CARDINAL
ENVIRONMENTAL

SER024
4-29-02

09-60-306351

# Closure Assessment for the Removal of a 8,000-Gallon Naphtha Underground Storage Tank On April 11, 2002 at:

Former R-Way Furniture Company
740 S. Commerce Street
Sheboygan, Wisconsin

*Prepared for:*

Thomas Holtan
City of Sheboygan
833 Center Avenue
Sheboygan, WI

*Prepared by:*

Signature: Bruce Ten Haken Date: 4/29/2002

Bruce Ten Haken, CHMM
Project Manager
Dept. of Commerce Certification # 41751

3303 Paine Avenue Sheboygan, WI 53081
920/459-2500 800/413-7225 FAX 920/459-2503

# UNDERGROUND STORAGE TANK CLOSURE ASSESSMENT

## FORMER R-WAY FURNITURE COMPANY
## 740 S. COMMERCE STREET
## SHEBOYGAN, WI

## A. SITE BACKGROUND INFORMATION

An 8,000-gallon underground storage tank (UST) located at the former R-Way Furniture Company, 740 S. Commerce Street in Sheboygan, Wisconsin (the site) was removed on April 11, 2002. The UST was located on the east side of the property, about 115' north of Maryland Avenue.

Cardinal Environmental Inc. (Cardinal) was hired by the City of Sheboygan (the City) to perform the closure assessment and the removal. Bruce Ten Haken (DEC Cert. #41751) from Cardinal was the Site Assessor and the Remover/Cleaner. Buteyn-Peterson Construction Co., Sheboygan, WI. was contracted by the City to provide the excavating and backfilling services.

The UST was found on March 26, 2002 during the installation of footings for a new building being constructed on site. The previous buildings on site had been demolished. The site had been used for furniture production between 1884 and 1994. The UST reportedly had been used for storing naphtha, which was used as paint and varnish thinner. The UST had not been previously registered.

## B. TANK ACTIVITIES AND EXCAVATION

Attachment II contains a tank layout drawing. The UST was located 1.5' below the surface. Digger's Hotline Locates were still in effect for the site since the site was under development. A high-pressure gas main was located about 2' east of the UST. The UST appeared to have been previously cleaned, and then filled in place with soil. The UST also contained about 2,000 gallons of water. The water did not have any odors or a sheen.

The 8,000-gallon UST was 8.5' D x 19' L. All piping and pumps had previously been removed. The completed excavation was roughly 19'L x 15'W x 10'D. The UST was installed with native soil (sandy clay) backfill. Native soil was around and under the UST. The excavated soil was placed back into the excavation after soil samples were collected. Additional fill material was obtained from on site.

## C. TANK CLEANING AND DISPOSAL

On March 27, 2002 a water sample was collected from the UST and analyzed for VOCs. The results (Attachment III) were received on April 1, 2002 and faxed to Sheboygan WWTP. They approved the water to be discharge into the sanitary sewer. On April 2, 2002 the 2000-gallons of water was pumped into the sanitary sewer.

After removing the water, the top of the UST was peeled off by the excavator. Thirty yards of soil was scraped out. The soil did not have any strong odors. The soil was placed on a stockpile of contaminated soil already on site from other cleanup activities occurring on site.

After the soil was removed, the UST was removed from the excavation. The UST had several 1" diameter holes along the bottom and ends. After cleaning and labeling, the UST was transported to Gus Holman Co., Sheboygan, WI. A copy of the scrap ticket can be found in Attachment I.

## D. SURPLUS PRODUCT AND TANK SLUDGE MANAGEMENT

No product was observed in the UST. After VOC testing, the water was approved and discharged to the Sheboygan Wastewater Treatment Plant. Even though the soil fill in the UST did not appear to be contaminated, it was placed on the contaminated soil stockpile already on site. The soil stockpile was disposed of at Ridgeview RDF, Whitelaw, Wisconsin during the week of April 22, 2002.

## E. SITE LOCATION AND LAYOUT MAP.

The site is located at 740 S. Commerce Street, in the City of Sheboygan, Wisconsin. The site is approximately 3.6 acres in the southwest quarter of the southwest quarter of Section 23, and the northwest quarter of the northwest quarter of Section 26, Township 15 North, Range 23 East, Sheboygan County, Wisconsin. The site map and tank layout diagrams are in Attachment II. At the time of this UST removal, the buildings, USTs, and other structures listed on the site layouts had been previously removed.

## F. VISUAL INSPECTION

The weather conditions the day of the UST removal were as follows: temperature of 48°F; cloudy; light winds from the south, southeast.

The UST was 1.5' below the surface. Several inches of water were present on the south end of the excavation. There was no sheen observed on the water. The UST had been installed with native sandy-clay soil. No petroleum odors or stains were present in the backfill around the UST. Two (2) soil samples were taken in the native soil under the ends of the UST.

## G. SOIL SAMPLING AND ANALYSIS

Two (2) Diesel Range Organics (DRO) samples and two (2) Gasoline Range Organics (GRO) were collected. See the layout map in Attachment II for sample locations. The samples were collected using U.S. Analytical's Easy Draw Soil Samplers, then placed on ice. A sample was collected from the same locations for total solids (plastic syringe).

The native soil under and around the UST was a sandy-clay. Samples RW-1 were collected below the south end of the UST 1-foot into the native soil (approx. depth from surface of 11'). Samples RW-2 were collected below the north end of the UST 1-foot into the native soil (approx. depth from surface of 11'). No piping was present.

The samples were transported to Cardinal on ice, then placed in a refrigerator at a temperature of 0-4°C. U.S. Analytical Laboratory, Kimberly, Wisconsin, WDNR Lab Cert. #445027660, picked up the samples on April 12, 2002. U.S. Analytical Laboratory analyzed the samples by the Wisconsin Modified DRO & GRO Methods on April 16 &17, 2002. All four samples collected were reported as <10 mg/kg (less than 10 mg/kg). The COC and lab report can be found in Attachment III.

## H. SUPPORTING DOCUMENTATION

Copies of the inventory form, closure checklist, City of Sheboygan Permit, and other supporting documentation can be found in Attachment I. Copies of the inventory form and closure checklist were sent to Tarlton Inspections, Gillett, WI. Tarlton Inspections is the Wisconsin Department of Commerce 's Local Program Operator for the City of Sheboygan.

## I. CONCLUSIONS AND RECOMMENDATIONS

The soil samples collected from the native soil under the UST and remote fill pipe had DRO & GRO results of <10 mg/kg (less than 10 mg/kg). Since the samples were below the Wisconsin Department of Natural Resources (WDNR) investigative limit of 10 mg/kg, no further investigation of the UST excavation is required. The WDNR considers this to be a clean UST closure.

We trust that the above information meets your needs. Please contact us if you have any questions or comments.

# ATTACHMENT I

**Complete one form for each site closure.**

The information you provide may be used for secondary purposes [Privacy Law, s.15.04 (1)(m)].

# CHECKLIST FOR TANK CLOSURE

CHECK ONE: ☒ UNDERGROUND ☐ ABOVEGROUND

FOR PORTIONS OF THE FORM THAT DO NOT APPLY, CHECK THE N/A BOX BELOW

**RETURN COMPLETED CHECKLIST TO:**

Wisconsin Department of Commerce
ERS Division
Bureau of Storage Tank Regulation
P.O. Box 7837
Madison, WI 53707-7837

**A. IDENTIFICATION: (Please Print) Indicate whether closure is for:** ☒ **Tank System** ☐ **Tank Only** ☐ **Piping Only**

| 1. Site Name | 2. Owner Name |
|---|---|
| Former R-Way Furniture Co. | City of Sheboygan |
| Site Street Address (not P.O. Box) | Owner Street Address |
| 740 S. Commerce Street | 828 Center Ave. |
| ☒ City ☐ Village ☐ Town of: | ☒ City ☐ Village ☐ Town of: |
| Sheboygan | Sheboygan |
| State: WI Zip Code: 53081 | State: WI Zip Code: 53081 |
| County: Sheboygan | County: Sheboygan |
| | Telephone No. (include area code): (920) 459-3366 |

| 3. Closure Company Name (print) | Closure Company Street Address |
|---|---|
| Cardinal Environmental | 3303 Paine Avenue |
| Closure Company Telephone No. (include area code) | Closure Company City, State, Zip Code |
| (920) 459-2500 | Sheboygan, WI 53081 |
| 4. Name of Company Performing Closure Assessment | Assessment Company Street Address, City, State, Zip Code |
| Cardinal Environmental | Sheboygan, WI 53081, 3303 Paine Ave. |
| Telephone No. (include area code) | Certified Assessor Name (print) |
| (920) 459-2500 | Bruce Ten Haken |
| Assessor Signature | Assessor Certification No. |
| Bruce Ten Haken | 41751 |

| Tank ID # | Closure | Temp. Closure | Closure in Place | Tank Capacity | Contents* | Closure Assessment |
|---|---|---|---|---|---|---|
| 1. "Applied For" | ☒ | ☐ | ☐ | 8,000 | Chemical | ☒ Y ☐ N |
| 2. | ☐ | ☐ | ☐ | | | ☐ Y ☐ N |
| 3 | ☐ | ☐ | ☐ | | | ☐ Y ☐ N |
| 4. | ☐ | ☐ | ☐ | | | ☐ Y ☐ N |

* Indicate which product: Diesel; Leaded; Unleaded; Fuel Oil; Gasohol; Aviation Fuel; Kerosene; Premix; Waste/Used Motor Oil; Flammable/Combustible Hazardous Waste; Chemical (indicate the chemical name(s) Naphtha and CAS number(s) 8030 30 6; Other .

Written notification was provided to the local agent 15 days in advance of closure date. ☒ Y ☐ N ☐ NA

All local permits were obtained before beginning closure. ☒ Y ☐ N ☐ NA

**Check applicable box at right in response to all statements in Sections B-E.**

| | Remover Verified | | Inspector Verified | NA |
|---|---|---|---|---|
| **B. TEMPORARILY OUT OF SERVICE** | | | | |
| Written inspector approval of temporary closure obtained, which is effective until (provide date) _____ | ☐ Y | ☐ N | ☐ | ☐ |
| 1. Product Removed | | | | |
| a. Product lines drained into tank (or other container) and resulting liquid removed, AND | ☐ Y | ☐ N | ☐ | ☐ |
| b. All product removed to bottom of suction line, OR | ☐ Y | ☐ N | ☐ | ☐ |
| c. All product removed to within 1" of bottom. | ☐ Y | ☐ N | ☐ | ☐ |
| 2. Fill pipe, gauge pipe, tank truck vapor recovery fittings, and vapor return lines capped. | ☐ Y | ☐ N | ☐ | ☐ |
| 3. All product lines at the islands or pumps located elsewhere are removed and capped, OR | ☐ Y | ☐ N | ☐ | ☐ |
| 4. Dispensers/pumps left in place but locked and power disconnected. | ☐ Y | ☐ N | ☐ | ☐ |
| 5. Vent lines left open. | ☐ Y | ☐ N | ☐ | ☐ |
| 6. Inventory form filed indicating temporary closure. | ☐ Y | ☐ N | ☐ | ☐ |
| **C. CLOSURE BY REMOVAL** | | | | |
| 1. Product from piping drained into tank (or other container). | ☐ Y | ☐ N | ☐ | ☒ |
| 2. Piping disconnected from tank and removed. | ☐ Y | ☐ N | ☐ | ☒ |
| 3. All liquid and residue removed from tank using explosion proof pumps or hand pumps. | ☐ Y | ☐ N | ☐ | ☒ |
| 4. All pump motors and suction hoses bonded to tank or otherwise grounded. | ☐ Y | ☐ N | ☐ | ☒ |
| 5. Fill pipes, gauge pipes, vapor recovery connections, submersible pumps and other fixtures removed. | ☐ Y | ☐ N | ☐ | ☒ |
| NOTE: DROP TUBE SHOULD NOT BE REMOVED IF THE TANK IS TO BE PURGED THROUGH THE USE OF AN EDUCTOR. | | | | |
| 6. Vent lines left connected until tanks purged. | ☐ Y | ☐ N | ☐ | ☒ |
| 7. Tank openings temporarily plugged so vapors exit through vent. | ☐ Y | ☐ N | ☐ | ☒ |
| 8. Tank atmosphere reduced to 10% of the lower flammable range (LEL) - see Section F. | ☒ Y | ☐ N | ☐ | ☐ |
| 9. Tank removed from excavation after PURGING/INERTING; placed on level ground and blocked to prevent movement. | ☒ Y | ☐ N | ☐ | ☐ |
| 10. Tank cleaned before being removed from site. | ☒ Y | ☐ N | ☐ | ☐ |



- CONTINUE ON NEXT PAGE -

C. CLOSURE BY REMOVAL (continued)

| | Remover Verified | Inspector Verified | NA |
|---|---|---|---|
| 11. Tank labeled in 2" high letters after removal but before being moved from site. | ☒Y ☐N | ☐ | ☐ |
| NOTE: COMPLETE TANK LABELING SHOULD INCLUDE WARNING AGAINST REUSE; FORMER CONTENTS; VAPOR STATE; VAPOR FREEING TREATMENT; DATE. | | | |
| 12. Tank vent hole (1/8" in uppermost part of tank) installed prior to moving the tank from site. | ☒Y ☐N | ☐ | ☒ |
| 13. Form ERS-7437 or ERS-8731 filed by owner with the Dept. of Commerce indicating closure by removal. | ☒Y ☐N | ☒ | ☐ |
| 14. Site security is provided while the excavation is open. | ☒Y ☐N | ☐ | ☐ |

D. CLOSURE IN PLACE

NOTE: CLOSURES IN PLACE ARE ONLY ALLOWED WITH THE PRIOR WRITTEN APPROVAL OF THE DEPARTMENT OF COMMERCE OR LOCAL AGENT.

| | | | | |
|---|---|---|---|---|
| 1. Product from piping drained into tank (or other container). | ☐Y | ☐N | ☐ | ☐ |
| 2. Piping disconnected from tank and removed. | ☐Y | ☐N | ☐ | ☐ |
| 3. All liquid and residue removed from tank using explosion proof pumps or hand pumps. | ☐Y | ☐N | ☐ | ☐ |
| 4. All pump motors and suction hoses bonded to tank or otherwise grounded. | ☐y | ☐N | ☐ | ☐ |
| 5. Fill pipes, gauge pipes, vapor recovery connections, submersible pumps and other fixtures removed. | ☐Y | ☐N | ☐ | ☐ |
| NOTE: DROP TUBE SHOULD NOT BE REMOVED IF THE TANK IS TO BE PURGED THROUGH THE USE OF AN EDUCTOR - EDUCTOR OUTPUT 12 FT. ABOVE GRADE. | | | | |
| 6. Vent lines left connected until tanks purged. | ☐Y | ☐N | ☐ | ☐ |
| 7. Tank openings temporarily plugged so vapors exit through vent. | ☐Y | ☐N | ☐ | ☐ |
| 8. Tank atmosphere reduced to 10% of the lower flammable range (LEL) see Section F. | ☐Y | ☐N | ☐ | ☐ |
| 9. Tank properly cleaned to remove all sludge and residue. | ☐Y | ☐N | ☐ | ☐ |
| 10. Solid inert material (sand, cyclone boiler slag, pea gravel recommended) introduced and tank filled. | ☐Y | ☐N | ☐ | ☐ |
| 11. Vent line disconnected or removed. | ☐Y | ☐N | ☐ | ☐ |
| 12. Inventory form filed by owner with the Department of Commerce indicating closure in place. | ☐Y | ☐N | ☐ | ☐ |

E. CLOSURE ASSESSMENTS

NOTE: DETERMINE IF A CLOSURE ASSESSMENT IS REQUIRED BY REFERRING TO COMM 10.

| | | | | |
|---|---|---|---|---|
| 1. Individual conducting the assessment has a closure assessment plan (written) which is used as the basis for their work on the site. | ☒Y | ☐N | ☐ | ☐ |
| 2. Do points of obvious contamination exist? | ☐Y | ☒N | ☐ | ☐ |
| 3. Are there strong odors in the soils? | ☐Y | ☒N | ☐ | ☐ |
| 4. Was a field screening instrument used to pre-screen soil sample locations? | ☐Y | ☒N | ☐ | ☐ |
| 5. Was a closure assessment omitted because of obvious contamination? | ☐Y | ☒N | ☐ | ☐ |
| 6. Was the DNR notified of suspected or obvious contamination? | ☐Y | ☒N | ☐ | ☐ |

Agency, office and person contacted: _____

7. Contamination suspected because of: ☐Odor ☐Soil Staining ☐Free Product ☐Sheen on Groundwater ☐Field Instrument Test

F. METHOD OF ACHIEVING 10% LEVEL DESCRIPTION

☐Eductor Or Diffused Air Blower
Eductor driven by compressed air, bonded and drop tube left in place; vapors discharged minimum of 12 feet above ground. Diffused air blower bonded and drop tube removed. Air pressure not exceeding 5 psig.

☐Dry Ice
Dry Ice introduced at 1.5 pounds per 100 gallons of tank capacity. Dry ice crushed and distributed over the greatest possible tank area. Dry ice evaporated before proceeding.

☐Inert Gas (CO/2 or N/2) NOTE: INERT GASSES PRODUCE AN OXYGEN DEFICIENT ATMOSPHERE. THE TANK MAY NOT BE ENTERED IN THIS STATE WITHOUT SPECIAL EQUIPMENT.
Gas introduced through a single opening at a point near the bottom of the tank at the end of the tank opposite the vent. Gas introduced under low pressure not to exceed 5 psig to reduce static electricity. Gas introducing device grounded.

☒Tank atmosphere monitored for flammable or combustible vapor levels.
Calibrate combustible gas indicator. Drop tube removed prior to checking atmosphere. Tank space monitored at bottom, middle and upper portion of tank. Readings of 10% or less of the lower flammable range (LEL) obtained before removing tank from ground.

G. NOTE SPECIFIC PROBLEMS OR NONCOMPLIANCE ISSUES BELOW

-NO INSPECTOR ON SITE -All pumps + piping had previously been removed.
-Tank had previously been cleaned + filled in place w/soil

H. REMOVER/CLEANER INFORMATION

| Bruce Ten Haken | [signature] | 41751 | 4/11/02 |
|---|---|---|---|
| Remover Name (print) | Remover Signature | Remover Certification No. | Date Signed |

I. INSPECTOR INFORMATION

| [illegible] | [signature] | [illegible] |
|---|---|---|
| Inspector Name (print) | Inspector Signature | Inspector Certification No. |
| [illegible] | 715-755-5757 | 4-16-02 |
| FDID # For Location Where Inspection Performed | Inspector Telephone Number | Date Signed |

TANK INVENTORY FORM ERS-7437 or ERS-8731 SIGNED BY THE OWNER MUST BE SUBMITTED WITH EACH CLOSURE CHECKLIST

OWNER

File by:

Reg Obj #:

# UNDERGROUND FLAMMABLE/COMBUSTIBLE LIQUID STORAGE TANK INVENTORY

**Information Required By Section 101.142, Wis. Stats.**

Send Completed Form To:
Department of Commerce
Bureau of Storage Tank Regulation
P.O. Box 7837
Madison, WI 53707-7837

Underground tanks in Wisconsin that have stored or currently store petroleum or regulated substances must be registered. A separate form is needed for each tank. Send each completed form to the agency designated in the top right corner. Have you previously registered this tank by submitting a form? ☐ Yes ☒ No If yes, are you correcting/updating information only? ☐ Yes ☐ No
Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04 (1)(m)].

This registration applies to a tank that is (check one):
☐ In Use ☒ Closed - Tank Removed ☐ Ownership Change (Indicate new owner name in block 2)
☐ Newly Installed ☐ Closed - Filled with Inert Materials
☐ Abandoned with Product ☐ Temporarily Out of Service - Provide Date: _____
☐ Abandoned without Product (empty) ☐ Abandon with Water

Fire Department providing fire coverage where tank is located:
☒ City ☐ Village 5701
☐ Town of Sheboygan

**A. IDENTIFICATION (Please Print)**

| 1. Tank Site Name | Site Address | Site Telephone Number |
|---|---|---|
| Former R-Way Furniture Co. | 740 S. Commerce Str. | ( ) |
| ☒ City ☐ Village ☐ Town of: Sheboygan | State: WI / Zip Code: 53081 | County: Sheboygan |
| 2. Tank Owner Name: City of Sheboygan | Mailing Address: 828 Center Avenue | Telephone Number: 920-459-3366 |
| ☒ City ☐ Village ☐ Town of: Sheboygan | State: WI / Zip Code: 53081 | County: Sheboygan |
| 3. Previous Name | Previous site address if different than #1 | |

B. Site ID #: 119961 | Facility ID #: | Customer ID #: 504110

C. Tank Capacity (gallons): 8,000 | Tank Age (age or date installed): 60

**D. LAND OWNER TYPE (check one)**
☐ County ☐ Federal Leased ☐ Federal Owned ☒ Municipal ☐ Other Government
☐ Private ☐ State ☐ Tribal Nation

**E. OCCUPANCY TYPE (check one)**
☐ Gas/Retail Sales ☐ Bulk Storage ☒ Industrial ☐ Mercantile/Commercial ☐ Utility ☐ Residential ☐ School
☐ Agricultural (crop or livestock production) ☐ Backup or Emergency Generator ☐ Other (specify:)

**F. Tank Construction:**
☐ Bare Steel ☒ Coated Steel ☐ Unknown
☐ Fiberglass ☐ Steel – Fiberglass Reinforced Plastic Composite
☐ Lined (date): ☐ Other (specify):

**Cathodic Protection**
☐ Sacrificial Anodes
☐ Impressed Current
☒ N/A

Overfill Protection? ☐ Yes ☒ No
Spill Containment? ☐ Yes ☒ No
Tank Double Walled? ☐ Yes ☒ No

**G. Primary Tank Leak Detection Method:**
☐ Inventory control and tightness testing ☐ Automatic tank gauging ☐ Groundwater monitoring
☐ Manual tank gauging (only for tanks of 1,000 gallons or less) ☐ Interstitial monitoring ☐ Vapor monitoring
☐ Statistical Inventory Reconciliation (SIR) ☒ Unknown

**H. Piping Construction:**
☐ Bare Steel ☐ Coated Steel ☒ Unknown
☐ Fiberglass ☐ Flexible ☐ N/A
☐ Copper ☐ Other (specify)

**Cathodic Protection**
☐ Sacrificial Anodes
☐ Impressed Current
☒ N/A

Pipe Double Walled? ☐ Yes ☒ No

**I. Primary Piping System Type:** ☐ Pressurized piping with ➡ A. ☐ auto shutoff; B. ☐ alarm, or C. ☐ flow restrictor ☒ Unknown
☐ Suction piping with check valve at tank ☐ Suction piping with check valve at pump and inspectable ☐ Not needed if waste oil

**J. Piping Leak Detection Method:** (used if pressurized or check valve at tank): ☐ SIR ☐ Tightness testing ☐ Electronic line leak monitor
☐ Groundwater monitoring ☐ Vapor monitoring ☐ Interstitial monitoring ☐ Not required ☒ Unknown

**K. Vapor Recovery/Stage II** CARB #: _____
☐ Fiberglass ☐ Other (specify): ☐ Flexible ☐ Operational - Provide Date (mo/day/yr):

**L. TANK CONTENTS (Current, or previous product if tank now empty)**
☐ Diesel ☐ Leaded 8030-30-6 ☐ Unleaded ☐ Fuel Oil ☐ Gasohol
☐ Other (specify): _____ ☐ Empty* ☐ Sand/Gravel/Slurry* ☐ Unknown* ☐ Premix
☐ Waste/Used Motor Oil ☒ Chemical Naphtha ☐ Kerosene ☐ Aviation ☐ Hazardous Waste*
(Indicate chemical name and number)

* If chosen, this tank is NOT PECFA eligible.

Geo Latitude: | Geo Longitude:

M. If Tank Closed, Abandoned or Out of Service, give date (mo/day/yr): 4/11/2002

Has a site assessment been completed? (see reverse side for details)
☒ Yes ☐ No

Owner or Operator Name (please print): Thomas J. Holtan

Indicate whether: ☒ Owner or ☐ Operator

Owner or Operator Signature: Thomas J. Holtan

Date Signed 4/11/2002

Note: Refer to comments on reverse side of form.

ERS-7437 (R. 5/99)

**Sadoff & Rudoy Industries, L.L.P.**

**Recycling Today For A Better Tomorrow**

GUS HOLMAN CO.
3313 N 21ST STREET * PO BOX 531
SHEBOYGAN, WI 53082-0531
PHONE #: (920) 457-2431 * FAX #: (920) 457-0175

CONTRACT# 000000

095392
SCALE V
04/11/02
13:43

| REC DTE | TK NO | PRODUCT | GROSS | TARE | ADJ DESC | NET | PRICE | UM |
|---|---|---|---|---|---|---|---|---|
| 04/11/02 | 595898 | 1582 TORCHING STEEL | 54740 | 44400 | | 10340 | 10.0000 | NT |

305920
TENHAKEN BRUCE
2308 PERSHING AVE
SHEBOYGAN WI 53083 0000

**** THANK YOU FOR RECYCLING ****

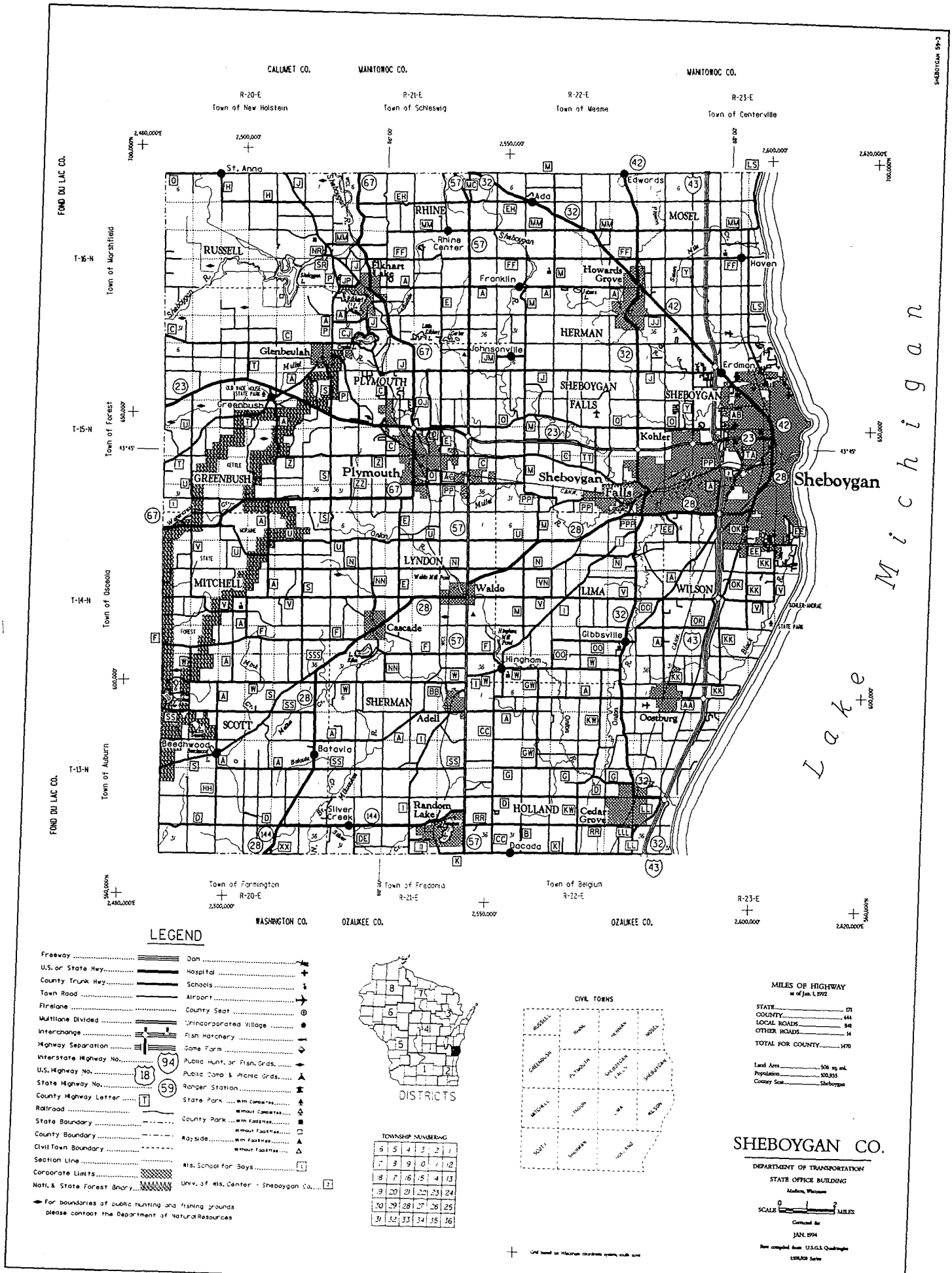
4/11

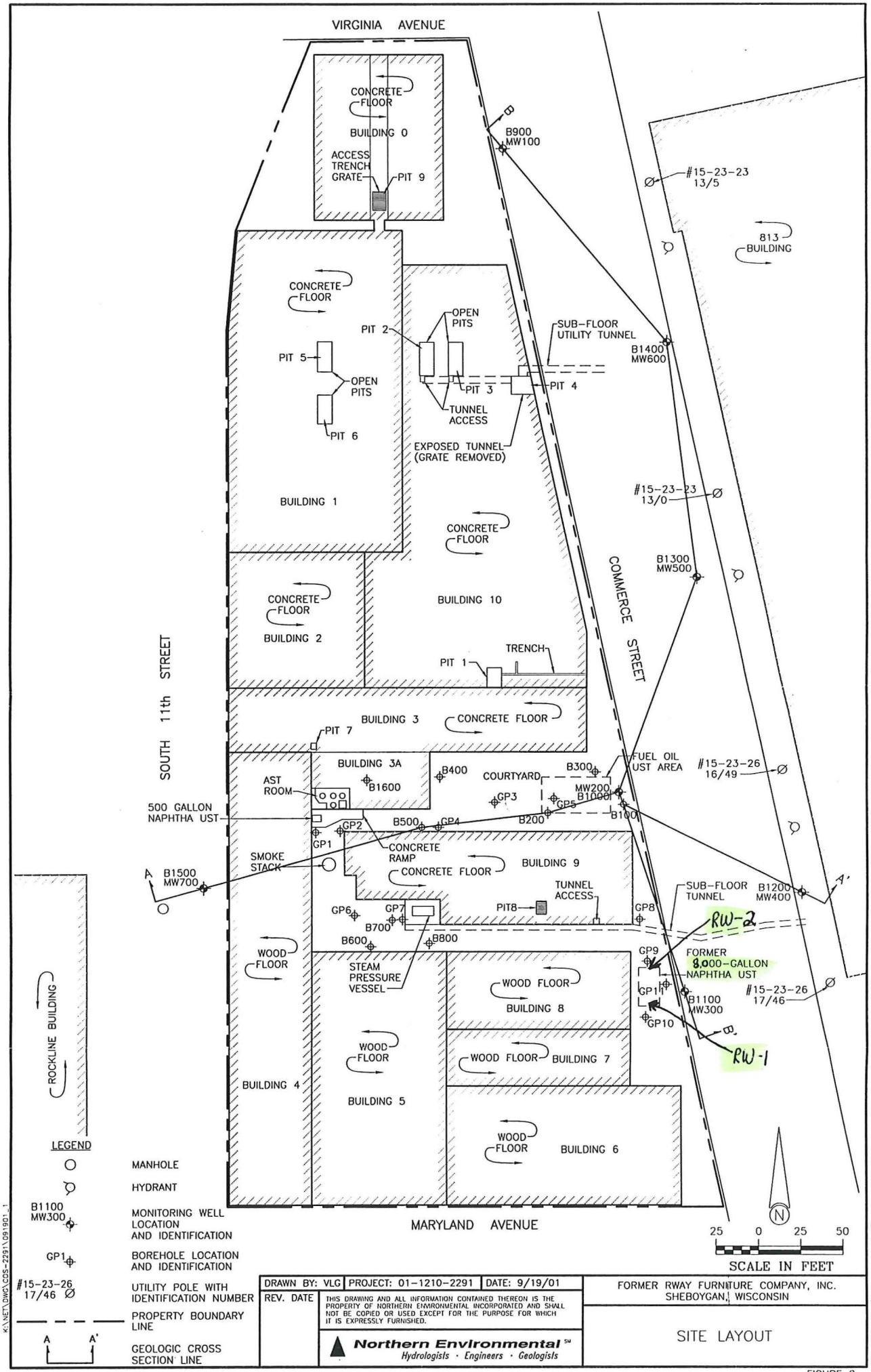
**PURCHASE TICKET**

TR020-3/00

# ATTACHMENT II

# FIGURE 1


CALUMET CO.
MANITOWOC CO.
MANITOWOC CO.
R-20-E
Town of New Holstein
R-21-E
Town of Schleswig
R-22-E
Town of Meeme
R-23-E
Town of Centerville
FOND DU LAC CO.
T-16-N
Town of Marshfield
T-15-N
Town of Forest
T-14-N
Town of Osceola
T-13-N
Town of Auburn
FOND DU LAC CO.
St. Anna
Edwards
Ada
RHINE
MOSEL
Rhine Center
RUSSELL
Elkhart Lake
Franklin
Howards Grove
Haven
HERMAN
Johnsonville
Glenbeulah
PLYMOUTH
SHEBOYGAN FALLS
SHEBOYGAN
Erdman
Greenbush
Kohler
GREENBUSH
Plymouth
Sheboygan Falls
Sheboygan
LYNDON
MITCHELL
Waldo
LIMA
WILSON
Cascade
Gibbsville
Hingham
SHERMAN
Adell
Oostburg
SCOTT
Beechwood
Batavia
Silver Creek
Random Lake
HOLLAND
Cedar Grove
Pacada
Lake Michigan
Town of Farmington
Town of Fredonia
Town of Belgium
WASHINGTON CO.
OZAUKEE CO.
OZAUKEE CO.
R-20-E
R-21-E
R-22-E
R-23-E
LEGEND
Freeway
U.S. or State Hwy.
County Trunk Hwy.
Town Road
Firelane
Multilane Divided
Interchange
Highway Separation
Interstate Highway No.
U.S. Highway No.
State Highway No.
County Highway Letter
Railroad
State Boundary
County Boundary
Civil Town Boundary
Section Line
Corporate Limits
Natl. & State Forest Bndry.
For boundaries of public hunting and fishing grounds please contact the Department of Natural Resources
Dam
Hospital
Schools
Airport
County Seat
Unincorporated Village
Fish Hatchery
Game Farm
Public Hunt. or Fish. Grds.
Public Camp & Picnic Grds.
Ranger Station
State Park ... with Campsites
... without Campsites
County Park ... with Facilities
... without Facilities
Rd. Side ... with Facilities
... without Facilities
Wis. School for Boys
Univ. of Wis. Center - Sheboygan Co.
DISTRICTS
TOWNSHIP NUMBERING
CIVIL TOWNS
RUSSELL
RHINE
HERMAN
MOSEL
GREENBUSH
PLYMOUTH
SHEBOYGAN FALLS
SHEBOYGAN
MITCHELL
LYNDON
LIMA
WILSON
SCOTT
SHERMAN
HOLLAND
MILES OF HIGHWAY
as of Jan. 1, 1992
STATE ... 171
COUNTY ... 444
LOCAL ROADS ... 848
OTHER ROADS ... 14
TOTAL FOR COUNTY ... 1470
Land Area ... 506 sq. mi.
Population ... 100,935
County Seat ... Sheboygan
SHEBOYGAN CO.
DEPARTMENT OF TRANSPORTATION
STATE OFFICE BUILDING
Madison, Wisconsin
SCALE 0 1 2 MILES
Compiled for
JAN. 1994
from compiled from U.S.G.S. Quadrangles
1:100,000 Series
SHEBOYGAN 59-3




| DRAWN BY: VLG | PROJECT: 01-1210-2291 | DATE: 9/19/01 |
|---|---|---|
| REV. DATE | THIS DRAWING AND ALL INFORMATION CONTAINED THEREON IS THE PROPERTY OF NORTHERN ENVIRONMENTAL INCORPORATED AND SHALL NOT BE COPIED OR USED EXCEPT FOR THE PURPOSE FOR WHICH IT IS EXPRESSLY FURNISHED. | |

Northern Environmental℠
Hydrologists · Engineers · Geologists

FORMER RWAY FURNITURE COMPANY, INC.
SHEBOYGAN, WISCONSIN

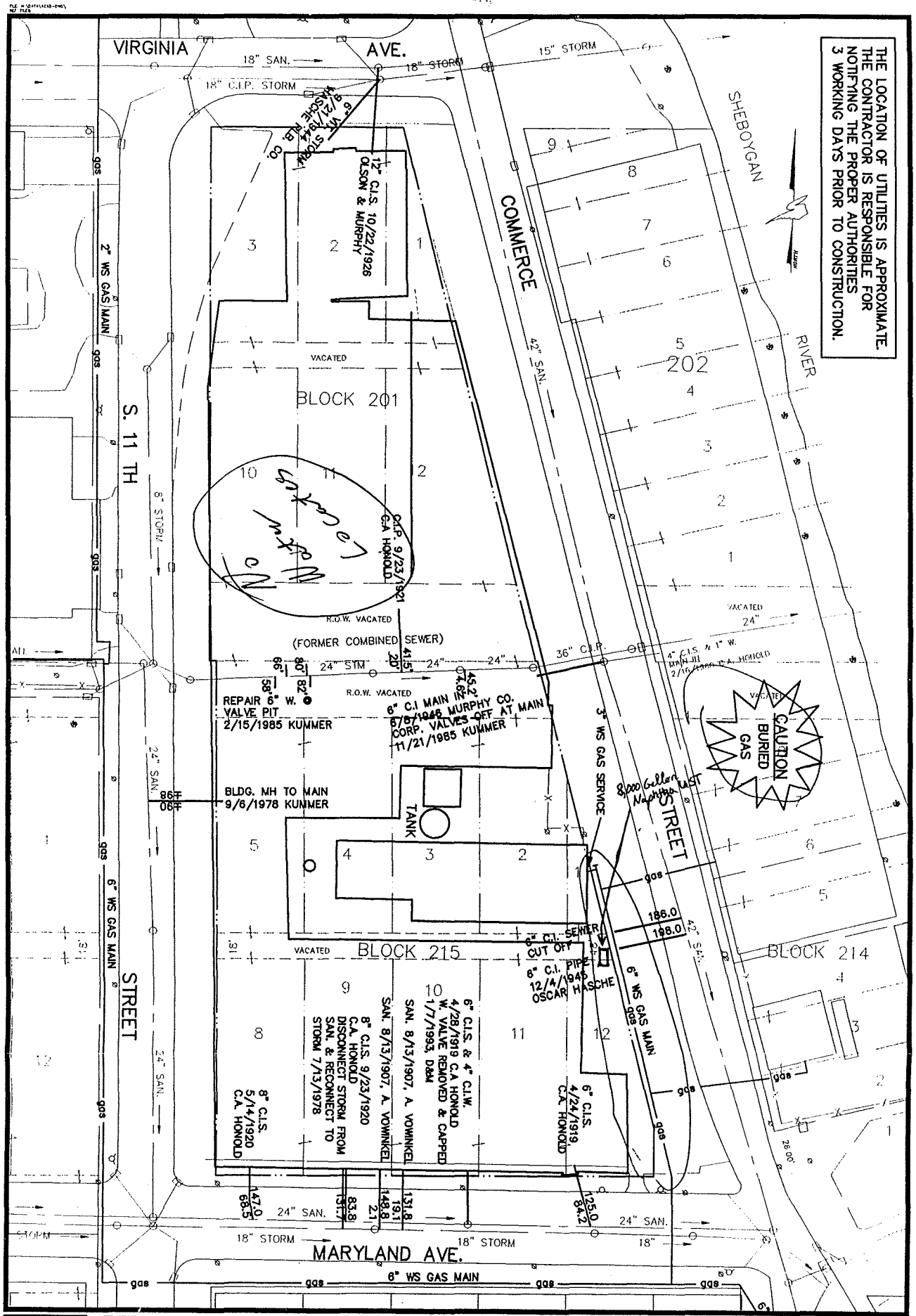
SITE LAYOUT

K:\NET\DWG\COS-2291\091901_1

11x17.dwg

PRINTED: 10/11/01

FIGURE 2




# RWAY BUILDING DEMOLITION

740 S. COMMERCE ST.

SHEBOYGAN, WISCONSIN

| Drawing No. | Project Bid No. | Date | Sheet No. |
|---|---|---|---|
| | | MARCH 2001 | |

City of Sheboygan
spirit on the lake

Graphic Scale 0' 15' 30' 60'

RWAY BUILDING DEMOLITION
THOMAS J. HOLTAN, CITY ENGINEER
MARCH 2001

# ATTACHMENT III

APL INC.
8222 W. Calumet Rd., Milwaukee, WI 53223
Phone: (414) 355-5800 Fax: (414) 355-3099

20020196

**Fax To:** Bruce Tenhagen
**Company:** Cardinal Environmental
**Fax #:** 920-459-2503

**Subject : Lab Report**

**From : James Chang** **Date:** ____/____/____

Dear Bruce Tenhagen :

Attached are lab reports for your project :

Project ID# :

If you have any questions, please feel free to contact me at 414-355-5800.

***Please visit our Website at http://www.aplwi.com***

**Number of pages (including this cover page)** _____

**A copy of this facsimile ( will / will not ) be mailed.**

APL

METALLURGICAL - ENVIRONMENTAL - CONSULTATION - ENGINEERING - LABORATORY

April 1, 2002

Mr. Bruce Tenhagen
Cardinal Environmental
3303 Paine Avenue
Sheboygan, WI 53081

Dear Mr. Tenhagen;

Enclosed please find the VOC results on the sample R-Way UST Water, which you submitted to APL on March 28,2002. Also please find a copy of Total Ion Chromatogram (TIC). In addition to all VOC compounds there are hydrocarbons showed up between 10 to 15 minute of retention time. According to the response factor compare to our Internal Standard and Surrogate, those hydrocarbons are estimated less than 5 ppb.

Should you have any questions please feel free to contact me at 414-355-5800.

Sincerely,

James Chang

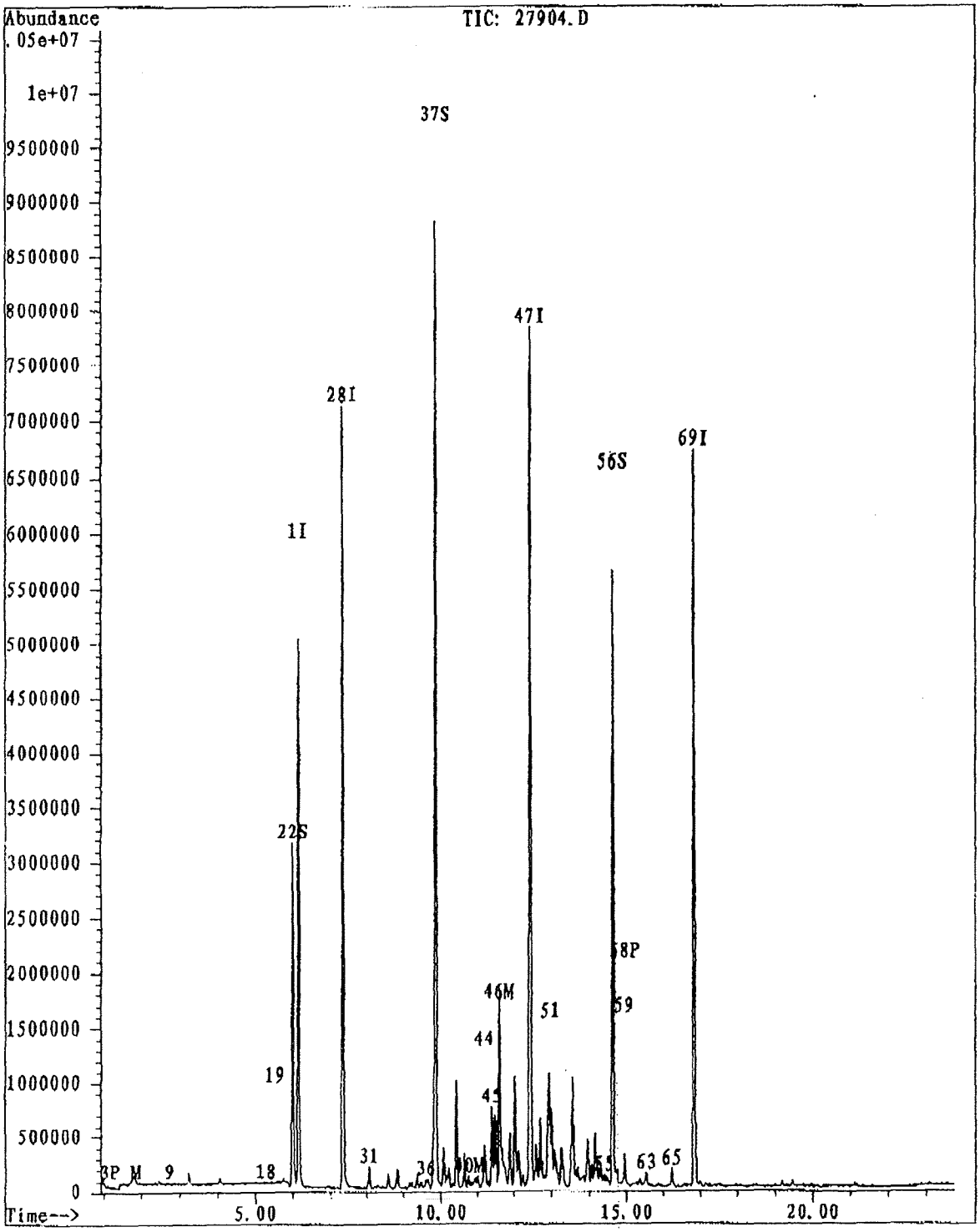
8222 W. Calumet Road ■ Milwaukee, Wisconsin 53223
Phone: (414) 355-5800/(414) 355-3909 ■ Facsimile: (414) 355-3099

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032902\27904.D
Acq Time : 29 Mar 102 5:43 pm
Sample : 27904, 5ml, 20020196
Misc :
Quant Time: Apr 1 8:41 19102

Operator: GL
Inst : VOC
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOCW0322.M
Title : 8260 Purgeable Organics WATER
Last Update : Tue Mar 26 14:23:52 2002
Response via : Multiple Level Calibration



CARDINAL ENVIRONMENTAL

3303 Paine Avenue, Sheboygan, WI 53081

(920) 459-2500 * (800) 413-7225 * FAX: (920) 459-2503

8263

CHAIN OF CUSTODY RECORD

Batch #_____

Client Information:

Cardinal Environmental
3303 Paine Ave.
Sheboygan, WI

Contact: Bruce TH

Sampler Signature

Client Phone / FAX: 920-459-2500 / 920-459-2503

Project Number

PM: BTH

Sample Delivered By: CEI

Laboratory Analysis: BETX, Naphthalene

| Sample Identification | Grab/ Comp | Date | Time | Laboratory Number | No. of Container | Type of Container | Temp. Rec'd | Preservative |
|---|---|---|---|---|---|---|---|---|
| 27904 R-Way UST Water 21636 | G | 3/27/02 | | 27904 | 3-VOA vials | VOA vials | ICE | ICE |

| Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|
| | 3/28/02 | | | | |
| Relinquished by: | Date | Time | Received by: | Date | Time |
| | | | | | |

Turn Around Time: RUSH

Condition:

Remarks:

1

20020196

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032902\27904.D
Acq Time : 29 Mar 102 5:43 pm
Sample : 27904,5ml,20020196
Misc :
Quant Time: Apr 1 8:41 19102

Operator: GL
Inst : VOC
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOCW0322.M
Title : 8260 Purgeable Organics WATER
Last Update : Tue Mar 26 14:23:52 2002
Response via : Multiple Level Calibration

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) PENTAFLUOROBENZENE | 6.15 | 168 | 5016162 | 50.00 ug/L | 0.00 |
| 28) 1,4-DIFLUOROBENZENE | 7.33 | 114 | 9358345 | 50.00 ug/L | 0.00 |
| 47) CHLOROBENZENE-d5 | 12.43 | 117 | 8082884 | 50.00 ug/L | 0.02 |
| 69) 1,4-DICHLOROBENZENE-d4 | 16.83 | 152 | 3414087 | 50.00 ug/L | 0.01 |
| **System Monitoring Compounds** | | | | | %Recovery |
| 22) DIBROMOFLUOROMETHANE | 6.00 | 113 | 3127517 | 55.23 ug/L | 110.47% |
| 37) TOLUENE-d8 | 9.86 | 98 | 9945071 | 52.63 ug/L | 105.27% |
| 56) 4-BROMOFLUOROBENZENE | 14.64 | 95 | 4034810 | 54.18 ug/L | 108.35% |
| **Target Compounds** | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 0.00 | 85 | | Not Detected | |
| F 3) Chloromethane | 1.41 | 50 | 41290 | 0.49 ug/L | 96 |
| 4) Vinyl chloride | 0.00 | 62 | | Not Detected | |
| 5) Bromomethane | 0.00 | 96 | | Not Detected | |
| 6) Chloroethane | 0.00 | 64 | | Not Detected | |
| 7) Trichlorofluoromethane | 0.00 | 101 | | Not Detected | |
| 8) 1,1-Dichloroethene | 0.00 | 96 | | Not Detected | |
| F 9) Acetone | 2.72 | 58 | 22305 | 3.13 ug/L # | 65 |
| 10) Methyl Acetate | 0.00 | 74 | | Not Detected | |
| 11) Methylene chloride | 0.00 | 84 | | Not Detected | |
| 12) trans-1,2-Dichloroethene | 0.00 | 96 | | Not Detected | |
| 13) Methyl-t-butyl ether | 0.00 | 73 | | Not Detected | |
| 14) 1,1-Dichloroethane | 0.00 | 63 | | Not Detected | |
| 15) Isopropyl ether | 0.00 | 87 | | Not Detected | |
| 16) 2,2-Dichloropropane | 0.00 | 77 | | Not Detected | |
| 17) cis-1,2-Dichloroethene | 0.00 | 96 | | Not Detected | |
| F 18) 2-Butanone (MEK) | 5.28 | 72 | 3636 | 0.73 ug/L # | 1 |
| F 19) Bromochloromethane | 5.52 | 128 | 1201 | 0.70 ug/L # | 1 |
| F 20) Chloroform | 0.00 | 83 | | Not Detected | |
| 21) 1,1,1-Trichloroethane | 0.00 | 97 | | Not Detected | |
| 23) Cyclohexane | 0.00 | 56 | | Not Detected | |
| 24) Carbon tetrachloride | 0.00 | 119 | | Not Detected | |
| 25) 1,1-Dichloropropene | 0.00 | 77 | | Not Detected | |
| 26) Benzene | 0.00 | 78 | | Not Detected | |
| 27) 1,2-Dichloroethane | 0.00 | 62 | | Not Detected | |
| 29) Trichloroethane | 0.00 | 95 | | Not Detected | |
| 30) 1,2-Dichloropropane | 0.00 | 63 | | Not Detected | |
| P 31) Methyl Cyclohexane | 8.04 | 55 | 143469 | 0.73 ug/L # | 77 |
| 32) Dibromomethane | 0.00 | 93 | | Not Detected | |
| 33) Bromodichloromethane | 0.00 | 83 | | Not Detected | |
| 34) 2-Chloroethyl Vinyl Ether | 0.00 | 63 | | Not Detected | |
| 35) trans-1,3-Dichloropropene | 0.00 | 75 | | Not Detected | |
| F 36) 4-Methyl-2-Pentanone | 9.60 | 85 | 35871 | 6.86 ug/L # | 24 |
| 38) Toluene | 0.00 | 92 | | Not Detected | |
| 39) cis-1,3-dichloropropene | 0.00 | 75 | | Not Detected | |
| F 40) 1,1,2-Trichloroethane | 10.75 | 83 | 63613 | 1.81 ug/L # | 1 |
| 41) Tetrachloroethene | 0.00 | 164 | | Not Detected | |
| 42) 1,3-Dichloropropane | 0.00 | 76 | | Not Detected | |
| 43) Carbon Disulfide | 0.00 | 76 | | Not Detected | |
| F 44) 2-Hexanone | 11.19 | 58 | 15621 | 0.27 ug/L # | 1 |
| F 45) Dibromochloromethane | 11.39 | 129 | 5528 | 0.45 ug/L # | 17 |
| F 46) 1,2-Dibromoethane | 11.56 | 107 | 848 | 0.27 ug/L # | 1 |
| 48) Chlorobenzene | 0.00 | 112 | | Not Detected | |
| 49) 1,1,1,2-Tetrachloroethane | 0.00 | 131 | | Not Detected | |
| 50) Ethylbenzene | 0.00 | 91 | | Not Detected | |
| P 51) m&p-Xylene | 12.97 | 106 | 46618 | 0.46 ug/L | 98 |
| 52) o-Xylene | 0.00 | 106 | | Not Detected | |

Quantitation Report

Data File : C:\HPCHEM\1\DATA\032902\27904.D
Acq Time : 29 Mar 102 5:43 pm
Sample : 27904, 5ml, 20020196
Misc :
Quant Time: Apr 1 8:41 19102

Operator: GL
Inst : VOC
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\VOCW0322.M
Title : 8260 Purgeable Organics WATER
Last Update : Tue Mar 26 14:23:52 2002
Response via : Multiple Level Calibration

| | Compound | R.T. | QIon | Response | Conc Unit | Qvalue |
|---|---|---|---|---|---|---|
| 53) | Styrene | 0.00 | 104 | | Not Detected | |
| 54) | Bromoform | 0.00 | 173 | | Not Detected | |
| P 55) | Isopropylbenzene | 14.39 | 105 | 49698 | 0.21 ug/L | 96 |
| 57) | Bromobenzene | 0.00 | 156 | | Not Detected | |
| F 58) | 1,1,2,2-Tetrachloroethane | 14.95 | 83 | 36162 | 0.63 ug/L # | 38 |
| F 59) | 1,2,3-Trichloropropane | 14.93 | 75 | 1958 | 0.67 ug/L # | 1 |
| 60) | n-Propylbenzene | 0.00 | 91 | | Not Detected | |
| 61) | 2-Chlorotoluene | 0.00 | 91 | | Not Detected | |
| 62) | 4-Chlorotoluene | 0.00 | 91 | | Not Detected | |
| P 63) | 1,3,5-Trimethylbenzene | 15.54 | 105 | 112057 | 0.59 ug/L | 99 |
| 64) | tert-Butylbenzene | 0.00 | 119 | | Not Detected | |
| P 65) | 1,2,4-Trimethylbenzene | 16.22 | 105 | 161612 | 0.84 ug/L | 99 |
| 66) | sec-Butylbenzene | 0.00 | 105 | | Not Detected | |
| 67) | 1,3-Dichlorobenzene | 0.00 | 146 | | Not Detected | |
| 68) | p-Isopropyltoluene | 0.00 | 119 | | Not Detected | |
| 70) | 1,4-Dichlorobenzene | 0.00 | 146 | | Not Detected | |
| 71) | 1,2-Dichlorobenzene | 0.00 | 146 | | Not Detected | |
| 72) | n-Butylbenzene | 0.00 | 91 | | Not Detected | |
| 73) | 12Dibromo-3-chloropropane | 0.00 | 75 | | Not Detected | |
| 74) | 1,2,4-Trichlorobenzene | 0.00 | 180 | | Not Detected | |
| 75) | Hexachlorobutadiene | 0.00 | 225 | | Not Detected | |
| 76) | Naphthalene | 0.00 | 128 | | Not Detected | |
| 77) | 1,2,3-Trichlorobenzene | 0.00 | 180 | | Not Detected | |

# U.S. Analytical Lab

BRUCE TEN HAKEN
CARDINAL ENVIRONMENTAL
3303 PAINE AVENUE
SHEBOYGAN WI 53081

**Project #** 1038.004
**Project Name** FORMER R-WAY FURNITUR
**Invoice #** E39062

**Report Date** *19-Apr-02*

| Analyte | Result | Units | LOD | LOQ | Dil | Run Date | Method | Analyst | QC Code |
|---|---|---|---|---|---|---|---|---|---|
| **Lab Code** 5039062A | | | | | | **Sample Type** Soil | | | |
| **Sample ID** RW-1 UST SOUTH | | | | | | **Sample Date** 4/11/2002 | | | |
| Inorganic | | | | | | | | | |
| General | | | | | | | | | |
| Solids Percent | 74.2 | % | | | 1 | 4/15/2002 | 5021 | AJV | 1 |
| Organic | | | | | | | | | |
| General | | | | | | | | | |
| Diesel Range Organics | < 10 | mg/kg | 2.2 | 7.2 | 1 | 4/16/2002 | DRO95 | KAH | 1 |
| Gasoline Range Organics | < 10 | mg/kg | 0.79 | 2.5 | 1 | 4/17/2002 | RO95/802 | SJV | 1 |
| **Lab Code** 5039062B | | | | | | **Sample Type** Soil | | | |
| **Sample ID** RW-2 UST NORTH | | | | | | **Sample Date** 4/11/2002 | | | |
| Inorganic | | | | | | | | | |
| General | | | | | | | | | |
| Solids Percent | 73.6 | % | | | 1 | 4/15/2002 | 5021 | AJV | 1 |
| Organic | | | | | | | | | |
| General | | | | | | | | | |
| Diesel Range Organics | < 10 | mg/kg | 2.2 | 7.2 | 1 | 4/16/2002 | DRO95 | KAH | 1 |
| Gasoline Range Organics | < 10 | mg/kg | 0.79 | 2.5 | 1 | 4/17/2002 | RO95/802 | SJV | 1 |

LOD Limit of Detection "J" Flag: Analyte detected between LOD and LOQ LOQ Limit of Quantitation

| *Code* | *Comment* |
|---|---|
| 1 | All laboratory QC requirements were met for this sample. |

**Authorized Signature**

CARDINAL ENVIRONMENTAL

3303 Paine Avenue, Sheboygan, WI 53081

(920) 459-2500 * (800) 413-7225 * FAX: (920) 459-2503

S039062

**CHAIN OF CUSTODY RECORD**

Batch #_____

Client Information:
Former R Way Furniture
740 S. Commerce Str.
Sheboygan, WI 53081

Contact: B

Sampler Signature: [signature]

Client Phone / FAX: 920-459-2500 / 920-459-2503

Project Number: 1038.004

PM: BTH X

Sample Delivered By: CEI / USO

Laboratory Analysis

| Sample Identification | Grab/ Comp | Date | Time | Laboratory Number | No. of Container | Type of Container | Temp. Rec'd | Preservative | DRO | GRO | | CO | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RW-1: UST South End | G | 4/11/02 | 9:15 | | 3 | 2-VOA 1-Syringe | Ice | Ice | X | X | | | | | S039062A | | | |
| RW-2: UST North End | G | 4/11/02 | 9:16 | | 3 | 2-VOA 1-Syringe | Ice | Ice | X | X | | | | | ↓ | | B | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

Ovice
Good cont

| Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|
| [signature] | 4/11/02 | 12:50 p.m. | Geo Huss | 4-12-02 | 9:10 |
| Relinquished by: | Date | Time | Received by: | Date | Time |
| | | | | | |

Turn Around Time

Condition

Remarks:

[signature] 4/12/02 4:25