU
Owner Address:	4229 W GREENFIELD AVE MILWAUKEE, WI 53215
Facility Status:	Abandoned - Tank Removed
Construction Material:	Bare Steel
Chemical CAS #:	Not reported
Piping Type:	Suction Piping with Check Value at Pump and Inspectable
Piping Construction:	Bare Steel
Piping Leak Detect:	Not Required
Tank Leak Detect:	Not Defined, Not Defined

THAUS DISCOUNT SERVICE (Continued) 1001092581

Tank ID: 402006382
Fed Regulated: Yes
User Type: Gas Station
Date Abandoned: 03/01/1996
Out of Serv Date: Not reported
Double Wall: No
Date Installed: 01/01/1984
Owner Name: CHARLES THAU
Owner Address: 4229 W GREENFIELD AVE
MILWAUKEE, WI 53215
Facility Status: Abandoned - Tank Removed
Construction Material: Coated Steel
Chemical CAS #: Not reported
Piping Type: Pressurized Piping, Flow Restrictor
Piping Construction: Coated Steel
Piping Leak Detect: Tightness Testing
Tank Leak Detect: Tightness Testing, Not Defined
Fire Dept Cover: City
Capacity: 8000
Contents: Unleaded
Site Assessment: Not reported
Last Inspection: 04/23/1996
Overfill Prot: N
Spill Cont: N

Tank ID: 402006383
Fed Regulated: Yes
User Type: Gas Station
Date Abandoned: 03/01/1996
Out of Serv Date: Not reported
Double Wall: No
Date Installed: 01/01/1980
Owner Name: CHARLES THAU
Owner Address: 4229 W GREENFIELD AVE
MILWAUKEE, WI 53215
Facility Status: Abandoned - Tank Removed
Construction Material: Coated Steel
Chemical CAS #: Not reported
Piping Type: Not Needed (contents must be waste oil)
Piping Construction: Bare Steel
Piping Leak Detect: Not Required
Tank Leak Detect: Manual Tank Gauging (only for tanks of less than 1000 gallons), Not Defined
Fire Dept Cover: City
Capacity: 550
Contents: Waste Oil
Site Assessment: Not reported
Last Inspection: 04/23/1996
Overfill Prot: N
Spill Cont: N

THAUS DISCOUNT SERVICE (Continued) **1001092581**

Tank ID: 402006384
Fed Regulated: Yes
User Type: Gas Station
Date Abandoned: 03/01/1996
Out of Serv Date: Not reported
Double Wall: No
Date Installed: 01/01/1984
Owner Name: CHARLES THAU
Owner Address: 4229 W GREENFIELD AVE
MILWAUKEE, WI 53215
Facility Status: Abandoned - Tank Removed
Construction Material: Coated Steel
Chemical CAS #: Not reported
Piping Type: Suction Piping with Check Value at Pump and Inspectable
Piping Construction: Coated Steel
Piping Leak Detect: Not Required
Tank Leak Detect: Tightness Testing, Not Defined

Fire Dept Cover: City
Capacity: 2000
Contents: Diesel
Site Assessment: Not reported
Last Inspection: 04/23/1996
Overfill Prot: N
Spill Cont: N

Tank ID: 402008376
Fed Regulated: Yes
User Type: Gas Station
Date Abandoned: 03/06/1996
Out of Serv Date: Not reported
Double Wall: No
Date Installed: 01/01/1999
Owner Name: CHARLES THAU
Owner Address: 4229 W GREENFIELD AV
MILWAUKEE, WI 53215
Facility Status: Abandoned - Tank Removed
Construction Material: Coated Steel
Chemical CAS #: Not reported
Piping Type: Not Defined
Piping Construction: Coated Steel
Piping Leak Detect: Not Required
Tank Leak Detect: Not Defined, Not Defined

Fire Dept Cover: City
Capacity: 1000
Contents: Unleaded
Site Assessment: Not reported
Last Inspection: 04/23/1996
Overfill Prot: N
Spill Cont: N

THAUS DISCOUNT SERVICE (Continued) 1001092581

Tank ID: 402008377
Fed Regulated: Yes
User Type: Gas Station
Date Abandoned: 03/06/1996
Out of Serv Date: Not reported
Double Wall: No
Date Installed: 01/01/1999
Owner Name: CHARLES THAU
Owner Address: 4229 W GREENFIELD AV.
MILWAUKEE, WI 53215
Facility Status: Abandoned - Tank Removed
Construction Material: Coated Steel
Chemical CAS #: Not reported
Piping Type: Not Defined
Piping Construction: Coated Steel
Piping Leak Detect: Not Required
Tank Leak Detect: Not Defined, Not Defined

Fire Dept Cover: City
Capacity: 1000
Contents: Unleaded
Site Assessment: Not reported
Last Inspection: 04/23/1996
Overfill Prot: N
Spill Cont: N

Tank ID: 402008378
Fed Regulated: Yes
User Type: Gas Station
Date Abandoned: 03/06/1996
Out of Serv Date: Not reported
Double Wall: No
Date Installed: 01/01/1999
Owner Name: CHARLES THAU
Owner Address: 4229 W GREENFIELD AV
MILWAUKEE, WI 53215
Facility Status: Abandoned - Tank Removed
Construction Material: Coated Steel
Chemical CAS #: Not reported
Piping Type: Not Defined
Piping Construction: Coated Steel
Piping Leak Detect: Not Required
Tank Leak Detect: Not Defined, Not Defined

Fire Dept Cover: City
Capacity: 1000
Contents: Unleaded
Site Assessment: Not reported
Last Inspection: 04/23/1996
Overfill Prot: N
Spill Cont: N

THAUS DISCOUNT SERVICE (Continued) 1001092581

Tank ID: 402008379
Fed Regulated: Yes
User Type: Gas Station
Date Abandoned: 03/06/1996
Out of Serv Date: Not reported
Double Wall: No
Date Installed: 01/01/1999
Owner Name: CHARLES THAU
Owner Address: 4229 W GREENFIELD AV.
MILWAUKEE, WI 53215
Facility Status: Abandoned - Tank Removed
Construction Material: Coated Steel
Chemical CAS #: Not reported
Piping Type: Not Defined
Piping Construction: Coated Steel
Piping Leak Detect: Not Defined
Tank Leak Detect: Not Defined, Not Defined

Fire Dept Cover: City
Capacity: 1000
Contents: Unleaded
Site Assessment: Not reported
Last Inspection: 04/23/1996
Overfill Prot: N
Spill Cont: N

Tank ID: 402008380
Fed Regulated: Yes
User Type: Gas Station
Date Abandoned: 03/06/1996
Out of Serv Date: Not reported
Double Wall: No
Date Installed: 01/01/1999
Owner Name: CHARLES THAU
Owner Address: 4229 W GREENFIELD AV
MILWAUKEE, WI 53215
Facility Status: Abandoned - Tank Removed
Construction Material: Coated Steel
Chemical CAS #: Not reported
Piping Type: Not Defined
Piping Construction: Coated Steel
Piping Leak Detect: Not Required
Tank Leak Detect: Not Defined, Not Defined

Fire Dept Cover: City
Capacity: 1500
Contents: Unleaded
Site Assessment: Not reported
Last Inspection: 04/23/1996
Overfill Prot: N
Spill Cont: N

THAUS DISCOUNT SERVICE (Continued) **1001092581**

Tank ID: 402008381
Fed Regulated: Yes
User Type: Gas Station
Date Abandoned: 03/06/1996
Out of Serv Date: Not reported
Double Wall: No
Date Installed: 01/01/1999
Owner Name: CHARLES THAU
Owner Address: 4229 W GREENFIELD AV.
MILWAUKEE, WI 53215
Facility Status: Abandoned - Tank Removed
Construction Material: Coated Steel
Chemical CAS #: Not reported
Piping Type: Not Defined
Piping Construction: Coated Steel
Piping Leak Detect: Not Required
Tank Leak Detect: Not Defined, Not Defined

Fire Dept Cover: City
Capacity: 12000
Contents: Unleaded
Site Assessment: Not reported
Last Inspection: 04/23/1996
Overfill Prot: N
Spill Cont: N

Tank ID: 402008382
Fed Regulated: Yes
User Type: Gas Station
Date Abandoned: 03/06/1996
Out of Serv Date: Not reported
Double Wall: No
Date Installed: 01/01/1999
Owner Name: CHARLES THAU
Owner Address: 4229 W GREENFIELD AV
MILWAUKEE, WI 53215
Facility Status: Abandoned - Tank Removed
Construction Material: Coated Steel
Chemical CAS #: Not reported
Piping Type: Not Defined
Piping Construction: Coated Steel
Piping Leak Detect: Not Required
Tank Leak Detect: Not Defined, Not Defined

Fire Dept Cover: City
Capacity: 8000
Contents: Unleaded
Site Assessment: Not reported
Last Inspection: 04/23/1996
Overfill Prot: N
Spill Cont: N

THAUS DISCOUNT SERVICE (Continued) 1001092581

Tank ID: 402008383
Fed Regulated: Yes
User Type: Gas Station
Date Abandoned: 03/06/1996
Out of Serv Date: Not reported
Double Wall: No
Date Installed: 01/01/1999
Owner Name: CHARLES THAU
Owner Address: 4229 W GREENFIELD AV
MILWAUKEE, WI 53215
Facility Status: Abandoned - Tank Removed
Construction Material: Coated Steel
Chemical CAS #: Not reported
Piping Type: Not Defined
Piping Construction: Coated Steel
Piping Leak Detect: Not Required
Tank Leak Detect: Not Defined, Not Defined

Fire Dept Cover: City
Capacity: 12000
Contents: Unleaded
Site Assessment: Not reported
Last Inspection: 04/23/1996
Overfill Prot: N
Spill Cont: N

Tank ID: 402008384
Fed Regulated: Yes
User Type: Gas Station
Date Abandoned: 03/06/1996
Out of Serv Date: Not reported
Double Wall: No
Date Installed: 01/01/1999
Owner Name: CHARLES THAU
Owner Address: 4229 W GREENFIELD AV
MILWAUKEE, WI 53215
Facility Status: Abandoned - Tank Removed
Construction Material: Coated Steel
Chemical CAS #: Not reported
Piping Type: Not Defined
Piping Construction: Coated Steel
Piping Leak Detect: Not Required
Tank Leak Detect: Not Defined, Not Defined

Fire Dept Cover: City
Capacity: 8000
Contents: Unleaded
Site Assessment: Not reported
Last Inspection: 04/23/1996
Overfill Prot: N
Spill Cont: N

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	THAUS DISCOUNT SERVICE (Continued)		**1001092581**

Tank ID:	402008385	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	4000
User Type:	Gas Station	Contents:	Unleaded
Date Abandoned:	03/06/1996	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	04/23/1996
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1999	Spill Cont:	N
Owner Name:	CHARLES THAU		
Owner Address:	4229 W GREENFIELD AV. MILWAUKEE, WI 53215		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Coated Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Coated Steel		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

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26 NNW 1/8-1/4 Higher	**REXNORD CORP** **4400 W GREENFIELD AVE** **MILWAUKEE, WI 53214**	UST	U002149388 N/A

UST:

Tank ID:	402006732	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	550
User Type:	Industrial	Contents:	Unleaded
Date Abandoned:	09/16/1993	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	11/23/1993
Double Wall:	No	Overfill Prot:	No
Date Installed:	09/26/1988	Spill Cont:	No
Owner Name:	REXNORD CORP		
Owner Address:	4701 W GREENFIELD AVE MILWAUKEE, WI 53214		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Fiberglass		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Cathodically Protected and Coated or Wrapped Steel, Sacrificial Nodes		
Piping Leak Detect:	Vapor Monitoring		
Tank Leak Detect:	Vapor Monitoring, Not Defined		

F27 NNW 1/8-1/4 Higher	**J & J ELECTRIC CO INC** **4534 W GREENFIELD** **WEST MILWAUKEE, WI 53214**	UST LUST	U002208103 N/A

J & J ELECTRIC CO INC (Continued) U002208103

LUST:

Facility ID:	120114	Priority:	UNKNOWN
Contact:	Not reported	FID:	241918710
Activity Name:	J & J ELECTRIC CO INC		
Activity Number:	0341120114		
Lat/Long:	Not reported		
1/4 Section:	SE	1/4 1/4 Section:	SE
Range:	21E	Survey Section:	35
Survey Township:	7	Survey Range:	7

UST:

Tank ID:	401700049	Fire Dept Cover:	Village
Fed Regulated:	Yes	Capacity:	1000
User Type:	Mercantile	Contents:	Leaded
Date Abandoned:	04/05/1997	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	07/09/1997
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1946	Spill Cont:	N
Owner Name:	K & B ENTERPRISES INC		
Owner Address:	4534 W GREENFIELD AVE WEST MILWAUKEE, WI 53214		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Other		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Unknown		
Piping Leak Detect:	Not Defined, Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

Tank ID:	401700218	Fire Dept Cover:	Village
Fed Regulated:	Yes	Capacity:	2000
User Type:	Mercantile	Contents:	Waste Oil
Date Abandoned:	04/05/1997	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	07/09/1997
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1999	Spill Cont:	N
Owner Name:	K & B ENTERPRISES INC		
Owner Address:	4534 W GREENFIELD WEST MILWAUKEE, WI 53214		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Bare Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Needed (contents must be waste oil)		
Piping Construction:	Bare Steel		
Piping Leak Detect:	Not Required, Not Defined		
Tank Leak Detect:	Not Required at Present, Not Defined		

F28 **J & J ELECTRIC CO** RCRIS-SQG 1001198378
NNW **4534 W GREENFIELD AVE** WIR000024752
1/8-1/4 **WEST MILWAUKEE, WI 53214**
Higher

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	J & J ELECTRIC CO (Continued)		1001198378

RCRIS:
Owner: K & B ENTERPRIZES CO INC
(414) 645-2440
Contact: JAMES KRZEWINSKI
(414) 967-1919
Record Date: 05/20/97
Classification: Small Quantity Generator
Used Oil Recyc: No
Violation Status: No violations found

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29 NNE 1/8-1/4 Higher	**SENTRY FOODS** **4140 W GREENFIELD AVE** **WEST MILWAUKEE, WI**	LUST	S102849670 N/A

LUST:

Facility ID:	22244	Priority:	HIGH
Contact:	CHARLES J KROHN	FID:	241379710
Activity Name:	SENTRY FOODS		
Activity Number:	0341000453		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

G30 NE 1/8-1/4 Higher	**MALONE & HYDE INC** **4104 W GREENFIELD AVE** **WEST MILWAUKEE, WI 53215**	RCRIS-SQG FINDS	1000879732 WI0000138784

RCRIS:
Owner: MALONE AND HYDE INC
(414) 521-4265
Contact: RAY CHARTIER
(414) 521-4265
Record Date: 03/07/94
Classification: Small Quantity Generator
Used Oil Recyc: No
Violation Status: No violations found

FINDS:
Other Pertinent Environmental Activity Identified at Site:
- Facility is monitored or permitted for air emissions under the Clean Air Act (under AFS/AIRS)

G31 NE 1/8-1/4 Higher	**VACANT FORMER SERVICE STATION** **4104 W GREENFIELD** **WEST MILWAUKEE, WI 53219**	UST	U001707253 N/A

VACANT FORMER SERVICE STATION (Continued) U001707253

UST:

Tank ID:	401700081	Fire Dept Cover:	Village
Fed Regulated:	Yes	Capacity:	99
User Type:	Gas Station	Contents:	Unknown
Date Abandoned:	01/01/1999	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	10/27/1986
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1999	Spill Cont:	No
Owner Name:	UNIVEST CORPORATION		
Owner Address:	647 W VIRGINIA MILWAUKEE, WI 53204		
Facility Status:	Abandoned with Product		
Construction Material:	Unknown		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Not Defined		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

Tank ID:	401700082	Fire Dept Cover:	Village
Fed Regulated:	Yes	Capacity:	99
User Type:	Gas Station	Contents:	Unknown
Date Abandoned:	01/01/1999	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	10/27/1986
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1999	Spill Cont:	No
Owner Name:	UNIVEST CORPORATION		
Owner Address:	647 W VIRGINIA MILWAUKEE, WI 53204		
Facility Status:	Abandoned with Product		
Construction Material:	Unknown		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Not Defined		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

32
East
1/8-1/4
Higher

THE LINDE AIR PRODUCTS CO. GAS PLANT
1613-1633 S. 38TH ST.
MILWAUKEE, WI 5321

Coal Gas G000001504
N/A

COAL GAS SITE DESCRIPTION:
Site is on the west side of S. 38th Street, south of the intersections with W. Lapham St.

G33
NE
1/8-1/4
Higher

GODFREY CO
41 ST & GREENFIELD AVE
WEST MILWAUKEE, WI 53214

UST U002207005
N/A

GODFREY CO (Continued) **U002207005**

UST:

Tank ID:	401700130	Fire Dept Cover:	Village
Fed Regulated:	No	Capacity:	15000
User Type:	Industrial	Contents:	Empty
Date Abandoned:	06/02/1988	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	10/18/1995
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1999	Spill Cont:	N
Owner Name:	TOM STAUDER		
Owner Address:	1200 W SUNSET DR WAUKESHA, WI 53186		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Bare Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Bare Steel		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

Tank ID:	401700131	Fire Dept Cover:	Village
Fed Regulated:	No	Capacity:	10000
User Type:	Industrial	Contents:	Empty
Date Abandoned:	06/02/1988	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	10/18/1995
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1999	Spill Cont:	N
Owner Name:	TOM STAUDER		
Owner Address:	1200 W SUNSET DR WAUKESHA, WI 53186		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Bare Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Bare Steel		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

GODFREY CO (Continued) **U002207005**

Tank ID: 401700132
Fed Regulated: No
User Type: Industrial
Date Abandoned: 06/02/1988
Out of Serv Date: Not reported
Double Wall: No
Date Installed: 01/01/1999
Owner Name: TOM STAUDER
Owner Address: 1200 W SUNSET DR
WAUKESHA, WI 53186
Facility Status: Abandoned - Tank Removed
Construction Material: Bare Steel
Chemical CAS #: Not reported
Piping Type: Not Defined
Piping Construction: Bare Steel
Piping Leak Detect: Not Defined
Tank Leak Detect: Not Defined, Not Defined

Fire Dept Cover: Village
Capacity: 10000
Contents: Empty
Site Assessment: Not reported
Last Inspection: 10/18/1995
Overfill Prot: N
Spill Cont: N

Tank ID: 401700133
Fed Regulated: No
User Type: Industrial
Date Abandoned: 06/02/1988
Out of Serv Date: Not reported
Double Wall: No
Date Installed: 01/01/1999
Owner Name: TOM STAUDER
Owner Address: 1200 W SUNSET DR
WAUKESHA, WI 53186
Facility Status: Abandoned - Tank Removed
Construction Material: Bare Steel
Chemical CAS #: Not reported
Piping Type: Not Defined
Piping Construction: Bare Steel
Piping Leak Detect: Not Defined
Tank Leak Detect: Not Defined, Not Defined

Fire Dept Cover: Village
Capacity: 10000
Contents: Empty
Site Assessment: Not reported
Last Inspection: 10/18/1995
Overfill Prot: N
Spill Cont: N

GODFREY CO (Continued) **U002207005**

Tank ID: 401700134
Fed Regulated: No
User Type: Industrial
Date Abandoned: 06/02/1988
Out of Serv Date: Not reported
Double Wall: No
Date Installed: 01/01/1999
Owner Name: TOM STAUDER
Owner Address: 1200 W SUNSET DR
WAUKESHA, WI 53186
Facility Status: Abandoned - Tank Removed
Construction Material: Bare Steel
Chemical CAS #: Not reported
Piping Type: Not Defined
Piping Construction: Bare Steel
Piping Leak Detect: Not Defined
Tank Leak Detect: Not Defined, Not Defined

Fire Dept Cover: Village
Capacity: 560
Contents: Empty
Site Assessment: Not reported
Last Inspection: 10/18/1995
Overfill Prot: N
Spill Cont: N

Tank ID: 401700135
Fed Regulated: No
User Type: Industrial
Date Abandoned: 06/02/1988
Out of Serv Date: Not reported
Double Wall: No
Date Installed: 01/01/1999
Owner Name: TOM STAUDER
Owner Address: 1200 W SUNSET DR
WAUKESHA, WI 53186
Facility Status: Abandoned - Tank Removed
Construction Material: Bare Steel
Chemical CAS #: Not reported
Piping Type: Not Defined
Piping Construction: Bare Steel
Piping Leak Detect: Not Defined
Tank Leak Detect: Not Defined, Not Defined

Fire Dept Cover: Village
Capacity: 560
Contents: Empty
Site Assessment: Not reported
Last Inspection: 10/18/1995
Overfill Prot: N
Spill Cont: N

GODFREY CO (Continued) U002207005

Tank ID:	401700136	Fire Dept Cover:	Village
Fed Regulated:	No	Capacity:	560
User Type:	Industrial	Contents:	Empty
Date Abandoned:	06/02/1988	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	10/18/1995
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1999	Spill Cont:	N
Owner Name:	TOM STAUDER		
Owner Address:	1200 W SUNSET DR WAUKESHA, WI 53186		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Bare Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Bare Steel		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

34
SSE
1/4-1/2
Higher

KRAUSE MILLING CO. TSCA 1000427825
4200 W BURNHAM ST. MLTS N/A
MILWAUKEE, WI 53215 LUST

LUST:

Facility ID:	26709	Priority:	LOW
Contact:	Not reported	FID:	241031560
Activity Name:	KRAUSE MILLING CO		
Activity Number:	0341001352		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

35
East
1/4-1/2
Higher

LINDE GASES OF THE MIDWEST INC UST U002210288
1623 S 38TH ST LUST N/A
MILWAUKEE, WI 53215

LUST:

Facility ID:	28542	Priority:	MODERATE
Contact:	Not reported	FID:	241247270
Activity Name:	LINDE GASES OF THE MIDWEST, INC.		
Activity Number:	0341001936		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

LINDE GASES OF THE MIDWEST INC (Continued) U002210288

UST:

Tank ID:	402002563	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	5000
User Type:	Industrial	Contents:	Chemical
Date Abandoned:	12/20/1988	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	06/26/1989
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1957	Spill Cont:	No
Owner Name:	LINDE GASES OF THE MIDWEST, INC		
Owner Address:	120 S RIVERSIDE PLAZA CHICAGO, IL 60606		
Facility Status:	Abandoned with No Product (Empty)		
Construction Material:	Bare Steel		
Chemical CAS #:	00067641		
Piping Type:	Not Defined		
Piping Construction:	Unknown		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

Tank ID:	402002564	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	2000
User Type:	Industrial	Contents:	Leaded
Date Abandoned:	01/01/1999	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	06/26/1989
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1999	Spill Cont:	No
Owner Name:	LINDE GASES OF THE MIDWEST INC		
Owner Address:	120 S RIVERSIDE PLAZA CHICAGO, IL 60606		
Facility Status:	Abandoned with No Product (Empty)		
Construction Material:	Bare Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Unknown		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

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36 **REXNORD CORP** WI ERP S102323225
NW **4751 W GREENFIELD AVE** LUST N/A
1/4-1/2 **MILWAUKEE, WI**
Higher

LUST:

Facility ID:	20363	Priority:	HIGH
Contact:	Not reported	FID:	241012200
Activity Name:	REXNORD CORP. (BLDG J)		
Activity Number:	0341000083		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

REXNORD CORP (Continued) **S102323225**

Facility ID:	31633	Priority:	HIGH
Contact:	Not reported	FID:	241012200
Activity Name:	REXNORD CORP. (BLDG K)		
Activity Number:	0341004214		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

WI ERP:

Facility ID:	35706	Contact:	MARGARET M GRAEFE
Action Detail #:	0241001039	Act. Det. Name:	REXNORD CORP-BLDG K
Action Name:	Notification	Action Date:	23-JUN-90
Action Comment:	Not reported		
Priority:	HIGH		
FID:	Not reported	Lat/Long:	Not reported
Q Section:	Not reported	QQ Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Twnshp:	Not reported	Survey Range:	Not reported
Substance:	Not reported		
Subst Comment:	Not reported		
Substance Code:	Not reported	Impact Code:	04
Impact:	Groundwater Contamination		
Impact Comment:	GROUNDWATER CONTAMINATION		
Responsible Prty:	Not reported		
RP Contact:	Not reported	RP Title:	Not reported
RP Address:	Not reported		
	Not reported		
RP Telephone:	Not reported	RP Extension:	Not reported
RP Fax Number:	Not reported	RP E-MAIL:	Not reported
Consultant Tele:	Not reported	Consultant Fax:	Not reported
Consultant State:	Not reported	Consultant Email:	Not reported

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37
ENE
1/4-1/2
Higher

MOBIL OIL CORP MILWAUKEE
1547 S 38TH ST
MILWAUKEE, WI 53215

FINDS **1000253493**
RCRIS-LQG **WID000808634**
TSCA
WI ERP
LUST

RCRIS:

Owner:	MOBIL OIL CORPORATION (312) 555-1212
Contact:	ENDECOTT OSGOOD (414) 647-2793
Record Date:	11/12/93
Classification:	Large Quantity Generator
Used Oil Recyc:	No
Violation Status:	No violations found

MOBIL OIL CORP MILWAUKEE (Continued) 1000253493

FINDS:
Other Pertinent Environmental Activity Identified at Site:
- Facility has an active water discharge permit (under PCS)

LUST:

Facility ID:	22309	Priority:	HIGH
Contact:	Not reported	FID:	241016270
Activity Name:	MOBIL OIL CORP-LUBE PLANT		
Activity Number:	0341000467		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

WI ERP:

Facility ID:	35148	Contact:	PAM A MYLOTTA
Action Detail #:	0241000671	Act.Det. Name:	MOBIL LUBE PLANT
Action Name:	Notification	Action Date:	01-JAN-80
Action Comment:	Not reported		
Priority:	HIGH		
FID:	Not reported	Lat/Long:	Not reported
Q Section:	Not reported	QQ Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Twnshp:	Not reported	Survey Range:	Not reported
Substance:	VOCs		
Subst Comment:	Not reported		
Substance Code:	06	Impact Code:	04
Impact:	Groundwater Contamination		
Impact Comment:	GROUNDWATER CONTAMINATION		
Responsible Prty:	ENVIRONMENTAL ENGINEER		
RP Contact:	Not reported	RP Title:	Not reported
RP Address:	1515 WOODFIELD RD SCHAUMBERG, IL		
RP Telephone:	(708)330-6	RP Extension:	Not reported
RP Fax Number:	Not reported	RP E-MAIL:	Not reported
Consultant Tele:	Not reported	Consultant Fax:	Not reported
Consultant State:	Not reported	Consultant Email:	Not reported

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38
SSW
1/4-1/2
Higher

TRUCK TERMINAL VACANT
4525 W BURNHAM ST
WEST MILWAUKEE, WI

LUST **S102453396**
N/A

LUST:

Facility ID:	27442	Priority:	LOW
Contact:	Not reported	FID:	241413370
Activity Name:	MEYERS TRUCK DEPOT		
Activity Number:	0341001547		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

39
NW
1/4-1/2
Higher

MOTOR SVC AND MACHINE INC
4810 W GREENFIELD AVE
WEST MILWAUKEE, WI 53214

RCRIS-SQG 1000921024
FINDS WI0000563924
UST
LUST

MOTOR SVC AND MACHINE INC (Continued) **1000921024**

RCRIS:
Owner: FOHR EUGENE
(414) 786-2793
Contact: EUGENE FOHR
(414) 786-2793
Record Date: 08/05/94
Classification: Small Quantity Generator
Used Oil Recyc: No
Violation Status: No violations found

LUST:

Facility ID:	31809	Priority:	LOW
Contact:	Not reported	FID:	241746120
Activity Name:	MOTOR SERVICE & MACHINE INC.		
Activity Number:	0341004393		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

UST:

Tank ID:	401700200	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	560
User Type:	Mercantile	Contents:	Waste Oil
Date Abandoned:	06/08/1994	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	07/15/1994
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1999	Spill Cont:	No

Owner Name: EUGENE J & RITA FOHR
Owner Address: 13320 W FOREST KNOLL DR
NEW BERLIN, WI 53151
Facility Status: Abandoned - Tank Removed
Construction Material: Bare Steel
Chemical CAS #: Not reported
Piping Type: Not Defined
Piping Construction: Bare Steel
Piping Leak Detect: Not Defined
Tank Leak Detect: Not Defined, Not Defined

MOTOR SVC AND MACHINE INC (Continued) 1000921024

Tank ID:	401700201	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	275
User Type:	Mercantile	Contents:	Waste Oil
Date Abandoned:	06/08/1994	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	07/15/1994
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1999	Spill Cont:	No
Owner Name:	EUGENE J & RITA FOHR		
Owner Address:	13320 W FOREST KNOLL DR NEW BERLIN, WI 53151		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Bare Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Bare Steel		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

40
SSW
1/4-1/2
Higher

MILLER BROTHERS TRUCKING WI WRRSER S101615932
4600 W BURNHAM ST LUST N/A
WEST MILWAUKEE, WI

LUST:

Facility ID:	26572	Priority:	MODERATE
Contact:	Not reported	FID:	241588380
Activity Name:	MILLER BROTHERS TRUCKINGZZ		
Activity Number:	0341001320		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

WRRSER:

Route/Concern:	Not reported		
Repair Action:	Not reported		
Added/Inventory:	Not reported	Added/HRS List:	Not reported
Scoring System:	Not reported		
Begin Date:	01/07/91	Site Priority:	MEDIUM

41
SW
1/4-1/2
Higher

DONAHUE TRUCKING UST U002141438
4653 W ELECTRIC AVE WI WRRSER N/A
WEST MILWAUKEE, WI 53219 LUST

LUST:

Facility ID:	27417	Priority:	MODERATE
Contact:	Not reported	FID:	241566270
Activity Name:	DONAHUE TRUCKING		
Activity Number:	0341001538		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

DONAHUE TRUCKING (Continued) U002141438

WRRSER:
Route/Concern: Not reported
Repair Action: Not reported
Added/Inventory: Not reported
Added/HRS List: Not reported
Scoring System: Not reported
Begin Date: 05/16/91
Site Priority: MEDIUM

UST:
Tank ID: 401700165
Fed Regulated: Yes
User Type: Gas Station
Date Abandoned: 01/01/1999
Out of Serv Date: Not reported
Double Wall: No
Date Installed: 01/01/1999
Owner Name: DONAHUE TRUCKING
Owner Address: 4653 W ELECTRIC AVE
WEST MILWAUKEE, WI 53219
Facility Status: Abandoned - Tank Removed
Construction Material: Bare Steel
Chemical CAS #: Not reported
Piping Type: Not Defined
Piping Construction: Bare Steel
Piping Leak Detect: Not Defined
Tank Leak Detect: Not Defined, Not Defined
Fire Dept Cover: Village
Capacity: 8000
Contents: Unleaded
Site Assessment: Not reported
Last Inspection: 07/24/1991
Overfill Prot: No
Spill Cont: No

Tank ID: 401700167
Fed Regulated: Yes
User Type: Gas Station
Date Abandoned: 01/01/1999
Out of Serv Date: Not reported
Double Wall: No
Date Installed: 01/01/1999
Owner Name: DONAHUE TRUCKING
Owner Address: 4653 W ELECTRIC AVE
WEST MILWAUKEE, WI 53219
Facility Status: Abandoned - Tank Removed
Construction Material: Bare Steel
Chemical CAS #: Not reported
Piping Type: Not Defined
Piping Construction: Bare Steel
Piping Leak Detect: Not Defined
Tank Leak Detect: Not Defined, Not Defined
Fire Dept Cover: Village
Capacity: 6000
Contents: Diesel
Site Assessment: Not reported
Last Inspection: 07/24/1991
Overfill Prot: No
Spill Cont: No

H42 **WEST MILWAUKEE VILLAGE HALL** UST U002005555
NW **4755 W BELOIT RD** SWF/LF N/A
1/4-1/2 **WEST MILWAUKEE, WI 53214**
Higher

LF:
Facility Id: 241218450
Facility Status: Inactive
License Number: 1272

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number

WEST MILWAUKEE VILLAGE HALL (Continued) — U002005555

UST:

Tank ID:	401700041	Fire Dept Cover:	Village
Fed Regulated:	Yes	Capacity:	2000
User Type:	Government	Contents:	Unleaded
Date Abandoned:	12/17/1988	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	05/25/1989
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1999	Spill Cont:	No
Owner Name:	CURTIS N DRISCOLL		
Owner Address:	4755 W BELOIT RD WEST MILWAUKEE, WI 53214		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Bare Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Unknown		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

H43 NW 1/4-1/2 Higher — VIL WEST MILW. / 4755 W BELOIT RD / WEST MILWAUKEE, WI — WI WDS — S100748793 N/A

H44 NW 1/4-1/2 Higher — WEST MILWAUKEE VIL / 4755 W BELOIT RD / VIL W MILWAUKEE, WI — SWF/LF — S100760972 N/A

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45 SE 1/4-1/2 Higher — BABCOCK & WILCOX CO / 3839 W BURNHAM ST / MILWAUKEE, WI — WI WDS — S100748688 N/A

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46 SW 1/4-1/2 Higher — WINDY LANE FARM / 1911S WINDY LANE / CLOVERLAND, WI — LUST — S102850718 N/A

LUST:

Facility ID:	153803	Priority:	UNKNOWN
Contact:	Not reported	FID:	Not reported
Activity Name:	WINDY LANE FARM		
Activity Number:	0316153803		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

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47 SW 1/4-1/2 Higher — DINGS CO / 4740 W ELECTRIC AVE / MILWAUKEE, WI 53219 — RCRIS-SQG, FINDS, WI WRRSER, LUST — 1000236908, WID988567236

DINGS CO (Continued) **1000236908**

RCRIS:
Owner: DINGS
(414) 672-7830
Contact: JEFF DZIADOSH
(414) 672-7830
Record Date: 06/19/97
Classification: Small Quantity Generator
Used Oil Recyc: No
Violation Status: No violations found

LUST:

Facility ID:	28064	Priority:	MODERATE
Contact:	Not reported	FID:	241348030
Activity Name:	DINGS CORP		
Activity Number:	0341001764		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

WRRSER:

Route/Concern:	Not reported		
Repair Action:	Not reported		
Added/Inventory:	Not reported	Added/HRS List:	Not reported
Scoring System:	Not reported		
Begin Date:	12/04/90	Site Priority:	MEDIUM

I48 **HARNISCHFEGER CORP** **FINDS** **1000316247**
North **4400 W NATIONAL AVE** **RCRIS-LQG** **WID096348321**
1/4-1/2 **MILWAUKEE, WI 53201** **TRIS**
Lower **CORRACTS**

CORRACTS Data:
Prioritization: Low
Status: Not reported

RCRIS:
Owner: HARNISCHFEGER CORPORATION
(414) 671-4400
Contact: VERN GROSS
(414) 671-4400
Record Date: 05/09/96
Classification: Large Quantity Generator, Hazardous Waste Transporter

BIENNIAL REPORTS:
Last Biennial Reporting Year: 1995

Waste	Quantity (Lbs)	Waste	Quantity (Lbs)
D001	13261.05	F005	44000.00

HARNISCHFEGER CORP (Continued) 1000316247

Used Oil Recyc: No

Violation Status: Violations exist

There are 3 compliance/violation record(s) reported at this site:

Evaluation	Area of Violation	Date of Compliance
Compliance Evaluation Inspection (CEI)	Generator-All Requirements	08/15/91
Compliance Evaluation Inspection (CEI)	Generator-All Requirements	06/01/88
Compliance Evaluation Inspection (CEI)	Generator-All Requirements	08/11/86

FINDS:

Other Pertinent Environmental Activity Identified at Site:

- Facility has an active water discharge permit (under PCS)
- Facility is monitored or permitted for air emissions under the Clean Air Act (under AFS/AIRS)
- Civil judicial and administrative enforcement case against facility (under DOCKET)

I49 North 1/4-1/2 Lower — **HARNISCHFEGER CORP**, **4400 W NATIONAL AVE**, **MILWAUKEE, WI 53214** — UST, WI WRRSER, WI ERP, LUST — U002207382, N/A

LUST:

Facility ID:	21792	Priority:	HIGH
Contact:	Not reported	FID:	241010990
Activity Name:	HARNISCHFEGER CORP		
Activity Number:	0341000364		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

Facility ID:	22153	Priority:	LOW
Contact:	Not reported	FID:	241010990
Activity Name:	HARNISCHFEGER CORP. AREA 4, BLDG 37		
Activity Number:	0341000433		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

Facility ID:	22764	Priority:	HIGH
Contact:	Not reported	FID:	241010990
Activity Name:	HARNISCHFEGER CORP.		
Activity Number:	0341000556		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

HARNISCHFEGER CORP (Continued) U002207382

Facility ID:	28629	Priority:	MODERATE
Contact:	Not reported	FID:	241010990
Activity Name:	HARNISCHFEGER CORP. AREA 3, BLDG 70		
Activity Number:	0341001969		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

Facility ID:	32390	Priority:	HIGH
Contact:	Not reported	FID:	241010990
Activity Name:	HARNISCHFEGER CORP AREA 2, BLDG 20		
Activity Number:	0341004987		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

Facility ID:	32416	Priority:	LOW
Contact:	Not reported	FID:	241010990
Activity Name:	HARNISCHFEGER - OIL HOUSE BLDG. 15		
Activity Number:	0341005013		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

WRRSER:

Route/Concern:	Not reported		
Repair Action:	Not reported		
Added/Inventory:	Not reported	Added/HRS List:	Not reported
Scoring System:	Not reported		
Begin Date:	07/10/91	Site Priority:	MEDIUM

WI ERP:

Facility ID:	35146	Contact:	MARGARET M GRAEFE
Action Detail #:	0241000670	Act. Det. Name:	HARNISCHFEGER CORP
Action Name:	Notification	Action Date:	01-JAN-80
Action Comment:	Not reported		
Priority:	UNKNOWN		
FID:	Not reported	Lat/Long:	Not reported
Q Section:	Not reported	QQ Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Twnshp:	Not reported	Survey Range:	Not reported
Substance:	VOCs		
Subst Comment:	Not reported		
Substance Code:	06	Impact Code:	05
Impact:	Soil Contamination		
Impact Comment:	SOIL CONTAMINATION		
Responsible Prty:	Not reported		
RP Contact:	Not reported	RP Title:	Not reported
RP Address:	Not reported		
	Not reported		
RP Telephone:	Not reported	RP Extension:	Not reported
RP Fax Number:	Not reported	RP E-MAIL:	Not reported
Consultant Tele:	Not reported	Consultant Fax:	Not reported
Consultant State:	Not reported	Consultant Email:	Not reported

HARNISCHFEGER CORP (Continued) U002207382

UST:

Tank ID:	401700053	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	23100
User Type:	Industrial	Contents:	Diesel
Date Abandoned:	01/01/1999	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	03/28/1990
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1977	Spill Cont:	No
Owner Name:	HARNISCHFEGER CORPORATION		
Owner Address:	13400 BISHOPS LN BROOKFIELD, WI 53005		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Bare Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Bare Steel		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

Tank ID:	401700054	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	1000
User Type:	Industrial	Contents:	Unleaded
Date Abandoned:	01/01/1999	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	03/28/1990
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1952	Spill Cont:	No
Owner Name:	HARNISCHFEGER CORPORATION		
Owner Address:	13400 BISHOPS LN BROOKFIELD, WI 53005		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Bare Steel		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Bare Steel		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

HARNISCHFEGER CORP (Continued) U002207382

Tank ID:	401700055	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	2000
User Type:	Industrial	Contents:	Other
Date Abandoned:	01/01/1985	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	10/27/1986
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1999	Spill Cont:	No
Owner Name:	HARNISCHFEGER CORPORATION		
Owner Address:	13400 BISHOPS LN BROOKFIELD, WI 53005		
Facility Status:	Abandoned - Tank Removed		
Construction Material:	Unknown		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Not Defined		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

Tank ID:	401700056	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	99
User Type:	Industrial	Contents:	Diesel
Date Abandoned:	01/01/1968	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	10/27/1986
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1999	Spill Cont:	No
Owner Name:	HARNISCHFEGER CORPORATION		
Owner Address:	13400 BISHOPS LN BROOKFIELD, WI 53005		
Facility Status:	Abandoned with No Product (Empty)		
Construction Material:	Unknown		
Chemical CAS #:	Not reported		
Piping Type:	Not Defined		
Piping Construction:	Not Defined		
Piping Leak Detect:	Not Defined		
Tank Leak Detect:	Not Defined, Not Defined		

HARNISCHFEGER CORP (Continued) U002207382

Tank ID:	401700058	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	40000
User Type:	Industrial	Contents:	Diesel
Date Abandoned:	Not reported	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	03/28/1990
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1954	Spill Cont:	No

Owner Name: HARNISCHFEGER CORPORATION
Owner Address: 13400 BISHOPS LN
BROOKFIELD, WI 53005
Facility Status: Abandoned - Tank Removed
Construction Material: Bare Steel
Chemical CAS #: Not reported
Piping Type: Not Defined
Piping Construction: Bare Steel
Piping Leak Detect: Not Defined
Tank Leak Detect: Not Defined, Not Defined

Tank ID:	401700059	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	1000
User Type:	Industrial	Contents:	Chemical
Date Abandoned:	06/01/1994	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	08/03/1995
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1966	Spill Cont:	N

Owner Name: HARNISCHFEGER CORP
Owner Address: POB 554
MILWAUKEE, WI 53201
Facility Status: Abandoned - Filled with Inert Material
Construction Material: Bare Steel
Chemical CAS #: 64742650
Piping Type: Suction Piping with Check Value at Tank
Piping Construction: Bare Steel
Piping Leak Detect: Tightness Testing
Tank Leak Detect: Tightness Testing, Not Defined

HARNISCHFEGER CORP (Continued) U002207382

Tank ID:	401700060	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	1000
User Type:	Industrial	Contents:	Chemical
Date Abandoned:	06/01/1994	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	08/03/1995
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1966	Spill Cont:	N

Owner Name: HARNISCHFEGER CORP
Owner Address: POB 554
MILWAUKEE, WI 53201
Facility Status: Abandoned - Filled with Inert Material
Construction Material: Unknown
Chemical CAS #: 64742650
Piping Type: Suction Piping with Check Value at Tank
Piping Construction: Bare Steel
Piping Leak Detect: Tightness Testing
Tank Leak Detect: Tightness Testing, Not Defined

Tank ID:	401700061	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	1000
User Type:	Industrial	Contents:	Chemical
Date Abandoned:	06/01/1994	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	12/30/1994
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1966	Spill Cont:	N

Owner Name: HARNISCHFEGER CORP
Owner Address: POB 554
MILWAUKEE, WI 53201
Facility Status: Abandoned - Filled with Inert Material
Construction Material: Bare Steel
Chemical CAS #: 64742650
Piping Type: Suction Piping with Check Value at Tank
Piping Construction: Bare Steel
Piping Leak Detect: Tightness Testing
Tank Leak Detect: Tightness Testing, Not Defined

HARNISCHFEGER CORP (Continued) **U002207382**

Tank ID:	401700062	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	1000
User Type:	Industrial	Contents:	Chemical
Date Abandoned:	06/01/1994	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	04/19/1995
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1966	Spill Cont:	N
Owner Name:	HARNISCHFEGER CORP		
Owner Address:	POB 554 NATIONAL AVE MILWAUKEE, WI 53201		
Facility Status:	Abandoned - Filled with Inert Material		
Construction Material:	Bare Steel		
Chemical CAS #:	64742650		
Piping Type:	Suction Piping with Check Value at Tank		
Piping Construction:	Bare Steel		
Piping Leak Detect:	Tightness Testing		
Tank Leak Detect:	Tightness Testing, Not Defined		

Tank ID:	401700063	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	1000
User Type:	Industrial	Contents:	Chemical
Date Abandoned:	06/01/1994	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	12/30/1994
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1966	Spill Cont:	N
Owner Name:	HARNISCHFEGER CORP		
Owner Address:	POB 554 MILWAUKEE, WI 53201		
Facility Status:	Abandoned - Filled with Inert Material		
Construction Material:	Bare Steel		
Chemical CAS #:	64742650		
Piping Type:	Suction Piping with Check Value at Tank		
Piping Construction:	Bare Steel		
Piping Leak Detect:	Tightness Testing		
Tank Leak Detect:	Tightness Testing, Not Defined		

HARNISCHFEGER CORP (Continued) **U002207382**

Tank ID:	401700064	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	500
User Type:	Industrial	Contents:	Chemical
Date Abandoned:	06/01/1994	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	12/30/1994
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1966	Spill Cont:	N
Owner Name:	HARNISCHFEGER CORP		
Owner Address:	POB 554		
	MILWAUKEE, WI 53201		
Facility Status:	Abandoned - Filled with Inert Material		
Construction Material:	Bare Steel		
Chemical CAS #:	64742650		
Piping Type:	Suction Piping with Check Value at Tank		
Piping Construction:	Bare Steel		
Piping Leak Detect:	Tightness Testing		
Tank Leak Detect:	Tightness Testing, Not Defined		

Tank ID:	401700065	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	565
User Type:	Industrial	Contents:	Waste Oil
Date Abandoned:	06/01/1994	Site Assessment:	Not reported
Out of Serv Date:	Not reported	Last Inspection:	12/30/1994
Double Wall:	No	Overfill Prot:	N
Date Installed:	01/01/1966	Spill Cont:	N
Owner Name:	HARNISCHFEGER CORP		
Owner Address:	POB 554		
	MILWAUKEE, WI 53201		
Facility Status:	Abandoned - Filled with Inert Material		
Construction Material:	Bare Steel		
Chemical CAS #:	Not reported		
Piping Type:	Suction Piping with Check Value at Tank		
Piping Construction:	Bare Steel		
Piping Leak Detect:	Not Required		
Tank Leak Detect:	Not Required at Present, Not Defined		

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50 **U S TOTAL STATION** **WI WRRSER** **S100674498**
ESE **3633 W BURNHAM ST** **LUST** **N/A**
1/4-1/2 **MILWAUKEE, WI**
Higher

LUST:

Facility ID:	30376	Priority:	HIGH
Contact:	Not reported	FID:	241128910
Activity Name:	U S TOTAL STATION		
Activity Number:	0341002782		
Lat/Long:	Not reported		
1/4 Section:	Not reported	1/4 1/4 Section:	Not reported
Range:	Not reported	Survey Section:	Not reported
Survey Township:	Not reported	Survey Range:	Not reported

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
	U S TOTAL STATION (Continued)		**S100674498**

WRRSER:
Route/Concern: Not reported
Repair Action: Not reported
Added/Inventory: Not reported
Added/HRS List: Not reported
Scoring System: Not reported
Begin Date: 10/28/92
Site Priority: HIGH

51 SW 1/2-1 Higher	**GENERAL ELECTRIC CO 4855 W ELECTRIC AVE WEST MILWAUKEE, WI 53219**	**FINDS RCRIS-LQG TRIS RCRIS-TSD CORRACTS UST**	**1000199988 WID086686003**

CORRACTS Data:
Prioritization: Low
Status: RCRA Facility Assessment Completed, Determination of Need for a RCRA Facility Investigation, RFI Imposition, RFI Workplan Approved, RCRA Facility Investigation Approved, Stabilization Measures Implemented, Stabilization Construction Completed

RCRIS Corrective Action Summary:
Effective Date: 10/30/91
Legal Authority: RCRA 3004(u) or equivalent

RCRIS:
Owner: GENERAL ELECTRIC CO
(414) 383-3211

Contact: WILLIAM HAWES
(414) 383-3211

Record Date: 08/18/80

Classification: Large Quantity Generator, TSDF

BIENNIAL REPORTS:
Last Biennial Reporting Year: 1995

Waste	Quantity (Lbs)	Waste	Quantity (Lbs)
D001	160389.00	D002	38788.00
D008	3428.00	D009	2785.00
D018	15903.00	F001	30640.00
F002	26346.00	F003	362.00
F007	9071.00	LABP	1326.00
P106	80.00	U228	495.00

Used Oil Recyc: No

TSDF Activities: Not reported

Violation Status: Violations exist

There are 3 compliance/violation record(s) reported at this site:

Evaluation	Area of Violation	Date of Compliance
Compliance Evaluation Inspection (CEI)	TSD-Other Requirements	11/04/93
	TSD-Other Requirements	11/04/93

GENERAL ELECTRIC CO (Continued) **1000199988**

	TSD-Other Requirements	11/04/93
	TSD-Other Requirements	11/04/93
Compliance Evaluation Inspection (CEI)	TSD-Other Requirements	09/26/91
Compliance Evaluation Inspection (CEI)	TSD-Other Requirements	11/22/89

FINDS:
Other Pertinent Environmental Activity Identified at Site:
- Facility has an active water discharge permit (under PCS)
- Facility is monitored or permitted for air emissions under the Clean Air Act (under AFS/AIRS)

UST:

Tank ID:	401700071	Fire Dept Cover:	City
Fed Regulated:	Yes	Capacity:	1000
User Type:	Industrial	Contents:	Unleaded
Date Abandoned:	09/05/1989	Site Assessment:	12/04/1989
Out of Serv Date:	Not reported	Last Inspection:	05/07/1990
Double Wall:	No	Overfill Prot:	No
Date Installed:	01/01/1979	Spill Cont:	No

Owner Name: GENERAL ELEC CO MED SYS GROUP
Owner Address: 3000 N GRANDVIEW BLVD
WAUKESHA, WI 53201
Facility Status: Abandoned - Tank Removed
Construction Material: Fiberglass
Chemical CAS #: Not reported
Piping Type: Not Defined
Piping Construction: Unknown
Piping Leak Detect: Not Defined
Tank Leak Detect: Not Defined, Not Defined

52
South
1/2-1
Higher

GENERAL ELECTRIC APPLIANCES **FINDS** **1000213306**
2205 SOUTH 43RD STREET **RCRIS-LQG** **WID006121347**
MILWAUKEE, WI 53219 **CORRACTS**

CORRACTS Data:
Prioritization: Medium
Status: Not reported

RCRIS:
Owner: GENERAL ELECTRIC COMPANY
(414) 383-4300

Contact: ALLYN FITZPATRICK
(414) 647-4681

Record Date: 05/09/96

Classification: Large Quantity Generator

BIENNIAL REPORTS:
Last Biennial Reporting Year: 1995

Waste	Quantity (Lbs)
F001	1300020.00

GENERAL ELECTRIC APPLIANCES (Continued) **1000213306**

Used Oil Recyc: No

Violation Status: Violations exist

There are 3 compliance/violation record(s) reported at this site:

Evaluation	Area of Violation	Date of Compliance
Financial Record Review (FRR)	TSD-Financial Responsibility Requirements	07/22/93
Compliance Evaluation Inspection (CEI)	TSD-Other Requirements	07/05/94
Compliance Evaluation Inspection (CEI)	TSD-Other Requirements	07/05/94
	TSD-Closure/Post Closure Requirements	04/27/90
	TSD-Financial Responsibility Requirements	07/05/94

FINDS:

Other Pertinent Environmental Activity Identified at Site:

- Facility has an active water discharge permit (under PCS)
- Facility is monitored or permitted for air emissions under the Clean Air Act (under AFS/AIRS)
- Civil judicial and administrative enforcement case against facility (under DOCKET)

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)	Facility ID
WEST MILWAUKEE	U003280614	NATIONAL SCHOOL BUS	4150 MITCHELL ST	53214	UST	

GEOCHECK VERSION 2.1 ADDENDUM
STATE DATABASE WELL INFORMATION

Water Well Information:

Well Within >2 Miles of Target Property (Eastern Quadrant)

Well Number:	EM213		
County Well Location #:	Not Reported	County Code:	41
District Number:	2	Tax Parcel Number:	Not Reported
Construction Date:	08/08/90	Date DNR rece'd constr. report:	040292 070892
Type of Municipality:	City	Municipality Name:	MILWAUKEE
Fire Number:	Not Reported	Subdivision Name:	Not Reported
Lot Number:	Not Reported	Well Address:	2098 S 4TH ST C41-RW-05
Government Lot #:	Not Reported	Block Number:	Not Reported
Quarter Code:	SE	Quarter-Quarter Code:	Not Reported
Survey Section #:	05	Survey Township #:	06
Range:	22	East-West Code:	E
Status of Well:	New	Year of original Well:	0
Previous Well #:	Not Reported	Reason for Well:	RECHARGE WELL
New Well ID:	Not Reported	Well Construction Type:	Drilled
Num. of Service Connections:	Not Reported	Well Category:	XZ
Is Well High Capacity?:	No	Facility Type:	Not Reported
High Capacity Property:	No	Is Well Highest Point?:	Yes
Is Well in Floor Plain ?:	No	Pumping Level (Ft):	Not Reported
Gallons Pumped:	Not Reported	Number of Test Hours:	Not Reported
Drill Hole Diameter (inches):	17.005	Drill Hole Dimensions (feet):	To 63.00
Drill Hole Diameter (inches):	12.000	Drill Hole Dimensions (feet):	From 63.00 To 90.00
Type of Drill Used:	Rotary Mud Circulating		
Other Drill used ?:	Not Reported	Type of other Drill used:	Not Reported
Temp. Outer Casing Used ?:	Not Reported	Diameter of Temp. outer casing:	Not Reported
Temp. outer casing removed?:	Not Reported		
Casing-liner-screen Diam.(in):	12.0	Casing-liner-screen Dimens.(Ft):	To 63.
Description of Casing, Liner and Screen:		PRIME A53 GR. B STEEL	
Screen Diameter (inches):	Not Reported	Screen Dimensions (feet):	Not Reported
Description of Screen:	Not Reported		
Sealing Method:	TREMIE PIPE		
Sealing Material:	NEAT CEMENT GROUT		
Sealing Dimensions (feet):	From 0 To 63.00	Qty of Sealing Material (sacks):	60.00
Geologic Code:	KCG		
Geologic Formations:	BLACK CLAY, LEATHER, RUBBLE		
USGS Geo. Formations Code:	Not Reported	Geo. Formations Dimens. (Ft):	From 0 To 15.00
Geologic Code:	GCS		
Geologic Formations:	GRAY SANDY CLAY W/STREAKS OF SAND		
USGS Geo. Formations Code:	Not Reported	Geo. Formations Dimensions:	From 15.00 To 58.00
Geologic Code:	BLC		
Geologic Formations:	BROKEN LIME @ CLAY		
USGS Geo. Formations Code:	Not Reported	Geo. Formations Dimensions:	From 58.00 To 59.00
Geologic Code:	L		
Geologic Formations:	LIMESTONE		
USGS Geo. Formations Code:	Not Reported	Geo. Formations Dimensions:	From 59.00 To 90.00
More Geologic. Info. Indicator:	Not Reported	Static Water Level (Ft):	32.0 Below ground
Well Depth	024 Above Grade	Is Well developed?:	Yes
Is Well disinfected?	Yes	Is Well capped?:	Yes
Well Contractor:	WM	Is Well properly sealed?:	Not Reported
Rig Operator:	DJ	Last file update Date:	10/27/92
Do comments exist:	Not Reported	Was label sent to owner:	Not Reported
Date contractor signed the well construction report:		05/10/92	
Date rig operator signed the well construction report:		05/10/92	

GEOCHECK VERSION 2.1
PUBLIC WATER SUPPLY SYSTEM INFORMATION

Searched by Nearest PWS.

PWS SUMMARY:

PWS ID:	WI4390378	PWS Status:	Active	Distance from TP:	1 - 2 Miles
Date Initiated:	Not Reported	Date Deactivated:	Not Reported	Dir relative to TP:	South
PWS Name:	CAMP INDIAN SANDS - DINING HALL NESHKORO, WI 54960				
Addressee / Facility:	Not Reported				
Facility Latitude:	42 59 42		Facility Longitude:	087 56 48	
City Served:	Not Reported				
Treatment Class:	Untreated		Population Served:	Under 101 Persons	

PWS currently has or has had major violation(s): No

EPA Waste Codes Addendum

Code	Description
D001	IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
D002	A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
D008	LEAD
D009	MERCURY
D018	BENZENE
F001	THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F002	THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F003	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F005	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A

EPA Waste Codes Addendum

Code	Description
	TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F007	SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS
P106	SODIUM CYANIDE
P106	SODIUM CYANIDE NA(CN)
U228	ETHENE, TRICHLORO-
U228	TRICHLOROETHYLENE

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM RECORDS:

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA/NTIS
Telephone: 703-413-0223
CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 12/31/97
Date Made Active at EDR: 04/13/98
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 02/17/98
Elapsed ASTM days: 55
Date of Last EDR Contact: 05/22/98

ERNS: Emergency Response Notification System
Source: EPA/NTIS
Telephone: 202-260-2342
Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/30/97
Date Made Active at EDR: 01/02/98
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 12/04/97
Elapsed ASTM days: 29
Date of Last EDR Contact: 03/05/98

NPL: National Priority List
Source: EPA
Telephone: 703-603-8852
National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC).

Date of Government Version: 03/06/98
Date Made Active at EDR: 07/09/98
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 06/09/98
Elapsed ASTM days: 30
Date of Last EDR Contact: 07/02/98

RCRIS: Resource Conservation and Recovery Information System
Source: EPA/NTIS
Telephone: 800-424-9346
Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Date of Government Version: 01/01/98
Date Made Active at EDR: 04/13/98
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 02/17/98
Elapsed ASTM days: 55
Date of Last EDR Contact: 06/05/98

CORRACTS: Corrective Action Report
Source: EPA
Telephone: 800-424-9346
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/15/97
Date Made Active at EDR: 02/02/98
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 01/05/98
Elapsed ASTM days: 28
Date of Last EDR Contact: 05/06/98

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEDERAL NON-ASTM RECORDS:

BRS: Biennial Reporting System
Source: EPA/NTIS
Telephone: 800-424-9346
The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/95
Database Release Frequency: Biennially
Date of Last EDR Contact: 03/24/98
Date of Next Scheduled EDR Contact: 06/22/98

CONSENT: Superfund (CERCLA) Consent Decrees
Source: EPA Regional Offices
Telephone: Varies
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: Varies
Database Release Frequency: Varies
Date of Last EDR Contact: Varies
Date of Next Scheduled EDR Contact: N/A

FINDS: Facility Index System
Source: EPA/NTIS
Telephone: 703-908-2493
Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/01/97
Database Release Frequency: Quarterly
Date of Last EDR Contact: 02/26/98
Date of Next Scheduled EDR Contact: 06/22/98

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4526
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/96
Database Release Frequency: Annually
Date of Last EDR Contact: 03/31/98
Date of Next Scheduled EDR Contact: 07/27/98

MLTS: Material Licensing Tracking System
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/30/98
Database Release Frequency: Quarterly
Date of Last EDR Contact: 04/13/98
Date of Next Scheduled EDR Contact: 07/13/98

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 205-564-4267
Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 05/26/98
Date of Next Scheduled EDR Contact: 08/24/98

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PADS: PCB Activity Database System
Source: EPA
Telephone: 202-260-3936
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/22/97
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 06/05/98
Date of Next Scheduled EDR Contact: 08/17/98

RAATS: RCRA Administrative Action Tracking System
Source: EPA
Telephone: 202-564-4104
RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 06/15/98
Date of Next Scheduled EDR Contact: 09/14/98

ROD: Records Of Decision
Source: NTIS
Telephone: 703-416-0223
Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/31/95
Database Release Frequency: Annually
Date of Last EDR Contact: 05/22/98
Date of Next Scheduled EDR Contact: 08/31/98

TRIS: Toxic Chemical Release Inventory System
Source: EPA/NTIS
Telephone: 202-260-1531
Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/95
Database Release Frequency: Annually
Date of Last EDR Contact: 06/11/98
Date of Next Scheduled EDR Contact: 06/29/98

TSCA: Toxic Substances Control Act
Source: EPA/NTIS
Telephone: 202-260-1444
Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. USEPA has no current plan to update and/or re-issue this database.

Date of Government Version: 12/31/94
Database Release Frequency: Annually
Date of Last EDR Contact: 04/27/98
Date of Next Scheduled EDR Contact: 07/27/98

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STATE OF WISCONSIN ASTM RECORDS:

LUST: L.U.S.T. Database
Source: Department of Natural Resources
Telephone: 608-264-6009
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 04/15/98
Date Made Active at EDR: 06/10/98
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 05/08/98
Elapsed ASTM days: 33
Date of Last EDR Contact: 04/21/98

SHWS: Hazard Ranking List
Source: Department of Natural Resources
Telephone: 608-267-3532
State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 11/30/94
Date Made Active at EDR: 03/01/95
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 02/10/95
Elapsed ASTM days: 19
Date of Last EDR Contact: 05/08/98

LF: List of Licensed Landfills
Source: Department of Natural Resources
Telephone: 608-267-7557
Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/25/97
Date Made Active at EDR: 01/05/98
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 12/10/97
Elapsed ASTM days: 26
Date of Last EDR Contact: 05/06/98

UST: Registered Underground Storage Tanks
Source: Department of Industry, Labor and Human Resources
Telephone: 608-267-1384
Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 10/01/97
Date Made Active at EDR: 06/02/98
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 04/15/98
Elapsed ASTM days: 48
Date of Last EDR Contact: 04/20/98

STATE OF WISCONSIN NON-ASTM RECORDS:

ERP: Environmental Repair Program Database
Source: Department of Natural Resources
Telephone: 608-267-3543
Non-LUST cleanup sites.

Date of Government Version: 03/03/98
Database Release Frequency: Monthly
Date of Last EDR Contact: 06/15/98
Date of Next Scheduled EDR Contact: 09/14/98

SPILLS: Spills Database
Source: Department of Natural Resources
Telephone: 608-264-6009
Spill Response List.

Date of Government Version: 03/03/98
Database Release Frequency: Quarterly
Date of Last EDR Contact: 04/14/98
Date of Next Scheduled EDR Contact: 07/13/98

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

WDS: Registry of Waste Disposal Sites
Source: Department of Natural Resources
Telephone: 608-267-3532
The registry was created by the DNR to serve as a comprehensive listing of all sites where solid or hazardous wastes have been or may have been deposited.

Date of Government Version: 06/01/96
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 05/08/98
Date of Next Scheduled EDR Contact: 08/03/98

WRRSER: Wisconsin Remedial Response Site Evaluation Report
Source: Department of Natural Resources
Telephone: 608-267-3532
The WRRSER provides information about location, status, and priority of sites or facilities in the state which are known to cause or have a high potential to cause environmental pollution.

Date of Government Version: 10/01/95
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 05/08/98
Date of Next Scheduled EDR Contact: 08/03/98

Historical and Other Database(s)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

DELISTED NPL: NPL Deletions
Source: EPA
Telephone: 703-603-8769
The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/06/98
Date Made Active at EDR: 07/09/98
Database Release Frequency: Semi-Annually
Date of Data Arrival at EDR: 06/09/98
Elapsed ASTM days: 30
Date of Last EDR Contact: 07/02/98

NFRAP: No Further Remedial Action Planned
Source: EPA/NTIS
Telephone: 703-413-0223
As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 12/31/97
Date Made Active at EDR: 04/13/98
Database Release Frequency: Quarterly
Date of Data Arrival at EDR: 02/17/98
Elapsed ASTM days: 55
Date of Last EDR Contact: 05/22/98

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-260-2805
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-260-2805
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SWDIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

Area Radon Information: The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

Oil/Gas Pipelines/Electrical Transmission Lines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines and electrical transmission lines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

USGS Water Wells: In November 1971 the United States Geological Survey (USGS) implemented a national water resource information tracking system. This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on more than 900,000 wells, springs, and other sources of groundwater.

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1996 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in March 1997 from the U.S. Fish and Wildlife Service.

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Water Dams: National Inventory of Dams
Source: Federal Emergency Management Agency
Telephone: 202-646-2801
National computer database of more than 74,000 dams maintained by the Federal Emergency Management Agency.

Wisconsin Well Construction Report File
Source: Department of Natural Resources
Telephone: 608-266-0153

Appendix E
WDNR Phase II Report

Bob Cyrke

PHASE II ENVIRONMENTAL SITE ASSESSMENT

FOR

FORMER MOBILE BLASTING SITE
1604 S. 43rd STREET
WEST MILWAUKEE, WI

April 8, 1997

from Tim Freitag, Village Administrator West Milwaukee

6.18.97

6.22.97 back taxes $60,000

demo $50,000

Phase II Environmental Assessment Report

for

Former Mobile Blasting Site
1604 S. 43rd Street
West Milwaukee, WI

April 8, 1997

Kimberly White 4/8/97
Kimberly A. White Date
Hydrogeologist, Project Manager
Brownfields Environmental Assessment Pilot
Wisconsin Department of Natural Resources
101 S. Webster St., P.O. Box 7921, Madison, WI 53707

FIGURES

TABLES

APPENDICES

Executive Summary

A Phase II Environmental Site Assessment (ESA) of the Mobile Blasting property was conducted by the Wisconsin Department of Natural Resources (WDNR) as part of the 1996 Brownfield Environmental Assessment Pilot program. The conclusion of the Phase I ESA conducted by the WDNR in August 1996 recommended a Phase II ESA be conducted to investigate the soil and groundwater at the Mobile Blasting property. This recommendation was based on the uncertainty surrounding much of the site's history and property use, including any waste or other contamination which may have been generated on the property.

The Mobile Blasting property is located at 1604 S. 43rd Street, West Milwaukee, Wisconsin. The site, located in an industrial area of the Village of West Milwaukee, has been occupied by a boiler company, steel casting operation, and most recently by a sand blasting and painting operation. Mobile Blasting and Painting operated on the property from April 1985 until August 1988. The main objects which were blasted on the site were rail cars, automobiles, trucks, and steel beams. During the period of operation, there were many complaints from nearby businesses and residents, as well as Village ordinance violations, regarding sandblasting activities and the associated smoke emissions and offensive odors outside the building. Much less is known about the site history and activities for the southern part of the property, formerly occupied by Sivyer Steel Casting Company, at 1650 S. 43rd Street. Records indicate that this part of the property has not been utilized since the Sivyer Steel facility was razed in 1985.

According to the available records, there have been no soil or groundwater investigations or cleanups conducted at the site. Soil and groundwater contamination was documented on the property during the sampling and investigation for the Phase II. However, further investigation will be necessary to further determine the degree and extent of contamination on the northern part of the site, the portion formerly occupied by Mobile Blasting. Additionally, investigative data may be combined with the existing data to accomplish the goals in Wisconsin Administrative Code Chapters NR716 Site Investigation and 722 Standards for Selecting Remedial Actions.

1.0 INTRODUCTION

1.1 Site Description

The Former Mobile Painting and Blasting site (Mobile Blasting) at 1604 and 1650 S. 43rd Street is approximately 3.2 acres or 140,000 square feet, located in the NW 1/4 of Section 1, Township 6N, Range 21E, Milwaukee County, Wisconsin. See **Figure 1** for a site map.

The property is bisected into two parts by a rail spur which extends from the northeastern part of the property toward the west-southwest. The northern part of the property contains a brick building with a wood roof which is deteriorating in places, last occupied by Mobile Blasting. The southern part of the property is covered by the cement foundation from the Sivyer Steel Casting Company facility, which was razed in 1985. The site is bounded to the east by railroad tracks, to the south by Mitchell Street, to the west by South 43rd Street, and to the north by a fence. The site is in an industrial area of West Milwaukee with manufacturing, businesses, and multi-family residential units near the property.

1.2 Purpose

This Phase II Environmental Site Assessment (ESA) was performed by the Wisconsin Department of Natural Resources (WDNR) as part of the U.S. Environmental Protection Agency and WDNR funded Brownfield Environmental Assessment Pilot conducted in 1996. The purpose of the pilot was to conduct Phase I and Phase II Environmental Assessments for municipalities to assess site conditions and to help market abandoned and/or tax delinquent properties that are under-utilized. An application process was used to allow municipalities to submit sites they believed had development potential, but were hindered by suspected or perceived contamination. Memorandum of Agreements (MOAs) were signed by the municipalities and the WDNR to ensure cooperation and define responsibilities for various aspects of the assessment.

The Phase I ESA prepared by WDNR in August 1996 recommended further investigation of the site due to unknown site history and work practices, and that a Phase II ESA be conducted. The Phase II involved the collection of soil samples and the installation of three monitoring wells in order to collect groundwater samples.

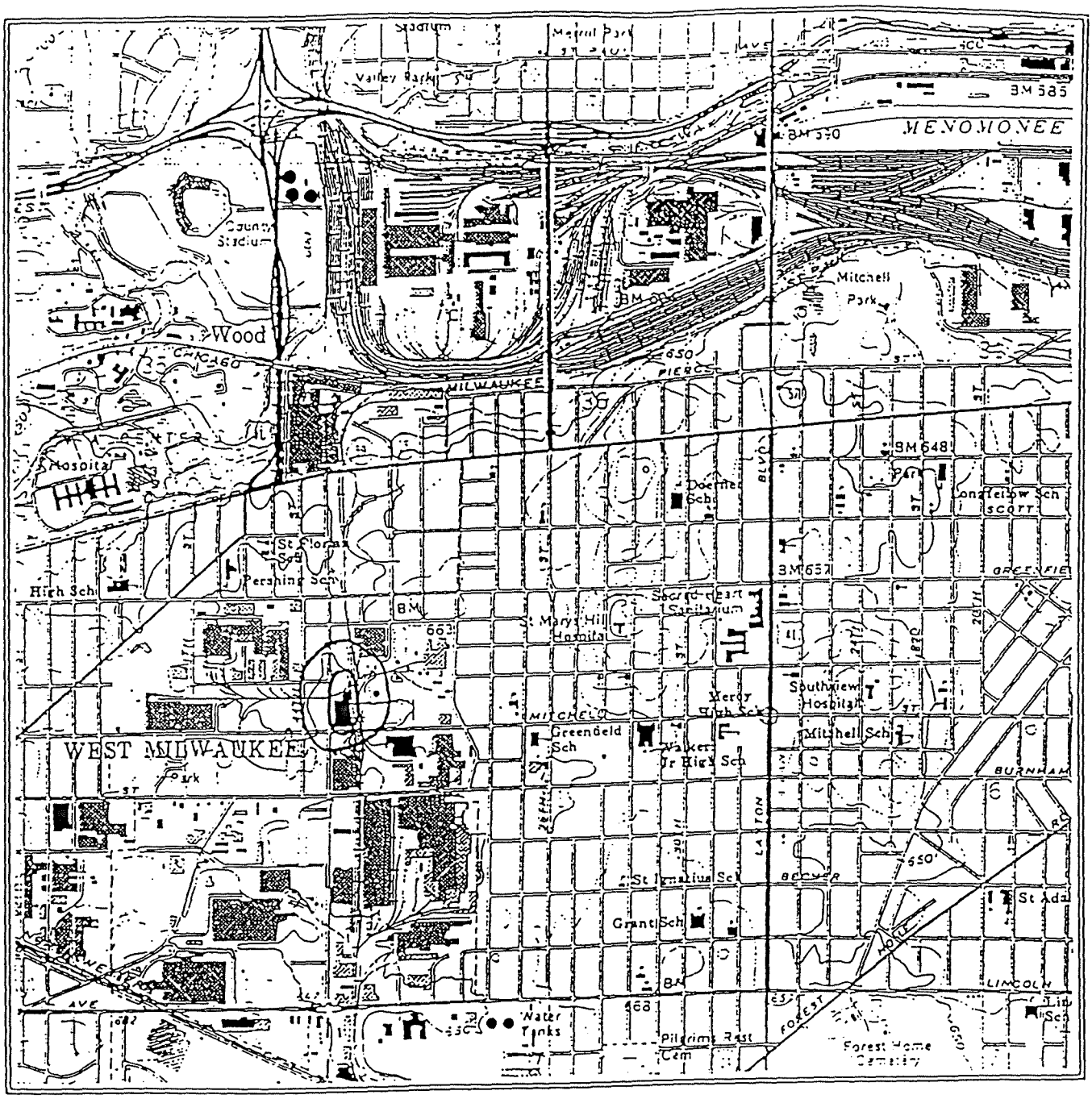
2.0 SITE BACKGROUND

2.1 Site Use

The site, located in an industrial area of the Village of West Milwaukee, has been occupied by a boiler company, steel casting operation, and most recently by a sand blasting and painting operation. The building at 1604 S. 43rd Street has been vacant since August 1988 and is currently owned by West Milwaukee Associates Limited Partnership. The owner was issued a Raze and Repair Order by the Village of West Milwaukee for this building in July 1993, though the building is still standing.

Mobile Blasting and Painting operated on the 1604 South 43rd Street property from April 1985

FIGURE 1



Mobile Blasting Site

MILWAUKEE QUADRANGLE

7.5 Minute Series (Topographic)

Scale 1:24 000

Contour Interval 10 Feet

N

SCALE 1:24000

0 1000 2000 3000 4000 5000 6000 7000 FEET

0 1 KILOMETER

until August 1988. During this time, there were many complaints from nearby businesses and residents, as well as Village ordinance violations, regarding sandblasting activities and the associated smoke emissions and offensive odors outside the building. During some periods, there were daily, blatant violations due to both the time at which the activities occurred, as well as the amount of noise and air emissions generated. As a result, Village Police issued many citations, and there were two separate Circuit Court cases regarding the outdoor sandblasting activities. The main objects which were blasted on the site were rail cars, automobiles, trucks, and steel beams. Given this information, paint solvents and metal and paint flakes, possibly containing lead, were considered to be the primary contaminants present in the blasting sand remains and soils on the site.

There were also numerous instances of fire code and building code violations detected by both the Village Fire Department and Village Building Inspection Code Enforcement at the 1604 S. 43rd Street location. In November 1987, the occupancy permit was revoked by the Village due to the negative impact on public health and safety posed by the building and business operations. A revised occupancy permit was issued in May 1988 following some improvements which were made to the facility by Mobile Blasting and Painting.

Much less is known about the site history and activities for the southern part of the property, formerly occupied by Sivyer Steel Casting Company, at 1650 S. 43rd Street. Records indicate that this part of the property has not been utilized since the Sivyer Steel facility was razed in 1985. Sivyer Steel was operating by 1927, but it is not known when Sivyer Steel originated, or what occupied the property before Sivyer Steel. There are no detailed accounts readily available regarding the operations of Sivyer Steel, but the Sanborn Fire Insurance Maps indicated there was a foundry as well as sand blasting operations on the site.

For a more thorough site history, please refer to the Mobile Blasting Phase I report.

2.2 Environmental Investigations and Cleanups

According to the available records, there have been no environmental investigations or cleanups conducted at the site. While Mobile Blasting occupied the site, there were incidences when air emissions were monitored during periods of operation to determine whether the business was violating air emissions standards. There are no records which indicate that soil or groundwater investigations have been conducted at the site prior to the Phase II ESA.

3.0 SAMPLING LOCATIONS AND METHODOLOGY

3.1 Areas of Concern

One area of concern was the northeastern part of the property between the building occupied by Mobile Blasting and the train tracks. There was stressed vegetation in this area, and some blasting sand, indicating some of the outdoor blasting and painting activities may have taken place in this area. This assumption corresponds with the many complaints filed by neighboring businesses and residents while Mobile Blasting was in operation. A second area of concern was

the southern part of the property where Sivyer Steel was located. Much less is known about this part of the property in regards to the specific operations which occurred and the potential waste generated while Sivyer Steel was active. The concrete building foundation is still in place, with some holes present in the foundation, presumably left from the removal of building support structures.

All soil and water samples were analyzed for volatile organics, semi-volatiles, PCBs, and total metals.

3.2 Sampling Changes

The only deviation from the sampling plan, a copy of which is presented in **Appendix A**, was the inability to collect one soil sample from beneath the foundation of the Mobile Blasting building. The sample was to be collected with the Geoprobe™ from a depth of five feet below the former painting and blasting area in the central part of the building. However, due to the potential for release of the friable asbestos on the floor inside the building, it was decided during sampling activities not to collect the sample.

3.3 Soil Sampling Locations

There were a total of 19 samples collected from 10 different soil sampling locations, see **Figure 2**. **Table 1** provides a summary of soil sample information. At nine of the soil sampling locations, a surficial sample was collected as well as a sample collected with the Geoprobe™ at a depth of approximately 5 feet. Four of these sample locations were on the part of the property formerly occupied by Mobile Blasting. The remaining five were concentrated in the southern part of the property which was formerly occupied by Sivyer Steel. The final sample location was inside the former Mobile Blasting building, where a grab sample was collected from the large pile of blasting sand in the sand storage room at the northern part of the building. Three of the soil borings were sampled and converted to monitoring wells on September 17, 1996. The remaining borings were drilled and then sampled along with the monitoring wells on October 15, 1996.

3.4 Groundwater Sampling Locations

Three monitoring wells were installed on the property from which groundwater samples could be collected. The boring logs and monitoring well construction forms for the new wells are presented in **Appendix B**. See **Figure 2** for monitoring well locations. See **Table 2** for a summary of groundwater sample information. Note that the locations of the three monitoring wells are also the locations of the Round 1 soil samples, since the samples were collected as the wells were installed. Two of the wells were located on the northern part of the property, between the Mobile Blasting building and the train tracks which form the eastern property boundary. The third monitoring well was located on the southern part of the property, where Sivyer Steel was located. The three monitoring wells were installed in order to sample groundwater for suspected contamination and to determine the depth to groundwater and direction of groundwater flow. A background well was not installed as part of this investigation.

Sampling Locations
FIGURE 2

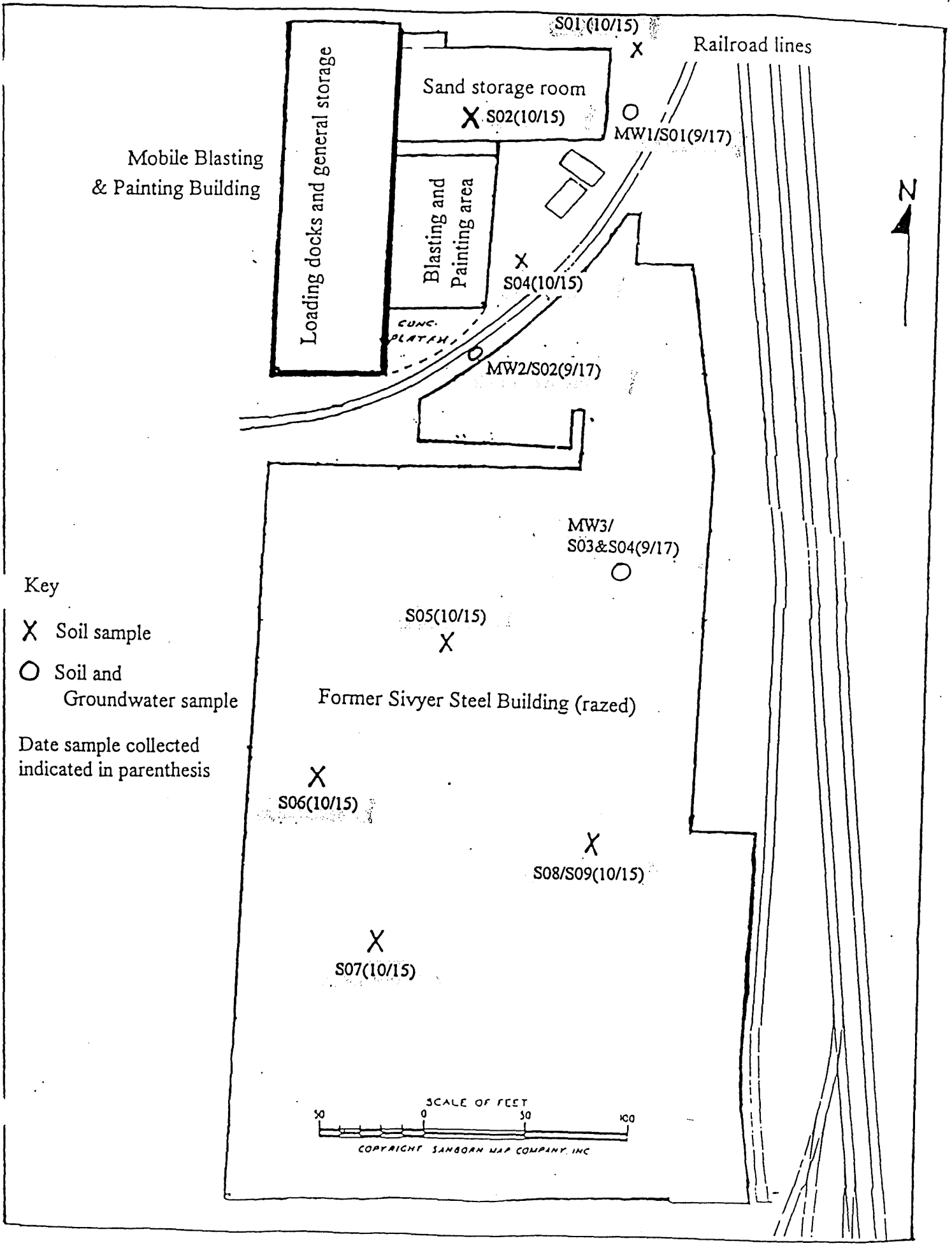


Table 1 - Soil Samples from Sampling Round 2

Date sampled	Sample #	Sample description	ANALYZED
09/17/96	S01	surficial soil-NE corner of property	
09/17/96	S01B	soil at 5' depth, S01 location	
09/17/96	S02	surficial soil-S end of Mobile property	
09/17/96	S02B	soil at 5' depth, S02 location	
09/17/96	S03	surficial soil-NE end of Sivyer property	
09/17/96	S03B	soil at 5' depth, S03 location	
09/17/96	S04	duplicate of S02	
10/15/96	S01	surficial soil-NE corner of Mobile	
10/15/96	S01B	soil at 5' depth, S01 location	no VOC
10/15/96	S02	collected from sand pile inside building	no VOC
10/15/96	S04	surficial soil-SE corner of Mobile	
10/15/96	S04B	soil at 5' depth, S04 location	
10/15/96	S05	surficial soil-N central part of Sivyer property	
10/15/96	S05B	soil at 5' depth, S05 location	
10/15/96	S06	surficial soil-W central part of Sivyer property	no VOC
10/15/96	S06B	soil at 5' depth, S06 location	no VOC
10/15/96	S07	surficial soil-SW corner of Sivyer	no VOC
10/15/96	S07B	soil at 5' depth, S07 location	no VOC
10/15/96	S08	surficial soil-E central part of Sivyer property	no VOC
10/15/96	S08B	soil at 5' depth, S08 location	
10/15/96	S09	duplicate of S08	no VOC

Table 2 - Round 2 Groundwater Samples/Round 1 Soil Samples

Date sampled	Sample #	Sample description
10/15/96	S01 (MW1)	groundwater - NE corner of Mobile property
10/15/96	S02 (MW2)	groundwater - SW corner of Mobile property
10/15/96	S03 MW3)	groundwater - NE corner of Sivyer property
10/15/96	D03	duplicate of S03
10/15/96	R01	rinse blank
10/15/96	R02	trip blank (VOC only)

3.5 Soil Sampling Procedure

The Phase II ESA soil sampling was conducted on two separate sampling trips. The first was on September 17, 1996, when three soil borings were drilled by a drill rig with a hollow-stem auger, and then converted into monitoring wells. The second sampling day was October 15, 1996 when six additional soil borings were drilled, this time with a U.S. EPA-provided Geoprobe™.

At each of the nine soil boring locations mentioned above, two samples were collected. Surface soil samples were collected with a stainless steel trowel from a depth of approximately 6"-9" in order to collect a sample free of loose surface debris and vegetation. The deep samples were collected from a depth of approximately five feet. On September 17, 1996 these deep samples were retrieved using a split spoon sampler on the drill rig. On October 15, 1996 deep samples were collected using the Geoprobe™. The sample collected from the sand pile inside the building was collected with a stainless steel trowel from approximately 4"-6" below the surface of the pile.

Obtaining a soil sample consisted of collecting a sufficient volume of material to fill two EnCore™ samplers, plus half of a 4 ounce jar for dry weight analysis, for volatile organic compounds, one 8 ounce jar for semi-volatile and PCB analysis, and one 8 ounce jar for metals analysis. The VOC samples collected with the EnCore™ sampler were immediately placed into tared vials and preserved with methanol in accordance with WDNR guidance, and then analyzed at the State Laboratory of Hygiene (SLOH). The remaining soil collected from the specified interval was placed in a stainless steel mixing bowl and thoroughly mixed before being placed in the appropriate sample container.

The SLOH provided the sample containers for the samples which they analyzed. The sample containers used for analyses by EPA's Contract Laboratory Program (CLP) were commercially obtained and comply with US EPA's cleaning protocols. Dedicated equipment was used where available and other equipment was decontaminated between samples with alconox and water and rinsed with tap and deionized water to prevent cross contamination of the samples.

3.6 Groundwater/Monitoring Well Sampling Procedure

Groundwater elevations were taken prior to bailing. The volume of water in the well was computed using Table 5 of WDNR Groundwater Sampling Procedures Outlines PUBL WR-168 87. The monitoring wells were purged using dedicated 1.66 inch O.D. Teflon bailers. Teflon bailers were used to minimize absorption of VOCs and reduce introduction of contaminants. Nonreuseable nylon rope was used to lower the bailers. Purged water was collected in 5-gallon plastic pails for color and volume determination. Purge water was then stored on site in 55-gallon drums until analytical results were obtained to determine the proper means of disposal.

A piece of 4-mil plastic sheet (approximately 4' by 4') was centered around the well to reduce the introduction of contaminants. The bailers are bottom loading and provided with specially designed bottom-emptying devices which were inserted into the bottom to transfer the sample to containers, thus minimizing volatilization of contaminants.

Obtaining a groundwater sample consisted of collecting enough water to fill two 40 ml vials pre-preserved with hydrochloric acid for VOA analysis, one 80 ounce amber glass bottle for semi-volatile and PCB analysis, one 1 liter polyethylene bottle preserved with nitric acid for metals analysis, and one ½ gallon transfer bottle for field analyses.

4.0 RESULTS

4.1 Laboratory Analyses

The soil samples collected in both Round 1 and Round 2 were analyzed by Wisconsin's SLOH for volatile organics, and by the US EPA's CLP for semi-volatiles, PCB/pesticides, and inorganics. The water samples collected in Round 2 were analyzed by the USEPA's Central Regional Lab (CRL) for all parameters. Summary tables of the laboratory data for groundwater and soil are presented in **Appendices C, D, and E.**

4.2 Data Limitations

Due to excess soil volume collected, there were several soil samples from Round 2 which could not be analyzed for volatile organics. These samples were: S01B, S02, S06, S06B, S07, S07B, S08, and S09. Additionally, one sample from Round 2 was not collected. This was sample S03, located inside the Mobile Painting and Blasting building. The sample was not collected due to the potential for release of the friable asbestos inside the building by driving the truck and Geoprobe™ into the building.

4.3 Soil Sample Results

There were several hazardous substances detected in the samples collected during the Phase II sampling. The presence of these compounds indicates contamination of the soil on the Mobile Blasting property. The data from the soil analyses were compared to the U.S. EPA Region III Risk-Based Concentration Table to help determine whether further site investigation was warrented. The data were compared to the risk-based concentrations for soil ingestion at both the industrial level and the residential level, and displayed in **Tables 3 and 4**, respectively.

There were semi-volatile compounds, pesticides, and one PCB compound detected in the soil samples. Most of the compounds were found on the northern portion of the site, concentrated on the part of the property formerly occupied by Mobile Blasting (samples S01, S02, and S04). Many of the highest concentrations were found in sample S04 on the Mobile Blasting property. The highest concentrations of the semi-volatile compounds were found in samples S04 and S03B. Though not all of the hazardous substances detected were found at depth (samples designated with a 'B' suffix), those contaminants which were detected at depth were almost always at a greater concentration than that of the surficial sample at the same location. The PCB compound was only detected in sample S03 on the Sivyer Steel property and sample S02, which was collected from the soil pile inside the Mobile Blasting building during the second round of sampling.

Table 3 - Detected Hazardous Substance Concentrations Compared With Industrial Level Soil Ingestion Guidelines

Soil Sample #	Date Collected	Hazardous Substance	Concentration (ug/g)		Soil Ingestion Industrial Level (ug/g)		Suggested RCL's GW path	SJ dir
S01	9/17/96	**Benz(a)anthracene**	83	J	7.8	C	17	3.9
S01B	9/17/96		730	J				
S02	9/17/96	(SVOC)	310	J				
S03	9/17/96		260	J				
S03B	9/17/96		1000					
S04	9/17/96		340	J				
S01	10/15/96		410					
S02	10/15/96		33	J				
S04	10/15/96		1500					
S05	10/15/96		350	J				
S09	10/15/96		110	J				
S01B	9/17/96	Chrysene	1900	J	780	C	37	390
S03B	9/17/96		1300					
S04	10/15/96	(SVOC)	1700					

Soil Sample #	Date Collected	Hazardous Substance	Concentration (ug/g)		Soil Ingestion Industrial Level (ug/g)		
S02	10/15/96	**Bis(2-ethylhexyl) phthalate (SVOC)**	1000		410	C	
S01	9/17/96	**Benzo(b)**	130	J	7.8	C	360 5.9
S01B	9/17/96	**fluoranthene**	660	J			
S02	9/17/96		280	J			
S03	9/17/96	(SVOC)	260	J			
S03B	9/17/96		870				
S04	9/17/96		330	J			
S01	10/15/96		660				
S02	10/15/96		45	J			
S04	10/15/96		2600				
S05	10/15/96		560				
S06	10/15/96		16	J			
S06B	10/15/96		20	J			
S01	9/17/96	Benzo(k)	100	J	78	C	870 39
S01B	9/17/96	fluoranthene	400	J			
S02	9/17/96		270	J			
S03	9/17/96	(SVOC)	240	J			
S03B	9/17/96		970				
S04	9/17/96		290	J			
S01	10/15/96		190	J			
S04	10/15/96		880				
S05	10/15/96		200	J			
S01B	9/17/96	Benzo(a)pyrene	730	JB	0.78	C	48 .39
S03B	9/17/96		980	JB			
S01	10/15/96	(SVOC)	290	J			
S04	10/15/96		1400				
S04B	10/15/96		25	J			
S05	10/15/96		240	J			
S06	10/15/96		8	J			
S06B	10/15/96		16	J			

720 RCL GW D.C.

Soil Sample #	Date Collected	Hazardous Substance	Concentration (ug/g) ppm		Soil Ingestion Industrial Level (ug/g)	
S02	9/17/96	Indeno(1,2,3-cd)	270	JB	7.8	C
S03	9/17/96	pyrene	270	JB		
S03B	9/17/96		840	B		
S04	9/17/96	(SVOC)	340	JB		
S01	10/15/96		350			
S02	10/15/96		19	J		
S04	10/15/96		1400			
S05	10/15/96		300	J		
S01	9/17/96	Dibenz(ah)	32	J	0.78	C
S02	9/17/96	anthracene	120	J		
S03	9/17/96		120	J		
S03B	9/17/96	(SVOC)	68	J		
S04	9/17/96		150	J		
S01	10/15/96		74	J		
S04	10/15/96		330	J		
S05	10/15/96		70	J		
S03	9/17/96	Arochlor-1254	51		41	N
S02	10/15/96	(PCB)	230	P		
S01B	9/17/96	beta-BHC (Pest)	9.6	PJ	3.2	C
S01B	9/17/96	gamma-BHC (Lindane) - (Pest)	7.2	PJ	4.4	C
S01	9/17/96	Aldrin	0.39	PJ	0.34	C
S01B	9/17/96	(Pest)	2.7	PJ		
S03	9/17/96		0.93	PJ		
S03	9/17/96	Heptachlor epoxide (Pest)	0.97	PJ	0.63	C
S04	9/17/96	Dieldrin	0.47	PJ	0.36	C
S01	10/15/96	(Pest)	1.5	PJ		
S02	10/15/96		1.6	PJ		

Soil Sample #	Date Collected	Hazardous Substance	Concentration (ug/g)	Soil Ingestion Industrial Level (ug/g)
S04	9/17/96	4,4'-DDT (Pest)	17	17 C

Data qualifiers:

N=noncarcinogenic effects
C=Carcinogenic effects
J=The associated numerical value is an estimated quantity.
B=This contaminant was also in the blank.
P=Lab generated qualifier that essentially means "estimated".

Table 4 - Detected Hazardous Substance Concentrations Compared With Residential Level Soil IngestionGuidlines

Soil Sample #	Date Collected	Hazardous Substance	Concentration (ug/g)	Soil Ingestion Residential Level (ug/g)
S01B	9/17/96	Naphthalene (SVOC)	3200	3100 N
S02	9/17/96	Carbazole	37 J	32 C
S03	9/17/96	(SVOC)	53 J	
S03B	9/17/96		210 J	
S04	10/15/96		150 J	
S04	10/15/97	Pyrene (SVOC)	3700	2300 N
S01	9/17/96	Benz(a)anthracene	83 J	0.88 C
S01B	9/17/96	(SVOC)	730 J	
S02	9/17/96		310 J	
S02B	9/17/96		5 J	
S03	9/17/96		260 J	
S03B	9/17/96		1000	
S04	9/17/96		340 J	
S01	10/15/97		410	
S02	10/15/97		33 J	
S04	10/15/97		1500	
S05	10/15/96		350 J	
S09	10/15/96		110 J	

Soil Sample #	Date Collected	Hazardous Substance	Concentration (ug/g)		Soil Ingestion Residential Level (ug/g)	
S01	9/17/96	Chrysene	150	J	88	C
S02	9/17/96	(SVOC)	400			
S03	9/17/96		390			
S04	9/17/96		440			
S01	10/15/97		480			
S03	10/15/96		340	J		
S09	10/15/96		170	J		
S01	10/15/97	Bis(2-ethylhexyl)	220	J	46	C
S08B	10/15/97	phthalate	48	J		
S09	10/15/96	(SVOC)	120	J		
S01	9/17/96	Benzo(b)	130	J	0.88	C
S01B	9/17/96	fluoranthene	660	J		
S02	9/17/96	(SVOC)	280	J		
S02B	9/17/96		7	J		
S03	9/17/96		260	J		
S03B	9/17/96		870			
S04	9/17/96		330	J		
S01	10/15/97		660			
S02	10/15/97		45	J		
S04	10/15/97		2600			
S05	10/15/96		560			
S06	10/15/96		16	J		
S06B	10/15/96		20	J		
S01	9/17/96	Benzo(k)	100	J	8.8	C
S01B	9/17/96	fluoranthene	400	J		
S02	9/17/96	(SVOC)	270	J		
S03	9/17/96		240	J		
S03B	9/17/96		970			
S04	9/17/96		290	J		
S01	10/15/97		190	J		
S02	10/15/97		14	J		
S04	10/15/97		880			
S05	10/15/96		200	J		
S06B	10/15/96		10	J		

Soil Sample #	Date Collected	Hazardous Substance	Concentration (ug/g)		Soil Ingestion Residential Level (ug/g)	
S01B	9/17/96	Benzo(a)pyrene	730	JB	0.088	C
S03B	9/17/96	(SVOC)	980	JB		
S01	10/15/97		290	J		
S04	10/15/97		1400			
S04B	10/15/97		25	J		
S05	10/15/96		240	J		
S06	10/15/96		8	J		
S06B	10/15/96		16	J		
S02	9/17/96	Indeno(1,2,3-cd)	270	JB	0.88	C
S03	9/17/96	pyrene	270	JB		
S03B	9/17/96	(SVOC)	840	B		
S04	9/17/96		340	JB		
S01	10/15/97		350			
S02	10/15/97		19	J		
S04	10/15/97		1400			
S05	10/15/96		300	J		
S01	9/17/96	Dibenz(ah)	32	J	0.088	C
S02	9/17/96	anthracene	120	J		
S03	9/17/96	(SVOC)	120	J		
S03B	9/17/96		68	J		
S04	9/17/96		150	J		
S01	10/15/97		74	J		
S04	10/15/97		330	J		
S05	10/15/96		70	J		
S02B	9/17/96	Arochlor-1254	3.2	J	1.6	N
S03B	9/17/96	(PCB)	21	J		
S04	9/17/96		19	J		
S07	10/15/96	beta-BHC (Pest)	1.2	PJ	0.35	C
S05	10/15/96	gamma-BHC (Lindane) - (Pest)	0.52	PJ	0.49	C
S05	10/15/96	Heptachlor (Pest)	0.48	PJ	0.14	C
S02	9/17/96	Aldrin (Pest)	0.19	PJ	0.038	C
S02B	9/17/96		0.17	PJ		

Soil Sample #	Date Collected	Hazardous Substance	Concentration (ug/g)		Soil Ingestion Residential Level (ug/g)	
S01	9/17/96	Heptachlor epoxide	0.21	PJ	0.07	C
S03B	9/17/96	(Pest)	0.18	PJ		
S04	10/15/96		0.48	PJ		
S02	9/17/96	Dieldrin	0.15	PJ	0.04	C
S07	10/15/96	(Pest)	0.16	PJ		
S08B	10/15/96		0.34	PJ		
S01	9/17/96	4,4'-DDE	3.0	J	1.9	C
S02	9/17/96	(Pest)	6.9			
S03	9/17/96		3.5	P		
S04	9/17/96		9.4			
S04	10/15/96		3.0	PJ		
S05	10/15/96		2.5	PJ		
S01	9/17/96	4,4'-DDD	5.0	P	2.7	C
S04	10/15/96	(Pest)	5.1			
S01	9/17/96	4,4'-DDT	6.8		1.9	C
S01B	9/17/96	(Pest)	7.5	J		
S02	9/17/96		14	P		
S02B	9/17/96		2.8	J		
S03	9/17/96		2.4	PJ		
S04	10/15/96		13	P		
S08	10/15/96		7.7	P		
S09	10/15/96		6.6	P		
S01	9/17/96	Iron	36000	*J	23000	N
S01B	9/17/96		24800	*J		
S02	9/17/96		61600	*J		
S02B	9/17/96		49400	*J		
S04	9/17/96		48000	*J		
S04	10/15/96		35600			
S04B	10/15/96		25700			
S05	10/15/96		28600			

Soil Sample #	Date Collected	Hazardous Substance	Concentration (ug/g)		Soil Ingestion Residential Level (ug/g)	
S01	9/17/96	Beryllium	0.21	B	0.15	C
S01B	9/17/96		0.68	B		
S02	9/17/96		0.56	B		
S02B	9/17/96		0.54	B		
S03	9/17/96		0.21	B		
S03B	9/17/96		0.21	B		
S04	9/17/96		0.5	B		
S04	10/15/96		0.68	B		
S04B	10/15/96		0.85	B		
S05	10/15/96		0.16	B		
S05B	10/15/96		0.48	B		
S06	10/15/96		0.19	B		
S06	10/15/96		0.57	B		
S07	10/15/96		0.49	B		
S07B	10/15/96		0.49	B		
S08B	10/15/96		0.30	B		

Data qualifiers:

N=noncarcinogenic effects
C=Carcinogenic effects
J=The associated numerical value is an estimated quantity.
B=This contaminant was also in the blank.
P=Lab generated qualifier that essentially means "estimated".
*=Duplicate analysis was not within control limits.

4.4 Groundwater Sample Results

Groundwater analyses indicate exceedances of State of Wisconsin NR 140 Administrative Code, Groundwater Quality Standards. **Table 5** lists the hazardous substances detected and the associated enforcement standard (ES) and the preventive action limit (PAL) assigned by NR140. These are standards which have been established to protect public health. The PAL serves as an early warning level to indicate when preventive measures should be taken. The ES is higher than the PAL, and if the ES is exceeded, steps should be taken to initiate and maintain a remedial response that will restore groundwater quality if it is a drinking water source. In addition to the hazardous substances listed in **Table 5**, there were several compounds identified which are not listed in NR140. It should be noted that just because there are not standards associated with these compounds does not mean that they are not a concern.

- VOCs which were also detected: Isopropylbenzene, n-Propylbenzene, 1,3,5-Trimethylbenzene, 1,2,4-Trimethylbenzene, and p-Isopropyltoluene.
- Other semi-volatile compounds detected were 2-Methylnaphthalene and 2,4-

Dinitrotoluene (only detected in the duplicate sample of MW3).

- There were no PCBs or pesticides detected in any of the samples.
- Vanadium was the only inorganic compound detected which was not included in NR140.

Table 5
Exceedances of NR 140 Groundwater Quality
Enforcement Standards and Preventive Action Limits

Monitoring Well #	Hazardous Substance	Concentration (ug/l)	NR140 - ES (ug/l)	NR140 - PAL (ug/l)
MW1 Public Health	Benzene	3	5	0.5
	Naphthalene	26 D	40	8
Public Welfare	Manganese	114	50	25
MW2	Benzene	1	5	0.5
	Naphthalene	200 D	40	8
	Lead	11	15	1.5
	Manganese	181	50	25
MW3	Benzene	1	5	0.5
	Naphthalene	360 D	40	8
	Manganese	178	50	25

Data Qualifier:
D=The sample was diluted.
ug/l = ppb

5.0 EVALUATION OF DATA

5.1 Physiographic and Hydrogeologic Features

The land surface at the site is relatively flat. However, in the vicinity of the site, the land slopes gently to the north-northeast, toward the Menomonee River located approximately 5000 feet away. It is assumed that surface water drainage patterns mimic the dominant topography and flow is to the north-northeast.

Drilling logs from the Phase II ESA reported clay to clayey sand underlying the site to a depth of eight to ten feet. Beneath this clay layer is poorly graded sand, with some silty clay layers, to the bottom of the borings, the maximum depth being 26 feet. There were also odors detected in the three borings which were converted to monitoring wells. There was an odor (paint solvent?) detected in the two borings which were drilled on the Mobile Blasting portion of the site (MW1 and MW2). Another odor (gasoline?) was detected in the boring drilled on the Sivyer Steel portion of the property (MW3). In all three borings, the odors were detected below a depth of 13 feet, and therefore beneath the upper clay layer.

Depth to groundwater at the site is approximately 18 feet.

The glacial till underlying the site does not serve as an aquifer, but does allow for the percolation of water to recharge underlying aquifers. However, all water is treated equally under Wisconsin state law, regardless of whether or not it serves as a primary aquifer. The predominant aquifer is the Niagara dolomite, which has an extensive system of joints and fractures serving to enhance the productivity of wells. Shallow groundwater flow in the vicinity of the site is to the north-northeast, in the direction of the Menomonee River, mimicking surface topography. Based on data collected October 15, 1996, there is a 2.5 foot gradient in the water table from MW3 at the southern part of the site to MW1 located at the northern part of the site. Deeper, more regional groundwater flow paths probably trend more to the east toward the Milwaukee Bay and Lake Michigan. WDNR records indicate that there are no wells in the vicinity of the site which provide drinking water, since the Village of West Milwaukee depends on Lake Michigan and other surface water sources for its water supply.

5.2 Distribution of Contaminants

Based on the analytical results, most of the soil contamination was concentrated on the northern portion of the site, particularly in the area formerly occupied by Mobile Blasting. Many of the semi-volatile compounds were found in samples analyzed from the northern portion of the site. These compounds may be attributed to past operations at the site, and are associated with paints, solvents, dyes, and sealants. They may also be partly attributed to the railway operations and maintenance, since rail lines ran alongside and bisected the site. The pesticides and PCB compound, however, were not as widely distributed. Instead, they were found only in samples S01 and S03, as well as a couple of detections from the sand pile (S02) inside the Mobile Blasting building. Pesticides were not known to be used at the site, and were detected at very low concentrations. They may also have been associated with railway operations to prevent grass and weed growth, or they may have been blown from offsite and deposited.

It appeared that many of the contaminants detected have migrated downward because contaminant concentrations were often greater in the sample collected at a depth of 5 feet than the overlying sample collected at a depth of only 6-8 inches. However, none of the contaminants listed in Table 3 which exceeded the industrial standards for soil ingestion were even detected in the groundwater samples analyzed.

6.0 CONCLUSIONS

There were numerous hazardous substances detected in the soil on the Mobile Blasting site, including semi-volatiles, pesticides and PCBs. These substances are listed in Tables 3 and 4. Most of the contamination is concentrated in the northern part of the site. Additional sampling should be focused in the northern portion of the site to determine the degree and extent of contamination. Additionally, the large sand pile inside the Mobile Blasting building should be further sampled to adequately characterize the pile and ensure proper disposal of the sand.

There were two compounds, manganese and benzene, which exceeded the State of Wisconsin Enforcement Standard for Drinking Water Quality as outlined in NR 140. There were also several compounds which exceeded the Preventive Action Limit outlined in NR 140, but did not exceed the Enforcement Standard. These compounds are listed in Table 5. Additionally, there were a number of compounds detected for which there are no established state drinking water standards, listed in Section 4.4.

There is also a concern about the presence of friable asbestos on the floor and hanging from pipes inside the building. The asbestos will need to be properly contained and removed before the building can be razed or reoccupied.

Additional soil and groundwater data, combined with the existing data, will be necessary to accomplish the site investigation and remediation goals of NR 716 and 722.

7.0 STATEMENT OF LIMITATIONS

This report was prepared by the Department of Natural Resources in cooperation with the Village of West Milwaukee as part of a pilot project to assist municipalities wishing to market potentially contaminated properties for redevelopment. This study is not intended to be a definitive study of environmental conditions at the site. Information provided by others has been accepted as true and correct. The conclusions presented in this report are professional opinions of the Department of Natural Resources' staff which are based on the information and sample data collected, and reviewed for this report.

Users of this report are cautioned that site conditions may change over time due to natural process or activity on the site or adjacent properties. Other conditions may also exist at the site that could not be identified based on the limited scope of this investigation.

If you have additional questions concerning this report you may contact the Department of Natural Resources, Bureau for Remediation and Redevelopment, 101 S. Webster Street, P.O. Box 7021, Madison, Wisconsin, 53707-7921.

APPENDIX A

Phase II Site Specific Workplan

Wisconsin Department Of Natural Resources

Brownfields Environmental Assessment Pilot
Phase II Site Specific Workplan

Site Name:	Former Mobile Blasting Site
Location:	1604 and 1650 South 43rd Street, Village of West Milwaukee NW 1/4, Section 1, Township 6N, Range 21E Milwaukee County, Wisconsin
Access/Directions to site:	From Madison, take I-94 east to West Milwaukee. Exit south on Highway 41 by the Milwaukee County Stadium. Travel south about one mile, then turn left on National Avenue. Go two blocks then turn right on South 43rd Street. The site will be on the left, between Orchard and Mitchell Streets.
Dates Of Investigation:	September 17-18 and October 15-16, 1996
Inspection Leader:	Kim White
Other Site Personnel:	Robert Amerson _____ Amy Walden _____ Carol McCurry _____ Cara Norland _____

* Initial to indicate that the Safety Plan has been reviewed.

Prepared by: Kimberly A. White 8/29/96
Date

Description Of Work To Be Performed:

The BEAP sampling activities will consist of the collection and analysis of groundwater and soil samples.

See Attachment A for the sampling review.
See Attachment B for the sampling plan and methodology.
See Attachment C for sample locations.

Soil Sampling

There will be a total of approximately 11 different soil sampling locations, with 20 samples collected. Three of the borings will be sampled and converted to monitoring wells on September 17 and 18. The remaining borings will be drilled and sampled, and the monitoring wells will be sampled on October 15 and 16. At nine of the soil sampling locations, there will be a surficial sample collected as well as a sample collected with the geoprobe at a depth of approximately 5 feet. The remaining two locations will be inside the former Mobile Blasting building. One sample will be collected from the large pile of blasting sand in the sand storage room at the northern part of the building. The other sample in the building will be collected from a five foot Geoprobe boring from the blasting and painting area in the central part of the building. Field screening during sampling activities may also influence actual sample locations and depths.

One area of concern is the northeastern part of the property between the building occupied by Mobile Blasting and the train tracks. There is stressed vegetation in this area, and some blasting sand, so some of the outdoor blasting and painting activities may have taken place in this area. Another area on which to focus sampling efforts is the southern part of the property where Sivyer Steel was located. Samples may be collected from holes in the foundation, presumably left from the removal of building support structures. Otherwise, since the building foundation is still in place, a geoprobe may be required to punch through the concrete to collect the samples.

Groundwater Sampling

Three monitoring wells will be installed on the property from which groundwater samples may be collected. Two of the wells will be located on the northern part of the property, between the Mobile Blasting building and the train tracks which form the eastern property boundary. The third monitoring well will be located on the southern part of the property, where Sivyer Steel was located. The three monitoring wells are proposed in order to sample groundwater for suspected contamination and to determine the depth to groundwater and direction of groundwater flow. There will not be a background well. The estimated depth to groundwater based on historic well logs from the area is 40 to 50 feet.

Sample Analyses

All soil and water samples will be analyzed for volatile organics, semi-volatiles, PCBs, and total metals.

Site Personnel Assignments:

Team Member	Responsibilities
Amy Walden	Offsite support Decontamination Sample shipping/paperwork Safety Manager
Kim White	Monitoring Well Sampling Field Monitoring Decontamination
Robert Amerson	Monitoring Well Sampling Decontamination Field Monitoring
Carol McCurry	Soil Sampling Field Monitoring Decontamination
Cara Norland	Soil Sampling Field Monitoring Decontamination

ATTACHMENT A

Sampling Review

Groundwater Samples

M-01 northeast sample, east of Mobile Blasting's sand storage room
M-02 northeast sample, east of blasting and painting room (south of M-01)
M-03 duplicate of M-02
M-04 southern sample, from hole in Sivyer Steel's building foundation
R-01 trip blank

- sample designated for matrix spike duplicate to be determined.
- samples will be field filtered for metals analysis
- addition of hydrochloric acid to volatile samples
- addition of nitric acid to total metals samples
- no preservative for semi-volatile and PCB samples
- volatile, semi-volatile, and PCB samples will be cooled to 4^0 C
- sample bottles per sample:

Volatiles	40 ml for all wells
Semi-Vol, PCB	80 oz for all wells
Metals	1 liter polyethylene bottle

Sample bottles will be filled in the following order:

1. 40 ml glass bottles for VOA analysis
2. 80 oz amber glass bottles for semi-volatile and PCB analysis.
3. 1 liter polyethylene bottle for metals analysis.
4. ½ gallon transfer bottle for field analysis.

Soil Samples

S01 - S06	Soil samples collected at northeastern part of property, inside Mobile Blasting building and between building and train tracks
S07 - S11	Soil samples collected from southern half of property from holes in former Sivyer Steel building foundation
S12	Shallow soil sample duplicate, to be determined
S13	Deep soil sample duplicate, to be determined

* Note: sample numbers will be designated with a 'b' suffix for those samples collected at depth but at the same location as the primary number assigned to the surficial sample.

* Exact sample locations will be selected closer to the time of sampling, and will depend on distribution of holes in foundation at southern part of property and ability of Geoprobe to drill through concrete foundation if necessary.

- sample designated for matrix spike duplicate to be determined.
- no preservatives for semi-volatile and PCBs; samples will be cooled to 4^0 C
- no preservatives for metals samples, cooling not necessary
- samples analyzed for VOCs will be preserved with methanol, according to guidelines provided in **Attachment B**, the Sampling Plan
- sample bottles per sample:

Volatiles and GRO	4 oz
Semi-Vol and PCB	8 oz
Metals	8 oz

ATTACHMENT B

Brownfields Environmental Assessment Pilot
Sampling Plan

Sampling Methodology

Soil Sampling

Obtaining a soil sample will consist of collecting a sufficient volume of material to fill one 8 ounce jar for metal analysis, one 8 ounce jar for semi-volatile/pesticide/PCB analysis, and two 4 ounce jars for analysis of volatiles. The samples will be taken near the surface or at depth. Surficial samples will be obtained using a stainless steel trowel or auger, and subsurface samples may be collected from a boring created by an auger, geoprobe, or other drilling method. Soil can be collected using a 30 ml plastic syringe with the end sliced off, a brass tube, an EnCore sampler or other appropriate devices. Samples cannot be analyzed if the amount of soil in the vial exceeds the weight maxima listed in Table 1. Loose surface material, grass or gravel, shall not be included in the soil sample.

Material from the specified interval will be placed in a stainless steel mixing bowl prior to filling the sample bottles. VOA samples jars will be filled, with no head space, as soon as sample collection/auguring is completed with as little handling or disturbance as possible. Material for filling the VOA jars will be selected from multiple points throughout the stainless steel bowls prior to mixing. Stainless steel trowels or spoons will be used to facilitate mixing the sample material following VOA sample collection. Regardless of the method of collection, soil samples obtained for non-volatile chemical analyses will be thoroughly mixed before being placed in the appropriate sample containers. The soil will be removed from the sampling device (dredge, core tube, scoop, etc.) and placed in a stainless steel pan or mixing bowl. The soil in the pan will be scraped from the sides, corners, and bottom of the pan, rolled to the middle of the pan, and initially mixed. The sample will then be quartered and moved to the four corners of the container. Each quarter of the sample will be mixed individually. Each quarter will then be rolled to the center of the container and the entire sample mixed again. Stainless steel trowels or spoons will be used to fill the sample jars.

Monitoring Well Sampling

The monitoring wells will be pruged using 1.66 inch O.D. Teflon bailers. Groundwater elevations will be taken prior to bailing. The head space in the well will also be monitored with an Hnu meter. The volume of water in the well will be computed using Table 5 of WDNR Groundwater Sampling Procedures Outlines PUBL WR-168 87. Purged water will be collected and contained in calibrated 5-gallon plastic pails for color and volume determination. Teflon bailers will be used to minimize absorption of VOCs and reduce introduction of contaminants. Nylon rope (1/8 in. 4SB - nonreuseable) will be used to lower the bailers.

All monitoring wells will be sampled using Teflon bailers. All bailers will be properly decontaminated before and after each use. A piece of 4-mil plastic (4ft. By 4ft.), will be centered around the well to reduce the introduction of contaminants. The bailers are bottom loading and are provided with specially designed botom-emptying devices which will be inserted into the bottom to tramsfer the sample to containers, thus minimizing volatilization of contaminants.

Sample Preservation

Water Sample Preservation

A portion of the water from the transfer bottles will be used for determining specific conductance, pH and temperature. Monitoring well samples will be field filtered.

Prior to obtaining the VOA samples, hydrochloric acid will be added to the 40 ml bottles to preserve these samples for analysis (pH of less than 2). Particular care will be taken to avoid splashing when filling these bottles. Attention will be given to avoid trapping air bubbles within the sample bottle. Bottles will also be cooled to 4°C.

No preservative will be added to the semi-volatile/PCB sample bottles, though the bottles will be cooled to 4°C.

Total metals analysis for the monitoring well samples will be preserved with nitric acid to a pH of less than 2, and will be cooled to 4°C.

Soil Sample Preservation

No chemical preservatives will be added to samples for pesticide/PCB or metals analysis. Samples will be cooled to 4°C.

Methanol preservation is mandatory for VOCs and the Modified GRO method and must be noted on the chain of custody. Sample collection time must be verifiable from the chain of custody. Soil samples that arrive at the laboratory without methanol that have not been stored

properly must be rejected. Flagging data for these samples will not be acceptable. Results from soil samples not preserved in methanol will be rejected. If the laboratory analyzes soil samples not handled properly, at the request of clients, the samples must not be reported as "GRO".

A sufficient number of vials (three recommended) should be collected to provide for backup analyses in the event of breakage and to allow for screening. One vial must be collected for dry weight determination (without methanol). A methanol trip blank must accompany each batch of samples (for each site and each day that samples are collected). Care must be taken to be sure the vial seals properly (no soil on the threads). This can be accomplished by using a clean toothbrush or other utensil to sweep particles off the threads of the vial.

Collect and preserve soil samples by one of the following techniques:

a. Collect soil into tared VOC vials following the guidelines in Table 1. Preserve immediately with methanol. Store samples on ice or at 4°C. **Note that any samples collected in this fashion which are not analyzed by a laboratory are considered hazardous waste.** Vials should be shipped in an upright position. Vials can also be placed in separate "ziplock" bags to avoid any problems that might occur if a vial leaks (such as the ink being removed from vial labels). Samplers should be aware that laboratories use a variety of vial taring methods so it is important to use only vials supplied by the laboratory performing the analysis.

b. Use a brass tube to line either the split spoon or Geoprobe sampler for collecting the soil sample. Cap the tube using plastic endcaps with Teflon sheets placed between the endcaps and the sample. Store samples on ice or at 4°C. Preserve with methanol within 2 hours of sample collection. Immediately prior to methanol preservation, the soil from the brass tube must be subsampled into a VOC vial following guidelines in Table 1. Subsampling involves removing one of the plastic endcaps, scraping away the surface soil, and then scooping out, (with a spatula or other utensil), the appropriate weight of soil into the vial. Brass tubes must be cleaned appropriately prior to reuse.

c. Push an EnCore sampler into a split spoon liner or sample, allowing no headspace. Cap with the stainless steel "o-ring" cap. Store samples on ice or at 4°C. Preserve with methanol within 48 hours of sample collection. Note that this allows the possibility of having the laboratory preserve the sample. If you intend to have the laboratory preserve the sample, it must be received at the laboratory within 40 hours of sample collection. Soil stored in the EnCore sampler must be extruded from the device into a VOC vial immediately prior to methanol preservation. The soil is extruded by using a pushrod supplied with the tool. Soil should not be scooped out of the sampler using a spatula, etc. EnCore samplers must be cleaned appropriately (following the manufacturers recommendations) prior to reuse.

d. Alternate sample storage devices equivalent or superior in performance to the brass

tube or the EnCore sampler may be used for sample storage prior to methanol preservation. Alternate sample storage devices must be approved prior to use.

Vials must not be submitted to the laboratory for analysis of any volatile parameter (GRO, PVOC, VOC) if any of the methanol has spilled in sampling. If the laboratory determines that a vial has leaked, by noting a visible reduction of volume, or an unusually low weight, then this must be reported with analytical results. Only the vial that has leaked will be in question not the entire cooler or shipping package.

Methanol can be added by one of the methods listed below:

a. Samples collected directly into a VOC vial in the field can be placed into tared vials already containing the appropriate volume of methanol (see Table 1). Samples stored in the brass tube, EnCore sampler, or an approved alternate storage device, can be added to tared vials already containing the appropriate volume of methanol. Samples stored in the brass tube, EnCore sampler, or an approved alternate storage device, should be preserved after screening of collected samples to determine which samples will be laboratory analyzed. Only those samples to be analyzed by a laboratory should be methanol preserved. Store samples on ice or at 4°C.

b. Methanol can be added from premeasured volumes provided by the laboratory or a commercial vendor. For samples collected directly into a VOC vial in the field or soils placed into a VOC vial after storage in an approved device, quickly open the soil vial and pour in the appropriate volume of methanol (see Table 1), closing the sample vial immediately. Sore samples on ice or at 4°C. Unused vials of methanol may be used at other sites at the sampler's discretion. Professional judgement should be used in determining how long vials with methanol for preservation (or vials for trip blanks) can be stored. Labs may determine the shelf life for these vials if they wish to offer an exact time period for storage to their clients.

c. Premeasured volumes of methanol can be added via syringe from a septa vial provided by the laboratory or a private vendor containing the appropriate volume (see Table 1) or from the bulk methanol in the laboratory. For samples collected directly into a VOC vial in the field or soils placed into a VOC vial after storage in an approved device, draw the appropriate volume of methanol into the syringe and add by puncturing the vial septa. Depending on the vial size and volume of methanol added, venting of the vial may be necessary to facilitate adding the methanol. If necessary, vent the vial by partially unscrewing the vial top. A fresh syringe needle will be needed for each new vial to avoid cross contamination. Common laboratory glass syringes and noncoring type syringe needles should be used. Store samples on ice or at 4°C.

d. Methanol can be added using a Teflon repeater pipet pump that attaches to a bottle of a purge and trap grade methanol and delivers the appropriate volume of methanol (see Table

1). For samples collected directly into a VOC vial in the field or soils placed into a VOC vial after storage in an approved device, quickly open the soil vial and depress the pipet pump to deliver the methanol, closing the sample vial immediately. If this method is used it is important to make sure that purge and trap grade methanol be used. Store samples on ice or at 4°C. Note that the methanol in the bottle can become contaminated if stored near any source of volatile fumes. Storage and use of this apparatus must be away from petroleum products and other volatile contaminants.

Additional Comments

For aqueous samples, one trip blank of distilled water for volatile organic analysis will be included per cooler. A rinse blank for the groundwater bailers, as well as field duplicate samples (1 duplicate for every 10 samples) for each matrix, and appropriate matrix duplicates for laboratory quality control (QC) purposes will be obtained. All field data will be recorded on field data sheets and logs. Cleaning and rinse waters, as well as purge waters from contaminated wells, will be collected in pails or drums and properly disposed of according to state ARARs concerning investigative wastes.

Dedicated precleaned sampling equipment will be used for most of the sampling. When dedicated equipment is not used, between the collection of every sample the sampling equipment (augers, mixing bowls, and trowels or spoons, etc) shall be decontaminated by scrubbing with a brush and alconox, rinsing with tap water, and then triple rinsing with distilled water. Equipment will be cleaned in the decontamination area where practical. Discarded items (ie. Tyvek suits, masking tape, etc.) will be placed in plastic trash bags, removed from the site and disposed of at the WDNR office.

All appropriate information such as field measurements, sample I.D. numbers, person obtaining and handling samples, etc., will be recorded on preprinted data sheets and/or in the sampling field notebook. The date and time of sampling will be recorded on each sample bottle or jar. After sample bottles are filled, they will be clean rinsed with tap and/or distilled water for handling.

Preservation of water samples will be performed in a well ventilated area to avoid inhalation of any vapors that may be produced from this operation. No preservation of soil or sediment samples will be performed. The sample bottles or jars will then be kept cool (except samples for metals analysis) until packaging.

Quality Control

Groundwater sampling will comply with Chapter 1, Sections C-J and Chapter 2, Sections C-I of the Groundwater Monitoring Procedures Guidelines. The sample containers will be commercially obtained and will comply with EPA's cleaning protocols.

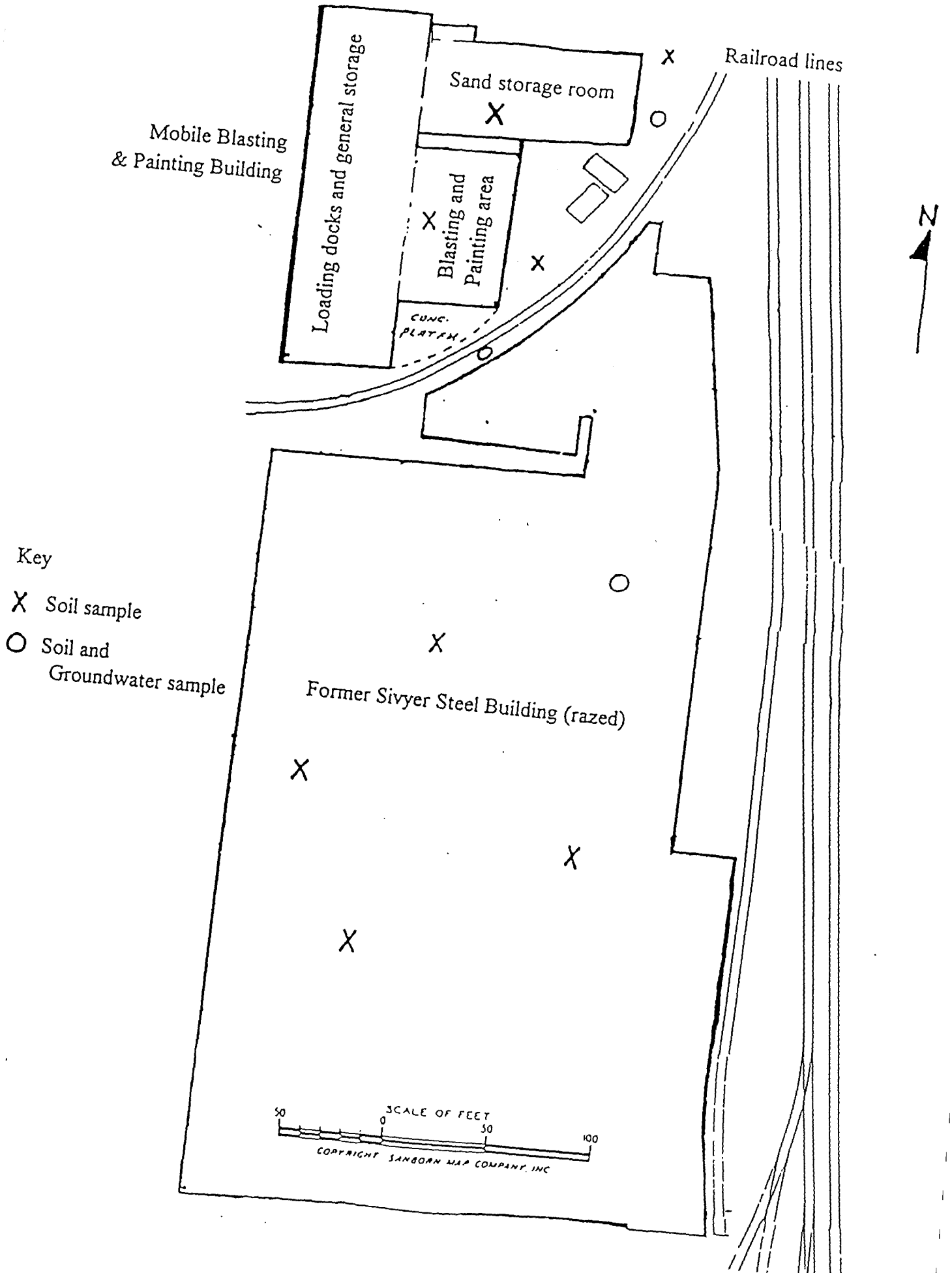
Table 1 - Weight Maxima

Vial Size	Target Sample Weight	Actual Sample Weight	Volume of Methanol	Action
40 mls (GRO only)	10 gms	<8 gms 8-11 gms >11gms<20gms >20 gms	10 mls 10 mls 10 mls for any amount	flag none add methanol reject
60 mls	10 gms	<8 gms 8-11 gms >11gms<35gms	10 mls 10 mls 10 mls	flag none add methanol
60 mls	25 gms	<20 gms 20-26 gms >26gms<35gms >35 gms	25 mls 25 mls 25 mls for any amount	flag none add methanol reject
120 mls	10 gms	<8 gms 8-11 gms >11gms<70gms	10 mls 10 mls 10 mls	flag none add methanol
120 mls	25 gms	<20 gms 20-26 gms >26gms<70gms	25 mls 25 mls 25 mls	flag none methanol
120 mls	50 gms	<40 gms 40-51 gms >51gms<70gms >70 gms	50 mls 50 mls 50 mls for any amount	flag none add methanol reject

ATTACHMENT C

Site Map With Sampling Locations

Sampling Locations



APPENDIX B

Soil Boring Logs

and

Monitoring Well Construction Reports

State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☒ Other Brownsfield

Soil Boring Log Information
Form 4400-122 7-91

Page 1 of 1

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Mobile Blasting		MW1

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Miller Engineers & Scientists. Chief Driller Arvin Broehm.	09/17/96	09/17/96	HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW1	Feet MSL	Feet MSL	8.0 Inches

Boring Location
1/4 of 1/4 of Section T N,R
Lat ° ' "
Long ° ' "

Local Grid Location (If applicable)
Feet ☐ N ☐ S Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City/ or Village
MILWAUKEE	41	MILWAUKEE

Sample Number	Sample Length (in) Recovered	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
1			1–4	TOPSOIL:SILTY SAND - damp, loose, dark brown (10YR 2/2).	SM			15						
2	1	11	5–8	LEAN CLAY - damp, stiff, dark gray (10YR 3/1).	CL			150	11					
3	18	27	9–13	POORLY GRADED SAND WITH SILT - moist, dense, dark grayish brown (10YR 3/2).	SP SM			175	27					
4	18	32	14–19	POORLY GRADED SAND - moist to wet, dense, dark grayish brown (10YR 4/2), paint solvent odor.	SP			25	32					
5	15	15	20–24	...wet.	SP			450	15					
6	15		25–26		SP			200						

NOTES:
1) End of boring at 26.5 feet.
2) Monitoring Well MW1 constructed at completion.

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

Signature: Kristin K. Ehlinger

Firm: Miller Engineers & Scientists
5308 South 12th Street, Sheboygan, WI 53081
Tel: (414)458-6164 Fax: (414)458-0369

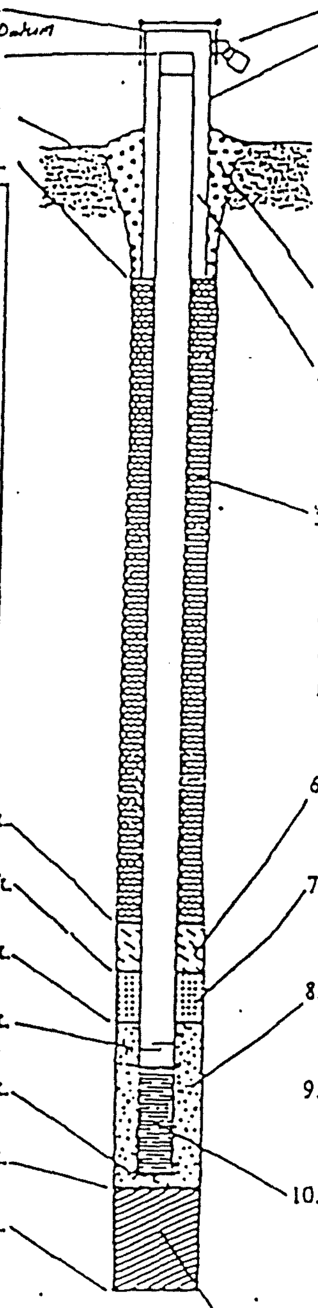
This form is authorized by Chapters 144, 147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than $10 nor more than $5,000 for each violation. Fined not less than $10 or more than $100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

State of Wisconsin
Department of Natural Resources

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ■ Brownfield Pilot

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 4-90

Facility/Project Name	Local Grid Location of Well	Well Name
Mobile Blasting	____ ft. ☐N ☐S. ____ ft. ☐E ☐W	MW1
Facility License, Permit or Monitoring Number ________	Grid Origin Location Lat. ______ Long. ______ or St. Plane ______ ft. N. ______ ft. E.	Wis. Unique Well Number / DNR Well Number Date Well Installed 04/17/96 (m m d d y y)
Type of Well: Water Table Observation Well ■ 11; Piezometer ☐ 12	Section Location of Waste/Source __1/4 of __1/4 of Sec. __, T. __ N, R. __ ☐E ☐W	Well Installed By: (Person's Name and Firm) Arvin Ericksen Miller Engineers
Distance Well Is From Waste/Source Boundary ____ ft.	Location of Well Relative to Waste/Source u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ■ Not Known	
Is Well A Point of Enforcement Std. Application? ■ Yes ☐ No		



A. Protective pipe, top elevation __69.59 ft. ~~MSL~~ City Datum

B. Well casing, top elevation __69.39 ft. ~~MSL~~

C. Land surface elevation __67.2 ft. ~~MSL~~

D. Surface seal, bottom ____ ft. MSL or 0.5 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ■
SM ■ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 50; Hollow Stem Auger ■ 41; Other ☐ ____

15. Drilling fluid used: Water ☐ 02; Air ☐ 01; Drilling Mud ☐ 03; None ☐ 99

16. Drilling additives used? ☐ Yes ☐ No

Describe ________

17. Source of water (attach analysis):

E. Bentonite seal, top ____ ft. MSL or 0.5 ft.

F. Fine sand, top ____ ft. MSL or 9.0 ft.

G. Filter pack, top ____ ft. MSL or 10.0 ft.

H. Screen joint, top ____ ft. MSL or 11.5 ft.

I. Well bottom ____ ft. MSL or 21.5 ft.

J. Filter pack, bottom ____ ft. MSL or 24.0 ft.

K. Borehole, bottom ____ ft. MSL or 24.0 ft.

L. Borehole, diameter 8.0 in.

M. O.D. well casing 2.34 in.

N. I.D. well casing 2.00 in.

1. Cap and lock? ■ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 4.0 in.
b. Length: 7.0 ft.
c. Material: Steel ■ 04; Other ☐
d. Additional protection? ☐ Yes ■ No
If yes, describe: ________

3. Surface seal: Bentonite ☐ 30; Concrete ☐ 01; Soil Other ☐

4. Material between well casing and protective pipe: Bentonite ■ 30; Annular space seal ☐; Other ☐

5. Annular space seal: a. Granular Bentonite ☐ 33
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. ____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. ____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. ____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01; Tremie pumped ☐ 02; Gravity ■ 03

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☐3/8 in. ☐1/2 in. Bentonite pellets ☐ 32
c. 3/4" Hole Plug - 4 Bags Other ☐

7. Fine sand material: Manufacturer, product name & mesh size
a. 1/2 Bag.
b. Volume added 0.24 ft^3

8. Filter pack material: Manufacturer, product name and mesh size
a. ________
b. Volume added 1.7 ft^3 3 1/2 Bags

9. Well casing: Flush threaded PVC schedule 40 ■ 23; Flush threaded PVC schedule 80 ☐ 24; Other ☐

10. Screen material: PVC
a. Screen type: Factory cut ■ 11; Continuous slot ☐ 01; Other ☐
b. Manufacturer ________
c. Slot size: 0.010 in.
d. Slotted length: 10.0 ft.

11. Backfill material (below filter pack): None ☐ 14; Other ☐

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

Signature	Firm
Kristine K. Gallagher	Miller Engineers & Scientists

Please complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Ad. Code. In accordance with ch. 144, Wis Stats., failure to file this form may result in a forfeiture of not less than $10, nor more than ... for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of ...

State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste
☐ Emergency Response
☐ Wastewater
☐ Haz. Waste
☐ Underground Tanks
☐ Water Resources
☒ Other Brownsfield

Soil Boring Log Information

Form 4400-122 7-91

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
bile Blasting		MW2

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
Miller Engineers & Scientists. Chief Driller Arvin Broehm.	09/17/96	09/17/96	HSA

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW1	Feet MSL	Feet MSL	8.0 Inches

Boring Location
1/4 of 1/4 of Section T N,R
Lat o ' "
Long o ' "
Local Grid Location (If applicable)
Feet ☐ N ☐ S Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City/ or Village
MILWAUKEE	41	MILWAUKEE

Sample Number	Sample Length (in) Recovered	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
1	18	19	1-6	LEAN CLAY - moist, stiff, yellowish brown (10YR 5/4).	CL			0	19					
2	18	15	9-12	SILTY CLAY - moist, stiff, grayish brown (10YR 5/2).	CL CL ML			0	15					
	15	19	14-17	POORLY GRADED SAND - wet, dense, grayish brown (10YR 5/2).	SP			45	19					
	20	12	19-20	...strong paint solvent odor.	SP			220	12					
			20-23	SILTY CLAY - wet, stiff, grayish brown (10YR 5/2).	CL ML									
				NOTES: 1) End of boring at 23 feet. 2) Monitoring Well MW2 constructed at completion.										

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

ture: Kristen K. Gallagher

Firm: Miller Engineers & Scientists
5308 South 12th Street, Sheboygan, WI 53081
Tel: (414)458-6164 Fax: (414)458-0369

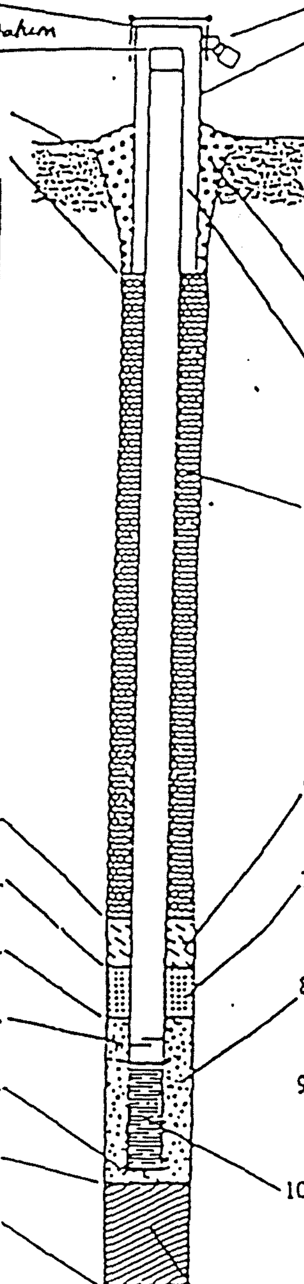
orm is authorized by Chapters 144, 147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than $10 nor more 5,000 for each violation. Fined not less than $10 or more than $100 or imprisoned not less than 30 days, or both for each violation. Each day of nued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

sconsin
of Natural Resources

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☒ Brownfield Pilot

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 4-90

ject Name: Mobile Blasting	Local Grid Location of Well: ______ ft. ☐N ☐S. ______ ft. ☐E ☐W	Well Name: MW2
ense, Permit or Monitoring Number: ______	Grid Origin Location: Lat. ______ Long. ______ or	WI Unique Well Number / DNR Well Number:
Water Table Observation Well ☒ 11; ometer ☐ 12	St. Plane ______ ft. N. ______ ft. E.	Date Well Installed: 09/17/96 (m m d d y y)
l Is From Waste/Source Boundary ______ ft.	Section Location of Waste/Source: ___1/4 of ___1/4 of Sec. ___, T. ___ N, R. ___ ☐E ☐W	Well Installed By: (Person's Name and Firm) Aryan Brehm, Miller Engineers
ent of Enforcement Std. Application? ☐ Yes ☐ No	Location of Well Relative to Waste/Source: u ☐ Upgradient; s ☐ Sidegradient; d ☐ Downgradient; n ☐ Not Known	



e pipe, top elevation __71.36 ft. ~~MSL~~ City Datum
ing, top elevation __71.54 ft. ~~MSL~~
ace elevation __70.4 ft. ~~MSL~~
eal, bottom ______ ft. MSL or 0.5 ft.

lassification of soil near screen:
GM ☐ GC ☐ GW ☐ SW ☐ SP ☒
SC ☐ ML ☒ MH ☐ CL ☒ CH ☐
☐

alysis attached? ☐ Yes ☒ No

method used: Rotary ☐ 50
Hollow Stem Auger ☒ 41
Other ☐

luid used: Water ☐ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☒ 99

additives used? ☐ Yes ☐ No

of water (attach analysis):

seal, top ______ ft. MSL or __9.5 ft.
top ______ ft. MSL or __10.0 ft.
top ______ ft. MSL or __11.0 ft.
int, top ______ ft. MSL or __12.0 ft.
m ______ ft. MSL or __22.0 ft.
bottom ______ ft. MSL or __23.0 ft.
bottom ______ ft. MSL or __30 ft.

iameter __8.0 in.
l casing __2.34 in.
asing __2.00 in.

1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 4.0 in.
b. Length: 7.0 ft.
c. Material: Steel ☒ 04; Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe: ______

3. Surface seal: Bentonite ☐ 30; Concrete ☐ 01; Soil Other ☒

4. Material between well casing and protective pipe: Bentonite ☒ 30; Annular space seal ☐; Other ☐

5. Annular space seal: a. Granular Bentonite ☐ 33
b. ______ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. ______ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. ______ % Bentonite . . . . . . Bentonite-cement grout ☐ 50
e. ______ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01; Tremie pumped ☐ 02; Gravity ☒ 03

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☐3/8 in. ☐1/2 in. Bentonite pellets ☐ 32
c. Bentonite Hole Plug 3 Bags Other ☐

7. Fine sand material: Manufacturer, product name & mesh size
a. ______
b. Volume added 0.24 ft^3 1/2 Bag

8. Filter pack material: Manufacturer, product name and mesh size
a. ______
b. Volume added 3.7 ft^3 6 1/2 Bag

9. Well casing: Flush threaded PVC schedule 40 ☒ 23; Flush threaded PVC schedule 80 ☐ 24; Other ☐

10. Screen material: PVC
a. Screen type: Factory cut ☒ 11; Continuous slot ☐ 01; Other ☐
b. Manufacturer ______
c. Slot size: 0.010 in.
d. Slotted length: 10.0 ft.

11. Backfill material (below filter pack): None ☐ 14; Other ☐

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

Signature: Kristin Gallagher | Firm: Miller Engineers & Scientists

te both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs. 144, 147 and 160, Wis. Stats., 1, Wis. Ad. Code. In accordance with ch. 144, Wis Stats., failure to file this form may result in a forfeiture of not less than $10, nor more than day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than $10,000 for each . NOTE: Shaded areas are for DNR use only. See instructions for more information including where the completed form should be sent.

)f Wisconsin
ment of Natural Resources

Route To:
☐ Solid Waste
☐ Emergency Response
☐ Wastewater
☐ Haz. Waste
☐ Underground Tanks
☐ Water Resources
☒ Other Brownsfield

Soil Boring Log Information
Form 4400-122 7-91

/Project Name	License/Permit/Monitoring Number	Boring Number
b: lasting		MW3

Drilled By (Firm name and name of crew chief)	Date Drilling Started	Date Drilling Completed	Drilling Method
er Engineers & Scientists. Chief Driller Arvin Broehm.	09/17/96	09/17/96	HSA

icility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
		MW1	Feet MSL	Feet MSL	8.0 Inches

Location

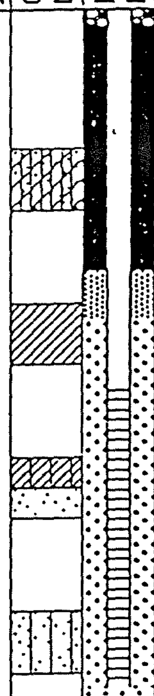
Lat ° ' "
Long ° ' "

Local Grid Location (If applicable)
Feet ☐ N ☐ S Feet ☐ E ☐ W

1/4 of 1/4 of Section T N,R

	DNR County Code	Civil Town/City/ or Village
WAUKEE	41	MILWAUKEE

le Length (in) Recovered	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
4		1–8	SILTY, CLAYEY SAND - moist, dense, dark brown (10YR 3/2).	SC SM									
18	11	8–13	LEAN CLAY - moist, stiff, brown (10YR 5/3), very fractured, mottled.	CL			200	11					
0	3	13–16	SILTY CLAY - wet, loose, grayish brown (10YR 4/2).	CL ML			140 175	3					
		16–19.5	POORLY GRADED SAND - wet, loose, grayish brown (10YR 4/2), gasoline odor.	SP									
5	14	19.5–21	SILTY SAND	SM			450	14					
			NOTES: 1) End of boring at 21.5 feet. 2) Monitoring Well MW3 constructed at completion.										



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

Signature: [signature]

Firm: Miller Engineers & Scientists
5308 South 12th Street, Sheboygan, WI 53081
Tel: (414)458-6164 Fax: (414)458-0369

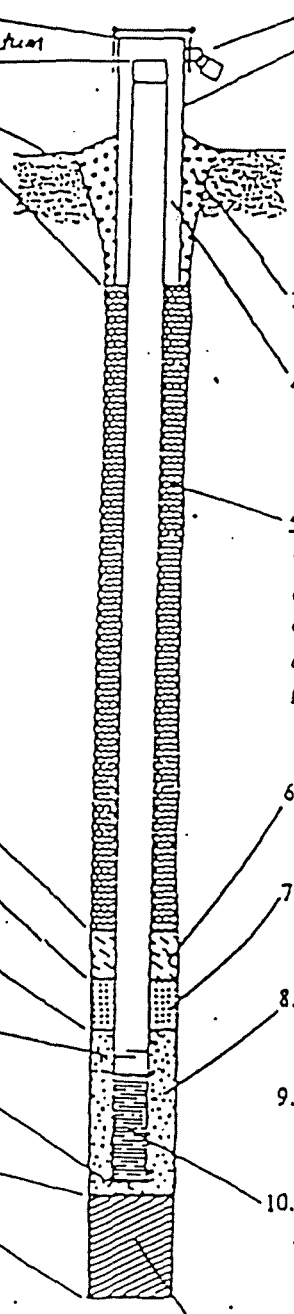
uthorized by Chapters 144, 147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than $10 nor more for each violation. Fined not less than $10 or more than $100 or imprisoned not less than 30 days, or both for each violation. Each day of lation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

(Wisconsin
ment of Natural Resources

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION
Form 4400-113A
Rev. 4-90

Project Name: Mobile Blasting	Local Grid Location of Well: _____ ft. ☐N ☐S _____ ft. ☐E ☐W	Well Name: MW3
License, Permit or Monitoring Number: _____	Grid Origin Location: Lat. _____ Long. _____ or St. Plane _____ ft. N. _____ ft. E.	Wis. Unique Well Number: DNR Well Number:
Well Water Table Observation Well ■ 11 Piezometer ☐ 12	Section Location of Waste/Source: ___1/4 of ___1/4 of Sec. ___T. ___N. R. ___ ☐E ☐W	Date Well Installed: 09/17/96 (m m d d y y)
Well is From Waste/Source Boundary: _____ ft.	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ■ Not Known	Well Installed By: (Person's Name and Firm) Arvin Brochim / Miller Engineers
A Point of Enforcement Std. Application? ■ Yes ☐ No		



ceive pipe, top elevation 71.48 ft. MSL
casing, top elevation 71.54 ft. MSL
surface elevation 69.1 ft. MSL
ce seal, bottom _____ ft. MSL or _____ ft.

CS classification of soil near screen:
☐ GM ☐ GC ☐ GW ☐ SW ■ SP ☐
■ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
rock ☐

e analysis attached? ☐ Yes ☐ No

ing method used: Rotary ☐ 50
Hollow Stem Auger ■ 41
Other ☐ _____

ing fluid used: Water ☐ 02 Air ☐ 01
Drilling Mud ☐ 03 None ■ 99

ing additives used? ☐ Yes ☐ No

Type: _____

es of water (attach analysis):

_____

ite seal, top _____ ft. MSL or 0.5 ft.
nd, top _____ ft. MSL or 8.5 ft.
ack, top _____ ft. MSL or 10.0 ft.
joint, top _____ ft. MSL or 12.0 ft.
com _____ ft. MSL or 22.0 ft.
ack, bottom _____ ft. MSL or 22.5 ft.
e, bottom _____ ft. MSL or 22.5 ft.
, diameter 8.0 in.
ell casing 2.34 in.
l casing 2.00 in.

1. Cap and lock? ■ Yes ☐ No
2. Protective cover pipe:
   a. Inside diameter: 4.0 in.
   b. Length: 7.0 ft.
   c. Material: Steel ■ 04 Other ☐ _____
   d. Additional protection? ☐ Yes ☐ No
   If yes, describe: _____
3. Surface seal: Bentonite ☐ 30 Concrete ☐ 01 Soil Other ☐ _____
4. Material between well casing and protective pipe: Bentonite ■ 30 Annular space seal ☐ _____ Other ☐ _____
5. Annular space seal: a. Granular Bentonite ☐ 33
   b. _____ Lbs/gal mud weight ... Bentonite-sand slurry ☐ 35
   c. _____ Lbs/gal mud weight ..... Bentonite slurry ☐ 31
   d. _____ % Bentonite ..... Bentonite-cement grout ☐ 50
   e. _____ Ft^3 volume added for any of the above
   f. How installed: Tremie ☐ 01 Tremie pumped ☐ 02 Gravity ■ 03
6. Bentonite seal: a. Bentonite granules ☐ 33
   b. ☐1/4 in. ☐3/8 in. ☐1/2 in. Bentonite pellets ☐ 32
   c. 3/4" Hole Plug 4 Bags Other ☐ _____
7. Fine sand material: Manufacturer, product name & mesh size
   a. _____
   b. Volume added 0.24 ft^3 ½ Bag
8. Filter pack material: Manufacturer, product name and mesh size
   a. _____
   b. Volume added 2.9 ft^3 2 Bags
9. Well casing: Flush threaded PVC schedule 40 ■ 23 Flush threaded PVC schedule 80 ☐ 24 Other ☐ _____
10. Screen material: PVC
    a. Screen type: Factory cut ■ 11 Continuous slot ☐ 01 Other ☐ _____
    b. Manufacturer _____
    c. Slot size: 0.010 in.
    d. Slotted length: 10.0 ft.
11. Backfill material (below filter pack): None ■ 14 Other ☐ _____

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

Kristen Gallagher — Firm: Miller Engineers & Scientists

Mail both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs. 144, 147 and 160, Wis. Stats., NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than $10, nor more than $ each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than $10,000 for each

VOLA _E ORGANIC ANALYSIS - GROUNDWATER PAGE 1 Or 2

Sample Description Sample Location ID	LOW WATER QL	MW1 S01	MW2 S02	MW3 S03	MW3 D03	RINSATE R01	TRIP R02
Number of TIC's	ug/l	12	12	12	12	0	0
Chloromethane	1	U	U	U	U	U	U
Vinyl chloride	1	U	U	U	U	U	U
Bromomethane	1	U	U	U	U	U	U
Chloroethane	1	U	U	U	U	U	U
1,1-Dichloroethene	1	U	U	U	U	U	U
Acetone	3	7 JB	7 JB	8 JB	7 JB	7 JB	8 JB
Carbon disulfide	1	U	U	0.9 J	0.8 J	U	U
Methylene chloride	1	U	U	U	U	U	U
trans-1,2-Dichloroethene	1	U	U	U	U	U	U
1,1-Dichloroethane	1	U	U	U	U	U	U
2,2-Dichloropropane	1	U	U	U	U	U	U
cis-1,2-Dichloroethene	1	U	U	U	U	U	U
2-Butanone	3	U	U	U	2 JB	3	4
Bromochloromethane	1	U	U	U	U	U	U
Chloroform	1	U	U	U	U	U	U
1,1,1-Trichloroethane	1	U	U	U	U	U	U
Carbon tetrachloride	1	U	U	U	U	U	U
1,1-Dichloropropene	1	U	U	U	U	U	U
Benzene	1	3	1	1	1	U	U
1,2-Dichloroethane	1	U	U	U	U	U	U
Trichloroethene	1	U	U	U	U	U	U
1,2-Dichloropropane	1	U	U	U	U	U	U
Dibromomethane	1	U	U	U	U	U	U
Bromodichloromethane	1	U	U	U	U	U	U
cis-1,3-Dichloropropene	1	U	U	U	U	U	U
Toluene	1	UJ	12 J	UJ	UJ	UJ	UJ
4-Methyl-2-pentanone	2	U	U	U	U	U	U
trans-1,3-Dichloropropene	1	U	U	U	U	U	U
Tetrachloroethene	1	U	U	U	U	U	U
1,1,2-Trichloroethane	1	U	U	U	U	U	U

DATA QUALIFIER DEFINITIONS (ORGANIC)

U The material was analyzed for, but not detected.
J The associated numerical value is an estimated quantity.
R The data are unusable (compound may or may not be present). Resampling and reanalysis is necessary for verification.
UJ The material was analyzed for, but was not detected. The sample quantitation limit is an estimated quantity.
D The sample has been diluted.
E The concentration of the compound has exceeded the linear range of the instrument.
B This contaminant was also present in the blank.

Mobile Blasting Report 2 Supplemental Site Investigation

Sample Description Sample Location ID Number of TIC's	LOW WATER QL ug/l	MW1 S01 12	MW2 S02 12	MW3 S03 12	MW3 D03 12	RINSATE R01 0	TRIP R02 0
1,3-Dichloropropane	1	U	U	U	U	U	U
2-Hexanone	2	U	U	U	U	U	U
Dibromochloromethane	1	U	U	U	U	U	U
1,2-Dibromoethane	1	U	U	U	U	U	U
Chlorobenzene	1	U	U	U	U	U	U
1,1,1,2-Tetrachloroethane	1	U	U	U	U	U	U
Ethylbenzene	1	U	10	43 D	40 D	U	U
m &/or p-Xylene	1	U	23	22	20	U	U
o-Xylene	1	U	19	4	4	U	U
Styrene	1	U	U	U	U	U	U
Bromoform	1	U	U	U	U	U	U
Isopropylbenzene	1	0.9 J	2	4	4	U	U
Bromobenzene	1	U	U	U	U	U	U
1,2,3-Trichloropropane	1	U	U	U	U	U	U
1,1,2,2-Tetrachloroethane	1	UJ	UJ	UJ	UJ	UJ	UJ
n-Propylbenzene	1	1	2	14	13	U	U
2-Chlorotoluene	1	U	U	U	U	U	U
4-Chlorotoluene	1	U	U	U	U	U	U
1,3,5-Trimethylbenzene	1	0.6 J	9	20	19	U	U
tert-Butylbenzene	1	U	U	U	U	U	U
1,2,4-Trimethylbenzene	1	U	42 D	30 D	28 D	U	U
sec-Butylbenzene	1	U	1 J	1	1	U	U
1,3-Dichlorobenzene	1	U	U	U	U	U	U
1,4-Dichlorobenzene	1	U	U	U	U	U	U
p-Isopropyltoluene	1	U	3	0.7 J	0.7 J	U	U
1,2-Dichlrorobenzene	1	U	U	U	U	U	U
n-Butylbenzene	1	U	U	U	U	U	U
1,2-Dibromo-3-chloropropane	1	UJ	UJ	UJ	UJ	UJ	UJ
1,2,4-Trichlorobenzene	1	U	U	U	U	U	U
Naphthalene	1	26 D	200 D	360 D	360 D	U	U
Hexachlorobutadiene	1	U	U	U	U	U	U
1,2,3-Trichlorobenzene	1	U	U	U	U	U	U

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E The concentration of the compound has exceeded the linear range of the instrument.
B This contaminant was also present in the blank.

Sample Location ID	LOW	S01	S02	S03	D03	R01
Sample Description	WATER	NE Mobile	SW Mobile	NE Shycr	Duplicate	Rinse
Traffic Report No.	QL	EBKG8	EBKG9	EBKH0	EBKH1	EBKH2
Number of TICs	ug/l	22 TICs	22 TICs	23 TICs	23 TICs	3 TICs
Date Sampled		10-15-96	10-15-96	10-15-96	10-15-96	10-15-96
Phenol	10	U	U	U	U	U
bis(-2-Chloroethyl)ether	10	U	U	U	U	U
2-Chlorophenol	10	U	U	U	U	U
1,3-Dichlorobenzene	10	U	U	U	U	U
1,4-Dichlorobenzene	10	U	U	U	U	U
1,2-Dichlorobenzene	10	U	U	U	U	U
2-Methylphenol	10	U	U	U	U	U
2,2' oxybis (1-Chloropropane)	10	U	U	U	U	U
4-Methylphenol	10	U	U	U	U	U
N-Nitroso-di-n-propylamine	10	UJ	UJ	UJ	UJ	UJ
Hexachloroethane	10	U	U	U	U	U
Nitrobenzene	10	U	U	U	U	U
Isophorone	10	U	U	U	U	U
2-Nitrophenol	10	U	U	U	U	U
2,4-Dimethelphenol	10	U	U	U	U	U
bis(2-Chloroethoxy)methane	10	UR	UR	UR	UR	UR
2,4-Dichlorophenol	10	U	U	U	U	U
1,2,4-Trichlorobenzene	10	U	U	U	U	U
Naphthalene	10	19	U	55	58	U
4-Chloroaniline	10	UJ	UJ	UJ	UJ	UJ
Hexachlorobutadiene	10	U	U	U	U	U
4-Chloro-3-methylphenol	10	U	U	U	U	U
2-Methylnaphthalene	10	22	37	86	89	U
Hexachlorocyclopentadiene	10	U	U	U	U	U
2,4,6-Trichlorophenol	10	U	U	U	U	U
2,4,5-Trichlorophenol	25	U	U	U	U	U
2-Chloronaphthalene	10	U	U	U	U	U
2-Nitroaniline	25	U	U	U	U	U
Dimethylphthalate	10	U	U	U	U	U
Acenaphthylene	10	U	U	U	U	U
2,6-Dinitrotoluene	10	U	U	U	U	U
3-Nitroaniline	25	U	U	U	U	U
Acenaphthene	10	U	4 J	5	6	U

DATA QUALIFIER DEFINITIONS (ORGANIC)

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- N Presumtive evidence of presence of material.
- NJ Presumtive evidence of the presence of the material at an estimated quantity.
- UJ The material was analyzed for, but was not detected. The sample quantitation limit is an estimated quantity.
- D The sample has been diluted.
- E The concentration of the compound has exceeded the linear range of the instrument.
- X In the pesticide fraction, denotes manually entered data.
- P This is a lab generated qualifier that essentially means "estimated". An example of when this is used is for pesticides that are run on a dual column and the two values do not agree within 25%. As with all PCB/Pesticide data, the lower of the two values is reported, but qualified as estimated (P).
- B This contaminant was also present in the blank. .

Sample Description	LOW	S01	S02	S03	D03	R01
Sample Location ID	WATER	NE Mobile	SW Mobile	NE Slyver	Duplicate	Rinse
Traffic Report No.	QL	EBKG8	EBKG9	EBKH0	EBKH1	EBKH2
Number of TIC's	ug/l	22 TICs	22 TICs	23 TICs	23 TICs	3 TICs
Date Sampled		10-15-96	10-15-96	10-15-96	10-15-96	10-15-96
2,4-Dinitrophenol	25	U	U	U	U	U
4-Nitrophenol	25	U	U	U	U	U
Dibenzofuran	10	U	6	4 J	U	U
2,4-Dinitrotoluene	10	U	U	U	4 J	U
Diethylphthalate	10	U	U	U	U	U
4-Chlorophenyl-phenylether	10	U	U	U	U	U
Fluorene	10	U	5	4 J	5 J	U
4-Nitroaniline	25	U	U	U	U	U
4,6-Dinitro-2-Methylphenol	25	UJ	UJ	UJ	UJ	UJ
N-Nitrosodiphenylamine (1)	10	UJ	UJ	UJ	UJ	UJ
4-Bromophenyl-phenylether	10	U	U	U	U	U
Hexachlorobenzene	10	UJ	UJ	UJ	UJ	UJ
Pentachlorophenol	25	U	U	U	U	U
Phenanthrene	10	U	5	3 J	3 J	U
Anthracene	10	U	U	U	U	U
Carbazole	10	U	1 J	U	U	U
Di-n-Butylphthalate	10	UB	UB	UB	UB	UB
Fluoranthene	10	U	U	U	U	U
Pyrene	10	U	U	U	U	U
Butylbenzylphthalate	10	U	U	U	U	U
3,3'-Dichlorobenzidine	10	UR	UR	UR	UR	UR
Benzo(a)anthracene	10	U	U	U	U	U
Chrysene	10	U	U	U	U	U
bis(2-ethylhexyl)phthalate	10	UB	2 BJ	3 BJ	4 BJ	1 BJ
Di-N-Octyl Phthalate	10	U	U	U	U	U
Benzo(b)fluoranthene	10	U	U	U	U	U
Benzo(k)fluoranthene	10	U	U	U	U	U
Benzo(a)Pyrene	10	U	U	U	U	U
Indeno(1,2,3-cd)pyrene	10	U	U	U	U	U
Dibenz(a,h)anthracene	10	U	U	U	U	U
Benzo(g,h,i)perylene	10	U	U	U	U	U

(1) Can not be separated from Diphenylamine

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NJ Presumtive evidence of the presence of the material at an estimated quantity.
UJ The material was analyzed for, but was not detected. The sample quantitation limit is an estimated quantity.
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E The concentration of the compound has exceeded the linear range of the instrument.
X In the pesticide fraction, denotes manually entered data.
P This is a lab generated qualifier that essentially means "estimated". An example of when this is used is for pesticides that are run on a dual column and the two values do not agree within 25%. As with all PCB/Pesticide data, the lower of the two values is reported, but qualified as estimated (P).
B This contaminant was also present in the blank.

Sample Description Sample Location ID Traffic Report No. Lab Sample ID	LOW WATER CRQL	MW1 S01	MW2 S02	MW3 S03	MW3 D03	RINSATE R01
alpha-BHC	0.01	U	U	U	U	U
beta-BHC	0.01	U	U	U	U	U
delta-BHC	0.01	U	U	U	U	U
gamma-BHC(Lindane)	0.01	U	U	U	U	U
Heptachlor	0.01	U	U	U	U	U
Aldrin	0.01	U	U	U	U	U
Heptachlor epoxide	0.01	U	U	U	U	U
Endosulfan I	0.01	U	U	U	U	U
Dieldrin	0.02	U	U	U	U	U
4,4'-DDE	0.02	U	U	U	U	U
Endrin	0.02	U	U	U	U	U
Endosulfan II	0.02	U	U	U	U	U
4,4'-DDD	0.02	U	U	U	U	U
Endosulfan sulphate	0.02	U	U	U	U	U
4,4'-DDT	0.02	U	U	U	U	U
Methoxychlor	0.1	U	U	U	U	U
Endrin keytone	0.02	U	U	U	U	U
alpha-Chlordane	0.01	U	U	U	U	U
Endrin Aldehyde	0.02	U	U	U	U	U
Chlordane, Technical	0.2	U	U	U	U	U
gamma-Chlordane	0.01	U	U	U	U	U
Toxaphene	1	U	U	U	U	U
Arochlor-1016	0.2	U	U	U	U	U
Arochlor-1221	0.2	U	U	U	U	U
Arochlor-1232	0.2	U	U	U	U	U
Arochlor-1242	0.2	U	U	U	U	U
Arochlor-1248	0.2	U	U	U	U	U
Arochlor-1254	0.2	U	U	U	U	U
Arochlor-1260	0.2	U	U	U	U	U

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NJ Presumtive evidence of the presence of the material at an estimated quantity.
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B This contaminant was also present in the blank.

Sample Description	LOW WATER	MW1	MW2	MW3	MW3	RINSATE
Sample Location ID	DL	S01	S02	S03	D03	R01
ES PAL	(ug/l)					
Aluminum	80	U	U	U	U	U
Antimony	1	U	U	U	U	U
Arsenic	2	U	U	U	U	U
Barium	6	255	199	118	120	U
Beryllium	2	U	U	U	U	U
Cadmium	0.2	U	U	U	U	U
Calcium	500	147000	113000	113000	114000	U
Chromium	10	U	U	U	U	U
Cobalt	6	U	U	U	U	U
Copper	6	U	U	U	U	U
Iron 300/150	80	8400	173	1060	711	U
Lead 15/1.5	2	U	11	U	2	U
Magnesium 50/25	100	50200	54700	31600	32100	U
Manganese 50/25	5	114	181	178	187	U
Mercury	0.1	U	U	U	U	U
Nickel	20	U	U	U	U	U
Potassium –	5000	5110	U	U	U	U
Selenium	2	U	U	U	U	U
Silver	6	U	U	U	U	U
Sodium –	1000	25000	26800	14400	14700	U
Thallium	2	U	U	U	U	U
Vanadium	5	U	U	8.5	8.4	U

DATA QUALIFIER DEFINITIONS (INORGANIC):
U The material was analyzed for, but none was detected above the IDL.
J The associated value is an estimated quantity.
R The data are unusable. (Note: Analyte may or may not be present.)
UJ The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

APPENDIX D

Data Summary Tables

for

Round 1 Soil Samples

SAMPLE NUMBER		S01	S01B	S02	S02B	S03	S03B	S04
%SOLID		97	81	94	90	94	92	94
COMPOUND	LOD ug/g, dry	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION
Acetone	0.25	ND	ND	ND	ND	ND	ND	ND
Allyl chloride	0.25	ND	ND	ND	ND	ND	ND	ND
Benzene	0.025	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	0.025	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	0.025	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	0.025	ND	ND	ND	ND	ND	ND	ND
Bromoform	0.025	ND	ND	ND	ND	ND	ND	ND
Bromomethane	0.025	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	0.025	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	0.025	0.13	4.9	ND	ND	ND	ND	ND
tert-Butylbenzene	0.025	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	0.25	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.025	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	0.025	ND	ND	ND	ND	ND	ND	ND
Chloroethane	0.025	ND	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	0.25	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.025	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	0.025	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	0.025	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	0.025	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.25	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	0.025	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	0.025	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	0.025	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	0.025	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	0.025	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.025	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.025	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	0.025	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	0.025	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	0.025	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	0.025	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	0.025	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	0.025	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	0.025	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.025	ND	ND	ND	ND	ND	ND	ND

LOD - Level of detection, dry weight basis.
ND - Not detected at or above the LOD.

SAMPLE NUMBER		S01	S01B	S02	S02B	S03	S03B	S04
% SOLID		97	81	94	90	94	92	94
COMPOUND	LOD ug/g, dry	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION
trans-1,3-Dichloropropene	0.025	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.025	0.088	ND	0.053	ND	ND	ND	ND
Hexachlorobutadiene	0.025	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	0.25	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	0.25	ND	ND	ND	ND	ND	ND	ND
Isopropylether	0.25	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	0.025	0.044	1.6	0.057	ND	ND	ND	ND
p-Isopropyltoluene	0.025	0.062	ND	ND	ND	ND	ND	ND
Methylene chloride	0.025	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone	0.25	ND	ND	ND	ND	ND	ND	ND
Methyliodide	0.25	ND	ND	ND	ND	ND	ND	ND
Methylmethacrylate	0.25	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	0.25	ND	ND	ND	ND	ND	ND	ND
Methyl-tert-butyl ether	0.25	ND	ND	ND	ND	ND	ND	ND
Naphthalene	0.025	0.83	2.1	0.80	0.34	0.40	1.2	0.59
n-Propylbenzene	0.025	0.17	3.4	0.034	ND	ND	ND	ND
Styrene	0.025	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	0.025	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.025	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	0.025	ND	ND	ND	ND	ND	ND	ND
Tetrahydrofuran	0.25	ND	ND	ND	ND	ND	ND	ND
Toluene	0.025	0.30	0.04	0.044	0.084	0.028	ND	ND
1,2,3-Trichlorobenzene	0.025	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	0.025	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	0.025	0.057	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	0.025	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	0.025	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	0.025	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	0.025	ND	ND	ND	ND	ND	ND	ND
Trichlorotrifluoroethane	0.25	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.025	0.39	4.4	0.097	ND	ND	ND	ND
1,3,5-Trimethylbenzene	0.025	0.28	2.2	0.11	ND	ND	ND	ND
Vinyl acetate	0.25	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	0.025	ND	ND	ND	ND	ND	ND	ND
m/p-Xylene	0.025	0.23	0.27	0.053	0.037	ND	ND	ND
o-Xylene	0.025	0.11	0.41	0.050	ND	ND	ND	ND

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ND - Not detected at or above the LOD.

SAMPLE # / OTR #		S01	EXA54		S01B	EXA55		S02	EXA56		S02B	EXA57		S03	EXA58		S03B	EXA59		S04	EXA60	
% SOLID / pH / # OF TICS	LOW	98	6.9	25	79	6.8	20	95	7.3	28	86	7.6	0	94	10.2	29	92	8.9	28	95	7.6	28
SAMPLE DESCRIPTION	SOIL																					
	CROL ug/kg	SAMPLE CROL	SAMPLE CONCENTRATION		SAMPLE CROL	SAMPLE CONCENTRATION		SAMPLE CROL	SAMPLE CONCENTRATION		SAMPLE CROL	SAMPLE CONCENTRATION		SAMPLE CROL	SAMPLE CONCENTRATION		SAMPLE CROL	SAMPLE CONCENTRATION		SAMPLE CROL	SAMPLE CONCENTRATION	
Phenol	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
bis(2-Chloroethyl)Ether	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
2-Chlorophenol	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
1,3-Dichlorobenzene	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
1,4-Dichlorobenzene	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
1,2-Dichlorobenzene	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
2-Methylphenol	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
2,2'-oxybis(1-Chloropropane)	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
4-Methylphenol	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	10 J	
N-Nitroso-Di-n-Propylamine	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
Hexachloroethane	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
Nitrobenzene	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
Isophorone	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
2-Nitrophenol	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
2,4-Dimethylphenol	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
bis(2-Chloroethoxy)Methane	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
2,4-Dichlorophenol	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
1,2,4-Trichlorobenzene	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
Naphthalene	330	340	53 J		2100	3200		350	60 J		380	U		360	12 J		360	119 J		350	58 J	
4-Chloroaniline	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
Hexachlorobutadiene	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
4-Chloro-3-Methylphenol	330	340	U		2100	U		350	U		380	U		350	U		360	U		350	U	
2-Methylnaphthalene	330	340	120 J		2100	3800		350	740		380	9 J		350	90 J		380	63 J		350	780	
Hexachlorocyclopentadiene	330	340	U		2100	UJ		350	U		380	U		350	U		360	U		350	U	
2,4,6-Trichlorophenol	330	340	U		2100	UJ		350	U		380	U		350	U		360	U		350	U	
2,4,5-Trichlorophenol	800	850	U		5000	UJ		870	U		960	U		880	U		900	U		870	U	
2-Chloronaphalene	330	340	U		2100	UJ		350	U		380	U		350	U		360	U		350	U	
2-Nitroaniline	800	850	U		5000	UJ		870	U		960	U		880	U		900	U		870	U	
Dimethylphthalate	330	340	U		2100	UJ		350	U		380	U		350	U		360	U		350	U	
Acenaphthylene	330	340	31 J		2100	UJ		350	28 J		380	U		350	U		360	24 J		350	28 J	
2,6-Dinitrotoluene	330	340	U		2100	UJ		350	U		380	U		350	U		360	U		350	U	
3-Nitroaniline	800	850	U		5000	UJ		870	U		960	U		880	U		900	U		870	U	
Acenaphthene	330	340	6 J		2100	UJ		350	71 J		380	U		350	U		360	38 J		350	69 J	

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- P This is a lab generated qualifier that essentially means "estimated". An example of when this is used is for pesticides that are run on a dual column and the two values do not agree within 25%. As with all PCB/Pesticide data, the lower of the two values is reported, but qualified as estimated (P).
- B This contaminant was also present in the blank.

SAMPLE # / QTR # / CASE # / SDG #		S01	EXA64	S01B	EXA65	S02	EXA66	S02B	EXA67	S03	EXA68	S03B	EXA69	S04	EXA70
% SOLID / pH / # OF TICS	LOW	98	6.9 28	79	6.8 20	95	7.3 28	86	7.6 0	94	10.2 29	92	8.9 28	95	7.6 28
SAMPLE DESCRIPTION	SOIL														
	CROL	sample CROL	sample concentration	sample CROL	sample concentration	sample CROL	sample concentration	sample CROL	sample concentration	sample CROL	sample concentration	sample CROL	sample concentration	sample CROL	sample concentration
	ug/l														
2,4-Dinitrophenol	800	850	U	5000	UJ	870	U	960	U	880	U	900	U	870	U
4-Nitrophenol	800	850	U	5000	UJ	870	U	960	U	880	U	900	U	870	U
Dibenzofuran	330	340	23 J	2100	UJ	350	100 J	380	U	350	U	360	43 J	350	110 J
2,4-Dinitrotoluene	330	340	U	2100	UJ	350	U	380	U	350	U	360	U	350	U
Diethylphthalate	330	340	JBU	2100	UJ	350	JBU	380	JBU	350	JBU	360	JBU	350	JBU
4-Chlorophenyl phenylether	330	340	U	2100	UJ	350	U	380	U	350	U	360	U	350	U
Fluorene	330	340	U	2100	UJ	350	26 J	380	U	350	U	360	35 J	350	20 J
4-Nitroaniline	800	850	U	5000	UJ	870	U	960	U	880	U	900	U	870	U
4,6-Dinitro-2-methylphenol	800	850	U	5000	UJ	870	U	960	U	880	U	900	U	870	U
N-Nitrosodiphenylamine (1)	330	340	U	2100	UJ	350	U	380	U	350	U	360	U	350	U
4-Bromophenyl-phenylether	330	340	U	2100	UJ	350	U	380	U	350	U	360	U	350	U
Hexachlorobenzene	330	340	U	2100	UJ	350	U	380	U	350	U	360	U	350	U
Pentachlorophenol	800	850	U	5000	UJ	870	U	960	U	880	U	900	U	870	U
Phenanthrene	330	340	120 J	2100	3800 J	350	410	380	5 J	350	580	360	1400	350	420
Anthracene	330	340	30 J	2100	1700 J	350	65 J	380	U	350	63 J	360	150 J	350	57 J
Carbazole	330	340	13 J	2100	UJ	350	37 J	380	U	350	63 J	360	210 J	350	28 J
Di-n-Butylphthalate	330	340	JBU	2100	UJ	350	JBU	380	JBU	350	JBU	360	JBU	350	JBU
Fluoranthene	330	340	110 J	2100	UJ	350	580	380	10 J	350	510	360	2100	350	560
Pyrene	330	340	JBU	2100	JBU	350	430 JB	380	JBU	350	480 JB	360	1800 B	350	530 B
Butylbenzylphthalate	330	340	U	2100	U	350	U	380	U	350	U	360	U	350	U
3,3'Dichlorobenzidine	330	340	U	2100	UJ	350	U	380	U	350	U	360	U	350	U
Benzo(a)Anthracene	330	340	83 J	2100	730 J	350	310 J	380	5 J	350	260 J	360	1000	350	340 J
Chrysene	330	340	160 J	2100	1900 J	350	400	380	7 J	350	390	360	1300	350	440
bis(2-Ethylhexyl)phthalate	330	340	JBU	2100	U	350	JBU	380	JBU	350	JBU	360	JBU	350	JBU
Di-n-Octyl Phthalate	330	340	UJ	2100	UJ	350	39 J	380	UJ	350	UJ	360	UJ	350	UJ
Benzo(b)Fluoranthene	330	340	130 J	2100	660 J	350	280 J	380	7 J	350	260 J	360	870	350	330 J
Benzo(k)Fluoranthene	330	340	100 J	2100	400 J	350	270 J	380	6 J	350	240 J	360	970	350	290 J
Benzo(a)Pyrene	330	340	JBU	2100	730 JB	350	JBU	380	U	350	JBU	360	980 B	350	BU
Indeno(1,2,3-cd)Pyrene	330	340	JBU	2100	JBU	350	270 JB	380	U	350	270 JB	360	840 B	350	340 JB
Dibenzo(a,h)Anthracene	330	340	32 J	2100	U	350	120 J	380	U	350	120 J	360	66 J	350	150 J
Benzo(g,h,i)Perylene	330	340	JBU	2100	JBU	350	JBU	380	UJ	350	350 JBU	360	310 JB	350	180 JB

(1) Cannot be separated from Diphenylamine

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SAMPLE # / OTR #		S01	EXA54	S01B	EXA55	S02	EXA56	S02B	EXA57	S03	EXA58	S03B	EXA59	S04	EXA60
SAMPLE DESCRIPTION	LOW														
% SOLID / pH	SOIL	98	6.9	79	6.8	95	7.3	86	7.6	94	10.2	92	8.9	95	7.6
	CROL	sample	sample	sample	sample	sample	sample	sample	sample	sample	sample	sample	sample	sample	sample
	mg/Kg	CROL	concentration	CROL	concentration	CROL	concentration	CROL	concentration	CROL	concentration	CROL	concentration	CROL	concentration
alpha-BHC	1.7	1.7	U	2.2	UJ	1.8	U	2.0	U	1.8	U	1.8	U	1.8	U
beta-BHC	1.7	1.7	U	2.2	9.6 PJ	1.8	U	2.0	U	1.8	U	1.8	U	1.8	U
delta-BHC	1.7	1.7	U	2.2	UJ	1.8	U	2.0	U	1.8	U	1.8	U	1.8	U
gamma-BHC (Lindane)	1.7	1.7	UJ	2.2	7.2 PJ	1.8	U	2.0	U	1.8	U	1.8	U	1.8	U
Heptachlor	1.7	1.7	U	2.2	UJ	1.8	U	2.0	U	1.8	U	1.8	U	1.8	U
Aldrin	1.7	1.7	0.39 JP	2.2	2.7 PJ	1.8	0.19 JP	2.0	0.17 JP	1.8	0.93 JP	1.8	U	1.8	U
Heptachlor epoxide	1.7	1.7	0.21 JP	2.2	UJ	1.8	U	2.0	U	1.8	0.97 JP	1.8	0.18 JP	1.8	U
Endosulfan I	1.7	1.7	U	2.2	6.6 J	1.8	U	2.0	U	1.8	U	1.8	U	1.8	U
Dieldrin	3.3	3.4	0.33 JP	4.2	UJ	3.5	0.15 JP	3.8	U	3.5	U	3.6	U	3.5	0.47 JP
4,4'-DDE	3.3	3.4	3.0 J	4.2	UJ	3.5	6.9	3.8	1.3 JP	3.5	3.5 P	3.6	1.2 JP	3.5	9.4
Endrin	3.3	3.4	0.88 JP	4.2	3.0 JP	3.5	1.5 JP	3.8	U	3.5	U	3.6	U	3.5	U
Endosulfan II	3.3	3.4	U	4.2	1.4 JP	3.5	0.2 JP	3.8	U	3.5	U	3.6	U	3.5	0.42 JP
4,4'-DDD	3.3	3.4	5.0 P	4.2	UJ	3.5	1.7 JP	3.8	0.42 JP	3.5	U	3.6	U	3.5	U
Endosulfan sulphate	3.3	3.4	U	4.2	UJ	3.5	U	3.8	U	3.5	U	3.6	U	3.5	U
4,4'-DDT	3.3	3.4	6.8	4.2	7.5 J	3.5	14 P	3.8	2.8 J	3.5	2.4 JP	3.6	0.83 JP	3.5	17
Methoxychlor	17.0	17	U	21.5	3.1 JP	17.9	2.8 JP	20	U	18.1	3.9 J	18.5	3.3 JP	18	U
Endrin keytone	3.3	3.4	U	4.2	3.1 JP	3.5	U	3.8	U	3.5	U	3.6	U	3.5	U
Endrin aldehyde	3.3	3.4	2.5 JP	4.2	8.2 J	3.5	1.2 JP	3.8	0.44 JP	3.5	1.8 JP	3.6	0.64 JP	3.5	1.4 JP
alpha-Chlordane	1.7	1.7	U	2.2	UJ	1.8	0.22 JP	2.0	0.077 JP	1.8	1.6 JP	1.8	0.53 JP	1.8	0.47 JP
gamma-Chlordane	1.7	1.7	0.16 J	2.2	UJ	1.8	0.059 JP	2.0	0.033 JP	1.8	0.74 J	1.8	0.21 J	1.8	0.22 JP
Toxaphene	170.0	173	U	220	UJ	180	U	200	U	180	U	180	U	180	U
Arochlor-1016	33.0	34	U	42	UJ	35	U	38	U	35	U	36	U	35	U
Arochlor-1221	67.0	68	U	85	UJ	70	U	78	U	71	U	73	U	70	U
Arochlor-1232	33.0	34	U	42	UJ	35	U	38	U	35	U	36	U	35	U
Arochlor-1242	33.0	34	U	42	UJ	35	U	38	U	35	U	36	U	35	U
Arochlor-1248	33.0	34	U	42	UJ	35	U	38	U	35	U	36	U	35	U
Arochlor-1254	33.0	34	U	42	UJ	35	U	38	3.2 J	35	51	36	21 J	35	19 J
Arochlor-1260	33.0	34	49 P	42	UJ	35	30 JP	38	6.1 JP	35	30 JP	36	12 JP	35	28 JP

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MOBILE BLASTING ROUND 1 CASE 25006 SAMPLES RECEIVED 9/96 BY CLP

SAMPLE # / ITR #		S01 MEXE54		S01B MEXE55		S02 MEXE56		S02B MEXE57	
% SOLID	LOW SOIL CRDL	98.4		76.9		94.9		86.6	
		sample	sample	sample	sample	sample	sample	sample	sample
	mg/Kg	CRDL	concentration	CRDL	concentration	CRDL	concentration	CRDL	concentration
Aluminum	40	41	1770 *J	52	6010 *J	42	3270 *J	46	7340 *J
Antimony	12	12	3.2 U	16	14.1 U	13	3.3 U	14	2.2 B
Arsenic	2	2	3	3	7.8	2	12.5	2	8.5
Barium	40	41	25.7 B	52	66.3	42	55.5	46	67.3
Beryllium	1	1.0	0.21 B	1.3	0.68 B	1.1	0.56 B	1.2	0.54 B
Cadmium	1	1.0	1.4 *	1.3	0.62 U*	1.1	1.2	1.2	0.59 B*
Calcium	1000	1016	1380	1300	6410	1054	5640	1155	37200
Chromium	2	2	48.0 NJ	3	36.6 NJ	2	48.1 NJ	2	27.3 NJ
Cobalt	10	10	3.1 BJ	13	6.7 B	11	10.9	12	10.5 B
Copper	5	5	49.9 *	7	30.4 *	5	10.9 *	6	80.4 *
Iron	20	20	36000 *J	26	24800 *J	21	61600 *J	23	49400 *J
Lead	1	1	57.9 *	1.3	48.6 *	1.1	78.5 *	1.2	95.8 *
Magnesium	1000	1016	928 B	1300	2830	1054	8450	1155	20600
Manganese	3	3	151 N*J	4	131 N*J	3	528 N*J	3	554 N*J
Mercury	0.2	0.2	0.06 B	0.3	0.06 U	0.2	0.05 U	0.2	0.06 U
Nickel	8	8	47.3 *J	10.2	35.8 *J	8	41.8 *J	9.2	26.3 *J
Potassium	1000	1016	132 B	1300	633 B	1054	261 B	1155	1440
Selenium	1	1.0	0.28 B	1.3	2.1 B	1.1	1.1 B	1.2	1.1 BS
Silver	2	2.0	0.43 U	2.6	0.55 U	2.1	0.44 U	2.3	0.48 U
Sodium	1000	1016	46.9 B	1300	249 B	1054	190 B	1155	203 B
Thallium	2	2.0	0.12 U	2.6	0.39 BJ	2.1	0.40 BJ	2.3	0.42 BJ
Vanadium	10	10	5.9 B	13	17.3	11	12.8	12	19.0
Zinc	4	4	349 N*J	5	204 N*J	4	337 N*J	5	248 N*J

DATA QUALIFIER DEFINITIONS (INORGANIC):

U The material was analyzed for, but none was detected above the IDL.

J The associated value is an estimated quantity.

R The data are unusable. (Note: Analyte may or may not be present.)

UJ The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

B The concentration is greater than the instrument detection limit (IDL) but less than the contract required detection limit (CRDL).

S The reported value was determined by the Method of Standard Addition (MSA).

* Duplicate analysis was not within control limits.

W Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

N Spiked sample recovery not within control limits.

+ Correlation coefficient for the MSA is less than 0.995.

M Duplicate injection precision not met.

E The reported value is estimated because of the presence of interference.

SAMPLE #/ITR #	LOW SOIL	S03 [illegible] MEXE58		S03B [illegible] MEXE59		S04 [illegible] MEXE60	
%SOLID		94.5		94.0		94.7	
	CRDL mg/Kg	sample CRDL	sample concentration	sample CRDL	sample concentration	sample CRDL	sample concentration
Aluminum	40	42	4320 *J	43	4140 *J	42	2510 *J
Antimony	12	13	3.3 U	13	3.3 U	13	3.3 U
Arsenic	2	2.1	1.9 B	2.1	1.6 B	2.1	12.7
Barium	40	42	20.8 B	43	20.6 B	42	47.5
Beryllium	1	1.1	0.21 B	1.1	0.21 B	1.1	0.5 B
Cadmium	1	1.1	1.5	1.1	0.53 B	1.1	1.2
Calcium	1000	1058	22000	1064	18500	1056	5370
Chromium	2	2	14.9 NJ	2	9.9 NJ	2	37.4 NJ
Cobalt	10	11	1.6 B	11	2.5 B	11	9.4 B
Copper	5	5	27.9	5	18.8	5	95.2
Iron	20	21	12600 *J	21	10500 *J	21	48000 *J
Lead	1	1.1	41.3	1.1	26.8	1.1	86.9 MS
Magnesium	1000	1058	8090	1064	6630	1056	8300
Manganese	3	3	149 NJ	3	167 NJ	3	462 NJ
Mercury	0.2	0.2	0.05 U	0.2	0.05 B	0.2	0.09 B
Nickel	8	8	12.2 J	9	8.4 BJ	8	34.8 J
Potassium	1000	1058	151 B	1064	247 B	1056	185 B
Selenium	1	1.1	0.13 U	1.1	0.13 U	1.1	1.8
Silver	2	2.1	0.44 U	2.1	0.45 U	2.1	0.44 U
Sodium	1000	1058	63.3 B	1064	56.0 B	1056	136 B
Thallium	2	2.1	0.21 BJ	2.1	0.26 BJ	2.1	0.42 B
Vanadium	10	11	27.6 B	11	7.6 B	11	9.2 B
Zinc	4	4	77.6 N*J	4	44.1 N*J	4	260 N*J

DATA QUALIFIER DEFINITIONS (INORGANIC):

U The material was analyzed for, but none was detected above the IDL.
J The associated value is an estimated quantity.
R The data are unusable. (Note: Analyte may or may not be present.)
UJ The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
B The concentration is greater than the instrument detection limit (IDL) but less than the contract required detection limit (CRDL).
S The reported value was determined by the Method of Standard Addition (MSA).
* Duplicate analysis was not within control limits.
W Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.
N Spiked sample recovery not within control limits.
\+ Correlation coefficient for the MSA is less than 0.995.
M Duplicate injection precision not met.
E The reported value is estimated because of the presence of interference.

APPENDIX E

Data Summary Tables

for

Round 2 Soil Samples

SAMPLE NUMBER		S01	S04	S04B	S05	S05B	S08B
% SOLID		95	85	80	91	78	87
COMPOUND	LOD ug/g, dry	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION
Acetone	0.25	ND	ND	ND	ND	ND	ND
Allyl chloride	0.25	ND	ND	ND	ND	ND	ND
Benzene	0.025	ND	ND	ND	ND	ND	ND
Bromobenzene	0.025	ND	ND	ND	ND	ND	ND
Bromochloromethane	0.025	ND	ND	ND	ND	ND	ND
Bromodichloromethane	0.025	ND	ND	ND	ND	ND	ND
Bromoform	0.025	ND	ND	ND	ND	ND	ND
Bromomethane	0.025	ND	ND	ND	ND	ND	ND
n-Butylbenzene	0.025	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	0.025	ND	ND	ND	ND	ND	0.034
tert-Butylbenzene	0.025	ND	ND	ND	ND	ND	ND
Carbon disulfide	0.25	ND	ND	ND	ND	ND	ND
Carbontetrachloride	0.025	ND	ND	ND	ND	ND	ND
Chlorobenzene	0.025	ND	ND	ND	ND	ND	ND
Chloroethane	0.025	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	0.25	ND	ND	ND	ND	ND	ND
Chloroform	0.025	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	0.025	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	0.025	ND	ND	ND	ND	ND	ND
Dibromochloromethane	0.025	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.25	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	0.025	ND	ND	ND	ND	ND	ND
Dibromomethane	0.025	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	0.025	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	0.025	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	0.025	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.025	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.025	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	0.025	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	0.025	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethylene	0.025	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	0.025	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	0.025	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	0.025	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	0.025	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.025	ND	ND	ND	ND	ND	ND

LOD - Level of detection, dry weight basis.
ND - Not detected at or above the LOD.
Samples S01B, S02, S06, S06B, S07, S07B, S08, and S09 were not analyzed due to excess sample weight.

SAMPLE NUMBER		S01	S04	S04B	S05	S05B	S08B
% SOLID		95	85	80	91	78	87
COMPOUND	LOD ug/g, dry	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION	SAMPLE CONCENTRATION
trans-1,3-Dichloropropene	0.025	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.025	ND	0.036	ND	ND	ND	ND
Hexachlorobutadiene	0.025	ND	ND	ND	ND	ND	ND
Hexachloroethane	0.25	ND	ND	ND	ND	ND	ND
2-Hexanone	0.25	ND	ND	ND	ND	ND	ND
Isopropylether	0.25	ND	ND	ND	ND	ND	ND
Isopropylbenzene	0.025	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	0.025	ND	ND	ND	ND	ND	ND
Methylene chloride	0.025	ND	0.11	ND	ND	ND	ND
Methyl ethyl ketone	0.25	ND	ND	ND	ND	ND	ND
Methyliodide	0.25	ND	ND	ND	ND	ND	ND
Methylmethacrylate	0.25	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	0.25	ND	ND	ND	ND	ND	ND
Methyl-tert-butyl ether	0.25	ND	ND	ND	ND	ND	ND
Naphthalene	0.025	0.037	0.059	ND	ND	ND	1.3
n-Propylbenzene	0.025	ND	0.03	0.50	ND	ND	0.057
Styrene	0.025	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	0.025	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.025	ND	ND	ND	ND	ND	ND
Tetrachloroethylene	0.025	ND	ND	ND	ND	ND	ND
Tetrahydrofuran	0.25	ND	ND	ND	ND	ND	ND
Toluene	0.025	ND	0.042	ND	ND	ND	ND
1,2,3-Trichlorobenzene	0.025	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	0.025	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	0.025	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	0.025	ND	ND	ND	ND	ND	ND
Trichloroethylene	0.025	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	0.025	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	0.025	ND	ND	ND	ND	ND	ND
Trichlorotrifluoroethane	0.25	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.025	ND	0.059	ND	ND	ND	1.1
1,3,5-Trimethylbenzene	0.025	ND	ND	ND	ND	ND	0.086
Vinyl acetate	0.25	ND	ND	ND	ND	ND	ND
Vinyl chloride	0.025	ND	ND	ND	ND	ND	ND
m/p-Xylene	0.025	0.060	0.057	ND	ND	ND	ND
o-Xylene	0.025	0.049	0.060	ND	ND	ND	ND

LOD - Level of detection, dry weight basis.
ND - Not detected at or above the LOD.
Samples S01B, S02, S06, S06B, S07, S07B, S08, and S09 were not analyzed due to excess sample weight.

SAMPLE # / QTR #		S01	EBKF0		S01B	EBKF		S02	EBKF2		S04	EBKF1		S04B	EBKF5		S08	EBKG2		S08B	EBKG3	
% SOLID / pH / # OF TICS	LOW	95	8.1	30	52	6.5	30	100	7.6	21	91	7.7	30	81	6.1	28	86	6.7	30	89	7.2	30
SAMPLE DESCRIPTION	SOIL																					
	CROL	SAMPLE	SAMPLE		SAMPLE	SAMPLE		SAMPLE	SAMPLE		SAMPLE	SAMPLE		SAMPLE	SAMPLE		SAMPLE	SAMPLE		SAMPLE	SAMPLE	
	ug/kg	CROL	CONCENTRATION		CROL	CONCENTRATION		CROL	CONCENTRATION		CROL	CONCENTRATION		CROL	CONCENTRATION		CROL	CONCENTRATION		CROL	CONCENTRATION	
Phenol	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
bis(2-Chloroethyl)Ether	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
2-Chlorophenol	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
1,3-Dichlorobenzene	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
1,4-Dichlorobenzene	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
1,2-Dichlorobenzene	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
2-Methylphenol	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
2,2'-oxybis(1-Chloropropane)	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
4-Methylphenol	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
N-Nitroso Di-n-Propylamine	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
Hexachloroethane	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
Nitrobenzene	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
Isophorone	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
2-Nitrophenol	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
2,4-Dimethylphenol	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
bis(2-Chloroethoxy)Methane	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
2,4-Dichlorophenol	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
1,2,4-Trichlorobenzene	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
Naphthalene	330	350	72 J		630	920		330	35 J		730	190 J		410	U		380	U		370	410	
4-Chloroaniline	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
Hexachlorobutadiene	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
4-Chloro-3-Methylphenol	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
2-Methylnaphthalene	330	350	45 J		630	15700 E		330	260 J		730	210 J		410	U		380	14 J		370	2200	
Hexachlorocyclopentadiene	330	350	U		630	U		330	U		730	U		410	UJ		380	U		370	UJ	
2,4,6-Trichlorophenol	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
2,4,5-Trichlorophenol	800	870	U		1600	U		830	U		1800	U		1000	U		970	U		930	U	
2-Chloronaphalene	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
2-Nitroaniline	800	870	U		1600	U		830	U		1800	U		1000	U		970	U		930	U	
Dimethylphthalate	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
Acenaphthylene	330	350	U		630	U		330	U		730	73 J		410	U		970	U		370	U	
2,6-Dinitrotoluene	330	350	U		630	U		330	U		730	U		410	U		380	U		370	U	
3-Nitroaniline	800	870	U		1600	U		830	U		1800	U		1000	U		970	U		930	U	
Acenaphthene	330	350	52 J		630	640		330	U		730	98 J		410	U		380	U		370	U	

DATA QUALIFIER DEFINITIONS (ORGANIC)

- U The material was analyzed for, but not detected.
- J The associated numerical value is an estimated quantity.
- R The data are unusable (compound may or may not be present). Resampling and reanalysis is necessary for verification.
- N Presumptive evidence of presence of material.
- NJ Presumptive evidence of the presence of the material at an estimated quantity.
- UJ The material was analyzed for, but was not detected. The sample quantitation limit is an estimated quantity.
- D The sample has been diluted.
- E The concentration of the compound has exceeded the linear range of the instrument.
- X In the pesticide fraction, denotes manually entered data.
- P This is a lab generated qualifier that essentially means "estimated". An example of when this is used is for pesticides that are run on a dual column and the two values do not agree within 25%. As with all PCB/Pesticide data, the lower of the two values is reported, but qualified as estimated (P).
- B This contaminant was also present in the blank.

SAMPLE # / QTR #		S03 EBKF6		S05B EBKF7		S06 EBKF8		S06B EBKF9		S07 EBKG0		S07B EBKG1		S09 EBKG4	
% SOLID / pH / # OF TICS	LOW	93	6.9 12	82	6.5 4	NA*	8.1 1	93	6.8 3	86	7.5 0	86	7.7 4	93	7.4 30
SAMPLE DESCRIPTION	SOIL														
	CROL ug/kg	SAMPLE CROL	SAMPLE CONCENTRATION	SAMPLE CROL	SAMPLE CONCENTRATION	SAMPLE CROL	SAMPLE CONCENTRATION	SAMPLE CROL	SAMPLE CONCENTRATION	SAMPLE CROL	SAMPLE CONCENTRATION	SAMPLE CROL	SAMPLE CONCENTRATION	SAMPLE CROL	SAMPLE CONCENTRATION
Phenol	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
bis(2-Chloroethyl)Ether	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
2-Chlorophenol	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
1,3-Dichlorobenzene	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
1,4-Dichlorobenzene	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
1,2-Dichlorobenzene	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
2-Methylphenol	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
2,2'-oxybis(1-Chloropropane)	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
4-Methylphenol	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
N-Nitroso-Di-n-Propylamine	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
Hexachloroethane	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
Nitrobenzene	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
Isophorone	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
2-Nitrophenol	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
2,4-Dimethylphenol	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
bis(2-Chloroethoxy)Methane	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
2,4-Dichlorophenol	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
1,2,4-Trichlorobenzene	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
Naphthalene	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	120 J
4-Chloroaniline	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
Hexachlorobutadiene	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
4-Chloro-3-Methylphenol	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
2-Methylnaphthalene	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	750
Hexachlorocyclopentadiene	330	350	U	400	UJ	330	UJ	350	UJ	380	UJ	380	UJ	350	U
2,4,6-Trichlorophenol	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
2,4,5-Trichlorophenol	800	890	U	1000	U	830	UJ	890	U	970	U	970	U	890	U
2-Chloronaphalene	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
2-Nitroaniline	800	890	U	1000	U	830	UJ	890	U	970	U	970	U	890	U
Dimethylphthalate	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
Acenaphthylene	330	350	U	400	U	330	UJ	350	U	970	U	970	U	350	U
2,6-Dinitrotoluene	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
3-Nitroaniline	800	890	U	1000	U	830	UJ	890	U	970	U	970	U	890	U
Acenaphthene	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U

NA* - Lab did not analyze this sample for % moisture.

DATA QUALIFIER DEFINITIONS (ORGANIC)

- U The material was analyzed for, but not detected.
- J The associated numerical value is an estimated quantity.
- R The data are unusable (compound may or may not be present). Resampling and reanalysis is necessary for verification.
- N Presumptive evidence of presence of material.
- NJ Presumptive evidence of the presence of the material at an estimated quantity.
- UJ The material was analyzed for, but was not detected. The sample quantitation limit is an estimated quantity.
- D The sample has been diluted.
- E The concentration of the compound has exceeded the linear range of the instrument.
- X In the pesticide fraction, denotes manually entered data.
- P This is a lab generated qualifier that essentially means "estimated". An example of when this is used is for pesticides that are run on a dual column and the two values do not agree within 25%. As with all PCB/Pesticide data, the lower of the two values is reported, but qualified as estimated (P).
- B This contaminant was also present in the blank.

SAMPLE # / QTR # / % SOLID / pH / # OF TICS / SAMPLE DESCRIPTION	LOW SOIL CROL ug/kg	S01 EBKF0 95 8.1 30		S01B EBKF1 52 6.5 30		S02 EBKF2 100 7.6 21		S04 EBKF4 91 7.7 30		S04B EBKF6 81 6.1 28		S08 EBKG2 86 6.7 30		S08B EBKG3 89 7.2 30	
		sample CROL	sample concentration	sample CROL	sample concentration	sample CROL	sample concentration	sample CROL	sample concentration	sample CROL	sample concentration	SAMPLE CROL	SAMPLE CONCENTRATION	SAMPLE CROL	SAMPLE CONCENTRATION
2,4-Dinitrophenol	800	870	UJ	1600	UJ	830	UJ	1800	UJ	1000	UJ	970	UJ	930	UJ
4-Nitrophenol	800	870	U	1600	U	830	U	1800	U	1000	U	970	U	930	U
Dibenzofuran	330	350	10 J	630	120 J	330	62 J	730	198 J	410	U	380	U	370	20 J
2,4-Dinitrotoluene	330	350	U	630	U	330	U	730	U	410	U	380	U	370	U
Diethylphthalate	330	350	U	630	U	330	U	730	U	410	U	380	U	370	U
4-Chlorophenyl-phenylether	330	350	U	630	U	330	U	730	U	410	U	380	U	370	U
Fluorene	330	350	38 J	630	880 J	330	38 J	730	576 J	410	U	380	U	370	U
4-Nitroaniline	800	870	U	1600	U	830	U	1800	U	1000	U	970	U	930	U
4,6-Dinitro-2-methylphenol	800	870	UJ	1600	UJ	830	UJ	1800	UJ	1000	UJ	970	UJ	930	UJ
N-Nitrosodiphenylamine (1)	330	350	U	630	U	330	U	730	U	410	U	380	U	370	U
4-Bromophenyl-phenylether	330	350	U	630	U	330	U	730	U	410	U	380	U	370	U
Hexachlorobenzene	330	350	U	630	U	330	U	730	U	410	U	380	U	370	U
Pentachlorophenol	800	870	UJ	1600	UJ	830	UJ	1800	UJ	1000	UJ	970	UJ	930	UJ
Phenanthrene	330	350	720	630	550 J	330	500	730	2300	410	U	380	26 J	370	U
Anthracene	330	350	95 J	630	41 J	330	U	730	170 J	410	U	380	U	370	U
Carbazole	330	350	26 J	630	U	330	UJ	730	150 J	410	U	380	UJ	370	U
Di-n-Butylphthalate	330	350	BJU	630	BJU	330	BJU	730	BJU	410	BJU	380	BJU	370	BJU
Fluoranthene	330	350	590	630	30 J	330	91 J	730	2400	410	9 J	380	U	370	U
Pyrene	330	350	1300	630	36 J	330	130 J	730	3700	410	33 J	380	UJ	370	26 J
Butylbenzylphthalate	330	350	U	630	UJ	330	U	730	U	410	UJ	380	UJ	370	UJ
3,3'Dichlorobenzidine	330	350	UJ	630	UJ	330	UJ	730	UJ	410	UJ	380	UJ	370	UJ
Benzo(a)Anthracene	330	350	410	630	U	330	33 J	730	1500	410	U	380	UJ	370	U
Chrysene	330	350	480	630	U	330	42 J	730	1700	410	U	380	UJ	370	U
bis(2-Ethylhexyl)phthalate	330	350	220 J	630	40 J	330	1000	730	U	410	31 J	380	UJ	370	48 J
Di-n-Octyl Phthalate	330	350	UJ	630	UJ	330	56 J	730	UJ	410	UJ	380	UJ	370	UJ
Benzo(b)Fluoranthene	330	350	660	630	U	330	45 J	730	2600	410	U	380	UJ	370	U
Benzo(k)Fluoranthene	330	350	190 J	630	UJ	330	14 J	730	880 J	410	UJ	380	UJ	370	UJ
Benzo(a)Pyrene	330	350	290 J	630	U	330	U	730	1400	410	25 J	380	UJ	370	U
Indeno(1,2,3-cd)Pyrene	330	350	350	630	U	330	19 J	730	1400	410	U	380	UJ	370	U
Dibenzo(a,h)Anthracene	330	350	74 J	630	U	330	U	730	330 J	410	U	380	UJ	370	U
Benzo(g,h,i)Perylene	330	350	200 J	630	U	330	11 J	730	700 J	410	U	380	UJ	370	U

(1) Cannot be separated from Diphenylamine

DATA QUALIFIER DEFINITIONS (ORGANIC)	
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J	The associated numerical value is an estimated quantity.
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N	Presumptive evidence of presence of material.
NJ	Presumptive evidence of the presence of the material at an estimated quantity.
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B	This contaminant was also present in the blank.

SAMPLE # / QTR # / % SOLID / pH / # OF TICS / SAMPLE DESCRIPTION	LOW SOIL CROL ug/l	S05 EBKF8 93 6.9 12		S05B EBKF7 82 6.5 4		S06 EBKF8 NA* 8.1 1		S06B EBKF9 93 6.8 3		S07 EBKG0 86 7.5 0		S07B EBKG1 86 7.7 4		S08 EBKG4 93 7.4 30	
		sample CROL	sample concentration	sample CROL	sample concentration	sample CROL	sample concentration	sample CROL	sample concentration	sample CROL	sample concentration	sample CROL	sample concentration	SAMPLE CROL	SAMPLE CONCENTRATION
2,4-Dinitrophenol	800	890	UJ	1000	UJ	830	UJ	890	UJ	970	UJ	970	UJ	890	UJ
4-Nitrophenol	800	890	U	1000	U	830	UJ	890	U	970	U	970	U	890	U
Dibenzofuran	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	82 J
2,4-Dinitrotoluene	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
Diethylphthalate	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
4-Chlorophenyl-phenylether	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
Fluorene	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	25 J
4-Nitroaniline	800	890	U	1000	U	830	UJ	890	U	970	U	970	U	890	U
4,6-Dinitro-2-methylphenol	800	890	U	1000	U	830	UJ	890	U	970	U	970	U	890	U
N-Nitrosodiphenylamine (1)	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
4-Bromophenyl-phenylether	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
Hexachlorobenzene	330	350	U	400	U	330	UJ	350	U	380	U	380	U	350	U
Pentachlorophenol	800	890	U	1000	UJ	830	UJ	890	UJ	970	UJ	970	UJ	890	U
Phenanthrene	330	350	290 J	400	12 J	330	UJ	350	U	380	U	380	U	350	160 J
Anthracene	330	350	44 J	400	U	330	UJ	350	U	380	U	380	U	350	U
Carbazole	330	350	20 J	400	U	330	UJ	350	U	380	U	380	U	350	UJ
Di-n-Butylphthalate	330	350	JBU	400	JBU	330	BJU	350	JBU	380	JBU	380	JBU	350	BJU
Fluoranthene	330	350	530	400	20 J	330	14 J	350	17 J	380	U	380	U	350	32 J
Pyrene	330	350	690	400	19 J	330	13 J	350	47 J	380	UJ	380	UJ	350	180 J
Butylbenzylphthalate	330	350	U	400	UJ	330	UJ	350	21 J	380	UJ	380	250 J	350	UJ
3,3'Dichlorobenzidine	330	350	U	400	UJ	330	UJ	350	UJ	380	UJ	380	UJ	350	UJ
Benzo(a)Anthracene	330	350	350 J	400	U	330	UJ	350	U	380	U	380	U	350	110 J
Chrysene	330	350	340 J	400	U	330	UJ	350	U	380	U	380	U	350	170 J
bis(2-Ethylhexyl)phthalate	330	350	U	400	18 J	330	18 J	350	31 J	380	37 J	380	39 J	350	120 J
Di-n-Octyl Phthalate	330	350	UJ	400	UJ	330	UJ	350	UJ	380	UJ	380	UJ	350	UJ
Benzo(b)Fluoranthene	330	350	560	400	U	330	16 J	350	20 J	380	U	380	U	350	UJ
Benzo(k)Fluoranthene	330	350	200 J	400	UJ	330	7 J	350	10 J	380	UJ	380	UJ	350	UJ
Benzo(a)Pyrene	330	350	240 J	400	U	330	8 J	350	16 J	380	U	380	U	350	UJ
Indeno(1,2,3-cd)Pyrene	330	350	300 J	400	U	330	UJ	350	U	380	U	380	U	350	UJ
Dibenzo(a,h)Anthracene	330	350	70 J	400	U	330	UJ	350	U	380	U	380	U	350	UJ
Benzo(g,h,i)Perylene	330	350	120 J	400	U	330	UJ	350	U	380	U	380	U	350	UJ

NA* - Lab did not analyze this sample for % moisture.

(1) Cannot be separated from Diphenylamine

DATA QUALIFIER DEFINITIONS (ORGANIC)
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NJ Presumptive evidence of the presence of the material at an estimated quantity.
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B This contaminant was also present in the blank.

SAMPLE # / QTR #		S01	E0KF0	S01D	E0KT1	S02	E0KF2	S04	E0KF4	S04D	E0KF5	S05	E0KF6	S05D	E0KF7
SAMPLE DESCRIPTION	LOW														
% SOLID / pH	SOIL	85	8.1	82	8.8	100	7.7	91	7.7	81	8.1	93	8.9	82	8.5
	CROL	sample	sample	sample	sample	sample	sample	sample	sample	sample	sample	sample	sample	sample	sample
	mg/Kg	CROL	concentration	CROL	concentration	CROL	concentration	CROL	concentration	CROL	concentration	CROL	concentration	CROL	concentration
alpha-BHC	1.7	1.8	U	3.3	U	1.7	U	1.9	U	2.1	U	1.8	U	2.1	U
beta-BHC	1.7	1.8	U	3.3	U	1.7	U	1.9	U	2.1	U	1.8	U	2.1	U
delta-BHC	1.7	1.8	U	3.3	U	1.7	U	1.9	U	2.1	U	1.8	U	2.1	U
gamma-BHC (Lindane)	1.7	1.8	U	3.3	U	1.7	U	1.9	U	2.1	U	1.8	0.52 JP	2.1	U
Heptachlor	1.7	1.8	U	3.3	U	1.7	U	1.9	0.11 JP	2.1	U	1.8	0.48 JP	2.1	U
Aldrin	1.7	1.8	U	3.3	U	1.7	U	1.9	U	2.1	U	1.8	U	2.1	U
Heptachlor epoxide	1.7	1.8	U	3.3	U	1.7	U	1.9	0.48 JP	2.1	U	1.8	U	2.1	U
Endosulfan I	1.7	1.8	U	3.3	U	1.7	U	1.9	U	2.1	U	1.8	U	2.1	U
Dieldrin	3.3	3.5	1.5 JP	6.3	U	3.3	1.6 JP	3.6	U	4.1	U	3.5	U	4.0	U
4,4'-DDE	3.3	3.5	1.6 JP	6.3	U	3.3	U	3.6	3.0 JP	4.1	U	3.5	2.5 JP	4.0	U
Endrin	3.3	3.5	1.8 JP	6.3	U	3.3	0.6 P	3.6	U	4.1	U	3.5	U	4.0	U
Endosulfan II	3.3	3.5	1.9 JP	6.3	U	3.3	1.2 JP	3.6	U	4.1	U	3.5	U	4.0	U
4,4'-DDD	3.3	3.5	2.4 JP	6.3	U	3.3	U	3.6	5.1	4.1	U	3.5	U	4.0	U
Endosulfan sulphate	3.3	3.5	U	6.3	U	3.3	2.0 JP	3.6	U	4.1	U	3.5	0.69 JP	4.0	U
4,4'-DDT	3.3	3.5	10 JP	6.3	U	3.3	U	3.6	13 P	4.1	U	3.5	1.1 J	4.0	U
Methoxychlor	17.0	17.9	4.8 JP	33	U	17.0	12 JP	18.7	24	21	U	18.3	19 JP	21	U
Endrin keytone	3.3	3.5	U	6.3	U	3.3	3.2 JP	3.6	4.7 P	4.1	U	3.5	3.6 J	4.0	U
Endrin aldehyde	3.3	3.5	3.1 JP	6.3	U	3.3	4.8 P	3.6	26 P	4.1	U	3.5	U	4.0	U
alpha-Chlordane	1.7	1.8	U	3.3	U	1.7	2.2 P	1.9	U	2.1	U	1.8	U	2.1	U
gamma-Chlordane	1.7	1.8	0.7 JP	3.3	U	1.7	0.77 JP	1.9	U	2.1	U	1.8	U	2.1	U
Toxaphene	170.0	180	U	330	U	170	U	190	U	210	U	180	U	210	U
Arochlor-1016	33.0	35	U	63	U	33.0	U	36	U	41	U	35	U	40	U
Arochlor-1221	67.0	71	U	130	U	67.0	U	74	U	83	U	72	U	82	U
Arochlor-1232	33.0	35	U	63	U	33.0	U	36	U	41	U	35	U	40	U
Arochlor-1242	33.0	35	U	63	U	33.0	U	36	U	41	U	35	U	40	U
Arochlor-1248	33.0	35	U	63	U	33.0	U	36	U	41	U	35	U	40	U
Arochlor-1254	33.0	35	U	63	U	33.0	230 P	36	U	41	U	35	U	40	U
Arochlor-1260	33.0	35	88 PJ	63	U	33.0	U	36	U	41	U	35	U	40	U

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SAMPLE # / QTR #		S06	EBKF8	S06B	EBKF9	S07	EBKQ0	S07D	EBKG1	S08	EBKG2	S08B	EBKG3	S09	EBKG4
SAMPLE DESCRIPTION	LOW														
% SOLID / pH	SOIL	NA*	8.1	93	6.8	86	7.5	85	7.7	86	8.7	88	7.2	93	7.4
	CROL	sample	sample	sample	sample	sample	sample	sample	sample	sample	sample	sample	sample	sample	sample
	mg/Kg	CROL	concentration	CROL	concentration	CROL	concentration	CROL	concentration	CROL	concentration	CROL	concentration	CROL	concentration
alpha-BHC	1.7	1.7*	UJ	1.8	U	2.0	U	2.0	U	2.0	U	1.9	U	1.8	U
beta-BHC	1.7	1.7*	UJ	1.8	U	2.0	1.2 JP	2.0	U	2.0	U	1.9	U	1.8	U
delta-BHC	1.7	1.7*	UJ	1.8	U	2.0	U	2.0	U	2.0	U	1.9	U	1.8	U
gamma-BHC (Lindane)	1.7	1.7*	UJ	1.8	U	2.0	U	2.0	U	2.0	U	1.9	U	1.8	U
Heptachlor	1.7	1.7*	UJ	1.8	U	2.0	U	2.0	U	2.0	U	1.9	U	1.8	U
Aldrin	1.7	1.7*	UJ	1.8	U	2.0	U	2.0	U	2.0	U	1.9	U	1.8	U
Heptachlor epoxide	1.7	1.7*	UJ	1.8	U	2.0	U	2.0	U	2.0	U	1.9	U	1.8	U
Endosulfan I	1.7	1.7*	UJ	1.8	U	2.0	0.69 J	2.0	U	2.0	U	1.9	U	1.8	U
Dieldrin	3.3	3.3*	UJ	3.5	U	3.8	0.16 JP	3.9	U	3.8	U	3.7	0.34 JP	3.5	U
4,4'-DDE	3.3	3.3*	UJ	3.5	U	3.8	U	3.9	U	3.8	U	3.7	0.18 JP	3.5	U
Endrin	3.3	3.3*	UJ	3.5	U	3.8	U	3.9	U	3.8	U	3.7	U	3.5	U
Endosulfan II	3.3	3.3*	UJ	3.5	U	3.8	U	3.9	U	3.8	U	3.7	U	3.5	U
4,4'-DDD	3.3	3.3*	UJ	3.5	U	3.8	U	3.9	U	3.8	U	3.7	U	3.5	U
Endosulfan sulphate	3.3	3.3*	0.24 JP	3.5	U	3.8	U	3.9	0.62 JP	3.8	U	3.7	U	3.5	U
4,4'-DDT	3.3	3.3*	UJ	3.5	U	3.8	U	3.9	U	3.8	7.7 P	3.7	0.53 JP	3.5	6.6 P
Methoxychlor	17.0	17*	1.1 J	18	U	20	U	20	U	20	U	19	U	18	U
Endrin keytone	3.3	3.3*	0.31 JP	3.5	U	3.8	U	3.9	U	3.8	U	3.7	U	3.5	U
Endrin aldehyde	3.3	3.3*	UJ	3.5	U	3.8	U	3.9	U	3.8	8.9 P	3.7	U	3.5	18 P
alpha-Chlordane	1.7	1.7*	UJ	1.8	U	2.0	U	2.0	U	2.0	U	1.9	U	1.8	U
gamma-Chlordane	1.7	1.7*	UJ	1.8	U	2.0	U	2.0	U	2.0	U	1.9	U	1.8	U
Toxaphene	170.0	170*	UJ	180	U	200	U	200	U	200	U	190	U	180	U
Arochlor-1016	33.0	33*	UJ	35	U	38	U	39	U	38	U	37	U	35	U
Arochlor-1221	67.0	67*	UJ	72	U	76	U	79	U	76	U	75	U	72	U
Arochlor-1232	33.0	33*	UJ	35	U	38	U	39	U	38	U	37	U	35	U
Arochlor-1242	33.0	33*	UJ	35	U	38	U	39	U	38	U	37	U	35	U
Arochlor-1248	33.0	33*	UJ	35	U	38	U	39	U	38	U	37	U	35	U
Arochlor-1254	33.0	33*	UJ	35	U	38	U	39	U	38	U	37	U	35	U
Arochlor-1260	33.0	33*	UJ	35	U	38	U	39	U	38	U	37	U	35	U

NA* - Lab did not analyze this sample for % moisture.

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SAMPLE #/ ITR #		S01	MEXE63	S01B	MEXE64	S02	MEXE65	S04	MEXE67	S04B	MEXE68
% SOLID	LOW SOIL CRDL	95.7		75.0		99.9		88.5		82.0	
	mg/Kg	sample CRDL	sample concentration	sample CRDL	sample concentration	sample CRDL	sample concentration	sample CRDL	sample concentration	sample CRDL	sample concentration
Aluminum	40	42	557	53	4260	40	1900	46	7280	49	16700
Antimony	12	13	2.8 UNJ	16	3.5 UNJ	12	2.7 UNJ	14	3.1 UNJ	15	3.2 UNJ
Arsenic	2	2.1	2.0 B	2.7	2.9	2.0	1.7 B	2.3	8.1	2.4	4.4 S
Barium	40	42	49.0	53	69.0	40	58.9	46	84.4	49	137
Beryllium	1	1.0	0.08 U	1.3	0.23 B	1.0	0.08 U	1.2	0.68 B	1.2	0.85 B
Cadmium	1	1.0	0.71 B	1.3	0.83 B	1.0	0.98 B	1.2	1.0 B	1.2	0.73 U
Calcium	1000	1045	10000	1333	36600	1001	7970	1155	17100	1220	7760
Chromium	2	2	99.0	3	7.2	2	26.9	2	17.3	2	35.4
Cobalt	10	10	1.8 B	13	2.5 B	10	3.2 B	12	8.3 B	12	10.9 B
Copper	5	5	25.8 EJ	7	23.4 EJ	5	22.1 EJ	6	7.4 EJ	6	36.1 EJ
Iron	20	21	9590	27	7880	20	10800	23	35600	24	25700
Lead	1	1	324	1	17.2	1	42.4	1	166	1	21.0
Magnesium	1000	1045	5950	1333	17900	1001	4570	1155	9000	1220	5010
Manganese	3	3	90.9	4	108	3	155	3	558	4	284
Mercury	0.2	0.21	0.05 U	0.27	0.07 U	0.20	0.05 U	0.23	0.08 B	0.24	0.06 U
Nickel	8	8	62.1	11	9.9 B	8	10.4	9	13.0	10	33.9
Potassium	1000	1045	80.6 U	1333	106 BJ	1001	279 BJ	1155	1290	1220	1160 B
Selenium	1	1.0	0.17 U	1.3	0.93 BWJ	1.0	0.16 U	1.2	0.58 BJ	1.2	0.24 BWJ
Silver	2	2.1	0.33 U	2.7	0.43 U	2.0	0.32 U	2.3	0.37 U	2.4	0.39 U
Sodium	1000	1045	28.5 B	1333	82.0 B	1001	100 B	1155	142 B	1220	76.1 B
Thallium	2	2.1	1.0 BJ	2.7	0.45 BWJ	2.0	0.14 UWJ	2.3	0.92 BWJ	2.4	0.85 UWJ
Vanadium	10	10	11.9 B	13	17.7	10	8.3 B	12	21.9	12	36.5
Zinc	4	4	431 ENJ	5	27.2 ENJ	4	146 ENJ	5	261 ENJ	5	63.7 ENJ

DATA QUALIFIER DEFINITIONS (INORGANIC):

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J The associated value is an estimated quantity.

R The data are unusable. (Note: Analyte may or may not be present.)

UJ The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

B The concentration is greater than the instrument detection limit (IDL) but less than the contract required detection limit (CRDL).

S The reported value was determined by the Method of Standard Addition (MSA).

* Duplicate analysis was not within control limits.

W Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

N Spiked sample recovery not within control limits.

+ Correlation coefficient for the MSA is less than 0.995.

M Duplicate injection precision not met.

E The reported value is estimated because of the presence of interference.

SAMPLE #/ITR#		S05	MEXE69	S05B	MEXE70	S06	MEXE71	S06B	MEXE72	S07	MEXE73
%SOLID	LOW SOIL	92.1		79.0		85		81.4		85.5	
	CRDL mg/Kg	sample CRDL	sample concentration	sample CRDL	sample concentration	sample CRDL	sample concentration	sample CRDL	sample concentration	sample CRDL	sample concentration
Aluminum	40	43	3870	51	13000	47	4420	47	14400	47	10000
Antimony	12	13	2.9 UNJ	15	3.4 UNJ	14	3.1 UNJ	14	3.2 UNJ	14	3.1 UNJ
Arsenic	2	2.2	2.5	2.5	4.8 S	2.4	1.8 B	2.4	4.9 S	2.3	3.0 S
Barium	40	43	23.7 B	51	77.3	47	0.172	47	66.9	47	45.4 B
Beryllium	1	1.1	0.16 B	1.3	0.48 B	1.2	0.19 B	1.2	0.57 B	1.2	0.49 B
Cadmium	1	1.1	0.65 U	1.3	0.76 U	1.2	0.71 U	1.2	0.77 B	1.2	0.70 U
Calcium	1000	1086	12000	1266	7500	1175	9340	1185	91200	1170	96100
Chromium	2	2	17.2	3	25.8	2	8.2	2	24.6	2	19.0
Cobalt	10	11	9.2 B	13	10.7 B	12	3.4 B	12	8.8 B	12	5.8 B
Copper	5	5	63.7 EJ	6	22.7 EJ	6	15.6 EJ	6	18.9 EJ	6	18.0 EJ
Iron	20	22	28600	25	21100	24	19600	24	18900	23	14700
Lead	1	1	21.9	1	12.2	1	1.67	1	10.8	1	9.4
Magnesium	1000	1086	4310	1266	5990	1175	2420	1185	40200	1170	39300
Manganese	3	3	655	4	490	4	584	4	465	4	282
Mercury	0.2	0.22	0.05 U	0.25	0.06 U	0.24	0.15	0.24	0.05 U	0.23	0.06 U
Nickel	8	9	14.2	10	20.6	9	10.3	9	25.8	9	17.0
Potassium	1000	1086	638 BJ	1266	1230 B	1175	760 B	1185	2920	1170	2120
Selenium	1	1.1	0.17 UWJ	1.3	0.20 U	1.2	0.19 U	1.2	0.19 UWJ	1.2	0.94 UWJ
Silver	2	2.2	0.35 U	2.5	0.41 U	2.4	0.38 U	2.4	0.38 U	2.3	0.37 U
Sodium	1000	1086	78.2 B	1266	60.8 B	1175	97.3 B	1185	199 B	1170	193 B
Thallium	2	2.2	0.76 UWJ	2.5	0.33 BW	2.4	0.82 U	2.4	0.24 BWJ	2.3	0.21 BWJ
Vanadium	10	11	10.8 B	13	33.9	12	9.6 B	12	27.5	12	22.9
Zinc	4	4	23.2 ENJ	5	52.5 ENJ	5	264 ENJ	5	45.4 ENJ	5	39.9 ENJ

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- B The concentration is greater than the instrument detection limit (IDL) but less than the contract required detection limit (CRDL).
- S The reported value was determined by the Method of Standard Addition (MSA).
- * Duplicate analysis was not within control limits.
- W Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.
- N Spiked sample recovery not within control limits.
- + Correlation coefficient for the MSA is less than 0.995.
- M Duplicate injection precision not met.
- E The reported value is estimated because of the presence of interference.

SAMPLE #/ITR #		S07B	MEXE74	S08	MEXE75	S08B	MEXE76	S09	MEXE77
% SOLID	LOW SOIL CRDL	85		90		87		91	
		sample CRDL	sample concentration	sample CRDL	sample concentration	sample CRDL	sample concentration	sample CRDL	sample concentration
	mg/Kg								
Aluminum	40	47	10300	44	3160	46	10200	44	4310
Antimony	12	14	3.1 UNJ	13	2.9 UNJ	14	3.0 UNJ	13	2.9 UNJ
Arsenic	2	2.4	2.8 S	2.2	1.7 B	2.3	3.2	2.2	2.2
Barium	40	47	51.9	44	16.0 B	46	44.9 B	44	27.5 B
Beryllium	1	1.2	0.49 B	1.1	0.10 B	1.1	0.30 B	1.1	0.15 B
Cadmium	1	1.2	0.71 U	1.1	0.66 U	1.1	0.69 U	1.1	0.66 U
Calcium	1000	1175	101000	1106	9500	1145	6320	1099	11500
Chromium	2	2	19.7	2	4.6	2	20.9	2	7.8
Cobalt	10	12	6.5 B	11	2.8 B	11	5.9 B	11	3.1 B
Copper	5	6	19.3 EJ	6	6.6 EJ	6	16.1 EJ	5	9.6 EJ
Iron	20	24	15600	22	8580	23	18800	22	12400
Lead	1	1	1.0	1	0.5	1	1.0	1	1.5
Magnesium	1000	1175	41800	1106	4460	1145	4720	1099	5280
Manganese	3	4	322	3	173	3	275	3	382
Mercury	0.2	0.2	0.05 U	0.2	0.05 U	0.2	0.05 U	0.2	0.05 U
Nickel	8	9	19.7	9	6.1 B	9	16.1	9	6.8 B
Potassium	1000	1175	2090	1106	582 BJ	1145	850 B	1099	753 B
Selenium	1	1.2	0.94 UWJ	1	0.18 U	1	0.18 U	1	0.18 BWJ
Silver	2	2.4	0.38 U	2.2	0.35 U	2.3	0.37 U	2.2	0.35 U
Sodium	1000	1175	200 B	1106	57.4 B	1145	106 B	1099	81.0 B
Thallium	2	2.4	0.16 BWJ	2.2	0.77 U	2.3	0.80 UW	2.2	0.15 UW
Vanadium	10	12	23.5	11	6.3 B	11	39.2	11	12.1
Zinc	4	5	41.7 ENJ	4	25.0 ENJ	5	81.1 ENJ	4	30.9 ENJ

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APPENDIX F

Environmental Professional Qualifications Statement

ENVIRONMENTAL SITE ASSESSOR QUALIFICATIONS

Site Assessor

Kim White, Hydrogeologist, Wisconsin Department of Natural Resources

Education

Degrees

B.S. Geology, 1993, University of North Carolina-Chapel Hill
M.S. Water Resources Management, 1997, University of Wisconsin-Madison
Concentration: Hydrogeology

Relevant Coursework

Hydrogeology
Contaminant Hydrogeology
Field Methods in Hydrogeology
Fluvial Geomorphology
Hydrology
Field Geology

Experience

- Wisconsin Department of Natural Resources - July 1994 to Present
  - Brownfields Environmental Assessment Pilot - January 1996 to Present
    - Phase I and Phase II Environmental Assessment Training
    - Project Management
  - Superfund Site Evaluation - July 1994 to December 1995
    - Project Management
    - Prepare workplans, conduct field investigations, report writing

- U.S. Geological Survey - May 1993 to October 1993
  - National Water Quality Assessment Project (NAWQA)
    - Water quality data collection in field, monitoring well installation, database management

- ATEC Environmental Consultants - May 1991 to October 1991
  - Monitoring well installation, groundwater and soil sampling, report writing

Appendix F
Resumes

AREAS OF EXPERTISE

- Geology/Soils
- Hydrogeology
- Environmental Geology
- Underground Storage Tanks
- Phase I ESAs
- Phase II Investigations

EDUCATION

Milwaukee School of Engineering: Master of Science: Environmental Engineering: Ongoing Coursework: Expected Completion, 2000

University of Wisconsin-Milwaukee: Graduate Coursework Geotechnical Engineering, Hydrogeology

University of Wisconsin-Madison: B.S., Geology/Geophysics, 1987

REGISTRATION

Professional Geologist: Wisconsin and Illinois

Certified Hazardous Materials Manager-Senior Level

OSHA 40-Hour Health & Safety Training

OSHA 8-Hour Health & Safety Supervisor Training

OSHA Confined Space Entry Training

ILHR Chapter 10 Certified UST Site Assessor

REPRESENTATIVE EXPERIENCE

Mr. Cigale has gained valuable experience with Woodward-Clyde in numerous areas of environmental consultation including: remedial investigations and remedial actions, Phase I Environmental Site Assessments (ESAs), Phase II Investigations, installation and sampling of groundwater monitoring wells, and report preparation. Mr. Cigale exceeds the minimum requirements for hydrogeologists as defined by Wisconsin Administrative Code, Chapter NR 718. Other recent experience includes:

- WHEDA Office Building & Parking Structure, Madison, WI. Directed and performed investigations and remediation of soil impacts due to a release of fuel oil from an underground storage tank discovered during construction. Case closure was granted by the Department of Natural Resources less than 90 days after discovery of the tank, 1996.
- Cook Composites & Polymers, Saukville, WI. Directed and performed quarterly groundwater sampling at a chemical manufacturing facility. Sampling also included whole effluent toxicity testing and incinerator waste sampling, 1997.
- Confidential Site, DePere, WI. Investigated potential metals impacts to the groundwater on the site. The investigation yielded sufficient evidence to convince the Department of Natural Resources to remove the site from their release database, 1997.
- Former Vanier Graphics Facility, Brookfield, WI. Involvement included geologic logging and soil sampling during the drilling of soil borings, installation, development and sampling of piezometers and water table observation wells and directing the removal of soils impacted by a release of solvents used at the former printing facility. 1993-1995.
- Kenosha Lakefront Site, Kenosha, WI. Performed quarterly groundwater sampling at the former industrial facility. Direction and oversight during the removal of lead-impacted soils and direction of drilling for UST closure, site obtained closure in 1996, 1993-1996.
- Continental Baking Company, several sites in WI. Conducted soil and groundwater investigations related to a release from petroleum product underground storage tanks.

PROFESSIONAL HISTORY

Woodward-Clyde, Senior Staff Geologist, 1996 to present

Woodward-Clyde, Staff Geologist, 1995 to 1996

Woodward-Clyde, Assistant Staff Geologist, 1993 to 1995

Woodward-Clyde, Field Technician, 1992 to 1993

EWI Engineering Associates, Field Technician, 1990-1992

Warzyn Engineering, Inc., Field Technician, 1989-1990

Specific responsibilities included soil and groundwater sampling, research of regulatory agency records, determination of remedial alternatives and report preparation. 1994 - 1995.

- East Pointe/Astor Court, Milwaukee, WI. Conducted environmental field investigation associated with the multiblock development in downtown Milwaukee. Development is located in one of the oldest areas of Milwaukee and has been vacant since the 1970s. Investigation included intrusive sampling, municipal records review and interviews. Performed several underground storage tank removals and subsequent remedial actions. 1993 - 1995.
- Various locations in Wisconsin, Iowa, Indiana, North Carolina. Performed Phase I ESAs following standard set by ASTM E1527. Completed two-day Woodward-Clyde sponsored training course for performing and reporting Phase I ESAs, 1993 - 1998.

AREAS OF EXPERTISE

- Power Generation/ Transmission Industry
- Manufactured Gas Plants
- Environmental Compliance
- Corrective Action / Remediation
- Environmental Auditing

EDUCATION

Graduate Coursework in Environmental Engineering and Groundwater Hydrology, University of Wisconsin - Milwaukee, 1978 - 1980

B.S. Civil/Environmental Engineering, University of Wisconsin-Milwaukee, 1976

B.S. Journalism and Political Science, University of Wisconsin - Whitewater, 1972

REGISTRATION

Professional Engineer: WI, MN, MI, IL, OH, & MO

PROFESSIONAL HISTORY

Woodward-Clyde, Senior Project Manager, 1997

Senior Environmental Consultant, Wisconsin Power & Light, 1994 - 1997

Manager, Environmental

REPRESENTATIVE EXPERIENCE AND FOCUS

Mr. Scudder has more than 21 years of environmental engineering and management experience. He has directed investigation, design, and construction phase service projects at a wide variety of industrial, chemical, and manufactured gas plant sites. He has managed projects involving soil and groundwater remediation, conducted multi-media environmental audits, and evaluated environmental risks associated with real estate transactions. Mr. Scudder's focus is management of industrial environmental programs and issues, remediation of contaminated sties, and environmental risk management associated with industrial activities and real estate transactions. Specific professional experience includes program and project work in the following areas:

Utility Industry

- Senior Environmental Consultant and Manufactured Gas Plant (MGP) Project Manager. Duties included strategy development, technical management, and oversight of manufactured gas plant remediation. Developed project timelines, hired consultants, directed the investigation and remediation work, maintained regulatory and community liaison, and managed the budgets (typically one to two million dollars per year). Also responsible for environmental risk evaluation of real estate transactions.

Environmental Consulting

- Manager Environmental Services Department, supervising 33 environmental professionals. Maintained general oversight of the technical work to which staff were assigned. The Environmental Services Department was responsible for underground storage tank assessments and removal, remedial investigations, development of strategies and approaches for soil and/or groundwater remediations, engineering, design and construction of remediation systems and industrial wastewater treatment systems, and operation and maintenance of soil and/or groundwater remediation systems.
- Functioned as senior technical and/or technical lead on projects involving: soil and groundwater investigation and remediation at paint and chemical manufacturing facilities and other industry sites; emergency spill response and clean-up; industrial environmental management; environmental permitting; hazardous waste management

Services and Environmental Assessment Departments, RMT, Inc., 1988 - 1994

Environmental Coordinator, PPG Industries, 1981 - 1988

Environmental Engineer, Donohue & Associates, 1976 - 1981

AFFILIATIONS

American Society of Civil Engineers

ASTM - Subcommittee on Contaminated Site Remediation

EPRI - MGP Task Force

EEI - MGP Subcommittee

and disposal; training; and environmental risk evaluation for real estate transactions or industrial acquisitions.

Paint and Chemical Industry

- Environmental Coordinator which included environmental compliance and environmental projects for two manufacturing facilities. Prepared annual environmental budget and planned projects and time lines; managed vapor and particulate emissions systems, wastewater treatment systems, and the storage, transportation, and disposal of hazardous wastes; negotiated various applications and permits (including WPDES, RACT, and RCRA Part B); directed emergency spill responses and clean-ups; worked with process engineers and management to ensure environmental impacts and wastes from production related projects and modifications could be accommodated; tested, specified, and installed wastewater pretreatment equipment; conducted regulatory training; and maintained complianced with environmental regulations related to air emissions, stormwater and wastewater discharges, and hazardous waste generation, storage, transportation, and disposal.

PUBLICATIONS AND PRESENTATION

"Fate and Transport of Cyanide Species in the Subsurface at MGP Sites," D. Scudder, J. Shefchek - WP&L; D. Dzombak, R. Ghosh, R. Luthy - Carnegie Mellon University; D. Nakles - Retec; I. Murarka - Electric Power Research Institute; Presented at: GRI/EPRI Management of Manufactured Gas Plant Sites Technology Transfer Seminar - Washington D.C., September, 1997.

"Biosparging at an MGP Site: Lessons Learned from the Field," D. Scudder, J. Shefchek - WP&L; I. Murarka - Electric Power Research Institute; A. Battaglia - Retec; Presented at: GRI/EPRI Management of Manufactured Gas Plant Sites Technology Transfer Seminar - Washington D.C., September, 1997.

"Fate and Transport of Cyanide in Groundwater," D. Scudder, J. Shefchek - WP&L; D. Nakles, A. Battaglia - Retec; Presented at: GRI/EPRI MGP Technology Transfer Seminar - Chicago, June, 1995.