REPORT

Town of DeWitt Landfill Monitoring and Maintenance Operations Manual

Town of DeWitt
Onondaga County, New York

December 1994

O'BRIEN & GERE
ENGINEERS, INC.

New York State Department of Environmental Conservation

MEMORANDUM

TO: Earl Barcomb, Director, Bureau of Hazardous Site Control
FROM: Craig Jackson THRU: Edward R. Belmore, Director, BWRA
SUBJECT: Dewitt Landfill, Onondaga County (Site No 7-34-012)
Reclassification From Class 2 to Class 4
DATE: MAR 14 1995

The Town of Dewitt has completed remedial construction at the Dewitt Landfill inactive hazardous waste site (7-34-012). Remedial work at the site was performed in accordance with the approved contract documents and is now considered complete. A March 1994 Record of Decision recognizes the IRM and requires no further action beyond O&M. At this time, it is proposed to reclassify the site to a class 4, site properly closed, continued management required. The necessary management consists of maintenance on the cap and stormwater controls, landfill gas monitoring, and periodic groundwater and surface water sampling.

This proposal is based on the facts that: 1) the waste is contained and future leachate generation is minimized with completion of the cap, and 2) groundwater and surface water contamination is presently minimal and is expected to attenuate further through natural degradation.

Attached is the Record of Decision, an updated registry of inactive hazardous waste disposal sites form, and a registry site classification form as justification for the proposed reclassification. O'Brien and Gere is presently finalizing the Operations and Maintenance workplan for the site. When it is completed, the Bureau of Construction Services will be providing a copy for your bureau.

If you have any further questions, please contact Jeff Konsella at 7-5636.

Attachments

cc: w/o att.: C. Branagh, Reg. 7
H. Hamel, DOH Syracuse
J. Konsella
G. Harris

bcc: C. Jackson

G. Klaer

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-7010

Michael Zagata
Commissioner

MAR 31 1995

Town of Dewitt
5400 Butternut Road
Dewitt, New York 13214

Dear Sir/Madam:

As mandated by Section 27-1305 of the Environmental Conservation Law (ECL), the New York State Department of Environmental Conservation (NYSDEC) must maintain a Registry of all inactive disposal sites suspected or known to contain hazardous waste. The ECL also mandates that this Department notify the owner of all or any part of each site or area included in the Registry of Inactive Hazardous Waste Disposal Sites as to changes in site classification.

Our records indicate that you are the owner or part owner of the site listed below. Therefore, this letter constitutes notification of change in the classification of such site in the Registry of Inactive Hazardous Waste Disposal Sites in New York State.

DEC Site No.: 734012
Site Name: Dewitt Town Landfill
Site Address: Fisher Road, Dewitt, New York 13214

Classification Change from 2 to 4

The reason for the change is as follows:

- Landfill has been capped. Operation and Maintenance (O&M) is necessary to maintain cap and ensure its effectiveness. Some groundwater and surface water indicated slight exceedances of standards, however, they are expected to attenuate since the cap has been completed. Record of Decision signed - No further action beyond capping and O&M.

Enclosed is a copy of the New York State Department of Environmental Conservation, Division of Hazardous Waste Remediation, Inactive Hazardous Waste Disposal Site Report form as it appears in the Registry and Annual Report, and an explanation of the site classifications. The Law allows the owner and/or operator of a site listed in the Registry to petition the Commissioner of the New York State Department of Environmental Conservation for deletion of such site, modification of site classification, or modification of any information regarding such site, by submitting a written statement setting forth the grounds of the petition. Such petition may be addressed to:

Michael Zagata
Commissioner
New York State Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233-0001

For additional information, please contact me at (518) 457-0747.

Sincerely,

Robert L. Marino
Chief
Site Control Section
Bureau of Hazardous Site Control
Division of Hazardous Waste Remediation

Enclosures

bcc: w/o Enc.
E. Barcomb
R. Marino
T. Reamon
A. Sylvester

w/Enc. (Copy of Site Report form only)
R. Dana
G. Anders Carlson, NYSDOH
L. Concra
T. Fucillo
C. Branagh, R/7
E. Belmore
G. Rider

AS/srh

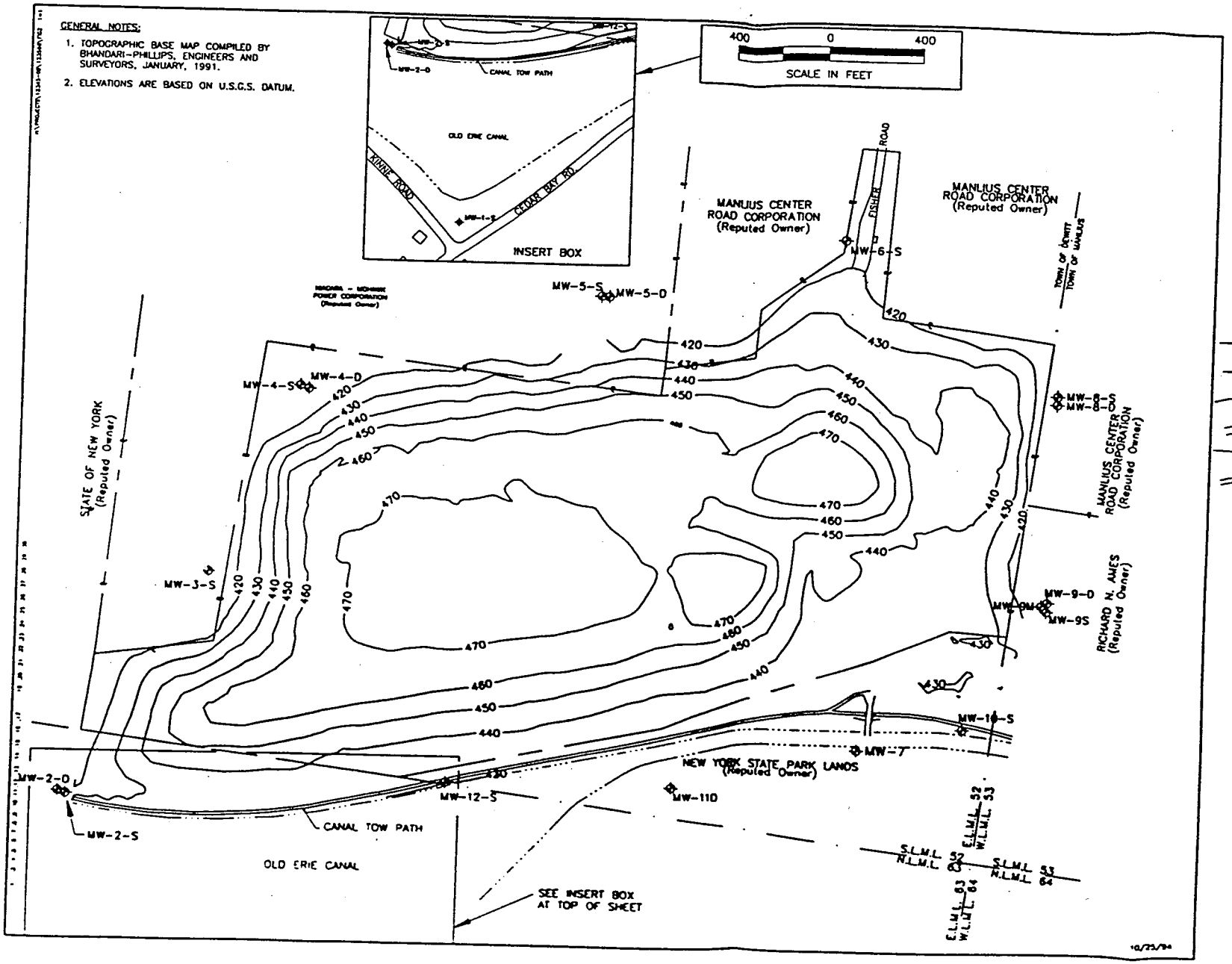


FIGURE 2

TOWN OF DEWITT LAND
DEWITT, NEW YORK

LEGEND

- PROPERTY LINE
- E.L.M.L. 52 MILITARY LOT LI
- 420 EXISTING CONTO
- EDGE OF CANAL
- EXISTING FENCE
- EXISTING CANAL
- MW-5-S EXISTING MONITO

GROUND WATER SAMPLING LOCATION

250 0 25

SCALE IN FEET

123.566

O'BRIEN & GERE

New York State Department of Environmental Conservation

MEMORANDUM

TO: Gerry Rider, Section Chief, O,M & Support Section, BHWR
FROM: James Van Hoesen, Section Chief, Central Field Services Section, BHWR
SUBJECT: Site # 7-34-012, DeWitt Landfill, Onondaga County

DATE: SEP 0 7 1995

The Town of DeWitt has satisfactorily completed the landfill capping and submitted an acceptable Operation & Maintenance (O&M) Plan for the DeWitt Landfill. This plan has been previously approved by your section. At this time, I am transferring the responsibility for the project to you.

If you have any questions, please call Jim Drumm at 7-7878.

cc: J. Strang
C. Rossi, NYSDEC Region 7
C. Branagh, NYSDEC Region 7
H. Hamel, NYSDOH
G. Litwin, NYSDOH
C. Jackson

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Environmental Remediation

10/25/96 Rpt. Region

Inactive Hazardous Waste Site Operations and Maintenance Review Report

Form Date 96.10.01

Site Name: Dewitt Town Landfill **Class:** 04 **Number:** 7-34-012

O&M Funding Source: ☐ State Superfund ☐ Federal Superfund ☐ Municipal Y Responsible Party

O&M Information: O&M Start : 12/93 or 12/94 End: Annual Cost: $ ☐ Estimated

Interim Remedial Measures/Operable Units in O&M Phase:

☐ Drum Removal	☐ Soil Removal	☐ Tank Removal
Y Cap/Cover	☐ Containment Structure	Y Fence/Security
☐ Groundwater Recovery/Treatment	☐ Leachate Collection/Treatment	☐ Vapor Extraction/Treatment
☐ Air Sparging/Stripper System	☐ Treatment/Filtration Plant/System	☐ Potable Water Supply/System
☐ Other:		

Institutional Controls: Y Deed Restriction ☐ Discharge Permit ☐ Department of Health Sampling
☐ Other: Storm Water permit

O&M Review Information:

Reports First Quarter 1996 Landfill Monitoring Report, Second Quarter 1996 Landfill Monitoring Report:

Inspection: October 24, 1996

Sampling: none

Other:

Conclusions:

Remedy Effective? ☐ Yes ☐ No:

Since only 2 quarters of data are available for evaluation, it is not known yet if the remedy is being effective. The approved O&M Manual asks for trend analysis in the annual report due Jan. 1996. At this time Air levels at The vents do not meet the Air Guides for vinyl chloride and benzene. Groundwater analysis shows exceedences for many Metals and VOCs . A leachate-like substance at the SW corner of the landfill was noted in the 1st quarter report.

ROD Compliance? ☐ Yes X No: Leachate was possibly seen 3/28/96

Consent Order Compliance? ☐ Yes ☐ No:

Other:

Recommendations: Have communicated with consultant to ensure proper air sampling. The annual report will be submitted in February 1996.

ROD/Consent Order Modifications? X No ☐ Yes (per above) Reclassify the Site? X No ☐ Yes → Class:

Comments: The inspection done by the department on October 24, 1996 confirmed the existence of leachate which the consultant noted in their inspection. Previous inspections indicated lack of vegetation along the southern perimeter. This inspection showed evidence of seeding and placement of straw. There was still an area along the fence with no or sparse vegetation, indicating the possibility of gasses escaping from under the cap. Odors were present but could be due to the vents. All other maintenance items seem to be in order.

24

Project Manager:			Reviewer:		
Signature		Date 10/25/96	Signature		Date 10/25/96
Christine T. Rossi	Region 7	(315) 426-7551	Charles J. Branagh	Region 7	(315) 426- 7551
Name	Region or Bureau	Telephone	Name	Region or Bureau	Telephone

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Environmental Remediation

Inactive Hazardous Waste Site Operations and Maintenance Review Report

Form Date 96.10.01

Site Name: DewittTown Landfill **Class:** 4 **Number:** 7-34-012

O&M Funding Source: Y State Superfund ☐ Federal Superfund Y Municipal ☐ Responsible Party

O&M Information: O&M Start: 12/94: End: Annual Cost: $ ☐ Estimated

Interim Remedial Measures/Operable Units in O&M Phase:

☐ Drum Removal	☐ Soil Removal	☐ Tank Removal
Y Cap/Cover	☐ Containment Structure	Y Fence/Security
☐ Groundwater Recovery/Treatment	☐ Leachate Collection/Treatment	☐ Vapor Extraction/Treatment
☐ Air Sparging/Stripper System	☐ Treatment/Filtration Plant/System	☐ Potable Water Supply/System
☐ Other:		

Institutional Controls: Y Deed Restriction ☐ Discharge Permit ☐ Department of Health Sampling
☐ Other:

O&M Review Information:

Reports: 1st, 2nd, 3rd Quarterly 1997 Reports and 1996 Annual Report (submitted 3/97)

Inspection:

Sampling:

Other:

Conclusions:

Remedy Effective? Y Yes ☐ No:

ROD Compliance? Y Yes ☐ No:

Consent Order Compliance? ☐ Yes ☐ No:

Other:

Recommendations: Change Annual Review date to April- (Next Annual review will be done in April 98)
Sample near by surface water to determine if sheen seen has components from landfill.

ROD/Consent Order Modifications? N No ☐ Yes (per above) Reclassify the Site? N No ☐ Yes → Class:

Comments:

Project Manager:

Christine T. Rossi Region 7 (315)426-7551 Date 1/15/98

Reviewer:

Charles J. Branagh Region 7 (315)426-7551 Date 1/15/98

NEWYORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation

Operation Maintenance and Monitoring Review Report

Period covered by -- **2003**

e / Spill Number : 734012 **Site Name:** Dewitt Town Landfill **Class:** 04

Program Lead: Hazardous Waste Program **OM&M Funding Source:** Reponsible Party

Start Date : 01/01/2001 ACT

Annual IC/EC Certification :

DEC Inspection Date: 02/23/2003 --- Last Date of DEC Inspection

Report Used for Evaluation: 1st Qtr 2002, 2001 Annual

ROD Compliance ? YES **Consent order/Decree Compliance ?** NO

LongTerm Monitoring(effectiveness of remedy): Yes **Frequency:** Quarterly **Act. Date:** 02/27/2003

Treatment System(Monitoring performance of remedy): Yes **Frequency:** Annually **Pln. Date:** / / **#wells :** 18

PROBLEM STATUS : 99B ---- None

Evaluation :

The Remedy is performing properly and effectiveness will be evaluated

Comments/ Changes/ Attachments:

DEC needs to respond to outstanding air monitor issues. The RP has indicated that air monitoring will not take place until we do. Correspondence on these subjects does not exist in Central Office files. GW sampling has changed from the schedule presented in the 1994 OM&M Manual, and appears to have gone from quarterly to annual. Some locations exceed Standards & guidance for arsenic, chromium, lead, zinc, vinyl chloride, cis-1,2-DCE and turbidity. The three surface water points appear to remain on a quarterly schedule.

ROD/Consent Order Modifications? NO

S[illegible] reclassification recommended : None

Contaminent of concern	OU	Contaminent of concern	Media/Receptor
	01	TETRACHLOROETHYLENE	
	01	EMISSION CONTROL	
	01	PAINT SLUDGES & SOLIDS	
	01	TOLUENE	
	01	2-BUTANONE (A.K.A.	

Remedies	OU	Remedies	Size of Treatment	Date in Place	Remedy Effective
	01	No Action		/ /	Yes
	01	Soil Cover Cap	Large (>50 gpm or >30 acres)	03/01/1994	Yes
	01	Plume MAnagement Monitoring	Large (>50 gpm or >30 acres)	03/01/1992	Yes

Next Review 04/01/2004	**Priority:** 0
Project Manager Rossi	**Reviewer:** James Burke (R7)
Signature Date	Signature Date
Name Region or Bureau Telephone	Name Region or Bureau Telephone

Report: Ommrpt1b.frx

☐ OM Certified
All Data Entered

NYS DEC - Division of Environmental Remediation
Site Remediation Project Report

Prog Code:	DER Code:	Site Name:	Region:	County:	Class:
734012	001348	Dewitt Town Landfill	7	Onondaga	04

Address: Fisher Road **City:** Dewitt **Zip:** 13214

OU	IRM	OU Desc:	Program:
01		REMEDIAL PROGRAM	HW

Project Type: / Current Status:	Fund:	Start Date:	End Date:	Manager:
Site Characterization	R	01/01/1986 ACT	01/01/1987 ACT	
Rem. Investigation	T	09/01/1991 ACT	03/01/1994 ANF	KONSELLA

Site is next to the Erie Canal and recreational areas. Potential threats exist to the Canal and for human exposure to leachate outbreaks. One leachate seep has flowed accross a bike/hiking trail under high flows. A col- lection manhole was installed on June 30, 1991 to control this seep. The Town awarded a $6.8 million contract in '92 to Tug Hill Const. for the IRM capping work. Work was completed in Jul.'94. A ROD was completed Mar.'94selecting a no further action beyond IRM capping. The site was reclassed to Class 4 in March, 1995.

OM&M	R	01/01/2001 ACT	01/01/2005 PLN	CUIPYLO

Groundwater sampling appears to have been changed from quarterly to annual. Some locations continue to exceed standards for arsenic, chromium, lead, zinc, vinyl chloride, cis-1,2-DCE, and turbidity. The 3 SW points are still sampled quarterly. The site's air sampling program is currently under review for protocols and frequency. Although the periodic reports are short on discussion, it appears air monitoring has been suspended pending a decision from DEC.

Reclass Pkg.		/ /	/ /	

OU	IRM	OU Desc:	Program:
01	A	IRM CAPPING	HW

Project Type: / Current Status:	Fund:	Start Date:	End Date:	Manager:
Rem. Design	T	04/01/1991 ACT	03/01/1992 ACT	KONSELLA

Reclass package will be tracked on RA sheet forOU 1. This is a closed municipal landfill owned and operated by the Town of Dewitt.The EQBA consent order requires 360 capping be constructed as an IRM. Construction began the end of Sept. Construction is complete.

Rem. Action	T	08/01/1992 ACT	12/01/1993 ACT	DRUMM

Reclass package will be tracked on RA sheet forOU 1. This is a closed municipal landfill owned and operated by the Town of Dewitt.The EQBA consent order requires 360 capping be constructed as an IRM. Construction began the end of Sept. Construction is complete.

OM&M	T	/ /	/ /	ROSSI

Reclass package will be tracked on RA sheet forOU 1. This is a closed municipal landfill owned and operated by the Town of Dewitt.The EQBA consent order requires 360 capping be constructed as an IRM. Construction began the end of Sept. Construction is complete.

***** End of Site *****

REPORT

Town of DeWitt Landfill Monitoring and Maintenance Operations Manual

Town of DeWitt
Onondaga County, New York

December 1994

O'BRIEN & GERE
ENGINEERS, INC.

123.566

Final Report

Town of DeWitt Landfill Monitoring and Maintenance Operations Manual

Town of DeWitt
Onondaga County, New York

Town Board

James D. Fisher, Supervisor

Kenneth C. Andrews
Kelly Dellas
Joseph Simonetta
Elaine Lytel
Joan W. Schroder
James L. Guyette

Marion L. Dean, Town Clerk
Richard T. Robb, Landfill Officer
Donald A. Greenwood, Town Attorney
December 1994

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

Michael S. Kolceski

Michael S. Kolceski, P.E.
Vice President

O'BRIEN & GERE
ENGINEERS, INC.

Contents

Appendixes

Figures

1. Introduction

1.1. General

This document has been prepared in accordance with 6 NYCRR Part 360-2.15(k)(7) for the Town of DeWitt Landfill. The document provides information needed to effectively monitor and maintain the facility for the post-closure period. Information on the environmental monitoring program for the site, environmental controls for the landfill, maintenance activities for the site, post-closure resource requirements, a contingency plan, contact personnel, and planned land uses throughout the post-closure period is presented.

1.2. Project description

The landfill is located in the Town of DeWitt, New York approximately 4 miles east of the center of the City of Syracuse. The landfill is bordered on the south by the Old Erie Canal and Cedar Bay Park. A light industrial area is located 0.5 miles north and residential areas are located within 0.5 miles northeast, south and west of the landfill. The landfill itself is approximately 56 acres in size. The landfill is shown on the Location Plan included as Figure 1. The landfill received municipal and industrial waste from the 1950s until June 26, 1987. Construction and demolition (C&D) material was accepted at the landfill until May 4, 1990.

In 1983, an Administrative Order on Consent (Consent Order) was executed between the Town of DeWitt and the New York State Department of Environmental Conservation (NYSDEC). As part of the Consent Order, a landfill Closure Plan was prepared by O'Brien

& Gere Engineers, Inc. (O'Brien & Gere Engineers), on behalf of the Town of DeWitt and submitted to NYSDEC in 1984.

In 1985, based on review of the Closure Plan, NYSDEC requested that a Phase II Investigation be completed at the landfill. Based on the results of the Phase II Investigation, the landfill was reclassified by the NYSDEC from "Class 2a" to "Class 2" in April 1990. Because of this Class 2 designation, a second Consent Order was executed on October 17, 1990 between the Town of DeWitt and NYSDEC. The 1990 consent order is included herein as Appendix A.

In accordance with Article VI(a) of the 1990 Consent Order, an Interim Remedial Program (IRP) Engineering Report, dated March 1991, was prepared and submitted to NYSDEC. This Report was revised in October 1991. The Report addressed vector migration and control, gas migration and control, and those applicable items identified in 6 NYCRR 360-2.15(i). Companion documents to the IRP Engineering Report, which constitute the complete submittals as specified in the 1990 Consent Order included: Certified Engineering Plans and Specifications, a Quality Assurance/Quality Control (QA/QC) Plan for the construction activities and a Health and Safety Plan. Copies of the QA/QC Plan and Health and Safety Plan are included as Appendixes B and C, respectively. Contract Documents were prepared by O'Brien & Gere Engineers, on behalf of the Town of DeWitt, for the construction of the Interim Closure of the landfill dated June 1992. A copy of the contract specifications is included as Appendix D. The Contract went to bid and construction of the Interim Closure began in September 1992. Construction was completed in 1994. Copies of the Record Drawings are included herein as Appendix D. The Interim Closure consists of the construction of an impermeable landfill cover, passive gas collection system, seeding, fencing, surface water control and collection system, earthwork and other related appurtenances.

In accordance with the 1990 Consent Order, a Remedial Investigation/Feasibility Study (RI/FS) Scoping Document dated May, 1991 was prepared and submitted to NYSDEC. This document was prepared by O'Brien & Gere Engineers, on behalf of the Town of DeWitt, and included a compilation of site history and existing data and identified likely remedial alternatives for the landfill. The Scoping Document was approved by NYSDEC on June 13, 1991. Subsequently, a Work Plan dated June, 1991, specifying the

investigation and tasks for the RI/FS, was prepared by O'Brien & Gere Engineers on behalf of the Town of DeWitt. The RI/FS Work Plan was approved by NYSDEC on September 11, 1991. Included in the RI/FS Work Plan was a Citizen Participation Plan. A copy of the Citizen Participation Plan is included herein as Appendix F. An RI Report dated March, 1993, detailing the results of the RI, was submitted to NYSDEC on April 21, 1993. An FS Report summarizing the RI and presenting the results of the FS, dated January, 1994 was submitted to the NYSDEC and approved on January 18, 1994. The preferred remedial alternative given in the FS Report was ground water and surface water monitoring, deed restrictions, fencing and capping of the landfill with a multi-media cap. An outline for a leachate management system was also given should leachate be encountered in the future.

A Record of Decision was issued in March 1994 by the New York State Department of Environmental Conservation which agrees with the preferred remedial alternative given in the FS Report. A copy of the Record of Decision is included herein as Appendix G.

2. Environmental monitoring activities

The Town of DeWitt will conduct environmental monitoring at the site for the 30-year post-closure period. The environmental monitoring program for the landfill will observe the impacts of the landfill on ground water, surface water and air at the site. This will provide a method of monitoring the performance of the landfill final closure system. A description of the type, location, sampling and sample preservation methodology and recordkeeping and reporting requirements for environmental monitoring activities is presented in the following sections.

The laboratory conducting analysis of the samples must have a QA/QC plan available for review. The QA/QC plan should detail the laboratory's analytical protocols, laboratory QC samples, reporting and deliverables, special analytical protocols, laboratory audits, data audits, etc.

2.1. Ground water monitoring

2.1.1. Location and type

Ground water sampling will be conducted on a quarterly basis at monitoring wells MW-1-S, MW-2-S, MW-2-D, MW-3-S, MW-4-S, MW-4-D, MW-5-S, MW-5-D, MW-6-S, MW-7, MW-8-S, MW-8-D, MW-9-S, MW-9-M, MW-9-D, MW-10-S, MW-11-D and MW-12-S as shown in Figure 2. The samples will be tested for volatile organics in accordance with the U.S. EPA analytical Methods 601 and 602 and priority pollutant metals in accordance with Methods 180 and 102.

2.1.2. Sampling and sample preservation methodology

The following procedure will be used to obtain representative ground water samples from monitoring wells.

On the Ground Water Sampling Field Log (included herein as Appendix H), identify the ground water monitoring well number and denote its field location in the spaces provided. At this time, the sampler should put on a new pair of disposable latex rubber or vinyl gloves. Cut a slit in the center of a plastic sheet, and slip it over the well creating a clean surface onto which the sampling equipment can be positioned.

Using an electric well probe, measure the depth to water table and depth to the bottom of the well. Both measurements must be taken from a common surveyed datum such as the top of riser pipe. Record this information on the Ground Water Sampling Field Log in the spaces provided. These measurements must be taken prior to sampling as they are used to calculate the volume of ground water within the well. The well probe should be cleaned with methanol and rinsed with distilled water prior to use on-site, before insertion into each ground water monitoring well on-site, and after use at the site. Compute the volume of water in the well using the formula provided on the Ground Water Sampling Field Log and record this information in the spaces provided.

Attach an appropriate length of clean polypropylene rope to a clean or dedicated bailer to reach the bottom of the well. Lower the bailer slowly into the well making certain to submerge it only far enough to fill it one-half full. The purpose of this is to recover any oil-film or free-product, if present, on the water table. Pull the bailer out of the well making sure to keep the rope or cable on the plastic sheet. Empty the recovered ground water from the bailer into a clean glass container to observe its appearance. Record the physical appearance of the ground water (color, odor, turbidity, presence of an oil film or free-product) on the Ground Water Sampling Field Log. If a floating product is observed, estimate its thickness and note this on the Ground Water Sampling Field Log in the notes section.

Initiate the bailing process by lowering the bailer to the bottom of the well, making certain to keep the rope or cable on the plastic sheet. All ground water should be poured from the bailer into a

container of known volume in order to measure the volume withdrawn from the well.

Continue bailing the well from the top of the water column until a minimum of three (3) well volumes of ground water in the well have been removed, or until the well is bailed dry. If the well is bailed dry, allow sufficient time for the well to recover before sample collection. Record this information on the Ground Water Sampling Field Log. Purged ground water should be dispersed on the ground a minimum of 10' from the well but not directly into any water body and in a location to prevent the water from running back into the well.

Once the ground water monitoring well has been purged (evacuated), ground water samples may be collected. Remove the sample bottles from their transport containers, and prepare the bottles for receiving samples. Sample bottles should be kept cool (approximately 4°C) with their caps on until they are ready to receive samples. Arrange the sampling containers to allow for convenient filling. Always sample for volatile organics first. The samples collected shall be unfiltered.

To minimize agitation of the water in the well, initiate sampling by lowering the bailer or other appropriate sampling device slowly into the well, making certain to submerge it only far enough to fill it completely.

If the sample bottle cannot be filled quickly, keep them cool with the caps on until they are filled. Return each sample bottle to its proper transport container. Samples must not be allowed to freeze.

Record the physical appearance of the ground water observed during sampling on the Ground Water Sampling Field Log in the spaces provided.

After the last sample container has been filled, note the date and time. Place a sample of well water into a clean glass container or the appropriate instrument and measure the pH, specific conductivity and temperature of the ground water following the procedures outlined in the equipment operation manuals. Record these data on the Ground Water Sampling Field Log.

Sample containers should then be labeled (job number, sample location, sample identification, date, time, samplers initials, and if

appropriate, identification of the analyses required) and stored at approximately 4°C in an insulated cooler with ice. Chain-of-Custody documentation will also be initiated and will accompany the samples from the point of collection to laboratory delivery. The sampler must verify that data placed on the Ground Water Sampling Field Log, sample labels and tags are accurately coordinated with data entered on the Chain-of-Custody form. If required by the Chain-of-Custody procedures, the individual sample containers and the sample transport container will be sealed with evidence tape or Chain-of-Custody seals.

Put dedicated sampling equipment back in place (if used). If non-dedicated bailers are used the bailer should be decontaminated by cleaning with methanol and rinsing with distilled water. Replace the well cap and lock the well protection assembly before leaving the well location. Place used polypropylene rope, gloves, and plastic sheet into a plastic bag for disposal.

2.1.3. Historical analytical data

Included herein as Appendix L are a summary and tables of the ground water analysis from the Remedial Investigation Report for the Town of DeWitt Landfill.

2.2. Surface water monitoring

2.2.1. Location and type

Surface water sampling will be conducted on a quarterly basis at the three locations shown in Figure 3. All samples will be tested for volatile organics in accordance with the U.S. EPA analytical methods 601 and 602 and priority pollutant metals in accordance with Methods 180 and 102.

2.2.2. Sampling and sample preservation methodology

The following procedures will be used to obtain representative surface water samples.

On the Surface Water Sampling Log (included herein as Appendix I) identify the surface water sampling location and denote its field location in the spaces provided.

Remove the sample bottles from their transport containers, and obtain the surface water sample. The sampler should stand downstream of the sample location if a current in the sampling stream is noted. Sample bottles should be kept cool (approximately 4°C) with their caps on until they are ready to receive samples. Arrange the sampling containers to allow for convenient filling. Always sample for volatile organics first.

Return each sample bottle to its proper transport container with ice. Samples must not be allowed to freeze.

Record the physical appearance of the surface water observed during sampling on the Surface Water Sampling Field Log in the spaces provided.

After the last sample container has been filled, note the date and time. Place a sample of water into a clean glass container or the appropriate instrument and measure the pH, specific conductivity, turbidity, Eh, dissolved oxygen and temperature of the surface water following the procedures outlined in the equipment operation manuals. Record these data on the Surface Water Sampling Field Log.

Sample containers should then be labeled (job number, sample location, sample identification, date, time, samplers initials, and if appropriate identification of the analyses required) and stored at approximately 4°C in an insulated cooler with ice. Chain-of-Custody documentation will also be initiated, and will accompany the samples from the point of collection to laboratory delivery. The sampler must verify that data placed on Surface Water Sampling Field Log, sample labels and tags are accurately coordinated with data entered on the Chain-of-Custody form. If required by the Chain-of-Custody procedures, the individual sample containers and the sample transport container will be sealed with evidence tape or Chain-of-Custody seals.

2.2.3. Historical analytical data

Included herein as Appendix M are a summary and tables of the surface water analysis from the Remedial Investigation Report for the Town of DeWitt Landfill.

2.3. Air Monitoring

2.3.1. Location and type

Air monitoring will be conducted on a quarterly basis. Ambient air samples for volatile organic compounds (VOCs) and combustible gases will be collected at three downwind perimeter locations and two upwind locations to evaluate off-site VOC and combustible gas contributions. The VOC results will be compared to New York State's Ambient Air Quality Standard (NYS' AAQS) for Hydrocarbons (non-methane) of 0.24 parts per million in air (ppm) (6 NYCRR Part 257-6) and the combustible gas results will be compared to 6 NYCRR Part 360 requirements of 25 percent.

If the results of the ambient air monitoring show the difference between the average upwind and average downwind concentrations exceed applicable standards the sampling will again be performed to determine if the emissions are continuous or intermittent. If the results of the second sampling indicate the ambient air standards are being exceeded a sampling program of the individual vents will be performed. The gas vent samples will be collected in the center of the vent riser from a hole in the riser located two riser diameters below the vent's outlet. Vent sampling shall be conducted to obtain samples which are proportional to the vent's volumetric flow rate. It will be necessary to drill a hole in the vent riser to collect the sample. The VOC and/or combustible gas results will be compared to NYSDEC Air Guide 1 values. The results will be used to develop a landfill gas control system in accordance with 6 NYCRR Part 360-15.

2.3.2. Sampling and sample preservation methodology

The sampler will fill out the air sampling field log included herein as Appendix N. Appropriate instrumentation will be used to record wind direction, wind speed, temperature and barometric pressure. The sample location and canister height will also be noted. Sampling will take place when wind speeds are below 10 MPH, falling barometric pressure and dry or frozen soil conditions exist.

The ambient air VOC samples will be collected in accordance with the United States Environmental Protection Agency (US EPA) Method TO-14 consisting of a whole air sample at each sample location collected inside a stainless steel canister. The canisters will be decontaminated and certified by the supplier prior to sampling. Samples will be collected over a three hour sampling duration from 6:00 am and 9:00 am, as specified in 6 NYCRR Part 257-6 and analyzed for VOC by a gas chromatograph at Enseco-Quantarra Laboratories in West Sacramento, California or other approved laboratory.

Combustible gases will be monitored using a combustible gas meter. Combustible gas monitoring will be conducted in accordance with the National Institute for Occupational Safety and Health's (NIOSH's) Portable Electrochemical Sensor Methods.

If required, gas vent exhaust air samples will be collected for VOC and/or combustible gases. These samples will be sampled and analyzed using the ambient air sampling procedures identified in the above paragraphs.

2.4. Recordkeeping and reporting

Monitoring activities will be performed for a period of thirty years following closure. The Town may request a five year review of the sampling program if the annual report indicates a change is warranted.

An annual report will be prepared to summarize and evaluate results of monitoring activities. The report should note any trends in the monitoring results and indicate the corresponding effectiveness of the landfill closure.

The annual report should be submitted within sixty (60) days of the end of the reporting period. Copies of the annual reports will be kept on file in the Department of Development and Operations and also submitted to the following:

Charlie Branagh/Attn: Chris Rossi
Regional Hazardous Waste Engineer
New York State Department of
Environmental Conservation
615 Erie Boulevard West
Syracuse, NY 13204-2400

Gerald J. Rider, Jr.
Chief, Operation, Maintenance and Support Section
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010

3. Environmental control systems

Environmental control systems are engineered processes installed at the landfill site as part of closure activities. These processes consist of the final cover system. The final cover system includes a low permeability cover system, a gas collection and venting system and a surface water drainage system. No ground water or leachate collection system is included at the landfill.

3.1. Low permeability cover system

3.1.1. Description

The low permeability cover system consists of the following components:

- Subgrade at minimum slope of 4% and maximum slope of 33%.
- A 40 mil Linearly Low Density Polyethylene (LLDPE) flexible membrane cover (smooth and textured).
- A 24-inch soil barrier protection layer of silty sand (SM), clayey sand (SC) and a combination of SM-SC soil.
- 6-inches of topsoil supporting a vegetative cover.

3.1.2. Inspection and maintenance

Routine inspection of the closed landfill and immediately adjacent areas will be performed monthly during the first year following closure and quarterly thereafter. The inspector will observe the condition of the barrier protection and/or topsoil layer and the vegetative cover. Should areas of minor settlement, erosion, or slope

instability be noted, regrading will be conducted to promote drainage and minimize the percolation of water into the landfill.

No deep rooting shrubs, brush, or trees will be allowed to establish on the cover. Periodic mowing of the vegetative cover will be done to help prevent this from occurring. If visual observation indicates that deep rooting vegetation has established on the cover, a program to control this vegetation will be implemented. The routine cover inspection should also note any problems with thinning of vegetation. Areas which appear to be thinning out over time will require overseeding to keep the vegetative cover as dense and uniform as possible.

The inspector will also look for signs of burrowing animals. If such animals are detected they will be removed from the site.

Evidence of major problems, such as defective gas venting causing flexible membrane cover expansion, will be noted and remedied as the need dictates.

3.1.3. Recordkeeping

The inspector of the cover system will fill out the inspection checklist included in Appendix J upon completion of the inspection. The inspection checklist will be kept on file at the Town and copies of the checklist for each quarter should be included in the Annual Report (see Section 2.4).

3.2. Gas venting system

3.2.1. Description

The gas venting system consists of the following components.

- Composite geonet underlaying the flexible membrane cover.
- Gas collection sumps.

- Gas discharge vents

3.2.2. Inspection and maintenance

Routine inspection of the gas discharge vents will be performed monthly during the first year following closure and quarterly thereafter. The inspector will observe the vents for obstruction of the outlet, overall condition of the vent and position of the vent.

Should the outlet of the vent be obstructed the obstruction will be removed. If the vent is leaning severely the condition of the connection to the flexible membrane cover shall be determined to verify its integrity has been maintained. Any problems or deficiencies shall be corrected as necessary.

3.2.3. Recordkeeping

The inspector of the gas discharge vents will fill out the Inspection Checklist included in Appendix J upon completion of the inspection. The inspection checklist will be kept on file at the Town.

3.3. Surface water drainage system

3.3.1. Description

The surface water drainage system consists of the following components:

- Composite geonet overlaying the flexible membrane cover
- Grass and rip-rap lined collection ditches
- Unlined, rip-rap and erosion control mat lined sideslope diversion swales
- Rip-rap lined downchutes

- Storm sewer system, including Service Road culverts.

3.3.2. Maintenance requirements

Routine inspection of the surface water drainage system (excepting the geonet) will be performed monthly during the first year following closure and quarterly thereafter. The inspector will observe the condition of the various ditches, swales and downchutes. Should erosion be noted it will be repaired as necessary. The storm sewer system will be inspected for blockage of inlets and outlets and, if blockages are noted they will be removed. Storm sewer cleaning of debris will be scheduled as necessary.

3.3.3. Recordkeeping

The inspector of the surface water drainage system will fill out the Inspection Checklist included in Appendix J upon completion of the inspection. The inspection checklist will be kept on file at the Town and copies of the checklist for each quarter should be included in the annual report. (See Section 2.4)

4. Miscellaneous site maintenance

4.1. Site fencing and security

Access to the DeWitt Landfill is controlled by two gates on Fisher Road, one approximately 0.5 miles north of the site and the other at the northern perimeter of the site. An eight-feet high chain link fence runs along the southern perimeter of the site and has a gate near the eastern end. The integrity of the fence and gates shall be inspected visually at the same frequency as inspection of the landfill cover. The structural integrity of the fencing system shall be verified and breaches or weaknesses shall be repaired.

The site shall be posted with "No Trespassing" signs and the gate shall be secured with a lock. The Commissioner of the Department of Development and Operations shall retain the key for access to the site.

4.2. Access road

The access road is Fisher Road and ends at the gate to the landfill site. During routine inspections, the inspector will inspect the access road and look for rutting, potholes, or settlement. Should these conditions be observed they will be corrected by filling and regrading. During the winter, the road will be plowed as needed to facilitate access for inspections and routine sampling of ground water monitoring wells. Snow banks resulting from plowing will be arranged to promote off-site drainage when thawing occurs.

4.3. Service road

The service road includes all roads beyond the south gate at the end of Fisher Road. The landfill perimeter service road permits ready access to the various locations of the site. It is a crushed stone roadway and will be inspected for problems or deficiencies during landfill cover inspections. Repairs to the service road will be made as appropriate to allow ease of access.

4.4. Penetrations of the flexible membrane cover

Due to the potential for flexible membrane cover punctures that may be caused by placement of poles, posts, stakes, etc., such activity shall be strictly prohibited.

5. Resource requirements

5.1. Personnel

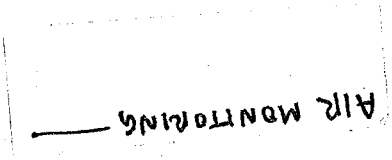
The Commissioner of Development and Operations of the town of DeWitt will be responsible for maintenance and inspection activities related to the landfill closure. The Town currently has and will maintain a sufficient manpower level to undertake these activities. It is estimated inspection activities will require one to two people on a quarterly basis for a one day period. Maintenance activities such as mowing of the cover, repair of erosion problems, etc. is not expected to require crews of more than three or four people on an as needed basis.

The Town of DeWitt will contract monitoring activities to a qualified company. The company which is responsible for monitoring will be expected to maintain sufficient manpower. It is estimated sampling activities will require one to two people on a quarterly basis for a one day period.

All personnel who will be on the site will be expected to have completed appropriate hazardous waste safety training, as required under OSHA and State regulations.

5.2. Equipment

Equipment requirements for normal maintenance activities will be minimal. In general the only equipment required will be tractors with lawn mowers, small trucks and hand-held brush cutters. Equipment for these activities are currently owned by the Town of DeWitt.


AIR MONITORING

6. Contingency plan

The following sections outline the Contingency Plan for possible problems which may occur at the DeWitt Landfill. In any of the situations discussed below the New York State Department of Environmental Conservation will immediately be notified of the problem and efforts to correct it. All necessary repairs should be performed using the Contract Documents as guidance.

6.1. Major erosion problems

Should major erosion problems occur, the integrity of the landfill cover system including the flexible membrane cover composite geonet and gas vents will be inspected and repaired as necessary. The barrier protection layer, topsoil and vegetative cover will be re-established. The Town of DeWitt Highway Department has the personnel and equipment necessary to undertake all work except repair of the flexible membrane cover and composite geonet. The repair of these components will be done by a qualified private contractor.

6.2. Significant differential settlement

Should significant differential settlement occur, the cover system in the effected area shall be removed and clean fill placed to restore the area to original grade. The cover system will then be reinstalled by a qualified private contractor. If required, the cover components will be repaired to provide the required function (i.e, drainage, gas venting, and imperviousness).

6.3. Fire

Should a fire occur, the DeWitt Fire Department shall be immediately notified to contain and extinguish the fire. The cause of the fire shall be determined and appropriate measures will be taken to prevent fire reoccurrence. The flexible membrane cover will be exposed along the edges of the burned area to a point where the integrity of the cover system has not been compromised. The cover system will then be restored to its original condition by a qualified contractor.

6.4. Leachate outbreaks

If a leachate outbreak is noted during any inspections or sampling, the outbreak will be noted on a site diagram, an estimate will be recorded of its flow, the seep or outbreak will be sampled if sufficient flow exists, and the seep or outbreak location will be checked periodically (at least once a week) for persistence. If that outbreak should persist, the NYSDEC must be notified, and the Town must promptly submit a plan to address the outbreak. Sample analysis must be reported to the NYSDEC promptly and be included in the appropriate quarterly and annual reports.

7. Planned uses

At this time, no uses beyond that of an inactive landfill site are planned. If in the future a use for the site is proposed, the New York State Department of Environmental Conservation will be notified. Any uses which are proposed will comply with all necessary regulations and not compromise the integrity of the cover system.

8. Contacts

In the event of an emergency at the Site, the Town of DeWitt should be contacted. The current contact names, addresses and phone numbers are:

Mr. Richard Robb, Commissioner
Department of Development and Operations
Town of DeWitt
5400 Butternut Drive
DeWitt, New York 13214
(315) 446-3768

Mr. James Conlon
Department of Development and Operations
Town of DeWitt
5400 Butternut Drive
DeWitt, New York 13214
(315) 446-3768

Mr. Edwin Marsh, Superintendent
Town of DeWitt Highway Department
5933 Butternut Drive
East Syracuse, New York 13057
(315) 437-8331

9. Stormwater pollution prevention plan

The Clean Water Act provides that storm sewer discharges associated with industrial activity from a point source to waters of the United States must be authorized by a National Pollutant Discharge Elimination System permit. In New York State, this is accomplished through the State Pollution Discharge Elimination System program. In accordance with the New York State Department of Environmental Conservation SPDES General Permit for Storm Water, discharges associated with industrial activity except construction activity (permit No. GP-93-05) A Notice of Intent (NOI) has been filed. A copy of the NOI is included as Appendix K. This section has been prepared to comply with the Storm Water Pollution Prevention Plan requirement of the permit.

9.1. Description of potential pollutant sources

9.1.1. Drainage

Included as Figure 4 is the Drainage Area Plan. The Plan shows the drainage areas, storm water discharge points, and surface water bodies for the landfill. The record drawings included as Appendix E show the structural storm water facilities for the landfill.

As the landfill has been capped with a low permeability cover there is a very low potential for storm water discharges to contain significant amounts of pollutants. The most likely source of pollution is erosion and sedimentation which is controlled by measures discussed below.

9.1.2. Inventory of exposed materials

In the three years prior to application for the SPDES permit, the site was an inactive landfill receiving construction and demolition debris

and undergoing the closure process. Prior to closure, a soil cover was placed over the landfill which limited the likelihood of stormwater contact with landfill waste other than construction and demolition debris. It is therefore unlikely any significant pollution resulted from storm water exposure.

9.1.3. Spills and leaks

The landfill experienced a leachate outbreak which was controlled by the installation of a leachate collection manhole. This prevented the discharge of contaminated storm water runoff to waters of the United States.

9.1.4. Sampling data

Surface water samples were taken for the Remedial Investigation performed for the landfill closure. Three of the surface water samples were obtained from the landfill runoff. The samples were tested for TCL metals in accordance with the 1991 NYS ASP and volatile organic compounds (VOC) using NYS Drinking Water Method 524.2. The results of the VOC analyses indicated concentrations of VOCs in two of the samples at levels lower than listed state standards for class C and D surface waters. The semi-volatile analyses showed one sample had a 5 part per billion level of 4-chlorophenyl-phenylether which is above the contract required detection limit. The inorganic analyses found concentrations of antimony, barium, calcium, iron, lead, magnesium, manganese, potassium, sodium and zinc. Only the iron was above the state listed standards for Class D streams.

9.1.5. Risk identification and potential sources

The site is a capped landfill. The cover system will prevent any exposure of storm water to potential pollutants.

9.2. Measures and controls

9.2.1. Description

Storm water controls for the landfill are described in Section 3.3.1 of this report.

9.2.2. Preventive maintenance and inspection

Maintenance and inspection of storm water controls will be done as described in Section 3.3.2 of this report. Records of maintenance and inspection activities will be kept as described in Section 3.3.3 of this report.

9.2.3. Non-storm water discharges

As the landfill is closed, there will be no operations or processes which will generate non-storm water discharges.

9.2.4. Sediment and erosion control

The landfill cover system is designed to prevent erosion. Components of the design for this purpose include the vegetative cover, slopes no steeper than 3H:1V and the system of swales and downchutes to limit the length of overland flow of storm water runoff.

9.2.5. Management of runoff

The storm water management practices for the landfill are considered appropriate as they eliminate the exposure of storm water to potential pollutants and control the potential for erosion.

9.3. Comprehensive site compliance evaluation

The site will be inspected and records of inspection and maintenance activities will be kept as described in Sections 3.1 and 3.3 of this report.

Appendices

Town of DeWitt Landfill
Monitoring and Maintenance Operations
Manual

APPENDIX A

1990 CONSENT ORDER

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

----------X

In the Matter of Alleged Violations of Environmental Conservation Law Articles 17 and 27 and Title VI of the Official Compilation of Codes, Rules and Regulations of the State of New York Parts 360, 701 and 703, by

TOWN OF DEWITT
ONONDAGA COUNTY, NEW YORK
Respondent.

CONSENT ORDER

CASE NO. R7-420-89-07

----------X

1. The Department of Environmental Conservation of the State of New York (the Department) is responsible for the administration and enforcement of ECL Articles 17 and 27 and Title 6 of NYCRR Parts 360, 701 and 703 promulgated pursuant thereto.

2. TOWN OF DEWITT (Respondent) is a municipal corporation located in Onondaga County, New York and is organized and existing under the laws of the State of New York.

3. Respondent operated a solid waste management facility which is a landfill (the Landfill) located on Fisher Road in the Town of Dewitt, Onondaga County, New York.

4. The Department alleges Respondent has committed the following violations at the Landfill site:

A. Operated the Landfill since prior to 1973 without a permit to do so in violation of former 6 NYCRR Part 360 and present 6 NYCRR Part 360;

B. Failed to conform to the requirements set forth in former 6 NYCRR 360.8 and present 6 NYCRR 360-1.14 and 360-2.17. Specifically from October 1983 to present inspections have disclosed, among others, sixteen (16) separate failures by Respondent to comply with the requirements for approved waste disposal, one hundred eighty-four (184) separate failures to comply with requirements for maintenance of cover, one hundred eighty-nine (189) separate failures to comply with grading requirements, and fifty-three (53) separate failures to comply with requirements for prevention of surface water pollution;

C. Without benefit of a SPDES or other permit, allowed leachate from the Landfill to drain and discharge into surface waters and continued to do so since on or about May 31, 1984;

D. Constructed, without benefit of SPDES or other permit, a trench which permitted the drainage and discharge of leachate from the Landfill into the old Erie Canal, surface waters with a classification of "C" and continued to do so since on or about May 14, 1984;

E. Failed to comply with a prior signed Consent Order whereby Respondent, by not ceasing operations at Landfill by April 1, 1987, as required by that ORDER; and

F. Has continued to accept construction and demolition debris at the Landfill without permit from prior to July 1988.

5. Respondent alleges it unknowingly accepted the hazardous wastes deposited at the Landfill.

6. The Department has determined that the Landfill is an inactive hazardous waste disposal site as defined at ECL 27-1301(2). The Landfill has been listed in the Registry of Inactive Hazardous Waste Disposal Sites as Site Number 7-34-012. The Department has classified the Landfill as a Classification "2" pursuant to ECL 27-1305(4)(b).

7. Pursuant to ECL 27-1313(3)(a), whenever the Commissioner of Environmental Conservation (the Commissioner) "finds that hazardous wastes at an inactive hazardous waste disposal site constitute a significant threat to the environment, he may order the owner of such site and/or any person responsible for the disposal of hazardous waste at such site (i) to develop an inactive hazardous waste disposal site remedial program, subject to the approval of the Department, at such site, and (ii) to

implement such program within reasonable time limits specified in the order."

8. The Department and Respondent agree that the goals of this ORDER shall be (a) the total cessation of further solid waste acceptance and the development and implementation of Interim Remedial Programs (IRPs) including intermediate cover, seeding, surface leachate control and proper disposal of leachate in the 1990 construction season; and closure of the Landfill under the provisions of Part 360 during the 1991 construction season, and (b) an evaluation of the effects and impacts of such IRPs and the development and implementation of a Remedial Program for the Landfill by Respondent which program shall include a Remedial Investigation/Feasibility Study (with the possibility that the Part 360 closure shall serve as the selected remedial alternative).

9. The Department and Respondent entered into an administrative CONSENT ORDER dated September 13, 1983 (Case No. 7-0499), for the closure and covering of the Landfill and that the ORDER had included therein a civil penalty of TEN THOUSAND DOLLARS ($10,000.00) suspended provided Respondent complied with the terms of the ORDER.

10. Respondent has entered into this ORDER as a precondition to eligibility for financial assistance

pursuant to ECL Article 52, Title 3 ("EQBA")and ECL 27-1313(5)(g).

11. Respondent has placed its insurer on notice of the Department's determination that the Landfill constitutes a significant threat to the environment and of the Department's claim, pursuant to ECL Article 27, Title 13, against Respondent. Respondent has agreed to exercise all reasonable efforts as required to obtain indemnification or a commitment to indemnify from its insurance carriers. Further, Respondent has agreed to assist the Department in identifying all other responsible parties. The Department will provide all legally available information it has to the Respondent with regard to other potentially responsible parties. Moreover, Respondent has agreed, subject to consultation with the Department, to compel all other responsible parties to bear the cost of the development and implementation of an inactive hazardous waste disposal site remedial program at the Landfill, if it is reasonable to do so.

12. The Respondent, to promote the best interests of the parties, has affirmatively waived the right to a hearing on this matter as provided by law and consents to the issuing and entering of this Order and agrees to be bound by the provisions, terms and conditions contained herein.

NOW, having considered this matter and being duly advise, IT IS ORDERED THAT:

I. In payment for the violations specified in this ORDER, Respondent shall pay a civil penalty in the amount of THIRTY FIVE THOUSAND DOLLARS ($35,000.00), which amount includes the TEN THOUSAND DOLLAR ($10,000.00) penalty referenced in paragraph 9 of this ORDER which is now due and payable. This penalty shall be paid to the Department of Environmental Conservation at the Office of Regional Director, 615 Erie Boulevard West, Syracuse, New York 13204-2400, upon the return of this Order, signed by the Commissioner or his designee.

II. All activities and submittals required by this ORDER shall address both on-site and off-site contamination. Respondent shall not be so required to address off-site contamination which is not attributable to the Landfill, provided however, Respondent assumes the burden to show that any non-addressed off-site contamination is not attributable to the Landfill.

III. Respondent shall not accept any further solid waste at the Landfill.

IV. Respondent shall retain professional consultants, contractors and laboratories acceptable to the Department and which are retained in accordance with New York State Finance Law as regards to competitive procurement procedures, to perform the technical, engineering and analytical obligations required by this ORDER for which costs would be eligible for reimbursement under the EQBA. The experience, capabilities and qualifications of the firms or individuals selected by Respondent shall be submitted within sixty (60) calendar days after the effective date of this ORDER to the Department for review prior to initiation of any activities for which the Respondent and their consultants shall be responsible, provided however, with regards to the 1990 Interim Remedial Plan, Respondent shall have fifteen days within which to submit for review by the Department the experience, capabilities and qualifications of the firms or individuals selected by Respondent as professional consultants, contractors and laboratories acceptable to the Department to perform the technical, engineering and analytical obligations required for the 1990 Interim Remedial Plan pursuant to this ORDER.

V. Any change of use or physical alteration of the Landfill, except for the 1990 IRP, sought to be undertaken must first be approved in writing by the Division of

Hazardous Waste Remediation, which approval shall be granted if the Division determines that the proposed change will not interfere with any proposed, ongoing or completed inactive hazardous waste disposal site remedial program at the Landfill. Any use of the Landfill will be subject to all applicable local, State, and Federal laws, rules and regulations.

VI.(a) Within thirty (30) calendar days of the effective date of this ORDER, Respondent shall submit to the Department a Work Plan for an Interim Remedial Program for work to be completed by December 31, 1990 (IRP Work Plan) which shall include:

1. A Health and Safety Plan for the protection of persons at or in the vicinity of the Landfill during the performance of the IRP that shall be prepared in accordance with 29 C.F.R. 1910 by a certified health and safety professional;

2. Plans for an intermediate cover which meets the requirements of 6 NYCRR 360-2.19(d), seeding and surface leachate control together with plans for proper treatment and/or proper disposal.

(b) Within one hundred thirty five (135) calendar days after the execution of this ORDER, Respondent shall submit to the Department a Work Plan for an Interim Remedial

Program (IRP Work Plan) for work to be completed by December 31, 1991. The IRP Work Plan for 1991 shall include, but not be limited to the following:

1. certified engineering plans and specifications for installation of the interim leachate collection system meeting the requirements of 6 NYCRR 360-2.15(g) and conditional final cover system meeting the requirements of 6 NYCRR 360-2.15(b);

2. the engineering report addressing for the duration of the IRP's vector migration and control, gas migration and control and those matters identified at 6 NYCRR 360-2.15(i);

3. an anticipated schedule to install the interim perimeter leachate collection system and the conditional final cover system before the end of the 1991 construction season;

4. a sampling and analysis plan that includes a quality assurance project plan describing the quality assurance and quality control protocols necessary to assure the construction and certification requirements of 6 NYCRR 360-2.13(p), (q), (r) and (s) relating to the construction of the conditional final cover system; and (if the system includes the construction and operation of a leachate storage facility) the construction and certification

requirements of 6 NYCRR SubPart 360-6, relating to the construction of the interim perimeter leachate collection system; and

5. a health and safety plan for the protection of persons at and in the vicinity of the Landfill during the performance of the IRP that shall be prepared in accordance with 29 C.F.R. 1910 by a certified health and safety professional.

The Department shall notify Respondent in writing of its approval or disapproval of the IRP Work Plans. If the Department disapproves of an IRP Work Plan, within thirty (30) calendar days for the 1990 IRP Work Plan and sixty (60) days for the 1991 IRP Work Plan after receipt of notice of disapproval, Respondent shall resubmit the Work Plan after having revised it in accordance with the Department's specific comments.

(a) If the Department disapproves the revision for the 1990 IRP Work Plan, the Respondent shall be in violation of this ORDER. Respondent shall implement the IRP Work Plan for 1990 approved by the Department which shall be attached hereto as Appendix A of this ORDER and incorporated herein, in accordance with the time schedule contained herein.

(b) If the Department disapproves the revision of the 1991 IRP Work Plan, Respondent may avail itself of the

Dispute Resolution provisions of paragraph XXV below. The final approved 1991 IRP Work Plan shall be attached as Appendix A/1 of this ORDER and incorporated herein, in accordance with the time schedule contained herein.

Respondent shall perform the IRP without prejudice to the Department's right to require further remedial activities pursuant to the Remedial Program approved by the Department. The Department's determinations shall not be arbitrary and capricious.

VII. Within ninety (90) calendar days after the effective date of this ORDER, Respondent shall submit to the Department its scoping effort completed in accordance with the EPA's "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA", dated October 1988, and all data within its possession or control regarding environmental conditions on-Site and off-Site, and other information described below, to the extent such data has not previously been provided to the Department. The data and other information shall include:

1. A brief history and description of the Landfill, including the types, quantities, physical state, location and dates of disposal of hazardous waste including methods of disposal and spillage of such wastes;

2. A concise summary of information held by Respondent with respect to all persons responsible for such disposal of hazardous wastes. Person responsible or responsible party means any or all of the following:

(a) the current owner and operator of the Landfill;

(b) the owner and operator of the Landfill at the time or subsequent to the time any hazardous waste disposal occurred;

(c) any person who generated any hazardous waste that was disposed of at the Landfill;

(d) any person who transported hazardous waste to the Landfill;

(e) any person who disposed of any hazardous waste at the Landfill;

(f) any person who by contract, agreement or otherwise arranged for the transportation of any hazardous waste to the Landfill or the disposal of any hazardous waste at the Landfill;

(g) any other person determined to be responsible according to applicable principles of statutory or common law liability.

Such information shall include, but not be limited to names, addresses, dates of disposal and any other

proof linking each such person responsible with hazardous wastes identified.

3. A comprehensive list and copies of all relevant reports with titles, authors and subject matter, as well as a description of the results of all previous investigations of the Landfill and areas in the vicinity of the Landfill, including copies of all available topographic and property surveys, engineering studies and aerial photographs.

4. An application with supporting cost estimates on a form acceptable to the Department, for State assistance pursuant to the EQBA together with a resolution acceptable to the Department which designates, by title, a Town Official authorized to act on behalf of the TOWN in all matters related to State assistance pursuant to the EQBA.

VIII. Within thirty (30) calendar days after Respondent's receipt of the site-specific State Assistance Contract (SAC), Respondent shall sign and deliver the SAC to the Department.

IX. Within one hundred thirty five (135) calendar days after the effective date of this ORDER, Respondent shall submit to the Department a Work Plan for a Remedial Investigation/ Feasibility Study (RI/FS). The Work Plan also shall address all elements of a RI/FS as set forth in the Comprehensive Environmental Response, Compensation and

Liability Act of 1980 (CERCLA), 42 U.S.C. 9601 et seq., as amended, the National Contingency Plan (NCP) then in effect, the USEPA draft guidance document entitled "Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA" dated October 1988, and any subsequent revisions thereto, and appropriate technical and administrative guidelines. In addition the Work Plan shall include:

1. A Work Plan which shall consist of a chronological description of the anticipated RI/FS activities together with an anticipated schedule for the performance of these activities.

2. A sampling and Analysis Plan which shall include:

(a) A Quality Assurance Project Plan that describes the quality assurance and quality control (QA/QC) protocols necessary to achieve the initial data quality objectives.

(b) A Field Sampling Plan that defines the sampling and data gathering methods in a manner consistent with the "Compendium of Superfund Field Operations Method" (EPA/540/P-87/001, OSWER Directive 9355.0-14, December 1987) as supplemented by the Department.

3. A Health and Safety Plan for the protection of persons at and in the vicinity of the Landfill during the performance of the RI/FS which shall be prepared in accordance with 29 C.F.R. 1910 by a certified health and safety professional.

4. A Citizen Participation Plan which is prepared and implemented in a manner consistent with the Department's publication "New York State Inactive Hazardous Waste Site Citizen Participation Plan", dated August 30, 1988.

X. The Department shall notify Respondent in writing of its approval or disapproval of the RI/FS Work Plan or revised RI/FS Work Plan as the case may be and once approved by the Department, such Approved RI/FS Work Plan shall be attached hereto as Appendix B and incorporated into this ORDER.

If the Department disapproves of the RI/FS Work Plan, within sixty (60) days after receipt of notice of disapproval, Respondent shall resubmit the Work Plan after having revised it in accordance with the Department's specific comments.

If the Department disapproves the revision for the RI/FS Work Plan, the Respondent may avail itself of the Dispute Resolution provisions of paragraph XXV below. The final approved RI/FS Work Plan shall be attached as Appendix B of

this ORDER and incorporated herein, in accordance with the time schedule contained herein.

Respondent shall perform the RI/FS Work Plan without prejudice to the Department's right to require further remedial activities pursuant to the Remedial Program approved by the Department. The Department's determinations shall not be arbitrary and capricious.

XI. In accordance with the time schedule contained in the Approved Work Plan, Respondent shall perform the Remedial Investigation and submit the status reports and other deliverables (as defined in the Work Plan) and the Remedial Investigation Report (Report). During the Remedial Investigation field activities, Respondent shall have on-site, full time, a representative qualified to inspect the work. The report shall include a copy of all data generated and all other information obtained during the Remedial Investigation, provide all of the assessments and evaluations set forth in CERCLA, the NCP then in effect, and in the guidance documents referred to above and identify any additional data that must be collected. The Report shall be prepared and certified by an engineer licensed to practice in the State of New York. This licensed engineer must be an individual or member of a firm which is authorized to offer engineering services in accordance with Article 145 of the

New York State Education Law. The engineer shall certify that all activities that comprised the Remedial Investigation were performed in accordance with the approved Work Plan.

XII. After the receipt of the Report, the Department shall determine if the Remedial Investigation was conducted and the Report prepared in accordance with the Approved Work Plan and this ORDER, and shall notify Respondent in writing of its approval or disapproval of the Report.

If the Department disapproves the Report, the Department shall notify Respondent in writing of the Department's specific objections. Respondent shall revise the Report and/or reperform or supplement the Remedial Investigation in accordance with the Department's comments and shall submit a Revised Report. The period of time within which the Report must be revised or the Remedial Investigation reperformed or supplemented shall be specified by the Department in its notice of disapproval and shall afford the Respondent time to revise the Report or to reperform or supplement the investigation. Any determination by the Department shall not be arbitrary and capricious.

After receipt of the Revised Report, the Department shall notify the Respondent in writing of its specific approval or disapproval of the Revised Report.

If the Department disapproves of the Revised Report, the Respondent shall be in violation of this ORDER unless the Respondent shall avail itself of the Dispute Resolution provisions in paragraph XXV below.

The Report or Revised Report, whichever the Department approves (the Approved Report) shall be attached hereto as Appendix C and incorporated into this ORDER.

XIII. The Department reserves the right to require a modification and/or an amplification and expansion of the Remedial Investigation or Report by Respondent if the Department determines, as a result of reviewing data generated by the Remedial Investigation or as a result of reviewing any other data or facts, which shall be made available to the Respondent, that further work is necessary.

XIV. Within ninety (90) calendar days after receipt of the Department's approval of the Report, Respondent shall submit a Feasibility Study evaluating on-site and off-site remedial actions as may be necessary to eliminate, to the maximum extent practicable, all health and environmental hazards and potential hazards attributable to the Landfill and shall take into account the Interim Remedial Programs.

The Feasibility Study shall be prepared and certified by an engineer licensed to practice by the State of New York, and approved by the Department. This engineer must be an individual or member of a firm which is authorized to offer engineering services in accordance with Article 145 of the New York State Education Law.

The Feasibility Study shall be performed in a manner that is consistent with CERCLA, the NCP then in effect, the USEPA draft guidance document mentioned above in paragraph IX and appropriate technical and administrative guidelines.

XV. The Department shall notify Respondent in writing of its approval or disapproval of the Feasibility Study. If the Department disapproves of the Feasibility Study, within thirty (30) calendar days after receipt of notice of disapproval, Respondent shall resubmit the Feasibility Study after having revised it in accordance with the Department's specific comments.

The final approved Feasibility Study or the Revised Feasibility Study, whichever the Department approves shall be attached as Appendix D of this ORDER and incorporated herein, in accordance with the time schedule contained herein.

XVI. Within sixty days after the Department's approval of the Feasibility Study or the Revised Feasibility Study,

the Department and Respondent shall solicit public comment on the 1991 IRP and the RI/FS and the recommended remedial program in accordance with CERCLA, the NCP, the Approved Citizen Participation Plan, and any other applicable law, and any relevant Department policy and guidance documents in effect at the time the public comment period is initiated.

XVII. (1) After receipt of the Feasibility Study, after intra and inter government review and public comment period, the consultants retained for the studies and investigations called for by this ORDER shall be available for no less than one informational meeting as scheduled by the Department with regard to the studies and investigations. The consultants shall be prepared to present their findings and recommendations and respond to questions in that public meeting or meetings.

(2) After the close of the public comment period, the Department shall select a final remedial program for this Landfill in a Record of Decision (ROD). The ROD shall become attached hereto as Appendix F and thereby become a part of this ORDER.

XVIII. Unless the ROD recommends the "no action" alternative, Respondent shall submit a Remedial Design within ninety (90) days after the ROD is signed. The Respondent may apply for an extension of this deadline in

the event that the implementation of the ROD is enjoined by a court of competent jurisdiction. The Remedial Design shall be prepared and certified by an engineer licensed to practice in New York and approved by the Department. The engineer must be an individual or member of a firm which is authorized to offer engineering services in accordance with Article 145 of the New York State Education Law.

The Remedial Design shall include the following:

1. A detailed description of the means by which each essential element of the Remedial Program will be performed, to include but not be limited to:

(a) the collection, destruction, treatment and/or disposal of hazardous wastes, and their constituents and degradation products, and any soil or other materials contaminated thereby;

(b) the collection, destruction, treatment and/or disposal of contaminated groundwater, leachate and air;,

(c) the physical security of and the posting of signs at the Landfill;,

(d) the health and safety of persons living and/or working at or in the vicinity of the Landfill;,

(e) the QA/QC procedures and protocols to be applied during implementation of the Remedial Program;,

(f) the Monitoring Program which adequately assesses the environmental conditions both on-site and off-site during implementation of the Remedial Program;, and

(g) all matters contained in 6 NYCRR Part 360 pertaining to the closure and post-closure monitoring and maintenance of a landfill;

2. "Biddable Quality" documents for the Remedial Program, including plans and specifications prepared and certified by a qualified engineer as defined above in the last sentence of paragraph XVIII. These plans shall satisfy all applicable local, State and Federal laws, rules and regulations;

3. A time schedule for the Remedial Program and provisions for periodic work-in-progress reports during the Remedial Program;

4. The parameters, conditions, procedures and protocols to determine the effectiveness of the Remedial Program, including a schedule for periodic sampling of groundwater monitoring wells on-site and off-site;

5. A description of operation, maintenance and monitoring (O&M) activities to be undertaken following completion of the Remedial Program, including the number of years during which such activities will be performed;

6. A Contingency Plan is to be implemented in the event that any element of the Remedial Program fails to operate in accordance with the Remedial Design or otherwise fails to protect human health or the environment; and

7. A Health and Safety Plan for the protection of persons at and in the vicinity of the Landfill both during construction and after completion of the Remedial Program. The Plan shall be prepared in accordance with 29 C.F.R. § 1910 by a certified health and safety professional.

XIX. After receipt of the Remedial Design, the Department shall notify Respondent in writing of its approval or disapproval of the Remedial Design.

If the Department disapproves of the Remedial Design, the Department shall notify Respondent in writing of the Department's specific objections. Within forty-five (45) calendar days after receipt of notice of disapproval, Respondent shall revise the Remedial Design in accordance with the Department's comments and submit a Revised Remedial Design.

After receipt of the Revised Remedial Design, the Department shall notify Respondent in writing of its approval or disapproval of the Revised Remedial Design.

If the Department disapproves of the Revised Remedial Design, the Respondent shall be in violation of

this ORDER unless Respondent avails itself of the Dispute Resolution provisions in paragraph XXV below.

The Remedial Design or the Revised Remedial Design, whichever the Department approves (Approved Remedial Design) shall be attached hereto as Appendix F and incorporated into this ORDER.

XX. Respondent shall implement the Remedial Program in accordance with the Approved Remedial Design. Respondent must obtain written approval from the Department prior to deviating from the Approved Remedial Design in any way. During implementation of the Remedial Program, Respondent shall have on-site, full time, a representative qualified to inspect the work.

Within sixty (60) calendar days after completion of the Remedial Program, Respondent shall submit as-built drawings, a Final Engineering Report, and a Final O&M. These reports shall reflect all changes made during construction and shall include a certification that the Remedial Program was completed in accordance with the Approved Remedial Design. The Reports shall be prepared by and the certification made by an engineer pursuant to the specifications set forth in the last sentence of paragraph XI above.

XXI. After receipt of the as-built drawings, Final Engineering Report and certifications, the Department shall notify Respondent in writing whether it is satisfied that all construction activities have been performed in compliance with the Approved Remedial Design.

If the Department concludes that any element of the Remedial Program fails to operate in accordance with the Approved Remedial Design or otherwise fails to protect human health and environment, the Department may take any action or pursue whatever rights it has pursuant to any provision of statutory or common law, subject to whatever rights or defenses which Respondent may have as regards the Remedial Program.

XXII. The Department may require the Respondent to modify the Remedial Design and Construction if the Department determines that such modification is necessary due to:

1. environmental conditions on-site or off-site which are related to the presence of hazardous wastes at the Landfill and which were unknown to the Department at the time of effective date of this ORDER, or

2. information received, in whole or in part, after the effective date of this ORDER, where such unknown environmental conditions or information indicates that the

Remedial Program is not protective of human health or the environment.

The Department shall make available to the Respondent the information relied upon in making such a determination.

XXIII. Respondent shall operate, maintain, and monitor all elements of the Remedial Program for the period of years set forth in the Approved Remedial Design, implement the Contingency Plan contained in the Approved Remedial Design in the event any element of the Remedial Program fails after completion or otherwise fails to protect human health or the environment, and implement the Health and Safety Plan contained in the Approved Remedial Design after completion.

XXIV. Within sixty (60) calendar days after the effective date of this ORDER and every six months thereafter Respondent shall provide a written report to the Department of the efforts it has made to obtain indemnification from its insurers and to assist the Department in compelling other responsible parties to bear the costs associated with the development and implementation of an inactive hazardous waste disposal site remedial program at the Landfill.

XXV. Within fifteen (15) calendar days after receipt of the Department's written notification, Respondent shall notify the Department of any portions of the Department's

notification with which it does not agree. If within the following fifteen (15) calendar days (or such longer time as the parties may agree) the parties cannot resolve their differences, the Department staff's position shall become binding unless the Respondent shall request that the dispute shall be settled in accordance with the following procedures:

(a) At the request of either party, based on a dispute concerning the terms of a submittal required under this ORDER, the Commissioner may appoint an Administrative Law Judge (ALJ) to resolve the matter.

If the ALJ deems it necessary to convene a hearing, the taking of evidence shall be concluded as soon as practicable after the ALJ's appointment. In the proceedings hereunder:

1. The parties shall be the Department and the Respondent.

2. Written notice shall be provided to the other party by the party requesting resolution of the dispute.

3. The Respondent shall have the burden of proving that the Department's determination is arbitrary and capricious.

4. The ALJ shall have all powers conferred by 6 NYCRR 622.12 and in addition, shall have the power to impose

penalties against Respondent if deadlines or milestone dates are missed as a result of the utilization of the Alternative Dispute Resolution.

5. All proceedings conducted hereunder shall be stenographically recorded. The Respondent shall arrange for an expedited stenographic transcript to be made within ten (10) working days after the conclusion of the proceeding, and for the original and two copies of the transcript to be delivered to the ALJ at the expense of the Respondent.

6. The ALJ shall prepare as soon as practicable, a written summary of the documentation and testimony received during the proceeding, and a recommended decision. The summary and a recommended decision shall be sent by certified mail, return receipt requested, and another copy by express mail or FAX to the Respondent and the Department staff.

7. The ALJ's recommended decision shall become the final determination of the Commissioner unless, within ten (10) working days from the receipt of the recommended decision, either the Respondent or the Department objects in writing. Any objections shall be submitted in writing to the ALJ with a copy sent by Express Mail, FAX, or hand-delivery to the other party, which shall serve and file in the same manner its response, if any, within five (5)

working days of receipt of the objections. Upon receipt of the objections and any response, the ALJ shall refer the matter to the Commissioner for final determination.

8. The final determination, if any, by the Commissioner shall be made as soon as practicable after receipt by him of the recommended decision of the ALJ.

9. With respect to the final determination of the Commissioner, Respondent shall have those rights granted pursuant to Article 78 of the New York Civil Practice Law and Rules. The period for petitioning thereunder shall be limited to forty-five (45) days.

XXVI. The Department shall have the right to obtain split samples, duplicate samples, or both of all substances and materials sampled by Respondent and the Department shall also have the right to take its own samples.

XXVII. Respondent shall provide notice to the Project Manager at least ten (10) working days in advance of all field activities to be conducted pursuant to this ORDER.

XXVIII. Respondent shall obtain whatever permits, easements, rights-of-way, rights-of-entry, approvals or authorizations as are necessary to perform Respondent's obligations under this ORDER.

XXIX. Respondent shall permit any duly designated employee, consultant, contractor or agent of the Department

or any State Agency to enter upon the Landfill or areas in the vicinity of the Landfill which may be under the control of Respondent for purposes of inspection, sampling and testing and to assure Respondent's compliance with this ORDER. During implementation of the Remedial Program, Respondent shall provide the Department with access to and use of suitable office space at the Landfill, including access to a telephone, and shall permit the Department full access to all records, and job meetings relating to compliance with this ORDER.

XXX. Respondent shall not be in default of compliance with this ORDER if Respondent or its consultant, contractor or agent cannot comply with the terms of this ORDER because of an act of God, war, strike, or other condition as to which conduct on the part of Respondent or its consultant, contractor or agent was not the proximate cause; provided, however, that the Respondent, as soon as reasonably is able but in any event in no more than twenty four hours, notifies the Department in writing when it obtains knowledge of any such condition and requests an appropriate extension or modification of the provisions thereof.

XXXI. The failure of the Respondent to comply with any term of this ORDER shall be a violation of this ORDER and

the ECL if such be determined after a hearing, as may be required by law.

XXXII. Nothing contained in this ORDER shall be construed as barring, diminishing, adjudicating or in any way affecting any of the Department's rights, including but not limited to the following:

1. the Department's right to bring any action or proceeding against anyone other than Respondent, its officials, employees, servants, agents, successors and assigns;

2. the Department's right to enforce this ORDER against the Respondent, its officials, employees, servants, agents, successors and assigns in the event that Respondent shall fail to satisfy any of the terms hereof;

3. the Department's right to bring any action or proceeding against Respondent, its officials, employees, servants, agents, successors and assigns with respect to claims for natural resources damages as a result of the release or threatened release of hazardous wastes or constituents at or from the Landfill or to areas in the vicinity of the Landfill, and;

4. the Department's right to bring any action or proceeding against Respondent, its employees, servants, agents, successors and assigns with respect to hazardous

wastes that are present at the Landfill or that have migrated from the Landfill and present a significant threat to human health or the environment.

XXXIII. This ORDER shall not be construed to prohibit the Commissioner or his duly authorized representative from exercising any summary abatement powers.

XXXIV. Respondent shall indemnify and hold the Department, the State of New York, and their representatives and employees harmless for all claims, suits, actions, damages and costs of every name and description arising out of or resulting from the fulfillment or attempted fulfillment of this ORDER by Respondent, its officers, employees, agents, servants, successors and assigns.

XXXV. The effective date of this ORDER shall be the date it is signed by the Commissioner. The Department will notify the Respondent's attorney within five (5) business days of the ORDERS effective date. The Respondent will be provided with a fully executed copy of the ORDER.

XXXVI. No change in this ORDER shall be made or become effective except as specifically set forth by a further written ORDER of the Department, being made either upon written application to the Department by the Respondent setting forth the grounds for the relief sought or upon the Department's own findings after an opportunity for the

Respondent to be heard or pursuant to the summary abatement powers of the Department.

XXXVII. In the event Respondent proposes to convey the whole or any part of its ownership interest in the Landfill, Respondent shall, not fewer than sixty (60) calendar days prior to the proposed conveyance, notify the Department in writing of the identity of the transferee and of the nature and date of the proposed conveyance and shall notify the transferee in writing, with a copy to the Department, of the applicability of this ORDER.

XXXVIII. All communications and correspondence from Respondent shall be addressed to the following Department persons and offices:

Richard J. Brickwedde, Esq.
Regional Attorney
N.Y.S.D.E.C. - Region 7
615 Erie Blvd. West
Syracuse, NY 13204-2400

and

Frank Bifera, Esq.
Director Albany Field Unit
N.Y.S.D.E.C.
50 Wolf Road, Room 415
Albany, NY 12233-7010

With a copy to:

Ed Belmore
Bureau Chief Western Remedial Action
N.Y.S.D.E.C.
50 Wolf Road Room 222
Albany, NY 12233-7010

XXXIX. All Work Plans, Reports and other technical documents required to be submitted under this ORDER shall be sent to the following:

1. One copy to:

Richard J. Brickwedde, Esq.
Regional Attorney
N.Y.S.D.E.C. - Region 7
615 Erie Blvd. West
Syracuse, NY 13204-2400

2. One copy to:

David L. Markell, Esq.
Director
Division of Environmental Enforcement
N.Y.S.D.E.C.
50 Wolf Road Room 609
Albany, NY 12233-5500

3. Six copies to:

Michael J. O'Toole, Jr., P.E.
Director
Division of Hazardous Waste Remediation
N.Y.S.D.E.C.
50 Wolf Road Room 212
Albany, NY 12233-7010

4. Two copies to:

Ron Tramontano, P.E.
Director
Bureau of Environmental Exposure Investigation
N.Y.S.D.O.H.
2 University Place
Albany, NY 12203

5. One copy to:

Frank Bifera, Esq.
Director Albany Field Unit
N.Y.S.D.E.C.
50 Wolf Road Room 415
Albany, NY 12233-7010

6. One copy each to:

Larry Gross, P.E.
Regional Solid Waste Engineer - Region 7
N.Y.S.D.E.C.
615 Erie Blvd. West
Syracuse, NY 13204-2400

and

Charles Branagh, P.E.
Regional Hazardous Waste Engineer - Region 7
N.Y.S.D.E.C.
615 Erie Blvd. West
Syracuse, NY 13204-2400

XL. Communication from the Department to Respondent shall be made as follows:

1. Supervisor
Town of Dewitt
6565 Kinne Road
Dewitt, NY 13214

2. Director of Planning and Operations
Town of Dewitt
6565 Kinne Road
Dewitt, NY 13214

3. Town Clerk
Town of Dewitt
6565 Kinne Road
Dewitt, NY 13214

4. Neil M. Gingold, Esq.
PINSKY and SKANDALIS
State Tower Bldg. Suite 1020
109 South Warren Street
Syracuse, NY 13202-1872

5. Mike Kolceski, P.E.
OBRIEN & GERE ENGINEERS, INC.
1304 Buckley Road
Syracuse, NY 13221

XLI. Respondent, its officials, agents, servants, employees, successors and assigns shall be bound by this ORDER.

XLII. The terms hereof shall constitute the complete and entire ORDER between Respondent and the Department concerning the Landfill. No term, condition, understanding, or agreement purporting to modify or vary the terms hereof shall be binding unless made in writing and subscribed by the party to be bound. No informal advice, guidance, suggestion or comment on any report, proposal, plan, specification, schedule or any other submittal, shall be construed as relieving Respondent of its obligations to obtain such formal approvals as may be required by this ORDER.

DATED: ~~SYRACUSE~~ Albany, NEW YORK
~~Sept~~ Sept 24, 1990

THOMAS C. JORLING, COMMISSIONER
New York State Department of
Environmental Conservation

CONSENT BY RESPONDENT

Respondent hereby consents to the issuing and entering of the foregoing ORDER without further notice and waives the right to a hearing herein and agrees to be bound by the provisions, terms, and conditions contained herein.

Town of Deerpark
Respondent

BY Burton Lowell

TITLE Supervisor

DATE 9/17/90

MUNICIPAL ACKNOWLEDGEMENT
STATE OF NEW YORK)
: ss.:
COUNTY OF ONONDAGA)

On the 17TH day of AUGUST 1990, before me personally came BURTON LOWITZ, to me known, who, being by me duly sworn did depose and say that he resides in the TOWN OF DEWITT described herein; that he is the TOWN SUPERVISOR of the TOWN OF DEWITT, the municipal corporation described herein, and which executed the above instrument; and that he signed his name hereto as authorized by said municipal corporation.

Mildred Angel

NOTARY PUBLIC

NEIL A. GINGOLD
Notary Public in the State of New York
Qualified in Onon. Co. No. 4813713
My Commission Expires JAN 31, 1992

Town of DeWitt Landfill
Monitoring and Maintenance Operations
Manual

APPENDIX B

QUALITY ASSURANCE/QUALITY CONTROL PLAN
(FOR CONSTRUCTION REPAIRS)
(SEPARATELY BOUND)

Town of DeWitt Landfill
Monitoring and Maintenance Operations
Manual

APPENDIX C

HEALTH AND SAFETY PLAN
(SEPARATELY BOUND)

APPENDIX D

CONTRACT SPECIFICATIONS
(SEPARATELY BOUND)

Town of DeWitt Landfill
Monitoring and Maintenance Operations
Manual

APPENDIX E

RECORD DRAWINGS
(SEPARATELY BOUND)

Town of DeWitt Landfill
Monitoring and Maintenance Operations
Manual

APPENDIX F

CITIZEN PARTICIPATION PLAN

CITIZENS PARTICIPATION PLAN

REMEDIAL INVESTIGATION / FEASIBILITY STUDY
TOWN OF DEWITT LANDFILL

TOWN OF DEWITT
DEWITT, NEW YORK

JUNE 1991

O'BRIEN & GERE ENGINEERS, INC.
5000 BRITTONFIELD PARKWAY
SYRACUSE, NEW YORK 13221

TABLE OF CONTENTS

APPENDICES

A Interested/Affected Parties Contact List
B Identification of Department Contacts

SECTION 1 - INTRODUCTION TO PLAN

The New York State Department of Environmental Conservation (NYSDEC) is committed to a citizens participation program as a part of its responsibilities for the inactive hazardous waste site remedial program. Citizen participation promotes public understanding of the Department's responsibilities, planning activities, and remedial activities at inactive hazardous waste disposal sites. It provides an opportunity for the Department to learn from the public information that will enable the Department to develop a comprehensive remedial program which is protective of both public health and the environment.

SECTION 2 - BASIC SITE INFORMATION

2.01 General

A Remedial Investigation/Feasibility Study is being conducted at the Dewitt landfill in accordance with an Administrative Order on Consent (#R7-420-89-07) between the Town of Dewitt and NYSDEC dated October 17, 1990.

2.02 Location and Setting

The Town of Dewitt Landfill is located on Fisher Road approximately four miles east of the center of Syracuse, New York (Figure C-1). Presently, the site is on the order of 45 acres in size. The landfill is located in the Erie - Ontario Lowlands which is characterized as a broad featureless plain with numerous swamps and mucklands. The geology of the landfill is comprised of artificial fill overlying sand and silt deposits, which in turn overlie glacial till. Surface water in this area drains to intermittent streams and the old Erie Canal.

2.03 Landfill History

The landfill began operation in the 1950's and accepted waste from the Town of Dewitt residents and industries. Municipal refuse was accepted at the landfill until June 26, 1987 and construction and demolition materials were accepted at the landfill until May 4, 1990.

2.04 Problems Identified at the Site

Following review of the 1985 draft Plan of Closure, NYSDEC expressed concern regarding the hazardous wastes disposed of at the landfill. The Town subsequently submitted a Phase II Investigation Report to NYSDEC dated April 1987.

The Phase II Investigation concluded the following:

- Two generations of fill were deposited on the natural soils;
- Both OBG-1 and OBG-6 were installed in older fill material;
- Shallow ground water flow was to the north in 1987;
- Shallow ground water moved at an average rate of 0.1 ft/day;
- Downgradient wells show limited impact by xylene and phenol;
- A variety of priority pollutants were detected in OBG-1; and
- Benzene and xylene were detected in OBG-6.

SECTION 3 - PROJECT DESCRIPTION

3.01 Project Objectives

The purpose of the RI/FS is to identify and characterize the nature, extent, and potential exposures to specific compounds present at the landfill and to evaluate potential remedial actions for restoring site conditions to acceptable levels to protect human health and the environment.

3.02 Project History

A preliminary Phase I Site Investigation was completed by Dunn Geoscience in 1979 on behalf of NYSDEC. In November 1985, a draft Plan of Closure was completed by O'Brien & Gere Engineers, Inc. (OBG) and submitted for NYSDEC review. To supplement the Closure Plan, a Phase II Investigation Work and Phase II Investigation Report were prepared by OBG and submitted to NYSDEC in April 1987. Pursuant to the 1990 Consent Order, an Interim Remedial Plan and RI/FS Scoping Document were prepared by OBG and submitted to NYSDEC in December 1990 and January 1991, respectively.

3.03 Key Decision Points

Five key decision points for the Dewitt Landfill RI/FS are:

- RI/FS Work Plan approval by NYSDEC
- Completion and Submittal of the RI Report
- RI Report approval by NYSDEC
- Completion and Submittal of the FS Report, and

- FS Report approval by NYSDEC

3.04 Remedial Program Description

The RI field program includes: a natural resource assessment; monitoring well, piezometer, and surface water gauge installations; and air, surface water, sediment, and ground water sampling. Data collected from these tasks will be used to complete a risk assessment. A flow diagram for the program is included as Figure C-2.

SECTION 4 - INTERESTED/AFFECTED PARTIES

A contact list, included as Appendix A of this plan, includes the names, addresses, and telephone numbers of people and organizations which may be affected and/or interested in the Town of Dewitt RI/FS.

SECTION 5 - DEPARTMENT CONTACTS

A list of names, addresses, and telephone numbers of contact persons within the NYSDEC, NYSDOH and the Town of Dewitt are included as Appendix B of this plan.

SECTION 6 - DOCUMENT REPOSITORIES

People and organizations interested in reviewing pertinent RI/FS documents may find this information at the following locations:

NYSDEC
50 Wolf Road
Albany, New York 12233
(518)-457-3733

NYSDEC
615 Erie Blvd. West
Syracuse, New York 13204
(315)-426-7531

Dewitt Community Library
Shoppingtown
Dewitt, New York
(315)-446-3578

SECTION 7 - CITIZEN PARTICIPATION ACTIVITIES

The activities identified in this plan have been developed to address the Town of Dewitt and NYSDEC's goal to keep the public informed and involved in RI/FS activities as well as meeting regulatory citizen participation requirements and policy. The activities discussed below may be adjusted based upon the project scope, length, public interest or other factors.

7.01 Project Plans

A copy of the approved RI/FS Work Plan will be available for public review at the document repositories listed in Section 6. Included with this document will be the site Health and Safety Plan (HASP), the Quality Assurance Program Plan (QAPP) and the Citizen Participation Plan (CPP).

7.02 Remedial Investigation Report

A copy of the approved Remedial Investigation Report will be available for public review at the document repositories listed in Section 6.

7.03 Feasibility Study Report

The following activities will take place once the Feasibility Study Report is final:

- a copy of the Feasibility Study Report will be placed in the repositories listed in Section 6 for public review.

- NYSDEC will publish a legal notice in a local paper that provides a brief analysis of the proposed remedial program, reasons for selecting the proposed program over other alternatives, and describes construction and operational requirements of the program.
- NYSDEC will mail public notice to individuals included on the contact list that briefly describes the site, provides an overview of work completed, summarizes findings, provides a brief analysis of the proposed remedial program schedule for future work, summarizes reasons for selecting the chosen alternative, requests information and comments, identifies the local repository, names the NYSDEC contacts, and announces date/time/place of a public meeting and 30-day comment period.
- the public meeting will be held.
- NYSDEC will prepare a meeting summary and place a copy in repositories.
- there will be a 30-day comment period.
- NYSDEC will publish a legal notice with a brief analysis of the selected remedial program, including any changes and responses to significant comments, criticisms and new data.
- NYSDEC will prepare and place a Responsiveness Summary in the repositories.
- Following the public meeting, if the remedial program selected differs significantly from that presented in the FS report, NYSDEC will

publish a legal notice to provide an explanation of significant changes and reasons for changes.

- NYSDEC will prepare a Record of Decision (ROD) which will document the decision process used to determine the remedial actions deemed appropriate for the site. At that time, the Citizen Participation Plan will be updated to address the specific citizen participation activities to be initiated during the design and construction of the selected remedial action.

SECTION 8 - GLOSSARY OF KEY TERMS AND MAJOR PROGRAM ELEMENTS

The following glossary defines the major elements of the Town of Dewitt Landfill RI/FS and technical terms used in this document.

Availability Session - Scheduled gathering of the Department staff and the public in a setting less formal than a public meeting. Encourages "one-to-one" discussions in which the public meets with Department staff on an individual or small group basis to discuss particular questions or concerns.

Citizen Participation - A process to inform and involve the interested/affected public in the decision-marking process during identification, assessment and remediation of inactive hazardous waste sites. This process helps to assure that the best decisions are made from environmental, human health, economic, social and political perspectives.

Citizen Participation Plan - A document that describes the site-specific citizen participation activities that will take place to complement the "technical" (remedial) activities. It also provides site background and rationale for the selected citizen participation program for the site. A plan may be updated or altered as public interest or the technical aspects of the program change.

Citizen Participation Specialist - A department staff member within the Office of Public Affairs who provides guidance, evaluation and assistance to help the Project Manager carry out his/her site-specific Citizen Participation program.

Contact List - Names, addresses and/or telephone numbers of individuals, groups, organizations and media interested and/or affected by a particular hazardous waste site. Compiled and updated by the Department. Interest in the site, stage of remediation and other factors guide how comprehensive the list becomes. Used to assist the Department to inform and involve the interested/affected public.

Document Repository - Typically a regional DEC office and/or public building, such as a library, near a particular site, at which documents related to remedial and citizen participation activities at the site are available for public review. Provides access to documents at times and a location convenient to the public. Environmental Management Councils (EMCs), Conservation Advisory Committees (CACs) as well as active local groups often can serve as supplemental document repositories.

Information Sheet - A written discussion of a site's remedial process, or some part of it, prepared by the Department for the public in easily understandable language.

May be prepared for the "general" public or a particular segment. Uses may include, for example: discussion of an element of the remedial program, opportunities for public involvement, availability of a report or other information, or announcement of a public meeting. May be mailed to all or part of the interested public, distributed at meetings and availability sessions or sent on an"as requested" basis.

Project Manager - A Department staff member within the Division of Hazardous Waste Remediation (usually an engineer, geologist or hydrogeologist) responsible for the day-to-day administration of activities, and ultimate disposition of, one or more hazardous waste sites. The Project Manager works with the Office of Public Affairs as well as fiscal and legal staff to accomplish site-related goals and objectives.

Public - The universe of individuals, groups and organizations: a) affected (or potentially affected) by an inactive hazardous waste site and/or its remedial program; b) interested in the site and/or its remediation; c) having information about the site and its history.

Public Meeting - A scheduled gathering of the Department staff and the public to give and receive information, ask questions and discuss concerns. May take one of the following forms: large-group meeting called by the Department; participation by the Department at a meeting sponsored by another organization such as a town board or Department of Health; working group or workshop; tour of the hazardous waste site.

Public Notice - A written or verbal informational technique for telling people about an important part of a site's remedial program coming up soon (examples: announcement that the report for the RI/FS is a publicly available; a public meeting has been scheduled).

The public notice may be formal and meet legal requirements (for example: what it must say, such as announcing beginning of a public comment period; where, when and how it is published).

- Publish - For purposes of 6NYCRR Part 375.7, at a minimum requires publication of a legal notice in a local newspaper of general circulation.

Another kind of public notice may be more informal and may not be legally required (examples: paid newspaper advertisement; telephone calls to key citizen leaders; targeted mailings).

Responsiveness Summary - A formal or informal written or verbal summary and response by the Department to public questions and comments. Prepared during or after important elements in a site's remedial program. The responsiveness summary may list and respond to each question, or summarize and respond to questions in categories.

Toll-Free "800" Telephone Information Number - Provides cost-free access to the Department by members of the public who have questions, concerns or information about a particular hazardous waste site. Calls are taken and recorded 24 hours a day and a Department staff member contacts the caller as soon as possible (usually the same day).

Definitions of Significant Elements and Terms of the RI/FS

NOTE: The first eight definitions represent major elements of the remedial process. They are presented in the order in which they occur, rather than in alphabetical order, to provide a context to aid in their definition.

Site Placed on Registry of Inactive Hazardous Waste Sites - Each inactive site known or suspected of containing hazardous waste must be included in the Registry. Therefore, all sites which state or county environmental or public health agencies identify as known or suspected to have received hazardous waste should be listed in the Registry as they are identified. Whenever possible, the Department carries out an initial evaluation at the site before listing.

Phase I Site Investigation - Preliminary characterizations of hazardous substances present at a site; estimates pathways by which pollutants might be migrating away from the original site of disposal; identifies population or resources which might be affected by pollutants from a site; observes how the disposal area was used or operated; and gathers information regarding who might be responsible for wastes at a site. Involves a search of records from all agencies known to be involved with a site, interviews with site owners, employees and local residents to gather pertinent information about a site. Information gathered is summarized in a Phase I report.

After a Phase I investigation, DEC may choose to initiate an emergency response; to nominate the site for the National Priorities List; or, where additional information is needed to determine site significance, to conduct further (Phase II) investigation.

Phase II Site Investigation - Ordered by DEC when additional information is still needed after completion of Phase I to properly classify the site. A Phase II investigation is not sufficiently detailed to determine the full extent of the contamination, to evaluate remedial alternatives, or to prepare a conceptual design for construction. Information gathered is summarized in a Phase II report and is used to arrive at a final hazard ranking score and to classify the site.

Remedial Investigation (RI) - A process to determine the nature and extent of contamination by collecting data and analyzing the site. It includes sampling and monitoring, as necessary, and includes the gathering of sufficient information to determine the necessity for, and proposed extent of, a remedial program for the site.

Feasibility Study (FS) - A process for developing, evaluating and selecting remedial actions, using data gathered during the remedial investigation to: define the objectives of the remedial program for the site and broadly develop remedial action

alternatives; perform an initial screening of these alternatives; and perform a detailed analysis of a limited number of alternatives which remain after the initial screening stage.

Remedial Design - Once a remedial action has been selected, technical drawings and specifications for remedial construction at a site are developed, as specified in the final RI/FS report. Design documents are used to bid and construct the chosen remedial actions. Remedial design is prepared by consulting engineers with experience in inactive hazardous waste disposal site remedial actions.

Construction - the Town of Dewitt selects contractors and supervises construction work to carry out the designed remedial alternative. Construction may be as straightforward as excavation of contaminated soil with disposal at a permitted hazardous waste facility. On the other hand, it may involve drum sampling and identification, complete encapsulation, leachate collection, storage and treatment, ground water management, or other technologies. Construction costs may vary from several thousand dollars to many millions of dollars, depending on the size of the site, the soil, ground water and other conditions, and the nature of the wastes.

Monitoring/Maintenance - Denotes post-closure activities to ensure continued effectiveness of the remedial actions. Typical monitoring/maintenance activities include quarterly inspection by an engineering technician; measurement of level of water in monitoring wells; or collection of ground water and surface water samples and analysis for factors showing the condition of water, presence of toxic substances, or other indicators of possible pollution from the site. Monitoring/maintenance may be required indefinitely at many sites.

Consent Order - A legal and enforceable negotiated agreement between the Department and responsible parties where responsible parties agree to undertake investigation and cleanup or pay for the costs of investigation and cleanup work at a site. The order includes a description of the remedial actions to be undertaken at the site and a schedule for implementation.

Contract - A legal document signed by a contractor and the Department to carry out specific site remediation activities.

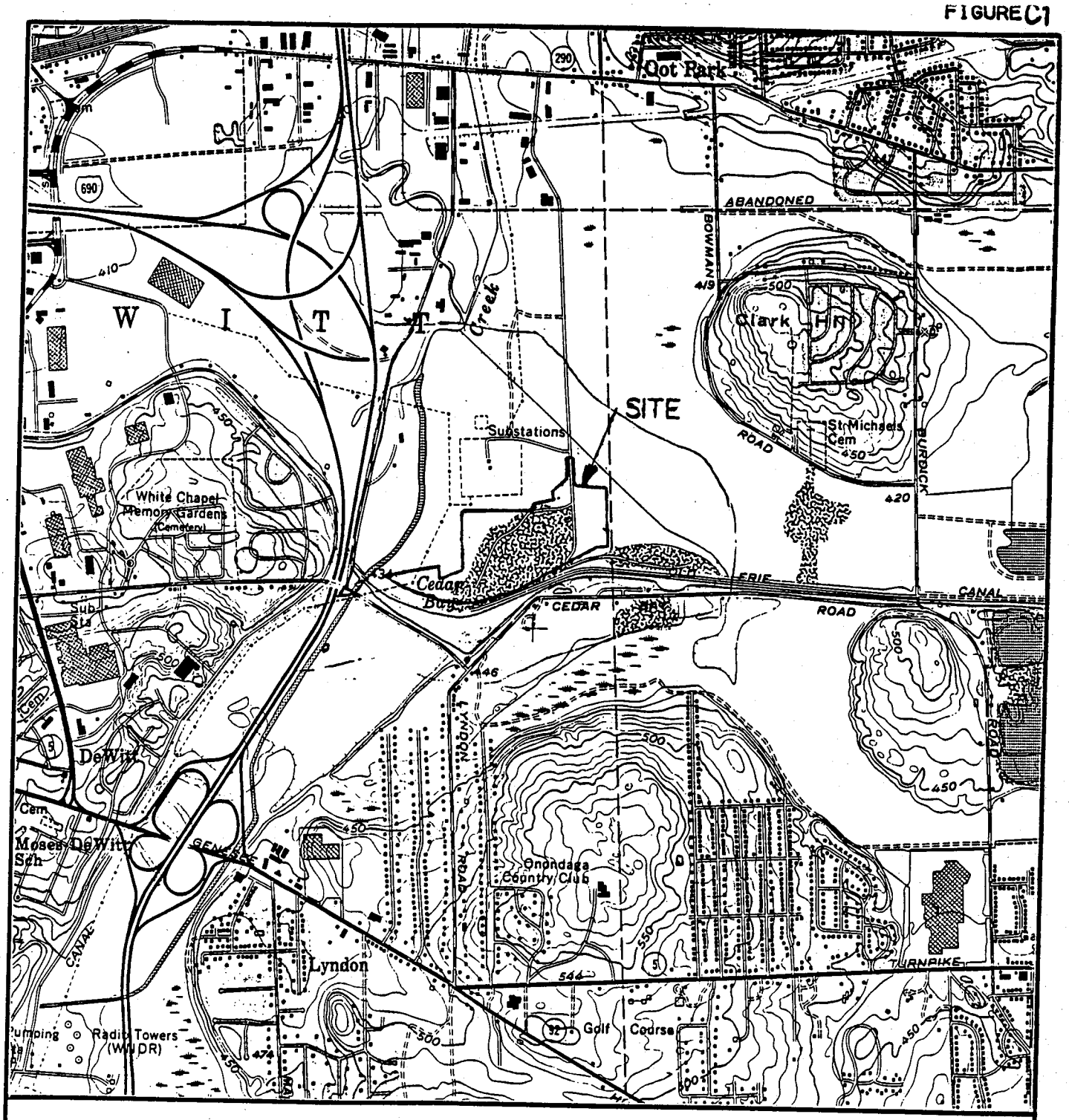
Contractor - A person or firm hired to furnish materials or perform services, especially in construction projects.

Delisting - Removal of a site from the site Registry based on study which shows the site does not contain hazardous wastes.

Potentially Responsible Party Lead Site - An inactive hazardous waste site at which those legally liable for the site have accepted responsibility for investigating problems at the site, and for developing and implementing the site's remedial program. PRP's include: those who owned the site during the time wastes were placed, current owners, past and present operators of the site, and those who generated the wastes

FIGURES - CITIZENS PARTICIPATION PLAN

FIGURE C1



TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

SITE LOCATION MAP

0 2000 4000

SCALE IN FEET

ADAPTED FROM U.S.G.S. SYRACUSE EAST N.Y. QUADRANGLE

2/21/91

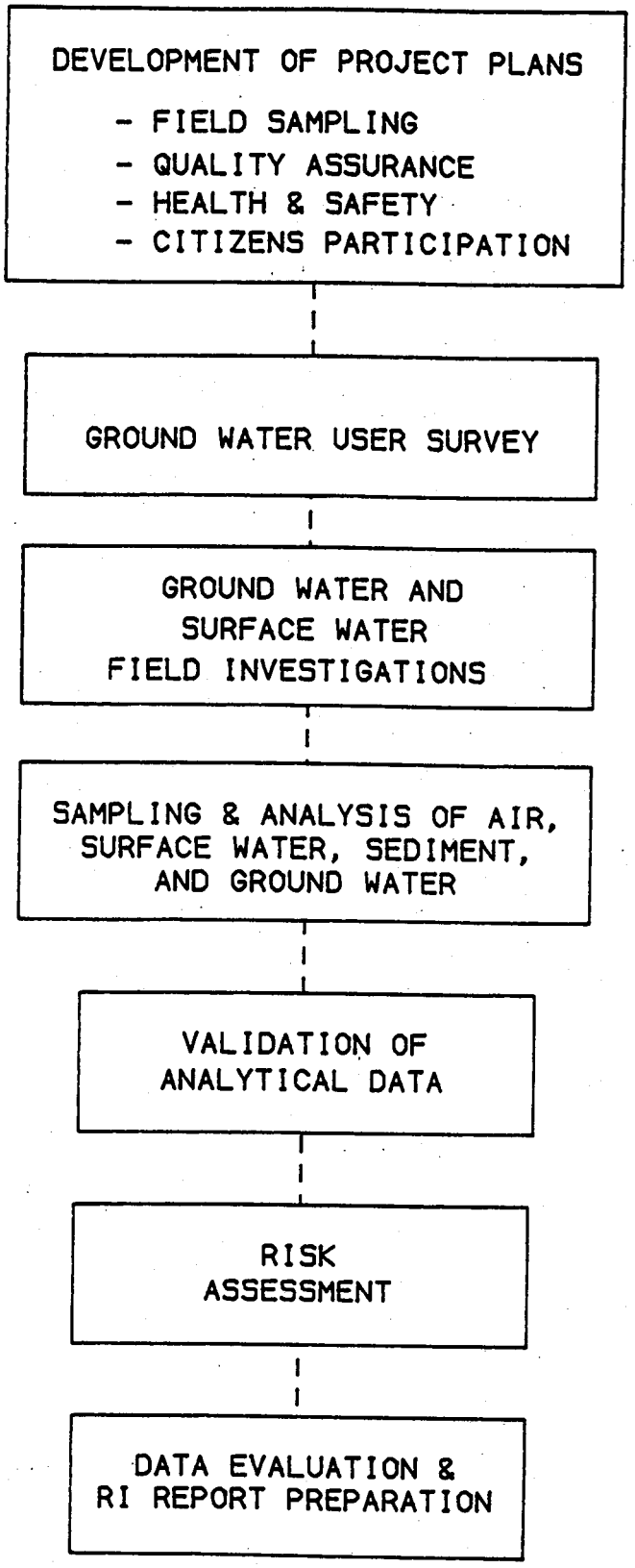
(123.566.476

8.5X11

O'BRIEN & GERE

TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

REMEDIAL INVESTIGATION PROGRAM FLOW DIAGRAM



APPENDIX - CITIZENS PARTICIPATION PLAN

APPENDIX A
INTERESTED/AFFECTED PARTIES CONTACT LIST

Town of Dewitt Officials:

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Richard T. Robb, Commissioner of Development & Operations, 5400 Butternut Drive, P.O.Box 159, Dewitt, N.Y. 13214-0159
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Marion L. Dean, Town Clerk, 5400 Butternut Drive, P.O.Box 159,
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(315) 446-3826

Jack Schultz, Town Justice, 5400 Butternut Drive, P.O.Box 159,
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Elaine Lytel, Onondaga County Clerk, 200 Court House, 401 Montgomery St., Syracuse, N.Y. 13202
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James R. Miller, M.D.,MPH, Onondaga County Health Department Commissioner, Civic Center, 411 Montgomery St., Syracuse, N.Y. 13202 (315) 435-3252

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News Editor, WTVH-TV Channel 5, 980 James St., Syracuse, N.Y. 13203

News Editor, WIXT-TV Channel 9, 5904 Bridge St., E. Syracuse, N.Y. 13057

News Editor, WCNYTV Channel 24, 506 Old Livrpl. Rd., Liverpool, N.Y. 13088

News Editor, WSYT Channel 68, 1000 James St., Syracuse, N.Y. 13203

News Editor, W60BC TV Fabius, Pompey Center Rd., Fabius, N.Y. 13063

News Editor, W30AJ TV Syracuse Inc. Chan. 30, 109 S. Warren St., Syracuse, N.Y. 13202

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Environmental Organizations:

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Robert D. Hennigan, Water Quality Management Agency Chairman, Civic Center, 411 Montgomery St., Syracuse, N.Y. 13202
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APPENDIX B
IDENTIFICATION OF DEPARTMENT CONTACTS

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Toll Free Telephone Number: (800)-342-9296

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NEW YORK STATE DEPARTMENT OF HEALTH

Toll Free Number: (800)-458-1158

Office: NYSDOH
Albany Regional Office
State Campus
Albany, New York 12237
(518)-458-6310

APPENDIX G

RECORD OF DECISION

DECLARATION STATEMENT - RECORD OF DECISION

"Dewitt Landfill" Inactive Hazardous Waste Site
Town of Dewitt, Onondaga County, New York
Site No. 7-34-012

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedial action for the Dewitt Landfill inactive hazardous waste disposal site which was chosen in accordance with the New York State Environmental Conservation Law (ECL). The remedial program selected is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300).

This decision is based upon the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the Dewitt Landfill Inactive Hazardous Waste Site and upon public input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A bibliography of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Assessment of the Site

Actual or threatened release of hazardous waste constituents from this site have been addressed by remedial construction activities completed as an Interim Remedial Measure (IRM). Prior to completion of the IRM, actual or threatened releases of hazardous waste presented potential threat to public health and the environment.

Description of Selected Remedy

Based upon the results of the Remedial Investigation/Feasibility Study (RI/FS) for the Dewitt Landfill and the criteria identified for evaluation of alternatives the NYSDEC has selected continuous maintenance of the landfill cap and periodic sampling of surface water and groundwater. The components of the remedy are as follows:

- Completion of the Interim Remedial Measures (capping, storm water control measures, site fencing). At this time, most of the work has been completed.
- Development and implementation of long term land use restrictions at the site to protect the installed cap and eliminate disturbance to the cap and its contours.
- Provide for periodic maintenance and repairs to the cap as necessary.

- Provide for the comprehensive monitoring of groundwater and surface water to evaluate the effectiveness of the cap, and the need for future active leachate collection as necessary.

New York State Department of Health Acceptance

The New York State Department of Health concurs with the remedy selected for this site as being protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the statutory preference for remedies that reduce toxicity, mobility, or volume as a principal element.

March 15, 1994
Date

Ann Hill DeBarbieri
Deputy Commissioner

TABLE OF CONTENTS

Record of Decision

"Dewitt Town Landfill"
Town of Dewitt, Onondaga County, New York
Site No. 7-34-012
March 1993

SECTION 1: SITE DESCRIPTION

The Dewitt Landfill is located in the Town of Dewitt in Onondaga County off Fisher Road and is adjacent to the Old Erie Canal. The site is approximately 57 acres in size and the area immediately surrounding the landfill is undeveloped. A light industrial area is located 0.5 miles north of the landfill and residential areas are located within 0.5 miles to the northeast, south, and west. The site is bordered to the north, east, and west by wetlands and to the south by the Old Erie Canal. A small portion of the eastern side of the landfill is located within the Town of Manlius. Figure 1 shows the site location.

SECTION 2: SITE HISTORY

2.1: Operational/Disposal History

The Town of Dewitt landfill was in operation from the mid 1950's until 1990. Community Right-to-Know reports document specific hazardous wastes taken to the Dewitt Landfill. Among these wastes were spent solvents, paint sludges and solids, and emission control "bag house" dust.

2.2: Remedial History

A preliminary site investigation of the Landfill (called a Phase 2) was completed in 1987 by the Town, in cooperation with the NYSDEC. Groundwater sampling conducted as part of this investigation revealed the presence of contaminants including benzene, ethyl-benzene, xylene, toluene, and vinyl chloride. Leachate outbreaks were also identified, including one along the canal tow-path. This persistant leachate seep was subsequently addressed by the Town in 1991 through the installation of a sump at the seep location.

In October 1990, the Town entered into a consent order with the Department that required a Remedial Investigation and Feasibility Study, as well as a complete remedial program be completed at the site. The consent order also required the landfill to be capped as an interim remedial measure (see section 4).

The Town has signed a State Assistance Contract with New York State which has provided for State funding of 75% of all eligible costs of the remedial program under the 1986 Environmental Quality Bond Act (EQBA) Title 3 program.

SECTION 3: CURRENT STATUS

The Town of Dewitt, in cooperation with the NYSDEC under the Title 3 program, initiated a Remedial Investigation/ Feasibility Study (RI/FS) in September 1991 to address the contamination at the site. The final Remedial Investigation Report was approved on November 30, 1993. Construction of the IRM (cap) began in August of 1992 and is scheduled to be complete on or before July 1, 1994.

3.1: Summary of the Remedial Investigation

The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site.

A report entitled "Town of Dewitt Landfill Remedial Investigation" has been prepared describing the field activities and the findings of the RI in detail.

The RI activities consisted of the following:

- Perimeter soil vapor survey
- Monitoring well installations
- Piezometer installations
- Air sampling
- Surface water, soil, and sediment sampling
- Groundwater sampling
- Hydrogeologic evaluation

The analytical data obtained from the RI was compared to Applicable Standards, Criteria, and Guidance (SCGs) in determining remedial alternatives. Groundwater, drinking water and surface water SCGs identified for the Dewitt landfill site were based on NYSDEC Ambient Water Quality Standards and Guidance Values and Part V of NYS Sanitary Code. For the evaluation and interpretation of soil and sediment analytical results, NYSDEC soil cleanup guidelines for the protection of groundwater, background conditions, and risk-based remediation criteria were used to develop remediation goals for soil.

Based upon the results of the remedial investigation in comparison with the SCGs and potential public health and environmental exposure routes, no areas or media of the site are in need of further remediation beyond capping.

Groundwater sampling was performed using the 18 groundwater monitoring wells around the landfill perimeter. Table 1 indicates compounds detected in groundwater samples and their detected concentration ranges. Results from the two rounds of sampling indicate two samples with detectable concentrations of organics. However, none of the overburden wells contained organic contaminants in excess of Class "GA" groundwater standards or drinking water standards. The sampling also indicated several organic compounds in two downgradient bedrock wells at concentrations up to 22 ppb. However, only two of five bedrock groundwater wells contained concentrations of volatile organics above Class "GA" groundwater standards or drinking water standards. Although several volatile organic compounds were detected in groundwater, there is presently no use of groundwater for drinking water purposes in the vicinity of the site. Moreover, the levels of these organic compounds are very low.

No semi-volatile organic compounds were detected in groundwater samples. No pesticides/PCBs were detected in groundwater samples.

Several groundwater samples indicated concentrations of various inorganic compounds in both the overburden and bedrock wells. Concentrations of total barium, chromium, iron, lead, magnesium, manganese, sodium, and zinc in some wells were above NYS Class "GA" standards. With the exception of lead, however, the highest concentrations of these metals were found in upgradient wells. This indicates that most inorganics detected are also naturally occuring in the area. It is not unusual for naturally occuring inorganics to be detected at levels above Class "GA" standards.

The RI/FS has identified limited areas of surface water and sediment adjacent to the landfill which contain detectable concentrations of organics and metals. Table 2 indicates compounds detected in surface water samples and their detected concentration ranges. Table 3 indicates compounds detected in sediment samples and their detected concentration ranges.

Surface water samples taken within the wetland at various locations detected several volatile organic compounds at concentrations up to 3.1 ppb. With the exception of a chloroethane detection in one sample of 28 ppb, all organics detected in the surface water samples were below Ambient Water Quality Standards and Guidance Values for Class "C" and Class "D" surface waters.

One semi-volatile organic com[illegible] was detected at 5 ppb. No pesticides or PCBs were detected in the surface water samples.

Surface water samples also contained several inorganic compounds. Concentrations of Iron and zinc in some samples exceeded Class "C" and "D" standards. Cadmium was detected in one sample at a level slightly higher than the class "C" standard.

Sediment samples collected contained various volatile organic compounds (such as carbon disulfide, and methylene chloride) at concentrations up to 45 ppb. However, the volatile organics were detected at numerous locations upgradient from the landfill. This suggests that there are sources for these compounds other than the landfill.

Sediment samples also detected several semi-volatile compounds (such as various phthalates) at concentrations up to 3.4 ppm. However, the random occurrence of several semi-volatile organic compounds suggests that there are multiple sources which could include runoff from roadways, car exhaust, etc. One sediment sample contained pesticides (4,4'-DDD and 4,4'-DDT) at concentrations up to 32 ppb.

A sediment sample taken in the vicinity of a leachate seep contained concentrations of several inorganic compounds above background levels. These metals include antimony, arsenic, barium, iron, manganese, mercury, nickel, and sodium.

Soil samples were taken at 17 locations around the landfill perimeter. Table 4 indicates various compounds detected in surface soils and the range of concentrations.

Semivolatile organic compounds were detected in several soil samples at concentrations up to 14 ppm. However the majority of semivolatile compounds detected were below 1 ppm. Most semivolatiles detected were polynuclear aromatic hydocarbons (PAHs) such as phthalates. However, semivolatile compounds were also detected in the background soil sample.

One surface soil sample contained the pesticide beta BHC at a concentration of 30 ppb. Two samples contained concentrations of PCB Aroclor 1260 at 0.44 ppm and 0.55 ppm.

Surface soil sample concentrations were compared to the background soil concentrations for inorganic analysis. Several inorganics (such as antimony, calcium, and magnesium) were detected above background concentrations in most soil samples. However, most inorganics detected are in the general concentration range of background.

3.2 Interim Remedial Measures:

An IRM was conducted at the site as required by the consent order. An IRM is implemented when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS. In this instance, it was recognized that the construction of a landfill cap would cause a significant reduction in the amount of precipitation entering the landfill waste mound, thereby substantially reducing the amount of leachate being generated by the waste. In addition, Solid Waste Management Facilities Regulations of 6NYCRR Part 360 require all closed landfills to be properly capped. In this instance, the IRM was designed in accordance with 6NYCRR Part 360 regulations.

Construction of the landfill cap IRM began in August 1992, and is scheduled to be completed by July 1, 1994. Capital costs for cap construction are $6,800,000.

Since the landfill is situated in a regulated wetland, a permit was obtained from the U.S. Army Corps of Engineers for construction activities required in the IRM. Permit #92-988-50 under authority of Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act was granted to the Town. The permit allowed the filling of 0.94 acres of wetland as part of the construction of the landfill cap.

3.3 Summary of Human Exposure Pathways:

A baseline human health risk assessment was performed as a part of the RI. This health risk assessment included an exposure pathway analysis to identify media of concern and assess the potential for human exposure based on these pathways. Potential risks were evaluated for four possible exposure scenarios: children playing in the adjacent park, children using the towpath, adults using the towpath, and workers on the landfill site. As concentrations of landfill related contaminants in accessible media were generally very low, the site was not found to pose any unacceptable health risks to the public in its vicinity.

3.4 Summary of Environmental Exposure Pathways:

A NYSDEC Division of Fish and Wildlife "Impact analysis" was performed at the site, with the following conclusions:

- Potential ecological receptors for the site include a variety of mammalian, avian, reptilian, and amphibious wildlife species, protected plants, and regulated wetlands.
- Exposure to wildlife receptors could potentially occur via contact or ingestion of contaminated surface soils, surface water, or biota.
- Impacts to the ecological receptors are the result of physical, chemical, and biological stresses on the ecosystem.
- The wetland system, of which the landfill is a part, is situated in an urban area, and has been stressed by road construction, habitat loss, increased human activity, and chemical inputs from the landfill as well as other adjacent commercial activities.

The overall conclusion of the fish and wildlife impact analysis is that landfill related contaminants have minimal effect on surrounding resources.

SECTION 4: ENFORCEMENT STATUS

The NYSDEC and the Town of Dewitt entered into a Consent Order on September 17, 1990. The Order obligates the Town to implement a full remedial program at the landfill and allows reimbursement to the Town of up to 75 percent of the eligible cost of the remediation.

Orders on Consent

Date	Index	Subject
10/17/93	R7-420-89-07	Remedial Prog.

The Consent Order required the completion of an RI/FS as well as an IRM (cap) and any necessary Remedial Design and Construction which was identified from the RI/FS findings.

SECTION 5: SUMMARY OF THE REMEDIATION GOALS

Goals for the remedial program have been established through the remedy selection process stated in 6NYCRR 375-1.10. These goals are established under the guideline of meeting all standards, criteria, and guidance (SCGs) and protecting human health and the environment.

At a minimum, the remedy selected should eliminate or mitigate all significant threats to public health and to the environment presented by the hazardous waste at the site, through the proper application of scientific and engineering principles.

The goals selected for this site are:

- Reduce, control, or eliminate the contamination present within the soils/waste on site (generation of leachate within the fill mass).
- Eliminate the threat to surface waters by eliminating any future surface leachate outbreaks from the site.
- Eliminate the potential for direct human or animal contact with the contaminated soils on site.
- Prevent, to the extent practicable migration of contaminants in the landfill to groundwater.
- Provide for attainment of SCGs for groundwater quality at the limits of the area of concern (AOC).

SECTION 6: SUMMARY OF THE EVALUATION OF THE ALTERNATIVE

Potential remedial alternatives for the Dewitt landfill site were identified, screened and evaluated in a three-phase Feasibility Study. This evaluation is presented in the report entitled Town of Dewitt Landfill Feasibility Study, January 1994. A summary of the detailed analysis follows.

6.1: Description of Alternative

The potential remedies are intended to address the contaminated soils, sediments, surface water and groundwater at the site. Because of remedial construction activities nearing completion, only one remedial alternative is discussed.

No Further Action Beyond IRM

Landfill Capping, Access Restrictions, Ground Water and Surface Water Monitoring

Present Worth:	$ 3,650,000
Capital Cost:	$ 0
Annual O&M:	$ 222,336 (years 1-5)
	$ 208,356 (years 6-30)
Time to Implement	6 Months

The No Further Action Alternative recognizes the remediation of the site completed under the IRM. It requires continued monitoring to evaluate the effectiveness of the remediation completed under the IRM. Several minor (low-flow) leachate seeps which existed prior to the cap construction are expected to be eliminated or reduced. These seeps were the primary mechanism for contaminant transport to surface water, sediment, and groundwater. With the cap effectively eliminating/reducing the infiltration of precipitation, and thus leachate generation, future leachate generation is expected to be minimal. Due to the nature of the site, with wetland surface water at the same level as the edge of the cap, conventional perimeter leachate collection is not suitable for this site. Such a collection system would have a detrimental effect on the wetland by collecting the wetland surface water as well. If concentrations of landfill constituents in the surface water and groundwater increase after completion of the IRM, and if leachate outbreaks are identified as the likely cause, further remedial measures will be evaluated to address the environmental media being impacted. Operation and maintenance (O&M) activities for the alternative include groundwater and surface water monitoring, maintenance of a SPDES storm water discharge permit, periodic mowing of the cap vegetation, periodic inspection, and repairs to the cap as necessary. An O&M workplan will be developed by the Town which will include the specific criteria the Town will use in evaluating whether the IRM remains effective in the future. O&M activities will also include evaluation and implementation of appropriate remedial measures (subject to NYSDEC approval) to address any future leachate impacts identified. Annual O&M costs are estimated by the Town and may be revised based on the O&M workplan.

6.2 Evaluation of Remedial Alternative

The criteria used to evaluate the potential remedial alternatives are defined in the regulation that directs the remediation of inactive hazardous waste sites in New York State (6NYCRR Part 375). For each of the criteria, a brief description is provided followed by an evaluation of the alternative against that criterion. A detailed discussion of the evaluation criteria and comparative analysis is contained in the Feasibility Study.

The first two evaluation criteria are termed threshold criteria and must be satisfied in order for an alternative to be considered for selection.

1. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether or not a remedy will meet applicable environmental laws, regulations, standards, and guidance.

The No Further Action Alternative will result in compliance with chemical specific SCGs. The IRM will result in a substantial decrease in leachate generation, which will reduce or eliminate chemical impacts on surface water, sediment, and groundwater. The concentrations of landfill constituents in the groundwater and surface water are very limited. Existing groundwater and surface water which has been impacted by leachate constituents should biodegrade/attenuate to reach applicable chemical specific SCGs after the cap has been constructed. This alternative will be in compliance with location specific SCGs for activities in wetlands under Section 404, and storm water discharge under a SPDES permit. It will also be in compliance with NYCRR Part 360 Solid Waste Management Facilities criteria for the construction of the cap.

2. Protection of Human Health and the Environment. This criterion is an overall evaluation of the health and environmental impacts to assess whether an alternative is protective.

The No Further Action alternative eliminates potential for casual human contact with the waste and the potential for future migration of landfill constituents to the surface water, sediments, and groundwater through the installation of a cap. Fencing and deed restrictions will also minimize potential for future human exposure to landfill constituents. If persistent leachate outbreaks are identified after completion of the cap, remedial actions will be evaluated to ensure protection of human health and the environment.

The next five "primary balancing criteria" are used to compare the positive and negative aspects of the remedial strategy.

3. Short-term Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated.

The No Further Action alternative produces no additional concerns for the protection of workers during construction beyond completion of the IRM. Protection of workers during the IRM was accomplished through appropriate monitoring activities and through the use of appropriate protective equipment. Protection of the nearest communities from dusts or other airborne emissions during the IRM was provided through monitoring and suppression methods. Dust and airborne emissions will not be a concern when the IRM is completed, provided a good vegetative cover is maintained.

4. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the alternative after implementation of the response actions. If wastes or treated residuals remain on site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the controls intended to limit the risk, and 3) the reliability of these controls.

The No Further Action alternative will provide for long term effectiveness and permanence. While the waste would remain, capping the landfill eliminates potential for casual human contact and specifically reduces potential for migration of landfill material constituents to the surface water, sediment, and groundwater. Fencing and deed restrictions will limit access to the site and prohibit activities which would disturb the cap. Ground water and surface water monitoring will provide an adequate and reliable means to evaluate the long term effectiveness and permanence of this alternative. The O&M workplan will provide a mechanism for evaluation of long term cap effectiveness, and will provide for additional steps as necessary to address future problems.

5. Reduction of Toxicity, Mobility or Volume. Preference is given to an alternative which permanently and significantly reduces the toxicity, mobility or volume of the wastes at the site.

The No Further Action alternative will reduce the volume and mobility of leachate with the completion of the IRM. Leachate is the primary mechanism for landfill contaminants to impact surrounding surface water, sediment, and groundwater. Natural degradation processes in the bedrock aquifer are expected to continue to reduce the already low concentrations, and hence the toxicity, of landfill constituents.

However, if leachate outbreaks persist, the O&M plan will provide a means to further reduce the volume and mobility of leachate.

6. Implementability. The technical and administrative feasibility of implementing the alternative is evaluated. Technically, this includes the difficulties associated with the construction, the reliability of the technology, and the ability to monitor the effectiveness of the remedy. Administratively, the availability of the necessary personnel and material is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, etc..

The No Further Action alternative requires no additional construction activities. Construction of the IRM cap will be complete by July 1, 1994. The groundwater and surface water monitoring programs and deed restrictions in this alternative are readily implementable. The cap will be reliably maintained without difficulty. If future significant leachate outbreaks are identified, they would be readily addressed through operation and maintenance.

7. Cost. Capital and operation and maintenance costs are estimated for the No Further Action alternative and presented on a present worth basis. The costs for this alternative are presented in Section 7.1.

This final criterion is considered a modifying criterion and is taken into account after evaluating those above. It is focused upon after public comments on the Proposed Remedial Action Plan have been received.

8. Community Acceptance - Concerns of the community regarding the RI/FS reports and the Proposed Remedial Action Plan were evaluated. No major public concerns have been expressed regarding the selection of the site remedy as presented in the Proposed Remedial Action Plan. A "Responsiveness Summary" that describes public comments received and the Department responses is included as appendix B.

SECTION 7: SUMMARY OF THE SELECTED ALTERNATIVE

Based upon the results of the RI/FS, and the evaluation presented in Section 7, the NYSDEC is proposing No Further Action Beyond the IRM as the remedy for this site.

This selection is based upon the review of the site data and evaluation of the alternative and its ability to meet the above discussed criteria.

The No Further Action alternative will result in compliance with SCGs. This alternative will be protective of human health and the environment. Access to the site will be restricted and deed restrictions will minimize activity which may be harmful to the integrity of the cap. This alternative provides for continuous monitoring and evaluation of leachate seeps. This alternative will also provide for evaluation and implementation of future additional steps, such as cap repair or the construction of leachate

collection sumps, if future conditions warrant further action. Prior to the IRM capping, leachate seeps were of minor flow and were usually intermittent. Leachate seeps are expected to be eliminated after the cap has been completed. However, if necessary, additional remedial actions to address any continued leachate impacts will be evaluated and implemented. The No Further Action alternative will provide for short term effectiveness since construction beyond the cap is not necessary at this time. This alternative will provide for long term effectiveness and permanence by the operation and maintenance activities for the cap. Long term groundwater and surface water monitoring will provide an adaquate and reliable means to evaluate effectiveness. The O&M workplan will provide a means to evaluate and implement further necessary steps to be taken if warrented. This alternative will reduce the toxicity, volume, and mobility of landfill leachate from the site. This alternative will be easily implemented.

The estimated present worth cost to implement the remedy is $3,650,000. This amount is the cost for operation and maintenance cost for 30 years. The average annual operation and maintenance cost is $210,686.

SECTION 8: HIGHLIGHTS OF COMMUNITY PARTICIPATION

Document repositories were established at the following locations for public review of project related material:

East Syracuse Public Library
4990 James Street
East Syracuse, NY 13057
(315 437-4841

Dewitt Town Hall
5400 Butternut Drive
Dewitt NY
(315) 446-3768

NYSDEC
Mr. Charles Branagh
615 Erie Boulevard West
Syracuse, NY
(315) 426-7400

NYSDEC
Jeffrey A. Konsella - Project Manager
50 Wolf Road
Albany NY 12233-7010
(518) 457-5636

The following citizen participation activities were conducted:

- Fact Sheet - April 1992: Descibed RI field activities to be performed and identified document repositories.
- Public Meeting - August 11, 1992: Presented the IRM Cap design, as well as RI/FS process.
- Fact Sheet - January 1994: Announced availability of PRAP, and public comment period.
- Public Meeting- February 1, 1994: Presented results of the RI/FS and presented the PRAP for public comment.

Written Questions received:

Q: What is the odor emanating from the landfill which is noticeable when one is on the canal tow-path?

A: The odors detected are those from landfill material decomposition. The decomposition gases are typically hydrogen sulfide, methane, and carbon dioxide. The odor you noticed was most likely hydrogen sulfide, which one is able to notice even in very low concentrations. Hydrogen sulfide typically comprises less than 1% of landfill gas.

Q: What are the chemical composition and quantity of the landfill gases, and what are the long and short term effects of the gases on human health?

A: During RI fieldwork, ambient air samples were taken downwind of the landfill. These samples indicated trace compounds of some volatile organics, but all detections were several orders of magnitude below OSHA standards. The majority of landfill gas is typically methane and carbon dioxide, products of waste decomposition.

The Operation and Maintenance workplan currently being developed will require analysis of the gases being vented from the landfill. Sampling of the gas will occur at the individual vent locations, as well as at the perimeter of the landfill. If the results of this sampling indicates the need for treatment of the gas, individual vent risers can equipped (with carbon filtration) to eliminate any potential harmful gas.

An estimate has not been performed to determine the quantity of gas that will be released from the landfill. A general estimate for methane gas production within a landfill is 125 ft^3 per yd^3 of refuse per year. It is generally held that the majority of gas production occurs 5+ years after waste deposition ends. Landfill gas production generally peaks around 10-12 years after waste deposition ends.

Q: If landfill gases are combustible, what is the feasibility of collecting and burning the gas for some purpose such as power generation?

A: Landfill gases typically contain methane, which is a combustible gas. However, use of gases for electricity generation are subject to cost effectiveness considerations. Discussion of possible gas usage was raised to the Town, and the Town chose not to pursue such usage.

Q: The Remedial Action Plan should Include sampling and chemical analysis of the landfill gases, with regular updates available to the public.

A: The Proposed Remedial Action Plan includes the development of an Operation and Maintenance workplan, which will address sampling of the landfill gas. Results of the sampling will be available through the Town of Dewitt.

Dewitt Landfill Administrative Record

RI/FS

RI/FS Scoping Document, O'Brien & Gere Engineers, May 1991
RI/FS Work Plan, O'Brien & Gere Engineers, June 1991
Preliminary Hydrogeologic Evaluation, September 1992
Final RI Report, November 1993
Final FS Report, December 1993

Earlier Investigations

Town of Dewitt Sanitary Landfill Engineering Plan, O'Brien & Gere Engineers, November 1972
Plan of Closure, O'Brien & Gere Engineers, 1984
Phase II Investigation Workplan, O'Brien & Gere Engineers, 1986
Phase II Investigation Report, O'Brien & Gere Engineers, 1987

Interim Remedial Program

1991 Interim Remedial Program (IRP) Engineering Report, O'Brien & Gere Engineers, October 1991
1991 IRP Health & Safety Plan, O'Brien & Gere Engineers, March 1992
1991 IRP Quality Assurance/Quality Control Plan, O'Brien & Gere Engineers, March 1992
Interim Closure Contract Documents, O'Brien & Gere Engineers, 1992
Interim Closure Contract Drawings, O'Brien & Gere Engineers, 1992

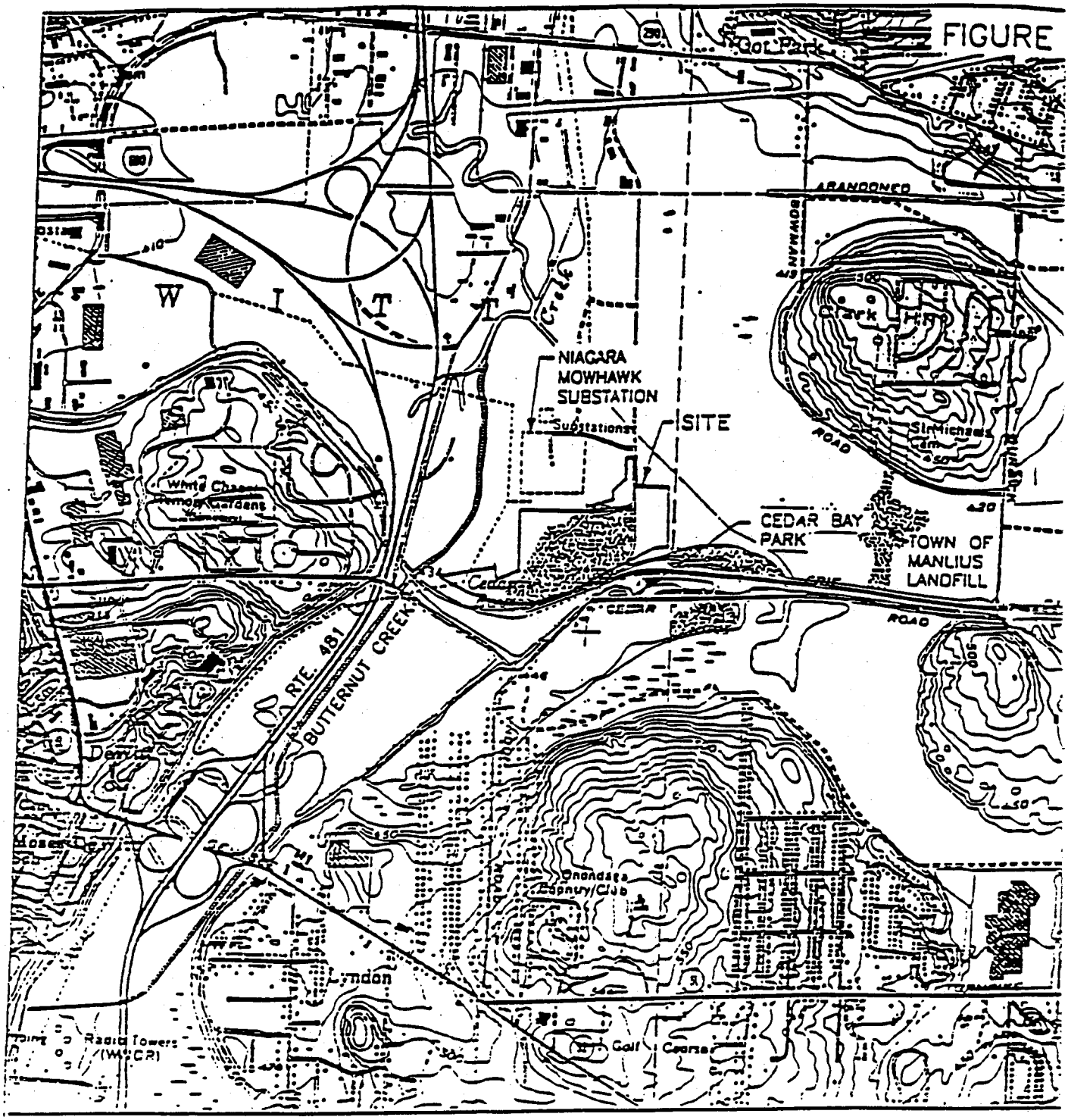
Legal Documents

Order On Consent, Index # R7-420-89-07
State Assistance Contract - 1986 Environmental Quality Bond Act Title 3 Inactive Hazardous Waste Disposal Sites Remediation Program

Other

Town of Dewitt Project Management Plan, Revised January 1993
Citizen Participation Plan, Appendix C of RI/FS Workplan, O'Brien & Gere Engineers, June 1991
Public Hearing Transcript from PRAP meeting of February 1, 1994

FIGURE



TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

SITE LOCATION MAP

0 2000 4000

SCALE IN FEET

ADAPTED FROM U.S.G.S. SYRACUSE EAST N.Y. QUADRANGLE

O'BRIEN & G

TABLE 1

Chemicals Detected in Ground Water Samples
Town of Dewitt Landfill
Dewitt, New York

Compound	Background/Off-Site		On-Site/Impacted	
	Frequency of Detection	Detected Concentration Range (µg/kg)	Frequency of Detection	Detected Concentrati Range (µg/kg)
1,2,3-Trichlorobenzene	0/6		1/29	1 -
1,2-Dichloroethene	0/6		1/29	19 -
1,2-Dichloroethene (total)	0/6		2/29	1.2 -
Aluminum	6/6	13,300 - 104,000	27/29	571 - 96,8(
Antimony	5/6	36.6 - 354	15/29	48.5 - 6
Arsenic	0/6		15/29	6.1 - 31.
Barium	6/6	362 - 4,100	29/29	14.6 - 2,12
Beryllium	2/6	3.5 - 4.7	4/29	1.3 - 7.
Calcium	6/6	266,000 - 1,830,000	29/29	224,000 - 6,700,00
Chloroform	0/6		1/29	0.7 - 0.
Chromium	6/6	44.4 - 547	18/29	15.1 - 75
Cobalt	6/6	8.8 - 111	14/29	12 - 89.
Copper	6/6	67.7 - 333	19/29	7 - 42
Iron	6/6	29,600 - 196,000	29/29	624 - 171,00(
Lead	3/6	16.3 - 56	20/29	5.8 - 87.
Magnesium	6/6	76,000 - 1,090,000	29/29	36,100 - 1,370,00(
Manganese	6/6	672 - 5,940	29/29	50.6 - 5,55(
Mercury	2/6	0.24 - 0.76	2/29	0.26 - 0.5
Methylene chloride	0/6		1/29	4 -
Naphthalene	0/6		1/29	14 - 1
Nickel	5/6	47.2 - 335	19/29	27.8 - 5,71(
Potassium	6/6	5,360 - 17,400	28/29	2,780 - 1,520,00(
Sodium	6/6	54,000 - 214,000	29/29	23,700 - 51,400,00(
Trichloroethene	0/6		4/29	0.6 - 1
Vanadium	6/6	28.9 - 162	17/29	17.1 - 2
Vinyl chloride	0/6		2/29	1.0 - 1.
Zinc	6/6	133 - 657	19/29	32.9 - 55(

DYW:emb/DEW566.33

TABLE 2

Chemicals Detected in Surface Water Samples
Town of Dewitt Landfill
Dewitt, New York

Compound	Background/Off-Site		On-Site/Impacted	
	Frequency of Detection	Detected Concentration Range (µg/kg)	Frequency of Detection	Detected Concentration Range (µg/kg)
1,1-Dichloroethane	0/7		2/16	0.5 - 1.6
1,2-Dichloroethene (total)	0/7		3/16	0.7 - 2.7
Aluminum	5/7	333 - 610	12/16	128 - 17,420
Antimony	3/7	42.6 - 60.6	5/16	53.2 - 244
Barium	7/7	45.2 - 98.2	16/16	46.3 - 694
Benzene	0/7		2/16	1.0 - 1.4
Cadmium	1/7	7.5 - 7.5	0/16	0
Calcium	7/7	95,000 - 248,000	16/16	80,300 - 251,000
Carbon disulfide	0/7		1/16	2.0 - 2.0
Chlorobenzene	0/7		2/16	0.7 - 0.8
Chloroethane	0/7		2/16	3.1 - 28
Chromium	0/7		1/16	161 - 161
Copper	1/7	13.8 - 13.8	1/16	7.4 - 7.4
Diethylphthalate	0/7	172 - 795	1/16	5.0 - 5.0
Ethylbenzene	0/7		1/16	3.0 - 3.0
Iron	7/7	172 - 795	16/16	154 - 177,000
Lead	5/7	2.6 - 3.3	7/16	2.4 - 10.8
Magnesium	7/7	22,100 - 43,600	16/16	16,100 - 44,400
Manganese	6/7	26.5 - 50.9	16/16	10.7 - 1,910
Mercury	1/7	0.87 - 0.87	1/16	0.28 - 0.28
Potassium	7/7	1,500 - 3,520	12/16	2,290 - 7,480
Sodium	7/7	19,400 - 242,000	16/16	18,700 - 143,000
Vinyl chloride	0/7		1/16	1.6 - 1.6
Xylenes (total)	0/7		3/16	0.7 - 13.0
Zinc	6/7	15.3 - 44.0	16/16	5.3 - 68.5

DYW:cmb/DEW566.34

TABLE 3

Chemicals Detected in Sediment Samples
Town of Dewitt Landfill
Dewitt, New York

Compound	Background/Off-Site		On-Site/Impacted	
	Frequency of Detection	Detected Concentration Range (µg/kg)	Frequency of Detection	Detected Concentration Range (µg/kg)
4,4'-DDD	0/6		1/13	32 - 32
4,4'-DDT	0/6		1/13	19 - 19
Acenapthene	0/6		3/13	50 - 86
Acenapthylene	1/6	76 - 76	1/13	210 - 210
Aluminum	4/6	7,480 - 12,600	10/13	2,190 - 15,800
Anthracene	1/6	120 - 120	4/13	56 - 360
Antimony	0/6		2/13	22.7 - 22.7
Arsenic	4/6	2.9 - 6.9	10/13	1.6 - 8.5
Barium	4/6	33.0 - 729	10/13	21.6 - 211
Benzo(a)anthracene	4/6	190 - 550	9/13	120 - 1,200
Benzo(a)pyrene	1/6	510 - 510	3/13	680 - 2,500
Benzo(b)fluoranthene	4/6	330 - 600	4/13	120 - 2,200
Benzo(g,h,i)perylene	1/6	360 - 360	1/13	1,600 - 1,600
Benzo(k)fluoranthene	4/6	250 - 480	4/13	110 - 1,600
Calcium	4/6	64,300 - 96,100	10/13	27,600 - 145,000
Carbazole	0/6		1/13	52 - 52
Carbon disulfide	1/6	40 - 40	3/13	6.0 - 45
Chromium	4/6	14.1 - 15.3	10/13	2.7 - 34.7
Chrysene	5/6	95 - 560	10/13	140 - 1,900
Cobalt	4/6	5.7 - 9.1	6/13	7.8 - 13.5
Copper	4/6	12.5 - 13.2	10/13	2.4 - 40.7
Di-n-butylphthalate	0/6		1/13	190 - 190
Di-n-octylphthalate	0/6		1/13	41 - 41
Dibenzofuran	0/6		1/13	43 - 43
Fluoranthene	6/6	170 - 1,200	13/13	64 - 3,400
Indeno(1,2,3-cd)pyrene	1/6	410 - 410	2/13	630 - 1,800
Iron	4/6	12,300 - 20,400	10/13	4,950 - 26,600
Lead	4/6	10.3 - 55.6	10/13	7.4 - 247
Magnesium	4/6	20,100 - 34,600	10/13	4,660 - 53,600
Manganese	4/6	217 - 252	10/13	132 - 388
Mercury	2/6	0.2 - 0.2	2/13	0.55 - 0.55
Methylene chloride	0/6		2/13	6.0 - 10
Nickel	4/6	18 - 32.2	8/13	14.1 - 37.5
Phenanthrene	5/6	70 - 490	9/13	140 - 1,100
Phenol	0/6		1/13	88 - 88
Potassium	4/6	1,660 - 2,090	10/13	516 - 3,230
Pyrene	6/6	120 - 700	12/13	42 - 2,500
Sodium	2/6	336 - 336	4/13	272 - 551
Vanadium	4/6	15 - 19.2	10/13	5.5 - 38.1
Zinc	4/6	61.2 - 74.4	10/13	15.4 - 155
bis(2-Ethylhexyl)phthalate	0/6		2/13	250 - 630

DYW:cmb/DEW566.32

Chemicals Detected in Surface Soil Samples
Town of Dewitt Landfill
Dewitt, New York

Compound	Background/Off-Site		On-Site/Impacted	
	Frequency of Detection	Detected Concentration Range (µg/kg)	Frequency of Detection	Detected Concentration Range (µg/kg)
1,2,4-Trichlorobenzene	0/1		1/19	290
1,4-Dichlorobenzene	0/1		1/19	160
2,4-Dimethylphenol	0/1		1/19	1,300
2,4-Dinitrotoluene	0/1		1/19	320
2-Chlorophenol	0/1		1/19	400
2-Methylnaphthalene	0/1		3/19	17 - 800
4-Chloro-3-methylphenol	0/1		1/19	520
4-Methylphenol	0/1		4/19	29 - 150
4-Nitrophenol	0/1		1/19	600
Acenapthene	0/1		1/19	24 - 1,300
Acenapthylene	0/1		1/19	200
Aluminum	1/1	20,600	19/19	3,690 - 23,300
Anthracene	1/1	9	8/19	14 - 1,700
Antimony	0/1		18/19	9.9 - 103
Arsenic	1/1	8.2	18/19	2.3 - 45.9
Barium	1/1	222	19/19	17 - 1,130
Benzo(a)anthracene	1/1	55	9/19	58 - 3,700
Benzo(a)pyrene	0/1		2/19	230 - 970
Benzo(b)fluoranthene	1/1	57	7/19	60 - 2,500
Benzo(g,h,i)perylene	0/1		1/19	130
Benzo(k)fluoranthene	1/1	57	7/19	54 - 2,400
Benzoic acid	1/1	240	0/19	
Beryllium	1/1	1.1	9/19	0.38 - 2.0
Calcium	1/1	26,200	19/19	9,990 - 153,000
Carbazole	0/1		3/19	96 - 740
Carbon disulfide	0/1		1/19	11
Chromium	1/1	24.8	19/19	10.6 - 31.3
Chrysene	1/1	75	9/19	64 - 4,100
Cobalt	1/1	11.1	19/19	2.4 - 34.8
Copper	1/1	22.8	19/19	5.7 - 42.6
Di-n-butylphthalate	1/1	270	19/19	66 - 3,400
Dibenzofuran	0/1		4/19	32 - 1,400
Fluoranthene	1/1	111	17/19	36 - 6,100
Fluorene	0/1		2/19	150 - 1,300
Indeno(1,2,3-cd)pyrene	0/1		1/19	160
Iron	1/1	27,000	19/19	8,010 - 55,600
Lead	1/1	278	19/19	9.6 - 45.8
Magnesium	1/1	7,410	19/19	4,400 - 54,600
Manganese	1/1	512	19/19	88.8 - 9,080
Mercury	0/1		8/19	0.13 - 0.45
N-Nitrosodiphenylamine	0/1		1/19	420
Naphthalene	0/1		3/19	27 - 2,300
Nickel	1/1		19/19	8.5 - 48.1
Pentachlorophenol	0/1		1/19	880
Phenanthrene	1/1	66	18/19	33 - 10,000
Phenol	0/1		1/19	420
Potassium	1/1	3,550	19/19	605 - 6,780
Pyrene	1/1	91	17/19	23 - 3,900
Sodium	1/1	280	6/19	124 - 981
Vanadium	1/1	32	14/19	14.5 - 39.7
Zinc	1/1	112	19/19	18 - 566
bis(2-Ethylhexyl)phthalate	0/1		15/19	82 - 2,900

APPENDIX H

GROUND WATER SAMPLING FIELD LOG

APPENDIX H

GROUND WATER SAMPLING FIELD LOG

Sample Location _____ Well No._____

Sampled By _____ Date_____ Time_____

Weather _____ Sampled with Bailer _____ Pump _____

A. WATER TABLE:

Well depth:
(below top of casing)_____ft.

Well elevation:
(top of casing)_____ft.

Depth to water table:
(below top of casing) _____ft.

Water table elevation: _____ft.

Length of water column (LWC) _____ft.

Volume of water in well:

2" diameter wells = 0.163 x (LWC) = _____ gallons
4" diameter wells = 0.653 x (LWC) = _____ gallons
6" diameter wells = 1.469 x (LWC) = _____ gallons

B. PHYSICAL APPEARANCE:

Color _____ Odor_____Turbidity_____

Was an oil film or layer apparent? _____

C. PREPARATION OF WELL FOR SAMPLING:

Amount of water removed before sampling _____ gallons.

Did well go dry? _____

D. PHYSICAL APPEARANCE DURING SAMPLING:

Color _____ Odor _____Turbidity_____

Was an oil film or layer apparent? _____

E. CONDUCTIVITY _____

F. pH _____

G. TEMPERATURE _____

GROUND WATER SAMPLING FIELD LOG

H. WELL SAMPLING NOTES:

surface2.jmm

APPENDIX I

SURFACE WATER SAMPLING FIELD LOG

APPENDIX I

SURFACE WATER SAMPLING FIELD LOG

Sample Location _____

Sampled By _____ Date _____ Time _____

Weather _____

A. PHYSICAL APPEARANCE:

Color _____ Odor _____ Turbidity _____

Was an oil film or layer apparent? _____

B. CONDUCTIVITY _____

C. pH _____

D. TEMPERATURE _____

E. DISOLVED OXYGEN _____

F. SAMPLING NOTES:

_____

_____

_____

_____

Town of DeWitt Landfill
Monitoring and Maintenance Operations
Manual

APPENDIX J

INSPECTION CHECKLIST

TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE:

INSPECTOR:

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover			
2. Gas Discharge Vents			
3. Swales, Ditches and Downchutes			
4. Storm Sewer System, including culverts			
5. Fence and Gates			
6. Access Road			
7. Perimeter Service Road			

chart.mjp/st:3m

APPENDIX K

NOTICE OF INTENT FOR STORM WATER DISCHARGES

See Reverse for Instructions

Form Approved. OMB No. 2040-0086
Approval expires: 8-31-95

NPDES FORM

United States Environmental Protection Agency
Washington, DC 20460

Notice of Intent (NOI) for Storm Water Discharges Associated with Industrial Activity Under the NPDES General Permit

Submission of this Notice of Intent constitutes notice that the party identified in Section I of this form intends to be authorized by a NPDES permit issued for storm water discharges associated with industrial activity in the State identified in Section II of this form. Becoming a permittee obligates such discharger to comply with the terms and conditions of the permit. ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM.

I. Facility Operator Information

Name: TOWN OF DEWITT Phone: 3154463826

Address: 5400 BUTTERNUT DRIVE Status of Owner/Operator: M

City: DEWITT State: NY ZIP Code: 13214-0159

II. Facility/Site Location Information

Name: TOWN OF DEWITT LANDFILL Is the Facility Located on Indian Lands? (Y or N) N

Address: FISHER ROAD

City: DEWITT State: NY ZIP Code: 13214-0159

Latitude: 430233 Longitude: 0760246 Quarter: Section: Township: Range:

III. Site Activity Information

MS4 Operator Name:

Receiving Water Body: UNNAMED WETLAND

If You are Filing as a Co-permittee, Enter Storm Water General Permit Number:

Are There Existing Quantitative Data? (Y or N) Y

Is the Facility Required to Submit Monitoring Data? (1, 2, or 3) 1

SIC or Designated Activity Code: Primary: LF 2nd: 3rd: 4th:

If This Facility is a Member of a Group Application, Enter Group Application Number:

If You Have Other Existing NPDES Permits, Enter Permit Numbers:

IV. Additional Information Required for Construction Activities Only

Project Start Date:

Completion Date:

Estimated Area to be Disturbed (in Acres):

Is the Storm Water Pollution Prevention Plan in Compliance with State and/or Local Sediment and Erosion Plans? (Y or N)

V. 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.

Print Name: JAMES D FISHER SUPERVISOR Date: 1/1/94

Signature: James E. Fisher

APPENDIX L

HISTORICAL GROUND WATER ANALYTICAL DATA

associated with the landfill. A summary of the pesticides/PCBs analyses is included in Table 18.

Inorganic Analyses

Sample SED-4, collected in the vicinity of the seep at the southwest corner of the landfill, contained concentrations of antimony, arsenic, barium, iron, manganese, mercury, nickel, and sodium above site backgrounds which suggests that the landfill leachate is contributing these constituents to the wetlands in this area.

Magnesium, manganese, sodium, and zinc were detected in SED-3 at concentrations above site background concentrations. However, these compounds are found at similar concentrations at other locations within the canal, and therefore they are not considered to represent site constituents. Above background concentrations of magnesium and manganese were also detected in SED-8 and SED-16. A summary of the sediment inorganics analyses is included in Table 19.

4.08 Ground Water Analyses

Samples from the December ground water sampling event were analyzed for TCL/TAL parameters in accordance with the 1989 NYS ASP. Both total and dissolved TCL metals analyses were completed. Due to insufficient water MW-9D was only analyzed for TCL volatile organics. In agreement with the NYSDEC April ground water samples were analyzed for total and dissolved TCL metals and for volatile organics using NYS Drinking Water Method 524.2. Mw-9D was only analyzed for volatile organics and total TCL metals. The analyses were in accordance with the 1991 NYS ASP.

Volatile Organic Compound (VOC) Analyses

Results from the two sampling events indicated that downgradient shallow well MW-4S contained vinyl chloride (1.1 ppb) during the April sampling and MW-6S contained methylene chloride (4 ppb) during the December sampling. Bedrock monitoring well MW-4D contained total 1,2-dichloroethene (19 ppb and 22 ppb), trichloroethene (12 ppb and 16 ppb), 1,2,3-trichlorobenzene (1 ppb), and naphthalene (14 ppb). During the April 1992 sampling event, downgradient monitoring well MW-5D contained total 1,2-dichloroethene (1.2 ppb), trichloroethene (1.2 ppb), and vinyl chloride (1 ppb).

The 1,2-dichloroethene and trichloroethene concentrations detected in MW-4D are above the New York State Class GA standard of 5 ppb for these compounds. A summary of the ground water VOC analyses is included in Table 20.

Semivolatile Analyses

Semivolatile compounds were not detected in the monitoring wells above the CRDLs during the December 1991 sampling event. Additional analyses were not completed during the April 1992 sampling event as per the agreement with NYSDEC. A summary of the semivolatile analyses is included in Table 21.

Pesticide/PCBs Analyses

Pesticides and PCBs were not detected in the monitoring wells above the CRDLs during the December 1991 sampling event. Additional analyses were not completed during the April 1992 sampling event as per the agreement with NYSDEC. A summary of the pesticide and PCBs analyses is included in Table 22.

Inorganic Analyses

A summary of the results of the inorganic analyses is presented in Table 23.

Barium (total) was detected above the NYS Class GA standard of 1,000 ppb in upgradient wells MW-1S (1150 ppb), MW-7S (2050 ppb), and MW-11D (2520 ppb and 4100 ppb) and downgradient well MW-10S (1170 ppb and 2120 ppb). All the corresponding filtered samples were below the NYS Class GA standard. These data indicated higher barium concentrations in the ground water upgradient of the landfill. Barium is a naturally occurring element.

Chromium (total) was detected above the NYS Class GA standard of 50 ppb in the unfiltered samples from 10 of the monitoring wells. Total chromium was detected in upgradient wells MW-1S, MW-7S, and MW-11D at concentrations up to 547 ppb. The only downgradient well which contained total chromium above 547 ppb was MW-9D with a concentration of 758 ppb. The corresponding dissolved chromium concentrations were below the detection limits in all cases.

Iron (total) was detected above the NYS Class GA standard of 300 ppb in all monitoring wells. Upgradient wells MW-1S, MW-7S, and MW-11D contained total iron at concentrations up to 196,000 ppb. Total iron concentrations in the downgradient wells were lower and ranged from 624 ppb to 171,000 ppb. These data indicate higher iron concentrations in the ground water upgradient of the landfill. The corresponding dissolved iron concentrations were considerably lower than the total iron, but were higher than the Class GA standard in most cases.

Lead (total) was detected above the Class GA standard of 25 ppb in upgradient well MW-1S at a concentrations of 56 ppb. Downgradient wells which contained total lead above background were MW-2S (66 ppb), MW-9D (67 ppb), and MW-12S (82.4 ppb and 87.3 ppb). The dissolved lead concentrations were below the Class GA standard in all cases.

Magnesium (total) was detected above the NYS Class GA standard of 35,000 ppb in all monitoring wells. Magnesium was detected in upgradient well MW-11D at a concentration of 1,090,000 ppb. Total magnesium concentrations in the downgradient wells were lower and ranged from 36,100 ppb to 391,000 ppb, with the exception of MW-9D which contained 1,370,000 ppb total magnesium. The corresponding dissolved magnesium concentrations were considerably lower than the total magnesium, but were higher than the Class GA standard in most cases.

Manganese (total) was detected above the NYS Class GA standard of 300 ppb in most of the monitoring wells. Manganese was detected in the upgradient wells at concentrations up to 5,940 ppb. Total manganese concentrations in the downgradient wells were lower in all cases. The corresponding dissolved manganese concentrations were below the Class GA standards with the exception of MW-12S, which has a concentration of 821 ppb and 801 ppb.

Total and dissolved sodium was detected in ground water above the NYS Class GA standard of 20,000 ppb in all monitoring wells. Total sodium was detected in the upgradient wells at concentrations up to 214,000 ppb in MW-7S. Sodium concentrations were lower in monitoring wells downgradient from the landfill, with the exception of MW-9D which contained 51,400,000 ppb of total sodium. The sodium levels for the shallow wells at this

location, MW-9S and MW-9M, are significantly lower. Therefore, the sodium levels are likely associated with the bedrock and not the landfill.

Zinc (total) was detected above the NYS Class GA standard of 300 ppb in nine monitoring wells. Highest zinc concentrations were detected in the upgradient wells, with the highest concentration in MW-1S (867 ppb). Dissolved zinc concentrations were all below the NYS Class GA standard, and in most cases were below the detection limit.

To summarize ground water metals analyses, the analyses for total barium, chromium, iron, lead, magnesium, manganese, sodium and zinc indicated concentrations in some wells which were above NYS Class GA standards. In all cases except total lead the highest concentrations were found in upgradient wells. A comparison of the filtered and unfiltered samples found the corresponding filtered samples were either below detection limits or below the standards in all cases except for sodium, iron and magnesium. The silt content of the unfiltered samples was probably responsible for most of the higher concentrations detected in those samples.

TABLE 20
GROUND WATER VOLATILE ORGANIC COMPOUND ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

CLIENT ID	MW-1S	MW-1S	MW-2S	MW-2S	MW-2D	MW-2D	MW-3S	MW-3S	MW-4S	MW-4S	MW-4D	MW-4D	MW-5S	MW-5S
COMPOUND Date Collected	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92
Acetone	19.0 UJ	NA	10.0 UJ	NA	17.0 UJ	NA	10.0 UJ	NA	10.0 UJ	NA	10.0 UJ	NA	10.0 UJ	NA
Benzene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Bromobenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Bromochloromethane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Bromodichloromethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Bromoform	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Bromomethane	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U
2-Butanone	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 UJ	NA	10.0 UJ	NA	10.0 UJ	NA
sec-Butylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
tert-Butylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Carbon disulfide	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA
Carbon Tetrachloride	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Chlorobenzene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Chloroethane	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 UJ	10.0 U	0.5 UJ	10.0 U	0.5 UJ	10.0 U	0.5 UJ
Chloroform	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Chloromethane	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 UJ	10.0 U	0.5 UJ	10.0 U	0.5 UJ	10.0 U	0.5 UJ
2-Chlorotoluene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
4-Chlorotoluene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Dibromochloromethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
1,2-Dibromo-3-chloropropane	NA	0.5 R	NA	0.5 R	NA	0.5 R	NA	0.5 R	NA	0.5 U	NA	0.5 R	NA	0.5 U
1,2-Dibromoethane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Dibromomethane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U

NOTES:
All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
NA – Not analyzed
BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91
BLDUP-GW: Blind duplicate sample of MW-8S collected 4/21/92.
TBLK2: Trip blank shipped with samples collected 12/16/91 and 12/17/91
TBLK3: Trip blank shipped with samples collected 12/17/91 (MW-9D only) and 12/18/91
EQBLK3: Equipment blank sample collected 12/18/91

DRT:cmb/DEW566.20

TABLE 20
GROUND WATER VOLATILE ORGANIC COMPOUND ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

CLIENT ID	MW-1S	MW-1S	MW-2S	MW-2S	MW-2D	MW-2D	MW-3S	MW-3S	MW-4S	MW-4S	MW-4D	MW-4D	MW-5S	MW-5S
COMPOUND Date Collected	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92
1,2-Dichlorobenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,3-Dichlorobenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,4-Dichlorobenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Dichlorodifluoromethane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 UJ	NA	0.5 UJ	NA	0.5 UJ	NA	0.5 R
1,1-Dichloroethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
4-Methyl-2-pentanone	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA
Methyl-tert-butylether	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Isopropyl ether	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,3,5-Trimethylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,2,4-Trimethylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
n-Butylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,2-Dichloroethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
1,1-Dichloroethene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
1,2-Dichloroethene (total)	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	19.0	22.0	5.0 U	0.5 U
1,2-Dichloropropane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
1,3-Dichloropropane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
2,2-Dichloropropane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,1-Dichloropropene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Ethylbenzene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Hexachlorobutadiene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
2-Hexanone	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA
Isopropylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U

NOTES:
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J – Estimated value
R – Rejected by data validator
NA – Not analyzed
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DRT:cmb/DEW566.20

TABLE 20
GROUND WATER VOLATILE ORGANIC COMPOUND ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

CLIENT ID	MW-1S	MW-1S	MW-2S	MW-2S	MW-2D	MW-2D	MW-3S	MW-3S	MW-4S	MW-4S	MW-4D	MW-4D	MW-5S	MW-5S
COMPOUND Date Collected	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92
Methylene chloride	19.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	1.7 U	5.0 U	0.5 U	5.0 U	0.5 U
n-Propylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Styrene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
1,1,1,2-Tetrachloroethane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,1,2,2-Tetrachloroethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Tetrachloroethene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Toluene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Total Xylenes	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
1,1,1-Trichloroethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
1,1,2-Trichloroethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Trichloroethene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	12.0	16.0	5.0 U	0.5 U
Trichlorofluoromethane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,2,3-Trichloropropane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Vinyl chloride	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 UJ	10.0 U	1.1 J	10.0 U	0.5 UJ	10.0 U	0.5 UJ
p-Isopropyltoluene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,2,4-Trichlorobenzene	NA	0.5 U	NA	0.5 UJ	NA	0.5 UJ	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,2,3-Trichlorobenzene	NA	0.5 UJ	NA	0.5 UJ	NA	0.5 UJ	NA	0.5 U	NA	0.5 U	NA	1.0 J	NA	0.5 U
cis-1,3-Dichloropropylene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
trans-1,3-Dichloropropylene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Naphthalane	NA	0.5 UJ	NA	0.5 UJ	NA	0.5 UJ	NA	0.5 U	NA	0.5 U	NA	14.0 J	NA	0.5 U
Vinyl acetate	10.0 UJ		10.0 UJ		10.0 UJ	NA	10.0 UJ	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA

NOTES:
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DRT:cmb/DEW566.20

TABLE 20
GROUND WATER VOLATILE ORGANIC COMPOUND ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

CLIENT ID	MW-5D	MW-5D	MW-6S	MW-6S	MW-7S	MW-7S	MW-8S	MW-8S	W-8D	MW-8D	MW-9S	MW-9S	MW-9M	MW-9M
COMPOUND Date Collected	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92
Acetone	10.0 UJ	NA	12.0 UJ	NA	22.0 UJ	NA	10.0 UJ	NA	10.0 UJ	NA	10.0 UJ	NA	10.0 UJ	NA
Benzene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Bromobenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Bromochloromethane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Bromodichloromethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Bromoform	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Bromomethane	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U
2-Butanone	10.0 UJ	NA	10.0 U	NA	10.0 U	NA	10.0 UJ	NA	10.0 UJ	NA	10.0 U	NA	10.0 U	NA
sec-Butylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
tert-Butylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Carbon disulfide	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA
Carbon Tetrachloride	5.0 U	0.5 U	5.0 UJ	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Chlorobenzene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Chloroethane	10.0 U	0.5 UJ	10.0 U	0.5 UJ	10.0 U	0.5 U	10.0 U	0.5 UJ	10.0 U	0.5 UJ	10.0 U	0.5 U	10.0 U	0.5 U
Chloroform	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Chloromethane	10.0 U	0.5 UJ	10.0 U	0.5 UJ	10.0 U	0.5 U	10.0 U	0.5 UJ	10.0 U	0.5 UJ	10.0 U	0.5 U	10.0 U	0.5 U
2-Chlorotoluene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
4-Chlorotoluene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Dibromochloromethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
1,2-Dibromo-3-chloropropane	NA	0.5 U	NA	0.5 U	NA	0.5 R	NA	0.5 R	NA	0.5 R	NA	0.5 R	NA	0.5 R
1,2-Dibromoethane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Dibromomethane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U

NOTES:
All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
NA – Not analyzed
BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91
BLDUP-GW: Blind duplicate sample of MW-8S collected 4/21/92.
TBLK2: Trip blank shipped with samples collected 12/16/91 and 12/17/91
TBLK3: Trip blank shipped with samples collected 12/17/91 (MW-9D only) and 12/18/91
EQBLK3: Equipment blank sample collected 12/18/91

DRT:cmb/DEW566.20

TABLE 20
GROUND WATER VOLATILE ORGANIC COMPOUND ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

CLIENT ID	MW-5D	MW-5D	MW-6S	MW-6S	MW-7S	MW-7S	MW-8S	MW-8S	W-8D	MW-8D	MW-9S	MW-9S	MW-9M	MW-9M
COMPOUND Date Collected	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92
1,2-Dichlorobenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,3-Dichlorobenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,4-Dichlorobenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Dichlorodifluoromethane	NA	0.5 R	NA	0.5 R	NA	0.5 U	NA	0.5 UJ	NA	0.5 UJ	NA	0.5 U	NA	0.5 U
1,1-Dichloroethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
4-Methyl-2-pentanone	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA
Methyl-tert-butylether	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Isopropyl ether	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,3,5-Trimethylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,2,4-Trimethylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
n-Butylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,2-Dichloroethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
1,1-Dichloroethene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
1,2-Dichloroethene (total)	5.0 U	1.2	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
1,2-Dichloropropane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
1,3-Dichloropropane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
2,2-Dichloropropane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,1-Dichloropropene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Ethylbenzene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Hexachlorobutadiene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
2-Hexanone	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA
Isopropylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U

NOTES:
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U – Not detected
J – Estimated value
R – Rejected by data validator
NA – Not analyzed
BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91
BLDUP-GW: Blind duplicate sample of MW-8S collected 4/21/92.
TBLK2: Trip blank shipped with samples collected 12/16/91 and 12/17/91
TBLK3: Trip blank shipped with samples collected 12/17/91 (MW-9D only) and 12/18/91
EQBLK3: Equipment blank sample collected 12/18/91

DRT:cmb/DEW566.20

TABLE 20
GROUND WATER VOLATILE ORGANIC COMPOUND ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

CLIENT ID	MW-5D	MW-5D	MW-6S	MW-6S	MW-7S	MW-7S	MW-8S	MW-8S	W-8D	MW-8D	MW-9S	MW-9S	MW-9M	MW-9M
COMPOUND Date Collected	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92
Methylene chloride	5.0 U	0.5 U	4.0 J	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	1.3 U
n-Propylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
Styrene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
1,1,1,2-Tetrachloroethane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,1,2,2-Tetrachloroethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Tetrachloroethene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Toluene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Total Xylenes	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
1,1,1-Trichloroethane	5.0 U	0.5 U	5.0 UJ	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
1,1,2-Trichloroethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Trichloroethene	5.0 U	1.2	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Trichlorofluoromethane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,2,3-Trichloropropane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 UJ	10.0 U	0.5 U	10.0 U	0.5 U
Vinyl chloride	10.0 U	1.0 J	10.0 U	0.5 UJ	10.0 U	0.5 U	10.0 U	0.5 UJ	10.0 U	0.5 U	NA	0.5 U	NA	0.5 U
p-Isopropyltoluene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U
1,2,4-Trichlorobenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 UJ	NA	0.5 UJ
1,2,3-Trichlorobenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 UJ	NA	0.5 U	NA	0.5 U	NA	0.5 U
cis-1,3-Dichloropropylene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
trans-1,3-Dichloropropylene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U
Naphthalane	NA	0.5 U	NA	0.5 U	NA	0.5 UJ	NA	0.5 U	NA	0.5 U	NA	0.5 UJ	NA	0.5 UJ
Vinyl acetate	10.0 U	NA	10.0 U	NA	10.0 UJ	NA	10.0 U	NA	10.0 U	NA	10.0 UJ	NA	10.0 UJ	NA

NOTES:
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J – Estimated value
R – Rejected by data validator
NA – Not analyzed
BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91
BLDUP-GW: Blind duplicate sample of MW-8S collected 4/21/92.
TBLK2: Trip blank shipped with samples collected 12/16/91 and 12/17/91
TBLK3: Trip blank shipped with samples collected 12/17/91 (MW-9D only) and 12/18/91
EQBLK3: Equipment blank sample collected 12/18/91

TABLE 20
GROUND WATER VOLATILE ORGANIC COMPOUND ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

CLIENT ID	MW-9D	MW-9D	MW-10S	W-10S	MW-11D	MW-11D	MW-12S	MW-12S	BLDUP4	BLDUP	TBLK2	TBLK3	TBLK1	TBLK2	EQBLK
COMPOUND Date Collected	12/91	4/92	12/91	/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	12/91	4/92	4/92	12/91
Acetone	10.0 UJ	NA	19.0 UJ	NA	10.0 UJ	NA	11.0 UJ	NA	10.0 UJ	NA	15.0 UJ	11.0 UJ	NA	NA	13.0 UJ
Benzene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
Bromobenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
Bromochloromethane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
Bromodichloromethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
Bromoform	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
Bromomethane	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	10.0 U	0.5 U	0.5 U	10.0 U
2-Butanone	10.0 UJ	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	10.0 U	NA	NA	10.0 U
sec-Butylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
tert-Butylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
Carbon disulfide	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	NA	5.0 U	5.0 U	NA	NA	5.0 U
Carbon Tetrachloride	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 UJ	0.5 U	0.5 U	5.0 UJ
Chlorobenzene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
Chloroethane	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 UJ	10.0 U	10.0 U	0.5 U	0.5 UJ	10.0 U
Chloroform	5.0 U	0.7	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
Chloromethane	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 UJ	10.0 U	10.0 U	0.5 U	0.5 UJ	10.0 U
2-Chlorotoluene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
4-Chlorotoluene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
Dibromochloromethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
1,2-Dibromo-3-chloropropane	NA	0.5 R	NA	0.5 R	NA	0.5 R	NA	0.5 R	NA	0.5 R	NA	NA	0.5 R	0.5 R	NA
1,2-Dibromoethane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
Dibromomethane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA

NOTES:
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EQBLK3: Equipment blank sample collected 12/18/91

DRT:cmb/DEW566.20

TABLE 20
GROUND WATER VOLATILE ORGANIC COMPOUND ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

CLIENT ID	MW-9D	MW-9D	MW-10S	W-10S	MW-11D	MW-11D	MW-12S	MW-12S	BLDUP4	BLDUP	TBLK2	TBLK3	TBLK1	TBLK2	EQBLK
COMPOUND Date Collected	12/91	4/92	12/91	/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	12/91	4/92	4/92	12/91
1,2-Dichlorobenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
1,3-Dichlorobenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
1,4-Dichlorobenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
Dichlorodifluoromethane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 UJ	NA	NA	0.5 U	0.5 UJ	NA
1,1-Dichloroethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
4-Methyl-2-pentanone	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	10.0 U	NA	NA	10.0 U
Methyl-tert-butylether	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
Isopropyl ether	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
1,3,5-Trimethylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
1,2,4-Trimethylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
n-Butylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
1,2-Dichloroethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
1,1-Dichloroethene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
1,2-Dichloroethene (total)	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
1,2-Dichloropropane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
1,3-Dichloropropane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
2,2-Dichloropropane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
1,1-Dichloropropene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
Ethylbenzene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
Hexachlorobutadiene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
2-Hexanone	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	NA	10.0 U	10.0 U	NA	NA	10.0 U
Isopropylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA

NOTES: All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
NA – Not analyzed
BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91
BLDUP-GW: Blind duplicate sample of MW-8S collected 4/21/92.
TBLK2: Trip blank shipped with samples collected 12/16/91 and 12/17/91
TBLK3: Trip blank shipped with samples collected 12/17/91 (MW-9D only) and 12/18/91
EQBLK3: Equipment blank sample collected 12/18/91

DRT:cmb/DEW566.20

TABLE 20
GROUND WATER VOLATILE ORGANIC COMPOUND ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

CLIENT ID	MW-9D	MW-9D	MW-10S	W-10S	MW-11D	MW-11D	MW-12S	MW-12S	BLDUP4	BLDUP	TBLK2	TBLK3	TBLK1	TBLK2	EQBLK
COMPOUND Date Collected	12/91	4/92	12/91	/92	12/91	4/92	12/91	4/92	12/91	4/92	12/91	12/91	4/92	4/92	12/91
Methylene chloride	5.0 U	0.7 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	2.6 U	0.5 U	5.0 U
n-Propylbenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
Styrene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
1,1,1,2-Tetrachloroethane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
1,1,2,2-Tetrachloroethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
Tetrachloroethene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
Toluene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
Total Xylenes	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
1,1,1-Trichloroethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 UJ	0.5 U	0.5 U	5.0 UJ
1,1,2-Trichloroethane	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
Trichloroethene	5.0 U	0.5 U	5.0 U	0.6	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
Trichlorofluoromethane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
1,2,3-Trichloropropane	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
Vinyl chloride	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 UJ	10.0 U	10.0 U	0.5 U	0.5 UJ	10.0 U
p-Isopropyltoluene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
1,2,4-Trichlorobenzene	NA	0.5 U	NA	0.5 U	NA	0.5 U	NA	0.5 UJ	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
1,2,3-Trichlorobenzene	NA	0.5 UJ	NA	0.5 UJ	NA	0.5 UJ	NA	0.5 UJ	NA	0.5 U	NA	NA	0.5 U	0.5 U	NA
cis-1,3-Dichloropropylene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
trans-1,3-Dichloropropylene	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U	5.0 U	0.5 U	0.5 U	5.0 U
Naphthalane	NA	0.5 UJ	NA	0.5 UJ	NA	0.5 UJ	NA	0.5 UJ	NA	0.5 U	NA	NA	0.5 UJ	0.5 U	NA
Vinyl acetate	10.0 U	NA	10.0 UJ	NA	10.0 UJ	NA	10.0 UJ	NA	10.0 UJ	NA	10.0 U	10.0 U	NA	NA	10.0 U

NOTES: All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
NA – Not analyzed
BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91
BLDUP-GW: Blind duplicate sample of MW-8S collected 4/21/92.
TBLK2: Trip blank shipped with samples collected 12/16/91 and 12/17/91
TBLK3: Trip blank shipped with samples collected 12/17/91 (MW-9D only) and 12/18/91
EQBLK3: Equipment blank sample collected 12/18/91

DRT:cmb/DEW566.20

TABLE 21
GROUND WATER SEMIVOLATILE ORGANIC COMPOUND ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

CLIENT ID	MW-1	MW-2D	MW-2S	MW-3	MW-4D	MW-4S	MW-5D	MW-5S	MW-6S	MW-7	MW-8D	MW-8S	MW-9M
COMPOUND Date Collected	12/91	12/91	12/91	12/91	12/91	12/91	12/91	12/91	12/91	12/91	12/91	12/91	12/91
Phenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzyl Alcohol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)ether	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	10 UJ	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine	10 UJ	10 U	10 UJ	10 U	10 U	10 U	10 U	10 R	10 U	10 UJ	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U	10 U	10 U	10 U
Benzoic acid	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 R	50 U	50 U	50 U	50 U	50 U
bis(2-Chloroethoxy)methane	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 R	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 R	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl phthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

NOTES: All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91
EQBLK3: Equipment blank sample collected 12/18/91

DRT:cmb/DEW566.13

TABLE 21
GROUND WATER SEMIVOLATILE ORGANIC COMPOUND ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

CLIENT ID	MW-1	MW-2D	MW-2S	MW-3	MW-4D	MW-4S	MW-5D	MW-5S	MW-6S	MW-7	MW-8D	MW-8S	MW-9M
COMPOUND Date Collected	12/91	12/91	12/91	12/91	12/91	12/91	12/91	12/91	12/91	12/91	12/91	12/91	12/91
3-Nitroaniline	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 R	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 R	50 U	50 U	50 U	50 U	50 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dintro-2-methylphenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 R	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 R	50 U	50 U	50 U	50 U	50 U
Phenanthrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	24 U	26 U	41 U	10 U	25 U	22 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	10 U	10 U	10 U	10 U	10 R	10 R	10 R	10 R	10 R	10 U	10 UJ	10 UJ	10 U
3,3'-Dichlorobenzidine	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)anthracene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	10 U	10 U	10 U	10 U	10 R	20 R	38 R	10 R	14 R	10 U	11 U	27 U	10 U
Di-n-octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluroanthene	10 U	10 U	10 U	10 U	10 U*p1598X10	U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

NOTES: All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91
EQBLK3: Equipment blank sample collected 12/18/91

DRT:cmb/DEW566.13

TABLE 21
GROUND WATER SEMIVOLATILE ORGANIC COMPOUND ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

CLIENT ID	MW-9S	MW-10	MW-11D	MW-12S	BLDUP4	EQBLK3
COMPOUND Date Collected	12/91	12/91	12/91	12/91	12/91	12/91
Phenol	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)ether	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Benzyl Alcohol	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroisopropyl)ether	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol	10 U	10 U	10 U	10 UJ	10 U	10 U
N-Nitroso-di-n-propylamine	10 U	10 U	10 U	10 UJ	10 U	10 U
Hexachloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U	10 U	10 U	10 U
Benzoic acid	50 U	50 U	50 U	50 U	50 U	50 U
bis(2-Chloroethoxy)methane	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	50 U	50 U	50 U	50 U	50 U	50 U
2-Chloronaphthalene	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitroaniline	50 U	50 U	50 U	50 U	50 U	50 U
Dimethyl phthalate	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U

NOTES: All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91
EQBLK3: Equipment blank sample collected 12/18/91

DRT:cmb/DEW566.13

TABLE 21
GROUND WATER SEMIVOLATILE ORGANIC COMPOUND ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

CLIENT ID	MW-9S	MW-10	MW-11D	MW-12S	BLDUP4	EQBLK3
COMPOUND Date Collected	12/91	12/91	12/91	12/91	12/91	12/91
3-Nitroaniline	50 U	50 U	50 U	50 U	50 U	50 U
Acenaphthene	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U
Dibenzofuran	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
4-Chlorophenyl-phenylether	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	50 U	50 U	50 U	50 U	50 U	50 U
4,6-Dintro-2-methylphenol	50 U	50 U	50 U	50 U	50 U	50 U
N-Nitrosodiphenylamine	10 U	10 U	10 U	10 U	10 U	10 U
4-Bromophenyl-phenylether	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	50 U	50 U	50 U	50 U	50 U	50 U
Phenanthrene	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	10 U	10 U	10 U	10 U	10 U	12 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	10 U	10 U	10 U	10 U	10 R	2 J
3,3'-Dichlorobenzidine	20 U	20 U	20 U	20 U	20 U	20 U
Benzo(a)anthracene	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	10 U	10 U	10 U	10 U	10 R	14 U
Di-n-octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluroanthene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	10 U	10 U	10 U	10 U	10 U	10 U
Dibenzo(a,h)anthracene	10 U	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	10 U	10 U	10 U	10 U	10 U	10 U

NOTES: All values reported in µg/L.
U - Not detected
J - Estimated value
R - Rejected by data validator
BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91
EQBLK3: Equipment blank sample collected 12/18/91

DRT:cmb/DEW566.13

TABLE 22
GROUND WATER PCB/PESTICIDES ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

CLIENT ID	MW-1	MW-2D	MW-2S	MW-3	MW-4D	MW-4S	MW-5D	MW-5S	MW-6S	MW-7	MW-8D	MW-8S
COMPOUND Date Collected	12/91	12/91	12/91	12/91	12/91	12/91	12/91	12/91	12/91	12/91	12/91	12/91
alpha-BHC	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
beta-BHC	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
delta-BHC	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
gamma-BHC	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Heptachlor	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Aldrin	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Heptachlor epoxide	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Endosulfan I	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Dieldrin	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4,4'-DDE	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Endrin	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Endosulfan II	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4,4'-DDD	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Endosulfan sulfate	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4,4'-DDT	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Methoxychlor	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Endrin ketone	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
alpha-Chlordane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
gamma-Chlordane	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Toxaphene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor-1016	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1221	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1232	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1242	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1248	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1254	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor-1260	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

NOTES: All units reported in µg/L.
U - Not detected
BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91
EQBLK3: Equipment blank sample collected 12/18/91

DRT:cmb/DEW566.12

TABLE 22
GROUND WATER PCB/PESTICIDES ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

COMPOUND	CLIENT ID / Date Collected	MW-9M 12/91	MW-9S 12/91	MW-10S 12/91	MW-11D 12/91	MW-12S 12/91	BLDUP4 12/91	EQBLK3 12/91
alpha-BHC		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
beta-BHC		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
delta-BHC		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
gamma-BHC		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Heptachlor		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Aldrin		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Heptachlor epoxide		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Endosulfan I		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Dieldrin		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4,4'-DDE		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Endrin		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Endosulfan II		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4,4'-DDD		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Endosulfan sulfate		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4,4'-DDT		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Methoxychlor		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Endrin ketone		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
alpha-Chlordane		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
gamma-Chlordane		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Toxaphene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor-1016		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1221		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1232		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1242		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1248		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Aroclor-1254		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor-1260		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

NOTES: All units reported in µg/L.
U - Not detected
BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91
EQBLK3: Equipment blank sample collected 12/18/91

DRT:cmb/DEW566.12

TABLE 23
GROUND WATER INORGANIC ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

ANALYTE	NYS CLASS GA STANDARDS	CLIENT ID Date Collected	TMW-2S 12/91	TMW-2S 4/92	DMW-2S 12/91	DMW-2S 4/92	TMW-3S 12/91	TMW-3S 4/92	DMW-3S 12/91	DMW-3S 4/92
Aluminum	NE		67100	78200	34.1 U	36.3 U	8280	6630	34.1 U	36.3 U
Antimony			126 J	362 J	42.2 U	35.7 UJ	51.3 J	35.7 U	42.2 U	35.7 U
Arsenic	25		11.0 J	11.5	5.0 UJ	5.0 U	13.9 J	7.4 J	5.0 UJ	5.0 U
Barium	1,000		558	407	110	33.6	76.9	33.0	7.6 U	9.1 U
Beryllium			2.5 U	3.3 U	2.5 U	1.3 U	3.0	1.3 U	2.5 U	1.3 U
Cadmium	10		4.1 UJ	3.8 UJ	4.1 UJ	3.8 UJ	4.1 UJ	3.8 UJ	4.1 UJ	3.8 UJ
Calcium	NE		974000	985000	361000	397000	604000	507000	550000	496000
Chromium	50		143	157 J	9.1 U	3.9 U	9.1 U	11.0 U	9.1 U	3.9 U
Cobalt	NE		68.3	55.2	10.4 U	6.9 U	10.4 U	6.9 U	10.4 U	6.9 U
Copper	200		154	165 J	5.0 UJ	3.9 U	13.1	4.6 U	5.0 UJ	3.9 U
Iron	300		129000	127000	991	1460	18300	9400	953	963
Lead	25		66.0 J	50.9 J	3.0 U	7.3 J	26.3 J	8.0 J	3.0 U	3.0 UJ
Magnesium	35,000		380000	391000	52400	50700	108000	70300	50700	47700
Manganese	300		3100 J	2810 J	119 J	63.8 J	502 J	253 J	141 J	123 J
Mercury	2		0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	NE		214	173	21.5 UJ	30.6 U	27.8 J	30.6 U	21.5 UJ	30.6 U
Potassium	NE		14200	14800	3890	3360	4310	3810	3650	2440
Selenium	10		25.0 UJ	5.0 R	25.0 U	5.0 R	25.0 UJ	5.0 R	25.0 U	5.0 R
Silver	50		5.7 UJ	9.9 U	5.7 U	9.9 U	9.8 UJ	9.9 UJ	5.7 U	9.9 UJ
Sodium	20,000		28500 J	28100 J	24500 J	24100 J	37200 J	37200 J	40100 J	40700 J
Thallium			5.0 U	50.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 UJ
Vanadium	NE		129	128	7.9 U	4.8 U	17.1	7.5 U	8.9	4.8 U
Zinc	300		378 J	406 J	5.3 U	9.4 J	55.5 U	27.9 U	5.3 U	4.5 U
Cyanide	100		10.0 U				10.0 U			

NOTES:

All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91
DBLDUP4: Blind field duplicate sample of MW-6S (dissolved) collected 12/18/91
EQBLK3: Equipment blank sample collected 12/18/91
BLDUP: Blind field duplicate sample collected from MW-8D 4/21/92.
EQBLK1: Equipment blank sample collected 4/21/92.
TMW – Total analysis
DMW – Dissolved analysis

DRT:cmb/DEW566.6

TABLE 23
GROUND WATER INORGANIC ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

ANALYTE	NYS CLASS GA STANDARDS	CLIENT ID / Date Collected	TMW-4D 12/91	TMW-4D 4/92	DMW-4D 12/91	DMW-4D 4/92	TMW-4S 12/91	TMW-4S 4/92	DMW-4S 12/91	DMW-4S 4/92
Aluminum	NE		571	2480	34.1 U	36.3 U	11100	4970	34.1 U	36.3 U
Antimony			42.2 UJ	35.7 U	42.2 UJ	36.6 J	42.2 UJ	35.7 U	42.6 J	43.4 J
Arsenic	25		5.0 UJ	5.0 U	5.0 UJ	5.0 U	11.0 J	5.0 U	5.0 U	5.0 U
Barium	1,000		18.5	28.9	13.5	11.0	159	66.1	7.6 UJ	9.1 U
Beryllium			2.5 UJ	1.3 U	2.5 UJ	1.3 U	2.5 UJ	1.3 U	2.5 UJ	1.3 U
Cadmium	10		4.1 UJ	3.8 UJ	4.1 UJ	3.8 UJ	4.1 UJ	3.8 UJ	4.1 UJ	3.8 UJ
Calcium	NE		569000	540000	559000	568000	674000	537000	552000	575000
Chromium	50		9.1 UJ	22.0 U	9.1 UJ	3.9 U	30.2	8.2 U	9.1 UJ	3.9 U
Cobalt	NE		10.4 UJ	6.9 U	10.4 UJ	6.9 U	10.4 UJ	6.9 U	10.4 UJ	6.9 U
Copper	200		5.0 UJ	11.4 U	5.0 UJ	3.9 U	51.8	12.3 U	5.0 UJ	3.9 U
Iron	300		2070	5160	1250	1170	24100	9390	1140	1140
Lead	25		15.0 U	3.0 UJ	15.0 U	3.0 UJ	7.6 J	3.0 UJ	15.0 U	3.0 UJ
Magnesium	35,000		53300	63700	50300	52700	101000	65600	47200	53300
Manganese	300		110 J	176 J	93.4 J	94.3 J	694 J	310 J	83.4 J	88.0 J
Mercury	2		0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	NE		21.5 U	31.4	21.5 U	30.6 U	31.1	30.6 U	21.5 U	30.6 U
Potassium	NE		3910	5020	3640	4730	6940	4610	5790	4500
Selenium	10		25.0 UJ	5.0 R	25.0 U	5.0 R	25.0 UJ	5.0 R	25.0 U	5.0 R
Silver	50		5.7 UJ	9.9 UJ	5.7 UJ	9.9 UJ	5.7 UJ	9.9 UJ	5.7 UJ	9.9 UJ
Sodium	20,000		23700	30900 J	22500	29600 J	24100	24800 J	25800	30300 J
Thallium			5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 UJ
Vanadium	NE		7.9 U	6.3 U	7.9 U	4.8 U	22.0	9.6 U	7.9 U	4.8 U
Zinc	300		5.4 U	32.9 J	5.3 U	5.4 J	60.4 J	39.4 J	5.3 U	13.3 J
Cyanide	100		10.0 U				10.0 U			

NOTES:

All values reported in µg/L.

U – Not detected

J – Estimated value

R – Rejected by data validator

BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91

DBLDUP4: Blind field duplicate sample of MW-6S (dissolved) collected 12/18/91

EQBLK3: Equipment blank sample collected 12/18/91

BLDUP: Blind field duplicate sample collected from MW-8D 4/21/92.

EQBLK1: Equipment blank sample collected 4/21/92.

TMW – Total analysis

DMW – Dissolved analysis

DRT:cmb/DEW566.6

TABLE 23
GROUND WATER INORGANIC ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

ANALYTE	NYS CLASS GA STANDARDS	CLIENT ID	TMW-5D	TMW-5D	DMW-5D	DMW-5D	TMW-5S	TMW-5S	DMW-5S	DMW-5S
		Date Collected	12/91	4/92	12/91	4/92	12/91	4/92	12/91	4/92
Aluminum	NE		3100	1310	34.1 U	36.3 U	27300	16600	34.1 U	36.3 U
Antimony			42.2 UJ	35.7 U	42.2 UJ	35.7 U	48.5 J	64.9 J	42.2 UJ	35.7 U
Arsenic	25		11.7 J	5.0 U	10.0 J	5.0 U	8.6 J	5.0 U	6.3 J	5.0 U
Barium	1,000		23.4	26.2	11.1	15.8	531	230	19.7	17.9
Beryllium			2.5 UJ	1.3 U	2.5 UJ	1.3 U	2.5 UJ	1.3 U	2.5 UJ	1.3 U
Cadmium	10		4.1 UJ	3.8 UJ	4.1 UJ	3.8 UJ	4.1 UJ	3.8 UJ	4.1 UJ	3.8 UJ
Calcium	NE		558000	554000	558000	600000	714000	593000	397000	522000
Chromium	50		9.1 UJ	13.1 U	9.1 UJ	3.9 U	47.1	35.2 J	9.1 UJ	3.9 U
Cobalt	NE		10.4 UJ	6.9 U	10.4 UJ	6.9 U	15.1	12.4	10.4 UJ	6.9 U
Copper	200		5.0 UJ	3.9 U	5.0 UJ	3.9 U	43.0	32.6 J	5.0 UJ	3.9 U
Iron	300		6110	3030	1170	614	51800	25700	1050	1350
Lead	25		3.0 U	3.0 UJ	15.0 U	3.0 UJ	33.6 J	9.1 J	15.0 U	3.0 UJ
Magnesium	35,000		70600	47000	64800	46000	180000	94600	35200	44900
Manganese	300		357 J	182 J	177	119 J	1030 J	488 J	97.3 J	116 J
Mercury	2		0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	NE		21.5 U	30.6 U	21.5 U	30.6 U	75.9	33.3	21.5 U	30.6 U
Potassium	NE		30400	7730 J	32100	9800 J	8350	8380	4440	4920
Selenium	10		25.0 UJ	5.0 R	5.0 U	5.0 R	25.0 UJ	5.0 R	25.0 U	5.0 R
Silver	50		5.7 UJ	9.9 UJ	5.7 UJ	9.9 UJ	5.7 UJ	9.9 UJ	5.7 UJ	9.9 UJ
Sodium	20,000		28600	87400 J	289000	101000 J	47200	44500 J	36200	53700 J
Thallium			5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 UJ
Vanadium	NE		7.9 U	4.8 U	7.9 U	4.8 U	36.4	26.6 U	7.9 U	4.8 U
Zinc	300		19.7 U	23.8 U	5.3 U	4.5 U	130 J	79.1 J	6.8 U	4.5 U
Cyanide	100		10.0 U				10.0 U			

NOTES:

All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91
DBLDUP4: Blind field duplicate sample of MW-6S (dissolved) collected 12/18/91
EQBLK3: Equipment blank sample collected 12/18/91
BLDUP: Blind field duplicate sample collected from MW-8D 4/21/92.
EQBLK1: Equipment blank sample collected 4/21/92.
TMW – Total analysis
DMW – Dissolved analysis

DRT:cmb/DEW566.6

TABLE 23
GROUND WATER INORGANIC ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

ANALYTE	NYS CLASS GA STANDARDS	CLIENT ID / Date Collected	TMW-6S 12/91	TMW-6S 4/92	DMW-6S 12/91	DMW-6S 4/92	TMW-7S 12/91	TMW-7S 4/92	DMW-7S 12/91	DMW-7S 4/92
Aluminum	NE		32200	20800	56.8 U	36.3 U	66900	13300	34.1 U	36.3 U
Antimony			68.2 J	104 J	42.2 UJ	35.7 U	140 J	36.6 J	42.2 U	35.7 UJ
Arsenic	25		12.1 J	5.0 U	7.7 J	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U
Barium	1,000		736	352	50.5	46.1	2050	362	50.7	46.3
Beryllium			2.5 UJ	1.3	2.5 UJ	1.3 U	3.5	1.3 U	2.5 U	1.3 U
Cadmium	10		4.1 UJ	3.8 UJ	4.1 UJ	3.8 UJ	4.1 UJ	3.8 UJ	4.1 UJ	3.8 UJ
Calcium	NE		634000	468000	319000	347000	869000	266000	115000	125000
Chromium	50		129 J	58.9 J	9.1 UJ	3.9 U	134	44.4 J	9.1 U	3.9 U
Cobalt	NE		18.5	12.0	10.4 UJ	6.9 U	79.9	8.8	10.4 U	6.9 U
Copper	200		172 J	122 J	5.0 UJ	3.9 U	317	67.7 J	5.0 U	3.9 U
Iron	300		55400 J	33700	1020	1640	161000	29600	13.7 U	50.5 U
Lead	25		46.8 J	43.5 J	3.0 U	3.0 UJ	70.6 R	16.3 J	3.0 U	3.0 UJ
Magnesium	35,000		196000	112000	37700	38300	422000	78000	22400	22700
Manganese	300		1510 J	851 J	256 J	195 J	3600 J	672 J	1.7 U	1.4 U
Mercury	2		0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	NE		111 J	80.7	21.5 U	30.6 U	182	30.6 U	21.5 UJ	30.6 U
Potassium	NE		9210	7120	2730	2930	11600	5680	1640	2340
Selenium	10		5.0 UJ	5.0 R	25.0 U	5.0 R	25.0 UJ	5.0 R	5.0 U	5.0 R
Silver	50		5.7 UJ	9.9 UJ	5.7 UJ	9.9 UJ	5.7 UJ	9.9 U	5.7 U	9.9 U
Sodium	20,000		35400	32700 J	36500	38600 J	214000 J	68000 J	216000	63900
Thallium			5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 UJ
Vanadium	NE		48.8	34.5	7.9 U	4.8 U	129	26.9	7.9 U	4.8 U
Zinc	300		342 J	227 J	5.3 U	4.5 U	561 J	133 J	5.3 U	8.6
Cyanide	100		10.0 U				10.0 U			

NOTES:

All values reported in µg/L.

U – Not detected

J – Estimated value

R – Rejected by data validator

BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91

DBLDUP4: Blind field duplicate sample of MW-6S (dissolved) collected 12/18/91

EQBLK3: Equipment blank sample collected 12/18/91

BLDUP: Blind field duplicate sample collected from MW-8D 4/21/92.

EQBLK1: Equipment blank sample collected 4/21/92.

TMW – Total analysis

DMW – Dissolved analysis

DRT:cmb/DEW566.6

TABLE 23
GROUND WATER INORGANIC ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

ANALYTE	NYS CLASS GA STANDARDS	CLIENT ID Date Collected	TMW-8D 12/91	TMW-8D 4/92	DMW-8D 12/91	DMW-8D 4/92	TMW-8S 12/91	TMW-8S 4/92	DMW-8S 12/91	DMW-8S 4/92
Aluminum	NE		1090	1930	34.1 U	36.3 U	3410	36.3 U	34.1 U	36.3 U
Antimony			42.2 UJ	35.7 U	42.2 UJ	59.6 J	42.2 UJ	35.7 U	42.2 UJ	35.7 U
Arsenic	25		5.0 UJ	9.3	8.3 J	6.1	6.1 J	5.0 U	5.8 J	5.0 U
Barium	1,000		18.5	14.6	17.2	9.6	86.2	44.6	53.0	45.4
Beryllium			2.5 UJ	1.3 U	2.5 UJ	1.3 U	2.5 U	1.3 U	2.5 U	1.3 U
Cadmium	10		4.1 UJ	3.8 UJ	4.1 UJ	3.8 UJ	4.1 U	3.8 UJ	4.1 U	3.8 UJ
Calcium	NE		511000	588000	472000	514000	233000	224000	202000	211000
Chromium	50		9.1 UJ	13.1 U	9.1 UJ	3.9 U	9.1 U	3.9 U	9.1 U	3.9 U
Cobalt	NE		10.4 UJ	6.9 U	10.4 UJ	6.9 U	10.4 U	6.9 U	10.4 U	6.9 U
Copper	200		5.0 UJ	5.5 U	5.0 UJ	3.9 U	5.0 U	3.9 U	5.0 U	8.7 U
Iron	300		1960	3650	325	530	7400	624 J	2060	1460 J
Lead	25		3.0 U	3.0 UJ	3.0 U	3.0 UJ	3.0 U	3.0 UJ	3.0 U	3.0 UJ
Magnesium	35,000		47200	55200	45500	47300	48000	36100	36500	36200
Manganese	300		248 J	300 J	229 J	225 J	179	50.6	59.7	45.4 J
Mercury	2		0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	NE		21.5 U	30.6 U	21.5 U	30.6 U	21.5 U	30.6 U	21.5 U	30.6 U
Potassium	NE		4240	4880	1450	4100	2780	1190 U	1450 U	1190 U
Selenium	10		25.0 UJ	5.0 R	25.0 U	5.0 R	5.0 UJ	5.0 R	25.0 U	5.0 R
Silver	50		5.7 UJ	9.9 UJ	5.7 UJ	9.9 UJ	5.7 UJ	9.9 UJ	5.7 UJ	9.9 UJ
Sodium	20,000		33000	35300 J	33000	34700 J	59100 J	55100	58000	57700
Thallium			5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 UJ
Vanadium	NE		7.9 U	5.1 U	7.9 U	4.8 U	7.9 U	4.8 U	7.9 U	4.8 U
Zinc	300		17.7 U	24.9 U	5.3 U	4.5 U	22.7 U	4.5 U	5.3 U	4.5 U
Cyanide	100		10.0 U				10.0 U			

NOTES:

All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91
DBLDUP4: Blind field duplicate sample of MW-6S (dissolved) collected 12/18/91
EQBLK3: Equipment blank sample collected 12/18/91
BLDUP: Blind field duplicate sample collected from MW-8D 4/21/92.
EQBLK1: Equipment blank sample collected 4/21/92.
TMW – Total analysis
DMW – Dissolved analysis

DRT:cmb/DEW566.6

TABLE 23
GROUND WATER INORGANIC ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

ANALYTE	NYS CLASS GA STANDARDS	CLIENT ID / Date Collected	TMW-9D 4/92	TMW-9M 12/91	TMW-9M 4/92	DMW-9M 12/91	DMW-9M 4/92	TMW-9S 12/91	TMW-9S 4/92	DMW-9S 12/91
Aluminum	NE		36.3 U	11800	72300	51.0	36.3 U	24300	46300	61.0
Antimony			636 J	42.2 U	308 J	42.2 U	35.7 UJ	66.3 J	207 J	42.2 U
Arsenic	25		50.0 U	19.0 J	31.5	17.0 J	10.0	6.7 J	5.0 U	5.0 UJ
Barium	1,000		219	112	537	47.8	38.3	421	457	103
Beryllium			1.3 U	2.5 U	3.6 U	2.5 U	1.3 U	2.5 U	2.5 U	2.5 U
Cadmium	10		3.8 UJ	4.1 UJ	3.8 UJ	4.1 UJ	3.8 UJ	4.1 UJ	3.8 UJ	4.1 UJ
Calcium	NE		6700000	303000	757000	257000	180000	398000	507000	216000
Chromium	50		758 J	28.9	187 J	9.1 U	3.9 U	52.1	94.9 J	9.1 U
Cobalt	NE		66.0	10.4 U	44.4	10.4 U	6.9 U	37.6	47.6	10.4 U
Copper	200		420 J	12.2	114 J	5.0 UJ	3.9 U	245	305 J	5.0 U
Iron	300		13300	20200	109000	1570	498	72300	92500	3720
Lead	25		67.0 J	5.8 J	34.2 J	3.0 U	4.4 J	56.9 J	41.4 J	3.0 U
Magnesium	35,000		1370000	72900	308000	34800	28900	141000	196000	36600
Manganese	300		5550 J	573 J	2930 J	53.8 J	43.9 J	1200 J	1340 J	350
Mercury	2		0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	NE		5710	62.6 J	165	21.5 UJ	30.6 U	127	96.7	21.5 UJ
Potassium	NE		1520000	9620	16700	7270	4190	6010	12900	3280
Selenium	10		100 R	25.0 UJ	5.0 R	25.0 U	5.0 R	25.0 UJ	5.0 R	25.0 U
Silver	50		9.9 U	5.7 UJ	9.9 U	5.7 U	9.9 U	5.7 UJ	9.9 U	5.7 U
Sodium	20,000		51400000 J	99800 J	96900 J	110000 J	91400	85400 J	64200 J	96200
Thallium			50.0 UJ	5.0 U	50.0 UJ	5.0 U	5.0 UJ	5.0 U	50.0 UJ	5.0 U
Vanadium	NE		91.0	24.7	101	7.9 U	4.8 U	56.9	85.0	7.9 U
Zinc	300		63.0 J	48.0 U	300 J	5.3 U	4.5 U	342 J	504 J	8.9 U
Cyanide	100			10.0 U				10.0 U		

NOTES:

All values reported in µg/L.

U – Not detected

J – Estimated value

R – Rejected by data validator

BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91

DBLDUP4: Blind field duplicate sample of MW-6S (dissolved) collected 12/18/91

EQBLK3: Equipment blank sample collected 12/18/91

BLDUP: Blind field duplicate sample collected from MW-8D 4/21/92.

EQBLK1: Equipment blank sample collected 4/21/92.

TMW – Total analysis

DMW – Dissolved analysis

DRT:cmb/DEW566.6

TABLE 23
GROUND WATER INORGANIC ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

ANALYTE	NYS CLASS GA STANDARDS	CLIENT ID / Date Collected	DMW-9S 4/92	TMW-10S 12/91	TMW-10S 4/92	DMW-10S 12/91	DMW-10S 4/92	TMW-11D 12/91	TMW-11D 4/92	DMW-11D 12/91
Aluminum	NE		36.3 U	37400	39500	76.7	36.3 U	103000	104000	49.6
Antimony			35.7 UJ	53.2 J	201 J	42.2 U	35.7 UJ	171	354 J	42.2 U
Arsenic	25		5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 UJ
Barium	1,000		75.9	2120	1770	63.7	35.6	4100	2520	56.5
Beryllium			1.3 U	3.5	2.5 U	2.5 U	1.3 U	4.7	3.6 U	2.5 U
Cadmium	10		3.8 UJ	4.1 UJ	3.8 UJ	4.1 U	3.8 UJ	4.1 UJ	3.8 UJ	4.1 UJ
Calcium	NE		208000	522000	510000	172000	98500	1830000	951000	149000
Chromium	50		3.9 U	190	449 J	9.1 U	3.9 U	292	547 J	9.1 U
Cobalt	NE		6.9 U	39.9	27.4	10.4 U	6.9 U	111	63.4	10.4 U
Copper	200		3.9 U	164	168 J	5.0 U	3.9 U	200	191 J	5.0 U
Iron	300		5020	85900	78100	16.3 U	50.7 U	196000	159000	13.3 U
Lead	25		3.7 J	30.7 J	37.8 J	3.0 U	3.7 J	3.0 U	3.0 UJ	3.0 U
Magnesium	35,000		36400	258000	225000	31100	18300	1090000	563000	35300
Manganese	300		255 J	1800 J	1460 J	333	15.6 J	5940 J	3040 J	144
Mercury	2		0.20 U	0.20 U	0.26	0.20 U	0.20 U	0.20 U	0.24	0.20 U
Nickel	NE		30.6 U	190	173	21.5 UJ	30.6 U	335	326	21.5 UJ
Potassium	NE		2110	9170	9210	3380	1660	14900	13300	3960
Selenium	10		5.0 R	25.0 UJ	5.0 R	5.0 U	5.0 R	25.0 UJ	5.0 R	5.0 U
Silver	50		9.9 U	5.7 UJ	9.9 U	5.7 U	9.9 U	5.7 UJ	9.9 U	5.7 U
Sodium	20,000		65000	36800 J	116000 J	37900	113000	85000 J	73500 J	80500
Thallium			5.0 UJ	5.0 U	50.0 UJ	5.0 U	5.0 UJ	5.0 U	50.0 UJ	5.0 U
Vanadium	NE		4.8 U	76.1	71.7	7.9 U	4.8 U	162	125	7.9 U
Zinc	300		30.6	292 J	451 J	15.5 U	6.3	776 J	602 J	5.3 U
Cyanide	100			10.0 U				10.0 U		

NOTES:

All values reported in µg/L.
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BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91
DBLDUP4: Blind field duplicate sample of MW-6S (dissolved) collected 12/18/91
EQBLK3: Equipment blank sample collected 12/18/91
BLDUP: Blind field duplicate sample collected from MW-8D 4/21/92.
EQBLK1: Equipment blank sample collected 4/21/92.
TMW – Total analysis
DMW – Dissolved analysis

DRT:cmb/DEW566.6

TABLE 23
GROUND WATER INORGANIC ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

ANALYTE	NYS CLASS GA STANDARDS	CLIENT ID	DMW-11D	TMW-12S	TMW-12S	DMW-12S	DMW-12S	BLDUP4	DBLDUP4	TBLDUP
		Date Collected	4/92	12/91	4/92	12/91	4/92	12/91	12/91	4/92
Aluminum	NE		36.3 U	96800	89200	54.0	36.3 U	48500	34.1 U	105 U
Antimony			52.3 J	106 J	385 J	42.2 U	35.7 UJ	80.8 J	42.2 UJ	35.7 U
Arsenic	25		5.0 U	20.7 J	20.0	5.0 UJ	5.0 U	8.4 J	5.0 UJ	5.0 U
Barium	1,000		43.6	1010	891	213	195	1130	50.5	46.1
Beryllium			1.3 U	7.6	5.2 U	2.5 U	1.3 U	3.3	2.5 UJ	1.3 U
Cadmium	10		3.8 UJ	4.1 UJ	3.8 UJ	4.1 UJ	3.8 UJ	4.1 UJ	4.1 UJ	3.8 UJ
Calcium	NE		108000	690000	580000	202000	182000	870000	294000	212000
Chromium	50		3.9 U	218	178 J	9.1 U	3.9 U	304 J	9.1 UJ	3.9 U
Cobalt	NE		6.9 U	89.8	71.2	10.4 U	6.9 U	54.6	10.4 UJ	6.9 U
Copper	200		5.3	199	200 J	5.0 U	3.9 U	543 J	5.0 UJ	3.9 U
Iron	300		51.9 U	171000	148000	331	1060	96600 J	852	1160 J
Lead	25		3.0 UJ	87.3	82.4 J	3.0 U	3.1 J	229 J	3.0 U	3.0 UJ
Magnesium	35,000		22200	269000	212000	34600	32400	294000	34200	36500
Manganese	300		15.2 J	3720 J	3120 J	821	801 J	2840 J	243 J	50.9
Mercury	2		0.20 U	0.20 U	0.58	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	NE		30.6 U	277	201	21.5 UJ	30.6 U	326 J	22.2	30.6 U
Potassium	NE		2020	9760	8140	3470	2810	9170	5080	1190 U
Selenium	10		5.0 R	25.0 UJ	5.0 R	5.0 U	5.0 R	25.0 U	25.0 U	5.0 R
Silver	50		9.9 U	5.7 UJ	9.9 U	5.7 U	9.9 U	5.7 UJ	5.7 UJ	9.9 UJ
Sodium	20,000		70700	89200 J	111000 J	87400	108000	34200 J	34100	56700 J
Thallium			5.0 UJ	5.0 U	50.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ
Vanadium	NE		5.5	202	176	7.9 U	4.8 U	89.9	7.9 U	4.8 U
Zinc	300		4.5 U	578 J	580 J	5.3 U	8.0	900 J	5.3 U	4.5 U
Cyanide	100			10.0 U				10.0 U		

NOTES:

All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
BLDUP4: Blind field duplicate sample of MW-6S collected 12/18/91
DBLDUP4: Blind field duplicate sample of MW-6S (dissolved) collected 12/18/91
EQBLK3: Equipment blank sample collected 12/18/91
BLDUP: Blind field duplicate sample collected from MW-8D 4/21/92.
EQBLK1: Equipment blank sample collected 4/21/92.
TMW – Total analysis
DMW – Dissolved analysis

DRT:cmb/DEW566.6

TABLE 23
GROUND WATER INORGANIC ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

ANALYTE	NYS CLASS GA STANDARDS	CLIENT ID Date Collected	DBLDUP 4/92		EQBLK3 12/91		EQBLK1 4/92	
Aluminum	NE		36.3	U	34.1	U	52.6	U
Antimony			35.7	UJ	42.2	UJ	35.7	U
Arsenic	25		5.0	U	5.0	UJ	5.0	U
Barium	1,000		47.5		7.6	U	9.1	U
Beryllium			1.3	U	2.5	U	1.3	U
Cadmium	10		3.8	UJ	4.1	U	3.8	UJ
Calcium	NE		216000		615	U	519	U
Chromium	50		3.9	U	9.1	U	3.9	U
Cobalt	NE		6.9	U	10.4	U	6.9	U
Copper	200		3.9	U	5.0	U	3.9	U
Iron	300		1630	J	17.5	U	45.6	U
Lead	25		3.0	UJ	3.0	U	3.0	UJ
Magnesium	35,000		38500		518	U	446	U
Manganese	300		47.7	J	1.7	U	1.3	U
Mercury	2		0.20	U	0.20	U	0.20	U
Nickel	NE		30.6	U	21.5	U	30.6	U
Potassium	NE		1930		1450	U	1190	U
Selenium	10		5.0	R	5.0	UJ	5.0	R
Silver	50		9.9	UJ	5.7	UJ	9.9	UJ
Sodium	20,000		63200	J	669	U	482	U
Thallium			5.0	UJ	5.0	U	5.0	UJ
Vanadium	NE		4.8	U	7.9	U	4.8	U
Zinc	300		4.5	U	5.3	U	5.8	
Cyanide	100				10.0	U		

NOTES:

All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
BLDUP4: Blind field duplicate sample of MW–6S collected 12/18/91
DBLDUP4: Blind field duplicate sample of MW–6S (dissolved) collected 12/18/91
EQBLK3: Equipment blank sample collected 12/18/91
BLDUP: Blind field duplicate sample collected from MW–8D 4/21/92.
EQBLK1: Equipment blank sample collected 4/21/92.
TMW – Total analysis
DMW – Dissolved analysis

DRT:cmb/DEW566.6

APPENDIX M

HISTORICAL SURFACE WATER ANALYTICAL DATA

In additional to the constituents listed above, soil samples collected in the wetlands east, north, and west of the landfill, primarily SS-2 and SS-17, contained arsenic (38.1 ppm to 45.9 ppm), barium (1130 ppm), iron (30,800 ppm to 55,600 ppm), manganese (9,080 ppm), nickel (35.3 ppm to 46.5 ppm), and zinc (120 ppm to 566 ppm) which were above the typical and site background values. Typical background range for these constituents are: arsenic (3 ppm to 12 ppm); barium (15 ppm to 600 ppm); iron (17,500 ppm to 25,000 ppm); manganese (50 ppm to 5,000 ppm); nickel (0.5 ppm to 25 ppm); and zinc (37 ppm to 60 ppm).

4.06 Surface Water Analyses

Seven surface water samples were collected on December 12, 1991 and were analyzed for TCL/TAL parameters in accordance with the 1989 NYS ASP. An additional surface water sampling event took place on April 28-29, 1992. SW-1, SW-4 and SW-6 through SW-19 were analyzed for TCL metals in accordance with the 1991 NYS ASP. In addition, at the request of the NYSDEC, samples SW-12, SW-13 and SW-14 were analyzed for volatile organic compounds using NYS Drinking Water method 524.2. SW-14 was also analyzed for TCL semivolatiles and pesticides/PCBs in accordance with the NYS ASP.

Volatile Organic Compound (VOC) Analyses

The results from the December 1991 sampling event indicated that VOCs were detected only in SW-4, which was collected in the wetlands in close proximity to leachate Sump-2 on the SW side of the landfill (Figure 5). SW-4 contained low concentrations of benzene (1 ppb), carbon disulfide (2 ppb), chlorobenzene (0.8 ppb), total 1,2-dichloroethene

(1 ppb), and ethylbenzene (3 ppb). All of these detected concentrations levels are lower than listed state standards for class C and D surface waters. To further evaluate the surface water in this area, SW-4 was resampled and two additional samples (SW-12 and SW-13) were collected during the April 1992 sampling event. At the request of the NYSDEC, SW-14 was collected from the intermittent stream northeast of the landfill during the April 1992 sampling event.

Concentrations of VOCs detected in the April sampling event were also lower than listed state standards for class C and D surface waters. Results from the resampling of SW-4 indicated concentrations of benzene (1.4 ppb), chlorobenzene (0.7 ppb), chloroethane (28 ppb), 1,1-dichloroethane (1.6 ppb), total 1,2-dichloroethene (2.7 ppb), total xylenes (1.6 ppb), and vinyl chloride (1.6 ppb). SW-12 was collected about 270 ft west of SW-4 and exhibited low concentrations of chloroethane (3.1 ppb), total 1,2-dichloroethene (0.7 ppb), and total xylenes (0.7 ppb). Sample SW-13 was collected about 300 ft west of SW-12 and did not contain VOCs. Sample SW-14 contained 1,1-dichloroethane (0.5 ppb). A summary of results of the surface water VOC analyses is included in Table 12.

Semivolatile Analyses

With the exception of 4-Chlorophenyl-phenylether (5 ppb) at SW-4, semivolatiles were not detected above the CRDLs (Contract Required Detection Limits) in the seven samples collected in December 1991. Semi-volatile analysis was completed on SW-14 at the request of the NYSDEC. No semivolatiles were detected in this sample. Semivolatile analyses were not completed on the other samples during the April 1992 sampling event. Surface water analytical results for semivolatiles are summarized on Table 13.

Pesticides/PCBs Analyses

Pesticides and PCBs were not detected above the CRDLs in the seven samples collected in December 1991 or in SW-14, which was collected in April 1992 at the request of the NYSDEC. A summary of results of the surface water pesticides/PCBs analyses is included in Table 14.

Inorganics Analyses

During the December sampling event the only inorganics that exceeded the state standard were iron, zinc and cadmium. The state standard for iron for class C and D surface water is 300 ppb. Samples SW-2, SW-3 and SW-5 contained less than 300 ppb. Iron continued to be present at concentrations greater than 300 ppb during the April sampling event except for sample SW-13 (207 ppb). These data suggest the landfill materials may be contributing the source of the iron. However, iron may be naturally occurring as it occurs in the ground water and surface soils in the area. The zinc standard of 30 ppb for Class C streams was exceeded in the December 1991 sampling event in one sample, SW-1, at an approximated concentration of 44 ppb. The zinc concentration in SW-1 in April 1992 was 23.6 ppb which is less than the Class C surface water standard. This variation may be due to temporal changes or the amount of suspended sediment in the sample.

The standards for cadmium, chromium, copper, lead and, nickle vary with hardness. The hardness was calculated using Method 2340 as described in the Standard Methods for the Examination of water and wastewater dated 1989. The analytical results for each compound were below the calculated standards with the exception of cadmium. Cadmium was not detected at SW-1, SW-2, SW-3, SW-5, SW-6, SW-15 and SW-6, but the detection

limit was slightly above the standard. Cadmium was detected at SW-8 at a concentration of 7.5 ppb which is slightly above the calculated Class C standard of 5 ppb. The elevated concentration could be due to the high turbidity of the sample.

The state standard for dissolved aluminum for class C surface waters is 100 ppb. Samples SW-1, SW-6, SW-8, SW-15 and SW-16 contained concentrations of total aluminum greater than 100 ppb during the April sampling. The elevated aluminum could be due to the high turbidity and silt content of the samples. The samples were not analyzed for dissolved aluminum.

Although all the concentrations are lower than the listed state standards except for iron, a review of the inorganic analyses of SW-7 indicates that concentrations of aluminum, barium, calcium, copper, iron, lead, magnesium, manganese, mercury, and sodium were above background concentrations. However, the concentrations of these constituents were notably lower both upstream and downstream of SW-7. This may be due to the proximity of this location to Fisher Road where it could be influenced by run off.

Sample SW-4, collected in the vicinity of the seep at the southwest corner of the landfill, contained concentrations of antimony, barium, calcium, iron, lead, magnesium, manganese, potassium, sodium and zinc which suggest the landfill leachate is contributing these constituents to the wetlands in this area. Only the iron is above state listed standards for Class D streams. A summary of results of the surface water inorganics analyses is included in Table 15.

TABLE 12
SURFACE WATER VOLATILE ORGANIC COMPOUND ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

CLIENT ID	SW-1	SW-2	SW-3	SW-4	SW-4	SW-5	SW-6	SW-7	SW-12	SW-13	SW-14	BLDUP3	BLDUP	TBLK1	TBLK4	EQBLK
COMPOUND Date Collected	12/91	12/91	12/91	2/91	4/92	12/91	12/91	12/91	4/92	4/92	4/92	12/91	4/92	12/91	4/29/92	12/91
Acetone	10.0 UJ	10.0 UJ	10.0 UJ	10.0 UJ	NA	10.0 UJ	10.0 UJ	10.0 UJ	NA	NA	NA	10.0 UJ	NA	10.0 UJ	NA	10.0 UJ
Benzene	5.0 U	5.0 U	5.0 U	1.0 J	1.4	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
Bromobenzene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
Bromochloromethane	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
Bromoform	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
Bromomethane	10.0 U	10.0 U	10.0 U	10.0 U	0.5 UJ	10.0 U	10.0 U	10.0 U	0.5 U	0.5 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U
2-Butanone	10.0 U	10.0 U	10.0 U	10.0 U	NA	10.0 U	10.0 U	10.0 U	NA	NA	NA	10.0 U	NA	10.0 U	NA	10.0 U
sec-Butylbenzene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
tert-Butylbenzene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
Carbon disulfide	5.0 U	5.0 U	5.0 U	2.0 J	NA	5.0 U	5.0 U	5.0 U	NA	NA	NA	5.0 U	NA	5.0 U	NA	5.0 U
Carbon Tetrachloride	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	0.8 J	0.7	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
Chloroethane	10.0 U	10.0 U	10.0 U	10.0 U	28.0 J	10.0 U	10.0 U	10.0 U	3.1 J	0.5 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U
Chloroform	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
Chloromethane	10.0 U	10.0 U	10.0 U	10.0 U	0.5 U	10.0 U	10.0 U	10.0 U	0.5 U	0.5 U	0.5 UJ	10.0 U	0.5 UJ	10.0 U	0.5 U	10.0 U
2-Chlorotoluene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
4-Chlorotoluene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
Dibromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
1,2-Dibromo-3-chloropropane	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
1,2-Dibromoethane	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
Dibromomethane	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
1,2-Dichlorobenzene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA

NOTES: All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
NA – Not Analyzed
BLDUP3: Blind field duplicate sample of SW-2 collected 12/12/91
BLDUPSW: Blind duplicate sample of SW-14 collected 4/29/92.
TBLK1: Trip blank shipped with samples collected 12/11/91 and 12/12/91.
EQBLK2: Equipment blank sample collected 12/12/91

DRT:cmb/DEW566.19

TABLE 12
SURFACE WATER VOLATILE ORGANIC COMPOUND ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

CLIENT ID	SW-1	SW-2	SW-3	SW-4	SW-4	SW-5	SW-6	SW-7	SW-12	SW-13	SW-14	BLDUP3	BLDUP	TBLK1	TBLK4	EQBLK
COMPOUND Date Collected	12/91	12/91	12/91	2/91	4/92	12/91	12/91	12/91	4/92	4/92	4/92	12/91	4/92	12/91	4/29/92	12/91
1,3-Dichlorobenzene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
1,4-Dichlorobenzene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
Dichlorodifluoromethane	NA	NA	NA	NA	0.5 UJ	NA	NA	NA	0.5 R	0.5 R	0.5 R	NA	0.5 R	NA	0.5 R	NA
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	1.6	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5	5.0 U	0.5	5.0 U	0.5 U	5.0 U
Methyl-tert-butylether	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
Isopropyl ether	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
1,3,5-Trimethylbenzene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
1,2,4-Trimethylbenzene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
n-Butylbenzene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
1,2-Dichloroethene (total)	5.0 U	5.0 U	5.0 U	1.0 J	2.7	5.0 U	5.0 U	5.0 U	0.7	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
1,3-Dichloropropane	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
2,2-Dichloropropane	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
1,1-Dichloropropene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
Ethylbenzene	5.0 U	5.0 U	5.0 U	3.0 J	0.5 U	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
Hexachlorobutadiene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
2-Hexanone	10.0 U	10.0 U	10.0 U	10.0 U	NA	10.0 U	10.0 U	10.0 U	NA	NA	NA	10.0 U	NA	10.0 U	NA	10.0 U
Isopropylbenzene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
4-Methyl-2-pentanone	10.0 U	10.0 U	10.0 U	10.0 U	NA	10.0 U	10.0 U	10.0 U	NA	NA	NA	10.0 U	NA	10.0 U	NA	10.0 U
Methylene chloride	5.0 U	5.0 U	5.0 U	5.0 U	0.7 U	5.0 U	5.0 U	5.0 U	1.8 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	1.3 U	5.0 U
n-Propylbenzene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA

NOTES: All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
NA – Not Analyzed
BLDUP3: Blind field duplicate sample of SW-2 collected 12/12/91
BLDUPSW: Blind duplicate sample of SW-14 collected 4/29/92.
TBLK1: Trip blank shipped with samples collected 12/11/91 and 12/12/91.
EQBLK2: Equipment blank sample collected 12/12/91

TABLE 12
SURFACE WATER VOLATILE ORGANIC COMPOUND ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

CLIENT ID	SW-1	SW-2	SW-3	SW-4	SW-4	SW-5	SW-6	SW-7	SW-12	SW-13	SW-14	BLDUP3	BLDUP	TBLK1	TBLK4	EQBLK
COMPOUND Date Collected	12/91	12/91	12/91	2/91	4/92	12/91	12/91	12/91	4/92	4/92	4/92	12/91	4/92	12/91	4/29/92	12/91
Styrene	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
1,1,1,2-Tetrachloroethane	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
Tetrachloroethene	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
Toluene	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
Total Xylenes	5.0 U	5.0 U	5.0 U	13.0	1.6 J	5.0 U	5.0 U	5.0 U	0.7 J	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
Trichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
Trichlorofluoromethane	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
1,2,3-Trichloropropane	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
Vinyl chloride	10.0 U	10.0 U	10.0 U	10.0 U	1.6 J	10.0 U	10.0 U	10.0 U	0.5 U	0.5 U	0.5 U	10.0 U	0.5 U	10.0 U	0.5 U	10.0 U
p-Isopropyltoluene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
1,2,4-Trichlorobenzene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
1,2,3-Trichlorobenzene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
cis-1,3-Dichloropropylene	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
trans-1,3-Dichloropropylene	5.0 U	5.0 U	5.0 U	5.0 U	0.5 U	5.0 U	5.0 U	5.0 U	0.5 U	0.5 U	0.5 U	5.0 U	0.5 U	5.0 U	0.5 U	5.0 U
Naphthalene	NA	NA	NA	NA	0.5 U	NA	NA	NA	0.5 U	0.5 U	0.5 U	NA	0.5 U	NA	0.5 U	NA
Vinyl acetate	10.0 U	10.0 U	10.0 U	10.0 U	NA	10.0 U	10.0 U	10.0 U	NA	NA	NA	10.0 U	NA	10.0 U	NA	10.0 U

NOTES: All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
NA – Not Analyzed
BLDUP3: Blind field duplicate sample of SW-2 collected 12/12/91
BLDUPSW: Blind duplicate sample of SW-14 collected 4/29/92.
TBLK1: Trip blank shipped with samples collected 12/11/91 and 12/12/91.
EQBLK2: Equipment blank sample collected 12/12/91

TABLE 13
SURFACE WATER SEMIVOLATILE ORGANIC COMPOUND ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

COMPOUND	CLIENT ID / Date Collected	SW-1 12/91	SW-2 12/91	SW-3 12/91	SW-4 12/91	SW-5 12/91	SW-6 12/91	SW-7 12/91	SW-14 4/92	SW-14RE 4/92	BLDUP3 12/91	BLDUP-SW 4/92	EQBLK3 12/91
Phenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethyl)ether		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Chlorophenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzyl Alcohol		10 U	10 U	10 U	10 U	10 U	10 U	10 U	NA	NA	10 U	NA	10 U
1,2-Dichlorobenzene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,2'-oxybis(1-Chloropropane)		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methylphenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
N-Nitroso-di-n-propylamine		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Isophorone		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Nitrophenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dimethylphenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Chloroethoxy)methane		50 U	50 U	50 U	50 U	50 U	50 U	50 U	10 U	10 U	50 U	10 U	50 U
2,4-Dichlorophenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloroaniline		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Chloro-3-methylphenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylnaphthalene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorocyclopentadiene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol		10 U	10 U	10 U	10 U	10 U	10 U	10 U	25 U	25 U	10 U	25 U	10 U
2-Chloronaphthalene		50 U	50 U	50 U	50 U	50 U	50 U	50 U	10 U	10 U	50 U	10 U	50 U
2-Nitroaniline		10 U	10 U	10 U	10 U	10 U	10 U	10 U	25 U	25 U	10 U	25 U	10 U
Dimethyl phthalate		50 U	50 U	50 U	50 U	50 U	50 U	50 U	10 U	10 U	50 U	10 U	50 U
Acenaphthylene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U

NOTES: All values reported in µg/L.
U – Not detected
J – Estimated value
BLDUP3: Blind field duplicate sample of SW-2 collected 12/12/91
BLDUP-SW: Blind field duplicate sample of SW-14.
EQBLK2: Equipment blank sample collected 12/12/91

TABLE 13
SURFACE WATER SEMIVOLATILE ORGANIC COMPOUND ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

CLIENT ID	SW-1	SW-2	SW-3	SW-4	SW-5	SW-6	SW-7	SW-14	SW-14RE	BLDUP3	BLDUP-SW	EQBLK3
COMPOUND / Date Collected	12/91	12/91	12/91	12/91	12/91	12/91	12/91	4/92	4/92	12/91	4/92	12/91
3-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U	25 U	25 U	10 U	25 U	10 U
Acenaphthene	50 U	50 U	50 U	50 U	50 U	50 U	50 U	10 U	10 U	50 U	10 U	50 U
2,4-Dinitrophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	25 U	25 U	10 U	25 U	10 U
4-Nitrophenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U	25 U	25 U	50 U	25 U	50 U
Dibenzofuran	50 U	50 U	50 U	50 U	50 U	50 U	50 U	10 U	10 U	50 U	10 U	50 U
2,4-Dinitrotoluene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Diethylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	1 J	10 U
4-Chlorophenyl-phenylether	10 U	10 U	10 U	5 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Nitroaniline	10 U	10 U	10 U	10 U	10 U	10 U	10 U	25 U	25 U	10 U	25 U	10 U
4,6-Dintro-2-methylphenol	50 U	50 U	50 U	50 U	50 U	50 U	50 U	25 U	25 U	50 U	25 U	50 U
N-Nitrosodiphenylamine	50 U	50 U	50 U	50 U	50 U	50 U	50 U	10 U	10 U	50 U	10 U	50 U
4-Bromophenyl-phenylether	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	10 U	10 U	10 U	10 U	10 U	10 U	10 U	25 U	25 U	10 U	25 U	10 U
Phenanthrene	50 U	50 U	50 U	50 U	50 U	50 U	50 U	10 U	10 U	50 U	10 U	50 U
Anthracene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Di-n-butylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Butylbenzylphthalate	10 R	10 R	10 R	10 R	10 R	10 R	10 R	10 U	10 U	10 R	10 U	10 U
3,3'-Dichlorobenzidine	20 U	20 U	20 U	20 U	20 UJ	20 U	20 U	10 U	10 U	20 U	10 U	20 U
Benzo(a)anthracene	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U	10 U	10 UJ	10 U	10 U
Di-n-octylphthalate	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 U	10 U	10 U
Benzo(b)fluroanthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 U	10 U	10 U
Benzo(k)fluoranthene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 U	10 U	10 U
Benzo(a)pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 U	10 U	10 U
Dibenzo(a,h)anthracene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 U	10 U	10 U
Benzo(g,h,i)perylene	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 U	10 U	10 U

NOTES: All values reported in µg/L.
U – Not detected
J – Estimated value
BLDUP3: Blind field duplicate sample of SW-2 collected 12/12/91
BLDUP-SW: Blind field duplicate sample of SW-14.
EQBLK2: Equipment blank sample collected 12/12/91

TABLE 14
SURFACE WATER PCB/PESTICIDES ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

COMPOUND	CLIENT ID / Date Collected	SW-1 12/91	SW-2 12/91	SW-3 12/91	SW-4 12/91	SW-5 12/91	SW-6 12/91	SW-7 12/91	SW-14 4/92	BLDUP3 12/91	EQBLK2 12/91	BLDUP-SW 4/92
alpha-BHC		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
beta-BHC		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
delta-BHC		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
gamma-BHC		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Heptachlor		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Aldrin		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Heptachlor epoxide		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Endosulfan I		0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Dieldrin		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4,4'-DDE		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Endrin		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Endosulfan II		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4,4'-DDD		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Endosulfan sulfate		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4,4'-DDT		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Methoxychlor		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Endrin ketone		0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
alpha-Chlordane		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.050 U	0.50 U	0.50 U	0.050 U
gamma-Chlordane		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.050 U	0.50 U	0.50 U	0.050 U
Toxaphene		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U
Aroclor-1016		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	1.0 U
Aroclor-1221		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.0 U	0.50 U	0.50 U	2.0 U
Aroclor-1232		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	1.0 U
Aroclor-1242		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	1.0 U
Aroclor-1248		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	1.0 U
Aroclor-1254		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Aroclor-1260		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

NOTES: All values reported in µg/L.
U – Not detected
BLDUP-SW: Blind field duplicate sample of SW-14.
BLDUP3: Blind field duplicate sample of SW-2 collected 12/12/91
EQBLK2: Equipment blank sample collected 12/12/91 with above surface water samples

DRT:cmb/DEW566.9

TABLE 15
SURFACE WATER INORGANIC ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

	CLASS C STANDARDS	CLASS D STANDARDS	CLIENT ID Date Collected	SW-1 12/91	Class C Standard	SW-1 4/92	Class C Standard	SW-2 12/91	Class C Standard	SW-3 12/91	Class C Standard
ANALYTE											
Aluminum	100	NA		195 U		610		66.7 U		66.7 U	
Antimony	NA	NA		46.2		39.6 U		42.2 U		42.2 U	
Arsenic	190	360		5.0 U		5.6 U		5.0 U		5.0 U	
Barium	NA	NA		70.8		45.2		78.8		74.2	
Beryllium	1100***	NA		2.5 U		1.4 U		2.5 U		2.5 U	
Cadmium	*	*		4.1 U	3	4.2 U	5	4.1 U	4	4.1 U	4
Calcium	NA	NA		126000		212000		156000		147000	
Chromium	*	*		9.1 U	664	4.3 U	1008	9.1 U	795	9.1 U	757
Cobalt	5	NA		10.4 U		7.7 U		10.4 U		10.4 U	
Copper	*	*		13.8	40	13.0 U	62	5.0 U	48	5.0 U	46
Iron	300	300		358		639		162		154	
Lead	*	*		3.3	20	2.6	37	3.0 U	26	3.0 U	24
Magnesium	NA	NA		24400		39300		31000		29200	
Manganese	NA	NA		26.5		38.2		21.5		23.9	
Mercury	NA	NA		0.87		0.20 U		0.20 U		0.20 U	
Nickel	*	*		21.5 U	282	34.0 U	415	21.5 U	333	21.5 U	318
Potassium	NA	NA		2400		2160		1450 U		1460 U	
Selenium	1.0	NA		5.0 U		4.4 UJ		5.0 U		5.0 U	
Silver (total)	**	*		5.7 U		11.0 UJ		5.7 U		5.7 U	
Sodium	NA	NA		242000		75300		78000		123000	
Thallium	8	20		5.0 U		5.6 U		5.0 U		5.0 U	
Vanadium	14	190		7.9 U		5.3 U		7.9 U		7.9 U	
Zinc	30	*		44.0 J		23.6		5.3 J		9.9 J	
Cyanide	5.2	22		10.0 UJ				10.0 UJ		10.0 UJ	
Hardness ppm				415		691		517		487	

Hardness Calculation :
2.497 * Ca mg/L + 4.118 * Mg mg/L

NOTES:
All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
EQBLK2: Equipment blank sample collected 12/12/91
* calculation of standard based on hardness, individual standard appears in column next to sample
** no standard for total silver, standard for ionic silver only is 0.1
*** standard for hardness >75ppm
BLDLUP-SW: Blind field duplicate of SW-10 collected 4/28/92.
BLDUP3: Blind field duplicate of SW-2 collected 12/12/91

DRT:cmb/DEW566.8

TABLE 15
SURFACE WATER INORGANIC ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

	CLASS C STANDARDS	CLASS D STANDARDS	CLIENT ID Date Collected	SW-4 12/91	Class D Standard	SW-4 4/92	Class D Standard	SW-5 12/91	Class C Standard	SW-6 12/91	Class C Standard
ANALYTE											
Aluminum	100	NA		1230		445		87.8 U		387 U	
Antimony	NA	NA		107 J		244		42.2 U		42.2 U	
Arsenic	190	360		5.0 U		5.6 U		5.0 U		5.0 U	
Barium	NA	NA		694		475		98.2		98.2	
Beryllium	1100***	NA		2.5 U		1.4 U		2.5 U		2.5 U	
Cadmium	*	*		4.1 UJ	38	4.2 U	37	4.1 U	3	4.1 U	3
Calcium	NA	NA		235000		238000		95000		98300	
Chromium	*	*		9.1 U	8955	8.5 U	8786	9.1 U	548	9.1 U	561
Cobalt	5	NA		10.4 U		7.7 U		10.4 U		10.4 U	
Copper	*	*		5.0 UJ	117	8.3 U	114	5.0 U	33	5.0 U	33
Iron	300	300		177000		73500		172		570	
Lead	*	*		6.0	1043	2.4	1013	3.0 U	14	3.0 U	15
Magnesium	NA	NA		37400		31400		22100		22400	
Manganese	NA	NA		1740 J		1740		14.0 U		31.5	
Mercury	NA	NA		0.20 U		0.20 U		0.20 U		0.20 U	
Nickel	*	*		21.5 U	8451	34.0 U	8304	21.5 U	236	21.5 U	241
Potassium	NA	NA		9100 U		7480		1500		2940	
Selenium	1.0	NA		5.0 U		4.4 UJ		5.0 U		5.0 U	
Silver (total)	**	*		5.7 UJ	127	13.6 R	122	5.7 U		5.7 U	
Sodium	NA	NA		143000 J		110000		19400		21800	
Thallium	8	20		5.0 U		5.6 U		5.0 U		5.0 U	
Vanadium	14	190		7.9 U		6.2 U		7.9 U		7.9 U	
Zinc	30	*		68.5 J	1694	28.4	1661	5.3 U		9.6 J	
Cyanide	5.2	22		10.0 UJ				10.0 UJ		10.0 UJ	
Hardness ppm				741		724		328		338	

Hardness Calculation :
2.497 * Ca mg/L + 4.118 * Mg mg/L

NOTES:
All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
EQBLK2: Equipment blank sample collected 12/12/91
* calculation of standard based on hardness, individual standard appears in column next to sample
** no standard for total silver, standard for ionic silver is 0.1
*** standard for hardness >75ppm
BLDLUP-SW: Blind field duplicate of SW-10 collected 4/28/92.
BLDUP3: Blind field duplicate of SW-2 collected 12/12/91

TABLE 15
SURFACE WATER INORGANIC ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

	CLASS C STANDARDS	CLASS D STANDARDS	CLIENT ID Date Collected	SW-6 4/92		Class C Standard	SW-7 12/91		Class D Standard	SW-7 4/92		Class D Standard	SW-8 4/92		Class C Standard
ANALYTE															
Aluminum	100	NA		502			17420			1130			433		
Antimony	NA	NA		39.6	U		42.2	U		39.6	U		60.6		
Arsenic	190	360		5.6	U		5.0	U		5.6	U		5.6	U	
Barium	NA	NA		70.7			142			69.5			45.2		
Beryllium	1100***	NA		1.4	U		2.5	U		1.4	U		1.4	U	
Cadmium	*	*		4.2	U	2	4.1	UJ	42	4.2	U	29	7.5		5
Calcium	NA	NA		80300			251000			183000			218000		
Chromium	*	*		4.3	U	461	9.1	U	9632	161		7513	4.3	U	1019
Cobalt	5	NA		7.7	U		10.4	U		7.7	U		7.7	U	
Copper	*	*		13.0	U	27	7.4		127	8.7	U	96	14.9	U	62
Iron	300	300		348			6750			1700			795		
Lead	*	*		2.6		11	10.8		1167	2.6		795	2.7		38
Magnesium	NA	NA		16100			44400			34200			37800		
Manganese	NA	NA		203			1910	J		236			39.4		
Mercury	NA	NA		0.20	U		0.28			0.20	U		0.20	U	
Nickel	*	*		34.0	U	201	21.5	U	9043	34.0	U	7181	34.0	U	419
Potassium	NA	NA		2290			5070			3100			3280		
Selenium	1.0	NA		4.4	UJ		5.0	U		4.4	UJ		4.4	UJ	
Silver (total)	**	*		11.0	UJ		5.7	UJ	148	11.0	UJ	88	11.0	UJ	
Sodium	NA	NA		20700			90300	J		60000			65400		
Thallium	8	20		5.6	U		5.0	U		5.6	U		5.6	U	
Vanadium	14	190		5.3	U		7.9	U		5.3	U		7.0	U	
Zinc	30	*		37.1			22.2	J	1824	35.0		1418	21.8		
Cyanide	5.2	22					10.0	UJ							
Hardness ppm				266			810			598			700		

Hardness Calculation :
2.497 * Ca mg/L + 4.118 * Mg mg/L

NOTES:
All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
EQBLK2: Equipment blank sample collected 12/12/91
* calculation of standard based on hardness, individual standard appears in column next to sample
** no standard for total silver, standard for ionic silver is 0.1
*** standard for hardness >75ppm
BLDLUP-SW: Blind field duplicate of SW-10 collected 4/28/92.
BLDUP3: Blind field duplicate of SW-2 collected 12/12/91

DRT:cmb/DEW566.8

TABLE 15
SURFACE WATER INORGANIC ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

	CLASS C STANDARDS	CLASS D STANDARDS	CLIENT ID Date Collected	SW-9 4/92	Class C Standard	SW-10 4/92	Class C Standard	SW-11 4/92	Class C Standard	SW-12 4/92	Class D Standard
ANALYTE											
Aluminum	100	NA		502		498		333		871	
Antimony	NA	NA		42.6		39.6 U		39.6 U		59.8	
Arsenic	190	360		5.6 U		5.6 U		5.6 U		5.6 U	
Barium	NA	NA		48.6		52.1		45.2		154	
Beryllium	1100***	NA		1.4 U		1.4 U		1.4 U		1.4 U	
Cadmium	*	*		4.2 U	5	4.2 U	6	4.2 U	6	4.2 U	29
Calcium	NA	NA		221000		248000		247000		182000	
Chromium	*	*		4.3 U	1035	7.9 U	1135	4.5 U	1132	4.3 U	7358
Cobalt	5	NA		7.7 U		7.7 U		7.7 U		7.7 U	
Copper	*	*		13.9 U	63	14.0 U	70	18.6 U	70	17.7 U	93
Iron	300	300		491		562		697		9770	
Lead	*	*		2.7	39	2.2 U	45	3.2	44	9.3	770
Magnesium	NA	NA		39400		43600		43500		31100	
Manganese	NA	NA		39.4		50.9		50.9		409	
Mercury	NA	NA		0.20 U		0.20 U		0.20 U		0.20 U	
Nickel	*	*		34.0 U	426	34.0 U	464	34.0 U	462	34.0 U	7043
Potassium	NA	NA		2620		3520		3080		3760	
Selenium	1.0	NA		4.4 UJ		4.4 UJ		4.4 UJ		4.4 UJ	
Silver (total)	**	*		11.0 UJ		11.0 UJ		11.0 UJ		11.0 UJ	84
Sodium	NA	NA		67400		65800		65800		106000	
Thallium	8	20		5.6 U		5.6 U		5.6 U		5.6 U	
Vanadium	14	190		5.3 U		6.2 U		8.2 U		5.3 U	
Zinc	30	*		15.3		24.5		28.7		33.8	1388
Cyanide	5.2	22									
Hardness ppm				714		799		796		583	

Hardness Calculation :
2.497 * Ca mg/L + 4.118 * Mg mg/L

NOTES:
All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
EQBLK2: Equipment blank sample collected 12/12/91
* calculation of standard based on hardness, individual standard appears in column next to sample
** no standard for total silver, standard for ionic silver is 0.1
*** standard for hardness >75ppm
BLDLUP-SW: Blind field duplicate of SW-10 collected 4/28/92.
BLDUP3: Blind field duplicate of SW-2 collected 12/12/91

TABLE 15
SURFACE WATER INORGANIC ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

	CLASS C STANDARDS	CLASS D STANDARDS	CLIENT ID Date Collected	SW-13 4/92		Class D Standard	SW-14 4/92		Class D Standard	SW-15 4/92		Class C Standard	SW-16 4/92		Class C Standard
ANALYTE															
Aluminum	100	NA		128			40.3	U		340			653		
Antimony	NA	NA		39.6	U		39.6	U		53.2			39.6	U	
Arsenic	190	360		5.6	U		5.6	U		5.6	U		5.6	U	
Barium	NA	NA		79.1			67.1			75.3			46.3		
Beryllium	1100***	NA		1.4	U		1.4	U		1.4	U		1.4	U	
Cadmium	*	*		4.2	U	24	4.2	U	30	4.2	U	3	4.2	U	5
Calcium	NA	NA		149000			191000			87400			213000		
Chromium	*	*		4.3	U	6393	4.3	U	7636	9.0	U	491	4.3	U	1006
Cobalt	5	NA		7.7	U		7.7	U		7.7	U		7.7	U	
Copper	*	*		4.3	U	79	4.3	U	97	16.7	U	29	9.4	U	62
Iron	300	300		207			320			557			702		
Lead	*	*		2.2	U	619	2.2	U	815	2.2	U	12	3.1		37
Magnesium	NA	NA		28800			32300			16600			38100		
Manganese	NA	NA		10.7			183			18.6			47.2		
Mercury	NA	NA		0.20	U		0.20	U		0.20	U		0.20	U	
Nickel	*	*		34.0	U	6181	34.0	U	7290	34.0	U	213	34.0	U	414
Potassium	NA	NA		1320	U		4040			3520			2700		
Selenium	1.0	NA		4.4	UJ		4.4	UJ		4.4	UJ		4.4	UJ	
Silver (total)	**	*		11.0	UJ	63	11.0	UJ	91	11.0	UJ		11.0	UJ	
Sodium	NA	NA		96800			55700			18700			66500		
Thallium	8	20		5.6	U		5.6	U		5.6	U		5.6	U	
Vanadium	14	190		5.3	U		5.3	U		9.7	U		5.4	U	
Zinc	30	*		10.0		1204	12.9		1441	15.7			27.3		
Cyanide	5.2	22													
Hardness ppm				491			610			287			689		

Hardness Calculation :
2.497 * Ca mg/L + 4.118 * Mg mg/L

NOTES:
All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator
EQBLK2: Equipment blank sample collected 12/12/91
* calculation of standard based on hardness, individual standard appears in column next to sample
** no standard for total silver, standard for ionic silver is 0.1
*** standard for hardness >75ppm
BLDLUP-SW: Blind field duplicate of SW-10 collected 4/28/92.
BLDUP3: Blind field duplicate of SW-2 collected 12/12/91

DRT:cmb/DEW566.8

TABLE 15
SURFACE WATER INORGANIC ANALYSES
TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

	CLASS C STANDARDS	CLASS D STANDARDS	CLIENT ID Date Collected	SW-17 4/92		Class D Standard	SW-18 4/92		Class D Standard	SW-19 4/92		Class D Standard	BLDUP3 12/91		BLDUP 4/92		EQBLK2 12/91	
ANALYTE																		
Aluminum	100	NA		403			146			173			105	U	416		34.1	U
Antimony	NA	NA		39.6	U		39.6	U		57.0			42.2	U	39.6	U	42.2	U
Arsenic	190	360		5.6	U		5.6	U		5.6	U		5.0	U	5.6	U	5.0	U
Barium	NA	NA		77.6			63.7			61.4			78.8		48.9		7.6	U
Beryllium	1100***	NA		1.4	U		1.4	U		1.4	U		2.5	U	1.4	U	2.5	U
Cadmium	*	*		4.2	U	18	4.2	U	28	4.2	U	30	4.1	U	4.2	U	4.1	U
Calcium	NA	NA		117000			176000			189000			159000		256000		615	U
Chromium	*	*		6.8	U	5171	4.5	U	7171	8.5	U	7533	9.1	U	4.3	U	9.1	U
Cobalt	5	NA		7.7	U		7.7	U		7.7	U		10.4	U	7.7	U	10.4	U
Copper	*	*		16.7	U	62	10.3	U	91	7.5	U	96	5.0	U	4.3	U	5.0	U
Iron	300	300		580			733			731			171		555		13.3	U
Lead	*	*		2.2	U	446	2.2	U	740	2.2	U	798	3.0	U	3.0		3.0	U
Magnesium	NA	NA		21200			30500			31100			31900		44900		518	U
Manganese	NA	NA		133			340			247			21.3		52.0		1.7	U
Mercury	NA	NA		0.20	U		0.20	U		0.20	U		0.20	U	0.20	U	0.20	U
Nickel	*	*		34.0	U	5077	34.0	U	6877	34.0	U	7199	21.5	U	34.0	U	21.5	U
Potassium	NA	NA		3560			5080			3250			2400		2660		1450	U
Selenium	1.0	NA		4.4	UJ		4.4	UJ		4.4	UJ		5.0	U	4.4	UJ	5.0	U
Silver (total)	**	*		11.0	UJ	40	11.0	UJ	80	11.0	UJ	88	5.7	U	11.0	UJ	5.7	U
Sodium	NA	NA		30300			56700			52000			78600		69900		669	U
Thallium	8	20		5.6	U		5.6	U		5.6	U		5.0	U	5.6	U	5.0	U
Vanadium	14	190		6.6	U		7.0	U		8.6	U		7.9	U	5.3	U	7.9	U
Zinc	30	*		15.8		971	15.7		1352	15.7		1421	7.3	J	12.9		5.3	U
Cyanide	5.2	22											10.0	UJ			10.0	U
Hardness ppm				379			565			600								

Hardness Calculation :
2.497 * Ca mg/L + 4.118 * Mg mg/L

NOTES:
All values reported in µg/L.
U – Not detected
J – Estimated value
R – Rejected by data validator

EQBLK2: Equipment blank sample collected 12/12/91
* calculation of standard based on hardness, individual standard appears in column next to sample
** no standard for total silver, standard for ionic silver is 0.1
*** standard for hardness >75ppm

BLDLUP-SW: Blind field duplicate of SW-10 collected 4/28/92.
BLDUP3: Blind field duplicate of SW-2 collected 12/12/91

APPENDIX N

AIR SAMPLING FIELD LOG

APPENDIX N

AIR SAMPLING FIELD LOG

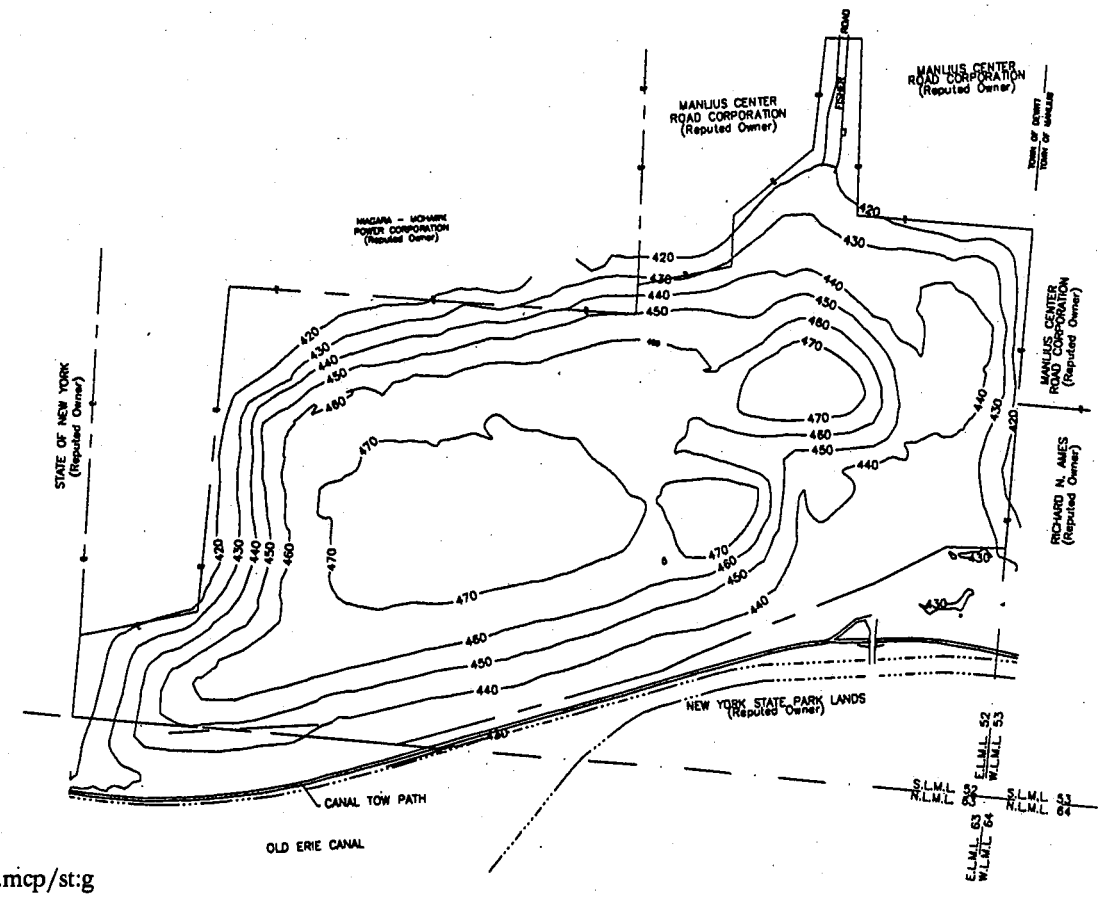
SAMPLED BY _____ DATE _____ TIME _____

WIND DIRECTIO _____ WIND SPEED _____

TEMPERATURE _____ BAROMETRIC PRESSURE _____

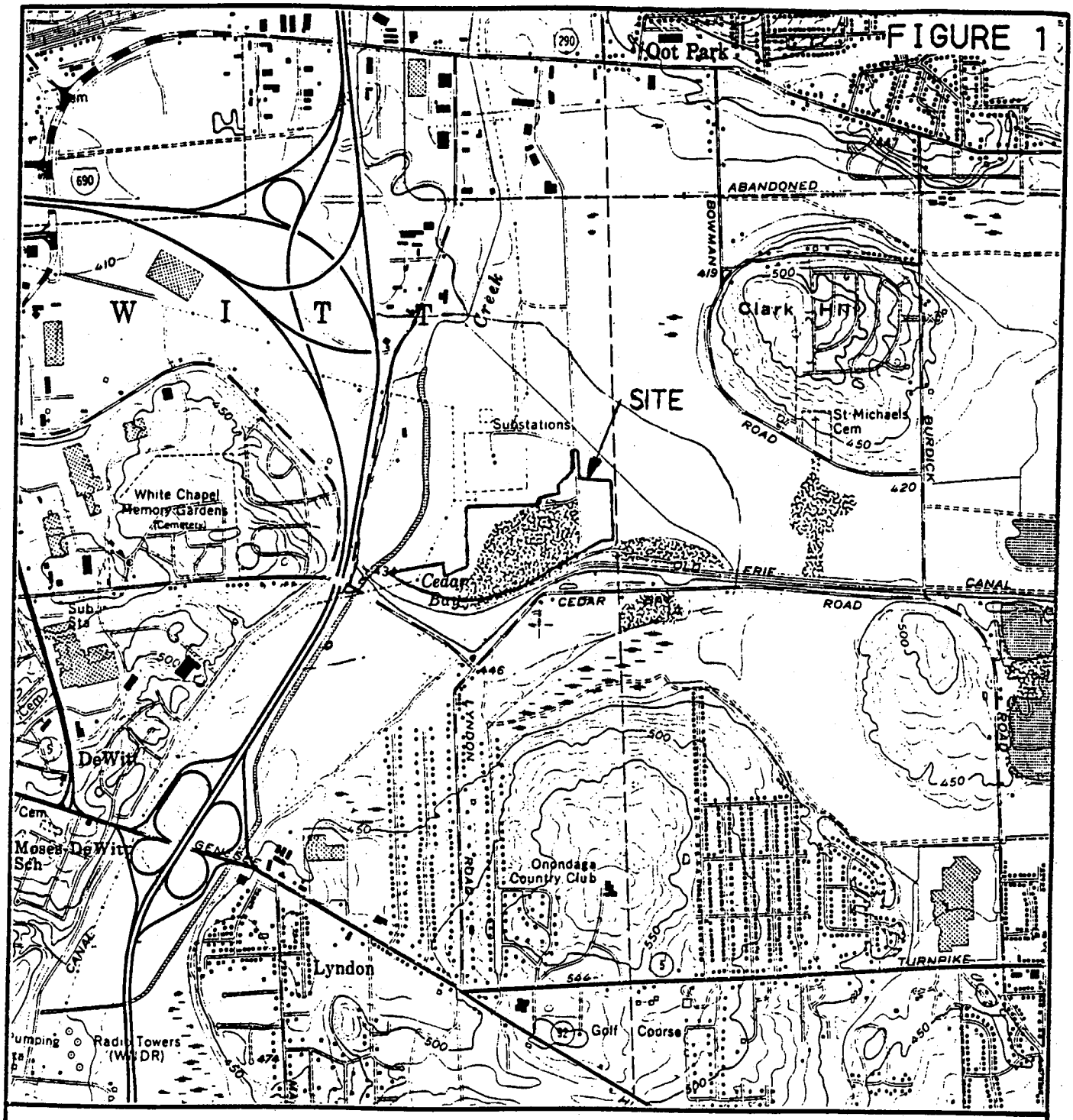
LOCATION	ANISTER HEIGHT
1	_____
2	_____
3	_____
4	_____
5	_____

INDICATE LOCATION OF SAMPLE AND WIND DIRECTION ON SKETCH BELOW:



airsamp.mcp/st:g

Figures



TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

LOCATION MAP

0 2000 4000

SCALE IN FEET

ADAPTED FROM U.S.G.S. SYRACUSE EAST N.Y. QUADRANGLE

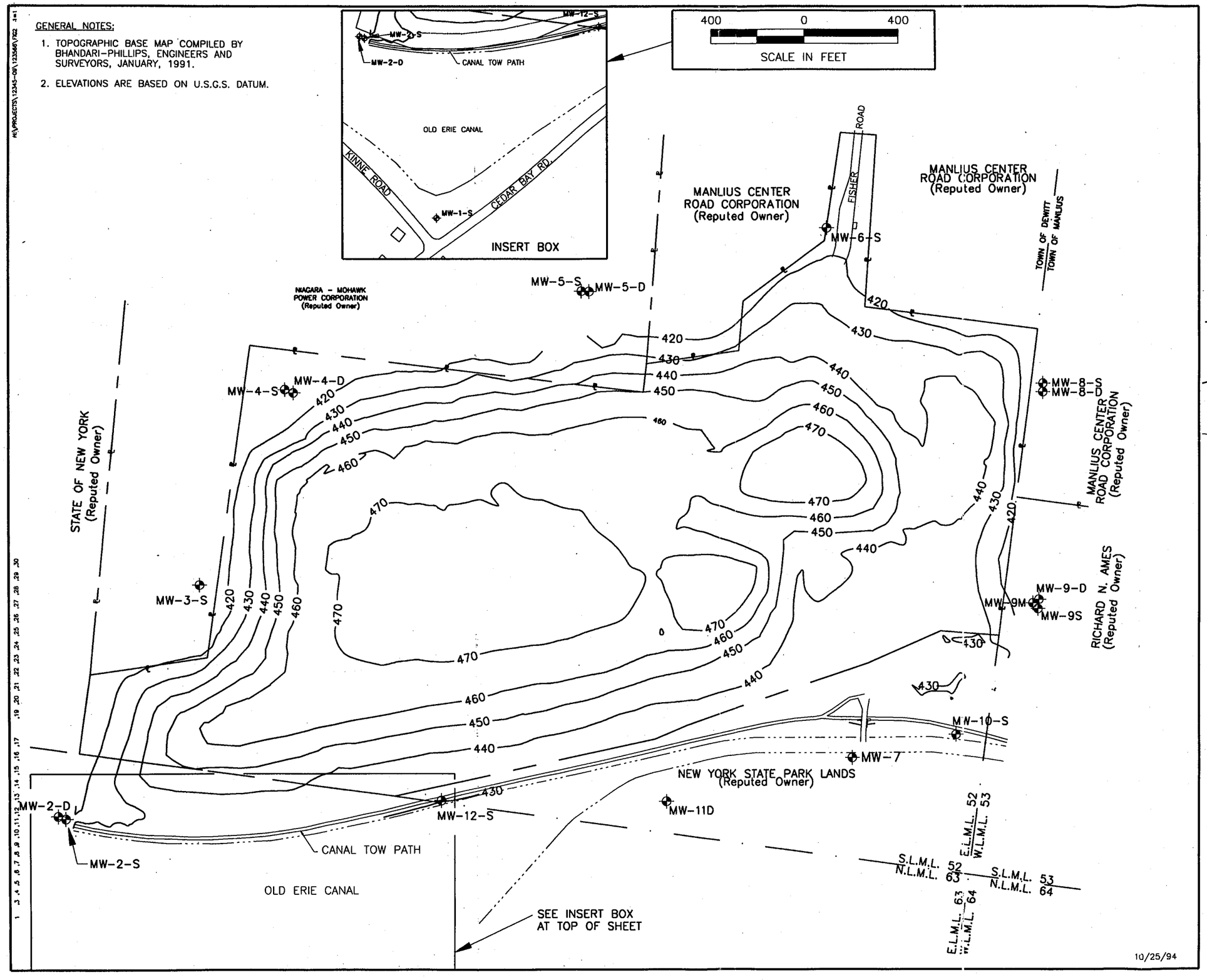
8.5X11 (123.566.476) 7/21/91

FIGURE 2

TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

GENERAL NOTES:

1. TOPOGRAPHIC BASE MAP COMPILED BY BHANDARI-PHILLIPS, ENGINEERS AND SURVEYORS, JANUARY, 1991.
2. ELEVATIONS ARE BASED ON U.S.G.S. DATUM.



LEGEND

- PROPERTY LINE
- E.L.M.L. 52 — MILITARY LOT LINE
- 420 — EXISTING CONTOUR (10')
- EDGE OF CANAL
- EXISTING FENCE
- EXISTING CANAL TOW PATH
- MW-5-S EXISTING MONITOR WELL

GROUND WATER SAMPLING LOCATIONS

250 0 250
SCALE IN FEET

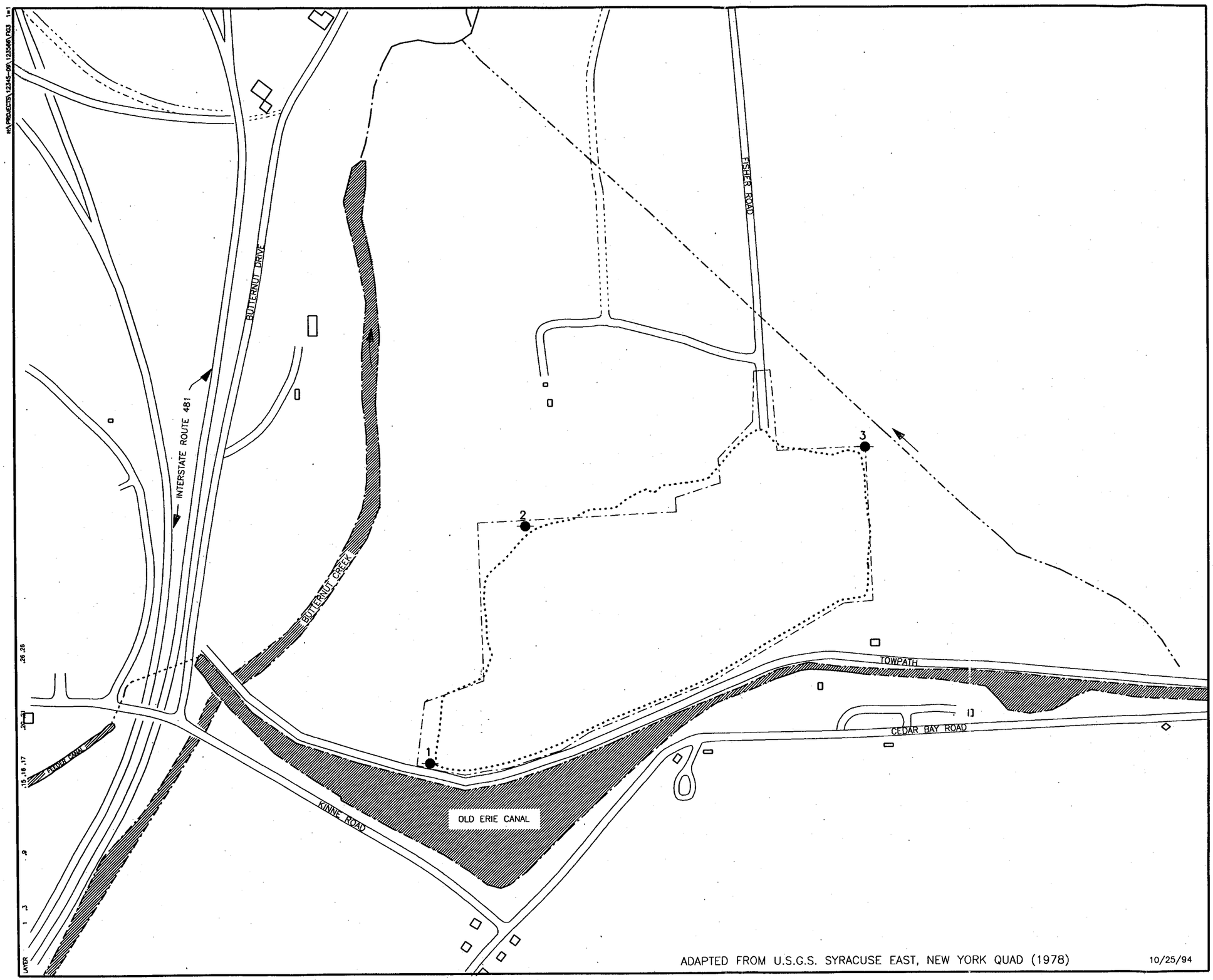
123.566

O'BRIEN & GERE

10/25/94

FIGURE 3

TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK



LEGEND

- 1 — APPROXIMATE SURFACE WATER SAMPLE LOCATION
- PROPERTY BOUNDARY
- APPROXIMATE FILL LIMITS
- INTERMITTENT STREAM

SURFACE WATER SAMPLING LOCATIONS

500 0 500

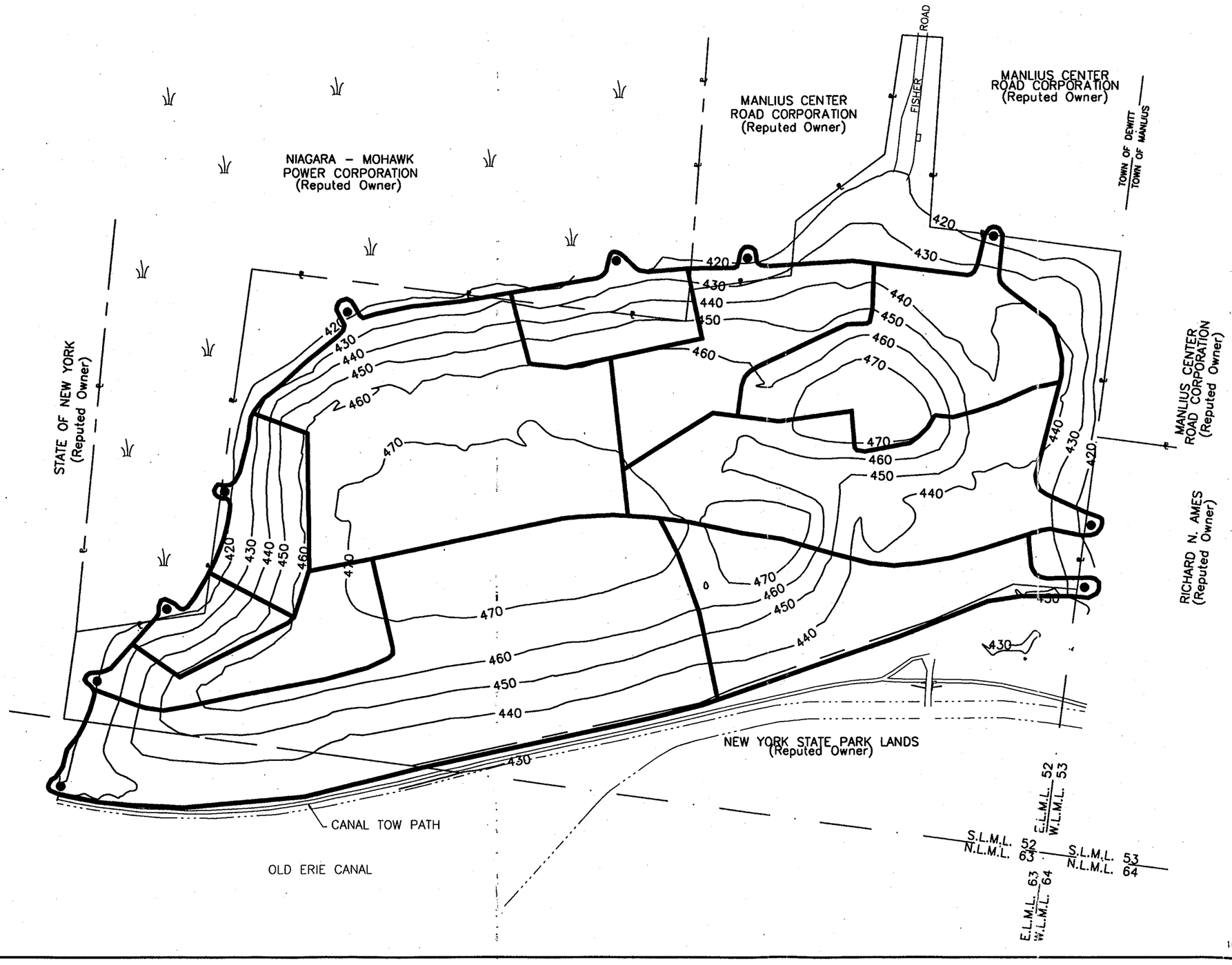
SCALE IN FEET

123.566

O'BRIEN & GERE ENGINEERS,INC.

GENERAL NOTES:

1. TOPOGRAPHIC BASE MAP COMPILED BY BHANDARI-PHILLIPS, ENGINEERS AND SURVEYORS, JANUARY, 1991.
2. ELEVATIONS ARE BASED ON U.S.G.S. DATUM.



10/25/94

FIGURE 4

TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

LEGEND

- PROPERTY LINE
- E.L.M.L. 52 — MILITARY LOT LINE
- 420 — EXISTING CONTOUR (10')
- EDGE OF CANAL
- EXISTING FENCE
- EXISTING CANAL TOW PATH
- DRAINAGE AREA BOUNDARY
- STORM WATER DISCHARGE POINT

DRAINAGE AREA PLAN

250 0 250

SCALE IN FEET

123.566

O'BRIEN & GERE ENGINEERS, INC.

Appendix D

Monitoring well boring and completion logs

O'BRIEN & GERE
ENGINEERS, INC.

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-1S
PAGE 1 OF 1

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

BORING COMPANY: Parratt-Wolff
FOREMAN: Mike Hurley
OBG GEOLOGIST: Peter Bogardus

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

LOCATION: S of Landfill Near Exer. Arena
GROUND WATER ELEV. 419.75' 8/1/86
START DATE: 7/21/86
END DATE: 7/21/86

LEGEND:
- GROUT – Type I Portland Cement – Bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10-slot stainless steel
- RISER – 2" I.D. stainless steel

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
0	1	0-1.5'	4-9-10	6"	19	Dry, brown SILT, some coarse sand, trace of root hairs	0.5'		3
						Dry, hard GRAVEL, some silt, little clay (fill)	1'		
5	2	5-6.5'	20-0	0"	---	Black, wet, fine to coarse SAND, oil film apparent	5'		0.8
10	3	10-11.5'	10-3-4	5"	7	Same as above with fine to coarse gravel			25+
15	4	15-16.5'	50/.1	1"	50+	Same as above with few wood chunks			4
						Wet, brown red peat, some wood fibers, trace silt	17'		
20	5	20-21.5'	10-4-13	8"	17	Wet, tan brown SILT and CLAY, some coarse sand, fine gravel, trace of fine sand, iron oxide stain	20.5'		7
	6	22.5-23.8'	39-34-50/3	12"	80+	Dry, very dense, brown red SILT and CLAY, some fine to coarse sand (till)	23.5'		1.5
25									
30									

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-2S
PAGE 1 OF 2
LOCATION:

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

START DATE: 11/5/91 1630
END DATE:

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: David J. Carnevale

LEGEND:

- GROUT – Type I Portland Cement – Bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel to grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
0	1	0-2	5-5-	2'/1'	15	2" SOD, then moist, medium brown, fine to coarse SAND and fine to coarse GRAVEL (fill)			0
			10-15						
1									
2	2	2-4	12-12-	2'/0.5'	20	Same as above (fill)			0
			8-5						
3									
4	3	4-6	5-2-5-8		7	Same as above (fill)			0
5									
6	4	6-8	19-25-		48	Gray, argillaceous DOLOSTONE GRAVEL with little fine to coarse sand (fill)			0
			23-17						
7									
8	5	8-10	19-22-	2'/1.5'	40	Same as above (fill)			0
			18-14						
9									
10	6	10-12	23-18-	2'/0.75'	44	Same as above (fill)			0
			26-52						
11									
12	7	12-14	23-12-	2'/1'	24	Same as above (fill)			0
			12-21						
13									
14	8	14-16	40-15-	2'/0.25'	26	Same as above (fill)			0
			11-8						
15									
16	9	16-18	5-3-4-3	2'/0.1'	7	Wet, medium to coarse, angular GRAVEL (fill)			0
17									
18	10	18-20	5-5-7-7	2'/2'	12	Moist, dark brown to black PEAT with silt, trace very fine sand to 19.5', grading to greenish gray SILT and very fine SAND with little clay, very cohesive, natural materials			0
19									

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-2S
PAGE 2 OF 2
LOCATION:

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

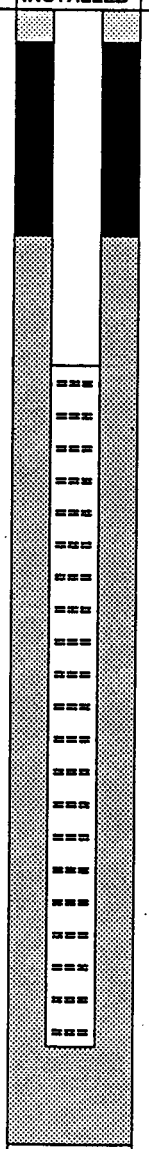
SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

START DATE: 11/5/91 1630
END DATE:

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: David J. Carnevale

LEGEND:
- GROUT – Type I Portland Cement – Bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel to grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
20	11	20–22	3-3-4-4	2'/2'	7	Saturated as above to 21.4', grading to fine SAND with little medium brown, medium sand, little silt			0
21									
22	12	22–24	2-2-4-7	2'/0.1'	6	Pushed rock in bottom of spoon, wash from top of auger			0
23									
24	13	24–26	4-4-6-8	2'/2'	10	Saturated, gray–brown, fine to coarse SAND to 25.5', grading to greenish brown SILT with little clay (horizontally laminated)			0
25									
26	14	26–28	5-6-10-9	2'/2'	16	Saturated as above, ~1' fine to coarse SAND, grading to 1' SILT with little clay and trace fine sand			0
27									
28	15	28–30	5-6-8-10	2'/1.2'	14	Saturated, light brown to gray SILT with some clay, little to trace fine sand, cohesive, horizontally laminated			0
29									
30	16	30–32	6-5-6-7	2'/2'	11	Saturated, gray–brown SILT and CLAY, some fine sand, cohesive, horizontally laminated, some black organic spots			0
31									
32	17	32–34	5-7-17-29	2'/2'	24	Saturated, gray–brown, fine to medium SAND with silt, trace clay, horizontally laminated			0
33									
34	18	34–36	19–38/100	2'/0.25'	---	Refusal at 35.5', roller bit to 36.5', try and drive spoon, large black and gray, angular pieces of argillaceous LIMESTONE			0
35									
36									
37	19	37–37.5				Saturated, green–gray, highly weathered SHALE			
38									
39									
40									



O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-2D
PAGE 1 OF 3
LOCATION:

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

START DATE: 11/14/91
END DATE:

LEGEND:

- GROUT – Type I Portland Cement – Bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel to grade

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
0	1	0-2	5-5-	2'/1'	15	2" SOD, then moist, medium brown, fine to			0
			10-15			coarse SAND and fine to coarse GRAVEL (fill)			
1									
2	2	2-4	12-12-	2'/0.5'	20	Same as above (fill)			0
			8-5						
3									
4	3	4-6	5-2-5-8		7	Same as above (fill)			0
5									
6	4	6-8	19-25-		48	Gray, argillaceous DOLOSTONE GRAVEL with			.0
			23-17			little fine to coarse sand (fill)			
7									
8	5	8-10	19-22-	2'/1.5'	40	Same as above (fill)			0
			18-14						
9									
10	6	10-12	23-18-	2'/0.75'	44	Same as above (fill)			0
			26-52						
11									
12	7	12-14	23-12-	2'/1'	24	Same as above (fill)			0
			12-21						
13									
14	8	14-16	40-15-	2'/0.25'	26	Same as above (fill)			0
			11-8						
15									
16	9	16-18	5-3-4-3	2'/0.1'	7	Wet, medium to coarse, angular GRAVEL (fill)			0
17									
18	10	18-20	5-5-7-7	2'/2'	12	Moist, dark brown to black PEAT with silt, trace			0
19						very fine sand to 19.5', grading to greenish gray SILT and very fine SAND with little clay, very cohesive, natural materials			

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-2D
PAGE 2 OF 3
LOCATION:

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

START DATE: 11/14/91
END DATE:

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

LEGEND:
- GROUT – Type I Portland Cement – Bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel to grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
20	11	20–22	3-3-4-4	2'/2'	7	Saturated as above to 21.4', grading to fine SAND with little medium brown, medium sand, little silt			0
21									
22	12	22–24	2-2-4-7	2'/0.1'	6	Pushed rock in bottom of spoon, wash from top of auger			0
23									
24	13	24–26	4-4-6-8	2'/2'	10	Saturated, gray–brown, fine to coarse SAND to 25.5', grading to greenish brown SILT with little clay (horizontally laminated)			0
25									
26	14	26–28	5-6-10-9	2'/2'	16	Saturated as above, ~1' fine to coarse SAND, grading to 1' SILT with little clay and trace fine sand			0
27									
28	15	28–30	5-6-8-10	2'/1.2'	14	Saturated, light brown to gray SILT with some clay, little to trace fine sand, cohesive, horizontally laminated			0
29									
30	16	30–32	6-5-6-7	2'/2'	11	Saturated, gray–brown SILT and CLAY, some fine sand, cohesive, horizontally laminated, some black organic spots			0
31									
32	17	32–34	5-7-	2'/2'	24	Saturated, gray–brown, fine to medium SAND with silt, trace clay, horizontally laminated			0
			17-29						
33									
34	18	34–36	19-38/100	2'/0.25'	---	Refusal at 35.5', roller bit to 36.5', try and drive spoon, large black and gray, angular pieces of argillaceous LIMESTONE			0
35									
36									
37		37–42				Gray–green, argillaceous LIMESTONE grading to calcareous SHALE, trace gypsum RQD = 0%	RUN 1		
38									
39									

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-2D
PAGE 3 OF 3
LOCATION:

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

START DATE: 11/14/91
END DATE:

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

LEGEND:

- GROUT – Type I Portland Cement – Bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10-slot stainless steel
- RISER – 2" I.D. stainless steel to grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
40									
41									
42		42-47				Same as above	RUN 2		
						RQD = 0%			
43									
44									
45									
46									
47		47-52				Same as above	RUN 3		
						RQD = 0%			
48									
49									
50									
51									
52									
53									
54									
55									
56									
57									
58									
59									
60									
21									

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-3S
PAGE 1 OF 1
LOCATION:

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

START DATE: 11/21/91
END DATE: 11/21/91

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: David J. Carnevale

LEGEND:

- GROUT – Type I Portland Cement – Bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel to ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
0	1	0-2	WOH-1-2-1	2'/~0'	3	Wet, black–dark brown PEAT with silt, little to trace fine to very fine sand			0
1									
2	2	2-4	1-1-1-1	2'/0.25'	2	Same as above			0
3									
4	3	4-6	1-1-1-1	2'/0.5'	2	Gray CLAY at ~5.8', grading to wet, black PEAT as above			0
5									
6	4	6-8	2-3-5-6	2'/1'	8	Wet, gray CLAY to 7.8' Green, saprolitic SHALE (mudstone) to 8'			0
7									
8	5	8-10	6-7-10-20	2'/1'	17	Same as above			0
9									
10	6	10-12	2-4-10-23	2'/1'	14	Same as above			0
11									
12	7	12-14	21-16-14-17	2'/1.5'	30	Same as above			0
13									
14	8	14-16	88-100/3"	2'/0.75'	---	Medium gray, weathered LIMESTONE, rock more competent at 14'			0
15									
16									
17									
18									
19									
20									

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-4S
PAGE 1 OF 1

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

LOCATION: 250' +/- 5' E of electric pole

START DATE 11/9/91
END DATE: 11/9/91

LEGEND:

- GROUT – Type I Portland Cement – Bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel to ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
0	1	0–2	WOH–1–1	2'/0.4'	1	Saturated, brown–tan CLAY with some silt and roots to 1.5'		0
1						Saturated, dark brown–black organic rich SILT with little clay, trace very fine sand		
2	2	2–4	WOH–1–2	2'/0.9'	2	Same as above to 3'		1
3						Saturated, gold and gray SILT and CLAY, laminated, organic rich (black spots)		
4	3	4–6	2–1–1–1	2'/1.4'	2	Saturated, as above to 5.2'; Saturated, gray–light brown, very fine SAND with little silt and clay to 5.3'; Saturated, gray–light brown CLAY and SILT to 5.7'; Saturated, fine SAND and SILT as above to 5.9'; Saturated CLAY and SILT as above		1
5								
6	4	6–8	2–3–4–3	2'/1.9'	7			1
7						6.3'– Saturated, gray–brown, fine SAND with some silt and clay to 7.8' (laminated, some clay and silt horizons), grades to saturated, gray, red and white, fine to coarse SAND with little fine, round gravel		
8	5	8–10	5–6–9–11	2'/2'	15			1
9						Saturated as above to 9'; Saturated, gray–brown SILT with little clay (laminated), grades to gray–brown CLAY with some silt		
10	6	10–12	3–4–5–5	2'/2'	9			0
11						12' (with 6 lamin./0.1'), lamination of very fine, brown SAND, lamination of silt at top, trace fine gravel at bottom at bottom of spoon		
12	7	12–14	9–10–11–11	2'/2'	21	Saturated as above with 2 lamin./0.1' (maroon colored clay horizons) to 13.9'		0
13						Saturated, gray, fine SAND with little silt and clay		
14	8	14–16	2–2–3–2	2'/2'	5	Saturated, gray SILT with red clay laminations to 14.7'; Saturated, red–maroon CLAY with some silt to 15.8'; Saturated, red–brown, fine SAND and SILT with some clay		0
15								
16	9	16–18	2–50–50/0.2'	2'/1.2'	50+	Saturated as above to 16.2'; Saturated, gray and maroon CLAY with some silt to 16.7'		0
17						Saturated, gray DOLOSTONE with some gypsum		
18								
19								

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-4D
PAGE 1 OF 2

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

LOCATION: 250' +/- 5' E of electric pole

START DATE: 10/24/91 0840
END DATE:

LEGEND:

- GROUT – Type I Portland Cement – Bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel to ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
0	1	0-2	WOH-1-1	2'/0.4'	1	Saturated, brown–tan CLAY with little silt and roots to 1.5'			0
1						Saturated, dark brown–black organic rich SILT with some clay, trace very fine sand			
2	2	2-4	WOH-1-2	2'/0.9'	2	Same as above to 3'			1
3						Saturated, gold and gray SILT and CLAY, laminated, organic rich (black spots)			
4	3	4-6	2-1-1-1	2'/1.4'	2	Saturated, as above to 5.2'; Saturated, gray–light brown, very fine SAND with little silt			1
5						and clay to 5.3'; Saturated, gray–light brown CLAY and SILT to 5.7'; Saturated, fine SAND			
6	4	6-8	2-3-4-3	2'/1.9'	7	and SILT as above to 5.9'; Saturated CLAY and SILT as above			1
7						6.3' – Saturated, gray–brown, fine SAND with some silt and clay to 7.8'(laminated, some clay			
8	5	8-10	5-6-9-11	2'/2'	15	and silt horizons), grades to saturated, gray, red and white, fine to coarse SAND with little			1
9						fine, round gravel			
10	6	10-12	3-4-5-5	2'/2'	9	Saturated as above to 9'; Saturated, gray–brown SILT with little clay (laminated), grades to			0
11						gray–brown CLAY with some silt			
12	7	12-14	9-10-	2'/2'	21	12' (with 6 lamin./0.1'), lamination of very fine, brown SAND, lamination of silt at top, trace fine gravel at bottom of spoon			0
			11-11			Saturated as above with 2 lamin./0.1' (maroon			
13						colored clay horizons) to 13.9'			
14	8	14-16	2-2-3-2	2'/2'	5	Saturated, gray, fine SAND with little silt and clay			0
15						Saturated, gray SILT with red clay laminations to 14.7'; Saturated, red–maroon CLAY with some			
16	9	16-18	2-50-	2'/1.2'	50+	silt to 15.8'; Saturated, red–brown, fine SAND and SILT with some clay			0
			50/0.2'			Saturated as above to 16.2'; Saturated, gray			
17						and maroon CLAY with some silt to 16.7'			
18						Saturated, gray DOLOSTONE with some gypsum			
19		19-24				Gray, argillaceous LIMESTONE and calcareous SHALE, trace gypsum	RUN 1		
						RQD = 29%			

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-4D
PAGE 2 OF 2

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

LOCATION: 250' +/- 5' E of electric pole

SAMPLER: Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

START DATE: 10/24/91 0840
END DATE:

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

LEGEND:

- GROUT – Type I Portland Cement – Bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel to ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTIN HNU (ppm)
20									
21									
22									
23									
24		24-29				Same as above RQD = 55%	RUN 2		
25									
26									
27									
28									
29		29-33.1				Same as above RQD = 60%	RUN 3		
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-5S
PAGE 1 OF 2

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

SAMPLER Split Spoon 2" / HX Corer
HAMMER: 140 lbs.
FALL: 30"

LOCATION: 71' SW of most southern proximal wood electric pole
START DATE: 10/25/91 0800
END DATE:

LEGEND:
- GROUT – Type I Portland Cement – Bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel to ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
0	1	0-2	WOH-1-	2'/0.5'	3	Moist, black–dark brown organic, rich SILT and CLAY to ~1.1', grades to brown SILT and CLAY with some roots			0
			2-3						
1									
2	2	2-4	2-4-5-5	2'/1.8'	9	As above to 2.4'; Damp, gray and gold, very fine SAND and SILT with little clay, faintly laminated, occasional roots to 3.8'; Moist,			0
3									
						gray CLAY horizon to 3.9'; very fine sand and			
4	3	4-6	6-7-12-8	2'/1.9'	19	silt as above			0
						Saturated as above from 4.1'; Saturated, brown			
5						and gold CLAY with some silt to 4.4'; Sat–			
						urated, gray and gold, fine to medium SAND			
6	4	6-8	6-6-9-7	2'/1.7'	15	with some silt and clay to 5.2'; Saturated,			0
						gray–brown GRAVEL with some sand, silt and clay			
7						(ice rafted, looks like till from MW–9) to 5.5';			
						Saturated, gold–brown, fine to medium SAND with			
8	5	8-10	5-3-	2'/1.6'	17	some silt and clay			0
			14-20			Saturated as above, grades to light brown SILT			
9						with little clay, grades to brown CLAY with			
						some silt to 7.8'; Saturated as above with			
10	6	10-12	3-4-7-14	2'/1.7'	11	little medium, faceted and striated gravel			0
						(A–axis vertical)			
11						Saturated, gold–tan, medium to fine SAND with			
						some silt and clay to 9'; Saturated, gray–gray			
12	7	12-14	45-18-	2'/	46	brown SILT and CLAY to 9.1'; Saturated, brown,			0
			28-35			medium SAND to 9.2'; Saturated gray–brown			
13						SILT and CLAY as above to 9.3'; Saturated,			
						brown, medium SAND as above to 9.4'; Satur–			
						ated, brown–gray brown SILT and CLAY to 9.7';			
						Saturated, brown, medium SAND as above to 10'			
						Saturated, brown, medium SAND with little clay			
						to 11.5; Saturated, brown and gray, round to			
						angular GRAVEL (faceting visible)			
						Saturated as above, mostly gray–brown DOLO–			
						STONE fragments, occasional black, faceted			
						pebbles, ~80% GRAVEL, 10% SAND, 5% silt			
						and clay			

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-5S
PAGE 2 OF 2

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

SAMPLER Split Spoon 2" / HX Corer
HAMMER: 140 lbs.
FALL: 30"

LOCATION: 71' SW of most southern proximal wood electric pole
START DATE: 10/25/91 0800
END DATE:

LEGEND:
- GROUT – Type I Portland Cement – Bentonite Slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10-slot stainless steel
- RISER – 2" I.D. stainless steel to ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
14	8	14-16	8-22-	2'/1.5'	47	Saturated, brown, gray and green, angular to round, fine to medium GRAVEL, little silt and clay, mostly gray limestone gravel			0
			25-20						
15									
16	9	16-18	16-15-	2'/1.7'	26	Saturated as above with gray calcitic precip-itation zones with precipitation visible in fractures			0
			11-18						
17									
18	10	18-20	15-10-	2'/1.8'	21	Saturated as above, round and angular GRAVEL, zones of well sorted coarse to medium SAND at bottom of spoon			0
			11-11						
19									
20	11	20-22	5-14-	2'/1.5'	29	Saturated, gray-gray brown GRAVEL with sand, some silt, little clay, massive, matrix-sup-ported, overcompact to a certain degree (not overly)			0
			15-10						
21									
22	12	22-24	14-12-	2'/1.4'	22	Saturated as above, ~50% round to angular GRAVEL, 20% sand, 20% silt, 10% clay, A-axis horizontal			0
			10-8						
23									
24									0
25									
26									
27									
28									
29									
30									
31									
32									
33									

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-5D
PAGE 1 OF 3

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

SAMPLER Split Spoon 2" / HX Corer
HAMMER: 140 lbs.
FALL: 30"

LOCATION: 71' SW of most southern proximal wood electric pole
START DATE: 10/25/91 0800
END DATE:

LEGEND:
- GROUT – Type I Portland Cement – Bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel to ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
0	1	0-2	WOH-1-	2'/0.5'	3	Moist, black–dark brown organic, rich SILT			0
			2-3			and CLAY to ~1.1', grades to brown SILT and			
1						CLAY with some roots			
2	2	2-4	2-4-5-5	2'/1.8'	9	As above to 2.4'; Damp, gray and gold, very			0
						fine SAND and SILT with little clay, faintly			
3						laminated, occasional roots to 3.8'; Moist,			
						gray CLAY horizon to 3.9'; very fine sand and			
4	3	4-6	6-7-12-8	2'/1.9'	19	silt as above			0
						Saturated as above from 4.1'; Saturated, brown			
5						and gold CLAY with some silt to 4.4'; Sat–			
						urated, gray and gold, fine to medium SAND			
6	4	6-8	6-6-9-7	2'/1.7'	15	with some silt and clay to 5.2'; Saturated,			0
						gray–brown GRAVEL with some sand, silt and clay			
7						(ice rafted, looks like till from MW–9) to 5.5';			
						Saturated, gold–brown, fine to medium SAND with			
8	5	8-10	5-3-	2'/1.6'	17	some silt and clay			0
			14-20			Saturated as above, grades to light brown SILT			
9						with little clay, grades to brown CLAY with			
						some silt to 7.8'; Saturated as above with			
10	6	10-12	3-4-7-14	2'/1.7'	11	little medium, faceted and striated gravel			0
						(A–axis vertical)			
11						Saturated, gold–tan, medium to fine SAND with			
						some silt and clay to 9'; Saturated, gray–gray			
12	7	12-14	45-18-	2'/	46	brown SILT and CLAY to 9.1'; Saturated, brown,			0
			28-35			medium SAND to 9.2'; Saturated gray–brown			
13						SILT and CLAY as above to 9.3'; Saturated,			
						brown, medium SAND as above to 9.4'; Satur–			
						ated, brown–gray brown SILT and CLAY to 9.7';			
						Saturated, brown, medium SAND as above to 10'			
						Saturated, brown, medium SAND with little clay			
						to 11.5; Saturated, brown and gray, round to			
						angular GRAVEL (faceting visible)			
						Saturated as above, mostly gray–brown DOLO–			
						STONE fragments, occasional black, faceted			
						pebbles, ~80% GRAVEL, 10% SAND, 5% silt			
						and clay			

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-5D
PAGE 2 OF 3

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

SAMPLER Split Spoon 2" / HX Corer
HAMMER: 140 lbs.
FALL: 30"

LOCATION: 71' SW of most southern proximal wood electric pole
START DATE: 10/25/91 0800
END DATE:

LEGEND:
- GROUT – Type I Portland Cement – Bentonite Slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10-slot stainless steel
- RISER – 2" I.D. stainless steel to ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
14	8	14-16	8-22-	2'/1.5'	47	Saturated, brown, gray and green, angular to			0
			25-20			round, fine to medium GRAVEL, little silt and			
15						clay, mostly gray limestone gravel			
16	9	16-18	16-15-	2'/1.7'	26	Saturated as above with gray calcitic precip-			0
			11-18			itation zones with precipitation visible in			
17						fractures			
18	10	18-20	15-10-	2'/1.8'	21	Saturated as above, round and angular GRAVEL,			0
			11-11			zones of well sorted coarse to medium SAND at			
19						bottom of spoon			
20	11	20-22	5-14-	2'/1.5'	29	Saturated, gray-gray brown GRAVEL with sand,			0
			15-10			some silt, little clay, massive, matrix-sup-			
21						ported, overcompact to a certain degree (not			
						overly)			
22	12	22-24	14-12-	2'/1.4'	22	Saturated as above, ~50% round to angular			0
			10-8			GRAVEL, 20% sand, 20% silt, 10% clay, A-axis			
23						horizontal			
24	13	24-26	18-	0.7'/0.7'	---	Saturated as above, green, gray and red MUD			0
			50/0.2'			to 24.5'			
25						Saturated, gray, weathered, argillaceous			
						LIMESTONE/DOLOSTONE			
26									
		26.5-28				RQD = 0%	RUN 1		
27						Core description as above, green gray in color			
28		28-33				RQD = 16%	RUN 2		
						Core as above			
29									
30									
31									
32									
33		33-38				RQD = 17.5%	RUN 3		

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING MW-5D PAGE 3 OF 3
CLIENT: Town of Dewitt	SAMPLER Split Spoon 2"	LOCATION: 71' SW of most southern proximal wood electric pole
PROJECT LOCATION: Dewitt Landfill	HAMMER: 140 lbs.	START DATE: 10/25/91 0800
FILE NO.: 123.566.576	FALL: 30"	END DATE:
BORING COMPANY: Atlantic Testing Labs FOREMAN: Mark Hawkins OBG GEOLOGIST: Paul Gottler	LEGEND: GROUT – Type I Portland Cement – Bentonite slurry SAND PACK – "0" Grade Morie Sand PELLETS – Bentonite Chips SCREEN – 2" I.D. 10–slot stainless steel RISER – 2" I.D. stainless steel to ~2' above grade	

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
34									
35									
36									
37									
38		38–43				RQD = 53%	RUN 4		
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									
50									

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-6S
PAGE 1 OF 1
LOCATION:

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

START DATE: 11/25/91 1200
END DATE:

LEGEND:

- GROUT – Type I Portland Cement – bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
0	1	0-2	3-3-4-4	2'/1.6'	7	Damp, black–dark brown PEAT with little silt and clay to 0.8'			0
1						Damp to moist, orange–brown SAND and SILT to 2.2'			
2	2	2-4	4-5-7-9	2'/1'	12	Saturated, gold–gray, fine SAND and SILT			0
3									
4	3	4-6	2-2-4-6	2'/1.8'	6	Saturated as above with medium sand horizon (also green, medium to fine sand) to 5.5'			0
5						Saturated, brown–dark brown, coarse SAND and fine, rounded to subrounded GRAVEL			
6									
7									
8	4	8-10	7-11-10-8	2'/2'	21	Saturated as above, graded coarse to medium SAND and well rounded GRAVEL layers			0
9									
10	5	10-12	2-2-2-3	2'/1.6'	4	Saturated as above			0
11									
12	6	12-14	2-3-4-5	2'/2'	7	Saturated as above to 13.7'			0
13						Saturated, gray–red gray CLAY and SILT			
14	7	14-16	1-3-6-7	2'/1.9'	9	Saturated as above			0
15									
16	8	16-18	5-7-6-8	2'/2'	13	Saturated as above with brown, medium SAND horizon 17.1–17.5', each zone coarsens downward, sharp contact at 17.5'; Saturated, gray–red gray CLAY and SILT			0
17									
18	9	18-20	7-20-17-19	2'/1.6'	37	Saturated, brown–red brown, very fine SAND and SILT (laminated) to 19'; Saturated, gray, white, dark gray, faceted, subround GRAVEL with some sand, silt and clay			0
19									
20	10	20-22	10-30-21-35	2'/1.6'	51	Saturated as above to 21.7'			0
21						Saturated, green–gray green, weathered, calcareous SHALE			

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-7S
PAGE 1 OF 1
LOCATION:

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

START DATE: 12/29/86
END DATE: 12/29/86

BORING COMPANY: Parratt-Wolff
FOREMAN: Mark & Jeff
OBG GEOLOGIST: Paul Gottler

LEGEND:
- GROUT – Type I Portland Cement – Bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10-slot stainless steel
- RISER – 2" I.D. stainless steel

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
0		0-4.5'				GRAVEL, some gray-brown, damp silt and sand, trace of clay			
5	1	4.5-6'	8-13-14	1.5'/1'	27	As above			
10	2	9.5-11'	20-21-17	1.5'/1'	38	As above Saturated at 12.5'			
15	3	14.5-16	20-10-10	1.5'/1'	20	Light brown, medium to coarse SAND, some silt and fine gravel, wet			
20	4	19.5-21	9-9-9	1.5'/1'	18	As above with trace medium gravel			
25	5	24.5-26	33-40-44	1.5'/1.5'	84	Reddish brown, slightly silty clay, stiff, dry	24'		
30						Bottom of hole @ 26' (2' into confining layer)			

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-8S
PAGE 1 OF 2

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

LOCATION: 900' N of NE corner canal center building

START DATE: 10/30/91 0830

END DATE:

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Paul Davis
OBG GEOLOGIST: Paul Gottler

LEGEND:

- GROUT – Type I Portland Cement – bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. Stainless steel ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
0	1	0-2	1-1-1-3	2'/2'	2	Saturated, black–dark brown PEAT with some silt, trace clay to 0.7'; Saturated, gray and gold, very fine SAND and SILT, some clay to 1.7'; Saturated, brown–light brown, medium SAND (laminated) to 1.9'			0
1									
2	2	2-4	3-1-1-3	2'/1.7'	2				0.2
3						Saturated, gray and gold, very fine SAND and SILT as above (laminated) to 2.4'; Saturated, gray and light brown, medium SAND with little			
4	3	4-6	4-4-6-6	2'/1.4'	10	silt and clay to 2.9'; Saturated, gray SILT			0.1
5						with some clay to 3.2'; Saturated, gray, med–			
6	4	6-8	5-7-8-11	2'/2'	15	lum SAND as above to 3.6'; Saturated, gray CLAY with some silt to 3.8'; Saturated, gray, fine to coarse SAND and GRAVEL, trace silt and clay			0
7						Saturated as above, rounded to subrounded GRAVEL, all fine, gray, white and red sand,			
8	5	8-10	7-7-11-14	2'/2'	18	little clay, trace silt			0
9						Saturated as above, gray, white and red, fine to coarse SAND with little subrounded to rounded gravel, little silt, trace clay, 50%			
10	6	10-12	5-7-9-9	2'/1.9'	16	coarse sand, 20% medium sand, 10% gravel (rest mud)			0
11						Saturated as above (A–axis horizontal) to 9.7'; Saturated, brown, fine SAND, with little silt,			
12	7	12-14	11-10-10-15	2'/2'	20	trace clay to 9.9'; Saturated SAND and GRAVEL with little silt and clay as above to 10.1'			0
13						Saturated, gray and gold, fine SAND and SILT, with some clay laminated (~5/0.1') to 10.8';			
14	8	14-16	9-9-11-14	2'/2'	20	Saturated SAND and GRAVEL as above with gravel lenses			0
15						Saturated as above with clay lenses at 12.2' and 13.7', lenses gray and ~0.1' thick			
						Saturated, gray, white and red, well sorted, medium to coarse SAND, trace gravel, silt and clay to 14.9'; Saturated, gray and gold SILT, very fine SAND and CLAY to 15.3', round gra– vel, sand, silt and clay zone from 15.1–15.2'; Saturated, gray SILT with little gravel to 15.5'; Saturated, gray–brown, medium to coarse SAND to 15.7'; Saturated, gray SILT with little fine gravel as above			

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-8S
PAGE 2 OF 2

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Paul Davis
OBG GEOLOGIST: Paul Gottler

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

LOCATION: 900' N of NE corner canal center building
START DATE: 10/30/91 0830
END DATE:

LEGEND:
- GROUT – Type I Portland Cement – bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
16	9	16-18	5-6-6-5	2'/2'	12	Saturated, gray, white, black, red coarse to fine SAND and GRAVEL as above, trace silt and clay (gray clay lamination at 17.8')			0
17									
18	10	18-20	11-19-25-21	2'/2'	44	Saturated, gray, white, black and little red, coarse to medium SAND with little well rounded to subrounded gravel, little silt, clay and fine sand, laminations present			0
19									
20	11	20-22	9-11-19-23	2'/2'	30	Saturated as above to 20.3'; Saturated, gray and gold SILT, very fine SAND and CLAY as above to 20.8'; Saturated, gray–brown SAND and GRAVEL, trace silt and clay to 21.2'; Saturated, gray			0
21									
22	12	22-24	12-35-19-22	2'/2'	54	SILT with floating, fine gravel (IBRD) to 20.5'; Saturated, gray–gold, angular GRAVEL with some coarse to fine sand, little silt, trace clay and red sand (till)			0
23									
24	13	24-26	51-60-48-33	2'/1'	108	Saturated as above with mostly very fine, angular to round GRAVEL (40%), coarse to fine sand (30%), silt (15%), clay (15%), A–axis horizontal to 23.5'; Saturated GRAVEL with some sand, little silt, trace clay			
25									
26									
27						Saturated as above, 90% GRAVEL, 7% sand, 3% mud, trace red sand			
28									
29									
30									
31									
32									
33									
34									
35									
36									

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-8D
PAGE 1 OF 3

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

LOCATION: 900' N of NE corner canal center building
START DATE: 10/30/91 0830
END DATE:

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Paul Davis
OBG GEOLOGIST: Paul Gottler

LEGEND:

- GROUT – Type I Portland Cement – bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. Stainless steel ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
0	1	0-2	1-1-1-3	2'/2'	2	Saturated, black–dark brown PEAT with some silt, trace clay to 0.7'; Saturated, gray and gold, very fine SAND and SILT, some clay to 1.7'; Saturated, brown–light brown, medium SAND (laminated) to 1.9'			0
1									
2	2	2-4	3-1-1-3	2'/1.7'	2				0.2
3						Saturated, gray and gold, very fine SAND and SILT as above (laminated) to 2.4'; Saturated, gray and light brown, medium SAND with little silt and clay to 2.9'; Saturated, gray SILT with some clay to 3.2'; Saturated, gray, med–ium SAND as above to 3.6'; Saturated, gray CLAY with some silt to 3.8'; Saturated, gray, fine to coarse SAND and GRAVEL, trace silt and clay			
4	3	4-6	4-4-6-6	2'/1.4'	10				0.1
5									
6	4	6-8	5-7-8-11	2'/2'	15				0
7						Saturated as above, rounded to subrounded GRAVEL, all fine, gray, white and red sand, little clay, trace silt			
8	5	8-10	7-7-11-14	2'/2'	18				0
9						Saturated as above, gray, white and red, fine to coarse SAND with little subrounded to rounded gravel, little silt, trace clay, 50% coarse sand, 20% medium sand, 10% gravel (rest mud)			
10	6	10-12	5-7-9-9	2'/1.9'	16				0
11						Saturated as above (A–axis horizontal) to 9.7'; Saturated, brown, fine SAND, with little silt, trace clay to 9.9'; Saturated SAND and GRAVEL with little silt and clay as above to 10.1'			
12	7	12-14	11-10-10-15	2'/2'	20				0
13						Saturated, gray and gold, fine SAND and SILT, with some clay laminated (~5/0.1') to 10.8'; Saturated SAND and GRAVEL as above with gravel lenses			
14	8	14-16	9-9-11-14	2'/2'	20				0
15						Saturated as above with clay lenses at 12.2' and 13.7', lenses gray and ~0.1' thick Saturated, gray, white and red, well sorted, medium to coarse SAND, trace gravel, silt and clay to 14.9'; Saturated, gray and gold SILT, very fine SAND and CLAY to 15.3', round gra–vel, sand, silt and clay zone from 15.1–15.2'; Saturated, gray SILT with little gravel to 15.5'; Saturated, gray–brown, medium to coarse SAND to 15.7'; Saturated, gray SILT with little fine gravel as above			

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-8D
PAGE 2 OF 3

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Paul Davis
OBG GEOLOGIST: Paul Gottler

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

LOCATION: 900' N of NE corner canal center building
START DATE: 10/30/91 0830
END DATE:

LEGEND:
- GROUT – Type I Portland Cement – bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
16	9	16-18	5-6-6-5	2'/2'	12	Saturated, gray, white, black, red coarse to fine SAND and GRAVEL as above, trace silt and clay (gray clay lamination at 17.8')			0
17									
18	10	18-20	11-19-	2'/2'	44	Saturated, gray, white, black and little red, coarse to medium SAND with little well rounded to subrounded gravel, little silt, clay and fine sand, laminations present			0
			25-21						
19									
20	11	20-22	9-11-	2'/2'	30	Saturated as above to 20.3'; Saturated, gray and gold SILT, very fine SAND and CLAY as above to 20.8'; Saturated, gray–brown SAND and GRAVEL, trace silt and clay to 21.2'; Saturated, gray SILT with floating, fine gravel (IBRD) to 20.5'; Saturated, gray–gold, angular GRAVEL with some coarse to fine sand, little silt, trace clay and red sand (till)			0
			19-23						
21									
22	12	22-24	12-35-	2'/2'	54				0
			19-22						
23									
24	13	24-26	51-60-	2'/1'	108	Saturated as above with mostly very fine, angular to round GRAVEL (40%), coarse to fine sand (30%), silt (15%), clay (15%), A–axis horizontal to 23.5'; Saturated GRAVEL with some sand, little silt, trace clay			
			48-33						
25									
26	14	26-28	33-36-	2'/1.1'	75	Saturated as above, 90% GRAVEL, 7% sand, 3% mud, trace red sand			
			39-62						
27						Saturated as above (1 subround pebble, all other gravel angular)			
28	15	28-41				Gray–red brown LIMESTONE boulders with red clay, silt and sand matrix			
29									
		28-33				RQD = 70%	RUN 1		
30									
31									
32									
33		33-38				Red quartzite COBBLE RQD = 48%	RUN 2		
34									
35									
36									

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-8D
PAGE 3 OF 3

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Paul Davis
OBG GEOLOGIST: Paul Gottler

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

LOCATION: 900' N of NE corner canal center building
START DATE: 10/30/91 0830
END DATE:

LEGEND:
- GROUT – Type I Portland Cement – bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
37									
38		38-43				RQD = 41%	RUN 3		
39									
40									
41	16	41				Gray–green, argillaceous LIMESTONE			
42									
43		43-48				Green–green gray calcareous SHALE – agril– laceous LIMESTONE, highly weathered alter– nating beds of shale rich layers and lime– stone rich layers, trace gypsum RQD = 42%	RUN 4		
44									
45									
46									
47									
48		48-53				As above RQD = 37%	RUN 5		
49									
50									
51									
52									
53		53-58				As above RQD = 41%	RUN 6		
54									
55									
56									
57									
58									

Bottom of boring 58.3'

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-9S
PAGE 1 OF 1
LOCATION:

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

SAMPLER Split Spoon 2"/HX Corer
HAMMER: 140 lbs.
FALL: 30"

START DATE: 10/22/91 1300
END DATE:

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

LEGEND:
- GROUT – Type I Portland Cement – bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
0	1	0-2	1-1-4-5	2'/1.2'	5	Damp, brown, SILT and CLAY to 0.2'; Saturated, brown, SILT and CLAY to 0.5'; Damp, black, organic rich SILT and CLAY, roots, swampy odor to 0.8'; Saturated, gary–gray brown SAND and GRAVEL with little clay to 1.4'; Saturated, orange–gold, medium SAND			0
1									
2	2	2-4	7-12-	2'/1'	34				0
3			22-23						
4	3	4-6	18-36-	2'/1.1'	67	Saturated, gray, fine to medium, subrounded to angular GRAVEL, 70%, (mostly angular fa–cets observed in fine gravel at top of spoon) with sand, 20%, silt, 5%, and clay, 5%, bot–tom of spoon monomineralic, gray–light brown LIMESTONE, trace red sand			0
5			31-35						
6	4	6-8	21-21-	2'/1.1'	45	Saturated, gray–brown GRAVEL and SAND with minor silt and clay as above with dark gray, faceted and striated, fine gravel			0
7			24-22						
8	5	8-10	14-15-	2'/1.7'	32	Saturated as above with some well rounded, fine GRAVEL			0
9			17-15			Saturated as above, trace red sand			
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-9M
PAGE 1 OF 2
LOCATION:

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

SAMPLER Split Spoon 2"/HX Corer
HAMMER: 140 lbs.
FALL: 30"

START DATE: 10/22/91 1300
END DATE:

LEGEND:
- GROUT – Type I Portland Cement – bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
0	1	0-2	1-1-4-5	2'/1.2'	5	Damp, brown, SILT and CLAY to 0.2'; Saturated, brown, SILT and CLAY to 0.5'; Damp, black, organic rich SILT and CLAY, roots, swampy odor to 0.8'; Saturated, gary–gray brown SAND and GRAVEL with little clay to 1.4'; Saturated, orange–gold, medium SAND			0
1									
2	2	2-4	7-12-	2'/1'	34				0
			22-23						
3						Saturated, gray, fine to medium, subrounded to angular GRAVEL, 70%, (mostly angular fa–			
4	3	4-6	18-36-	2'/1.1'	67	cets observed in fine gravel at top of spoon) with sand, 20%, silt, 5%, and clay, 5%, bot–			0
			31-35			tom of spoon monomineralic, gray–light brown LIMESTONE, trace red sand			
5									
6	4	6-8	21-21-	2'/1.1'	45	Saturated, gray–brown GRAVEL and SAND with minor silt and clay as above with dark gray, faceted and striated, fine gravel			0
			24-22						
7						Saturated as above with some well rounded,			
8	5	8-10	14-15-	2'/1.7'	32	fine GRAVEL			0
			17-15			Saturated as above, trace red sand			
9									
10	6	10-12	12-10-	2'/1'	20	Saturated as above			0
			10-9						
11									
12	7	12-14	6-20-	2'/1.4'	52	Saturated as above to 13'; Saturated, brown,			0
			32-25			medium SAND to 13.3'; Saturated, gray–brown GRAVEL and SAND with little silt and clay			
13						to 13.7'; Saturated, brown, medium SAND, trace			
14	8	14-16	22-26-	2'/2'	58	clay and fine GRAVEL			0
			32-34			Saturated, red brown, very fine SAND and SILT,			
15						trace clay and fine gravel, very faintly lam–			
16	9	16-18	18-22-	2'/1.9'	40	inated (gravel floating) Same as above to 16.3'; Saturated, brown–gray,			0
			18-25			very fine SAND and SILT, trace clay to 16.5;			
17						Saturated, brown, fine to medium SAND, trace			
18	10	18-20	20-21-	2'/1.7'	55	clay to 16.6'; Saturated, brown, very fine SAND and SILT, trace clay to 17.8'			0
			34-35			Saturated, red–red brown, medium SAND, trace			
19						silt, clay and fine gravel (floating) to 18.8';			
						Saturated, red, medium SAND, trace silt and			
						clay to 19.6'; Saturated, gray CLAY horizon			
						to 19.7'; Saturated, gray, very fine SAND and SILT, trace clay, laminated			

O'BRIEN & GERE ENGINEERS, INC.	TEST BORING LOG	REPORT OF BORING MW-9M PAGE 2 OF 2
CLIENT: Town of Dewitt	SAMPLER Split Spoon 2"	LOCATION:
PROJECT LOCATION: Dewitt Landfill	HAMMER: 140 lbs. FALL: 30"	START DATE: 10/22/91 1300 END DATE:
FILE NO.: 123.566.576	LEGEND:	
BORING COMPANY: Atlantic Testing Labs FOREMAN: Mark Hawkins OBG GEOLOGIST: Paul Gottler	GROUT – Type I Portland Cement – bentonite slurry SAND PACK – "0" Grade Morie Sand PELLETS – Bentonite Chips SCREEN – 2" I.D. 10–slot stainless steel RISER – 2" I.D. stainless steel ~2' above grade	

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
20	11	20-22	12-12-	2'/2'	27	Saturated, red SILT with little red clay			0
			15-8			to 20.7'; Saturated, red CLAY with some silt			
21						to 20.9'; Saturated, red, very fine SAND,			
						grading to SILT, trace clay to 21.4'; Sat-			
22	12	22-24	1-7-	2'/2'	24	urated, red, fine SAND coarsening to medium			0
			17-24			SAND, trace silt and clay			
23						As above to 22.5'; Grades to red, fine SAND			
						and back to medium SAND to 23.4'; Saturated,			
24	13	24-26	7-7-5-8	2'/2'	12	red, very fine SAND and SILT, trace clay to			0
						23.8'; Saturated, red–brown red, medium SAND,			
25						trace silt and clay			
						Grades to fine SAND, faintly laminated, breaks			
26	14	26-28	10-12-	2'/2'	24	along planes, increasing dark sand grains			.0
			12-10			Saturated, gray and black, coarse to medium			
27						SAND (graded medium at top, coarse at bot-			
						tom), trace fine gravel to 27'; Saturated,			
28	15	28-30	11-16-	2'/2'	33	red brown, very fine to fine SAND, laminated			0
			17-20			with trace clay			
29						Saturated as above to 28.6'; Saturated, red			
						SILT and CLAY to 29.3'; Saturated, red brown,			
30	16	30-32	6-14-	2'/1.7'	27	fine SAND as above to 29.8'; Saturated, gray,			0
			13-25			white and black, medium SAND as above			
31						Saturated as above to 30.6'; Saturated(?), red–			
						maroon CLAY with some silt, trace finely lam–			
32	17	32-34	15-18-	2'/1.9'	40	inated, subrounded, faceted GRAVEL, A–axis hor–			0
			22-22			izontal to 31.2'; Saturated, gray, white, black,			
33						medium SAND to 31.3'; Saturated CLAY with little			
						silt and trace gravel as above to 31.7'; Sat–			
34	18	34-36	7-19-	2'/		urated SAND as above to 31.8'; Saturated CLAY			1
			50/0.2'			and SILT as above			
35						Saturated, red–maroon CLAY and SILT, trace			
						fine gravel to 32.4'; Saturated, red brown,			
36						fine SAND, some silt, trace clay and gravel			
						(deformed laminations) to 33.5'; Saturated,			
37						red–brown red SILT and CLAY as above to 33.8';			
						Saturated, brown–red brown SAND with little			
38						medium to fine, subrounded, faceted and stri–			
						ated gravel			
39						Saturated as above to 34.5'; Saturated(?)			
						(bedrock), green–gray, argillaceous LIMESTONE			
40						with some white gypsum seams, rock very			
						weathered			
41									

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-9D
PAGE 1 OF 3
LOCATION:

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

SAMPLER Split Spoon 2"/HX Corer
HAMMER: 140 lbs.
FALL: 30"

START DATE: 10/22/91 1300
END DATE:

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

LEGEND:

- GROUT – Type I Portland Cement – bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
0	1	0-2	1-1-4-5	2'/1.2'	5	Damp, brown, SILT and CLAY to 0.2'; Saturated, brown, SILT and CLAY to 0.5'; Damp, black, organic rich SILT and CLAY, roots, swampy odor to 0.8'; Saturated, gary–gray brown SAND and GRAVEL with little clay to 1.4'; Saturated, orange–gold, medium SAND			0
1									
2	2	2-4	7-12-	2'/1'	34				0
			22-23						
3						Saturated, gray, fine to medium, subrounded to angular GRAVEL, 70%, (mostly angular fa–			
4	3	4-6	18-36-	2'/1.1'	67	cets observed in fine gravel at top of spoon) with sand, 20%, silt, 5%, and clay, 5%, bot–			0
			31-35			tom of spoon monomineralic, gray–light brown LIMESTONE, trace red sand			
5									
6	4	6-8	21-21-	2'/1.1'	45	Saturated, gray–brown GRAVEL and SAND with minor silt and clay as above with dark gray, faceted and striated, fine gravel			0
			24-22						
7						Saturated as above with some well rounded,			
8	5	8-10	14-15-	2'/1.7'	32	fine GRAVEL			0
			17-15			Saturated as above, trace red sand			
9									
10	6	10-12	12-10-	2'/1'	20	Saturated as above			0
			10-9						
11									
12	7	12-14	6-20-	2'/1.4'	52	Saturated as above to 13'; Saturated, brown,			0
			32-25			medium SAND to 13.3'; Saturated, gray–brown			
13						GRAVEL and SAND with little silt and clay			
14	8	14-16	22-26-	2'/2'	58	to 13.7'; Saturated, brown, medium SAND, trace clay and fine GRAVEL			0
			32-34			Saturated, red brown, very fine SAND and SILT,			
15						trace clay and fine gravel, very faintly lam–			
16	9	16-18	18-22-	2'/1.9'	40	inated (gravel floating) Same as above to 16.3'; Saturated, brown–gray,			0
			18-25			very fine SAND and SILT, trace clay to 16.5;			
17						Saturated, brown, fine to medium SAND, trace			
18	10	18-20	20-21-	2'/1.7'	55	clay to 16.6'; Saturated, brown, very fine SAND and SILT, trace clay to 17.8'			0
			34-35			Saturated, red–red brown, medium SAND, trace			
19						silt, clay and fine gravel (floating) to 18.8';			
						Saturated, red, medium SAND, trace silt and			
						clay to 19.6'; Saturated, gray CLAY horizon			
						to 19.7'; Saturated, gray, very fine SAND and SILT, trace clay, laminated			

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-9D
PAGE 2 OF 3
LOCATION:

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

START DATE: 10/22/91 1300
END DATE:

LEGEND:

- GROUT – Type I Portland Cement – bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel ~2' above grade

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
20	11	20-22	12-12-	2'/2'	27	Saturated, red SILT with little red clay			0
			15-8			to 20.7'; Saturated, red CLAY with some silt			
21						to 20.9'; Saturated, red, very fine SAND,			
						grading to SILT, trace clay to 21.4'; Sat-			
22	12	22-24	1-7-	2'/2'	24	urated, red, fine SAND coarsening to medium			0
			17-24			SAND, trace silt and clay			
23						As above to 22.5'; Grades to red, fine SAND			
						and back to medium SAND to 23.4'; Saturated,			
24	13	24-26	7-7-5-8	2'/2'	12	red, very fine SAND and SILT, trace clay to			0
						23.8'; Saturated, red–brown red, medium SAND,			
25						trace silt and clay			
						Grades to fine SAND, faintly laminated, breaks			
26	14	26-28	10-12-	2'/2'	24	along planes, increasing dark sand grains			0
			12-10			Saturated, gray and black, coarse to medium			
27						SAND (graded medium at top, coarse at bot-			
						tom), trace fine gravel to 27'; Saturated,			
28	15	28-30	11-16-	2'/2'	33	red brown, very fine to fine SAND, laminated			0
			17-20			with trace clay			
29						Saturated as above to 28.6'; Saturated, red			
						SILT and CLAY to 29.3'; Saturated, red brown,			
30	16	30-32	6-14-	2'/1.7'	27	fine SAND as above to 29.8'; Saturated, gray,			0
			13-25			white and black, medium SAND as above			
31						Saturated as above to 30.6'; Saturated(?), red–			
						maroon CLAY with some silt, trace finely lam–			
32	17	32-34	15-18-	2'/1.9'	40	inated, subrounded, faceted GRAVEL, A–axis hor–			0
			22-22			izontal to 31.2'; Saturated, gray, white, black,			
33						medium SAND to 31.3'; Saturated CLAY with little			
						silt and trace gravel as above to 31.7'; Sat–			
34	18	34-36	7-19-	2'/		urated SAND as above to 31.8'; Saturated CLAY			1
			50/0.2'			and SILT as above			
35						Saturated, red–maroon CLAY and SILT, trace			
						fine gravel to 32.4'; Saturated, red brown,			
36						fine SAND, some silt, trace clay and gravel			
						(deformed laminations) to 33.5'; Saturated,			
37						red–brown red SILT and CLAY as above to 33.8';			
		37.5–42.5				Saturated, brown–red brown SAND with little			
38						medium to fine, subrounded, faceted and stri–			
						ated gravel			
39						Saturated as above to 34.5'; Saturated(?)			
						(bedrock), green–gray, argillaceous LIMESTONE			
40						with some white gypsum seams, rock very			
						weathered			
41						Gray–green, calcareous SHALE with some gypsum	RUN 1		
						veins RQD = 41%			

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-9D
PAGE 3 OF 3
LOCATION:

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

START DATE: 10/22/91 1300
END DATE:

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

LEGEND:

- GROUT – Type I Portland Cement – Bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel to ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
42									
		42.5–47.5				RQD = 55%	RUN 2		
43									
44									
45									
46									
47									
		47.5–52				RQD = 47%	RUN 3		
48									
49									
50									
51									
52									
53									
54									
55									
56									
57									
58									
59									
60									

O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-10S
PAGE 1 OF 1

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

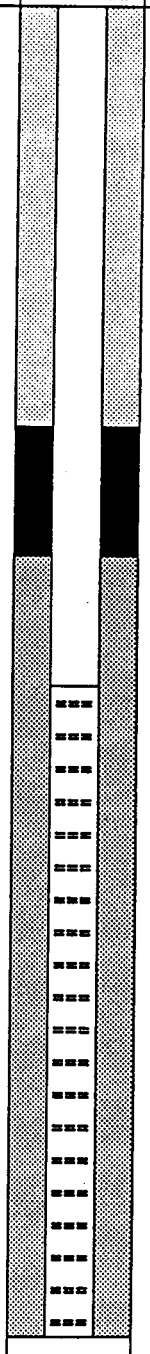
BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

LOCATION: 54' SW from SW corner of canal center building
START DATE: 11/13/91 0840
END DATE:

LEGEND:
- GROUT – Type I Portland Cement – bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel to grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
0									
1									
2									
3									
4									
5	1	5-7	15-12-	2'/1.1'	26	Dry, gray and light brown, coarse to fine, angular to rounded GRAVEL, mostly limestone, some brown–light brown, fine to coarse SAND (fill)			1
6			14-32						
7									
8									
9									
10	2	10-12	8-12-6-6	2'/1.6'	18	Moist, brown and gray GRAVEL and SAND, some silt, little clay, much coarse sand and fine gravel material to 11.8' (fill)			1
11									
12	3	12-14	6-6-5-9	2'1.6'	11	Moist, brown, coarse SAND and fine GRAVEL, faintly laminated, graded to 12.8'			0
13						Saturated as above with silt and clay in matrix to 14'			
14	4	14-16		2'/0.2'		Saturated as above, rounded to angular GRAVEL			0
15									
16	5	16-18	6-6-	2'/0.6'	18	Saturated, light brown–gray, fine GRAVEL and coarse SAND with silt and clay in matrix			0
17			12-12						
18	6	18-20	8-18-	2'/1.1'	41	Saturated as above with coarse gravel to 19.8'			0
19			23-8			Saturated, red–brown SILT, CLAY and GRAVEL with little sand to 20'			
20									0
21									



O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-11D
PAGE 2 OF 2

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

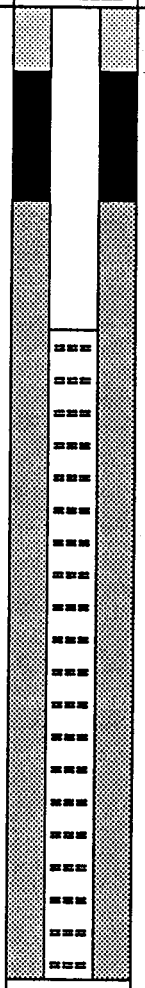
BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

LOCATION: 61' NNE from hydrant on Cedar Bay Rd.
START DATE: 11/4/91 1320
END DATE: 11/5/91 1300

LEGEND:
- GROUT – Type I Portland Cement – bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel to ~2' above grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
22									
23									
24	12	24-26	13-5-	2'/1.6'	25				
			20-11						
25									
26	13	26-28	23-15-	2'/0'	27	No recovery			
			12-12						
27						Dry, green with brown horizons, weathered cal-			
						careous(?) SHALE			
28	14	28-30	10-12-	2'/1.6'	21	Damp as above with orange-red FeO precipitate			
			9-6			horizons, vertical and horizontal to 29.7'			
29						Saturated, green and brown SHALE to 30'			
30	15	30-32	25-30-	2'/1.4'	55	Damp as above			
			25-51						
31									
32	16	32-34	67/0.5'	0.5'/0.5'		Saturated, green and brown SHALE as above			
33	17	33-33.5	61/0.5'	0.5'/0.5'		Saturated as above with FeO precipitate in vert-			
						ical fracture			
34									
35	18	35-35.4	71/0.4'	0.4'/0.4'		Saturated as above (limestone layer at 35.8'			
						during auger)			
36	19	36-36.3	61/0.3'	0.3'/0.3'		Saturated as above (limestone layer at 36.3'			
						during auger)			
37									
38									
39									
40									



O'BRIEN & GERE ENGINEERS, INC.

TEST BORING LOG

REPORT OF BORING MW-12S
PAGE 1 OF 1
LOCATION: 600' E of MW-2S

CLIENT: Town of Dewitt

PROJECT LOCATION: Dewitt Landfill

FILE NO.: 123.566.576

SAMPLER Split Spoon 2"
HAMMER: 140 lbs.
FALL: 30"

START DATE: 11/11/91 1230
END DATE:

BORING COMPANY: Atlantic Testing Labs
FOREMAN: Mark Hawkins
OBG GEOLOGIST: Paul Gottler

LEGEND:
- GROUT – Type I Portland Cement – bentonite slurry
- SAND PACK – "0" Grade Morie Sand
- PELLETS – Bentonite Chips
- SCREEN – 2" I.D. 10–slot stainless steel
- RISER – 2" I.D. stainless steel to grade

DEPTH BELOW GRADE	NO.	DEPTH (FEET)	BLOWS /6"	PENETR/ RECOVERY	"N" VALUE	SAMPLE DESCRIPTION	STRATUM CHANGE GENERAL DESCRIPT	EQUIPMENT INSTALLED	FIELD TESTING HNU (ppm)
0									
1									
2									
3									
4									
5	1	5-7	12-10-9-7	2'/1.9'	19	Dry, gray brown, rounded to subrounded, coarse to fine limestone GRAVEL with little sand, silt and clay (fill)			2
6									
7									
8									
9									
10	2	10-12	4-4-2-7	2'/1.6'	6	Damp as above with green shale to 10.5' Saturated as above to 12'			1
11									
12	3	12-14	7-5-5-3	2'/1.4'	10	Saturated as above, angular to rounded GRAVEL			0
13									
14	4	14-16	6-6-5-7	2'/1.2'	11	Saturated as above, angular to rounded GRAVEL to 14.5'; Saturated, red-brown CLAY and SILT with some gravel to 15.5'; Saturated, gray-dark gray SILT with little clay, asphalt sheen to 16'			0
15									
16	5	16-18	5-4-3-3	2'/1.6'	7	Saturated as above to 17.8' Saturated(?), orange-brown PEAT to 18'			0
17									
18	6	18-20	6-6-8-8	2'/0'	14	No recovery (as above)			0
19									
20	7	20-22	6-7-7-8	2'/1.6'	14	Saturated as above to 21' Saturated, green CLAY with some silt, occasional shells to 22'			0
21									
22	8	22-24	4-4-13-21	2'/	17	Saturated as above to 23'			0
23									

Appendix F

Quarterly landfill inspection reports

File 123/23546

TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE: 4/2/99

INSPECTOR: MJ PETRIE

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	Woodchuck Holes NEED TO BE Filled & SEEDED From 1998	Fill & SEED Woodchuck Holes.
2. Gas Discharge Vents	✓	Vent V-19 still Tilted Approx 10°	Town Highway Dept to Repair
3. Swales, Ditches and Downchutes	✓	OK	
4. Storm Sewer System, including culverts	✓	OK	
5. Fence and Gates	✓	OK	
6. Access Road	✓	OK	
7. Perimeter Service Road	✓	OK	

art.mjp/st:3m

File 123/23546

TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE: 6/22/99

INSPECTOR: Mike Petrie

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	Vegetative Cover Very Good Condition Some Woodchuck Holes Found.	Trapper called in To Remove Woodchucks From site and fill Holes.
2. Gas Discharge Vents	✓	Town Repaired Vent V-19	
3. Swales, Ditches and Downchutes	✓	OK	
4. Storm Sewer System, including culverts	✓	OK	
5. Fence and Gates	✓	OK	
6. Access Road	✓	OK	
7. Perimeter Service Road	✓	OK	

art.mjp/st:3m NOTE: Due to very Dry Conditions and No substantial Rain in Forcast, we were unable to Get surface water samples From SW-2 & SW-3 During this Round of sampling As Both locations were Dry.

TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE: 9/21/99

INSPECTOR: Michael Petrie

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	18 Woodchucks Trapped To Date Out of 15 Dens, several Field Rat Holes (30-40) Found on East Side of Site.	Put Rat Poison in All Rat Holes
2. Gas Discharge Vents	✓	OK	
3. Swales, Ditches and Downchutes	✓	OK	
4. Storm Sewer System, including culverts	✓	OK	
5. Fence and Gates	✓	OK	
6. Access Road	✓	OK	
7. Perimeter Service Road	✓	OK	

art.mjp/st:3m

TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE: 11/30/99

INSPECTOR: MJ PETRIE

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	1" SNOW COVER OK	
2. Gas Discharge Vents	✓	OK	
3. Swales, Ditches and Downchutes	✓	OK	
4. Storm Sewer System, including culverts	✓	OK	
5. Fence and Gates	✓	OK	
6. Access Road	✓	OK	
7. Perimeter Service Road	✓	OK	

art.mjp/st:3m

TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE: 3/26/98

INSPECTOR:

MJ Petrie

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	Four wheel Drive vehicle got on the L.F. By Going Around the North & South Gates -Tire Tracks throughout the Landfill.	Contact the Town & Police so they are aware of trespassers.
2. Gas Discharge Vents	✓	V-19 tilted 10°	I meet with Town Highway Garage employees to discuss Repair which I was told will be done within 2 weeks.
3. Swales, Ditches and Downchutes	✓	OK	
4. Storm Sewer System, including culverts	✓	OK	
5. Fence and Gates	✓	OK	
6. Access Road	✓	OK	
7. Perimeter Service Road	✓	OK	

t.mjp/st:3m

½" of snow cover in some areas.

TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE: 6/11/98

INSPECTOR: MJ PETRIE

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	10 Woodchuck Holes Found Within Limits of Landfill	Contract Trapper to Remove Woodchucks
2. Gas Discharge Vents	✓	Vent V-19 still Tilted Approx 10°	Town Highway Garage said they will Repair the Vent.
3. Swales, Ditches and Downchutes	✓	OK	
4. Storm Sewer System, including culverts	✓	OK	
5. Fence and Gates	✓	OK	
6. Access Road	✓	ok	
7. Perimeter Service Road	✓	OK	

t.mjp/st:3m

TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE: 10/8/98

INSPECTOR:
MJ PETRIE

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	Woodchuck Holes Need to Be Filled From Last Quarter	Fill Woodchuck Holes & seed.
2. Gas Discharge Vents	✓	Vent V-19 still Tilted Approx 10°	Have Town Highway Dept Repair Vent.
3. Swales, Ditches and Downchutes	✓	ok	
4. Storm Sewer System, including culverts	✓	ok	
5. Fence and Gates	✓	ok	
6. Access Road	✓	ok	
7. Perimeter Service Road	✓	ok	

mjp/st:3m

TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE: 12/9/98

INSPECTOR: MIKE PETRIE

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	WOODCHUCK HOLES NEED TO BE FILLED & SEEDED FROM 2ND QT.	FILL WOODCHUCK HOLES & SEED
2. Gas Discharge Vents	✓	VENT V-19 STILL TILTED APPROX 10°	TOWN HIGHWAY DEPT TO REPAIR.
3. Swales, Ditches and Downchutes	✓	OK	
4. Storm Sewer System, including culverts	✓	OK	
5. Fence and Gates	✓	OK	
6. Access Road	✓	OK	
7. Perimeter Service Road	✓	OK	

mjp/st:3m

123.641

Appendix J

TOWN OF DEWITT LANDFILL INSPECTION AND MAINTENANCE CHECKLIST

DATE:
12/12/96

INSPECTOR:
MIKE PETNE

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	OK	
2. Gas Discharge Vents	✓	OK	
3. Swales, Ditches and Downchutes	✓	OK	
4. Storm Sewer System, including culverts	✓	OK	
5. Fence and Gates	✓	OK	NORTH GATE FENCE HAS BEEN REPAIRED
6. Access Road	✓	OK	
7. Perimeter Service Road	✓	OK	

hart.mjp/st:3m

File 123.641

Appendix J

TOWN OF DEWITT LANDFILL INSPECTION AND MAINTENANCE CHECKLIST

DATE:
11/25/96

INSPECTOR:
MIKE PETRIE

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	Light snow cover (1" ±) over site	
2. Gas Discharge Vents	✓	OK	
3. Swales, Ditches and Downchutes	✓	OK	
4. Storm Sewer System, including culverts	✓	OK	
5. Fence and Gates	✓	North Gate Broke By vandals	Town is in process of repairing.
6. Access Road	✓	OK	
7. Perimeter Service Road	✓	OK	

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File 120.691
- C.C. SMF

Appendix J

TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE: 10/30/96

INSPECTOR:
M J Petne

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	Traper Removed one more woodchuck from site since last report.	All woodchuck Holes Have Been Filled and seeded. No evidence of Disturbance to the Geomembrane cover.
2. Gas Discharge Vents	✓	Vent #13 Has been Repaired By Town.	
3. Swales, Ditches and Downchutes	✓	OK	
4. Storm Sewer System, including culverts	✓	OK	
5. Fence and Gates	✓	OK	
6. Access Road	✓	OK	
7. Perimeter Service Road	✓	OK	

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Appendix J

TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE:
9/24/96

INSPECTOR:
Mike Petrie

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	Grass appears to be getting thicker along the south fence after last mowing	3 areas have woodchuck holes, near center of landfill (3 holes) At vent 13 (3 holes) and one hole between vents 20 & 19 Trapper Removal 3
2. Gas Discharge Vents	✓	Top of Vent 13 is broke off.	Need to Repair Vent.
3. Swales, Ditches and Downchutes	✓	OK	
4. Storm Sewer System, including culverts	✓	OK	
5. Fence and Gates	✓	OK	
6. Access Road	✓	OK	
7. Perimeter Service Road	✓	OK	

Woodchucks from holes near center of land - will need to get trapper rem. To get remaining woodchucks. T. Fill holes,

File 123.566

TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE: 8/29/96

INSPECTOR:
Mike Petrie

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	Grass is sparce 1 to 3 Feet wide Along south Gate very dry conditions	However the Vegitation cover is much improved since the Town Re topsoiled and seeded.
2. Gas Discharge Vents	✓	OK	
3. Swales, Ditches and Downchutes	✓	OK	
4. Storm Sewer System, including culverts	✓	OK	
5. Fence and Gates	✓	OK	Fence at South Gate Has Been Repaired
6. Access Road	✓	OK	
7. Perimeter Service Road	✓	OK	

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Recently Mowed

TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE: 7/22/96

INSPECTOR: Mike Petrie

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	RE SEEDED AREAS HAVE BEGAN TO GROW - SMALL SPAICE AREA NEAR SOUTH GATE NEEDS RE-SEEDING	GRASS AREAS to BE GROWING ALONG SOUTH FENCE
2. Gas Discharge Vents	✓	OK	SMALL HOLE @ BASE OF V-6 HAS BEEN FILLED.
3. Swales, Ditches and Downchutes	✓	OK	
4. Storm Sewer System, including culverts	✓	OK	
5. Fence and Gates	✓	SOUTH GATE PREVIOUS WORK NEEDS DOWING - SEE OCT 95 MEMO	ALSO NEED NO TRESPASSING SIGN ON EAST END OF NORTH FENCE
6. Access Road	✓	OK	
7. Perimeter Service Road	✓	OK	

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NEXT MOWING WEEK OF 7/29/96

TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE: 6/27/96

INSPECTOR:

MJ Petric

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	Topsoiled spaced areas with 2" topsoil - topsoiled along South fence - 6" Entrance West	Grass has been cut in last two weeks
2. Gas Discharge Vents	✓	Small Hole At Base of V-6	All will shave full of topsoil
3. Swales, Ditches and Downchutes	✓	Rip-Rap has been added to all eroded swales	
4. Storm Sewer System, including culverts	✓	Added additional 15" culvert to downstream at culvert #3	
5. Fence and Gates	✓	South Gate previous work needs doing (see oct 95)	
6. Access Road	✓	OK	
7. Perimeter Service Road	✓	OK	

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Appendix J

TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE: 3/28/96

INSPECTOR:
MJ PETRIE

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	NO OBVIOUS PROBLEMS	
2. Gas Discharge Vents	✓	VERY MINOR HOLE IN SOIL AT BASE OF V-6	ONE SHOVEL FULL OF TOPSOIL.
3. Swales, Ditches and Downchutes	✓	SOME ROADSIDE DITCHES NEED REPAIR - NO PROBLEM WITH DOWNCHUTES.	REPAIR UPSTREAM INLET TO CULVERTS 1, 4 & 7 WITH MED RIP-RAP DUE TO EROISION.
4. Storm Sewer System, including culverts	✓	HAY BALES NEED TO BE REMOVED AROUND CB'S ALONG SOUTH SIDE OF SITE	
5. Fence and Gates	N/S ✓ S/S	OK ← PREVIOUS WORK NEEDS DOING (SEE OCT 95)	
6. Access Road	✓		
7. Perimeter Service Road	✓		

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ODORS - STRONG IN ISOLATED AREAS (RANDOM & INFREQUENT)

LEACHATE - MINOR SEEPS AT SOUTHWEST CORNER BUT MAY BE ORGANIC CAUSED.

- WORK NOT DONE FROM 9/26/95 SITE INSPECTION - ~~WAITING~~ WAITING FOR WEATHER TO BREAK.

123.654

TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE: 3/27/97

INSPECTOR:

MJPETNIE

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	OK	
2. Gas Discharge Vents	✓	OK	
3. Swales, Ditches and Downchutes	✓	OK	
4. Storm Sewer System, including culverts	✓	OK	
5. Fence and Gates	✓	OK	
6. Access Road	✓	OK	
7. Perimeter Service Road	✓	OK	

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TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE:
6/12/97

INSPECTOR:
Mike Petrie

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	Wood chuck Holes Found At VENT V13 Grass cover Thick Thruout site except Along South Fence But much Better Than Last year	After Lawn is mowed (with 1 week) Recheck for more Woodchuck Holes and Then call Trapper to Remove Woodchucks, then Fill Holes and Reseed.
2. Gas Discharge Vents	✓	V 19 was Leaning At A 10° angle - may be cracked Appox 1' Below Grade	Dig Down to where vent is cracked and Repair with PVC collar
3. Swales, Ditches and Downchutes	✓	ok	
4. Storm Sewer System, including culverts	✓	ok	
5. Fence and Gates	✓	ok	
6. Access Road	✓	ok	
7. Perimeter Service Road	✓	ok	

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In addition to the above, there is a 2' to 6' diameter area under each vent that is very sparsely vegitated. Probably due to the exhaust vapors from the vents.

123.654

TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE:
9/17/97

INSPECTOR:
Mike Petrie

Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	ONE NEW WOODCHUCK HOLE FOUND ON SOUTH SIDE OF SITE. GRASS COVER GENERALLY GOOD - SPARSE ALONG SOUTH FENCE AS INDICATED ON 6/12 INSP.	CALL TRAPPER TO REMOVE WOODCHUCK. THEN FILL IN HOLE & SEED.
2. Gas Discharge Vents	✓	V-19 HAS NOT BEEN REPAIRED YET.	DIG DOWN TO WHERE VENT IS CRACKED AND REPAIR WITH PVC COLLAR.
3. Swales, Ditches and Downchutes	✓	OK	
4. Storm Sewer System, including culverts	✓	OK	
5. Fence and Gates	✓	OK	
6. Access Road	✓	OK	
7. Perimeter Service Road	✓	OK	

njp/st:3m IN ADDITION TO THE ABOVE, THERE IS A 2' to 6' DIAMETER AREA UNDER EACH VENT THAT IS VERY SPARSELY VEGITATED. PROBABLY DUE TO THE EXHAUST VAPORS FROM THE ~~GCTT~~. VENTS.

File 123.654

TOWN OF DEWITT LANDFILL
INSPECTION AND MAINTENANCE
CHECKLIST

DATE: 12/4/97

INSPECTOR: Mike Petne

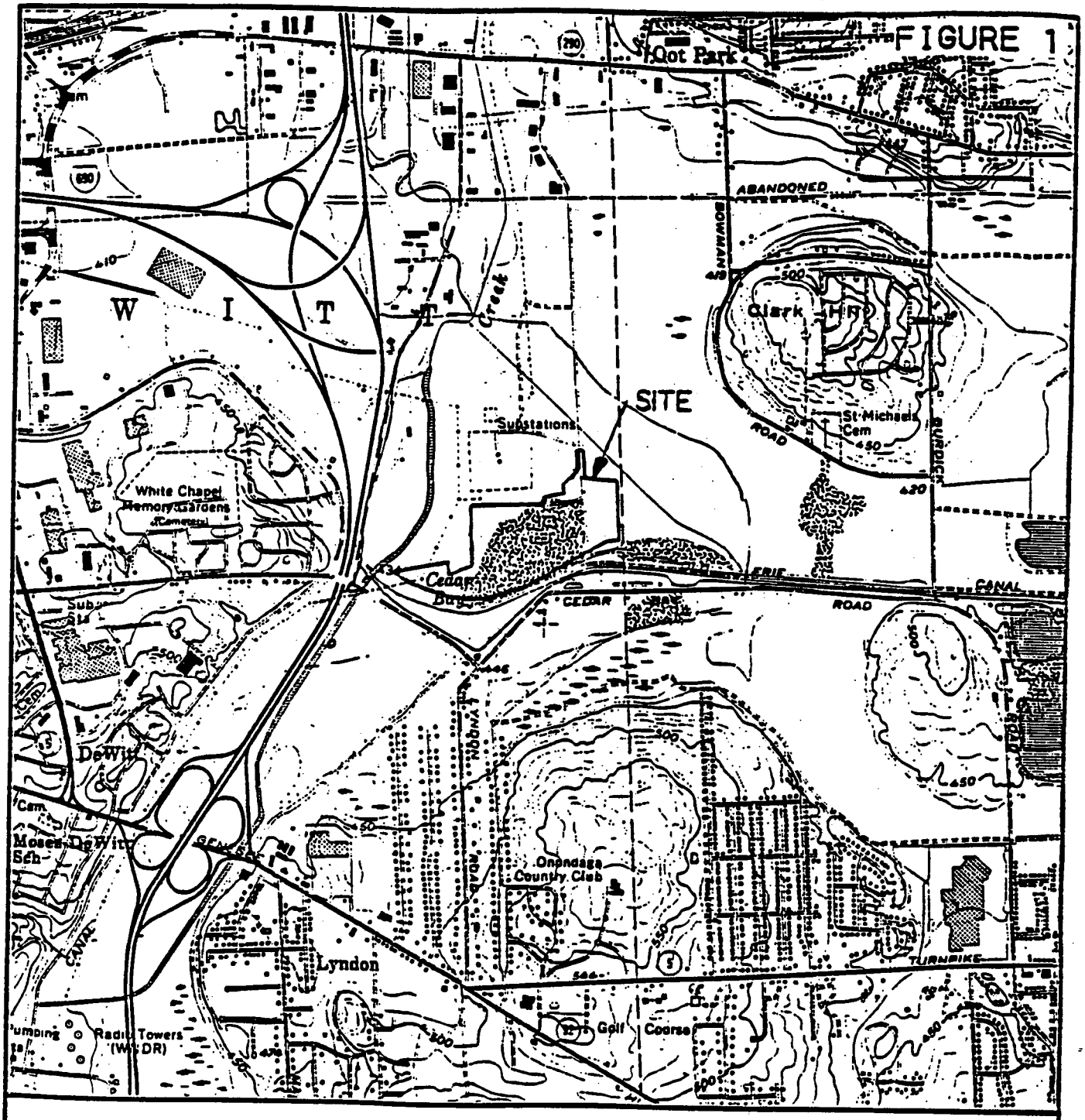
Landfill Component	Checked	Comments	Maintenance Action Needed
1. Barrier Protection Layer Topsoil Layer and Vegetative Cover	✓	TWO NEW Woodchuck Holes on South side of site, Grass cover Generally Good - Spares along South Fence - may be Deer Run (tracks were Found Along Fence)	Woodchucks are Hibernating at this time - call trapper in spring to Remove.
2. Gas Discharge Vents	✓	V-19 Tilted 10°	Dig Down to where Vent is cracked and Repair with PVC Collar
3. Swales, Ditches and Downchutes	✓	OK	
4. Storm Sewer System, including culverts	✓	OK	
5. Fence and Gates	✓	OK	
6. Access Road	✓	OK	
7. Perimeter Service Road	✓	OK	

..mjp/st:3m IN ADDITION TO THE ABOVE, There is A 2' to 6' DIAMETER AREA under each Vent that is very SPARSELY VEGitated. Probably Do to THE EXHAUST VAPORS FROM THE VENTS

Appendix G

Location plans

FIGURE 1



TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

LOCATION MAP

0 2000 4000

SCALE IN FEET

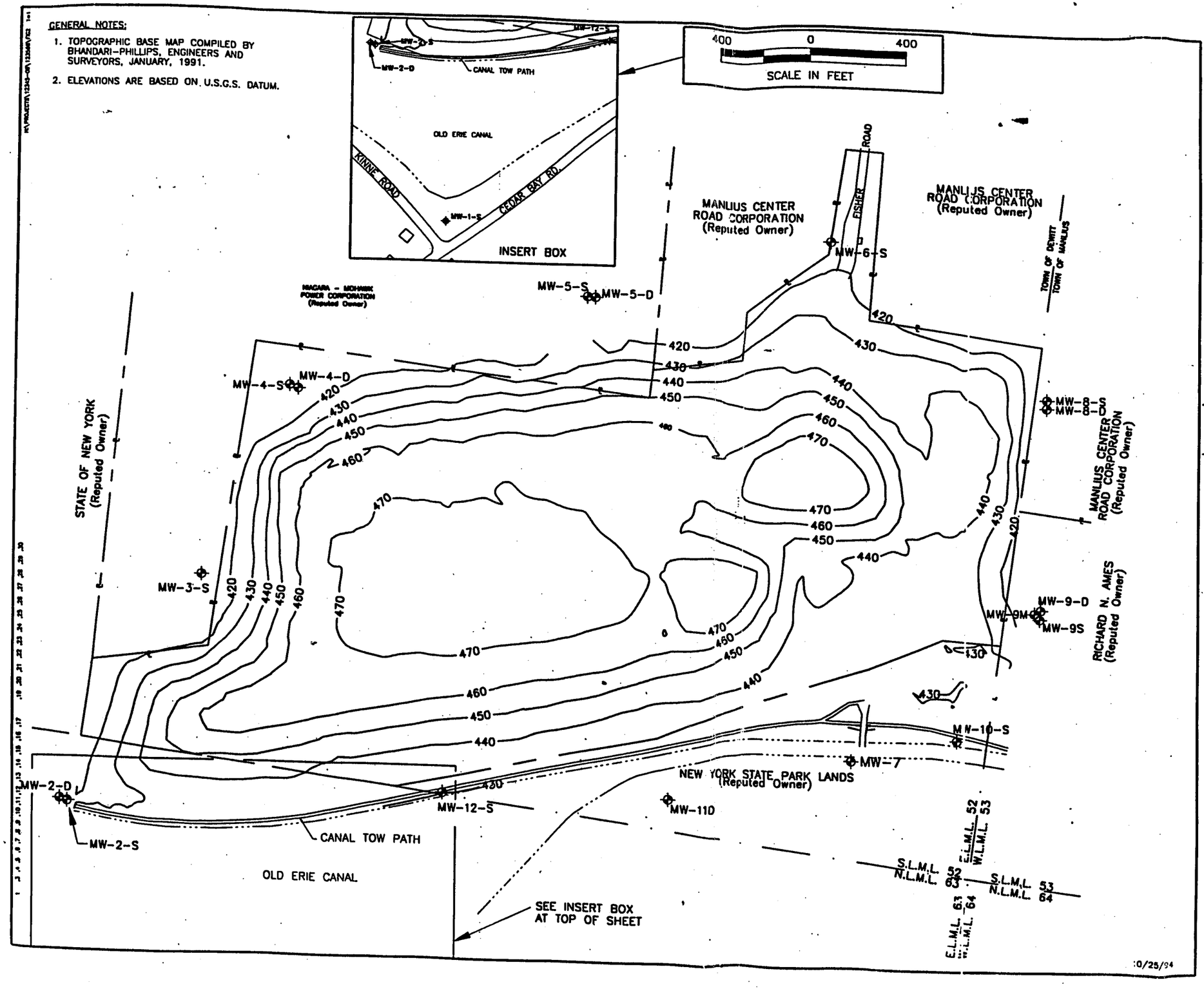
ADAPTED FROM U.S.G.S. SYRACUSE EAST N.Y. QUADRANGLE

FIGURE 2

TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK

GENERAL NOTES:

1. TOPOGRAPHIC BASE MAP COMPILED BY BHANDARI–PHILLIPS, ENGINEERS AND SURVEYORS, JANUARY, 1991.
2. ELEVATIONS ARE BASED ON U.S.G.S. DATUM.



LEGEND

- PROPERTY LINE
- E.L.M.L. 52 — MILITARY LOT LINE
- 420 — EXISTING CONTOUR (10')
- EDGE OF CANAL
- EXISTING FENCE
- EXISTING CANAL TOW PATH
- MW-5-S EXISTING MONITOR WELL

GROUND WATER SAMPLING LOCATIONS

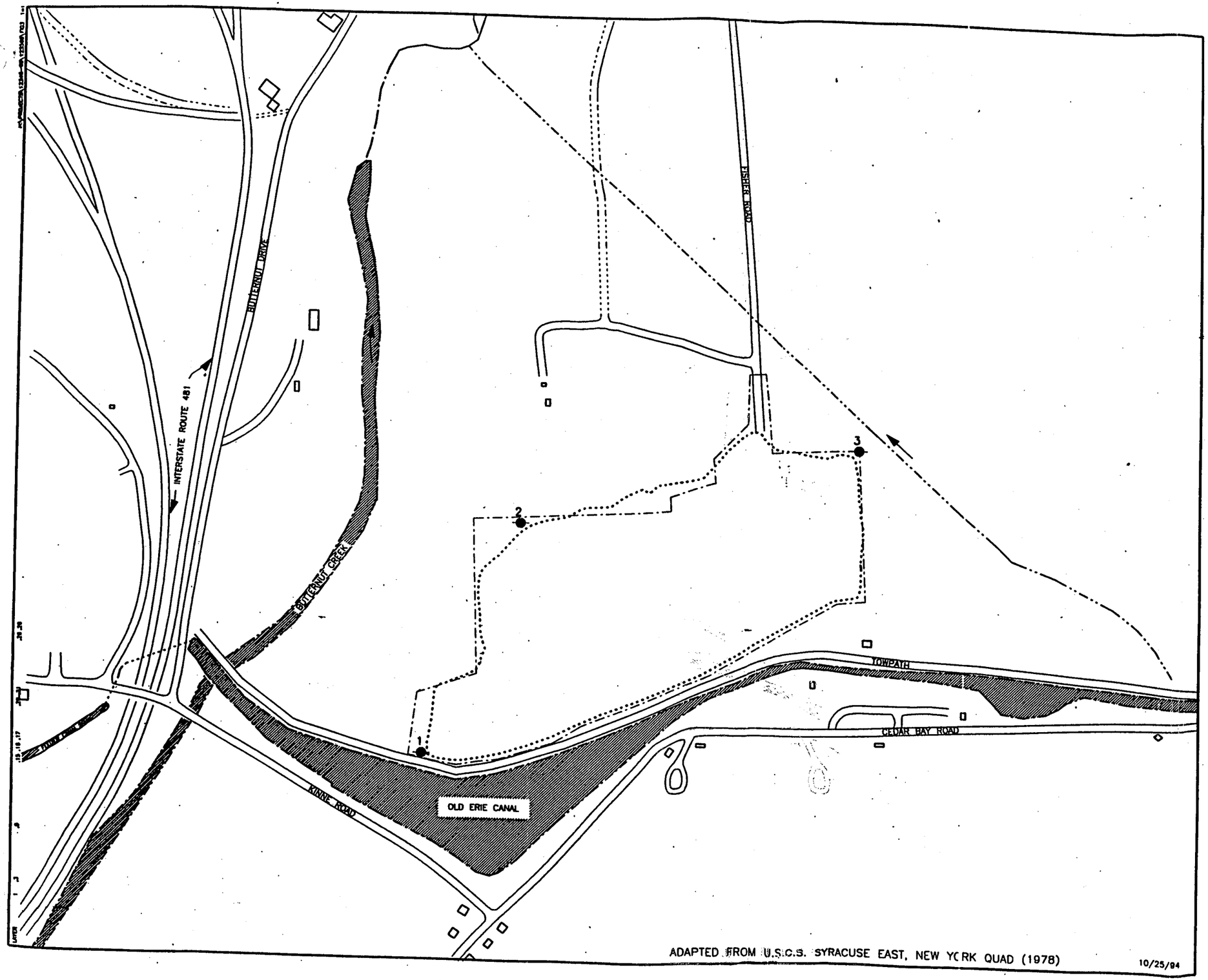
250 0 250
SCALE IN FEET

123.566

O'BRIEN & GERE

FIGURE 3

TOWN OF DEWITT LANDFILL
DEWITT, NEW YORK



LEGEND

- 1 — APPROXIMATE SURFACE WATER SAMPLE LOCATION
- PROPERTY BOUNDARY
- APPROXIMATE FILL LIMITS
- INTERMITTENT STREAM

SURFACE WATER SAMPLING LOCATIONS

500 0 500

SCALE IN FEET

123.566

O'BRIEN & GERE ENGINEERS, INC.