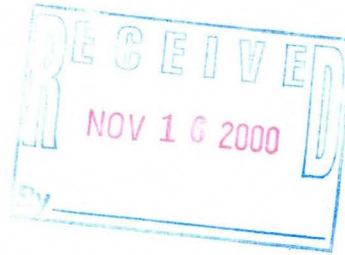




MBG Code 37



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(262) 375-4750  
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November 14, 2000

Ms. Barbara Grundl  
Wisconsin Department of Natural Resources  
2300 North Dr. Martin Luther King, Jr. Drive  
Post Office Box 12436  
Milwaukee, Wisconsin 53212-0436

Reference: *Investigation Results*  
Former Key Products  
8627-8633 West Lynx Street  
Milwaukee, Wisconsin  
WDNR FID #241437790 ERP  
BRRTS #02-41-153233

KEY ENGINEERING GROUP, LTD.  
File No. 0712007

Dear Ms. Grundl:

The purpose of this letter is to provide the Wisconsin Department of Natural Resources (WDNR) with the results of additional site investigation activities conducted at the above referenced site by Key Engineering Group, Ltd. (KEY). The additional site investigation activities were conducted in general accordance with KEY's May 23, 2000 *Site Investigation Work Plan* and May 30, 2000 *Site Investigation Work Plan Addendum*. This letter was prepared by KEY on behalf of Key Products, Inc. (Key Products).

### **Objective and Scope**

The objective of the site investigation activities was to further define the degree and extent of chlorinated volatile organic compounds (CVOCs) in soil and groundwater.

The additional investigation activities included drilling five soil borings; installing four monitoring wells and one piezometer; developing and sampling four monitoring wells; sampling the existing monitoring wells; surveying the monitoring wells; and collecting groundwater elevation measurements.

### **Investigation Procedures**

The following is a chronological summary of the additional field investigation activities:

- August 30, 2000: Five soil borings were drilled and four groundwater monitoring wells (MW-4, MW-5, MW-6 and MW-7) and one piezometer (P-1) were constructed by Wisconsin Soil Testing. The monitoring well/piezometer locations are depicted on Figure 1.

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- September 20, 2000: KEY developed and sampled MW-4, MW-5, MW-6 and MW-7 (P-1 was dry) and purged and sampled MW-1, MW-2 and MW-3. Each monitoring well and piezometer were also surveyed.
- October 9, 2000: KEY measured water levels in the monitoring wells (P-1 was dry).
- November 9, 2000: KEY measured the water level in P-1 (dry).

Soil borings; soil sampling; soil sample field screening and laboratory analysis; groundwater monitoring well construction, development and sampling; and quality assurance/quality control were conducted in accordance with the methods described in the *Site Investigation Work Plan*. Soil borings were advanced to depths ranging from approximately 13 to 35.5 feet below ground surface (bgs). The soil boring logs and monitoring well construction and development forms are included in Attachment 1.

The following field activities were not conducted to date or not conducted using the methods documented in the *Site Investigation Work Plan*:

- MW-4, located within the site building, was blind drilled at depths greater than 7 feet bgs in order to expedite drilling within the building.
- P-1 was blind drilled due to the presence of overhead wires. Soil samples were collected to a depth of 11 feet bgs during the drilling of the monitoring well (MW-7) nested with P-1.
- Down-well natural attenuation indicator parameter tests and hydraulic conductivity testing have not been conducted to date.

## **Investigation Results**

### *Geology and Hydrogeology*

Soil conditions encountered generally consisted of brown stiff to very stiff silty or sandy clay. Apparent gravel fill was observed beneath the concrete floor slab at MW-4. The soil conditions are documented on the soil boring logs included in Attachment 1.

Groundwater was generally encountered at approximately 3 to 5 feet bgs; however, P-1 (screened at approximately 25 to 30 feet bgs) was dry. A groundwater elevation contour map (September 20, 2000 data) is included as Figure 2. The groundwater elevation contour map generally indicates a southerly groundwater flow direction. The lack of water in P-1 may indicate that groundwater on and in the vicinity of the site is perched on a significant thickness of low permeability silty clay.

### *Soil Sample Field Screening and Analytical Results*

Soil sample field screening results indicated photoionization detector (PID) readings above background (1 instrument unit) at each monitoring well location. Elevated PID readings were generally measured for soil samples collected from the saturated zone, and the PID readings generally increased with depth. "Solvent-type" odors were observed at soil sample depth intervals consistent with elevated PID readings. Soil sample field screening results are documented on the boring logs included in Attachment 1.

The soil sample analytical results are summarized in Table 2 and on Figure 3 and the laboratory report and chain of custody documentation are included in Attachment 2. Soil sample analytical results previously collected are also included on Figure 3.

The soil sample analytical results indicated that CVOCs were not detected at MW-4 (3 to 5 feet bgs) and MW-6 (2 to 4 feet bgs). Tetrachloroethene (PCE) was detected at MW-5 (0 to 2 feet bgs) and MW-7 (1 to 3 feet bgs). Trichloroethene (TCE) and cis-1,2-dichloroethene (DCE) were also detected at MW-5. The TCE concentration detected at MW-5 exceeded the United States Environmental Protection Agency Soil Screening Level for the protection of groundwater. None of the detected CVOC concentrations exceeded residential direct contact Preliminary Remediation Goals. It is important to note that the soil sample analytical results could be biased due to the shallow groundwater table at the site and the presence of significant CVOC groundwater impacts.

#### *Groundwater Sample Analytical Results*

The groundwater sample analytical results are summarized in Table 3 and on Figure 4 and the laboratory report and chain of custody documentation are included in Attachment 3.

The September 20, 2000 groundwater sample analytical results indicated that CVOCs were detected at concentrations exceeding NR 140 enforcement standards (ESs) at each monitoring well location. PCE was detected at concentrations four orders of magnitude above the NR 140 ES at MW-1, MW-2, MW-4, MW-5 and MW-6. TCE and cis-1,2-DCE, PCE breakdown compounds, were detected at concentrations exceeding NR 140 ESs at each monitoring well except MW-3 (TCE did exceed the NR 140 ES at MW-3). Vinyl chloride was detected at a concentration exceeding the NR 140 ES at MW-7. It should be noted that vinyl chloride detected limits were elevated for each monitoring well except MW-7 due to sample dilution.

### **Preliminary Site Investigation Conclusions**

KEY's salient conclusions based on the results of the additional site investigation activities are identified as follows:

- The additional site investigation activities did not define the extent of soil and groundwater CVOC impacts. Additionally, due to the lack of groundwater in the piezometer, the potential vertical migration of CVOC impacts could not be evaluated.
- A shallow groundwater table is present in the vicinity of the site, which is potentially perched on a significant thickness of low permeability silty clay.
- Due to the shallow groundwater table and potential associated biasing of soil sample analytical data, the soil sample analytical data does not clearly indicate the CVOC source area(s).

### **Site and Vicinity Research**

Based on the widespread distribution of CVOC impacts (particularly in groundwater) on and in the vicinity of the site, and Key Products' continued assertion that it is not responsible for the CVOC impacts, KEY conducted additional historical research for properties in the vicinity of the site. The objective of the research was to identify properties in the vicinity of the site which potentially utilized CVOCs, particularly PCE. The research consisted of property observations, a review of historical aerial photographs, a review of historical city directories and a review of city building inspection records. The historical city directories were generally reviewed every five years dating back to each property's approximate initial development date (based on historical aerial photographs). The researched properties (numbered 1 through 29) are depicted on Figure 5 and the findings are summarized in Table 4.

Based on the results of the research, several properties in the vicinity of the site have been occupied with businesses which have a moderate probability of utilizing PCE. These properties and associated general business uses are summarized below.

Property/Building Number	General Business
1 (site), 2, 6, 7, 16, 22	Metal Working
2	Dry Cleaning Supply
15, 18	Scrap Yard/Auto Salvage
5, 21	Auto Service/Body Shop

Based on the former occupancy of a dry cleaning supply company on the property located adjacent and east of the site (property #2, K-W Manufacturing and Engineering (K-W)), KEY reviewed City of Milwaukee Building Inspection records for this property on November 13, 2000. The results of the review indicated Carman-Conley, Inc. occupied the property from the time of building construction in 1967 to 1976 and used for warehousing laundry and dry cleaning supplies.

In order to further evaluate the site as a potential source of contamination, Mr. Len Zerbel, Key Products shop manager and employee since 1975, contacted former suppliers of products which had been used by Key Products at the site in an attempt to obtain Material Safety Data Sheets (MSDSs). Copies of the available MSDSs are included in Attachment 4. The MSDSs support Key Products' position that products containing CVOCs were not utilized by Key Products at the site.

### Overall Conclusions

Based on the site investigation data and historical research, it is the position of Key Products that their occupancy of the site did not result in the release of CVOCs. Furthermore, Key Products does not possess or control the site. Therefore, further investigation and/or remedial action should not be the responsibility of Key Products. This position is supported by the following rationale:

- There is no evidence that CVOCs were utilized by Key Products at the site.
- Key Products has never owned the site and no longer occupies the site.
- The historical research has indicated a former occupant of the adjacent K-W property (dry cleaning supply company in the late-1960s and early-1970s) as the most probable source of significant CVOC contamination.

*Based on KEY's experience, PCE releases associated with general metal working shops, scrap yards and auto service facilities generally do not result in PCE concentrations as significant as those detected in groundwater on and in the vicinity of the site. Additionally, these types of facilities were located in the vicinity of the site relatively recently, generally since waste disposal regulations have been in effect. The current and former use pattern for PCE has been on the order of greater than 50 percent for dry cleaning use and less than 10 percent for metal working use (solvents/degreasers). Furthermore, solvents used by industries other than dry cleaners are usually less than 30% PCE, while dry cleaning solvent is 100% PCE; dry cleaning uses a large quantity of PCE solvent compared to other potential sources. Also, many of the industrial solvents used that contain PCE are in aerosol cans; the solvent is sprayed on the part to remove grease and as the part dries, the PCE volatilizes into the air. Most industries other than dry cleaners which use solvents have no significant discharge of waste liquids containing PCE.*

- The site investigation results indicate that there is a probability that the contaminant source is located on the K-W property.
  - ✓ Higher concentrations of PCE were generally detected near the southern (down gradient) portions and south of the K-W property than the southern portion of the site.

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- ✓ The highest on-site concentration of PCE was detected in a monitoring well located less than 20 feet from the K-W property (MW-4). PCE concentrations in groundwater appear to decrease moving west based on the MW-3 data.
- ✓ The highest PCE concentration in soil was detected in saturated soil samples collected on the K-W property down gradient of the K-W building (MW-2). The highest PCE concentration detected in soil on the K-W property is two orders of magnitude greater than highest PCE concentration detected in soil the site.

Based this rationale, Key Products requests that the WDNR further evaluate potential responsible parties associated with the K-W property. Key Products is of the view that it is not a responsible party. By separate correspondence, counsel for Key Products will be contacting you to set up a meeting to further discuss Key Products' legal position.

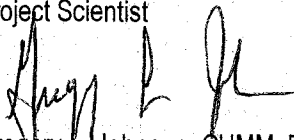
Please call if you have any questions.

Sincerely,

KEY ENGINEERING GROUP, LTD.



Curtis M. Hoffart, CHMM  
Project Scientist



Gregory L. Johnson, CHMM, P.H., P.G., P.E.  
Senior Engineer/Scientist

CMH/kar

Enclosures:	Table 1	Summary of Groundwater Elevation Data
	Table 2	Summary of Soil Sample Analytical Results
	Table 3	Summary of Groundwater Sample Analytical Results
	Table 4	Summary of Site and Vicinity Land Use
	Figure 1	Site Layout
	Figure 2	Groundwater Elevation Contour Map (September 20, 2000)
	Figure 3	Summary of Soil Sample Analytical Results
	Figure 4	Summary of Groundwater Sample Analytical Results
	Figure 5	Site Vicinity Layout
	Attachment 1	Soil Boring Logs and Monitoring Well Construction and Development Forms
	Attachment 2	Laboratory Reports and Chain of Custody Documentation (Soil Samples)
	Attachment 3	Laboratory Reports and Chain of Custody Documentation (Groundwater Samples)
	Attachment 4	Material Safety Data Sheets

cc: Mr. Richard Meinburg, Key Products, Inc.  
Ms. Karen Schapiro, Frazer Schapiro & Rich, S.C.  
Ms. Debby Roszak, WDNR

TABLE 1

## SUMMARY OF GROUNDWATER ELEVATION DATA

FORMER KEY PRODUCTS  
8627-8633 West Lynx Avenue  
Milwaukee, Wisconsin

WELL NO.	TOP OF PVC ELEVATION (FEET*)	DATE	DEPTH TO GROUNDWATER (FEET)	GROUNDWATER ELEVATION (FEET)
MW-1	97.55	12/31/97	11.92	85.63
		7/13/99	3.82	93.73
		7/28/99	11.90	85.65
		9/22/99	9.95	87.60
		9/20/00	8.50	89.05
		10/9/00	11.07	86.48
MW-2	97.24	7/13/99	2.91	94.33
		7/28/99	2.58	94.66
		9/22/99	3.24	94.00
		9/20/00	3.00	94.24
		10/9/00	3.84	93.40
MW-3	98.04	7/13/99	6.61	91.43
		7/28/99	5.82	92.22
		9/22/99	6.13	91.91
		9/20/00	3.59	94.45
		10/9/00	4.05	93.99
MW-4	99.82	9/20/00	5.10	94.72
		10/9/00	5.17	94.65
MW-5	97.09	9/20/00	2.41	94.68
		10/9/00	3.07	94.02
MW-6	98.04	9/20/00	2.71	95.33
		10/9/00	3.74	94.30
MW-7	97.19	9/20/00	2.79	94.40
		10/9/00	3.11	94.08
P-1	97.26	9/20/00	DRY	---
		10/9/00	DRY	---
		11/9/00	DRY	---

## Notes:

Survey performed by Key Engineering Group, Ltd. on June 25, 1999 and September 20, 2000.

\* - Relative to established benchmark.

TABLE 2

SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

FORMER KEY PRODUCTS

8627-8633 West Lynx Avenue  
Milwaukee, Wisconsin

SAMPLE ID	MW-2		MW-3	MW-4	MW-5	MW-6	MW-7	GP-1	GP-2	PRG	SSL
Date Collected	6/25/99		6/25/99	8/30/00	8/30/00	8/30/00	8/30/00	9/22/99	9/22/99	NA	NA
Depth (feet)	3.5-5.5	6-8	3.5-5.5	3-5	0-2	2-4	1-3	2-4	2-4	NA	NA
PID (i.u.)	79	218	4	<1	<1	<1	<1	2	58	NA	NA
Detected VOCs (µg/kg)											
Tetrachloroethene	99,000	4,400,000	53	<25	25	<25	41	880	1,600	5,700	60
Trichloroethene	2,000	<25,000	<25	<25	120	<25	<25	<25	550	2,800	60
cis-1,2-Dichloroethene	<1,300	<25,000	<25	<25	160	<25	<25	<25	420	43,000	400

Notes:

i.u. - instrument units

NA - not applicable

PID - photoionization detector

PRG - USEPA Region 9 residential direct contact Preliminary Remediation Goal

SSL - USEPA Region 9 Soil Screening Level for the protection of groundwater (with dilution)

µg/kg - micrograms per kilogram

VOCs - volatile organic compounds

TABLE 3

## SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS

FORMER KEY PRODUCTS  
8627-8633 West Lynx Avenue  
Milwaukee, Wisconsin

SAMPLE ID	MW-1			MW-2		MW-3		MW-4	MW-5	MW-6	MW-7	PAL	ES
	12/31/97	7/13/99	9/20/00	7/13/99	9/20/00	7/13/99	9/20/00	9/20/00	9/20/00	9/20/00	9/20/00		
Date Collected													
Detected VOCs (µg/l)													
Ethylbenzene	<0.50	<250	<40	<0.50	<40	1.5	<0.4	<40	<40	<40	<0.4	140	700
Xylenes	<0.50	<250	<143	<0.50	<143	14	<1.43	<143	<143	<143	<1.43	1,000	10,000
cis-1,2-Dichloroethene	<b>610</b>	<b>740</b>	<b>540</b>	1.4	<b>1,200</b>	<0.50	4.7	<b>430</b>	<b>1,100</b>	<b>900</b>	<b>340</b>	7	70
trans-1,2-Dichloroethene	3.9	<250	<43	<0.50	<43	<0.50	<0.43	<43	<43	<43	11	20	100
Trichloroethene	<b>120</b>	<b>400</b>	<b>290</b>	<b>0.80</b>	<b>780</b>	<0.50	<b>11</b>	<b>520</b>	<b>760</b>	<b>410</b>	<b>29</b>	0.5	5
Methylene chloride	<0.53	<b>430 B</b>	<200	<0.53	<200	<0.53	<2	<200	<200	<200	<2	0.5	5
Tetrachloroethene	<b>4,100</b>	<b>24,000</b>	<b>18,000</b>	<b>14</b>	<b>22,000</b>	<b>2.0</b>	<b>32</b>	<b>73,000</b>	<b>24,000</b>	<b>18,000</b>	<b>29</b>	0.5	5
Vinyl chloride	<b>15</b>	<85	<87	<0.17	<87	<0.17	<0.87	<87	<87	<87	<b>18</b>	0.02	0.2
Chloroethane	<0.50	<250	<15	<0.50	<15	<0.50	<0.15	<15	<15	<15	0.58	80	400
Chloromethane	<0.60	<300	<110	<0.60	<110	<0.60	<b>36 B</b>	<110	<110	<110	<b>33 B</b>	0.3	3

## Notes:

Bold concentrations exceed NR 140 PAL  
Shaded concentrations exceed NR 140 ES  
B - analyte detected in blank  
ES - NR 140 enforcement standard  
PAL - NR 140 preventive action limit  
µg/l - micrograms per liter  
VOCs - volatile organic compounds

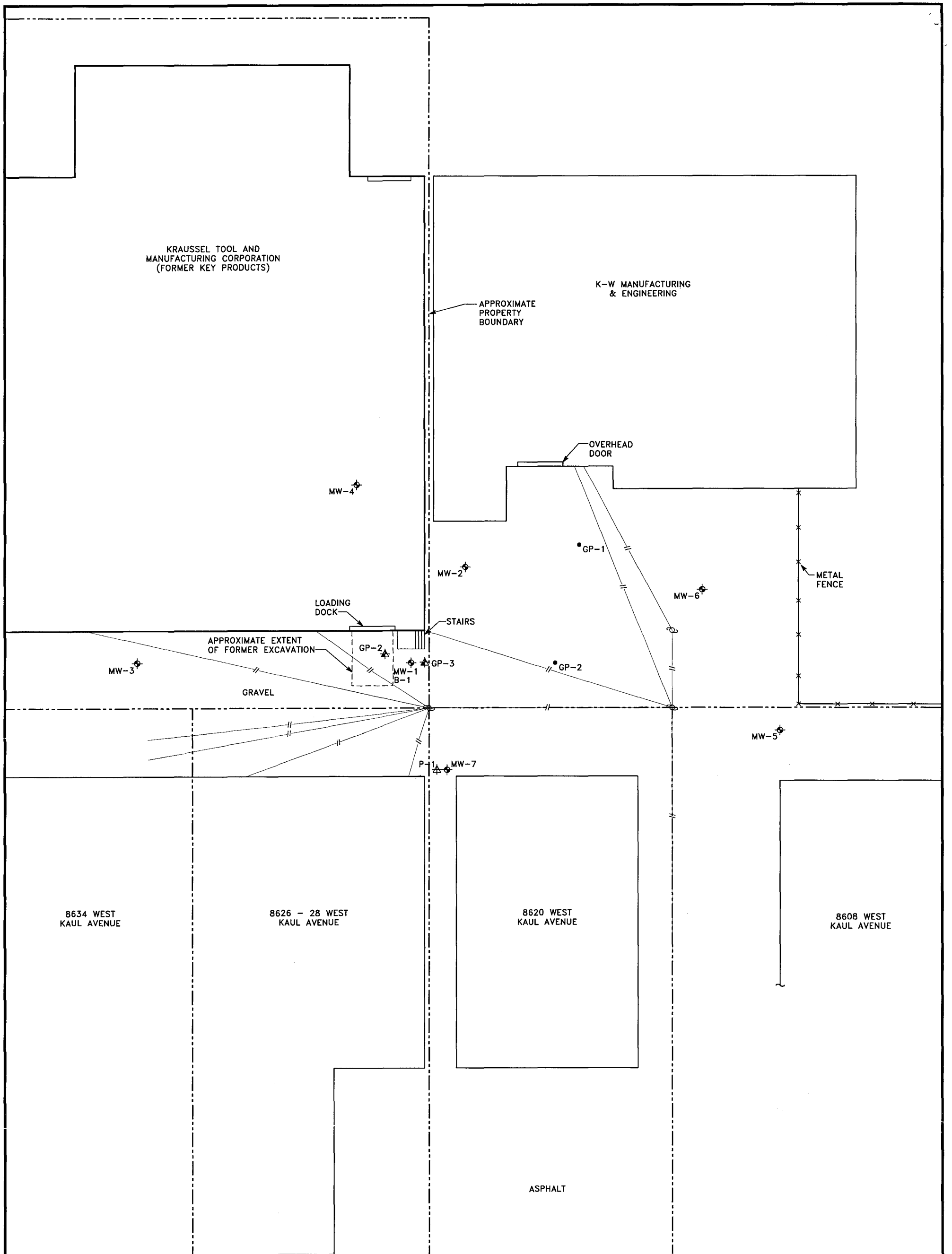


TABLE 4

## SUMMARY OF SITE AND VICINITY LAND USE

FORMER KEY PRODUCTS, INC.  
8627-8633 West Lynx Avenue  
Milwaukee, Wisconsin

BUILDING NUMBER	ADDRESS	CURRENT OCCUPANCY	CONSTRUCTION DATE	CITY DIRECTORY SUMMARY
1 (SITE)	8627-8633 West Lynx Avenue	(8633) Kraussel Tool and Manufacturing Corporation (8627) Advanced Technology and Machinery	Between 1970 and 1975	1995 - (8627) No Listing/(8633) No Listing 1990, 1985, 1980 - (8627) Key Products/(8633) Key Products Machine Design 1975, 1970 - No Listing
2	8619 West Lynx Avenue	K-W Manufacturing and Engineering	Between 1967 and 1970	1995, 1990, 1985 - K W Manufacturing Inc., Welders/K W Manufacturing and Engineering 1980 - Neu-Weld Company Welders 1975, 1970 - Carmen-Conley Inc Laundry and Dry Cleaning Supply
3	8648 West Kaul Avenue	Interstate Tire and Battery	Before 1963	1995 - Wisconsin Interstate Corporation 1990, 1985, 1980 - PSI Pumping Systems - Division of Hachel Inc. Spray Equipment Manufacturers 1975 - Hachel Bros. Inc. Spraying Equipment Manufacturers/Pumping Systems Inc. Spray Equipment Manufacturers 1970 - Perfect Plus Hosiery 1965 - No Listing
4	8634 West Kaul Avenue	PSI Pumping Systems	Between 1970 and 1975	1963 - Hess Mallarey Company Retail Food Dealers 1995 - Pumping Systems Inc. - Hachel 1990, 1985 - Key Products Warehouse 1980 - Diacar Products Inc. 1975, 1970 - No Listing
5	8628-8628 West Kaul Avenue	(Not Identified)	Between 1970 and 1975	1995 - (8628) G&G Auto Works 1990 - (8628) Key Products Warehouse/(8628) Richey Tec Services Race Preparation and Manufacturer 1985 - (8628) Gary's Auto and Truck Service Center/(8628) Competition Fiberglass Sales and Service 1980 - (8628) Gary's Auto and Truck Service Center/(8628) Wisconsin Interstate Battery Wholesale 1975 - (8628) Wisconsin Interstate Battery Wholesale Batteries/Wisconsin Interstate Corporation Home Improvement Contractors 1970 - No Listing
6	8620 West Kaul Avenue	(Not Identified)	Between 1963 and 1967	1995 - No Listing 1990, 1985, 1980 - Kempka Tool Manufacturers Corporation 1975 - Kempka Tool Manufacturers Corporation/Peerless Heating and Sheet Metal Company 1970 - Kempka Tool Manufacturers Corporation 1965, 1963 - Peerless Heating and Sheet Metal Contractors
7	8608 West Kaul Avenue	D&K Cylinder Repair, Inc.	Before 1963	1995 - Krausel Tool/Buttons N Badges and Machine Manufacturing 1990, 1985, 1980, 1975, 1970 - A.K. Krausel Tool and Manufacturing Corporation 1965, 1963 - Superior Weatherstrip Company, Galco Inc. Windows and Doors
8	8439 West Lynx Avenue	DeAngelis Excavating and Cement Contractors	Between 1985 and 1990	1995 - DeAngelis Excavating and Cement Contractors 1990 - DeAngelis Excavating and Cement Contractors 1985 - No Listing
9	8410 West Lynx Avenue	Residential Apartment Building	Between 1963 and 1967	1995, 1990, 1985, 1980, 1975, 1970 - Apartments 1965, 1963 - No Listing
10	6131 North 84th Street	FS Truck and Trailer Repair	Between 1980 and 1985	1995 - FS Truck and Trailer Repair/Terra Central Products 1990, 1985 - Sparks, C. and Associates General Contractors 1980 - No Listing
11	8428-8430 West Kaul Avenue	(8428) Camelot Classics	Built between 1963 and 1967 Addition to north between 1975 and 1980.	1995 - (8428) Contract Carpets/(8430) New Beginning Woodwork 1990, 1985 - (8428) Contract Carpets/(8430) Tompa Woodwork Inc. Cabinet Makers 1980 - (8428) Contract Carpets/(8430) Premium Woodwork Inc. Cabinet Makers 1975 - (8430) Premium Woodwork Inc. Cabinet Makers 1970, 1965, 1963 - No Listing
12	8440 West Kaul Avenue	Advanced Technology - MRL Incorporated	Between 1963 and 1967	1995, 1990 - Assured Builders Building Contractors 1985, 1980, 1975, 1970 - Wisconsin Fence Corporation 1965, 1963 - No Listing
13	8500 West Kaul Avenue	Eaton's Asphalt	Between 1985 and 1990	1995, 1990 - Eaton's Asphalt 1985 - No Listing
14	8508 West Kaul Avenue	Veneta Society	Between 1963 and 1967	1995, 1990, 1985, 1980, 1975, 1970 - Veneta Society 1965, 1963 - No Listing
15	8520 West Kaul Avenue	Wollin Recycling Co., Inc.	Between 1963	1995, 1990, 1985, 1980 - Wollin Co., Inc./Wollin, Peter Co., Inc. Scrap Metal 1975, 1970, 1965, 1963 - Aetna Insulation Co. Warehouse
16	8627 West Kaul Avenue	(Not Identified)	Before 1963	1995, 1990 - Machine Rebuilders Inc., Machine Tools and Repair 1985, 1980 - Expo Machine and Manufacturing Company Inc. Machine Shop 1975, 1970 - Wisconsin Limited Corporation Concrete Manufacturers 1965, 1963 - Kaul Concrete Products Inc.
17	8617 West Kaul Avenue	M&J Construction	Built before 1963. Addition to south between 1985 and 1990.	1995, 1990, 1985, 1980, 1975 - Hampton Plumbing 1970, 1965, 1963 - Draeger and Wilke Inc. Contractors
18	8611 West Kaul Avenue	Residential	Between 1985 and 1990	1995 - Ed's Auto Salvage/Corlett, E.L. 1990 - Ed's Auto Salvage/Thomas Dohearty 1985 - Ed's Auto Salvage/Thomas Dohearty 1980, 1975, 1970, 1965, 1963 - Dohearty, Evelyn R./Dohearty, Francis P.
19	8601 West Kaul Avenue	Residential	Between 1980 and 1985	1995, 1990 - Linda, Robert 1985 - Linda, Benjamin J. 1980, 1975 - Linda Sod Company 1970 - Linda, Benjamin J. 1965 - Bowes and Jenzer Inc. 1963 - Vacant
20	8521 West Kaul Avenue	Frank Armstrong Enterprises, Inc.	Before 1963	1995 - L&L Metal Finishing Inc. 1990 - Apple Sign Industries inc. Illuminated Signs 1985, 1980, 1980, 1975, 1970, 1965, 1963 - No Listing
21	8517 West Kaul Avenue	(Not Identified)	Between 1963 and 1967	1995 - Discount Auto Body 1990, 1985 - Kleist Builders Ltd. General Builders 1980 - McManus Inspection Service 1975 - Dry Well Service Inc. Contractors/Butler Plastic Trims Plastic Products 1970, 1965, 1963 - No Listing
22	8515 West Kaul Avenue	(Not Identified)	Between 1975 and 1980	1995 - Happy Times Ice Cream Company 1990, 1985 - D&R Tool and Die Corporation 1980 - Surface Coatings 1975, 1970 - Humphries Hansen Inc. 1965, 1963 - Wel-Bit Drives Company
23	8441 West Kaul Avenue	The Calli Building	Between 1963 and 1967	1995 - No Listing 1990 - Denny's Towing and Recovery Auto 1985 - Eaton's Asphalt Service, Inc. 1980 - Humphries-Hansen Inc. Specialty Surfacing 1975 - Humphries Hansen Inc. Offices 1970, 1965, 1963 - No Listing
24	8727 West Lynx Avenue	Argus Tool Manufacturing Toolmakers	Between 1985 and 1990	1995 - Argus Tool 1990, 1985 - No Listing
25	8740 West Kaul Avenue	Johanning Machinery Welding	Between 1980 and 1985	1995 - No Listing 1990 - Weigand, Thomas G. 1985 - Vacant 1980 - Ludorf, Thomas J. 1975 - Nulter, Raymond J. 1970 - Brzezinski, Chester S. 1965, 1963 - Johnson, Gregory - Well Driller
26	8817 West Lynx Avenue	RSR	Before 1963	1995 - Advance Building Contractor 1990, 1985, 1980, 1975, 1970 - Riopelle Engineering Sales, Inc./RSR Wholesaler Guns/American Air Filter Co. Inc./Quest Electronics Corporation 1965 - U.S. Investment Corporation/Dan Bo Van Corporation 1963 - W.J. Riopelle and Associates, Inc./Badger Builders Inc. Consultants/U.S. Investment Corporation Riopelle Investment Corporation/Dan Bo Van Corporation/U.S. Investment Corporation
27	8845 West Lynx Avenue	Latvian House of Milwaukee	Between 1967 and 1970	1995, 1990, 1985, 1980 - Latvian House of Milwaukee 1975, 1970, 1965 - No Listing
28	(Not Identified)	(Not Identified)	After 1995	NA
29	8600 West Kaul Avenue	Residential	After 1995	1995, 1990, 1985, 1980 - Hachel, Joseph E. 1975, 1970 - Du De Voire, Roland R. 1965 - No Return 1963 - Reich, Joseph

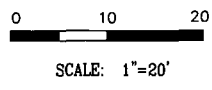


**LEGEND**

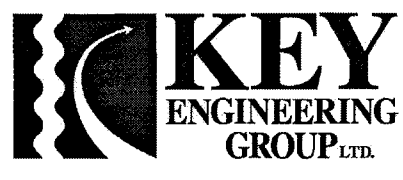
- UTILITY POLE
- //--- OVERHEAD UTILITY
- ⊕ MONITORING WELL LOCATION
- ⊕ PIEZOMETER LOCATION
- SOIL PROBE LOCATION
- ▲ APPROXIMATE PREVIOUS SOIL PROBE LOCATION

SOURCE: Assessment Documentation Report and other correspondence, Materials Management and Training, Ltd. September 19, 1997

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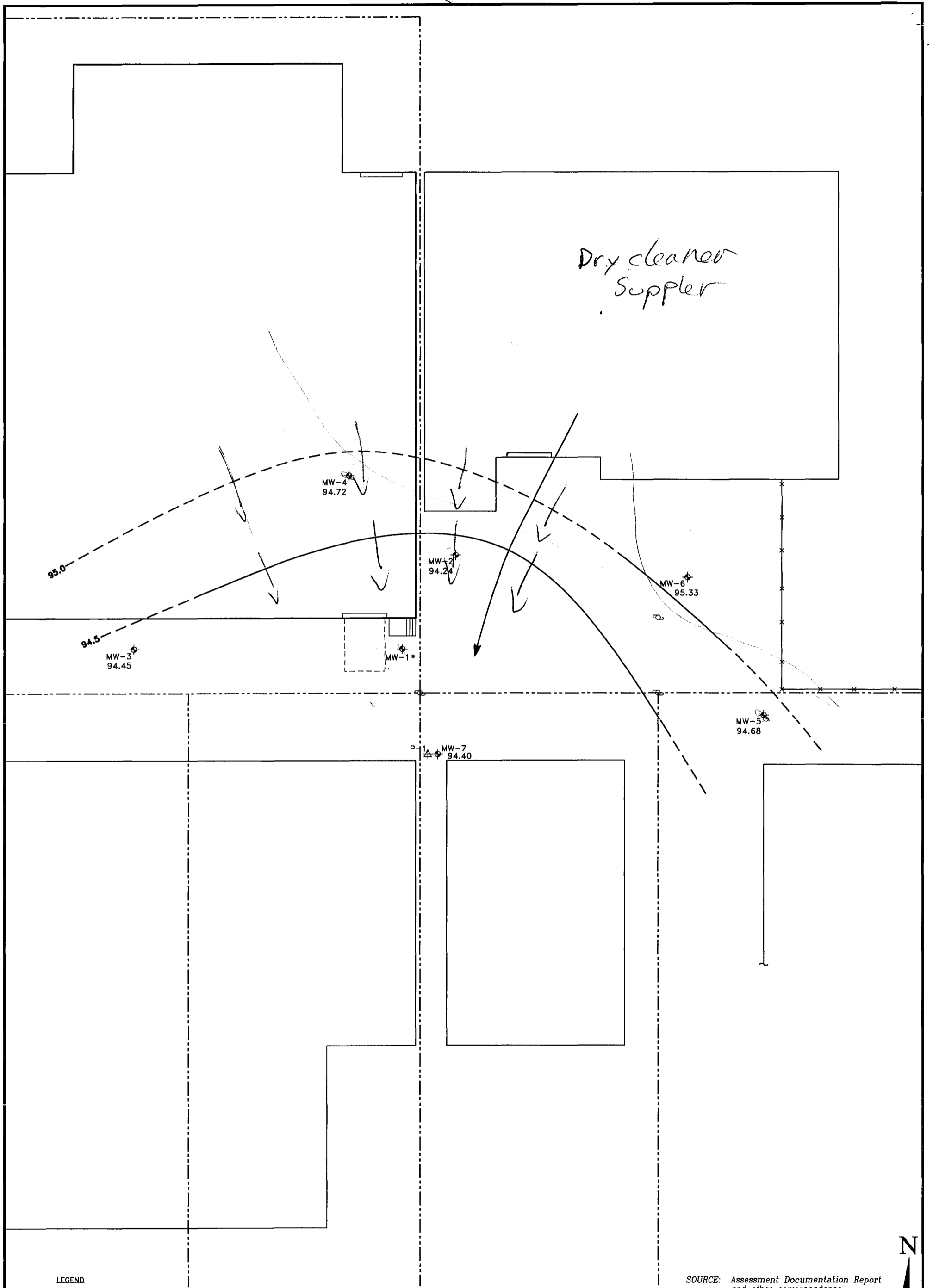


DRN. BY:	J.J.J.	DATE:	11/14/00
DSN. BY:	C.M.H.	FILE NO.:	0712007
CHK. BY:	C.M.H.	DWG. NO.:	7120072
REV. BY:	G.L.J.	SHEET NO.:	1



**FIGURE 1  
SITE LAYOUT**

FORMER KEY PRODUCTS  
8627-8633 WEST LYNX AVENUE  
MILWAUKEE, WISCONSIN



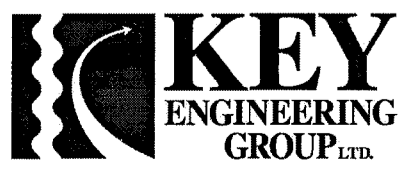
**LEGEND**

- ⊕ MONITORING WELL LOCATION
- ⚡ PIEZOMETER LOCATION
- 94.45 GROUNDWATER ELEVATION (9/20/00)
- ← GROUNDWATER FLOW DIRECTION
- \* GROUNDWATER ELEVATION NOT USED TO DEVELOP CONTOURS PER WDNR REQUEST

SOURCE: Assessment Documentation Report and other correspondence, Materials Management and Training, Ltd. September 19, 1997

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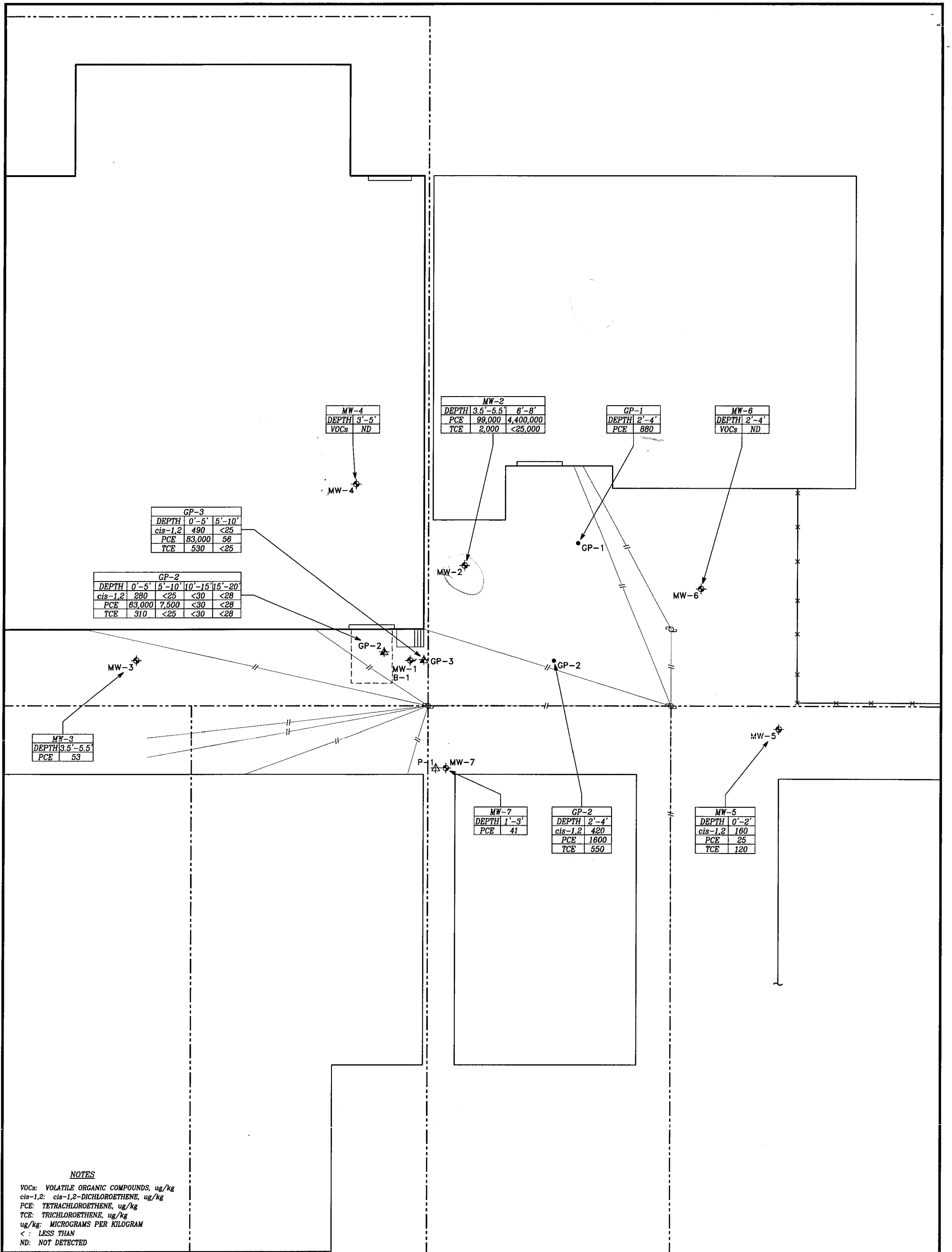
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DRN. BY:	J.J.J.	DATE: 11/14/00
DSN. BY:	C.M.H.	FILE NO.: 0712007
CHK. BY:	C.M.H.	DWG. NO.: 7120078
REV. BY:	G.L.J.	SHEET NO.: 1



**FIGURE 2**  
GROUNDWATER ELEVATION  
CONTOUR MAP  
(SEPTEMBER 20, 2000)

FORMER KEY PRODUCTS  
8627-8633 WEST LYNX AVENUE  
MILWAUKEE, WISCONSIN



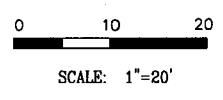


**NOTES**  
 VOCs: VOLATILE ORGANIC COMPOUNDS, ug/kg  
 cis-1,2: cis-1,2-DICHLOROETHENE, ug/kg  
 PCE: TETRACHLOROETHENE, ug/kg  
 TCE: TRICHLOROETHENE, ug/kg  
 ug/kg: MICROGRAMS PER KILOGRAM  
 < : LESS THAN  
 ND: NOT DETECTED

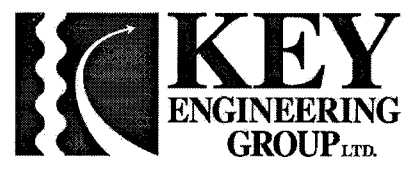
**LEGEND**  
 ○ UTILITY POLE  
 // OVERHEAD UTILITY  
 ⊕ MONITORING WELL LOCATION  
 ⊕ PIEZOMETER LOCATION  
 ● SOIL PROBE LOCATION  
 ⊕ APPROXIMATE PREVIOUS SOIL PROBE LOCATION

SOURCE: Assessment Documentation Report and other correspondence, Materials Management and Training, Ltd. September 19, 1997

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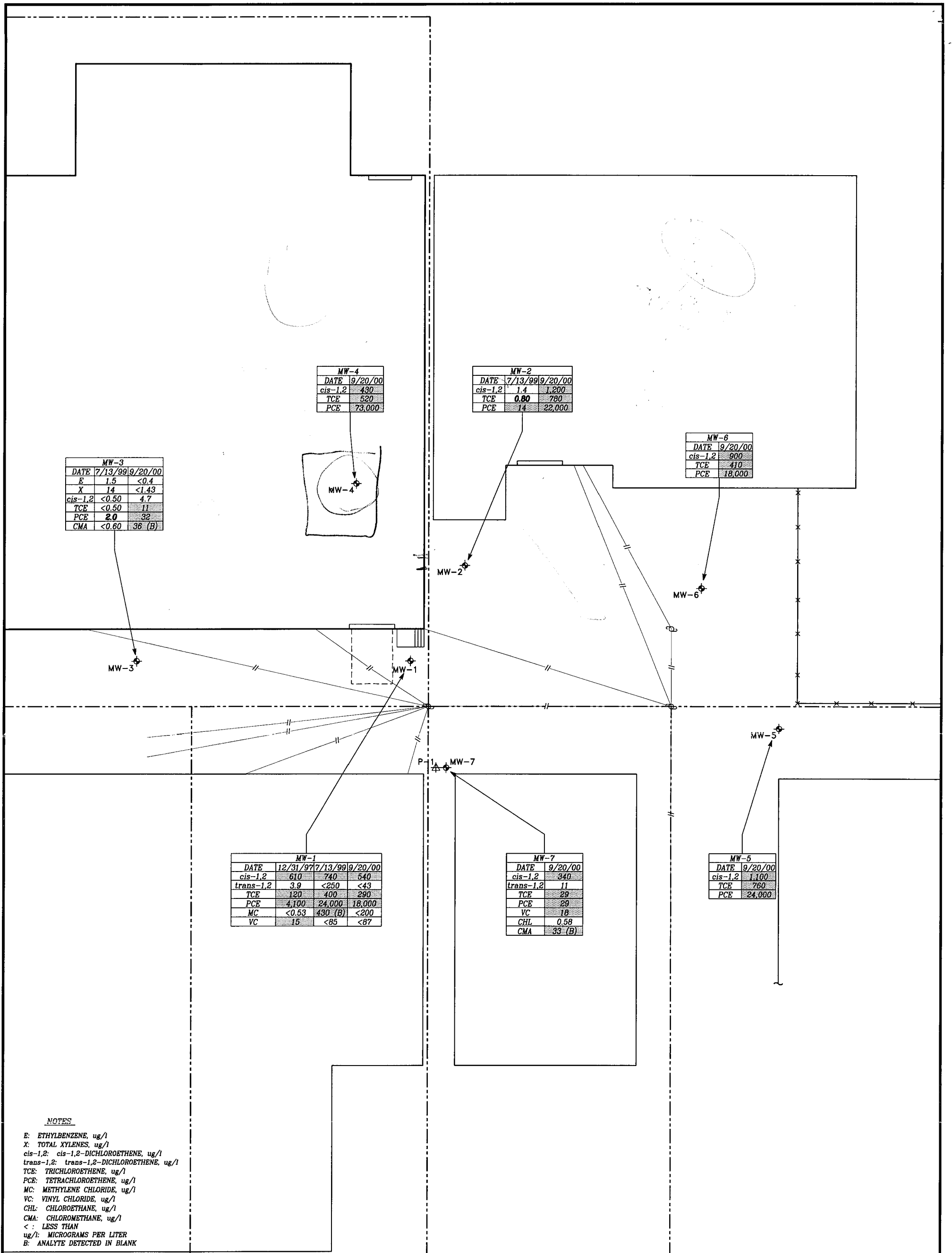
DRN. BY:	J.J.J.	DATE:	11/14/00
DSN. BY:	C.M.H.	FILE NO.:	0712007
CHK. BY:	C.M.H.	DWG. NO.:	07120073
REV. BY:	G.L.J.	SHEET NO.:	3



**FIGURE 3**  
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS

FORMER KEY PRODUCTS  
 8627-8633 WEST LYNX AVENUE  
 MILWAUKEE, WISCONSIN





MW-4		
DATE	7/13/99	9/20/00
cis-1,2	430	
TCE	520	
PCE	73,000	

MW-2		
DATE	7/13/99	9/20/00
cis-1,2	1.4	1,200
TCE	0.80	780
PCE	14	22,000

MW-6		
DATE	9/20/00	
cis-1,2	900	
TCE	410	
PCE	18,000	

MW-3		
DATE	7/13/99	9/20/00
E	1.5	<0.4
X	14	<1.43
cis-1,2	<0.50	4.7
TCE	<0.50	11
PCE	2.0	32
CMA	<0.60	36 (B)

MW-1			
DATE	12/31/97	7/13/99	9/20/00
cis-1,2	610	740	540
trans-1,2	3.9	<250	<43
TCE	120	400	290
PCE	4,100	24,000	18,000
MC	<0.53	430 (B)	<200
VC	15	<85	<87

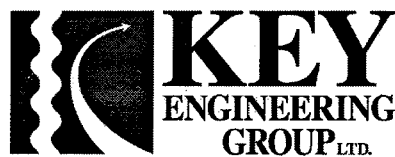
MW-7		
DATE	9/20/00	
cis-1,2	340	
trans-1,2	11	
TCE	29	
PCE	29	
VC	18	
CHL	0.58	
CMA	33 (B)	

MW-5		
DATE	9/20/00	
cis-1,2	1,100	
TCE	760	
PCE	24,000	

**NOTES**  
 E: ETHYLBENZENE, ug/l  
 X: TOTAL XYLENES, ug/l  
 cis-1,2: cis-1,2-DICHLOROETHENE, ug/l  
 trans-1,2: trans-1,2-DICHLOROETHENE, ug/l  
 TCE: TRICHLOROETHENE, ug/l  
 PCE: TETRACHLOROETHENE, ug/l  
 MC: METHYLENE CHLORIDE, ug/l  
 VC: VINYL CHLORIDE, ug/l  
 CHL: CHLOROETHANE, ug/l  
 CMA: CHLOROMETHANE, ug/l  
 < : LESS THAN  
 ug/l: MICROGRAMS PER LITER  
 B: ANALYTE DETECTED IN BLANK

**LEGEND**  
 ○ UTILITY POLE  
 —//— OVERHEAD UTILITY  
 ⊕ MONITORING WELL LOCATION  
 ⊕ PIEZOMETER LOCATION  
 [ ] CONCENTRATION WHICH ATTAINS OR EXCEEDS THE NR 140 ENFORCEMENT STANDARD (ES)  
 [ 5 ] CONCENTRATION WHICH ATTAINS OR EXCEEDS THE NR 140 PREVENTIVE ACITON LIMIT (PAL)

0 10 20	
SCALE: 1"=20'	
DRN. BY: J.J.J.	DATE: 11/14/00
DSN. BY: C.M.H.	FILE NO.: 0712007
CHK. BY: C.M.H.	DWG. NO.: 7120077
REV. BY: G.L.J.	SHEET NO.: 4

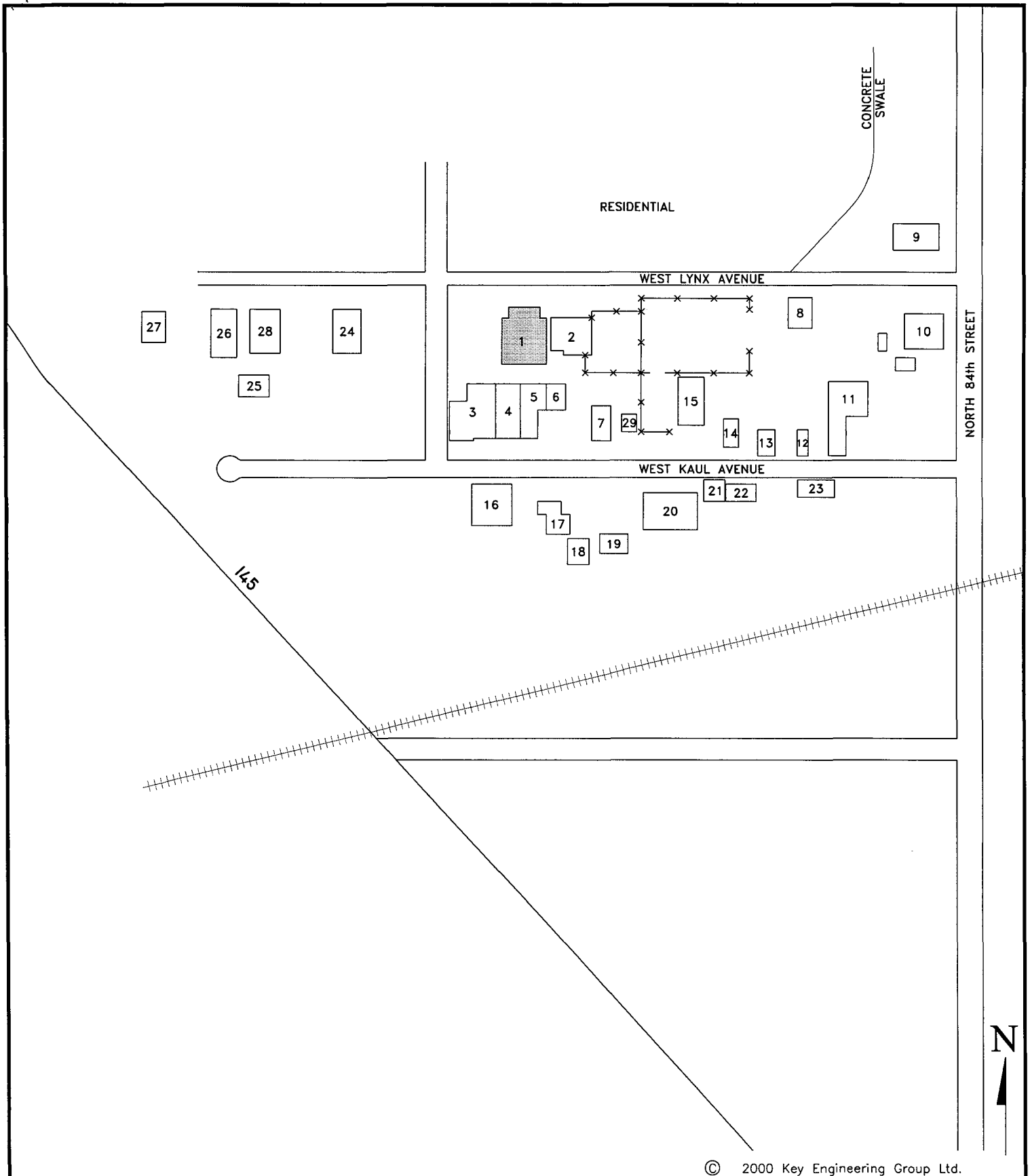


SOURCE: Assessment Documentation Report and other correspondence, Materials Management and Training, Ltd. September 19, 1997

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FIGURE 4  
 SUMMARY OF GROUNDWATER  
 SAMPLE ANALYTICAL RESULTS

FORMER KEY PRODUCTS  
 8627-8633 WEST LYNX AVENUE  
 MILWAUKEE, WISCONSIN



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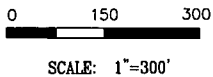


FIGURE 5  
SITE VICINITY LAYOUT

DRN. BY:	J.J.J.	DATE:	11/14/00
DSN. BY:	C.M.H.	FILE NO.:	0712007
CHK. BY:	C.M.H.	DWG. NO.:	71271
REV. BY:	G.L.J.	SHEET NO.:	5

FORMER KEY PRODUCTS  
8627-8633 WEST LYNX AVENUE  
MILWAUKEE, WISCONSIN

**ATTACHMENT 1**

Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

Facility/Project Name <b>Former Key Products</b>			License/Permit/Monitoring Number -		Boring Number <b>MW-4</b>		
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Paul Wisconsin Soil Testing</b>			Date Drilling Started <b>8/30/2000</b>		Date Drilling Completed <b>8/30/2000</b>		
WI Unique Well No. <b>PO 171</b>			DNR Well ID No.		Common Well Name		
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input checked="" type="checkbox"/>			Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>		
State Plane <b>N, E S/C/N</b>			Lat _____"		Borehole Diameter <b>8.3 inches</b>		
<b>SE 1/4 of NW 1/4 of Section 28, T 8 N, R 21 E</b>			Long _____"		Feet <input type="checkbox"/> N <input type="checkbox"/> E Feet <input type="checkbox"/> S <input type="checkbox"/> W		
Facility ID		County <b>Milwaukee</b>		County Code <b>41</b>		Civil Town/City/ or Village <b>Milwaukee</b>	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					Pocket Penetrometer	
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
AUGER	12			Concrete											
1 SS	24 16	8 8 7 9	1 1 2	Well graded GRAVEL (fill)	GW			<1	16						
2 SS	24 18	3 4 4 7	3 3 4 4	Brown, medium dense, poorly graded SAND, moist	SP										
				Dark brown, stiff, silty CLAY, with trace gravel, moist	CL			<1 *	11						
3 SS	24 16	3 3 4 4	5 5 6 6	Dark brown, stiff, silty CLAY, with trace gravel, wet, slight odor	CL			5	8						
AUGER	36		7	Blind drill to 15.5 feet											
AUGER	66		8 9 10 11 12												

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

Signature: *[Signature]* Firm: **KEY ENGINEERING GROUP, LTD.**  
W66 N215 COMMERCE CT. CEDARBURG, WI 53012  
Tel: (262) 375-4750 Fax: (262) 375-9680

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.





Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Key Products</b>		License/Permit/Monitoring Number -		Boring Number <b>MW-5</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Paul Wisconsin Soil Testing</b>			Date Drilling Started <b>8/30/2000</b>	Date Drilling Completed <b>8/30/2000</b>	Drilling Method <b>HSA</b>
WI Unique Well No. <b>PO 172</b>	DNR Well ID No.	Common Well Name	Final Static Water Level <b>Feet MSL</b>	Surface Elevation <b>Feet MSL</b>	Borehole Diameter <b>8.3 inches</b>
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input checked="" type="checkbox"/>			Local Grid Location		
State Plane <b>SE 1/4 of NW 1/4 of Section 28, T 8 N, R 21 E</b>			Lat _____ ' _____ " <input type="checkbox"/> N <input type="checkbox"/> E Long _____ ' _____ " <input type="checkbox"/> S <input type="checkbox"/> W		
Facility ID	County <b>Milwaukee</b>	County Code <b>41</b>	Civil Town/City/ or Village <b>Milwaukee</b>		

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					Pocket Penetrometer
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 SS	24 16	7 8 10 12	1	Gravel				<1 *	22					
				Light brown, very stiff, silty CLAY, moist	CL									
2 SS	24 4	10 10 10 14	2 3	Light brown, very stiff, silty CLAY, with some gravel, moist	CL			<1	24					
3 SS	24 8	2 3 4 4	4 5	Brown, stiff, silty CLAY, wet, slight odor	CL			11	8					
4 SS	24 18	4 4 5 5	6 7	Brown, stiff, silty CLAY, with trace gravel, wet, slight odor				47	10					
5 SS	24 18	3 3 4 5	8 9		CL			113	9					
AUGER				Blind drill to 13 feet										

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


Signature <i>Walter Boyton</i>	Firm <b>KEY ENGINEERING GROUP, LTD.</b> W66 N215 COMMERCE CT. CEDARBURG, WI 53012	Tel: (262) 375-4750 Fax: (262) 375-9680
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Boring Number **MW-5**

Use only as an attachment to Form 4400-122.

Page **2** of **2**

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					Pocket Penetrometer
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			13	End of boring at 13 feet * Sample submitted for laboratory analysis										

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Key Products</b>		License/Permit/Monitoring Number -		Boring Number <b>MW-6</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Paul Wisconsin Soil Testing</b>		Date Drilling Started <b>8/30/2000</b>		Date Drilling Completed <b>8/30/2000</b>	
Drilling Method <b>HSA</b>		WI Unique Well No. <b>PO 173</b>		DNR Well ID No.	
Common Well Name		Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>	
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input checked="" type="checkbox"/>		Local Grid Location		Borehole Diameter <b>8.3 inches</b>	
State Plane <b>SE 1/4 of NW 1/4 of Section 28, T 8 N, R 21 E</b>		Lat _____ ' _____ "		Feet <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Long _____ ' _____ "		Feet <input type="checkbox"/> S <input type="checkbox"/> W		Feet <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID		County <b>Milwaukee</b>		County Code <b>41</b>	
				Civil Town/City/ or Village <b>Milwaukee</b>	

Sample Number and Type	Length Alt. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					Pocket Penetrometer
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
1 SS	24 12	6 6 8 16	0 1	Light brown, very stiff, silty CLAY, with trace sand and gravel, moist	CL			<1	24					
2 SS	24 14	3 3 6 6	2 3	Brown, stiff, silty CLAY, with a trace of gravel, moist	CL			<1 *	12					
3 SS	24 16	3 4 4 5	4 5	Brown, stiff, sandy CLAY, with trace gravel, wet	CL			<1	9					
AUGER	12		6											
4 SS	24 18	10 10 14 15	7 8	Light brown, very stiff, sandy CLAY, with trace gravel, wet, strong odor	CL			161	29					
5 SS	24	-	9		CL			-						
6 SS	24 18	3 3 4	11 12	Brown, stiff, silty CLAY, with trace gravel, wet, strong odor	CL			360	8					

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

Signature 	Firm <b>KEY ENGINEERING GROUP, LTD.</b> W66 N215 COMMERCE CT. CEDARBURG, WI 53012	Tel: (262) 375-4750 Fax: (262) 375-9680
---------------	---	--

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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Key Products</b>		License/Permit/Monitoring Number -		Boring Number <b>MW-7</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Paul Wisconsin Soil Testing</b>		Date Drilling Started <b>8/30/2000</b>		Date Drilling Completed <b>8/30/2000</b>	
Drilling Method <b>HSA</b>		WI Unique Well No. <b>PO 174</b>		DNR Well ID No.	
Common Well Name		Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>	
Borehole Diameter <b>8.3 inches</b>		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input checked="" type="checkbox"/>		Local Grid Location	
State Plane <b>SE 1/4 of NW 1/4 of Section 28, T 8 N, R 21 E</b>		Lat _____"		Feet <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Long _____"		County <b>Milwaukee</b>		County Code <b>41</b>	
Facility ID		Civil Town/City/ or Village <b>Milwaukee</b>			

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					Pocket Penetrometer	
									Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200		
AUGER	12														
1 SS	24 12	2 3 3 5	1 2	Dark brown, medium stiff, silty CLAY, moist	CL			<1 *	8						
2 SS	24 14	3 3 5 5	3 4	Light brown, stiff, silty CLAY, moist	CL			<1	10						
3 SS	24 18	3 5 5 6	5 6	Light brown, stiff, silty CLAY, with trace gravel, wet	CL			<1	11						
4 SS	24 20	5 5 6 7	7 8	Brown, stiff, silty CLAY, with trace gravel, some sand, wet, slight odor	CL			5	13						
5 SS	24 18	4 5 6 7	9 10	Brown, stiff, silty CLAY, with trace gravel, wet, slight odor	CL			11	13						
AUGER	24	-	11	Blind drill to 13 feet											

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


Signature *[Handwritten Signature]* Firm **KEY ENGINEERING GROUP, LTD.** Tel: (262) 375-4750  
W66 N215 COMMERCE CT. CEDARBURG, WI 53012 Fax: (262) 375-9680

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Boring Number **MW-7**

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Page 2 of 2

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					Pocket Penetrometer
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			13	End of boring at 13 feet * Sample submitted for laboratory analysis										

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Key Products</b>			License/Permit/Monitoring Number -		Boring Number <b>P-1</b>		
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Paul Wisconsin Soil Testing</b>			Date Drilling Started <b>8/30/2000</b>		Date Drilling Completed <b>8/30/2000</b>		
WI Unique Well No. <b>PO 175</b>			DNR Well ID No.		Common Well Name <b>P-1</b>		
Final Static Water Level <b>Feet MSL</b>			Surface Elevation <b>Feet MSL</b>		Borehole Diameter <b>8.3 inches</b>		
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input checked="" type="checkbox"/> State Plane <b>N, E S/C/N</b>			Lat _____ " _____ "		Local Grid Location		
<b>SE 1/4 of NW 1/4 of Section 28, T 8 N, R 21 E</b>			Long _____ " _____ "		Feet <input type="checkbox"/> N <input type="checkbox"/> E Feet <input type="checkbox"/> S <input type="checkbox"/> W		
Facility ID		County <b>Milwaukee</b>		County Code <b>41</b>		Civil Town/City/ or Village <b>Milwaukee</b>	

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					Pocket Penetrometer
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			1 2 3 4 5 6 7 8 9 10 11 12	Blind drill to 30.5' See MW-7 soil boring log										

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

Signature *W. John Burton* Firm **KEY ENGINEERING GROUP, LTD.** Tel: (262) 375-4750  
W66 N215 COMMERCE CT. CEDARBURG, WI 53012 Fax: (262) 375-9680



Boring Number P-1

Use only as an attachment to Form 4400-122.

Page 2 of 2

Sample		Blow Counts	Depth in feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties					Pocket Penetrometer
Number and Type	Length Att. & Recovered (in)								Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			13											
			14											
			15											
			16											
			17											
			18											
			19											
			20											
			21											
			22											
			23											
			24											
			25											
			26											
			27											
			28											
			29											
			30											
				End of boring at 30.5 feet										

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Key Products</b>	Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> E. <input type="checkbox"/> S. <input type="checkbox"/> W.		Well Name <b>MW-4</b>
Facility License, Permit or Monitoring No.	Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input checked="" type="checkbox"/>		Wis. Unique Well No. <b>PO 171</b>   DNR Well Number
Facility ID	Lat. _____ Long. _____ or St. Plane _____ ft. N, _____ ft. E. S/C/N		Date Well Installed <b>08/30/2000</b>
Type of Well <b>Well Code 11/mw</b>	Section Location of Waste/Source <b>SE 1/4 of NW 1/4 of Sec. 28, T. 8 N, R. 21</b> <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: (Person's Name and Firm) <b>Paul</b>
Distance from Waste/Source ft. <input type="checkbox"/> Enf. Stds. Apply <input type="checkbox"/>	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	Gov. Lot Number	Wisconsin Soil Testing

A. Protective pipe, top elevation _____ ft. MSL		1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
B. Well casing, top elevation _____ ft. MSL		2. Protective cover pipe: a. Inside diameter: _____ 10.0 in. b. Length: _____ 1.0 ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>	
C. Land surface elevation _____ ft. MSL		d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: _____	
D. Surface seal, bottom _____ ft. MSL or 1.0 ft.		3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>	
<div style="border: 1px solid black; padding: 5px;">                 12. USCS classification of soil near screen:                  GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/>                  SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input checked="" type="checkbox"/> CH <input type="checkbox"/>                  Bedrock <input type="checkbox"/> </div>		4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 30 Other <input type="checkbox"/>	
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 33 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 d. _____ % Bentonite ... Bentonite-cement grout <input type="checkbox"/> 50 e. _____ Ft <sup>3</sup> volume added for any of the above	
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>		f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08	
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99		6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 32 c. _____ Other <input type="checkbox"/>	
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe _____		7. Fine sand material: Manufacturer, product name & mesh size a. _____ Silica Sand #35-45, 25 lbs b. Volume added _____ ft <sup>3</sup>	
17. Source of water (attach analysis, if required): _____		8. Filter pack material: Manufacturer, product name & mesh size a. _____ Red Flint #30, 375 lbs b. Volume added _____ ft <sup>3</sup>	
E. Bentonite seal, top _____ ft. MSL or 1.0 ft.	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/>		
F. Fine sand, top _____ ft. MSL or 4.0 ft.	10. Screen material: PVC a. Screen Type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>		
G. Filter pack, top _____ ft. MSL or 5.0 ft.	b. Manufacturer _____ Diedrich c. Slot size: _____ 0.010 in. d. Slotted length: _____ 10.0 ft.		
H. Screen joint, top _____ ft. MSL or 5.0 ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>		
I. Well bottom _____ ft. MSL or 15.0 ft.			
J. Filter pack, bottom _____ ft. MSL or 15.0 ft.			
K. Borehole, bottom _____ ft. MSL or 15.5 ft.			
L. Borehole, diameter _____ 8.3 in.			
M. O.D. well casing _____ 2.38 in.			
N. I.D. well casing _____ 2.00 in.			

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

Signature *W. John Pust* Firm **KEY ENGINEERING GROUP, LTD.** Tel: (262) 375-4750  
W66 N215 COMMERCE CT. CEDARBURG, WI 53012 Fax: (262) 375-9680

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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name Former Key Products	Local Grid Location of Well _____ ft. <input type="checkbox"/> N. _____ ft. <input type="checkbox"/> E. _____ ft. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> W.	Well Name MW-5
Facility License, Permit or Monitoring No.	Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input checked="" type="checkbox"/> Lat. _____ Long. _____ or	Wis. Unique Well No. DNR Well Number PO 172
Facility ID	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed 08/30/2000
Type of Well Well Code 11/mw	Section Location of Waste/Source SE 1/4 of NW 1/4 of Sec. 28, T. 8 N, R. 21 <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) Paul
Distance from Waste/Source ft.	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	Gov. Lot Number
Enf. Stds. Apply <input type="checkbox"/>		Wisconsin Soil Testing

A. Protective pipe, top elevation \_\_\_\_\_ ft. MSL  
 B. Well casing, top elevation \_\_\_\_\_ ft. MSL  
 C. Land surface elevation \_\_\_\_\_ ft. MSL  
 D. Surface seal, bottom \_\_\_\_\_ ft. MSL or 1.0 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

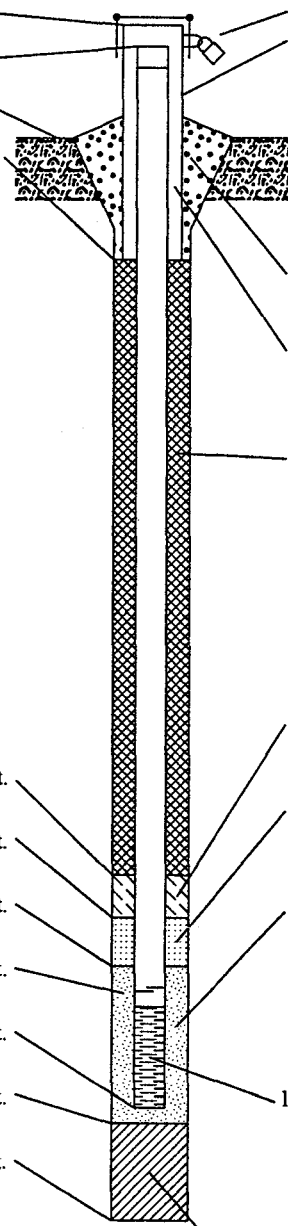
14. Drilling method used: Rotary  5 0  
 Hollow Stem Auger  4 1  
 \_\_\_\_\_ Other

15. Drilling fluid used: Water  0 2 Air  0 1  
 Drilling Mud  0 3 None  9 9

16. Drilling additives used?  Yes  No

Describe \_\_\_\_\_

17. Source of water (attach analysis, if required):  
 \_\_\_\_\_



1. Cap and lock?  Yes  No

2. Protective cover pipe:  
 a. Inside diameter: 10.0 in.  
 b. Length: 1.0 ft.  
 c. Material: Steel  0 4  
 Other

d. Additional protection?  Yes  No  
 If yes, describe: \_\_\_\_\_

3. Surface seal: Bentonite  3 0  
 Concrete  0 1  
 Other

4. Material between well casing and protective pipe: Bentonite  3 0  
 Other

5. Annular space seal: a. Granular/Chipped Bentonite  3 3  
 b. \_\_\_\_\_ Lbs/gal mud weight ... Bentonite-sand slurry  3 5  
 c. \_\_\_\_\_ Lbs/gal mud weight ... Bentonite slurry  3 1  
 d. \_\_\_\_\_ % Bentonite ... Bentonite-cement grout  5 0  
 e. \_\_\_\_\_ Ft<sup>3</sup> volume added for any of the above  
 f. How installed: Tremie  0 1  
 Tremie pumped  0 2  
 Gravity  0 8

6. Bentonite seal: a. Bentonite granules  3 3  
 b.  1/4 in.  3/8 in.  1/2 in. Bentonite chips  3 2  
 c. \_\_\_\_\_ Other

7. Fine sand material: Manufacturer, product name & mesh size  
 a. Silica Sand #35-45, 25 lbs  
 b. Volume added \_\_\_\_\_ ft<sup>3</sup>

8. Filter pack material: Manufacturer, product name & mesh size  
 a. Red Flint #30, 375 lbs  
 b. Volume added \_\_\_\_\_ ft<sup>3</sup>

9. Well casing: Flush threaded PVC schedule 40  2 3  
 Flush threaded PVC schedule 80  2 4  
 Other

10. Screen material: PVC  
 a. Screen Type: Factory cut  1 1  
 Continuous slot  0 1  
 Other

b. Manufacturer: Diedrich  
 c. Slot size: 0.010 in.  
 d. Slotted length: 10.0 ft.

11. Backfill material (below filter pack): None  1 4  
 Other

E. Bentonite seal, top \_\_\_\_\_ ft. MSL or 1.0 ft.  
 F. Fine sand, top \_\_\_\_\_ ft. MSL or 2.0 ft.  
 G. Filter pack, top \_\_\_\_\_ ft. MSL or 2.5 ft.  
 H. Screen joint, top \_\_\_\_\_ ft. MSL or 2.5 ft.  
 I. Well bottom \_\_\_\_\_ ft. MSL or 12.5 ft.  
 J. Filter pack, bottom \_\_\_\_\_ ft. MSL or 12.5 ft.  
 K. Borehole, bottom \_\_\_\_\_ ft. MSL or 13.0 ft.  
 L. Borehole, diameter 8.3 in.  
 M. O.D. well casing 2.38 in.  
 N. I.D. well casing 2.00 in.

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

Signature *[Signature]* Firm KEY ENGINEERING GROUP, LTD.  
 W66 N215 COMMERCE CT. CEDARBURG, WI 53012  
 Tel: (262) 375-4750 Fax: (262) 375-9680

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

**MONITORING WELL CONSTRUCTION**  
Form 4400-113A Rev. 7-98

Facility/Project Name <b>Former Key Products</b>		Local Grid Location of Well _____ ft. <input type="checkbox"/> N. _____ ft. <input type="checkbox"/> E. _____ ft. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> W.		Well Name <b>MW-6</b>	
Facility License, Permit or Monitoring No.		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input checked="" type="checkbox"/>		Wis. Unique Well No. <b>PO 173</b> DNR Well Number	
Facility ID		Lat. _____ Long. _____ or		Date Well Installed <b>08/30/2000</b>	
Type of Well		St. Plane _____ ft. N. _____ ft. E. S/C/N		Well Installed By: (Person's Name and Firm) <b>Chuck</b>	
Well Code 11/mw		Section Location of Waste/Source SE <u>1/4</u> of NW <u>1/4</u> of Sec. <u>28</u> , T. <u>8</u> N, R. <u>21</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Wisconsin Soil Testing	
Distance from Waste/Source ft.	Enf. Stds. Apply <input type="checkbox"/>	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		Gov. Lot Number	

A. Protective pipe, top elevation _____ ft. MSL		1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
B. Well casing, top elevation _____ ft. MSL		2. Protective cover pipe: a. Inside diameter: <u>10.0</u> in. b. Length: <u>1.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>	
C. Land surface elevation _____ ft. MSL		d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: _____	
D. Surface seal, bottom _____ ft. MSL or <u>1.0</u> ft.		3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>	
<div style="border: 1px solid black; padding: 5px;"> <p>12. USCS classification of soil near screen:            GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/>            SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input checked="" type="checkbox"/> CH <input type="checkbox"/>            Bedrock <input type="checkbox"/></p> <p>13. Sieve analysis attached? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/></p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe _____</p> <p>17. Source of water (attach analysis, if required): _____</p> </div>		4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 30 Other <input type="checkbox"/>	
E. Bentonite seal, top _____ ft. MSL or <u>1.0</u> ft.		5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 33 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 d. _____ % Bentonite ... Bentonite-cement grout <input type="checkbox"/> 50 e. _____ Ft <sup>3</sup> volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08	
F. Fine sand, top _____ ft. MSL or <u>2.0</u> ft.		6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 32 c. _____ Other <input type="checkbox"/>	
G. Filter pack, top _____ ft. MSL or <u>2.5</u> ft.		7. Fine sand material: Manufacturer, product name & mesh size a. <u>Silica Sand #35-45, 25 lbs</u> b. Volume added _____ ft <sup>3</sup>	
H. Screen joint, top _____ ft. MSL or <u>2.5</u> ft.		8. Filter pack material: Manufacturer, product name & mesh size a. <u>Red Flint #30, 350 lbs</u> b. Volume added _____ ft <sup>3</sup>	
I. Well bottom _____ ft. MSL or <u>12.5</u> ft.		9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/>	
J. Filter pack, bottom _____ ft. MSL or <u>12.5</u> ft.	10. Screen material: <u>PVC</u> a. Screen Type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>		
K. Borehole, bottom _____ ft. MSL or <u>13.0</u> ft.	b. Manufacturer <u>Diedrich</u>		
L. Borehole, diameter <u>8.3</u> in.	c. Slot size: <u>0.010</u> in.		
M. O.D. well casing <u>2.38</u> in.	d. Slotted length: <u>10.0</u> ft.		
N. I.D. well casing <u>2.00</u> in.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>		

I hereby certify that the information on this form is true and correct to the best of my knowledge.  
 Signature [Signature] Firm **KEY ENGINEERING GROUP, LTD.** Tel: (262) 375-4750  
W66 N215 COMMERCE CT. CEDARBURG, WI 53012 Fax: (262) 375-9680

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Route To:  Watershed/Wastewater  Waste Management   
 Remediation/Redevelopment  Other

MONITORING WELL CONSTRUCTION  
Form 4400-113A Rev. 7-98

Facility/Project Name <b>Former Key Products</b>		Local Grid Location of Well _____ ft. <input type="checkbox"/> N. _____ ft. <input type="checkbox"/> E. _____ ft. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> W.		Well Name <b>MW-7</b>	
Facility License, Permit or Monitoring No.		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input checked="" type="checkbox"/>		Wis. Unique Well No. <input type="checkbox"/> DNR Well Number <input type="checkbox"/>	
Facility ID		Lat. _____ " Long. _____ " or _____ " _____ "		PO 174	
Type of Well <b>Well Code 11/mw</b>		St. Plane _____ ft. N, _____ ft. E. S/C/N		Date Well Installed <b>08/30/2000</b>	
Distance from Waste/Source ft. _____		Section Location of Waste/Source <b>SE 1/4 of NW 1/4 of Sec. 28, T. 8 N, R. 21</b> <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: (Person's Name and Firm) <b>Paul</b>	
Enf. Stds. Apply <input type="checkbox"/>		Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		Gov. Lot Number _____	
				Wisconsin Soil Testing	

A. Protective pipe, top elevation _____ ft. MSL		1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL		2. Protective cover pipe: a. Inside diameter: _____ in. <b>10.0</b> b. Length: _____ ft. <b>1.0</b> c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation _____ ft. MSL		d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: _____
D. Surface seal, bottom _____ ft. MSL or <b>1.0</b> ft.		3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>
12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input checked="" type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/>		4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 30 Other <input type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 33 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 d. _____ % Bentonite ... Bentonite-cement grout <input type="checkbox"/> 50 e. _____ Ft <sup>3</sup> volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>		f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99		6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 32 c. _____ Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe _____		7. Fine sand material: Manufacturer, product name & mesh size a. _____ Silica Sand #35-45, 25 lbs b. Volume added _____ ft <sup>3</sup>
17. Source of water (attach analysis, if required): _____		8. Filter pack material: Manufacturer, product name & mesh size a. _____ Red Flint #30, 350 lbs b. Volume added _____ ft <sup>3</sup>
E. Bentonite seal, top _____ ft. MSL or <b>1.0</b> ft.	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/>	
F. Fine sand, top _____ ft. MSL or <b>2.0</b> ft.	10. Screen material: PVC a. Screen Type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>	
G. Filter pack, top _____ ft. MSL or <b>2.5</b> ft.	b. Manufacturer <b>Diedrich</b>	
H. Screen joint, top _____ ft. MSL or <b>2.5</b> ft.	c. Slot size: <b>0.010</b> in.	
I. Well bottom _____ ft. MSL or <b>12.5</b> ft.	d. Slotted length: <b>10.0</b> ft.	
J. Filter pack, bottom _____ ft. MSL or <b>12.5</b> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>	
K. Borehole, bottom _____ ft. MSL or <b>13.0</b> ft.		
L. Borehole, diameter <b>8.3</b> in.		
M. O.D. well casing <b>2.38</b> in.		
N. I.D. well casing <b>2.00</b> in.		

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

Signature *W. J. ...* Firm **KEY ENGINEERING GROUP, LTD.** Tel: (262) 375-4750  
W66 N215 COMMERCE CT. CEDARBURG, WI 53012 Fax: (262) 375-9680

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Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

MONITORING WELL CONSTRUCTION  
Form 4400-113A Rev. 7-98

Facility/Project Name Former Key Products		Local Grid Location of Well _____ ft. <input type="checkbox"/> N. _____ ft. <input type="checkbox"/> E. _____ ft. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> W.		Well Name P-1	
Facility License, Permit or Monitoring No.		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Well Location <input checked="" type="checkbox"/>		Wis. Unique Well No. PO 175	
Facility ID		Lat. _____ Long. _____ or St. Plane _____ ft. N, _____ ft. E. S/C/N		Date Well Installed 08/30/2000	
Type of Well Well Code 12/pz		Section Location of Waste/Source SE 1/4 of NW 1/4 of Sec. 28, T. 8 N, R. 21 <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: (Person's Name and Firm) Chuck	
Distance from Waste/Source ft. _____		Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		Gov. Lot Number _____	
Enf. Stds. Apply <input type="checkbox"/>				Wisconsin Soil Testing	

A. Protective pipe, top elevation \_\_\_\_\_ ft. MSL  
B. Well casing, top elevation \_\_\_\_\_ ft. MSL  
C. Land surface elevation \_\_\_\_\_ ft. MSL  
D. Surface seal, bottom \_\_\_\_\_ ft. MSL or 1.0 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

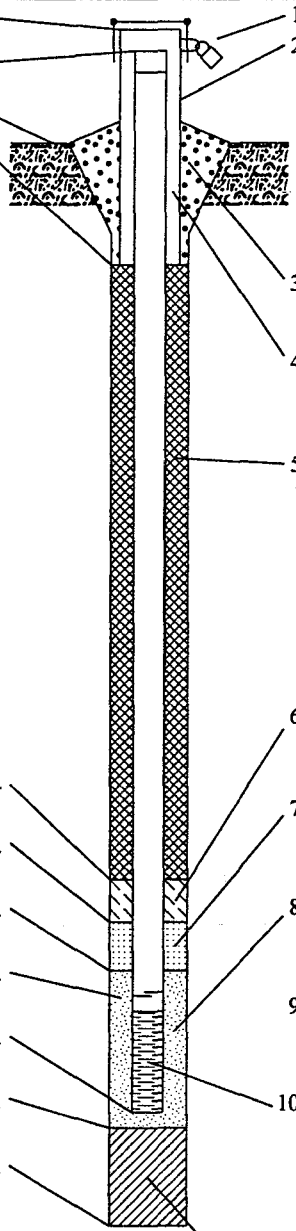
14. Drilling method used: Rotary  5 0  
Hollow Stem Auger  4 1  
Other

15. Drilling fluid used: Water  0 2 Air  0 1  
Drilling Mud  0 3 None  9 9

16. Drilling additives used?  Yes  No  
Describe \_\_\_\_\_

17. Source of water (attach analysis, if required):  
\_\_\_\_\_

E. Bentonite seal, top \_\_\_\_\_ ft. MSL or 1.0 ft.  
F. Fine sand, top \_\_\_\_\_ ft. MSL or 22.0 ft.  
G. Filter pack, top \_\_\_\_\_ ft. MSL or 23.0 ft.  
H. Screen joint, top \_\_\_\_\_ ft. MSL or 25.0 ft.  
I. Well bottom \_\_\_\_\_ ft. MSL or 30.0 ft.  
J. Filter pack, bottom \_\_\_\_\_ ft. MSL or 30.5 ft.  
K. Borehole, bottom \_\_\_\_\_ ft. MSL or 30.5 ft.  
L. Borehole, diameter 8.3 in.  
M. O.D. well casing 2.38 in.  
N. I.D. well casing 2.00 in.



1. Cap and lock?  Yes  No

2. Protective cover pipe:  
a. Inside diameter: 10.0 in.  
b. Length: 1.0 ft.  
c. Material: Steel  0 4  
Other

d. Additional protection?  Yes  No  
If yes, describe: \_\_\_\_\_

3. Surface seal: Bentonite  3 0  
Concrete  0 1  
Other

4. Material between well casing and protective pipe: Bentonite  3 0  
Other

5. Annular space seal:  
a. Granular/Chipped Bentonite  3 3  
b. \_\_\_\_\_ Lbs/gal mud weight ... Bentonite-sand slurry  3 5  
c. \_\_\_\_\_ Lbs/gal mud weight ... Bentonite slurry  3 1  
d. \_\_\_\_\_ % Bentonite ... Bentonite-cement grout  5 0  
e. \_\_\_\_\_ Ft<sup>3</sup> volume added for any of the above  
f. How installed: Tremie  0 1  
Tremie pumped  0 2  
Gravity  0 8

6. Bentonite seal:  
a. Bentonite granules  3 3  
b.  1/4 in.  3/8 in.  1/2 in. Bentonite chips  3 2  
c. \_\_\_\_\_ Other

7. Fine sand material: Manufacturer, product name & mesh size  
a. Silica Sand #35-45, 25 lbs  
b. Volume added \_\_\_\_\_ ft<sup>3</sup>

8. Filter pack material: Manufacturer, product name & mesh size  
a. Red Flint #30, 375 lbs  
b. Volume added \_\_\_\_\_ ft<sup>3</sup>

9. Well casing: Flush threaded PVC schedule 40  2 3  
Flush threaded PVC schedule 80  2 4  
Other

10. Screen material: PVC  
a. Screen Type: Factory cut  1 1  
Continuous slot  0 1  
Other

b. Manufacturer: Diedrich  
c. Slot size: 0.010 in.  
d. Slotted length: 5.0 ft.

11. Backfill material (below filter pack): None  1 4  
Other

I hereby certify that the information on this form is true and correct to the best of my knowledge.  
Signature: *[Handwritten Signature]* Firm: KEY ENGINEERING GROUP, LTD.  
W66 N215 COMMERCE CT. CEDARBURG, WI 53012 Tel: (262) 375-4750 Fax: (262) 375-9680

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Key Products</b>	County <b>Milwaukee</b>	Well Name <b>MW-4</b>
Facility License, Permit or Monitoring Number <b>-</b>	County Code <b>41</b>	Wis. Unique Well Number <b>PO 171</b>
		DNR Well Number

1. Can this well be purged dry?  Yes  No

2. Well development method:

- surged with bailer and bailed  41
- surged with bailer and pumped  61
- surged with block and bailed  42
- surged with block and pumped  62
- surged with block, bailed, and pumped  70
- compressed air  20
- bailed only  10
- pumped only  51
- pumped slowly  50
- other

3. Time spent developing well **150 min.**

4. Depth of well (from top of well casing) **15.1 ft.**

5. Inside diameter of well **2.00 in.**

6. Volume of water in filter pack and well casing **9.3 gal.**

7. Volume of water removed from well **14.0 gal.**

8. Volume of water added (if any) **gal.**

9. Source of water added \_\_\_\_\_

10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

17. Additional comments on development:

Purged dry four times.

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 5.10 ft.	12.99 ft.
Date	b. 9/20/2000	9/20/2000
Time	c. 09:30 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12:00 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	2.0 inches	0.0 inches
13. Water clarity (Describe)	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 <u>Brown, very silty</u>	Clear <input type="checkbox"/> 20 Turbid <input checked="" type="checkbox"/> 25 <u>Light brown</u>

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids **mg/l** **mg/l**

15. COD **mg/l** **mg/l**

16. Well developed by: Person's Name and Firm

**W. John Burton**  
**Key Engineering Group, Ltd.**

Facility Address or Owner/Responsible Party Address

Name: \_\_\_\_\_

Firm: **Former Key Products**

Street: **8627-8633 West Lynx Avenue**

City/State/Zip: **Milwaukee, Wisconsin**

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

Signature: 

Print Name: **W. John Burton**

Firm: **KEY ENGINEERING GROUP, LTD.**

NOTE: See instructions for more information including a list of county codes and well type codes.

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Key Products</b>	County <b>Milwaukee</b>	Well Name <b>MW-5</b>	
Facility License, Permit or Monitoring Number <b>-</b>	County Code <b>41</b>	Wis. Unique Well Number <b>PO 172</b>	DNR Well Number

1. Can this well be purged dry?       Yes    No
2. Well development method:
- surged with bailer and bailed       4 1
  - surged with bailer and pumped       6 1
  - surged with block and bailed       4 2
  - surged with block and pumped       6 2
  - surged with block, bailed, and pumped       7 0
  - compressed air       2 0
  - bailed only       1 0
  - pumped only       5 1
  - pumped slowly       5 0
  - other \_\_\_\_\_       \_\_\_\_\_
3. Time spent developing well      150 min.
4. Depth of well (from top of well casing)      12.2 ft.
5. Inside diameter of well      2.00 in.
6. Volume of water in filter pack and well casing      9.0 gal.
7. Volume of water removed from well      50.0 gal.
8. Volume of water added (if any)      gal.
9. Source of water added \_\_\_\_\_
10. Analysis performed on water added?       Yes    No  
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a.      2.41 ft.	2.59 ft.
Date	b.      9/20/2000	9/20/2000
Time	c.      09:45 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12:15 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	6.0 inches	2.0 inches
13. Water clarity	Clear <input type="checkbox"/> 1 0 Turbid <input checked="" type="checkbox"/> 1 5 (Describe) <u>Dark brown, very silty</u>	Clear <input type="checkbox"/> 2 0 Turbid <input checked="" type="checkbox"/> 2 5 (Describe) <u>Light brown</u>
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	mg/l	mg/l
15. COD	mg/l	mg/l
16. Well developed by: Person's Name and Firm <b>W. John Burton</b> <b>Key Engineering Group, Ltd.</b>		

17. Additional comments on development:  
**Purged dry two times.**

Facility Address or Owner/Responsible Party Address

Name: \_\_\_\_\_

Firm: Former Key Products

Street: 8627-8633 West Lynx Avenue

City/State/Zip: Milwaukee, Wisconsin

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

Signature: *W. John Burton*

Print Name: W. John Burton

Firm: KEY ENGINEERING GROUP, LTD.



Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Key Products</b>	County <b>Milwaukee</b>	Well Name <b>MW-6</b>	
Facility License, Permit or Monitoring Number <b>-</b>	County Code <b>41</b>	Wis. Unique Well Number <b>PO 173</b>	DNR Well Number

1. Can this well be purged dry?  Yes  No

2. Well development method:
- surged with bailer and bailed  4 1
  - surged with bailer and pumped  6 1
  - surged with block and bailed  4 2
  - surged with block and pumped  6 2
  - surged with block, bailed, and pumped  7 0
  - compressed air  2 0
  - bailed only  1 0
  - pumped only  5 1
  - pumped slowly  5 0
  - other

3. Time spent developing well **120 min.**

4. Depth of well (from top of well casing) **13.8 ft.**

5. Inside diameter of well **2.00 in.**

6. Volume of water in filter pack and well casing **10.3 gal.**

7. Volume of water removed from well **12.0 gal.**

8. Volume of water added (if any) **gal.**

9. Source of water added \_\_\_\_\_

10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

17. Additional comments on development:  
**Purged dry four times.**

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <b>2.71 ft.</b>	<b>13.41 ft.</b>
Date	b. <b>9/20/2000</b>	<b>9/20/2000</b>
Time	c. <b>12:30</b> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<b>02:30</b> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	<b>2.0 inches</b>	<b>0.0 inches</b>
13. Water clarity	Clear <input type="checkbox"/> 1 0 Turbid <input checked="" type="checkbox"/> 1 5 (Describe) <u><b>Brown, very silty</b></u>	Clear <input type="checkbox"/> 2 0 Turbid <input checked="" type="checkbox"/> 2 5 (Describe) <u><b>Light brown</b></u>

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids **mg/l** **mg/l**

15. COD **mg/l** **mg/l**

16. Well developed by: Person's Name and Firm  
**W. John Burton**  
**Key Engineering Group, Ltd.**

Facility Address or Owner/Responsible Party Address


Name: \_\_\_\_\_

Firm: **Former Key Products**

Street: **8627-8633 West Lynx Avenue**

City/State/Zip: **Milwaukee, Wisconsin**

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

Signature: 

Print Name: **W. John Burton**

Firm: **KEY ENGINEERING GROUP, LTD.**

Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>Former Key Products</b>	County <b>Milwaukee</b>	Well Name <b>MW-7</b>
Facility License, Permit or Monitoring Number <b>-</b>	County Code <b>41</b>	Wis. Unique Well Number <b>PO 174</b>
		DNR Well Number

1. Can this well be purged dry?  Yes  No

2. Well development method:

- surged with bailer and bailed  4 1
- surged with bailer and pumped  6 1
- surged with block and bailed  4 2
- surged with block and pumped  6 2
- surged with block, bailed, and pumped  7 0
- compressed air  2 0
- bailed only  1 0
- pumped only  5 1
- pumped slowly  5 0
- other

3. Time spent developing well **120 min.**

4. Depth of well (from top of well casing) **12.8 ft.**

5. Inside diameter of well **2.00 in.**

6. Volume of water in filter pack and well casing **9.2 gal.**

7. Volume of water removed from well **12.0 gal.**

8. Volume of water added (if any) **gal.**

9. Source of water added \_\_\_\_\_

10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

17. Additional comments on development:

Purged dry four times.

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <b>2.79 ft.</b>	<b>12.90 ft.</b>
Date	b. <b>9/20/2000</b>	<b>9/20/2000</b>
Time	c. <b>10:00</b> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<b>12:00</b> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	<b>2.0 inches</b>	<b>0.0 inches</b>
13. Water clarity	Clear <input type="checkbox"/> 1 0 Turbid <input checked="" type="checkbox"/> 1 5 (Describe) <u>Brown, very silty</u>	Clear <input type="checkbox"/> 2 0 Turbid <input checked="" type="checkbox"/> 2 5 (Describe) <u>Light brown</u>

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids **mg/l** **mg/l**

15. COD **mg/l** **mg/l**

16. Well developed by: Person's Name and Firm

**W. John Burton**  
**Key Engineering Group, Ltd.**

Facility Address or Owner/Responsible Party Address

Name: \_\_\_\_\_

Firm: **Former Key Products**

Street: **8627-8633 West Lynx Avenue**

City/State/Zip: **Milwaukee, Wisconsin**

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

Signature: *W. John Burton*

Print Name: **W. John Burton**

Firm: **KEY ENGINEERING GROUP, LTD.**

**ATTACHMENT 2**

# CHAIN OF CUSTODY RECORD



## Analytical Lab

1090 Kennedy Ave. • Kimberly, WI 54136  
 (920) 735-8295 • FAX 920-739-1738 • 800-490-4902  
 LAB@USOIL.COM

ev. Date: 12-17-98

Chain # **№ 21189**

Page 1 of 1

Lab I.D. # 5030722  
 Account No.: \_\_\_\_\_ Quote No.: 5021

Project #: 0712007 Sample Integrity - To be completed by receiving lab.  
 Sampler: (signature) [Signature] Method of Shipment: Courier Temp. of Temp. Blank: \_\_\_\_\_ °C On Ice: X  
 Cooler seal intact upon receipt: X Yes \_\_\_\_\_ No Labcoded By: [Signature]

Project (Name / Location): Key Products Milwaukee WI  
 Reports To: Robert Haffert Invoice To: \_\_\_\_\_  
 Company: Key Eng. Company: \_\_\_\_\_  
 Address: W66 N215 Commerce Ct Address: Some  
 City State Zip: Cedarburg WI 53010 City State Zip: \_\_\_\_\_  
 Phone: (262) 375-4750 Phone: \_\_\_\_\_

**Sample Handling Request**  
 \_\_\_\_\_ Rush Analysis  
 \_\_\_\_\_ Date Required \_\_\_\_\_  
 \_\_\_\_\_ Normal Turn Around

Analysis Requested										Other Analysis		
DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8021)	BTEX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point			PID/FID
				X					X	X	X	

Lab I.D.	Sample I.D.	Collection		No. of Containers Size and Type	Description*	Preservation	DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8021)	BTEX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point	PID/FID
		Date	Time														
5030722A	MW-43-5	8/30/00		1-5oz <sup>plastic</sup> - 1-2oz - 15oz glass	S	None / in cool					X						
B	MW-50-2	↓		↓	↓	↓											
C	MW-62-4	↓		↓	↓	↓											
D	MW-71-3	↓		↓	↓	↓											
E	MW-11-1	↓		1-2oz	↓	↓											
	MW-43-5																
	L																

**Department Use Only**  
 Split Samples: Offered? Yes \_\_\_\_\_ No \_\_\_\_\_  
 Accepted? Yes \_\_\_\_\_ No \_\_\_\_\_  
 Accepted By: \_\_\_\_\_

Comments/ Special Instructions  
 \*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", etc.  
missing sample for TOC - MW-43-5 per Curt 9/1/00 Jan L. W. [Signature] 8/31/00

**Department Use Optional for Soil Samples**  
 Disposition of unused portion of sample  
 Lab Should:  
 \_\_\_\_\_ Dispose \_\_\_\_\_ Retain for \_\_\_\_\_ days  
 \_\_\_\_\_ Return \_\_\_\_\_ Other

Relinquished By: (sign) \_\_\_\_\_ Time \_\_\_\_\_ Date \_\_\_\_\_ Received By: (sign) \_\_\_\_\_ Time \_\_\_\_\_ Date \_\_\_\_\_  
[Signature] 10:00 8-31-00 Des Huss 10:00 8-31-00  
Des Huss 2:00 8-31-00  
 Received in Laboratory By: [Signature] Time: 14:00 Date: 8/31/00

# U.S. Analytical Lab

CURT HOFFART  
 KEY ENGINEERING  
 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0712007  
 Project Name KEY PRODUCTS, MILWAUKE  
 Invoice # E30722

Report Date 12-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5030722A						Sample Type	Soil	
Sample ID	MW-4, 3-5'						Sample Date	8/30/00	

**Inorganic**

General

Solids Percent	79.3	%			1	9/1/00	5021	SAD	1
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**Organic**

VOC's

Benzene	< 25	ug/kg	9.1	30	1	9/6/00	8021A	CJR	1
Bromobenzene	< 25	ug/kg	13	42	1	9/6/00	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	7.3	24	1	9/6/00	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	10	33	1	9/6/00	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	8.5	28	1	9/6/00	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	8.3	28	1	9/6/00	8021A	CJR	4
Chlorobenzene	< 25	ug/kg	8.4	28	1	9/6/00	8021A	CJR	1
Chloroethane	< 25	ug/kg	11	35	1	9/6/00	8021A	CJR	1
Chloroform	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	1
Chloromethane	< 25	ug/kg	5	17	1	9/6/00	8021A	CJR	1
2-Chlorotoluene	< 25	ug/kg	2.4	8.4	1	9/6/00	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	8.5	1	9/6/00	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 50	ug/kg	4.1	20	1	9/6/00	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	11	37	1	9/6/00	8021A	CJR	4
Dibromochloromethane	< 25	ug/kg	9.4	31	1	9/6/00	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	8.6	29	1	9/6/00	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	8.9	30	1	9/6/00	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	8.3	25	1	9/6/00	8021A	CJR	4
1,2-Dichloroethane	< 25	ug/kg	8.6	29	1	9/6/00	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	7.4	25	1	9/6/00	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	8.3	28	1	9/6/00	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	5.7	19	1	9/6/00	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	7.5	25	1	9/6/00	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	8.9	30	1	9/6/00	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	11	35	1	9/6/00	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	7.4	25	1	9/6/00	8021A	CJR	4
EDB (1,2-Dibromoethane)	< 25	ug/kg	9.3	31	1	9/6/00	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	6.4	21	1	9/6/00	8021A	CJR	1

# U.S. Analytical Lab

CURT HOFFART  
 KEY ENGINEERING  
 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0712007  
 Project Name KEY PRODUCTS, MILWAUKE  
 Invoice # E30722

Report Date 12-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5030722A						<b>Sample Type</b> Soil			
<b>Sample ID</b> MW-4, 3-5'						<b>Sample Date</b> 8/30/00			
Isopropylbenzene	< 25	ug/kg	10	33	1	9/6/00	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	9	30	1	9/6/00	8021A	CJR	1
Methylene chloride	< 25	ug/kg	13	42	1	9/6/00	8021A	CJR	1
MTBE	< 25	ug/kg	11	38	1	9/6/00	8021A	CJR	1
Naphthalene	< 25	ug/kg	11	38	1	9/6/00	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	16	53	1	9/6/00	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	24	81	1	9/6/00	8021A	CJR	4
Tetrachloroethene	< 25	ug/kg	7.6	25	1	9/6/00	8021A	CJR	1
Toluene	< 25	ug/kg	6.7	22	1	9/6/00	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	9.3	31	1	9/6/00	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	8.4	28	1	9/6/00	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	11	36	1	9/6/00	8021A	CJR	1
Trichloroethene	< 25	ug/kg	15	51	1	9/6/00	8021A	CJR	1
Trichlorofluoromethane	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	2
1,2,4-Trimethylbenzene	< 25	ug/kg	6.9	23	1	9/6/00	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	16	54	1	9/6/00	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	8.3	25	1	9/6/00	8021A	CJR	1
m&p-Xylene	< 50	ug/kg	15	48	1	9/6/00	8021A	CJR	1
o-Xylene	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	1

<b>Lab Code</b> 5030722B						<b>Sample Type</b> Soil			
<b>Sample ID</b> MW-5, 0-2						<b>Sample Date</b> 8/30/00			

## Inorganic

### General

Solids Percent	89.0	%			1	9/1/00	5021	SAD	1
Total Organic Carbon	12900	mg/kg	273	910		9/6/00	9060	REL	1 61

## Organic

### VOC's

Benzene	< 25	ug/kg	9.1	30	1	9/6/00	8021A	CJR	1
Bromobenzene	< 25	ug/kg	13	42	1	9/6/00	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	7.3	24	1	9/6/00	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	10	33	1	9/6/00	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	8.5	28	1	9/6/00	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	8.3	28	1	9/6/00	8021A	CJR	4

# U.S. Analytical Lab

CURT HOFFART  
KEY ENGINEERING  
W66N215 COMMERCE COURT  
CEDARBURG WI 53012

Project # 0712007  
Project Name KEY PRODUCTS, MILWAUKE  
Invoice # E30722

Report Date 12-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5030722B						<b>Sample Type</b> Soil			
<b>Sample ID</b> MW-5, 0-2						<b>Sample Date</b> 8/30/00			
Chlorobenzene	< 25	ug/kg	8.4	28	1	9/6/00	8021A	CJR	1
Chloroethane	< 25	ug/kg	11	35	1	9/6/00	8021A	CJR	1
Chloroform	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	1
Chloromethane	< 25	ug/kg	5	17	1	9/6/00	8021A	CJR	1
2-Chlorotoluene	< 25	ug/kg	2.4	8.4	1	9/6/00	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	8.5	1	9/6/00	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 50	ug/kg	4.1	20	1	9/6/00	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	11	37	1	9/6/00	8021A	CJR	4
Dibromochloromethane	< 25	ug/kg	9.4	31	1	9/6/00	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	8.6	29	1	9/6/00	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	8.9	30	1	9/6/00	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	8.3	25	1	9/6/00	8021A	CJR	4
1,2-Dichloroethane	< 25	ug/kg	8.6	29	1	9/6/00	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	7.4	25	1	9/6/00	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	8.3	28	1	9/6/00	8021A	CJR	1
cis-1,2-Dichloroethene	160	ug/kg	5.7	19	1	9/6/00	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	7.5	25	1	9/6/00	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	8.9	30	1	9/6/00	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	11	35	1	9/6/00	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	7.4	25	1	9/6/00	8021A	CJR	4
EDB (1,2-Dibromoethane)	< 25	ug/kg	9.3	31	1	9/6/00	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	6.4	21	1	9/6/00	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	10	33	1	9/6/00	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	9	30	1	9/6/00	8021A	CJR	1
Methylene chloride	< 25	ug/kg	13	42	1	9/6/00	8021A	CJR	1
MTBE	< 25	ug/kg	11	38	1	9/6/00	8021A	CJR	1
Naphthalene	< 25	ug/kg	11	38	1	9/6/00	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	16	53	1	9/6/00	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	24	81	1	9/6/00	8021A	CJR	4
Tetrachloroethene	25	ug/kg	7.6	25	1	9/6/00	8021A	CJR	1
Toluene	< 25	ug/kg	6.7	22	1	9/6/00	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	9.3	31	1	9/6/00	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	8.4	28	1	9/6/00	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	11	36	1	9/6/00	8021A	CJR	1

# U.S. Analytical Lab

CURT HOFFART  
KEY ENGINEERING  
W66N215 COMMERCE COURT  
CEDARBURG WI 53012

Project # 0712007  
Project Name KEY PRODUCTS, MILWAUKEE  
Invoice # E30722

Report Date 12-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5030722B						<b>Sample Type</b> Soil			
<b>Sample ID</b> MW-5, 0-2						<b>Sample Date</b> 8/30/00			
Trichloroethene	120	ug/kg	15	51	1	9/6/00	8021A	CJR	1
Trichlorofluoromethane	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	2
1,2,4-Trimethylbenzene	< 25	ug/kg	6.9	23	1	9/6/00	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	16	54	1	9/6/00	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	8.3	25	1	9/6/00	8021A	CJR	1
m&p-Xylene	< 50	ug/kg	15	48	1	9/6/00	8021A	CJR	1
o-Xylene	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	1
<b>Lab Code</b> 5030722C						<b>Sample Type</b> Soil			
<b>Sample ID</b> MW-6, 2-4'						<b>Sample Date</b> 8/30/00			

## Inorganic

### General

Solids Percent	83.0	%				1	9/1/00	5021	SAD	1
Total Organic Carbon	13300	mg/kg	207	690			9/6/00	9060	REL	1 61

## Organic

### VOC's

Benzene	< 25	ug/kg	9.1	30	1	9/6/00	8021A	CJR	1
Bromobenzene	< 25	ug/kg	13	42	1	9/6/00	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	7.3	24	1	9/6/00	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	10	33	1	9/6/00	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	8.5	28	1	9/6/00	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	8.3	28	1	9/6/00	8021A	CJR	4
Chlorobenzene	< 25	ug/kg	8.4	28	1	9/6/00	8021A	CJR	1
Chloroethane	< 25	ug/kg	11	35	1	9/6/00	8021A	CJR	1
Chloroform	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	1
Chloromethane	< 25	ug/kg	5	17	1	9/6/00	8021A	CJR	1
2-Chlorotoluene	< 25	ug/kg	2.4	8.4	1	9/6/00	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	8.5	1	9/6/00	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 50	ug/kg	4.1	20	1	9/6/00	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	11	37	1	9/6/00	8021A	CJR	4
Dibromochloromethane	< 25	ug/kg	9.4	31	1	9/6/00	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	8.6	29	1	9/6/00	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	8.9	30	1	9/6/00	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	8.3	25	1	9/6/00	8021A	CJR	4



# U.S. Analytical Lab

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 CEDARBURG WI 53012

Project # 0712007  
 Project Name KEY PRODUCTS, MILWAUKE  
 Invoice # E30722

Report Date 12-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5030722C							<b>Sample Type</b> Soil		
<b>Sample ID</b> MW-6, 2-4'						<b>Sample Date</b> 8/30/00			
1,2-Dichloroethane	< 25	ug/kg	8.6	29	1	9/6/00	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	7.4	25	1	9/6/00	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	8.3	28	1	9/6/00	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	5.7	19	1	9/6/00	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	7.5	25	1	9/6/00	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	8.9	30	1	9/6/00	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	11	35	1	9/6/00	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	7.4	25	1	9/6/00	8021A	CJR	4
EDB (1,2-Dibromoethane)	< 25	ug/kg	9.3	31	1	9/6/00	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	6.4	21	1	9/6/00	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	10	33	1	9/6/00	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	9	30	1	9/6/00	8021A	CJR	1
Methylene chloride	< 25	ug/kg	13	42	1	9/6/00	8021A	CJR	1
MTBE	< 25	ug/kg	11	38	1	9/6/00	8021A	CJR	1
Naphthalene	< 25	ug/kg	11	38	1	9/6/00	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	16	53	1	9/6/00	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	24	81	1	9/6/00	8021A	CJR	4
Tetrachloroethene	< 25	ug/kg	7.6	25	1	9/6/00	8021A	CJR	1
Toluene	< 25	ug/kg	6.7	22	1	9/6/00	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	9.3	31	1	9/6/00	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	8.4	28	1	9/6/00	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	11	36	1	9/6/00	8021A	CJR	1
Trichloroethene	< 25	ug/kg	15	51	1	9/6/00	8021A	CJR	1
Trichlorofluoromethane	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	2
1,2,4-Trimethylbenzene	< 25	ug/kg	6.9	23	1	9/6/00	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	16	54	1	9/6/00	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	8.3	25	1	9/6/00	8021A	CJR	1
m&p-Xylene	< 50	ug/kg	15	48	1	9/6/00	8021A	CJR	1
o-Xylene	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	1

# U.S. Analytical Lab

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 CEDARBURG WI 53012

Project # 0712007  
 Project Name KEY PRODUCTS, MILWAUKEE  
 Invoice # E30722

Report Date 12-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5030722D								
Sample ID	MW-7, 1-3'								
Sample Type	Soil								
Sample Date	8/30/00								

## Inorganic

### General

Solids Percent	78.7	%			1	9/1/00	5021	SAD	1
Total Organic Carbon	4310	mg/kg	200	667		9/6/00	9060	REL	1 61

## Organic

### VOC's

Benzene	< 25	ug/kg	9.1	30	1	9/6/00	8021A	CJR	1
Bromobenzene	< 25	ug/kg	13	42	1	9/6/00	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	7.3	24	1	9/6/00	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	10	33	1	9/6/00	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	8.5	28	1	9/6/00	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	8.3	28	1	9/6/00	8021A	CJR	4
Chlorobenzene	< 25	ug/kg	8.4	28	1	9/6/00	8021A	CJR	1
Chloroethane	< 25	ug/kg	11	35	1	9/6/00	8021A	CJR	1
Chloroform	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	1
Chloromethane	< 25	ug/kg	5	17	1	9/6/00	8021A	CJR	1
2-Chlorotoluene	< 25	ug/kg	2.4	8.4	1	9/6/00	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	8.5	1	9/6/00	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 50	ug/kg	4.1	20	1	9/6/00	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	11	37	1	9/6/00	8021A	CJR	4
Dibromochloromethane	< 25	ug/kg	9.4	31	1	9/6/00	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	8.6	29	1	9/6/00	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	8.9	30	1	9/6/00	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	8.3	25	1	9/6/00	8021A	CJR	4
1,2-Dichloroethane	< 25	ug/kg	8.6	29	1	9/6/00	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	7.4	25	1	9/6/00	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	8.3	28	1	9/6/00	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	5.7	19	1	9/6/00	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	7.5	25	1	9/6/00	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	8.9	30	1	9/6/00	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	11	35	1	9/6/00	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	7.4	25	1	9/6/00	8021A	CJR	4
EDB (1,2-Dibromoethane)	< 25	ug/kg	9.3	31	1	9/6/00	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	1

# U.S. Analytical Lab

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 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0712007  
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 Invoice # E30722

Report Date 12-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5030722D						<b>Sample Type</b> Soil			
<b>Sample ID</b> MW-7, 1-3'						<b>Sample Date</b> 8/30/00			
Hexachlorobutadiene	< 25	ug/kg	6.4	21	1	9/6/00	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	10	33	1	9/6/00	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	9	30	1	9/6/00	8021A	CJR	1
Methylene chloride	< 25	ug/kg	13	42	1	9/6/00	8021A	CJR	1
MTBE	< 25	ug/kg	11	38	1	9/6/00	8021A	CJR	1
Naphthalene	< 25	ug/kg	11	38	1	9/6/00	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	16	53	1	9/6/00	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	24	81	1	9/6/00	8021A	CJR	4
Tetrachloroethene	41	ug/kg	7.6	25	1	9/6/00	8021A	CJR	1
Toluene	< 25	ug/kg	6.7	22	1	9/6/00	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	9.3	31	1	9/6/00	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	8.4	28	1	9/6/00	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	11	36	1	9/6/00	8021A	CJR	1
Trichloroethene	< 25	ug/kg	15	51	1	9/6/00	8021A	CJR	1
Trichlorofluoromethane	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	2
1,2,4-Trimethylbenzene	< 25	ug/kg	6.9	23	1	9/6/00	8021A	CJR	1
1,3,5-Trimethylbenzene	< 25	ug/kg	16	54	1	9/6/00	8021A	CJR	1
Vinyl Chloride	< 25	ug/kg	8.3	25	1	9/6/00	8021A	CJR	1
m&p-Xylene	< 50	ug/kg	15	48	1	9/6/00	8021A	CJR	1
o-Xylene	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	1

<b>Lab Code</b> 5030722E						<b>Sample Type</b> Soil			
<b>Sample ID</b> MEOH BLANK						<b>Sample Date</b> 8/30/00			

Organic

VOC's

Benzene	< 25	ug/kg	9.1	30	1	9/6/00	8021A	CJR	1
Bromobenzene	< 25	ug/kg	13	42	1	9/6/00	8021A	CJR	1
Bromodichloromethane	< 25	ug/kg	7.3	24	1	9/6/00	8021A	CJR	1
tert-Butylbenzene	< 25	ug/kg	10	33	1	9/6/00	8021A	CJR	1
sec-Butylbenzene	< 25	ug/kg	8.5	28	1	9/6/00	8021A	CJR	1
n-Butylbenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
Carbon Tetrachloride	< 25	ug/kg	8.3	28	1	9/6/00	8021A	CJR	4
Chlorobenzene	< 25	ug/kg	8.4	28	1	9/6/00	8021A	CJR	1
Chloroethane	< 25	ug/kg	11	35	1	9/6/00	8021A	CJR	1
Chloroform	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	1

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Project # 0712007  
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Invoice # E30722

Report Date 12-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5030722E							<b>Sample Type</b> Soil		
<b>Sample ID</b> MEOH BLANK						<b>Sample Date</b> 8/30/00			
Chloromethane	< 25	ug/kg	5	17	1	9/6/00	8021A	CJR	1
2-Chlorotoluene	< 25	ug/kg	2.4	8.4	1	9/6/00	8021A	CJR	1
4-Chlorotoluene	< 25	ug/kg	2.3	8.5	1	9/6/00	8021A	CJR	1
2,2-DCP, cis-1,2-Dichloroethene	< 50	ug/kg	4.1	20	1	9/6/00	8021A	CJR	1
1,2-Dibromo-3-chloropropane	< 25	ug/kg	11	37	1	9/6/00	8021A	CJR	4
Dibromochloromethane	< 25	ug/kg	9.4	31	1	9/6/00	8021A	CJR	1
1,4-Dichlorobenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
1,3-Dichlorobenzene	< 25	ug/kg	8.6	29	1	9/6/00	8021A	CJR	1
1,2-Dichlorobenzene	< 25	ug/kg	8.9	30	1	9/6/00	8021A	CJR	1
Dichlorodifluoromethane	< 25	ug/kg	8.3	25	1	9/6/00	8021A	CJR	4
1,2-Dichloroethane	< 25	ug/kg	8.6	29	1	9/6/00	8021A	CJR	1
1,1-Dichloroethane	< 25	ug/kg	7.4	25	1	9/6/00	8021A	CJR	1
1,1-Dichloroethene	< 25	ug/kg	8.3	28	1	9/6/00	8021A	CJR	1
cis-1,2-Dichloroethene	< 25	ug/kg	5.7	19	1	9/6/00	8021A	CJR	1
trans-1,2-Dichloroethene	< 25	ug/kg	7.5	25	1	9/6/00	8021A	CJR	1
1,2-Dichloropropane	< 25	ug/kg	8.9	30	1	9/6/00	8021A	CJR	1
1,3-Dichloropropane	< 25	ug/kg	11	35	1	9/6/00	8021A	CJR	1
Di-isopropyl ether	< 25	ug/kg	7.4	25	1	9/6/00	8021A	CJR	4
EDB (1,2-Dibromoethane)	< 25	ug/kg	9.3	31	1	9/6/00	8021A	CJR	1
Ethylbenzene	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	1
Hexachlorobutadiene	< 25	ug/kg	6.4	21	1	9/6/00	8021A	CJR	1
Isopropylbenzene	< 25	ug/kg	10	33	1	9/6/00	8021A	CJR	1
p-Isopropyltoluene	< 25	ug/kg	9	30	1	9/6/00	8021A	CJR	1
Methylene chloride	< 25	ug/kg	13	42	1	9/6/00	8021A	CJR	1
MTBE	< 25	ug/kg	11	38	1	9/6/00	8021A	CJR	1
Naphthalene	< 25	ug/kg	11	38	1	9/6/00	8021A	CJR	1
n-Propylbenzene	< 25	ug/kg	16	53	1	9/6/00	8021A	CJR	1
1,1,2,2-Tetrachloroethane	< 25	ug/kg	24	81	1	9/6/00	8021A	CJR	4
Tetrachloroethene	< 25	ug/kg	7.6	25	1	9/6/00	8021A	CJR	1
Toluene	< 25	ug/kg	6.7	22	1	9/6/00	8021A	CJR	1
1,2,4-Trichlorobenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
1,2,3-Trichlorobenzene	< 25	ug/kg	9.3	31	1	9/6/00	8021A	CJR	1
1,1,1-Trichloroethane	< 25	ug/kg	8.4	28	1	9/6/00	8021A	CJR	1
1,1,2-Trichloroethane	< 25	ug/kg	11	36	1	9/6/00	8021A	CJR	1
Trichloroethene	< 25	ug/kg	15	51	1	9/6/00	8021A	CJR	1
Trichlorofluoromethane	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	2
1,2,4-Trimethylbenzene	< 25	ug/kg	6.9	23	1	9/6/00	8021A	CJR	1

# U.S. Analytical Lab

CURT HOFFART  
 KEY ENGINEERING  
 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0712007  
 Project Name KEY PRODUCTS, MILWAUKE  
 Invoice # E30722

Report Date 12-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code	
Lab Code	5030722E					Sample Type	Soil			
Sample ID	MEOH BLANK					Sample Date	8/30/00			
1,3,5-Trimethylbenzene	< 25	ug/kg	16	54	1	9/6/00	8021A	CJR	1	
Vinyl Chloride	< 25	ug/kg	8.3	25	1	9/6/00	8021A	CJR	1	
m&p-Xylene	< 50	ug/kg	15	48	1	9/6/00	8021A	CJR	1	
o-Xylene	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	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.
2	The duplicate RPD failed to meet acceptable QC limits.
4	The check standard failed to meet acceptable QC limits.
61	Analysis performed by sub contract lab.

Authorized Signature



**ATTACHMENT 3**

**CHAIN CUSTODY RECORD**



**Analytical Lab**

1090 Kennedy Ave. • Kimberly, WI 54136  
 (920) 735-8295 • FAX 920-739-1738 • 800-490-4902  
 LAB@USOIL.COM

Chain # No **20411**

Page 1 of 1

Lab I.D. # 5030903

Account No.: \_\_\_\_\_ Quote No.: 5021

Project #: 0712007

Sample Integrity - To be completed by receiving lab.

Method of Shipment: Courier Temp. of Temp. Blank: 4 °C On Ice: —

Sampler: (signature) WpH Barber

Cooler seal intact upon receipt:  Yes  No

Labcoded By: \_\_\_\_\_

Project (Name / Location): \_\_\_\_\_

**Analysis Requested**

Reports To: Carl Hoffert Invoice To: \_\_\_\_\_

**Sample Handling Request**

Company Hex Eng. Company \_\_\_\_\_

Rush Analysis  
Date Required \_\_\_\_\_

Address W66 N215 Commerce Address SAME

Normal Turn Around

City State Zip Cedarburg W. 53012 City State Zip \_\_\_\_\_

Phone (262) 375-4750 Phone \_\_\_\_\_

Lab I.D.	Sample I.D.	Collection		No. of Containers Size and Type	Description*	Preservation	DRO (Mod/TPH)	GRO (Mod/TPH)	PVOC (EPA 8021)	BTX (EPA 8021)	VOC (EPA 8021)	VOC (EPA 8260)	O&G (EPA 413.1)	PAH (EPA 8310)	Pb	Flash Point	Other Analysis			PID/ FID				
		Date	Time																					
<u>5030903A</u>	<u>mw-1</u>	<u>9/20/00</u>	<u>2:30</u>	<u>2 - 40ml</u>		<u>HCl</u>																		
<u>B</u>	<u>mw-2</u>		<u>12:10</u>																					
<u>C</u>	<u>mw-3</u>		<u>12:45</u>																					
<u>d</u>	<u>mw-4</u>		<u>12:20</u>																					
<u>e</u>	<u>mw-5</u>		<u>1:15</u>																					
<u>f</u>	<u>mw-6</u>		<u>2:00</u>																					
<u>g</u>	<u>mw-7</u>		<u>12:30</u>																					
<u>h</u>	<u>DUP</u>		<u>—</u>																					
<u>i</u>	<u>Field Blank</u>		<u>1:30</u>																					
<u>j</u>	<u>Trig Blank</u>		<u>1:00</u>																					

**Department Use Only**

Split Samples: Offered?  Yes  No  
 Accepted?  Yes  No

Accepted By: \_\_\_\_\_

**Comments/ Special Instructions**

\*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", etc.

**Department Use Optional for Soil Samples**

Disposition of unused portion of sample

Lab Should:

Dispose  Retain for \_\_\_\_\_ days  
 Return  Other

Relinquished By: (sign) \_\_\_\_\_ Time \_\_\_\_\_ Date \_\_\_\_\_ Received By: (sign) \_\_\_\_\_ Time \_\_\_\_\_ Date \_\_\_\_\_

WpH Barber 9:30 9-21-00 Dev Huss 9:30 9-21-00

Dev Huss 1:30 7-21-00

Received in Laboratory By: R Blair Time: 13:35 Date: 9/21/00

# U.S. Analytical Lab

CURT HOFFART  
 KEY ENGINEERING  
 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0712007  
 Project Name NONE  
 Invoice # E30903

Report Date 28-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5030903A						Sample Type	Water	
Sample ID	MW-1						Sample Date	9/20/00	

## Organic

### VOC's

Benzene	< 39	ug/l	39	130	100	9/26/00	8021A	CAH	1
Bromobenzene	< 39	ug/l	39	130	100	9/26/00	8021A	CAH	1
Bromodichloromethane	< 38	ug/l	38	130	100	9/26/00	8021A	CAH	1
tert-Butylbenzene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
sec-Butylbenzene	< 48	ug/l	48	160	100	9/26/00	8021A	CAH	1
n-Butylbenzene	< 43	ug/l	43	140	100	9/26/00	8021A	CAH	1
Carbon Tetrachloride	< 55	ug/l	55	180	100	9/26/00	8021A	CAH	1
Chlorobenzene	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
Chloroethane	< 15	ug/l	15	48	100	9/26/00	8021A	CAH	4
Chloroform	< 38	ug/l	38	130	100	9/26/00	8021A	CAH	1
Chloromethane	< 110	ug/l	110	350	100	9/26/00	8021A	CAH	4
2-Chlorotoluene	< 47	ug/l	47	150	100	9/26/00	8021A	CAH	1
4-Chlorotoluene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
1,2-Dibromo-3-chloropropane	< 67	ug/l	67	220	100	9/26/00	8021A	CAH	1
Dibromochloromethane	< 50	ug/l	50	170	100	9/26/00	8021A	CAH	1
1,4-Dichlorobenzene	< 42	ug/l	42	140	100	9/26/00	8021A	CAH	1
1,3-Dichlorobenzene	< 45	ug/l	45	150	100	9/26/00	8021A	CAH	1
1,2-Dichlorobenzene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
Dichlorodifluoromethane	< 37	ug/l	37	120	100	9/26/00	8021A	CAH	3 4
1,2-Dichloroethane	< 35	ug/l	35	120	100	9/26/00	8021A	CAH	1
1,1-Dichloroethane	< 35	ug/l	35	120	100	9/26/00	8021A	CAH	1
1,1-Dichloroethene	< 66	ug/l	66	220	100	9/26/00	8021A	CAH	4
cis-1,2-Dichloroethene	540	ug/l	37	120	100	9/26/00	8021A	CAH	1
trans-1,2-Dichloroethene	< 43	ug/l	43	140	100	9/26/00	8021A	CAH	1
1,2-Dichloropropane	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
2,2-Dichloropropane	< 59	ug/l	59	200	100	9/26/00	8021A	CAH	4
Di-isopropyl ether	< 37	ug/l	37	120	100	9/26/00	8021A	CAH	1
EDB (1,2-Dibromoethane)	< 65	ug/l	65	220	100	9/26/00	8021A	CAH	1
Ethylbenzene	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
Hexachlorobutadiene	< 62	ug/l	62	210	100	9/26/00	8021A	CAH	1
Isopropylbenzene	< 38	ug/l	38	130	100	9/26/00	8021A	CAH	1
p-Isopropyltoluene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
Methylene chloride	< 200	ug/l	57	600	100	9/26/00	8021A	CAH	1
MTBE	< 47	ug/l	47	160	100	9/26/00	8021A	CAH	1



# U.S. Analytical Lab

CURT HOFFART  
 KEY ENGINEERING  
 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0712007  
 Project Name NONE  
 Invoice # E30903

Report Date 28-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5030903A						<b>Sample Type</b> Water			
<b>Sample ID</b> MW-1						<b>Sample Date</b> 9/20/00			
Naphthalene	< 53	ug/l	53	180	100	9/26/00	8021A	CAH	1
n-Propylbenzene	< 42	ug/l	42	140	100	9/26/00	8021A	CAH	1
1,1,2,2-Tetrachloroethane	< 68	ug/l	68	230	100	9/26/00	8021A	CAH	1
1,3-DCP, Tetrachloroethene	< 93	ug/l	93	310	100	9/26/00	8021A	CAH	1
Tetrachloroethene	18000	ug/l	34	110	100	9/26/00	8021A	CAH	1
Toluene	< 37	ug/l	37	120	100	9/26/00	8021A	CAH	1
1,2,4-Trichlorobenzene	< 60	ug/l	60	200	100	9/26/00	8021A	CAH	1
1,2,3-Trichlorobenzene	< 49	ug/l	49	160	100	9/26/00	8021A	CAH	1
1,1,1-Trichloroethane	< 54	ug/l	54	180	100	9/26/00	8021A	CAH	1
1,1,2-Trichloroethane	< 46	ug/l	46	150	100	9/26/00	8021A	CAH	1
Trichloroethene	290	ug/l	46	150	100	9/26/00	8021A	CAH	1
Trichlorofluoromethane	< 62	ug/l	62	210	100	9/26/00	8021A	CAH	1
1,2,4-Trimethylbenzene	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
1,3,5-Trimethylbenzene	< 63	ug/l	63	210	100	9/26/00	8021A	CAH	1
Vinyl Chloride	< 87	ug/l	87	290	100	9/26/00	8021A	CAH	4
m&p-Xylene	< 79	ug/l	79	260	100	9/26/00	8021A	CAH	1
o-Xylene	< 64	ug/l	64	210	100	9/26/00	8021A	CAH	1

<b>Lab Code</b> 5030903B						<b>Sample Type</b> Water			
<b>Sample ID</b> MW-2						<b>Sample Date</b> 9/20/00			

Organic

VOC's

Benzene	< 39	ug/l	39	130	100	9/26/00	8021A	CAH	1
Bromobenzene	< 39	ug/l	39	130	100	9/26/00	8021A	CAH	1
Bromodichloromethane	< 38	ug/l	38	130	100	9/26/00	8021A	CAH	1
tert-Butylbenzene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
sec-Butylbenzene	< 48	ug/l	48	160	100	9/26/00	8021A	CAH	1
n-Butylbenzene	< 43	ug/l	43	140	100	9/26/00	8021A	CAH	1
Carbon Tetrachloride	< 55	ug/l	55	180	100	9/26/00	8021A	CAH	1
Chlorobenzene	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
Chloroethane	< 15	ug/l	15	48	100	9/26/00	8021A	CAH	4
Chloroform	< 38	ug/l	38	130	100	9/26/00	8021A	CAH	1
Chloromethane	< 110	ug/l	110	350	100	9/26/00	8021A	CAH	4
2-Chlorotoluene	< 47	ug/l	47	150	100	9/26/00	8021A	CAH	1
4-Chlorotoluene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
1,2-Dibromo-3-chloropropane	< 67	ug/l	67	220	100	9/26/00	8021A	CAH	1

# U.S. Analytical Lab

CURT HOFFART  
 KEY ENGINEERING  
 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0712007  
 Project Name NONE  
 Invoice # E30903

Report Date 28-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5030903B						<b>Sample Type</b> Water			
<b>Sample ID</b> MW-2						<b>Sample Date</b> 9/20/00			
Dibromochloromethane	< 50	ug/l	50	170	100	9/26/00	8021A	CAH	1
1,4-Dichlorobenzene	< 42	ug/l	42	140	100	9/26/00	8021A	CAH	1
1,3-Dichlorobenzene	< 45	ug/l	45	150	100	9/26/00	8021A	CAH	1
1,2-Dichlorobenzene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
Dichlorodifluoromethane	< 37	ug/l	37	120	100	9/26/00	8021A	CAH	3 4
1,2-Dichloroethane	< 35	ug/l	35	120	100	9/26/00	8021A	CAH	1
1,1-Dichloroethane	< 35	ug/l	35	120	100	9/26/00	8021A	CAH	1
1,1-Dichloroethene	< 66	ug/l	66	220	100	9/26/00	8021A	CAH	4
cis-1,2-Dichloroethene	1200	ug/l	37	120	100	9/26/00	8021A	CAH	1
trans-1,2-Dichloroethene	< 43	ug/l	43	140	100	9/26/00	8021A	CAH	1
1,2-Dichloropropane	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
2,2-Dichloropropane	< 59	ug/l	59	200	100	9/26/00	8021A	CAH	4
Di-isopropyl ether	< 37	ug/l	37	120	100	9/26/00	8021A	CAH	1
EDB (1,2-Dibromoethane)	< 65	ug/l	65	220	100	9/26/00	8021A	CAH	1
Ethylbenzene	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
Hexachlorobutadiene	< 62	ug/l	62	210	100	9/26/00	8021A	CAH	1
Isopropylbenzene	< 38	ug/l	38	130	100	9/26/00	8021A	CAH	1
p-Isopropyltoluene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
Methylene chloride	< 200	ug/l	57	600	100	9/26/00	8021A	CAH	1
MTBE	< 47	ug/l	47	160	100	9/26/00	8021A	CAH	1
Naphthalene	< 53	ug/l	53	180	100	9/26/00	8021A	CAH	1
n-Propylbenzene	< 42	ug/l	42	140	100	9/26/00	8021A	CAH	1
1,1,2,2-Tetrachloroethane	< 68	ug/l	68	230	100	9/26/00	8021A	CAH	1
1,3-DCP, Tetrachloroethene	< 93	ug/l	93	310	100	9/26/00	8021A	CAH	1
Tetrachloroethene	22000	ug/l	34	110	100	9/26/00	8021A	CAH	1
Toluene	< 37	ug/l	37	120	100	9/26/00	8021A	CAH	1
1,2,4-Trichlorobenzene	< 60	ug/l	60	200	100	9/26/00	8021A	CAH	1
1,2,3-Trichlorobenzene	< 49	ug/l	49	160	100	9/26/00	8021A	CAH	1
1,1,1-Trichloroethane	< 54	ug/l	54	180	100	9/26/00	8021A	CAH	1
1,1,2-Trichloroethane	< 46	ug/l	46	150	100	9/26/00	8021A	CAH	1
Trichloroethene	780	ug/l	46	150	100	9/26/00	8021A	CAH	1
Trichlorofluoromethane	< 62	ug/l	62	210	100	9/26/00	8021A	CAH	1
1,2,4-Trimethylbenzene	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
1,3,5-Trimethylbenzene	< 63	ug/l	63	210	100	9/26/00	8021A	CAH	1
Vinyl Chloride	< 87	ug/l	87	290	100	9/26/00	8021A	CAH	4
m&p-Xylene	< 79	ug/l	79	260	100	9/26/00	8021A	CAH	1
o-Xylene	< 64	ug/l	64	210	100	9/26/00	8021A	CAH	1

# U.S. Analytical Lab

CURT HOFFART  
 KEY ENGINEERING  
 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0712007  
 Project Name NONE  
 Invoice # E30903

Report Date 28-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5030903C						Sample Type	Water	
Sample ID	MW-3						Sample Date	9/20/00	

Organic

VOC's

Benzene	< 0.39	ug/l	0.39	1.3	1	9/26/00	8021A	CAH	1
Bromobenzene	< 0.39	ug/l	0.39	1.3	1	9/26/00	8021A	CAH	1
Bromodichloromethane	< 0.38	ug/l	0.38	1.3	1	9/26/00	8021A	CAH	1
tert-Butylbenzene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
sec-Butylbenzene	< 0.48	ug/l	0.48	1.6	1	9/26/00	8021A	CAH	1
n-Butylbenzene	< 0.43	ug/l	0.43	1.4	1	9/26/00	8021A	CAH	1
Carbon Tetrachloride	< 0.55	ug/l	0.55	1.8	1	9/26/00	8021A	CAH	1
Chlorobenzene	< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
Chloroethane	< 0.15	ug/l	0.15	0.48	1	9/26/00	8021A	CAH	4
Chloroform	< 0.38	ug/l	0.38	1.3	1	9/26/00	8021A	CAH	1
Chloromethane	36	ug/l	1.1	3.5	1	9/26/00	8021A	CAH	4
2-Chlorotoluene	< 0.47	ug/l	0.47	1.5	1	9/26/00	8021A	CAH	1
4-Chlorotoluene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
1,2-Dibromo-3-chloropropane	< 0.67	ug/l	0.67	2.2	1	9/26/00	8021A	CAH	1
Dibromochloromethane	< 0.5	ug/l	0.5	1.7	1	9/26/00	8021A	CAH	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.4	1	9/26/00	8021A	CAH	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.5	1	9/26/00	8021A	CAH	1
1,2-Dichlorobenzene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
Dichlorodifluoromethane	< 0.37	ug/l	0.37	1.2	1	9/26/00	8021A	CAH	3 4
1,2-Dichloroethane	< 0.35	ug/l	0.35	1.2	1	9/26/00	8021A	CAH	1
1,1-Dichloroethane	< 0.35	ug/l	0.35	1.2	1	9/26/00	8021A	CAH	1
1,1-Dichloroethene	< 0.66	ug/l	0.66	2.2	1	9/26/00	8021A	CAH	4
cis-1,2-Dichloroethene	4.7	ug/l	0.37	1.2	1	9/26/00	8021A	CAH	1
trans-1,2-Dichloroethene	< 0.43	ug/l	0.43	1.4	1	9/26/00	8021A	CAH	1
1,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
2,2-Dichloropropane	< 0.59	ug/l	0.59	2	1	9/26/00	8021A	CAH	4
Di-isopropyl ether	< 0.37	ug/l	0.37	1.2	1	9/26/00	8021A	CAH	1
EDB (1,2-Dibromoethane)	< 0.65	ug/l	0.65	2.2	1	9/26/00	8021A	CAH	1
Ethylbenzene	< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
Hexachlorobutadiene	< 0.62	ug/l	0.62	2.1	1	9/26/00	8021A	CAH	1
Isopropylbenzene	< 0.38	ug/l	0.38	1.3	1	9/26/00	8021A	CAH	1
p-Isopropyltoluene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
Methylene chloride	< 2	ug/l	0.57	6	1	9/26/00	8021A	CAH	1
MTBE	< 0.47	ug/l	0.47	1.6	1	9/26/00	8021A	CAH	1

# U.S. Analytical Lab

CURT HOFFART  
KEY ENGINEERING  
W66N215 COMMERCE COURT  
CEDARBURG WI 53012

Project # 0712007  
Project Name NONE  
Invoice # E30903

Report Date 28-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5030903C						<b>Sample Type</b> Water			
<b>Sample ID</b> MW-3						<b>Sample Date</b> 9/20/00			
Naphthalene	< 0.53	ug/l	0.53	1.8	1	9/26/00	8021A	CAH	1
n-Propylbenzene	< 0.42	ug/l	0.42	1.4	1	9/26/00	8021A	CAH	1
1,1,2,2-Tetrachloroethane	< 0.68	ug/l	0.68	2.3	1	9/26/00	8021A	CAH	1
1,3-DCP, Tetrachloroethene	< 0.93	ug/l	0.93	3.1	1	9/26/00	8021A	CAH	1
Tetrachloroethene	32	ug/l	0.34	1.1	1	9/26/00	8021A	CAH	1
Toluene	< 0.37	ug/l	0.37	1.2	1	9/26/00	8021A	CAH	1
1,2,4-Trichlorobenzene	< 0.6	ug/l	0.6	2	1	9/26/00	8021A	CAH	1
1,2,3-Trichlorobenzene	< 0.49	ug/l	0.49	1.6	1	9/26/00	8021A	CAH	1
1,1,1-Trichloroethane	< 0.54	ug/l	0.54	1.8	1	9/26/00	8021A	CAH	1
1,1,2-Trichloroethane	< 0.46	ug/l	0.46	1.5	1	9/26/00	8021A	CAH	1
Trichloroethene	11	ug/l	0.46	1.5	1	9/26/00	8021A	CAH	1
Trichlorofluoromethane	< 0.62	ug/l	0.62	2.1	1	9/26/00	8021A	CAH	1
1,2,4-Trimethylbenzene	< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
1,3,5-Trimethylbenzene	< 0.63	ug/l	0.63	2.1	1	9/26/00	8021A	CAH	1
Vinyl Chloride	< 0.87	ug/l	0.87	2.9	1	9/26/00	8021A	CAH	4
m&p-Xylene	< 0.79	ug/l	0.79	2.6	1	9/26/00	8021A	CAH	1
o-Xylene	< 0.64	ug/l	0.64	2.1	1	9/26/00	8021A	CAH	1

<b>Lab Code</b> 5030903D						<b>Sample Type</b> Water			
<b>Sample ID</b> MW-4						<b>Sample Date</b> 9/20/00			

Organic  
VOC's

Benzene	< 39	ug/l	39	130	100	9/26/00	8021A	CAH	1
Bromobenzene	< 39	ug/l	39	130	100	9/26/00	8021A	CAH	1
Bromodichloromethane	< 38	ug/l	38	130	100	9/26/00	8021A	CAH	1
tert-Butylbenzene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
sec-Butylbenzene	< 48	ug/l	48	160	100	9/26/00	8021A	CAH	1
n-Butylbenzene	< 43	ug/l	43	140	100	9/26/00	8021A	CAH	1
Carbon Tetrachloride	< 55	ug/l	55	180	100	9/26/00	8021A	CAH	1
Chlorobenzene	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
Chloroethane	< 15	ug/l	15	48	100	9/26/00	8021A	CAH	4
Chloroform	< 38	ug/l	38	130	100	9/26/00	8021A	CAH	1
Chloromethane	< 110	ug/l	110	350	100	9/26/00	8021A	CAH	4
2-Chlorotoluene	< 47	ug/l	47	150	100	9/26/00	8021A	CAH	1
4-Chlorotoluene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
1,2-Dibromo-3-chloropropane	< 67	ug/l	67	220	100	9/26/00	8021A	CAH	1

# U.S. Analytical Lab

CURT HOFFART  
 KEY ENGINEERING  
 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0712007  
 Project Name NONE  
 Invoice # E30903

Report Date 28-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5030903D						<b>Sample Type</b> Water			
<b>Sample ID</b> MW-4						<b>Sample Date</b> 9/20/00			
Dibromochloromethane	< 50	ug/l	50	170	100	9/26/00	8021A	CAH	1
1,4-Dichlorobenzene	< 42	ug/l	42	140	100	9/26/00	8021A	CAH	1
1,3-Dichlorobenzene	< 45	ug/l	45	150	100	9/26/00	8021A	CAH	1
1,2-Dichlorobenzene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
Dichlorodifluoromethane	< 37	ug/l	37	120	100	9/26/00	8021A	CAH	3 4
1,2-Dichloroethane	< 35	ug/l	35	120	100	9/26/00	8021A	CAH	1
1,1-Dichloroethane	< 35	ug/l	35	120	100	9/26/00	8021A	CAH	1
1,1-Dichloroethene	< 66	ug/l	66	220	100	9/26/00	8021A	CAH	4
cis-1,2-Dichloroethene	430	ug/l	37	120	100	9/26/00	8021A	CAH	1
trans-1,2-Dichloroethene	< 43	ug/l	43	140	100	9/26/00	8021A	CAH	1
1,2-Dichloropropane	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
2,2-Dichloropropane	< 59	ug/l	59	200	100	9/26/00	8021A	CAH	4
Di-isopropyl ether	< 37	ug/l	37	120	100	9/26/00	8021A	CAH	1
EDB (1,2-Dibromoethane)	< 65	ug/l	65	220	100	9/26/00	8021A	CAH	1
Ethylbenzene	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
Hexachlorobutadiene	< 62	ug/l	62	210	100	9/26/00	8021A	CAH	1
Isopropylbenzene	< 38	ug/l	38	130	100	9/26/00	8021A	CAH	1
p-Isopropyltoluene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
Methylene chloride	< 200	ug/l	57	600	100	9/26/00	8021A	CAH	1
MTBE	< 47	ug/l	47	160	100	9/26/00	8021A	CAH	1
Naphthalene	< 53	ug/l	53	180	100	9/26/00	8021A	CAH	1
n-Propylbenzene	< 42	ug/l	42	140	100	9/26/00	8021A	CAH	1
1,1,2,2-Tetrachloroethane	< 68	ug/l	68	230	100	9/26/00	8021A	CAH	1
1,3-DCP, Tetrachloroethene	< 93	ug/l	93	310	100	9/26/00	8021A	CAH	1
Tetrachloroethene	73000	ug/l	34	110	100	9/26/00	8021A	CAH	13 58
Toluene	< 37	ug/l	37	120	100	9/26/00	8021A	CAH	1
1,2,4-Trichlorobenzene	< 60	ug/l	60	200	100	9/26/00	8021A	CAH	1
1,2,3-Trichlorobenzene	< 49	ug/l	49	160	100	9/26/00	8021A	CAH	1
1,1,1-Trichloroethane	< 54	ug/l	54	180	100	9/26/00	8021A	CAH	1
1,1,2-Trichloroethane	< 46	ug/l	46	150	100	9/26/00	8021A	CAH	1
Trichloroethene	520	ug/l	46	150	100	9/26/00	8021A	CAH	1
Trichlorofluoromethane	< 62	ug/l	62	210	100	9/26/00	8021A	CAH	1
1,2,4-Trimethylbenzene	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
1,3,5-Trimethylbenzene	< 63	ug/l	63	210	100	9/26/00	8021A	CAH	1
Vinyl Chloride	< 87	ug/l	87	290	100	9/26/00	8021A	CAH	4
m&p-Xylene	< 79	ug/l	79	260	100	9/26/00	8021A	CAH	1
o-Xylene	< 64	ug/l	64	210	100	9/26/00	8021A	CAH	1

# U.S. Analytical Lab

CURT HOFFART  
 KEY ENGINEERING  
 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0712007  
 Project Name NONE  
 Invoice # E30903

Report Date 28-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5030903E						Sample Type	Water	
Sample ID	MW-5						Sample Date	9/20/00	

Organic

VOC's

Benzene	< 39	ug/l	39	130	100	9/27/00	8021A	CAH	1
Bromobenzene	< 39	ug/l	39	130	100	9/27/00	8021A	CAH	1
Bromodichloromethane	< 38	ug/l	38	130	100	9/27/00	8021A	CAH	1
tert-Butylbenzene	< 44	ug/l	44	150	100	9/27/00	8021A	CAH	1
sec-Butylbenzene	< 48	ug/l	48	160	100	9/27/00	8021A	CAH	1
n-Butylbenzene	< 43	ug/l	43	140	100	9/27/00	8021A	CAH	1
Carbon Tetrachloride	< 55	ug/l	55	180	100	9/27/00	8021A	CAH	1
Chlorobenzene	< 40	ug/l	40	130	100	9/27/00	8021A	CAH	1
Chloroethane	< 15	ug/l	15	48	100	9/27/00	8021A	CAH	4
Chloroform	< 38	ug/l	38	130	100	9/27/00	8021A	CAH	1
Chloromethane	< 110	ug/l	110	350	100	9/27/00	8021A	CAH	4
2-Chlorotoluene	< 47	ug/l	47	150	100	9/27/00	8021A	CAH	1
4-Chlorotoluene	< 44	ug/l	44	150	100	9/27/00	8021A	CAH	1
1,2-Dibromo-3-chloropropane	< 67	ug/l	67	220	100	9/27/00	8021A	CAH	1
Dibromochloromethane	< 50	ug/l	50	170	100	9/27/00	8021A	CAH	1
1,4-Dichlorobenzene	< 42	ug/l	42	140	100	9/27/00	8021A	CAH	1
1,3-Dichlorobenzene	< 45	ug/l	45	150	100	9/27/00	8021A	CAH	1
1,2-Dichlorobenzene	< 44	ug/l	44	150	100	9/27/00	8021A	CAH	1
Dichlorodifluoromethane	< 37	ug/l	37	120	100	9/27/00	8021A	CAH	3 4
1,2-Dichloroethane	< 35	ug/l	35	120	100	9/27/00	8021A	CAH	1
1,1-Dichloroethane	< 35	ug/l	35	120	100	9/27/00	8021A	CAH	1
1,1-Dichloroethene	< 66	ug/l	66	220	100	9/27/00	8021A	CAH	4
cis-1,2-Dichloroethene	1100	ug/l	37	120	100	9/27/00	8021A	CAH	1
trans-1,2-Dichloroethene	< 43	ug/l	43	140	100	9/27/00	8021A	CAH	1
1,2-Dichloropropane	< 40	ug/l	40	130	100	9/27/00	8021A	CAH	1
2,2-Dichloropropane	< 59	ug/l	59	200	100	9/27/00	8021A	CAH	4
Di-isopropyl ether	< 37	ug/l	37	120	100	9/27/00	8021A	CAH	1
EDB (1,2-Dibromoethane)	< 65	ug/l	65	220	100	9/27/00	8021A	CAH	1
Ethylbenzene	< 40	ug/l	40	130	100	9/27/00	8021A	CAH	1
Hexachlorobutadiene	< 62	ug/l	62	210	100	9/27/00	8021A	CAH	1
Isopropylbenzene	< 38	ug/l	38	130	100	9/27/00	8021A	CAH	1
p-Isopropyltoluene	< 44	ug/l	44	150	100	9/27/00	8021A	CAH	1
Methylene chloride	< 200	ug/l	57	600	100	9/27/00	8021A	CAH	1
MTBE	< 47	ug/l	47	160	100	9/27/00	8021A	CAH	1

# U.S. Analytical Lab

CURT HOFFART  
 KEY ENGINEERING  
 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0712007  
 Project Name NONE  
 Invoice # E30903

Report Date 28-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code 5030903E</b>						<b>Sample Type</b>	Water		
<b>Sample ID MW-5</b>						<b>Sample Date</b>	9/20/00		
Naphthalene	< 53	ug/l	53	180	100	9/27/00	8021A	CAH	1
n-Propylbenzene	< 42	ug/l	42	140	100	9/27/00	8021A	CAH	1
1,1,2,2-Tetrachloroethane	< 68	ug/l	68	230	100	9/27/00	8021A	CAH	1
1,3-DCP, Tetrachloroethene	< 93	ug/l	93	310	100	9/27/00	8021A	CAH	1
Tetrachloroethene	24000	ug/l	34	110	100	9/27/00	8021A	CAH	1
Toluene	< 37	ug/l	37	120	100	9/27/00	8021A	CAH	1
1,2,4-Trichlorobenzene	< 60	ug/l	60	200	100	9/27/00	8021A	CAH	1
1,2,3-Trichlorobenzene	< 49	ug/l	49	160	100	9/27/00	8021A	CAH	1
1,1,1-Trichloroethane	< 54	ug/l	54	180	100	9/27/00	8021A	CAH	1
1,1,2-Trichloroethane	< 46	ug/l	46	150	100	9/27/00	8021A	CAH	1
Trichloroethene	760	ug/l	46	150	100	9/27/00	8021A	CAH	1
Trichlorofluoromethane	< 62	ug/l	62	210	100	9/27/00	8021A	CAH	1
1,2,4-Trimethylbenzene	< 40	ug/l	40	130	100	9/27/00	8021A	CAH	1
1,3,5-Trimethylbenzene	< 63	ug/l	63	210	100	9/27/00	8021A	CAH	1
Vinyl Chloride	< 87	ug/l	87	290	100	9/27/00	8021A	CAH	4
m&p-Xylene	< 79	ug/l	79	260	100	9/27/00	8021A	CAH	1
o-Xylene	< 64	ug/l	64	210	100	9/27/00	8021A	CAH	1

<b>Lab Code 5030903F</b>						<b>Sample Type</b>	Water		
<b>Sample ID MW-6</b>						<b>Sample Date</b>	9/20/00		

Organic

VOC's

Benzene	< 39	ug/l	39	130	100	9/27/00	8021A	CAH	1
Bromobenzene	< 39	ug/l	39	130	100	9/27/00	8021A	CAH	1
Bromodichloromethane	< 38	ug/l	38	130	100	9/27/00	8021A	CAH	1
tert-Butylbenzene	< 44	ug/l	44	150	100	9/27/00	8021A	CAH	1
sec-Butylbenzene	< 48	ug/l	48	160	100	9/27/00	8021A	CAH	1
n-Butylbenzene	< 43	ug/l	43	140	100	9/27/00	8021A	CAH	1
Carbon Tetrachloride	< 55	ug/l	55	180	100	9/27/00	8021A	CAH	1
Chlorobenzene	< 40	ug/l	40	130	100	9/27/00	8021A	CAH	1
Chloroethane	< 15	ug/l	15	48	100	9/27/00	8021A	CAH	4
Chloroform	< 38	ug/l	38	130	100	9/27/00	8021A	CAH	1
Chloromethane	< 110	ug/l	110	350	100	9/27/00	8021A	CAH	4
2-Chlorotoluene	< 47	ug/l	47	150	100	9/27/00	8021A	CAH	1
4-Chlorotoluene	< 44	ug/l	44	150	100	9/27/00	8021A	CAH	1
1,2-Dibromo-3-chloropropane	< 67	ug/l	67	220	100	9/27/00	8021A	CAH	1

# U.S. Analytical Lab

CURT HOFFART  
 KEY ENGINEERING  
 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0712007  
 Project Name NONE  
 Invoice # E30903

Report Date 28-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5030903F						<b>Sample Type</b> Water			
<b>Sample ID</b> MW-6						<b>Sample Date</b> 9/20/00			
Dibromochloromethane	< 50	ug/l	50	170	100	9/27/00	8021A	CAH	1
1,4-Dichlorobenzene	< 42	ug/l	42	140	100	9/27/00	8021A	CAH	1
1,3-Dichlorobenzene	< 45	ug/l	45	150	100	9/27/00	8021A	CAH	1
1,2-Dichlorobenzene	< 44	ug/l	44	150	100	9/27/00	8021A	CAH	1
Dichlorodifluoromethane	< 37	ug/l	37	120	100	9/27/00	8021A	CAH	3 4
1,2-Dichloroethane	< 35	ug/l	35	120	100	9/27/00	8021A	CAH	1
1,1-Dichloroethane	< 35	ug/l	35	120	100	9/27/00	8021A	CAH	1
1,1-Dichloroethene	< 66	ug/l	66	220	100	9/27/00	8021A	CAH	4
cis-1,2-Dichloroethene	900	ug/l	37	120	100	9/27/00	8021A	CAH	1
trans-1,2-Dichloroethene	< 43	ug/l	43	140	100	9/27/00	8021A	CAH	1
1,2-Dichloropropane	< 40	ug/l	40	130	100	9/27/00	8021A	CAH	1
2,2-Dichloropropane	< 59	ug/l	59	200	100	9/27/00	8021A	CAH	4
Di-isopropyl ether	< 37	ug/l	37	120	100	9/27/00	8021A	CAH	1
EDB (1,2-Dibromoethane)	< 65	ug/l	65	220	100	9/27/00	8021A	CAH	1
Ethylbenzene	< 40	ug/l	40	130	100	9/27/00	8021A	CAH	1
Hexachlorobutadiene	< 62	ug/l	62	210	100	9/27/00	8021A	CAH	1
Isopropylbenzene	< 38	ug/l	38	130	100	9/27/00	8021A	CAH	1
p-Isopropyltoluene	< 44	ug/l	44	150	100	9/27/00	8021A	CAH	1
Methylene chloride	< 200	ug/l	57	600	100	9/27/00	8021A	CAH	1
MTBE	< 47	ug/l	47	160	100	9/27/00	8021A	CAH	1
Naphthalene	< 53	ug/l	53	180	100	9/27/00	8021A	CAH	1
n-Propylbenzene	< 42	ug/l	42	140	100	9/27/00	8021A	CAH	1
1,1,2,2-Tetrachloroethane	< 68	ug/l	68	230	100	9/27/00	8021A	CAH	1
1,3-DCP, Tetrachloroethene	< 93	ug/l	93	310	100	9/27/00	8021A	CAH	1
Tetrachloroethene	18000	ug/l	34	110	100	9/27/00	8021A	CAH	1
Toluene	< 37	ug/l	37	120	100	9/27/00	8021A	CAH	1
1,2,4-Trichlorobenzene	< 60	ug/l	60	200	100	9/27/00	8021A	CAH	1
1,2,3-Trichlorobenzene	< 49	ug/l	49	160	100	9/27/00	8021A	CAH	1
1,1,1-Trichloroethane	< 54	ug/l	54	180	100	9/27/00	8021A	CAH	1
1,1,2-Trichloroethane	< 46	ug/l	46	150	100	9/27/00	8021A	CAH	1
Trichloroethene	410	ug/l	46	150	100	9/27/00	8021A	CAH	1
Trichlorofluoromethane	< 62	ug/l	62	210	100	9/27/00	8021A	CAH	1
1,2,4-Trimethylbenzene	< 40	ug/l	40	130	100	9/27/00	8021A	CAH	1
1,3,5-Trimethylbenzene	< 63	ug/l	63	210	100	9/27/00	8021A	CAH	1
Vinyl Chloride	< 87	ug/l	87	290	100	9/27/00	8021A	CAH	4
m&p-Xylene	< 79	ug/l	79	260	100	9/27/00	8021A	CAH	1
o-Xylene	< 64	ug/l	64	210	100	9/27/00	8021A	CAH	1



# U.S. Analytical Lab

CURT HOFFART  
 KEY ENGINEERING  
 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0712007  
 Project Name NONE  
 Invoice # E30903

Report Date 28-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5030903G					Sample Type	Water		
Sample ID	MW-7					Sample Date	9/20/00		

Organic

VOC's

Benzene	< 0.39	ug/l	0.39	1.3	1	9/26/00	8021A	CAH	1
Bromobenzene	< 0.39	ug/l	0.39	1.3	1	9/26/00	8021A	CAH	1
Bromodichloromethane	< 0.38	ug/l	0.38	1.3	1	9/26/00	8021A	CAH	1
tert-Butylbenzene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
sec-Butylbenzene	< 0.48	ug/l	0.48	1.6	1	9/26/00	8021A	CAH	1
n-Butylbenzene	< 0.43	ug/l	0.43	1.4	1	9/26/00	8021A	CAH	1
Carbon Tetrachloride	< 0.55	ug/l	0.55	1.8	1	9/26/00	8021A	CAH	1
Chlorobenzene	< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
Chloroethane	0.58	ug/l	0.15	0.48	1	9/26/00	8021A	CAH	4
Chloroform	< 0.38	ug/l	0.38	1.3	1	9/26/00	8021A	CAH	1
Chloromethane	33	ug/l	1.1	3.5	1	9/26/00	8021A	CAH	4
2-Chlorotoluene	< 0.47	ug/l	0.47	1.5	1	9/26/00	8021A	CAH	1
4-Chlorotoluene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
1,2-Dibromo-3-chloropropane	< 0.67	ug/l	0.67	2.2	1	9/26/00	8021A	CAH	1
Dibromochloromethane	< 0.5	ug/l	0.5	1.7	1	9/26/00	8021A	CAH	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.4	1	9/26/00	8021A	CAH	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.5	1	9/26/00	8021A	CAH	1
1,2-Dichlorobenzene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
Dichlorodifluoromethane	< 0.37	ug/l	0.37	1.2	1	9/26/00	8021A	CAH	3 4
1,2-Dichloroethane	< 0.35	ug/l	0.35	1.2	1	9/26/00	8021A	CAH	1
1,1-Dichloroethane	< 0.35	ug/l	0.35	1.2	1	9/26/00	8021A	CAH	1
1,1-Dichloroethene	< 0.66	ug/l	0.66	2.2	1	9/26/00	8021A	CAH	4
cis-1,2-Dichloroethene	340	ug/l	0.37	1.2	1	9/26/00	8021A	CAH	1
trans-1,2-Dichloroethene	11	ug/l	0.43	1.4	1	9/26/00	8021A	CAH	1
1,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
2,2-Dichloropropane	< 0.59	ug/l	0.59	2	1	9/26/00	8021A	CAH	4
Di-isopropyl ether	< 0.37	ug/l	0.37	1.2	1	9/26/00	8021A	CAH	1
EDB (1,2-Dibromoethane)	< 0.65	ug/l	0.65	2.2	1	9/26/00	8021A	CAH	1
Ethylbenzene	< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
Hexachlorobutadiene	< 0.62	ug/l	0.62	2.1	1	9/26/00	8021A	CAH	1
Isopropylbenzene	< 0.38	ug/l	0.38	1.3	1	9/26/00	8021A	CAH	1
p-Isopropyltoluene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
Methylene chloride	< 2	ug/l	0.57	6	1	9/26/00	8021A	CAH	1
MTBE	< 0.47	ug/l	0.47	1.6	1	9/26/00	8021A	CAH	1

# U.S. Analytical Lab

CURT HOFFART  
 KEY ENGINEERING  
 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0712007  
 Project Name NONE  
 Invoice # E30903

Report Date 28-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5030903G						<b>Sample Type</b> Water			
<b>Sample ID</b> MW-7						<b>Sample Date</b> 9/20/00			
Naphthalene	< 0.53	ug/l	0.53	1.8	1	9/26/00	8021A	CAH	1
n-Propylbenzene	< 0.42	ug/l	0.42	1.4	1	9/26/00	8021A	CAH	1
1,1,2,2-Tetrachloroethane	< 0.68	ug/l	0.68	2.3	1	9/26/00	8021A	CAH	1
1,3-DCP, Tetrachloroethene	< 0.93	ug/l	0.93	3.1	1	9/26/00	8021A	CAH	1
Tetrachloroethene	29	ug/l	0.34	1.1	1	9/26/00	8021A	CAH	1
Toluene	< 0.37	ug/l	0.37	1.2	1	9/26/00	8021A	CAH	1
1,2,4-Trichlorobenzene	< 0.6	ug/l	0.6	2	1	9/26/00	8021A	CAH	1
1,2,3-Trichlorobenzene	< 0.49	ug/l	0.49	1.6	1	9/26/00	8021A	CAH	1
1,1,1-Trichloroethane	< 0.54	ug/l	0.54	1.8	1	9/26/00	8021A	CAH	1
1,1,2-Trichloroethane	< 0.46	ug/l	0.46	1.5	1	9/26/00	8021A	CAH	1
Trichloroethene	29	ug/l	0.46	1.5	1	9/26/00	8021A	CAH	1
Trichlorofluoromethane	< 0.62	ug/l	0.62	2.1	1	9/26/00	8021A	CAH	1
1,2,4-Trimethylbenzene	< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
1,3,5-Trimethylbenzene	< 0.63	ug/l	0.63	2.1	1	9/26/00	8021A	CAH	1
Vinyl Chloride	18	ug/l	0.87	2.9	1	9/26/00	8021A	CAH	4
m&p-Xylene	< 0.79	ug/l	0.79	2.6	1	9/26/00	8021A	CAH	1
o-Xylene	< 0.64	ug/l	0.64	2.1	1	9/26/00	8021A	CAH	1

<b>Lab Code</b> 5030903H						<b>Sample Type</b> Water			
<b>Sample ID</b> DUP						<b>Sample Date</b> 9/20/00			

Organic

VOC's

Benzene	< 0.39	ug/l	0.39	1.3	1	9/26/00	8021A	CAH	1
Bromobenzene	< 0.39	ug/l	0.39	1.3	1	9/26/00	8021A	CAH	1
Bromodichloromethane	< 0.38	ug/l	0.38	1.3	1	9/26/00	8021A	CAH	1
tert-Butylbenzene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
sec-Butylbenzene	< 0.48	ug/l	0.48	1.6	1	9/26/00	8021A	CAH	1
n-Butylbenzene	< 0.43	ug/l	0.43	1.4	1	9/26/00	8021A	CAH	1
Carbon Tetrachloride	< 0.55	ug/l	0.55	1.8	1	9/26/00	8021A	CAH	1
Chlorobenzene	< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
Chloroethane	0.58	ug/l	0.15	0.48	1	9/26/00	8021A	CAH	4
Chloroform	< 0.38	ug/l	0.38	1.3	1	9/26/00	8021A	CAH	1
Chloromethane	34	ug/l	1.1	3.5	1	9/26/00	8021A	CAH	4
2-Chlorotoluene	< 0.47	ug/l	0.47	1.5	1	9/26/00	8021A	CAH	1
4-Chlorotoluene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
1,2-Dibromo-3-chloropropane	< 0.67	ug/l	0.67	2.2	1	9/26/00	8021A	CAH	1

# U.S. Analytical Lab

CURT HOFFART  
 KEY ENGINEERING  
 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0712007  
 Project Name NONE  
 Invoice # E30903

Report Date 28-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code</b> 5030903H							<b>Sample Type</b> Water		
<b>Sample ID</b> DUP						<b>Sample Date</b> 9/20/00			
Dibromochloromethane	< 0.5	ug/l	0.5	1.7	1	9/26/00	8021A	CAH	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.4	1	9/26/00	8021A	CAH	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.5	1	9/26/00	8021A	CAH	1
1,2-Dichlorobenzene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
Dichlorodifluoromethane	< 0.37	ug/l	0.37	1.2	1	9/26/00	8021A	CAH	3.4
1,2-Dichloroethane	< 0.35	ug/l	0.35	1.2	1	9/26/00	8021A	CAH	1
1,1-Dichloroethane	< 0.35	ug/l	0.35	1.2	1	9/26/00	8021A	CAH	1
1,1-Dichloroethene	< 0.66	ug/l	0.66	2.2	1	9/26/00	8021A	CAH	4
cis-1,2-Dichloroethene	300	ug/l	0.37	1.2	1	9/26/00	8021A	CAH	1
trans-1,2-Dichloroethene	10	ug/l	0.43	1.4	1	9/26/00	8021A	CAH	1
1,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
2,2-Dichloropropane	< 0.59	ug/l	0.59	2	1	9/26/00	8021A	CAH	4
Di-isopropyl ether	< 0.37	ug/l	0.37	1.2	1	9/26/00	8021A	CAH	1
EDB (1,2-Dibromoethane)	< 0.65	ug/l	0.65	2.2	1	9/26/00	8021A	CAH	1
Ethylbenzene	< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
Hexachlorobutadiene	< 0.62	ug/l	0.62	2.1	1	9/26/00	8021A	CAH	1
Isopropylbenzene	< 0.38	ug/l	0.38	1.3	1	9/26/00	8021A	CAH	1
p-Isopropyltoluene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
Methylene chloride	< 2	ug/l	0.57	6	1	9/26/00	8021A	CAH	1
MTBE	< 0.47	ug/l	0.47	1.6	1	9/26/00	8021A	CAH	1
Naphthalene	< 0.53	ug/l	0.53	1.8	1	9/26/00	8021A	CAH	1
n-Propylbenzene	< 0.42	ug/l	0.42	1.4	1	9/26/00	8021A	CAH	1
1,1,2,2-Tetrachloroethane	< 0.68	ug/l	0.68	2.3	1	9/26/00	8021A	CAH	1
1,3-DCP, Tetrachloroethene	< 0.93	ug/l	0.93	3.1	1	9/26/00	8021A	CAH	1
Tetrachloroethene	24	ug/l	0.34	1.1	1	9/26/00	8021A	CAH	1
Toluene	< 0.37	ug/l	0.37	1.2	1	9/26/00	8021A	CAH	1
1,2,4-Trichlorobenzene	< 0.6	ug/l	0.6	2	1	9/26/00	8021A	CAH	1
1,2,3-Trichlorobenzene	< 0.49	ug/l	0.49	1.6	1	9/26/00	8021A	CAH	1
1,1,1-Trichloroethane	< 0.54	ug/l	0.54	1.8	1	9/26/00	8021A	CAH	1
1,1,2-Trichloroethane	< 0.46	ug/l	0.46	1.5	1	9/26/00	8021A	CAH	1
Trichloroethene	26	ug/l	0.46	1.5	1	9/26/00	8021A	CAH	1
Trichlorofluoromethane	< 0.62	ug/l	0.62	2.1	1	9/26/00	8021A	CAH	1
1,2,4-Trimethylbenzene	< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
1,3,5-Trimethylbenzene	< 0.63	ug/l	0.63	2.1	1	9/26/00	8021A	CAH	1
Vinyl Chloride	18	ug/l	0.87	2.9	1	9/26/00	8021A	CAH	4
m&p-Xylene	< 0.79	ug/l	0.79	2.6	1	9/26/00	8021A	CAH	1
o-Xylene	< 0.64	ug/l	0.64	2.1	1	9/26/00	8021A	CAH	1

# U.S. Analytical Lab

CURT HOFFART  
 KEY ENGINEERING  
 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0712007  
 Project Name NONE  
 Invoice # E30903

Report Date 28-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	50309031					Sample Type	Water		
Sample ID	FIELD					Sample Date	9/20 00		

Organic

VOC's

Benzene	< 0.39	ug/l	0.39	1.3	1	9/22/00	8021A	CAH	1
Bromobenzene	< 0.39	ug/l	0.39	1.3	1	9/22/00	8021A	CAH	1
Bromodichloromethane	< 0.38	ug/l	0.38	1.3	1	9/22/00	8021A	CAH	1
tert-Butylbenzene	< 0.44	ug/l	0.44	1.5	1	9/22/00	8021A	CAH	1
sec-Butylbenzene	< 0.48	ug/l	0.48	1.6	1	9/22/00	8021A	CAH	1
n-Butylbenzene	< 0.43	ug/l	0.43	1.4	1	9/22/00	8021A	CAH	1
Carbon Tetrachloride	< 0.55	ug/l	0.55	1.8	1	9/22/00	8021A	CAH	1
Chlorobenzene	< 0.4	ug/l	0.4	1.3	1	9/22/00	8021A	CAH	1
Chloroethane	< 0.15	ug/l	0.15	0.48	1	9/22/00	8021A	CAH	1
Chloroform	< 0.38	ug/l	0.38	1.3	1	9/22/00	8021A	CAH	1
Chloromethane	25	ug/l	1.1	3.5	1	9/22/00	8021A	CAH	34
2-Chlorotoluene	< 0.47	ug/l	0.47	1.5	1	9/22/00	8021A	CAH	1
4-Chlorotoluene	< 0.44	ug/l	0.44	1.5	1	9/22/00	8021A	CAH	1
1,2-Dibromo-3-chloropropane	< 0.67	ug/l	0.67	2.2	1	9/22/00	8021A	CAH	1
Dibromochloromethane	< 0.5	ug/l	0.5	1.7	1	9/22/00	8021A	CAH	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.4	1	9/22/00	8021A	CAH	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.5	1	9/22/00	8021A	CAH	1
1,2-Dichlorobenzene	< 0.44	ug/l	0.44	1.5	1	9/22/00	8021A	CAH	1
Dichlorodifluoromethane	< 0.37	ug/l	0.37	1.2	1	9/22/00	8021A	CAH	1
1,2-Dichloroethane	< 0.35	ug/l	0.35	1.2	1	9/22/00	8021A	CAH	1
1,1-Dichloroethane	< 0.35	ug/l	0.35	1.2	1	9/22/00	8021A	CAH	1
1,1-Dichloroethene	< 0.66	ug/l	0.66	2.2	1	9/22/00	8021A	CAH	1
cis-1,2-Dichloroethene	< 0.37	ug/l	0.37	1.2	1	9/22/00	8021A	CAH	1
trans-1,2-Dichloroethene	< 0.43	ug/l	0.43	1.4	1	9/22/00	8021A	CAH	1
1,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	1	9/22/00	8021A	CAH	1
2,2-Dichloropropane	< 0.59	ug/l	0.59	2	1	9/22/00	8021A	CAH	1
Di-isopropyl ether	< 0.37	ug/l	0.37	1.2	1	9/22/00	8021A	CAH	4
EDB (1,2-Dibromoethane)	< 0.65	ug/l	0.65	2.2	1	9/22/00	8021A	CAH	1
Ethylbenzene	< 0.4	ug/l	0.4	1.3	1	9/22/00	8021A	CAH	1
Hexachlorobutadiene	< 0.62	ug/l	0.62	2.1	1	9/22/00	8021A	CAH	1
Isopropylbenzene	< 0.38	ug/l	0.38	1.3	1	9/22/00	8021A	CAH	1
p-Isopropyltoluene	< 0.44	ug/l	0.44	1.5	1	9/22/00	8021A	CAH	1
Methylene chloride	< 0.57	ug/l	0.57	1.9	1	9/22/00	8021A	CAH	1
MTBE	< 0.47	ug/l	0.47	1.6	1	9/22/00	8021A	CAH	1

# U.S. Analytical Lab

CURT HOFFART  
 KEY ENGINEERING  
 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0712007  
 Project Name NONE  
 Invoice # E30903

Report Date 28-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
<b>Lab Code 5030903I</b>						<b>Sample Type</b>	Water		
<b>Sample ID FIELD</b>						<b>Sample Date</b>	9/20/00		
Naphthalene	< 0.53	ug/l	0.53	1.8	1	9/22/00	8021A	CAH	4
n-Propylbenzene	< 0.42	ug/l	0.42	1.4	1	9/22/00	8021A	CAH	1
1,1,2,2-Tetrachloroethane	< 0.68	ug/l	0.68	2.3	1	9/22/00	8021A	CAH	1
1,3-DCP, Tetrachloroethene	< 0.93	ug/l	0.93	3.1	1	9/22/00	8021A	CAH	1
Tetrachloroethene	< 0.34	ug/l	0.34	1.1	1	9/22/00	8021A	CAH	1
Toluene	< 0.37	ug/l	0.37	1.2	1	9/22/00	8021A	CAH	1
1,2,4-Trichlorobenzene	< 0.6	ug/l	0.6	2	1	9/22/00	8021A	CAH	4
1,2,3-Trichlorobenzene	< 0.49	ug/l	0.49	1.6	1	9/22/00	8021A	CAH	4
1,1,1-Trichloroethane	< 0.54	ug/l	0.54	1.8	1	9/22/00	8021A	CAH	1
1,1,2-Trichloroethane	< 0.46	ug/l	0.46	1.5	1	9/22/00	8021A	CAH	1
Trichloroethene	< 0.46	ug/l	0.46	1.5	1	9/22/00	8021A	CAH	1
Trichlorofluoromethane	< 0.62	ug/l	0.62	2.1	1	9/22/00	8021A	CAH	1
1,2,4-Trimethylbenzene	< 0.4	ug/l	0.4	1.3	1	9/22/00	8021A	CAH	1
1,3,5-Trimethylbenzene	< 0.63	ug/l	0.63	2.1	1	9/22/00	8021A	CAH	1
Vinyl Chloride	< 0.87	ug/l	0.87	2.9	1	9/22/00	8021A	CAH	1
m&p-Xylene	< 0.79	ug/l	0.79	2.6	1	9/22/00	8021A	CAH	1
o-Xylene	< 0.64	ug/l	0.64	2.1	1	9/22/00	8021A	CAH	1

<b>Lab Code 5030903J</b>						<b>Sample Type</b>	Water		
<b>Sample ID TRIP</b>						<b>Sample Date</b>	9/20/00		

Organic

VOC's

Benzene	< 0.39	ug/l	0.39	1.3	1	9/22/00	8021A	CAH	1
Bromobenzene	< 0.39	ug/l	0.39	1.3	1	9/22/00	8021A	CAH	1
Bromodichloromethane	< 0.38	ug/l	0.38	1.3	1	9/22/00	8021A	CAH	1
tert-Butylbenzene	< 0.44	ug/l	0.44	1.5	1	9/22/00	8021A	CAH	1
sec-Butylbenzene	< 0.48	ug/l	0.48	1.6	1	9/22/00	8021A	CAH	1
n-Butylbenzene	< 0.43	ug/l	0.43	1.4	1	9/22/00	8021A	CAH	1
Carbon Tetrachloride	< 0.55	ug/l	0.55	1.8	1	9/22/00	8021A	CAH	1
Chlorobenzene	< 0.4	ug/l	0.4	1.3	1	9/22/00	8021A	CAH	1
Chloroethane	< 0.15	ug/l	0.15	0.48	1	9/22/00	8021A	CAH	1
Chloroform	< 0.38	ug/l	0.38	1.3	1	9/22/00	8021A	CAH	1
Chloromethane	< 1.1	ug/l	1.1	3.5	1	9/22/00	8021A	CAH	3.4
2-Chlorotoluene	< 0.47	ug/l	0.47	1.5	1	9/22/00	8021A	CAH	1
4-Chlorotoluene	< 0.44	ug/l	0.44	1.5	1	9/22/00	8021A	CAH	1
1,2-Dibromo-3-chloropropane	< 0.67	ug/l	0.67	2.2	1	9/22/00	8021A	CAH	1

# U.S. Analytical Lab

CURT HOFFART  
 KEY ENGINEERING  
 W66N215 COMMERCE COURT  
 CEDARBURG WI 53012

Project # 0712007  
 Project Name NONE  
 Invoice # E30903

Report Date 28-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030903J							Sample Type Water		
Sample ID TRIP						Sample Date 9/20/00			
Dibromochloromethane	< 0.5	ug/l	0.5	1.7	1	9/22/00	8021A	CAH	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.4	1	9/22/00	8021A	CAH	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.5	1	9/22/00	8021A	CAH	1
1,2-Dichlorobenzene	< 0.44	ug/l	0.44	1.5	1	9/22/00	8021A	CAH	1
Dichlorodifluoromethane	< 0.37	ug/l	0.37	1.2	1	9/22/00	8021A	CAH	1
1,2-Dichloroethane	< 0.35	ug/l	0.35	1.2	1	9/22/00	8021A	CAH	1
1,1-Dichloroethane	< 0.35	ug/l	0.35	1.2	1	9/22/00	8021A	CAH	1
1,1-Dichloroethene	< 0.66	ug/l	0.66	2.2	1	9/22/00	8021A	CAH	1
cis-1,2-Dichloroethene	< 0.37	ug/l	0.37	1.2	1	9/22/00	8021A	CAH	1
trans-1,2-Dichloroethene	< 0.43	ug/l	0.43	1.4	1	9/22/00	8021A	CAH	1
1,2-Dichloropropane	< 0.4	ug/l	0.4	1.3	1	9/22/00	8021A	CAH	1
2,2-Dichloropropane	< 0.59	ug/l	0.59	2	1	9/22/00	8021A	CAH	1
Di-isopropyl ether	< 0.37	ug/l	0.37	1.2	1	9/22/00	8021A	CAH	4
EDB (1,2-Dibromoethane)	< 0.65	ug/l	0.65	2.2	1	9/22/00	8021A	CAH	1
Ethylbenzene	< 0.4	ug/l	0.4	1.3	1	9/22/00	8021A	CAH	1
Hexachlorobutadiene	< 0.62	ug/l	0.62	2.1	1	9/22/00	8021A	CAH	1
Isopropylbenzene	< 0.38	ug/l	0.38	1.3	1	9/22/00	8021A	CAH	1
p-Isopropyltoluene	< 0.44	ug/l	0.44	1.5	1	9/22/00	8021A	CAH	1
Methylene chloride	< 0.57	ug/l	0.57	1.9	1	9/22/00	8021A	CAH	1
MTBE	< 0.47	ug/l	0.47	1.6	1	9/22/00	8021A	CAH	1
Naphthalene	< 0.53	ug/l	0.53	1.8	1	9/22/00	8021A	CAH	4
n-Propylbenzene	< 0.42	ug/l	0.42	1.4	1	9/22/00	8021A	CAH	1
1,1,2,2-Tetrachloroethane	< 0.68	ug/l	0.68	2.3	1	9/22/00	8021A	CAH	1
1,3-DCP, Tetrachloroethene	< 0.93	ug/l	0.93	3.1	1	9/22/00	8021A	CAH	1
Tetrachloroethene	< 0.34	ug/l	0.34	1.1	1	9/22/00	8021A	CAH	1
Toluene	< 0.37	ug/l	0.37	1.2	1	9/22/00	8021A	CAH	1
1,2,4-Trichlorobenzene	< 0.6	ug/l	0.6	2	1	9/22/00	8021A	CAH	4
1,2,3-Trichlorobenzene	< 0.49	ug/l	0.49	1.6	1	9/22/00	8021A	CAH	4
1,1,1-Trichloroethane	< 0.54	ug/l	0.54	1.8	1	9/22/00	8021A	CAH	1
1,1,2-Trichloroethane	< 0.46	ug/l	0.46	1.5	1	9/22/00	8021A	CAH	1
Trichloroethene	< 0.46	ug/l	0.46	1.5	1	9/22/00	8021A	CAH	1
Trichlorofluoromethane	< 0.62	ug/l	0.62	2.1	1	9/22/00	8021A	CAH	1
1,2,4-Trimethylbenzene	< 0.4	ug/l	0.4	1.3	1	9/22/00	8021A	CAH	1
1,3,5-Trimethylbenzene	< 0.63	ug/l	0.63	2.1	1	9/22/00	8021A	CAH	1
Vinyl Chloride	< 0.87	ug/l	0.87	2.9	1	9/22/00	8021A	CAH	1
m&p-Xylene	< 0.79	ug/l	0.79	2.6	1	9/22/00	8021A	CAH	1
o-Xylene	< 0.64	ug/l	0.64	2.1	1	9/22/00	8021A	CAH	1

# U.S. Analytical Lab

CURT HOFFART  
KEY ENGINEERING  
W66N215 COMMERCE COURT  
CEDARBURG WI 53012

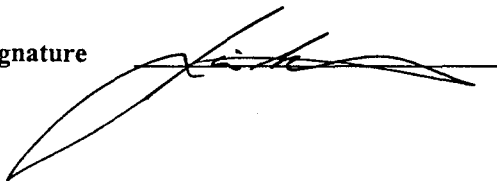
Project # 0712007  
Project Name NONE  
Invoice # E30903

Report Date 28-Sep-00

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code	
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.
3	The spike recovery failed to meet acceptable QC limits.
4	The check standard failed to meet acceptable QC limits.
13	Result exceeded linear range of calibration.
58	Insufficient sample to reanalyze.

Authorized Signature



**ATTACHMENT 4**



MATERIAL SAFETY DATA SHEET

THE MILSOLV COMPANIES  
 P. O. BOX 444 BUTLER, WI 53007  
 (414) 252-3550

SECTION I - PRODUCT

PRODUCT NUMBER: 152  
 PRODUCT NAME: MILSOLV 152  
 DATE OF PREPARATION: 1/26/93  
 REPLACES: 1/24/92  
 HMIS RATING: HEALTH 2  
                     FLAMMABILITY 3  
                     REACTIVITY 0  
 EMERGENCY PHONE NUMBER: CHEMTREC (800) 424-9300

(LACQUER  
 THINNER)

SECTION II - HAZARDOUS INGREDIENTS

PRODUCT NAME	CAS #	VAPOR PRESSURE (mm Hg)	TLV	UNIT
CHEMICAL NAME		PERCENT	PEL	UNIT
N-BUTYL ACETATE URETHANE GRADE ACETIC ACID, BUTYL ESTER	123-86-4	8.0 >9%	150 150	PPM PPM
TOLUOL TOLUENE	108-88-3	26.0 >9%	100 100	PPM PPM
GLYCOL ETHER EB ETHANOL, 2-BUTDXY	111-75-2	.6 <9%	25 25	PPM PPM
ACETONE 2-PROPANONE	67-64-1	184.0 <9%	750 1000	PPM PPM
ISOPROPANOL 99% 2-PROPANOL	67-63-0	33.0 >9%	400 400	PPM PPM

SECTION III - PHYSICAL DATA

BOILING RANGE: 133 - 340 DEG F  
 VAPOR DENSITY: HEAVIER THAN AIR  
 EVAPORATION RATE: SLOWER THAN ETHER  
 PERCENT VOLATILE BY VOLUME: 100%  
 WEIGHT/GALLON: 7.12 LBS/GAL

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

HAZARD CLASSIFICATION OSHA: FLAMMABLE LIQUID-CLASS IB  
 DOT: 3  
 FLASH POINT (TCC): > 0 DEG F  
 LOWER EXPLOSION LIMIT % BY VOLUME (IN AIR): > 1.1  
 EXTINGUISHING MEDIA: Carbon dioxide. Dry chemical. Alcohol-type foam. Water spray. Universal-type foam.  
 SPECIAL HANDLING PROCEDURES: Use self-protective breathing apparatus. Use

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors form from this product and may settle in low places, travel along the ground, or move by air currents to be ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharges, or other ignition sources at locations distant from handling point.

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## SECTION V - HEALTH HAZARD DATA

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### EFFECTS OF OVEREXPOSURE

INGESTION: Nausea. Vomiting. Diarrhea. Drowsiness. Headache. Dizziness. Stupor. Cramps. Incoordination. Loss of consciousness. Possible kidney damage. Possible liver damage. Weakness. Possible damage to red blood cells. Pulmonary aspiration hazard if vomiting occurs.

SKIN ABSORPTION: Headache. Dizziness. Nausea. Vomiting. Possible kidney damage. Possible liver damage. Weakness. Diarrhea. Incoordination. Possible damage to red blood cells.

INHALATION: Headache. Narcosis. Dizziness. Vomiting. Nausea. Drowsiness. Loss of coordination. Irritation. Malaise. Loss of balance. Unconsciousness. Coma. Respiratory failure. Olfactory fatigue.

SKIN CONTACT: Irritation. Defatting. Chapping. Cracking. Swelling.

EYE CONTACT: Severe irritation. Corneal injury.

CHRONIC EFFECTS OF OVEREXPOSURE: Repeated overexposure may cause injury to bone marrow and blood cells, kidney, liver, and testes.

OTHER HEALTH HAZARDS: Because of its irritating and defatting properties, this material may exacerbate an existing dermatitis.

PRIMARY ROUTE(S) OF ENTRY: No information furnished by manufacturer.

### EMERGENCY AND FIRST AID PROCEDURES

INGESTION: Do not induce vomiting. Call a physician. Never give anything by mouth to an unconscious person. Do not give liquids. Small amounts which may accidentally enter the mouth should be rinsed out until no taste of this product remains.

SKIN: Flush skin with water. Immediately wash skin with soap and plenty of water. Remove and wash contaminated clothing promptly.

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

EYES: In case of contact, immediately flush eyes with plenty of water for least 15 minutes. Call a physician.

NOTES TO PHYSICIAN: Aspirated material may cause severe lung damage and may present a significant hazard. Stomach contents should be evacuated quickly in a manner which avoids aspiration. There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition.

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## SECTION VI - REACTIVITY DATA

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STABILITY: Stable.

CONDITIONS TO AVOID: Heat. Ignition sources. Fire.

INCOMPATIBILITY: Nitric acid. Sulfuric acid. Strong bases. Oxidizing agents. Aldehydes. Halogens. Halogen compounds.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide. Carbon dioxide.

Asphyxiants.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Alkali can cause condensation reactions to occur, but the reactions are not expected to be violent.

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#### SECTION VII - SPILL OR LEAK PROCEDURES

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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Contact local authorities.

WASTE DISPOSAL: Reclamation in accordance with all federal, state, and local regulations. Incineration in accordance with all federal, state, and local regulations.

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#### SECTION VIII - SAFE HANDLING AND USE INFORMATION

---

RESPIRATORY PROTECTION: Supplied-air respirator approved by NIOSH in areas of high concentration.

VENTILATION: General (mechanical) room ventilation to maintain vapor levels below TLV is expected to be satisfactory. Keep this product in closed equipment. Special, local ventilation is needed at points where vapors or mists are expected to escape to the workplace air.

PROTECTIVE GLOVES: Consult the glove manufacturer for the most appropriate glove material.

EYE PROTECTION: Chemical safety goggles.

OTHER PROTECTIVE EQUIPMENT: Eye bath and safety shower. Wear protective clothing to prevent repeated or prolonged contact.

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#### SECTION IX - SPECIAL PRECAUTIONS

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PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: WARNING! Harmful, if absorbed through skin. Harmful if inhaled. Avoid prolonged or repeated breathing of vapor. Flammable. Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Keep away from heat, sparks, and flame. Wash thoroughly after handling. Keep container closed. Avoid prolonged or repeated contact with skin. Empty containers should not be exposed to fire, sparks, or flame as residual vapors may be explosive. FOR INDUSTRY USE ONLY.

OTHER PRECAUTIONS: A large spill could be toxic to aquatic life, avoid drainage to natural waters. This product has a low solubility in water and will float on the surface. Large spills should not be allowed to drain into natural waterways. This product can be biodegraded, at low concentrations in water, in a biological wastewater treatment plant.

Section 313 Supplier Notification

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

CAS#	Chemical Name	Percent by Weight
108-88-3	TOLUOL	56 %
111-76-2	GLYCOL ETHER EB	3 %
67-64-1	ACETONE	8 %

This information must be included in all MSDSs that are copied and distributed for this material.

# Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health Administration  
(Non-Mandatory Form)



**IDENTITY (As Used on Label and List)**  
CIMSTAR DUAL STAR

*Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.*

## Section I

Manufacturer's Name Products Division/ Cincinnati Milacron Marketing Company	Emergency Telephone Number 513-841-8181
Address (Number, Street, City, State, and ZIP Code) 4701 Marburg Avenue	Telephone Number for Information 513-841-8964
Cincinnati, Ohio 45209	Date Prepared 1/88
	Signature of Preparer (optional)

## Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Ethanolamine	3 ppm	3 ppm	---	
Nonylphenoxypolvetoxyethanol	---	---	---	
Mineral oil (severely hydrotreated) (mist)	5 mg/M3	5 mg/M3	---	

The ingredients listed above may contribute to the product hazard as listed in Section VI of this sheet.

## Section III — Physical/Chemical Characteristics

Boiling Point	212°F	Specific Gravity (H <sub>2</sub> O = 1)	1.009
Vapor Pressure (mm Hg.) Not applicable (NA)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	like water
Solubility in Water	100%		
Appearance and Color	Clear; chemical		

## Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used) None; self-extinguishing	Flammable Limits NA	LEL NA	UEL NA
Extinguishing Media No fire hazard			
Special Fire Fighting Procedures NA			
Unusual Fire and Explosion Hazards None			

**Section V — Reactivity Data**

CENSTAR ONAL STAR

Stability	Unstable		Conditions to Avoid
	Stable	X	NA

Incompatibility (Materials to Avoid)  
 Avoid contact of concentrate with strong acids.

**Hazardous Decomposition or Byproducts**

None

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	NA

**Section VI — Health Hazard Data**

Route(s) of Entry:	Inhalation?	YES	Skin?	YES	Ingestion?	NA
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**Health Hazards (Acute and Chronic)**

WARNING: Concentrate is alkaline. Harmful if taken internally. Concentrate is an eye irritant. Eye damage may occur from contact with concentrate. No adverse chronic effects expected when used as recommended.

Carcinogenicity:	NTP?	NO	IARC Monographs?	NO	OSHA Regulated?	NO
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Signs and Symptoms of Exposure Eye damage may occur from contact with concentrate. This product is not a primary skin irritant; however, skin irritation may occur if used improperly (concentrate or mix).

Medical Conditions Generally Aggravated by Exposure May aggravate existing skin irritation where further defatting or skin penetration could occur.

Emergency and First Aid Procedures In case of eye contact, flush immediately with running water for 15 minutes, then get prompt medical attention to check for possible irritation. In case of skin contact with concentrate, wash immediately with water. If concentrate or mix is swallowed, do not induce vomiting. Dilute with water or milk. Immediately contact physician and obtain treatment.

**Section VII — Precautions for Safe Handling and Use**

Steps to Be Taken in Case Material is Released or Spilled  
 Thoroughly flush with water to sewer.

Waste Disposal Method FOR USED MIX: 1) Ultrafiltration for sewer disposal, or 2) recycle equipment for reuse, or 3) treat with polymer or inorganic deemulsifiers, then dispose of top layer by incineration or landfill, and dispose of water layer in sanitary sewer. FOR UNUSED CONCENTRATE: Incinerate, or contact vendor.

Precautions to Be Taken in Handling and Storing Use only as recommended by Cincinnati Milacron. Avoid all contact of concentrate with eyes or prolonged contact with skin. Do not swallow. Protect from freezing.

Other Precautions Contains amines. Do not add sodium nitrite or other nitrosating agents to this product. Suspected cancer-causing nitrosamines could be formed.

**Section VIII — Control Measures**

Respiratory Protection (Specify Type) Product not volatile.

Ventilation	Local Exhaust	NA	Special	NA
	Mechanical (General)	General	Other	NA

Protective Gloves Waterproof gloves required when handling concentrate. Eye Protection Safety shield or goggles required when handling concentrate.

Other Protective Clothing or Equipment Effective metalworking plant protective clothing as appropriate.

Work/Hygiene Practices Good personal hygiene should always be followed.

Product Code: 5150  
MILSOLV 360

# (MINERAL SPIRITS

## Material Safety Data Sheet 310-66 Solvent

PHIBRO ENERGY USA, INC.  
P.O. BOX 5038  
HOUSTON, TX 77262

PHIBRO ENERGY, INC.  
600 STEAMBOAT ROAD  
GREENWICH, CT 06830

Emergency Phone Numbers  
24 Hour Emergency 713-923-6641  
Chemtrec Emergency 800-424-9300

General Assistance  
Medical Assistance 713-797-0395  
General Assistance 713-921-8301

### I. GENERAL INFORMATION

Trade Name  
310-66 Solvent  
Chemical Family  
Paraffinic and Naphthenic  
Hydrocarbon  
Synonyms  
Stoddard Solvent, Mineral  
Spirits, Short Range Mineral  
Spirits, Dri-Rex

CAS Registry Number  
8052-41-3  
DOT Proper Shipping Name  
Naphtha, Petroleum  
DOT Hazard Class/Packing Class  
3 Flammable Liquid/III  
DOT Identification Number  
UN 1255

### II. SUMMARY OF HAZARDS

May cause irritation to eyes, skin and respiratory system. Avoid liquid, mist and vapor contact. Harmful or fatal if swallowed. Aspiration hazard, can enter lungs and cause damage. May cause irritation or be harmful if inhaled or absorbed through the skin. Flammable Liquid. Vapors may explode.

### III. HAZARDOUS INGREDIENTS

Component	CAS Number	Concentration (%)
n-Nonane	111-84-2	3 - 7 %
1,2,4 Trimethylbenzene	95-63-6	1 - 3 %

### IV. PHYSICAL DATA

<u>Boiling Point:</u> 305°-350° F	<u>Specific Gravity:</u> 0.77 @ 60° F
<u>Melting Point:</u> not applicable	<u>Vapor Pressure:</u> 0.1 psi @ 100° F
<u>Vapor Density (air=1):</u> >1.0	<u>Percent Volatile:</u> moderate
<u>Solubility in Water:</u> Negligible	
<u>Appearance and Odor:</u> Water white liquid with mild hydrocarbon odor	

### V. FIRE AND EXPLOSION HAZARD DATA

<u>Flash Point:</u> 101° F	<u>Autoignition Temperature:</u> >400° F
<u>Flammability Limits in Air</u> Lower Explosive Limit: 0.9%	Upper Explosive Limit: 6.0%
<u>NFPA Classification</u> Health: Slightly Hazardous (1) Reactivity: Stable (0)	Fire: High (3) Specific Hazard: not applicable
<u>Basic Firefighting Procedures</u> Flammable Liquid. Use dry chemical, foam or carbon dioxide to extinguish the fire. Consult foam manufacturer for appropriate media, application rates and water/foam ratio. Water can be used to cool	

V. FIRE AND EXPLOSION HAZARD DATA (cont'd)

Basic Firefighting Procedures (cont'd)

fire-exposed containers, structures and to protect personnel. If a leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop a leak. Use water to flush spills away from sources of ignition. Do not flush down public sewers.

Unusual Fire and Explosion Hazards

Dangerous when exposed to heat or flame. Vapors form flammable or explosive mixtures with air at room temperature. Vapor or gas may spread to distant ignition sources (pilot lights, welding equipment, electrical equipment, etc.) and flash back. Vapors may accumulate in low areas. Vapors may concentrate in confined areas. Flowing product can be ignited by self generated static electricity. Use adequate grounding to prevent static buildup. Runoff to sewer may cause fire or explosion hazard. Containers may explode in heat of fire. Irritating or toxic substances may be emitted upon thermal decomposition. For fires involving this material, do not enter any enclosed or confined space without proper protective equipment, which may include NIOSH approved self-contained breathing apparatus with full face mask. Clothing, rags or similar organic material contaminated with this product and stored in a closed space may undergo spontaneous combustion. Transfer to and from commonly grounded containers.

VI. REACTIVITY INFORMATION

Stability: Stable under normal conditions of use

Incompatibility: Avoid strong oxidizing agents (peroxide, dichromate, permanganate, chlorine, etc.), strong acids, caustics and halogens.

Hazardous Polymerization: Will not occur

Hazardous Reactions/Decomposition Products: Combustion may produce carbon monoxide, carbon dioxide and reactive hydrocarbons (aldehydes, aromatics, etc.)

Conditions to Avoid: Heat, sparks, open flame, static electricity or any other potential ignition sources should be avoided. Prevent vapor accumulation. Do not switch load.

VII. HEALTH HAZARD INFORMATION

Product Listed as a Carcinogen or Potential Carcinogen by:

NTP - No IARC - No OSHA - No Other - No

Target Organs: Respiratory system, skin

Primary Routes of Entry: Inhalation, ingestion, dermal or eye contact

Occupational Exposure Limits

Compound	Source	Year	Adopted Value for Time Period		
Mineral Spirits (Stoddard Solvent)	OSHA-PEL	1989	TWA	100 ppm	8 hour
	ACGIH-TLV	1989	TWA	100 ppm	8 hour
	NIOSH-REL	1989	TWA	350 mg/m <sup>3</sup>	8 hour
	NIOSH-REL	1989	CL	1800 mg/m <sup>3</sup>	15 min
Nonane	OSHA-PEL	1989	TWA	200 ppm	8 hour
	ACGIH-TLV	1989	TWA	200 ppm	8 hour



Material Safety Data Sheet  
310-66 Solvent

VII. HEALTH HAZARD INFORMATION (cont'd)

Occupational Exposure Limits (cont'd)

Compound	Source	Year	Adopted Value for Time Period		
Trimethyl Benzene (Pseudocumene)	OSHA-PEL	1989	TWA	25 ppm	8 hour
	ACGIH-TLV	1989	TWA	25 ppm	8 hour
	NIOSH-REL	1989	TWA	100 ppm	8 hour
	OSHA-PEL	1989	STEL	150 ppm	15 min
	ACGIH-TLV	1989	STEL	150 ppm	15 min
	NIOSH-REL	1989	CL	200 ppm	10 min

Effects and Hazards of Eye Contact

May cause severe irritation, redness, tearing, blurred vision and conjunctivitis.

Effects and Hazards of Skin Contact

Prolonged or repeated contact may cause moderate irritation, defatting (cracking), redness, itching, inflammation, dermatitis and possible secondary infection. High pressure skin injections are **SERIOUS MEDICAL EMERGENCIES**. Injury may not appear serious at first. Within a few hours, tissues will become swollen, discolored and extremely painful. See Notes to Physician section.

Effects and Hazards of Inhalation

Nasal and respiratory tract irritation, central nervous system effects including excitation, euphoria, contracted eye pupils, dizziness, drowsiness, blurred vision, fatigue, nausea, headache, loss of reflexes, tremors, convulsions, seizures, loss of consciousness, coma, respiratory arrest and sudden death could occur as a result of long term and/or high concentration exposure to vapors. May also cause anemia and irregular heart rhythm. Repeated or prolonged exposure may cause behavioral changes.

Effects and Hazards of Ingestion

This product may be harmful or fatal if swallowed. This product may cause nausea, vomiting, diarrhea and restlessness. **DO NOT INDUCE VOMITING**. Aspiration into the lungs can cause severe chemical pneumonitis or pulmonary edema/hemorrhage, which can be fatal. May cause gastrointestinal disturbances. Symptoms may include irritation, depression, vomiting and diarrhea. May cause harmful central nervous system effects, similar to those listed under "inhalation".

Medical Conditions Aggravated by Exposure

Preexisting eye, skin, heart, central nervous system and respiratory disorders may be aggravated by exposure to this product.

Toxicological Information

**MINERAL SPIRITS** (Stoddard Solvent) can affect the body if it is inhaled, comes in contact with the eyes or skin, or is swallowed. The vapor is a mild narcotic and a mucous membrane irritant. Since it contains aliphatic and aromatic hydrocarbons in varying concentrations, toxicologic opinion is based upon deductions as to the relative health hazard of the different fractions. The vapor of the aliphatic fractions is chiefly nonane and isodecane, the aromatic component is considered more toxic. Stoddard solvent has an odor threshold of about 1 ppm and olfactory fatigue has been observed in about 6 minutes at low concentrations. Eye irritation was reported in a test exposure of human subjects at 150 ppm. Industrial exposures to unknown but fairly high concentrations over long periods have

Material Safety Data Sheet  
310-66 Solvent

VII. HEALTH HAZARD INFORMATION (cont'd)

Toxicological Information (cont'd)

resulted in headaches, eye, nose and throat irritation, fatigue, marrow hypoplasia, and in extreme cases, death. Dermal exposures to the liquid solvent have caused dermatitis and jaundice.

NONANE causes a four hour LC<sub>50</sub> in rats at concentrations of 3200 ppm, or at about the same level as VM&P Naphtha. This level is markedly lower than the lethal concentrations reported in earlier mice studies involving octane (13,500 ppm) and heptane (16,000 ppm), supporting the lower limit for nonane.

TRIMETHYL BENZENE (PSEUDOCUMENE) can affect the body if it is inhaled, comes in contact with the eyes or skin or it is swallowed. It may also enter the body through the skin. The liquid is a primary skin irritant, but system intoxication due to absorption through the skin is not probable. High concentrations of vapors (5000 to 9000 ppm) caused central nervous system depression. Pseudocumene may cause nervousness, tension, anxiety, and asthmatic bronchitis. In addition, the peripheral blood showed a tendency to hypochromic anemia and a deviation from the normal in the coagulability of the blood.

VIII. EMERGENCY AND FIRST AID INFORMATION

Treatment for Eye Contact

Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if pain or redness continues.

Treatment for Skin Contact

Wash exposed area thoroughly with soap and water. Remove contaminated clothing promptly and launder before reuse. Contaminated leather goods should be discarded. If irritation persists or symptoms described in the MSDS develop, seek medical attention. High pressure skin injections are SERIOUS MEDICAL EMERGENCIES. Get immediate medical attention.

Treatment for Inhalation

Remove to fresh air. If breathing is difficult, ensure clear airway and administer oxygen. If not breathing, apply artificial respiration or cardiopulmonary resuscitation. Keep person warm, quiet and get medical attention.

Treatment for Ingestion

Never give anything by mouth to an unconscious person. DO NOT induce vomiting. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal. Give vegetable oil or charcoal slurry to retard absorption. If spontaneous vomiting occurs, keep head below hips to prevent aspiration of liquid into lungs and monitor for breathing difficulty. SEEK IMMEDIATE MEDICAL ATTENTION. Keep person warm and quiet.

Notes to Physician

In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption. Consideration should be given to the use of an intratracheal tube, to prevent aspiration. Irregular heart beat may occur, use of adrenalin is not advisable. Individuals intoxicated by the product should be hospitalized immediately, with

Material Safety Data Sheet  
310-66 Solvent

VIII. EMERGENCY AND FIRST AID INFORMATION

Notes to Physician (cont'd)

acute and continuing attention to neurological and cardiopulmonary function. Positive pressure ventilation may be necessary. After the initial episode, individuals should be followed for changes in blood variables and the delayed appearance of pulmonary edema and chemical pneumonitis. Such patients should be followed for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment. Individuals with chronic pulmonary disease will be more seriously impaired, and recovery from inhalation exposure may be complicated. In case of skin injection, prompt debridement of the wound is necessary to minimize necrosis and tissue loss.

IX. PRECAUTIONARY MEASURES

Respiratory Protection

If workplace exposure limits for product or components are exceeded, NIOSH equipment should be worn. Proper respirator selection should be determined by adequately trained personnel, based on the contaminants, the degree of potential exposure and published respiratory protection factors. This equipment should be available for nonroutine and emergency use.

Eye Protection

Keep away from eyes. Eye contact can be avoided by wearing safety glasses or chemical splash goggles. Do not wear contact lenses when working around this product.

Skin Protection

Keep away from skin. Skin contact can be minimized by wearing protective gloves such as neoprene, nitrile-butadiene rubber, etc. and, where necessary, impervious clothing and boots. Leather goods contaminated with this product should be discarded. A source of clean water should be available in the work area for flushing eyes and skin.

Ventilation

Avoid breathing mists and vapor. Use in well ventilated area. In confined space, mechanical ventilation may be necessary to reduce vapor concentrations to levels below the allowable exposure limits.

Other Precautionary Measures

Tanks, vessels or other confined spaces which have contained product should be freed of vapors before entering. The container should be checked with an explosimeter for safety and an oxygen meter to ensure a safe breathing atmosphere before entry. Empty containers may contain toxic, flammable/combustible or explosive residues or vapors. Do not cut, grind, drill, weld or reuse empty containers that contained this product. Do not transfer this product to another container unless the container receiving the product is labeled with proper DOT shipping name, hazard class and other information that describes the product and its hazards.

Precautions to be Taken in Handling and Storing

Store in tightly closed containers in cool, dry, isolated and well ventilated area away from heat, sources of ignition and incompatible materials. Use non-sparking tools and explosion proof equipment. Ground lines, containers, and other equipment used during product transfer to reduce the possibility of a static induced spark. Do not "switch" load (load into containers which previously contained

Material Safety Data Sheet  
310-66 Solvent

IX. PRECAUTIONARY MEASURES (cont'd)

Precautions to be Taken in Handling and Storing (cont'd)  
gasoline or other low flash material) because of possible accumulation of a static charge resulting in a source of ignition. Use good personal hygiene practices. After handling this product, wash hands before eating, drinking, smoking or using toilet facilities.

X. SPILL AND LEAK PROCEDURES

Precautions in Case of a Spill or Release

If facility or operation has an "oil or hazardous substance contingency plan", activate its procedures. Stay upwind and away from spill. Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not enter or stay in area unless monitoring indicates that it is safe to do so. Isolate hazard area and restrict entry to emergency crew. Flammable Liquid. Review Fire and Explosion Hazard Data before proceeding with clean up. Keep all sources of ignition (flames, smoking, flares, etc.) and hot surfaces away from release. Contain spill in smallest possible area. Recover as much product as possible (e.g., by vacuuming). Stop leak if it can be done without risk. Use water spray to disperse vapors. Spilled material may be absorbed by an appropriate absorbent, and then handled in accordance with environmental regulations. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment/drainage systems and natural waterways. Contact fire authorities and appropriate federal, state and local agencies. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, contact the National Response Center at 800-424-8802. For highway or railway spills, contact Chemtrec at 800-424-9300.

Waste Disposal Method

Dispose of material in accordance with local, county, state and federal regulations. Contact state and federal regulators to determine whether the material should be classified as a hazardous waste or industrial waste and handled accordingly. Use licensed transporter and disposal facility.

XI. SARA TITLE III INFORMATION

Section 302/304 Extremely Hazardous Substances

None

Section 311 Hazard Category

Acute	Chronic	Fire	Pressure	Reactive	Not Applicable
X	X	X			

Section 313 Toxic Chemicals

1,2,4 Trimethylbenzene	3 % Maximum
------------------------	-------------

XII. LABELING INFORMATION

May cause irritation to eyes, skin and respiratory system. Avoid liquid, mist and vapor contact. Harmful or fatal if swallowed. Aspiration hazard, can enter lungs and cause damage. May cause irritation or be harmful if inhaled or absorbed through the skin. Avoid liquid, mist and vapor contact. Flammable Liquid. Vapors may

Material Safety Data Sheet  
310-66 Solvent

XII. LABELING INFORMATION (cont'd)

explode.

If swallowed, do not induce vomiting, aspiration hazard. Call physician immediately. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Wash skin with soap and plenty of water. Product soaked clothing should be removed and laundered before reuse. Read Emergency and First Aid Information section of the MSDS.

Use only in well ventilated locations. Keep away from heat, spark and flames. In case of fire, use water spray, foam, dry chemical or carbon dioxide as described in the Fire and Explosion Hazard Data section of the MSDS. Do not pressurize, cut, weld, braze, solder, drill on or near this container. "Empty" container contains residue (liquid and/or vapor) and may explode in heat of a fire.

For industrial use only. Keep out of reach of children. Failure to use caution may cause serious injury or illness. Never siphon by mouth.

DISCLAIMER

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Prepared By:

Sue Bottom  
Health, Safety and Environmental

THE MILSOLV COMPANIES

Product Code: 5150  
MILSOLV 360

Product's ID #: 31066

MATERIAL SAFETY DATA SHEET

Identity (As used on label and list) : Note: Blank fields are  
HILL 310-66 SOLVENT : not permitted

Section I

Manufacturer's Name  
HILL PETROLEUM COMPANY

Emergency Phone #  
713-923-6641

Address  
8934 MANCHESTER

Information Phone #  
713-225-0463

City, State, Zip Code  
HOUSTON, TEXAS 77012

Date Prepared  
6/25/89 (TLC)

Section II - Hazardous Ingredients

Ingredient	Percent	CAS Number
310-66 SOLVENT	100	64741-92-0

Common Names and Synonyms  
310, STODDARD SOLVENT, SHORT RANGE MINERAL SPIRITS

PEL: 500 ppm ; TLV: 100 ppm

Other Data: SARA Title III Information Follows Section VIII

Section III - Physical/Chemical Characteristics

Boiling Range: 312 - 347° F ; Specific Gravity: 0.768

Vapor Pressure: 0.1 lb @ 100°F; Melting Point: NA

Vapor Density: <1.0 (AIR = 1); Evaporation Rate: 0.08

SOLUBILITY IN WATER:  
Negligible

Section III - Physical/Chemical Characteristics (continued)

APPEARANCE AND ODOR

Water white liquid with mild hydrocarbon odor.

Section IV - Fire And Explosion Hazard Data

Flash Point: 103° F ; Limits: Lel: 0.9 ; Uel: 6.0

EXTINGUISHING MEDIA

Use water spray, dry chemical, foam, carbon dioxide, or halon to extinguish fire.

SPECIAL FIREFIGHTING PROCEDURES

Use a water spray to cool fire exposed containers, structures, and to protect personnel fighting a fire or containing and unignited spill or leak. Use water spray to disperse gas and vapors. Protect personnel entering a confined space with self-contained breathing apparatus to guard against hazardous combustion products and oxygen deficiency.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Dangerous when exposed to heat or flame. Containers may explode in a fire. Firefighters should wear MSHA/NIOSH approved self-contained breathing apparatus and full protective equipment. Product is flammable. When heated above the flash point this material will release flammable vapors which can burn or explode. Mists or sprays of this material may be flammable at temperatures below the flash point. Do not allow this product to run into a storm or sanitary sewer.

Clothing, rags, or other organic material contaminated with this material stored in a confined space can spontaneously combust and ignite with no external source of ignition.

Section V - Reactivity Data

STABILITY: Stable

Section V continued on next page

Section V - Reactivity Data (continued)

INCOMPATIBILITY (MATERIALS TO AVOID)

Avoid contact with strong acids, alkalis, and oxidizers like chlorine, liquid oxygen, permanganates, and dichromates.

HAZARDOUS DECOMPOSITION PRODUCTS

Combustion may produce carbon monoxide, carbon dioxide, reactive hydrocarbons.

HAZARDOUS POLYMERIZATION: Will Not Occur

CONDITIONS TO AVOID

Avoid heating this product, exposure to hot surfaces, flames, and sparks.

Section VI - Health Hazard Data

CARCINOGENICITY	NTP?	IARC?	OSHA REGULATED
No	No	No	No

Effects and Hazards of Overexposure (Acute and Chronic)

EFFECTS AND HAZARDS OF EYE CONTACT

Slightly irritating. Exposure to vapors, fumes or mists may cause irritation, redness, tearing, or blurred vision.

EFFECTS AND HAZARDS OF SKIN CONTACT

Moderately irritating. Repeated or prolonged contact may result in defatting, redness, itching, inflammation, cracking and possible secondary infection, and should be avoided particularly by persons with pre-existing skin diseases or sensitivity. Massive skin contact may cause poisoning. High pressure skin injections are serious medical emergencies and require immediate medical attention. This product contains petroleum distillates similar to those shown to produce skin tumors on laboratory animals.

EFFECTS AND HAZARDS OF INHALATION (BREATHING)

May cause respiratory tract irritation. Exposure in con-  
(Continued on next page)

Section VI continued on next page



Section VI - Health Hazard Data (continued)

EFFECTS AND HAZARDS OF INHALATION (BREATHING)(Cont.)

Exposure in confined spaces with poor ventilation is a major risk. Exposure may cause central nervous system symptoms including excitation, euphoria, headache, dizziness, drowsiness, blurred vision, fatigue, tremors, convulsions, loss of consciousness, coma, respiratory arrest and death. Mild exposure may cause nasal irritation and lung irritation. Personnel with respiratory diseases should avoid exposure to this product.

EFFECTS AND HAZARDS OF INGESTION (SWALLOWING)

Moderately toxic. Aspiration into the lungs may cause chemical pneumonitis. Ingestion may cause gastrointestinal disturbances including irritation, nausea, vomiting and diarrhea. Ingestion may also cause central nervous system effects described above under "Effects and Hazards of Inhalation". Personnel with pre-existing central nervous system diseases should avoid exposure to this product.

Emergency And First Aid Procedures

TREATMENT FOR EYE CONTACT

Flush immediately with large amounts of water for at least 15 minutes. Eye lids should be held away from the eyeballs to ensure thorough rinsing. Get medical attention if irritation persists.

TREATMENT FOR SKIN CONTACT

Remove contaminated clothing immediately and thoroughly clean and dry before reuse (discard soaked leather goods). Wash area of contact thoroughly with soap and water. A soothing ointment may be applied to irritated skin after cleaning. High pressure skin injections are serious medical emergencies. Get immediate medical attention.

NOTE TO PHYSICIAN: IN CASE OF SKIN INJECTION, PROMPT DEBRIDEMENT OF THE WOUND IS NECESSARY TO MINIMIZE NECROSIS AND TISSUE LOSS.

TREATMENT FOR INHALATION (BREATHING)

Remove affected person from source of exposure to fresh air environment. If not breathing start cardiopulmonary resuscitation (CPR). If breathing is difficult, give oxygen. Get medical attention.

TREATMENT FOR INGESTION (SWALLOWING)

Do not induce vomiting because of danger of aspirating liquid into the lungs and because of the danger of chemical  
(Continued on next page)

Section VI - Health Hazard Data (continued)

TREATMENT FOR INGESTION (SWALLOWING)(Cont.)

pneumonitis. Give vegetable oil or a charcoal slurry to retard absorption. Get immediate medical attention. If spontaneous vomiting occurs, monitor for proper breathing.

NOTE TO PHYSICIAN: In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption. Consideration should be given to the use of an intratracheal tube to prevent aspiration. Individuals intoxicated by this product should be hospitalized immediately with acute and continuing attention to neurologic and cardiopulmonary function. Positive pressure ventilation may be necessary. After the initial episode, individuals should be followed for changes in blood variables and the delayed appearance of pulmonary edema and chemical pneumonitis. Such patients should be followed for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment.

Section VII - Precautions for Safe Handling and Use

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Keep unnecessary people away. Stay upwind; avoid personal contact; ventilate area to avoid breathing vapors. Spill may create a slipping hazard. Stop leak if possible to do so safely. Use water spray to disperse vapors. Avoid flares, cigarette smoking, or flames in the area of the spill.

FOR SMALL SPILLS: Take up with sand or other non-combustible absorbent material. Then flush area with water.

FOR LARGE SPILLS: If possible, contain the spill with a dike. Use self-contained breathing apparatus or supplied air mask if spill is in a confined area.

FOR ANY SPILL OR RELEASE: Any spill or threat of release to navigable water must be reported immediately to the NATIONAL RESPONSE CENTER (800-424-8802) as required by U. S. FEDERAL LAW. For transportation spills, call Chemtrec (800-424-9300).

Section VII - Precautions for Safe Handling and Use (continued)

WASTE DISPOSAL METHOD

This product, when discarded or disposed of, is ignitable and is a hazardous waste under Federal Regulations; however, it could also be hazardous if, during use, it becomes toxic, corrosive, or reactive according to Federal Definitions (40 CFR 261). Additionally, it could be hazardous according to State Regulations. This product could also become a hazardous waste if it is mixed with or comes in contact with a hazardous waste. If such contact or mixing may have occurred, check 40 CFR 261 to determine whether it is a hazardous waste. If it is a hazardous waste, regulations for transportation, treatment, storage, and disposal found in 40 CFR 262, 263, and 264 apply.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store in tightly closed containers in cool, dry, isolated, well ventilated area away from heat, sources of ignition and incompatibles. Use non-sparking tools. Ground lines, containers, and other equipment used during product transfer to reduce the possibility of a static-induced spark.

Use good personal hygiene practices. After handling this product, wash hands before eating, drinking, smoking, or using toilet facilities.

Do not "switch load" (load into containers or vessels which previously contained gasoline or other low flash material) this product because of possible accumulation of a static charge resulting in a source of ignition (spark).

OTHER PRECAUTIONS

Empty containers may contain toxic, flammable/combustible or explosive residue or vapors. Do not cut, grind, drill, weld or reuse empty containers.

Do not transfer this product to another container unless the container receiving the product is labeled with proper DOT shipping name, hazard class, and other information that describes the product and its hazards.

Continued on next page

Section VIII - Control Measures

RESPIRATORY PROTECTION

NIOSH/MSHA approved breathing equipment must be available if excessive mists or vapor results from conditions of use or for non-routine and emergency use. Ventilation may be used to control or reduce airborne concentrations.

Ventilation

LOCAL EXHAUST VENTILATION

Use of any hydrocarbon fuel in spaces without adequate ventilation may result in hazardous levels of combustion products and inadequate oxygen for breathing. Use of this product in non-flue connected heating appliances can result in personal injury. Purchasers and users should be informed of this potential hazard.

SPECIAL VENTILATION

Use adequate ventilation to keep vapor concentrations below applicable exposure limits.

Since special exposure standards/control limits have not been established for this product, the following limits are given as MINIMUM CONTROL GUIDELINES. NIOSH has proposed a limit of 100 mg/cu.M or 14 ppm per 10 hour TWA based on an average molecular weight of 170 for kerosene-like fractions. The 15 minute STEL is 1800 mg/cu.M. ACGIH has adopted TLV's for stoddard solvent of 100 ppm per 8 hour average and the STEL is 200 ppm for 15 minutes.

MECHANICAL (GENERAL) VENTILATION

Explosion proof motors and fans may be required to provide sufficient ventilation. Mixtures of vapors and air are highly explosive.

OTHER VENTILATION

PROTECTIVE GLOVES

Wear impervious gloves, aprons, boots and facial protection to prevent skin contact. Conditions or frequency of use make contact significant.

Section VIII - Control Measures (continued)

EYE PROTECTION

Wear safety glasses or chemical goggles to prevent eye contact. Have eye baths readily available where eye contact can occur. Do not wear contact lenses when working with this substance.

OTHER PROTECTIVE EQUIPMENT

Avoid prolonged or repeated contact.

WORK AND HYGIENIC PRACTICES

KEEP OUT OF THE REACH OF CHILDREN.

SARA Title III Information

1. Title III Section 302/304 Extremely Hazardous Substance

NONE

2. Title III Section 311 Hazard Category

Acute	Chronic	Fire	Pressure	Reactive	N/A
x	x	x			

3. Title III Section 313 Toxic Chemicals

Component	CAS No.	x
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NONE

This information, recommendations and suggestions were compiled from reference material and other sources believed to be reliable. However, the MSDS's accuracy or completeness is not guaranteed by either Hill Petroleum Company or its affiliates nor is any responsibility assumed or implied for any loss or damage resulting from inaccuracies or omissions. Since conditions of use are beyond our control, including warranties of merchantability and fitness for a particular purpose. This MSDS is not intended as a license to operate under, or recommendation to infringe on, any patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.



**Oil Blending Plant & Laboratory**

425 S. Washington St. Combined Locks, WI 54113  
Phone 414-735-8298

MATERIAL SAFETY DATA SHEET

- Conforms to OSHA Form 174

Product Name            PARTS SOLVENT (Mineral Spirits)

**Section 1**

Manufacturer's Name U.S. Oil Co., Inc.	Emergency Phone Number Chemtrec 800-424-9300
Address 425 S. Washington	Telephone Number for Information 414-735-8295
Combined Locks, WI 54113	Date Prepared 6/5/89

**Section 2 - Hazardous Ingredients/Identity Information**

Hazardous Components (Specific Identity: Common Name(s))	OSHA PEL	ACGIH TLV	Others
140 SOLVENT	100 ppm 200 ppm 500 ppm	ACGIH TWA ACGIH STEL OSHA TWA	

**Section 3 - Physical/Chemical Characteristics**

Boiling Point	N.D.	Specific Gravity (H <sub>2</sub> O=1)	.772
Vapor Pressure (mm Hg.)	N.D.	Melting Point	N.D.
Vapor Density (AIR=1)	N.D.	Evaporation Rate (Butyl Acetate = 1)	0.08

Solubility in Water

Negligible            <5%

Appearance and Odor

Clear-little if any color, with characteristic

**Section 4 - Fire and Explosion Hazard Data**

Flash Point (method used)	Flammable Limits	LEL	UEL
141 <sup>o</sup> F TCC F	N.D.	1.0 % VOL	7.0 % VOL

**Extinguishing Media**

CO<sub>2</sub>, dry chemical, foam, water spray, water fog

**Special Fire Fighting Procedures**

Wear self contained breathing apparatus with full face piece. Cool exposed containers with water spray. Avoid breathing fumes.

**Unusual Fire and Explosion Hazards**

Toxic fumes may be evolved on burning or exposure to heat. Pressure may increase in overheated closed containers. Store below 120<sup>o</sup>F.

**Section 5 - Reactivity Data**

Stability	Unstable		Conditions to Avoid
	Stable	XXX	

**Incompatibility (Materials to Avoid)**

Oxidizing Agents, Acids, bases, and selected amines.

**Hazardous Decomposition or Byproducts**

Oxides of carbon

Hazardous Polymerization	May Occur		N.A.
	Will Not Occur	XXX	

**Section 6 - Health Hazard Data**

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	Yes	Yes	Yes

**Health Hazards (Acute and Chronic)**

Oral Toxicity: Ingestion of excessive quantities may cause irritation of the digestive tract. Signs of nervous system depression. This material can enter lungs during swallowing or vomiting and cause lung damage.

Eye Irritation: May cause skin irritation. Prolonged or repeated contact may cause burning.

Skin Irritation: tearing and redness.

May cause skin irritation. Prolonged repeated contact may cause dermatitis. Persons with Other: pre-existing lung disorders may be aggravated by exposure to this material.

Breathing high concentrations of vapors or mists may cause irritation of the nose and the nervous system depression. Respiratory symptoms associated with pre-existing lung disorders may be aggravated by exposure to this material.

Carcinogenicity: aggravated by exposure to this material.

This substance has not been identified as a carcinogen or probable carcinogen by NTP, IARC or OSHA. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Internal misuse by deliberately concentrating and inhaling this product may be harmful or fatal.

**Medical Conditions**

**Generally Aggravated by Exposure**

Prolonged or repeated skin contact may cause skin irritation. Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.

**Emergency and First Aid Procedures**

**Skin:** Remove contaminated clothing, cleanse affected area by washing with soap and water. If irritation develops or persists, seek medical attention.

**Eye:** If irritation or redness from exposure to vapors develops, move victim away from exposure and into fresh air. If irritation or redness persists, seek medical attention. For direct contact flush eyes with clean water, seek medical attention.

**Inhalation:** If irritation of nose or throat develops, move victim from source of exposure into fresh air. If irritation persists seek medical attention, if not breathing,

**Oral:** administer artificial respiration, seek immediate medical attention.

Aspiration hazard. DO NOT INDUCE VOMITING. This material can enter lungs and cause severe lung damage. If victim is drowsy or unconscious, place on left side with head down. Do not leave victim unattended. Seek medical attention.

**Other:** None.

**Section 7 - Precautions for Safe Handling and Use**

**Steps To Be Taken In Case Material Is Released Or Spilled**

Prevent entry into sewers and waterways. Pick up free liquid for recycle or disposal. Absorb small amounts on inert material.

**Waste Disposal Method**

If disposed of this material is believed to be non-hazardous per Wisconsin DNR. Disposal should be in compliance with Federal, State, and Local laws.

**Precautions To Be Taken in Handling and Storing.**

Keep containers closed when not in use. Do not handle or store near high heat or flames.

**Other Precautions**

Avoid breathing oil mists, wash skin thoroughly with soap and water after handling.

**Section 8 - Control Measure**

**Respiratory Protection**

Normally not required, mask or respiratory for mists.

Ventillation	Local Exhaust	Recommended	Special	N.A.
	Mechanical (General)	Recommended	Other	N.A.

**Protective Gloves**

Neoprene or Nitrile Gloves Recommended

**Eye Protection**

Safety glass recommended and face shield.

**Other Protective Clothing or Equipment**

As needed to prevent repeated or prolonged contact.

**Work/Hygienic Practices**

If clothes become contaminated change to clean clothing. Do not wear contaminated clothing until laundered.



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8. PAINTING SYSTEMS

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MATERIAL SAFETY DATA SHEET

Date: 06-07-1988

Supersedes: JULY 7 1987

SECTION I

MANUFACTURER'S NAME & ADDRESS  
Devoe & Reynolds Co.  
4000 DuPont Circle  
Louisville, KY 40207

PRODUCT NAME  
SPEED RED REDUCER

PRODUCT CATALOG NUMBER  
41462

GENERAL MSDS INFORMATION: (502) 589-9340

PRODUCT CLASS  
EPOXY ESTER ENAMEL

24 HR EMERGENCY ASSISTANCE: DEVOE (502)589-9340 (M-F 8AM-4:30PM EASTERN); CHEMTREC (800)424-9300 (ALL OTHER TIMES)

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENTS	CAS NO.	Percent WT.	Hazardous			ACGIH TLV		OSHA PEL		LEL	VAPOR PRESSURE
			a	b	c	PPM	ug/M3	PPM	ug/M3		
XYLENE	1330-20-7	100	/	/		100	435	100	435	1.0	5.1 @68 °F

/ HAZARDOUS ACCORDING TO: a-SARA 302/304, b-SARA 313, c-CERCLA 103(a)

NA = Not Available

SECTION III - PHYSICAL DATA

VAPOR DENSITY X-HEAVIER  
EVAPORATION RATE FASTER  
LIGHTER THAN AIR  
X-SLOWER THAN ETHER  
BOILING RANGE 276 - 304 °F  
PERCENT VOLATILE BY VOLUME 100  
POUNDS PER GALLON 7.19

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION  
OSHA 29 CFR-1910.106(a)  
Parts 18-19  
Flammable Liquid Class I(B)  
FLASH POINT 55°F SETAFLASH  
LEL  
SEE SECTION II

EXTINGUISHING MEDIA: In case of fire use CO<sub>2</sub>, Dry Chemical, Foam or other National Fire Protection Association (NFPA) approved method for treating a Class B fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and flame. Vapors may cause flash fire. Vapors may ignite explosively. Vapors may spread long distances and beyond closed doors. Due to pressure build-up, closed containers exposed to extreme heat may explode. Never use a welding or cutting torch on or near container (even empty) as product or its residue may ignite. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES: Summon professional firefighters. Use full protective equipment including self-contained breathing apparatus. Water spray may be ineffective. If water is used, fog nozzles are preferable. If exposed to fire or extreme heat, water should be used to cool closed containers and prevent pressure build-up or possible auto-ignition.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE See Section II

EFFECTS OF OVEREXPOSURE

ACUTE- Breathing: Irritation of the respiratory tract; headache, nausea, dizziness, weakness and fatigue. Extreme exposure can result in unconsciousness and even respiratory arrest.

Skin or Eye Contact: Primary irritation.

Swallowing: Can cause stomach and/or intestinal irritation, nausea, vomiting and diarrhea. Aspiration of vomitus can cause chemical pneumonitis which can be fatal.

CHRONIC- Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Prolonged and repeated breathing of spray mist and/or sanding dust over a period of years may cause dust disease of the lungs.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE- None when used in accordance with Safe Handling and Use Information, (See Section VIII).

PRIMARY ROUTE(S) OF ENTRY SKIN X-BREATHING X-SWALLOWING

MS-17

Section V Continued on Next Page

**SECTION V - HEALTH HAZARD DATA (CONTINUED)**

41462

**EMERGENCY AND FIRST AID PROCEDURES**

- IF BREATHED:** If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, summon medical assistance immediately. If breathing ceases, restore using approved CPR techniques and summon medical assistance immediately.
- IF IN EYES:** In case of eye contact, flush with large amounts of water for at least 15 minutes. Get medical assistance.
- IF ON SKIN:** In case of skin contact, wash area thoroughly with soap and water. Remove soiled clothing. Get medical assistance if irritation persists.
- IF SWALLOWED:** **DO NOT INDUCE VOMITING.** Consult physician immediately. Aspiration of vomitus can cause chemical pneumonitis which can be fatal.

**WARNING:** Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

**SECTION VI - REACTIVITY DATA**

- STABILITY** UNSTABLE X-STABLE
- INCOMPATIBILITY:** Avoid contact with strong oxidizing agents.
- HAZARDOUS DECOMPOSITION PRODUCTS:** May cause hazardous fumes when heated to decomposition. Fumes may contain carbon monoxide, carbon dioxide and oxides of metals listed in Section II.
- HAZARDOUS POLYMERIZATION** MAY OCCUR I-WILL NOT OCCUR

**SECTION VII - SPILL OR LEAK PROCEDURES**

- STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Remove all sources of ignition (flames, hot surfaces, and electrical, static or frictional sparks). Do not smoke. Avoid breathing vapors. Before attempting clean-up, refer to hazard caution information in other sections of this material safety data form. Ventilate area. Contain spilled material and remove with inert absorbent and non-sparking tools. Store in closed container until properly disposed of.
- WASTE DISPOSAL METHOD:** Dispose of in accordance with local, state and federal regulations. Incinerate only in approved facility. Do not incinerate closed containers.

**SECTION VIII - SAFE HANDLING AND USE INFORMATION**

- RESPIRATORY PROTECTION:** Do not breathe vapors, spray mist or sanding dust. When spray applied in outdoor or open areas with unrestricted ventilation, and during sanding or grinding operations, use NIOSH/MSHA approved mechanical filter respirator to remove solid airborne particles of overspray and sanding dust. When used in restricted ventilation areas, wear NIOSH/MSHA approved chemical/mechanical filters designed to remove a combination of particulates and vapor. When used in confined areas, wear NIOSH/MSHA approved air supply respirators or hoods. Use NIOSH/MSHA approved respirators when cutting, welding, brazing and sanding material coated with this product. Follow respirator manufacturer's directions for respirator use.
- VENTILATION:** Use only with adequate ventilation. Provide general dilution or local exhaust ventilation in volume and pattern to keep air contaminant concentration below current applicable safety and health standards in the mixing, application and curing areas, and to remove sanding dusts of dried coating and decomposition product during welding and flame cutting on surfaces coated with this product. Heavy solvent vapors should be removed from lower levels of the work area and all ignition sources should be eliminated.
- PROTECTIVE GLOVES:** Do not get on skin. Solvent impermeable gloves to prevent contact are recommended.
- EYE PROTECTION:** Do not get in eyes. Solvent resistant safety eyewear with splash guards or sideshields is recommended to prevent contact.
- OTHER PROTECTIVE EQUIPMENT:** Do not get on skin. Solvent impermeable clothing and boots to prevent contact are recommended.
- HYGIENIC PRACTICES:** Remove and wash soiled clothing before reuse. Wash hands before eating, smoking or using the washroom.

**SECTION IX - OTHER PRECAUTIONS**

- PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Keep away from heat, sparks and flame. Do not smoke. Extinguish all pilot lights and turn off all sources of ignition including heaters, fans and other non-explosion-proof electrical equipment, during use and until all vapors are gone. Vapors may ignite explosively. Vapors may spread long distances and beyond closed doors. Prevent build-up of vapors by maintaining continuous flow of fresh air. Do not store above 120°F or near fire or open flame. Store large quantities in buildings to comply with OSHA 1910.106. Keep container closed when not in use. Do not transfer contents to bottles or other unlabelled containers. Do not reuse empty containers. Keep out of reach of children
- WARNING:** This product may contain a chemical known to the state of California to cause cancer, birth defects or other reproductive harm.

The information contained herein is based on data believed by Devco & Reynolds Co. to be accurate, but we do not assume any liability for the accuracy of this information. We neither suggest nor guarantee that any hazards mentioned are the only ones which exist. Anyone intending to rely on any recommendation or to use any equipment, technique or material mentioned should also satisfy himself that he can meet all applicable safety and health standards. Determination of the suitability of any information product for the use contemplated by any user, the manner of that use and whether there is any infringement of patents is the responsibility of the user.

MATERIAL SAFETY DATA SHEET

Date: 09-12-1988

Supersedes: 7/5/88

SECTION I

MANUFACTURER'S NAME & ADDRESS Devoe & Reynolds Co. 4000 DuPont Circle Louisville, KY 40207	PRODUCT NAME PAINT THINNER - 100% MINERAL SPIRITS	PRODUCT CATALOG NUMBER 16800 Metal Container 17000 Plastic Container
GENERAL MSDS INFORMATION: (502) 589-9340		PRODUCT CLASS PETROLEUM SOLVENT
24 HR EMERGENCY ASSISTANCE: DEVOE (502)589-9340 (M-F 8AM-4:30PM EASTERN); CHEMTREC (800)424-9300 (ALL OTHER TIMES)		

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENTS	CAS NO.	Percent WT.	Hazardous a b c	ACGIH TLV PPM	mg/M3	OSHA PEL PPM	mg/M3	LEL	VAPOR PRESSURE
MINERAL SPIRITS	64742-88-7	100		100	525	500	2900	1.0	2.0 @68 °F

HAZARDOUS ACCORDING TO: a-SARA 302/304, b-SARA 313, c-CERCLA 103(a) NA = Not Available

SECTION III - PHYSICAL DATA

VAPOR DENSITY	X-HEAVIER	LIGHTER THAN AIR	BOILING RANGE	300 - 390 °F	POUNDS PER GALLON	6.45
EVAPORATION RATE	FASTER	X-SLOWER THAN ETHER	PERCENT VOLATILE BY VOLUME	100	VOC	6.45 LBS/GAL (- WATER)

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION: OSHA 29 CFR-1910.106(a) Parts 18-19 Combustible Liquid - Class II  
FLASH POINT: 102°F SETAFLASH  
LEL: SEE SECTION II

EXTINGUISHING MEDIA: In case of fire use CO<sub>2</sub>, Dry Chemical, Foam or other National Fire Protection Association approved method for treating a Class B Fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep containers tightly closed. Isolate from heat and flame. Due to pressure build-up closed containers exposed to extreme heat may explode. Never use a welding or cutting torch on or near container (even empty) as product or its residue may ignite. During emergency conditions, overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES: Summon professional firefighters. Use full protective equipment including self contained breathing apparatus. Water spray may be ineffective. If water is used, fog nozzles are preferable. If exposed to fire or extreme heat, water should be used to cool closed containers and prevent pressure build-up or possible auto-ignition.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: See Section II

EFFECTS OF OVEREXPOSURE

ACUTE- Breathing: Irritation of the respiratory tract; headache, nausea, dizziness, weakness and fatigue. Extreme exposure can result in unconsciousness and even respiratory arrest.

Skin or Eye Contact: Primary irritation.

Swallowing: Can cause stomach and/or intestinal irritation, nausea, vomiting and diarrhea. Aspiration of vomitus can cause chemical pneumonitis, which can be fatal.

CHRONIC- Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Prolonged and repeated breathing of spray mist and/or sanding dust over a period of years may cause dust disease of the lungs.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE- None when used in accordance with Safe Handling and Use Information (See Section VIII).

PRIMARY ROUTE(S) OF ENTRY: SKIN X-BREATHING X-SWALLOWING

MS-1C

Section V Continued on Next Page

## SECTION V - HEALTH HAZARD DATA (CONTINUED)

16800

## EMERGENCY AND FIRST AID PROCEDURES

- IF BREATHED:** If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, summon medical assistance immediately. If breathing ceases, restore using approved CPR techniques and summon medical assistance immediately.
- IF IN EYES:** In case of eye contact, flush with large amounts of water for at least 15 minutes. Get medical assistance.
- IF ON SKIN:** In case of skin contact, wash area thoroughly with soap and water. Remove soiled clothing. Get medical assistance if irritation persists.
- IF SWALLOWED:** DO NOT INDUCE VOMITING. Consult physician immediately. Aspiration of vomitus can cause chemical pneumonitis which can be fatal.

**WARNING:** Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

## SECTION VI - REACTIVITY DATA

- |  |           |  |
|--|-----------|--|
| <b>STABILITY</b>                         | UNSTABLE  | X-STABLE   |
| <b>INCOMPATIBILITY:</b>                  |           | Avoid contact with strong oxidizing agents.  |
| <b>HAZARDOUS DECOMPOSITION PRODUCTS:</b> |           | May cause hazardous fumes when heated to decomposition. Fumes may contain carbon monoxide, carbon dioxide and oxides of metals listed in Section II. |
| <b>HAZARDOUS POLYMERIZATION</b>          | MAY OCCUR | X-WILL NOT OCCUR   |

## SECTION VII - SPILL OR LEAK PROCEDURES

- STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Remove all sources of ignition (heat, flame). Do not smoke. Avoid breathing vapors. Before attempting clean-up refer to hazard caution information in other sections of this material safety data form. Ventilate area. Contain spilled material and remove with inert absorbent and non-sparking tools. Store in closed containers until properly disposed of.
- WASTE DISPOSAL METHOD:** Dispose of in accordance with local, state and federal regulations. Incinerate only in approved facility. Do not incinerate closed containers.

## SECTION VIII - SAFE HANDLING AND USE INFORMATION

- RESPIRATORY PROTECTION:** Do not breathe vapors, spray mist or sanding dust. When spray applied in outdoor or open areas with unrestricted ventilation, and during sanding or grinding operations, use NIOSH/MSHA approved mechanical filter respirator to remove solid airborne particles of overspray and sanding dust. When used in restricted areas, wear NIOSH/MSHA approved chemical/mechanical filters designed to remove a combination of particulates and vapor. When used in confined areas, wear NIOSH/MSHA approved air supply respirators or hoods. Use NIOSH/MSHA approved respirators when flame cutting welding, brazing and sanding material coated with this product. Follow respirator manufacturer's directions for respirator use.
- VENTILATION:** Use only with adequate ventilation. Provide general dilution or local exhaust ventilation in volume and pattern to keep air contaminant concentration below current applicable safety and health standards in the mixing, application and curing areas, and to remove sanding dusts of dried coating and decomposition product during welding and flame cutting on surfaces coated with this product. Heavy solvent vapors should be removed from lower levels of the work area and all ignition sources should be eliminated.
- PROTECTIVE GLOVES:** Do not get on skin. Solvent impermeable gloves to prevent contact are recommended.
- EYE PROTECTION:** Do not get in eyes. Solvent resistant safety eyewear with splash guards or sideshields is recommended to prevent contact.
- OTHER PROTECTIVE EQUIPMENT:** Do not get on skin. Solvent impermeable clothing and boots to prevent contact are recommended.
- HYGIENIC PRACTICES:** Remove and wash soiled clothing before reuse. Wash hands before eating, smoking or using the washroom.

## SECTION IX - OTHER PRECAUTIONS

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Keep away from heat and flame. Do not smoke. Prevent build-up of vapors by maintaining continuous flow of fresh air.

Do not store above 120°F or near fire or open flame. Store large quantities in buildings designed to comply with OSHA 1910.106. Keep container closed when not in use. Do not transfer contents to bottles or other unlabelled containers.

Do not reuse empty containers.

Keep out of reach of children.

**WARNING:** This product may contain a chemical known to the state of California to cause cancer, birth defects or other reproductive harm.

The information contained herein is based on data believed by Devco & Reynolds Co. to be accurate, but we do not assume any liability for the accuracy of this information. We neither suggest nor guarantee that any hazards mentioned are the only ones which exist. Anyone intending to rely on any recommendation or to use any equipment, technique or material mentioned should also satisfy himself that he can meet all applicable safety and health standards. Determination of the suitability of any information or product for the use contemplated by any user, the manner of that use and whether there is any infringement of patents is the sole responsibility of the user.

CHEMICAL NAME: SOLVENT BLEND "MATERIAL SAFETY DATA SHEET"  
 SYNONYMS: CHEMICAL FAMILY:  
 FORMULA: MOLECULAR WEIGHT:  
 TRADE NAME AND SYNONYMS: ~~XXXXXXXXXX~~ JOSTEN'S LACQUER THINNER

I. PHYSICAL DATA

BOILING POINT, 760 mm. Hg	133 - 340°F	FREEZING POINT	
SPECIFIC GRAVITY (H <sub>2</sub> O = 1)	0.853	VAPOR PRESSURE AT 20°C.	32 mm Hg
VAPOR DENSITY (air = 1)	3.1	SOLUBILITY IN WATER, % by wt. at 20°C.	13%
PER CENT VOLATILES BY VOLUME	100%	EVAPORATION RATE (Butyl Acetate = 1)	3.0
APPEARANCE AND ODOR			

II. HAZARDOUS INGREDIENTS

MATERIAL	%	TLV (Units)

III. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (test method)	> 4°F TCC	AUTOIGNITION TEMPERATURE	
FLAMMABLE LIMITS IN AIR, % by volume	LOWER	1.2	UPPER 12.8

EXTINGUISHING MEDIA	Use water spray, carbon dioxide, dry chemical, alcohol type or universal-type foams applied by manufacturer's recommended technique.
SPECIAL FIRE FIGHTING PROCEDURES	Use self-contained breathing apparatus and protective clothing. A straight stream of water could cause fire to spread.
UNUSUAL FIRE AND EXPLOSION HAZARDS	A vapor accumulation would flash and/or explode if ignited.

EMERGENCY PHONE NUMBERS

N. Josten & Co., Inc. } Phone: 445-4651  
 4905 N. 32nd St., Milwaukee, Wis. 53209

### IV. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	121 ppm (calculated)
EFFECTS OF OVEREXPOSURE	Headache, nausea, vomiting and irritation of nose and throat. Repeated exposure may damage blood. May cause corneal injury.
EMERGENCY AND FIRST AID PROCEDURES	Remove to fresh air. Call a physician. Do not induce vomiting. Remove contaminated clothing and flush skin with water. Eye contact - flush with plenty of water for at least 15 minutes. Get medical attention immediately

### V. REACTIVITY DATA

STABILITY		CONDITIONS TO AVOID	
UNSTABLE	STABLE		
	X		
INCOMPATIBILITY (materials to avoid)		Alkalies, strong oxidizing agents, anhydride, isocyanate monomer, and organometallic contamination, catalysts and sulfuric acid. Burning may produce carbon monoxide and/or carbon dioxide.	
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID	
May Occur	Will not Occur		
	X		

### VI. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED	Eliminate all sources of ignition. Small spills should be flushed with large quantities of water. Large spills should be contained, collected, and disposed of.
WASTE DISPOSAL METHOD	Incineration or reclamation

### VII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type)		Self-contained breathing apparatus in high concentrations	
VENTILATION	LOCAL EXHAUST	X	SPECIAL
	MECHANICAL (general)		OTHER
PROTECTIVE GLOVES		Rubber	EYE PROTECTION Monogoggles
OTHER PROTECTIVE EQUIPMENT		Eye bath and safety shower	

### VIII. SPECIAL PRECAUTIONS

RECAUTIONARY LABELING	Avoid breathing vapor Keep away from heat and open flame Avoid contact with eyes, skin and clothing Keep container closed Use with adequate ventilation Wash thoroughly after handling <b>FOR INDUSTRY USE ONLY</b>
OTHER HANDLING AND STORAGE CONDITIONS	Laboratory studies indicate that, at very low concentration in water, this product should be rapidly biodegraded in a biological wastewater treatment plant.



**SECTION I - MATERIAL IDENTIFICATION**

Chemical Name and Synonyms  
 Quick Dry Mineral Spirits

Trade Name  
 Gettysolve S-2

Manufacturer's Name  
 Texaco Chemical Company

Street Address  
 4800 Fournace Place

City, State and Zip Code  
 Bellaire, Texas 77401

General Contact Number  
 (713) 432-3653

Emergency Telephone Number  
 (409) 722-8381

Chemical Family  
 Aliphatic Hydrocarbon

Formula  
 Mixed  
 C<sub>9</sub>'s and C<sub>10</sub>'s

CAS Number  
 64742-88-7

**SECTION II - INGREDIENTS**

Composition  
 Gettysolve S-2  
 Mixture of C<sub>9</sub>'s & C<sub>10</sub>'s

Z  
 ca 100\*

Toxicity Data  
 See "notice" below

Benzene

Nil

This material is hazardous because of its flammability.

Notice: Kidney injury and kidney cancer have been reported to occur in male rats exposed to hydrocarbon mixtures, particularly those containing paraffinic, isoparaffinic and naphthenic compounds. Epidemiologic evidence, though limited, suggest that if there is any elevated risk of kidney cancer associated with hydrocarbon exposures it is low and near the limit of detection. Additional animal and human studies are currently underway to determine any risk.

\*ca - about



SECTION III - PHYSICAL DATA

Boiling Range (°F)  
305-335°  
(151.7-168.3°C)

Specific Gravity (H<sub>2</sub>O=1)  
0.774 @ 20/4°C

Vapor Pressure (mmHg)  
8 mm @ 37.8°C

Percent Volatile by Volume (%)  
100

Vapor Density (air = 1)  
4.73

Evaporation Rate

Solubility in Water  
Insoluble

Appearance and Odor  
Clear, colorless liquid  
Sweet naptha odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (method used)  
100°F (37.8°C) T.C.C.

Autoignition Temperature  
450-500°F (232-260°C)

Flammable Limits (% by Volume)  
Lel = 1.1, Uel = 6.1

Extinguishing Media

Alcohol Foam       Carbon Dioxide       Dry Chemical  
 Foam       Water Spray (Fog)       Other

Special Fire Fighting Procedures

Water spray may be ineffective and can be used to keep containers cool.

Unusual Fire and Explosion Hazards

N/A\*

\*N/A - not applicable

**SECTION V - HEALTH HAZARD DATA**

Threshold Limit (ACGIH)

100 ppm (575 mg/M<sup>3</sup>) - based on Stoddard Solvent

Permissible Exposure Limit (OSHA)

500 ppm (2950 mg/M<sup>3</sup>) - based on Stoddard Solvent

Effects of Overexposure

Symptoms of overexposure include dizziness, headache, intoxication with euphoria leading to unconsciousness. This solvent, like all petroleum distillants, are central nervous system (CNS) depressants. Nose and throat irritation may occur from inhalation. Prolonged or repeated skin contact will cause defatting and dermatitis. Eye contact with the liquid causes conjunctivitis.

Emergency and First Aid Procedures

Skin Contact: Wash contact area promptly with soap and water. Promptly remove solvent wet clothing.

Eye Contact: Wash immediately with large amounts of water.

Inhalation: Remove to fresh air. If not breathing, use artificial respiration. Seek medical assistance.

Ingestion: DO NOT induce vomiting. Seek medical assistance.

**SECTION VI - REACTIVITY DATA**

Stability

Stable

Incompatibility (materials to avoid)

Avoid strong oxidizing agents. It can react violently with chlorine, oxygen, or nitric and sulfuric acids.

Hazardous Polymerization

Will not occur.

**SECTION VII - SPILL OR LEAK PROCEDURES**

Steps to be taken in Case Material is Released or Spilled

Contain spill. Eliminate ignition sources. Maintain proper ventilation. Absorb small amounts with absorbents such as sand, dirt, or vermiculite. Large amounts may be pumped into containers for recovery or disposal.

Waste Disposal Method

Approved disposal facility:

0039 0-1 T00

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection

Normally not required. In concentrations to the threshold limit value (TLV) use a full face chemical cartridge respirator with organic vapor cartridge. For concentrations above 100 ppm, use an airline respirator or self-contained breathing apparatus (SCBA) with full face piece. For escape, use SCBA gear.

Ventilation

Local Exhaust - Recommend to maintain vapor levels below TLV.  
Mechanical (general) -

Protective Gloves

Required <u>  X  </u>	Optional <u>      </u>	Not Required <u>      </u>
Neoprene <u>  E  </u>	Polyurethane <u>  G  </u>	Paracril/PVC <u>  F  </u>
Natural Rubber <u>  F  </u>	Polyvinyl Chloride <u>  F  </u>	SBR <u>  NR  </u>

(E) excellent, (G) good, (F) fair, (P) poor, (NR) not recommended

Eye Protection

Chemical goggles or face shield (8 in. min.) when splashing may occur.

Other Protective Equipment

An eye wash fountain should be located in area where splashing may occur.

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storage

N/A

Storage Conditions

Keep in cool location, avoid physical damage to containers.

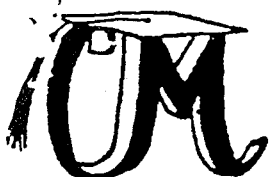
SECTION X - SHIPPING INFORMATION

Transportation

DOT Hazard Class*: Combustible Liquid	IMO Class**: None
DOT Shipping Name*: Petroleum Naptha	ID No.*: UN1255
RQ Quantity*: None	EPA Hazardous Waste No.*: D001
* 49 CFR 172.101	
** 49 CFR 172.102	

Rev. 3/27/84

OCT 10 REC'D



# COOLANT MASTERS

## M A T E R I A L   S A F E T Y   D A T A   S H E E T

### SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : 32110  
 IDENTIFICATION NUMBER: 32110  
 PRODUCT USE/CLASS : Metalworking Fluid

DATE PRINTED: 04/20/95

SUPPLIER:  
 PERKINS PRODUCTS INC.  
 7025 WEST 66TH PLACE  
 BEDFORD PARK, IL 60638

MANUFACTURER:  
 PERKINS PRODUCTS INC.  
 7025 WEST 66TH PLACE  
 BEDFORD PARK, IL 60638

EMERGENCY TELEPHONE: 800-424-9300  
 CHEMTREC---24 HOURS

EMERGENCY TELEPHONE: 800-424-9300  
 CHEMTREC---24 HOURS

PREPARER: William L. Fanning, PHONE: 708-458-2000, PREPARE DATE: 01/24/95

### SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NUMBER	WT/WT %		ACGIH		OSHA		SKIN
		LESS THAN	TLV-TWA	TLV-STEL	PEL-TWA	PEL-CEILING		
Boric acid	00010043-35-3	5.0 %	N.E.	N.E.	N.E.	N.E.	NO	
Octanoic acid	00000124-07-2	5.0 %	N.E.	N.E.	N.E.	N.E.	NO	
Monoethanolamine	00000141-43-5	5.0 %	3 ppm	3 ppm	3 ppm	N.E.	NO	
Triethanolamine	00000102-71-6	20.0 %	5 mg/m <sup>3</sup>	N.E.	5 mg/m <sup>3</sup>	N.E.	NO	

### SECTION 3 - HAZARDS IDENTIFICATION

\*\*\* EMERGENCY OVERVIEW \*\*\*: No Information.

EFFECTS OF OVEREXPOSURE - EYE CONTACT: This material is not expected to be irritating to the eyes. However if direct eye contact should occur, flush with water for 15 minutes. If irritation should develop and persist then consult a physician.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Not expected to be a skin irritant, however it may cause irritation or dermatitis in some individuals upon prolonged contact.

EFFECTS OF OVEREXPOSURE - INHALATION: No hazard in normal industrial use.

EFFECTS OF OVEREXPOSURE - INGESTION: No hazard in normal industrial use.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: No Information.

(Continued on Page 2)

Product: 32110

Preparation Date: 01/24/95

Page 2

SECTION 3 - HAZARDS IDENTIFICATION

PRIMARY ROUTE(S) OF ENTRY: SKIN CONTACT INHALATION INGESTION EYE CONTACT

SECTION 4 - FIRST AID MEASURES

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

FIRST AID - SKIN CONTACT: Wash with soap and water. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: No Information.

FIRST AID - INGESTION: If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: 200 F  
(CLEVELAND OPEN CUP)

LOWER EXPLOSIVE LIMIT: N.A.  
UPPER EXPLOSIVE LIMIT: N.A.

AUTOIGNITION TEMPERATURE: N/A

EXTINGUISHING MEDIA: CO2 DRY CHEMICAL FOAM WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: No Information.

SPECIAL FIREFIGHTING PROCEDURES: No Information.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.

SECTION 7 - HANDLING AND STORAGE

HANDLING: Wash thoroughly after handling. Contains alkanolamines, do not mix with nitrite-containing materials due to the possible formation of nitrosamines which have been found to cause cancer in laboratory animals.

STORAGE: Keep from freezing.

(Continued on Page 3)

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Good general ventilation should be sufficient to control airborne levels.

RESPIRATORY PROTECTION: No Information.

SKIN PROTECTION: No Information.

EYE PROTECTION: Wear safety glasses with side shields (or goggles) and a face shield.

OTHER PROTECTIVE EQUIPMENT: No Information.

HYGIENIC PRACTICES: Wash hands before eating. Remove contaminated clothing and wash before reuse.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE	: 464 - 464 F	VAPOR DENSITY	: Is heavier than air
ODOR	: MILD	ODOR THRESHOLD	: N/A
APPEARANCE	: CLEAR BLUE LIQUID	EVAPORATION RATE:	Is slower than Butyl Acetate
SOLUBILITY IN H2O	: 100% SOLUBLE	SPECIFIC GRAVITY:	1.0371
FREEZE POINT	: 32F	pH @ 5.0 %	: 9.0
VAPOR PRESSURE	: < 0.1 mm Hg	VISCOSITY	: < 32 SUS
PHYSICAL STATE	: Liquid		
COEFFICIENT OF WATER/OIL DISTRIBUTION: 100% WATER			

(See Section 16 for abbreviation legend)

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Avoid strong oxidizing and reducing agents, strong alkali and nitrites.

INCOMPATIBILITY: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion can produce oxides of carbon and nitrogen, incompletely burned hydrocarbon products.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

SECTION 11 - TOXICOLOGICAL PROPERTIES

No product or component toxicological information is available.

(Continued on Page 4)

Product: 32110

Preparation Date: 01/24/95

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SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: No Information.

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of product in accordance with local, county, state, and federal regulations.

SECTION 14 - TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME:

DOT TECHNICAL NAME:

DOT HAZARD CLASS:

HAZARD SUBCLASS:

DOT UN/NA NUMBER:

PACKING GROUP:

RESP. GUIDE PAGE:

SECTION 15 - REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS -

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

CERCLA - SARA HAZARD CATEGORY:

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

IMMEDIATE HEALTH HAZARD

SARA SECTION 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

----- CHEMICAL NAME ----- CAS NUMBER WT/WT % IS LESS THAN  
No SARA Section 313 components exist in this product.

TOXIC SUBSTANCES CONTROL ACT:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

----- CHEMICAL NAME ----- CAS NUMBER  
No information is available.

(Continued on Page 5)

Product: 32110

Preparation Date: 01/24/95

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SECTION 15 - REGULATORY INFORMATION

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INTERNATIONAL REGULATIONS: AS FOLLOWS -

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for use of the 16 headings.

CANADIAN WHMIS CLASS: No information available.

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SECTION 16 - OTHER INFORMATION

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HMIS RATINGS - HEALTH: 1      FLAMMABILITY: 0      REACTIVITY: 0

PREVIOUS MSDS REVISION DATE: 01/06/94

VOLATILE ORGANIC COMPOUNDS (VOCs): 0.00 lbs/gal,    0 grams/ltr

LEGEND: N.A. - Not Applicable, N.E. - Not Established,  
N.D. - Not Determined

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The information contained on this MSDS has been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, state, and Local laws and regulations.

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<END OF MSDS>



**Material Safety Data Sheet**

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

**U.S. Department of Labor**

Occupational Safety and Health Administration  
(Non-Mandatory Form)  
Form Approved  
OMB No. 1218-0072



**IDENTITY (As Used on Label and List)**  
COOL BLEND 300

*Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.*

**Section I**

Manufacturer's Name BENZ OIL INC. {COOLANT MASTERS} {PRIVATE LABELED}	Emergency Telephone Number (414) 442-9450
Address (Number, Street, City, State, and ZIP Code) 2724 W. HAMPTON AVE. MILWAUKEE, WISCONSIN 53209	Telephone Number for Information (414) 764-4605
	Date Prepared 1/6/87
	Signature of Preparer (optional)

**Section II — Hazardous Ingredients/Identify Information**

Hazardous Components (Specific Chemical Identity, Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
MINERAL OIL		5mg/m3 for oil mist in air		
TRIETHANOLAMINE		Eye irritant		
PROPRIETARY SURFACTANT		Eye irritant		

**Section III — Physical/Chemical Characteristics**

Boiling Point IBP is greater than	500 F	Specific Gravity (H <sub>2</sub> O = 1)	0.9
Vapor Pressure (mm Hg.) @20 C VP is less than	0.01	Melting Point	Not Applicable
Vapor Density (AIR = 1) VD is greater than	5	Evaporation Rate (Butyl Acetate = 1) Less than	0.01
Solubility in Water	Negligible; less than 0.1% @ 25 C and 1 Atm.		
Appearance and Odor	Red oily liquid with a characteristic odor.		

**Section IV — Fire and Explosion Hazard Data**

Flash Point (Method Used) (COC) 390° F	Flammable Limits	LEL 1%	UEL 7%
Extinguishing Media	Foam, water spray (fog), dry chemical, carbon dioxide.		
Special Fire Fighting Procedures	Use resp. protection in confined areas or as needed. Use water to keep fire-exposed containers cool. If a leak or spill has not ignited, use water spray to disperse the vapors. Minimize breathing vapors or decomposition products.		
Unusual Fire and Explosion Hazards	Use supplied air breathing equipment for enclosed areas or confined spaces or as otherwise needed.		

