

**MADISON METROPOLITAN  
SEWERAGE DISTRICT**

1610 Moorland Road  
Madison, WI 53713-3398

Telephone (608) 222-1201

James L. Nemke  
Chief Engineer & Director



July 10, 1990

**COMMISSIONERS**

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State of Wisconsin  
Department of Natural Resources  
Post Office Box 7921  
Madison, WI 53707

Attn: Theresa A. Evanson, Hydrogeologist  
Environmental Response and Repair Section  
Bureau of Solid and Hazardous Waste Management

Subject: Leachate Discharge Agreement and  
Wastewater Discharge Agreement for  
the Refuse Hideaway Landfill

Dear Ms. Evanson:

Please find enclosed two executed copies of the Leachate Discharge Agreement for the Refuse Hideaway Landfill and one Wastewater Discharge Permit for the same facility. Please have the Leachate Discharge Agreement executed and return one copy for our files. Please note that the Wastewater Discharge Permit is good for one year and will require renewal prior to July 10, 1991.

If you have any questions regarding the permit or the implementation of the permit conditions, please contact Paul Nehm at 222-1201. Paul handles all of the District's industrial discharges.

Sincerely,

James L. Nemke  
Chief Engineer & Director

Enclosures - as stated

JLN:cc

cc: Paul Nehm



LEACHATE DISCHARGE AGREEMENT  
DEPARTMENT OF NATURAL RESOURCES  
REFUSE HIDEAWAY LANDFILL

WHEREAS, the Madison Metropolitan Sewerage District (MMSD) has responsibility for transmission and treatment of wastewater in the Madison area; and

WHEREAS, the Wisconsin Department of Natural Resources (WDNR) has taken responsibility for remediating the site associated with the closed sanitary landfill (DNR License No. \_\_\_\_\_) known as Refuse Hideaway which may produce volumes of leachate requiring wastewater treatment; and

WHEREAS, the WDNR has requested that MMSD accept for treatment the leachate generated at the Refuse Hideaway landfill; and

WHEREAS, the MMSD has obligations to meet certain discharge permit limits contained in the WPDES Permit for the Nine Springs Wastewater Treatment Plant;

THEREFORE, in consideration of mutual covenants contained herein, it is hereby agreed by and between the WDNR and MMSD that:

1. Prior to the discharge of any leachate from WDNR, the WDNR will have executed a Wastewater Discharge Permit with MMSD and will have complied with all sampling and testing provisions of that permit which are to occur prior to leachate discharge.
2. MMSD will permit WDNR to discharge leachate from Refuse Hideaway on a controlled basis at the Nine Springs Wastewater Treatment Plant, 1610 Moorland Road, Madison, Wisconsin.
3. In discharging such leachate, WDNR will comply in all respects with the Wastewater Discharge Permit and MMSD's Sewer Use Ordinance dated September, 1984 and subsequent revisions thereto.
4. WDNR will be responsible for all leachate transportation to the discharge point, leachate quality and quantity monitoring and reporting as required by the Wastewater Discharge Permit.
5. WDNR will incur all costs billed by MMSD for leachate discharged to MMSD's sewerage system for leachate quantities and strengths as reported by WDNR to MMSD. The costs shall include charges for volume, CBOD, Total Suspended Solids, Total Kjeldahl Nitrogen, lab analysis and administration and shall be based on the then prevailing MMSD service charge rates. A surcharge will become effective after three months of discharge as defined in MMSD's Policy on Acceptance of Wastewater Generated Outside the District.
6. This agreement between WDNR and MMSD shall become effective the date of signature and shall remain in effect during such time that the WDNR holds

a valid Wastewater Discharge Permit issued by MMSD. Either party may, without cause, terminate the Agreement upon reasonable written notice.

FOR WISCONSIN DEPARTMENT OF NATURAL RESOURCES:

By: Mark F. Diesfeldt

Date: 1/19/90

Title: Section Chief - ERL

FOR MADISON METROPOLITAN SEWERAGE DISTRICT:

By: James L. Nemke  
James L. Nemke

Date: 7-10-90

Title: Chief Engineer & Director

## WASTEWATER DISCHARGE PERMIT

In compliance with the provisions of Articles 5 and 6 of the Madison Metropolitan Sewer District Sewer Use Ordinance and the District's Policy on Acceptance of Wastewater Containing Non-Typical Organic and Inorganic Constituents,

Department of Natural Resources  
Post Office Box 7921  
Madison, WI 53707

is hereby authorized to discharge wastewater from the Refuse Hideaway Landfill into the District sewerage system in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in this permit.

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

This permit shall become effective on the date of signature and shall expire at midnight, July 10<sup>th</sup>, 1991. Any appeals to the conditions of this permit must be made to the Chief Engineer and Director within thirty days of the signature date.

The permittee shall not discharge after the date of expiration. If the permittee wishes to continue to discharge after this expiration date an application shall be filed for reissuance of this permit in accordance with the requirements of Article 5 of the Madison Metropolitan Sewerage District Sewer Use Ordinance, at least thirty days prior to the expiration date.

In accordance with Articles 5 and 6 of the Madison Metropolitan Sewerage District Sewer Use Ordinance, the District reserves the right to amend this permit from time to time or to revoke the permit.

By: James L. Nemke  
James L. Nemke  
Chief Engineer and Director

Dated this 10<sup>th</sup> day of July, 19 90.



## PART 1 - APPLICABLE EFFLUENT LIMITATIONS

### SECTION 1 - MMSD Pretreatment Standards

- (a) All wastewaters discharged to the MMSD shall not exceed the following effluent limitations:

1.0	mg/l	aluminum
0.25	mg/l	cadmium
0.5	mg/l	hexavalent chromium
10.0	mg/l	total chromium
0.6	mg/l	copper
0.35	mg/l	cyanide
5.0	mg/l	lead
0.02	mg/l	mercury
1.0	mg/l	nickel
0.3	mg/l	selenium
3.0	mg/l	silver
8.0	mg/l	zinc

- (b) During 1990 the District will be reviewing the limitations of paragraph (a). After this review several of these limitations may be modified.
- (c) The limitations listed in paragraph (a) apply to twenty-four hour flow proportionate samples collected from the total discharge of the permittee.
- (d) In addition, the permittee shall comply with all other applicable regulations and standards contained in the MMSD Sewer Use Ordinance. Included in these regulations are limitations on pH, slug loads, and oil and grease content.

### SECTION 2 - Toxicity Characteristics Leaching Procedure Requirements

- (a) All wastewaters discharged to the MMSD shall not exceed the limitations of the Toxicity Characteristics Leaching Procedure (TCLP) as specified in the Federal Register of March 29, 1990.

## PART 2 - MONITORING AND REPORTING REQUIREMENTS

### SECTION 1 - Monitoring Requirements

The permittee shall monitor its wastewater discharges subject to regulations under Part 1 of this permit to ascertain compliance with the applicable limitations. The monitoring shall consist of sampling of the regulated wastewaters for those pollutants regulated under Part 1 of this permit and reporting of the results to the District. Samples shall be obtained by collecting a representative sample of the contents of the on-site 25,000 gallon storage tank. The first three times the permittee wishes to discharge material from the tank, the contents shall be sampled and analyzed before the liquid is hauled to the discharge point. If these analyses indicate that the quality of the leachate is in compliance with the limits of Part 1, samples for the remainder of the length of the permit can be collected on a quarterly basis to show compliance with Part I Section 1 and on an annual basis to show compliance with Part I Section 2.

Laboratory analysis of samples collected shall be performed in accordance with "Standard Methods for the Examination of Waste and Wastewater" or other such methods as approved by the District.

### SECTION 2 - Reporting Requirements

Monitoring results for the first three samples shall be submitted to the District before leachate can be discharged at the disposal point. The results for samples collected on a quarterly basis shall be submitted within fifteen (15) days of the end of the quarter. The report containing the laboratory results shall also indicate the volume of leachate discharged during that quarter. The results for analyses made on an annual basis to show compliance with Part I Section 2 shall be submitted within thirty days of the end of the year.

If the permittee monitors any pollutant more frequently than required by this permit, the results of such monitoring shall be submitted to the District.

Monitoring reports shall be signed and sworn to by a principal executive officer, or his designee.

All reports required by this permit shall be submitted to:

Madison Metropolitan Sewerage District  
1610 Moorland Road  
-- Madison, Wisconsin 53713 -----

## PART 3 - MONITORING AND SAMPLING FACILITIES

### SECTION 1 - Sampling Facilities

In order to permit monitoring of the leachate, by the District, the permittee shall construct facilities to allow for collection of a representative sample from the on-site 25,000 gallon storage tank. Within thirty (30) days of the effective date of this permit, the permittee shall submit drawings and a description of such facilities for approval by the District.

### SECTION 2 - Discharge Point

Since the Refuse Hideaway Landfill is outside the District's service area, all wastewater from the site shall be hauled to the Nine Springs Wastewater Treatment Plant and disposed of at a designated location at this plant. The hauler shall have in effect a Septage Disposal Permit issued by the District.

## PART 4 - GENERAL CONDITIONS

### 1. Right of Entry

The permittee shall, after reasonable notification by the District, allow the District or its representatives, exhibiting proper credentials and identification, to enter upon the premises of the permittee at all reasonable hours, for the purposes of inspection, sampling, or records inspection. Reasonable hours in the context of inspection and sampling includes any time the permittee is operating any process which results in collection of wastewater in the on-site storage tank.

### 2. Records Retention

- a) The permittee shall retain and preserve for no less than three (3) years, any records, books, documents, memoranda, reports, correspondence and any and all summaries thereof, relating to monitoring, sampling and chemical analyses made or by or in behalf of the permittee in connection with its discharge.
- b) All records that pertain to matters that are the subject of special orders or any other enforcement or litigation activities brought by the District shall be retained and preserved by the permittee until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

### 3. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

### 4. Confidential Information

Except for data determined to be confidential under Article 7.2 MMSD Sewer Use Ordinance, all reports required by this permit shall be available for public inspection at the headquarters of the District.

### 5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a) The exact place, date, and time of sampling;
- b) The dates the analyses were performed;
- c) The person(s) who performed the analyses;
- d) The analytical techniques or methods used; and
- e) The results of all required analyses.

6. Falsifying Information

Knowingly making any false statement on any report or other document required by this permit or knowingly rendering any monitoring device or method inaccurate, may result in punishment under the criminal laws of Wisconsin as well as being subjected to civil penalties and relief.

7. Modification or Revision of Permit

- a) The terms and conditions of this permit may be subject to modification by the District at any time as limitations or requirements as identified in the MMSD Sewer Use Ordinance are modified or other just cause exists.
- b) This permit may also be modified to incorporate special conditions resulting from the issuance of a special order.
- c) Any modifications which result in new conditions in the permit shall include a reasonable time schedule for compliance if necessary.

8. Dilution

No permittee shall increase the use of potable or process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit.

9. Accidental Discharges

The permittee shall provide protection from the accidental discharge of prohibited or regulated materials or substances established by the MMSD Sewer Use Ordinance. Where necessary, facilities to prevent the accidental discharge of prohibited materials shall be provided and maintained at the permittee's expense. Permittees shall notify the District immediately upon the occurrence of an accidental discharge of substances prohibited by the MMSD Sewer Use Ordinance. The District should be notified by telephone at 222-1201. During normal business hours the notification shall be made to the Director of Wastewater Treatment Operations. During other times, the notification shall be made to the operator on duty. The notification shall include location of discharge, date and time thereof, type of waste, concentration and volume, and corrective actions taken. The permittee shall also provide such notification to the appropriate local municipal officials. In addition, the permittee should immediately notify the State of Wisconsin of the accidental spill at (608) 266-3232 (twenty-four hour number).

10. Notice of Intent

Any permittee planning to alter or change any activity at the permittee's facility that would significantly increase or decrease the volume or alter the content of any existing source of industrial wastewater discharge into the District sewerage system must file a written Request to Discharge Form in accordance with Article 5 of the MMSD Sewer Use Ordinance. A

significant increase or decrease shall be defined at a twenty-five percent increase or decrease in the volume of industrial wastewater currently being discharged by a permittee. An alteration shall be defined as any change in chemicals utilized with a process which will significantly alter the characteristics of the industrial waste discharge or the addition of any new process or production wastewater discharges.

11. Proper Disposal of Pretreatment Sludges

The disposal of sludges generated within wastewater pretreatment systems shall be done in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

12. Operating Upsets

Any permittee that experiences an upset in operations that places the permittee in a temporary state of noncompliance with the provisions of either this permit or the MMSD Sewer Use Ordinance shall inform the District thereof within twenty-four hours of first awareness of the commencement of the upsets in accordance with Article 5.5.5 of the MMSD Sewer Use Ordinance.

13. Limitations on Permit Transfer

Wastewater discharge permits are issued to a specific user for a specific operation and are not assignable to another user or transferable to any other location without prior written approval of the District. Sale of a user shall obligate the purchaser to seek prior written approval of the District for continued discharge to the District sewerage system.

14. Signatory Requirements

All reports required by this permit shall be signed by a principal executive officer of the permittee, or his designee.

15. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

16. Fees

The permittee shall pay to the District fees necessary to cover the costs of monitoring and treating its waste. These fees will include an annual administration fee, sampling charges, and laboratory analysis charges. In accordance with the District's Policy on Acceptance of Wastewater Generated Outside the District, a surcharge ranging from 10% to 100% of the basic fee for service will be charged after the first three months of service. These fees will be established annually by the District. The permittee will be notified of the current year fees.

## CORRESPONDENCE/MEMORANDUM

DATE: October 29, 1990

FILE REF: 4440

TO: C.D. Besadny - AD/5

FROM: Mark Giesfeldt - SW/3 MFG

SUBJECT: Delegation of Authority to Sign an Agreement for  
Treatment of Leachate

As a result of the Department's cleanup activities at the Refuse Hideaway Landfill in the Town of Middleton, it has become apparent that arrangements need to be made for treating leachate which may be collected at this site.

To this end, an agreement between the Madison Metropolitan Sewerage District and the Department has been prepared. A copy of the agreement is attached to this memo.

Having discussed with legal and wastewater staff the implications of and responsibilities under this agreement I hereby recommend that you authorize me to sign this agreement on behalf of the Department and to be responsible for insuring that its terms are satisfied.

If you need more background information or have any comments on this approach, please let me know.

APPROVED:

Paul P. Didier  
Paul P. Didier

10/29/90  
Date

Lyman F. Wible  
Lyman F. Wible

10/30/90  
Date

C. D. Besadny  
C. D. Besadny

10/6/90  
Date

MG:rh

v:\9012\ad9hdway.jgh

Attach.

cc: Pete Flaherty - LC/5  
Floyd Stautz - SD

February 13, 1991

RECEIVED

FEB 15 1991

Ms. Theresa Evanson  
Wisconsin Department of Natural Resources  
Bureau of Solid and Hazardous Waste Management  
101 South Webster Street, GEF II, SW/3  
Madison, Wisconsin 53703

BUREAU OF SOLID -  
HAZARDOUS WASTE MANAGEMENT

Re: Leachate/Condensate Analyses  
Refuse Hideaway Landfill  
Project No. 15292.06

Dear Ms. Evanson:

We are forwarding laboratory results of the analyses of samples taken from the leachate/condensate holding tank at the Refuse Hideaway Landfill. The purpose of the analyses is to assist the WDNR in preparation of the Madison Metropolitan Sewerage District (MMSD) permit for leachate/condensate disposal. The samples were analyzed for the parameters you requested in your letter of November 5, 1990, with no field or laboratory blanks.

The Toxicity Characteristic Leaching Procedure (TCLP) analyses results indicate that RCRA regulatory limits were not exceeded.

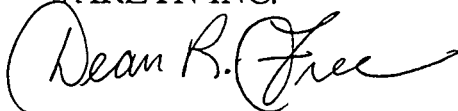
The analytical laboratory results report 7.29 mg/L of total aluminum which exceeds the MMSD effluent limitation of 1.0 mg/L. As discussed the high aluminum content may be attributed to tank bottom sediments. A filtered sample was analyzed and indicated 0.6-0.7 mg/L of aluminum (result not part of report).

An elevated detection limit of 5.00 mg/L was necessary to overcome interference during laboratory analyses for hexavalent chromium. Since total chromium was detected at 0.16 mg/L, it is concluded that the MMSD effluent limit of 0.5 mg/L for hexavalent chromium was not exceeded.

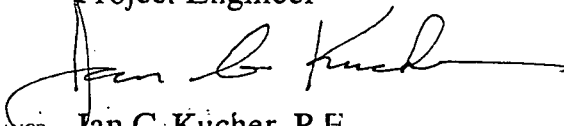
Please call if you should have questions.

Sincerely,

WARZYN INC.



Dean R. Free  
Project Engineer



Jan C. Kucher, P.E.  
Project Manager

THE PERFECT BALANCE  
BETWEEN TECHNOLOGY  
AND CREATIVITY.

MADISON  
ONE SCIENCE COURT  
P.O. BOX 5385  
MADISON, WI 53705  
(608) 231-1717  
FAX (608) 273-2515

Enclosures: Analytical Laboratory Results

DRF/kml/JCK/JVS/WB  
[wpmisc-102-90] 15292.01-MD







**ANALYTICAL LABORATORY RESULTS**  
 WI LAB CERTIFICATION ID#: 113138300

Project: Refuse Hideaway LF

Project #: 15292.06

Location: Middleton, Wisconsin

Date Sampled: 11/29/90

Ck'd: *sw* App'd: *RJ*

Date Issued: 1/4/91

Lab No.

2015-001

Sample Description

LEACHATE/CONDENSATE TANK

Carbonaceous Biochemical Oxygen Demand	1050
Cyanide, Total (2)	0.030
Nitrogen, Total Kjeldahl	38.8
Oil & Grease	29
Solids, Total Suspended	4100
pH (S.U.)	8.18
Aluminum	7.29
Cadmium	0.01
Chromium, Hexavalent (1)	<5.00
Chromium, Total	0.16
Copper	0.06
Lead	<0.10
Mercury (1)	<0.001
Nickel	0.21
Selenium (3)	<0.010
Silver	<0.01
Zinc	0.92

Results are reported in mg/L unless otherwise stated.

- (1) Elevated detection limit necessary to overcome interference.
- (2) Repeated past recommended hold time.
- (3) Elevated detection limit necessary to overcome difficult matrix.

Method Reference: EPA-600, "Methods for Chemical Analysis of Water and Wastes", March, 1984.

TOXICITY CHARACTERISTIC LEACHING PROCEDURE  
 VOLATILE ORGANICS  
 WI LAB CERTIFICATION ID#: 113138300

Project: Refuse Hideaway LF  
 Location: Middleton, Wisconsin

Project #: 15292.06  
 Date Sampled: 11/29/90

Lab No.	2015-001(1)		
<u>Sample Description</u>	<u>LEACHATE/CONDENSATE TANK</u>		
<u>Parameter</u>	<u>Analytical Result (ug/L)</u>	<u>Matrix Spike Recovery (%)</u>	<u>Final TCLP Result (ug/L)</u>
Benzene	25.9	91	28.5
Carbon tetrachloride	<20.0	117	<17.1
Chlorobenzene	38.0	101	37.6
Chloroform	<20.0	111	<18.0
1,2-Dichloroethane	43.2	106	40.8
1,1-Dichloroethene	<20.0	97	<20.6
Methyl ethyl ketone	<12500	12.0	<104000
Tetrachloroethene	127	103	123
Trichloroethene	56.7	120	47.2
Vinyl Chloride	<40.0	33	<121

(1) Elevated detection limits due to low sample volume.

Method 1311: Toxicity Characteristic Leaching Procedure (TCLP). Final rule published by the USEPA in the March 29, 1990 Federal Register.

Ck'd: *[Signature]* App'd: *[Signature]*  
 Date Issued: 1-7-91  
 Page 1 of 2

TOXICITY CHARACTERISTIC LEACHING PROCEDURE  
 METALS

WI LAB CERTIFICATION ID#: 113138300

Project: Refuse Hideaway LF  
 Location: Middleton, Wisconsin

Project #: 15292.06  
 Date Sampled: 11/29/90

Lab No.	2015-001		
<u>Sample Description</u>	<u>LEACHATE/CONDENSATE TANK</u>		
<u>Parameter</u>	<u>Analytical Result (mg/L)</u>	<u>Matrix Spike Recovery (%)</u>	<u>Final TCLP Result (mg/L)</u>
Arsenic	0.298	88.0	0.339
Barium	2.42	101	2.50
Cadmium	<0.01	91.0	<0.01
Chromium, Total	0.12	101	0.12
Lead	0.11	90.0	0.12
Mercury (1)	<0.0010	100	<0.0010
Selenium (1)	<0.010	98.0	<0.010
Silver	<0.01	98	<0.01

Classification: The Regulatory Limits for Sample 2015-001 were not exceeded for the parameters analyzed.

(1) Elevated detection limit necessary to overcome interference.

Method Reference: SW-846, "Methods for Chemical Analysis of Water and Wastes", March, 1984. (Metal Analyses)

Method 1311: Toxicity Characteristic Leaching Procedure (TCLP). Final rule published by the USEPA in the March 29, 1990 Federal Register.

Ck'd: JWW App'd: *RJR*  
 Date Issued: 1/4/91  
 Page 2 of 2

TOXICITY CHARACTERISTIC LEACHING PROCEDURE  
 SEMIVOLATILE ORGANICS  
 WI LAB CERTIFICATION ID#: 113138300

Project: Refuse Hideaway Landfill

Project #: 15292.06

Location: Middleton, Wisconsin

Date Sampled: 1/9/91

<u>Lab No.</u>	2015-001(1)	
<u>Sample Description</u>	<u>Leachate/Condensate Tank</u>	
<u>Parameter (mg/L)</u>	<u>Final TCLP Result</u>	<u>Regulatory Level</u>
1,4-Dichlorobenzene	<3.75	7.5
2,4-Dinitrotoluene	<0.065	0.13
Cresols, Total	<100	200
Hexachlorobenzene	<0.065	0.13
Hexachloro-1,3-butadiene	<0.25	0.5
Hexachloroethane	<1.5	3.0
Nitrobenzene	<1.00	2.0
Pentachlorophenol	<50.0	100
Pyridine	<2.5	5.0
2,3,5-Trichlorophenol	<1.00	2.0
2,4,6-Trichlorophenol	<200	400

Results reported in mg/L.

(1) Results corrected for matrix spike recovery.

Ck'd: *JW* App'd: *RF*  
 Date Issued: 1/25/91  
 Page 1 of 1

TOXICITY CHARACTERISTIC LEACHING PROCEDURE  
 PESTICIDES

WI LAB CERTIFICATION ID#: 113138300

Project: Refuse Hideaway

Project #: 15292.06

Location: Middleton, Wisconsin

Date Sampled: 12/28/90

<u>Lab No.</u> <u>Sample Description</u>	<u>2015-001</u> <u>Leachate/Condensate Tank</u>	<u>REGULATORY</u> <u>LIMITS (MG/L)</u>
<u>Parameter (mg/L)</u>		
Chlordane	<0.015	0.03
Endrin	<0.010	0.02
Heptachlor	<0.004	0.008
Heptachlor Epoxide	<0.004	0.008
Methoxychlor	<5.00	10.0
Toxaphene	<0.250	0.5
Gamma-BHC (Lindane)	<0.200	0.4

Classification: The Regulatory Limits for sample 2015-001 were not exceeded for the parameters analyzed.

Method 1311: Toxicity Characteristic Leaching Procedure (TCLP). Final rule published by the USEPA in the March 29, 1990 Federal Register.

Ck'd: *AG* App'd: *JW*  
 Date Issued: 1-24-91  
 Page 1 of 1



TOXICITY CHARACTERISTIC LEACHING PROCEDURE  
HERBICIDES  
WI LAB CERTIFICATION ID#: 113138300

Project: Refuse Hideaway

Project #: 15292.06

Location: Middleton, Wisconsin

Date Sampled: 1/9/91

<u>Lab No.</u> <u>Sample Description</u>	<u>2015-001</u> <u>Leachate/Condensate</u>	<u>Regulatory</u> <u>Limits</u>
2,4-D	<0.002	10.0
2,4,5-TP (Silvex)	<0.002	1.0

Results are reported in mg/L.

Classification: The regulatory limits for sample 2015-001 were not exceeded for the parameters analyzed.

CK'd: *RJ* App'd: *jm*  
Date Issued: 2-1-91  
Page 1 of 1



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny, Secretary  
Box 7921

Madison, Wisconsin 53707

TELEFAX NO. 608-267-3579

TDD NO. 608-267-6897

SOLID WASTE TELEFAX NO. 608-267-2768

February 18, 1991

IN REPLY REFER TO: 4440

Mr. James L. Nemke, Chief Engineer & Director  
Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, WI 53713-3398

SUBJECT: Leachate Discharge Agreement for the Refuse Hideaway Landfill

Dear Mr. Nemke:

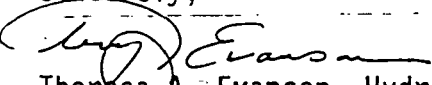
Enclosed you will find the executed Leachate Discharge Agreement and Wastewater Discharge Permit for the Refuse Hideaway Landfill. We understand that the permit must be renewed by July 10, 1991.

Also enclosed are the laboratory results for analysis of the leachate/condensate from the landfill. Warzyn Engineering, Inc.'s laboratory performed the analyses. These results indicate that the leachate does not exceed the limitations of the Toxicity Characteristics Leaching Procedure and apparently meets MMSD's pretreatment standards. As explained in Warzyn's February 13, 1991 letter, the analytical result for total aluminum is 7.29 mg/l. Warzyn believes the elevated aluminum was due to bottom sediments from the tank which were collected in the sample. A filtered leachate sample had an aluminum concentration of 0.6 to 0.7 mg/l.

I am requesting that you review the analytical results and provide me with information regarding cost for leachate disposal at MMSD and any standard format or contract you use regarding payment for leachate treatment. In addition, I would appreciate a list of the information that must precede/accompany leachate hauled to MMSD for treatment.

Please let me know if you have any questions regarding the analytical results or if additional testing of the leachate is needed. I can be reached at 266-0941 any morning. I appreciate the help you have given us in finalizing the treatment agreement.

Sincerely,

  
Theresa A. Evanson, Hydrogeologist  
Environmental Response & Repair Section  
Bureau of Solid & Hazardous Waste Management

TAE:tae/mmsdagr.rhl

cc. Mark Giesfeldt - SW/3  
Ray Tierney - SW/3

Marie Stewart - Madison Area



Carroll D. Besadny  
Secretary

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

101 South Webster Street  
Box 7921  
Madison, Wisconsin 53707  
SOLID WASTE TELEFAX 608-267-2768  
TELEFAX 608-267-3579  
TDD 608-267-6897

September 5, 1991

File Ref: 113112010  
Dane  
ERRP/CORR

Mr. James L. Nemke, Chief Engineer & Director  
Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, WI 53713-3398

SUBJECT: Renewal of the Leachate Discharge Agreement for the Refuse  
Hideaway Landfill

Dear Mr. Nemke:

The Department of Natural Resources Leachate Discharge Agreement for the Refuse Hideaway Landfill expired on July 10, 1991. I am requesting that our Leachate Discharge Agreement with MMSD be extended for one year.

The complete gas/leachate extraction system at the landfill began operation in early August and we hauled our first 25,000 gallon load of leachate/condensate the end of August. We appreciate MMSD's willingness to treat the leachate even though our treatment agreement had expired. At this time it appears that we will be hauling leachate on approximately a monthly basis.

I would also request at this time that MMSD remove the last portion of Condition 5 of the Leachate Discharge Agreement which reads, "A surcharge will become effective after three months of discharge as defined in MMSD's Policy on Acceptance of Wastewater Generated Outside the District." I understand that MMSD's policy is intended to encourage commercial/industrial users outside the District to develop their own wastewater treatment facilities. In the case of the Refuse Hideaway Landfill, the DNR is undertaking remediation of a source of significant environmental contamination at tax payer's expense. The only treatment option for the leachate generated from the landfill is discharge to a wastewater treatment plant and MMSD's facilities provide the best treatment for the leachate. Therefore, I am requesting that we be exempted from MMSD's policy for wastewater generated outside the District.

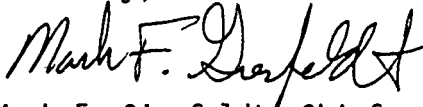


September 5, 1991 - James L. Nemke

2-

I appreciate your consideration of our request to extend the Leachate Discharge Agreement. If you have any questions or need additional information, please call Terry Evanson at 266-0941, any morning.

Sincerely,



Mark F. Giesfeldt, Chief  
Emergency & Remedial Response Section  
Bureau of Solid & Hazardous Waste Management

MFG:tae/mmsd.

cc. Bob Strous - SW/3

Marie Stewart - SD

# MADISON METROPOLITAN SEWERAGE DISTRICT

1610 Moorland Road  
Madison, WI 53713-3398

Telephone (608) 222-1201

James L. Nemke  
Chief Engineer & Director



September 12, 1991

Mr. Mark F. Giesfeldt, Chief  
Emergency Remedial Response Section  
Department of Natural Resources  
P.O. Box 7921  
Madison, WI 53707-7921

Dear Mr. Giesfeldt:

We have received your request to extend for a one-year period the permit to allow the Department of Natural Resources to dispose leachate from the Refuse Hideaway Landfill at our wastewater treatment plant. In that letter you request that the District remove the condition requiring that "a surcharge will become effective after three months of discharge as defined in MMSD's Policy on Acceptance of Wastewater Generated Outside the District." Since this is a policy issue, Jim Nemke will be presenting your request to the District's Commission at their next meeting. The District is willing to extend the agreement, however, the Commission will have to decide whether the surcharge clause can be dropped. We will issue a new permit to you after the Commission has made its decision.

I want to remind you that Part 2 Section 1 of your permit required that, "The first three times the permittee wishes to discharge material from the tank, the contents shall be sampled and analyzed before the liquid is hauled to the discharge point." Because of uncertainty as to the quality of the leachate generated at this landfill, this requirement had been placed in the permit. The permit also stated that if this sampling shows the leachate is in compliance with the District's local limits, sampling can be reduced to a quarterly basis. In August this requirement was not met.

At that time Terry Evanson indicated that the holding tank at the landfill was full and needed to be discharged. I gave her permission to discharge the material with the understanding that a sample would be collected from the tank and analyzed for the parameters of Part 1 Sections 1 and 2 of your permit. I have not received these results yet and assume the analyses are still being completed. Please ensure, however, that in the future these analyses are available prior to discharge of the material.

Sincerely,

Paul H. Nehm  
Director of Wastewater  
Treatment Operations

PHN/nkb

## COMMISSIONERS

Lawrence B. Polkowski  
President  
Edward V. Schten  
Vice-President  
Harold L. Lautz  
Secretary  
Eugene O. Gehl  
Commissioner  
Stephen J. Hiniker  
Commissioner

BUREAU OF SOLID WASTE MANAGEMENT  
SEP 16 91  
RECEIVED



**MADISON METROPOLITAN  
SEWERAGE DISTRICT**

1610 Moorland Road  
Madison, WI 53713-3398

Telephone (608) 222-1201

James L. Nemke  
Chief Engineer & Director



September 26, 1991

**COMMISSIONERS**

Lawrence B. Polkowski  
President  
Edward V. Schten  
Vice-President  
Harold L. Lautz  
Secretary  
Eugene O. Gehl  
Commissioner  
Stephen J. Hiniker  
Commissioner

BUREAU OF SOLID AND HAZARDOUS  
WASTE MANAGEMENT  
SEP 27 91  
RECEIVED

Wisconsin Department of Natural Resources  
P.O. Box 7921  
Madison, WI 53707-7921

Attn: Mr. Mark Giesfeldt, Chief  
Emergency and Remedial Response Section  
Bureau of Solid and Hazardous Waste Management

Subject: Renewal of the Leachate Discharge Agreement  
for the Refuse Hideaway Landfill

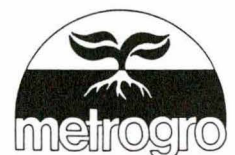
Dear Mr. Giesfeldt:

Please find enclosed a new permit which will allow discharge of leachate from the Refuse Hideaway Landfill at the Nine Springs Wastewater Treatment Plant.

On September 24, 1991, the Commissioners reviewed your request that any surcharge fee for the discharge from the Refuse Hideaway Landfill be waived. The Commission had previously extensively debated whether wastes from outside the District generated by municipal landfills should be treated differently than wastes from a commercial or industrial concern. They agreed that there should be a differentiation and added the last sentence on the first page of the attached policy which caps the surcharge at 100 percent for those landfills located outside the District that would have accepted materials generated within the boundaries of the District. The Commissioners still feel that this is a fair approach to ensure that existing District customers do not bear an unfair burden in treating wastes generated outside the District. The policy recognizes the special situation involved in landfills by capping the surcharge at 100 percent.

The District has been quite disappointed in DNR's failure to live up to the conditions outlined in the original permit. As a regulatory agency that strictly enforces permit rules, it is disappointing to find the Department

*We need to respond*



Mr. Mark Giesfeldt  
Page 2

more lax in paying attention to permit conditions than industrial or commercial permit holders. We will not accept any additional wastes from Refuse Hideaway until the conditions of the permit regarding sampling and analysis are completed.

Sincerely,



James L. Nemke  
Chief Engineer & Director

Encls. Permit  
Policy on Acceptance of Wastewater  
Generated Outside the District

JLN/nkb

WASTEWATER DISCHARGE PERMIT

In compliance with the provisions of Articles 5 and 6 of the Madison Metropolitan Sewer District Sewer Use Ordinance and the District's Policy on Acceptance of Wastewater Containing Non-Typical Organic and Inorganic Constituents,

Department of Natural Resources  
Post Office Box 7921  
Madison, WI 53707

is hereby authorized to discharge wastewater from the Refuse Hideaway Landfill into the District sewerage system in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in this permit.

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

This permit shall become effective on the date of signature and shall expire at midnight, Sept 25, 1992. Any appeals to the conditions of this permit must be made to the Chief Engineer and Director within thirty days of the signature date.

The permittee shall not discharge after the date of expiration. If the permittee wishes to continue to discharge after this expiration date an application shall be filed for reissuance of this permit in accordance with the requirements of Article 5 of the Madison Metropolitan Sewerage District Sewer Use Ordinance, at least thirty days prior to the expiration date.

In accordance with Articles 5 and 6 of the Madison Metropolitan Sewerage District Sewer Use Ordinance, the District reserves the right to amend this permit from time to time or to revoke the permit.

By: James L. Nemke  
James L. Nemke  
Chief Engineer and Director

Dated this 26<sup>th</sup> day of September, 1991.



## PART 1 - APPLICABLE EFFLUENT LIMITATIONS

### SECTION 1 - MMSD Pretreatment Standards

- (a) All wastewaters discharged to the MMSD shall not exceed the following effluent limitations:

1.0	mg/l	aluminum
0.25	mg/l	cadmium
0.5	mg/l	hexavalent chromium
10.0	mg/l	total chromium
0.6	mg/l	copper
0.35	mg/l	cyanide
5.0	mg/l	lead
0.02	mg/l	mercury
1.0	mg/l	nickel
0.3	mg/l	selenium
3.0	mg/l	silver
8.0	mg/l	zinc

- (b) During 1990 the District will be reviewing the limitations of paragraph (a). After this review several of these limitations may be modified.
- (c) The limitations listed in paragraph (a) apply to twenty-four hour flow proportionate samples collected from the total discharge of the permittee.
- (d) In addition, the permittee shall comply with all other applicable regulations and standards contained in the MMSD Sewer Use Ordinance. Included in these regulations are limitations on pH, slug loads, and oil and grease content.

### SECTION 2 - Toxicity Characteristics Leaching Procedure Requirements

- (a) All wastewaters discharged to the MMSD shall not exceed the limitations of the Toxicity Characteristics Leaching Procedure (TCLP) as specified in the Federal Register of March 29, 1990.

## PART 2 - MONITORING AND REPORTING REQUIREMENTS

### SECTION 1 - Monitoring Requirements

The permittee shall monitor its wastewater discharges subject to regulations under Part I of this permit to ascertain compliance with the applicable limitations. The monitoring shall consist of sampling of the regulated wastewaters for those pollutants regulated under Part I of this permit and reporting of the results to the District. Samples shall be obtained by collecting a representative sample of the contents of the on-site 25,000 gallon storage tank. The first three times the permittee wishes to discharge material from the tank, the contents shall be sampled and analyzed before the liquid is hauled to the discharge point. If these analyses indicate that the quality of the leachate is in compliance with the limits of Part I, samples for the remainder of the length of the permit can be collected on a quarterly basis to show compliance with Part I Section 1 and on an annual basis to show compliance with Part I Section 2.

Laboratory analysis of samples collected shall be performed in accordance with "Standard Methods for the Examination of Waste and Wastewater" or other such methods as approved by the District.

### SECTION 2 - Reporting Requirements

Monitoring results for the first three samples shall be submitted to the District before leachate can be discharged at the disposal point. The results for samples collected on a quarterly basis shall be submitted within fifteen (15) days of the end of the quarter. The report containing the laboratory results shall also indicate the volume of leachate discharged during that quarter. The results for analyses made on an annual basis to show compliance with Part I Section 2 shall be submitted within thirty days of the end of the year.

If the permittee monitors any pollutant more frequently than required by this permit, the results of such monitoring shall be submitted to the District.

Monitoring reports shall be signed and sworn to by a principal executive officer, or his designee.

All reports required by this permit shall be submitted to:

Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, Wisconsin 53713

## PART 3 - MONITORING AND SAMPLING FACILITIES

### SECTION 1 - Sampling Facilities

In order to permit monitoring of the leachate, by the District, the permittee shall construct facilities to allow for collection of a representative sample from the on-site 25,000 gallon storage tank. Within thirty (30) days of the effective date of this permit, the permittee shall submit drawings and a description of such facilities for approval by the District.

### SECTION 2 - Discharge Point

Since the Refuse Hideaway Landfill is outside the District's service area, all wastewater from the site shall be hauled to the Nine Springs Wastewater Treatment Plant and disposed of at a designated location at this plant. The hauler shall have in effect a Septage Disposal Permit issued by the District.



## PART 4 - GENERAL CONDITIONS

### 1. Right of Entry

The permittee shall, after reasonable notification by the District, allow the District or its representatives, exhibiting proper credentials and identification, to enter upon the premises of the permittee at all reasonable hours, for the purposes of inspection, sampling, or records inspection. Reasonable hours in the context of inspection and sampling includes any time the permittee is operating any process which results in collection of wastewater in the on-site storage tank.

### 2. Records Retention

- a) The permittee shall retain and preserve for no less than three (3) years, any records, books, documents, memoranda, reports, correspondence and any and all summaries thereof, relating to monitoring, sampling and chemical analyses made or by or in behalf of the permittee in connection with its discharge.
- b) All records that pertain to matters that are the subject of special orders or any other enforcement or litigation activities brought by the District shall be retained and preserved by the permittee until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

### 3. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

### 4. Confidential Information

Except for data determined to be confidential under Article 7.2 MMSD Sewer Use Ordinance, all reports required by this permit shall be available for public inspection at the headquarters of the District.

### 5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a) The exact place, date, and time of sampling;
- b) The dates the analyses were performed;
- c) The person(s) who performed the analyses;
- d) The analytical techniques or methods used; and
- e) The results of all required analyses.

6. Falsifying Information

Knowingly making any false statement on any report or other document required by this permit or knowingly rendering any monitoring device or method inaccurate, may result in punishment under the criminal laws of Wisconsin as well as being subjected to civil penalties and relief.

7. Modification or Revision of Permit

- a) The terms and conditions of this permit may be subject to modification by the District at any time as limitations or requirements as identified in the MMSD Sewer Use Ordinance are modified or other just cause exists.
- b) This permit may also be modified to incorporate special conditions resulting from the issuance of a special order.
- c) Any modifications which result in new conditions in the permit shall include a reasonable time schedule for compliance if necessary.

8. Dilution

No permittee shall increase the use of potable or process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit.

9. Accidental Discharges

The permittee shall provide protection from the accidental discharge of prohibited or regulated materials or substances established by the MMSD Sewer Use Ordinance. Where necessary, facilities to prevent the accidental discharge of prohibited materials shall be provided and maintained at the permittee's expense. Permittees shall notify the District immediately upon the occurrence of an accidental discharge of substances prohibited by the MMSD Sewer Use Ordinance. The District should be notified by telephone at 222-1201. During normal business hours the notification shall be made to the Director of Wastewater Treatment Operations. During other times, the notification shall be made to the operator on duty. The notification shall include location of discharge, date and time thereof, type of waste, concentration and volume, and corrective actions taken. The permittee shall also provide such notification to the appropriate local municipal officials. In addition, the permittee should immediately notify the State of Wisconsin of the accidental spill at (608) 266-3232 (twenty-four hour number).

10. Notice of Intent

Any permittee planning to alter or change any activity at the permittee's facility that would significantly increase or decrease the volume or alter the content of any existing source of industrial wastewater discharge into the District sewerage system must file a written Request to Discharge Form in accordance with Article 5 of the MMSD Sewer Use Ordinance. A

significant increase or decrease shall be defined at a twenty-five percent increase or decrease in the volume of industrial wastewater currently being discharged by a permittee. An alteration shall be defined as any change in chemicals utilized with a process which will significantly alter the characteristics of the industrial waste discharge or the addition of any new process or production wastewater discharges.

11. Proper Disposal of Pretreatment Sludges

The disposal of sludges generated within wastewater pretreatment systems shall be done in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

12. Operating Upsets

Any permittee that experiences an upset in operations that places the permittee in a temporary state of noncompliance with the provisions of either this permit or the MMSD Sewer Use Ordinance shall inform the District thereof within twenty-four hours of first awareness of the commencement of the upsets in accordance with Article 5.5.5 of the MMSD Sewer Use Ordinance.

13. Limitations on Permit Transfer

Wastewater discharge permits are issued to a specific user for a specific operation and are not assignable to another user or transferable to any other location without prior written approval of the District. Sale of a user shall obligate the purchaser to seek prior written approval of the District for continued discharge to the District sewerage system.

14. Signatory Requirements

All reports required by this permit shall be signed by a principal executive officer of the permittee, or his designee.

15. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

16. Fees

The permittee shall pay to the District fees necessary to cover the costs of monitoring and treating its waste. These fees will include an annual administration fee, sampling charges, and laboratory analysis charges. In accordance with the District's Policy on Acceptance of Wastewater Generated Outside the District, a surcharge ranging from 10% to 100% of the basic fee for service will be charged after the first three months of service. These fees will be established annually by the District. The permittee will be notified of the current year fees.



September 30, 1991

Ms. Theresa A. Evanson  
Wisconsin Department of Natural Resources  
Environmental Response and Repair Section  
Bureau of Solid and Hazardous Waste Management  
101 South Webster Street, GEF II, SW/3  
P.O. Box 7921  
Madison, Wisconsin 53707

RECEIVED  
OCT -2 91  
BUREAU OF SOLID-HAZARDOUS  
WASTE MANAGEMENT

Re: Condensate/Leachate Laboratory Analyses  
Sample No. 2  
Refuse Hideaway Landfill  
WDNR Project No. 3144  
Job 15292.06

Dear Ms. Evanson:

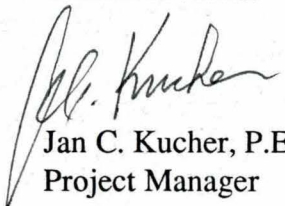
We are forwarding laboratory results of the analyses of samples taken from the leachate/condensate holding tank at the Refuse Hideaway Landfill on September 6, 1991. The purpose of the analyses is to fulfill the requirements of the Madison Metropolitan Sewerage District (MMSD) permit for leachate/condensate disposal.

An elevated detection limit of 25.00 mg/L was necessary to overcome interference during laboratory analyses for hexavalent chromium. Since total chromium was detected at 0.01 mg/L, it is concluded that the MMSD effluent limit of 0.5 mg/L for hexavalent chromium was not exceeded.

The report indicates that the MMSD Pretreatment Standards and RCRA regulatory limits were not exceeded.

Sincerely,

WARZYN INC.



Jan C. Kucher, P.E.  
Project Manager

THE PERFECT BALANCE  
BETWEEN TECHNOLOGY  
AND CREATIVITY.

MADISON  
ONE SCIENCE COURT  
P.O. BOX 5385  
MADISON, WI 53705  
(608) 231-4747  
FAX (608) 273-2513

DRF/JCK/ndj/TFL  
[mad-109b-61]  
15292.06

Enclosures: Analytical Laboratory Results

cc: Mr. Paul Nehm - MMSD



**LABORATORY RESULTS  
 INORGANIC REPORT**

**Project:** Refuse Hideaway

**Project #:** 15292.06

**Location:** Middleton, Wisconsin

**Date Sampled:** 9/06/91

<u>Analyte</u>	<u>Units</u>	<u>3259-001 Leachate Tank</u>
Aluminum	mg/L	0.55
Cadmium	mg/L	0.010
Chromium, Hexavalent	mg/L	< 25 (a)(b)
Chromium, Total	mg/L	0.14
Copper	mg/L	< 0.02
Cyanide, Total	mg/L	0.014
Lead	mg/L	< 0.10
Mercury	mg/L	0.0002
Nickel	mg/L	0.20
Oil and Grease	mg/L	49
pH	s.u.	7.94
Selenium	mg/L	< 0.01(b)
Silver	mg/L	< 0.01
Zinc	mg/L	0.12

(a) Initial analysis performed within hold time; necessary dilution performed past recommended hold time. Results from repeat analysis are reported.

(b) Elevated quantitation limit necessary to overcome interference.

Method Reference: EPA-600, "Methods for Chemical Analysis of Water And Wastes", March 1984.

"Standard Method for the Examination of Water and Wastewater", 16th Addition, 1985.

	<u>Reporting Limits</u>	<u>Date Analyzed</u>
Method 200.7: Aluminum	0.05 mg/L	9/10/91
Method 200.7: Cadmium	0.005 mg/L	9/10,16/91
Method 312B: Chromium, Hexavalent	0.05 mg/L	9/13/91
Method 200.7: Chromium, Total	0.01 mg/L	9/10,13/91
Method 200.7: Copper	0.02 mg/L	9/10/91
Method 335.3: Cyanide, Total	0.005 mg/L	9/11/91
Method 200.7: Lead	0.10 mg/L	9/10,13/91
Method 245.1: Mercury	0.0002 mg/L	9/11,16/91
Method 200.7: Nickel	0.02 mg/L	9/10/91
Method 413.1: Oil and Grease	1 mg/L	9/10/91
Method 150.1: pH	0.1 s.u.	9/06/91
Method 270.2: Selenium	0.002 mg/L	9/13,16/91
Method 200.7: Silver	0.01 mg/L	9/16/91
Method 200.7: Zinc	0.01 mg/L	9/10/91

Ck'd: *[Signature]* App'd: *[Signature]*  
 Date Issued: 9/27/91

**TOXICITY CHARACTERISTIC LEACHING PROCEDURE  
 INORGANIC REPORT**

**Project:** Refuse Hideaway

**Project #:** 15292.06

**Location:** Middleton, Wisconsin

**Date Sampled:** 9/06/91

**Lab No.** 3259-001  
**Sample Description** Leachate Tank

<u>Analyte</u>	<u>Analytical Result (mg/L)</u>	<u>Matrix Spike Recovery (%)</u>	<u>Final TCLP(a) Result (mg/L)</u>	<u>Regulatory Limits</u>
Arsenic	0.39	105	0.37	5.0
Barium	1.17	89	1.31	100.0
Cadmium	0.011	95	0.012	1.0
Chromium, Total	0.11	84	0.13	5.0
Lead	<0.10	85	<0.12	5.0
Mercury	<0.002	81	<0.002	0.2
Selenium	<0.50	65	<0.77	1.0
Silver	<0.01	44	<0.02	5.0

(a) Final TCLP results have been adjusted to reflect the matrix spike bias.

Classification: The Regulatory Limits for Sample 3259-001 were not exceeded for the parameters analyzed.

Method Reference: U.S. EPA, 40 CFR, June 1990.

SW846, "Test Methods for Evaluating Solid Waste", November 1986.

	<u>Reporting Limits</u>	<u>Date Analyzed</u>
Method 1311: Toxicity Characteristic Leaching Procedure	--	9/11/91
Method 6010: Arsenic	0.10 mg/L	9/17/91
Method 6010: Barium	0.01 mg/L	9/16/91
Method 6010: Cadmium	0.005 mg/L	9/10,16/91
Method 6010: Chromium, Total	0.01 mg/L	9/10,13/91
Method 6010: Lead	0.10 mg/L	9/10,13/91
Method 7471: Mercury	0.002 mg/L	9/11,16/91
Method 6010: Selenium	0.50 mg/L	9/13,16/91
Method 6010: Silver	0.01 mg/L	9/16/91

Ck'd: *[Signature]* App'd: *[Signature]*  
 Date Issued: 9/27/91

**TOXICITY CHARACTERISTIC LEACHING PROCEDURE  
 VOLATILE ORGANIC REPORT**

**Project:** Refuse Hideaway

**Project #:** 15292.06

**Location:** Middleton, Wisconsin

**Date Sampled:** 9/06/91

<u>Lab No.</u> <u>Sample Description</u>	<u>3259-001</u> <u>Leachate Tank</u>				
<u>Parameter</u>	<u>Reporting Limits (mg/L)</u>	<u>Analytical Result (mg/L)</u>	<u>Matrix Spike Recovery (%)</u>	<u>Final TCLP(a) Result (mg/L)</u>	<u>Regulatory Limits (mg/L)</u>
Benzene	0.10	<0.10	68	<0.15	0.5
Carbon Tetrachloride	0.10	<0.10	66	<0.15	0.5
Chlorobenzene	0.10	<0.10	88	<0.11	100
Chloroform	0.10	<0.10	92	<0.11	6.0
1,2-Dichloroethane	0.10	<0.10	116	<0.09	0.5
1,1-Dichloroethene	0.10	<0.10	64	<0.16	0.7
Methyl Ethyl Ketone	0.50	0.74	94	0.79	200
Tetrachloroethene	0.10	<0.10	72	<0.14	0.7
Trichloroethene	0.10	<0.10	74	<0.14	0.5
Vinyl Chloride	0.10	<0.10	100	<0.10	0.2

(a) Final TCLP results have been adjusted to reflect the matrix spike bias.

Classification: The regulatory limits for Sample 3259-001 were not exceeded for the parameters analyzed.

Method Reference: SW846, "Test Methods for Evaluating Solid Waste", November 1986. Method 8010/8020.

U.S. EPA, 40 CFR, June 1990.

Method 1311: Toxicity Characteristic Leaching Procedure

Chk'd: *[Signature]* App'd: *[Signature]*  
 Date Issued: 9/27/91

**TOXICITY CHARACTERISTIC LEACHING PROCEDURE  
 PESTICIDE REPORT**

**Project:** Refuse Hideaway

**Project #:** 15292.06

**Location:** Middleton, Wisconsin

**Date Sampled:** 9/06/91

**Lab No.** 3259-001  
**Sample Description** Leachate Tank

<u>Parameter</u>	<u>Reporting Limits (mg/L)</u>	<u>Analytical Result (mg/L)</u>	<u>Matrix Spike Recovery (%)</u>	<u>Final TCLP(a) Result (mg/L)</u>	<u>Regulatory Limits (mg/L)</u>
Gamma-BHC (Lindane)	0.00050	<0.00050	82.4	<0.00061	0.40
Heptachlor	0.00050	<0.00050	88.3	<0.00057	0.008
Heptachlor Epoxide	0.00050	<0.00050	93.7	<0.00053	0.008
Endrin	0.0010	<0.0010	123	<0.00081	0.02
Methoxychlor	0.0050	<0.0050	98.4	<0.0051	10.0
Chlordane	0.0050	<0.0050	93.7	<0.0053	0.03
Toxaphene	0.010	<0.010	83.0	<0.012	0.5

(a) Final TCLP results have been adjusted to reflect the matrix spike bias.

Classification: The regulatory limits for Sample 3259-001 were not exceeded for the parameters analyzed.

Method Reference: U.S. EPA, 40 CFR, June 1990, Method 1311.

SW846, "Test Methods for Evaluating Solid Waste", November 1986, Method 8080.

Ck'd: *CR* App'd: *suw*  
 Date Issued: 9/27/91





**TOXICITY CHARACTERISTIC LEACHING PROCEDURE  
 HERBICIDE REPORT**

**Project:** Refuse Hideaway

**Project #:** 15292.06

**Location:** Middleton, Wisconsin

**Date Sampled:** 09/06/91

<u>Lab No.</u> <u>Sample Description</u>	<u>3259-001</u> <u>Leachate Tank</u>				
<u>Parameter</u>	<u>Reporting Limits (mg/L)</u>	<u>Analytical Result (mg/L)</u>	<u>Matrix Spike Recovery (%)</u>	<u>Final TCLP(a) Result (mg/L)</u>	<u>Regulatory Limits (mg/L)</u>
2,4-D	0.0050	<0.0050	52	<0.0096	10.0
2,4,5-TP	0.0025	0.0038	122	0.0031	400

(a) Final TCLP results have been adjusted to reflect the matrix spike bias.

Classification: The regulatory limits for Sample 3259-001 were not exceeded for the parameters analyzed.

Method Reference: SW846, "Test Methods for Evaluating Solid Waste", November 1986. Method 8150.

Federal Register Vol. 55 No. 126. June 29, 1990.

Method 1311: Toxicity Characteristic Leaching Procedure

Ck'd: *[Signature]* App'd: *[Signature]*  
 Date Issued: 9/27/91

**TOXICITY CHARACTERISTIC LEACHING PROCEDURE  
 SEMIVOLATILE ORGANIC REPORT**

**Project:** Refuse Hideaway

**Project #:** 15292.06

**Location:** Middleton, Wisconsin

**Date Sampled:** 09/06/91

**Lab No.** 3259-009  
**Sample Description** Leachate Tank

<u>Parameter</u>	<u>Analytical Result (mg/L)</u>	<u>Final TCLP(a) Result (mg/L)</u>	<u>Regulatory Limits (mg/L)</u>
Cresol, total	< 100.0	< 100.0	200.00
1,4-Dichlorobenzene	< 3.75	< 3.75	7.50
2,4-Dinitrotoluene	< 0.07	< 0.07	0.13
Hexachlorobenzene	< 0.07	< 0.07	0.13
Hexachloro-1,3-butadiene	< 0.25	< 0.25	0.50
Hexachloroethane	< 1.50	< 1.50	3.00
Nitrobenzene	< 1.00	< 1.00	2.00
Pentachlorophenol	< 50.00	< 50.0	100.00
Pyridine	< 2.50	< 2.50	5.00
2,4,5-Trichlorophenol	< 200.00	< 200.0	400.00
2,4,6-Trichlorophenol	< 1.00	< 1.00	2.00

(a) Final TCLP results have been adjusted to reflect the matrix spike bias.

**Classification:** The regulatory limits for Sample 3259-001 were not exceeded for the parameters analyzed.

**Method Reference:** U.S. EPA, 40 CFR, June 1990, Method 1311.

SW846, "Test Methods for Evaluating Solid Waste", November 1986, Method 8270.

**Ck'd:** *gr* **App'd:** *jml*  
**Date Issued:** 9/27/91



Carroll D. Besadny  
Secretary

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

101 South Webster Street  
Box 7921  
Madison, Wisconsin 53707  
SOLID WASTE TELEFAX 608-267-2768  
TELEFAX 608-267-3579  
TDD 608-267-6897

October 2, 1991

File Ref: 113112010  
Dane  
ERRP/CORR

Mr. Jan Kucher, P.E.  
Warzyn Engineering Inc.  
One Science Court  
P.O. Box 5385  
Madison, WI 53705

SUBJECT: Disposal of Leachate/Condensate from the Refuse Hideaway  
Landfill

Dear Jan:

Enclosed you will find the renewed wastewater discharge permit from Madison Metropolitan Sewerage District for leachate/condensate from Refuse Hideaway Landfill. I have also enclosed MMSD's "Policy on acceptance of wastewater generated outside the District" for your information.

In addition, you will find two letters (dated 9/12/91 and 9/26/91) from MMSD regarding the need for sampling and analysis of leachate before disposal. We are very disappointed that you authorized leachate to be hauled to MMSD on 9/23 before the laboratory analysis results were available. Sections 1 and 2 of Part 1 of the Wastewater Discharge Permit list the discharge limits that wastewaters discharged to MMSD must meet. To determine if wastewaters meet these limits, laboratory results must be complete and be reviewable by MMSD. In addition, Terry Evanson of my staff spoke to you and Dean Free several times regarding this issue and sent a letter dated 9/9/91 stating the importance of completing the TCLP and metals analyses to avoid shutting down the extraction system. We at no time authorized the discharge of leachate without completion of the proper analysis results.

I am directing you to take the following actions:

1. Carefully review the requirements of the Wastewater Discharge Permit. All actions taken in regard to leachate discharge must be in compliance with the permit.
2. If a situation arises that is in conflict with the permit, you must call the Department before proceeding with any action. You should contact Terry Evanson. If she is not available, please contact Sally Kefer, Bob Strous or myself.

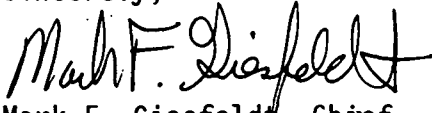
October 2, 1991 - Mr. Jan Kucher

2

3. If there is any question regarding the needs of MMSD and their acceptance of the leachate, you must call Paul Nehm or James Nemke. MMSD has worked quite cooperatively with us and are willing to help us deal with problems as they arise.

We have spent a great deal of time and money investigating and remediating the Refuse Hideaway Landfill. We have at all times endeavored to maintain good working relations with the public and all other agencies and municipalities involved in this project. As our consultant, we rely on you to maintain the highest standards of quality and professional judgement. We will continue to expect this in the future. If you have any questions, please call me at 267-7562 or Terry Evanson 266-0941.

Sincerely,



Mark F. Giesfeldt, Chief  
Emergency & Remedial Response Section  
Bureau of Solid & Hazardous Waste Management

MFG:tae/kucher.

cc. Bob Strous/Terry Evanson - SW/3  
James Nemke - MMSD



Carroll D. Besadny  
Secretary

**State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES**

101 South Webster Street  
Box 7921  
Madison, Wisconsin 53707  
SOLID WASTE TELEFAX 608-267-2768  
TELEFAX 608-267-3579  
TDD 608-267-6897

October 2, 1991

File Ref: 113112010  
Dane  
ERRP/CORR

James L. Nemke  
Chief Engineer and Director  
Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, WI 53713-3398

SUBJECT: Renewal of the Leachate Treatment Agreement for the Refuse  
Hideaway Landfill

Dear Mr. Nemke:

Thank you for renewing the leachate discharge permit for the Refuse Hideaway Landfill and responding in a timely manner to our waiver request of the surcharge fee. Though you did not grant the request, we appreciate establishing a cap on the surcharge at the 100% level.

I would like to address both Paul Nehm's September 12, 1991 and your September 26, 1991 letters regarding sampling and analysis of the leachate before discharge to MMSD's facilities. The September 12, 1991 letter states that the permit's sampling requirements were not met for the leachate discharged in August. In fact, this appears to be due to a miscommunication between Terry Evanson of my staff and Paul Nehm. The testing for pretreatment standards and TCLP were completed in February, 1991 and are in MMSD's files. While a fairly small volume of leachate/condensate had been collected by February, 1991, we do believe this testing was representative of the 25,000 gallons discharged in August, 1991. In addition, Terry Evanson had received your verbal permission to use the February test results for the first load of leachate hauled to MMSD.

I apologize for the September 24, 1991 incident in which 20,000 gallons of leachate was hauled to MMSD without the appropriate analysis results. As I explained to Paul Nehm, we were unaware that Warzyn Engineering, our consultant, had arranged for leachate to be sent for treatment without the proper analysis results. These results have since been sent to you. I assure you that this will not happen again. I have contacted Warzyn Engineering and told them to carefully review the permit requirements and discuss with the Department any action that may result in conflict with the permit before taking the action.

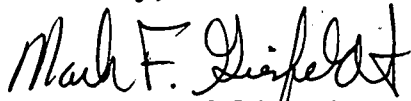
October 2, 1991 - Mr. James Nemke

2

In the future, if any leachate from the Refuse Hideaway Landfill is delivered to your facility without proper sampling and analysis results, do not accept it and please call myself or Terry Evanson. We are very concerned that we meet all requirements of our permit and maintain a good working relationship with you.

If you have any questions regarding this matter, please call myself at 267-7562 or Terry Evanson at 266-0941. Again, thank you for working with us as we've begun operation of the leachate discharge system. We appreciate your cooperation and timely response to all our inquires and wastewater treatment needs.

Sincerely,



Mark F. Giesfeldt, Chief  
Emergency & Remedial Response Section  
Bureau of Solid & Hazardous Waste Management

MFG:tae/nehm102.rh1

cc. → Bob Strous - SW/3  
Terry Evanson - SW/3  
Jan Kucher - Warzyn Engineering

October 31, 1991

RECEIVED

NOV -1 91

BUREAU OF SOLID-HAZARDOUS  
WASTE MANAGEMENT

Ms. Theresa A. Evanson  
Wisconsin Department of Natural Resources  
Environmental Response and Repair Section  
Bureau of Solid and Hazardous Waste Management  
101 South Webster Street, GEF II, SW/3  
P.O. Box 7921  
Madison, Wisconsin 53707

Re: Condensate/Leachate Laboratory Analyses  
Sample No. 3  
Refuse Hideaway Landfill  
WDNR Project No. 3144  
Job 15292.06

Dear Ms. Evanson:

We are forwarding laboratory results of the analyses of samples taken from the leachate/condensate holding tank at the Refuse Hideaway Landfill on October 2, 1991. The purpose of the analyses is to fulfill the requirements of the Madison Metropolitan Sewerage District (MMSD) permit for leachate/condensate disposal.

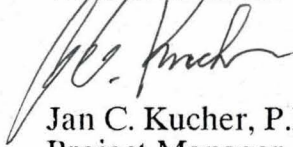
The report indicates that the MMSD Pretreatment Standards and RCRA regulatory limits were not exceeded.

In compliance with the MMSD permit, this will complete the initial 3 sampling events and will now be hauled to MMSD weekly.

Please call if you have questions or comments.

Sincerely,

WARZYN/INC.



Jan C. Kucher, P.E.  
Project Manager

JCK/vlr/JDB  
[mad-109b-61]  
15292.06

Enclosures: Analytical Laboratory Results

cc: Mr. Paul Nehm - MMSD



**TOXICITY CHARACTERISTIC LEACHING PROCEDURE  
 INORGANIC REPORT**

**Project:** Refuse Hideaway

**Project #:** 15292.06

**Location:** Middleton, Wisconsin

**Date Sampled:** 10/2/91

**Lab No.** 3410-001 (a)  
**Sample Description** Leachate Tank

<u>Analyte</u>	<u>Analytical Result (mg/L)</u>	<u>Matrix Spike Recovery (%)</u>	<u>Final TCLP(b) Result (mg/L)</u>	<u>Regulatory Limits</u>
Arsenic	0.30	97	0.31	5.0
Barium	0.53	92	0.58	100.0
Cadmium	<0.005	95	<0.005	1.0
Chromium, Total	0.13	87	0.15	5.0
Lead	<0.10	88	<0.11	5.0
Mercury	<0.002	56	<0.004	0.2
Selenium	<0.50	93	0.54	1.0
Silver	<0.01	79	<0.01	5.0

(a) Sample contained <0.5% solids; filtered sample was analyzed as the TCLP extract.

(b) Final TCLP results have been adjusted to reflect the matrix spike bias.

Classification: The Regulatory Limits for Sample 3410-001 were not exceeded for the parameters analyzed.

Method Reference: Federal Register Vol. 55 No. 126. June 29, 1990.

SW846, "Test Methods for Evaluating Solid Waste", November 1986.

	<u>Reporting Limits</u>	<u>Date Analyzed</u>
Method 1311: Toxicity Characteristic Leaching Procedure	—	10/14/91
Method 6010: Arsenic	0.10 mg/L	10/21/91
Method 6010: Barium	0.01 mg/L	10/21/91
Method 6010: Cadmium	0.005 mg/L	10/21/91
Method 6010: Chromium, Total	0.01 mg/L	10/21/91
Method 6010: Lead	0.10 mg/L	10/21/91
Method 7471: Mercury	0.002 mg/L	10/16/91
Method 6010: Selenium	0.50 mg/L	10/21/91
Method 6010: Silver	0.01 mg/L	10/21/91

Ck'd: *JH* App'd: *JWW*  
 Date Issued: 10/30/91





**LABORATORY RESULTS  
 INORGANIC REPORT**

**Project:** Refuse Hideaway

**Project #:** 15292.06

**Location:** Middleton, Wisconsin

**Date Sampled:** 10/2/91

<u>Analyte</u>	<u>Units</u>	3410-001 <u>Leachate Tank</u>
Aluminum	mg/L	0.52
Cadmium	mg/L	<0.005
Carbonaceous Biochemical Oxygen Demand	mg/L	352
Chromium	mg/L	0.14
Copper	mg/L	<0.10 (a)
Cyanide	mg/L	<0.005
Hexavalent Chromium	mg/L	<10 (a)
Lead	mg/L	<0.10
Mercury	mg/L	<0.0008 (a)
Nickel	mg/L	0.20
Nitrogen, Total Kjeldahl	mg/L	931
Oil & Grease	mg/L	39
pH	s.u.	7.88
Selenium	mg/L	<0.020 (a)
Silver	mg/L	<0.01
Solids, Total Suspended	mg/L	81
Zinc	mg/L	0.12

(a) Elevated quantitation limit necessary to overcome interference.

Method Reference: EPA-600, "Methods for Chemical Analysis of Water And Wastes", March 1984.

"Standard Method for the Examination of Water and Wastewater", 16th Addition, 1985.

	<u>Reporting Limits</u>	<u>Date Analyzed</u>
Method 200.7: Aluminum	0.05 mg/L	10/22/91
Method 200.7: Cadmium	0.005 mg/L	10/21/91
Method 405.1: Carbonaceous Biochemical Oxygen Demand	1 mg/L	10/10/91
Method 200.7: Chromium	0.01 mg/L	10/21/91
Method 200.7: Copper	0.02 mg/L	10/21/91
Method 335.3: Cyanide	0.010 mg/L	10/9/91
Method 312B: Hexavalent Chromium	0.05 mg/L	10/2/91
Method 200.7: Lead	0.10 mg/L	10/21/91
Method 245.1: Mercury	0.0002 mg/L	10/16/91
Method 200.7: Nickel	0.02 mg/L	10/21/91
Method 351.3: Nitrogen, Total Kjeldahl	0.10 mg/L	10/15/91
Method 413.1: Oil & Grease	1 mg/L	10/17/91
Method 150.1: pH	0.01 s.u.	10/2/91
Method 270.2: Selenium	0.002 mg/L	10/21/91
Method 200.7: Silver	0.01 mg/L	10/22/91
Method 160.2: Solids, Total Suspended	2 mg/L	10/8/91
Method 200.7: Zinc	0.01 mg/L	10/21/91

Ck'd: *[Signature]* App'd: *[Signature]*  
 Date Issued: 10-31-91

**TOXICITY CHARACTERISTIC LEACHING PROCEDURE  
 VOLATILE ORGANIC REPORT**

**Project:** Refuse Hideaway

**Project #:** 15292.06

**Location:** Middleton, Wisconsin

**Date Sampled:** 10/2/91

<u>Lab No.</u> <u>Sample Description</u>	<u>3410-001 (a)</u> <u>Leachate Tank</u>	<u>Reporting</u> <u>Limits (mg/L)</u>	<u>Analytical</u> <u>Result (mg/L)</u>	<u>Matrix Spike</u> <u>Recovery (%)</u>	<u>Final TCLP(b)</u> <u>Result (mg/L)</u>	<u>Regulatory</u> <u>Limits (mg/L)</u>
Benzene		0.10	<0.10	88	<0.11	0.5
Carbon Tetrachloride		0.10	<0.10	77	<0.13	0.5
Chlorobenzene		0.10	<0.10	61	<0.16	100
Chloroform		0.10	<0.10	92	<0.11	6.0
1,2-Dichloroethane		0.10	<0.10	83	<0.12	0.5
1,1-Dichloroethene		0.10	<0.10	75	<0.13	0.7
Methyl Ethyl Ketone		0.50	0.23	120	0.19	200
Tetrachloroethene		0.10	<0.10	84	<0.12	0.7
Trichloroethene		0.10	<0.10	90	<0.11	0.5
Vinyl Chloride		0.10	<0.10	110	<0.091	0.2

(a) Sampled contained <0.5% solids; filtered sample was analyzed as the TCLP extract.

(b) Final TCLP results have been adjusted to reflect the matrix spike bias.

Classification: The regulatory limits for Sample 3410-001 were not exceeded for the parameters analyzed.

Method Reference: SW846, "Test Methods for Evaluating Solid Waste", November 1986. Method 8010/8020.

Federal Register Vol. 55 No. 126. June 29, 1990.

Method 1311: Toxicity Characteristic Leaching Procedure

Ck'd: *[Signature]* App'd: *[Signature]*  
 Date Issued: 10-31-91



**TOXICITY CHARACTERISTIC LEACHING PROCEDURE  
 PESTICIDE REPORT**

**Project:** Refuse Hideaway

**Project #:** 15292.06

**Location:** Middleton, Wisconsin

**Date Sampled:** 10/2/91

**Lab No.** 3410-001 (a)  
**Sample Description** Leachate Tank

<u>Parameter</u>	<u>Reporting Limits (mg/L)</u>	<u>Analytical Result (mg/L)</u>	<u>Matrix Spike Recovery (%)</u>	<u>Final TCLP(b) Result (mg/L)</u>	<u>Regulatory Limits (mg/L)</u>
Chlordane	0.005	<0.005	46.8	<0.011	0.03
Endrin	0.001	<0.001	(c)	<0.001	0.02
Gamma-BHC (Lindane)	0.0005	<0.0005	69.5	<0.0007	0.4
Heptachlor	0.0005	<0.0005	61.7	<0.0008	0.008
Heptachlor Epoxide	0.0005	<0.0005	75.0	<0.0007	0.008
Methoxychlor	0.005	<0.005	50.0	<0.010	10.0
Toxaphene	0.010	<0.010	73.2	<0.014	0.5

(a) Sample contained <0.5% solids, filtered sample was analyzed as the TCLP extract.

(b) Final TCLP results have been adjusted to reflect the matrix spike bias.

(c) Endrin spike recovery is unknown due to matrix interference.

**Classification:** The regulatory limits for Sample 3410-001 were not exceeded for the parameters analyzed.

**Method Reference:** U.S. EPA, 40 CFR, June 1990, Method 1311.

SW846, "Test Methods for Evaluating Solid Waste", November 1986, Method 8080.

Ck'd: *[Signature]* App'd: *[Signature]*  
 Date Issued: 10/30/91



**TOXICITY CHARACTERISTIC LEACHING PROCEDURE  
 HERBICIDE REPORT**

**Project:** Refuse Hideaway

**Project #:** 15292.06

**Location:** Middleton, Wisconsin

**Date Sampled:** 10/2/91

<u>Lab No.</u> <u>Sample Description</u>	<u>3410-001 (a)</u> <u>Leachate Tank</u>	<u>Reporting</u> <u>Limits (mg/L)</u>	<u>Analytical</u> <u>Result (mg/L)</u>	<u>Matrix Spike</u> <u>Recovery (%)</u>	<u>Final TCLP(b)</u> <u>Result (mg/L)</u>	<u>Regulatory</u> <u>Limits (mg/L)</u>
2,4-D		0.25	<0.25	50	<0.50	10
2,4,5-TP		0.13	<0.13	55	<0.23	1.0

(a) Sampled contained <0.5% solids, filtered sample was analyzed as the TCLP extract.

(b) Final TCLP results have been adjusted to reflect the matrix spike bias.

Classification: The regulatory limits for Sample 3410-001 were not exceeded for the parameters analyzed.

Method Reference: SW846, "Test Methods for Evaluating Solid Waste", November 1986. Method 8150.

Federal Register Vol. 55 No. 126. June 29, 1990.

Method 1311: Toxicity Characteristic Leaching Procedure

Ck'd: *GR* App'd: *BJ*  
 Date Issued: 10-31-91

## SEMIVOLATILE METHOD TCLP

## REPORTED (BIAS CORRECTED) RESULTS

DATE SAMPLED : 10-02-91  
 DATE RECEIVED : 10-05-91  
 TCLP STARTED : 10-08-91 (TCLP ROTATION STARTED)  
 DATE EXTRACTED: 10-08-91  
 DATE ANALYZED : 10-14-91

COMPUCHEM SAMPLE # 449711 MS # 447692  
 CLIENT I.D. # 3410-001 MS# 447693  
 FILE NAME : GND44711A07  
 DILUTION FACTOR : 5 \*

COMPOUND	COMPUCHEM REPORTING AMOUNT (MG/L)	DIL-ADJ CC REPORT LIMITS (MG/L)	COMPUCHEM REPORTING LIMITS (MG/L)	REGULATORY LEVEL (MG/L)
PYRIDINE	BRL	0.05	2.5	5.0
1,4-DICHLOROBENZENE	BRL	0.05	3.75	7.5
2-METHYLPHENOL (O-CRESOL)	BRL	0.05	100.	200.
3-METHYLPHENOL (M-CRESOL)	X BRL	0.05	100.	200.
4-METHYLPHENOL (P-CRESOL)	X BRL	0.05	100.	200.
HEXACHLOROETHANE	BRL	0.05	1.5	3.0
NITROBENZENE	BRL	0.05	1.00	2.0
HEXACHLOROBUTADIENE	BRL	0.05	0.25	0.5
2,4,6-TRICHLOROPHENOL	BRL	0.05	1.0	2.0
2,4,5-TRICHLOROPHENOL	BRL	0.05	200.	400.
2,4-DINITROTOLUENE	BRL	0.050	0.065	0.13
HEXACHLOROBENZENE	BRL	0.050	0.065	0.13
PENTACHLOROPHENOL	BRL	0.25	50.00	100.
TOTAL CRESOLS	BRL	0.05	100.	200.

\* = Refer to CompuChem's "Plan and Policies".

X = Indistinguishable Isomers

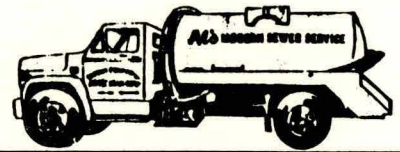
BRL = Below Reporting Limits

DIL-ADJ CC REPORT LIMITS=Dilution-Adjusted CompuChem Reporting Limits

= Method Detection Limits \* Dilution Factor

# AL'S MODERN SEWER SERVICE

9 N. Ingersoll P.O. Box 3355 Madison, WI 53703



608-256-1865

257-2052

January 7, 1992

Wisconsin Dept. of Natural Resources  
P.O. Box 7921  
Madison, Wis. 53707

RECEIVED  
JAN - 8 92  
BUREAU OF SOLID WASTE  
WASTE MANAGEMENT

Attn. Terri Evanson;

Enclosed is the pumping report for 1991 for  
Refuse Hideaway landfill. A copy was also  
sent to Jan Kueher at Warzyn Engineering.

We have not filed it with Environmental Health.  
Please call us if you would like us to file it or  
let us know if you will be taking care of it.

I called Al's + Dane  
Co. 1/9/92. I asked Al's  
to submit pumping report  
+ confirmed with Dane Co. that  
the report is required to be  
submitted every 6 mo.

Thank you,

1/9/92 TERRY EVANSON

Al's Modern Sewer Service  
Pamela Timm

965

### PUMPING REPORT

Property Owner: Refuse Hideaway Landfill

Owner Mailing Address: Hwy 14  
Middleton, WI ZIP 53562

Holding Tank Location:  
Street Address: Hwy 14 Middleton

Township: \_\_\_\_\_ Section \_\_\_\_\_

CSM/Subdiv: \_\_\_\_\_ Lot # \_\_\_\_\_

Tax Parcel Number: \_\_\_\_\_

Pumper's Name: All's Modern Sewer Service License # S1546

Disposal Site: Nine Springs Sewage Treatment Plant

### PUMPING INFORMATION

Give date of pumping and volume pumped.

JAN	_____ GAL	JUL	_____ GAL
FEB	_____ GAL	AUG	<u>23, 27</u> GAL <u>25,000</u>
MAR	_____ GAL	SEP	<u>23</u> GAL <u>20,000</u>
APR	_____ GAL	OCT	<u>1</u> GAL <u><del>20,000</del> 5000</u>
MAY	_____ GAL	NOV	<u>15, 18, 27</u> GAL <u>30,000</u>
JUN	_____ GAL	DEC	<u>6, 9, 16, 17, 27</u> GAL <u>30,500</u>

### COMMENTS:

This form completed by: Pamela Timin

NOTE: REPORTS ARE DUE NO LATER THAN JULY 10 AND JANUARY 10

RETURN REPORTS TO: Dane County Environmental Health, 1206 Northport Drive, Rm. 107, Madison, WI., 53704-2088. If you have any questions call us at (608) 242-6515.

February 21, 1992

FEB 25 1992

Ms. Theresa A. Evanson  
Wisconsin Department of Natural Resources  
Environmental Response and Repair Section  
Bureau of Solid and Hazardous Waste Management  
101 South Webster Street, GEF II, SW/3  
P. O. Box 7921  
Madison, Wisconsin 53707

RECEIVED  
WASTE MANAGEMENT DIV.

Re: Condensate/Leachate Laboratory Analysis  
Sample No. 4 (First Quarter 1992)  
Refuse Hideaway Landfill  
WDNR Project No. 3144  
Job 1529206

Dear Ms. Evanson:

We are forwarding laboratory results of the analyses of samples taken from the leachate/condensate holding tank at the Refuse Hideaway Landfill on January 22, 1992. The purpose of the analyses is to fulfill the requirements of the Madison Metropolitan Sewerage District (MMSD) permit for leachate/condensate disposal. The first three samplings indicated compliance with requirements for TCLP limitations. Therefore, this round will serve as the first quarterly round and has been analyzed for compliance with Part I Section 1 (metals). The report indicates that the Part I Section 1 MMSD Pretreatment Standards were not exceeded.

The next sampling is scheduled for March to satisfy the requirement for the second quarter of 1992.

Please call if you have questions or comments.

Sincerely,

WARZYN, INC.



Jan C. Kucher, P.E.  
Project Manager

DRF/ms/JCK/DFK  
[mad-102-249]  
15292.06

Enclosures: Analytical Laboratory Results

cc: Mr. Paul Nehm - MMSD







**LABORATORY RESULTS  
 INORGANIC REPORT**

**Project:** Refuse Hideaway

**Project #:** 1529206

**Location:** Middleton, Wisconsin

**Date Sampled:** 1/22/92

<u>Analyte</u>	<u>Units</u>	<u>3964-001 Tank Condensate</u>
Aluminum	mg/L	0.45
Cadmium	mg/L	<0.05 (a)
Chromium, Total	mg/L	0.12
Copper	mg/L	<0.01
Lead	mg/L	<0.10
Mercury	mg/L	<0.002 (b)
Nickel	mg/L	0.16
Selenium	mg/L	<0.020 (a)
Silver	mg/L	<0.01
Zinc	mg/L	0.07
Carbonaceous Biochemical Oxygen Demand	mg/L	388 (c)
Chromium, Hexavalent	mg/L	<10.0
Cyanide, Total	mg/L	0.032
Nitrogen, Total Kjeldahl	mg/L	690
Oil and Grease	mg/L	49
pH	s.u.	7.86
Solids, Total Suspended	mg/L	20

- (a) Elevated quantitation limit necessary to overcome difficult matrix.
- (b) Elevated quantitation limit due to low sample volume.
- (c) Initial analysis performed within hold time; necessary dilution performed past recommended hold time. Results from repeat analysis are reported.

Ck'd: *[Signature]* App'd: *[Signature]*  
 Date Issued: 2/18/92



## LABORATORY RESULTS INORGANIC REPORT

**Project:** Refuse Hideaway

**Project #:** 1529206

**Location:** Middleton, Wisconsin

**Date Sampled:** 1/22/92

Method Reference: EPA-600, "Methods for Chemical Analysis of Water And Wastes", March 1984.

"Standard Method for the Examination of Water and Wastewater", 16th Addition, 1985.

	<u>Reporting Limits</u>	<u>Date Analyzed</u>
Method 200.7: Aluminum	0.05 mg/L	2/6/92
Method 200.7: Cadmium	0.005 mg/L	2/3/92
Method 200.7: Chromium, Total	0.01 mg/L	2/4/92
Method 200.7: Copper	0.01 mg/L	2/4/92
Method 200.7: Lead	0.10 mg/L	2/3/92
Method 245.1: Mercury	0.0002 mg/L	2/4/92
Method 200.7: Nickel	0.02 mg/L	2/3/92
Method 270.2: Selenium	0.002 mg/L	2/3/92
Method 200.7: Silver	0.01 mg/L	2/4/92
Method 200.7: Zinc	0.01 mg/L	2/3/92
Method 405.1: Carbonaceous Biochemical Oxygen Demand	1 mg/L	2/4/92
Method 312B: Chromium, Hexavalent	0.05 mg/L	1/23/92
Method 335.3: Cyanide, Total	0.005 mg/L	2/5/92
Method 351.3: Nitrogen, Total Kjeldahl	0.10 mg/L	2/1/92
Method 413.1: Oil and Grease	1 mg/L	1/30/92
Method 150.1: pH	0.01 s.u.	1/23/92
Method 160.2: Solids, Total Suspended	2 mg/L	1/28/92

Ck'd: Jw App'd: *Rj*  
Date Issued: 2/18/92



CC197

### CHAIN OF CUSTODY RECORD

One Science Court  
University Research Park  
P.O. Box 5385  
Madison, Wisconsin 53705  
(608) 273-0440

PROJ. NO. 1529206		PROJECT NAME Refuse Hideaway				NO. OF CON- TAINERS 7	OIL & GREASE Cyanide CBOD TKN TSS/PH Hexavalent Chromium Al, Cd, Total Cr, Cu Pb, Hg, Ni, Se, Zn, Silver							REMARKS <i>Wachter</i>
LOCATION: Middleton WI		SAMPLERS: (Signature) <i>Jel E. Zach</i>												
LAB NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION									
3964001	1-22-92	1645		X	Tank Condensate	1	1	1	1	1	1	1		

Relinquished by: (Signature) <i>Jel E. Zach</i>	Date / Time 1-22-92 1800	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) <i>[Signature]</i>	Date / Time 1-23-92 8:50 AM		

Remarks: PROJECT MANAGER: *J Kucher*

*Subject, acid cond panel delivered*



**MADISON METROPOLITAN  
SEWERAGE DISTRICT**

1610 Moorland Road  
Madison, WI 53713-3398

Telephone (608) 222-1201

James L. Nemke  
Chief Engineer & Director



February 26, 1992

**COMMISSIONERS**

Lawrence B. Polkowski  
President  
Edward V. Schten  
Vice-President  
Harold L. Lautz  
Secretary  
Eugene O. Gehl  
Commissioner  
Stephen J. Hiniker  
Commissioner

Ms. Theresa A. Evanson  
Department of Natural Resources  
Bureau of Solid & Hazardous Waste Management  
P.O. Box 7921  
Madison, WI 53707-7921

Dear Ms. Evanson:

I received today a copy of the February 21, 1992 letter to you from Jan C.Kucher. I appreciated receiving the monitoring results. As Mr. Kucher indicated, the results showed that the material was in compliance with all of the District's Sewer Use Ordinance limits.

The analysis results which were supplied were for a sample collected on January 22, 1992. Mr. Kucher indicated that he intends to sample in March to satisfy the requirements for the second quarter of 1992. I am assuming he is using December, January, and February as the first quarter. It would be helpful if the quarters could correspond to the typical calendar quarters. Therefore, we would appreciate it if you could use January, February, and March as the first quarter and if the sampling could be delayed until at least April for the second quarter.

If there is a problem in doing this, please contact me.

Sincerely,

Paul H. Nehm  
Director of Wastewater  
Treatment Operations

PHN:dms





June 16, 1992

Ms. Theresa A. Evanson  
Wisconsin Department of Natural Resources  
Environmental Response and Repair Section  
Bureau of Solid and Hazardous Waste Management  
101 South Webster Street, GEF II, SW/3  
P.O. Box 7921  
Madison, Wisconsin 53707

Re: Condensate/Leachate Laboratory Analysis  
Sample No. 5 (Second Quarter 1992)  
Refuse Hideaway Landfill  
WDNR Project No. 3144  
Job 1529206

Dear Ms. Evanson:

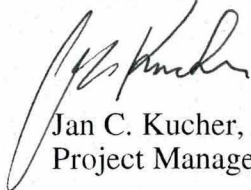
We are forwarding laboratory results of the analyses of samples taken from the leachate/condensate holding tank at the Refuse Hideaway Landfill on April 20, 1992. The purpose of the analysis is to fulfill the requirements of the Madison Metropolitan Sewerage District (MMSD) permit for leachate/condensate disposal. This round serves as the second quarterly round and has been analyzed for compliance with Part I Section 1 (metals). An elevated quantitation limit of 10 mg/L was necessary to overcome interference during laboratory analyses for hexavalent chromium. Since total chromium was detected at 0.10 mg/L, it is concluded that the MMSD effluent limit of 0.5 mg/L for hexavalent chromium was not exceeded. This report indicates that the Part I Section 1 MMSD Pretreatment Standards were not exceeded.

The next sampling should be scheduled for July to satisfy the requirements for the third quarter of 1992.

Please call if you have questions or comments.

Sincerely,

WARZYN INC.



Jan C. Kucher, P.E.  
Project Manager

DRF/ms/JCK/DFK  
[mad-106-222]  
1529206/197

Enclosures: Analytical Laboratory Results

cc: Mr. Paul Nehm - MMSD

THE PERFECT BALANCE  
BETWEEN TECHNOLOGY  
AND CREATIVITY.

MADISON  
ONE SCIENCE COURT  
P.O. BOX 5385  
MADISON, WI 53705  
(608) 231-4747  
FAX (608) 273-2513





# LABORATORY RESULTS INORGANIC REPORT

MADISON  
ONE SCIENCE COURT  
P.O. BOX 5385  
MADISON, WI 53705  
(608) 231-4747  
FAX (608) 231-4777

**Project:** Refuse Hideaway

**Project #:** 1529206

**Location:** Middleton, Wisconsin

**Date Sampled:** 4/20/92

<u>Analyte</u>	<u>Units</u>	<u>4459-001 Leachate Tank</u>
Aluminum	mg/L	0.55
Cadmium	mg/L	<0.005
Chromium, Total	mg/L	0.10
Copper	mg/L	<0.02
Lead	mg/L	<0.10
Mercury	mg/L	<0.0002
Nickel	mg/L	0.15
Selenium	mg/L	<0.04 (a)
Silver	mg/L	<0.01
Zinc	mg/L	0.12
Carbonaceous Biochemical Oxygen Demand	mg/L	311
Chromium, Hexavalent	mg/L	<10 (a)
Cyanide, Total	mg/L	0.006
Nitrogen, Total Kjeldahl	mg/L	439
Oil & Grease	mg/L	25
pH	s.u.	7.84
Solids, Total Suspended	mg/L	63

(a) Elevated quantitation limit necessary to overcome difficult matrix.

Method Reference: EPA-600, "Methods for Chemical Analysis of Water And Wastes", March 1984.

SW-846, "Test Methods for Evaluating Solid Waste", November, 1986.

"Standard Method for the Examination of Water and Wastewater", 16th Addition, 1985.

	<u>Reporting Limits</u>	<u>Date Analyzed</u>
Method 6010: Aluminum	0.05 mg/L	5/01/92
Method 6010: Cadmium	0.005 mg/L	5/01/92
Method 6010: Chromium, Total	0.01 mg/L	5/01/92
Method 6010: Copper	0.02 mg/L	5/01/92
Method 6010: Lead	0.10 mg/L	5/26/92
Method 7471: Mercury	0.0002 mg/L	5/01/92
Method 6010: Nickel	0.02 mg/L	5/01/92
Method 7740: Selenium	0.002 mg/L	5/01/92
Method 6010: Silver	0.01 mg/L	5/01/92
Method 6010: Zinc	0.01 mg/L	5/01/92
Method 405.1: Carbonaceous Biochemical Oxygen Demand	1 mg/L	4/22/92
Method 312B: Chromium, Hexavalent	0.05 mg/L	4/20/92
Method 9012: Cyanide, Total	0.005 mg/L	5/07/92
Method 351.3: Nitrogen, Total Kjeldahl	0.10 mg/L	5/12/92
Method 413.1: Oil & Grease	1 mg/L	5/06/92
Method 9045: pH	0.01 s.u.	4/20/92
Method 160.2: Solids, Total Suspended	2 mg/L	4/27/92

CK'd:CAW App'd: G/G  
Date Issued: 6/4/92



Environmental  
Construction &  
Remediation  
Services, Inc.

**RECEIVED**

FEB 04 1993

**BUREAU OF SOLID -  
HAZARDOUS WASTE MANAGEMENT**

February 3, 1993

Mr. Paul H. Nehm  
Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, Wisconsin 53713-3398

Re: Refuse Hideaway Landfill, Middleton, Wisconsin  
Quarterly and Annual Leachate Analytical Results for Period Ending  
December 1992  
Wastewater Discharge Permit No. NTO-5  
ECRS Contract No. C6024.01

Dear Mr. Nehm:

Enclosed you will find the analytical results for a leachate sample collected November 30, 1992, at the Refuse Hideaway Landfill in compliance with Madison Metropolitan Sewerage District's Discharge Permit No. NTO-5. The sample was analyzed for quarterly and annual monitoring requirements.

A brief review of the analytical results does not indicate any exceedance of the wastewater's permitted effluent limits. Several metals, cyanide and two volatile organic compounds (methyl ethyl ketone and vinyl chloride) were detected at low concentration levels.

If you have any questions concerning the enclosed laboratory results or any other questions regarding our O&M responsibilities at the landfill, please feel free to contact us.

Sincerely,

**ENVIRONMENTAL CONSTRUCTION AND  
REMEDIALATION SERVICES, INC.**

Brian Hegge  
Technical Manager

Enclosures: as stated

cc: Ms. Theresa Evanson

ECRS\refuse\93-MMSD.bjh



**E C R S, INC.**

ECRS  
Attn: Brian Hegge  
2201 Vondron Road  
Madison, WI 53704

(Refuse Hideaway)

Client # : 1184  
REF # : 1-4361  
Sample ID # 113092-08  
Report Date 1/18/93  
Sample Date 11/30/93

Site Description : LEACHATE

TEST NAME	Result	Units
Cyanide, Total.....	0.017	mg/L
Oil and Grease.....	2.6	mg/L
pH (Lab) (Water).....	7.78	S.U.
Cadmium, Total.....	<0.002	mg/L
Chromium, Total.....	0.230	mg/L
Hexavalent Chromium.....	<0.001	mg/L
	MATRIX INTERFERENCE	
Copper, Total.....	0.006	mg/L
Lead, Total.....	<0.02	mg/L
Mercury (Cold Vapor).....	<0.0004	mg/L
Nickel, Total.....	0.07	mg/L
Selenium (Hydride), Total Low Level.....	0.0012	mg/L
Silver, Total.....	<0.001	mg/L
Zinc, Total.....	0.011	mg/L

WI DNR LAB CERTIFICATION # 157066030  
DHSS CERTIFICATION # MW0289





ECRS  
 Attn: Brian Hegge  
 2201 Vondron Road  
 Madison, WI 53704

(Refuse Hideaway) Client # : 1184  
 REF # : 1-4361  
 Sample ID # 113092-08  
 Report Date 1/18/93  
 Sample Date 11/30/93

Site Description : LEACHATE

TEST NAME	Result	Units
TCLP Volatiles: .....		
1,1-Dichloroethylene.....	<4.0	ug/L
1,2-Dichloroethane.....	<5.0	ug/L
1,4-Dichlorobenzene.....	<5.0	ug/L
Benzene.....	<2.0	ug/L
Carbon Tetrachloride.....	<5.0	ug/L
Chlorobenzene.....	<20.0	ug/L
Chloroform.....	<5.0	ug/L
Methyl Ethyl Ketone.....	.193	ug/L
Tetrachloroethylene.....	<5.0	ug/L
Trichloroethylene.....	<2.0	ug/L
Vinyl Chloride.....	6.98	ug/L
TCLP SemiVolatiles: .....		
2,4,5-Trichlorophenol.....	<100	ug/L
2,4-Dinitrotoluene.....	<50	ug/L
2,5,6-Trichlorophenol.....	<100	ug/L
Hexachlorobenzene.....	<50	ug/L
Hexachlorobutadiene.....	<50	ug/L
Hexachloroethane.....	<50	ug/L
Nitrobenzene.....	<50	ug/L
o-Cresol.....	<100	ug/L
p- & p-Cresol.....	<100	ug/L
Pentachlorophenol.....	<500	ug/L
Pyridine.....	<100	ug/L
TCLP Pesticides/Herbicides: .....		

WI DNR LAB CERTIFICATION # 157066030  
 DHSS CERTIFICATION # MW0289



ECRS  
 Attn: Brian Hegge  
 2201 Vondron Road  
 Madison, WI 53704

(Refuse Hideaway) Client # : 1184  
 REF # : 1-4361  
 Sample ID # 113092-08  
 Report Date 1/18/93  
 Sample Date 11/30/93

Site Description : LEACHATE

TEST NAME	Result	Units
2,4,5-TP (Silvex)	<2.0	ug/L
2,4-D	<20.0	ug/L
Chlordane	<2.0	ug/L
Endrin	<0.08	ug/L
Heptachlor	<0.04	ug/L
Heptachlor Epoxide	<0.04	ug/L
Lindane (BHC)	<0.04	ug/L
Methoxychlor	<2.0	ug/L
Toxaphene	<2.0	ug/L
Arsenic, Total TCLP EXTRACTION	0.079	mg/L
MATRIX INTERFERENCE		
Barium, Total TCLP EXTRACTION	0.31	mg/L
Cadmium, Total TCLP EXTRACTION	0.005	mg/L
Chromium, Total TCLP EXTRACTION	0.15	mg/L
Lead, Total TCLP EXTRACTION	<0.02	mg/L
Mercury, Total TCLP EXTRACTION	<0.0002	mg/L
Selenium, Total TCLP EXTRACTION	0.0006	mg/L
Silver, Total TCLP EXTRACTION	0.0007	mg/L
Arrival Temperature	ON ICE	

Notes :

Submitted by 

WI DNR LAB CERTIFICATION # 157066030  
 DHSS CERTIFICATION # MW0289







Environmental  
Construction &  
Remediation  
Services, Inc.

April 22, 1993

Mr. Paul H. Nehm  
Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, Wisconsin 53713-3398

Re: Refuse Hideaway Landfill, Middleton, Wisconsin  
Quarterly Leachate Analytical Results for Period Ending March 1993  
Wastewater Discharge Permit No. NTO-5  
ECRS Contract No. C6024.01

Dear Mr. Nehm:

Enclosed you will find the analytical results for a leachate sample collected March 22, 1993, at the Refuse Hideaway Landfill in compliance with Madison Metropolitan Sewerage District's Discharge Permit No. NTO-5. The sample was analyzed for quarterly monitoring requirements.

A brief review of the analytical results does not indicate any exceedance of the wastewater's permitted effluent limits. Several metals (lead, nickel, hexavalent and total chromium, cadmium, copper and zinc) and cyanide were detected at low concentration levels. Hexavalent chromium was analyzed past its holding time of 24 hours. But the total chromium concentration, which includes hexavalent and other forms of chromium, are below the effluent limits for hexavalent chromium. Mercury detection limits are elevated due to matrix interferences.

We would like to request a copy of the Madison Metropolitan Sewerage District Sewer Use Ordinance and the District's Policy on Acceptance of Wastewater Containing Non-Typical Organic and Inorganic Constituents for reference. If you have any questions concerning the enclosed laboratory results, please feel free to contact us.

Sincerely,

**ENVIRONMENTAL CONSTRUCTION AND  
REMEDIALATION SERVICES, INC.**

Brian Hegge  
Technical Manager

Enclosures: Analytical Results Dated, 03/22/93

cc: Ms. Theresa Evanson

ECRS\refuse\84-MMSD.ltr



RECEIVED

APR 22 1993

Laboratory Services  
1230 Lange Ct.  
Baraboo, WI 53013  
608-356-2760

RECEIVED  
APR 23 1993  
EMERG & REMEDIAL RESPONSE SECTION  
BUR OF SOLID & HAZRD WASTE

**E C R S, INC.**  
ANALYTICAL REPORT

ECRS  
BRIAN HEGGE  
2201 VONDRON ROAD  
MADISON, WI 53704

Client I.D. No.: T184  
Work Order No.: 9303000336  
Project Name: REFUSE HIDEAWAY  
Project Number: C6024.01  
Arrival Temperature: ON ICE

Sample I.D. #: 7447

Sample Description: LEACHATE

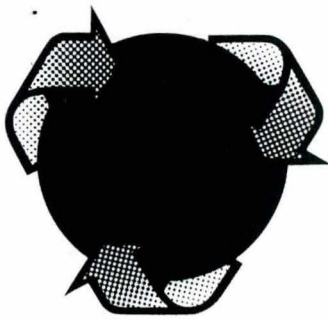
Date Sampled: 03/22/93

<u>Analyte</u>	<u>Result</u>	<u>Units</u>
Cyanide, Total	50.8	ug/L
Lead, Total	0.02	mg/L
Mercury, Total, Low Level	< 0.0002	mg/L
Elevated detection limit due to matrix interference.		
Metals Sample Preparation	3/26/93	
Nickel, Total	0.06	mg/L
Oil and Grease	9.0	mg/L
Selenium, Total, Low Level	< 2	ug/L
pH (Lab)	7.68	
Hexavalent Chromium	141	ug/L
EXCEEDED HOLDING TIME		
Cadmium, Total	0.005	mg/L
Chromium, Total	0.07	mg/L
Copper, Total	0.009	mg/L
Zinc, Total	0.030	mg/L
Silver, Total	< 0.5	mg/L

Submitted By: 

Wisconsin DNR Laboratory Certification Number: 157066030  
DHSS Certification Number: MW0289



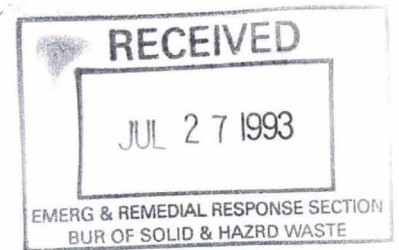


# TERRA

▲ ENGINEERING & CONSTRUCTION CORPORATION ▲

ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK

July 22, 1993



Mr. Paul H. Nehm  
Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, Wisconsin 53713-3398

Re: Refuse Hideaway Landfill,  
Middleton, Wisconsin  
Quarterly Leachate Analytical  
Results for Period Ending  
June 1993  
Wastewater Discharge Permit  
No. NTO-5 (ECS No. C6024.01)  
Terra Job No. 468

Dear Mr. Nehm:

Enclosed you will find the analytical results for a leachate sample collected June 1, 1993, at the Refuse Hideaway Landfill in compliance with Madison Metropolitan Sewerage District's Discharge Permit No. NTO-5. The sample was analyzed for quarterly monitoring requirements.

A brief review of the analytical results does not indicate any exceedance of the wastewater's permitted effluent limits. Total low level selenium detection limits are elevated due to matrix interferences.

If you have any questions concerning the enclosed laboratory results, please feel free to contact us.

Sincerely,  
TERRA ENGINEERING & CONSTRUCTION CORP.

Kirk J. Solberg  
Environmental Geologist

Enclosures: Analytical Results Dated, 06/01/93

cc: Ms. Theresa Evanson

ECRS\refuse\85-MMSD.Ltr

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX







RECEIVED  
JUL 18 1993

Laboratory Services  
1230 Lange Ct.  
Baraboo, WI 53913  
608-356-2760

TERRA ENGINEER  
ANALYTICAL REPORT

TERRA ENGINEERING & CONSTRUCT.  
KIRK SOLBERG  
2201 VONDRON ROAD  
MADISON, WI 53704

Client I.D. No.:1184  
Work Order No.:9306000022  
Project Name:REFUSE HIDEAWAY  
Project Number:C6024.01  
Arrival Temperature:N/A

Sample I.D. #:15551      Sample Description:LEACHATE

Date Sampled:06/01/93

<u>Analyte</u>	<u>Result</u>	<u>Units</u>
Cadmium, Total	0.004	mg/L
Copper, Total	0.02	mg/L
Hexavalent Chromium	76	ug/L
Total Chromium	160	ug/L
Lead, Total	<0.02	mg/L
Mercury, Total, Low Level	<0.0002	mg/L
Metals Sample Preparation	6/2/93	
Nickel, Total	0.110	mg/L
Oil and Grease	<5.0	mg/L
Zinc, Total	0.050	mg/L
pH (Lab)	8.01	
Cyanide, Total	12	ug/L
Silver, Total, Low Level	<0.5	ug/L
Selenium, Total, Low Level	<20	ug/L
Elevated detection limit due to matrix interference.		

Submitted By:



**MADISON METROPOLITAN  
SEWERAGE DISTRICT**

1610 Moorland Road  
Madison, WI 53713-3398  
Telephone (608) 222-1201  
Fax (608) 222-2703

James L. Nemke  
Chief Engineer & Director



August 27, 1993

**COMMISSIONERS**

Lawrence B. Polkowski  
President  
Edward V. Schten  
Vice-President  
Harold L. Lautz  
Secretary  
Eugene O. Gehl  
Commissioner  
Thomas D. Hovel  
Commissioner

**RECEIVED**  
AUG 28 1993

**TERRA ENGINEERING**

Mr. Kirk J. Solberg  
Terra Engineering & Construction Corporation  
2201 Vondron Road  
Madison, WI 53704-6795

Dear Mr. Solberg:

In response to your letter of August 24, 1993, I have enclosed Permit No. NTO-5A for the Refuse Hideaway Landfill. This permit allows discharge of wastewater from this facility to the District's Nine Springs Wastewater Treatment Plant until September 25, 1994.

I understand your firm now has the responsibility to perform the testing specified by the permit. If you have any questions on the permit, please contact me.

Sincerely,

Paul H. Nehm  
Director of Wastewater  
Treatment Operations

Enclosure

PHN/nkb



## WASTEWATER DISCHARGE PERMIT

In compliance with the provisions of Articles 5 and 6 of the Madison Metropolitan Sewer District Sewer Use Ordinance and the District's Policy on Acceptance of Wastewater Containing Non-Typical Organic and Inorganic Constituents,

Department of Natural Resources  
Post Office Box 7921  
Madison, WI 53707

is hereby authorized to discharge wastewater from the Refuse Hideaway Landfill into the District sewerage system in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in this permit.

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

This permit shall become effective on September 26, 1993, and shall expire at midnight, September 25, 1994. Any appeals to the conditions of this permit must be made to the Chief Engineer and Director within thirty days of the signature date.

The permittee shall not discharge after the date of expiration. If the permittee wishes to continue to discharge after this expiration date an application shall be filed for reissuance of this permit in accordance with the requirements of Article 5 of the Madison Metropolitan Sewerage District Sewer Use Ordinance, at least thirty days prior to the expiration date.

In accordance with Articles 5 and 6 of the Madison Metropolitan Sewerage District Sewer Use Ordinance, the District reserves the right to amend this permit from time to time or to revoke the permit.

By: James L. Nemke  
James L. Nemke  
Chief Engineer and Director

Dated this 27<sup>th</sup> day of August, 19 93.

PART 1--APPLICABLE EFFLUENT LIMITATIONS

SECTION 1--MMSD Pretreatment Standards

- (a) All wastewaters discharged to the MMSD shall not exceed the following effluent limitations:

0.25 mg/l cadmium  
0.5 mg/l hexavalent chromium  
10.0 mg/l total chromium  
1.5 mg/l copper  
0.1 mg/l cyanide  
5.0 mg/l lead  
0.02 mg/l mercury  
2.0 mg/l nickel  
0.3 mg/l selenium  
3.0 mg/l silver  
8.0 mg/l zinc

- (b) The limitations listed in paragraph (a) apply to twenty-four hour flow proportionate samples collected from the total discharge of the permittee.
- (c) In addition, the permittee shall comply with all other applicable regulations and standards contained in the MMSD Sewer Use Ordinance. Included in these regulations are limitations on pH, slug loads, oil and grease content, and materials causing health and safety problems.

SECTION 2--Toxicity Characteristics Leaching Procedure Requirements

- (a) All wastewaters discharged to the MMSD shall not exceed the limitations of the Toxicity Characteristics Leaching Procedure (TCLP) as specified in the Federal Register of March 29, 1990.

## PART 2--MONITORING AND REPORTING REQUIREMENTS

SECTION 1--Monitoring Requirements

The permittee shall monitor its wastewater discharges subject to regulations under Part 1 of this permit to ascertain compliance with the applicable limitations. Said monitoring to determine compliance with the standards specified in Part 1 shall be conducted each calendar quarter. The monitoring shall consist of sampling of the regulated wastewaters for those pollutants regulated under Part 1 of this permit and reporting of the results to the District. Samples shall be obtained by collecting a representative sample of the contents of the on-site 25,000 gallon storage tank. Samples shall be collected on a quarterly basis to show compliance with Part I Section 1 and on an annual basis to show compliance with Part I Section 2.

Laboratory analysis of samples collected shall be performed in accordance with 40 CFR Part 136 or other such methods as approved by the District.

SECTION 2--Reporting Requirements

Self-monitoring results shall be reported to the District within three days of the end of the calendar quarter.

If the permittee monitors any pollutant more frequently than required by this permit, the results of such monitoring shall be submitted to the District.

If sampling performed by the permittee indicates a violation of any provisions of this permit, the permittee must notify the District of the violation within 24 hours of becoming aware of it. The permittee must also repeat the sampling and analysis and submit the results of the repeat analysis to the District within 30 days after becoming aware of the violation.

All reports shall be signed and sworn by a responsible corporate officer of the permittee. A responsible corporate officer is defined as:

1. A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the permittee, or
2. The manager of one or more manufacturing, production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million, if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

The individual signing the report shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for

gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

All reports required by this permit shall be submitted to:

Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, Wisconsin 53713

The Madison Metropolitan Sewerage District will randomly collect and analyze samples of leachate to verify leachate quality.

PART 3--MONITORING AND SAMPLING FACILITIES

SECTION 1--Sampling Facilities

In order to permit monitoring of the leachate, by the District, the permittee shall construct facilities to allow for collection of a representative sample from the on-site 25,000 gallon storage tank.

SECTION 2--Discharge Point

Since the Refuse Hideaway Landfill is outside the District's service area, all wastewater from the site shall be hauled to the Nine Springs Wastewater Treatment Plant and disposed of at a designated location at this plant. The hauler shall have in effect a Septage Disposal Permit issued by the District.



## PART 4--GENERAL CONDITIONS

1. Right of Entry

The permittee shall, after reasonable notification by the District, allow the District or its representatives, exhibiting proper credentials and identification, to enter upon the premises of the permittee at all reasonable hours, for the purposes of inspection, sampling, or records inspection. Reasonable hours in the context of inspection and sampling includes any time the permittee is operating any process which results in collection of wastewater in the on-site storage tank.

2. Records Retention

- a) The permittee shall retain and preserve for no less than three (3) years, any records, books, documents, memoranda, reports, correspondence and any and all summaries thereof, relating to monitoring, sampling and chemical analyses made or by or in behalf of the permittee in connection with its discharge.
- b) All records that pertain to matters that are the subject of special orders or any other enforcement or litigation activities brought by the District shall be retained and preserved by the permittee until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

3. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

4. Confidential Information

Except for data determined to be confidential under Article 7.2 MMSD Sewer Use Ordinance, all reports required by this permit shall be available for public inspection at the headquarters of the District.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a) The exact place, date, and time of sampling;
- b) The dates the analyses were performed;
- c) The person(s) who performed the analyses;
- d) The analytical techniques or methods used; and
- e) The results of all required analyses.

6. Falsifying Information

Knowingly making any false statement on any report or other document required by this permit or knowingly rendering any monitoring device or method inaccurate, may result in punishment under the criminal laws of Wisconsin as well as being subjected to civil penalties and relief.

7. Modification or Revision of Permit

- a) The terms and conditions of this permit may be subject to modification by the District at any time as limitations or requirements as identified in the MMSD Sewer Use Ordinance are modified or other just cause exists.
- b) This permit may also be modified to incorporate special conditions resulting from the issuance of a special order.
- c) Any modifications which result in new conditions in the permit shall include a reasonable time schedule for compliance if necessary.

8. Dilution

No permittee shall increase the use of potable or process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit.

9. Accidental Discharges

The permittee shall provide protection from the accidental discharge of prohibited or regulated materials or substances established by the MMSD Sewer Use Ordinance. Where necessary, facilities to prevent the accidental discharge of prohibited materials shall be provided and maintained at the permittee's expense. Permittees shall notify the District immediately upon the occurrence of an accidental discharge of substances prohibited by the MMSD Sewer Use Ordinance. The District should be notified by telephone at 222-1201. During normal business hours the notification shall be made to the Director of Wastewater Treatment Operations. During other times, the notification shall be made to the operator on duty. The notification shall include location of discharge, date and time thereof, type of waste, concentration and volume, and corrective actions taken. The permittee shall also provide such notification to the appropriate local municipal officials. In addition, the permittee should immediately notify the State of Wisconsin of the accidental spill at (608) 266-3232 (24-hour number).

40 CFR 403.8(f)(v) requires the District to evaluate each significant industrial user at least once every two years to determine whether a plan to control slug discharges is necessary. If it is determined that such a plan is necessary, the plan shall contain the following:

1. A description of discharge practices including non-routine batch discharges.

2. A description of stored chemicals.
3. Procedures for immediately notifying the District of a slug discharge and procedures for follow-up written notification within five days.
4. Procedures to prevent adverse impact from accidental spills.

10. Notice of Intent

Any permittee planning to alter or change any activity at the permittee's facility that would significantly increase or decrease the volume or alter the content of any existing source of industrial wastewater discharge into the District sewerage system must file a written Request to Discharge Form in accordance with Article 5 of the MMSD Sewer Use Ordinance. A significant increase or decrease shall be defined as a 25 percent increase or decrease in the volume of industrial wastewater currently being discharged by a permittee. An alteration shall be defined as any change in chemicals utilized with a process which will significantly alter the characteristics of the industrial waste discharge or the addition of any new process or production wastewater discharge.

11. Proper Disposal of Pretreatment Sludges

The disposal of sludges generated within wastewater pretreatment systems shall be done in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

12. Operating Upsets

Any permittee that experiences an upset in operations that places the permittee in a temporary state of noncompliance with the provisions of either this permit or the MMSD Sewer Use Ordinance shall inform the District thereof within 24 hours of first awareness of the commencement of the upsets in accordance with Article 5.5.5 of the MMSD Sewer Use Ordinance.

13. Limitations on Permit Transfer

Wastewater discharge permits are issued to a specific user for a specific operation and are not assignable to another user or transferable to any other location without prior written approval of the District. Sale of a user shall obligate the purchaser to seek prior written approval of the District for continued discharge to the District sewerage system.

14. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

15. Fees

The permittee will incur all costs billed by the District for leachate discharged to the District's sewerage system for leachate quantities and strengths as reported by the permittee to the District and as ascertained by the District through additional sampling. The costs shall include charges for the volume, CBOD, Total Suspended Solids, and Total Kjeldahl Nitrogen discharged and for ten (10) equivalent meters and one (1) actual customer and shall be based on the then prevailing District service charge rates. In accordance with the District's Policy on Acceptance of Wastewater Generated Outside of the District, a cumulative 10 percent surcharge shall be imposed on the discharge cost each quarter until such surcharge reaches 100 percent.

16. Hazardous Waste Notification

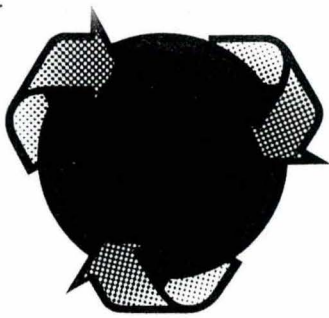
The permittee shall notify the District, the Department of Natural Resources, and the EPA Regional Waste Management Division Director in writing of any discharge to the sanitary sewer system of a substance which, if otherwise disposed of, would be a hazardous water under 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge. If the permittee discharges to the sanitary sewer more than 100 kilograms of such waste per calendar month, the additional notification requirements of 40 CFR 403.12(p) apply. In the case of any notification made under this section, the permittee shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.

17. Penalties

Violations of this permit are enforceable under Article XIII of the District's Sewer Use Ordinance. Included as enforcement remedies are special orders, injunctive relief, fines, and termination of service.

18. Bypass of Pretreatment Facilities

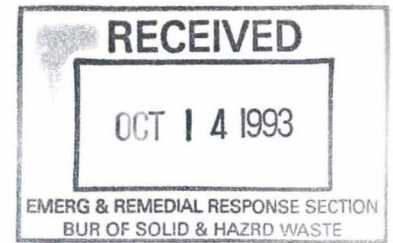
Bypassing of any permittee pretreatment facilities is only allowed in accordance with the provisions of 40 CFR 403.17. If the permittee knows in advance of the need for a bypass, it shall submit notice to the District, if possible at least ten days before the date of the bypass.



# TERRA

▲ ENGINEERING & CONSTRUCTION CORPORATION ▲

ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK



October 13, 1993

Mr. Paul H. Nehm  
Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, Wisconsin 53713-3398

Re: Refuse Hideaway Landfill,  
Middleton, Wisconsin  
Quarterly Leachate Analytical  
Results for Period Ending  
September 1993  
Wastewater Discharge Permit  
No. NTO-5A  
Terra Job No. 468

Dear Mr. Nehm:

Enclosed you will find the analytical results for a leachate sample collected September 30, 1993, at the Refuse Hideaway Landfill in compliance with Madison Metropolitan Sewerage District's Discharge Permit No. NTO-5A. The sample was analyzed for quarterly monitoring requirements.

A brief review of the analytical results does not indicate any exceedance of the wastewater's permitted effluent limits. The detection limits for Total low level Mercury and Total low level Selenium are elevated due to matrix interferences.

If you have any questions concerning the enclosed laboratory results, please feel free to contact us.

Sincerely,  
TERRA ENGINEERING & CONSTRUCTION CORP.

Kirk J. Solberg  
Environmental Geologist

Enclosures: Analytical Results Dated, 08/30/93

cc: Ms. Theresa Evanson

ECRS\refuse\85MMSD01.Ltr

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX



Laboratory Services  
1230 Lange Ct.  
Baraboo, WI 53913  
608-356-2760

ANALYTICAL REPORT

TERRA ENGINEERING & CONSTRUCT.  
KIRK SOLBERG  
2201 VONDRON ROAD  
MADISON, WI 53704

RECEIVED  
OCT 9 1993

Client I.D. No.:1184  
Work Order No.:9308000672  
Project Name:REFUSE HIDEAWAY  
Project Number:468  
Arrival Temperature:8.8C  
Report Date: 10/08/93

Sample  
I.D. #:27893

TERRA ENGINEERING  
Sample  
Description:REFUSE HIDEAWAY (LEACHATE)

Date Sampled:08/30/93

Analyte	Result	Units
Cadmium, Total	<5	ug/L
Chromium, Total	170	ug/L
Copper, Total	10	ug/L
Cyanide, Total	0.078	mg/L
Hexavalent Chromium	435	ug/L
Lead, Total	<20	ug/L
Mercury, Total, Low Level	<0.2	ug/L
Elevated detection limit due to matrix interference.		
Metals Sample Preparation	9/1/93	
Nickel, Total	100	ug/L
Oil and Grease	10	mg/L
Selenium, Total, Low Level	0.6	ug/L
Elevated detection limit due to matrix interference.		
Silver, Total, Low Level	<0.5	ug/L
Zinc, Total	27	ug/L
pH (Lab)	8.47	S.U.'s

Submitted By: 

Refuse Hideaway Leachate

MID-STATE ENVIRONMENTAL SERVICES  
 1230 LANGE COURT  
 BARABOO, WI 53913  
 (608) 356-1777  
 FAX: (608) 356-7340

Fill In Analysis Needed Below

☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
				metals	CH	Co, Cr, Cu	Pb, Hg, Ni	Se, Ag, Zn								

Remarks:  
 \* lead 8/31 sample exceeds hold time

Project#: 468 Proj. Name: Refuse Hideaway  
 Client Name/Number: terra Eng. & Const. # Of Containers: 4

Date	Time	Comp	Grab	Sample Description	Sample#	# Of Containers
8-30	4:00 PM		✓	Refuse Hideaway	2	4

Space Below For Laboratory Use

Pres.	Sample I.D. #'s
	27843

Sampled By: J. Feltz	Date: 8-30-93	Time: 4:00 PM	Relinquished By: J. Feltz	Date: 8-31-93	Time: 11:00
Received By: Rory S. Kaduleck	Date: 8-31	Time: 11:00	Received By Lab: Spauldm	Date: 8/31/93	Time: 12:20 PM

Remarks: ANY QUESTIONS - call Kirk Solberg AT Terra (608) 221-3501  
 Results to Kirk Solberg & Terra  
 2201 Vandron Rd  
 Madison, WI 53704-6795

CHECKED D.J.

Date Sample Disposed of:	Sample Shipped Via: <u>UPS</u> international EXPRESS
	Fed. Exp. Hand U.S. Mail
	Sample Status: Deg. C: 8.8° pH: 8.8



# TERRA

▲ ENGINEERING & CONSTRUCTION CORPORATION ▲

ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK

## LETTER OF TRANSMITTAL

**DATE:** December 6, 1993 **JOB #**468

**ATTENTION:** Ms. Theresa Evanson

**RE:** Refuse Hideaway Landfill  
Analytical Results

**TO:** Wisconsin Department of  
Natural Resources  
101 S. Webster Street  
P.O. Box 7921  
Madison, WI 53707

### WE ARE SENDING THE FOLLOWING:

One copy of a Revised Analytical Report from Mid-State Associates (MSA) laboratories along with an accompanying letter from MSA.


### Remarks:

Dear Ms. Evanson:

We received this revised report last week. There is no need for concern, however you may wish to file this revised analytical report and the letter with your other copies.

If you have any questions regarding this report, please do not hesitate to call.

Copy to: File

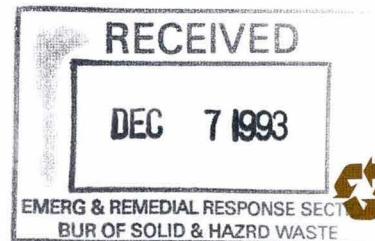
Signed: 

Kirk J. Solberg

Environmental Geologist

If enclosures are not as noted, kindly notify us at once.

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX







MID-STATE ASSOCIATES, INC.

RECEIVED  
DEC 2 - 1993

TERRA ENGINEERING

1230 Lange Court  
Baraboo, WI 53913  
608-356-2760  
800-228-3012  
FAX: 608-356-2766

Environmental & Laboratory Services

December 1, 1993

Mr. Kirk Solberg  
Terra Engineering and Construction  
2201 Vondron Road  
Madison, WI 53704

Re: Refuse Hideaway

Dear Kirk;

Enclosed please find a revised analytical report for August 30, 1993 leachate sample from Refuse Hideaway. In our review of the work we found that the reporting system did not accept a modification manually entered for the Mercury test. This revised report contains the correct detection limit for this test that had been elevated due to matrix interference. The old report sent to you on October 8, 1993 stated the normal detection limit and it should have stated that if Mercury was present, it was less than 0.4 mg/L (<0.4 mg/L). We apologize for any problems this may cause.

If you have any questions or concerns, do not hesitate to call.

Sincerely,  
MID-STATE ASSOCIATES

A handwritten signature in black ink, appearing to read 'Dan Elwood', written in a cursive style.

Dan Elwood  
Quality Assurance Manager

Enc.

DE/lp



RECEIVED  
DEC 2 - 1993

Laboratory Services  
1230 Lange Ct.  
Baraboo, WI 53913  
608-356-2760

TERRA ENGINEERING  
ANALYTICAL REPORT

TERRA ENGINEERING & CONSTRUCT.  
KIRK SOLBERG  
2201 VONDRON ROAD  
MADISON, WI 53704

Client I.D. No.:1184  
Work Order No.:9308000672  
Project Name:REFUSE HIDEAWAY  
Project Number:468  
Arrival Temperature:8.8C  
Report Date: 11/30/93

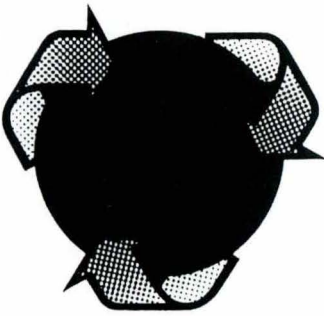
Sample  
I.D. #:27893

Sample  
Description:REFUSE HIDEAWAY (LEACHATE)

Date Sampled:08/30/93

Analyte	Result	Units
Cadmium, Total	<5	ug/L
Chromium, Total	170	ug/L
Copper, Total	10	ug/L
Cyanide, Total	0.078	mg/L
Hexavalent Chromium	435	ug/L
Lead, Total	<20	ug/L
Metals Sample Preparation	9/1/93	
Nickel, Total	100	ug/L
Oil and Grease	10	mg/L
Selenium, Total, Low Level	0.6	ug/L
Elevated detection limit due to matrix interference.		
Silver, Total, Low Level	<0.5	ug/L
Zinc, Total	27	ug/L
pH (Lab)	8.47	S.U.'s
Mercury, Total, Low Level	<0.4	ug/L
Elevated detection limit due to matrix interference.		

Submitted By:



# TERRA

▲ ENGINEERING & CONSTRUCTION CORPORATION ▲

ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK

## LETTER OF TRANSMITTAL

DATE: January 11, 1994 JOB 468

ATTENTION: Mr. Paul Nehm

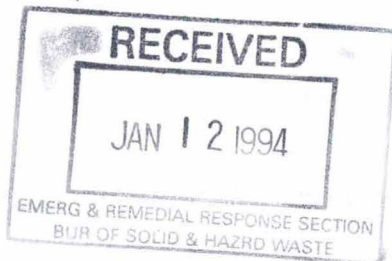
RE: Refuse Hideaway Landfill  
Analytical Results  
Wastewater Discharge  
Permit No. NTO-5A

TO: Madison Metropolitan Sewage  
District  
1610 Moorland Road  
Madison, WI 53713-3398

### WE ARE SENDING THE FOLLOWING:

- 1 Copy of the Annual Leachate Analytical Results which was sampled October 5, 1994.
- 1 Copy of the Quarterly Leachate Analytical Results which was sampled December 9, 1994.

### REMARKS:



Copy to: File  
Theresa Evanson, WDNR

Signed: Kirk J. Solberg  
Kirk J. Solberg  
Environmental Geologist

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX

If enclosures are not as noted, kindly notify us at once.





RECEIVED  
JAN 11 1994

Laboratory Services  
1230 Lange Ct.  
Baraboo, WI 53913  
608-356-2760

TERRA ENGINEERING

ANALYTICAL REPORT

TERRA ENGINEERING & CONSTRUCT.  
KIRK SOLBERG  
2201 VONDRON ROAD  
MADISON, WI 53704

Client I.D. No.:1184  
Work Order No.:9312000236  
Project Name:REFUSE HIDEAWAY  
Project Number:QUARTERLY  
Arrival Temperature:15.9C  
Report Date: 01/06/94

Sample  
I.D. #:42536

Sample  
Description:REFUSE HIDEAWAY-LEACHATE

Date Sampled:12/09/93

Analyte	Result	Units
Cyanide, Total	0.008	mg/L
Metals Sample Preparation	12/10/93	
Chromium, Total, Low Level (Cr6 + Confirmation)	150	ug/L
Hexavalent Chromium	246	ug/L
Oil and Grease	8	mg/L
pH (Lab)	7.95	
Cadmium, Total	8	ug/L
Chromium, Total	120	ug/L
Copper, Total	20	ug/L
Lead, Total	< 20	ug/L
Mercury, Total, Low Level	< 0.4	ug/L
Elevated detection limit due to matrix interference.		
Metals Sample Preparation	12/10/93	
Nickel, Total	110	ug/L
Zinc, Total	19	ug/L
Silver, Total, Low Level	< 0.5	ug/L
Selenium, Total, Low Level	< 0.2	ug/L
Elevated detection limit due to matrix interference.		

Submitted By:



RECEIVED  
DEC 11 1993

Laboratory Services  
1230 Lange Ct.  
Baraboo, WI 53913  
608-356-2760

TERRA ENGINEERING  
ANALYTICAL REPORT

TERRA ENGINEERING & CONSTRUCT.  
KIRK SOLBERG  
2201 VONDRON ROAD  
MADISON, WI 53704

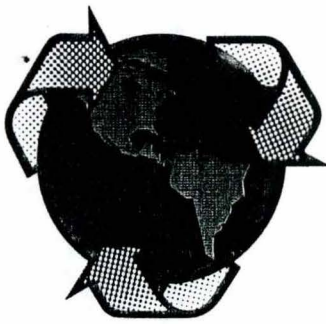
Client I.D. No.:1184  
Work Order No.:9310000133  
Project Name:REFUSE HIDEAWAY  
Project Number:468  
Arrival Temperature:ON ICE  
Report Date: 12/06/93

Sample I.D. #:33585      Sample Description:LEACHATE

Date Sampled:10/05/93

Analyte	Result	Units
Arsenic, TCLP	<0.214	mg/L
Barium, TCLP	0.18	mg/L
Cadmium, TCLP	<0.004	mg/L
Chromium, TCLP	0.055	mg/L
Lead, TCLP	<0.09	mg/L
Mercury, TCLP	<0.0024	mg/L
Selenium, TCLP	<0.186	mg/L
Silver, TCLP	<0.012	mg/L
Chlordane, TCLP	<0.002	mg/L
Endrin, TCLP	<0.00008	mg/L
Heptachlor, TCLP	<0.00004	mg/L
Heptachlor Epoxide, TCLP	<0.00004	mg/L
Lindane, TCLP	<0.00004	mg/L
Methoxychlor, TCLP	<0.0001	mg/L
Toxaphene, TCLP	<0.002	mg/L
2,4-D, TCLP	<0.003	mg/L
2,4,5-TP, Silvex, TCLP	<0.0003	mg/L
1,4-Dichlorobenzene, TCLP	<0.020	mg/L
2,4-Dinitrotoluene, TCLP	<0.050	mg/L
Hexachlorobenzene, TCLP	<0.050	mg/L
Hexachlorobutadiene, TCLP	<0.050	mg/L
Hexachloroethane, TCLP	<0.050	mg/L
Nitrobenzene, TCLP	<0.050	mg/L
Pyridine, TCLP	<0.100	mg/L
Cresol, TCLP	<0.050	mg/L
Pentachlorophenol, TCLP	<0.250	mg/L
2,4,5-Trichlorophenol, TCLP	<0.050	mg/L
2,4,6-Trichlorophenol, TCLP	<0.050	mg/L
Benzene, TCLP	<0.020	mg/L
Carbon Tetrachloride, TCLP	<0.020	mg/L
Chlorobenzene, TCLP	<0.020	mg/L
Chloroform, TCLP	<0.020	mg/L
1,2-Dichloroethane, TCLP	<0.020	mg/L
1,1-Dichloroethylene, TCLP	<0.020	mg/L
Methyl Ethyl Ketone, TCLP	<0.400	mg/L
Tetrachloroethylene, TCLP	<0.020	mg/L
Trichloroethylene, TCLP	<0.020	mg/L
Vinyl Chloride, TCLP	<0.020	mg/L
TCLP ZHE Extraction	10/12/93	

Submitted By: 



# TERRA

▲ ENGINEERING & CONSTRUCTION CORPORATION ▲

ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK

June 20, 1994

Mr. Paul H. Nehm  
Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, Wisconsin 53713-3398

Re: Refuse Hideaway Landfill,  
Middleton, Wisconsin  
Quarterly Leachate Analytical  
Results for Period Ending  
March 1994  
Wastewater Discharge Permit  
No. NTO-5A  
Terra Job No. 468

Dear Mr. Nehm:

Enclosed you will find the analytical results for a leachate sample collected March 29, 1994, at the Refuse Hideaway Landfill, in compliance with Madison Metropolitan Sewerage District's Discharge Permit No. NTO-5A. The sample was analyzed for quarterly monitoring requirements.

A brief review of the analytical results does not indicate any exceedance of the wastewater's permitted effluent limits. The detection limit for Total low level Silver is elevated due to matrix interferences.

If you have any questions concerning the enclosed laboratory results, please feel free to contact us.

Sincerely,  
TERRA ENGINEERING & CONSTRUCTION CORP.

Kirk J. Solberg  
Environmental Geologist

Enclosures: Analytical Results Dated, 03/29/94

cc: Ms. Theresa Evanson



KIRK94\kaj14

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX





Laboratory Services  
1230 Lange Ct.  
Baraboo, WI 53913  
608-356-2760

TERRA ENGINEERING  
ANALYTICAL REPORT

TERRA ENGINEERING & CONSTRUCT.  
KIRK SOLBERG  
2201 VONDRON ROAD  
MADISON, WI 53704

Client I.D. No.:1184  
Work Order No.:9403000619  
Project Name:REFUSE HIDEAWAY  
Project Number:468  
Report Date: 06/15/94  
Date Recieved: 03/30/94  
Arrival Temperature:ON ICE

Comments for entire Work Order:

Sample I.D. #:57389      Sample Description:LEACHATE-REFUSE HIDEAWAY      Date Sampled:03/29/94

Analyte	Result	Units
pH (Lab)	7.91	S.U.'s
Metals Sample Preparation	4/5/94	
Hexavalent Chromium	423	ug/L
Chromium, Total, Low Level (Cr6+ Confirmation)	110	ug/L
Oil and Grease- EPA 413.1	15	mg/L
Sample pH was 8.		
Cyanide, Total	5	ug/L
Cadmium, Total	10	ug/L
Chromium, Total	110	ug/L
Copper, Total	20	ug/L
Lead, Total	<20	ug/L
Mercury, Total, Low Level	<0.2	ug/L
Nickel, Total	110	ug/L
Selenium, Total, Low Level	<0.2	ug/L
Zinc, Total	33	ug/L
Silver, Total, Low Level	<0.5	ug/L
Elevated detection limit due to matrix interference.		

Submitted By: *[Signature]*

Refuse Haulway Ctrly Leachate Sample

**MID-STATE ASSOCIATES, INC.**  
**ENVIRONMENTAL AND ANALYTICAL SERVICES**  
 1230 LANGE COURT  
 BARABOO, WI 53913  
 (608) 356-1777 FAX: (608) 356-7340

FILL IN ANALYSIS NEEDED BELOW

Remarks:

Project#: Proj. Name: JOB 468  
 Refuse Haulway Ctrly L.F.

Client Name/Number: Terra Engineering & Const. Number of Containers

Date	Time	Comp	Grab	Sample Description	Sample#	Number of Containers	Dil/Gross	PH	Cr+Co	M.L. TSS	CA
			X	Refuse Haulway Leachate		4					

Space Below For Laboratory Use

Pres. Sample I.D. #'s:

	57355

Sampled By: James A. Falbo

Relinquished By:

Date: Time:

Received By: Date: Time:

Received By Lab: *Rodney P. Shell*

Date: 3/20/04 Time: 10:55

Remarks: Results to: Kirk Silberg @ Terra Engineering & Const. 2201 Vondron Rd MADISON WI 53704  
 (Refuse Ctrly Sample)

Date Sample Disposed of: Sample Shipped Via: UPS  
 Fed. Exp. Hand U.S. Mail  
 Sample Status: Deg. C: pH:





**TERRA**

▲ ENGINEERING & CONSTRUCTION CORPORATION ▲

ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK

LETTER OF TRANSMITTAL

DATE: June 20, 1994 JOB #468

ATTENTION: Ms. Theresa Evanson

RE: Refuse Hideaway Annual  
Pumping Report

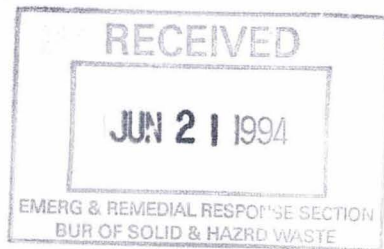
TO: Wisconsin Department of  
Natural Resources  
101 S. Webster Street  
P.O. Box 7921  
Madison, WI 53707-7921

*WE ARE SENDING THE FOLLOWING:*

Enclosed please find one (1) copy of the annual pumping report.

*Remarks:*

Report was submitted to Dane County Environmental Health by Al's Modern Sewer Service.



Copy to: File

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

*Kirk Solberg*

Kirk J. Solberg  
Environmental Geologist

If enclosures are not as noted, kindly notify us at once.

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX



### PUMPING REPORT

Property Owner: Terra Engineering - Refuse Hicaway Landfill

Owner Mailing Address: 2201 Vandrom Rd  
Madison WI ZIP 53704

Holding Tank Location:

Street Address: ~~2201 Vandrom Rd~~ Hwy 14

Township: Middleton Section \_\_\_\_\_

CSM/Subdiv: \_\_\_\_\_ Lot # \_\_\_\_\_

Tax Parcel Number: \_\_\_\_\_

Pumper's Name: Al's Modern Sewer Service License # SY546

Disposal Site: \_\_\_\_\_

### PUMPING INFORMATION

Give date of pumping and volume pumped.

JAN	<u>14.19</u>	GAL	<u>11000</u>	JUL	_____	GAL	_____
FEB	<u>1.12.19</u>	GAL	<u>15000</u>	AUG	<u>12.23.25.26</u>	GAL	<u>15000</u>
MAR	<u>11.25</u>	GAL	<u>9246.00</u>	SEP	<u>8.30</u>	GAL	<u>15000</u>
APR	<u>16.17.20</u>	GAL	<u>20000</u>	OCT	<u>25</u>	GAL	<u>5000</u>
MAY	<u>22.29</u>	GAL	<u>11000</u>	NOV	<u>16.24</u>	GAL	<u>15000</u>
JUN	<u>6.12.18</u>	GAL	<u>20000</u>	DEC	<u>6.13.20.27</u>	GAL	<u>28062</u>

### COMMENTS:

This form completed by: Lisa Thompson

NOTE: REPORTS ARE DUE NO LATER THAN JULY 10 AND JANUARY 10

RETURN REPORTS TO: Dane County Environmental Health, 1206 Northport Drive, Rm. 107, Madison, WI., 53704-2088. If you have any questions call us at (608) 242-6515.

**RECEIVED**  
JUN 9 1994



**TERRA**

▲ **ENGINEERING & CONSTRUCTION CORPORATION** ▲

ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK



LETTER OF TRANSMITTAL

DATE: July 21, 1994 JOB #468

ATTENTION: Ms. Theresa Evanson

RE: Refuse Hideaway  
Leachate Pumping

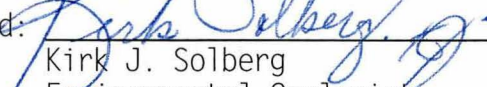
TO: Wisconsin Department of  
Natural Resources  
101 S. Webster Street  
P.O. Box 7921  
Madison, WI 53707-7921

**WE ARE SENDING THE FOLLOWING:**

One (1) Copy of the Leachate Pumping Report for January through June 1994 submitted by Al's Modern Sewer Service.

Remarks:

Copy to: File

Signed:   
Kirk J. Solberg  
Environmental Geologist

If enclosures are not as noted, kindly notify us at once.

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX



### PUMPING REPORT

Property Owner: Terra Engineering - Refuse Hideaway  
Landfill

Owner Mailing Address: 2201 Vandron Rd  
Madison WI ZIP 53704-6295

Holding Tank Location:  
Street Address: Hwy 14  
Township: Middleton Section \_\_\_\_\_  
CSM/Subdiv: \_\_\_\_\_ Lot # \_\_\_\_\_  
Tax Parcel Number: \_\_\_\_\_

Pumper's Name: Al's Modern Sewer Service License # 21546  
Disposal Site: \_\_\_\_\_

### PUMPING INFORMATION

Give date of pumping and volume pumped.

JAN	<u>5, 13</u>	GAL	<u>9000</u>	JUL	_____	GAL	_____
FEB	<u>11, 28</u>	GAL	<u>21617</u>	AUG	_____	GAL	_____
MAR	_____	GAL	_____	SEP	_____	GAL	_____
APR	<u>11, 15, 25, 29</u>	GAL	<u>27000</u>	OCT	_____	GAL	_____
MAY	<u>9, 10, 16, 17, 24</u>	GAL	<u>36000</u>	NOV	_____	GAL	_____
JUN	<u>1, 2, 3, 13, 18, 20, 29</u>	GAL	<u>32242</u>	DEC	_____	GAL	_____

### COMMENTS:

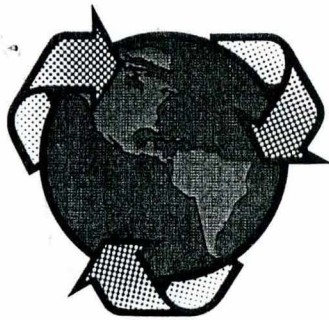
This form completed by: Lisa M Thompson

NOTE: REPORTS ARE DUE NO LATER THAN JULY 10 AND JANUARY 10

RETURN REPORTS TO: Dane County Environmental Health, 1206 Northport Drive, Rm. 107, Madison, WI., 53704-2088. If you have any questions call us at (608) 242-6515.

**RECEIVED**  
JUL 01 1994

TERRA ENGINEERING



# TERRA

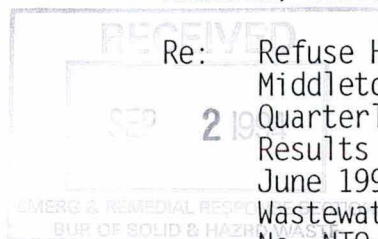
▲ ENGINEERING & CONSTRUCTION CORPORATION ▲

ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK

September 1, 1994

Mr. Paul H. Nehm  
Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, Wisconsin 53713-3398

Re: Refuse Hideaway Landfill,  
Middleton, Wisconsin  
Quarterly Leachate Analytical  
Results for Period Ending  
June 1994  
Wastewater Discharge Permit  
No. NTO-5A  
Terra Job No. 468



Dear Mr. Nehm:

Enclosed you will find the analytical results for a leachate sample collected July 26, 1994, at the Refuse Hideaway Landfill, in compliance with Madison Metropolitan Sewerage District's Discharge Permit No. NTO-5A. The sample was analyzed for quarterly monitoring requirements.

A review of the analytical results indicates an exceedance of the wastewater's permitted effluent limit for cyanide. The effluent limitation for cyanide is 0.1 milli-grams per liter (mg/l). The quarterly analytical results from the sampling event of July 26, 1994 indicate 0.37 mg/l of cyanide. The detection limit for Total low level Silver is elevated due to matrix interferences.

I spoke with Mr. John Schellpfeffer at MMSD on September 1, 1994 to inform him of an exceedance, he informed me that MMSD would review previous results and likely follow-up with a review of future quarterly analytical results. The next sampling event is scheduled to occur during the month of October 1994.

If you have any questions concerning the enclosed laboratory results, please feel free to contact us.

Sincerely,  
TERRA ENGINEERING & CONSTRUCTION CORP.

Kirk J. Solberg  
Environmental Geologist

Enclosures: Analytical Results Dated, 07/26/94

cc: Ms. Theresa Evanson

KIRK94\kaj23

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX





**RECEIVED**  
AUG 30 1994

Laboratory Services  
1230 Lange Ct.  
Baraboo, WI 53913  
608-356-2760

**TERRA ENGINEERING**  
**ANALYTICAL REPORT**

TERRA ENGINEERING & CONSTRUCT.  
KIRK SOLBERG  
2201 VONDRON ROAD  
MADISON, WI 53704

Client I.D. No.:1184  
Work Order No.:9407000639  
Project Name:REFUSE HIDEAWAY  
Project Number:468  
Report Date: 08/29/94  
Date Received: 07/27/94  
Arrival Temperature:ON ICE

**Sample I.D. #:**78209

**Sample Description:**LEACHATE TANK  
*LEACHATE TANK #114*

**Date Sampled:**07/26/94

<u>Analyte</u>	<u>Result</u>	<u>Units</u>
Metals Sample Preparation	08/08/94	
Chromium, Total, Low Level (Cr6 + Confirmation)	120	ug/L
Hexavalent Chromium	97	ug/L
Mercury, Total, Low Level	<0.4	ug/L
Metals Sample Preparation	08/08/94	
Nickel, Total	130	ug/L
Oil and Grease-- EPA 413.1	10	mg/L
Zinc, Total	7	ug/L
pH (Lab)	7.82	S.U.'s
Cadmium, Total	<5	ug/L
Chromium, Total	150	ug/L
Copper, Total	20	ug/L
Lead, Total	<20	ug/L
Selenium, Total, Low Level	0.8	ug/L
Silver, Total Recoverable, Low Level	<0.5	ug/L
Elevated detection limit due to matrix interference.		
Cyanide, Total	0.37	mg/L

**Comments for entire Work Order:** None

Submitted By:     p



*Refuse Hierarchy Otrby Analyzer*

639

**MID-STATE ASSOCIATES, INC.**  
**ENVIRONMENTAL AND ANALYTICAL SERVICES**  
 1230 LANGE COURT  
 BARABOO, WI 53913  
 (608) 356-1777 FAX: (608) 356-7340

FILL IN ANALYSIS NEEDED BELOW

Remarks:

Space Below For Laboratory Use

Project#: *468* Proj. Name: *Refuse Hierarchy Landfill*

Client Name/Number: *Terra Engineering & Construction* Number of Containers

Date	Time	Comp	Grab	Sample Description	Sample#	Number of Containers
------	------	------	------	--------------------	---------	----------------------

<i>7-26-94</i>	<i>9:30am</i>		<input checked="" type="checkbox"/>	<i>Leachate TANK</i>	<i>1</i>	<i>4</i>
----------------	---------------	--	-------------------------------------	----------------------	----------	----------

				<i>Temp WASTIC</i>		<i>1</i>
--	--	--	--	--------------------	--	----------

<i>Oil &amp; Grease</i>	<i>PH</i>	<i>Cr+6</i>	<i>Cr</i>	<i>Cadmium &amp; Arsenium Hex</i>	<i>Copper Lead</i>	<i>Mercury (or water)</i>	<i>Nickel Selenium (not tested)</i>	<i>Zinc Silver</i>
-------------------------	-----------	-------------	-----------	-----------------------------------	--------------------	---------------------------	-------------------------------------	--------------------

Pres.	Sample I.D. #'s:
-------	------------------

	<i>78209</i>
--	--------------

Sampled By: *Kirk Solberg*

Relinquished By: *Kirk Solberg*

Date: *7-27-94* Time: *9:00am*

Received By: *Bill Krueger*

Date: *7/27/94* Time: *10:15*

Received By Lab: *[Signature]*

Date: *7/27/94* Time: *3:00*

Remarks: *Results to Kirk Solberg*  
*Terra Engineering*  
*201 Vandron Road Madison WI 53704*

Date Sample Disposed of:

Sample Shipped Via: UPS  
Fed. Exp.  Hand U.S. Mail

Sample Status:  
 Deg. C: *ON* pH: *2*

**MADISON METROPOLITAN  
SEWERAGE DISTRICT**

1610 Moorland Road  
Madison, WI 53713-3398  
Telephone (608) 222-1201  
Fax (608) 222-2703

James L. Nemke  
Chief Engineer & Director



September 6, 1994

*file 468  
Correspondence*

**COMMISSIONERS**

Lawrence B. Polkowski  
President  
Edward V. Schlen  
Vice-President  
Thomas D. Hovel  
Secretary  
Eugene O. Gehl  
Commissioner  
Caryl E. Terrell  
Commissioner

**RECEIVED**  
SEP - 7 1994

TERRA ENGINEERING


Mr. Kirk J. Solberg  
Terra, Inc.  
2201 Vondron Road  
Madison, WI 53704-6795

Dear Mr. Solberg:

I am writing in response to your letter of September 1, 1994 regarding the Refuse Highway Landfill. In the letter you reported that the sample collected on July 26, 1994 had a cyanide concentration of 0.37 mg/l. This is above the permit limit of 0.1 mg/l.

As I mentioned to you on the phone, I have reviewed all of the past analytical results for this site. The cyanide concentration has always been one to two orders of magnitude lower than the level you reported for July of this year. You noted in your letter that you would be collecting another sample in October. Please submit the results of that analysis as soon as it is available. At that time we will review it to see if the level has returned to historical concentrations or if it has remained at the higher concentrations. If the cyanide concentration has remained at the elevated levels, we will then have to decide what actions are necessary.

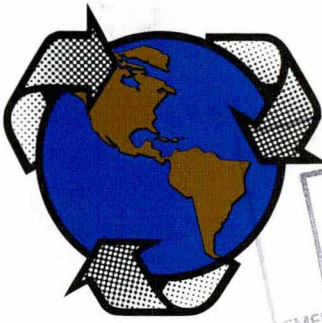
Sincerely,

  
Paul H. Nehm  
Director of Wastewater  
Treatment Operations

PHN/jac







**TERRA**

▲ **ENGINEERING & CONSTRUCTION CORPORATION** ▲

ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK



**LETTER OF TRANSMITTAL**

**DATE:** November 29, 1994 **JOB #468**

**ATTENTION:** Ms. Theresa Evanson

**RE:** Refuse Hideaway Landfill -  
Quarterly Leachate Analytical  
Results

**TO:** Wisconsin Department of  
Natural Resources  
101 S. Webster Street  
P.O. Box 7921  
Madison, WI 53707-7921

**WE ARE SENDING THE FOLLOWING:**

One (1) Copy of the Quarterly Leachate Analytical Results from Refuse Hideaway Landfill. Sample was obtained on October 10, 1994.

**Remarks:**

Dear Ms. Evanson:

I am also forwarding a copy of these results to Mr. Paul Nehm at Madison Metropolitan Sewerage District. If you have any questions or concerns regarding these results please do not hesitate to contact us.

Copy to: File

Signed:   
Kirk J. Solberg  
Environmental Geologist

If enclosures are not as noted, kindly notify us at once.

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX





Laboratory Services  
1230 Lange Ct.  
Baraboo, WI 53913  
608-356-2760

### ANALYTICAL REPORT

TERRA ENGINEERING  
KIRK SOLBERG  
2201 VONDRON RD.  
MADISON, WI 53704

Client I.D. No.:LT2000000010  
Work Order No.:9410000218  
Project Name:REFUSE HIDEAWAY  
Project Number:468  
Report Date: 11/21/94  
Date Received: 10/11/94  
Arrival Temperature:6.2

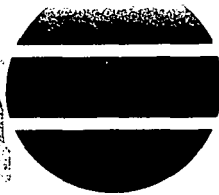
<u>Sample I.D. #:</u>	<u>Sample Description:</u>	<u>Date Sampled:</u>
86095	REFUSE HIDEAWAY LEACHATE	10/10/94
<u>Analyte</u>	<u>Result</u>	<u>Units</u>
Cyanide, Total	0.010	mg/L
Matrix spike recovery was low. Sample concentration may also be biased low.		
Metals Sample Preparation	10/13/94	
Chromium, Total, Low Level (Cr6+ Confirmation)	70	ug/L
Hexavalent Chromium	111	ug/L
Mercury, Total, Low Level	<0.4	ug/L
Elevated detection limit due to matrix interference.		
Metals Sample Preparation	10/13/94	
Nickel, Total	10	ug/L
Oil and Grease-- EPA 413.1	8	mg/L
Result should be considered estimated with possible high bias, analyte detected in method blank.		
Selenium, Total, Low Level	0.7	ug/L
Spike limits not met on this sample, due to matrix interference. Unable to reanalyze due to insufficient sample volume.		
Silver, Total, Low Level	0.5	ug/L
Zinc, Total	9	ug/L
pH (Lab)	7.39	S.U.'s
Cadmium, Total	<5	ug/L
Chromium, Total	80	ug/L
Copper, Total	20	ug/L
Lead, Total	<20	ug/L

Comments for entire Work Order: None

Submitted By: DD

Wisconsin DNR Laboratory Certification Number: 157066030  
DHSS Certification Number: MW0289

# ANALYTICAL REPORT



Mid State Associates  
1230 Lange Court  
Baraboo, WI 53913

CUST NUMBER: TERRA  
SAMPLED BY: Client  
DATE REC'D: 10/14/94  
REPORT DATE: 10/24/94  
PREPARED BY: BMS/3-1  
REVIEWED BY: *[Signature]*

Attn: Alice Chenoweth

<u>Sample ID</u>	<u>Cyanide</u> <u>EPA 335.3</u>	<u>Qualifiers</u>	<u>Analytical</u> <u>No.</u>
86095	0.010	MSL	23295
86193	X	MSL	23296

Detection Limit 0.010

Units mg/l

Date Analyzed: 10/20/94

X = Analyzed but not detected.

## Qualifier Descriptions

MSL Matrix spike recovery was low. Sample concentration may also be biased low.

MID-STATE ASSOCIATES, INC.  
 ENVIRONMENTAL AND ANALYTICAL SERVICES  
 1230 LANGE COURT  
 BARABOO, WI 53913  
 (608) 356-2760 FAX: (608) 356-2766

FILL IN ANALYSIS NEEDED BELOW

Remarks:

218

Project#: 408 Proj. Name: Refuse HIDEAWAY C.F.  
 Client Name/Number:

Terra Engineering + Construction Number of Containers

Date	Time	Comp	Grab	Sample Description	Sample#	Number of Containers
10-10-94	2:00		X	Refuse HIDEAWAY LEACHATE	1	8

OIL + GREASE  
 PH  
 Cr + 6 TOT LEAD  
 Chromium (Hex)  
 Mercury, Nickel  
 Zinc, Cadmium  
 Arsenium, Copper  
 Lead, Selenium  
 Silver, ~~Bar~~  
 Cyanide

Shaded Area For Lab Use

Pres. Sample I.D. #'s:

86095

Only had ONE (1) VIAL  
 OF HCL.  
 Preserved JAR MARKED  
 (Written) CORROSIVE  
 if question please call.  
 Kirk Solberg 221-3501

Sampled By: Kirk Solberg Relinquished By: Kirk Solberg Date: Time:

Received By: L. Olson #298 Dunham Date: 10-11 Time: 10:32 Received By Lab: D.O.W. Date: 10-11-94 Time: 3:00

Remarks: Results to Terra Engineering + Const. 2201 Vandron Rd MADISON WI 53704 ATN: Kirk Solberg  
 Please Qtry Leachate Sample  
 Sample Shipped Via: UPS Fed. Exp. X Hand U.S. Mail  
 Sample Status: 6.7  
 Deg. C: 6.7

### PUMPING REPORT

Property Owner: Terra Engineering - Refuse Haulaway Landfill

Owner Mailing Address: 2201 Vandrom Rd  
Madison WI ZIP 53704-6295

Holding Tank Location:

Street Address:  Hwy 14

Township:  Middleton Section \_\_\_\_\_

CSM/Subdiv: \_\_\_\_\_ Lot # \_\_\_\_\_

Tax Parcel Number: \_\_\_\_\_

Pumper's Name: Al's Modern Sewer Service License # 51546

Disposal Site: Dime Springs - madison metro sewerage

### PUMPING INFORMATION

Give date of pumping and volume pumped.

JAN	<u>5, 13</u>	GAL	<u>9000</u>	JUL	<u>1, 15</u>	GAL	<u>14219</u>
FEB	<u>11, 28</u>	GAL	<u>21117</u>	AUG	<u>2, 9, 11, 12, 17</u>	GAL	<u>26217</u>
MAR	_____	GAL	_____	SEP	<u>9, 13, 14, 16, 21, 23, 28</u>	GAL	<u>39072</u>
APR	<u>11, 15, 25, 29</u>	GAL	<u>27000</u>	OCT	<u>4, 5, 13, 20</u>	GAL	<u>18166</u>
MAY	<u>9, 10, 16, 17, 24</u>	GAL	<u>36000</u>	NOV	<u>9, 10, 15, 30</u>	GAL	<u>23038</u>
JUN	<u>1, 2, 3, 13, 18, 20, 27</u>	GAL	<u>32242</u>	DEC	<u>5, 6, 9, 28</u>	GAL	<u>13918</u>

**RECEIVED**  
JAN 31 1995  
TERRA ENGINEERING

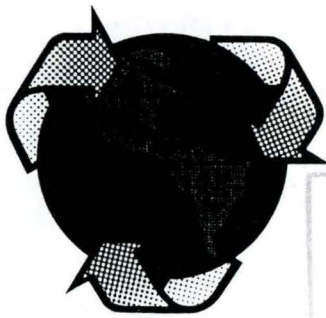
Total = 260,389 gal

COMMENTS:

This form completed by: Lisa M Thompson

NOTE: REPORTS ARE DUE NO LATER THAN JULY 10 AND JANUARY 10

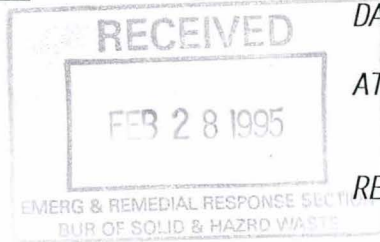
RETURN REPORTS TO: Dane County Environmental Health, 1206 Northport Drive, Rm. 107, Madison, WI., 53704-2088. If you have any questions call us at (608) 242-6515.



**TERRA**

▲ ENGINEERING & CONSTRUCTION CORPORATION ▲

ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK



LETTER OF TRANSMITTAL

DATE: February 24, 1995 JOB 468

ATTENTION: Mr. Paul Nehm

RE: Refuse Hideaway Landfill  
Quarterly Analytical  
Results

TO: Madison Metropolitan Sewage  
District  
1610 Moorland Road  
Madison, WI 53713-3398

WE ARE SENDING THE FOLLOWING:

- 1 Copy of the Quarterly Leachate Analytical Results and Chain of Custody from Refuse Hideaway Landfill.

REMARKS:

The sample was obtained on January 18, 1995.

LOD is the Limit of Detection  
LOQ is the Limit of Quantitation

If you have any questions regarding these results, please do not hesitate to contact us.

Copy to: File  
Ms. Theresa Evenson -  
WDNR

Signed: Kirk J. Solberg  
Kirk J. Solberg  
Environmental Geologist

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX

If enclosures are not as noted, kindly notify us at once.





Laboratory Services  
 1230 Lange Ct.  
 Baraboo, WI 53913  
 608-356-2760

ANALYTICAL REPORT

**RECEIVED**  
 FEB 23 1995

TERRA ENGINEERING  
 KIRK SOLBERG  
 2201 VONDRON RD.  
 MADISON, WI 53704

Client I.D. No.:LT200000010  
 Work Order No.:9501000323  
 Project Name:REFUSE HIDEAWAY  
 Project Number:468  
 Report Date: 02/21/95  
 Date Received: 01/19/95  
 Arrival Temperature:10.1

TERRA ENGINEERING

Sample I.D. #:92970

Sample Description:LEACHATE TANK

Date Sampled:01/18/95

Analyte	Result	Units	LOD	LOQ
Cyanide, Total	141	ug/L		
Matrix spike recovery of this sample was low. Result for sample may also be biased low.				
Metals Sample Preparation	1/23/95			
Hexavalent Chromium	93	ug/L	5	17
Mercury, Total	<0.8	ug/L	0.2	0.7
Elevated detection limit due to matrix interference.				
Metals Sample Preparation	1/23/95			
Nickel, Total	100	ug/L	10	33
Oil and Grease-- EPA 413.1	<1	mg/L		
Selenium, Total	0.4	ug/L	0.2	0.7
Silver, Total	0.2	ug/L	0.1	0.3
Zinc, Total	15	ug/L	5	17
pH (Lab)	7.69	S.U.'s		
Lead, Total	<20	ug/L	20	67
Cadmium, Total	<5	ug/L	5	17
Copper, Total	20	ug/L	10	33
Chromium, Total	60	ug/L	50	167

Comments for entire Work Order:  
 None

Submitted By: *DS*

Wisconsin DNR Laboratory Certification Number: 157066030  
 DHSS Certification Number: MW0289

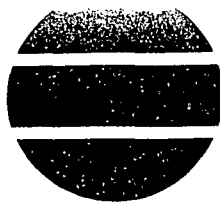


INORGANIC REPORT  
MID-STATE ASSOC./TERRA  
BARABOO WI  
Project Number: 4014.0280

Sample #	Description	Test	Result	Reporting Limit	Matrix	Units	Sample Date	Analysis Date
L10083-001	92970	Oil and Grease	< 1	1	GroundH2O	mg/L	18-JAN-95	31-JAN-95



# ANALYTICAL REPORT



Mid State Associates  
1230 Lange Court  
Baraboo, WI 53913

CUST NUMBER: REFUSEHDWY  
SAMPLED BY: Client  
DATE REC'D: 01/24/95  
REPORT DATE: 01/31/95  
PREPARED BY: BMS *BMS*  
REVIEWED BY: *[Signature]*

Attn: Alice Chenoweth

<u>EPA 335.3</u>	<u>Units</u>	<u>Detection Limit</u>	<u>92970</u> <u>01/18/95</u>	<u>Qualifiers</u>	<u>Date Analyzed</u>
Cyanide	µg/l	10.	141.	S1L S2L	01/30/95
Analytical No.:			31272		

## Qualifier Descriptions

- S1L Matrix spike recovery of this sample was low. Result for sample may also be biased low.
- S2L Matrix spike duplicate recovery of this sample was low. Result for sample may also be biased low.

\* The spike recoveries were 60.% and 56.%.

**SAMPLE LOG-IN PROBLEMS**

CLIENT/ID #: <i>Terro Eng. / JT20-10</i>		Page <u>1</u> of <u>1</u>	
PROJECT NAME: <i>Refuse Hideaway J.F.</i>		SAMPLING DATE: <i>1/18/95</i>	
PROJECT NUMBER: <i>468</i>			
RECEIVED BY: <i>Jensen</i>		LOG-IN DATE/TIME: <i>1/19/95 3:10</i>	
		W.O #/SUBMISSION #: <i>95/01-000323</i>	
Remarks: CHAIN OF CUSTODY 1. Not completed 2. Missing 3. Unreadable 4. _____ SAMPLES 5. Sample missing 6. Broken container 7. Wrong container 8. Over temp 9. No temp blank/possible 10. Past holding time 11. Incorrectly preserved 12. Insufficient amount 13. Labels missing/unreadable/incorrect 14. Air bubble in VOC container ACTION 15. Client called 16. Supervisor, notified 17. _____ 99. Verbal		REMARKS # CODE  10	Corresponding Test      Assigned Lab #  Hex      92970
		Remarks: Condition of Sample Shipment, etc.  <i>Sample for Hexachrome received past hold times</i>	
Sample Transfer			
Fraction	Fraction		
Area	Area		
By	By		
On	On		

Contract (Name, Date, Time, Outcome)

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**MID-STATE ASSOCIATES, INC.**  
**ENVIRONMENTAL AND ANALYTICAL SERVICES**  
 1230 LANGE COURT  
 BARABOO, WI 53913  
 (608) 356-2760 FAX: (608) 356-2766

FILL IN ANALYSIS NEEDED BELOW

Remarks: 323

Project#: 468 Proj. Name: Refuse Hideaway L.F.

Client Name/Number:  
 Terra Engineering & Const.

Number of Containers

Date	Time	Comp	Grab	Sample Description	Sample#	Number of Containers
1-18-95	2:00		X	LEACHATE TANK	1	5

Oil & Grease  
 PH  
 Cr + Co  
 Chromium (Hex)  
 Mercury, Nickel  
 Zinc, Cadmium  
 Chromium, Copper  
 Lead, Selenium  
 Silver, Cyanide

Shaded Area For Lab Use

Pres.	Sample I.D. #'s:
	92970

~~Leachate~~ Leachate for test Cr+Co passed hold time. (initials)

Sampled By: Kirk Solberg

Relinquished By: Kirk Solberg

Date: 1-18-95 Time: 5:00 PM

Received By: Ron Dinduff

Date: 1/19/95 Time: 12:30

Received By Lab: [Signature]

Date: 1/19/95 Time: 3:10

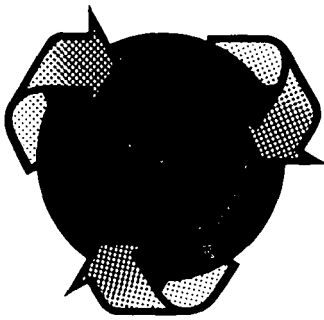
Remarks: Refuse Hideaway L.F.  
 Qtrly LEACHATE SAMPLE

Results to: Terra Engineering & Const  
 2201 Verona Rd  
 Madison WI 53704  
 ATTN: KIRK SOLBERG

CHECKED [Signature]

Sample Shipped Via: UPS  
 Fed. Exp.  Hand  U.S. Mail

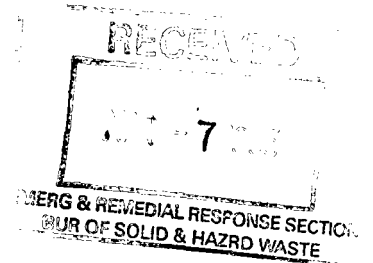
Sample Status:  
 Deg. C: 10.1 pH:



# TERRA

▲ ENGINEERING & CONSTRUCTION CORPORATION ▲

ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK



February 28, 1995

Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, WI 53713-3398

Attn: Mr. Paul H. Nehm

RE: Refuse Hideaway Landfill  
Middleton, Wisconsin  
Wastewater Discharge Permit  
No. NTO-5A  
Terra Job #468

Dear Mr. Nehm:

Terra Engineering and Construction is continuing its contract to conduct Operation and Maintenance (O&M) activities at the Refuse Hideaway Landfill in Middleton, Wisconsin. Our contract with the Wisconsin Department of Natural Resources (DNR) includes conducting required leachate monitoring, analytical testing and permitting the discharge of leachate to the Madison Metropolitan Sewerage District. As part of our O&M contract, we are requesting that Wastewater Discharge Permit No. NTO-5A, for the Refuse Hideaway Landfill, be extended for a 1-year period from the existing permit expiration date of September 25, 1994.

Terra's responsibilities also include monitoring and maintaining the combined gas/leachate extraction system and thermal oxidation unit (flare), and conducting required air quality testing for NR 500 compliance.

If you have any questions regarding the Wastewater Discharge Permit extension, or any other questions regarding our O&M responsibilities at the landfill, please feel free to contact us.

Sincerely,  
TERRA ENGINEERING & CONSTRUCTION CORP.

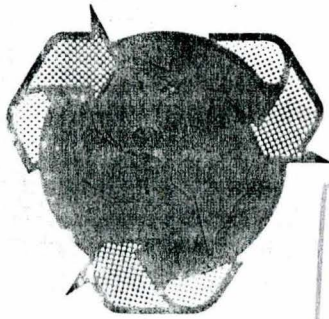
Kirk J. Solberg  
Environmental Geologist

cc: Ms. Terry Evanson

KIRK95\kaj08

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX





**TERRA**

▲ ENGINEERING & CONSTRUCTION CORPORATION ▲

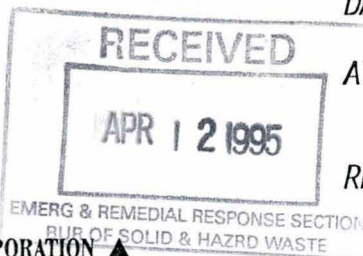
ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK

LETTER OF TRANSMITTAL

DATE: April 10, 1995 JOB 468

ATTENTION: Mr. Paul Nehm

RE: Refuse Hideaway Landfill  
Annual Analytical  
Results



TO: Madison Metropolitan Sewage  
District  
1610 Moorland Road  
Madison, WI 53713-3398

WE ARE SENDING THE FOLLOWING:

- 1 Copy of the Annual Leachate Analytical Results. Sample obtained March 9, 1995.

REMARKS:

Dear Mr. Nehm:

These are the Analytical Results you requested to renew the Wastewater Discharge Permit Number NT0-5A.

If you have any questions regarding these results, please do not hesitate to contact us.

Copy to: File  
Ms. Theresa Evenson  
WDNR

Signed: Kirk J. Solberg  
Kirk J. Solberg  
Environmental Geologist

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX

If enclosures are not as noted, kindly notify us at once.





Laboratory Services  
1230 Lange Ct.  
Baraboo, WI 53913  
608-356-2760

ANALYTICAL REPORT

RECEIVED

APR - 8 1995

TERRA ENGINEERING  
KIRK SOLBERG  
2201 VONDRON RD.  
MADISON, WI 53704

Client I.D. No.:LT200000010  
Work Order No.:950300224  
Project Name:REFUSE HIDEAWAY  
Project Number:468  
Report Date: 04/07/95  
Date Received: 03/10/95  
Arrival Temperature:ON ICE

TERRA ENGINEERING

Sample ID. #:95814      Sample Description:LEACHATE

Date Sampled:03/09/95

Analyte	Result	Units	LOD	LOQ
TCLP Metals See attached report for results.	3/22/95			
TCLP - Herbicides See attached report for results.	3/23/95			
TCLP - Pesticides See attached report for results.	3/21/95			
TCLP - Semivolatile Organic Compounds See attached report for results.	3/21/95			
TCLP - VOC See attached report for results.	3/18/95			

Comments for entire Work Order:  
None.

Submitted By: RD

Wisconsin DNR Laboratory Certification Number: 157066030  
DHSS Certification Number: MW0289



**TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)  
METHOD 1311  
INORGANIC REPORT**

**MID-STATE ASSOC/TERRA-REFUSE HIDEAWAY  
BARABOO WI  
Project Number: 4014.0530**

Lab Sample # : L10324-001  
Description : 95814  
Sample Date : 09-MAR-95

Test	Regulatory Limit (mg/L)	Analytical Result (mg/L)	Reporting Limit (mg/L)	Matrix Spike Recovery (%)	Analysis Date	Footnote
Arsenic	5	< 0.50	0.50	105.0	24-MAR-95	
Barium	100	0.58	0.01	87.0	23-MAR-95	
Cadmium	1	< 0.005	0.005	86.0	23-MAR-95	
Chromium, Total	5	0.07	0.01	86.0	24-MAR-95	
Lead	5	< 0.10	0.10	86.0	23-MAR-95	
Mercury	0.2	< 0.002	0.002	66.0	22-MAR-95	
Selenium	1	< 0.50	0.50	80.0	23-MAR-95	
Silver	5	< 0.01	0.01	76.0	23-MAR-95	

Chk'd: BSK App'd: CAW  
Date App'd: 4-3-95



**TOTAL ANALYSIS FOR TCLP ANALYTES  
VOLATILE ORGANIC REPORT**

**MID-STATE ASSOC/TERRA-REFUSE HIDEAWAY  
BARABOO WI  
Project Number: 4014.0530**

Lab Sample # : L10324-001  
Description : 95814  
Sample Date : 09-MAR-95  
Analysis Date : 18-MAR-95

Test	TCLP Regulatory Limit (mg/L)	Result (mg/kg)	Reporting Limit (mg/kg)	Matrix	Footnote
Benzene	0.5	< 0.20	0.10	WASTE	A2
Carbon tetrachloride	0.5	< 0.20	0.10	WASTE	A2
Chlorobenzene	100	< 0.20	0.10	WASTE	A2
Chloroform	6	< 0.20	0.10	WASTE	A2
1,2-Dichloroethane	0.5	< 0.20	0.10	WASTE	A2
1,1-Dichloroethene	0.7	< 0.20	0.10	WASTE	A2
Methyl ethyl ketone	200	< 1.0	0.50	WASTE	A2
Tetrachloroethene	0.7	< 0.20	0.10	WASTE	A2
Trichloroethene	0.5	< 0.20	0.10	WASTE	A2
Vinyl chloride	0.2	< 0.20	0.10	WASTE	A2





TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)  
METHOD 1311  
SEMIVOLATILE ORGANIC REPORT

MID-STATE ASSOC/TERRA-REFUSE HIDEAWAY  
BARABOO WI  
Project Number: 4014.0530

Lab Sample # : L10324-001  
Description : 95814  
Sample Date : 09-MAR-95  
Extraction Date : 20-MAR-95  
Analysis Date : 21-MAR-95

Test	Regulatory Limit (mg/L)	Analytical Result (mg/L)	Reporting Limit (mg/L)	Matrix Spike Recovery (%)	Footnote
1,4-Dichlorobenzene	7.5	< 0.10	0.10	56	
2,4-Dinitrotoluene	0.13	< 0.10	0.10	106	
Hexachlorobenzene	0.13	< 0.10	0.10	114	
Hexachloroethane	3	< 0.10	0.10	51	
Hexachlorobutadiene	0.5	< 0.10	0.10	51	
Nitrobenzene	2	< 0.10	0.10	77	
Pentachlorophenol	100	< 0.50	0.50	138	
Pyridine	5	< 0.50	0.50	22	
2,4,5-Trichlorophenol	400	< 0.10	0.10	124	
2,4,6-Trichlorophenol	2	< 0.10	0.10	122	
2-Methylphenol	200	< 0.10	0.10	85	
3&4-Methylphenol	200	< 0.10	0.10	91	



**MONTGOMERY WATSON**  
Analytical Testing Services

University Research Park  
One Science Court  
Madison, Wisconsin 53711  
Tel: 608 231 4747 • Fax: 608 231 4777

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)  
METHOD 1311  
PESTICIDE REPORT

MID-STATE ASSOC/TERRA-REFUSE HIDEAWAY  
BARABOO WI  
Project Number: 4014.0530

Lab Sample # : L10324-001  
Description : 95814  
Sample Date : 09-MAR-95  
Extraction Date : 20-MAR-95  
Analysis Date : 21-MAR-95

Test	Regulatory Limit (mg/L)	Analytical Result (mg/L)	Reporting Limit (mg/L)	Matrix Spike Recovery (%)	Footnote
Chlordane	0.03	< 0.020	0.020	77	
Endrin	0.02	< 0.010	0.010	277	
gamma-BHC (Lindane)	0.4	< 0.20	0.20	0	
Heptachlor	0.008	< 0.0050	0.0050	177	
Heptachlor epoxide	0.008	< 0.0050	0.0050	162	
Methoxychlor	10	< 5.0	5.0	41	
Toxaphene	0.5	< 0.25	0.25	109	

WI Lab Certification ID#: 113138300

PEST - 1

Chk'd: *RSK* App'd: *CAW*  
Date App'd: 4.3.95



**MONTGOMERY WATSON**  
Analytical Testing Services

University Research Park  
One Science Court  
Madison, Wisconsin 53711  
Tel: 608 231 4747 • Fax: 608 231 4777

TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)  
METHOD 1311  
HERBICIDE REPORT

MID-STATE ASSOC/TERRA-REFUSE HIDEAWAY  
BARABOO WI  
Project Number: 4014.0530

Lab Sample # : L10324-001  
Description : 95814  
Sample Date : 09-MAR-95  
Extraction Date : 21-MAR-95  
Analysis Date : 23-MAR-95

Test	Regulatory Limit (mg/L)	Analytical Result (mg/L)	Reporting Limit (mg/L)	Matrix Spike Recovery (%)	Footnote
2,4-D	10	< 0.25	0.25	27	
2,4,5-TP(silvex)	1	< 0.12	0.12	28	

WI Lab Certification ID#: 113138300

HERB - 1

Chk'd: *ESK* App'd: *CAW*  
Date App'd: *4.3.95*

**MID-STATE ASSOCIATES, INC.**  
**ENVIRONMENTAL AND ANALYTICAL SERVICES**  
 1230 LANGE COURT  
 BARABOO, WI 53913  
 (608) 356-1777 FAX: (608) 356-7340

FILL IN ANALYSIS NEEDED BELOW

Remarks:

Project #: **468** Proj. Name: **Keuise Highway LP**

Client Name/Number: **Terra Engineering + Const** Number of Containers:

<b>TCLP - VOCs</b>	<b>TCLP - SVOCs</b>	<b>TCLP PESTICIDES</b>	<b>TRUP HERBICIDES</b>	<b>TRUP METALS</b>
--------------------	---------------------	------------------------	------------------------	--------------------

Date	Time	Comp.	Grab	Sample Description	Sample #	Number of Containers
3-9-95	11 <sup>00</sup>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	LEACHATE		4
3-9-95	11 <sup>00</sup>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	LEACHATE		3 vials
				TEMP BLANK		1

Space Below For Laboratory Use

Pres.	Sample I.D. #'s:
	95814

Sampled By: **Kirk Solberg**  
 Received By: *[Signature]* **CHECKED** Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received By Lab: *[Signature]* Date: **3/14/95** Time: **11:55**

Ret. As: **Annual Sampling for 1994**  
 Results to Terra Engineering + Construction  
 2201 Vondrum Road  
 Madison WI 53704 **ATTN KIRK SOLBERG**

Date Sample: \_\_\_\_\_ Disposed of: \_\_\_\_\_  
 Sample Shipped Via:  UPS  Fed. Exp.  Hand  U.S. Mail  
 Sample Status: \_\_\_\_\_ Deg. C: *[Signature]* pH: \_\_\_\_\_

**MADISON METROPOLITAN  
SEWERAGE DISTRICT**

1610 Moorland Road  
Madison, WI 53713-3398  
Telephone (608) 222-1201  
Fax (608) 222-2703

James L. Nemke  
Chief Engineer & Director



May 23, 1995

**COMMISSIONERS**

Lawrence B. Polkowski  
President  
Edward V. Schten  
Vice-President  
Thomas D. Hovel  
Secretary  
Eugene O. Gehl  
Commissioner  
Caryl E. Terrell  
Commissioner

Mr. Kirk Solberg  
Terra Engineering & Construction Corp.  
2201 Vondron Road  
Madison, WI 53704-6795

Dear Mr. Solberg:

I am writing in response to your letter of February 28, 1995 concerning an extension of the discharge permit for the Refuse Hide-a-way Landfill. I apologize for the delay in the response. The permit for this facility had expired on September 25, 1994. Enclosed with this letter is a permit which provides for a one year extension from that date. Please contact me if you have any questions

Sincerely,

Paul H. Nehm  
Director of Operations  
and Maintenance

:dms

**RECEIVED**  
MAY 26 1995

TERRA ENGINEERING



**WASTEWATER DISCHARGE PERMIT**

In compliance with the provisions of Articles 5 and 6 of the Madison Metropolitan Sewer District Sewer Use Ordinance and the District's Policy on Acceptance of Wastewater Containing Non-Typical Organic and Inorganic Constituents,

Department of Natural Resources  
Post Office Box 7921  
Madison, WI 53707

is hereby authorized to discharge contaminated groundwater from the above identified facility into the District sewerage system in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in this permit.

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

This permit shall become effective on September 25, 1994, and shall expire at midnight, September 24, 1995. Any appeals to the conditions of this permit must be made to the Chief Engineer and Director within thirty days of the signature date.

The permittee shall not discharge after the date of expiration. If the permittee wishes to continue to discharge after this expiration date an application shall be filed for reissuance of this permit in accordance with the requirements of Article 5 of the Madison Metropolitan Sewerage District Sewer Use Ordinance, at least thirty days prior to the expiration date.

In accordance with Articles 5 and 6 of the Madison Metropolitan Sewerage District Sewer Use Ordinance, the District reserves the right to amend this permit from time to time or to revoke the permit.

By: James L. Nemke  
James L. Nemke  
Chief Engineer and Director

Dated this 25<sup>th</sup> day of May, 1995.

**PART 1--APPLICABLE EFFLUENT LIMITATIONS**

**SECTION 1--MMSD Pretreatment Standards**

(a) All wastewaters discharged to the MMSD shall not exceed the following effluent limitations:

- 0.25 mg/l cadmium
- 0.5 mg/l hexavalent chromium
- 10.0 mg/l total chromium
- 1.5 mg/l copper
- 0.1 mg/l cyanide
- 5.0 mg/l lead
- 0.02 mg/l mercury
- 2.0 mg/l nickel
- 0.3 mg/l selenium
- 3.0 mg/l silver
- 8.0 mg/l zinc

(b) The limitations listed in paragraph (a) apply to twenty-four hour flow proportionate samples collected from the total discharge of the permittee.

(c) In addition, the permittee shall comply with all other applicable regulations and standards contained in the MMSD Sewer Use Ordinance. Included in these regulations are limitations on pH, slug loads, and oil and grease content.

**SECTION 2--Toxicity Characteristics Leaching Procedure Requirements**

(a) All wastewaters discharged to the MMSD shall not exceed the limitations of the Toxicity Characteristics Leaching Procedure (TLCP) as specified in the Federal Register of March 29, 1990.

## **PART 2--MONITORING AND REPORTING REQUIREMENTS**

### **SECTION 1--Monitoring Requirements**

The permittee shall monitor its wastewater discharges subject to regulations under Part 1 of this permit to ascertain compliance with the applicable limitations. Said monitoring to determine compliance with the standards specified in Part 1 shall be conducted each calendar quarter. The monitoring shall consist of sampling of the regulated wastewaters for those pollutants regulated under Part 1 of this permit and reporting of the results to the District. Samples shall be obtained by collecting a representative sample of the contents of the on-site 25,000 gallon storage tank. Samples shall be collected on a quarterly basis to show compliance with Part I Section 1 and on an annual basis to show compliance with Part I Section 2.

Laboratory analysis of samples collected shall be performed in accordance with 40 CFR Part 136 or other such methods as approved by the District.

### **SECTION 2--Reporting Requirements**

Self-monitoring results shall be reported to the District within three days of the end of the calendar quarter.

If the permittee monitors any pollutant more frequently than required by this permit, the results of such monitoring shall be submitted to the District.

If sampling performed by the permittee indicates a violation of any provisions of this permit, the permittee must notify the District of the violation within 24 hours of becoming aware of it. The permittee must also repeat the sampling and analysis and submit the results of the repeat analysis to the District within 30 days after becoming aware of the violation.

All reports shall be signed and sworn by a responsible corporate officer of the permittee. A responsible corporate officer is defined as:

1. A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy-or decision-making functions for the permittee, or
2. The manager of one or more manufacturing, production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million, if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.



The individual signing the report shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.”

All reports required by this permit shall be submitted to:

Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, Wisconsin 53713

The Madison Metropolitan Sewerage District will randomly collect and analyze samples of leachate to verify leachate quality.

**PART 3--MONITORING AND SAMPLING FACILITIES**

**SECTION 1--Sampling Facilities**

In order to permit monitoring of the leachate, by the District, the permittee shall construct facilities to allow for collection of a representative sample from the on-site 25,000 gallon storage tank.

**SECTION 2--Discharge Permit**

Since the Refuse Hideaway Landfill is outside the District's service area, all wastewater from the site shall be hauled to the Nine Springs Wastewater Treatment Plant and disposed of at a designated location at this plant. The hauler shall have in effect a Septage Disposal Permit issued by the District.

**PART 4--GENERAL CONDITIONS**

1. Right of Entry

The permittee shall, after reasonable notification by the District, allow the District or its representatives, exhibiting proper credentials and identification, to enter upon the premises of the permittee at all reasonable hours, for the purposes of inspection, sampling, or records inspection. Reasonable hours in the context of inspection and sampling includes any time the permittee is operating any process which results in collection of wastewater in the on-site storage tank.

2. Records Retention

a) The permittee shall retain and preserve for no less than three (3) years, any records, books, documents, memoranda, reports, correspondence and any and all summaries thereof, relating to monitoring, sampling and chemical analyses made or by or in behalf of the permittee in connection with its discharge.

b) All records that pertain to matters that are the subject of special orders or any other enforcement or litigation activities brought by the District shall be retained and preserved by the permittee until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

3. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

4. Confidential Information

Except for data determined to be confidential under Article 7.2 MMSD Sewer Use Ordinance, all reports required by this permit shall be available for public inspection at the headquarters of the District.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a) The exact place, date, and time of sampling;
- b) The dates the analyses were performed;

- c) The person(s) who performed the analyses;
- d) The analytical techniques or methods used; and
- e) The results of all required analyses.

6. Falsifying Information

Knowingly making any false statement on any report or other document required by this permit or knowingly rendering any monitoring device or method inaccurate, may result in punishment under the criminal laws of Wisconsin as well as being subjected to civil penalties and relief.

7. Modification or Revision of Permit

- a) The terms and conditions of this permit may be subject to modification by the District at any time as limitations or requirements as identified in the MMSD Sewer Use Ordinance are modified or other just cause exists.
- b) This permit may also be modified to incorporate special conditions resulting from the issuance of a special order.
- c) Any modifications which result in new conditions in the permit shall include a reasonable time schedule for compliance if necessary.

8. Dilution

No permittee shall increase the use of potable or process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit.

9. Accidental Discharges

The permittee shall provide protection from the accidental discharge of prohibited or regulated materials or substances established by the MMSD Sewer Use Ordinance. Where necessary, facilities to prevent the accidental discharge of prohibited materials shall be provided and maintained at the permittee's expense. Permittees shall notify the District immediately upon the occurrence of an accidental discharges of substances prohibited by the MMSD Sewer Use Ordinance. The District should be notified by telephone at 222-1201. During normal business hours the modification shall be made to the Director of Wastewater Treatment Operations. During other times, the notification shall be made to the operator on duty. The notification shall include location of discharge, date and time thereof, type of waste, concentration and volume, and corrective actions taken. The permittee shall also provide such notification to the appropriate local municipal officials. In addition, the

permittee should immediately notify the State of Wisconsin of the accidental spill at (608) 266-3232 (twenty-four hour number).

40 CFR 403.8(f) (v) requires the District to evaluate each significant industrial user at least once every two years to determine whether a plan to control slug discharges is necessary. If it is determined that such a plan is necessary, the plan shall contain the following:

1. A description of discharge practices including non-routine batch discharges.
2. A description of stored chemicals.
3. Procedures for immediately notifying the District of a slug discharge and procedures for follow-up written notification within five days.
4. Procedures to prevent adverse impact from accidental spills.

#### 10. Notice of Intent

Any permittee planning to alter or change any activity at the permittee's facility that would significantly increase or decrease the volume or alter the content of any existing source of industrial wastewater discharge into the District sewerage system must file a written Request to Discharge Form in accordance with Article 5 of the MMSD Sewer Use Ordinance. A significant increase or decrease shall be defined as a twenty-five percent increase or decrease in the volume of industrial wastewater currently being discharged by a permittee. An alteration shall be defined as any change in chemicals utilized with a process which will significantly alter the characteristics of the industrial waste discharge or the addition of any new process or production wastewater discharges.

#### 11. Proper Disposal of Pretreatment Sludges

The disposal of sludges generated within wastewater pretreatment systems shall be done in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

#### 12. Operating Upsets

Any permittee that experiences an upset in operations that places the permittee in a temporary state of noncompliance with the provisions of either this permit or the MMSD Sewer Use Ordinance shall inform the District thereof within twenty-four hours of first awareness of the commencement of the upsets in accordance with Article 5.5.5 of the MMSD Sewer Use Ordinance.

13. Limitations on Permit Transfer

Wastewater discharge permits are issued to a specific user for a specific operation and are not assignable to another user or transferable to any other location without prior written approval of the District. Sale of a user shall obligate the purchaser to seek prior written approval of the District for continued discharge to the District sewerage system.

14. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

15. Fees

The permittee will incur all costs billed by the District for leachate discharged to the District's sewerage system for leachate quantities and strengths as reported by the permittee to the District and as ascertained by the District through additional sampling. The costs shall include charges for the volume, CBOD, Total Suspended Solids, and Total Kjeldahl Nitrogen discharged and for ten (10) equivalent meters and one (1) actual customer and shall be based on the then prevailing District service charge rates. In accordance with the District's Policy on Acceptance of Wastewater Generated Outside of the District, a cumulative 10 percent surcharge shall be imposed on the discharge cost each quarter until such surcharge reaches 100 percent.

16. Hazardous Waste Notification

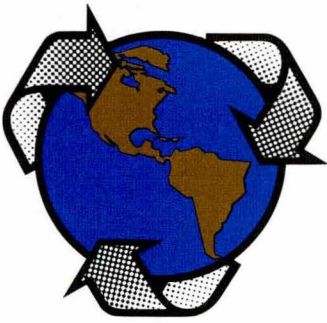
The permittee shall notify the District, the Department of Natural Resources, and the EPA Regional Waste Management Division Director in writing of any discharge to the sanitary sewer system of a substance which, if otherwise disposed of, would be hazardous water under 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge. If the permittee discharges to the sanitary sewer more than 100 kilograms of such waste per calendar month, the additional notification requirements of 40 CFR 403.12 (p) apply. In the case of any notification made under this section, the permittee shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.

17. Penalties

Violations of this permit are enforceable under Article XIII of the District's Sewer Use Ordinance. Included as enforcement remedies are special orders, injunctive relief, fines, and termination of service.

18. Bypass of Pretreatment Facilities

Bypassing of any permittee pretreatment facilities is only allowed in accordance with the provisions of 40 CFR 403.17. If the permittee knows in advance of the need for a bypass, it shall submit notice to the District, if possible at least ten days before the date of the bypass.



# TERRA

▲ ENGINEERING & CONSTRUCTION CORPORATION ▲

ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK

## LETTER OF TRANSMITTAL

DATE: May 26, 1995 JOB #468

ATTENTION: Ms. Theresa Evanson

RE: Refuse Hideaway Landfill -  
Quarterly Leachate Analytical  
Results

TO: Wisconsin Department of  
Natural Resources  
101 S. Webster Street  
P.O. Box 7921  
Madison, WI 53707-7921

### WE ARE SENDING THE FOLLOWING:

One (1) Copy of the Quarterly Leachate Analytical Results and Chain of Custody.

### Remarks:

Dear Ms. Evanson:

The sample was obtained on April 19, 1995.

A copy of these results will be forwarded to Mr. Paul Nehm of the Madison Metropolitan Sewerage District.

If you have any questions, please do not hesitate to contact us.

Copy to: File

Signed:   
Kirk J. Solberg  
Environmental Geologist

If enclosures are not as noted, kindly notify us at once.

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX







**ANALYTICAL REPORT**

**Client I.D. No.:** LT2000000010

**Work Order No.:** 9504000396

**Report Date:** 05/24/95

**Date Received:** 04/19/95

**Arrival Temperature:** 10.8

TERRA ENGINEERING  
KIRK SOLBERG  
2201 VONDRON RD.  
MADISON, WI 53704

**Project Name:** REFUSE HDWY

**Project Number:** 468

**Sample I.D. #:** 98467      **Sample Description:** LEACHATE      **Date Sampled:** 04/19/95

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>LOD</u>	<u>LOQ</u>
Cyanide, Total	12	ug/L		
Metals Sample Preparation	4/21/95			
Chromium, Total, Low Level (Cr6 + Confirmation)	100	ug/L	50	167
Hexavalent Chromium	158	ug/L	5	17
Mercury	< 0.4	ug/L	0.2	0.7
Elevated detection limit due to matrix interference.				
Metals Sample Preparation	4/21/95			
Nickel	70	ug/L	10	33
Oil and Grease-- EPA 413.1	< 4	mg/L	4	13
Selenium	< 0.4	ug/L	0.2	0.7
Elevated detection limit due to sample dilution and presence of matrix interference.				
Silver	< 0.5	ug/L	0.1	0.3
Elevated detection limit presence of matrix interference.				
Zinc	21	ug/L	5	17
pH (Lab)	7.80	S.U.'s	NA	NA
Copper	20	ug/L	10	33
Chromium	80	ug/L	50	167
Cadmium	< 5	ug/L	5	17
Lead	< 20	ug/L	20	67

**Comments for entire Work Order:**  
None

**RECEIVED**  
MAY 26 1995

TERRA ENGINEERING

Submitted By: DS

**MID-STATE ASSOCIATES, INC.**  
**ENVIRONMENTAL AND ANALYTICAL SERVICES**  
 1230 LANGE COURT  
 BARABOO, WI 53913  
 (608) 356-2760 FAX: (608) 356-2766

FILL IN ANALYSIS NEEDED BELOW

Remarks:

Project#: 46B

Proj. Name: Refuse Hiway L.F.

Client Name/Number:

Terra Engineering & Construction

Number of Containers

Date	Time	Comp	Grab	Sample Description	Sample#	Number of Containers	Dil & GREASE	pH	Cr 6, Chromium Hex	Mercury, Nickel	Zinc, Cadmium	Chromium, Copper	Lead, Selenium	Silver, Cyanide
4-19-95	8 <sup>00</sup>		X	LEACHATE	2	4	-	-	-	-	-	-	-	-
				TEMP BLANK		1								

Shaded Area For Lab Use

Pres. Sample I.D. #'s:

98467

Sampled By: KIRK SOLBERG

Relinquished By: *[Signature]*

Date: Time:

Received By: *[Signature]*

Date: 4-19-95

Time: 11:20

Received By Lab: *[Signature]*

Date: 4/19/95

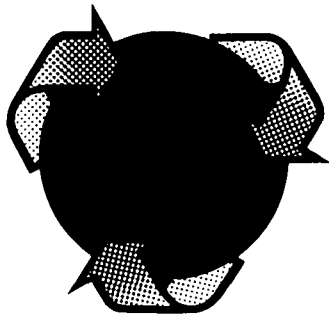
Time: 2:40

Remarks: Results to: Terra Engineering & Construction  
 2201 Vandron Rd  
 Madison WI 53705  
 ATTN: KIRK Solberg

(Qtrly MONITORING)

Sample Shipped Via: UPS  
 Fed. Exp.  Hand U.S. Mail

Sample Status:  
 Deg. C: 10.8 pH:



**TERRA**

▲ ENGINEERING & CONSTRUCTION CORPORATION ▲

ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK

LETTER OF TRANSMITTAL

DATE: September 1, 1995 JOB #468

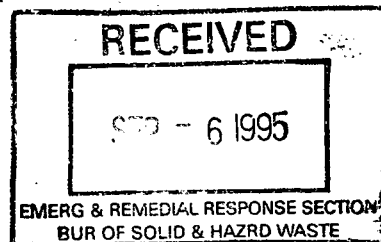
ATTENTION: Mr. Paul Nehm

RE: Refuse Hideaway Landfill  
Quarterly Leachate Analytical Results

TO: Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, WI 53713-3398

WE ARE SENDING THE FOLLOWING:

One (1) copy of the Quarterly Leachate Analytical results from the Refuse Hideaway Landfill. (Permit #NTO-5 B) Sample was obtained August 1, 1995.




Remarks:

Dear Mr. Nehm:

If you have any questions regarding these results, please do not hesitate to contact us.

Copy to: Ms Theresa Evanson - WDNR

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

  
Kirk J. Solberg  
Environmental Geologist

If enclosures are not as noted, kindly notify us at once.

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX



ANALYTICAL REPORT

**RECEIVED**  
AUG 31 1995

Client I.D. No.: LT2000000010

Work Order No.: 9508000069

Report Date: 08/29/95

Date Received: 08/02/95

Arrival Temperature: On Ice

TERRA ENGINEERING  
KIRK SOLBERG  
2201 VONDRON RD.  
MADISON, WI 53704

TERRA ENGINEERING

Project Name: REFUSE HDWY

Project Number: 468

Sample I.D. #: 107006      Sample Description: LEACHATE      Date Sampled: 08/01/95

Analyte	Result	Units	LOD	LOQ
Cyanide, Total	12	ug/L	1	3
Metals Sample Preparation	8/03/95			
Chromium, Total, Low Level (Cr6 + Confirmation)	140	ug/L	1	3
Hexavalent Chromium	100	ug/L	5	17
Sample received beyond acceptable hold time. Matrix interference.				
Mercury	< 0.4	ug/L	0.2	0.7
Elevated detection limit due to sample dilution and presence of matrix interference.				
Metals Sample Preparation	8/03/95			
Nickel	100	ug/L	10	33
Oil and Grease-- EPA 413.1	4	mg/L	4	13
Silver	< 0.2	ug/L	0.1	0.3
Elevated detection limit due to sample dilution and presence of matrix interference.				
Zinc	25	ug/L	5	17
pH (Lab)	6.45	S.U.'s	NA	NA
Lead	< 20	ug/L	20	67
Copper	10.0	ug/L	10	33
Chromium	100	ug/L	50	167
Cadmium	< 5	ug/L	5	17
Selenium	< 1	ug/L	1	3

Comments for entire Work Order:  
None

Submitted By: DO

**MID-STATE ASSOCIATES, INC.**  
**ENVIRONMENTAL AND ANALYTICAL SERVICES**  
 1230 LANGE COURT  
 BARABOO, WI 53913  
 (608) 356-2760 FAX: (608) 356-2766

FILL IN ANALYSIS NEEDED BELOW

Remarks:

Project#: 468 Proj. Name: Refuse Hideaway L.F.

Client Name/Number: Terra Engineering & Construction

Date	Time	Comp	Grab	Sample Description	Sample#	Number of Containers	Oil & Grease	PH	Cr+6, Chromium Hex	Mercury, Nickel	ZINC, CADMIUM	Chromium, Copper	LEAD, Selenium	Silver, Cyanide
------	------	------	------	--------------------	---------	----------------------	--------------	----	--------------------	-----------------	---------------	------------------	----------------	-----------------

Shaded Area For Lab Use

Pres. Sample I.D. #'s:

8/1/95	10:00 AM		X	LEACHATE	1	5	✓	-	-	-	-	-	-	-
				TEMP BLANK		1								

107006

Sampled By: K. Solberg

Relinquished By: K. Solberg

Date: 8/2/95 Time: 7:00

Received By: D. McLaughlin

Date: Time:

Received By Lab:

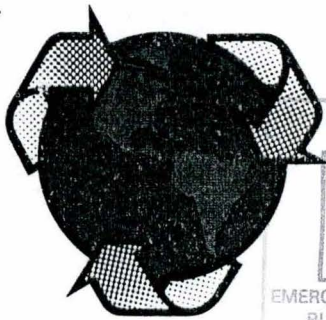
Date: Time:

Remarks: QUARTERLY Leachate Results To: Terra Engineering & Construction  
 2801 Vandron Rd  
 Wausau WI 57709

Sample Shipped Via: UPS  
 Fed. Exp. Hand U.S. Mail

Sample Status:  
 Deg. C: pH:

CHECKED



**TERRA**

▲ ENGINEERING & CONSTRUCTION CORPORATION ▲

ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK

RECEIVED  
JAN 17 1996  
EMERG & REMEDIAL RESPONSE SECTION  
BUR OF SOLID & HAZRD WASTE

LETTER OF TRANSMITTAL

DATE: January 10, 1996 JOB #468

ATTENTION: Mr. Paul Nehm

RE: Refuse Hideaway Landfill  
Quarterly Leachate Analytical Results

TO: Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, WI 53713-3398

WE ARE SENDING THE FOLLOWING:

One (1) copy of the Quarterly Leachate Analytical results from the Refuse Hideaway Landfill. (Permit #NTO-5 B) Sample was obtained December 6, 1995.

Remarks:

Dear Mr. Nehm:

If you have any questions regarding these results, please do not hesitate to contact us.

Copy to: Ms Theresa Evanson - WDNR

Signed: Kirk J. Solberg  
Kirk J. Solberg  
Environmental Geologist

If enclosures are not as noted, kindly notify us at once.

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX



**ANALYTICAL REPORT**

**RECEIVED**  
JAN 10 1995

Client I.D. No.: LT200000010

Work Order No.: 9512000137

Report Date: 01/08/96

Date Received: 12/06/95

Arrival Temperature: On Ice

TERRA ENGINEERING  
KIRK SOLBERG  
2201 VONDRON RD.  
MADISON, WI 53704

TERRA ENGINEERING

Project Name: **REFUSE HIDEAWAY**

Project Number: 468

Sample I.D. #: 116357      Sample Description: LEACHATE

Date Sampled: 12/06/95

Analyte	Result	Units	LOD	LOQ
Cyanide, Total	<10	ug/L	1	3
Quality control for accuracy was not within acceptable limits for this test. Elevated detection limit due to sample dilution and presence of matrix interference.				
Metals Sample Preparation	12/08/95			
Chromium, Total, Low Level (Cr6+ Confirmation)	60.0	ug/L	1	3
Hexavalent Chromium	122	ug/L	5	17
Mercury	<0.4	ug/L	0.2	0.7
Elevated detection limit due to sample dilution and presence of matrix interference.				
Metals Sample Preparation	12/08/95			
Oil and Grease-- EPA 413.1	<4	mg/L	4	13
Selenium	2	ug/L	1	3
Matrix interference. Concentration obtained by "Method of Standard Additions".				
Zinc	25	ug/L	5	17
pH (Lab)	7.30	S.U.'s	NA	NA
Cadmium	<5	ug/L	5	17
Chromium	90	ug/L	50	167
Copper	20	ug/L	10	30
Lead	<20	ug/L	20	67
Nickel	80.0	ug/L	10	33
Silver	<0.2	ug/L	0.1	0.3
Elevated detection limit due to sample dilution and presence of matrix interference.				

Comments for entire Work Order:  
None

Submitted By: D2

MID-STATE ASSOCIATES, INC.  
 ENVIRONMENTAL AND ANALYTICAL SERVICES  
 1230 LANGE COURT  
 BARABOO, WI 53913  
 (608) 356-1777 FAX: (608) 356-7340

FILL IN ANALYSIS NEEDED BELOW

Remarks:

137

Project#: 468 Proj. Name: Refuse Hicaway L.F.

Client Name/Number: Terra Engineering & Const. Number of Containers: 4

Date	Time	Comp	Grab	Sample Description	Sample#	Containers
12-6-95	8:45		X	LEACHATE	1	4
				TEMP BLANK		1


TERRA ENGINEERING  
 Space Below For Laboratory Use  
 Pres. Sample I.D. #'s:  
116357

Sampled By: Kirk Solberg

Relinquished By: Kirk Solberg

Date: Time:

Received By: Charles F. Bernard

Date: 12-6-95 Time: 10:40AM

Received By Lab: O. Dill

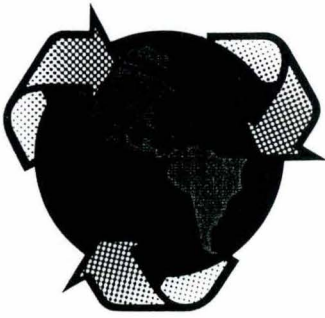
Date: 12/6/95 Time: 2:20

Remarks: Results to: Terra Engineering & Const. (Atty U.M. form)  
 2201 Vondron Rd  
 Madison WI 53705  
 ATTN: KIRK Solberg

Date Sample Disposed of:

Sample Shipped Via: UPS  
 Fed. Exp. X Hand U.S. Mail  
 Sample Status: A  
 Deg. C: on ice pH:

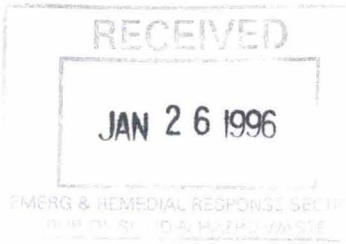




# TERRA

▲ ENGINEERING & CONSTRUCTION CORPORATION ▲

ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK



January 25, 1996

Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, WI 53713-3398

Attn: Mr. Paul H. Nehm

RE: Refuse Hideaway Landfill  
Middleton, Wisconsin  
Wastewater Discharge Permit  
No. NTO-5B  
Terra Job #468

Dear Mr. Nehm:

Terra Engineering and Construction is continuing its contract to conduct Operation and Maintenance (O&M) activities at the Refuse Hideaway Landfill in Middleton, Wisconsin. Our contract with the Wisconsin Department of Natural Resources (DNR) includes conducting required leachate monitoring, analytical testing and permitting for the discharge of leachate to the Madison Metropolitan Sewerage District (MMSD). As part of our O&M contract, we are requesting that Wastewater Discharge Permit No. NTO-5B, for the Refuse Hideaway Landfill, be extended for a 1-year period from the existing permit expiration date of September 25, 1995.

Terra will continue to forward copies of Quarterly and Annual Leachate Analytical results to MMSD.

If you have any questions regarding the Wastewater Discharge Permit extension, or any other questions regarding our O&M responsibilities at the landfill, please feel free to contact us.

Sincerely,  
TERRA ENGINEERING & CONSTRUCTION CORP.

Kirk J. Solberg  
Environmental Geologist

cc: Ms. Terry Evanson

KIRK96\cim04

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX

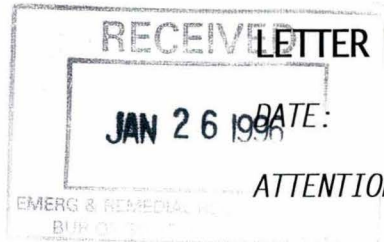




**TERRA**

▲ **ENGINEERING & CONSTRUCTION CORPORATION** ▲

ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK



**LETTER OF TRANSMITTAL**

**DATE:** JAN 26 1996

January 25, 1996 **JOB #468**

**ATTENTION:** Ms. Theresa Evanson

**RE:** Refuse Hideaway Landfill -  
Pumping Report

**TO:** Wisconsin Department of  
Natural Resources  
101 South Webster Street  
P.O. Box 7921  
Madison, WI 53707-7921

**WE ARE SENDING THE FOLLOWING:**

One (1) copy of the "Annual Pumping Report"

**Remarks:**

Dear Ms. Evanson:

This report is from Al's Modern Sewer Service and is based on load ticket volumes. The volumes pumped based on stick measurements at the tank are slightly different and will be included in the Refuse Hideaway Landfill Operation and Maintenance Annual Summary.

If you have any questions regarding this pumping report, please do not hesitate to contact us.

Copy to:

Signed: Kirk J. Solberg  
Kirk J. Solberg  
Environmental Geologist

If enclosures are not as noted, kindly notify us at once.

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX



F 2488

1995

# PUMPING REPORT FILE COPY

Property Owner: Terra Engineering - Refuse Hicaway Landfill

Owner Mailing Address: 2201 Vandron Rd  
Madison WI ZIP 53704-6795

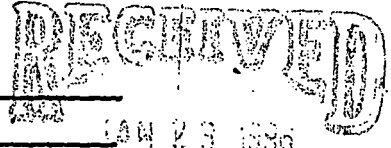
Holding Tank Location:

Street Address: Highway 14

Township: Middleton Section \_\_\_\_\_

CSM/Subdiv: \_\_\_\_\_ Lot # \_\_\_\_\_

Tax Parcel Number: \_\_\_\_\_



TERRA ENGINEERING

Pumper's Name: Al's Modern Sewer Service License # SY546

Disposal Site: Dine Springs - Madison Metro Sewerage

## PUMPING INFORMATION

Give date of pumping and volume pumped.

JAN	<u>3, 6, 9, 11, 12, 17</u>	GAL	<u>23,815</u>	JUL	<u>1, 6, 11, 17</u>	GAL	<u>19,539</u>
FEB	<u>3, 7, 9, 17, 28</u>	GAL	<u>29,694</u>	AUG	<u>2, 11, 25, 28</u>	GAL	<u>18,766</u>
MAR	<u>14, 15</u>	GAL	<u>5,506</u>	SEP	<u>19, 29</u>	GAL	<u>9,576</u>
APR	<u>5, 17, 24, 25</u>	GAL	<u>26,328</u>	OCT	<u>9, 18, 27</u>	GAL	<u>13,278</u>
MAY	<u>1, 9, 19, 23</u>	GAL	<u>22,567</u>	NOV	<u>5, 10, 29</u>	GAL	<u>13,173</u>
JUN	<u>1, 9, 20, 26</u>	GAL	<u>42,800</u>	DEC	<u>8</u>	GAL	<u>3,326</u>

### COMMENTS:

This form completed by: Lisa M Thompson

NOTE: REPORTS ARE DUE NO LATER THAN JULY 10 AND JANUARY 10

RETURN REPORTS TO: Dane County Environmental Health, 1206 Northport Drive, Rm. 107, Madison, WI., 53704-2088. If you have any questions call us at (608) 242-6515.

**ANALYTICAL REPORT**

**RECEIVED**  
JAN 10 1995

Client I.D. No.: LT200000010

Work Order No.: 9512000137

Report Date: 01/08/96

Date Received: 12/06/95

Arrival Temperature: On Ice

TERRA ENGINEERING  
KIRK SOLBERG  
2201 VONDRON RD.  
MADISON, WI 53704

TERRA ENGINEERING

Project Name: REFUSE HIDEAWAY

Project Number: 468

Sample I.D. #: 116357      Sample Description: LEACHATE      Date Sampled: 12/06/95

Analyte	Result	Units	LOD	LOQ
Cyanide, Total	<10	ug/L	1	3
Quality control for accuracy was not within acceptable limits for this test. Elevated detection limit due to sample dilution and presence of matrix interference.				
Metals Sample Preparation 12/08/95				
Chromium, Total, Low Level (Cr6+ Confirmation)	60.0	ug/L	1	3
Hexavalent Chromium	122	ug/L	5	17
Mercury	<0.4	ug/L	0.2	0.7
Elevated detection limit due to sample dilution and presence of matrix interference.				
Metals Sample Preparation 12/08/95				
Oil and Grease-- EPA 413.1	<4	mg/L	4	13
Selenium	2	ug/L	1	3
Matrix interference. Concentration obtained by "Method of Standard Additions".				
Zinc	25	ug/L	5	17
pH (Lab)	7.30	S.U.'s	NA	NA
Cadmium	<5	ug/L	5	17
Chromium	90	ug/L	50	167
Copper	20	ug/L	10	30
Lead	<20	ug/L	20	67
Nickel	80.0	ug/L	10	33
Silver	<0.2	ug/L	0.1	0.3
Elevated detection limit due to sample dilution and presence of matrix interference.				

Comments for entire Work Order:  
None

Submitted By: DD

**MID-STATE ASSOCIATES, INC.**  
**ENVIRONMENTAL AND ANALYTICAL SERVICES**  
 1230 LANGE COURT  
 BARABOO, WI 53913  
 (608) 356-1777 FAX: (608) 356-7340

FILL IN ANALYSIS NEEDED BELOW

Remarks: 137

Project#: 468

Proj. Name: Refuse Woadaway L.F.

Client Name/Number: Terra Engineering & Const.

Number of Containers

Date	Time	Comp	Grab	Sample Description	Sample#	Number of Containers	Oil: GREASE	PT	Cd, Cr, Ni, Pb, Zn	Mercury, Nickel, Zinc	Cadmium, Chromium	Copper, Lead, Selenium	Silver, Cyanide	Pres.	Sample I.D. #'s:
12-6-95	8:45		X	LEACHATE	/	4									116357
				TEMP BLANK	/	1									

**RECEIVED**  
 JAN 10 1996

TERRA ENGINEERING

Space Below For Laboratory Use

Sampled By: Kirk Solberg

Relinquished By: Kirk Solberg

Date: Time:

Received By: Charles F. Bernard

Date: 12-6-95 Time: 10:10AM

Received By Lab: O. Dill

Date: 12/6/95 Time: 2:20

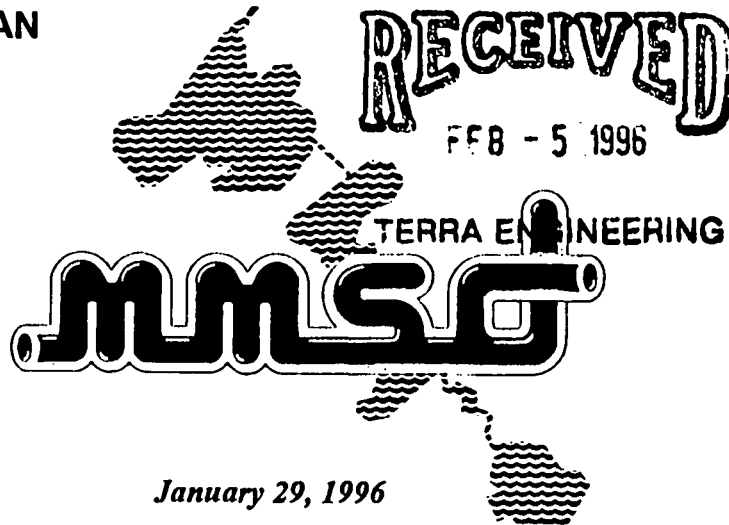
Remarks: Results to: Terra Engineering & Const.  
 2201 Vandron Rd  
 Madison WI 53705  
 ATTN: KIRK Solberg

Date Sample Disposed of: Sample Shipped Via: UPS  
 Fed. Exp.  Hand  U.S. Mail   
 Sample Status: Deg. C: on ice pH: A

**MADISON METROPOLITAN  
SEWERAGE DISTRICT**

1610 Moorland Road  
Madison, WI 53713-3398  
Telephone (608) 222-1201  
Fax (608) 222-2703

James L. Nemke  
Chief Engineer & Director



**COMMISSIONERS**

Lawrence B. Polkowski  
President  
Edward V. Schten  
Vice-President  
Thomas D. Hovel  
Secretary  
Eugene O. Gehl  
Commissioner  
Caryl E. Terrell  
Commissioner

*January 29, 1996*

Mr. Kirk J. Solberg  
Terra Engineering and Construction Corporation  
2201 Vondron Road  
Madison, WI 53704-6795

Dear Mr. Solberg:

I am writing in response to your letter of January 25, 1996 concerning extension of the leachate discharge permit for the Refuse Hide-Away Landfill in Middleton, Wisconsin. Enclosed with this letter is a permit which provides for a one-year extension of the existing permit.

Please be aware that the permit expires in September of 1996. Application for renewal of this permit should be made prior to the expiration date.

Sincerely,

Paul H. Nehm  
Director of Operations and Maintenance

PHN:dms



**WASTEWATER DISCHARGE PERMIT**

In compliance with the provisions of Articles 5 and 6 of the Madison Metropolitan Sewer District Sewer Use Ordinance and the District's Policy on Acceptance of Wastewater Containing Non-Typical Organic and Inorganic Constituents,

Department of Natural Resources  
Post Office Box 7921  
Madison, WI 53707

is hereby authorized to discharge contaminated groundwater from the above identified facility into the District sewerage system in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in this permit.

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

This permit shall become effective on September 25, 1995, and shall expire at midnight, September 24, 1996. Any appeals to the conditions of this permit must be made to the Chief Engineer and Director within thirty days of the signature date.

The permittee shall not discharge after the date of expiration. If the permittee wishes to continue to discharge after this expiration date an application shall be filed for reissuance of this permit in accordance with the requirements of Article 5 of the Madison Metropolitan Sewerage District Sewer Use Ordinance, at least thirty days prior to the expiration date.

In accordance with Articles 5 and 6 of the Madison Metropolitan Sewerage District Sewer Use Ordinance, the District reserves the right to amend this permit from time to time or to revoke the permit.

By: James L. Nemke  
James L. Nemke  
Chief Engineer and Director

Dated this 2<sup>nd</sup> day of February, 1996.

## **PART 1--APPLICABLE EFFLUENT LIMITATIONS**

### **SECTION 1--MMSD Pretreatment Standards**

(a) All wastewaters discharged to the MMSD shall not exceed the following effluent limitations:

- 0.25 mg/l cadmium
- 0.5 mg/l hexavalent chromium
- 10.0 mg/l total chromium
- 1.5 mg/l copper
- 0.1 mg/l cyanide
- 5.0 mg/l lead
- 0.02 mg/l mercury
- 2.0 mg/l nickel
- 0.3 mg/l selenium
- 3.0 mg/l silver
- 8.0 mg/l zinc

(b) The limitations listed in paragraph (a) apply to twenty-four hour flow proportionate samples collected from the total discharge of the permittee.

(c) In addition, the permittee shall comply with all other applicable regulations and standards contained in the MMSD Sewer Use Ordinance. Included in these regulations are limitations on pH, slug loads, and oil and grease content.

### **SECTION 2--Toxicity Characteristics Leaching Procedure Requirements**

(a) All wastewaters discharged to the MMSD shall not exceed the limitations of the Toxicity Characteristics Leaching Procedure (TLCP) as specified in the Federal Register of March 29, 1990.



## **PART 2--MONITORING AND REPORTING REQUIREMENTS**

### SECTION 1--Monitoring Requirements

The permittee shall monitor its wastewater discharges subject to regulations under Part 1 of this permit to ascertain compliance with the applicable limitations. Said monitoring to determine compliance with the standards specified in Part 1 shall be conducted each calendar quarter. The monitoring shall consist of sampling of the regulated wastewaters for those pollutants regulated under Part 1 of this permit and reporting of the results to the District. Samples shall be obtained by collecting a representative sample of the contents of the on-site 25,000 gallon storage tank. Samples shall be collected on a quarterly basis to show compliance with Part I Section 1 and on an annual basis to show compliance with Part I Section 2.

Laboratory analysis of samples collected shall be performed in accordance with 40 CFR Part 136 or other such methods as approved by the District.

### SECTION 2--Reporting Requirements

Self-monitoring results shall be reported to the District within three days of the end of the calendar quarter.

If the permittee monitors any pollutant more frequently than required by this permit, the results of such monitoring shall be submitted to the District.

If sampling performed by the permittee indicates a violation of any provisions of this permit, the permittee must notify the District of the violation within 24 hours of becoming aware of it. The permittee must also repeat the sampling and analysis and submit the results of the repeat analysis to the District within 30 days after becoming aware of the violation.

All reports shall be signed and sworn by a responsible corporate officer of the permittee. A responsible corporate officer is defined as:

1. A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy-or decision-making functions for the permittee, or
2. The manager of one or more manufacturing, production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million, if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

The individual signing the report shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.”

All reports required by this permit shall be submitted to:

Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, Wisconsin 53713

The Madison Metropolitan Sewerage District will randomly collect and analyze samples of leachate to verify leachate quality.

**PART 3--MONITORING AND SAMPLING FACILITIES**

SECTION 1--Sampling Facilities

In order to permit monitoring of the leachate, by the District, the permittee shall construct facilities to allow for collection of a representative sample from the on-site 25,000 gallon storage tank.

SECTION 2--Discharge Permit

Since the Refuse Hideaway Landfill is outside the District's service area, all wastewater from the site shall be hauled to the Nine Springs Wastewater Treatment Plant and disposed of at a designated location at this plant. The hauler shall have in effect a Septage Disposal Permit issued by the District.

## PART 4--GENERAL CONDITIONS

### 1. Right of Entry

The permittee shall, after reasonable notification by the District, allow the District or its representatives, exhibiting proper credentials and identification, to enter upon the premises of the permittee at all reasonable hours, for the purposes of inspection, sampling, or records inspection. Reasonable hours in the context of inspection and sampling includes any time the permittee is operating any process which results in collection of wastewater in the on-site storage tank.

### 2. Records Retention

a) The permittee shall retain and preserve for no less than three (3) years, any records, books, documents, memoranda, reports, correspondence and any and all summaries thereof, relating to monitoring, sampling and chemical analyses made or by or in behalf of the permittee in connection with its discharge.

b) All records that pertain to matters that are the subject of special orders or any other enforcement or litigation activities brought by the District shall be retained and preserved by the permittee until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

### 3. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

### 4. Confidential Information

Except for data determined to be confidential under Article 7.2 MMSD Sewer Use Ordinance, all reports required by this permit shall be available for public inspection at the headquarters of the District.

### 5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a) The exact place, date, and time of sampling;
- b) The dates the analyses were performed;

- c) The person(s) who performed the analyses;
- d) The analytical techniques or methods used; and
- e) The results of all required analyses.

6. Falsifying Information

Knowingly making any false statement on any report or other document required by this permit or knowingly rendering any monitoring device or method inaccurate, may result in punishment under the criminal laws of Wisconsin as well as being subjected to civil penalties and relief.

7. Modification or Revision of Permit

- a) The terms and conditions of this permit may be subject to modification by the District at any time as limitations or requirements as identified in the MMSD Sewer Use Ordinance are modified or other just cause exists.
- b) This permit may also be modified to incorporate special conditions resulting from the issuance of a special order.
- c) Any modifications which result in new conditions in the permit shall include a reasonable time schedule for compliance if necessary.

8. Dilution

No permittee shall increase the use of potable or process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit.

9. Accidental Discharges

The permittee shall provide protection from the accidental discharge of prohibited or regulated materials or substances established by the MMSD Sewer Use Ordinance. Where necessary, facilities to prevent the accidental discharge of prohibited materials shall be provided and maintained at the permittee's expense. Permittees shall notify the District immediately upon the occurrence of an accidental discharges of substances prohibited by the MMSD Sewer Use Ordinance. The District should be notified by telephone at 222-1201. During normal business hours the modification shall be made to the Director of Wastewater Treatment Operations. During other times, the notification shall be made to the operator on duty. The notification shall include location of discharge, date and time thereof, type of waste, concentration and volume, and corrective actions taken. The permittee shall also provide such notification to the appropriate local municipal officials. In addition, the

permittee should immediately notify the State of Wisconsin of the accidental spill at (608) 266-3232 (twenty-four hour number).

40 CFR 403.8(f) (v) requires the District to evaluate each significant industrial user at least once every two years to determine whether a plan to control slug discharges is necessary. If it is determined that such a plan is necessary, the plan shall contain the following:

1. A description of discharge practices including non-routine batch discharges.
2. A description of stored chemicals.
3. Procedures for immediately notifying the District of a slug discharge and procedures for follow-up written notification within five days.
4. Procedures to prevent adverse impact from accidental spills.

#### 10. Notice of Intent

Any permittee planning to alter or change any activity at the permittee's facility that would significantly increase or decrease the volume or alter the content of any existing source of industrial wastewater discharge into the District sewerage system must file a written Request to Discharge Form in accordance with Article 5 of the MMSD Sewer Use Ordinance. A significant increase or decrease shall be defined as a twenty-five percent increase or decrease in the volume of industrial wastewater currently being discharged by a permittee. An alteration shall be defined as any change in chemicals utilized with a process which will significantly alter the characteristics of the industrial waste discharge or the addition of any new process or production wastewater discharges.

#### 11. Proper Disposal of Pretreatment Sludges

The disposal of sludges generated within wastewater pretreatment systems shall be done in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

#### 12. Operating Upsets

Any permittee that experiences an upset in operations that places the permittee in a temporary state of noncompliance with the provisions of either this permit or the MMSD Sewer Use Ordinance shall inform the District thereof within twenty-four hours of first awareness of the commencement of the upsets in accordance with Article 5.5.5 of the MMSD Sewer Use Ordinance.

13. Limitations on Permit Transfer

Wastewater discharge permits are issued to a specific user for a specific operation and are not assignable to another user or transferable to any other location without prior written approval of the District. Sale of a user shall obligate the purchaser to seek prior written approval of the District for continued discharge to the District sewerage system.

14. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

15. Fees

The permittee will incur all costs billed by the District for leachate discharged to the District's sewerage system for leachate quantities and strengths as reported by the permittee to the District and as ascertained by the District through additional sampling. The costs shall include charges for the volume, CBOD, Total Suspended Solids, and Total Kjeldahl Nitrogen discharged and for ten (10) equivalent meters and one (1) actual customer and shall be based on the then prevailing District service charge rates. In accordance with the District's Policy on Acceptance of Wastewater Generated Outside of the District, a cumulative 10 percent surcharge shall be imposed on the discharge cost each quarter until such surcharge reaches 100 percent.

16. Hazardous Waste Notification

The permittee shall notify the District, the Department of Natural Resources, and the EPA Regional Waste Management Division Director in writing of any discharge to the sanitary sewer system of a substance which, if otherwise disposed of, would be hazardous waste under 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge. If the permittee discharges to the sanitary sewer more than 100 kilograms of such waste per calendar month, the additional notification requirements of 40 CFR 403.12 (p) apply. In the case of any notification made under this section, the permittee shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.

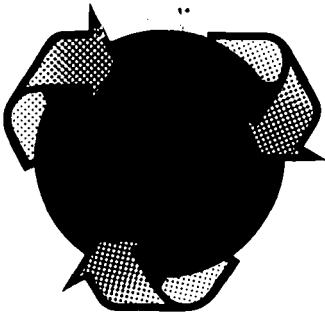
17. Penalties

Violations of this permit are enforceable under Article XIII of the District's Sewer Use Ordinance. Included as enforcement remedies are special orders, injunctive relief, fines, and termination of service.

18. Bypass of Pretreatment Facilities

Bypassing of any permittee pretreatment facilities is only allowed in accordance with the provisions of 40 CFR 403.17. If the permittee knows in advance of the need for a bypass, it shall submit notice to the District, if possible at least ten days before the date of the bypass.





**TERRA**

▲ ENGINEERING & CONSTRUCTION CORPORATION ▲

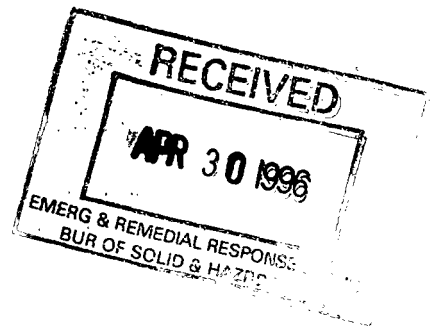
ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK

**LETTER OF TRANSMITTAL**

DATE: April 29, 1996 JOB #468  
ATTENTION: Mr. Paul Nehm  
RE: Refuse Hideaway Landfill  
Quarterly Leachate Analytical Results  
TO: Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, WI 53713-3398

WE ARE SENDING THE FOLLOWING:

One (1) copy of the Quarterly Leachate Analytical results from the Refuse Hideaway Landfill. (Permit #NTO-5C) Sample was obtained March 19, 1996 and March 27, 1996\*.



Remarks:

Dear Mr. Nehm:

If you have any questions regarding these results, please do not hesitate to contact us.

Mid-State Laboratories requested an additional sample jar to analyze for cyanide due to a problem with original sample preservative.

Copy to: Ms. Theresa Evanson WDNR  
File

Signed: Kirk J. Solberg  
Kirk J. Solberg, C.P.G.  
Project Manager

If enclosures are not as noted, kindly notify us at once.

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX





ANALYTICAL REPORT

RECEIVED  
APR 13 1996

Client I.D. No.: LT200000010

Work Order No.: 9603000354

Report Date: 04/12/96

Date Received: 03/19/96

Arrival Temperature: On Ice

TERRA ENGINEERING  
KIRK SOLBERG  
2201 VONDRON RD.  
MADISON, WI 53704

TERRA ENGINEERING

Project Name: REFUSE HIDEAWAY

Project Number: 468

Sample I.D. #:	Sample Description:	Date Sampled:		
122421	LEACHATE	03/19/96		
Analyte	Result	Units	LOD	LOQ
Cyanide, Total	8	µg/L	5	17
Metals Sample Preparation	3/20/96			
Chromium, Total, Low Level (Cr6+ Confirmation)	33	µg/L	1	3
Hexavalent Chromium	141	µg/L	5	17
Mercury	<0.4	µg/L	0.2	0.7
Elevated detection limit due to sample dilution; presence of matrix interference. Quality control for accuracy was not within acceptable limits for this test.				
Metals Sample Preparation	3/20/96			
Oil and Grease-- EPA 413.1	5	mg/L	4	13
Selenium	<2	µg/L	1	3
Elevated detection limit due to sample dilution; presence of matrix interference.				
Silver	<0.1	µg/L	0.1	0.3
Elevated detection limit due to sample dilution; presence of matrix interference.				
Zinc	13	ug/L	5	17
pH (Lab)	7.42	S.U.'s	NA	NA
Cadmium	<5	µg/L	5	17
Chromium	490	µg/L	50	167
Copper	10	µg/L	10	30
Lead	<20	µg/L	20	67
Nickel	80	µg/L	10	33

Comments for entire Work Order:  
None

Submitted By: JS

MID-STATE ASSOCIATES, INC.  
 ENVIRONMENTAL AND ANALYTICAL SERVICES  
 1230 LANGE COURT  
 BARABOO, WI 53913  
 (608) 356-1777 FAX: (608) 356-7340

FILL IN ANALYSIS NEEDED BELOW

Remarks: 354

Project#: 468 Proj. Name: Kenose Highway L.F.

Client Name/Number: Terra Engineering & Construction Number of Containers

Date	Time	Comp	Grab	Sample Description	Sample#	Containers
3/19/96	9:00 AM		<input checked="" type="checkbox"/>	LEACHATE	#	4
			<input checked="" type="checkbox"/>	TEMP BLANK	#	1

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
OIL & GREASE	pH	As	Cr	Co	Cd	Cu	Fe	Mn	Ni	Pb	Se	Sr	Zn	Al	Ca	Mg	K	Na
		Chromium Hex	Mercury, Nickel, Zinc	Cadmium, Chromium	Copper, Lead, Selenium	Silver, Cyanide												

Space Below For Laboratory Use	
Pres.	Sample I.D. #'s:
	122421

Sampled By: Kirk Solberg Relinquished By: Kirk Solberg Date: 3/19/96 Time: 1:22

Received By: Charles F. Bongard Date: 3-19-96 Time: 10:55AM Received By Lab: O.D. Inc Date: 3/19/96 Time: 1:22

Remarks: Results To: Terra Engineering & Const  
 2001 Vondra Rd  
 Wisconsin WI 53704  
 ATN: Kirk Solberg

Date Sample Disposed of: Sample Shipped Via: UPS Fed. Exp. X Hand U.S. Mail  
 Sample Status: Deg. C: on ice pH:

MID-STATE ASSOCIATES, INC.  
 ENVIRONMENTAL AND ANALYTICAL SERVICES  
 1230 LANGE COURT  
 BARABOO, WI 53913  
 (608) 356-2760 FAX: (608) 356-2766

FILL IN ANALYSIS NEEDED BELOW

Remarks:

*This is a  
 Re-sample for  
 Cyanide. Original  
 sample collected  
 3/19/96*

Project#: *468* Proj. Name: *Lease Highway & Landfill*

Client Name/Number:  
*Terra Engineering & Const*

Number of Containers

*Cyanide*

Shaded Area For Lab Use

Pres. Sample I.D. #'s:  
*122421*

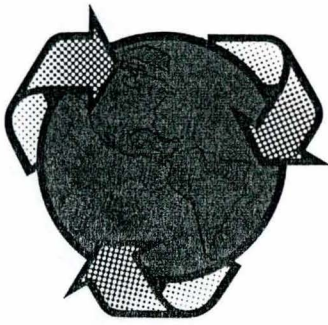
Date	Time	Comp	Grab	Sample Description	Sample#	Number of Containers
<i>3/27/96</i>	<i>9:00</i>		<i>X</i>	<i>Lease Highway</i> <small>LEACHATE</small>	<i>1</i>	<i>1</i>
				<i>TEMP BLANK</i>		<i>1</i>

Sampled By: *Kirk Solberg* Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received By: *W. Hueser* Date: *3/28/96* Time: *9:50* Received By Lab: *D. J. Hill* Date: *3/28/96* Time: *11:22*

Remarks: *Waiver to Kirk Solberg & Terra Engineering & Const.  
 2201 Vandron Rd Madison WI 53704 - prior log-in*

Sample Shipped Via:  UPS  Fed. Exp.  Hand  U.S. Mail  
 Sample Status: \_\_\_\_\_  
 Deg. C: *mice* pH: \_\_\_\_\_



**TERRA**

▲ ENGINEERING & CONSTRUCTION CORPORATION ▲

ENVIRONMENTAL REMEDIATION  
MUNICIPAL & UTILITY CONSTRUCTION  
SPECIALTY EARTHWORK

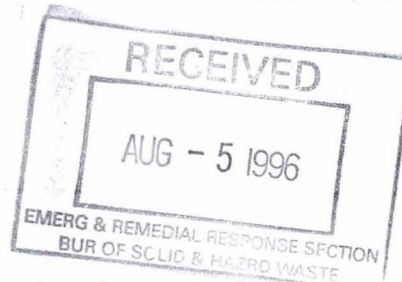
**LETTER OF TRANSMITTAL**

DATE: August 1, 1996 JOB #468

ATTENTION: Mr. Paul Nehm

RE: Refuse Hideaway Landfill  
Quarterly Leachate Analytical Results

TO: Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, WI 53713-3398



**WE ARE SENDING THE FOLLOWING:**

One (1) copy of the Quarterly Leachate Analytical results from the Refuse Hideaway Landfill. (Permit #NTO-5C) Sample was obtained July 10, 1996.


**REMARKS:**

Dear Mr. Nehm:

If you have any questions regarding these results, please do not hesitate to contact us.

Annual sampling was conducted on the same date. Results of Annual analysis are pending.

Copy to: Ms. Theresa Evanson WDNR  
File

Signed:   
Kirk J. Solberg, C.P.G.  
Project Manager

If enclosures are not as noted, kindly notify us at once.

2201 VONDRON ROAD  
MADISON, WI 53704-6795  
608/221-3501 PHONE  
608/221-4075 FAX





**ANALYTICAL REPORT**

Client I.D. No.: LT2000000010

Work Order No.: 9607000224

Report Date: 07/29/96

Date Received: 07/11/96

Arrival Temperature: 16.3

TERRA ENGINEERING  
KIRK SOLBERG  
2201 VONDRON RD.  
MADISON, WI 53704

Project Name: **REFUSE HIDEWAWY**

Project Number:

Sample I.D. #: 130914      Sample Description: LEACHATE      Date Sampled: 07/10/96

Analyte	Result	Units	LOD	LOQ
Cyanide, Total	34	µg/L	5	17
Hexavalent Chromium	176	µg/L	5	17
Metals Sample Preparation	7/12/96			
Mercury	<0.4	µg/L	0.2	0.7
Elevated detection limit due to sample dilution; presence of matrix interference.				
Metals Sample Preparation	7/12/96			
Nickel	110	µg/L	10	30
Oil and Grease-- EPA 413.1	5	mg/L	4	13
Zinc	34	µg/L	5	17
pH (Lab)	7.57	S.U.'s	NA	NA
Cadmium	<5	µg/L	5	17
Chromium	190	µg/L	50	170
Copper	20	µg/L	10	30
Lead	<20	µg/L	20	70
Selenium	<5	µg/L	1	3
Elevated detection limit due to sample dilution; presence of matrix interference. Result obtained by "Method of Standard Addition".				
Silver	1.0	µg/L	0.1	0.3
Matrix interference. Result obtained by "Method of Standard Addition".				

Comments for entire Work Order:  
None

Submitted By:

**MID-STATE ASSOCIATES, INC.**  
**ENVIRONMENTAL AND ANALYTICAL SERVICES**  
1230 LANGE COURT  
BARABOO, WI 53913  
(608) 356-1777 FAX: (608) 356-7340

**FILL IN ANALYSIS NEEDED BELOW**

Remarks: *Qtrly analysis* 222

Project#: \_\_\_\_\_ Proj. Name: *Refuse HIDEWAY L.F.*

Client Name/Number: *Terra Engineering & Const* Number of Containers: \_\_\_\_\_

Date	Time	Comp	Grab	Sample Description	Sample#	Oil & Grease	pH	Cr+6, Chromium Hex	Mercury, Nickel, Zinc	Cadmium, Chromium	Copper, Lead, Selenium	Silver, Cyanide
<i>7/12/96</i>	<i>12:15</i>		<i>X</i>	<i>LEACHATE</i>		<i>/</i>	<i>/</i>	<i>/</i>	<i>/</i>	<i>/</i>	<i>/</i>	<i>/</i>
				<i>TEMP BLANK</i>	<i>1</i>							

Space Below For Laboratory Use

Pres.	Sample I.D. #'s:
	<i>130914</i>

Sampled By: *Kirk Solberg*

Relinquished By: \_\_\_\_\_

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

Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received By Lab: *[Signature]*

Date: *7/11/96* Time: *10:50*

Remarks: *Qtrly Analysis Results to Kirk Solberg c/o Terra Engineering & Const 2001 Vandora Rd Madison WI 53704*

Date Sample: \_\_\_\_\_ Disposed of: \_\_\_\_\_  
Sample Shipped Via: \_\_\_ UPS \_\_\_ Fed. Exp.  Hand \_\_\_ U.S. Mail  
Sample Status: \_\_\_\_\_ Deg. C: *16.3* pH: \_\_\_\_\_



ANALYTICAL REPORT

Client I.D. No.: LT2000000010

Work Order No.: 9607000625

Report Date: 08/13/96

Date Received: 07/30/96

Arrival Temperature: On Ice

TERRA ENGINEERING  
KIRK SOLBERG  
2201 VONDRON RD.  
MADISON, WI 53704

Project Name: REFUSE HIDEAWAY

Project Number: 468

Sample  
I.D. #: 132298

Sample  
Description: LEACHATE

Date Sampled: 07/29/96

Analyte

Result

Units

LOD

LOQ

Analysis Date TCLP Herbicides  
See attached report for results.

8/08/96

Comments for entire Work Order:  
None

Submitted By: \_\_\_\_\_



MID-STATE ASSOCIATES, INC.  
 ENVIRONMENTAL AND ANALYTICAL SERVICES  
 1230 LANGE COURT  
 BARABOO, WI 53913  
 (608) 356-1777 FAX: (608) 356-7340

FILL IN ANALYSIS NEEDED BELOW

Remarks: *625*

Project#: *4108* Proj. Name: *Refuse Hierarchy Landfill*

Client Name/Number: *Terra Engineering & Const* Number of Containers: *1*

Date	Time	Comp	Grab	Sample Description	Sample#	Number of Containers
<i>7/29/96</i>	<i>4:00</i>		<i>X</i>	<i>LEACHATE</i>		<i>1</i>

*TCLP - Herbicides*

Sampled By: *Jim Falbo* Relinquished By: *J Falbo* Date: *7-30* Time:

Received By:  Date:  Time:  Received By Lab:  Date: *7/29/96* Time: *10:00 AM*

Remarks: *RE-SAMPLING FOR TCLP-HERBICIDES*  
*Results to Terra Engineering & Const*  
*2201 Windsor Rd MADISON WI*

Date Sample Disposed of:  Sample Shipped Via: *UPS*  
 Fed. Exp.  Hand  U.S. Mail   
 Sample Status:   
 Deg. C:  pH:

*MW*

**ENVIROSCAN**

August 12, 1996

ENVIRONMENTAL AND  
ANALYTICAL SERVICES

Mid State Associates  
1230 Lange Court  
Baraboo, WI 53913

Attn: Patti Boehlke/ Michelle Mixwell

Re: 468

Please find enclosed the analytical results for the sample received July 31, 1996.

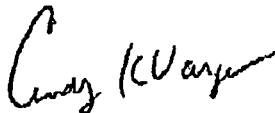
All analyses were completed in accordance with appropriate EPA methodologies. Methods and dates of analysis are included in the report tables.

The chain of custody document is enclosed.

If you have any questions about the results, please call. Thank you for using US Filter/Enviroscan for your analytical needs.

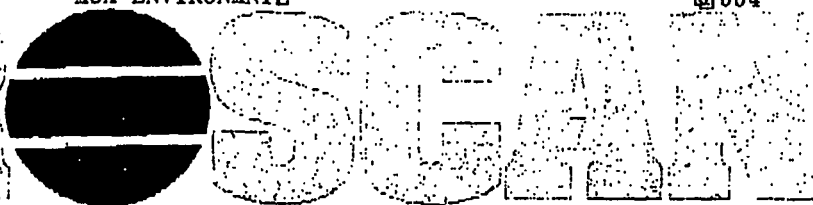
Sincerely,

US Filter/Enviroscan



Cindy K. Varga  
Senior Analytical Chemist

# ANALYTICAL REPORT



Mid State Associates  
1230 Lange Court  
Baraboo, WI 53913

CUST NUMBER: 468  
SAMPLED BY: Client  
DATE REC'D: 07/31/96  
REPORT DATE: 08/12/96  
PREPARED BY: CHV *ckv*  
REVIEWED BY: *[Signature]*

Attn: Patti Boehlke/ Michelle Mixwell

	Units	Reporting Limit	LEACHATE 07/29/96	Qualifiers	Date Analyzed
<u>EPA 8151</u>					
2,4-D	µg/l	10.0	X		08/08/96
2,4,5-TP (Silvex)	µg/l	1.0	X		08/08/96
Org Ext - Herbicides		-	COMP		08/05/96

Analytical No.: 73497

X = Analyzed but not detected.

All analyses conducted in accordance with Enviroscan Quality Assurance Program.

Enviroscan Corp., 303 West Military Rd., Rothschild, WI 54474 1/800/338-SCAN Wisconsin Lab Certification No. 737053130

midstas

21-0912

~~7020~~  
~~31538~~

31538

4768-0

8-21-96



ENVIRONMENTAL AND ANALYTICAL SERVICES  
1230 LANGE COURT  
BARABOO, WI 53913  
(608) 356-2760 FAX: (608) 356-2766

FILL IN ANALYSIS NEEDED BELOW

Remarks:

Project#:

Proj. Name:

L168

Team Eng. (Refuse)

Client Name/Number:

Midstate Assoc

Number of Containers

Date

Time

Comp

Grab

Sample Description

Sample#

12/2/96

Dechlorate

132298

1

100% Herbicides  
240 2457P Herb

X

07073407

Space Below For Laboratory Use

Pres.

Sample I.D. #'s:

Sampled By:

Relinquished By:

Date:

Time:

Received By:

Date:

Time:

Received By Lab:

Date:

Time:

Remarks:

Sublab:

C-1000



DELIVERY/TRACE II SHIPPER RECEIPT  
12 584 078 05 0237 900 6  
PLACE ON YOUR SHIPPING RECORD

Date Sample Disposed of:

Sample Shipped Via:

Fed. Exp. Hand U.S. Mail

Sample Status:

Deg. C:

pH:

08/13/98

08:54

08908 358 2788

NSA ENVIRONMENTAL

08005

ANALYTICAL REPORT

**RECEIVED**  
AUG - 2 1996

Client I.D. No.: LT2000000010

Work Order No.: 9607000254

Report Date: 07/31/96

Date Received: 07/12/96

Arrival Temperature: 16.3

TERRA ENGINEERING  
KIRK SOLBERG  
2201 VONDRON RD.  
MADISON, WI 53704

**TERRA ENGINEERING**

Project Name: REFUSE HIDEAWAY

Project Number:

Sample I.D. #: 131024      Sample Description: LEACHATE      Date Sampled: 07/10/96

Analyte	Result	Units	LOD	LOQ
Extraction - TCLP	7/22/96			
TCLP Barium	1.49	mg/L	0.10	0.33
Result obtained by "Method of Standard Addition". Matrix interference.				
TCLP Cadmium	<0.005	mg/L	0.005	0.017
TCLP Chromium	0.180	mg/L	0.05	0.17
TCLP Lead	<0.02	mg/L	0.02	0.07
TCLP Silver	<0.002	mg/L	0.002	0.007
Matrix interference. Result obtained by "Method of Standard Addition".				
TCLP Arsenic	55	mg/L	0.001	0.003
TCLP Selenium	<5	mg/L	0.001	0.003
Elevated detection limit due to sample dilution; presence of matrix interference. Result obtained by "Method of Standard Addition".				
TCLP Mercury	<0.0008	mg/L	0.0002	0.0007
Elevated detection limit due to sample dilution; presence of matrix interference.				
Metals Sample Preparation	7/22/96			
Analysis Date TCLP SVOC's	7/22/96			
See attached report for results.				
Analysis Date TCLP Pesticides	7/22/96			
See attached report for results.				
Analysis Date TCLP VOC's	7/21/96			
See attached report for results.				

Comments for entire Work Order:  
None

Submitted By: *ADO*

**MID-STATE ASSOCIATES, INC.**  
**ENVIRONMENTAL AND ANALYTICAL SERVICES**  
1230 LANGE COURT  
BARABOO, WI 53913  
(608) 356-1777 FAX: (608) 356-7340

FILL IN ANALYSIS NEEDED BELOW

Remarks: Annual Analysis 254  
Arsenic  
Barium  
Cadmium  
Chromium  
Lead  
Mercury  
Selenium Silver  
TCLP Metals

Project#: \_\_\_\_\_ Proj. Name: Re-use Highway LF

Client Name/Number: Terra Engineering & Const. Number of Containers: \_\_\_\_\_

Date	Time	Comp	Grab	Sample Description	Sample#	Number of Containers	TCLP VOC's	TCLP SVOC	TCLP Pesticides	TCLP Herbicides	TCLP Metals	Pres.	Sample I.D. #'s
7/10/96	12 <sup>00</sup>		✓	LEACHATE		4	✓	✓	✓	✓	✓		131024
7/10/96	12 <sup>00</sup>		✓	LEACHATE		3 Vials	✓						✓
			✓	TRUMP BLANK		1							

Sampled By: Kirk Solberg Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By Lab: D.O.W. 7/11/96 Date: 7/11/96 Time: 1050

Remarks: Annual Analysis results to Terra Engineering & Const 2201 Voncron Rd Madison WI 53704 ATTN Kirk Solberg  
Date Sample Disposed of: [Signature]  
Sample Shipped Via: UPS Fed. Exp.  Hand U.S. Mail  
Sample Status: \_\_\_\_\_ Deg. C: 16.3 pH: \_\_\_\_\_



MONTGOMERY WATSON LABORATORIES

**RECEIVED**  
AUG - 2 1996

**TERRA ENGINEERING**

July 26, 1996

Ms. Michelle Maxwell  
Mid-State Associates, Inc.  
Environmental and Analytical Services  
1230 Lange Court  
Baraboo, Wisconsin 53913

Re: Terra-Refuse Hideaway

Dear Ms. Maxwell:

Enclosed are the analytical results, chain-of-custody and Invoice No. ML13389 for the sample collected July 10, 1996. Please feel free to call if you have any questions.

Sincerely,

MONTGOMERY WATSON LABORATORIES

Sheila M. Tauschek  
Laboratory Director

Enclosures: As stated

dsk/SMT  
G:\GLAB\DMGMT\LETTERS\40140530.DOC  
L13389

## METHOD REFERENCES

Compounds	Soil/Groundwater	Wastewater
Alcohol	8015*	8015*
BEXT	8020***	602
DRO	Modified DRO	Modified DRO
GRO	Modified GRO***	Modified GRO
Fatty Acids	8015*	8015*
Herbicides	8150	8150
Pesticides	8080	608
Pesticide/PCBs	8080	608
PCBs	8080**	608
PCBs	8080****	608
PCP/PHEN	8040****	8040****
PNA (GC/MS)	8270	8270
PNA (HPLC)	8310	8310
PVOCs	8020***	8020
SVOCs	8270	8270
TPH	D-3328-78*	D-3328-78*
TRPH	418.1 & 9073	418.1 & 9073
VOCs	8021	8021
GC/MS-VOC	8260	8260
VOCs	8010/8020***	601/602
Solids, Total	160.3	160.3

SW846, "Test Methods for Evaluating Solid Waste", 3rd Ed., December 1987.

EPA-600, "Methods for Organic Chemical Analysis of Water and Wastes", March, 1984.

ASTM, "Annual Book of ASTM Standards", 1990.

Wisconsin DNR Modified 9073 TRPH, PUBL-SW-140, Wisconsin DNR, April 1992.

Wisconsin DNR Modified DRO, PUBL-SW-141, Wisconsin DNR, July 1993.

Wisconsin DNR Modified GRO, PUBL-SW-140, Wisconsin DNR, July 1993.

\* With Modifications

\*\* With Modifications for Oil Matrix

\*\*\* With Modifications for Soil Gas Matrix

\*\*\*\* With Modifications for Wipe Matrix





TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)  
METHOD 1311  
PESTICIDE REPORT

MID-STATE ASSOC./TERRA-REFUSE HIDEAWAY  
BARABOO WI  
Project Number: 4014.0530

Lab Sample # : L13389-001  
Description : 131024  
Sample Date : 10-JUL-96  
Extraction Date : 18-JUL-96  
Analysis Date : 22-JUL-96

Test	Regulatory Limit (mg/L)	Analytical Result (mg/L)	Reporting Limit (mg/L)	Matrix Spike Recovery (%)	Footnote
Chlordane	0.03	< 0.020	0.020	0	
Endrin	0.02	< 0.010	0.010	186	
gamma-BHC (Lindane)	0.4	< 0.20	0.20	310	
Heptachlor	0.008	< 0.0050	0.0050	102	
Heptachlor epoxide	0.008	< 0.0050	0.0050	141	
Methoxychlor	10	< 5.0	5.0	70	
Toxaphene	0.5	< 0.25	0.25	0	

Chk'd: [Signature] App'd: [Signature]  
Date App'd: 7/26/96



TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)  
METHOD 1311  
SEMIVOLATILE

MID-STATE ASSOC./TERRA-REFUSE HIDEAWAY  
BARABOO WI  
Project Number: 4014.0530

Laboratory Sample # : L13389-001  
Sample Description : 131024  
Matrix of Sample : LEACHATE  
Sampling Date : 10-JUL-96  
TCLP Leaching Date : Not performed due to Solids less than 0.5 %

Compound	Regulatory Limit (mg/L)	Result (mg/L)	Reporting Limit (mg/L)	Matrix Spike(%)	Extraction Date	Analysis Date	Footnote
1,4-Dichlorobenzene	7.5	< 0.10	0.10	63	18-JUL-96	22-JUL-96	
2,4-Dinitrotoluene	0.13	< 0.10	0.10	95	18-JUL-96	22-JUL-96	
Hexachlorobenzene	0.13	< 0.10	0.10	88	18-JUL-96	22-JUL-96	
Hexachloroethane	3	< 0.10	0.10	58	18-JUL-96	22-JUL-96	
Hexachlorobutadiene	0.5	< 0.10	0.10	50	18-JUL-96	22-JUL-96	
Nitrobenzene	2	< 0.10	0.10	74	18-JUL-96	22-JUL-96	
Pentachlorophenol	100	< 0.50	0.50	114	18-JUL-96	22-JUL-96	
Pyridine	5	< 0.50	0.50	35	18-JUL-96	22-JUL-96	
2,4,5-Trichlorophenol	400	< 0.10	0.10	105	18-JUL-96	22-JUL-96	
2,4,6-Trichlorophenol	2	< 0.10	0.10	103	18-JUL-96	22-JUL-96	
2-Methylphenol	200	< 0.10	0.10	64	18-JUL-96	22-JUL-96	
3&4-Methylphenol	200	< 0.10	0.10	63	18-JUL-96	22-JUL-96	

Method Reference : SW846 Method 8270  
Method Reference : SW846, Method 8270

chk'd: *[Signature]* App'd: *[Signature]*  
Date App'd: *7/22/96*



TOTAL ANALYSIS REPORT  
VOLATILE  
MID-STATE ASSOC./TERRA-REFUSE HIDEAWAY  
BARABOO WI  
Project Number: 4014.0530

Laboratory Sample # : L13389-001  
Sample Description : 131024  
Matrix of Sample : LEACHATE  
Sampling Date : 10-JUL-96  
TCLP Leaching Date : \*\* NOT PERFORMED \*\*

Compound	TCLP Regulatory Limit (mg/L)	Result (mg/kg)	Reporting Limit (mg/kg)	Extraction Date	Analysis Date	Footnote
Benzene	0.5	< 0.20	0.20	-	21-JUL-96	
Carbon tetrachloride	0.5	< 0.20	0.20	-	21-JUL-96	
Chlorobenzene	100	< 0.20	0.20	-	21-JUL-96	
Chloroform	6	< 0.20	0.20	-	21-JUL-96	
1,2-Dichloroethane	0.5	< 0.20	0.20	-	21-JUL-96	
1,1-Dichloroethene	0.7	< 0.20	0.20	-	21-JUL-96	
Methyl ethyl ketone	200	< 0.20	0.20	-	21-JUL-96	
Tetrachloroethene	0.7	< 0.20	0.20	-	21-JUL-96	
Trichloroethene	0.5	< 0.20	0.20	-	21-JUL-96	
Vinyl chloride	0.2	< 0.20	0.20	-	21-JUL-96	

Note: Results in mg/kg are reported on an "as received" or wet weight basis.

Method Reference : SW846, Method 8021

Chk'd: *[Signature]* App'd: *[Signature]*  
Date App'd: 7/26/96

**MADISON METROPOLITAN  
SEWERAGE DISTRICT**

1610 Moorland Road  
Madison, WI 53713-3398  
Telephone (608) 222-1201  
Fax (608) 222-2703

James L. Nemke  
Chief Engineer & Director



**COMMISSIONERS**

Edward V. Schten  
President  
Eugene O. Gehl  
Vice-President  
Thomas D. Hovel  
Secretary  
Caryl E. Terrell  
Commissioner  
P. Mac Berthouex  
Commissioner

*August 29, 1996*

Mr. Kirk J. Solberg  
Terra Engineering and Construction Corporation  
2201 Vondron Road  
Madison, WI 53704-6795

**RECEIVED**  
AUG 31 1996

Dear Mr. Solberg:

**TERRA ENGINEERING**

I am writing in response to your letter of August 13, 1996 concerning extension of the leachate discharge permit for the Refuse Hide-Away Landfill in Middleton, Wisconsin. Enclosed with this letter is a permit which provides for a one-year extension of the existing permit.

Please be aware that the permit expires in September of 1997. Application for renewal of this permit should be made prior to the expiration date.

Sincerely,

Paul H. Nehm  
Director of Operations and Maintenance

:dms  
Enclosure as stated



**WASTEWATER DISCHARGE PERMIT**

In compliance with the provisions of Articles 5 and 6 of the Madison Metropolitan Sewer District Sewer Use Ordinance and the District's Policy on Acceptance of Wastewater Containing Non-Typical Organic and Inorganic Constituents,

Department of Natural Resources  
Post Office Box 7921  
Madison, WI 53707

is hereby authorized to discharge contaminated groundwater from the above identified facility into the District sewerage system in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in this permit.

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

This permit shall become effective on September 25, 1996, and shall expire at midnight, September 24, 1997. Any appeals to the conditions of this permit must be made to the Chief Engineer and Director within thirty days of the signature date.

The permittee shall not discharge after the date of expiration. If the permittee wishes to continue to discharge after this expiration date an application shall be filed for reissuance of this permit in accordance with the requirements of Article 5 of the Madison Metropolitan Sewerage District Sewer Use Ordinance, at least thirty days prior to the expiration date.

In accordance with Articles 5 and 6 of the Madison Metropolitan Sewerage District Sewer Use Ordinance, the District reserves the right to amend this permit from time to time or to revoke the permit.

By: James L. Nemke  
James L. Nemke  
Chief Engineer and Director

Dated this 29<sup>th</sup> day of August, 19 96.

**PART 1--APPLICABLE EFFLUENT LIMITATIONS**

SECTION 1--MMSD Pretreatment Standards

(a) All wastewaters discharged to the MMSD shall not exceed the following effluent limitations:

- 0.25 mg/l cadmium
- 0.5 mg/l hexavalent chromium
- 10.0 mg/l total chromium
- 1.5 mg/l copper
- 0.1 mg/l cyanide
- 5.0 mg/l lead
- 0.02 mg/l mercury
- 2.0 mg/l nickel
- 0.3 mg/l selenium
- 3.0 mg/l silver
- 8.0 mg/l zinc

(b) The limitations listed in paragraph (a) apply to twenty-four hour flow proportionate samples collected from the total discharge of the permittee.

(c) In addition, the permittee shall comply with all other applicable regulations and standards contained in the MMSD Sewer Use Ordinance. Included in these regulations are limitations on pH, slug loads, and oil and grease content.

SECTION 2--Toxicity Characteristics Leaching Procedure Requirements

(a) All wastewaters discharged to the MMSD shall not exceed the limitations of the Toxicity Characteristics Leaching Procedure (TLCP) as specified in the Federal Register of March 29, 1990.

## **PART 2--MONITORING AND REPORTING REQUIREMENTS**

### SECTION 1--Monitoring Requirements

The permittee shall monitor its wastewater discharges subject to regulations under Part 1 of this permit to ascertain compliance with the applicable limitations. Said monitoring to determine compliance with the standards specified in Part 1 shall be conducted each calendar quarter. The monitoring shall consist of sampling of the regulated wastewaters for those pollutants regulated under Part 1 of this permit and reporting of the results to the District. Samples shall be obtained by collecting a representative sample of the contents of the on-site 25,000 gallon storage tank. Samples shall be collected on a quarterly basis to show compliance with Part I Section 1 and on an annual basis to show compliance with Part I Section 2.

Laboratory analysis of samples collected shall be performed in accordance with 40 CFR Part 136 or other such methods as approved by the District.

### SECTION 2--Reporting Requirements

Self-monitoring results shall be reported to the District within three days of the end of the calendar quarter.

If the permittee monitors any pollutant more frequently than required by this permit, the results of such monitoring shall be submitted to the District.

If sampling performed by the permittee indicates a violation of any provisions of this permit, the permittee must notify the District of the violation within 24 hours of becoming aware of it. The permittee must also repeat the sampling and analysis and submit the results of the repeat analysis to the District within 30 days after becoming aware of the violation.

All reports shall be signed and sworn by a responsible corporate officer of the permittee. A responsible corporate officer is defined as:

1. A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy-or decision-making functions for the permittee, or
2. The manager of one or more manufacturing, production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million, if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

The individual signing the report shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.”

All reports required by this permit shall be submitted to:

Madison Metropolitan Sewerage District  
1610 Moorland Road  
Madison, Wisconsin 53713

The Madison Metropolitan Sewerage District will randomly collect and analyze samples of leachate to verify leachate quality.



**PART 3--MONITORING AND SAMPLING FACILITIES**

SECTION 1--Sampling Facilities

In order to permit monitoring of the leachate, by the District, the permittee shall construct facilities to allow for collection of a representative sample from the on-site 25,000 gallon storage tank.

SECTION 2--Discharge Permit

Since the Refuse Hideaway Landfill is outside the District's service area, all wastewater from the site shall be hauled to the Nine Springs Wastewater Treatment Plant and disposed of at a designated location at this plant. The hauler shall have in effect a Septage Disposal Permit issued by the District.

**PART 4--GENERAL CONDITIONS**

1. Right of Entry

The permittee shall, after reasonable notification by the District, allow the District or its representatives, exhibiting proper credentials and identification, to enter upon the premises of the permittee at all reasonable hours, for the purposes of inspection, sampling, or records inspection. Reasonable hours in the context of inspection and sampling includes any time the permittee is operating any process which results in collection of wastewater in the on-site storage tank.

2. Records Retention

a) The permittee shall retain and preserve for no less than three (3) years, any records, books, documents, memoranda, reports, correspondence and any and all summaries thereof, relating to monitoring, sampling and chemical analyses made or by or in behalf of the permittee in connection with its discharge.

b) All records that pertain to matters that are the subject of special orders or any other enforcement or litigation activities brought by the District shall be retained and preserved by the permittee until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

3. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

4. Confidential Information

Except for data determined to be confidential under Article 7.2 MMSD Sewer Use Ordinance, all reports required by this permit shall be available for public inspection at the headquarters of the District.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a) The exact place, date, and time of sampling;
- b) The dates the analyses were performed;

- c) The person(s) who performed the analyses;
- d) The analytical techniques or methods used; and
- e) The results of all required analyses.

6. Falsifying Information

Knowingly making any false statement on any report or other document required by this permit or knowingly rendering any monitoring device or method inaccurate, may result in punishment under the criminal laws of Wisconsin as well as being subjected to civil penalties and relief.

7. Modification or Revision of Permit

- a) The terms and conditions of this permit may be subject to modification by the District at any time as limitations or requirements as identified in the MMSD Sewer Use Ordinance are modified or other just cause exists.
- b) This permit may also be modified to incorporate special conditions resulting from the issuance of a special order.
- c) Any modifications which result in new conditions in the permit shall include a reasonable time schedule for compliance if necessary.

8. Dilution

No permittee shall increase the use of potable or process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit.

9. Accidental Discharges

The permittee shall provide protection from the accidental discharge of prohibited or regulated materials or substances established by the MMSD Sewer Use Ordinance. Where necessary, facilities to prevent the accidental discharge of prohibited materials shall be provided and maintained at the permittee's expense. Permittees shall notify the District immediately upon the occurrence of an accidental discharges of substances prohibited by the MMSD Sewer Use Ordinance. The District should be notified by telephone at 222-1201. During normal business hours the modification shall be made to the Director of Wastewater Treatment Operations. During other times, the notification shall be made to the operator on duty. The notification shall include location of discharge, date and time thereof, type of waste, concentration and volume, and corrective actions taken. The permittee shall also provide such notification to the appropriate local municipal officials. In addition, the

permittee should immediately notify the State of Wisconsin of the accidental spill at (608) 266-3232 (twenty-four hour number).

40 CFR 403.8(f) (v) requires the District to evaluate each significant industrial user at least once every two years to determine whether a plan to control slug discharges is necessary. If it is determined that such a plan is necessary, the plan shall contain the following:

1. A description of discharge practices including non-routine batch discharges.
2. A description of stored chemicals.
3. Procedures for immediately notifying the District of a slug discharge and procedures for follow-up written notification within five days.
4. Procedures to prevent adverse impact from accidental spills.

#### 10. Notice of Intent

Any permittee planning to alter or change any activity at the permittee's facility that would significantly increase or decrease the volume or alter the content of any existing source of industrial wastewater discharge into the District sewerage system must file a written Request to Discharge Form in accordance with Article 5 of the MMSD Sewer Use Ordinance. A significant increase or decrease shall be defined as a twenty-five percent increase or decrease in the volume of industrial wastewater currently being discharged by a permittee. An alteration shall be defined as any change in chemicals utilized with a process which will significantly alter the characteristics of the industrial waste discharge or the addition of any new process or production wastewater discharges.

#### 11. Proper Disposal of Pretreatment Sludges

The disposal of sludges generated within wastewater pretreatment systems shall be done in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

#### 12. Operating Upsets

Any permittee that experiences an upset in operations that places the permittee in a temporary state of noncompliance with the provisions of either this permit or the MMSD Sewer Use Ordinance shall inform the District thereof within twenty-four hours of first awareness of the commencement of the upsets in accordance with Article 5.5.5 of the MMSD Sewer Use Ordinance.

13. Limitations on Permit Transfer

Wastewater discharge permits are issued to a specific user for a specific operation and are not assignable to another user or transferable to any other location without prior written approval of the District. Sale of a user shall obligate the purchaser to seek prior written approval of the District for continued discharge to the District sewerage system.

14. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

15. Fees

The permittee will incur all costs billed by the District for leachate discharged to the District's sewerage system for leachate quantities and strengths as reported by the permittee to the District and as ascertained by the District through additional sampling. The costs shall include charges for the volume, CBOD, Total Suspended Solids, and Total Kjeldahl Nitrogen discharged and for ten (10) equivalent meters and one (1) actual customer and shall be based on the then prevailing District service charge rates. In accordance with the District's Policy on Acceptance of Wastewater Generated Outside of the District, a cumulative 10 percent surcharge shall be imposed on the discharge cost each quarter until such surcharge reaches 100 percent.

16. Hazardous Waste Notification

The permittee shall notify the District, the Department of Natural Resources, and the EPA Regional Waste Management Division Director in writing of any discharge to the sanitary sewer system of a substance which, if otherwise disposed of, would be hazardous waste under 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge. If the permittee discharges to the sanitary sewer more than 100 kilograms of such waste per calendar month, the additional notification requirements of 40 CFR 403.12 (p) apply. In the case of any notification made under this section, the permittee shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.

17. Penalties

Violations of this permit are enforceable under Article XIII of the District's Sewer Use Ordinance. Included as enforcement remedies are special orders, injunctive relief, fines, and termination of service.

18. Bypass of Pretreatment Facilities

Bypassing of any permittee pretreatment facilities is only allowed in accordance with the provisions of 40 CFR 403.17. If the permittee knows in advance of the need for a bypass, it shall submit notice to the District, if possible at least ten days before the date of the bypass.

**ANALYTICAL REPORT**



TERRA ENGINEERING  
JIM FALBO  
2201 VONDRON RD.  
MADISON, WI 53704

Client I.D. No.: LT2000000010  
Work Order No.: 9701000078  
Report Date: 01/28/97  
Date Received: 01/07/97  
Arrival Temperature: On Ice

TERRA ENGINEERING

Project Name: REFUSE HIDEAWAY

Project Number: 468

<u>Sample I.D. #:</u>	<u>Sample Description:</u>	<u>Date Sampled:</u> 01/07/97		
<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>LOD</u>	<u>LOQ</u>
Selenium	<1	µg/L	1	3
Matrix interference.				
Hexavalent Chromium	138	µg/L	5	17
Hexavalent Chromium sample preparation date was 1/8/97.				
Chromium, Total, Low Level (Cr6+ Confirmation)	45	µg/L	10	33
Copper	<10	µg/L	10	33
Lead	44	µg/L	30	100
Analysis Date Metals Sample Preparation	1/08/97			

Comments for entire Work Order:  
None

Submitted By:                     

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ANALYTICAL REPORT

RECEIVED

JUL 17 1997

TERRA ENGINEERING
JIM FALBO
2201 VONDRON RD.
MADISON, WI 53704

Client I.D. No.: LT2000000010
Work Order No.: 9706000471
Report Date: 07/15/97
Date Received: 06/17/97
Arrival Temperature: On Ice

TERRA ENGINEERING

Project Name:

Project Number:

Sample I.D. #:161759 Sample Description:LANDFILL LEACHATE Date Sampled:06/17/97

Table with 7 columns: Analyte, Result, Units, LOD, LOQ, Method. Rows include Cyanide, Selenium, Hexavalent Chromium, Cadmium, Chromium, Copper, Lead, Nickel, Zinc, Mercury, Oil and Grease, pH, Silver.

Sample I.D. #:161760 Sample Description:LANDFILL LEACHATE Date Sampled:06/17/97

Table with 7 columns: Analyte, Result, Units, LOD, LOQ, Method. Rows include TCLP Herbicides, TCLP Pesticides, TCLP SVOC's, TCLP ICP Arsenic.

Submitted By: [Signature]

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**ANALYTICAL REPORT**

TERRA ENGINEERING  
JIM FALBO  
2201 VONDRON RD.  
MADISON, WI 53704

Client I.D. No.: LT2000000010  
Work Order No.: 9706000471  
Report Date: 07/15/97  
Date Received: 06/17/97  
Arrival Temperature: On Ice

Project Name:

Project Number:

Sample I.D. #:161760

Sample Description:LANDFILL LEACHATE

Date Sampled:06/17/97

Analyte	Result	Units	LOD	LOQ	Method
TCLP ICP Barium	1.18	mg/L	0.005	0.017	EPA 6010
TCLP ICP Cadmium	<0.004	mg/L	0.004	0.013	EPA 6010
TCLP ICP Chromium	0.037	mg/L	0.005	0.017	EPA 6010
TCLP ICP Lead	<0.040	mg/L	0.040	0.133	EPA 6010
TCLP ICP Selenium	<0.1	mg/L	0.1	0.3	EPA 6010
TCLP Mercury	<0.0002	mg/L	0.0002	0.0007	EPA 7470
Metals Sample Preparation	6/20/97				EPA 3020
TCLP Silver	<0.003	mg/L	0.003	0.010	EPA 7760
Matrix interference.					

Comments for entire Work Order:  
None

Submitted By:     

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Madison Office & Laboratory  
802 Deming Way  
Madison, WI 53717  
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Green Bay, WI 54302  
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1-800-7-ENCHEM

- Analytical Report -

Project Name : TERRA - REFUSE  
Project Number : 9706000471  
WI DNR LAB ID : 113138520

Submitter # : 1272.00  
Submitter : COMMONWEALTH TECHNOLOGY  
Report Date : 7/9/97

Sample No.	Station ID	Collection Date	Sample No.	Station ID	Collection Date
972091-001	161760 LANDFILL LEACHATE	6/17/97			

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

*Elizabeth Nelson*  
Approval Signature

*7/9/97*  
Date



**- Analytical Report -**

<b>Project Name :</b> TERRA - REFUSE	<b>Submitter # :</b> 1272.00
<b>Project Number :</b> 9706000471	<b>Submitter :</b> COMMONWEALTH TECHNOLOGY
<b>Lab Sample Number :</b> 972091-001	<b>Report Date :</b> 7/9/97
<b>Station ID :</b> 161760 LANDFILL LEACHATE	<b>Collection Date :</b> 6/17/97
<b>WI DNR LAB ID :</b> 113138520	<b>Matrix Type :</b> LEACHATE

**Semi-Volatile Organic Results**

TCLP LIST - SEMIVOLATILES

Prep Method: SW846 3510      Extraction Date: 6/24/97

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
2,4,5-Trichlorophenol	< 0.25	0.25	mg/L		7/1/97	SW846 8270
2,4,6-Trichlorophenol	< 0.050	0.050	mg/L		7/1/97	SW846 8270
2,4-Dinitrotoluene	< 0.050	0.050	mg/L		7/1/97	SW846 8270
Cresol, total	< 0.15	0.15	mg/L		7/1/97	SW846 8270
Hexachlorobenzene	< 0.050	0.050	mg/L		7/1/97	SW846 8270
Hexachlorobutadiene	< 0.050	0.050	mg/L		7/1/97	SW846 8270
Hexachloroethane	< 0.050	0.050	mg/L		7/1/97	SW846 8270
Nitrobenzene	< 0.050	0.050	mg/L		7/1/97	SW846 8270
Pentachlorophenol	< 0.25	0.25	mg/L		7/1/97	SW846 8270
Pyridine	< 0.25	0.25	mg/L		7/1/97	SW846 8270

**Semi-Volatile Organic Results**

TCLP LIST-HERBICIDES

Prep Method: SW-846 8150      Extraction Date: 6/23/97

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
2,4,5-TP (Silvex)	0.0013	0.00020	mg/L	D	6/26/97	SW846 8150
2,4-D	< 0.00020	0.00020	mg/L		6/24/97	SW846 8150

**Semi-Volatile Organic Results**

TCLP LIST - PESTICIDES

Prep Method: SW846 3510      Extraction Date: 6/23/97

Analyte	Result	EQL	Units	Code	Analysis Date	Analysis Method
Chlordane	< 0.00050	0.00050	mg/L		6/28/97	SW846 8080
Endrin	< 0.0010	0.0010	mg/L		6/28/97	SW846 8080
gamma-BHC (Lindane)	< 0.00050	0.00050	mg/L		6/28/97	SW846 8080
Heptachlor and its epoxide	< 0.00050	0.00050	mg/L		6/28/97	SW846 8080
Methoxychlor	< 0.0050	0.0050	mg/L		6/28/97	SW846 8080
Toxaphene	< 0.050	0.050	mg/L		6/28/97	SW846 8080

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Data Qualifier Sheet

D Analyte value from diluted analysis.

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- Analytical Report -

Project Name : TERRA ENG  
Project Number : 9707000340  
WI DNR LAB ID : 113138520

Submitter # : 1272.00  
Submitter : COMMONWEALTH TECHNOLOGY  
Report Date : 7/24/97

Sample No.	Station ID	Collection Date	Sample No.	Station ID	Collection Date
972470-001	164918 LF LEACHATE	7/15/97			

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample narrative. Release of this final report is authorized by Laboratory management, as is verified by the following signature.

Eric L Thomas  
Approval Signature

7/24/97  
Date

Madison Office & Laboratory  
802 Deming Way  
Madison, WI 53717  
608-827-5501 • Fax: 608-827-5503  
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**- Analytical Report -**

Project Name : TERRA ENG

Submitter # : 1272.00

Project Number : 9707000340

Submitter : COMMONWEALTH TECHNOLOGY

Lab Sample Number : 972470-001

Report Date : 7/24/97

Station ID : 164918 LF LEACHATE

Collection Date : 7/15/97

WI DNR LAB ID : 113138520

Matrix Type : LEACHATE

**Volatile Organic Results**

TCLP LIST - VOLATILES

Prep Method: SW846 5030

Analyte	Result	LOD	LOQ	EQL	Units	Code	Analysis Date	Analysis Method
1,1-Dichloroethene	< 0.10			0.10	mg/L		7/21/97	SW846 8260
1,2-Dichloroethane	< 0.10			0.10	mg/L		7/21/97	SW846 8260
1,4-Dichlorobenzene	< 0.10			0.10	mg/L	J	7/21/97	SW846 8260
2-Butanone	< 0.20			0.20	mg/L		7/21/97	SW846 8260
Benzene	< 0.10			0.10	mg/L	J	7/21/97	SW846 8260
Carbon tetrachloride	< 0.10			0.10	mg/L		7/21/97	SW846 8260
Chlorobenzene	< 0.10			0.10	mg/L		7/21/97	SW846 8260
Chloroform	< 0.10			0.10	mg/L		7/21/97	SW846 8260
Tetrachloroethene	< 0.10			0.10	mg/L		7/21/97	SW846 8260
Trichloroethene	< 0.10			0.10	mg/L		7/21/97	SW846 8260
Vinyl chloride	< 0.050			0.050	mg/L	J	7/21/97	SW846 8260



**ANALYTICAL REPORT**

TERRA ENGINEERING  
JIM FALBO  
2201 VONDRON RD.  
MADISON, WI 53704

Client I.D. No.: LT2000000010  
Work Order No.: 9704000091  
Report Date: 04/18/97  
Date Received: 04/03/97  
Arrival Temperature: On Ice

Project Name: REFUSE HIDEAWAY

Project Number: 468

Sample I.D. #: 154059      Sample Description: LEACHATE

Date Sampled: 04/03/97

Analyte	Result	Units	LOD	LOQ
Cyanide	15	µg/L	5	17
Analysis Date Cyanide	4/04/97			
Selenium	<1	µg/L	1	3
Analysis Date Selenium	4/10/97			
Hexavalent Chromium	112	µg/L	5	17
Analysis Date Hexavalent Chromium	4/04/97			
Mercury	<0.2	µg/L	0.2	0.7
Analysis Date Mercury	4/17/97			
Analysis Date Metals Sample Preparation	4/07/97			
Oil and Grease	5	mg/L		
Analysis Date Oil and Grease	4/10/97			
pH (Lab)	7.14	S.U.'s	NA	NA
Analysis Date pH	4/03/97			
Silver	0.40	µg/L	0.10	0.33
Analysis Date Silver	4/15/97			
Chromium	37	µg/L	5	17
Analysis Date Chromium	4/09/97			
Cadmium	<4	µg/L	4	13
Analysis Date Cadmium	4/09/97			
Copper	<10	µg/L	10	33
Analysis Date Copper	4/09/97			
Lead	<40	µg/L	40	133
Analysis Date Lead	4/09/97			
Zinc	13	µg/L	5	17
Estimated value: concentration was less than LOQ.				
Analysis Date Zinc	4/09/97			
Nickel	92	µg/L	20	67
Analysis Date Nickel	4/09/97			

Comments for entire Work Order:  
None

Submitted By:

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