

W66 N215 Commerce Court Cedarburg, Wisconsin 53012 (262) 375-4750 (800) 645-7365 Fax (262) 375-9680 NBG Code 37



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.

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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 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

CC:

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

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

	TOP OF PVC ELEVATION		DEPTH TO GROUNDWATER	GROUNDWATER
WELL NO.	(FEET*)	DATE	(FEET)	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
1		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
1		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	M\	N-2	MW-3	MW-4	MW-5	MW-6	MW-7	GP-1	GP-2	PRG	SSL
Date Collected	6/2	5/99	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		M\	N-2	MV	V-3	MW-4	MW-5	MW-6	MW-7	PAL	ES
Date Collected	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		
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	610	740	540	1.4	1,200	<0.50	4.7	430	1,100	900	340	7	70
trans-1,2-Dichloroethene	3.9	<250	<43	<0.50	<43	<0.50	<0.43	<43	<43	<43	11	20	100
Trichloroethene	120	400	290	0.80	780	<0.50	11	520	760	410	29	0.5	5
Methylene chloride	<0.53	430 B	<200	<0.53	<200	<0.53	<2	<200	<200	<200	<2	0.5	5
Tetrachloroethene	4,100	24,000	18,000	14	22,000	2.0	32	73,000	24,000	18,000	29	0.5	5
Vinyl chloride	15	<85	<87	<0.17	<87	<0.17	<0.87	<87	<87	<87	18	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	36 B	<110	<110	<110	33 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

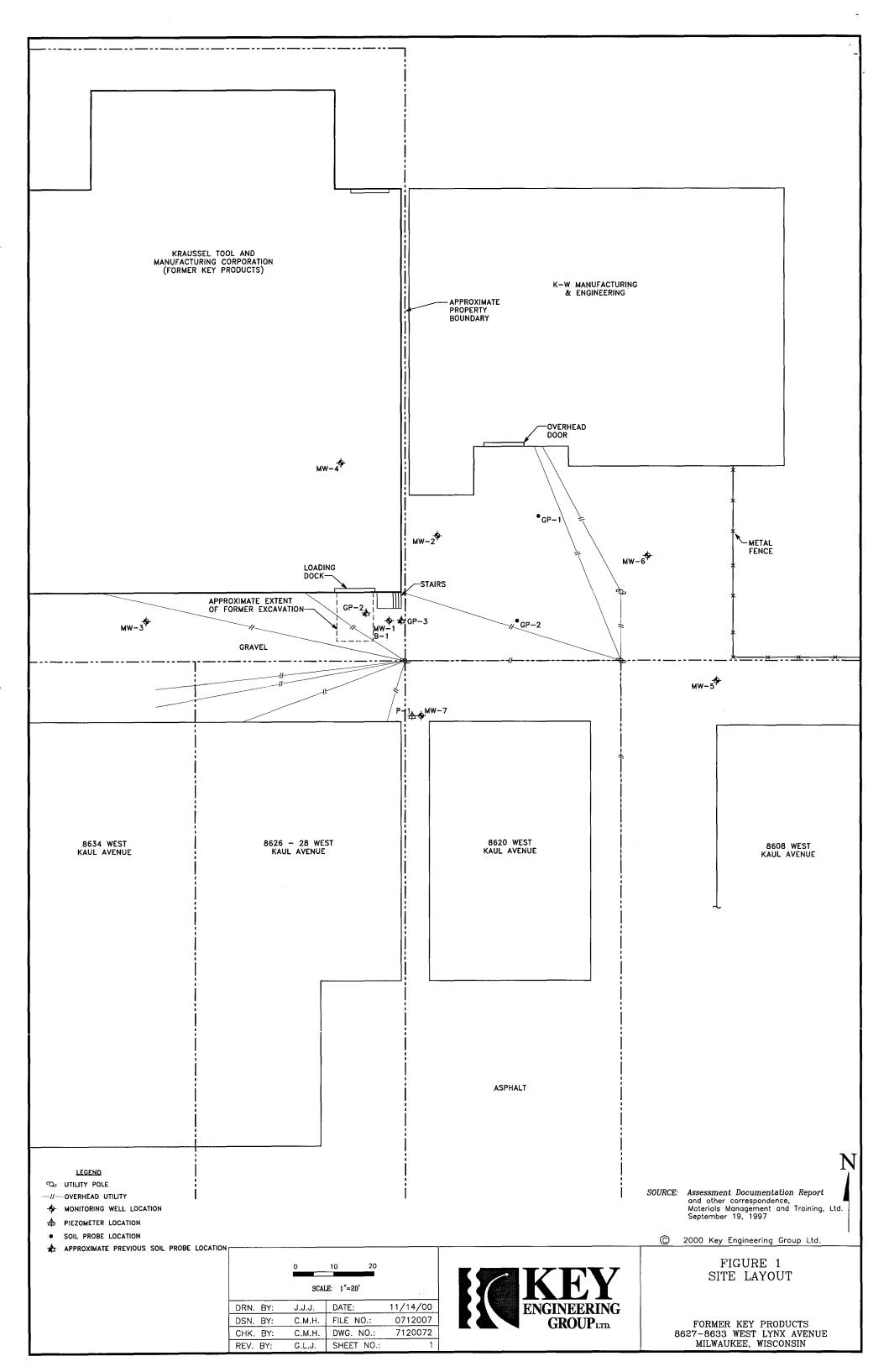
VOCs - volatile organic compounds

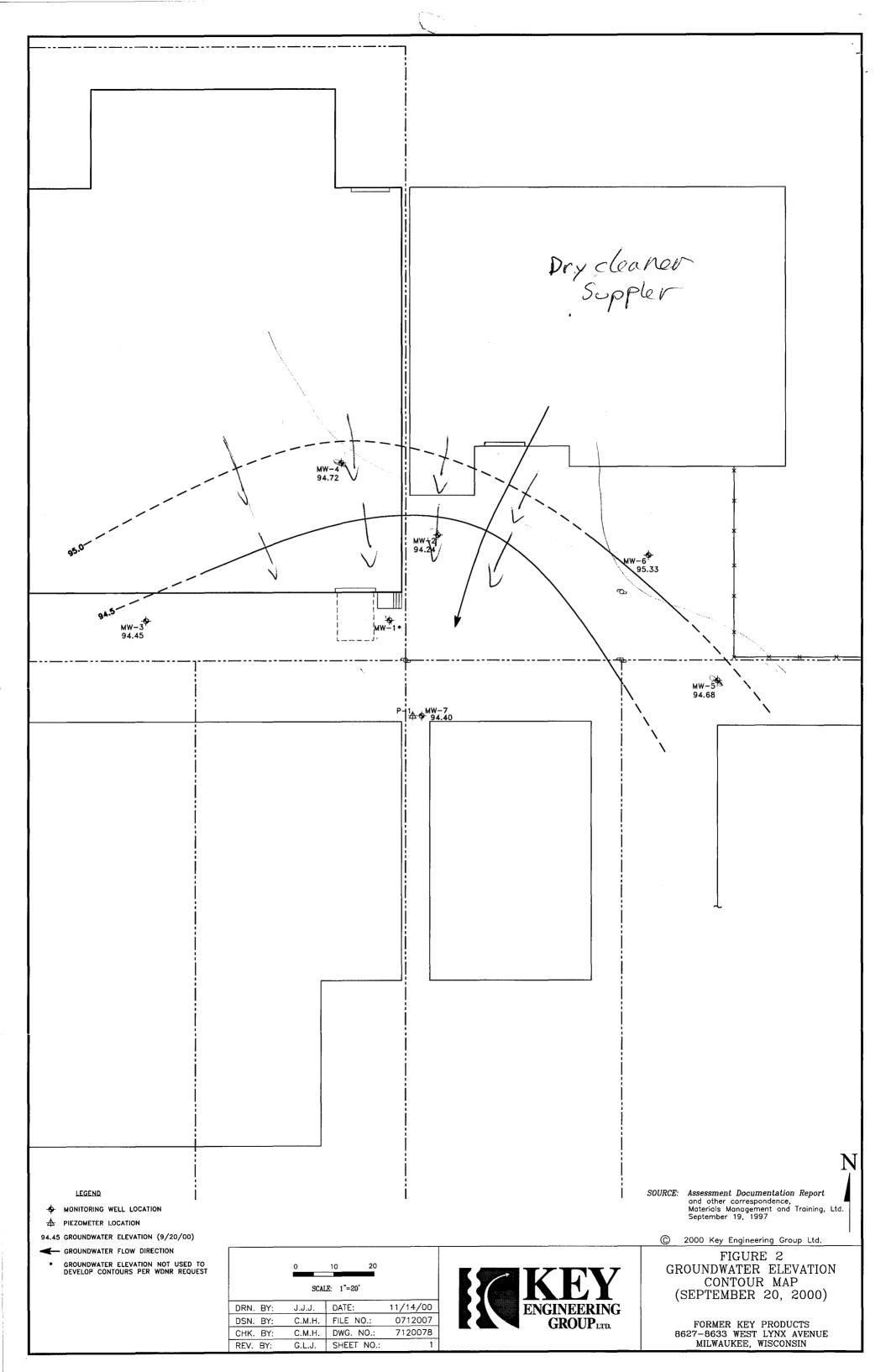
TABLE 4

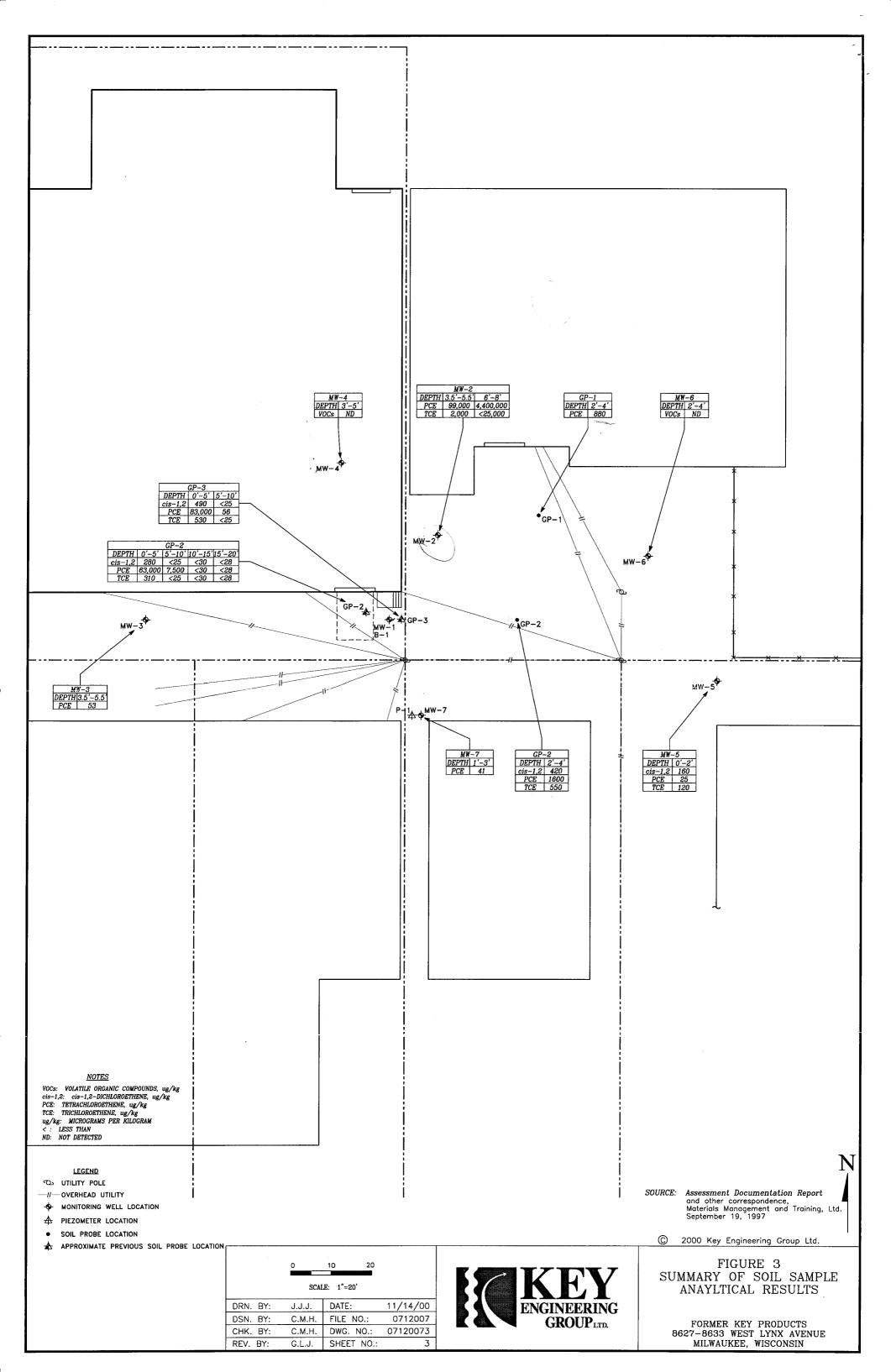
SUMMARY OF SITE AND VICINITY LAND USE

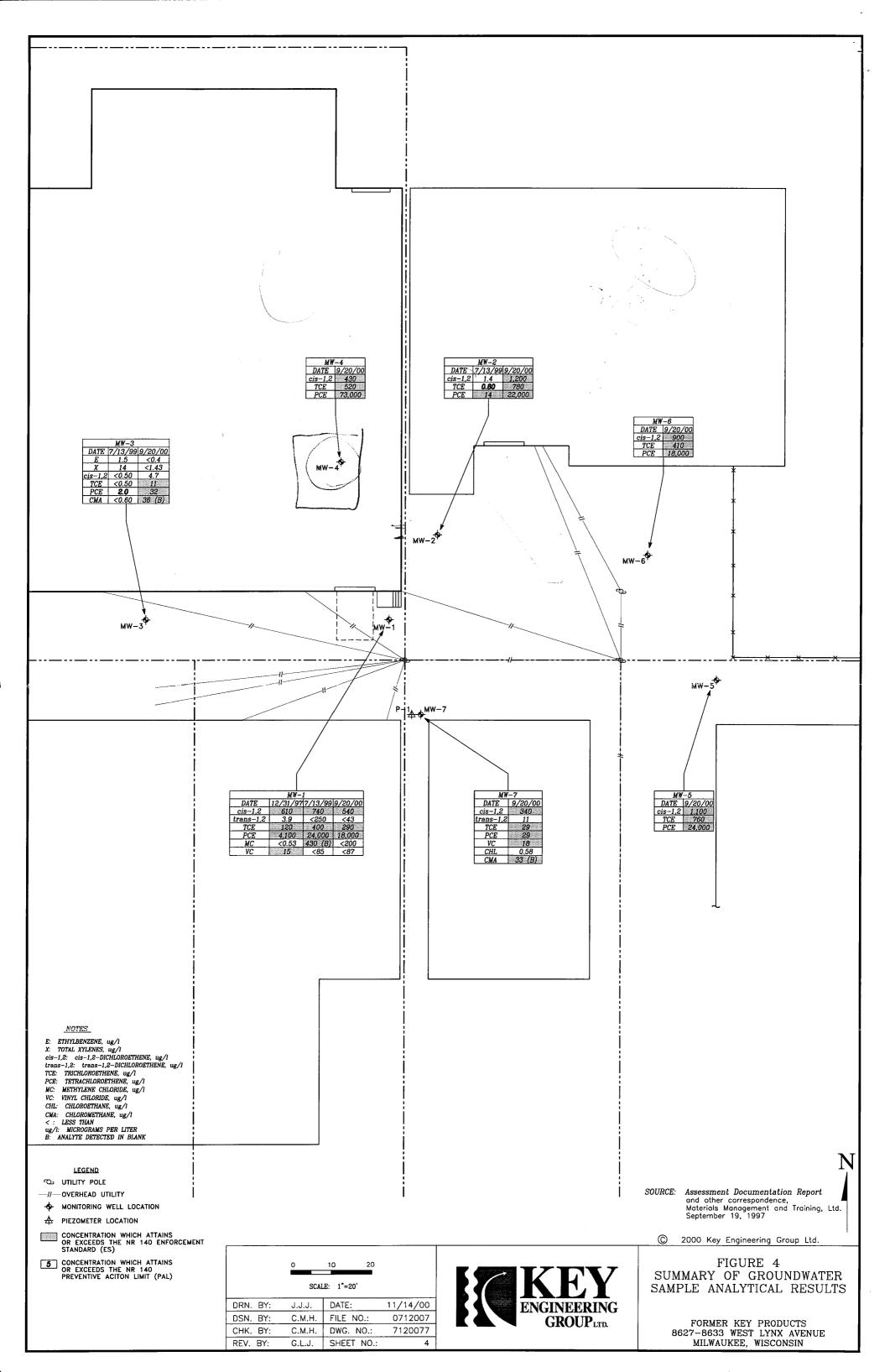
FORMER KEY PRODUCTS, INC. 8627-8633 West Lynx Avenue Milwaukee, Wisconsin

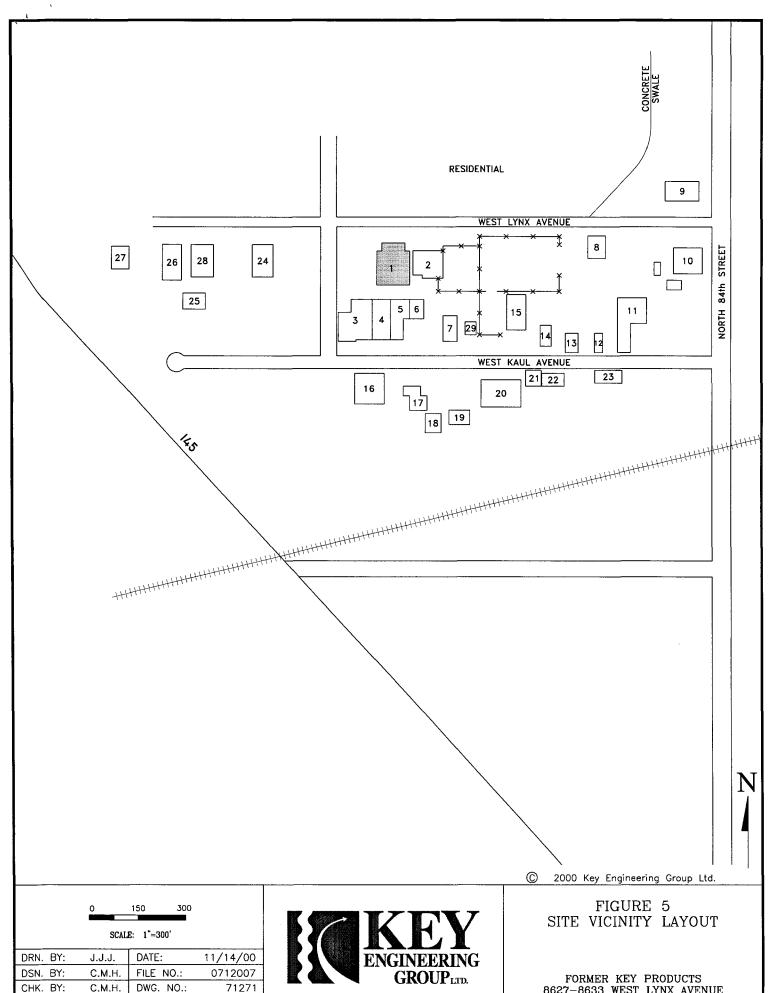
DIM DOLLAR				
BUILDING NUMBER 1	ADDRESS 8627-8633 West Lynx Avenue	CURRENT OCCUPANCY (8633) Kraussel Tool and Manufacturing Corporation	Between 1970 and 1975	CITY DIRECTORY SUMMARY 1995 - (8627) No Listing/(8633) No Listing
(SITE)		(8627) Advanced Technology and Machinery		1990, 1985, 1980 - (8627) 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 Manufactures
				1975 - Hackel Bros. Inc. Spraying Equipment Manufacturers/Pumping Systems Inc. Spray Equipment Manufacturers
				1970 - Perfect Plus Hosiery
				1965 - No Listing 1963 - Hess Mallarey Company Retail Food Dealers
4	8634 West Kaul Avenue	PSI Pumping Systems	Between 1970 and 1975	1995 - Pumping Systems Inc Hackel
	*			1990, 1985 - Key Products Warehouse
				1980 - Diacar Products Inc.
5	8626-8628 West Kaul Avenue	(Not Identified)	Between 1970 and 1975	1975, 1970 - No Listing 1995 - (8628) G&G Auto Works
	JOES SOES TREST MAIN THE ME	(Total de Miles)	Detween 1370 and 1373	1990 - (8626) Key Products Warehouse/(8628) Richey Tec Services Race Preparation and Manufacturer
				1985 - (8626) Gary's Auto and Truck Service Center/(8628) Competition Fiberglass Sales and Service
				1980 - (8626) Gary's Auto and Truck Servcie Center/(8628) Wisconsin Interste Battery Wholesale
				1975 - (8626) Wisconsin Interstate Battery Wholesale Batteries/Wisconsin Interstate Corporation Home Improvement Contractors
6	8620 West Kaul Avenue	(Not Identified)	Between 1963 and 1967	1970 - No Listing 1995 - No Listing
		(roc last mice)	Detricen 1505 and 1507	1990, 1985, 1980 - Kempka Tool Manufacturers Corporation
				1975 - Kempka Tool Manufacturers Corporation/Peerless Heating and Sheet Metal Company
				1970 - Kempka Tool Manufacturers Corporation
7	8608 West Kaul Avenue	D&K Cylinder Repair, Inc.	Before 1963	1965, 1963 - Peerless Heating and Sheet Metal Contractors
	0000 West Raul Avenue	Dak 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
9	8410 West Lynx Avenue	Residential Apartment Building	Between 1963 and 1967	1985 - No Listing 1995, 1990, 1985, 1980, 1975, 1970 - Apartments
	cynk / venue			1995, 1990, 1995, 1990, 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
-11	8428-8430 West Kaul Avenue	(942B) Camplet Classics	Built between 1963 and 1967.	1980 - No Listing
-111	0420-0430 vvest Naul Avenue	(0420) Carnelot CidSSICS	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
			and 1300.	1980 - (8428) Contract Carpets/(8430) Premium Woodwork Inc. Cabinet Makers
				1975 - (8430) Premium Woodwork Inc. Cabinet Makers
10	10440W-+K- : 1	At The House	2 4000 14577	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
15	8520 West Kaul Avenue	Wollin Recycling Co., Inc.	Between 1963	1965, 1963 - No Listing 1995, 1990, 1985, 1980 - Wollin Co, Inc. Wollin, Peter Co., Inc. Scrap Metal
1.0	0020 West Mad / Westac	Womin teeyoning 66., inc.	DEWEEN 1303	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
17	8617 West Kaul Avenue	M&J Construction	Built before 1963.	1965, 1963 - Kaul Concrete Products Inc. 1995, 1990, 1985, 1980, 1975 - Hampton Plumbing
		mas constraints	Addition to south between 1985 and 1990.	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
	Parties Applications and applications and applications and applications and applications and applications and applications are applications are applications and applications are applications and applications are applications are applications and applications are applications and applications are applications and applications are applications and applications are applications are applications are applications are applications are applications and applications are applications ar	Note the second	AND THE PROPERTY OF THE PROPER	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
21	8517 West Kaul Avenue	(Not Identified)	Robuson 1062 c-4 4007	1985, 1980, 1980, 1975, 1970, 1965, 1963 - No Listing
21	0017 West Naul 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
	les e u	I		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
				1990 - Surface Coatings
		[1975, 1970 - Humphries Hansen Inc
1				1965, 1963 - Wel-Bilt Drives Company
		The Calli Building	Between 1963 and 1967	1995 - No Listing
23	8441 West Kaul Avenue	The Call Building		1990 - Denny's Towing and Recovery Auto
23	8441 West Kaul Avenue	The Calli Building		1985 - Faton's Asphalt Service Inc.
23	8441 West Kaul Avenue	The Call Building		1985 - Eaton's Asphalt Service, Inc. 1980 - Humphries-Hansen Inc. Specialty Surfacing
23	8441 West Kaul Avenue	The Call Building		
				1980 - Humphries-Hansen Inc. Specialty Surfacing 1975 - Humphries Hansen Inc. Offices 1970, 1965, 1963 - No Listing
23	8441 West Kaul Avenue 8727 West Lynx Avenue	Argus Tool Manufacturing Toolmakers	Between 1985 and 1990	1980 - Humphries-Hansen Inc. Specialty Surfacing 1975 - Humphries Hansen Inc. Offices 1976 - 1970, 1965, 1963 - No Listing 1995 - Argus Tool
	8727 West Lynx Avenue	Argus Tool Manufacturing Toolmakers		1980 - Humphries-Hansen Inc. Specialty Surfacing 1975 - Humphries Hansen Inc. Offices 1970, 1965, 1963 - No Listing 1995 - Argus Tool 1990, 1985 - No Listing
24			Between 1985 and 1990 Between 1980 and 1985	1980 - Humphries-Hansen Inc. Specialty Surfacing 1975 - Humphries Hansen Inc. Offices 1976 - 1970, 1965, 1963 - No Listing 1995 - Argus Tool
24	8727 West Lynx Avenue	Argus Tool Manufacturing Toolmakers		1980 - Humphries-Hansen Inc. Specialty Surfacing 1975 - Humphries Hansen Inc. Offices 1970, 1965, 1963 - No Listing 1995 - Argus Tool 1990, 1985 - No Listing 1995 - No Listing 1996 - Weigand, Thomas G. 1986 - Vacant
24	8727 West Lynx Avenue	Argus Tool Manufacturing Toolmakers		1980 - Humphries-Hansen Inc. Specialty Surfacing 1975 - Humphries Hansen Inc. Offices 1976 - Humphries Hansen Inc. Offices 1977, 1965, 1963 - No Listing 1995 - Aprus Tool 1996 - No Listing 1996 - No Listing 1990 - Weigand, Thomas G. 1995 - Vacant 1980 - Ludorf, Thomas J.
24	8727 West Lynx Avenue	Argus Tool Manufacturing Toolmakers		1980 - Humphries-Hansen Inc. Specialty Surfacing 1975 - Humphries Hansen Inc. Offices 1976 - 1985 - 1983 - No Listing 1995 - Argus Tool 1996 - No Listing 1996 - No Listing 1996 - No Listing 1996 - Volument of the Surface S
24	8727 West Lynx Avenue	Argus Tool Manufacturing Toolmakers		1980 - Humphries-Hansen Inc. Specialty Surfacing 1975 - Humphries Hansen Inc. Offices 1976 - Humphries Hansen Inc. Offices 1977, 1965, 1963 - No Listing 1995 - Aprus Tool 1996 - No Listing 1996 - No Listing 1990 - Weigand, Thomas G. 1995 - Vacant 1980 - Ludorf, Thomas J.
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SHEET NO .:

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G.L.J.

REV. BY:

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

ATTACHMENT 1

SOIL BORING LOG INFORMATION

Form 4400-122 Route To: Watershed/Wastewater Waste Management Remediation/Redevelopment Other \square 1 2 of Page Facility/Project Name License/Permit/Monitoring Number Boring Number MW-4 Former Key Products Boring Drilled By: Name of crew chief (first, last) and Firm Date Drilling Started Date Drilling Completed Drilling Method Paul 8/30/2000 8/30/2000 **HSA** Wisconsin Soil Testing WI Unique Well No. DNR Well ID No. Common Well Name Final Static Water Level Surface Elevation Borehole Diameter Feet MSL Feet MSL 8.3 inches PO 171 Local Grid Location Local Grid Origin (estimated:) or Boring Location Lat N, Ε State Plane S/C/N \square N □ E SE 28, т8 Feet \square S Feet D W 1/4 of NW 1/4 of Section N, R 21 E Long Civil Town/City/ or Village Facility ID County County Code Milwaukee 41 Milwaukee Sample Soil Properties Soil/Rock Description Recovered (in) Blow Counts Fee Penetrometer And Geologic Origin For Length Att. Penetration 므 PID/FID Standard Moisture Plasticity Graphic Each Major Unit Content Liquid Limit USC Well Log 12 Concrete AUGE <1 16 8 7 9 Well graded GRAVEL (fill) 16 SS GW -2 Brown, medium dense, poorly graded SP SAND, moist 3 3 4 <1 * 11 24 Dark brown, stiff, silty CLAY, with trace SS 18 gravel, moist 4 CL 4 3 3 24 5 8 Dark brown, stiff, silty CLAY, with trace 16 gravel, wet, slight odor 4 CL 6 36 Blind drill to 15.5 feet AUGE 8 10 66 AUGE 11 12 I hereby certify that the information on this form is true and correct to the best of my knowledge. Signature KEY ENGINEERING GROUP, LTD. Tel: (262) 375-4750

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 be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

W66 N215 COMMERCE CT. CEDARBURG, WI

53012

Fax: (262) 375-9680

SOIL BORING LOG INFORMATION SUPPLEMENT Form 4400-122A

Boring Number MW-	4 Use only as an attachment to Form 4400-										2
Number and Type Length Att. & eld Recovered (in) Blow Counts Depth In Fect	Soil/Rock Description And Geologic Origin For Each Major Unit	uscs	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Limit Limit	Plasticity and Index	P 200	Pocket Penetrometer
-13 -14 -15	End of boring at 15.5 feet * Sample submitted for laboratory analysis	Ω									Pocket Penetron

SOIL BORING LOG INFORMATION

Form 4400-122

Rev. 7-98

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Why Boyles W66 N215 CO									W66 N215 COMMERCE CT. CEDARBURG, WI 53012 Fax: (262) 375-9680									

SOIL BORING LOG INFORMATION SUPPLEMENT Form 4400-122A

Boring Number	Sample Soil Properties														
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SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Page 1 of 2 Page 1 of 2 Page 1 of 2				<u>Rc</u>	oute To:	Watershed/W					gement								
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SOIL BORING LOG INFORMATION

Form 4400-122 Re

Rev. 7-98

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Number and Type	Leng	Blov	Dept						O S	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid Limit	Plastic Index	P 200	Pocket Penetrometer
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1	24	2	E ₁						ļ <u> </u>		00 00	<i *<="" td=""><td>8</td><td></td><td></td><td></td><td></td><td></td></i>	8					
SS	12	2 3 3	F	Dark moist	brown, med	dium stiff,	, silty CLA	ΛY,					°					
IX.		5	-2	1110101					CL								i	
/ \			Ė															
2 SS	24 14	3	- 3	Light	t brown, stif	f, silty CL	AY, mois	t				<1	10					
33	14	5 5	_4		·	•			CL									
I/\		,	E															
3	24	3	5									<1	11					
ss \	18	5 5	<u> </u>		t brown, stif el, wet	f, silty CL	AY, with	trace				,,	''					
IX		6	F-6	6	.,				CL									
/ \			Ē _															
4 SS	24 20	5	<u></u> −7	Brow	n, stiff, silty	CLAY,	with trace					5	13					
33	20	5 5 6 7	-8	grave	el, some sand	d, wet, sli	ght odor		CL									
Ι Λ		,	Ė															
, L	24	1	-9				· · · · · · · · · · · · · · · · · · ·		<u> </u>			11	13					
5 SS	24 18	4 5 6 7	Ę		n, stiff, silty l, wet, sligh		with trace					11	13					
IX		7	-10	grave	1, 1101, 511611	it odor			CL									
/ /																		
J	24	-	├-11 -	Blind	drill to 13 f	eet			 	<i>*//////</i>		-						
AUGE			- -12															
I hereb	y certify	that t		mation o	on this form is t	rue and corr	rect to the bes	st of mv k	nowled	lge.		<u> </u>	L					
Signat			1	<i>u</i>			1-:	Y ENGI			GRO	UP. I	TD.				Tel: (2	262) 375-4750
	U	pr	n.	But	u			N215 CC						7 530	012			262) 375-9680

Borin	g Numl	ber	MW	/-7 Use only as an attachment to Form 4400-	122.						Pa	ge 2	of	2
	nple									Soil	Prop	erties		
	જ 🗓	ıts	इ	Soil/Rock Description					_					ter
اء چ	Att	Cour	<u>=</u>	And Geologic Origin For Each Major Unit	S	. <u>2</u>	E	Ω	ard ation	nt e		ity		ome
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Lach Major One	SCS	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid	Plasticity Index	P 200	Pocket Penetrometer
Zæ	7 8	<u>m</u>	<u>C</u>		2	0 -1		Ь	SA	20	111	P 1	4	<u> </u>
			F											
L.M.	1		-13	End of boring at 13 feet										
				* Sample submitted for laboratory analysis			l							
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SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

			Ro	ute To:	Watersh	ed/Wa	stewater	- 🗆	Wast	e Manag	ement								
					Remedia	ation/F	Redevelo	pment \square	Othe	г									
																Pa	ge 1	of	2
Facilit	y/Proje	ct Nam	ie						Licens	e/Permit	/Monit	oring N	ımber		Boring	Numb			
	•		oduct	S					-								P-1		
					ief (first, la	ast) an	d Firm		Date D	rilling S	tarted		Da	te Drill	ing Co	npleted		Dril	ing Method
Pau Wis		n Soil	l Testi	ng						8/30)/2000)			8/30/	2000		H	SA
	nique W				Vell ID No).	Commor	n Well Nam	e Final S	tatic Wa			Surfac	e Eleva	tion		Во	rehole	Diameter
		175						P-1		Feet	MSL				et MS			8.3	inches
	Grid Or	rigin	☐ (es	timated:				ion ⊠ /C/N			0	•	"	Local (Grid Lo				_
State SE		of N	W i	/4 of Sect						ng	<u> </u>	,	"		Faa	1 □ 2 □ ı	1		□ E Feet □ W
SE Facilit		01 19	VV 1		County	3,	1 0	N, R 21 E	County (Civil	Town/C	ity/ or	Village	ree	<u>. Ц з</u>) —		reel 🗀 w
	, –			1	Milwaul	kee			41		1	vauke	-						
San	nple													T	Soil	Prop	erties		
			_		S	oil/Ro	ck Descr	ription								<u> </u>			_
	d (i	unts	Fee		An	nd Geo	logic Ori	igin For		1				e e					icter
ber	th A	သိ	h h			Each	Major U	Jnit		SO	hic	ram	FID	dard	ture	.p _	icity	0	tron
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet							USCS	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	Pocket Penetrometer
<u>~ 0</u>	==		-		R	lind	drill to	30.5'		+		ৰ্ম উ		0,7 -					
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oigiidi	"U.	Wh	1 1	Porte	n				EY ENG 66 N215 C						7] 52	012			62) 375-4750 62) 375-9680
	~//			,	-/				90 INZIJ C	CIATIATE	CLC	. ULL	TUDE	,, w	در .	V14		<u>. an.</u> (2	02/3/3-7000

Boring Number	P-1	Use only as an attachment to Form 4400-	122.							ge 2	of	2
Sample								Soil	Prop	erties		
(in) &	i i i	Soil/Rock Description					_					ter
our Cour	la N	And Geologic Origin For Each Major Unit	S	္ပ	Ę		ard	말	_	city		ome
Number and Type Length Att. & Recovered (in) Blow Counts	Depth In Feet	Lacii Major Onk	uscs	Graphic Log	Well Diagram	PID/FID	Standard Penetration	Moisture Content	Liquid Limit	Plasticity Index	P 200	Pocket Penetrometer
Zalla m	 3		-	0 1		-	S E	20		4 1		
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	F											
	-29											
	F ₂₀											
	-30											
		End of boring at 30.5 feet										
			1					İ				1

State of Wisconsin Department of Natural Resources	117-4	1174	. —	117 1 6		MONITORING WI	FII CONSTR	ווכז	rion
Route To:	Remediation	Wastewater n/Redevelor		Other	nagement	Form 4400-113A	Rev. 7-9		ION
Facility/Project Name	Local Grid Le			Outer C	<u> </u>	Well Name			
Former Key Products	i	רוים א	J.	A	□ E. □ W.		/W-4		
Facility License, Permit or Monitoring No.	Local Grid O	rigin 🗆	(estimated) or V	□ W. Well Location ⊠	Wis. Unique Well No		Juml	her
Taching Election, I willing it is	Lat°	···b-···	" Lone			PO 171	21 110 17 511 1		,01
Facility ID	7			•		Date Well Installed			
racinty 10	St. Plane		_ ft. N,		_ ft. E. S/C/N	1	/20/2000		
Type of Well	Section Local	tion of Wast	e/Source		⊒ [⊠	Well Installed By: (F	/30/2000 Person's Name a	nd E	irm)
**	SE 1/4 of	<u>NW</u> 1/4	of Sec28	T8	_N, R. <u>21</u> □ W	Wen histaned by. (I		nu r	11111)
Well Code 11/mw Distance from Waste/ Enf. Stds.	Location of V	Vell Relative	to Waste/So	ource	Gov. Lot Number	 	Paul		
Source Apply	u 🗆 Upgr		s 🗆 Sid	-		Wissens	in Cail Tastina		
ft. Apply	d Dow	ngradient	n 🗆 No			Wiscons	in Soil Testing		
A. Protective pipe, top elevation	ft. MSI		-	1	1. Cap and lock?		⊠ Yes	, L	No
B. Well casing, top elevation	ft. MSI		 ₩}	R	2. Protective cover p	-		10	· 0 ·
					a. Inside diameter:		-	10.	0.0 in. 0.0 ft.
C. Land surface elevation	ft. MSI			•	b. Length:		_		
D. Surface seal, bottom ft. MSL	or 1.0	n 33636		ीर शहर आ	c. Material:		Steel		90000000
r				A TO STORY	1 4 1100	0	Other		
12. USCS classification of soil near screen:					d. Additional prote	ection? :	☐ Yes	i IXI	NO
	W□ SP □ L 図 CH □		\] [ii yes, describe:				
Bedrock □	L W CH L	'		\ \	3. Surface seal:		Bentonite		
	es 🖾 No	1					Concrete		200000793307
]			4 37		Other	U	
	ry □50			4	4. Material between	well casing and protec		_	• •
Hollow Stem Aug							Bentonite	_	WARMING TO SERVICE
Othe	er 🗆 🔔 🗀	İ					Other	Ц	_4
	. =				5. Annular space sea				
	ir □01					ud weight Bento			
Drilling Mud □ 0 3 Nor	ne ⊠99					ud weight I			
16. Drilling additives used?	es 🛭 No			1	d% Benton		te-cement grout		5 0
10. Diming additives used:	.3 23.110	İ		4		volume added for any			
Describe					f. How installed:		Tremie		
17. Source of water (attach analysis, if required	١٠	·					Tremie pumped		
17. Source of water (attach analysis, if required							Gravity	\boxtimes	0 8
				, c	6. Bentonite seal:		ntonite granules		
					b. □ 1/4 in. ⊠3	3/8 in. 🗆 1/2 in.	Bentonite chips		W0000000000
E. Bentonite seal, top ft. MSL	or1.0	ft. 🔪							
				/ /		: Manufacturer, produ		h siz	.e
F. Fine sand, top ft. MSL	or4.0	ft.	$\setminus \boxtimes \boxtimes$		·	ilica Sand #35-45, 25			
			. 💥 🛱	Y /	 b. Volume added 		_ ft³		
G. Filter pack, top ft. MSL	or5.0	ft. 🔪		/ _8	Filter pack materia	d: Manufacturer, prod	luct name & me	sh si:	ze
					a	Red Flint #30, 375 lb)S		
H. Screen joint, top ft. MSL	or5.0	ft. —			b. Volume added		_ ft³ :		
				9	Well casing:	Flush threaded PV	VC schedule 40	\boxtimes	23
I. Well bottom ft. MSL	or15.0	ft. 🦯				Flush threaded PV	VC schedule 80		2 4
							Other		
J. Filter pack, bottom ft. MSL	or15.0	ft. <u> </u>	一個	10). Screen material: .	PVC		_	
•					a. Screen Type:		Factory cut	\boxtimes	11
K. Borehole, bottom ft. MSL	or15.5	ft. 🥿			••		Continuous slot		0 1
							Other		
L. Borehole, diameter 8.3 in.			V/////X	\	b. Manufacturer	Diedrich			
					c. Slot size:		_	0.01	<u>0</u> in.
M. O.D. well casing 2.38 in.					d. Slotted length:			10.	<u>0</u> ft.
<u> </u>				\ ₁₁	. Backfill material (below filter pack):	None		
N. I.D. well casing 2.00 in.							Other		85.5 5788
I hereby certify that the information on this form	is true and co	rrect to the l	best of my kr	nowledge.					
Cignature		Pinne	Y ENGINEE		UP LTD		Tel: (262)	375	 _4750
who huter					T. CEDARBURG, V	WI 53012	Fax: (262)		
									

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.

State of Wisconsin Department of Natural Resources Route To:		astewater Redevelopment	Waste Mar	nagement 🔲	MONITORING WELI Form 4400-113A	L CONSTRI Rev. 7-9	
Facility/Project Name	Local Grid Loc		Other 🗀		Well Name	1004. 7-5	
•	Local Grid Local	anon of wen □ N.	0	□E.	MW	17 E	
Former Key Products Facility License, Permit or Monitoring No.	Local Grid Oric	_ft. \square N gin \square (estimated:		□ W.	Wis. Unique Well No.		Jumbar
Facility License, Fernin of Monitoring No.	Lat	giii 📋 (estimateu.	ng	ven Location		DINK WEILIN	iumoer
-	- i				PO 172 Date Well Installed	······································	
Facility ID	St. Plane	ft. N, _		_ ft. E. S/C/N	_}		
	Section Locatio	n of Waste/Source			08/30/		
Type of Well	SE 1/4 of	NW_ 1/4 of Sec2	28 т 8	N P 21 D W	Well Installed By: (Pers	on's Name a	nd Firm)
Well Code 11/mw		ell Relative to Waste/S		Gov. Lot Number	Par	ul	
Distance from Waste/ Enf. Stds.	u Upgrad		idegradient	GOV. LOI NUMBER			
Source ft. Apply	d Downg		ot Known		Wisconsin S	oil Testing	
A. Protective pipe, top elevation	ft. MSL		- I	. Cap and lock?		⊠ Yes	□ No
B. Well casing, top elevation	ft. MSL		\mathbb{R}^2	2. Protective cover p	-		100 .
				a. Inside diameter		_	10.0 in.
C. Land surface elevation	ft. MSL			b. Length:			
D. Surface seal, bottom ft. MSL	or <u>1.0</u> ft.	7.7.7.1	्रीत अति अति । स्टब्स्टिया	c. Material:		Steel Other	⊠ 04 □
			37.37.31	d. Additional prot			
12. USCS classification of soil near screen:			X	_		☐ Yes	KJ NO
	W D SP D		1//	ii yes, describe			
SM SC ML MH C	L⊠ CH□		፟ \ \₃	3. Surface seal:		Bentonite	
			∅ \			Concrete	
13. Sieve analysis attached?	es ⊠ No	1 🐰 🛭	\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	····			
14. Drilling method used: Rotar	ry □ 50		፠ `4	. Material between	well casing and protective	: pipe:	
Hollow Stem Aug			ቖ			Bentonite	-0000 488840
Oth	er 🗆 💆	ft	₩			Other	
			5	. Annular space sea	l: a. Granular/Chippe	ed Bentonite	⊠ 33
15. Drilling fluid used: Water □ 0 2 A	ir □01	₩ #	8 1	-	and weight Bentonite		
1	ne ⊠99				and weight Bent		
		\ X	് ∶	d% Benton	-	ement grout	
16. Drilling additives used? ☐ Ye	es 🖾 No		₩		volume added for any of t		<u>□</u> 30
			\		•		C 01
Describe			8	f. How installed:			□ 01 □ 02
17. Source of water (attach analysis, if required	D:	i 🔉 🛭	₿		1 rer	mie pumped	
(,,	,		▓			Gravity	
			8 ,6			nite granules	□ 33
			\	b. □ 1/4 in. ⊠	3/8 in. 🗆 1/2 in. Ben	tonite chips	
E. Bentonite seal, top ft. MSL	or1.0			c	· · · · · · · · · · · · · · · · · · ·	Other	
			§ / ∠ ⁷	7. Fine sand material	: Manufacturer, product r	name & mest	n size
F. Fine sand, top ft. MSL	or2.0	ft. 🔪 💥 🛭	8 / /	a	Silica Sand #35-45, 25 lbs		
ī. •		ft.	7	b. Volume added	ft³		
G. Filter pack, top ft. MSL	or <u>2.5</u>		3 / 8	. Filter pack materia	al: Manufacturer, product	name & me	sh size
			/ /	a	Red Flint #30, 375 lbs		
H. Screen joint, top ft. MSL	or 2.5	a_ \	4 /	b. Volume added			
11. Selectifolis, top	-	""		. Well casing:	Flush threaded PVC		⊠ 22
I. Well bottom ft. MSL	or 12.5		* *	. Wen casing.	Flush threaded PVC:		_
I. Well bottom ft. MSL	or	" \			riusii uneaucu r v C		2007-2000
	12.5		1	-	PVC	Other	
J. Filter pack, bottom ft. MSL	or12.5	n.	<u> </u>	. Screen material:			
	10.0		7	a. Screen Type:		Factory cut	
K. Borehole, bottom ft. MSL	or13.01	ft	a		Con	tinuous slot	
		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	a			Other	
L. Borehole, diameter 8.3 in.		V/////	24	b. Manufacturer	Diedrich		
				c. Slot size:		_	0.010 in.
M. O.D. well casing 2.38 in.				d. Slotted length:		***	10.0 ft.
			\ ₁₁	. Backfill material (below filter pack):	None	⊠ 14
N. I.D. well casing 2.00 in.			••				
IN, I.D. Wen casing							
I hereby certify that the information on this form	is true and so-	act to the heet of my	cnowledge				
Signature /2		:					
Why thethe		KE I ENGINE		•	VI 62012	Tel: (262)	
WATER THOUSE		W00 N213 CC	IMMERCE C	T. CEDARBURG, '	WI 53012	Fax: (262)	<i>3/</i> 3-9080

W66 N215 COMMERCE CT. CEDARBURG, WI 53012 Fax: (262) 375-96

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.

State of Wisconsin Department of Natural Resources Route To:		Wastewater NRedevelopment		nagement	MONITORING WELL Form 4400-113A	CONSTRI Rev. 7-9	
Facility/Project Name		cation of Well			Well Name		
Former Key Products		ft. □ N. ft. □ S		□ E. □ W	MW	J_6	
Facility License, Permit or Monitoring No.	Local Grid Or	igin [] (estimal	ed: D) or V	U W. Well Location ⊠	Wis. Unique Well No.		Jumber
racinty Electise, I clim of Wolmoring Ivo.		' (cstimu			1 1	DIVIC WOLLT	· dilibei
-	Lat		Long	or	PO 173 Date Well Installed		
Facility ID	St. Plane	ft. N,		_ ft. E. S/C/N	1		
	Section Locati	ion of Waste/Sourc	e		08/30/	2000	
Type of Well	SF 1/4-6	NW 1/4-50	28 T 8	N.D. 21 DE	Well Installed By: (Pers	on's Name a	nd Firm)
Well Code 11/mw	Lesstian of V	ell Relative to Was	to/Source	N, R. 21 W	Chu	ıck	
Distance from Waste/ Enf. Stds.	u D Upgra		Sidegradient	Gov. Lot Number			
Source ft. Apply	d Down		Not Known		Wisconsin S	oil Testing	
	ft. MSL			1. Cap and lock?		⊠ Yes	□ No
				Protective cover p	ipe:		
B. Well casing, top elevation	ft. MSL	, ' -	-11 >	a. Inside diameter		_	10.0 ir
C. Land surface elevation	ft. MSL	_		b. Length:		_	1.0 f
				c. Material:		Steel	⊠ 04
D. Surface seal, bottom ft. MSL	or1.0_ f	ft.	10 2 10 2 1	• • • • • • • • • • • • • • • • • • • •		Other	2005800
12. USCS classification of soil near screen:			210 210 21	d. Additional prote	ection?	□ Yes	
	v = 0 = =		X	If was describe	:	L 103	E2 140
	W□ SP□ L⊠ CH□			ii yes, describe	· 		
SM SC ML MH C	Ja Chu	```		3. Surface seal:		Bentonite	
						Concrete	
13. Sieve analysis attached?	es 🗆 No					Other	
14. Drilling method used: Rotar	ry □50	ft.	- ₩ `4	4. Material between	well casing and protective	pipe:	
Hollow Stem Aug	er ⊠ 4 1		▩			Bentonite	⊠ 30
	er 🗆 🔲	₩	₩			Other	
		₩	—	F A	l Cul/Chi	d Dansania.	1521 2 2
15. Drilling fluid used: Water □ 0 2 A	ir 🗆 0 1	│ 🐰		5. Annular space sea			
Drilling Mud 03 Nor					ud weight Bentonite		
Diffing Mad (103) 1401	.C (2) 9 9	₩			nud weight Bent		
16. Drilling additives used? ☐ Ye	es 🖾 No		IXXI	d% Benton		ement grout	□ 50
10. Dilling additives used:	2 MINO			eFt ³	volume added for any of t	he above	
		\	₩	f. How installed:		Tremie	□ 01
Describe			▩		Tren	nie pumped	□ 02
17. Source of water (attach analysis, if required):		₩			Gravity	⊠ 08
		🔯	₩ ,	6. Bentonite seal:	a Renton	ite granules	□ 33
		J ⊠	 			tonite chips	
	1.0	. 🔉					
E. Bentonite seal, top ft. MSL	or1.0						
	• •	ft.			: Manufacturer, product r		as devices.
F. Fine sand, top ft. MSL	or <u>2.0</u>	ft. \		**	Silica Sand #35-45, 25 lbs		_ ==
		/ /	 	b. Volume added	ft ³		
G. Filter pack, top ft. MSL	or <u>2.5</u>	ft.	M/	Filter pack materia	al: Manufacturer, product	name & mes	sh size
				a	Red Flint #30, 350 lbs		
H. Screen joint, top ft. MSL	or2.5	A		b. Volume added	ft ³	-	
11. 5010011 jours, top 11. 11.52		·**	- / ,	9. Well casing:	Flush threaded PVC	schedule 40	⊠ 23
I Wall bases A MCI	or 12.5		3 / 3	7. Wen casing.			
I. Well bottom ft. MSL	3r <u>12.3</u>	". \	3 00		Flush threaded PVC		X10700285
	12.5				DV/O	Other	
J. Filter pack, bottom ft. MSL	or <u>12.5</u>	ft.	3 \ \ \ \ \ 10). Screen material:	PVC		. 19
		7//		a. Screen Type:		Factory cut	⊠ 11
K. Borehole, bottom ft. MSL	or13.0	ft. <			Con	tinuous slot	□ 01
						Other	
L. Borehole, diameter 8.3 in.				b. Manufacturer	Diedrich_		
E. Dorenois, siameter				c. Slot size:			0.010 in
M. O.D. well casing 2.38 in.				d. Slotted length:		_	10.0 fi
M. O.D. well casing 2.38 in.			\. .	_	holon, filtor real-\.	NT	
2.00			11	I. Backfill material (below liner pack):		☑ 14
N. I.D. well casing 2.00 in.					·	Other	کت لا
I hereby certify that the information on this form	is true and cor	rect to the best of r	ny knowledge.				
Signature		Firm KEV FNG	NEERING GRO	OTT I STITE		Tel: (262)	375_4750
William Bulling	Į.			T CEDADDIDG 1	NT 52012	Fav: (262)	

Please complete both Forms 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.

State of Wisconsin Department of Natural Resources Route To:	Watershed/Wa	astewater	Waste Mana	agement \square	MONITORING WELL CO	NSTRU	CTION
·		Redevelopment	Other 🔲			lev. 7-98	
Facility/Project Name	Local Grid Loca	ation of Well		□ E.	Well Name MW-7		
Former Key Products Facility License, Permit or Monitoring No.	Local Grid Orio	ft. Sin (estimated:	п. [W.	Wis. Unique Well No. DNR	Wall No	ımbar
Facility License, Permit of Monitoring No.	Local Ond Ong	ın 📋 (estimateu:	□) or we	ell Location 🔯	1	. Well No	mider
<u> </u>	Lat	Long	s	or	<u> </u>		
Facility ID	St. Plane	ft. N,		ft. E. S/C/N	Date Well Installed		
	Section Location	n of Waste/Source			08/30/2000		
Type of Well	SE MACE	NW 14 CO 28			Well Installed By: (Person's N	Name and	d Firm)
Well Code 11/mw		1/4 of Sec28			Paul		
Distance from Waste/ Enf. Stds.	u Upgradi	ll Relative to Waste/So ient s □ Sid		Gov. Lot Number		***************************************	
Source ft. Apply	d Downgr		-		Wisconsin Soil Te	esting	
A. Protective pipe, top elevation	ft. MSL		· _	Cap and lock?		⊠ Yes	□ No
B. Well casing, top elevation	ft. MSL		· · · /	Protective cover p			100.
b. Well cashing, top elevation	10. 141512		/	a. Inside diameter	.* .*		10.0 in.
C. Land surface elevation	ft. MSL	<u> </u>		b. Length:			1.0 ft.
D. Surface seal, bottom ft. MSL	or 10 e	331331	1831831	c. Material:			⊠ 04
	01 II.		146464			Other	
12. USCS classification of soil near screen:		2.00 (C.)	· DICTICTIC	d. Additional prot	ection?	□ Yes	⊠ No
	W□ SP□	<u> \ \ \ \ </u>	\wedge	If yes, describe	e:		
	L⊠ CH□		\\.	~ ^ .	Ber	ntonite	□ 30
Bedrock □			3.	Surface seal:	Ca	oncrete	⊠ 01
13. Sieve analysis attached? ☐ Ye	es ⊠ No	■ ■				Other	
14. Drilling method used: Rotar	ry □ 5 0		4.	Material between	well casing and protective pipe:	:	
Hollow Stem Auge	*	l			~	ntonite	⊠ 3 n
	er 🗆 💷					Other	3000009%
Odik	. 0==		_				
15. Drilling fluid used: Water □ 0 2 A:	ir □01		4	Annular space sea	• •		
Drilling Mud 03 Non			3	_	nud weight Bentonite-sand	-	
Diffing wild 0.03 Non	E 1999		3	_	nud weight Bentonite	-	
16. Drilling additives used? ☐ Ye	s ⊠ No		2	% Benton		-	□ 50
10. Diming additives used.	,5 MINO		e.		volume added for any of the ab	юче	
Describe			f.	How installed	: 7	Tremie	□ 01
Describe	 .		1		Tremie p	umped	□ 02
17. Source of water (attach analysis, if required):				C	Gravity 1	⊠ 08
			6.	Bentonite seal:	a. Bentonite gr	anules	□ 33
		' ඎ ඎ	/	b. □ 1/4 in. ⊠	3/8 in. □ 1/2 in. Bentonite		
E. Bentonite seal, top ft. MSL	or1.0f	. 🛭 🗎	1 /	C			
L. Demonte sout, top		"`\	/ 7.		l: Manufacturer, product name	& mesh	size
F. Fine sand, top ft. MSL	or f	🔪 👹 🔯			Silica Sand #35-45, 25 lbs		
r. rme sand, top n. wist o	JI I	t.			ft ³		- ===
0.3707	. 25 (/ 1/3 1/2	7		al: Manufacturer, product name	. 0	
G. Filter pack, top ft. MSL of	or <u>2.5</u> f		/8.	rmer pack materi	· •	z & mesn	1 SIZE
	25			a	Red Flint #30, 350 lbs		
H. Screen joint, top ft. MSL o	or t	". —		b. Volume added			
	10.5		9.	Well casing:	Flush threaded PVC sched		
I. Well bottom ft. MSL o	or <u>12.5</u> f				Flush threaded PVC sched	iule 80	□ 24
						Other [
J. Filter pack, bottom ft. MSL o	or <u>12.5</u> f	t / / [3]	10.	Screen material:	PVC		
				a. Screen Type:	Facto	ory cut !	⊠ 11
K. Borehole, bottom ft. MSL o	or13.0 f	î. 🔪			Continuo	us slot	□ 01
						Other [
L. Borehole, diameter 8.3 in.			Į.	b. Manufacturer	To		
348.			\	c. Slot size:		0	0.010 in.
M. O.D. well casing 2.38 in.			\	d. Slotted length:			10.0 ft.
W. O.D. wen casing in.			`	_	(below filter pack):	None I	
200 -			. 11.	Dackini indiciidi (· · · · · · · · · · · · · · · · · · ·	Other [-250000000C
N. I.D. well casing 2.00 in.		•	•			Omer l	
I hereby certify that the information on this form			nowledge.				
Signature Willin Buffer	Fi	rm KEY ENGINEE	RING GROU	P, LTD.	Tel:	: (262) 3	375-4750
wiften when		W66 N215 CON	MMERCE CT.	. CEDARBURG,	WI 53012 Fax:	: (262) 3	375-9680

W66 N215 COMMERCE CT. CEDARBURG, WI 53012 Fax: (262) 375-96.

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.

State of Wisconsin Department of Natural Resources Route To:	Watershed/Wastewater Remediation/Redevelopment	Waste Management ☐ ☐ Other ☐	MONITORING WELL CONSTRUCTION Form 4400-113A Rev. 7-98
Facility/Project Name	Local Grid Location of Well		Well Name
Former Key Products	₽ □N.	₽ □ E;	P-1
Facility License, Permit or Monitoring No.	Local Grid Origin (estin	nated: or Well Location	Wis. Unique Well No. DNR Well Number
	I at "	Long. " o	
Facility ID	1		Date Well Installed
Tubing 12	St. Plane ft. N Section Location of Waste/Sou	N, ft. E. S/C/N	08/30/2000
Type of Well	Section Location of waste/Sou	rce	
••		c. <u>28</u> , T. <u>8</u> N, R. <u>21</u> 🗆	W
Well Code 12/pz Distance from Waste/ Enf. Stds.	Location of Well Relative to W		Chuck
Source ft. Apply	1	☐ Sidegradient ☐ Not Known	Wisconsin Soil Testing
A. Protective pipe, top elevation	ft. MSL	1. Cap and lock?	⊠ Yes □ No
B. Well casing, top elevation	ft. MSL	2. Protective cover a. Inside diamete	er: <u>10.0</u> in.
C. Land surface elevation	ft. MSL <	b. Length:	ft.
		c. Material:	Steel 🖾 04
D. Surface seal, bottom ft. MSL	3 413 413 3 - 61		Other 🗆 💆
12. USCS classification of soil near screen:	A A CANA	d. Additional pro	otection?
GP□ GM□ GC□ GW□ SV	W 🗆 SP 🗆 \	If yes, describ	e:
	∟⊠ сн 🗆 🖠		Bentonite □ 30
Bedrock □	 	3. Surface seal:	Concrete ⊠ 01
13. Sieve analysis attached?	es ⊠ No 📗	░	Other 🗆 💹
14. Drilling method used: Rotar	ry □50	4. Material between	n well casing and protective pipe:
Hollow Stem Aug	* 1 180		Bentonite ⊠ 3 0
		፟ ፟	Other 🗆
	"		
15. Drilling fluid used: Water □ 0 2 A	ir □01	5. Annular space so	= *
Drilling Mud 03 Non	I 180	vi 1600	mud weight Bentonite-sand slurry 3 5
Drining was a 5 140.		X1 16X1	mud weight Bentonite slurry 3 1
16. Drilling additives used?	es ⊠ No	d% Bento	
		ON DOM	³ volume added for any of the above
Describe		f. How installe	
17. Source of water (attach analysis, if required	·		Tremie pumped 0 2
17. Some or water (assess many six, is required	´		Gravity ⊠ 08
		6. Bentonite seal:	a. Bentonite granules 3 3
	***************************************	8	3/8 in. □ 1/2 in. Bentonite chips ⊠ 3.2
E. Bentonite seal, top ft. MSL	or1.0 ft. \	₿	Other 🗆 🖳
	or	7. Fine sand materi a b. Volume added	al: Manufacturer, product name & mesh size
F. Fine sand, top ft. MSL	or22.0 ft. \	₿	Silica Sand #35-45, 25 lbs
	√ ¼	b. Volume added	I ft³
G. Filter pack, top ft. MSL	or <u>23.0</u> ft.	8. Filter pack mater	ial: Manufacturer, product name & mesh size
-		a	Red Flint #30, 375 lbs
H. Screen joint, top ft. MSL	or25.0 ft.	b. Volume added	1 ft³
• •		9. Well casing:	Flush threaded PVC schedule 40 ⊠ 23
I. Well bottom ft. MSL	or 30.0 ft.		Flush threaded PVC schedule 80 \(\square\$ 2 4
			Other 🗆
J. Filter pack, bottom ft. MSL o	or 30.5 e	10. Screen material:	50.00
J. I mer pack, ootion	" — " ·	a. Screen Type:	Factory cut 🛛 11
V Danahala hattam A MCI	or30.5 ft. <	a. Screen Type.	•
K. Borehole, bottom ft. MSL o	я п.		Continuous slot 0 1
		///	Other Diedrich
L. Borehole, diameter 8.3 in.	•	b. Manufacturer	
2.20		c. Slot size:	
M. O.D. well casing 2.38 in.		d. Slotted length	
		11. Backfill material	, and a
N. I.D. well casing 2.00 in.			Other 🗖 💆
I hereby certify that the information on this form		f my knowledge.	
Signature	Firm KEY EN	GINEERING GROUP, LTD.	Tel: (262) 375-4750
Juhly Britis		IS COMMERCE OT CEDARRURG	

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.

MONITORING WELL DEVELOPMENT

State of Wisconsin Department of Natural Resources Form 4400-113B Rev. 7-98 Route To: Watershed/Wastewater Waste Management Other 🔲 Remediation/Redevelopment Well Name Facility/Project Name County MW-4 Former Key Products Milwaukee Wis. Unique Well Number DNR Well Number Facility License, Permit or Monitoring Number County Code PO 171 41 Before Development After Development 1. Can this well be purged dry? ☑ Yes □ No 11. Depth to Water (from top of 2. Well development method: 5.10 ft. 12.99 ft. well casing) surged with bailer and bailed 41 surged with bailer and pumped 61 9/20/2000 9/20/2000 Date b. surged with block and bailed 42 surged with block and pumped 62 surged with block, bailed, and pumped 70 ⊠ a.m. □ a.m. 12:00 ⋈ p.m. Time 09:30 □ p.m. compressed air П 20 C. bailed only 10 2.0 inches 0.0 inches 12. Sediment in well 51 pumped only \boxtimes bottom pumped slowly 50 other _ 13. Water clarity Clear

10 Clear

20 Turbid 🖾 15 Turbid \(25 (Describe) (Describe) 150 min. 3. Time spent developing well Brown, very silty Light brown 4. Depth of well (from top of well casing) 15.1 ft. 2.00 in. 5. Inside diameter of well 6. Volume of water in filter pack and well 9.3 gal. casing Fill in if drilling fluids were used and well is at solid waste facility: 7. Volume of water removed from well 14.0 gal. 14. Total suspended mg/l mg/l solids 8. Volume of water added (if any) gal. 15. COD mg/l mg/l 9. Source of water added 16. Well developed by: Person's Name and Firm 10. Analysis performed on water added? ☐ Yes ☐ No W. John Burton (If yes, attach results) Key Engineering Group, Ltd. 17. Additional comments on development: Purged dry four times. Facility Address or Owner/Responsible Party Address I hereby certify that the above information is true and correct to the best of my knowledge. Name: When Bites

Signature:

Firm:

Print Name: W. John Burton

KEY ENGINEERING GROUP, LTD.

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

Former Key Products

8627-8633 West Lynx Avenue

Milwaukee, Wisconsin

Firm:

Street:

City/State/Zip:

MONITORING WELL DEVELOPMENT Form 4400-113B Rev. 7-98

	d/Wastewat		Waste Manag	gement 🗆					
	ion/Redevel		Other 🗆		Well Name				
Facility/Project Name		County	#*1 1		Well Name	1.4	W 5		
Facility License, Permit or Monitoring Number		County Code	Milwaukee Wis. Unique	Wall Num	her	DNR Wel	W-5		
racinty Electise, I clinic of Wolmoring Number		41	Wis. Omque	PO 172		Divic we	i i valiloci		
		41		FO 172	<u>. </u>				
1. Can this well be purged dry?	⊠ Yes	s 🗆 No	11. Depth to		Before Dev	velopment	After De	evelor	oment
2. Well development method:			(from top	of	a.	2.41 ft.		2	.59 ft.
surged with bailer and bailed	4	1	well casi	ng)	a.	2.71 II.		۷.	.JJ 11.
surged with bailer and pumped	□ 6								
surged with block and bailed		2	Date		b. 9/20	0/2000	9/	/20/20	000
surged with block and pumped		2							
surged with block, bailed, and pumped	7	0	-	-		⊠ a	ı.m.		□ a.m.
compressed air	□ 2	0	Time		c.	09:45 □ 1	o.m.	12:	:15 ⊠ p.m.
bailed only		0							_
pumped only	⊠ 5	1	12. Sediment	in well	6	5.0 inches		2.0	inches
pumped slowly	□ 5	0	bottom						
other	🗆 🖺		13. Water cla	arity		1 0 1 5	Clear □ Turbid ☑		
3. Time spent developing well		150 min.			(Describe)		(Describe)		
5. Thire spent developing wen		150 nm.			Dark bro	wn, very	Light br	าพท	
4. Depth of well (from top of well casing)	1	2.2 ft.			silty	wii, very	Digitt of		
5. Inside diameter of well	2	2.00 in.							
6. Volume of water in filter pack and well									
casing		9.0 gal.	1						
cashig		7.0 gar.	Fill in if drilli	na fluida r	wara usad and	wall is at sal	id wasta faail	lie	
- w. 1	_		I'm m n dim	ng maias v	vere used and	Well is at soi	id waste facil	nıy.	
7. Volume of water removed from well	3	0.0 gal.	14. Total sus	nanded		mg/l			mg/l
O. Mahama of material did different		1	solids	penaca		111g/1			mg/1
8. Volume of water added (if any)		gal.							
9. Source of water added			15. COD			mg/l			mg/l
		·	16. Well deve	loped by:	Person's Name	and Firm			
10. Analysis performed on water added?	☐ Yes	□ No		V. John	Burton				
(If yes, attach results)			.]		ineering Gr	ht Laur			
17. Additional comments on development:				ccy Liigh	incering Of	oup, Liu.			
Purged dry two times.									
Facility Address or Owner/Responsible Party Add	lress		I hereby certi	fy that the	above informa	ation is true a	nd correct to	the bes	st of my
Nome:			knowledge.	-					•
Name:	 				111	<u></u>			
Firm: Former Key Products			Signature:	Enfo	In Bert	n			
Street: 8627-8633 West Lynx Avenue	<u> </u>		Print Name:	W. John	n Burton		······		
City/State/Zip: Milwaukee, Wisconsin			Firm:	KEY E	NGINEER	ING GRO	UP, LTD.		

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

MONITORING WELL DEVELOPMENT

Department of Natural Resources				Form 4400-1	13B	Rev.	7-98	
Route To: Wate	rshed/Wastewate	er 🗆	Waste Management	<u> </u>				
	ediation/Redevel	opment \square	Other 🗆					
Facility/Project Name		County		Well Name				
Former Key Products			Milwaukee	-	M	[W-6		
Facility License, Permit or Monitoring Numb	er	County Code	Wis. Unique Well No	ımber	DNR Wel	ll Number		
		41	PO 1	73				
	_	_		D 4 D	•			
1. Can this well be purged dry?	⊠ Yes	i □ No	11. Depth to Water	Before De	velopment	After De	velopi	ment
2 W/W too-laws as a tool			(from top of		0.71 *		10	41 -
Well development method: surged with bailer and bailed	. 🗆 4	1	well casing)	a.	2.71 ft.		13.4	41 ft.
surged with bailer and pumped	□ 6							
surged with block and bailed	□ 4		Date	b. 9/2	0/2000	9/	20/200	00
surged with block and pumped				J. 272	0,200	,		
surged with block, bailed, and pumpe			-		П	a.m.		□ a.n
compressed air		-	Time	c.	12:30 ⊠		02:3	30 ⊠ р.п
bailed only		-				•		•
pumped only	⊠ 5	_	12. Sediment in well		2.0 inches		0.0 i	inches
pumped slowly	. 🗆 5	0	bottom					
other	o 🛚	_	13. Water clarity	Clear 🗆	10	Clear 🗆	20	
				Turbid 🛛	1 5	Turbid 🛭	2 5	
3. Time spent developing well		120 min.		(Describe)		(Describe)		
				Brown,	very silty	Light br	own	
4. Depth of well (from top of well casing)	1	3.8 ft.						
5. Inside diameter of well	2	.00 in.						
6. Volume of water in filter pack and well	1	0.3 gal.	ļ					
casing	1	0.5 gai.	rm :- ic 4-m: c-:4				··	
		•	Fill in if drilling fluid	is were used and	well is at sol	nd waste facil	ity:	
7. Volume of water removed from well	1	2.0 gal.	14. Total suspended		mg/l			mg/l
8. Volume of water added (if any)		o al	solids		ıngı			mg/i
8. Volume of water added (if any)		gal.						
9. Source of water added			15. COD		mg/l			mg/l
), bource of water added								
			16. Well developed by	: Person's Nam	e and Firm			
10. Analysis performed on water added?	☐ Yes	□ No	W. Joh	n Burton				
(If yes, attach results)			1		7.1		•	
			Key Er	ngineering G	roup, Ltd.			
17. Additional comments on development:								
Purged dry four times.								
Facility Address or Owner/Responsible Party	Addross							
racinty Address of Owner/Responsible Party	Address		I hereby certify that the	he above inform	ation is true a	and correct to	the best	of my
Name:		···	knowledge.	· · · · · · · · · · · · · · · · · · ·				
			1	plu Pr	1.11-			
Firm: Former Key Products			Signature:	gentr	NIN			
0607 0600 117 - 1								
Street: 8627-8633 West Lynx Ave	enue		Print Name: W. Jo	onn Burton				

Firm:

KEY ENGINEERING GROUP, LTD.

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

Milwaukee, Wisconsin

City/State/Zip:

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route To: Watershed/Wastewater Waste Management Other Remediation/Redevelopment Well Name Facility/Project Name County MW-7 Milwaukee Former Key Products Facility License, Permit or Monitoring Number County Code Wis. Unique Well Number DNR Well Number PO 174 41 ☑ Yes □ No Before Development After Development 1. Can this well be purged dry? 11. Depth to Water (from top of 2. Well development method: 2.79 ft. 12.90 ft. well casing) surged with bailer and bailed 41 surged with bailer and pumped 61 9/20/2000 9/20/2000 Date surged with block and bailed 42 surged with block and pumped 62 surged with block, bailed, and pumped 70 a.m. □ a.m. 10:00 □ p.m. 12:00 ⋈ p.m. compressed air 20 Time bailed only 10 pumped only 2.0 inches 0.0 inches \boxtimes 51 12. Sediment in well bottom pumped slowly 50 13. Water clarity Clear

10 Clear 20 other Turbid ⊠ 15 Turbid 図 25 (Describe) (Describe) 3. Time spent developing well 120 min. Brown, very silty Light brown 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 9.2 gal. casing Fill in if drilling fluids were used and well is at solid waste facility: 7. Volume of water removed from well 12.0 gal. 14. Total suspended mg/l mg/l solids 8. Volume of water added (if any) gal. 15. COD mg/l mg/l 9. Source of water added 16. Well developed by: Person's Name and Firm 10. Analysis performed on water added? ☐ Yes ☐ No W. John Burton (If yes, attach results) Key Engineering Group, Ltd. 17. Additional comments on development: Purged dry four times. Facility Address or Owner/Responsible Party Address I hereby certify that the above information is true and correct to the best of my knowledge. Name: With Buton Former Key Products Signature: Firm: 8627-8633 West Lynx Avenue Print Name: W. John Burton Street: KEY ENGINEERING GROUP, LTD. Milwaukee, Wisconsin City/State/Zip: Firm:

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

ATTACHMENT 2

CHAIN OF CUSTODY RECORD

Lab I.D.# 5030722

A. _lytical Lab

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

Chain # Nº 21189

Page 1__ of __

Account No.:		Quote No	o.: 50.	21		LAB@	USOIL	.COM							Pag	ي e <u>ل</u>	of	-			
Project #: 67	17007	<i>v L</i>			Sample Integr Method of Shi	pment :	cou	<u>rur</u>	Tem	p. of Te							$\overline{\alpha}$				
Sampler: (signature)	Marken	200		:	Cooler seal in	tact upon	receipt:	_ <u>~_</u> Yes	No		Lat	cod	led E	y:		5 5 /					<u> </u>
Project (Name / Le	ocation): Hoy	Produc	ets.	Milwort	es. W.						<u> </u>			Α	naly	/sis l	Requ	este	d		
Reports To: Reports	nt Heffort	1	nvoice To	D:				Sample		g								Oth	ner Ar	alysis	•
0			Company	:	and l			Rec	luest												
Address WGG City State Zip (40	N)15 Coma	new G F	Address	501	//'			_ Rush A	-			=									
City State Zip (20	lorbery Wi	53015	ity State	Zip					equired .		五百	802	821	2 2 S	113.	310					
Phone (262)	375-4750	<u>´</u>	Phone					_ Normal	Turn Ar	ound	L	FPA	PA	PA 8	PA 4	٨	ä				
Lab I.D.	Sample I.D.		ection Time		of Containers	Descri	iption*	Pr	eservati	on	DRO (Mod/TPH)	PVOC (BTEX (E	VOC (FI	O&G (EI	PAH (EPA 8310) Pb	Flash Po	イグト			ID/ ID
5030722A	mu.43-5	8/39/00			1-204.1594	4 5		Nune	/mea	4		+		X			1	4			
B	ma.50-2	1		:					1				11	1			1	4			
	mu-62-4													Π				X			
					<i>y</i>												\				
E	mod !!	V		1- 2	05	1			V					1							
	MW43-3																				
	1											T									
Split Samples: O	partment Use ffered ?\ cepted?\	/es		Comn *Spec	nents/ Special In eify groundwater	structions "GW", Dr	s rinking 2	Water "D	W", Was	ste Wate	er "WV Y W	V", S	Soji	'S",	Air'	A", e	tc. 9	I I ou	9	xw	,
Department U	Ise Optional fo	or Soil S	amples		quished By: (sign			Time	Date	Rece	eived E	3v: ((siar	ı)			<u> </u>	Tir		Date	
Disposition of unu	sed portion of :	sample		1. U	physic	1	10	100	8-31-	00	<u>V) e</u>	20	\mathcal{H}	u	1/2	ı		Ro	00	8-31	1.0
Lab Should: Dispose	Reta	ain for	_ days	2)00 Hz	w		2:00				<u> </u>		· 						,	
Return	Oth	PARLY SHARES		Rece	ived in Laborato	ry By	X	mcke	Щ		Т	ime	e: <i>]</i>	4:0	90			Dat	e: %	31/00	2

CURT HOFFART KEY ENGINEERING W66N215 COMMERCE COURT CEDARBURG WI 53012

Project #

0712007

Project Name KEY PRODUCTS, MILWAUKE Invoice #

E30722

	Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code Sample ID	5030722A MW-4, 3-5'						Sample Type Sample Date			
Inorganic										
General										
Solid	ls Percent	79.3	%			1	9/1/00	5021	SAD	1
Organic										
VOC's										
Benz	ene	< 25	ug/kg	9.1	30	1	9/6/00	8021A	CJR	1
	nobenzene	< 25	ug/kg	13	42	1	9/6/00	8021A	CJR	1
Brom	nodichloromethane	< 25	ug/kg	7.3	24	1	9/6/00	8021A	CJR	1
tert-B	Butylbenzene	< 25	ug/kg	10	33	1	9/6/00	8021A	CJR	1 .
sec-B	Butylbenzene	< 25	ug/kg	8.5	28	1	9/6/00	8021A	CJR	1
n-But	tylbenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
Carbo	on Tetrachloride	< 25	ug/kg	8.3	28	1	9/6/00	8021A	CJR	4
Chlor	robenzene	< 25	ug/kg	8.4	28	1	9/6/00	8021A	CJR	1
Chlor	roethane	< 25	ug/kg	11	35	1	9/6/00	8021A	CJR	1
Chlor	roform	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	1
Chlor	omethane	< 25	ug/kg	- 5	17	1	9/6/00	8021A	CJR	1
2-Chl	orotoluene	< 25	ug/kg	2.4	8.4	1	9/6/00	8021A	CJR	1
4-Chi	orotoluene	< 25	ug/kg	2.3	8.5	1	9/6/00	8021A	CJR	1
2,2-D	CP, cis-1,2-Dichloroethene	< 50	ug/kg	4.1	20	1	9/6/00	8021A	CJR	1
1,2-D	bibromo-3-chloropropane	< 25	ug/kg	11	37	1	9/6/00	8021A	CJR	4
Dibro	mochloromethane	< 25	ug/kg	9.4	31	1	9/6/00	8021A	CJR	1
1,4-D	ichlorobenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	- 1
1,3-D	ichlorobenzene	< 25	ug/kg	8.6	29	1	9/6/00	8021A	CJR	1
1,2-D	richlorobenzene	< 25	ug/kg	8.9	30	1	9/6/00	8021A	CJR	1
Dichle	orodifluoromethane	< 25	ug/kg	8.3	25	1	9/6/00	8021A	CJR	4
1,2-D	ichloroethane	< 25	ug/kg	8.6	29	1	9/6/00	8021A	CJR	1
1,1-D	ichloroethane	< 25	ug/kg	7.4	25	1	9/6/00	8021A	CJR	1
1,1-D	ichloroethene	< 25	ug/kg	8.3	28	1	9/6/00	8021A	CJR	1
cis-1,2	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-Di	ichloropropane	< 25	ug/kg	8.9	30	1	9/6/00	8021A	CJR	1
1,3-Di	ichloropropane	< 25	ug/kg	11	35	1	9/6/00	8021A	CJR	1
Di-iso	ppropyl 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
Ethyll	benzene	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	. 1
Hexac	chlorobutadiene	< 25	ug/kg	6.4	21	1	9/6/00	8021A	CJR	1

CURT HOFFART KEY ENGINEERING W66N215 COMMERCE COURT CEDARBURG WI 53012

Project #

0712007

Project Name KEY PRODUCTS, MILWAUKE

Invoice # E30722

	Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code Sample ID	5030722A MW-4, 3-5'						Sample Type Sample Date)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Isoprop	ylbenzene	< 25	ug/kg	10	33	1	9/6/00	8021A	CJR	1
p-Isopro	pyltoluene	< 25	ug/kg	9	30	1	9/6/00	8021A	CJR	1
Methyle	ene 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
Naphtha	alene	< 25	ug/kg	11	- 38	1	9/6/00	8021A	CJR	1
n-Propy	lbenzene	< 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
Tetrachl	loroethene	< 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-Tr	ichlorobenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
1,2,3-Tr	richlorobenzene	< 25	ug/kg	9.3	31	1	9/6/00	8021A	CJR	1
1,1,1-Тг	ichloroethane	< 25	ug/kg	8.4	28	1	9/6/00	8021A	CJR	1
1,1,2-Tr	ichloroethane	< 25	ug/kg	11	36	1	9/6/00	8021A	CJR	1
Trichlor	oethene	< 25	ug/kg	15	51	1	9/6/00	8021A	CJR	1
Trichlor	ofluoromethane	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	2
1,2,4-Tr	imethylbenzene	< 25	ug/kg	6.9	23	1	9/6/00	8021A	CJR	1
1,3,5-Tr	imethylbenzene	< 25	ug/kg	16	54	1	9/6/00	8021A	CJR	1
Vinyl C	•	< 25	ug/kg	8.3	25	1	9/6/00	8021A	CJR	1
m&p-Xy		< 50	ug/kg	15	48	1	9/6/00	8021A	CJR	1
o-Xylen		< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	1
Lab Code Sample ID	5030722B MW-5, 0-2						Sample Type Sample Date	Soil 8/30/00)	
Inorganic General										
Solids P	ercent	89.0	%			1	9/1/00	5021	SAD	1
Total Or	ganic 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
Bromobe	enzene	< 25	ug/kg	13	42	1	9/6/00	8021A	CJR	1
Bromodi	ichloromethane	< 25	ug/kg	7.3	24	1	9/6/00	8021A	CJR	1
tert-Buty	lbenzene	< 25	ug/kg	10	33	1	9/6/00	8021A	CJR	1
sec-Buty	lbenzene	< 25	ug/kg	8.5	28	1	9/6/00	8021A	CJR	1
n-Butylb	enzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
Carbon 7	Tetrachloride	< 25	ug/kg	8.3	28	1	9/6/00	8021A	CJR	4

CURT HOFFART KEY ENGINEERING W66N215 COMMERCE COURT CEDARBURG WI 53012

Project #

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0712007

Project Name KEY PRODUCTS, MILWAUKE

Invoice # E30722

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030722B Sample ID MW-5, 0-2						Sample Type Sample Date			
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

CURT HOFFART KEY ENGINEERING W66N215 COMMERCE COURT CEDARBURG WI 53012

Project #

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Project Name KEY PRODUCTS, MILWAUKE

Invoice # E30722

Analyte	Result	Units	LOD	LOQ	. Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030722B Sample ID MW-5, 0-2						Sample Type Sample Date			
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
Lab Code 5030722C						Sample Type	Soil		
Sample ID MW-6, 2-4'						Sample Date	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

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Project #

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Project Name KEY PRODUCTS, MILWAUKE Invoice #

E30722

	Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code Sample ID	5030722C MW-6, 2-4'		_				Sample Type Sample Date	Soil 8/30.00)	
1,2-Dic	thloroethane	< 25	ug/kg	8.6	29	1	9/6/00	8021A	CJR	1
1,1-Dic	thloroethane	< 25	ug/kg	7.4	25	1	9/6/00	8021A	CJR	1
1,1-Dic	hloroethene	< 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-Dic	hloropropane	< 25	ug/kg	8.9	30	1	9/6/00	8021A	CJR	1
1,3-Dic	hloropropane	< 25	ug/kg	11	35	1	9/6/00	8021A	CJR	1
	ropyl 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
Ethylbe	enzene	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	1
Hexach	lorobutadiene	< 25	ug/kg	6.4	21	1	9/6/00	8021A	CJR	1
Isoprop	ylbenzene	< 25	ug/kg	10	33	1	9/6/00	8021A	CJR	1
p-Isopro	opyltoluene	< 25	ug/kg	9	30	1	9/6/00	8021A	CJR	1
Methyle	ene 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
Naphtha	alene	< 25	ug/kg	11	38	1	9/6/00	8021A	CJR	1
n-Propy	lbenzene	< 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
Tetrach	loroethene	< 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-Tr	richlorobenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	. 1
1,2,3-Tr	richlorobenzene	< 25	ug/kg	9.3	31	1	9/6/00	8021A	CJR	1
1,1,1-Tr	richloroethane	< 25	ug/kg	8.4	28	1	9/6/00	8021A	CJR	1
1,1,2-Tr	richloroethane	< 25	ug/kg	11	36	1	9/6/00	8021A	CJR	1
Trichlor	oethene	< 25	ug/kg	15	51	1	9/6/00	8021A	CJR	1
Trichlor	ofluoromethane	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	2
1,2,4-Tr	imethylbenzene	< 25	ug/kg	6.9	23	1	9/6/00	8021A	CJR	1
1,3,5-Tr	imethylbenzene	< 25	ug/kg	16	54	1	9/6/00	8021A	CJR	1
Vinyl C	hloride	< 25	ug/kg	8.3	25	1	9/6/00	8021A	CJR	1
m&p-Xy	ylene	< 50	ug/kg	15	48	1	9/6/00	8021A	CJR	1
o-Xylen	e	< 25	ug/kg	7.9	26	1	9/6/00	8021A	CJR	1

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 5030722D Sample ID MW-7, 1-3'						Sample Type Sample Date	Soil 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	ī
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-Dichloroe	thene < 50	ug/kg	4.1	20	1	9/6/00	8021A	CJR	1
1,2-Dibromo-3-chloropropa	ne < 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

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\$P\$中心的情况的时间,但我们是这个工作中的情况的问题的问题的问题。1911年11日1日,1915年11日的数据的数据的证据的证据(1917年)中国中心中国的证明

CURT HOFFART KEY ENGINEERING W66N215 COMMERCE COURT CEDARBURG WI 53012

Project #

0712007

Project Name

KEY PRODUCTS, MILWAUKE

Invoice # E30722

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030722D Sample ID MW-7, 1-3'						Sample Type Sample Date)	·
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
Lab Code 5030722E						Sample Type			·
Sample ID MEOH BLANK						Sample Date	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

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 Sample ID	5030722E MEOH BLANK						Sample Type Sample Date)	
Chloron	nethane	< 25	ug/kg	5	17	1	9/6/00	8021A	CJR	1
2-Chloro	otoluene	< 25	ug/kg	2.4	8.4	1	9/6/00	8021A	CJR	1
4-Chlore	otoluene	< 25	ug/kg	2.3	8.5	1	9/6/00	8021A	CJR	1
2,2-DCF	P, cis-1,2-Dichloroethene	< 50	ug/kg	4.1	20	1	9/6/00	8021A	CJR	1
1,2-Dibr	romo-3-chloropropane	< 25	ug/kg	11	37	1	9/6/00	8021A	CJR	4
Dibromo	ochloromethane	< 25	ug/kg	9.4	31	1	9/6/00	8021A	CJR	1
1,4-Dich	nlorobenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
1,3-Dich	nlorobenzene	< 25	ug/kg	8.6	29	1	9/6/00	8021A	CJR	1
1,2-Dich	nlorobenzene	< 25	ug/kg	8.9	30	1	9/6/00	8021A	CJR	. 1
Dichloro	odifluoromethane	< 25	ug/kg	8.3	25	1	9/6/00	8021A	CJR	4
1,2-Dich	ıloroethane	< 25	ug/kg	8.6	29	1	9/6/00	8021A	CJR	1
1,1-Dich	nloroethane	< 25	ug/kg	7.4	25	1	9/6/00	8021A	CJR	1
1,1-Dich	loroethene	< 25	ug/kg	8.3	28	1	9/6/00	8021A	СJR	1
cis-1,2-D	Dichloroethene	< 25	ug/kg	5.7	19	1	9/6/00	8021A	CJR	1
trans-1,2	2-Dichloroethene	< 25	ug/kg	7.5	25	1	9/6/00	8021A	CJR	1
1,2-Dich	loropropane	< 25	ug/kg	8.9	30	1	9/6/00	8021A	CJR	1
1,3-Dich	loropropane	< 25	ug/kg	11	35	1	9/6/00	8021A	CJR	1
Di-isopro	opyl ether	< 25	ug/kg	7.4	25	1	9/6/00	8021A	CJR	4
EDB (1,2	2-Dibromoethane)	< 25	ug/kg	9.3	31	1	9/6/00	8021A	CJR	1
Ethylben	nzene	< 25	ug/kg	7.9	26	1 "	9/6/00	8021A	CJR	1
Hexachle	orobutadiene	< 25	ug/kg	6.4	21	1	9/6/00	8021A	CJR	.1
Isopropy	lbenzene	< 25	ug/kg	10	33	1	9/6/00	8021A	CJR	1
p-Isoproj	pyltoluene	< 25	ug/kg	9	30	1	9/6/00	8021A	CJR	. 1
Methyler	ne 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
Naphthal	lene	< 25	ug/kg	11	38	1	9/6/00	8021A	CJR	1
n-Propyl	benzene	< 25	ug/kg	16	53	i	9/6/00	8021A	CJR	1
1,1,2,2-T	etrachloroethane	< 25	ug/kg	24	81	1	9/6/00	8021A	CJR	4
Tetrachlo	oroethene	< 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-Tri	chlorobenzene	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	1
1,2,3-Tri	chlorobenzene	< 25	ug/kg	9.3	31	1	9/6/00	8021A	CJR	1
1,1,1-Tri	chloroethane	< 25	ug/kg	8.4	28	1	9/6/00	8021A	CJR	1
1,1,2-Tri	chloroethane	< 25	ug/kg	11	36	1	9/6/00	8021A	CJR	1
Trichloro	pethene	< 25	ug/kg	15	51	1	9/6/00	8021A	CJR	1
Trichloro	ofluoromethane	< 25	ug/kg	8.8	29	1	9/6/00	8021A	CJR	2
1,2,4-Trii	methylbenzene	< 25	ug/kg	6.9	23	1	9/6/00	8021A	CJR	1

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 Sample ID	5030722E MEOH BLANK						Sample Type Sample Date	Soil 8/30/00		
1,3,5-T	rimethylbenzene	< 25	ug/kg	16	54	1	9/6/00	8021A	CJR	1
Vinyl C	Chloride	< 25	ug/kg	8.3	25	1	9/6/00	8021A	CJR	1
m&p-X	(ylene	< 50	ug/kg	15	48	1	9/6/00	8021A	CJR	1
o-Xyle:	ne	< 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.	
4	The check standard failed to meet acceptable QC limits.	

Authorized Signature

ATTACHMENT 3

CHAIN CUSTODY RECORD



A lytical Lab

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

Account No. :		Quote N	o.: 502		، لاگسار»	(920) 739-829 LAB@USOIL		N 920-739-1730	• 000	J-49(J-49	UZ	Pag	je _[0	f <u>1</u>		
	712007		<u> </u>	-/	Sample Integr	ity - To be comple	eted by	receiving lab. Temp. of Temp.	i. Šartys	•		<u> </u>					58 . F	Asset The Park Land Base
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Lab I.D.	Sample I.D.		ection Time		f Containers and Type	Description*		Preservation	DRO (Mc	GRO (Mod/TPH)	BYCC (F	VOC (EPA 8021)	VOC (EF	PAH (EP	Flash Po			PIC FIE
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ALTERNATION OF THE PROPERTY OF	Jse Optional f	or Soil S	amples	Relingu	uished_By: (sigr	n)	Time	Date Reg	zejvec	d By:	(sic	<u>ار)</u>				Tim		Date
Disposition of unu	sed portion of	sample		Was	holito	•	7:30	9-21.00	<u>مرا</u>	•	H	n	s			9:3		9-21
Lab Should:			9.6	197	en Hrs	vs /	130	7-21.00										
Dispose		tain for	days				·											<i></i>
Return	Oth	1 er		Receiv	ed in Laborato	ry By: /、ノん	7//			Tim	ie: ,	/ス:	20	5		Date): <i>()],</i>	21/1

CURT HOFFART KEY ENGINEERING W66N215 COMMERCE COURT CEDARBURG WI 53012

Project # 0712007 Project Name NONE Invoice # E30903

	Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code Sample ID	5030903A MW-1						Sample Type Sample Date	Water 9/20/0	0	
Organic										
VOC's										
Benzer	ne	< 39	ug/l	39	130	100	9/26/00	8021A	CAH	1
Bromo	benzene	< 39	ug/l	39	130	100	9/26/00	8021A	CAH	1
Bromo	dichloromethane	< 38	ug/l	38	130	100	9/26/00	8021A	CAH	1
tert-Bu	tylbenzene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	I
sec-Bu	tylbenzene	< 48	ug/l	48	160	100	9/26/00	8021A	CAH	1
n-Buty	lbenzene	< 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
Chlorol	benzene	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
Chloro	ethane	< 15	ug/l	15	48	100	9/26/00	8021A	CAH	4
Chloro	form	< 38	ug/l	38	130	100	9/26/00	8021A	CAH	1
Chloro	methane	< 110	ug/l	110	350	100	9/26/00	8021A	CAH	4
2-Chlor	rotoluene	< 47	ug/l	47	150	100	9/26/00	8021A	CAH	1 ,
4-Chlor	rotoluene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
1,2-Dib	romo-3-chloropropane	< 67	ug/l	67	220	100	9/26/00	8021A	CAH	1.
Dibrom	nochloromethane	< 50	ug/l	50	170	100	9/26/00	8021A	CAH	1
1,4-Dic	hlorobenzene	< 42	ug/l	42	140	100	9/26/00	8021A	CAH	1 .
1,3-Dic	hlorobenzene	< 45	ug/l	45	150	100	9/26/00	8021A	CAH	1 .
1,2-Dic	hlorobenzene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
Dichlor	odifluoromethane	< 37	ug/l	37	120	100	9/26/00	8021A	CAH	3 4
1,2-Dic	hloroethane	< 35	ug/l	35	120	100	9/26/00	8021A	CAH	1
1,1-Dic	hloroethane	< 35	ug/l	. 35	120	100	9/26/00	8021A	CAH	1
1,1-Dic	hloroethene	< 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-Dic	hloropropane	< 40	ug/l	. 40	130	100	9/26/00	8021A	CAH	1
2,2-Dic	hloropropane	< 59	ug/l	59	200	100	9/26/00	8021A	CAH	4
Di-isop	ropyl 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
Ethylbe	nzene	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	· 1
Hexach	lorobutadiene	< 62	ug/l	62	210	100	9/26/00	8021A	CAH	. 1
Isoprop	ylbenzene	< 38	ug/l	38	130	100	9/26/00	8021A	CAH	1
p-Isopro	pyltoluene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
Methyle	ene 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

CURT HOFFART KEY ENGINEERING W66N215 COMMERCE COURT CEDARBURG WI 53012

Project # 0712007 Project Name NONE Invoice # E30903

	Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code Sample ID	5030903A MW-1						Sample Type Sample Date)	
Naphth		< 53	ug/l	53	180	100	9/26/00	8021A	САН	1
•	/lbenzene	< 42	ug/l ug/l	42	140	100	9/26/00	8021A	CAH	1
• •	Tetrachloroethane	< 68	ug/l	68	230	100	9/26/00	8021A	CAH	1
	P, Tetrachloroethene	< 93	ug/l	93	310	100	9/26/00	8021A 8021A	CAH	1
	loroethene	18000	ug/i	34	110	100	9/26/00	8021A	CAH	1
Toluene		< 37	ug/l	37	120	100	9/26/00	8021A	CAH	1
	richlorobenzene	< 60	ug/l	60	200	100	9/26/00	8021A	CAH	1
	richlorobenzene	< 49	ug/i ug/i	49	160	100	9/26/00	8021A	CAH	1
· ·	richloroethane	< 54	ug/l	54	180	100	9/26/00	8021A	САН	1
	richloroethane	< 46	ug/l	46	150	100	9/26/00	8021A	САН	l
	roethene	290	ug/l	46	150	100	9/26/00	8021A	САН	1
	rofluoromethane	< 62	ug/l	62	210	100	9/26/00	8021A	CAH	1
	rimethylbenzene	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
	rimethylbenzene	< 63	ug/l	63	210	100	9/26/00	8021A	CAH	1
Vinyl C	•	< 87	ug/l	87	290	100	9/26/00	8021A	САН	4
m&p-X		< 79	ug/l	79	260	100	9/26/00	8021A	CAH	1
o-Xylen		< 64	ug/l	64	210	100	9/26/00	8021A	САН	1
Lab Code	5030903B						Sample Type	Water		
Sample ID	MW-2						Sample Date)	
Organic										
VOC's										
Benzene	.	< 39	ug/1	39	130	100	9/26/00	8021A	САН	1
Bromob	=	< 39	ug/l	39	130	100	9/26/00	8021A 8021A	САН	1
	ichloromethane	< 38	ug/l ug/l	39	130	100	9/26/00	8021A	САН	1
	ylbenzene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
-	ylbenzene	< 48	ug/l	48	160	100	9/26/00	8021A	CAH	1
n-Butylb		< 43	ug/l ug/l	43	140	100	9/26/00	8021A 8021A	CAH	1
•	Tetrachloride	< 55	ug/l	55	180	100	9/26/00	8021A	CAH	1
Chlorobe		< 40	ug/l	40	130	100	9/26/00	8021A	САН	1
Chloroet		< 15	_	15	48	100	9/26/00	8021A	CAH	4
Chlorofo		< 38	ug/l	38	130	100	9/26/00	8021A 8021A	CAH	1
Chlorom		< 110	ug/l ug/l	110	350	100	9/26/00	8021A 8021A	CAH	4
2-Chloro		< 47	ug/i ug/l	47	150	100	9/26/00	8021A 8021A	CAH	1
4-Chlore		< 44	ug/i ug/i	44	150	100	9/26/00	8021A 8021A	САН	1
	omo-3-chloropropane	< 67	ug/l ug/l	67	220	100	9/26/00	8021A 8021A	САН	1
1,2 2101	onio-5 emoroproparie	- 07	ug/i	. 01	220	100	<i>7120100</i>	0021A	CAII	ı

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	5030903B					<u></u>	Sample Type	Water		
Sample ID	MW-2						Sample Date	9/20/00)	
Dibron	nochloromethane	< 50	ug/l	50	170	100	9/26/00	8021A	CAH	1
1,4-Die	chlorobenzene	< 42	ug/l	42	140	100	9/26/00	8021A	CAH	1
1,3-Dio	chlorobenzene	< 45	ug/l	45	150	100	9/26/00	8021A	CAH	1
1,2-Dio	chlorobenzene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
Dichlo	rodifluoromethane	< 37	ug/l	37	120	100	9/26/00	8021A	CAH	3 4
1,2-Dio	chloroethane	< 35	ug/l	35	120	100	9/26/00	8021A	CAH	1
1,1-Dio	chloroethane	< 35	ug/l	35	120	100	9/26/00	8021A	CAH	1
1,1-Dio	chloroethene	< 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-Dic	chloropropane	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
2,2-Dio	chloropropane	< 59	ug/l	59	200	100	9/26/00	8021A	CAH	4
Di-isop	propyl 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
Ethylbe	enzene	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
Hexacl	nlorobutadiene	< 62	ug/l	62	210	100	9/26/00	8021A	CAH	1 .
Isoprop	ylbenzene	< 38	ug/l	38	130	100	9/26/00	8021A	CAH	. 1
p-Isopr	opyltoluene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
Methyl	ene 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
Naphth	alene	< 53	ug/l	53	180	100	9/26/00	8021A	CAH	: 1
n-Propy	ylbenzene	< 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-DC	P, Tetrachloroethene	< 93	ug/l	93	310	100	9/26/00	8021A	CAH	1
Tetrach	loroethene	22000	ug/l	34	110	100	9/26/00	8021A	CAH	1
Toluene	е	< 37	ug/l	37	120	100	9/26/00	8021A	CAH	1
1,2,4-T	richlorobenzene	< 60	ug/i	60	200	100	9/26/00	8021A	CAH	1
1,2,3-T	richlorobenzene	< 49	ug/l	49	160	100	9/26/00	8021A	CAH	1
1,1,1-T	richloroethane	< 54	ug/l	54	180	100	9/26/00	8021A	CAH	1
1,1,2-T	richloroethane	< 46	ug/l	46	150	100	9/26/00	8021A	CAH	1
Trichlo	roethene	780	ug/l	46	150	100	9/26/00	8021A	CAH	1
Trichlo	rofluoromethane	< 62	ug/l	62	210	100	9/26/00	8021A	CAH	1
1,2,4-T	rimethylbenzene	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
1,3,5-T	rimethylbenzene	< 63	ug/l	63	210	100	9/26/00	8021A	CAH	1
Vinyl C	Chloride	< 87	ug/l	87	290	100	9/26/00	8021A	CAH	4
m&p-X	ylene	< 79	ug/l	79	260	100	9/26/00	8021A	CAH	1
o-Xyler	ne	< 64	ug/l	64	210	100	9/26/00	8021A	CAH	1

1090 Kennedy Ave, Kimberly, WI 54136 * 920-735-8295 * FAX 920-739-1738 * 1-800-490-4902 WI DNR Lab Certification #445134030

CURT HOFFART KEY ENGINEERING W66N215 COMMERCE COURT CEDARBURG WI 53012

Project # 0712007 Project Name

NONE Invoice # E30903

Lab Code5030903CSample TypeWaterSample IDMW-3Sample Date9/20/00	
Sample ID MW-3 Sample Date 9/20/00	
	· · · · · · · · · · · · · · · · · · ·
Organic	
VOC's	
Benzene < 0.39 ug/l 0.39 1.3 l 9/26/00 8021A	CAH 1
Bromobenzene < 0.39 ug/l 0.39 1.3 l 9/26/00 8021A	CAH 1
Bromodichloromethane < 0.38 ug/l 0.38 1.3 l 9/26/00 8021A	CAH 1
tert-Butylbenzene < 0.44 ug/l 0.44 1.5 l 9/26/00 8021A	CAH 1
sec-Butylbenzene < 0.48 ug/l 0.48 1.6 l 9/26/00 8021A C	CAH 1
п-Butylbenzene < 0.43 ug/l 0.43 1.4 l 9/26/00 8021A С	CAH 1
Carbon Tetrachloride < 0.55 ug/l 0.55 1.8 1 9/26/00 8021A	CAH 1
	CAH I
	CAH 4
Chloroform < 0.38 ug/l 0.38 1.3 1 9/26/00 8021A C	CAH 1
Chloromethane 36 ug/l 1.1 3.5 l 9/26/00 8021A C	CAH 4
	CAH 1
4-Chlorotoluene < 0.44 ug/l 0.44 1.5 l 9/26/00 8021A	CAH 1
	CAH 1
	CAH 1
<u> </u>	CAH 1
•	CAH 1
	CAH 1
	CAH 3.4
	CAH 1
	CAH 1
	CAH 4
-	CAH 1
	CAH 1
	CAH 1
	CAH 4
	CAH I
*	CAH 1
	CAH 1
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-	CAH I
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	CAH 1
·	CAH 1

CURT HOFFART KEY ENGINEERING W66N215 COMMERCE COURT CEDARBURG WI 53012

Project # 0712007 Project Name NONE Invoice # E30903

An	alyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
11	030903C 1W-3						Sample Type Sample Date)	
Naphthalene	:	< 0.53	ug/l	0.53	1.8	1	9/26/00	8021A	CAH	1
n-Propylben:	zene	< 0.42	ug/l	0.42	1.4	1	9/26/00	8021A	CAH	1 .
1,1,2,2-Tetra	chloroethane	< 0.68	ug/l	0.68	2.3	1	9/26/00	8021A	CAH	1
1,3-DCP, Te	trachloroethene	< 0.93	ug/l	0.93	3.1	1	9/26/00	8021A	CAH	1
Tetrachloroe	thene	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-Trichlo	orobenzene	< 0.6	ug/l	0.6	2	1	9/26/00	8021A	CAH	1
1,2,3-Trichlo	probenzene	< 0.49	ug/l	0.49	1.6	1	9/26/00	8021A	CAH	1
1,1,1-Trichlo	oroethane	< 0.54	ug/l	0.54	1.8	1	9/26/00	8021A	CAH	1
1,1,2-Trichlo	proethane	< 0.46	ug/l	0.46	1.5	1	9/26/00	8021A	CAH	1
Trichloroetho	ene	11	ug/l	0.46	1.5	1	9/26/00	8021A	CAH	1 .
Trichlorofluc	oromethane	< 0.62	ug/l	0.62	2.1	1	9/26/00	8021A	CAH	1
1,2,4-Trimet	hylbenzene	< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
1,3,5-Trimet	hylbenzene	< 0.63	ug/l	0.63	2.1	1	9/26/00	8021A	CAH	1
Vinyl Chlorie	de	< 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	САН	1
Lab Code 50)30903D						Sample Type	Water		
Sample ID M	W-4						Sample Date	9/20/00) 	
Organic										
VOC's										
Benzene		< 39	ug/l	39	130	100	9/26/00	8021A	CAH	1
Bromobenzer	ne	< 39	ug/l	39	130	100	9/26/00	8021A	CAH	1
Bromodichlo	romethane	< 38	ug/l	38	130	100	9/26/00	8021A	CAH	1
tert-Butylben	zene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
sec-Butylben	zene	< 48	ug/l	48	160	100	9/26/00	8021A	CAH	1
n-Butylbenze	ene	< 43	ug/l	43	140	100	9/26/00	8021A	CAH	1
Carbon Tetra	chloride	< 55	ug/l	55	180	100	9/26/00	8021A	CAH	1
Chlorobenzer	ne	< 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
Chlorometha	ne	< 110	ug/l	110	350	100	9/26/00	8021A	CAH	4
2-Chlorotolue	ene	< 47	ug/l	47	150	100	9/26/00	8021A	CAH	1
4-Chlorotolue	ene	< 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
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CURT HOFFART KEY ENGINEERING W66N215 COMMERCE COURT CEDARBURG WI 53012

Project # 0 Project Name N Invoice # E

0712007 NONE E30903

	Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5030903D						Sample Type	Water		
Sample ID	MW-4						Sample Date	9/20/00)	
Dibron	ochloromethane	< 50	ug/l	50	170	100	9/26/00	8021A	CAH	1
1,4-Dic	hlorobenzene	< 42	ug/l	42	140	100	9/26/00	8021A	CAH	1
1,3-Dic	hlorobenzene	< 45	ug/l	45	150	100	9/26/00	8021A	CAH	1
1,2-Dic	hlorobenzene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
Dichlor	odifluoromethane	< 37	ug/l	37	120	100	9/26/00	8021A	CAH	3 4
1,2-Dic	hloroethane	< 35	ug/l	35	120	100	9/26/00	8021A	CAH	1
1,1-Dic	hloroethane	< 35	ug/l	35	120	100	9/26/00	8021A	CAH	1
1,1-Dic	hloroethene	< 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-Dic	hloropropane	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
2,2-Dic	hloropropane	< 59	ug/l	59	200	100	9/26/00	8021A	CAH	4
Di-isop	ropyl 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
Ethylbe	nzene	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
Hexach	lorobutadiene	< 62	ug/l	62	210	100	9/26/00	8021A	CAH	i
Isoprop	ylbenzene	< 38	ug/l	38	130	100	9/26/00	8021A	CAH	1
p-Isopro	pyltoluene	< 44	ug/l	44	150	100	9/26/00	8021A	CAH	1
Methyle	ene 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
Naphtha	alene	< 53	ug/l	53	180	100	9/26/00	8021A	CAH	· 1
n-Propy	lbenzene	< 42	ug/l	42	140	100	9/26/00	8021A	CAH	1
	Tetrachloroethane	< 68	ug/l	68	230	100	9/26/00	8021A	CAH	1
	, Tetrachloroethene	< 93	ug/l	93	310	100	9/26/00	8021A	CAH	1
	oroethene	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-Tr	ichlorobenzene	< 60	ug/l	60	200	100	9/26/00	8021A	CAH	1
1,2,3-Tı	ichlorobenzene	< 49	ug/l	49	160	100	9/26/00	8021A	CAH	1
1,1,1-Tı	ichloroethane	< 54	ug/l	54	180	100	9/26/00	8021A	CAH	1
1,1,2-Tr	ichloroethane	< 46	ug/l	46	150	100	9/26/00	8021A	CAH	1
Trichlor	oethene	520	ug/l	46	150	100	9/26/00	8021A	CAH	1
Trichlor	ofluoromethane	< 62	ug/l	62	210	100	9/26/00	8021A	CAH	1
1,2,4-Tr	imethylbenzene	< 40	ug/l	40	130	100	9/26/00	8021A	CAH	1
	imethylbenzene	< 63	ug/l	63	210	100	9/26/00	8021A	CAH	1
Vinyl C	hloride	< 87	ug/l	87	290	100	9/26/00	8021A	CAH	4
m&p-X		< 79	ug/l	79	260	100	9/26/00	8021A	CAH	1
o-Xylen		< 64	ug/l	64	210	100	9/26/00	8021A	САН	1

CURT HOFFART KEY ENGINEERING W66N215 COMMERCE COURT CEDARBURG WI 53012

Project # 0712007 Project Name NONE Invoice # E30903

	Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code Sample ID	5030903E MW-5						Sample Type Sample Date	Water 9/20/00)	
Organic										
VOC's										
Benze	ne	< 39	ug/l	39	130	100	9/27/00	8021A	CAH	1
Bromo	benzene	< 39	ug/l	39	130	100	9/27/00	8021A	CAH	1
Bromo	odichloromethane	< 38	ug/l	38	130	100	9/27/00	8021A	CAH	1
tert-Bu	ıtylbenzene	< 44	ug/l	44	150	100	9/27/00	8021A	CAH	1
sec-Bu	itylbenzene	< 48	ug/l	48	160	100	9/27/00	8021A	CAH	1
n-Buty	lbenzene	< 43	ug/l	43	140	100	9/27/00	8021A	CAH	1
Carbo	n Tetrachloride	< 55	ug/l	55	180	100	9/27/00	8021A	CAH	1
Chloro	benzene	< 40	ug/l	40	130	100	9/27/00	8021A	CAH	1
Chloro	ethane	< 15	ug/l	15	48	100	9/27/00	8021A	CAH	4
Chloro	form	< 38	ug/l	38	130	100	9/27/00	8021A	CAH	1
Chloro	methane	< 110	ug/l	110	350	100	9/27/00	8021A	CAH	4
2-Chlo	rotoluene	< 47	ug/l	47	150	100	9/27/00	8021A	CAH	1
4-Chlo	rotoluene	< 44	ug/l	44	150	100	9/27/00	8021A	CAH	1
1,2-Di	bromo-3-chloropropane	< 67	ug/l	67	220	100	9/27/00	8021A	CAH	1
Dibron	nochloromethane	< 50	ug/l	50	170	100	9/27/00	8021A	CAH	1
1,4-Die	chlorobenzene	< 42	ug/l	42	140	100	9/27/00	8021A	CAH	1
1,3-Die	chlorobenzene	< 45	ug/l	45	150	100	9/27/00	8021A	CAH	1
1,2-Die	chlorobenzene	< 44	ug/l	44	150	100	9/27/00	8021A	CAH	1
Dichlo	rodifluoromethane	< 37	ug/l	37	120	100	9/27/00	8021A	CAH	3 4
1,2-Die	chloroethane	< 35	ug/l	35	120	100	9/27/00	8021A	CAH	. 1
1,1-Dio	chloroethane	< 35	ug/l	35	120	100	9/27/00	8021A	CAH	1
1,1-Dio	chloroethene	< 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-Dic	chloropropane	< 40	ug/l	40	130	100	9/27/00	8021A	CAH	1
2,2-Dio	chloropropane	< 59	ug/l	59	200	100	9/27/00	8021A	CAH	4
	propyl 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
Ethylbe	enzene	< 40	ug/l	40	130	100	9/27/00	8021A	CAH	1
Hexacl	nlorobutadiene	< 62	ug/l	62	210	100	9/27/00	8021A	CAH	1
Іѕоргор	ylbenzene	< 38	ug/l	38	130	100	9/27/00	8021A	CAH	1
p-Isopr	opyltoluene	< 44	ug/l	44	150	100	9/27/00	8021A	CAH	1
Methyl	ene 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

CURT HOFFART KEY ENGINEERING W66N215 COMMERCE COURT CEDARBURG WI 53012

Project # 0712007 Project Name NONE Invoice # E30903

	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)	
Naphthale	ene	< 53	ug/l	53	180	100	9/27/00	8021A	CAH	1
n-Propylb	enzene	< 42	ug/l	42	140	100	9/27/00	8021A	CAH	1
1,1,2,2-Te	etrachloroethane	< 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
Tetrachlo	roethene	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-Tric	hlorobenzene	< 60	ug/l	60	200	100	9/27/00	8021A	CAH	1
1,2,3-Tric	chlorobenzene	< 49	ug/l	49	160	100	9/27/00	8021A	CAH	1
1,1,1-Tric	chloroethane	< 54	ug/l	54	180	100	9/27/00	8021A	CAH	1
1,1,2-Tric	chloroethane	< 46	ug/l	46	150	100	9/27/00	8021A	CAH	I
Trichloro	ethene	760	ug/l	46	150	100	9/27/00	8021A	CAH	1
Trichlorof	fluoromethane	< 62	ug/l	62	210	100	9/27/00	8021A	CAH	1
1,2,4-Trin	nethylbenzene	< 40	ug/l	40	130	100	9/27/00	8021A	CAH	1
1,3,5-Trin	nethylbenzene	< 63	ug/l	63	210	100	9/27/00	8021A	CAH	I
Vinyl Chl	oride	< 87	ug/l	87	290	100	9/27/00	8021A	CAH	4
m&p-Xyl	ene	< 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
Lab Code	5030903F						Sample Type	Water		
Sample ID	MW-6			*			Sample Date	9/20/00)	
Organic										
VOC's										
Benzene		< 39	ug/l	39	130	100	9/27/00	8021A	CAH	1
Bromober	nzene	< 39	ug/l	39	130	100	9/27/00	8021A	CAH	1
Bromodic	hloromethane	< 38	ug/l	38	130	100	9/27/00	8021A	CAH	1
tert-Butyll	benzene	< 44	ug/l	44	150	100	9/27/00	8021A	CAH	1
sec-Butyll		< 48	ug/l	48	160	100	9/27/00	8021A	CAH	1
n-Butylbe	nzene	< 43	ug/l	43	140	100	9/27/00	8021A	CAH	1
•	etrachloride	< 55	ug/l	55	180	100	9/27/00	8021A	CAH	1
Chloroben	izene	< 40	ug/l	40	130	100	9/27/00	8021A	CAH	1
Chloroeth	ane	< 15	ug/l	15	48	100	9/27/00	8021A	CAH	4
Chlorofor	m ·	< 38	ug/l	38	130	100	9/27/00	8021A	CAH	1
Chloromet	thane	< 110	ug/l	110	350	100	9/27/00	8021A	CAH	4
2-Chloroto		< 47	ug/l	47	150	100	9/27/00	8021A	CAH	1
4-Chloroto		< 44	ug/l	44	150	100	9/27/00	8021A	CAH	1
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CURT HOFFART KEY ENGINEERING W66N215 COMMERCE COURT CEDARBURG WI 53012

Project #
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	Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code	5030903F						Sample Type	Water		
Sample ID	MW-6						Sample Date)	
Dibron	nochloromethane	< 50	ug/l	50	170	100	9/27/00	8021A	САН	1
1,4-Dic	chlorobenzene	< 42	ug/l	42	140	100	9/27/00	8021A	CAH	1
1,3-Dic	chlorobenzene	< 45	ug/l	45	150	100	9/27/00	8021A	CAH	1
1,2-Dic	chlorobenzene	< 44	ug/l	44	150	100	9/27/00	8021A	CAH	1
Dichlor	rodifluoromethane	< 37	ug/l	37	120	100	9/27/00	8021A	CAH	3 4
1,2-Dic	hloroethane	< 35	ug/l	35	120	100	9/27/00	8021A	CAH	1
1,1-Dic	hloroethane	< 35	ug/l	35	120	100	9/27/00	8021A	CAH	1
1,1-Dic	hloroethene	< 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-Dic	hloropropane	< 40	ug/l	40	130	100	9/27/00	8021A	CAH	1
2,2-Dic	hloropropane	< 59	ug/l	59	200	100	9/27/00	8021A	CAH	4
Di-isop	ropyl 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
Ethylbe	nzene	< 40	ug/l	40	130	100	9/27/00	8021A	CAH	1
Hexach	lorobutadiene	< 62	ug/l	62	210	100	9/27/00	8021A	CAH	1
Isoprop	ylbenzene	< 38	ug/l	38	130	100	9/27/00	8021A	CAH	1
p-Isopro	opyltoluene	< 44	ug/l	44	150	100	9/27/00	8021A	CAH	1
Methyle	ene 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
Naphtha	alene	< 53	ug/l	53	180	100	9/27/00	8021A	CAH	- 1
n-Propy	lbenzene	< 42	ug/l	42	140	100	9/27/00	8021A	CAH	I
1,1,2,2-	Tetrachloroethane	< 68	ug/l	68	230	100	9/27/00	8021A	CAH	1
1,3-DC	P, Tetrachloroethene	< 93	ug/l	93	310	100	9/27/00	8021A	CAH	1
Tetrach	loroethene	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-Tr	richlorobenzene	< 60	ug/l	60	200	100	9/27/00	8021A	CAH	1
1,2,3-Tr	richlorobenzene	< 49	ug/l	49	160	100	9/27/00	8021A	CAH	1
1,1,1-Tr	richloroethane	< 54	ug/l	54	180	100	9/27/00	8021A	CAH	1
1,1,2-Tr	richloroethane	< 46	ug/l	46	150	100	9/27/00	8021A	CAH	1
Trichlor	oethene	410	ug/l	46	150	100	9/27/00	8021A	CAH	1
Trichlor	ofluoromethane	< 62	ug/l	62	210	100	9/27/00	8021A	CAH	1
1,2,4-Tr	rimethylbenzene	< 40	ug/l	40	130	100	9/27/00	8021A	CAH	1
1,3,5-Tr	imethylbenzene	< 63	ug/l	63	210	100	9/27/00	8021A	CAH	1
Vinyl C	hloride	< 87	ug/l	87	290	100	9/27/00	8021A	CAH	4
m&p-X	ylene	< 79	ug/l	79	260	100	9/27/00	8021A	CAH	1
o-Xylen	e	< 64	ug/l	64	210	100	9/27/00	8021A	CAH	1

CURT HOFFART KEY ENGINEERING W66N215 COMMERCE COURT CEDARBURG WI 53012

Project #
Project Name
Invoice #

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0712007 NONE E30903

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	Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Cod
Lab Code	5030903G						Sample Type	Water		
Sample ID	MW-7						Sample Date)	
Organic										
VOC's										
Benzene	e	< 0.39	ug/l	0.39	1.3	1	9/26/00	8021A	CAH	1
Bromob	enzene	< 0.39	ug/l	0.39	1.3	1	9/26/00	8021A	CAH	1
Bromod	lichloromethane	< 0.38	ug/l	0.38	1.3	1	9/26/00	8021A	CAH	1
	ylbenzene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
	ylbenzene	< 0.48	ug/l	0.48	1.6	1	9/26/00	8021A	CAH	1
n-Butyll	-	< 0.43	ug/l	0.43	1.4	1	9/26/00	8021A	CAH	1
•	Tetrachloride	< 0.55	ug/l	0.55	1.8	1	9/26/00	8021A	CAH	1
Chlorob		< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
Chloroe		0.58	ug/l	0.15	0.48	1	9/26/00	8021A	CAH	4
Chlorofo		< 0.38	ug/l	0.38	1.3	1	9/26/00	8021A	CAH	1
Chloron		33	ug/i	1.1	3.5	1	9/26/00	8021A	САН	4
	otoluene	< 0.47	ug/l	0.47	1.5	1	9/26/00	8021A	CAH	1
	otoluene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
	romo-3-chloropropane	< 0.67	ug/l	0.67	2.2	1	9/26/00	8021A	CAH	1
	ochloromethane	< 0.5	ug/l	0.5	1.7	1	9/26/00	8021A	CAH	1
	nlorobenzene	< 0.42	ug/l	0.42	1.4	1	9/26/00	8021A	CAH	1
•	nlorobenzene	< 0.45	ug/l	0.45	1.5	1	9/26/00	8021A	CAH	1
	nlorobenzene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
*	odifluoromethane	< 0.37	ug/l	0.37	1.2	1	9/26/00	8021A	CAH	3 4
	nloroethane	< 0.35	ug/l	0.35	1.2	1	9/26/00	8021A	CAH	. 1
,	iloroethane	< 0.35	ug/l	0.35	1.2	1	9/26/00	8021A	CAH	1
-,	loroethene	< 0.66	ug/l	0.66	2.2	1	9/26/00	8021A	CAH	4
	Dichloroethene	340	ug/l	0.37	1.2	1	9/26/00	8021A	CAH	1
•	2-Dichloroethene	11	ug/l	0.43	1.4	1	9/26/00	8021A	САН	1
•	loropropane	< 0.4	ug/l	0.43	1.3	1	9/26/00	8021A	CAH	1
	loropropane	< 0.59	ug/i	0.59	2	1	9/26/00	8021A	САН	4
	opyl ether	< 0.37	ug/l	0.37	1.2	1	9/26/00	8021A	CAH	ı
•	2-Dibromoethane)	< 0.65	ug/l	0.65	2.2	1	9/26/00	8021A	САН	1
Ethylber	•	< 0.4	ug/l	0.03	1.3	1	9/26/00	8021A	CAH	1
•	orobutadiene	< 0.62	ug/l	0.62	2.1	1	9/26/00	8021A	CAH	1
	/lbenzene	< 0.38	ug/l	0.38	1.3	1	9/26/00	8021A	CAH	1
	pyltoluene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
	ne chloride	< 2	ug/l	0.57	6	1	9/26/00	8021A	CAH	1
MTBE	ne emonde	< 0.47	ug/l	0.37	1.6	1	9/26/00	8021A	CAH	1

CURT HOFFART KEY ENGINEERING W66N215 COMMERCE COURT CEDARBURG WI 53012

Project # 0712007 Project Name NONE Invoice # E30903

	Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code Sample ID	5030903G MW-7						Sample Type Sample Date)	
Naphth	alene	< 0.53	3 ug/l	0.53	1.8	1	9/26/00	8021A	САН	1
n-Propy	lbenzene	< 0.42	ug/l	0.42	1.4	1	9/26/00	8021A	CAH	1
1,1,2,2-	Tetrachloroethane	< 0.68	B ug/l	0.68	2.3	1	9/26/00	8021A	CAH	1
1,3-DC	P, Tetrachloroethene	< 0.93	ug/l	0.93	3.1	1	9/26/00	8021A	CAH	1
Tetrach	loroethene	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-Tı	richlorobenzene	< 0.6	ug/l	0.6	2	1	9/26/00	8021A	CAH	1
1,2,3-Tı	richlorobenzene	< 0.49	ug/l	0.49	1.6	1	9/26/00	8021A	CAH	1
1,1,1-Ti	richloroethane	< 0.54	ug/l	0.54	1.8	1	9/26/00	8021A	CAH	1
1,1,2-Tı	richloroethane	< 0.46	ug/l	0.46	1.5	I,	9/26/00	8021A	CAH	1
Trichlor	oethene	29	ug/l	0.46	1.5	1	9/26/00	8021A	CAH	1
Trichlor	rofluoromethane	< 0.62	ug/l	0.62	2.1	1	9/26/00	8021A	CAH	1
1,2,4-Tı	imethylbenzene	< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
1,3,5-Tr	imethylbenzene	< 0.63		0.63	2.1	1	9/26/00	8021A	CAH	1
Vinyl C	hloride	18	ug/l	0.87	2.9	1	9/26/00	8021A	CAH	4
m&p-X	ylene	< 0.79		0.79	2.6	1	9/26/00	8021A	CAH	I
o-Xylen	e	< 0.64	-	0.64	2.1	1	9/26/00	8021A	САН	1
Lab Code Sample ID	5030903H DUP						Sample Type Sample Date	Water 9/20/00)	
Organic										
VOC's								`		
Benzene		< 0.39	ug/l	0.39	1.3	1	9/26/00	8021A	CAH	1
Bromob	enzene	< 0.39	ug/l	0.39	1.3	1	9/26/00	8021A	CAH	1
Bromod	ichloromethane	< 0.38	ug/l	0.38	1.3	1	9/26/00	8021A	CAH	1
tert-Buty	ylbenzene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
sec-Buty	/lbenzene	< 0.48	ug/l	0.48	1.6	1	9/26/00	8021A	CAH	1
n-Butyll	penzene	< 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
Chlorob	enzene	< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
Chloroet	thane	0.58	ug/l	0.15	0.48	1	9/26/00	8021A	CAH	4
Chlorofo	orm	< 0.38	ug/l	0.38	1.3	1	9/26/00	8021A	CAH	1
Chloron	nethane	34	ug/l	1.1	3.5	1	9/26/00	8021A	CAH	4
2-Chloro	otoluene	< 0.47	ug/l	0.47	1.5	1	9/26/00	8021A	CAH	1
4-Chloro	otoluene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
1,2-Dibr	omo-3-chloropropane	< 0.67	ug/l	0.67	2.2	1	9/26/00	8021A	CAH	1

CURT HOFFART KEY ENGINEERING W66N215 COMMERCE COURT CEDARBURG WI 53012

Project # 0712007 Project Name NONE Invoice # E30903

	Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Cod
Lab Code	5030903H						Sample Type	Water		
Sample ID	DUP						Sample Date	9/20/00		
Dibron	nochloromethane	< 0.5	ug/l	0.5	1.7	1	9/26/00	8021A	САН	1
1,4-Dio	chlorobenzene	< 0.42	ug/l	0.42	1.4	1	9/26/00	8021A	CAH	1
1,3-Dio	chlorobenzene	< 0.45	ug/l	0.45	1.5	1	9/26/00	8021A	CAH	1
1,2-Dio	chlorobenzene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
Dichlo	rodifluoromethane	< 0.37	ug/l	0.37	1.2	1	9/26/00	8021A	CAH	3 4
1,2-Dio	chloroethane	< 0.35	ug/l	0.35	1.2	1	9/26/00	8021A	CAH	1
1,1-Dio	chloroethane	< 0.35	ug/l	0.35	1.2	1	9/26/00	8021A	CAH	1
1,1-Dio	chloroethene	< 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-Dic	chloropropane	< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
2,2-Dic	chloropropane	< 0.59	ug/l	0.59	2	1	9/26/00	8021A	CAH	4
Di-isop	ropyl ether	< 0.37	ug/l	0.37	1.2	ı	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
Ethylbe	enzene	< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
Hexach	nlorobutadiene	< 0.62	ug/l	0.62	2.1	1	9/26/00	8021A	CAH	1
Isoprop	ylbenzene	< 0.38	ug/l	0.38	1.3	1	9/26/00	8021A	CAH	1
p-Isopr	opyltoluene	< 0.44	ug/l	0.44	1.5	1	9/26/00	8021A	CAH	1
Methyl	ene 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
Naphth	alene	< 0.53	ug/l	0.53	1.8	1	9/26/00	8021A	CAH	· 1
n-Propy	lbenzene	< 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-DC	P, Tetrachloroethene	< 0.93	ug/l	0.93	3.1	1	9/26/00	8021A	CAH	1
Tetrach	loroethene	24	ug/l	0.34	1.1	1	9/26/00	8021A	CAH	1
Toluend	ę	< 0.37	ug/l	0.37	1.2	1	9/26/00	8021A	CAH	1
1,2,4-T	richlorobenzene	< 0.6	ug/i	0.6	2	1	9/26/00	8021A	CAH	Ì
1,2,3-T	richlorobenzene	< 0.49	ug/l	0.49	1.6	1	9/26/00	8021A	CAH	1
1,1,1-T	richloroethane	< 0.54	ug/l	0.54	1.8	1	9/26/00	8021A	CAH	1
1,1,2-T	richloroethane	< 0.46	ug/l	0.46	1.5	1	9/26/00	8021A	CAH	1
Trichlo	roethene	26	ug/l	0.46	1.5	1	9/26/00	8021A	CAH	1
Trichlo	rofluoromethane	< 0.62	ug/l	0.62	2.1	1	9/26/00	8021A	CAH	1
1,2,4-Ti	rimethylbenzene	< 0.4	ug/l	0.4	1.3	1	9/26/00	8021A	CAH	1
1,3,5-Ti	rimethylbenzene	< 0.63	ug/l	0.63	2.1	1	9/26/00	8021A	CAH	1
Vinyl C	Chloride	18	ug/l	0.87	2.9	1	9/26/00	8021A	CAH	4
m&p-X	ylene	< 0.79	ug/l	0.79	2.6	1	9/26/00	8021A	CAH	1
o-Xyler	ne	< 0.64	ug/l	0.64	2.1	1	9/26/00	8021A	CAH	1

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Project # 0712007 Project Name NONE Invoice # E30903

	Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code Sample ID	5030903I FIELD						Sample Type Sample Date)	
Organic										
VOC's										
Benzen	e	< 0.39	ug/l	0.39	1.3	1	9/22/00	8021A	CAH	1
Bromot	enzene	< 0.39	ug/l	0.39	1.3	1	9/22/00	8021A	CAH	1
Bromod	lichloromethane	< 0.38	ug/l	0.38	1.3	1	9/22/00	8021A	CAH	1
tert-But	tylbenzene	< 0.44	ug/l	0.44	1.5	1	9/22/00	8021A	CAH	1
sec-But	ylbenzene	< 0.48	ug/l	0.48	1.6	1	9/22/00	8021A	CAH	1
n-Butyl	benzene	< 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
Chlorob	enzene	< 0.4	ug/l	0.4	1.3	1	9/22/00	8021A	CAH	1
Chloroe	thane	< 0.15	ug/l	0.15	0.48	1	9/22/00	8021A	CAH	1
Chlorof	orm	< 0.38	ug/l	0.38	1.3	1	9/22/00	8021A	CAH	1
Chloron	nethane	25	ug/l	1.1	3.5	1	9/22/00	8021A	CAH	3 4
2-Chlor	otoluene	< 0.47	ug/l	0.47	1.5	1	9/22/00	8021A	CAH	1
4-Chlore	otoluene	< 0.44	ug/l	0.44	1.5	1	9/22/00	8021A	CAH	1
1,2-Dibi	romo-3-chloropropane	< 0.67	ug/l	0.67	2.2	1	9/22/00	8021A	CAH	1
Dibrom	ochloromethane	< 0.5	ug/l	0.5	1.7	1	9/22/00	8021A	CAH	1
1,4-Dicl	hlorobenzene	< 0.42	ug/l	0.42	1.4	1	9/22/00	8021A	CAH	1
1,3-Dicl	hlorobenzene	< 0.45	ug/l	0.45	1.5	1	9/22/00	8021A	CAH	1
1,2-Dicl	hlorobenzene	< 0.44	ug/l	0.44	1.5	1	9/22/00	8021A	CAH	1
Dichloro	odifluoromethane	< 0.37	ug/l	0.37	1.2	1	9/22/00	8021A	CAH	1
1,2-Dich	hloroethane	< 0.35	ug/l	0.35	1.2	1	9/22/00	8021A	CAH	. 1
1,1-Dicl	hloroethane	< 0.35	ug/l	0.35	1.2	1	9/22/00	8021A	САН	1
1,1-Dicl	nloroethene	< 0.66	ug/l	0.66	2.2	1	9/22/00	8021A	CAH	1
cis-1,2-I	Dichloroethene	< 0.37	ug/l	0.37	1.2	1	9/22/00	8021A	САН	I
trans-1,2	2-Dichloroethene	< 0.43	ug/l	0.43	1.4	1	9/22/00	8021A	CAH	1
1,2-Dich	nloropropane	< 0.4	ug/l	0.4	1.3	1	9/22/00	8021A	CAH	1
2,2-Dich	nloropropane	< 0.59	ug/l	0.59	2	1	9/22/00	8021A	CAH	1
Di-isopr	opyl ether	< 0.37	ug/l	0.37	1.2	1	9/22/00	8021A	CAH	4
EDB (1,	2-Dibromoethane)	< 0.65	ug/i	0.65	2.2	1	9/22/00	8021A	CAH	1
Ethylber		< 0.4	ug/l	0.4	1.3	1	9/22/00	8021A	CAH	1
Hexachl	orobutadiene	< 0.62	ug/l	0.62	2.1	1	9/22/00	8021A	CAH	1
Isopropy	lbenzene	< 0.38	ug/i	0.38	1.3	1	9/22/00	8021A	CAH	1
p-Isopro	pyltoluene	< 0.44	ug/l	0.44	1.5	I	9/22/00	8021A	CAH	1
	ne 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

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 Sample ID	5030903I FIELD						Sample Type Sample Date		0	
Naphth	alene	< 0.53	ug/l	0.53	1.8	ì	9/22/00	8021A	CAH	4
n-Propy	lbenzene	< 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-DC	P, Tetrachloroethene	< 0.93	ug/l	0.93	3.1	1	9/22/00	8021A	CAH	1
Tetrach	loroethene	< 0.34	ug/l	0.34	1.1	ì	9/22/00	8021A	CAH	1
Toluene	2	< 0.37	ug/l	0.37	1.2	1	9/22/00	8021A	CAH	1
1,2,4-Tı	richlorobenzene	< 0.6	ug/l	0.6	2	1	9/22/00	8021A	CAH	4
1,2,3-Ti	richlorobenzene	< 0.49	ug/l	0.49	1.6	1	9/22/00	8021A	CAH	4
1,1,1-Tı	richloroethane	< 0.54	ug/l	0.54	1.8	1	9/22/00	8021A	CAH	1
1,1,2-Tı	richloroethane	< 0.46	ug/l	0.46	1.5	1	9/22/00	8021A	CAH	1 -
Trichlo	roethene	< 0.46	ug/l	0.46	1.5	1	9/22/00	8021A	CAH	1
Trichlor	rofluoromethane	< 0.62	ug/l	0.62	2.1	1	9/22/00	8021A	CAH	1 -
1,2,4-Tr	rimethylbenzene	< 0.4	ug/l	0.4	1.3	1	9/22/00	8021A	CAH	1
1,3,5-Tr	rimethylbenzene	< 0.63	ug/l	0.63	2.1	1	9/22/00	8021A	CAH	1
Vinyl C	hloride	< 0.87	ug/l	0.87	2.9	1	9/22/00	8021A	CAH	1
m&p-X	ylene	< 0.79	ug/l	0.79	2.6	1	9/22/00	8021A	CAH	1
o-Xylen	ne	< 0.64	ug/l	0.64	2.1	1	9/22/00	8021A	САН	1
Lab Code	5030903J						Sample Type	Water		
Sample ID	TRIP				···		Sample Date	9/20/00)	
Organic										
VOC's										
Benzene	2	< 0.39	ug/l	0.39	1.3	1	9/22/00	8021A	CAH	1
Bromob	enzene	< 0.39	ug/l	0.39	1.3	1	9/22/00	8021A	CAH	1
Bromod	ichloromethane	< 0.38	ug/l	0.38	1.3	1	9/22/00	8021A	CAH	1
tert-But	ylbenzene	< 0.44	ug/l	0.44	1.5	1	9/22/00	8021A	CAH	1
sec-Buty	ylbenzene	< 0.48	ug/l	0.48	1.6	1	9/22/00	8021A	CAH	1
n-Butyll	benzene	< 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
Chlorob	enzene	< 0.4	ug/l	0.4	1.3	1	9/22/00	8021A	CAH	1
Chloroe	Chloroethane		ug/l	0.15	0.48	1	9/22/00	8021A	CAH	1
Chlorofo		< 0.15 < 0.38	ug/l	0.38	1.3	1	9/22/00	8021A	CAH	1
Chloron		< 1.1	ug/l	1.1	.3.5	1	9/22/00	8021A	САН	3.4
2-Chloro	· · · · ·	< 0.47	ug/l	0.47	1.5	1	9/22/00	8021A	CAH	1
4-Chloro		< 0.44	ug/l	0.44	1.5	1	9/22/00	8021A	CAH	1
	omo-3-chloropropane	< 0.67	ug/l	0.67	2.2	1	9/22/00	8021A	CAH	1
.,2 15101	oo o emoropropune	- 0.07	ч _Б ,	0.07	4.4	•	<i>7,22,00</i>	JU 2111	C	•

である場合では、大学の大学を表現を表現する。これでは、「大学」、「大学」とは、大学は、「大学」とは、大学は、「大学」とは、大学は、「大学」というない。

CURT HOFFART KEY ENGINEERING W66N215 COMMERCE COURT CEDARBURG WI 53012

Project # 0712007 Project Name NONE Invoice # E30903

Analyte	Result	Units	LOD	LOQ	Dil	Run Date	Method	Analyst	QC Code
Lab Code 5030903J						Sample Type	Water		
Sample ID TRIP						Sample Date)	
Dibromochloromethane	< 0.5	ug/l	0.5	1.7	1	9/22/00	8021A	САН	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.4	1	9/22/00	8021A	CAH	ī
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/i	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	l	9/22/00	8021A	CAH	1
Toluene	< 0.37	ug/l	0.37	1.2	1	9/22/00	8021A	CAH	I
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/I	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	i
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

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 LOC							f 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:

PRODUCT NAME: MILSOLV 152

DATE OF PREPARATION: 1/26/93 REPLACES:

1/24/92

HMIS RATING:

HEALTH

FLAMMABILITY

REACTIVITY

EMERGENCY PHONE NUMBER: CHEMTREC (800) 424-9300

SECTION II - HAZARDOUS INGREDIENTS

PRODUCT NAME	CAS # VA	POR PRESSURE (mm Hg)	TLV	UNIT
CHEMICAL NAME		PERCENT	PEL	UNIT
N-BUTYL ACETATE URETHANE GRADE	123-85-4	8. 0	150	PPM
ACETIC ACID, BUTYL ESTER		>9%	150	PPM
TOLUOL	108-89-3	26. 0	100	PPM
TOLUENE		>9%	100	PPM
GLYCOL ETHER EB	111-75-2	. 6	25	PPM
ETHANOL, 2-BUTOXY		<9%	25	PPM
ACETONE	67-64-1	184. 0	750	PPM
2-PROPANONE		<9%	1000	PPM
ISOPROPANOL 99%	<i>57-</i> 63-0	33. 0	400	PPM
2-PROPANOL		>9%	400	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. בשפת המודדאה ספתה כהוופכם 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 equipmenstatic discharges, or other ignition sources at locations distant from handling point.

SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE

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

SKIN ABSORPTION: Headache. Dizziness. Nausea. Vomiting. Possible kidne: 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 bon 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 ta of this product remains.

SKIN: Flush skin with water. Immediately wash skin with soap and plenty o 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 a manner which avoids aspiration. There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinic condition.

SECTION VI - REACTIVITY DATA

STABILITY: Stable.

CONDITIONS TO AVOID: Heat. Ignition sources. Fire.

INCOMPATABILITY: 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.

SECTION VII - SPILL OR LEAK PROCEDURES

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.

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.

SECTION IX - SPECIAL PRECAUTIONS

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:

:AS#	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.

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Material Safety Data Sheet
May be used to comply with
CSHA's Hazard Communication Standard,
29 CFR 1910.1200. Standard must be
consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Hearth Administration (Non-Mandatory Form)



EDENTITY (As Used on Label and List) Note: Blank spaces are not permitted. If any term is not apparable, or no information is available, the space must be marked to indicate that. CIMSTAR QUAL STAR Section 1 PROGRESS DIVISION Manufacturer's Name Emergancy Talephone Number Cincinnati Milacron Marketing Company 513-841-8181 Address (Number, Street, City, State, and ZIP Code) Talephone Number for Information 513-841-8964 4701 Marburg Avenue Date Prepared 1/88 Cincinnati, Ohio 45209 Signature of Preparer (opeonal) Section if — Hazardous ingradients/identity information Other Limits ACGIH TLY Hazardous Components (Specific Chemical Identity; Common Name(s)) OSHA PEL Recommended % (cooconsul) Ethanolamine maa 8 maa E Nonylphenoxypolvethoxyethanol 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 Specific Gravity ($H_2O = 1$) 212°F 1.009 Vapor Pressure (mm Hg.) Mertang Point NA NA Not applicable (NA) Vapor Density (AIR = 1) Evacoration Rate like water NA (Butyl Acetate = 1) Solubility in Water 100% Appearance and Coor Clear; chemical Section IV - Fire and Explosion Hazard Data Flash Point (Method Used) UEL Remmacke Limits None; self-extinguishing NA NA NA Extinguishing Media No fire hazard Special Fire Fighting Procedures NA Unusual Fire and Explosion Hazards None

	- Reactivity De		CEMSTAR OF	ML ST	17				
Security	Unistant		CONDUCTION TO AVOID						
	Stace	-	l NA						
	(Mazenad to Avoid)					***	*************************************		
			te with strong aci	ds.					·
	omposition or Bypro	3003							
Hazaroous Poymenzation	Mary Occur		Conditions to Avoid	· · · ·					
POSTI NEI CONTO	Will Not Occur	x	NA			 			
0 - N - N	<u> </u>		I IVA						
Route(s) of Entr	- Health Hazan	Data	YES	Siun?	YES	·	Ingestion?	····	
			125		TES		II Quanco III	NA	
Heath Hazards	(Acute and Chronic)	WARN	ING: Concentrate i	s alk	aline. Ha	rmful i	f taken i	nternalls	
Concentrat	te is an eye	irrit	ant. Eye damage ma	y occ	ur from c	ontact	with conc	entrate.	· •
No adverse	e chronic eff	fects	expected when used	as r	ecommende	d.			
					·				
Carcinoganicity:	NT	P?	NO	ARC Mor	ographs?	NO	OSHA Rec	pulated?	NO
Signs and Sym	ptoms of Exposure	Eye	damage may occur	rom c	ontact wi	th conc	entrate.	This prod	duct
is not a	primary skin		ant; however, skir						
	ate or mix).								
Medical Condition	ons valed by Exposure	May	y aggravate existi	ng sk	n irrita	tion whe	ere furthe	er defatt	ing or
	First Aid Procedure		in penetration cou case of eye conta			diately	with run	ning wate	r for
-			t medical attention						
			ate, wash immediat						
			omiting. Dilute wi	_					
and obtain	n treatment.								
			e Handling and Use	*.					
Staces to the lax	en in Case Material	Is Releas		nah lar	fluch wi	th water	to sewe		
			01011	uqniy	LIUSH 41	· water	CO SENE	<u> </u>	
Waste Disposal	Method				 		<u> </u>		
· - •	FOR U		(X: 1) Ultrafiltra			_		-	_
			treat with polyme		_	•		-	
			or landfill, and d	_		r layer	in sanita	iry sewer	•
			cinerate, or contact	ct ver	dor.	·	· · · · · · · · · · · · · · · · · · ·		
Precautions to 8	e Taken in Handling	and Sto	nng Use only as :	recomm	ended by	Cincin	nati Milad	cron. Avo	id all
contact o	f concentrat	e with	eyes or prolonge		_				
Protect 1 Other Precaution	from freezing	ī				-a	<u> </u>		
					_				
			l sodium nitrite o			ating ag	gents to t	this prod	uct.
			trosamines could	be for	mea.				
	— Control Mea						·		
Hespiratory Prote	ection (Specify Type)		oduct not volatile	2.					
Ventilation	Local Exhaust		NA		Special	NA			
	Mechanical (Gener	a u)			Other	NA			
Protective Gloves	F-7 - → -	- <i>E</i>	General	[-			.:.1-		
handling o	concentrate.	-	oves required when				nield or on oncentrate		equired
Other Protective Effective	Couning or Equipment metalworking	oni g plar	nt protective clot	hing a	s approp	riate.			
Norwhygienic Pi	ractices .	, , , , ,	d always be follow						
Good perso	onar nygiene	shoul	d always be follow	wed.					

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

Boiling Point: 3050-3500 F
Melting Point: not applicable
Vapor Density (air=1): >1.0
Solubility in Water: Negligible Specific Gravity: 0.77 @ 60° F Vapor Pressure: 0.1 psi @ 100° F Percent Volatile: moderate Appearance and Odor: Water white liquid with mild hydrocarbon odor

FIRE AND EXPLOSION HAZARD DATA

Flash Point: 101° F
Flammability Limits in Air
Lower Explosive Limit: 0.9% Autoignition Temperature: >400° F Upper Explosive Limit: 6.0% NFPA Classification Health: Slightly Hazardous (1) Fire: High (3) Reactivity: Stable (0) Specific Hazard: not applicable Basic Firefighting Procedures
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

ZTISICZ Marke Na Safety Data Sheet

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

Basic Firefighting Procedures (cont'd) fire-exposed containers, structures and to protect personnel. 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. <u>Unusual Fire and Explosion Hazards</u> 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

VII. HEALTH HAZARD INFORMATION

accumulation. Do not switch load.

Product Listed as a Carcinogen or Potential Carcinogen by: IARC - No OSHA - No Other - No Target Organs: Respiratory system, skin Primary Routes of Entry: Inhalation, ingestion, dermal or eye contact Occupational Exposure Limits Adopted Value for Time Period Compound Source Year Mineral Spirits 1989 OSHA-PEL TWA 100 ppm 8 hour (Stoddard ACGIH-TLV 1989 TWA 100 ppm 8 hour Solvent) NIOSH-REL 1989 TWA 350 mg/m3 8 hour NIOSH-REL 1989 CL1800 mg/m3 15 min Nonane OSHA-PEL 1989 TWA 200 ppm 8 hour ACGIH-TLV 1989 AWT 200 ppm 8 hour

VII. HEALTH HAZARD INFORMATION (cont'd)

Occupational E	<u>xposure Limits</u> Source	(cont'd) Year	Adopted	Value	for	Time	Period
Trimethyl Benz (Pseudocumene)	ene OSHA-PEL ACGIH-TLV NIOSH-REL OSHA-PEL ACGIH-TLV NIOSH-REL	1989 1989 1989 1989 1989	TWA TWA TWA STEL STEL CL	25 p 25 p 100 p 150 p 150 p 200 p	mag mag mag	8 15 15	hour hour hour min min
Effects and Haz	zards of Eye Co	ntact	=·				

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

<u>Effects and Hazards of Skin Contact</u>

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. 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. cause gastrointestinal disturbances. Symptoms may include irritation, depression, vomiting and diarrhea. May cause harmful central nervous system effects, similar to those listed under "inhalation".

<u>Medical Conditions Aggravated by Exposure</u>

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. vapor is a mild narcotic and a mucous membrane irritant. Since it contains aliphatic and aromatic hydrocarbons in varying concentrations, toxicologic opinion is based is based upon deductions as to the relative health hazard of the different fractions. 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

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 LC₅₀ 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 Eve 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 recness 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 Incestion

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 IMVEDIATE 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

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.

Eve 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

IX. PRECAUTIONARY MEASURES (cont'd)

<u>Precautions to be Taken in Handling and Storing</u> (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

<u>Precautions in Case of a Spill or Release</u> 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. 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.

<u>Waste Disposal Method</u>
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

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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 Product Code: 5150

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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 Emergency Phone # 713-923-6641 HILL PETROLEUM COMPANY Address ! Information Phone # 1 713-225-0463 8934 MANCHESTER City, State, Zip Code Date Prepared HOUSTON, TEXAS 77012 ; 6/25/89 (TLC) Section II - Hazardous Ingredients Ingredient ! Percent ! CAS Number 310-66 SOLVENT 100 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

Data Sheet For: HILL 310-66 SOLVENT Sold by: HILL PETROLEUM COMPANY

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

Sold By: HILL PETROLEUM COMPANY

Page 3

Section V - Reactivity Data (continued)

; Section V - Reactivity Data (continued) ;

INCOMPATABILITY (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 |

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) Data Sheet For: HILL 310-66 SOLVENT Sold By: HILL PETROLEUM COMPANY

Section VI - Health Hazard Data (continued)

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

Data Sheet For: HILL 310-66 SOLVENT Sold By: HILL PETROLEUM COMPANY

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 NAT-IONAL RESPONSE CENTER (800-424-8802) as required by U. S. FEDERAL LAW. For transportation spills, call Chemtrec (800-424-9300).

Data Sheet For: HILL 310-66 SOLVENT Sold By: HILL PETROLEUM COMPANY

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.

Pata Sheet For: HILL 310-66 SOLVENT Sold By: HILL PETROLEUM COMPANY

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. Data Sheet For: HILL 310-66 SOLVENT Sold By: HILL PETROLEUM COMPANY

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

N/A Acute Chronic Fire Pressure Reactive X

3. Title III Section 313 Toxic Chemicals Component CAS No.

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

Section 2 - Hazardous Ingredients/Identit	y Information		
Hazardous Components (Specific Identity:	Common Name(s))	OSHA PEL	ACGIH TLV Others
140 SOLVENT	100 ppm		ACGIH TWA
	200 ppm 500 ppm		ACGIH STEL OSHA TWA

<u></u>			
Boiling Point	N.D.	Specific Gravity (H ₂ O=1)	.772
/apor Pressure (mm Hg.)	N.D.	Melting Point	¥.5.
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			
Flash Point (method used)	Flammable Limits	LEL	UEL
141°F TCC F	N.D.	1.0 % VOL	7.0 % VOL

Extinguishing Media

CO2, 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°F.

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Section 5 -	Reactivity Da	ita			
Stability	Unstable		Condition	ons to Avoid	
	Stable	XXX		N.A.	
Incompatibil	ity (Material	e to Amaia)			

mbacroifich (waterlars to Wold)

Oxidizing Agents, Acids, bases, and selected amines.

Hazardous Decomposition or Byproducts

Oxides of carbon

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

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 tr Signs of nervous system depression. This material can enter lungs during Eye Irritation swollowing or vomiting and cause lung damage.

May cause skin irritation. Prolonged or repeated contact may cause curning Skin Irritation: tearing and redness. May cause skin irritation. Prolonged repeated contact may cause dermatitus. 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 thr nervous system depression. Respiratory symptoms associated with pre-existing lung disorders may be

Carcinogenicty: aggravated by exposure to this material.

This substance has not been identified as a carcinogen or probable carcinogen by NTP, IARC c OSHA. Reports have associated repeated and prolonged occupational overexposure to solvents : 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 the many petroleum hydrocarbons and synthetic lubricants pose potential human health risks whi may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fund should be minimized .

Emergency and First Aid Procedures

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

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

Inhalation: If irritation of nose or throat develops, move victim from source of exposu 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 caussevere 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 clathing un-il laundered

THE INFORMATION PRESENTED HEREIN HAS BEEN COMPILED FROM SOURCES CONSIDERED TO BE DEPENDABLE AND IS ACCURATE TO THE BEST OF SELLER'S KNOWLEDGE, BOWEVER, SELLER MAKES NO WARRANTY WHATSOEVER, EXPRESSED, IMPLIED OR OF MERCHANTABILITY REGARDING THE ACCURACY OF SUCH DATA OR THE RESULTS TO BE OBTAINED FROM THE USED THEREOF, SELLER ASSUMES NO RESPONSIBILITY FOR INJURY TO BUYER OR TO THIRD PERSONS OR FOR ANY DAMAGE TO ANY PROPERTY AND BUYER SHALL ASSUME ALL SUCH RISKS.

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	S-17		Section V Co	ntinued on Next Page			

EMERGENCY AND FIRST AID PROCEDURES

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 IF BREATHED:

techniques and summon medical assistance immediately.

In case of eye contact, flush with large amounts of water for at least 15 minutes. Get medical assistance. In case of skin contact, wash area thoroughly with soap and water. Remove soiled clothing. Get medical assistance if irritation persists. IF IN RYES: IF ON SKIN:

IF SWALLOWED: DO NOY INDUCE VONITING. 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 UESTABLE

INCOMPATIBILITY:

I-STABLE

INCOMPATIBILITY:

Avoid contact with strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: May cause hazardous funes when heated to decomposition. Funes may contain carbon monoxide, carbon dioxide and oxides of metals listed in Section II.

MAY OCCUR

HAZARDOUS POLIMERIZATION

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 HIOSH/HHSA approved mechanical filter respirator to remove solid airborne particles of overspray and sanding dust. When used in restricted ventilation areas, wear NIOSH/HSHA 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.

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.

EYB PROTECTION: Do not get in eyes. Solvent resistant safety eyewear with splash guards or sideshields is recommended to prevent contact.

ER PROTECTIVE EQUIPMENT: Do not get on skin. Solvent impermeable clothing and boots to prevent contact are recommended. BYGIENIC 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.
Reep 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 WARRING: This product may contain a chemical known to the state of California to cause cancer, birth defects or other reproductive barm.

The information contained berein is based on data believed by Devoe & Raynolds Co. to be accurate, but we do not assume any liability for the accuracy of this information. We neither suggest nor quarantee that any bazards 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 e responsibility of the user.

MATERIAL SAFETY DATA SHEET

SAME A ADDRESS PRODUCT NAME SUPERSEASES 7.5788 SECTION I ANAUGACUMERY'S NAME & ADDRESS PRODUCT NAME Devoe & Raymolds Co. PAINT THINNER - 100X MINERAL SPIRITS 18800 Metal Container 1000 Durbni Circle Louisville, RY 40207 PAINT THINNER - 100X MINERAL SPIRITS 18800 Metal Container 1000 Plantic Container PRODUCT CARS. PRODUCT NAME LOUISVILLE, RY 40207 PAINT THINNER - 100X MINERAL SPIRITS 18800 Metal Container 1000 Plantic Container PRODUCT CARS. PRODUCT NAME PRODUCT NAME PRODUCT CARS. PRODUCT CARS. PRODUCT CARS. PRODUCT CARS. PRODUCT CARS. PRODUCT CARS. PRODUCT NAME PRODUCT CARS. PRODUCT CARS	:Date: 09-12-1988		MATERIAL	SAFETY	DATA SH	HEET			
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NOREDIENTS CAS MO. W. a b c PPM ag/M3 PPM ag/M3 LEL PRESSURE INKERAL SPIRITS			SECTION II	- HAZARD	OUS IN	GREDIE	NTS	*****	
HAZARDOUS ACCORDING TO: a-SARA 302/304, b-SARA 313, c-CERCLA 103(a) NA = Not Available SECTION III — PHYSICAL DATA APOR DENSITY X-HEAVIER LISHER THAN AIR BOILING RANGE 300 - 390 °F POUNDS PER SALLON 6.45 WAPORATION RAIE FASTER I-SLOWER THAN ETHER PERCENT VOLATILE BY VOLUME 100 VOC 6.45 LBS/SAL (- WATER) SECTION IV — FIRE AND EXPLOSION HAZARD DATA LAMMABILITY CLASSIFICATION SECTION IV — FIRE AND EXPLOSION HAZARD DATA LAMMABILITY CLASSIFICATION OSHA 29 CFA-1910.106(a) Parts 18-19 Combustible Liquid - Class II ITINGUISHING MEDIA: In case of fire use COe; Dry Cheeical, Foam or other National Fire Protection Association Approved asthod for treating a Class B Fire. NUSUAL FIRE AND EXPLOSION HAZARDS: Keep containers tightly closed. Isolate from heat and flame. Due to pressure build- closed containers exposed to extreme heat may explode. Never use a welding or cutting torch on or near container (even eapty) 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. PECIAL FIRE FIGHTING PROCEDURES: Summon professional firefighters. Use full protective equipment including self contain breathing apparatus. Nater 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 HRESHOLD LIMIT VALUE See Section II FFECTS OF DURRETPOSURE CUTE- 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 range can result in unconsciousness and even respiratory arrest. Skin or Eye Contact: Primary irritation. Swallowing:	INGREDIENTS	CAS NO.	Percent : Hazardo : WT. : a b	ous: ACGIH c: PPH :	TLV :	OSHA F PPN	EL mg/N3	LEL	VAPOR PRESSURE
HAZARDOUS ACCORDING TO: a-SARA 302/304, b-SARA 313, c-CERCLA 103(a) SECTION III — PHYSICAL DATA MAPOR DEWSITY X-HEAVIER LIENTER THAN AIR BOILING RANGE 300 — 390 OF POUNDS PER SALLON 6.45 EVAPORATION RATE FASTER I-SLOWER THAN ETHER PERCENT VOLATILE BY VOLUME 100 VOC 6.45 L85/SAL (- MATER) SECTION IV — FIRE AND EXPLOSION HAZARD DATA **LAMMABILITY CLASSIFICATION FLASH POINT 102°F SETAFLASH LEL SHA 29 CFR-1910.106(a) SEE SECTION II Parts 18-19 Combustible Liquid - Class II **ITINGUISHING MEDIA: In case of fire use COe, Dry Chemical, Fomm or other National Fire Protection Association approved method for treating a Class B Fire. MUSUAL FIRE AND ETPLOSION HAZARDS: Keep containers tightly closed. Isolate from heat and flame. Due to pressure build- 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 lamediately apparent. Obtain medical attention. **FECTAL FIRE FIGHTING PROCEDURES: Summon professional fireflective. 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 **HRESHOLD LIMIT VALUE See Section II FFECTS OF OVEREIPOSURE CUITE— Breathing: Irritation of the respiratory tract; headache, nausea, dizziness, weakness and fatigue. Extreme exposu can cause chemical pneusonitis, which can be fatal. **HRONIC-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 fungs. EDICAL COMBITIONS PRONE TO AGERAVATION BY EXPOSURE- None when used in accordance with Safe Handling and Use Information (See Section VIII).	IINERAL SPIRITS	64742-88-7	100 :	; 100 ;	525 ;	500 :	2900	1.0	1 2.0 368 °F
APOR REUSITY I -HEAVIER LIGHTER THAN AIR BOILING RANGE 300 - 390 °F POUNDS PER SALLON 6.45 EVAPORATION RATE FASTER I-SLOWER THAN ETHER PERCENT VOLATILE BY VOLUME 100 VOC 6.45 LBS/SAL (- WATER) SECTION IV - FIRE AND EXPLOSION HAZARD DATA FLANMABILITY CLASSIFICATION FLASH POINT 102°F SETAFLASH LEL OSHA 29 CFR-1910.106(a) SEE SECTION II Parts 18-19 Combustible Liquid - Class II TITINGUISHING MEDIA: In case of fire use CO _e , Dry Chemical, Foam or other National Fire Protection Association approved aethod for treating a Class B Fire. INUSUAL FIRE AND ETPLOSION HAZARDS Keep containers tightly closed. Isolate from heat and flame. Due to pressure build-closed containers exposed to extreme heat may explode. Never use a welding or cutting forch 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. FECTAL FIRE FIGHTING PROCEDURES: Summon professional firefighters. Use full protective equipment including self contains 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 HRESHOLD LIMIT VALUE See Section II FFECTS OF OVEREXPOSURE CUIE- Breathing: Irritation of the respiratory tract; headache, nausea, dizziness, meakness 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. HRONIC-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	I HAZARDOUS ACCORDIN	16 TO: a-SARA 30	2/304, b-SARA 313,	c-CERCLA 103(a	1)			NA =	Not Available
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FFECTS OF OVEREXPOSURE CUTE— 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. HRONIC- 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. EDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE— None when used in accordance with Safe Handling and Use Information (See Section VIII). RIHARY ROUTE(S) OF ENTRY SKIN X-BREATHING X-SWALLOWING				HEALTH	HAZARD	DATA			
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	can cause che HRONIC- Reports hav nervous syste may cause dus EDICAL CONDITIONS P (See Section	mical pneumonities associated rependenced	is, which can be fa eated and prolonge onged and repeated ! lungs. !ION BY EXPOSURE-	ital. d occupational breathing of s None when used	overexposu spray mist a l in accorda	ure to solv and/or sand ance with S	ents wit ling dust afe Hand	h permane over a p	nt brain and eriod of years Use Informatio
to the control of the	S-1C			Section V Con					********

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: IF ON SKIN: In case of eye contact, flush with large amounts of water for at least 15 minutes. Set medical assistance. In case of skin contact, wash area thoroughly with soap and water. Remove soiled clothing. Get medical

IF SWALLDWED:

assistance if irritation persists.
DO NOT INDUCE VONITING. Consult physician immediately. Aspiration of vomitus can cause chemical

oneumonitis which can be fatal.

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

SECTION VI - REACTIVITY DATA

UNSTABLE

INCOMPATIBILITY:

HAZARDOUS POLYMERIZATION

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.

MAY OCCUR Y-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 aist 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

igniton 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

recognended to prevent contact.

OTHER PROTECTIVE EQUIPMENT: Do not get on skin. Solvent impermeable clothing and boots to prevent contact are recommended.

Wash hands before eating, smoking or using the washroom. 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.

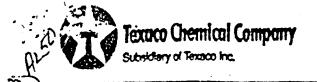
Keep out of reach of children.

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

The information contained herein is based on data believed by Devoe & Raynolds 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	<u>:</u> s	OLVENT BLEND		"MATERIAL	SAFETY DA	TA SHE	ET"	
SYNONYMS:					CHEMIC	AL FAMI	LY:	
FORMULA:					MOLECU	LAR WE	IGHT:	
TRADE NAME AN	ID SYNON	YMS: KYYXXXXXX	XXXX	JOSTEN'S	LACQUER	THINN	er.	
			I. P	HYSICAL	DATA			
BOILING POINT,	760 mm. H	133 - 3	40°F		FREEZIN	NG POINT		
SPECIFIC GRAVI	TY (H ₂ O =	1) 0.853			VAPOR	PRESSUR	E AT 20°C.	32 mm Hg
VAPOR DENSITY	(air = 1)	3.1			SOLUBIL	-	wt. at 20°C.	13%
PER CENT VOLAT BY VOLUME	TILES	100%			EVAPOR	ATION R	ATE	3.0
APPEARANCE AN	D ODOR				•			
		II. HA	ZAF	RDOUS IN	IGREDI	ENTS	en en en en en en en en en en en en en e	
		MATERI	AL			····	%	TLV (Units)
		·						
								
					1.			
					·			
		III. FIRE AN	ın F	EXPLOSIC	ΝΗΔΖ	ARD	DATA	<u> </u>
FLASH POINT	> 4 ° F			AUTOIGNI	TION		DAIA	<u> </u>
(test method) FLAMMABLE LIM				LOWER		L	UPPER	12.8
				<u> </u>	1.2			1
EXTINGUISHING MEDIA	And the second s	Use water s type or uni recommended	vers	al-type :				
SPECIAL FIRE FIC PROCEDURES	SHTING .	Use self-co clothing. to spread.						
UNUSUAL FIRE A EXPLOSION HAZA		. A vapor acc	umu]	lation wo	ıld fla	sh and	or expl	ode if ignit
			EMER	GENCY PHONE	NUMBERS			
N. Josten	& Co.,	Inc. Milwaukee, Wis		} Ph	one: 445-	4651		

1		
	IV. HEALTH HAZARD DATA	
THRESHOLD LIMIT VALUE	121 ppm (calculated)	
EFFECTS OF OVEREXPOSURE	Headache, nausea, vomiting and irritation of nos throat. Repeated exposure may damage blood. Ma corneal injury.	e and y cause
EMERGENCY AND FIRST AID PROCEDURES	Remove to fresh air. Call a physician. Do not vomiting. Remove contaminated clothing and flus with water. Eye contact - flush with plenty of for at least 15 minutes. Get medical attention	h skin water
	V. REACTIVITY DATA	
STABILITY UNSTABLE STABLE X	CONDITIONS TO AVOID	
INCOMPATIBILITY (materials to avoid) HAZARDOUS DECOMPOSITION PRODUCTS HAZARDOUS POLYMERIZATION	Alkalies, strong oxidizing agens, anhydride, isocyonate mo organometallic contamination, catalysts and sulfuric acid. produce carbon monoxide and/or carbon dioxide.	
May Occur Will not Occur	CONDITIONS TO AVOID	
	VI. SPILL OR LEAK PROCEDURES	
STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED	Eliminate all sources of ignition. Small spills should be with large quantities of water. Large spills should be collected, and disposed of.	
WASTE DISPOSAL METHOD	Incineration or reclaimation	
VII.	. SPECIAL PROTECTION INFORMATION	
RESPIRATORY PROTECTION (specify type)	Self-contained breathing apparatus in high conce	ntrations
VENTILATION LOCAL EXHAUST		
(general)	OTHER	
ROTECTIVE GLOVES	Rubber EYE PROTECTION Monogog	gles
)THER 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 USE ONLY	
THER HANDLING AND FORAGE CONDITIONS	Laboratory studies indicate that, at very low considering in water, this product should be rapidly biodegrabiological wastewater treatment plant.	



MATERIAL DATA SHEET

SECTION I - MATERIAL IVENTIFICATION

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 Cg's and C10's CAS Number

Toxicity Data

Composition Gettysolve S-2 Mixture of Co's & C10's

ca 100*

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, particularily 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

ore light ton - 内田南

512	CTION III - PHY	SICAL DATA	
Boiling Range(*F)		Specific Gra	vity (H ₂ 0=1)
305-335° (151.7-168.3°C)		0.774 @ 20/4	*C
Vapor Pressure (mmHg) B max @ 37.8°C .		Percent Vola	cile by Volume (2
Apor Density (air = 1)		Evaporation	Rate
•		· -	
Solubility in Water Insoluble			• •
Appearance and Odor Clear, colorless liquid			
Sweet naptha odor	•		•
CAT-FILIA IX	V - PIRE AND EXP	COSTON HAVARO	DAYA :
Flummable Limits (2 by Volume Lel = 1.1, Uel = 6.1 Extinguishing Media	e) 		
Alcohol Foam	x Carbon Dioxid	e <u>x</u> Dry	Chemical
x Foam	x Water Spray (Fog)Other	
Special Pire Fighting Procedu Water apray may be ineffective	ures ve and can be us	ed to keep co	ntainers cool.
المتالي والمتناز والمتناز والمتالي والمتناز والمتاز والمتاز والمتاز والمتاز والمتاز والمتناز والمتناز والمتناز والمتناز والمتناز	azards		•
Unusual Fire and Explosion H.	azards	•	:•
	azards	:	: •

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SECTION V - HEALTH HAZARD DATA

Threshold Limit (ACGIH)

100 ppm (575 mg/M³) - based on Stoddard Solvent

Permissible Exposure Limit (OSHA)

500 ppm (2950 mg/HJ) - 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 mervous system (CNS) depressants. Nose and throat irritation may occur from inhalation. Prolonged or repeated skin contact will cause defatting and dermatitums. Eye contact with the liquid causes conjunctivis.

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. A contact

Inhalation: Remove to fresh air, If not breathing, use artificial, month

respiration. Seek medical asistance.

Ingestion: DO NOT induce vomiting. Seek medical assistance.

SECTION VI - KEACTIVITY DATA

man i tra i deprendente dicente el militar el deservo que amente an igra partir del 1-15-15 i 15-160 - 15-160 - 15-160 - 15-160 - 15-160 - 15-160 - 15-160 - 15-160 - 15-160 - 15-160 - 15-160 - 1 1-160 - 15-160 - 15-160 - 15-160 - 15-160 - 15-160 - 15-160 - 15-160 - 15-160 - 15-160 - 15-160 - 15-160 - 15-

49 CFR 172, 101

Stability

Stable

Incompatebility (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 PROCEDUKES

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. once an income and the containers for recovery or disposal.

Waste Disposal Method

Approved disposal facility: .vel

OCT 10 penns

	TECTION INFORMATION	
Respiratory Protection Mormally not required. In concentrations to a full face chemical cartridge respirator wi concentrations above 100 ppm, use an airline broathing apparatus (SCBA) with full face pi	th organic vapor car respirator or self-	tridge. For footstand
Ventilation		
Local Exhaust - Recommend to maintai Machanical (general) -	n vapor levels below	TLV.
Frotactive Gloves		
Required X Optional Heoprene E Polyurethane G Natural Rubber F Polyvinyl Chloride	Paracril/PVC F	•
(E) excellent, (G) good, (F) fair, (P) poor,	(NR) not recommende	·d.
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 ar	ea where splashing m	ay occur.
SECTION IX - SPECIAL	PRECAUTIONS	
Proceutions to be Taken in Handling and Stod	age	
Storage Conditions Kann in cool location, avoid physical damage	to containers.	
Storage Conditions Kamp in cool location, avoid physical damage	to containers.	
		2
Kamp in cool location, avoid physical damage		
Kamp in cool location, avoid physical damage SECTION X - SHIPPING	IMO Class**: None ID No.*: UN1255	No.*: , D001

Rev. 3/27/84-: ::::::::



COOLANT MASTERS

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : 32110

IDENTIFICATION NUMBER: 32110

PRODUCT USE/CLASS : Metalworking Fluid

SUPPLIER:

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

EMERGENCY TELEPHONE:800-424-9300

CHEMTREC---24 HOURS

MANUFACTURER:

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

EMERGENCY TELEPHONE:800-424-9300

DATE PRINTED: 04/20/95

CHEMTREC---24 HOURS

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

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

		WT/WT X		ACGIH	C	SHA	•
CHEMICAL NAME	CAS NUMBER	LESS THAN	TLV-TWA	TLV-STEL	PEL-TWA	PEL-CEILING	SKIN
Boric acid	00010043-35-3	5.0 %	N.E.	N.E.	N.E.	X.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/m3	N.E.	5 mg/m3	X.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. 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)



Product: 32110

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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 LIQUIDEVAPORATION RATE: Is slower than Butyl

SOLUBILITY IN H2O: 100% SOLUBLE Acetate

FREEZE POINT : 32F SPECIFIC GRAVITY: 1.0371
VAPOR PRESSURE : < 0.1 mm Hg ph @ 5.0 % : 9.0

PHYSICAL STATE : Liquid VISCOSITY : < 32 SUS

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 Page 4
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:
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:
No information is available. CAS NUMBER

(Continued on Page 5)



Product: 32110

Preparation Date: 01/24/95

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SECTION 15 - REGULATORY INFORMATION

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.

"SECTION 16 - OTHER-INFORMATION

HMIS RATINGS - HEALTH: 1

FLAMMABILITY: 0

REACTIVITY: 0

PREVIOUS MSDS REVISION DATE: 01/06/94

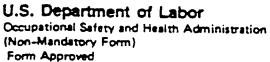
VOLATILE ORGANIC COMPOUNDS (VOCS): 0.00 lbs/gal, 0 grams/ltr

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

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.

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. OMB No. 1218-0072





		C. 1210	-0072	· · · · · · · · · · · · · · · · · · ·	
IDENTITY (As Used on Label and Usit) COOL BLE	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 (COOT AND MACES	EDC I	Emergency Telepi			
BENZ OIL INC. (PROVATE MABE	EB}	(414) 44:			
Address (Number, Street, City, State, and ZIP Code)		Telephone Number			
2724 W. HAMPTON AVE.		(414) 76	4-4605		
		Date Prepared			
MILWAUKEE, WISCONSIN		1/6/87 Signature of Prepa	erer (optional)		
3209				·	······
Section II — Hazardous Ingredients/Identi	ty Information)	t djes fine Wall Will Haardy wa		
lazardous Components (Specific Chemical Identity; Co	mmon Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommende	
MINERAL OIL		5mg/m3	for oil	mist in ai	r
TRIETHANOLAMINE	·	Eye ir:	ritant		
PROPRIETARY SURFAC	CTANT	Eye ir:	ritant		
					•
	•				
					
	·				
	····			·····	
•					
					
•					
					
					
iection III — Physical/Chemical Characteri	stics		•		
ciling Point		Specific Gravity (H	O = 1)		
IBP is greater than	500 F		•	•	0.9
appr Pressure (mm. Ho.)		Melting Point		 	<u> </u>
020 C VP is less than	0.01	N	ot Applic	cable	NA
apor Density (AIR = 1)	-	Evaporation Rate			
VD is greater than	5	(Buryl Acetate = 1)	Less tha	n	0.01
orubility in Water					
Negligible; less than	0.18 @ 2	5.C and 1.	Atm.	·	
ppeersnot and Odor					
Red oily liquid with a	a charact	eristic od	or.		
section IV - Fire and Explosion Hazard D	ata				
Resh Point (Method Used)		Flammable Limits		LEL	TUEL
		Patritian Civil		18	78
(COC) 390° F	ل حد سيسيسيس				<u> </u>
		:	2:		
Foam, water spray (fog), dry ch	emical, ca	rbon alo	xide.	
pecial Fire Fighting Procedures (Ise resp. D)	•		03 0200	07 36 DOO!	
	rotection	in confin	eu areas.	-UI 65 NEEL	led.
nse water to keep ille.	rotection -exposed	containers	cool. 1	f a leak of	led.
spill has not ignited.	rotection -exposed use wate	in confin containers r spray to	disperse	f a leak of	ded.
	use wate	r spray to	graherae	s rue vabor	led.
Minimize breathing vanous Fre and Explosion Hazarda	use wate ors or de	compositio	n produci	ts the vapor	ded.
Minimize breathing vapor	use wate ors or de	compositio	n produci	ts the vapor	ded.
Spill has not ignited,	use wate ors or de	compositio	n produci	ts the vapor]ed.
Minimize hreathing vano	use wate ors or de hing equi	composition pment for	n produci	ts the vapor]ed.

Section V —	Reactivity Da	ta				
Stability	Unstable		Conditions to Avoid			
	Stable	х				
Incompatibility (Avoi	daterials to Avoid	o) t wit	h strong oxida	nts such as	liquid oxygen & Chlorin	ie.
transation Decom	COSITION OF BURE	4	-		s, smoke, SOx, and NOx.	
Hazardous	May Occur	7	Conditions to Avoid			
Polymenzation	Will Not Occur					
	VIII NA CCCI	X				
Section VI —	Health Hazar	d Data				
Route(s) of Entry:	In	halation?	ves	Skin?	Ingestion?	
Health Hazards (A	cute and Chronic, as a low	orde			l toxicity, Product	
					epeated skin contact	
Carcinogenicity.	N,	TP?		IARC Monographs?	sibly leading to dermati OSHA Regulated?	LIS
veither t	his produ	ict n	or its compone	nts are lis	ted carcinogens.	·
Signs and Sympio	ms of Exposure Or repea	ated	skin contact m	av cause ski	in irritation.	
		•				
ledical Conditions unerally Aggrava		Minu	te amounts asp	irated into	the lungs during	
			lmonary injury			
mergency and Fi	rst Aid Procedure	s			Plush aug 5 aug 15	
					t: Flush eyes for 15	
	ith water		ngestion: Cont	act a physic	cian.	
			e Handling and Use			
	in Case Material			h, or other	suitable absorbent to	
pill are					out of sewers and	
Vacercour		vrud	or rmbonuarud	· MUNISE AUT	chorities of large spill	3.
lispose o	f in lice	nsed	land-fill or	incinerator	according to local,	
	d federal					
recautions to Be Store awa	Taken in Handling V from he	and Sio	ong	ner ignition	sources. "Empty"	
			due and must be			
Aner Precautions	o recarii	TEST	in and must be	s stored acc	or armari.	
o not pr	<u>essurize,</u>	cut	weld, braze, so	older, drill	, grind or expose	
empty dru	ms to oth	er so	ources of igni	tion.		
ection VIII —	Control Mea	sures				
	on (Specify Type)		:	-3-3 /37-		
entilation L	ocal Exhaust			Special	nally not needed).	
	Usually s	uffic	cient.			
	Hechanical (Gener Usually s	uffic	cient.	Other Explos	sion proof equipment.	
rotective Gioves	_			Eye Protection		
Recommend A	ed chemic othing or Equipmi	al re	sistant type.	Recommended	splash goggles or face	sh.
Dil resis	tant apro		noes and clothi	ing.		
York/Hygienic Prac	tices		soaked clothir	•		
				1 1 4 4		

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