

LETTER OF TRANSMITTAL

Northern EnvironmentalSM
 Hydrologists • Engineers • Geologists

954 Circle Drive
 Green Bay, Wisconsin 54304

1-414-592-8400
 1-800-776-7169
 Fax 1-414-592-8444

| | |
|---|------------------------------|
| DATE <u>1-29-96</u> | PROJECT NO. <u>DPC310273</u> |
| ATTENTION <u>Roxanne Nelezen Chronert</u> | |
| RE <u>Donaldson's One Hour Cleaners</u> | |
| <u>Results, Neenah, Wisconsin</u> | |
| RECEIVED | |
| FEB 01 1996 | |

TO: Roxanne Nelezen Chronert
WDNR - ERFP
Lake Michigan District
Green Bay, Wisconsin

WE ARE SENDING YOU **LMD SOLID WASTE**

Attached Under separate cover

Shop Drawings Specifications Plans

Copy of letter Samples Change order

| COPIES | DESCRIPTION |
|--------|---|
| 1 | Limited Subsurface Investigation Report |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

THESE ARE TRANSMITTED (see code)


- | | | |
|--|---------------------------|---|
| A. For Approval | F. No Exceptions Taken | J. Resubmit _____ Copies for Review |
| B. For Your Use | G. Make Noted Corrections | K. Submit _____ Copies for Distribution |
| <input checked="" type="radio"/> C. As Requested | H. Amend & Resubmit | L. Return _____ Corrected Prints |
| D. For Review and Comment | I. _____ | M. Review and Sign _____ |
| E. For Bids Due _____ 19 _____ | | |

REMARKS: Roxanne,
Please find a copy of the Limited Subsurface
Investigation Report for Donaldson's One Hour Cleaners in Neenah,
Wisconsin. Based upon the results of soil sampling, a
source area for chlorinated compounds exists at the Property.
If you have any questions or comments, please feel free to
contact Northern Environmental.

COPY TO: _____

Thank You,
SIGNED: Shirley Carine

LETTER OF TRANSMITTAL

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 1-800-776-7169

954 Circle Drive
 Green Bay, Wisconsin 54304 Fax 1-414-592-8444

| | |
|---|------------------------------|
| DATE <u>1-29-96</u> | PROJECT NO. <u>DDC310273</u> |
| ATTENTION <u>Tom Versteegen</u> | |
| RE <u>Donaldson's One Hour Cleaners</u> | |
| <u>Neenah, Wisconsin</u> | |
| | |
| | |

TO: Tom Versteegen
WDIWR
905 Bayshore Dr. Box 2565
Oshkosh, WI 54903

WE ARE SENDING YOU

- | | |
|--|--|
| <input checked="" type="checkbox"/> Attached | <input type="checkbox"/> Under separate cover |
| <input type="checkbox"/> Shop Drawings | <input type="checkbox"/> Specifications <input type="checkbox"/> Plans |
| <input type="checkbox"/> Copy of letter | <input type="checkbox"/> Samples <input type="checkbox"/> Change order |
| <input type="checkbox"/> _____ | |

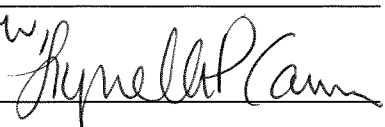
| COPIES | DESCRIPTION |
|--------|--|
| 1 | <u>Limited Subsurface Investigation Report</u> |
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REMARKS: Tom,
Please find a copy of the Limited Subsurface Investigation
Report for Donaldson's One Hour Cleaners in Neenah, Wisconsin.
Based upon the results of soil sampling, a source area for
chlorinated compounds exists at the property. If you have
any questions or comments, please feel free to contact
Northern Environmental.

COPY TO: _____

Thank You,
SIGNED: 

RECEIVED

JAN 31 1996

**WDNR OSH
LUST PROGRAM**

**Limited Subsurface
Investigation Report**

**Donaldson's One Hour
Cleaners
Neenah, Wisconsin**

January 29, 1996

January 15, 1996
(DDC310273)

Mr. Harvey Donaldson
Donaldson's One Hour Cleaners
110 West Cecil Street
Neenah, Wisconsin 54956

RE: Results of a Limited Subsurface Investigation, Donaldson's One Hour Cleaners, 110 West Cecil Street, Neenah, Wisconsin

Dear Mr. Donaldson:

Northern Environmental Technologies, Incorporated (Northern Environmental) completed a limited Subsurface Investigation at Donaldson's One Hour Cleaners, located at 110 West Cecil Street, Neenah, Wisconsin (the Property). The Property is located in the northeast quarter of the northeast quarter of Section 38, Township 20 North, Range 17 East (44 degrees, 10 minutes, 14 seconds north latitude and 88 degrees, 27 minutes, 55 seconds west longitude) in the City of Neenah, Outagamie County, Wisconsin (Figure 1).

This report describes the methods used to conduct the study, presents the study findings, describes the significance of these findings, and evaluates the need for additional work.

BACKGROUND INFORMATION

The Property is currently the location of Donaldson's One Hour Cleaners. A portion of the Property was formerly the location of an airport. Chlorinated solvents were detected in ground-water samples collected from monitoring wells at a neighboring gas station. As a result, the Wisconsin Department of Natural Resources (WDNR) requested that Donaldson's One Hour Cleaners complete a subsurface soil investigation at the Property. In May 1995 Northern Environmental was retained to evaluate if activities at the Property were a source of with the chlorinated solvents found in ground-water monitoring wells at the neighboring gas station.

Overview of Local Geology and Hydrogeology

Based on the results of the soil exploration program, Northern Environmental identified two distinct lithostratigraphic units in the upper ten feet of sediment at the Property. These units are described below in descending order.

Upper Till: This unit consisted of up to 8.5 feet of brown to reddish-brown silty clay, with trace pebbles. This unit is interpreted as the Glenmore Member of the Kewaunee Formation.

Bedrock: This unit consists of dolomite bedrock of the Prairie Du Chien Group.

Regional hydrogeologic information for the area identifies two distinct aquifers, a shallow glacial drift aquifer, and the underlying bedrock aquifer. Water was encountered at the Property during the preliminary investigation at approximately 8.5 feet below grade (fbg). Ground water in the glacial drift aquifer generally moves from areas of higher elevation to areas of lower elevation. Surface topography of the area is relatively flat, but based on ground-water level data collected from monitoring wells at the neighboring property, ground water is believed to flow in a northerly direction. A possible discharge for the glacial drift aquifer in this area is the Little Butte Des Morts located to north of the Property or Lake Winnebago located to the east of the Property. The potable water for the area is supplied by municipal wells.

METHODS OF INVESTIGATION

Soil Sample Collection

On November 7, 1995, Northern Environmental witnessed the advancement of four soil borings (B100 through B400) at the Property. Boreholes were advanced to a maximum depth of 10 fbg utilizing a Geoprobe soil probing system operated by Environmental Drilling Services (EDS). Soil samples were collected continuously in all boreholes. Locations of soil boreholes are shown on Figure 2.

During the soil boring activities, Northern Environmental personnel sampled and field screened soils for the potential presence of volatile organic compounds (VOCs). The soil samples collected were subjected to photoionization detector (PID) headspace analysis. PID headspace analysis consisted of collecting a soil sample, transferring a portion of the sample to a one-quart Ziploc bag, sealing the bag, and storing the sample in a relatively warm (60°F) location for at least one-half hour. The bag was then carefully punctured with the PID probe and the highest stable PID reading occurring within 10 to 20 seconds was recorded in instrument units as isobutylene (iui). The instrument utilized was a Thermo Environmental Instruments Model 580B Organic Vapor Meter outfitted with a 10.6 eV lamp calibrated daily for direct response to isobutylene. Soil appearance and odor were also noted as part of the screening process. Field screening results are listed in Table 1.

The other portion of the sample was immediately stored in two 2-ounce glass jars for potential laboratory analysis. Soil samples collected for laboratory VOCs analysis were immediately preserved by placing between 25 and 35 grams of soil in a laboratory supplied 60 milliliter (ml) container and immediately preserving with 25 ml of trap grade methanol and chilling the

sample to 4°C for potential laboratory analysis. Four soil samples were submitted under chain-of-custody to a WDNR-approved laboratory (U.S. Oil Analytical Laboratory, 425 South Washington Street, Combined Locks, Wisconsin) for analysis for VOCs. Results from the laboratory analysis of the soil samples are listed in Table 2. Laboratory analytical report for the soil samples are included in Attachment A.

SUMMARY OF FINDINGS

Soil Boring Samples

B100

Soil boring B100 was completed to a depth of 9 fbg in an alley southeast of Donaldson's One Hour Cleaners. Soil samples collected from B100 exhibited slight solvent-like odors and PID readings ranging from 2 to 4 iui. Soil sample S105 collected from 8 to 9 fbg was selected for laboratory analysis. Naphthalene and tetrachloroethane were detected during laboratory analysis of soil sample S105, at concentration of 59.0 micrograms per kilogram ($\mu\text{g}/\text{kg}$) and 730.0 $\mu\text{g}/\text{kg}$, respectively. No other VOCs were detected in the analysis of soil sample S105.

B200

Soil boring B200 was completed to the south of Donaldson's One Hour Cleaners, west of the rear entrance. Boring B200 was advanced to a maximum depth of 9 fbg. Soil samples collected from B200 exhibited solvent-like odors and PID readings ranging from 11 to 409.0 iui. The highest PID reading came from a soil sample collected from 8 to 9 fbg. For the purpose of comparing shallow contaminant concentrations with contaminant concentrations at the water table, two soil samples were submitted for laboratory analysis. Soil sample S202 was collected from 2 to 4 fbg, and soil sample S205 was collected from 8 to 9 fbg. Elevated concentrations of petroleum-based and chlorinated VOCs were detected in each sample. Higher VOCs concentrations were detected in S205. The difference in contaminant concentrations may indicate that B200 is near but not precisely at the source area. It is also possible that higher concentrations of contaminants are moving with the ground water onto the Property from an upgradient source.

B300

Soil boring B300 was completed north of Donaldson's One Hour Cleaners near Cecil Street. Boring B300 was advanced to a maximum depth of 6 fbg, where dolomite bedrock was encountered. No odor or elevated PID readings were detected in soil samples collected from B300. A soil sample was not submitted for laboratory analysis from B300.

B400

Soil boring B400 was completed north of Donaldson's One Hour Cleaners, near the front entrance. Soil samples collected from B400 did not exhibit odors, soil discoloration, or elevated PID readings. Laboratory analysis, however, detected tetrachloroethane at a concentration of 196 $\mu\text{g}/\text{kg}$ in a soil sample (S405) collected from 8 to 10 fbg in B400.

RECOMMENDATIONS AND CONCLUSIONS

Results of field and laboratory analysis of soil samples collected during the subsurface soil investigation indicate that a source area for chlorinated compounds exists at the Property. It appears that the source area is near the southeastern portion of the Property near the rear door of the building. The lateral and vertical extent of contamination was not determined during the limited investigation.

Chlorinated compounds, as well as petroleum-based compounds, were detected at the Property. The chlorinated compounds detected at the Property primarily consist of tetrachloroethylene, also known as perchloroethylene, and its breakdown products. Tetrachloroethylene has been the exclusive dry cleaning solvent used at the Property. The type and concentration of petroleum-related compounds detected are indicative of weathered gasoline. The source of the petroleum contamination is unknown, however several potential sources exist in the area.

The contamination in each of the borings sampled was strongest near the water table, indicating that the solvents are migrating in ground water. Because elevated contaminant concentrations were detected near the southern boundary of the Property, it is possible that another upgradient (southern) property is contributing to the contaminant plume. Further investigation is necessary to evaluate off-site sources.

Northern Environmental recommends that an investigation be performed at the site to determine the extent of the contamination, and to evaluate potential off-site sources. Data gathered during the investigation will also be used to evaluate remedial options, if necessary.

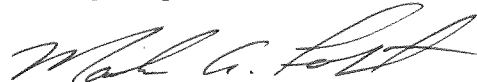
The results of this study are based upon professional interpretation of the information available to Northern Environmental. Northern Environmental does not warrant that this report represents an exhaustive study of all possible environmental concerns potentially associated with the Property. The items investigated as part of this study do represent likely sources of environmental concern associated with the identified release, and are consequently believed to adequately address the client's needs at this time.

We trust this information meets your needs. Please feel free to contact Northern Environmental at 414-592-8400 if you have any questions.

Sincerely,
**Northern Environmental
Technologies, Incorporated**



Lynelle P. Caine
Hydrogeologist I



Mark A. Foht
Staff Hydrogeologist



Chris L. Shindelcker, P.G.
Associate Principal

ddd
Attachments

c: Tom Versteegen, WDNR
Roxanne Nelezen Chronert, WDNR

REFERENCES

Didier, P. (WDNR), letter to District Directors (WDNR), *Practices and Standards for the Management of VOC-Contaminated Soils*, April 18, 1986.

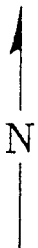
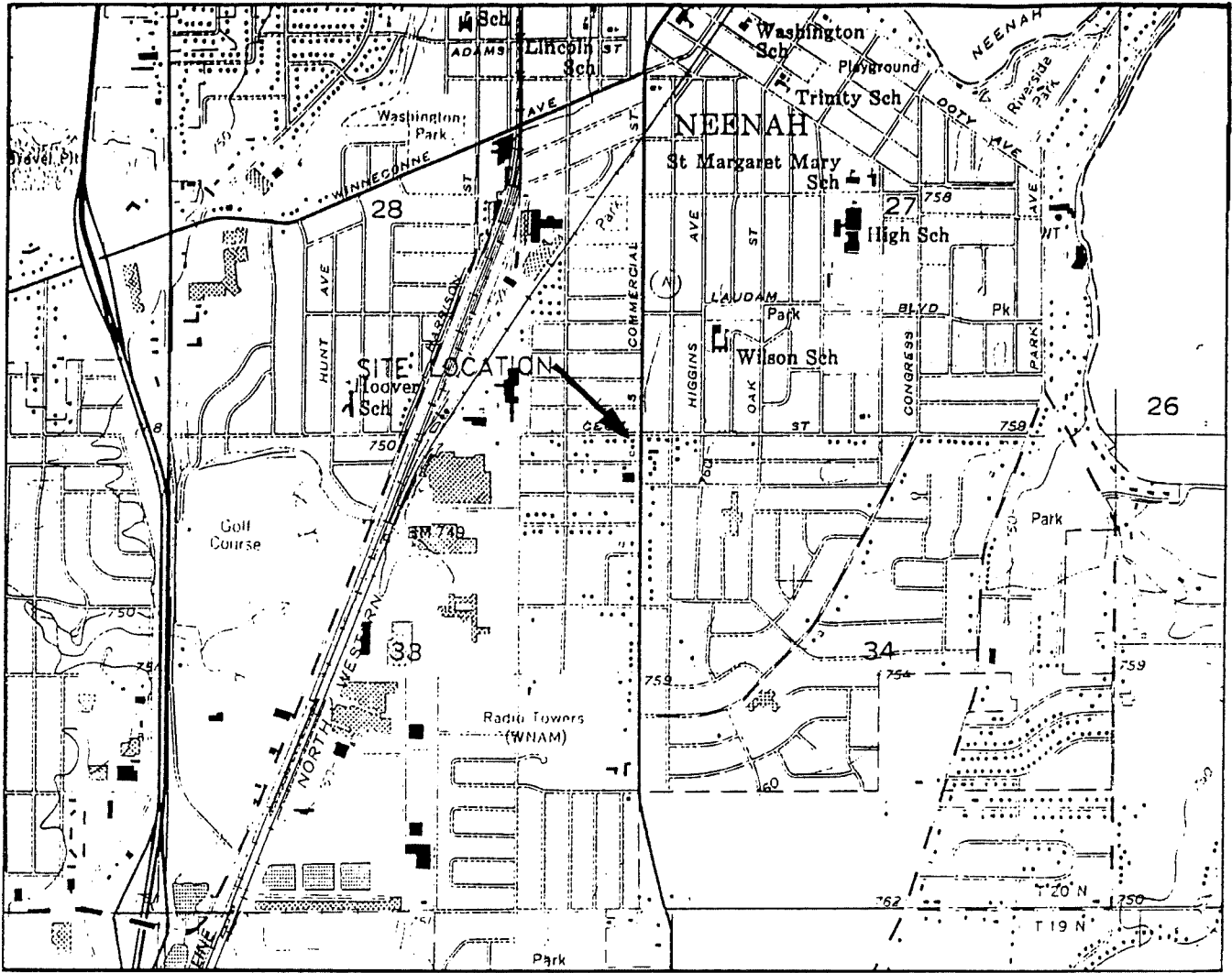
Fetter, C.W., *Applied Hydrogeology*, 2d ed., Merrill Publishing company, Columbus, 1988.

Mickelson, David M., et al., *Pleistocene Stratigraphic Units of Wisconsin*, Wisconsin Geologic and Natural History Survey, Miscellaneous Paper 84-1, July 1984.

Ricker, Mike (U.S. Oil Analytical Laboratory), conversation with Lynelle P. Caine (Northern Environmental), January 8, 1995.

United States Geological Survey, *Neeah, Wisconsin 7.5 Minute Quadrangle Topographic Map*, revised 1984.

Wisconsin Department of Natural Resources, "Comprehensive Environmental Cleanup Code", *Wisconsin Administrative Code*, NR 700 Series, April 1995.



SCALE 1" = 2000'



CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929



QUADRANGLE LOCATION

BASE MAP SOURCE: USGS NEENAH, WISCONSIN 7.5 MINUTE QUADRANGLE (REVISED 1984)

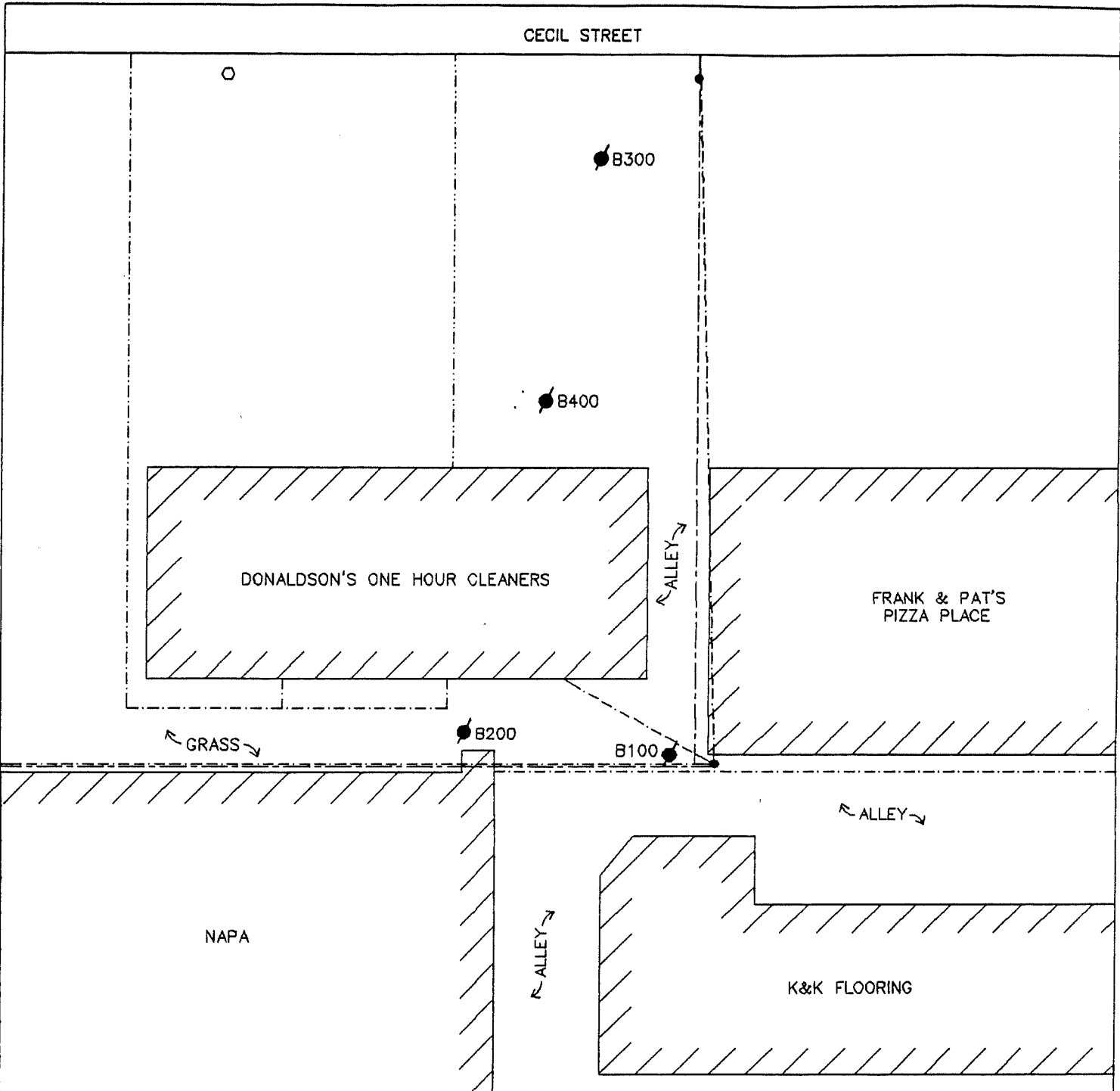
DRAWN BY: AML PROJECT: DDC310273 DATE: 1/5/95

REVISION DATE: THIS DRAWING AND ALL INFORMATION CONTAINED THEREON IS THE PROPERTY OF NORTHERN ENVIRONMENTAL INCORPORATED AND SHALL NOT BE COPIED OR USED EXCEPT FOR THE PURPOSE FOR WHICH IT IS EXPRESSLY FURNISHED. THE DRAWING AND ANY COPIES THEREOF SHALL BE RETURNED TO THE OWNER ON DEMAND.

FIGURE 1
SITE LOCATION AND LOCAL TOPOGRAPHY
DONALDSON'S ONE HOUR CLEANERS
NEENAH, WISCONSIN

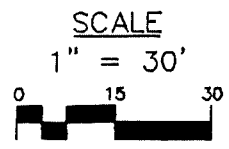
▲ Northern Environmental
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FOR: DONALDSON'S ONE HOUR CLEANERS



LEGEND

- PROPERTY LINE
- - - - - SANITARY LINE
- · - · - GAS LINE
- - - - - OVERHEAD ELECTRIC
- SOIL BORING
- UTILITY POLE
- WATER MAIN SHUTOFF



DRAWN BY: AML PROJECT: DDC310273 DATE: 1/5/95

REVISION DATE: 1/15/96

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FIGURE 2
 SITE LAYOUT AND GEOPROBE LOCATIONS
 DONALDSON'S ONE HOUR CLEANERS
 NEENAH, WISCONSIN

▲ Northern Environmental
Hydrologists · Engineers · Geologists

FOR: DONALDSON'S ONE HOUR CLEANERS

Table 1 Soil Field Screening Results for November 7, 1995, Donaldson's One Hour Cleaners, Neenah, Wisconsin

| Boring Number | Sample Label | Depth (feet) | Sample Odor | Sample Description | PID Headspace Analysis | | |
|---------------|--------------|--------------|-------------|-----------------------|------------------------|---------------|--------------------|
| | | | | | Time Collected | Time Analyzed | PID Response (iui) |
| B100 | S101 | 0-2 | None | Silty Clay | 0835 | 0940 | 2 |
| | S102 | 2-4 | None | Silty Clay | 0837 | 0941 | 2.7 |
| | S103 | 4-6 | Slight | Silty Clay | 0839 | 0942 | 4 |
| | S104 | 6-8 | None | Silty Clay | 0846 | 0943 | 3.9 |
| | *S105 | 8-9 | None | Silty Clay / Dolomite | 0850 | 0943 | 3.6 |
| B200 | S201 | 0-2 | None | Silty Sandy Clay | 0910 | 0944 | 11 |
| | *S202 | 2-4 | Slight | Silty Clay | 0913 | 0945 | 92 |
| | S203 | 4-6 | Strong | Silty Clay | 0918 | 0945 | 188 |
| | S204 | 6-8 | Strong | Silty Clay | 0923 | 0952 | 282 |
| | *S205 | 8-9 | Strong | Silty Clay | 0929 | 0953 | 409 |
| B300 | S301 | 0-2 | None | Silty Clay | 1021 | 1120 | .2 |
| | S302 | 2-4 | None | Silty Clay | 1025 | 1120 | 0 |
| | S303 | 4-6 | None | Silty Clay / Dolomite | 1030 | 1120 | 0 |
| B400 | S401 | 0-2 | None | Silty Clay | 1042 | 1120 | 0 |
| | S402 | 2-4 | None | Silty Clay | 1046 | 1121 | 0 |
| | S403 | 4-6 | None | Silty Clay | 1050 | 1122 | 0 |
| | S404 | 6-8 | None | Silty Clay | 1055 | 1122 | 0 |
| | *S405 | 8-10 | None | Silty Clay / Dolomite | 1110 | 1201 | 0 |

NOTE:

PID = Photoionization Detector

iui = instrument units as isobutylene

* = Submitted for laboratory analysis

**Table 2 Laboratory Analytical Results of Soil Sampling, November 7, 1995,
Donaldson's One Hour Cleaners, Neenah, Wisconsin**

| LABORATORY RESULT PARAMETERS | WDNR RESIDUAL CONTAMINANT LEVEL | BORING NUMBER | | | |
|---------------------------------|---------------------------------------|----------------|----------------|----------------|----------------|
| | | B100 | B200 | | B400 |
| | | Sample S105 | Sample S202 | Sample S205 | Sample S405 |
| VOCs Detected (µg/kg) | | | | | |
| n-Butylbenzene | NE | <25 | 30 | 340 | <25 |
| sec-Butylbenzene | NE | <25 | <25 | 32 | <25 |
| cis-1,2-Dichloroethene | NE | <25 | 2400 | 3100 | <25 |
| Ethylbenzene | 2900 | <25 | <25 | 99 | <25 |
| Isopropylbenzene | NE | <25 | <25 | 29 | <25 |
| p-Isopropyltoluene | NE | <25 | <25 | 125 | <25 |
| Naphthalene | NE | 59 | <25 | 108 | <25 |
| n-Propylbenzene | NE | <25 | <25 | 123 | <25 |
| Tetrachloroethene | NE | 730 | 3700 | 660000 | 196 |
| Toluene | 1500 | <25 | <25 | 57 | <25 |
| Trichloroethene | NE | <25 | 3000 | 2700 | <25 |
| 1,2,4-Trimethylbenzene | NE | <25 | <25 | 155 | <25 |
| 1,3,5-Trimethylbenzene | NE | <25 | <25 | 125 | <25 |
| Vinyl Chloride | NE | <25 | 360 | 500 | <25 |
| Xylenes | 4100 | <75 | <75 | 160 | <75 |

Note:
 NE = Not Established
 VOCs = Volatile Organic Compounds
 µg/kg = micrograms per kilogram

ATTACHMENT A
LABORATORY RESULTS AND CHAIN-OF-CUSTODY



Analytical Laboratory

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

WI DNR Certified Lab #445027660

**Method 8021 Volatile Organic Compounds
(Methanol Preserved)**

Lynelle P. Caine
Northern Environmental
954 Circle Drive
Green Bay, WI 54304

Project #: DDC310273
Project : Neenah
Sample ID: S105
Lab Code: 5012019C
Sample Type: Soil
Sample Date: 07-Nov-95
Date Analyzed: 14-Nov-95

Report Date: 16-Nov-95
Analyzed By: C. Rotar

| ANALYTE | RESULT | MDL UG/KG | PQL UG/KG | CONFIRMED METHOD |
|-----------------------------|--------|--------------|--------------|---------------------|
| Benzene | < 25 | 5 | 14 | |
| Bromobenzene | < 25 | 4 | 11 | |
| Bromodichloromethane | < 25 | 2 | 7 | |
| n-Butylbenzene | < 25 | 5 | 17 | |
| sec-Butylbenzene | < 25 | 5 | 15 | |
| tert-Butylbenzene | < 25 | 6 | 19 | |
| Carbon Tetrachloride | < 25 | 6 | 20 | |
| Chlorobenzene | < 25 | 3 | 9 | |
| Chloroethane | < 25 | 6 | 19 | |
| Chloroform | < 25 | 3 | 10 | |
| Chloromethane | < 25 | 8 | 24 | |
| 2-Chlorotoluene | < 25 | 4 | 13 | |
| 4-Chlorotoluene | < 25 | 4 | 12 | |
| 1,2-Dibromo-3-Chloropropane | < 25 | 9 | 30 | |
| Dibromochloromethane | < 25 | 5 | 15 | |
| 1,2-Dichlorobenzene | < 25 | 5 | 15 | |
| 1,3-Dichlorobenzene | < 25 | 4 | 11 | |
| 1,4-Dichlorobenzene | < 25 | 4 | 11 | |
| Dichlorofluoromethane | < 25 | 3 | 10 | |
| 1,1-Dichloroethane | < 25 | 3 | 10 | |
| 1,2-Dichloroethane | < 25 | 3 | 11 | |
| 1,1-Dichloroethene | < 25 | 5 | 15 | |
| cis-1,2-Dichloroethene | < 25 | 2 | 6 | |
| trans-1,2-Dichloroethene | < 25 | 4 | 13 | |
| 1,2-Dichloropropane | < 25 | 3 | 9 | |
| 1,3-Dichloropropane | < 25 | 8 | 25 | |

| ANALYTE | RESULT | MDL UG/KG | PQL UG/KG | CONFIRMED METHOD |
|---------------------------|--------|--------------|--------------|---------------------|
| 2,2-DCP, cis-1,2-DCE | < 25 | 7 | 22 | |
| Di-isopropyl Ether | < 25 | 6 | 18 | |
| Ethylbenzene | < 25 | 4 | 14 | |
| EDB (1,2-Dibromoethane) | < 25 | 8 | 24 | |
| Hexachlorobutadiene | < 25 | 3 | 11 | |
| Isopropylbenzene | < 25 | 5 | 14 | |
| p-Isopropyltoluene | < 25 | 5 | 15 | |
| Methylene Chloride | < 100 | 5 | 17 | |
| MTBE | < 25 | 5 | 15 | |
| Napthalene | 59 | 13 | 41 | |
| n-Propylbenzene | < 25 | 7 | 22 | |
| 1,1,2,2-Tetrachloroethane | < 25 | 14 | 43 | |
| Tetrachloroethene | 730 | 3 | 9 | |
| Toluene | < 25 | 11 | 35 | |
| 1,2,3-Trichlorobenzene | < 25 | 8 | 24 | |
| 1,2,4-Trichlorobenzene | < 25 | 6 | 20 | |
| 1,1,1-Trichloroethane | < 25 | 8 | 26 | |
| 1,1,2-Trichloroethane | < 25 | 8 | 24 | |
| Trichloroethene | < 25 | 2 | 7 | |
| Trichlorofluoromethane | < 25 | 22 | 71 | |
| 124-Trimethylbenzen | < 25 | 5 | 14 | |
| 1,3,5-Trimethylbenzene | < 25 | 4 | 14 | |
| Vinyl Chloride | < 25 | 5 | 16 | |
| m&p-Xylene | < 50 | 9 | 28 | |
| o-Xylene | < 25 | 4 | 11 | |

Fluorobenzene Surrogate 119 % Rec.
1,4-Dichlorobutane Surrogate 104 % Rec.
Total % Solids 89.2

MDL = Method Detection Limit
PQL = Practical Quantitation Limit
NA = Not Applicable

Authorized Signature

Analytical Laboratory

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

WI DNR Certified Lab #445027660

QC Summary

Method 8021 Volatile Organic Compounds

Project #: DDC310273 Report Date: 16-Nov-95
Sample ID: S105 Lab Code: 5012019C

| ANALYTE | INITIAL CALIBRATION | KNOWN STANDARD | MATRIX SPIKE | REPLICATE SPIKE | BLANK | FID SURROGATE | HALL SURROGATE |
|-----------------------------|---------------------|----------------|--------------|-----------------|-------|---------------|----------------|
| Benzene | P | P | P | P | P | P | P |
| Bromobenzene | P | P | P | P | P | P | P |
| Bromodichloromethane | P | P | P | P | P | P | P |
| n-Butylbenzene | P | P | P | P | P | P | P |
| sec-Butylbenzene | P | P | P | P | P | P | P |
| tertButylbenzene | P | P | P | P | P | P | P |
| Carbon Tetrachloride | P | P | P | P | P | P | P |
| Chlorobenzene | P | P | P | P | P | P | P |
| Chloroethane | P | P | P | P | P | P | P |
| Chloroform | P | P | P | P | P | P | P |
| Chloromethane | P | P | P | P | P | P | P |
| 2-Chlorotoluene | P | P | P | P | P | P | P |
| 4-Chlorotoluene | P | P | P | P | P | P | P |
| 1,2-Dibromo-3-Chloropropane | P | P | P | P | P | P | P |
| Dibromochloromethane | P | P | P | P | P | P | P |
| 1,2-Dichlorobenzene | P | P | P | P | P | P | P |
| 1,3-Dichlorobenzene | P | P | P | P | P | P | P |
| 1,4-Dichlorobenzene | P | P | P | P | P | P | P |
| Dichlorofluoromethane | P | P | P | P | P | P | P |
| 1,1-Dichloroethane | P | P | P | P | P | P | P |
| 1,2-Dichloroethane | P | P | P | P | P | P | P |
| 1,1-Dichloroethene | P | P | P | P | P | P | P |
| cis-1,2-Dichloroethene | P | P | P | P | P | P | P |
| trans-1,2-Dichloroethene | P | P | P | P | P | P | P |
| 1,2-Dichloropropane | P | P | P | P | P | P | P |
| 1,3-Dichloropropane | P | P | P | P | P | P | P |
| 2,2-DCP,cis-1,2-DCE | P | P | P | P | P | P | P |
| Diisopropyl Ether | P | P | P | P | P | P | P |
| Ethylbenzene | P | P | P | P | P | P | P |
| EDB (1,2-Dibromoethane) | P | P | P | P | P | P | P |
| Hexachlorobutadiene | P | P | P | P | P | P | P |
| isopropylbenzene | P | P | P | P | P | P | P |
| p-isopryltoluene | P | P | P | P | P | P | P |
| Methylene Chloride | P | P | P | P | P | P | P |
| MTBE | P | P | P | P | P | P | P |
| Napthalene | P | P | P | P | P | P | P |
| n-Propylbenzene | P | P | P | P | P | P | P |
| 1,1,2,2-Tetrachloroethane | P | P | P | P | P | P | P |
| Tetrachloroethene | P | P | P | P | P | P | P |
| Toluene | P | P | P | P | P | P | P |
| 1,2,3-Trichlorobenzene | P | P | P | P | F | P | P |
| 1,2,4-Trichlorobenzene | P | P | P | P | F | P | P |
| 1,1,1-Trichloroethane | P | P | P | P | P | P | P |
| 1,1,2-Trichloroethane | P | P | P | P | P | P | P |
| Trichloroethene | P | P | P | P | P | P | P |
| Trichlorofluoromethane | P | F | P | P | P | P | P |
| 124-Trimethylbenzen | P | P | P | P | P | P | P |
| 1,3,5-Trimethylbenzene | P | P | P | P | P | P | P |
| Vinyl Chloride | P | P | P | P | P | P | P |
| m&p-Xylene | P | P | P | P | P | P | P |
| o-Xylene | P | P | P | P | P | P | P |

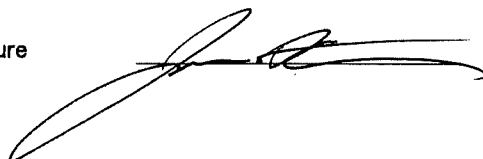
P = Passed QC limits.

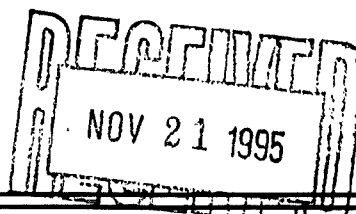
F = Failed QC limits.

NA = Not Applicable

VOC analysis detected unidentified peaks.

Authorized Signature





Analytical Laboratory

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

WI DNR Certified Lab #445027660

Method 8021 Volatile Organic Compounds
(Methanol Preserved)

Lynelle P. Caine
Northern Environmental
954 Circle Drive
Green Bay, WI 54304

Project #: DDC310273
Project : Neenah
Sample ID: S202
Lab Code: 5012019A
Sample Type: Soil
Sample Date: 07-Nov-95
Date Analyzed: 09-Nov-95

Report Date: 16-Nov-95
Analyzed By: C. Rotar

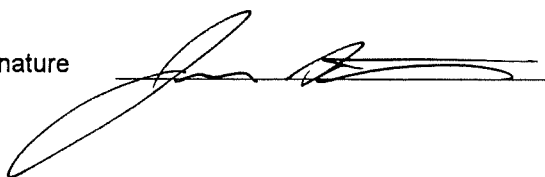
| ANALYTE | RESULT | MDL UG/KG | PQL UG/KG | CONFIRMED METHOD |
|-----------------------------|--------|--------------|--------------|---------------------|
| Benzene | < 25 | 5 | 14 | |
| Bromobenzene | < 25 | 4 | 11 | |
| Bromodichloromethane | < 25 | 2 | 7 | |
| n-Butylbenzene | 30 | 5 | 17 | |
| sec-Butylbenzene | < 25 | 5 | 15 | |
| tertButylbenzene | < 25 | 6 | 19 | |
| Carbon Tetrachloride | < 25 | 6 | 20 | |
| Chlorobenzene | < 25 | 3 | 9 | |
| Chloroethane | < 25 | 6 | 19 | |
| Chloroform | < 25 | 3 | 10 | |
| Chloromethane | < 25 | 8 | 24 | |
| 2-Chlorotoluene | < 25 | 4 | 13 | |
| 4-Chlorotoluene | < 25 | 4 | 12 | |
| 1,2-Dibromo-3-Chloropropane | < 25 | 9 | 30 | |
| Dibromochloromethane | < 25 | 5 | 15 | |
| 1,2-Dichlorobenzene | < 25 | 5 | 15 | |
| 1,3-Dichlorobenzene | < 25 | 4 | 11 | |
| 1,4-Dichlorobenzene | < 25 | 4 | 11 | |
| Dichlorofluoromethane | < 25 | 3 | 10 | |
| 1,1-Dichloroethane | < 25 | 3 | 10 | |
| 1,2-Dichloroethane | < 25 | 3 | 11 | |
| 1,1-Dichloroethene | < 25 | 5 | 15 | |
| cis-1,2-Dichloroethene | 2400 | 2 | 6 | |
| trans-1,2-Dichloroethene | < 25 | 4 | 13 | |
| 1,2-Dichloropropane | < 25 | 3 | 9 | |
| 1,3-Dichloropropane | < 25 | 8 | 25 | |

| ANALYTE | RESULT | MDL UG/KG | PQL UG/KG | CONFIRMED METHOD |
|---------------------------|--------|--------------|--------------|---------------------|
| 2,2-DCP,cis-1,2-DCE | < 25 | 7 | 22 | |
| Di-isopropyl Ether | < 25 | 6 | 18 | |
| Ethylbenzene | < 25 | 4 | 14 | |
| EDB (1,2-Dibromoethane) | < 25 | 8 | 24 | |
| Hexachlorobutadiene | < 25 | 3 | 11 | |
| Isopropylbenzene | < 25 | 5 | 14 | |
| p-Isopropyltoluene | < 25 | 5 | 15 | |
| Methylene Chloride | < 100 | 5 | 17 | |
| MTBE | < 25 | 5 | 15 | |
| Napthalene | < 25 | 13 | 41 | |
| n-Propylbenzene | < 25 | 7 | 22 | |
| 1,1,2,2-Tetrachloroethane | < 25 | 14 | 43 | |
| Tetrachloroethene | 3700 | 3 | 9 | |
| Toluene | < 25 | 11 | 35 | |
| 1,2,3-Trichlorobenzene | < 25 | 8 | 24 | |
| 1,2,4-Trichlorobenzene | < 25 | 6 | 20 | |
| 1,1,1-Trichloroethane | < 25 | 8 | 26 | |
| 1,1,2-Trichloroethane | < 25 | 8 | 24 | |
| Trichloroethene | 3000 | 2 | 7 | |
| Trichlorofluoromethane | < 25 | 22 | 71 | |
| 124-Trimethylbenzen | < 25 | 5 | 14 | |
| 1,3,5-Trimethylbenzene | < 25 | 4 | 14 | |
| Vinyl Chloride | 360 | 5 | 16 | |
| m&p-Xylene | < 50 | 9 | 28 | |
| o-Xylene | < 25 | 4 | 11 | |

Fluorobenzene Surrogate 118 % Rec.
1,4-Dichlorobutane Surrogate 103 % Rec.
Total % Solids 75.2

MDL = Method Detection Limit
PQL = Practical Quantitation Limit
NA = Not Applicable

Authorized Signature



Analytical Laboratory

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

WI DNR Certified Lab #445027660

QC Summary

Method 8021 Volatile Organic Compounds

Project #: DDC310273 Report Date: 16-Nov-95
Sample ID: S202 Lab Code: 5012019A

| ANALYTE | INITIAL CALIBRATION | KNOWN STANDARD | MATRIX SPIKE | REPLICATE SPIKE | BLANK | PID SURROGATE | HALL SURROGATE |
|-----------------------------|---------------------|----------------|--------------|-----------------|-------|---------------|----------------|
| Benzene | P | P | P | P | P | P | P |
| Bromobenzene | P | P | P | P | P | P | P |
| Bromodichloromethane | P | P | P | P | P | P | P |
| n-Butylbenzene | P | P | P | P | P | P | P |
| sec-Butylbenzene | P | P | P | P | P | P | P |
| tertButylbenzene | P | P | P | P | P | P | P |
| Carbon Tetrachloride | P | P | P | P | P | P | P |
| Chlorobenzene | P | P | P | P | P | P | P |
| Chloroethane | P | F | P | P | P | P | P |
| Chloroform | P | P | P | P | P | P | P |
| Chloromethane | P | F | P | P | P | P | P |
| 2-Chlorotoluene | P | P | P | P | P | P | P |
| 4-Chlorotoluene | P | P | P | P | P | P | P |
| 1,2-Dibromo-3-Chloropropane | P | F | P | P | P | P | P |
| Dibromochloromethane | P | P | P | P | P | P | P |
| 1,2-Dichlorobenzene | P | P | P | P | P | P | P |
| 1,3-Dichlorobenzene | P | P | P | P | P | P | P |
| 1,4-Dichlorobenzene | P | P | P | P | P | P | P |
| Dichlorofluoromethane | P | F | P | P | P | P | P |
| 1,1-Dichloroethane | P | P | P | P | P | P | P |
| 1,2-Dichloroethane | P | P | P | P | P | P | P |
| 1,1-Dichloroethene | P | F | P | P | P | P | P |
| cis-1,2-Dichloroethene | P | P | P | P | P | P | P |
| trans-1,2-Dichloroethene | P | P | P | P | P | P | P |
| 1,2-Dichloropropane | P | P | P | P | P | P | P |
| 1,3-Dichloropropane | P | P | P | P | P | P | P |
| 2,2-DCP, cis-1,2-DCE | P | P | P | P | P | P | P |
| Diisopropyl Ether | P | P | P | P | P | P | P |
| Ethylbenzene | P | P | P | P | P | P | P |
| EDB (1,2-Dibromoethane) | P | P | P | F | P | P | P |
| Hexachlorobutadiene | P | P | P | P | P | P | P |
| Isopropylbenzene | P | P | P | P | P | P | P |
| p-Isopropyltoluene | P | P | P | P | P | P | P |
| Methylene Chloride | P | F | P | P | P | P | P |
| MTBE | P | P | P | P | P | P | P |
| Napthalene | P | F | P | P | F | P | P |
| n-Propylbenzene | P | P | P | P | P | P | P |
| 1,1,2,2-Tetrachloroethane | P | P | P | F | P | P | P |
| Tetrachloroethene | P | P | P | P | P | P | P |
| Toluene | P | P | P | P | P | P | P |
| 1,2,3-Trichlorobenzene | P | F | P | P | F | P | P |
| 1,2,4-Trichlorobenzene | P | F | P | P | F | P | P |
| 1,1,1-Trichloroethane | P | P | P | P | P | P | P |
| 1,1,2-Trichloroethane | P | P | P | P | P | P | P |
| Trichloroethene | P | P | P | P | P | P | P |
| Trichlorofluoromethane | P | P | P | F | P | P | P |
| 1,2,4-Trimethylbenzene | P | P | P | P | P | P | P |
| 1,3,5-Trimethylbenzene | P | P | P | P | P | P | P |
| Vinyl Chloride | P | F | P | P | P | P | P |
| m&p-Xylene | P | P | P | P | P | P | P |
| o-Xylene | P | P | P | P | P | P | P |

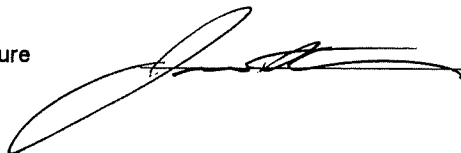
P = Passed QC limits.

F = Failed QC limits.

NA = Not Applicable

VOC analysis detected unidentified peaks.

Authorized Signature





Analytical Laboratory

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

WI DNR Certified Lab #445027660

**Method 8021 Volatile Organic Compounds
(Methanol Preserved)**

Lynelle P. Caine
Northern Environmental
954 Circle Drive
Green Bay, WI 54304

Project #: DDC310273
Project : Neenah
Sample ID: S205
Lab Code: 5012019B
Sample Type: Soil
Sample Date: 07-Nov-95
Date Analyzed: 09-Nov-95

Report Date: 16-Nov-95
Analyzed By: C. Rotar

| ANALYTE | RESULT | MDL | PQL | CONFIRMED METHOD |
|-----------------------------|--------|-------|-------|---------------------|
| | | UG/KG | UG/KG | |
| Benzene | < 25 | 5 | 14 | |
| Bromobenzene | < 25 | 4 | 11 | |
| Bromodichloromethane | < 25 | 2 | 7 | |
| n-Butylbenzene | 340 | 5 | 17 | |
| sec-Butylbenzene | 32 | 5 | 15 | |
| tertButylbenzene | < 25 | 6 | 19 | |
| Carbon Tetrachloride | < 25 | 6 | 20 | |
| Chlorobenzene | < 25 | 3 | 9 | |
| Chloroethane | < 25 | 6 | 19 | |
| Chloroform | < 25 | 3 | 10 | |
| Chloromethane | < 25 | 8 | 24 | |
| 2-Chlorotoluene | < 25 | 4 | 13 | |
| 4-Chlorotoluene | < 25 | 4 | 12 | |
| 1,2-Dibromo-3-Chloropropane | < 25 | 9 | 30 | |
| Dibromochloromethane | < 25 | 5 | 15 | |
| 1,2-Dichlorobenzene | < 25 | 5 | 15 | |
| 1,3-Dichlorobenzene | < 25 | 4 | 11 | |
| 1,4-Dichlorobenzene | < 25 | 4 | 11 | |
| Dichlorofluoromethane | < 25 | 3 | 10 | |
| 1,1-Dichloroethane | < 25 | 3 | 10 | |
| 1,2-Dichloroethane | < 25 | 3 | 11 | |
| 1,1-Dichloroethene | < 25 | 5 | 15 | |
| cis-1,2-Dichloroethene | 3100 | 2 | 6 | |
| trans-1,2-Dichloroethene | < 25 | 4 | 13 | |
| 1,2-Dichloropropane | < 25 | 3 | 9 | |
| 1,3-Dichloropropane | < 25 | 8 | 25 | |

| ANALYTE | RESULT | MDL | PQL | CONFIRMED METHOD |
|---------------------------|--------|-------|-------|---------------------|
| | | UG/KG | UG/KG | |
| 2,2-DCP,cis-1,2-DCE | < 25 | 7 | 22 | |
| Di-isopropyl Ether | < 25 | 6 | 18 | |
| Ethylbenzene | 99 | 4 | 14 | |
| EDB (1,2-Dibromoethane) | < 25 | 8 | 24 | |
| Hexachlorobutadiene | < 25 | 3 | 11 | |
| Isopropylbenzene | 29 | 5 | 14 | |
| p-isopropyltoluene | 125 | 5 | 15 | |
| Methylene Chloride | < 100 | 5 | 17 | |
| MTBE | < 25 | 5 | 15 | |
| Napthalene | 108 | 13 | 41 | |
| n-Propylbenzene | 123 | 7 | 22 | |
| 1,1,2,2-Tetrachloroethane | < 25 | 14 | 43 | |
| Tetrachloroethene | 660000 | 1500 | 4500 | |
| Toluene | 57 | 11 | 35 | |
| 1,2,3-Trichlorobenzene | < 25 | 8 | 24 | |
| 1,2,4-Trichlorobenzene | < 25 | 6 | 20 | |
| 1,1,1-Trichloroethane | < 25 | 8 | 26 | |
| 1,1,2-Trichloroethane | < 25 | 8 | 24 | |
| Trichloroethene | 2700 | 2 | 7 | |
| Trichlorofluoromethane | < 25 | 22 | 71 | |
| 124-Trimethylbenzen | 155 | 5 | 14 | |
| 1,3,5-Trimethylbenzene | 125 | 4 | 14 | |
| Vinyl Chloride | 500 | 5 | 16 | |
| m&p-Xylene | 91 | 9 | 28 | |
| o-Xylene | 69 | 4 | 11 | |

Fluorobenzene Surrogate 107 % Rec.
1,4-Dichlorobutane Surrogate 101 % Rec.
Total % Solids 86.5

MDL = Method Detection Limit
PQL = Practical Quantitation Limit
NA = Not Applicable

Authorized Signature

Analytical Laboratory

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

WI DNR Certified Lab #445027660

QC Summary

Method 8021 Volatile Organic Compounds

Project #: DDC310273 Report Date: 16-Nov-95
Sample ID: S205 Lab Code: 5012019B

| ANALYTE | INITIAL | KNOWN | MATRIX | REPLICATE | BLANK | PID | HALL |
|-----------------------------|-------------|----------|--------|-----------|-------|-----------|-----------|
| | CALIBRATION | STANDARD | SPIKE | SPIKE | | SURROGATE | SURROGATE |
| Benzene | P | P | P | P | P | P | P |
| Bromobenzene | P | P | P | P | P | P | P |
| Bromodichloromethane | P | P | P | P | P | P | P |
| n-Butylbenzene | P | P | P | P | P | P | P |
| sec-Butylbenzene | P | P | P | P | P | P | P |
| tertButylbenzene | P | P | P | P | P | P | P |
| Carbon Tetrachloride | P | P | P | P | P | P | P |
| Chlorobenzene | P | P | P | P | P | P | P |
| Chloroethane | P | F | P | P | P | P | P |
| Chloroform | P | P | P | P | P | P | P |
| Chloromethane | P | F | P | P | P | P | P |
| 2-Chlorotoluene | P | P | P | P | P | P | P |
| 4-Chlorotoluene | P | P | P | P | P | P | P |
| 1,2-Dibromo-3-Chloropropane | P | F | P | P | P | P | P |
| Dibromochloromethane | P | P | P | P | P | P | P |
| 1,2-Dichlorobenzene | P | P | P | P | P | P | P |
| 1,3-Dichlorobenzene | P | P | P | P | P | P | P |
| 1,4-Dichlorobenzene | P | P | P | P | P | P | P |
| Dichlorofluoromethane | P | F | P | P | P | P | P |
| 1,1-Dichloroethane | P | P | P | P | P | P | P |
| 1,2-Dichloroethane | P | P | P | P | P | P | P |
| 1,1-Dichloroethene | P | F | P | P | P | P | P |
| cis-1,2-Dichloroethene | P | P | P | P | P | P | P |
| trans-1,2-Dichloroethene | P | P | P | P | P | P | P |
| 1,2-Dichloropropane | P | P | P | P | P | P | P |
| 1,3-Dichloropropane | P | P | P | P | P | P | P |
| 2,2-DCP, cis-1,2-DCE | P | P | P | P | P | P | P |
| Diisopropyl Ether | P | P | P | P | P | P | P |
| Ethylbenzene | P | P | P | P | P | P | P |
| EDB (1,2-Dibromoethane) | P | P | P | F | P | P | P |
| Hexachlorobutadiene | P | P | P | P | P | P | P |
| Isopropylbenzene | P | P | P | P | P | P | P |
| p-Isopropyltoluene | P | P | P | P | P | P | P |
| Methylene Chloride | P | F | P | P | P | P | P |
| MTBE | P | P | P | P | P | P | P |
| Napthalene | P | F | P | P | F | P | P |
| n-Propylbenzene | P | P | P | P | P | P | P |
| 1,1,2,2-Tetrachloroethane | P | P | P | F | P | P | P |
| Tetrachloroethene | P | P | P | P | P | P | P |
| Toluene | P | P | P | P | P | P | P |
| 1,2,3-Trichlorobenzene | P | F | P | P | F | P | P |
| 1,2,4-Trichlorobenzene | P | F | P | P | F | P | P |
| 1,1,1-Trichloroethane | P | P | P | P | P | P | P |
| 1,1,2-Trichloroethane | P | P | P | P | P | P | P |
| Trichloroethene | P | P | P | P | P | P | P |
| Trichlorofluoromethane | P | P | P | F | P | P | P |
| 124-Trimethylbenzen | P | P | P | P | P | P | P |
| 1,3,5-Trimethylbenzene | P | P | P | P | P | P | P |
| Vinyl Chloride | P | F | P | P | P | P | P |
| m&p-Xylene | P | P | P | P | P | P | P |
| o-Xylene | P | P | P | P | P | P | P |

P = Passed QC limits.

F = Failed QC limits.

NA = Not Applicable

VOC analysis detected unidentified peaks.

Authorized Signature





Analytical Laboratory

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

WI DNR Certified Lab #445027660

**Method 8021 Volatile Organic Compounds
(Methanol Preserved)**

Lynelle P. Caine
Northern Environmental
954 Circle Drive
Green Bay, WI 54304

Project #: DDC310273
Project : Neenah
Sample ID: S405
Lab Code: 5012019D
Sample Type: Soil
Sample Date: 07-Nov-95
Date Analyzed: 14-Nov-95

Report Date: 16-Nov-95
Analyzed By: C. Rotar

| ANALYTE | RESULT | MDL | PQL | CONFIRMED METHOD |
|-----------------------------|--------|-------|-------|---------------------|
| | | UG/KG | UG/KG | |
| Benzene | < 25 | 5 | 14 | |
| Bromobenzene | < 25 | 4 | 11 | |
| Bromodichloromethane | < 25 | 2 | 7 | |
| n-Butylbenzene | < 25 | 5 | 17 | |
| sec-Butylbenzene | < 25 | 5 | 15 | |
| tert-Butylbenzene | < 25 | 6 | 19 | |
| Carbon Tetrachloride | < 25 | 6 | 20 | |
| Chlorobenzene | < 25 | 3 | 9 | |
| Chloroethane | < 25 | 6 | 19 | |
| Chloroform | < 25 | 3 | 10 | |
| Chloromethane | < 25 | 8 | 24 | |
| 2-Chlorotoluene | < 25 | 4 | 13 | |
| 4-Chlorotoluene | < 25 | 4 | 12 | |
| 1,2-Dibromo-3-Chloropropane | < 25 | 9 | 30 | |
| Dibromochloromethane | < 25 | 5 | 15 | |
| 1,2-Dichlorobenzene | < 25 | 5 | 15 | |
| 1,3-Dichlorobenzene | < 25 | 4 | 11 | |
| 1,4-Dichlorobenzene | < 25 | 4 | 11 | |
| Dichlorofluoromethane | < 25 | 3 | 10 | |
| 1,1-Dichloroethane | < 25 | 3 | 10 | |
| 1,2-Dichloroethane | < 25 | 3 | 11 | |
| 1,1-Dichloroethene | < 25 | 5 | 15 | |
| cis-1,2-Dichloroethene | < 25 | 2 | 6 | |
| trans-1,2-Dichloroethene | < 25 | 4 | 13 | |
| 1,2-Dichloropropane | < 25 | 3 | 9 | |
| 1,3-Dichloropropane | < 25 | 8 | 25 | |

| ANALYTE | RESULT | MDL | PQL | CONFIRMED METHOD |
|---------------------------|--------|-------|-------|---------------------|
| | | UG/KG | UG/KG | |
| 2,2-DCP,cis-1,2-DCE | < 25 | 7 | 22 | |
| Di-isopropyl Ether | < 25 | 6 | 18 | |
| Ethylbenzene | < 25 | 4 | 14 | |
| EDB (1,2-Dibromoethane) | < 25 | 8 | 24 | |
| Hexachlorobutadiene | < 25 | 3 | 11 | |
| Isopropylbenzene | < 25 | 5 | 14 | |
| p-Isopropyltoluene | < 25 | 5 | 15 | |
| Methylene Chloride | < 100 | 5 | 17 | |
| MTBE | < 25 | 5 | 15 | |
| Napthalene | < 25 | 13 | 41 | |
| n-Propylbenzene | < 25 | 7 | 22 | |
| 1,1,2,2-Tetrachloroethane | < 25 | 14 | 43 | |
| Tetrachloroethene | 196 | 3 | 9 | |
| Toluene | < 25 | 11 | 35 | |
| 1,2,3-Trichlorobenzene | < 25 | 8 | 24 | |
| 1,2,4-Trichlorobenzene | < 25 | 6 | 20 | |
| 1,1,1-Trichloroethane | < 25 | 8 | 26 | |
| 1,1,2-Trichloroethane | < 25 | 8 | 24 | |
| Trichloroethene | < 25 | 2 | 7 | |
| Trichlorofluoromethane | < 25 | 22 | 71 | |
| 124-Trimethylbenzen | < 25 | 5 | 14 | |
| 1,3,5-Trimethylbenzene | < 25 | 4 | 14 | |
| Vinyl Chloride | < 25 | 5 | 16 | |
| m&p-Xylene | < 50 | 9 | 28 | |
| o-Xylene | < 25 | 4 | 11 | |

Fluorobenzene Surrogate 115 % Rec.
1,4-Dichlorobutane Surrogate 105 % Rec.
Total % Solids 87.6

MDL = Method Detection Limit
PQL = Practical Quantitation Limit
NA = Not Applicable

Authorized Signature

Analytical Laboratory

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

WI DNR Certified Lab #445027660

QC Summary
Method 8021 Volatile Organic Compounds

 Project #: DDC310273 Report Date: 16-Nov-95
 Sample ID: S405 Lab Code: 5012019D

| ANALYTE | INITIAL CALIBRATION | KNOWN STANDARD | MATRIX SPIKE | REPLICATE SPIKE | BLANK | FID SURROGATE | HALL SURROGATE |
|-----------------------------|------------------------|-------------------|-----------------|--------------------|-------|------------------|-------------------|
| Benzene | P | P | P | P | P | P | P |
| Bromobenzene | P | P | P | P | P | P | P |
| Bromodichloromethane | P | P | P | P | P | P | P |
| n-Butylbenzene | P | P | P | P | P | P | P |
| sec-Butylbenzene | P | P | P | P | P | P | P |
| tertButylbenzene | P | P | P | P | P | P | P |
| Carbon Tetrachloride | P | P | P | P | P | P | P |
| Chlorobenzene | P | P | P | P | P | P | P |
| Chloroethane | P | P | P | P | P | P | P |
| Chloroform | P | P | P | P | P | P | P |
| Chloromethane | P | P | P | P | P | P | P |
| 2-Chlorotoluene | P | P | P | P | P | P | P |
| 4-Chlorotoluene | P | P | P | P | P | P | P |
| 1,2-Dibromo-3-Chloropropane | P | P | P | P | P | P | P |
| Dibromochloromethane | P | P | P | P | P | P | P |
| 1,2-Dichlorobenzene | P | P | P | P | P | P | P |
| 1,3-Dichlorobenzene | P | P | P | P | P | P | P |
| 1,4-Dichlorobenzene | P | P | P | P | P | P | P |
| Dichlorofluoromethane | P | P | P | P | P | P | P |
| 1,1-Dichloroethane | P | P | P | P | P | P | P |
| 1,2-Dichloroethane | P | P | P | P | P | P | P |
| 1,1-Dichloroethene | P | P | P | P | P | P | P |
| cis-1,2-Dichloroethene | P | P | P | P | P | P | P |
| trans-1,2-Dichloroethene | P | P | P | P | P | P | P |
| 1,2-Dichloropropane | P | P | P | P | P | P | P |
| 1,3-Dichloropropane | P | P | P | P | P | P | P |
| 2,2-DCE, cis-1,2-DCE | P | P | P | P | P | P | P |
| Diisopropyl Ether | P | P | P | P | P | P | P |
| Ethylbenzene | P | P | P | P | P | P | P |
| EDB (1,2-Dibromoethane) | P | P | P | P | P | P | P |
| Hexachlorobutadiene | P | P | P | P | P | P | P |
| Isopropylbenzene | P | P | P | P | P | P | P |
| p-Isopropyltoluene | P | P | P | P | P | P | P |
| Methylene Chloride | P | P | P | P | P | P | P |
| MTBE | P | P | P | P | P | P | P |
| Napthalene | P | P | P | P | P | P | P |
| n-Propylbenzene | P | P | P | P | P | P | P |
| 1,1,2,2-Tetrachloroethane | P | P | P | P | P | P | P |
| Tetrachloroethene | P | P | P | P | P | P | P |
| Toluene | P | P | P | P | P | P | P |
| 1,2,3-Trichlorobenzene | P | P | P | P | F | P | P |
| 1,2,4-Trichlorobenzene | P | P | P | P | F | P | P |
| 1,1,1-Trichloroethane | P | P | P | P | P | P | P |
| 1,1,2-Trichloroethane | P | P | P | P | P | P | P |
| Trichloroethene | P | P | P | P | P | P | P |
| Trichlorofluoromethane | P | F | P | P | P | P | P |
| 124-Trimethylbenzen | P | P | P | P | P | P | P |
| 1,3,5-Trimethylbenzene | P | P | P | P | P | P | P |
| Vinyl Chloride | P | P | P | P | P | P | P |
| m&p-Xylene | P | P | P | P | P | P | P |
| o-Xylene | P | P | P | P | P | P | P |

P = Passed QC limits.

F = Failed QC limits.

NA = Not Applicable

VOC analysis detected unidentified peaks.

Authorized Signature





Analytical Laboratory

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

WI DNR Certified Lab #445027660

**Method 8021 Volatile Organic Compounds
(Methanol Preserved)**

Lynelle P. Caine
Northern Environmental
954 Circle Drive
Green Bay, WI 54304

Project #: DDC310273
Project : Neenah
Sample ID: Methanol Blank
Lab Code: 5012019E
Sample Type: Soil
Sample Date: 07-Nov-95
Date Analyzed: 11-Nov-95

Report Date: 16-Nov-95
Analyzed By: C. Rotar

| ANALYTE | RESULT | MDL | PQL | CONFIRMED METHOD |
|-----------------------------|--------|-------|-------|---------------------|
| | | UG/KG | UG/KG | |
| Benzene | < 25 | 5 | 14 | |
| Bromobenzene | < 25 | 4 | 11 | |
| Bromodichloromethane | < 25 | 2 | 7 | |
| n-Butylbenzene | < 25 | 5 | 17 | |
| sec-Butylbenzene | < 25 | 5 | 15 | |
| tertButylbenzene | < 25 | 6 | 19 | |
| Carbon Tetrachloride | < 25 | 6 | 20 | |
| Chlorobenzene | < 25 | 3 | 9 | |
| Chloroethane | < 25 | 6 | 19 | |
| Chloroform | < 25 | 3 | 10 | |
| Chloromethane | < 25 | 8 | 24 | |
| 2-Chlorotoluene | < 25 | 4 | 13 | |
| 4-Chlorotoluene | < 25 | 4 | 12 | |
| 1,2-Dibromo-3-Chloropropane | < 25 | 9 | 30 | |
| Dibromochloromethane | < 25 | 5 | 15 | |
| 1,2-Dichlorobenzene | < 25 | 5 | 15 | |
| 1,3-Dichlorobenzene | < 25 | 4 | 11 | |
| 1,4-Dichlorobenzene | < 25 | 4 | 11 | |
| Dichlorofluoromethane | < 25 | 3 | 10 | |
| 1,1-Dichloroethane | < 25 | 3 | 10 | |
| 1,2-Dichloroethane | < 25 | 3 | 11 | |
| 1,1-Dichloroethene | < 25 | 5 | 15 | |
| cis-1,2-Dichloroethene | < 25 | 2 | 6 | |
| trans-1,2-Dichloroethene | < 25 | 4 | 13 | |
| 1,2-Dichloropropane | < 25 | 3 | 9 | |
| 1,3-Dichloropropane | < 25 | 8 | 25 | |

| ANALYTE | RESULT | MDL | PQL | CONFIRMED METHOD |
|---------------------------|--------|-------|-------|---------------------|
| | | UG/KG | UG/KG | |
| 2,2-DCP,cis-1,2-DCE | < 25 | 7 | 22 | |
| Di-isopropyl Ether | < 25 | 6 | 18 | |
| Ethylbenzene | < 25 | 4 | 14 | |
| EDB (1,2-Dibromoethane) | < 25 | 8 | 24 | |
| Hexachlorobutadiene | < 25 | 3 | 11 | |
| Isopropylbenzene | < 25 | 5 | 14 | |
| p-Isoprpyltoluene | < 25 | 5 | 15 | |
| Methylene Chloride | < 100 | 5 | 17 | |
| MTBE | < 25 | 5 | 15 | |
| Napthalene | < 25 | 13 | 41 | |
| n-Propylbenzene | < 25 | 7 | 22 | |
| 1,1,2,2-Tetrachloroethane | < 25 | 14 | 43 | |
| Tetrachloroethene | < 25 | 3 | 9 | |
| Toluene | < 25 | 11 | 35 | |
| 1,2,3-Trichlorobenzene | < 25 | 8 | 24 | |
| 1,2,4-Trichlorobenzene | < 25 | 6 | 20 | |
| 1,1,1-Trichloroethane | < 25 | 8 | 26 | |
| 1,1,2-Trichloroethane | < 25 | 8 | 24 | |
| Trichloroethene | < 25 | 2 | 7 | |
| Trichlorofluoromethane | < 25 | 22 | 71 | |
| 124-Trimethylbenzen | < 25 | 5 | 14 | |
| 1,3,5-Trimethylbenzene | < 25 | 4 | 14 | |
| Vinyl Chloride | < 25 | 5 | 16 | |
| m&p-Xylene | < 50 | 9 | 28 | |
| o-Xylene | < 25 | 4 | 11 | |

Fluorobenzene Surrogate 118 % Rec.
1,4-Dichlorobutane Surrogate 118 % Rec.
Total % Solids 100

MDL = Method Detection Limit
PQL = Practical Quantitation Limit
NA = Not Applicable

Authorized Signature

Analytical Laboratory

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

WI DNR Certified Lab #445027660

QC Summary

Method 8021 Volatile Organic Compounds

Project #: DDC310273 Report Date: 16-Nov-95
Sample ID: Methanol Blank Lab Code: 5012019E

| ANALYTE | INITIAL CALIBRATION | KNOWN STANDARD | MATRIX SPIKE | REPLICATE SPIKE | BLANK | FID SURROGATE | HALL SURROGATE |
|-----------------------------|---------------------|----------------|--------------|-----------------|-------|---------------|----------------|
| Benzene | P | P | P | P | P | P | P |
| Bromobenzene | P | P | P | P | P | P | P |
| Bromodichloromethane | P | P | P | P | P | P | P |
| n-Butylbenzene | P | P | P | P | P | P | P |
| sec-Butylbenzene | P | P | P | P | P | P | P |
| tertButylbenzene | P | P | P | P | P | P | P |
| Carbon Tetrachloride | P | P | P | P | P | P | P |
| Chlorobenzene | P | P | P | P | P | P | P |
| Chloroethane | P | P | P | P | P | P | P |
| Chloroform | P | P | P | P | P | P | P |
| Chloromethane | P | F | P | P | P | P | P |
| 2-Chlorotoluene | P | P | P | P | P | P | P |
| 4-Chlorotoluene | P | P | P | P | P | P | P |
| 1,2-Dibromo-3-Chloropropane | P | F | P | P | P | P | P |
| Dibromochloromethane | P | P | P | P | P | P | P |
| 1,2-Dichlorobenzene | P | P | P | P | P | P | P |
| 1,3-Dichlorobenzene | P | P | P | P | P | P | P |
| 1,4-Dichlorobenzene | P | P | P | P | P | P | P |
| Dichlorofluoromethane | P | F | P | P | P | P | P |
| 1,1-Dichloroethane | P | P | P | P | P | P | P |
| 1,2-Dichloroethane | P | P | P | P | P | P | P |
| 1,1-Dichloroethene | P | P | P | P | P | P | P |
| cis-1,2-Dichloroethene | P | P | P | P | P | P | P |
| trans-1,2-Dichloroethene | P | P | P | P | P | P | P |
| 1,2-Dichloropropane | P | P | P | P | P | P | P |
| 1,3-Dichloropropane | P | P | P | P | P | P | P |
| 2,2-DCP, cis-1,2-DCE | P | P | P | P | P | P | P |
| Diisopropyl Ether | P | P | P | P | P | P | P |
| Ethylbenzene | P | P | P | P | P | P | P |
| EDB (1,2-Dibromoethane) | P | F | P | P | P | P | P |
| Hexachlorobutadiene | P | P | P | F | P | P | P |
| isopropylbenzene | P | P | P | P | P | P | P |
| p-isopropyltoluene | P | P | P | P | P | P | P |
| Methylene Chloride | P | P | P | P | P | P | P |
| MTBE | P | P | P | P | P | P | P |
| Napthalene | P | F | P | P | P | P | P |
| n-Propylbenzene | P | P | P | P | P | P | P |
| 1,1,1,2,2-Tetrachloroethane | P | F | P | F | P | P | P |
| Tetrachloroethene | P | F | P | F | F | P | P |
| Toluene | P | P | P | P | P | P | P |
| 1,2,3-Trichlorobenzene | P | F | P | P | P | P | P |
| 1,2,4-Trichlorobenzene | P | F | P | F | F | P | P |
| 1,1,1-Trichloroethane | P | P | P | P | P | P | P |
| 1,1,2-Trichloroethane | P | F | P | P | P | P | P |
| Trichloroethene | P | P | P | P | P | P | P |
| Trichlorofluoromethane | P | F | P | P | P | P | P |
| 124-Trimethylbenzene | P | P | P | P | P | P | P |
| 1,3,5-Trimethylbenzene | P | P | P | P | P | P | P |
| Vinyl Chloride | P | F | P | P | P | P | P |
| m&p-Xylene | P | P | P | P | P | P | P |
| o-Xylene | P | P | P | P | P | P | P |

P = Passed QC limits.

F = Failed QC limits.

NA = Not Applicable

VOC analysis detected unidentified peaks.

Authorized Signature



