

Engineers  
Architects  
Planners  
Scientists

RECEIVED

AUG 20 1990

Foth & Van Dyke

10340 Viking Drive  
Suite 100  
Eden Prairie, MN 55344  
612/942-0396  
FAX: 612/942-0865

August 16, 1990

*JRM 8/20/90*

MPCA, HAZARDOUS  
WASTE DIVISION

~~Mr. John R. Moeger~~  
Tanks and Spills Section  
Hazardous Waste Division  
Minnesota Pollution Control Agency  
520 Lafayette Road  
St. Paul, MN 55155

90W56

Dear Mr. Moeger:

RE: Remedial Investigation Report; Phase I and II  
Site: Waste Management of Minnesota - Savage  
Site ID: LEAK 00000990

This letter is in response to your letter to Mr. Mike Berkopec, Waste Management - Savage, dated July 11, 1990, and our subsequent phone conversation regarding your letter. I indicated to you that Foth & Van Dyke, on behalf of Waste Management, would submit to you the May 1990 quarterly monitoring results from the site. Upon your review of the attached data, we would then meet to discuss the site.

Included in our monitoring was an analysis for volatile organic compounds (VOCs) for each monitoring well. We had, with Waste Management's approval, sampled for VOCs as a precaution even though much analysis was not required by the Minnesota Pollution Control Agency (MPCA). The reasoning for the VOC analysis in May was that the August 1989 and February 1990 sampling events indicated several parameters at or above detection limits in wells that are either down or side gradient to the site of the removed tank. Several VOC parameters were detected for the August 1989 event. We therefore were interested in checking to see which, if any, VOCs were still present.

The results, which are attached to this letter, show no detection at or above detection limits. Based upon the May sampling results, the issues presented in your letter dated July 11, 1990, and our interest in finalizing any future remediation at the site, we propose two immediate steps: First, we will collect the next round of samples, scheduled for September, as soon as possible. Second, we would then like to meet with you and Jim Lundy to discuss possible additional action at the site after we have the next sampling results. This would be about the middle of September. Under this

Mr. John R. Moeger  
Minnesota Pollution Control Agency  
August 16, 1990  
Page 2

scenario, we will have the benefit of two recent sampling events with analysis for VOCs. We believe the additional data will enable us to agree upon a future course of action at the site.

Please contact either Fred Doran or me if you have any additional comments or questions.

Sincerely,

FOTH & VAN DYKE



Craig L. Johanesen  
Associate

CLJ:jmk

cc: Fred J. Doran, P.E., Foth & Van Dyke (wo/encl)  
Mike Berkopec, Waste Management, Savage (w/encl)  
Richard Pager, Waste Management, Milwaukee (w/encl)



ENVIRONMENTAL LABORATORY

Oneida Environmental Technology Center  
2496 West Mason Street  
P.O. Box 12435  
Green Bay, WI 54307-2435  
Telephone No.: (414) 498-2222

LABORATORY ANALYSIS RESULTS

Wisconsin Certification No.  
405099530

Client: Foth & Van Dyke  
Address: 10340 Viking Dr Suite 100  
Eden Praire, MN 55344

Sample ID: WMM-SAVAGE  
Sample Desc: WATER  
Batch #: 9006016  
Job #: 90W56

Attn: K. Dittman  
Telephone No.: 612-942-0396

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GC/MS ORGANIC ANALYSIS SUMMARY

Client ID reported on forms as EPA sample number.  
Volatile organic analysis performed by EPA method 8240 on a DB-624 capillary Column.

FORM INDEX:

- Form 1A - Volatile Organics Data Sheet
- Form 1E - Volatile Tentatively Identified Compounds

"Q" COLUMN QUALIFIERS:

- U - Compound analyzed for but not detected
- D - Compound indentified in the analysis at a secondary dilution
- B - Indicates the analyte is found in the associated method blank
- J - Estimated value, concentration of analyte below quantitation limit
- E - Compound exceeds calibration range

THC quantitated as Benzene, Ethylbenzene, Toluene, Total Xylenes, Methyl-t-butyl ether, Tetramethylbutane, Ethylmethylbenzene and Trimethylbenzene.

---

Comments:

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

7/14/90

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1

Lab Name: ORTEK Contract: 1460  
 Lab Code: ORTEK Case No.: 100904 SAS No.: 90W56 SDG No.: MW1  
 Matrix: (soil/water) WATER Lab Sample ID: 100904  
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 006CV020  
 Level: (low/med) LOW Date Received: 06/01/90  
 % Moisture: not dec.        Date Analyzed: 06/05/90  
 Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	Q
75-71-4	Dichlorodifluoromethane	1 U
1634-04-4	Methyl-t-butyl ether	1 U
74-87-3	Chloromethane	1 U
74-83-9	Bromomethane	1 U
75-01-4	Vinyl Chloride	1 U
75-00-3	Chloroethane	1 U
75-09-2	Methylene Chloride	0.5 U
75-35-4	1,1-Dichloroethene	0.5 U
75-34-3	1,1-Dichloroethane	0.5 U
156-59-2	cis-1,2-Dichloroethene	1 U
156-60-5	Trans-1,2-Dichloroethene	1 U
67-66-3	Chloroform	0.5 U
107-06-2	1,2-Dichloroethane	1 U
71-55-6	1,1,1-Trichloroethane	0.5 U
56-23-5	Carbon Tetrachloride	0.5 U
75-27-4	Bromodichloromethane	0.5 U
78-87-5	1,2-Dichloropropane	1 U
10061-01-5	cis-1,3-Dichloropropene	0.5 U
79-01-6	Trichloroethene	0.5 U
124-48-1	Dibromochloromethane	0.5 U
79-00-5	1,1,2-Trichloroethane	0.5 U
71-43-2	Benzene	1 U
10061-02-6	trans-1,3-Dichloropropene	0.5 U
110-75-8	2-Chloroethylvinylether	1 U
75-25-2	Bromoform	1 U
127-18-4	Tetrachloroethene	1 U
79-34-5	1,1,2,2-Tetrachloroethane	0.5 U
108-88-3	Toluene	1 U
108-90-7	Chlorobenzene	0.5 U
100-41-4	Ethylbenzene	0.5 U
1330-20-7	Xylene (total)	1 U
	Total Hydrocarbons as Gas	10 U
541-73-1	1,3-Dichlorobenzene	1 U
106-46-7	1,4-Dichlorobenzene	1 U
95-50-1	1,2-Dichlorobenzene	1 U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2

Lab Name: ORTEK Contract: 1460  
 Lab Code: ORTEK Case No.: 100904 SAS No.: 90W56 SDG No.: MW1  
 Matrix: (soil/water) WATER Lab Sample ID: 100905  
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 006CV023  
 Level: (low/med) LOW Date Received: 06/01/90  
 % Moisture: not dec. \_\_\_\_\_ Date Analyzed: 06/05/90  
 Column: (pack/cap) CAF Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) <u>UG/L</u>	Q
75-71-4	Dichlorodifluoromethane	1	U
1634-04-4	Methyl-t-butyl ether	1	U
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	0.5	U
75-35-4	1,1-Dichloroethene	1	
75-34-3	1,1-Dichloroethane	0.6	
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	Trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	0.5	U
107-06-2	1,2-Dichloroethane	1	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
75-27-4	Bromodichloromethane	0.5	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
79-01-6	Trichloroethene	2	
124-48-1	Dibromochloromethane	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
110-75-8	2-Chloroethylvinylether	1	U
75-25-2	Bromoform	1	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
108-88-3	Toluene	1	
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	1	U
	Total Hydrocarbons as Gas	10	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3

Lab Name: ORTEK Contract: 1460

Lab Code: ORTEK Case No.: 100904 SAS No.: 90W56 SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: 100906

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 006CV024

Level: (low/med) LOW Date Received: 06/01/90

% Moisture: not dec.        Date Analyzed: 06/05/90

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
75-71-4	Dichlorodifluoromethane	1	U
1634-04-4	Methyl-t-butyl ether	1	U
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	0.5	U
75-35-4	1,1-Dichloroethene	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	Trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	0.5	U
107-06-2	1,2-Dichloroethane	1	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
75-27-4	Bromodichloromethane	0.5	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
79-01-6	Trichloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
110-75-8	2-Chloroethylvinylether	1	U
75-25-2	Bromoform	1	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	1	U
-----	Total Hydrocarbons as Gas	10	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-4

Lab Name: ORTEK Contract: 1460  
 Lab Code: ORTEK Case No.: 100904 SAS No.: 90W56 SDG No.: MW1  
 Matrix: (soil/water) WATER Lab Sample ID: 100907  
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 006CV025  
 Level: (low/med) LOW Date Received: 06/01/90  
 % Moisture: not dec. \_\_\_\_\_ Date Analyzed: 06/05/90  
 Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	Q
75-71-4	Dichlorodifluoromethane	1 IU
1634-04-4	Methyl-t-butyl ether	1 IU
74-87-3	Chloromethane	1 IU
74-83-9	Bromomethane	1 IU
75-01-4	Vinyl Chloride	1 IU
75-00-3	Chloroethane	1 IU
75-09-2	Methylene Chloride	0.5 IU
75-35-4	1,1-Dichloroethene	0.5 IU
75-34-3	1,1-Dichloroethane	0.5 IU
156-59-2	cis-1,2-Dichloroethene	1 IU
156-60-5	Trans-1,2-Dichloroethene	1 IU
67-66-3	Chloroform	0.5 IU
107-06-2	1,2-Dichloroethane	1 IU
71-55-6	1,1,1-Trichloroethane	0.5 IU
56-23-5	Carbon Tetrachloride	0.5 IU
75-27-4	Bromodichloromethane	0.5 IU
78-87-5	1,2-Dichloropropane	1 IU
10061-01-5	cis-1,3-Dichloropropene	0.5 IU
79-01-6	Trichloroethene	0.5 IU
124-48-1	Dibromochloromethane	0.5 IU
79-00-5	1,1,2-Trichloroethane	0.5 IU
71-43-2	Benzene	1 IU
10061-02-6	trans-1,3-Dichloropropene	0.5 IU
110-75-8	2-Chloroethylvinylether	1 IU
75-25-2	Bromoform	1 IU
127-18-4	Tetrachloroethene	1 IU
79-34-5	1,1,2,2-Tetrachloroethane	0.5 IU
108-88-3	Toluene	1 IU
108-90-7	Chlorobenzene	0.5 IU
100-41-4	Ethylbenzene	0.5 IU
1330-20-7	Xylene (total)	1 IU
	Total Hydrocarbons as Gas	10 IU
541-73-1	1,3-Dichlorobenzene	1 IU
106-46-7	1,4-Dichlorobenzene	1 IU
95-50-1	1,2-Dichlorobenzene	1 IU

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP\_BLANK

Lab Name: ORTEK Contract: 1460  
 Lab Code: ORTEK Case No.: 100904 SAS No.: 90W56 SDG No.: MW1  
 Matrix: (soil/water) WATER Lab Sample ID: 100908  
 Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 006CV026  
 Level: (low/med) LOW Date Received: 06/01/90  
 % Moisture: not dec. \_\_\_\_\_ Date Analyzed: 06/05/90  
 Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
75-71-4	Dichlorodifluoromethane	1	1U	
1634-04-4	Methyl-t-butyl ether	1	1U	
74-87-3	Chloromethane	1	1U	
74-83-9	Bromomethane	1	1U	
75-01-4	Vinyl Chloride	1	1U	
75-00-3	Chloroethane	1	1U	
75-09-2	Methylene Chloride	0.5	1U	
75-35-4	1,1-Dichloroethene	0.5	1U	
75-34-3	1,1-Dichloroethane	0.5	1U	
156-59-2	cis-1,2-Dichloroethene	1	1U	
156-60-5	Trans-1,2-Dichloroethene	1	1U	
67-66-3	Chloroform	0.5	1U	
107-06-2	1,2-Dichloroethane	1	1U	
71-55-6	1,1,1-Trichloroethane	0.5	1U	
56-23-5	Carbon Tetrachloride	0.5	1U	
75-27-4	Bromodichloromethane	0.5	1U	
78-87-5	1,2-Dichloropropane	1	1U	
10061-01-5	cis-1,3-Dichloropropene	0.5	1U	
79-01-6	Trichloroethene	0.5	1U	
124-48-1	Dibromochloromethane	0.5	1U	
79-00-5	1,1,2-Trichloroethane	0.5	1U	
71-43-2	Benzene	1	1U	
10061-02-6	trans-1,3-Dichloropropene	0.5	1U	
110-75-8	2-Chloroethylvinylether	1	1U	
75-25-2	Bromoform	1	1U	
127-18-4	Tetrachloroethene	1	1U	
79-34-5	1,1,2,2-Tetrachloroethane	0.5	1U	
108-88-3	Toluene	1	1U	
108-90-7	Chlorobenzene	0.5	1U	
100-41-4	Ethylbenzene	0.5	1U	
1330-20-7	Xylene (total)	1	1U	
	Total Hydrocarbons as Gas	10	1U	
541-73-1	1,3-Dichlorobenzene	1	1U	
106-46-7	1,4-Dichlorobenzene	1	1U	
95-50-1	1,2-Dichlorobenzene	1	1U	





ENVIRONMENTAL LABORATORY

Oneida Environmental Technology Center
2496 West Mason Street
P.O. Box 12435
Green Bay, WI 54307-2435
Telephone No.: (414) 498-2222

LABORATORY ANALYSIS RESULTS

Wisconsin Certification No.
405099530

Client: Foth & Van Dyke Engineers
Address: 10340 Viking Dr. Suite 100
Eden Prairie, MN 55344

Sample ID: MW-2
Sample Desc: GROUNDWATER
Date Collected: 5-30-90
Date Received: 6-1-90
Result Sheet #: 1460
Job #: WMM-SAVAGE 90W56

Attn: Kathy Dittman
Telephone No.: 612-942-0396

CALIFORNIA METHOD TPH ANALYSIS

Table with 4 columns: PARAMETER, DETECTION LIMIT, CONCENTRATION, UNITS. Rows include Gasoline, Kerosene, and Diesel.

ND = Not Detected

Comments Lab Sample ID: 9006016-100905
Date Analyzed: 6-21-90
Analyzed by GC/FID on a DB-5 Capillary Column

Signed: [Signature]

Date: 7-13-90



Oneida Environmental Technology Center  
 2496 West Mason Street  
 P.O. Box 12435  
 Green Bay, WI 54307-2435  
 Telephone No.: (414) 498-2222

Client: Foth & Van Dyke Engineers  
 Address: 10340 Viking Dr. Suite 100  
 Eden Prairie, MN 55344

Attn: Kathy Dittman  
 Telephone No.: 612-942-0396

LABORATORY ANALYSIS RESULTS  
 Wisconsin Certification No.  
 405099530

Sample ID: MW-3  
 Sample Desc: GROUNDWATER  
 Date Collected: 5-30-90  
 Date Received: 6-1-90  
 Result Sheet #: 1460  
 Job #: WMM-SAVAGE 90W56

CALIFORNIA METHOD TPH ANALYSIS

PARAMETER	DETECTION LIMIT	CONCENTRATION	UNITS
Gasoline	0.5	ND	mg/l
Kerosene	0.1	ND	mg/l
Diesel	0.1	ND	mg/l

ND = Not Detected

Comments Lab Sample ID: 9006016-100906  
 Date Analyzed: 6-21-90  
 Analyzed by GC/FID on a DB-5 Capillary Column

Signed: D. Schuch

Date: 7-13-90



ENVIRONMENTAL LABORATORY

Oneida Environmental Technology Center
2496 West Mason Street
P.O. Box 12435
Green Bay, WI 54307-2435
Telephone No.: (414) 498-2222

LABORATORY ANALYSIS RESULTS

Wisconsin Certification No.
405099530

Sample ID: MW-4
Sample Desc: GROUNDWATER
Date Collected: 5-30-90
Date Received: 6-1-90
Result Sheet #: 1460
Job #: WMM-SAVAGE 90W56

Client: Foth & Van Dyke Engineers
Address: 10340 Viking Dr. Suite 100
Eden Prairie, MN 55344

Attn: Kathy Dittman
Telephone No.: 612-942-0396

CALIFORNIA METHOD TPH ANALYSIS

Table with 4 columns: PARAMETER, DETECTION LIMIT, CONCENTRATION, UNITS. Rows include Gasoline, Kerosene, and Diesel.

ND = Not Detected

Comments Lab Sample ID: 9006016-100907
Date Analyzed: 6-21-90
Analyzed by GC/FID on a DB-5 Capillary Column

Signed: [Signature]

Date: 7-13-90



ENVIRONMENTAL LABORATORY

Oneida Environmental Technology Center
2496 West Mason Street
P.O. Box 12435
Green Bay, WI 54307-2435
Telephone No.: (414) 498-2222

LABORATORY ANALYSIS RESULTS

Wisconsin Certification No.
405099530

Client: Foth & Van Dyke Engineers
Address: 10340 Viking Dr. Suite 100
Eden Prairie, MN 55344

Sample ID: TRIP BLANK
Sample Desc: GROUNDWATER
Date Collected: 5-30-90
Date Received: 6-1-90
Result Sheet #: 1460
Job #: WMM-SAVAGE 90W56

Attn: Kathy Dittman
Telephone No.: 612-942-0396

CALIFORNIA METHOD TPH ANALYSIS

Table with 4 columns: PARAMETER, DETECTION LIMIT, CONCENTRATION, UNITS. Rows include Gasoline, Kerosene, and Diesel.

ND = Not Detected

Comments Lab Sample ID: 9006016-100908
Date Analyzed: 6-21-90
Analyzed by GC/FID on a DB-5 Capillary Column

Signed: [Signature]

Date: 7-13-90

ORTEK  
Oneida Environmental Technology Center  
2496 West Mason Street  
P. O. Box 12435  
Green Bay, WI 54307-2435  
Telephone: (414) 498-2222

LABORATORY ANALYSIS RESULTS

W.D.N.R. LAB CERT. NO. 405099530

---

Client	FOTH & VAN DYKE	Sampled By	MWB
Address	10340 VIKING DRIVE	P.O. #	
	SUITE 100	Job #	
	EDEN PRAIRIE MN 55344	Report to: K DITTMAN	
Name of Rep.		Invoice #	6114
Telephone No.	(000) 000-0000	Result Sheet No.	1460.01

---

Sample I.D.	MW-1	MW-2
	WMM-SAVAGE	WMM-SAVAGE
ORTEK Sample I.D.	9006016-100904	9006016-100905
Date Collected	5/30/90	5/30/90
Date Received	6/1/90	6/1/90

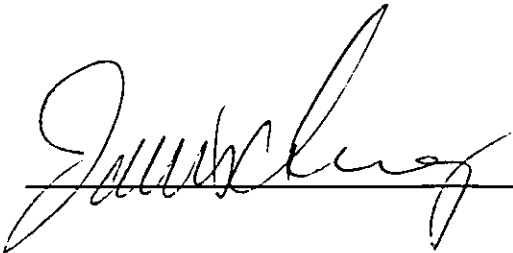
---

Parameters	Results	Results	Detection Limit	Units
Total Lead	ND	ND	2.0	UG/L

---

ND = Not Detected

Comments:

Signed: 

Date: 2/14/90

ORTEK  
Oneida Environmental Technology Center  
2496 West Mason Street  
P. O. Box 12435  
Green Bay, WI 54307-2435  
Telephone: (414) 498-2222

LABORATORY ANALYSIS RESULTS

W.D.N.R. LAB CERT. NO. 405099530

-----  
Client FOTH & VAN DYKE Sampled By MWB  
Address 10340 VIKING DRIVE P.O. #  
SUITE 100 Job #  
EDEN PRAIRIE MN 55344 Report to: K DITTMAN  
Name of Rep. Invoice # 6114  
Telephone No. (000) 000-0000 Result Sheet No. 1460.02  
-----

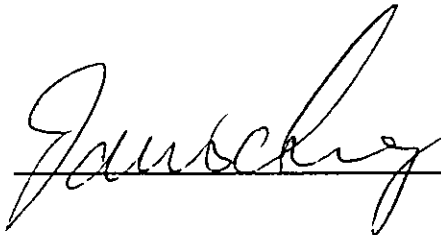
-----  
Sample I.D. MW-3 MW-4  
WMM-SAVAGE WMM-SAVAGE  
ORTEK Sample I.D. 9006016-100906 9006016-100907  
Date Collected 5/30/90 5/30/90  
Date Received 6/1/90 6/1/90  
-----

Parameters	Results	Results	Detection Limit	Units
Total Lead	ND	ND	2.0	UG/L

ND = Not Detected

Comments:

Signed: \_\_\_\_\_



Date: \_\_\_\_\_

7/14/90

# CHAIN OF CUSTODY RECORD

No.: **1460**

*KATHY  
DITTMAN*

*DYKE*  
*AVAGE, 90W SG, BL-1*

Packed by: \_\_\_\_\_ Seal #: \_\_\_\_\_  
 Seal Intact Upon Receipt by Sampling Co:  Yes  No  
 Condition of Contents: \_\_\_\_\_  
 Sealed for Shipping by: \_\_\_\_\_  
 Initial Contents Temp: \_\_\_\_\_ °C Seal #: \_\_\_\_\_  
 Seal Intact Upon Receipt by Laboratory:  Yes  No

Date	Time	Sample I.D./Description	Bottle Size / Preservative			Bottle Total	Sample Type	Lab Use Only	Remarks
			ADMI/NINE	DOMI/NINE	1/2 AMBER/NINE				
<i>5/14/03</i>	<i>1153</i>	<i>MLW-1</i>	<i>3</i>	<i>1</i>	<i>1</i>	<i>5</i>	<i>GRAB</i>		
	<i>1154</i>	<i>MLW-2</i>	<i>3</i>	<i>1</i>	<i>1</i>	<i>5</i>	<i>9</i>		
	<i>1143</i>	<i>MLW-3</i>	<i>3</i>	<i>1</i>	<i>1</i>	<i>5</i>	<i>↓</i>		
	<i>1231</i>	<i>MLW-4</i>	<i>3</i>	<i>1</i>	<i>1</i>	<i>5</i>	<i>↓</i>		
		<i>TRIP-BLANK</i>	<i>2</i>			<i>2</i>			

### Custody Transfers

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
1. <i>[Signature]</i>	<i>5/14/03</i>	<i>15:18</i>	_____	_____	_____
2. _____	_____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____	_____

Received for Laboratory: \_\_\_\_\_

*[Signature]* *5/14/03*

### Shipping Details

Method of Shipment: \_\_\_\_\_  
 Condition of Contents: \_\_\_\_\_  
 Contents Temperature: \_\_\_\_\_ °C  
 ORTEK Project No.: \_\_\_\_\_

**ORTEK**

2496 W. Mason  
 Green Bay, Wisconsin 54303  
 Phone: 414/498-2222 Fax: 414/498-4067

Engineers  
Architects  
Planners  
Scientists

RECEIVED

OCT 17 1990

MPCA, HAZARDOUS  
WASTE DIVISION

Foth & Van Dyke

10340 Viking Drive  
Suite 100  
Eden Prairie, MN 55344  
612/942-0396  
FAX: 612/942-0865

October 9, 1990

*JRM*  
*10/19/90*  
Mr. John R. Moeger  
Project Leader  
Tanks and Spills Section  
Hazardous Waste Division  
Minnesota Pollution Control Agency  
520 Lafayette Road  
St. Paul, MN 55155

90W56

RE: Waste Management of Minnesota, INC. - Savage  
Underground Storage Tank Site Assessment  
LEAK #00000990

On behalf of Waste Management of Minnesota, Inc., Foth & Van Dyke is pleased to submit one copy of the August 1990 laboratory analysis report for groundwater at the Savage site.

I will contact you in the near future to arrange a conference call between you, Waste Management and Foth & Van Dyke for the purpose of discussing the groundwater results and any future course of action at the site.

Sincerely,

FOTH & VAN DYKE

  
Craig L. Johanesen  
Associate

CLJ:jmk

Enclosure

cc: Fred J. Doran, P.E., Foth & Van Dyke  
Rick Pager, Waste Management of North America



**REPORT OF LABORATORY ANALYSIS**

Foth & Van Dyke  
 10340 Viking Drive  
 suite 100  
 Eden Prairie, MN 55344

September 10, 1990  
 PACE Project  
 Number: 900828506

MPCA LEAK # 00000990

Attn: Mr. Mike Bluma

WM-Savage

PACE Sample Number:		10 0340669	10 0340677	10 0340685
Date Collected:		08/27/90	08/27/90	08/27/90
Date Received:		08/28/90	08/28/90	08/28/90
<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>MW-1</u>	<u>MW-2</u>
			<u>MW-3</u>	

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Lead, Dissolved	mg/L	0.005	ND	0.018	0.009
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ORGANIC ANALYSIS

VOLATILE PETROLEUM RELATED COMPOUNDS

Date Analyzed			08/31/90	08/31/90	08/31/90
Benzene	mg/L	0.001	ND	0.073	ND
Toluene	mg/L	0.001	ND	0.013	ND
Ethylbenzene	mg/L	0.001	ND	0.028	ND
Xylenes	mg/L	0.003	ND	0.13	ND
Total hydrocarbons as gasoline	mg/L	0.01	ND	1.0	ND

HEXANE EXTRACTION FOR PETROLEUM PRODUCTS

Date Analyzed			08/30/90	08/30/90	08/30/90
Date Extracted			08/29/90	08/29/90	08/29/90
Gasoline	mg/L	0.10	ND	0.30	ND
Fuel Oil #1	mg/L	0.10	ND	ND	ND
Fuel Oil #2	mg/L	0.10	ND	ND	ND

MDL Method Detection Limit  
 ND Not detected at or above the MDL.

**REPORT OF LABORATORY ANALYSIS**

Mr. Mike Bluma  
 Page 2

September 10, 1990  
 PACE Project  
 Number: 900828506  
 MPCA LEAK #00000990

WM-Savage

PACE Sample Number: 10 0340693  
 Date Collected: 08/27/90  
 Date Received: 08/28/90  
 Parameter Units MDL MW-4

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Lead, Dissolved mg/L 0.005 0.007

ORGANIC ANALYSIS

VOLATILE PETROLEUM RELATED COMPOUNDS

Date Analyzed 08/31/90  
 Benzene mg/L 0.001 ND  
 Toluene mg/L 0.001 ND  
 Ethylbenzene mg/L 0.001 ND  
 Xylenes mg/L 0.003 ND  
 Total hydrocarbons as gasoline mg/L 0.01 ND

HEXANE EXTRACTION FOR PETROLEUM PRODUCTS

Date Analyzed 08/30/90  
 Date Extracted 08/29/90  
 Gasoline mg/L 0.10 ND  
 Fuel Oil #1 mg/L 0.10 ND  
 Fuel Oil #2 mg/L 0.10 ND

MDL Method Detection Limit  
 ND Not detected at or above the MDL.

Mr. Mike Bluma  
Page 3

September 10, 1990  
PACE Project

Number: 900828506


WM-Savage

MPCA LEAK # 00000990

The data contained in this report were obtained using EPA or other approved methodologies. All analyses were performed by me or under my supervision.



Starla Enger  
Inorganic Chemistry Manager

  
FOR

Liesa A. Shanahan  
Organic Chemistry Manager