



LIESCH ASSOCIATES, INC. 13400 15TH AVENUE NORTH MINNEAPOLIS, MN 55441 763/489-3100 FAX: 763/489-3101

October 28, 2003

Mr. Bill Spence  
Waste Management, Inc.  
12448 Pennsylvania Avenue South  
Savage, Minnesota 55378

RE: Oil/Water Separator Tank Removal Sampling Results, Waste Management, Inc., 12448  
Pennsylvania Avenue South, Savage, Minnesota (the Property).

Dear Bill:

Liesch Associates, Inc. (Liesch) provided project management and oversight for the removal of one steel oil/water separator (OWS) tank and associated steel floor drain catch basin (catch basin) at the above-referenced Property. The Property is currently operating as a vehicle and container maintenance facility. The location of the Property is shown on **Figure 1** in **Appendix A**.

According to Waste Management, Inc. (WMI) personnel, small holes were observed in the OWS tank and catch basin during routine cleaning and inspection of the floor drain system on August 26, 2003. Based on the observed holes, WMI contracted McGuire Mechanical Services, Inc. (McGuire) of Lakeville, Minnesota to remove and replace the OWS tank and catch basin. The locations of the OWS tank and catch basin are shown on **Figure 2** in **Appendix A**.

#### OWS Tank and Catch Basin Removal Activities

On August 29, 2003, Margaret Nelson of Liesch was present at the Property to observe the removal of the OWS tank and catch basin and to conduct closure sampling activities. An 8' x 8' area of concrete surrounding the OWS tank and a 4' x 6' area of concrete surrounding the catch basin was cut out and removed by McGuire. Upon removal of the concrete slab surrounding the OWS tank and catch basin, grab samples of soil were obtained from areas with the highest potential impact (near the observed holes) while the catch basin and OWS tank remained in place. Liesch collected one soil sample from beneath the concrete surface adjacent to the catch basin (CB-1) and one soil sample from beneath the concrete surface adjacent to the OWS tank (OWS-1). In addition, Liesch advanced a hand auger boring to a depth of 3.5 feet below ground surface (bgs) to collect a soil sample (OWS-2) adjacent to a deeper hole observed in the OWS tank.

The soil samples were screened for organic vapors in accordance with Minnesota Pollution Control Agency (MPCA) guidelines using a Mini-Rae photoionization detector (PID) equipped with a 10.6 eV lamp and calibrated to an isobutylene standard. Organic vapors were detected at a concentration of

54.5 parts per million (ppm) in CB-1. No organic vapors were detected in OWS-1 or OWS-2. The soil sample collected from the catch basin consisted of black stained sand with a petroleum odor. Soil samples collected from the OWS tank basin consisted of brown fine sand. Field screening results are summarized on **Table 1 in Appendix B**.

On September 3, 2003 a permit was obtained from the City of Savage and the catch basin and OWS tank were removed from the ground by McGuire. The catch basin was approximately 2' long x 2' deep x 3.5' wide and set in a 3' long x 4' wide x 1.5' deep concrete basin. The OWS tank was approximately 3.5' in diameter x 5 feet long with a manhole opening that was 18" x 18". Liesch collected one soil sample from below the catch basin at 3 feet bgs (CB-2) and one soil sample from below the OWS tank at 7 feet bgs (OWS-3) for organic vapor analysis with a PID. Organic vapors were detected at a concentration of 93.7 ppm in CB-2. No organic vapors were detected in OWS-3. The soil sample collected from the catch basin consisted of black stained sand with a petroleum odor. The soil sample collected from the OWS tank basin consisted of clayey black sand. Field screening results are summarized on **Table 1 in Appendix B**. Locations of the soil samples are shown on **Figure 3 in Appendix A**.

CB-1, CB-2, OWS-2, and OWS-3 were collected and placed directly into laboratory-provided containers by Ms. Nelson wearing clean latex gloves and were submitted to Legend Technical Services, Inc. (Legend) for analysis for diesel range organics (DRO), volatile organic compounds (VOCs), and Resource Conservation and Recovery Act (RCRA) metals. The samples were kept on ice in a cooler or refrigerated prior to and during delivery to the laboratory. The laboratory results are discussed below.

#### Soil Removal Activities

On September 4, 2003 Jon Blaha of Liesch was present to observe the installation of a new catch basin and oil water separator tank. In order to install the new units, McGuire excavated approximately 5 cubic yards (cy) of soil from the area of the former catch basin and approximately 10 cy of soil from the former OWS tank basin.

Liesch collected three grab samples (R-3 at 3 feet bgs, R-4 at 5 feet bgs, and B-4 at 7 feet bgs) from the catch basin excavation and screened them for organic vapors using a PID. Organic vapors were detected at 920 ppm in R-3, 950 ppm in R-4 and at 370 ppm in B-4. Soils consisted of grey silty clay to 5 feet bgs underlain by grey silty sand to 7 feet bgs. A petroleum odor was noted in each soil sample. Groundwater appeared to be present at approximately 7 feet bgs.

Four sidewall samples (SW-1, SW-2, SW-3, and SW-4, all collected at 3 feet bgs), three bottom samples (B-1 at 5 feet bgs, and B-2 and B-3 at 7 feet bgs), and two removed soil samples (R-1 and R-2) were collected from the OWS tank basin and screened for organic vapors using a PID. Organic vapors were detected at 16.8 ppm in R-2, 175 ppm in B-2 and at 120 ppm in B-3. No organic vapors were detected in SW-1, SW-2, SW-3, SW-4, B-1 or R-1. Soils consisted of brown fine sand to 5 feet bgs underlain by gray silty clay to 7 feet bgs underlain by black/grey clayey sand. Groundwater appeared to be present at approximately 7 feet bgs. Additionally, a petroleum odor was noted in the soils at 7 feet bgs. Field screening results are summarized on **Table 1 in Appendix B**. Locations of the soil samples are shown on **Figure 3 in Appendix A**.

All removed soils were placed into 10 cy steel roll off boxes and covered until off-site disposal options were assessed. Clean sand was placed around the new oil water separator tank and catch basin after installation was complete.

#### Laboratory Analytical Results

DRO was detected at concentrations of 7,000 ppm and 5,800 ppm in CB-1 and CB-2, respectively. Low concentrations of the following VOCs were detected in CB-1: 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, n-propylbenzene, naphthalene, xylenes, p-isopropyltoluene, and sec butylbenzene. Low concentrations of 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, ethyl benzene, isopropyl benzene, n-butylbenzene, n-propylbenzene, naphthalene, p-isopropyltoluene, and sec butylbenzene were detected in CB-2. The following RCRA Metals were detected in CB-1: arsenic, barium, cadmium, chromium, and lead. Arsenic, barium, cadmium, chromium, lead, and mercury were detected in CB-2. The concentrations of 1,2,4-trimethylbenzene detected in CB-1 and CB-2 exceed the MPCA Tier II Industrial Soil Reference Value (SRV). The concentration of barium detected in CB-1 exceeds the MPCA Tier I Soil Leaching Value (SLV).

Although the concentration of lead detected in CB-2 (330 ppm) did not exceed the MPCA Tier I SLV or Tier II SRV, a toxicity characteristic leaching procedure (TCLP) was performed on sample CB-2 to determine if hazardous levels of lead were present in the soil. The results of the TCLP for CB-2 for lead were 0.17 ppm, well below the 5.0 ppm regulatory threshold.

DRO was detected at concentrations of 76 ppm and 510 ppm in OWS-2 and OWS-3, respectively. Low concentrations of arsenic, barium, chromium and lead were detected in OWS-2 and OWS-3. No VOCs were detected in OWS-3. Tetrachloroethene was detected in OWS-2 at 0.26 ppm, only slightly above the reporting limit of 0.25 ppm. The concentration of tetrachloroethene detected in OWS-2 exceeds the MPCA Tier I SLV. No other VOCs were detected in OWS-2.

The laboratory results are summarized in **Table 2** in **Appendix B**. The Legend laboratory report is included as **Appendix C**.

#### Contaminated Soil Disposal

The excavated soil has been stored on-site in covered roll-off containers. The soil is scheduled to be disposed of at Spruce Ridge Resource Management Facility in Glencoe, Minnesota. Copies of the Non-hazardous Waste Manifests to be used, including the landfill approval code, are included in **Appendix D**.

#### Conclusions and Recommendations

Based on the identified contamination at the Property, a petroleum release was reported to the Minnesota Duty officer on September 30, 2003. Based on the work conducted at the Property, it appears that releases may have occurred from both the OWS tank and catch basin. The sources of the potential releases have been removed. In addition, approximately 5 cy of contaminated soil was removed from the area of the former catch basin and approximately 10 cy of contaminated soil was removed from the former OWS tank area. Liesch believes that the majority of the contamination associated with the leaking catch basin and OWS tank was removed in the 15 cy of soil that was excavated on September 4, 2003.

Mr. Bill Spence  
October 28, 2003

In addition to the releases discussed in this letter, the Property has also had a previous petroleum release. The Property is currently a closed MPCA Leaking Underground Storage Tank (LUST) facility, Leak ID number 990. According to information obtained from the MPCA LUST database via the internet, a diesel fuel release was reported on August 5, 1988. 140 tons of contaminated soil was reportedly excavated and thermally treated. According to the database, contaminated soil and groundwater remain on the Property from the release. The MPCA closed the leak site on October 5, 1994.

Laboratory and field screening results indicate that contaminated soil remains in place below the former catch basin and OWS tank. However, based on observations made during the soil excavation activities, the contamination remaining is likely attributed to the former LUST on the Property.

Liesch recommends entering the MPCA Voluntary Petroleum Investigation and Cleanup (VPIC) Program to obtain a non petroleum tank release closure letter for the release associated with the former catch basin and OWS tank. Application to the VPIC Program can be accomplished by submitting a completed VPIC application and this letter report to Mark Koplitz at the MPCA.

If you have any questions regarding this letter, please feel free to contact Bruce Rehwaldt at (763) 489-3162 or me at (763) 489-3178.

Sincerely,

**LIESCH ASSOCIATES, INC.**

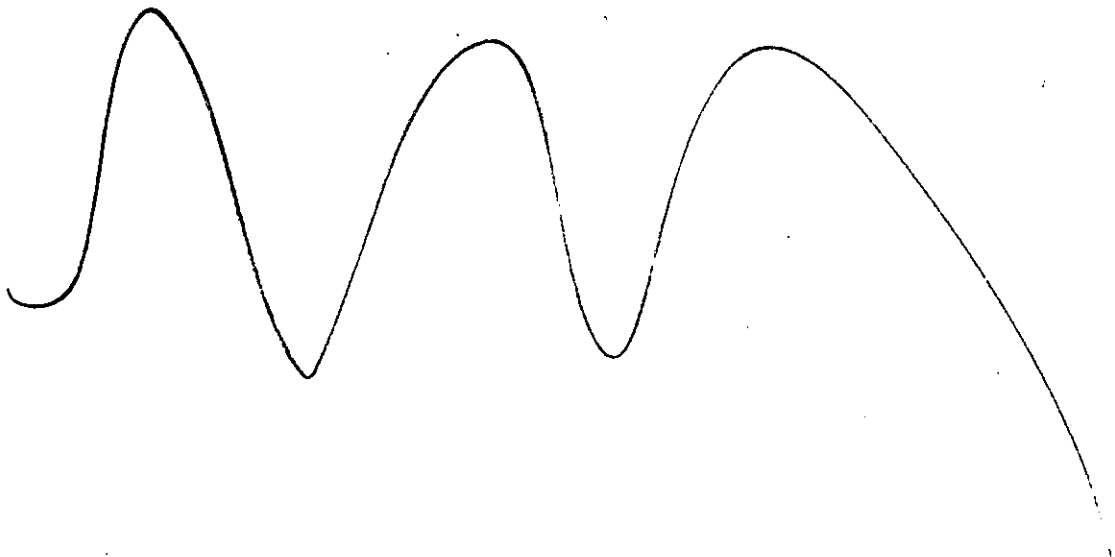
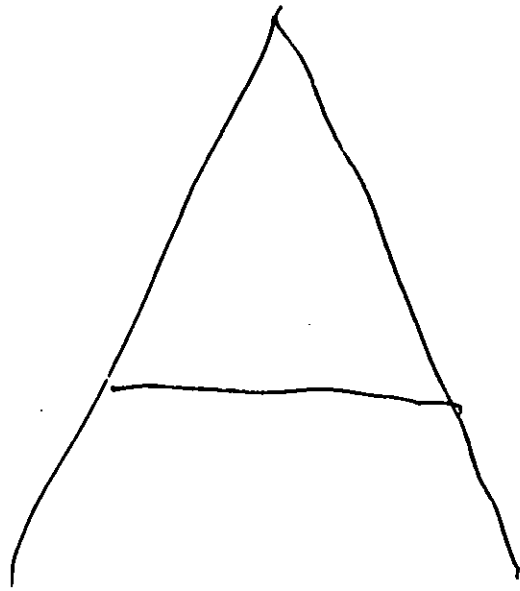
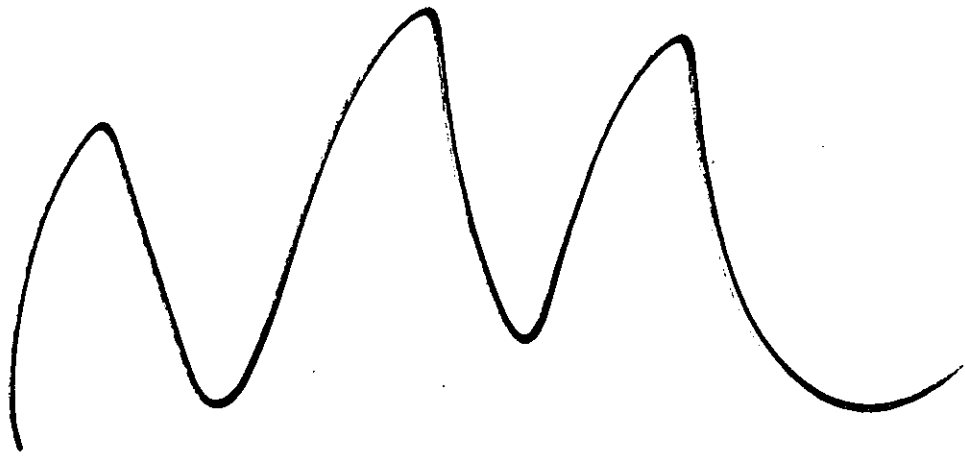


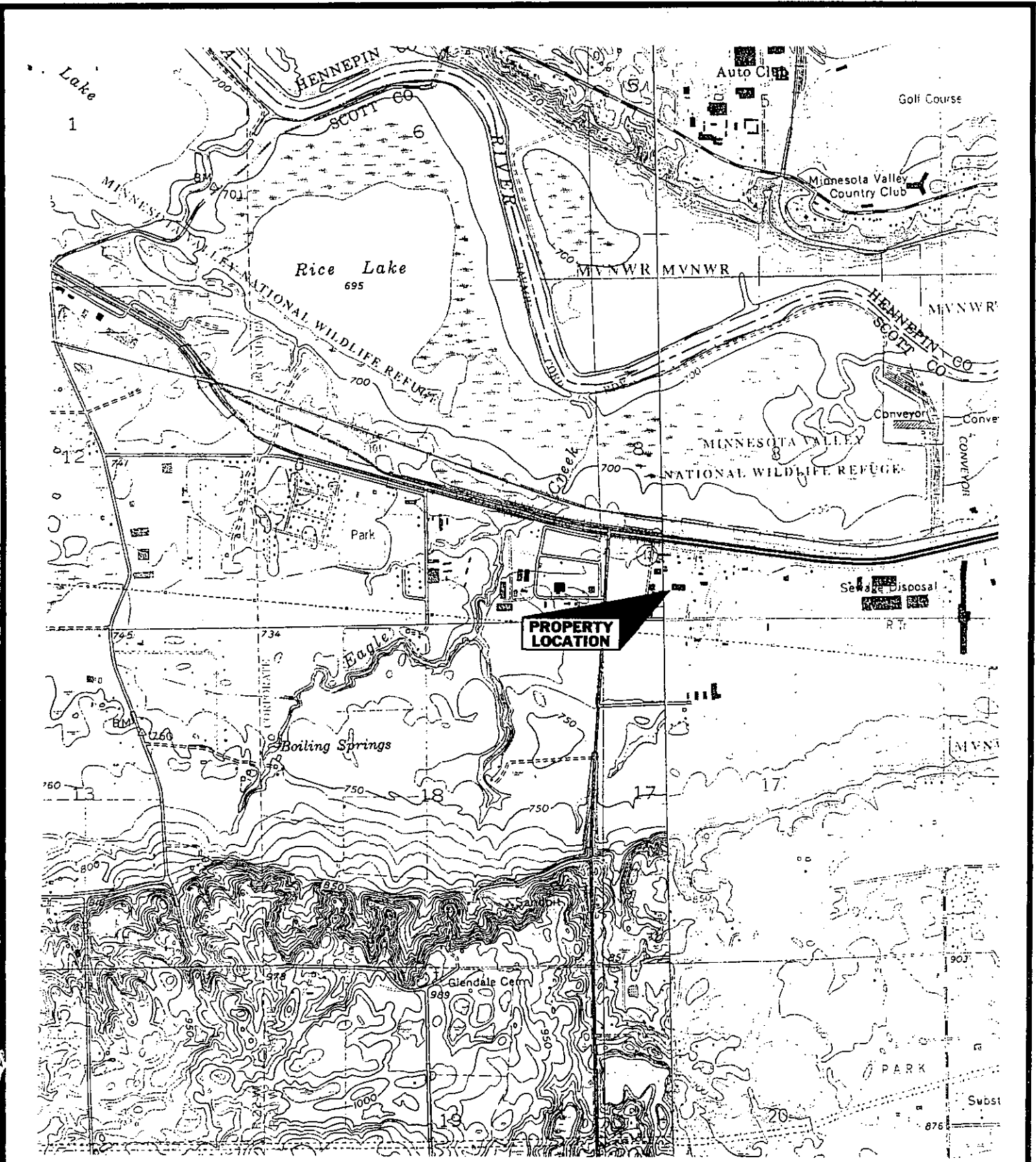
Jon Blaha  
Environmental Geologist

Attachments: Appendix A Figure 1 – Property Location  
Figure 2 – Facility Layout  
Figure 3 – Soil Sample Locations  
Appendix B Table 1 – Liesch Soil Screening Results  
Table 2 – Soil Analytical Results  
Appendix C Legend Laboratory Report  
Appendix D Non-hazardous Waste Manifests

Cc: Elise Steger, WMI

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**PROPERTY LOCATION**



Source: USGS, Bloomington and Eden Prairie Quadrangles, 7.5 Minute Series, 1967 revised 1993.

Scale: 1" = 2,000

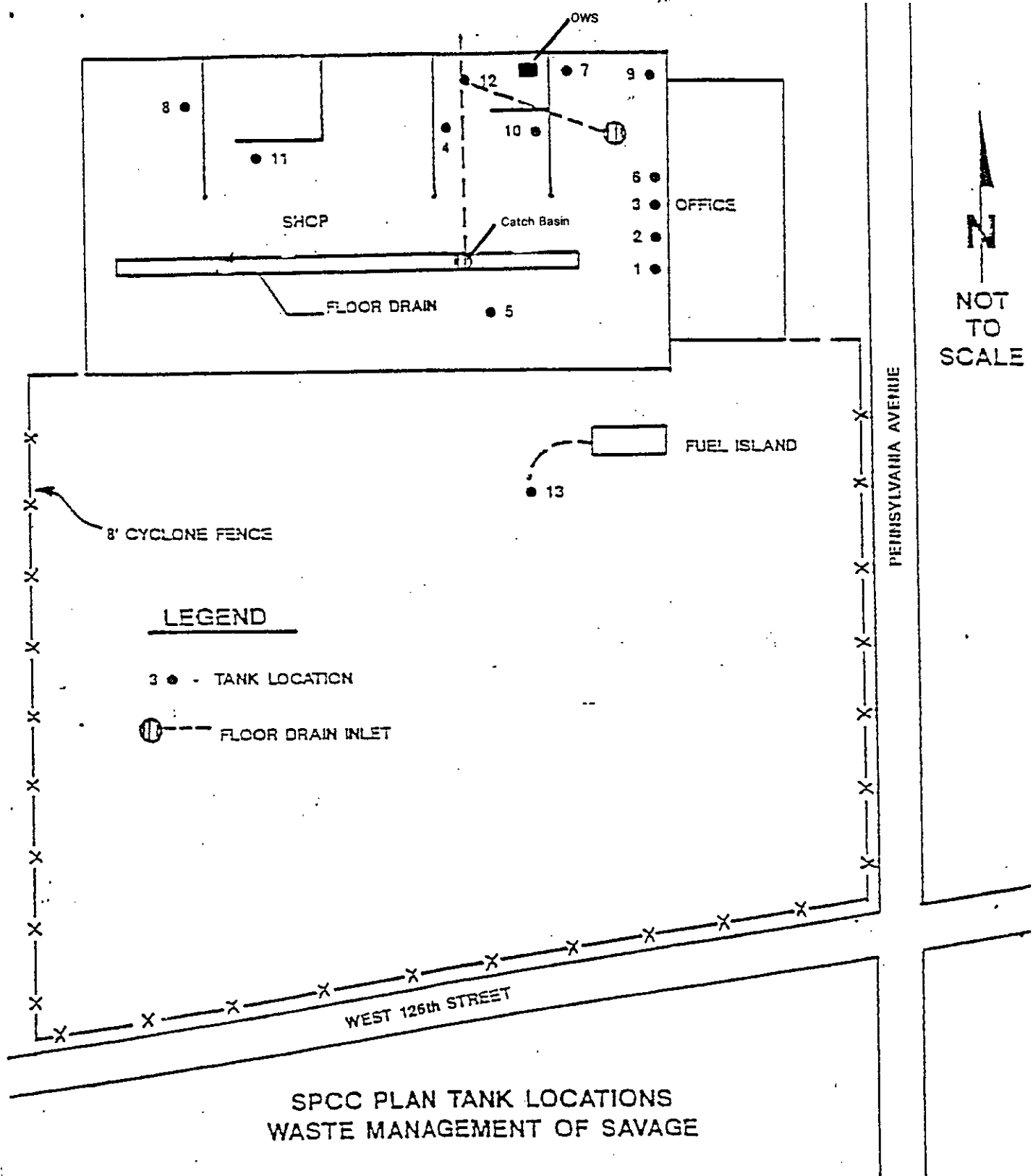
**LIESCH** Hydrogeologists • Engineers • Environmental Scientists  
 6000 Gisholt Dr, Suite 203 Madison, WI 53713 (608) 223-1532  
 13400 15<sup>th</sup> Avenue N Minneapolis, MN 55441 (763) 489-3100  
 4300 N Miller Rd, Suite 200 Scottsdale, AZ 85251 (480) 421-0853

Waste Management – Savage, MN

Oct 03

Property Location Map

Figure 1



**LEGEND**

- - TANK LOCATION
- ⊕ - FLOOR DRAIN INLET

**SPCC PLAN TANK LOCATIONS  
WASTE MANAGEMENT OF SAVAGE**

Source: WMI

Scale: Not to scale

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13400 15<sup>th</sup> Avenue N Minneapolis, MN 55441 (763) 489-3100

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Waste Management - Savage, MN

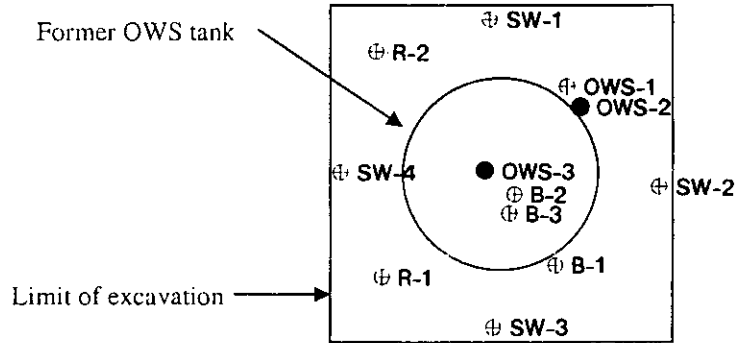
Facility Layout

Oct 03

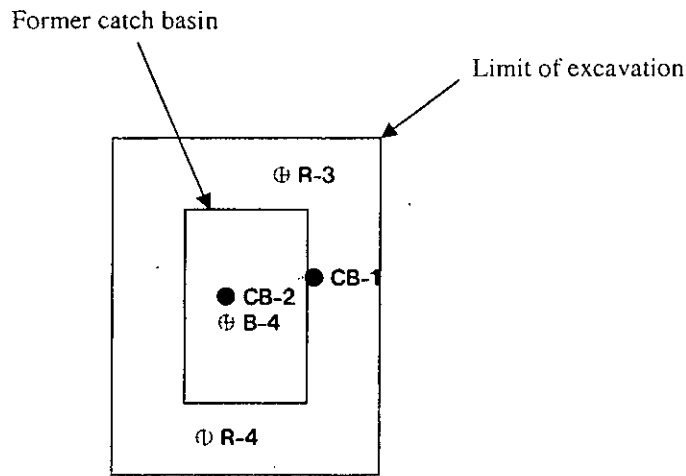
Figure 2

W:\sa\6200317\Fig2.doc

10/23/2003



### Shop Building



● = Laboratory sample/soil headspace sample location

⊕ = Soil headspace sample location

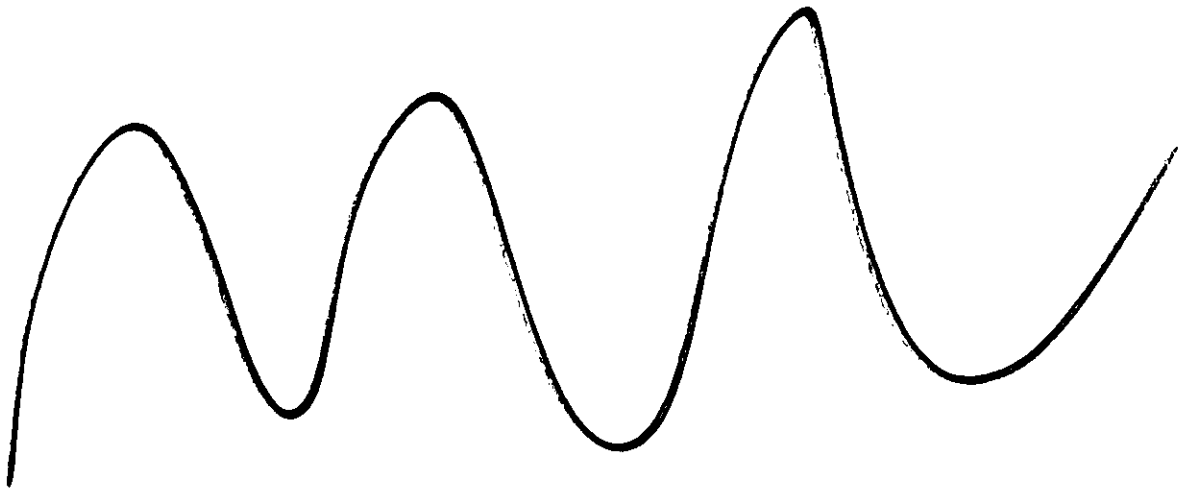


Source: Liesch

Scale: Not to scale



B



**Table 1**  
**Summary of Field Screening Results**  
**Waste Management, Inc.**  
**Savage, Minnesota**  
**October 2003**

Date	Sample	PID (ppm)	Depth (feet)	Description
Prior to OWS and catch basin removal				
08/29/03	<b>Catch Basin</b>			
	CB-1	54.5	0	Black stained sand, petroleum odor.
	<b>OWS</b>			
	OWS-1	0	0	Brown fine sand, no odor
	OWS-2	0	3.5	Brown, fine grained sand with slight odor, moist.
After OWS and catch basin removal				
9/3/2003	<b>Catch Basin</b>			
	CB-2	93.7	3	Black sand, wet, petroleum odor
	<b>OWS</b>			
	OWS-3 Bottom	0	7	Brown sand, wet (at 6-7 feet a layer of black/grey clay present)
09/04/03	<b>Catch Basin</b>			
	R-3	920	3	Grey silty clay, petroleum odor
	R-4	950	5	Grey silty clay, petroleum odor
	B-4	370	7	Grey silty sand, wet, petroleum odor
	<b>OWS</b>			
	SW-1(N)	0	3	Brown fine to medium sand
	SW-2(E)	0	3	Brown fine to medium sand
	SW-3(S)	0	3	Brown fine to medium sand
	SW-4(W)	0	3	Brown fine to medium sand
	B-1	0	5	Grey silty clay
	R-1	0	NA	Brown fine to medium sand
	R-2	16.8	NA	Brown fine to medium sand
	B-2	175	7	Black/grey clayey sand, wet, petroleum odor
B-3	120	7	Black/grey clayey sand, wet, petroleum odor	

**Table 2**  
**Summary of Analytical Results**  
**Waste Management, Inc.**  
**Savage, Minnesota**  
**October 2003**

Soil Sample	CB-1 Surface	CB-2 Bottom	OWS-2 3.5'	OWS-3	Tier I SLV	Tier II SRV
Depth	0	3'	3.5'	7.5'		
DRO (ppm)	7000	5800	76	510	--	--
<b>Metals (ppm)</b>						
Arsenic	3	2.8	1.5	1.4	15.1	25
Barium	1700	49	21	48	842	12500
Cadmium	0.55	3.2	ND	ND	4.4	250
Chromium	9.8	8.4	8.6	8.8	18	425
Lead	37	330	2.9	3.7	525	700
Mercury	ND	0.11	ND	ND	1.6	2
<b>VOCs (ppm)</b>						
1,2,4-Trimethylbenzene	10	6.3	ND	ND	--	5
1,3,5-Trimethylbenzene	5.6	4.8	ND	ND	--	10
Ethly Benzene	ND	2.2	ND	ND	4.7	200
Isopropyl Benzene	ND	2.2	ND	ND	18	87
n-Butyl Benzene	ND	7.9	ND	ND	--	92
n-Propylbenzene	3.6	1.5	ND	ND	--	93
Napthalene	1.9	2.3	ND	ND	7.5	28
Xylenes (total)	5.5	ND	ND	ND	45	248
p-Isopropyltoluene	5.2	7.6	ND	ND	--	--
sec-butyl benzene	7.1	7.2	ND	ND	--	70
Tetrachloroethene	ND	ND	0.26	ND	0.068	131
TCLP lead (ppm)	NA	0.17	NA	NA	--	--

Notes:

ND = not detected over the laboratory reporting limit.

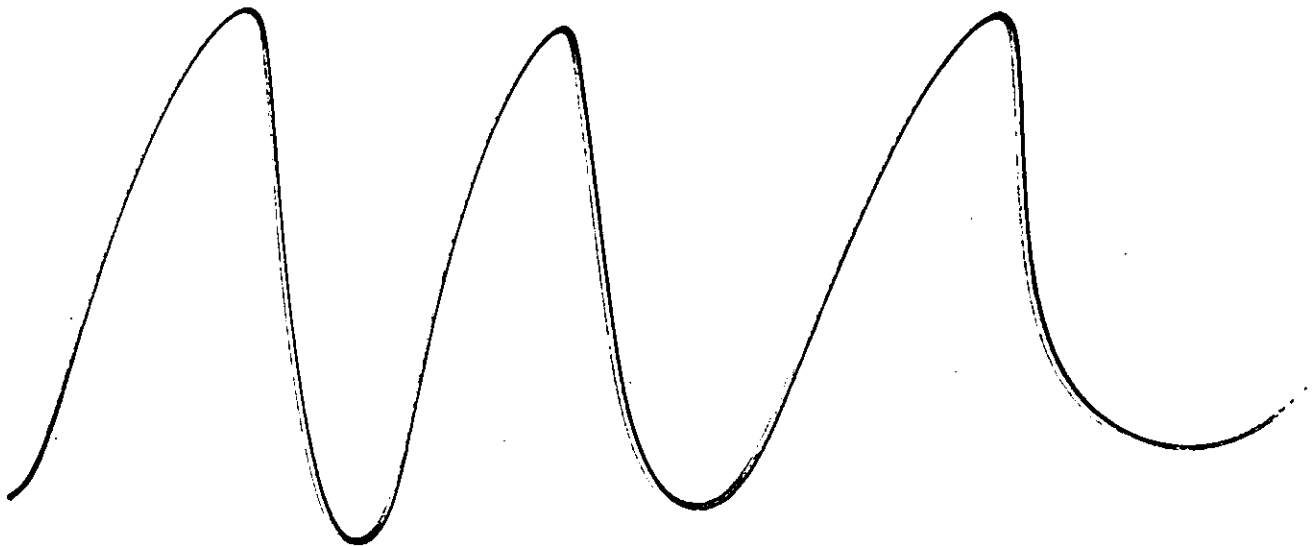
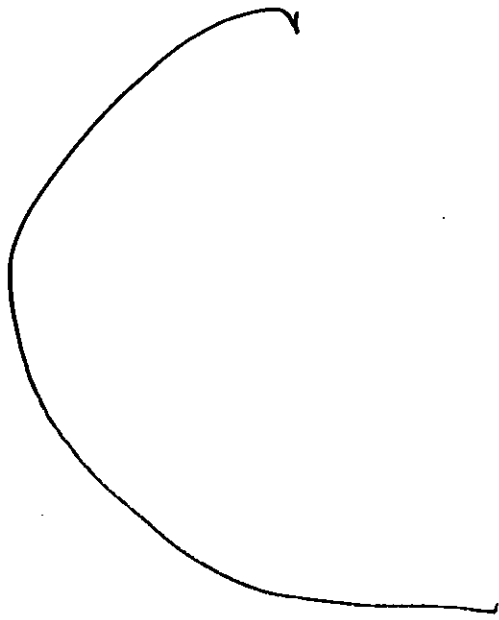
NA = parameter not analyzed for.

-- = value not established.

ppm = parts per million

Tier I SLV = MPCA Tier I Soil Leaching Values, dated 11/2/99.

Tier II SRV = MPCA Tier II Industrial Soil Reference Values, dated 1999.





09/16/03

Revised October 2, 2003

Mr. Jon Blaha  
Liesch Associates, Inc.  
13400 15th Ave N  
Plymouth MN  
55441

**Subject:** WM-Savage  
**Legend No:** 2003090091

LEGEND TECHNICAL SERVICES, INC. (LEGEND) received the following sample(s).

Matrix	Samples	Date Sampled	Date Received	Comments
Soil	2	08/29/03	09/03/03	Received on ice @ 7 C
Soil	2	09/03/03		

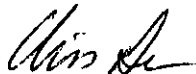
\* The associated batch quality assurance / quality control criteria were met with satisfaction.

\* All samples will be retained by LEGEND for 30 days from the date of this report and then discarded unless other instructions are received from the client.

\* Minnesota Laboratory Certification # 027-123-295.

\* This report was revised on October 2, 2003 to include results for TCLP lead that was requested on September 22, 2003.

Prepared by,  
LEGEND TECHNICAL SERVICES, INC

  
Chris Bremer  
Laboratory Director



Karla Reps  
Client Representative

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**INDOOR ENVIRONMENTAL QUALITY AND LABORATORY SERVICES**

# Legend Technical Services

<b>Client Name:</b>	Liesch Associates, Inc.	<b>Legend Project #:</b>	2003090091
<b>Client Project:</b>	WM-Savage	<b>Matrix:</b>	Soil
<b>Date Sampled:</b>	08/29/03	<b>Date Received:</b>	09/03/03

## DRO/8015B SOIL

<b>Extraction Date:</b>	09/09/03	09/09/03	09/09/03	09/09/03	09/09/03	--
<b>Analysis Date:</b>	09/10/03	09/09/03	09/10/03	09/09/03	09/09/03	--
<b>Analysis Method:</b>	WI DRO	WI DRO	WI DRO	WI DRO	WI DRO	--
<b>Client Sample ID:</b>	CB-1 Surface	OWS-2- 3.5'	CB-2 Bottom	OWS-3	Method Blank	mg/kg
<b>Compound</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>6</b>	<b>RL</b>
Diesel range organics	7,000	76 L1	5,800	510 L1	<8.0	8.0
C-30 (Surrogate)	% D1	114%	% D1	106%	112%	--
Percent Solids	90%	96%	84%	85%	--	--

D1=Surrogate recovery could not be calculated due to high dilution of the sample.

L1=The sample contains compounds in the molecular weight range usually associated with lubricating oils.

# Legend Technical Services

<b>Client Name:</b>	Liesch Associates, Inc.	<b>Legend Project #:</b>	2003090091
<b>Client Project:</b>	WM-Savage	<b>Matrix:</b>	Soil
<b>Date Sampled:</b>	08/29/03	<b>Date Received:</b>	09/03/03

## METALS SOIL 6010/7000

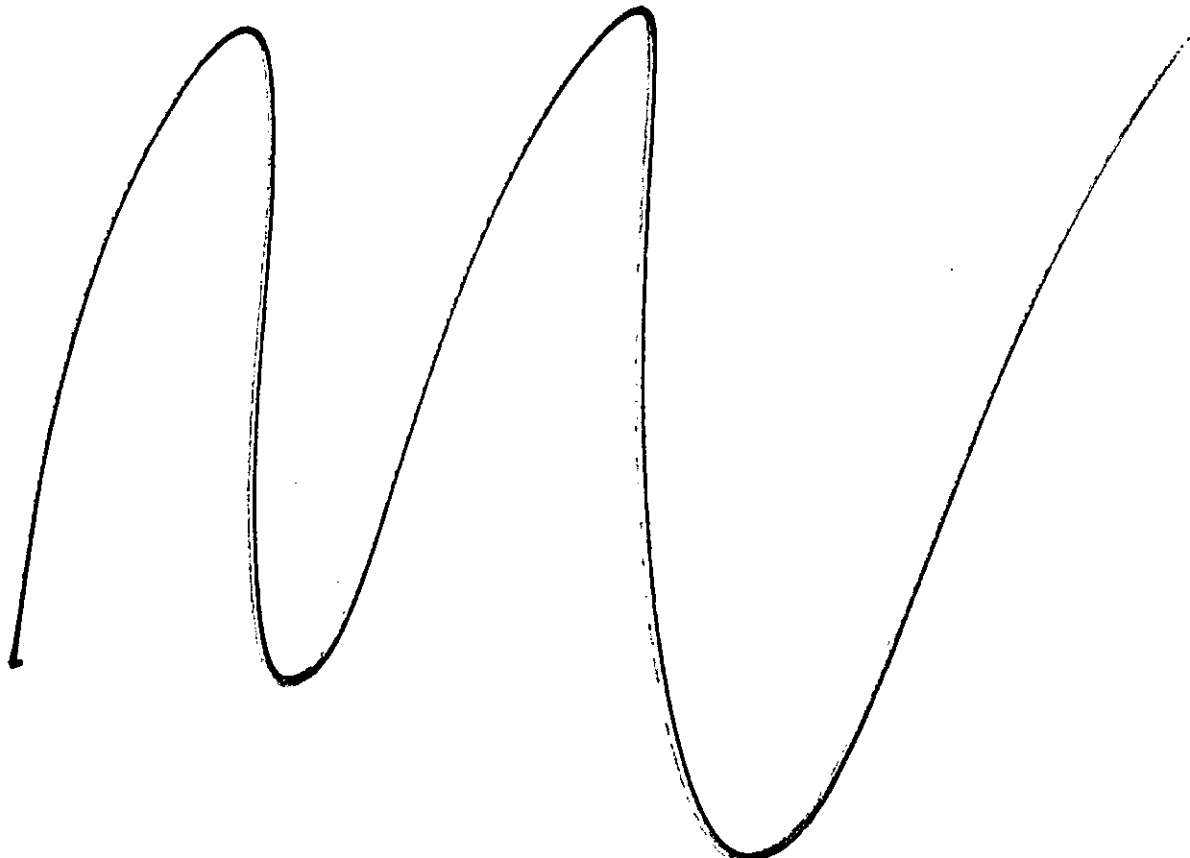
<b>Digestion Date:</b>	9/4/03 *	9/4/03 *	9/4/03 *	9/4/03 *	9/4/03 *	--
	09/04/03	09/04/03	09/04/03	09/04/03	09/04/03	
<b>Analysis Date:</b>	9/5/03 *	9/5/03 *	9/5/03 *	9/5/03 *	9/5/03 *	--
	09/05/03	09/05/03	09/05/03	09/05/03	09/05/03	
<b>Analysis Method:</b>	3050B * 7471A	3050B * 7471A	3050B * 7471A	3050B * 7471A	3050B * 7471A	--
<b>Client Sample ID:</b>	CB-1 Surface	OWS-2- 3.5'	CB-2 Bottom	OWS-3	Method Blank	mg/kg

Compound	1	2	3	4	6	RL
<b>Arsenic (total)</b>	3.0	1.5	2.8	1.4	<1.0	1.0
<b>Barium (total)</b>	1,700	21	49	48	<2.0	2.0
<b>Cadmium (total)</b>	0.55	<0.50	3.2	<0.50	<0.50	0.50
<b>Chromium (total)</b>	9.8	8.6	8.4	8.8	<1.0	1.0
<b>Lead (total)</b>	37	2.9	330	3.7	<2.0	2.0
<b>* Mercury (total)</b>	<0.10	<0.10	0.11	<0.10	<0.10	0.10
<b>Selenium (total)</b>	<1.0	<1.0	<1.0	<1.0	<1.0	1.0
<b>Silver (total)</b>	<0.50	<0.50	<0.50	<0.50	<0.50	0.50
<b>Percent Solids</b>	90%	96%	84%	85%	--	--

<b>Client Name:</b>	Liesch Associates, Inc.	<b>Legend Project #:</b>	2003090091
<b>Client Project:</b>	WM-Savage	<b>Matrix:</b>	Soil
<b>Date Sampled:</b>	08/29/03	<b>Date Received:</b>	09/03/03

## TCLP METALS 1311/6010B/7470A

<b>Extraction Date:</b>	--	--	--
<b>Analysis Date:</b>	09/26/03	09/26/03	--
<b>Analysis Method:</b>	1311/6010B	1311/6010B	--
<b>Client Sample ID:</b>	CB-2 Bottom	Method Blank	mg/L
<b>Compound</b>	<b>3</b>	<b>6</b>	<b>RL</b>
Lead	0.17	<0.10	0.10
TCLP extraction	09/26/2003	09/26/2003	--
Percent Solids	84%	--	--





<b>Client Name:</b>	Liesch Associates, Inc.	<b>Legend Project #:</b>	2003090091
<b>Client Project Number:</b>	WM-Savage	<b>Sample #:</b>	1
<b>Client Project Name:</b>		<b>Matrix:</b>	Soil
<b>Date Sampled:</b>	08/29/03	<b>Date Received:</b>	09/03/03
<b>Client Sample ID:</b>	CB-1 Surface	<b>Percent Solids</b>	90%

## VOC MDH 466C

<b>Extraction Date:</b> -	<b>Client ID:</b> CB-1 Surface
<b>Analysis Method:</b> MDH 466C	
<b>Analysis Date:</b> 09/08/03	

Compound	Sample Results	Units	RL	MDL	Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<1.3	mg/kg	0.25	0.030	cis-1,3-Dichloropropene	<1.3	mg/kg	0.25	0.040
1,1,1-Trichloroethane	<1.3	mg/kg	0.25	0.042	Dibromochloromethane	<1.3	mg/kg	0.25	0.033
1,1,2,2-Tetrachloroethane	<1.3	mg/kg	0.25	0.029	Dibromomethane	<1.3	mg/kg	0.25	0.026
1,1,2-Trichloroethane	<1.3	mg/kg	0.25	0.035	Dichlorodifluoromethane	<2.6	mg/kg	0.50	0.097
1,1,2-Trichlorotrifluoroethane	<1.3	mg/kg	0.25	0.026	Dichlorofluoromethane	<1.3	mg/kg	0.25	0.034
1,1-Dichloroethane	<1.3	mg/kg	0.25	0.056	Ethyl benzene	<1.3	mg/kg	0.25	0.0083
1,1-Dichloroethene	<1.3	mg/kg	0.25	0.067	Ethyl ether	<1.3	mg/kg	0.25	0.024
1,1-Dichloropropene	<1.3	mg/kg	0.25	0.047	Hexachlorobutadiene	<1.3	mg/kg	0.25	0.035
1,2,3-Trichlorobenzene	<1.3	mg/kg	0.25	0.037	Isopropyl benzene	<1.3	mg/kg	0.25	0.0095
1,2,3-Trichloropropane	<1.3	mg/kg	0.25	0.042	Methyl isobutyl ketone	<1.3	mg/kg	0.25	0.016
1,2,4-Trichlorobenzene	<1.3	mg/kg	0.25	0.038	Methyl-tert-butyl ether	<1.3	mg/kg	0.25	0.015
<b>1,2,4-Trimethylbenzene</b>	<b>10</b>	mg/kg	0.25	0.021	Methylene chloride	<2.0	mg/kg	1.5	0.069
1,2-Dibromo-3-chloropropane	<1.3	mg/kg	0.25	0.052	n-Butyl benzene	<1.3	mg/kg	0.25	0.021
1,2-Dibromoethane	<1.3	mg/kg	0.25	0.042	<b>n-Propyl benzene</b>	<b>3.6</b>	mg/kg	0.25	0.013
1,2-Dichlorobenzene	<1.3	mg/kg	0.25	0.062	<b>Naphthalene</b>	<b>1.9</b>	mg/kg	0.25	0.010
1,2-Dichloroethane	<1.3	mg/kg	0.25	0.050	<b>o-Xylene</b>	<b>1.5</b>	mg/kg	0.25	0.013
1,2-Dichloropropane	<1.3	mg/kg	0.25	0.026	<b>p-Isopropyltoluene</b>	<b>5.2</b>	mg/kg	0.25	0.018
<b>1,3,5-Trimethylbenzene</b>	<b>5.6</b>	mg/kg	0.25	0.020	<b>p/m-Xylene</b>	<b>4.0</b>	mg/kg	0.50	0.026
1,3-Dichlorobenzene	<1.3	mg/kg	0.25	0.034	<b>sec-butyl benzene</b>	<b>7.1</b>	mg/kg	0.25	0.0067
1,3-Dichloropropane	<1.3	mg/kg	0.25	0.022	Styrene	<1.3	mg/kg	0.25	0.010
1,4-Dichlorobenzene	<1.3	mg/kg	0.25	0.031	tert-Butyl benzene	<1.3	mg/kg	0.25	0.0072
2,2-Dichloropropane	<1.3	mg/kg	0.25	0.060	Tetrachloroethene	<1.3	mg/kg	0.25	0.024
2-Butanone	<2.6	mg/kg	2.0	0.023	Tetrahydrofuran	<2.6	mg/kg	2.0	0.042
2-Chlorotoluene	<1.3	mg/kg	0.25	0.020	Toluene	<1.3	mg/kg	0.25	0.011
4-Chlorotoluene	<1.3	mg/kg	0.25	0.021	trans-1,2-Dichloroethene	<1.3	mg/kg	0.25	0.054
Acetone	<2.6	mg/kg	2.0	0.045	trans-1,3-Dichloropropene	<1.3	mg/kg	0.25	0.037
Allyl chloride	<1.3	mg/kg	0.25	0.025	Trichloroethene	<1.3	mg/kg	0.25	0.027
Benzene	<1.3	mg/kg	0.25	0.021	Trichlorofluoromethane	<1.3	mg/kg	0.25	0.056
Bromobenzene	<1.3	mg/kg	0.25	0.031	Vinyl chloride	<1.3	mg/kg	0.25	0.050
Bromochloromethane	<1.3	mg/kg	0.25	0.031	Fluorobenzene (Surrogate)	71.6 S5	%	--	--
Bromodichloromethane	<1.3	mg/kg	0.25	0.057					
Bromoform	<1.3	mg/kg	0.25	0.046					
Bromomethane	<1.3	mg/kg	0.25	0.050					
Carbon tetrachloride	<1.3	mg/kg	0.25	0.046					
Chlorobenzene	<1.3	mg/kg	0.25	0.011					
Chloroethane	<1.3	mg/kg	0.25	0.035					
Chloroform	<1.3	mg/kg	0.25	0.032					
Chloromethane	<1.3	mg/kg	0.25	0.069					
cis-1,2-Dichloroethene	<1.3	mg/kg	0.25	0.037					

S5=Surrogate recovery was below laboratory acceptance limits.  
This appears to be matrix related.

# Legend Technical Services

<b>Client Name:</b>	Liesch Associates, Inc.	<b>Legend Project #:</b>	2003090091
<b>Client Project Number:</b>	WM-Savage	<b>Sample #:</b>	2
<b>Client Project Name:</b>		<b>Matrix:</b>	Soil
<b>Date Sampled:</b>	08/29/03	<b>Date Received:</b>	09/03/03
<b>Client Sample ID:</b>	OWS-2-3.5'	<b>Percent Solids</b>	96%

## VOC MDH 466C

<b>Extraction Date:</b>	--	<b>Client ID:</b>	OWS-2-3.5'
<b>Analysis Method:</b>	MDH 466C		
<b>Analysis Date:</b>	09/05/03		

Compound	Sample Results	Units	RL	MDL	Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.030	cis-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.040
1,1,1-Trichloroethane	<0.25	mg/kg	0.25	0.042	Dibromochloromethane	<0.25	mg/kg	0.25	0.033
1,1,2,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.029	Dibromomethane	<0.25	mg/kg	0.25	0.026
1,1,2-Trichloroethane	<0.25	mg/kg	0.25	0.035	Dichlorodifluoromethane	<0.50	mg/kg	0.50	0.097
1,1,2-Trichlorotrifluoroethane	<0.25	mg/kg	0.25	0.026	Dichlorofluoromethane	<0.25	mg/kg	0.25	0.034
1,1-Dichloroethane	<0.25	mg/kg	0.25	0.056	Ethyl benzene	<0.25	mg/kg	0.25	0.0083
1,1-Dichloroethene	<0.25	mg/kg	0.25	0.067	Ethyl ether	<0.25	mg/kg	0.25	0.024
1,1-Dichloropropene	<0.25	mg/kg	0.25	0.047	Hexachlorobutadiene	<0.25	mg/kg	0.25	0.035
1,2,3-Trichlorobenzene	<0.25	mg/kg	0.25	0.037	Isopropyl benzene	<0.25	mg/kg	0.25	0.0095
1,2,3-Trichloropropane	<0.25	mg/kg	0.25	0.042	Methyl isobutyl ketone	<0.25	mg/kg	0.25	0.016
1,2,4-Trichlorobenzene	<0.25	mg/kg	0.25	0.038	Methyl-tert-butyl ether	<0.25	mg/kg	0.25	0.015
1,2,4-Trimethylbenzene	<0.25	mg/kg	0.25	0.021	Methylene chloride	<1.5	mg/kg	1.5	0.069
1,2-Dibromo-3-chloropropane	<0.25	mg/kg	0.25	0.052	n-Butyl benzene	<0.25	mg/kg	0.25	0.021
1,2-Dibromoethane	<0.25	mg/kg	0.25	0.042	n-Propyl benzene	<0.25	mg/kg	0.25	0.013
1,2-Dichlorobenzene	<0.25	mg/kg	0.25	0.062	Naphthalene	<0.25	mg/kg	0.25	0.010
1,2-Dichloroethane	<0.25	mg/kg	0.25	0.050	o-Xylene	<0.25	mg/kg	0.25	0.013
1,2-Dichloropropane	<0.25	mg/kg	0.25	0.026	p-Isopropyltoluene	<0.25	mg/kg	0.25	0.018
1,3,5-Trimethylbenzene	<0.25	mg/kg	0.25	0.020	p/m-Xylene	<0.50	mg/kg	0.50	0.026
1,3-Dichlorobenzene	<0.25	mg/kg	0.25	0.034	sec-butyl benzene	<0.25	mg/kg	0.25	0.0067
1,3-Dichloropropane	<0.25	mg/kg	0.25	0.022	Styrene	<0.25	mg/kg	0.25	0.010
1,4-Dichlorobenzene	<0.25	mg/kg	0.25	0.031	tert-Butyl benzene	<0.25	mg/kg	0.25	0.0072
2,2-Dichloropropane	<0.25	mg/kg	0.25	0.060	<b>Tetrachloroethene</b>	<b>0.26</b>	mg/kg	0.25	0.024
2-Butanone	<2.0	mg/kg	2.0	0.023	Tetrahydrofuran	<2.0	mg/kg	2.0	0.042
2-Chlorotoluene	<0.25	mg/kg	0.25	0.020	Toluene	<0.25	mg/kg	0.25	0.011
4-Chlorotoluene	<0.25	mg/kg	0.25	0.021	trans-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.054
Acetone	<2.0	mg/kg	2.0	0.045	trans-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.037
Allyl chloride	<0.25	mg/kg	0.25	0.025	Trichloroethene	<0.25	mg/kg	0.25	0.027
Benzene	<0.25	mg/kg	0.25	0.021	Trichlorofluoromethane	<0.25	mg/kg	0.25	0.056
Bromobenzene	<0.25	mg/kg	0.25	0.031	Vinyl chloride	<0.25	mg/kg	0.25	0.050
Bromochloromethane	<0.25	mg/kg	0.25	0.031	Fluorobenzene (Surrogate)	81.6	%	--	--
Bromodichloromethane	<0.25	mg/kg	0.25	0.057					
Bromoform	<0.25	mg/kg	0.25	0.046					
Bromomethane	<0.25	mg/kg	0.25	0.050					
Carbon tetrachloride	<0.25	mg/kg	0.25	0.046					
Chlorobenzene	<0.25	mg/kg	0.25	0.011					
Chloroethane	<0.25	mg/kg	0.25	0.035					
Chloroform	<0.25	mg/kg	0.25	0.032					
Chloromethane	<0.25	mg/kg	0.25	0.069					
cis-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.037					

<b>Client Name:</b>	Liesch Associates, Inc.	<b>Legend Project #:</b>	2003090091
<b>Client Project Number:</b>	WM-Savage	<b>Sample #:</b>	3
<b>Client Project Name:</b>		<b>Matrix:</b>	Soil
<b>Date Sampled:</b>	09/03/03	<b>Date Received:</b>	09/03/03
<b>Client Sample ID:</b>	CB-2 Bottom	<b>Percent Solids</b>	84%

## VOC MDH 466C

<b>Extraction Date:</b>	-	<b>Client ID:</b>	CB-2 Bottom
<b>Analysis Method:</b>	MDH 466C		
<b>Analysis Date:</b>	09/08/03		

Compound	Sample Results	Units	RL	MDL	Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<1.3	mg/kg	0.25	0.030	cis-1,3-Dichloropropene	<1.3	mg/kg	0.25	0.040
1,1,1-Trichloroethane	<1.3	mg/kg	0.25	0.042	Dibromochloromethane	<1.3	mg/kg	0.25	0.033
1,1,2,2-Tetrachloroethane	<1.3	mg/kg	0.25	0.029	Dibromomethane	<1.3	mg/kg	0.25	0.026
1,1,2-Trichloroethane	<1.3	mg/kg	0.25	0.035	Dichlorodifluoromethane	<2.6	mg/kg	0.50	0.097
1,1,2-Trichlorotrifluoroethane	<1.3	mg/kg	0.25	0.026	Dichlorofluoromethane	<1.3	mg/kg	0.25	0.034
1,1-Dichloroethane	<1.3	mg/kg	0.25	0.056	<b>Ethyl benzene</b>	<b>2.2</b>	mg/kg	0.25	0.0083
1,1-Dichloroethene	<1.3	mg/kg	0.25	0.067	Ethyl ether	<1.3	mg/kg	0.25	0.024
1,1-Dichloropropene	<1.3	mg/kg	0.25	0.047	Hexachlorobutadiene	<1.3	mg/kg	0.25	0.035
1,2,3-Trichlorobenzene	<1.3	mg/kg	0.25	0.037	<b>Isopropyl benzene</b>	<b>2.2</b>	mg/kg	0.25	0.0095
1,2,3-Trichloropropane	<1.3	mg/kg	0.25	0.042	Methyl isobutyl ketone	<1.3	mg/kg	0.25	0.016
1,2,4-Trichlorobenzene	<1.3	mg/kg	0.25	0.038	Methyl-tert-butyl ether	<1.3	mg/kg	0.25	0.015
<b>1,2,4-Trimethylbenzene</b>	<b>6.3</b>	mg/kg	0.25	0.021	Methylene chloride	<2.0	mg/kg	1.5	0.069
1,2-Dibromo-3-chloropropane	<1.3	mg/kg	0.25	0.052	<b>n-Butyl benzene</b>	<b>7.9</b>	mg/kg	0.25	0.021
1,2-Dibromoethane	<1.3	mg/kg	0.25	0.042	<b>n-Propyl benzene</b>	<b>1.5</b>	mg/kg	0.25	0.013
1,2-Dichlorobenzene	<1.3	mg/kg	0.25	0.062	<b>Naphthalene</b>	<b>2.3</b>	mg/kg	0.25	0.010
1,2-Dichloroethane	<1.3	mg/kg	0.25	0.050	o-Xylene	<1.3	mg/kg	0.25	0.013
1,2-Dichloropropane	<1.3	mg/kg	0.25	0.026	<b>p-Isopropyltoluene</b>	<b>7.6</b>	mg/kg	0.25	0.018
<b>1,3,5-Trimethylbenzene</b>	<b>4.8</b>	mg/kg	0.25	0.020	p/m-Xylene	<1.3	mg/kg	0.50	0.026
1,3-Dichlorobenzene	<1.3	mg/kg	0.25	0.034	<b>sec-butyl benzene</b>	<b>7.2</b>	mg/kg	0.25	0.0067
1,3-Dichloropropane	<1.3	mg/kg	0.25	0.022	Styrene	<1.3	mg/kg	0.25	0.010
1,4-Dichlorobenzene	<1.3	mg/kg	0.25	0.031	tert-Butyl benzene	<1.3	mg/kg	0.25	0.0072
2,2-Dichloropropane	<1.3	mg/kg	0.25	0.060	Tetrachloroethene	<1.3	mg/kg	0.25	0.024
2-Butanone	<2.6	mg/kg	2.0	0.023	Tetrahydrofuran	<2.6	mg/kg	2.0	0.042
2-Chlorotoluene	<1.3	mg/kg	0.25	0.020	Toluene	<1.3	mg/kg	0.25	0.011
4-Chlorotoluene	<1.3	mg/kg	0.25	0.021	trans-1,2-Dichloroethene	<1.3	mg/kg	0.25	0.054
Acetone	<2.6	mg/kg	2.0	0.045	trans-1,3-Dichloropropene	<1.3	mg/kg	0.25	0.037
Allyl chloride	<1.3	mg/kg	0.25	0.025	Trichloroethene	<1.3	mg/kg	0.25	0.027
Benzene	<1.3	mg/kg	0.25	0.021	Trichlorofluoromethane	<1.3	mg/kg	0.25	0.056
Bromobenzene	<1.3	mg/kg	0.25	0.031	Vinyl chloride	<1.3	mg/kg	0.25	0.050
Bromochloromethane	<1.3	mg/kg	0.25	0.031	Fluorobenzene (Surrogate)	75.6 S5	%	--	--
Bromodichloromethane	<1.3	mg/kg	0.25	0.057					
Bromoform	<1.3	mg/kg	0.25	0.046					
Bromomethane	<1.3	mg/kg	0.25	0.050					
Carbon tetrachloride	<1.3	mg/kg	0.25	0.046					
Chlorobenzene	<1.3	mg/kg	0.25	0.011					
Chloroethane	<1.3	mg/kg	0.25	0.035					
Chloroform	<1.3	mg/kg	0.25	0.032					
Chloromethane	<1.3	mg/kg	0.25	0.069					
cis-1,2-Dichloroethene	<1.3	mg/kg	0.25	0.037					

S5=Surrogate recovery was below laboratory acceptance limits.  
This appears to be matrix related.

# Legend Technical Services

<b>Client Name:</b>	Liesch Associates, Inc.	<b>Legend Project #:</b>	2003090091
<b>Client Project Number:</b>	WM-Savage	<b>Sample #:</b>	4
<b>Client Project Name:</b>		<b>Matrix:</b>	Soil
<b>Date Sampled:</b>	09/03/03	<b>Date Received:</b>	09/03/03
<b>Client Sample ID:</b>	OWS-3	<b>Percent Solids</b>	85%

## VOC MDH 466C

<b>Extraction Date:</b>	-	<b>Client ID:</b>	OWS-3
<b>Analysis Method:</b>	MDH 466C		
<b>Analysis Date:</b>	09/08/03		

Compound	Sample Results	Units	RL	MDL	Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.030	cis-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.040
1,1,1-Trichloroethane	<0.25	mg/kg	0.25	0.042	Dibromochloromethane	<0.25	mg/kg	0.25	0.033
1,1,2,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.029	Dibromomethane	<0.25	mg/kg	0.25	0.026
1,1,2-Trichloroethane	<0.25	mg/kg	0.25	0.035	Dichlorodifluoromethane	<0.50	mg/kg	0.50	0.097
1,1,2-Trichlorotrifluoroethane	<0.25	mg/kg	0.25	0.026	Dichlorofluoromethane	<0.25	mg/kg	0.25	0.034
1,1-Dichloroethane	<0.25	mg/kg	0.25	0.056	Ethyl benzene	<0.25	mg/kg	0.25	0.0083
1,1-Dichloroethene	<0.25	mg/kg	0.25	0.067	Ethyl ether	<0.25	mg/kg	0.25	0.024
1,1-Dichloropropene	<0.25	mg/kg	0.25	0.047	Hexachlorobutadiene	<0.25	mg/kg	0.25	0.035
1,2,3-Trichlorobenzene	<0.25	mg/kg	0.25	0.037	Isopropyl benzene	<0.25	mg/kg	0.25	0.0095
1,2,3-Trichloropropane	<0.25	mg/kg	0.25	0.042	Methyl isobutyl ketone	<0.25	mg/kg	0.25	0.016
1,2,4-Trichlorobenzene	<0.25	mg/kg	0.25	0.038	Methyl-tert-butyl ether	<0.25	mg/kg	0.25	0.015
1,2,4-Trimethylbenzene	<0.25	mg/kg	0.25	0.021	Methylene chloride	<1.5	mg/kg	1.5	0.069
1,2-Dibromo-3-chloropropane	<0.25	mg/kg	0.25	0.052	n-Butyl benzene	<0.25	mg/kg	0.25	0.021
1,2-Dibromoethane	<0.25	mg/kg	0.25	0.042	n-Propyl benzene	<0.25	mg/kg	0.25	0.013
1,2-Dichlorobenzene	<0.25	mg/kg	0.25	0.062	Naphthalene	<0.25	mg/kg	0.25	0.010
1,2-Dichloroethane	<0.25	mg/kg	0.25	0.050	o-Xylene	<0.25	mg/kg	0.25	0.013
1,2-Dichloropropane	<0.25	mg/kg	0.25	0.026	p-Isopropyltoluene	<0.25	mg/kg	0.25	0.018
1,3,5-Trimethylbenzene	<0.25	mg/kg	0.25	0.020	p/m-Xylene	<0.50	mg/kg	0.50	0.026
1,3-Dichlorobenzene	<0.25	mg/kg	0.25	0.034	sec-butyl benzene	<0.25	mg/kg	0.25	0.0067
1,3-Dichloropropane	<0.25	mg/kg	0.25	0.022	Styrene	<0.25	mg/kg	0.25	0.010
1,4-Dichlorobenzene	<0.25	mg/kg	0.25	0.031	tert-Butyl benzene	<0.25	mg/kg	0.25	0.0072
2,2-Dichloropropane	<0.25	mg/kg	0.25	0.060	Tetrachloroethene	<0.25	mg/kg	0.25	0.024
2-Butanone	<2.0	mg/kg	2.0	0.023	Tetrahydrofuran	<2.0	mg/kg	2.0	0.042
2-Chlorotoluene	<0.25	mg/kg	0.25	0.020	Toluene	<0.25	mg/kg	0.25	0.011
4-Chlorotoluene	<0.25	mg/kg	0.25	0.021	trans-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.054
Acetone	<2.0	mg/kg	2.0	0.045	trans-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.037
Allyl chloride	<0.25	mg/kg	0.25	0.025	Trichloroethene	<0.25	mg/kg	0.25	0.027
Benzene	<0.25	mg/kg	0.25	0.021	Trichlorofluoromethane	<0.25	mg/kg	0.25	0.056
Bromobenzene	<0.25	mg/kg	0.25	0.031	Vinyl chloride	<0.25	mg/kg	0.25	0.050
Bromochloromethane	<0.25	mg/kg	0.25	0.031	Fluorobenzene (Surrogate)	81.8	%	--	--
Bromodichloromethane	<0.25	mg/kg	0.25	0.057					
Bromoform	<0.25	mg/kg	0.25	0.046					
Bromomethane	<0.25	mg/kg	0.25	0.050					
Carbon tetrachloride	<0.25	mg/kg	0.25	0.046					
Chlorobenzene	<0.25	mg/kg	0.25	0.011					
Chloroethane	<0.25	mg/kg	0.25	0.035					
Chloroform	<0.25	mg/kg	0.25	0.032					
Chloromethane	<0.25	mg/kg	0.25	0.069					
cis-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.037					

<b>Client Name:</b>	Liesch Associates, Inc.	<b>Legend Project #:</b>	2003090091
<b>Client Project Number:</b>	WM-Savage	<b>Sample #:</b>	5
<b>Client Project Name:</b>		<b>Matrix:</b>	Soil
<b>Date Sampled:</b>	08/25/03	<b>Date Received:</b>	09/03/03
<b>Client Sample ID:</b>	Trip Blank		

## VOC MDH 466C

<b>Extraction Date:</b> -	<b>Client ID:</b> Trip Blank
<b>Analysis Method:</b> MDH 466C	
<b>Analysis Date:</b> 09/05/03	

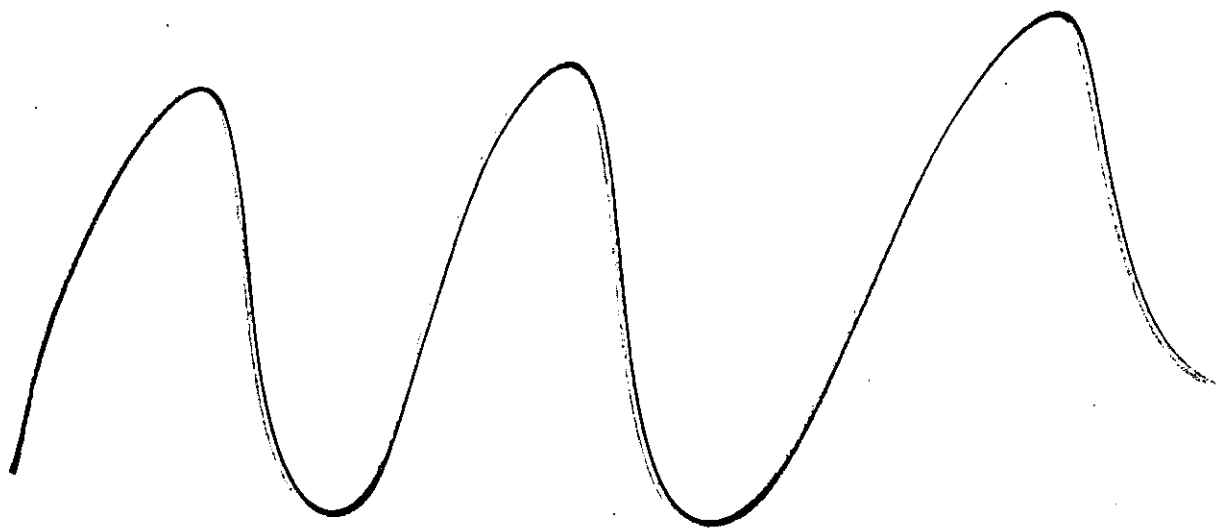
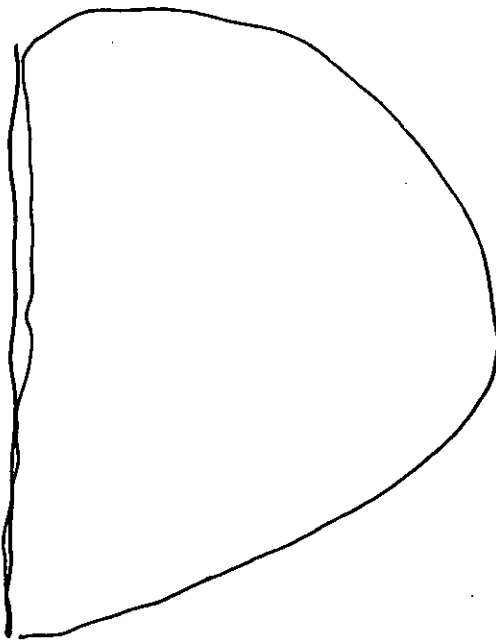
Compound	Sample Results	Units	RL	MDL	Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.030	cis-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.040
1,1,1-Trichloroethane	<0.25	mg/kg	0.25	0.042	Dibromochloromethane	<0.25	mg/kg	0.25	0.033
1,1,2,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.029	Dibromomethane	<0.25	mg/kg	0.25	0.026
1,1,2-Trichloroethane	<0.25	mg/kg	0.25	0.035	Dichlorodifluoromethane	<0.50	mg/kg	0.50	0.097
1,1,2-Trichlorotrifluoroethane	<0.25	mg/kg	0.25	0.026	Dichlorofluoromethane	<0.25	mg/kg	0.25	0.034
1,1-Dichloroethane	<0.25	mg/kg	0.25	0.056	Ethyl benzene	<0.25	mg/kg	0.25	0.0083
1,1-Dichloroethene	<0.25	mg/kg	0.25	0.067	Ethyl ether	<0.25	mg/kg	0.25	0.024
1,1-Dichloropropene	<0.25	mg/kg	0.25	0.047	Hexachlorobutadiene	<0.25	mg/kg	0.25	0.035
1,2,3-Trichlorobenzene	<0.25	mg/kg	0.25	0.037	Isopropyl benzene	<0.25	mg/kg	0.25	0.0095
1,2,3-Trichloropropane	<0.25	mg/kg	0.25	0.042	Methyl isobutyl ketone	<0.25	mg/kg	0.25	0.016
1,2,4-Trichlorobenzene	<0.25	mg/kg	0.25	0.038	Methyl-tert-butyl ether	<0.25	mg/kg	0.25	0.015
1,2,4-Trimethylbenzene	<0.25	mg/kg	0.25	0.021	Methylene chloride	<1.5	mg/kg	1.5	0.069
1,2-Dibromo-3-chloropropane	<0.25	mg/kg	0.25	0.052	n-Butyl benzene	<0.25	mg/kg	0.25	0.021
1,2-Dibromoethane	<0.25	mg/kg	0.25	0.042	n-Propyl benzene	<0.25	mg/kg	0.25	0.013
1,2-Dichlorobenzene	<0.25	mg/kg	0.25	0.062	Naphthalene	<0.25	mg/kg	0.25	0.010
1,2-Dichloroethane	<0.25	mg/kg	0.25	0.050	o-Xylene	<0.25	mg/kg	0.25	0.013
1,2-Dichloropropane	<0.25	mg/kg	0.25	0.026	p-Isopropyltoluene	<0.25	mg/kg	0.25	0.018
1,3,5-Trimethylbenzene	<0.25	mg/kg	0.25	0.020	p/m-Xylene	<0.50	mg/kg	0.50	0.026
1,3-Dichlorobenzene	<0.25	mg/kg	0.25	0.034	sec-butyl benzene	<0.25	mg/kg	0.25	0.0067
1,3-Dichloropropane	<0.25	mg/kg	0.25	0.022	Styrene	<0.25	mg/kg	0.25	0.010
1,4-Dichlorobenzene	<0.25	mg/kg	0.25	0.031	tert-Butyl benzene	<0.25	mg/kg	0.25	0.0072
2,2-Dichloropropane	<0.25	mg/kg	0.25	0.060	Tetrachloroethene	<0.25	mg/kg	0.25	0.024
2-Butanone	<2.0	mg/kg	2.0	0.023	Tetrahydrofuran	<2.0	mg/kg	2.0	0.042
2-Chlorotoluene	<0.25	mg/kg	0.25	0.020	Toluene	<0.25	mg/kg	0.25	0.011
4-Chlorotoluene	<0.25	mg/kg	0.25	0.021	trans-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.054
Acetone	<2.0	mg/kg	2.0	0.045	trans-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.037
Allyl chloride	<0.25	mg/kg	0.25	0.025	Trichloroethene	<0.25	mg/kg	0.25	0.027
Benzene	<0.25	mg/kg	0.25	0.021	Trichlorofluoromethane	<0.25	mg/kg	0.25	0.056
Bromobenzene	<0.25	mg/kg	0.25	0.031	Vinyl chloride	<0.25	mg/kg	0.25	0.050
Bromochloromethane	<0.25	mg/kg	0.25	0.031	Fluorobenzene (Surrogate)	83.9	%	--	--
Bromodichloromethane	<0.25	mg/kg	0.25	0.057					
Bromoform	<0.25	mg/kg	0.25	0.046					
Bromomethane	<0.25	mg/kg	0.25	0.050					
Carbon tetrachloride	<0.25	mg/kg	0.25	0.046					
Chlorobenzene	<0.25	mg/kg	0.25	0.011					
Chloroethane	<0.25	mg/kg	0.25	0.035					
Chloroform	<0.25	mg/kg	0.25	0.032					
Chloromethane	<0.25	mg/kg	0.25	0.069					
cis-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.037					

<b>Client Name:</b>	Liesch Associates, Inc.	<b>Legend Project #:</b>	2003090091
<b>Client Project Number:</b>	WM-Savage	<b>Sample #:</b>	6
<b>Client Project Name:</b>		<b>Matrix:</b>	Soil
<b>Date Sampled:</b>	09/03/03	<b>Date Received:</b>	09/03/03
<b>Client Sample ID:</b>	Method Blank		

## VOC MDH 466C

<b>Extraction Date:</b> -	<b>Client ID:</b> Method Blank
<b>Analysis Method:</b> MDH 466C	
<b>Analysis Date:</b> 09/05/03	

Compound	Sample Results	Units	RL	MDL	Compound	Sample Results	Units	RL	MDL
1,1,1,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.030	cis-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.040
1,1,1-Trichloroethane	<0.25	mg/kg	0.25	0.042	Dibromochloromethane	<0.25	mg/kg	0.25	0.033
1,1,2,2-Tetrachloroethane	<0.25	mg/kg	0.25	0.029	Dibromomethane	<0.25	mg/kg	0.25	0.026
1,1,2-Trichloroethane	<0.25	mg/kg	0.25	0.035	Dichlorodifluoromethane	<0.50	mg/kg	0.50	0.097
1,1,2-Trichlorotrifluoroethane	<0.25	mg/kg	0.25	0.026	Dichlorofluoromethane	<0.25	mg/kg	0.25	0.034
1,1-Dichloroethane	<0.25	mg/kg	0.25	0.056	Ethyl benzene	<0.25	mg/kg	0.25	0.0083
1,1-Dichloroethene	<0.25	mg/kg	0.25	0.067	Ethyl ether	<0.25	mg/kg	0.25	0.024
1,1-Dichloropropene	<0.25	mg/kg	0.25	0.047	Hexachlorobutadiene	<0.25	mg/kg	0.25	0.035
1,2,3-Trichlorobenzene	<0.25	mg/kg	0.25	0.037	Isopropyl benzene	<0.25	mg/kg	0.25	0.0095
1,2,3-Trichloropropane	<0.25	mg/kg	0.25	0.042	Methyl isobutyl ketone	<0.25	mg/kg	0.25	0.016
1,2,4-Trichlorobenzene	<0.25	mg/kg	0.25	0.038	Methyl-tert-butyl ether	<0.25	mg/kg	0.25	0.015
1,2,4-Trimethylbenzene	<0.25	mg/kg	0.25	0.021	Methylene chloride	<1.5	mg/kg	1.5	0.069
1,2-Dibromo-3-chloropropane	<0.25	mg/kg	0.25	0.052	n-Butyl benzene	<0.25	mg/kg	0.25	0.021
1,2-Dibromoethane	<0.25	mg/kg	0.25	0.042	n-Propyl benzene	<0.25	mg/kg	0.25	0.013
1,2-Dichlorobenzene	<0.25	mg/kg	0.25	0.062	Naphthalene	<0.25	mg/kg	0.25	0.010
1,2-Dichloroethane	<0.25	mg/kg	0.25	0.050	o-Xylene	<0.25	mg/kg	0.25	0.013
1,2-Dichloropropane	<0.25	mg/kg	0.25	0.026	p-Isopropyltoluene	<0.25	mg/kg	0.25	0.018
1,3,5-Trimethylbenzene	<0.25	mg/kg	0.25	0.020	p/m-Xylene	<0.50	mg/kg	0.50	0.026
1,3-Dichlorobenzene	<0.25	mg/kg	0.25	0.034	sec-butyl benzene	<0.25	mg/kg	0.25	0.0067
1,3-Dichloropropane	<0.25	mg/kg	0.25	0.022	Styrene	<0.25	mg/kg	0.25	0.010
1,4-Dichlorobenzene	<0.25	mg/kg	0.25	0.031	tert-Butyl benzene	<0.25	mg/kg	0.25	0.0072
2,2-Dichloropropane	<0.25	mg/kg	0.25	0.060	Tetrachloroethene	<0.25	mg/kg	0.25	0.024
2-Butanone	<2.0	mg/kg	2.0	0.023	Tetrahydrofuran	<2.0	mg/kg	2.0	0.042
2-Chlorotoluene	<0.25	mg/kg	0.25	0.020	Toluene	<0.25	mg/kg	0.25	0.011
4-Chlorotoluene	<0.25	mg/kg	0.25	0.021	trans-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.054
Acetone	<2.0	mg/kg	2.0	0.045	trans-1,3-Dichloropropene	<0.25	mg/kg	0.25	0.037
Allyl chloride	<0.25	mg/kg	0.25	0.025	Trichloroethene	<0.25	mg/kg	0.25	0.027
Benzene	<0.25	mg/kg	0.25	0.021	Trichlorofluoromethane	<0.25	mg/kg	0.25	0.056
Bromobenzene	<0.25	mg/kg	0.25	0.031	Vinyl chloride	<0.25	mg/kg	0.25	0.050
Bromochloromethane	<0.25	mg/kg	0.25	0.031	Fluorobenzene (Surrogate)	83.9	%	--	--
Bromodichloromethane	<0.25	mg/kg	0.25	0.057					
Bromoform	<0.25	mg/kg	0.25	0.046					
Bromomethane	<0.25	mg/kg	0.25	0.050					
Carbon tetrachloride	<0.25	mg/kg	0.25	0.046					
Chlorobenzene	<0.25	mg/kg	0.25	0.011					
Chloroethane	<0.25	mg/kg	0.25	0.035					
Chloroform	<0.25	mg/kg	0.25	0.032					
Chloromethane	<0.25	mg/kg	0.25	0.069					
cis-1,2-Dichloroethene	<0.25	mg/kg	0.25	0.037					





NON-HAZARDOUS WASTE MANIFEST

If waste is asbestos waste, complete all Sections. If waste is NOT asbestos waste, complete only Sections 1, 2, 3, 4 and 5.

Manifest No. 23417

SECTION 1 GENERATOR INFORMATION (generator to complete)

Generator's Name: WASTE MANAGEMENT SAVAGE HAULING; Generating Location: S.A.M.P.; Generator's Address: 12448 Penn SYLVANIA AV SO, SAVAGE MN 55378; Generator's Representative: Bill Spence; Telephone Number: (952) 882-882; Waste Management Approval Code: MN 702 SR7021 71003-1330; Common Name of Waste: Soil & Concrete; Description of Waste: SOIL + CONCRETE; Disposal Volume: 10 Cubic Yards; Type of Containers: 7R; Total Yards: 7; Generator's Authorized Agent Name: Bruce Wuolter; Signature of Generator's Authorized Agent: [Signature]; Shipment Date: Oct 21, 2003

TYPE OF CONTAINERS: TR - TRUCK, DM - METAL DRUM, DP - PLASTIC DRUM, DC - CARDBOARD DRUM, BA - BAG, BB - 6 MIL. PLASTIC BAG, BC - 12 MIL. PLASTIC BAG

SECTION 2 TRANSPORTER INFORMATION (Generator to complete)

Transporter's Name: WASTE MANAGEMENT SAVAGE; Transporter's Address: 12448 PENNSYLVANIA AV SO, SAVAGE MN 55378; Telephone Number: (952) 882-2323; Vehicle License No./State: ; Trailer or Container No.: ; Name of Driver (print/type): ; Signature of Driver: ; Date of Receipt: ; Signature of Driver: ; Date of Delivery: ;

Transfer Facility's Name: ; Transfer Facility's Address: ; Telephone Number: ( ) ; Vehicle License No./State: ; Trailer or Container No.: ; Name of Transfer Facility's Authorized Agent (print/type): ; Signature of Transfer Facility's Authorized Agent: ; Date of Receipt: ; Signature of Transfer Facility's Authorized Agent: ; Date of Delivery: ;

SECTION 3 DISPOSAL FACILITY INFORMATION (Generator to complete)

Transporter's Name: ; Transporter's Address: ; Telephone Number: ( ) ; Vehicle License No./State: ; Trailer or Container No.: ; Name of Driver (print/type): ; Signature of Driver: ; Date of Receipt: ; Signature of Driver: ; Date of Delivery: ;

Disposal Facility's Name: SPRUCE RIDGE LANDFILL; Physical Address: 12755 137th ST. GLENCOE, MN 55336; Telephone Number: (320) 864-5503; Mailing Address: SAME; Name of Disposal Facility's Authorized Agent (print/type): ; Signature of Disposal Facility's Authorized Agent: ; Date of Receipt: ; Signature of Disposal Facility's Authorized Agent: ; Date of Rejection: ; Signature of Driver: ; Date of Rejection: ;

SECTION 4 OPERATOR INFORMATION (Operator to complete)

Operator's Name: ; Operator's Address: ; Telephone Number: ( ) ; City, State, Zip: ; Recommended special handling instructions and additional information: ; Operator's Certification: I hereby warrant and declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and domestic law, regulations, ordinances, orders, rules and/or standards. Operator's name (print/type): ; Signature of Operator's Authorized Agent: ; Date: ;

f) Responsible Agency Name and Address: ; GSM-9-30





NON-HAZARDOUS WASTE MANIFEST

If waste is asbestos waste, complete all Sections.
If waste is NOT asbestos waste, complete only Sections 1, 2, 3, 4 and 5.

Manifest No. 23416

SECTION 1 GENERATOR INFORMATION (generator to complete)

Generator's Name: WASTE MANAGEMENT, Generating Location (Name): SAME, Generator's Address: 12448 PENNSYLVANIA AVE, City, State, Zip: SAUCE MN 55378, Generator's Representative: BILL SPENKE, Telephone Number: (952) 882 2323, WASTE MANAGEMENT APPROVAL CODE: MN-702 SR7021 71003-1330, Common Name of Waste: SOIL & CONCRETE, Description of Waste: SOIL & CONCRETE, Disposal Volume: 10 Cubic Yards, Number of Containers: 1, I hereby warrant that the above named material is the same material as represented on the Special Waste Disposal Application identified by the above Waste Management Code and such material was delivered to the transporter on the shipment date referenced below. Bruce Wheeler, Generator's Authorized Agent Name (print/type), Signature of Generator's Authorized Agent, Shipment Date: Oct 21, 2003

SECTION 2 TRANSFER FACILITY INFORMATION (transporter to complete)

Transfer Facility's Name: WASTE MANAGEMENT SAUCE, Transfer Facility's Address: 12448 PENNSYLVANIA AVE SO, City, State, Zip: SAUCE, MN, 55378, Telephone Number: (952) 982 2323, Vehicle License No./State: , Trailer or Container No.: , Name of Driver (print/type): , I hereby warrant that the above named and described material was received from the generator on the date of receipt referenced below. Signature of Driver, Date of Receipt, I hereby warrant that the above named and described material was delivered without incident or contamination on the date of delivery referenced below. Signature of Driver, Date of Delivery, Transfer Facility's Name: , Transfer Facility's Address: , Telephone Number: ( ) , Vehicle License No./State: , Trailer or Container No.: , Name of Transfer Facility's Authorized Agent (print/type): , I hereby warrant that the above named and described material was received from the transporter on the date of receipt referenced below. Signature of Transfer Facility's Authorized Agent, Date of Receipt, I hereby warrant that the above named and described material was delivered to the transporter without incident or contamination on the date of delivery referenced below. Signature of Transfer Facility's Authorized Agent, Date of Delivery

SECTION 3 DISPOSAL FACILITY INFORMATION (transporter to complete)

Disposal Facility's Name: SPRUCE RIDGE LANDFILL, Permit No. SW 6, Physical Address: 12755 137TH ST. GLENCOE, MN 55338, Telephone Number: (320) 864-5503, Mailing Address: SAME, Name of Disposal Facility's Authorized Agent (print/type): , The material delivered by the Transporter has been received at the Disposal Facility. Signature of Disposal Facility's Authorized Agent, Date of Receipt, The material delivered by the Transporter has been rejected for disposal at the Disposal Facility. Signature of Disposal Facility's Authorized Agent, Date of Rejection, Signature of Driver, Date of Rejection

SECTION 4 OPERATOR INFORMATION (operator to complete)

Operator's Name: , Telephone Number: ( ) , Operator's Address: , City, State, Zip: , Recommended special handling instructions and additional information: , Operator's Certification: I hereby warrant and declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and domestic law, regulations, ordinances, orders, rules and/or standards. Operator's name (print/type), Signature of Operator's Authorized Agent, Date, Responsible Agency Name and Address: , GSM-9-30