Environmental Monitoring Report
2007 Quarters 1 and 2

Cortland County Towslee Landfill

Town Line Road
Cortland County, New York

NYSDEC Region 7

Prepared for:

Cortland County Highway Department
Traction Drive
Cortland, NY 13045

Prepared by:

Cortland County Soil and Water Conservation District
100 Grange Place
Cortland, NY 13045

TABLE OF CONTENTS

1.0 Introduction

Cortland County is the current owner of the inactive Towslee Landfill located at the county's solid waste disposal site in the Towns of Cortlandville and Solon, near the center of the county. The Towslee Landfill has previously been called the Old County Landfill, and the Town Line Landfill. It is referred to as the Towslee Landfill in this report. This report summarizes groundwater quality monitoring activities at the Towslee Landfill for Quarters 1 and 2 of 2007.

The Towslee Landfill is designated by New York State Department of Environmental Conservation (NYSDEC) as a Class 2 inactive hazardous waste disposal site, and has been listed in the Registry of Inactive Hazardous Waste Disposal Sites (#7-12-001). NYSDEC issued an Order of Consent (#B7-0486-12-95), effective May 31, 1996, making it the responsibility of Cortland County to develop and enact a remedial investigation plan towards the closure and cleanup of the facility.

Barton & Loguidice (B&L) completed a remedial investigation report in March 1998 that included the results of a hydrogeologic investigation and a "limits of waste" investigation, among other things. Groundwater monitoring wells were installed and tested as part of this investigation.

In a letter dated November 7, 2005, NYSDEC outlined minimum sampling requirements for the Towslee landfill. As a result, Cortland County initiated quarterly monitoring in 2006 at seven groundwater monitoring wells. Proposed monitoring locations were identified by Cortland County Soil and Water Conservation District, and submitted to NYSDEC for review in a letter dated February 17, 2006.

Upstate Laboratories, Inc. (herein referred to as Upstate) conducted all sample collection activities, and performed all laboratory analyses for Quarters 1 and 2. Water quality analyses were conducted in accordance with 1998 Part 360 regulations. SWCD performed data analysis and prepared this report.

2.0 Site History

The site was a private disposal facility starting in the 1940s. The City of Cortland leased the site for municipal disposal in the mid-1960s in the portion of the site now referred to as the Abandoned City of Cortland Landfill. Cortland County purchased the site in 1972. In April 1972 the County began landfill operations north of the Abandoned City operation. The County stopped disposing of municipal solid waste at this site in 1987, but continued to dispose of construction debris until early 1992.

Based on landfill records, hazardous wastes were believed to have been deposited at the site. The wastes were believed to have been generated by one or more local industries. B&L delineated the limits of hazardous waste associated with the site. Figure 1 shows well locations monitored for this program, and approximate limits of hazardous waste.

The B&L Remedial Investigation concluded that in 1997 there was mild landfill leachate contamination of groundwater in the vicinity of Wells MW-2A/B and MW-7A. Very mild impacts from leachate contamination occurred in the vicinity of Well MW-1A. Groundwater contamination occurred primarily in the overburden, and extended downgradient of the site for a distance of about 450 feet.

Based on 1997 monitoring, B&L identified the following parameters that were indicative of mild leachate impacts to groundwater:

Conventionals - chloride, COD, ammonia, alkalinity, TKN, TOC, and hardness

Metals - aluminum, arsenic, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, potassium, sodium, vanadium, and zinc

3.0 Monitoring Schedule and Locations

3.1 Schedule

Quarter	Analyses	Date Sampled
First Quarter:	Routine	March 20, 2007
Second Quarter:	Routine	April 26, 2007
Third Quarter:	Routine	to be completed
Fourth Quarter:	Baseline	to be completed

3.2 Groundwater Monitoring Locations

Seven downgradient wells were sampled as part of the Towslee monitoring program. Well locations are shown on Figure 1. Four of the wells are finished in bedrock, and three are finished in overburden, as described below:

Bedrock	Overburden
MW-1B	MW-1A
MW-2B	MW-2A
MW-3A	MW-7A
MW-6B	

4.0 Assessment of Monitoring Results

This section provides an evaluation of groundwater monitoring results for Quarters 1 and 2 of 2007. Groundwater quality data are compared to NYS water quality standards to assess current conditions. Recent data are also compared to past data to evaluate trends.

- Appendix A contains the Quarter 1 laboratory analytical report.
- Appendix B contains the Quarter 2 laboratory analytical report.
- Appendix C contains tables of historical water quality data through the latest monitoring round.

4.1 Contraventions of Water Quality Standards

This subsection compares 2007 groundwater quality data to NYS water quality standards.

Tables 1 and 2 summarize water quality results for Quarter 1.
Tables 3 and 4 summarize water quality results for Quarter 2.

Available NYS water quality standards are included in these tables, and contraventions of standards are highlighted.

Concentrations for most parameters in Quarters 1 and 2 of 2007 were below available water quality standards at all wells, although there continues to be evidence of mild landfill leachate contamination. Contraventions of standards are described below.

Turbidity – Turbidity for all seven wells exceeded the NYS standard of 5 NTU for both Quarter 1 and Quarter 2. Quarter 1 results ranged from 10.6 to 68.9 NTU. Quarter 2 results ranged from 8.1 to 54.3 NTU. Based on separate monitoring conducted at the closed Pine Tree Landfill, and the active West Side Landfill, these exceedances appear to be related to natural groundwater conditions in this area.

Total Dissolved Solids (TDS) - The TDS standard of 500 mg/l was exceeded for the same two wells in Quarters 1 and 2. TDS for MW-2B was 825 in Quarter 1 and 823 in Quarter 2. TDS for MW-7A was 753 in Quarter 1 and 865 in Quarter 2. These results are consistent with past monitoring events.

Ammonia - The ammonia standard of 2 mg/l was exceeded at MW-2A for both Quarter 1 (10.2 mg/l) and Quarter 2 (9.89 mg/l). Ammonia at MW-2A exceeded the standard for all previous monitoring events.

Total Phenol - Phenol was not detected in Quarter 1 in any of the wells. Phenol was detected at five of seven wells in Quarter 2, ranging from 0.005 to 0.01 mg/l. All these detections were above the NYS water quality standard of 0.001 mg/l. These results are similar to past monitoring events.

Total Iron - The NYS standard for iron is 0.3 mg/l.

In Quarter 1 all seven wells exceeded the standard, ranging from 0.637 to 10.8 mg/l.
In Quarter 2 all seven wells exceeded the standard, ranging from 0.469 to 6.86 mg/l.

The iron standard was frequently exceeded in past monitoring events.

Due to turbidity levels above 50 NTU, dissolved metals testing was conducted at three wells in Quarter 1 (MW-1A, MW-1B, and MW-6B). Dissolved iron levels were all below the detection limit of 0.06 mg/l). This suggests that elevated levels are at least in part due to high turbidity levels and associated solids in the samples. Also note that the NYS standard for iron is based on the dissolved form.

Total Manganese - The NYS standard for manganese is 0.3 mg/l.

In Quarter 1 six of seven wells exceeded the standard, ranging from 0.331 to 9.93 mg/l.
In Quarter 2 four of seven wells exceeded the standard, ranging from 0.501 to 11.7 mg/l.

The manganese standard was frequently exceeded in past monitoring events.

Dissolved metals testing was conducted at three wells in Quarter 1. Dissolved manganese levels were below the detection limit of 0.01 mg/l at two wells (MW-1A and MW-1B), and was 0.137 mg/l at MW-6B. The elevated total manganese levels appears to be due at least in part to high turbidity levels.

Sodium –In Quarter 1, the NYS sodium standard of 20 mg/l was exceeded at the wells MW-2B (50.9 mg/l) and MW-7A (112 mg/l). In Quarter 2 the sodium standard was exceeded at wells MW-2A (22.9 mg/l), MW-2B (40.8 mg/l) and MW-7A (104 mg/l). These results are consistent with past monitoring. Elevated sodium may be partially related to deicing activities on the road network within the landfill.

There were no other contraventions of NYS water quality standards during the Quarters 1 and 2 of 2007.

4.2 Trends

The seven wells that are sampled as part of the Towslee monitoring program were previously sampled twice in 1997, four times in 2006, and twice in 2007 through Quarter 2. These results are compiled in a historical database included in Appendix C.

As described in the 2006 Annual Report , groundwater quality generally improved downgradient of the Towslee landfill between 1997 and 2006. There was a significant improvement for many parameters between 1997 and 2006. The 2007 results to date are generally consistent with 2006 results, and groundwater quality remains improved compared to 1997 results.

4.2.1 Trends for Conventionals

Groundwater quality for the first two rounds of monitoring in 2007 is generally similar to 2006 results, and significantly improved compared to 1997 results. B&L, in 1997, identified the following conventionals as indicative of mild landfill leachate contamination: chloride; COD; ammonia; alkalinity; TKN; TOC; and hardness.

- Alkalinity continues to decrease at most of the wells.
- Chloride levels continue to be significantly lower than 1997 levels.
- Hardness levels are generally lower in the first two rounds of 2007 than in 2006, and continue to be much lower than in 1997.
- Well MW-2 continues to have elevated ammonia levels, however, the well continues to show a decreasing trend in 2007. For other wells, 2007 ammonia levels are generally consistent with 2006 levels, and show an overall decrease over time.
- TKN levels in the first two Quarters of 2007 were generally consistent with past results. TKN for Well MW-2A in Quarter 1 of 2007 was significantly higher than past measurements, however, the Quarter 2 result for MW-2A was the second lowest result to date. It appears the Quarter 1 result for MW-2A may have been an anomaly.
- COD continues to show an overall decrease compared to 1997 levels.
- Total Organic Carbon (TOC) continues to show a decreasing trend.
- For all other conventionals, the Quarter 1 and 2 results for 2007 are lower than or similar to past results.

4.2.2 Trends for Total Metals

Groundwater quality for the first two rounds of monitoring in 2007 is generally similar to 2006 results, and significantly lower than 1997 results.

The metals identified by B&L in 1997 as indicative of mild landfill leachate contamination are: aluminum, arsenic, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, potassium, sodium, vanadium, and zinc. Of these, calcium, iron, lead, magnesium, manganese, potassium, and sodium underwent Routine analysis in Quarters 1 and 2 of 2007.

- Calcium levels have continued to decrease through the first two Quarters of 2007.
- Iron levels have continued to decrease through the first two Quarters of 2007.

- Lead levels have continued to decrease through the first two Quarters of 2007.
- Magnesium levels continue to show an overall decrease over time, particularly for the wells with elevated levels in 1997.
- Manganese levels have continued to decrease through the first two Quarters of 2007.
- Potassium levels in the first two Quarters of 2007 are generally similar to those of 2006, and significantly lower than 1997 levels.
- Sodium levels have continued to decrease through the first two Quarters of 2007.

4.2.3 Trends for Organics

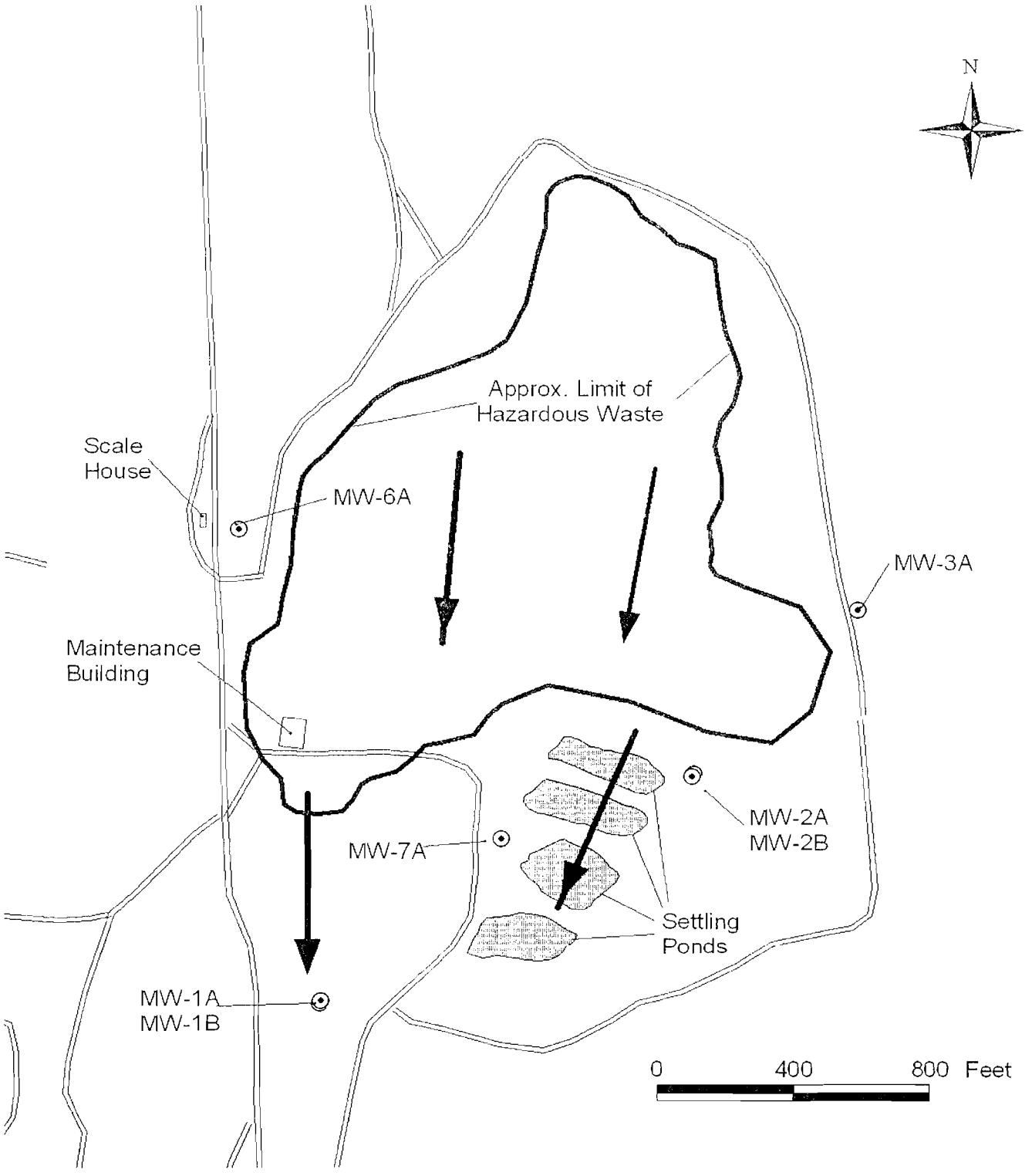
Organics were not analyzed in Quarters 1 and 2 of 2007.

5.0 Quality Control

Upstate Labs performed internal quality control procedures on the Quarter 1 and 2 analytical data. Internal data validation summaries for Quarters 1 and 2 are included in laboratory reports provided in Appendices A and B. A summary is presented below.

Quarter 1 – Quality control criteria were generally met. The DUP %RPD for lead for MW-6B was outside QC acceptance limits. The CRI % recovery for lead was outside QC acceptance limits. The MS % recovery for chloride was outside acceptance limits. We believe the Quarter 1 2007 data are adequate to characterize groundwater quality downgradient of the Towslee landfill.

Quarter 2 – Quality control criteria were generally met. The duplicate %RPD for potassium was outside QC acceptance limits. The CCV4 and CCV12 % recoveries for alkalinity were slightly below QC acceptance limits. The MS % recovery for alkalinity for MW-6B was below QC acceptance limits. The duplicate % RPD for TDS for MW-6B was greater than QC acceptance limits. The ICV % recovery for bromide was slightly below QC acceptance limits. We believe the Quarter 2 data are adequate to characterize groundwater quality downgradient of the Towslee landfill.



Approx. Goundwater
Flow Direction

Figure 1.
Monitoring Well Locations
Towslee Landfill

Table 1
Contraventions of NYS Water Quality Standards for Field and Inorganic Parameters
Towslee Landfill - Quarter 1 2007

Parameter	Units	NYS Water Quality Standard		Monitoring Well						
				Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden
				MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Temperature	(deg. F)	--		48.7	49.3	48.6	48.4	48.7	49.5	48.7
Eh	(mV)	--		59	84	136	136	-50	82	77
pH	(Std Units)	6.5 - 8.5	a	8.29	8.47	7.31	7.14	7.82	8.04	7.04
Specific Conductance	(uS/cm)	--		204	156	364	701	143	220	893
Color	(Units)	15	a, b	--	--	--	--	--	--	--
Turbidity	(NTU)	5	a	**553**	**67.4**	**48.9**	**142**	**105**	**68.9**	**45.3**
Alkalinity, Total (As CaCO3)	(mg/l)	--		140	99	380	650	82	180	640
Hardness (As CaCO3)	(mg/l)	--		134	83.6	225	723	74	156	529
Total Dissolved Solids	(mg/l)	500	a	127	62	262	**825**	38	127	**753**
Chloride	(mg/l)	250	a, b	28.7	3.24	21.2	167	3.37	11.6	145
Sulfate	(mg/l)	250	a, b	8.79	7.09	<5	<5	<5	8.54	16.5
Bromide	(mg/l)	2	a	<0.2	<0.2	<0.2	0.95	1.2	<0.2	0.6
Nitrogen, Nitrate (As N)	(mg/l)	10	a, b	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nitrogen, Ammonia (As N)	(mg/l)	2 *	a	<0.5	<0.5	**2.02**	0.921	1.45	<0.5	<0.5
Nitrogen, Kjeldahl, Total	(mg/l)	--		2.2	<0.5	132	1.84	4.26	<0.5	1.47
Chemical Oxygen Demand	(mg/l)	--		<20	<20	<20	21	47	<20	27
Biochemical Oxygen Demand	(mg/l)	--		<4	<4	6	<4	<4	<4	<4
Organic Carbon, Total	(mg/l)	--		<3	<3	6.7	6.4	<3	<3	8.1
Phenolics, Total Recoverable	(mg/l)	0.001	a	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	0.2	a, b	--	--	--	--	--	--	--

a - Part 703 Water Quality Standard (assumes Class GA waters)

b - Part 5 Drinking Water MCL

* Standard is for NH4+ and NH3 combined, as is the laboratory analysis

1.23 indicates contravention of standard.

Table 2
Contraventions of NYS Water Quality Standards for Metals
Towslee Landfill - Quarter 1 2007

Parameter	NYS Water Quality Standard		Total Metals							Dissovled Metals		
			Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden	Over-burden	Bedrock	Over-burden
			MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A	MW-1A	MW-1B	MW-6B
Aluminum	--		--	--	--	--	--	--	--	--	--	--
Antimony	0.003	a	--	--	--	--	--	--	--	--	--	--
Arsenic	0.025	a	--	--	--	--	--	--	--	--	--	--
Barium	1	a	--	--	--	--	--	--	--	--	--	--
Beryllium	0.004	b	--	--	--	--	--	--	--	--	--	--
Boron	1	a	--	--	--	--	--	--	--	--	--	--
Cadmium	0.005	a, b	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	--		39.2	23.7	64.2	216	23	45.6	149	40.3	24.5	45.6
Chromium	0.05	a	--	--	--	--	--	--	--	--	--	--
Chrom, Hex	0.05	a	--	--	--	--	--	--	--	--	--	--
Cobalt	--		--	--	--	--	--	--	--	--	--	--
Copper	0.2	a	--	--	--	--	--	--	--	--	--	--
Iron	0.3	a, b	**1.67**	**2.39**	**10.8**	**0.637**	**1.18**	**1.87**	**1.68**	<0.06	<0.06	<0.06
Lead	0.015	b	<0.003	0.0043	0.0052	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	--		8.87	5.94	15.7	44.8	4.04	10.2	38.4	8.83	5.88	10.6
Manganese	0.3	a, b	0.19	**0.521**	**9.93**	**6.42**	**0.415**	**0.331**	**4.51**	<0.01	<0.01	0.137
Mercury	0.0007	a	--	--	--	--	--	--	--	--	--	--
Nickel	0.1	a	--	--	--	--	--	--	--	--	--	--
Potassium	--		1.74	<1	9.02	2.74	<1	1.05	2.03	1.72	<1	1.19
Sodium	20	a, b	12.2	5.22	19.5	**50.9**	2.11	11.2	**112**	12.3	5.73	**12.1**
Selenium	0.01	a	--	--	--	--	--	--	--	--	--	--
Silver	0.05	a	--	--	--	--	--	--	--	--	--	--
Thallium	0.002	b	--	--	--	--	--	--	--	--	--	--
Vanadium	--		--	--	--	--	--	--	--	--	--	--
Zinc	5	b	--	--	--	--	--	--	--	--	--	--

all units are mg/l

a - Part 703 Water Quality Standard (assumes Class GA waters)

b - Part 5 Drinking Water MCL

1.23 indicates contravention of standard.

N/A not analyzed

E - Estimated; exceeds upper quantitation limit

Table 3
Contraventions of NYS Water Quality Standards for Field and Inorganic Parameters
Towslee Landfill - Quarter 2 2007

Parameter	Units	NYS Water Quality Standard		Monitoring Well						
				Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden
				MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Temperature	(deg. F)	--		44.1	45	45.9	46.9	42.1	45.3	46
Eh	(mV)	--		-107	-122	-62	-73	-94	-92	-64
pH	(Std Units)	6.5 - 8.5	a	7.93	8.24	7.14	7.35	7.64	7.73	7.12
Specific Conductance	(uS/cm)	--		221	141	450	682	898	249	765
Color	(Units)	15	a, b	--	--	--	--	--	--	--
Turbidity	(NTU)	5	a	34.8	9.62	130	11	19.6	8.1	5.3
Alkalinity, Total (As CaCO3)	(mg/l)	--		120	96	320	480	59	160	510
Hardness (As CaCO3)	(mg/l)	--		153	105	262	575	58.1	139	499
Total Dissolved Solids	(mg/l)	500	a	208	162	355	824	168	105	865
Chloride	(mg/l)	250	a, b	27	4.45	14.7	131	1.8	6.99	131
Sulfate	(mg/l)	250	a, b	14.2	6.31	<5	<5	<5	6.79	23.2
Bromide	(mg/l)	2	a	<0.2	<0.2	<0.2	<2	<2	<0.2	<0.2
Nitrogen, Nitrate (As N)	(mg/l)	10	a, b	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Nitrogen, Ammonia (As N)	(mg/l)	2 *	a	<0.5	<0.5	9.89	0.844	<0.5	<0.5	<0.5
Nitrogen, Kjeldahl, Total	(mg/l)	--		<0.5	<0.5	12.5	1.62	1.47	<0.5	3.6
Chemical Oxygen Demand	(mg/l)	--		<20	<20	<20	<20	<20	<20	<20
Biochemical Oxygen Demand	(mg/l)	--		<4	<4	7	4	8	<4	<4
Organic Carbon, Total	(mg/l)	--		<3	<3	4.8	3	<3	<3	6
Phenolics, Total Recoverable	(mg/l)	0.001	a	0.005	0.006	0.01	0.006	<0.005	<0.005	0.006
Cyanide	(mg/l)	0.2	a, b	--	--	--	--	--	--	--

a - Part 703 Water Quality Standard (assumes Class GA waters)

b - Part 5 Drinking Water MCL

* Standard is for NH4+ and NH3 combined, as is the laboratory analysis

1.23 indicates contravention of standard.

Table 4
Contraventions of NYS Water Quality Standards for Metals
Towslee Landfill - Quarter 2 2007

Parameter	NYS Water Quality Standard		Total Metals						
			Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden
			MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Aluminum	--		--	--	--	--	--	--	--
Antimony	0.003	a	--	--	--	--	--	--	--
Arsenic	0.025	a	--	--	--	--	--	--	--
Barium	1	a	--	--	--	--	--	--	--
Beryllium	0.004	b	--	--	--	--	--	--	--
Boron	1	a	--	--	--	--	--	--	--
Cadmium	0.005	a, b	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	--		44.5	30	75.3	170	18.1	39.9	140
Chromium	0.05	a	--	--	--	--	--	--	--
Chrom, Hex	0.05	a	--	--	--	--	--	--	--
Cobalt	--		--	--	--	--	--	--	--
Copper	0.2	a	--	--	--	--	--	--	--
Iron	0.3	a, b	**2.14**	**0.508**	**6.86**	**0.469**	**0.599**	**0.486**	**1.52**
Lead	0.015	b	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	--		10.2	7.4	17.9	36.3	3.1	9.68	36.4
Manganese	0.3	a, b	0.193	0.169	**11.7**	**4.93**	**0.501**	0.0908	**4.18**
Mercury	0.0007	a	--	--	--	--	--	--	--
Nickel	0.1	a	--	--	--	--	--	--	--
Potassium	--		2.31	<1	10.8	2.14	<1	<1	1.95
Sodium	20	a, b	12.5	6.82	**22.9**	**40.8**	1.14	10.2	**104**
Selenium	0.01	a	--	--	--	--	--	--	--
Silver	0.05	a	--	--	--	--	--	--	--
Thallium	0.002	b	--	--	--	--	--	--	--
Vanadium	--		--	--	--	--	--	--	--
Zinc	5	b	--	--	--	--	--	--	--

all units are mg/l

a - Part 703 Water Quality Standard (assumes Class GA waters)

b - Part 5 Drinking Water MCL

1.23 indicates contravention of standard.

N/A not analyzed

E - Estimated; exceeds upper quantitation limit

Appendix A

Analytical Laboratory Results and Internal Quality Control Summary

Quarter 1 2007

Cortland County Towslee Landfill

TOWSLEE Q1 2007
ROUTINE

Upstate Laboratories, Inc.

Shipping: 6034 Corporate Dr. * E. Syracuse, NY 13057-1017 * (315) 437-0255 * Fax (315) 437-1209
Mailing: Box 169 * Syracuse, NY 13206
Albany (518) 459-3134 * Binghamton (607) 724-0478 * Buffalo (716) 649-2533
Rochester (315) 437-0255 * New Jersey (732) 496-6828

Mr. Patrick Reidy
Cortland Co. Soil and Water Cons. Dist.
100 Grange Place
Room 202
Cortland, NY 13045

Monday, April 30, 2007

RE: Towslee Landfill

Order No.: U0703366

Dear Mr. Patrick Reidy:

Upstate Laboratories, Inc. received 8 sample(s) on 3/20/2007 for the analyses presented in the following report.

All analytical results relate to the samples as received by the laboratory.

All analytical data conforms with standard approved methodologies and quality control. Our quality control narrative will be included should any anomalies occur.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your samples. Samples will be disposed of approximately one month from final report date.

Should you have any questions regarding these tests, please feel free to give us a call.

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.
Anthony J. Scala
Anthony J. Scala
President/CEO

Upstate Laboratories, Inc.

Shipping: 6034 Corporate Dr. * E. Syracuse, NY 13057-1017 * (315) 437-0255 * Fax (315) 437-1209
Mailing: Box 169 * Syracuse, NY 13206
Albany (518) 459-3134 * Binghamton (607) 724-0478 * Buffalo (716) 649-2533
Rochester (585) 436-9070 * New Jersey (201) 343-5353 * South Carolina (864) 878-3280

May 2, 2007

Cortland County Soil and Water Conservation District
Mr. Patrick Reidy
100 Grange Place
Cortland, New York 13045

RE: Towslee Landfill, Cortlandville, New York, Samples Collected March 20, 2007
Case Narrative for ULI SDG Number COR01, Workorder #U0703366

The following is a New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP) Category A case narrative for the above referenced project. The test results were subject to an internal validation as described below:

Internal Validation

For each test, the chemist sorted the samples into batches of twenty samples or less and added quality control (QC) samples. The batches were analyzed by USEPA and NYSDEC approved test procedures (Table 1). During the course of the analyses the chemist compared the quality control test results to performance criteria and (if necessary) took corrective actions. At the end of the analysis, the data was assembled into data packages and submitted to the section supervisor for review and approval. On the cover of each data package the analyst described any anomaly that may have occurred and, if it did occur, why the data was still found acceptable. A summary of the comments on the cover sheet of each test from each laboratory follows:

Trace Metals

Test	Batch	Anomaly
Ca,Cd,Fe,Pb,Mg,Mn,K,Na	R24064	The DUP %RPD for Lead in sample location MW-6B was outside QC acceptance limits. The CRI %recovery for Lead was outside QC acceptance limits. All other criteria were satisfied.

Wet Chemistry

Test	Batch	Anomaly
BOD	R23711	Criteria were satisfied.
Nitrate-Nitrogen	R23782	Criteria were satisfied.
Alkalinity, Total	R24916	Criteria were satisfied.
Chloride	R23881	The MS %recovery was outside QC acceptance limits. All other criteria were satisfied.

The total number of pages in this Data Package is : 3 .

Wet Chemistry (continued)

Test	Batch	Anomaly
COD	R23706	Criteria were satisfied.
	R23834	Criteria were satisfied.
TKN	R23981	Criteria were satisfied.
Ammonia-Nitrogen	R24205	Criteria were satisfied
Sulfate	R23931	Criteria were satisfied.
TDS	R23972	Criteria were satisfied.
TOC	R23902	Criteria were satisfied.
Phenols	R23923	Criteria were satisfied.
	R24015	Criteria were satisfied.
	R24164	Criteria were satisfied.
Bromide	R24422	Criteria were satisfied.

Should questions arise please do not hesitate to call the Environmental Project Coordinator (EPC) assigned to your job or myself.

I certify that this data package is in compliance with the terms and conditions of the Contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and/or in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Sincerely,
UPSTATE LABORATORIES, INC.

Anthony J. Scala
Director

File: COR01A.doc

Table 1
Methodologies

Methodology

The analyses were performed using test methods developed by the USEPA and reorganized by the NYSDEC in the Analytical Services Protocol (ASP). The specific method numbers are:

Parameter	Method	Reference
Cadmium	200.7	(1)
Calcium	200.7	(1)
Iron	200.7	(1)
Lead	200.7	(1)
Magnesium	200.7	(1)
Manganese	200.7	(1)
Potassium	200.7	(1)
Sodium	200.7	(1)
BOD	405.1	(1)
Nitrate-Nitrogen	353.1	(1)
Alkalinity, Total	310.2	(1)
Chloride	325.2	(1)
COD	410.4	(1)
Ammonia-Nitrogen	350.2	(1)
Sulfate	375.4	(1)
TDS	160.1	(1)
TKN	351.3	(1)
TOC	415.1	(1)
Phenols	420.1	(1)
Bromide	300.1	(1)

Reference

1) New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP), 7/05 Revision

Upstate Laboratories, Inc.

Date: *30-Apr-07*

CLIENT:	Cortland County	**Client Sample ID:**	MW-1A
Lab Order:	U0703366	**Collection Date:**	3/20/2007 10:20:00 AM
Project:	Towslee Landfill		
Lab ID:	U0703366-001	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Conductivity	204	1.0		umhos/cm		3/20/2007 10:20:00 AM
Eh	59	-300		mV		3/20/2007 10:20:00 AM
pH	8.29	6.5-8.5		SU		3/20/2007 10:20:00 AM
Temperature	9.3			degC		3/20/2007 10:20:00 AM
Turbidity	55.6	5.0		NTU		3/20/2007 10:20:00 AM
Water Level	4.01			ft		3/20/2007 10:20:00 AM
ICP METALS, TOTAL ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	4/11/2007 3:46:35 PM
Calcium	39200	1000		µg/L	1	4/11/2007 3:46:35 PM
Iron	1670	60.0		µg/L	1	4/11/2007 3:46:35 PM
Lead	ND	3.00		µg/L	1	4/11/2007 3:46:35 PM
Magnesium	8870	1000		µg/L	1	4/11/2007 3:46:35 PM
Manganese	190	10.0		µg/L	1	4/11/2007 3:46:35 PM
Potassium	1740	1000		µg/L	1	4/11/2007 3:46:35 PM
Sodium	12200	1000		µg/L	1	4/11/2007 3:46:35 PM
Hardness, Total(CaCO3)	134000	7000		µg/L	1	4/11/2007 3:46:35 PM
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	0.20		mg/L	1	4/8/2007
ICP METALS, DISSOLVED ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	4/11/2007 3:08:57 PM
Calcium	40300	1000		µg/L	1	4/11/2007 3:08:57 PM
Iron	ND	60.0		µg/L	1	4/11/2007 3:08:57 PM
Lead	ND	3.00		µg/L	1	4/11/2007 3:08:57 PM
Magnesium	8830	1000		µg/L	1	4/11/2007 3:08:57 PM
Manganese	ND	10.0		µg/L	1	4/11/2007 3:08:57 PM
Potassium	1720	1000		µg/L	1	4/11/2007 3:08:57 PM
Sodium	12300	1000		µg/L	1	4/11/2007 3:08:57 PM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **NJS**
Residue, Dissolved (TDS)	127	25		mg/L	1	3/25/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **SAR**
Alkalinity, Total (As CaCO3)	140	10		mg/LCaCO3	1	3/26/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **SAR**
Chloride	28.7	1.00		mg/L	1	3/26/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BY**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	4/17/2007

Approved By: PE **Date:** 4-30-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *30-Apr-07*

CLIENT:	Cortland County	**Client Sample ID:**	MW-1A
Lab Order:	U0703366	**Collection Date:**	3/20/2007 10:20:00 AM
Project:	Towslee Landfill		
Lab ID:	U0703366-001	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TKN FOR WATERS		**E351.3**				Analyst: **NJS**
Nitrogen, Kjeldahl, Total	2.20	0.500		mg/L	1	4/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	3/20/2007 3:55:00 PM
SULFATE		**E375.4**				Analyst: **MAF**
Sulfate	8.79	5.00		mg/L	1	4/5/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **BS**
Biochemical Oxygen Demand	ND	4		mg/L	1	3/21/2007 6:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	3/26/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **BS**
Organic Carbon, Total	ND	3.0		mg/L	1	4/4/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **SAR**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	4/4/2007

Approved By: PE **Date:** 4-30-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *30-Apr-07*

CLIENT:	Cortland County	**Client Sample ID:**	MW-1B
Lab Order:	U0703366	**Collection Date:**	3/20/2007 10:35:00 AM
Project:	Towslee Landfill		
Lab ID:	U0703366-002	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Conductivity	156	1.0		umhos/cm		3/20/2007 10:35:00 AM
Eh	84	-300		mV		3/20/2007 10:35:00 AM
pH	8.47	6.5-8.5		SU		3/20/2007 10:35:00 AM
Temperature	9.6			degC		3/20/2007 10:35:00 AM
Turbidity	67.4	5.0		NTU		3/20/2007 10:35:00 AM
Water Level	4.21			ft		3/20/2007 10:35:00 AM
ICP METALS, TOTAL ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	4/11/2007 3:49:58 PM
Calcium	23700	1000		µg/L	1	4/11/2007 3:49:58 PM
Iron	2390	60.0		µg/L	1	4/11/2007 3:49:58 PM
Lead	4.31	3.00		µg/L	1	4/11/2007 3:49:58 PM
Magnesium	5940	1000		µg/L	1	4/11/2007 3:49:58 PM
Manganese	521	10.0		µg/L	1	4/11/2007 3:49:58 PM
Potassium	ND	1000		µg/L	1	4/11/2007 3:49:58 PM
Sodium	5220	1000		µg/L	1	4/11/2007 3:49:58 PM
Hardness, Total(CaCO3)	83600	7000		µg/L	1	4/11/2007 3:49:58 PM
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	0.20		mg/L	1	4/8/2007
ICP METALS, DISSOLVED ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	4/11/2007 3:12:17 PM
Calcium	24500	1000		µg/L	1	4/11/2007 3:12:17 PM
Iron	ND	60.0		µg/L	1	4/11/2007 3:12:17 PM
Lead	ND	3.00		µg/L	1	4/11/2007 3:12:17 PM
Magnesium	5880	1000		µg/L	1	4/11/2007 3:12:17 PM
Manganese	ND	10.0		µg/L	1	4/11/2007 3:12:17 PM
Potassium	ND	1000		µg/L	1	4/11/2007 3:12:17 PM
Sodium	5730	1000		µg/L	1	4/11/2007 3:12:17 PM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **NJS**
Residue, Dissolved (TDS)	62	25		mg/L	1	3/25/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **SAR**
Alkalinity, Total (As CaCO3)	99	10		mg/LCaCO3	1	3/26/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **SAR**
Chloride	3.24	1.00		mg/L	1	3/26/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **NJS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	4/5/2007

Approved By: PE **Date:** 4-30-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *30-Apr-07*

CLIENT:	Cortland County	**Client Sample ID:**	MW-1B
Lab Order:	U0703366	**Collection Date:**	3/20/2007 10:35:00 AM
Project:	Towslee Landfill		
Lab ID:	U0703366-002	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TKN FOR WATERS		**E351.3**				Analyst: **NJS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	4/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	3/20/2007 3:55:00 PM
SULFATE		**E375.4**				Analyst: **MAF**
Sulfate	7.09	5.00		mg/L	1	4/5/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **BS**
Biochemical Oxygen Demand	ND	4		mg/L	1	3/21/2007 6:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	3/26/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **BS**
Organic Carbon, Total	ND	3.0		mg/L	1	4/4/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **SAR**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	4/4/2007

Approved By: PE **Date:** 4-30-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *30-Apr-07*

CLIENT:	Cortland County	**Client Sample ID:**	MW-2A
Lab Order:	U0703366	**Collection Date:**	3/20/2007 11:30:00 AM
Project:	Towslee Landfill		
Lab ID:	U0703366-003	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Conductivity	364	1.0		umhos/cm		3/20/2007 11:30:00 AM
Eh	136	-300		mV		3/20/2007 11:30:00 AM
pH	7.31	6.5-8.5		SU		3/20/2007 11:30:00 AM
Temperature	9.2			degC		3/20/2007 11:30:00 AM
Turbidity	48.9	5.0		NTU		3/20/2007 11:30:00 AM
Water Level	5.75			ft		3/20/2007 11:30:00 AM
ICP METALS, TOTAL ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	4/11/2007 3:53:40 PM
Calcium	64200	1000		µg/L	1	4/11/2007 3:53:40 PM
Iron	10800	60.0		µg/L	1	4/11/2007 3:53:40 PM
Lead	5.24	3.00		µg/L	1	4/11/2007 3:53:40 PM
Magnesium	15700	1000		µg/L	1	4/11/2007 3:53:40 PM
Manganese	9930	10.0		µg/L	1	4/11/2007 3:53:40 PM
Potassium	9020	1000		µg/L	1	4/11/2007 3:53:40 PM
Sodium	19500	1000		µg/L	1	4/11/2007 3:53:40 PM
Hardness, Total(CaCO3)	225000	7000		µg/L	1	4/11/2007 3:53:40 PM
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	0.20		mg/L	1	4/8/2007
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **NJS**
Residue, Dissolved (TDS)	262	25		mg/L	1	3/25/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **SAR**
Alkalinity, Total (As CaCO3)	380	10		mg/LCaCO3	1	3/26/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **SAR**
Chloride	21.2	1.00		mg/L	1	3/26/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BY**
Nitrogen, Ammonia (As NH3)	10.2	0.500		mg/L	1	4/17/2007
TKN FOR WATERS		**E351.3**				Analyst: **NJS**
Nitrogen, Kjeldahl, Total	132	0.500		mg/L	1	4/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	3/20/2007 3:55:00 PM
SULFATE		**E375.4**				Analyst: **MAF**
Sulfate	ND	5.00		mg/L	1	4/5/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **BS**
Biochemical Oxygen Demand	6	4		mg/L	1	3/21/2007 6:00:00 AM

Approved By: PE **Date:** 4-30-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *30-Apr-07*

CLIENT:	Cortland County	**Client Sample ID:**	MW-2A
Lab Order:	U0703366	**Collection Date:**	3/20/2007 11:30:00 AM
Project:	Towslee Landfill		
Lab ID:	U0703366-003	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	3/26/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **BS**
Organic Carbon, Total	6.7	3.0		mg/L	1	4/4/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **SAR**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	4/10/2007

Approved By: PF **Date:** 4-30-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *30-Apr-07*

CLIENT:	Cortland County	**Client Sample ID:**	MW-2B
Lab Order:	U0703366	**Collection Date:**	3/20/2007 11:40:00 AM
Project:	Towslee Landfill		
Lab ID:	U0703366-004	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Conductivity	701	1.0		umhos/cm		3/20/2007 11:40:00 AM
Eh	136	-300		mV		3/20/2007 11:40:00 AM
pH	7.14	6.5-8.5		SU		3/20/2007 11:40:00 AM
Temperature	9.1			degC		3/20/2007 11:40:00 AM
Turbidity	14.2	5.0		NTU		3/20/2007 11:40:00 AM
Water Level	6.74			ft		3/20/2007 11:40:00 AM
ICP METALS, TOTAL ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	4/11/2007 3:57:21 PM
Calcium	216000	1000		µg/L	1	4/11/2007 3:57:21 PM
Iron	637	60.0		µg/L	1	4/11/2007 3:57:21 PM
Lead	ND	3.00		µg/L	1	4/11/2007 3:57:21 PM
Magnesium	44800	1000		µg/L	1	4/11/2007 3:57:21 PM
Manganese	6420	10.0		µg/L	1	4/11/2007 3:57:21 PM
Potassium	2740	1000		µg/L	1	4/11/2007 3:57:21 PM
Sodium	50900	1000		µg/L	1	4/11/2007 3:57:21 PM
Hardness, Total(CaCO3)	723000	7000		µg/L	1	4/11/2007 3:57:21 PM
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	0.95	0.20		mg/L	1	4/8/2007
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **NJS**
Residue, Dissolved (TDS)	825	25		mg/L	1	3/25/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **SAR**
Alkalinity, Total (As CaCO3)	650	100		mg/LCaCO3	10	3/26/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **SAR**
Chloride	167	1.00		mg/L	1	3/26/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BY**
Nitrogen, Ammonia (As NH3)	0.921	0.500		mg/L	1	4/17/2007
TKN FOR WATERS		**E351.3**				Analyst: **NJS**
Nitrogen, Kjeldahl, Total	1.84	0.500		mg/L	1	4/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	3/20/2007 3:55:00 PM
SULFATE		**E375.4**				Analyst: **MAF**
Sulfate	ND	5.00		mg/L	1	4/5/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **BS**
Biochemical Oxygen Demand	ND	4		mg/L	1	3/21/2007 6:00:00 AM

Approved By: PE **Date:** 4-30-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *30-Apr-07*

CLIENT:	Cortland County	**Client Sample ID:**	MW-2B
Lab Order:	U0703366	**Collection Date:**	3/20/2007 11:40:00 AM
Project:	Towslee Landfill		
Lab ID:	U0703366-004	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	21	20		mg/L	1	3/26/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **BS**
Organic Carbon, Total	6.4	3.0		mg/L	1	4/4/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **SAR**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	4/10/2007

Approved By: PF **Date:** 4-30-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *30-Apr-07*

CLIENT:	Cortland County	**Client Sample ID:**	MW-3A
Lab Order:	U0703366	**Collection Date:**	3/20/2007 12:15:00 PM
Project:	Towslee Landfill		
Lab ID:	U0703366-005	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Conductivity	143	1.0		umhos/cm		3/20/2007 12:15:00 PM
Eh	-50	-300		mV		3/20/2007 12:15:00 PM
pH	7.82	6.5-8.5		SU		3/20/2007 12:15:00 PM
Temperature	9.3			degC		3/20/2007 12:15:00 PM
Turbidity	10.6	5.0		NTU		3/20/2007 12:15:00 PM
Water Level	3.46			ft		3/20/2007 12:15:00 PM
ICP METALS, TOTAL ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	4/11/2007 4:00:45 PM
Calcium	23000	1000		µg/L	1	4/11/2007 4:00:45 PM
Iron	1180	60.0		µg/L	1	4/11/2007 4:00:45 PM
Lead	ND	3.00		µg/L	1	4/11/2007 4:00:45 PM
Magnesium	4040	1000		µg/L	1	4/11/2007 4:00:45 PM
Manganese	415	10.0		µg/L	1	4/11/2007 4:00:45 PM
Potassium	ND	1000		µg/L	1	4/11/2007 4:00:45 PM
Sodium	2110	1000		µg/L	1	4/11/2007 4:00:45 PM
Hardness, Total(CaCO3)	74000	7000		µg/L	1	4/11/2007 4:00:45 PM
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	1.2	0.20		mg/L	1	4/8/2007
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **NJS**
Residue, Dissolved (TDS)	38	25		mg/L	1	3/25/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **SAR**
Alkalinity, Total (As CaCO3)	82	10		mg/LCaCO3	1	3/26/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **SAR**
Chloride	3.37	1.00		mg/L	1	3/26/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BY**
Nitrogen, Ammonia (As NH3)	1.45	0.500		mg/L	1	4/17/2007
TKN FOR WATERS		**E351.3**				Analyst: **NJS**
Nitrogen, Kjeldahl, Total	4.26	0.500		mg/L	1	4/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	3/20/2007 3:55:00 PM
SULFATE		**E375.4**				Analyst: **MAF**
Sulfate	ND	5.00		mg/L	1	4/5/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **BS**
Biochemical Oxygen Demand	ND	4		mg/L	1	3/21/2007 6:00:00 AM

Approved By: DF **Date:** 4-30-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *30-Apr-07*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-3A
Lab Order:	U0703366	**Collection Date:**	3/20/2007 12:15:00 PM
Project:	Towslee Landfill		
Lab ID:	U0703366-005	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	47	20		mg/L	1	3/26/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **BS**
Organic Carbon, Total	ND	3.0		mg/L	1	4/4/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **SAR**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	4/10/2007

Approved By: PE **Date:** 4-30-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *30-Apr-07*

CLIENT:	Cortland County	**Client Sample ID:**	MW-6B
Lab Order:	U0703366	**Collection Date:**	3/20/2007 10:55:00 AM
Project:	Towslee Landfill		
Lab ID:	U0703366-006	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Conductivity	220	1.0		umhos/cm		3/20/2007 10:55:00 AM
Eh	82	-300		mV		3/20/2007 10:55:00 AM
pH	8.04	6.5-8.5		SU		3/20/2007 10:55:00 AM
Temperature	9.7			degC		3/20/2007 10:55:00 AM
Turbidity	68.9	5.0		NTU		3/20/2007 10:55:00 AM
Water Level	12.21			ft		3/20/2007 10:55:00 AM
ICP METALS, TOTAL ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	4/11/2007 4:04:10 PM
Calcium	45600	1000		µg/L	1	4/11/2007 4:04:10 PM
Iron	1870	60.0		µg/L	1	4/11/2007 4:04:10 PM
Lead	ND	3.00		µg/L	1	4/11/2007 4:04:10 PM
Magnesium	10200	1000		µg/L	1	4/11/2007 4:04:10 PM
Manganese	331	10.0		µg/L	1	4/11/2007 4:04:10 PM
Potassium	1050	1000		µg/L	1	4/11/2007 4:04:10 PM
Sodium	11200	1000		µg/L	1	4/11/2007 4:04:10 PM
Hardness, Total(CaCO3)	156000	7000		µg/L	1	4/11/2007 4:04:10 PM
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	0.20		mg/L	1	4/8/2007
ICP METALS, DISSOLVED ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	4/11/2007 3:18:57 PM
Calcium	45600	1000		µg/L	1	4/11/2007 3:18:57 PM
Iron	ND	60.0		µg/L	1	4/11/2007 3:18:57 PM
Lead	ND	3.00		µg/L	1	4/11/2007 3:18:57 PM
Magnesium	10600	1000		µg/L	1	4/11/2007 3:18:57 PM
Manganese	137	10.0		µg/L	1	4/11/2007 3:18:57 PM
Potassium	1190	1000		µg/L	1	4/11/2007 3:18:57 PM
Sodium	12100	1000		µg/L	1	4/11/2007 3:18:57 PM
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **NJS**
Residue, Dissolved (TDS)	127	25		mg/L	1	3/25/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **SAR**
Alkalinity, Total (As CaCO3)	180	10		mg/LCaCO3	1	3/26/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **SAR**
Chloride	11.6	1.00		mg/L	1	3/26/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **NJS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	4/5/2007

Approved By: DE **Date:** 4-30-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *30-Apr-07*

CLIENT:	Cortland County	**Client Sample ID:**	MW-6B
Lab Order:	U0703366	**Collection Date:**	3/20/2007 10:55:00 AM
Project:	Towslee Landfill		
Lab ID:	U0703366-006	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TKN FOR WATERS		**E351.3**				Analyst: **NJS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	4/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	3/20/2007 3:55:00 PM
SULFATE		**E375.4**				Analyst: **MAF**
Sulfate	8.54	5.00		mg/L	1	4/5/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **BS**
Biochemical Oxygen Demand	ND	4		mg/L	1	3/21/2007 6:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	3/26/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **BS**
Organic Carbon, Total	ND	3.0		mg/L	1	4/4/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **SAR**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	4/10/2007

Approved By: PE **Date:** 4-30-07

Qualifiers:	*	Low Level	**	Value exceeds Maximum Contaminant Value
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *30-Apr-07*

CLIENT:	Cortland County	**Client Sample ID:**	MW-7A
Lab Order:	U0703366	**Collection Date:**	3/20/2007 10:00:00 AM
Project:	Towslee Landfill		
Lab ID:	U0703366-007	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Conductivity	893	1.0		umhos/cm		3/20/2007 10:00:00 AM
Eh	77	-300		mV		3/20/2007 10:00:00 AM
pH	7.04	6.5-8.5		SU		3/20/2007 10:00:00 AM
Temperature	9.3			degC		3/20/2007 10:00:00 AM
Turbidity	45.3	5.0		NTU		3/20/2007 10:00:00 AM
Water Level	3.46			ft		3/20/2007 10:00:00 AM
ICP METALS, TOTAL ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	4/11/2007 4:21:37 PM
Calcium	149000	1000		µg/L	1	4/11/2007 4:21:37 PM
Iron	1680	60.0		µg/L	1	4/11/2007 4:21:37 PM
Lead	ND	3.00		µg/L	1	4/11/2007 4:21:37 PM
Magnesium	38400	1000		µg/L	1	4/11/2007 4:21:37 PM
Manganese	4510	10.0		µg/L	1	4/11/2007 4:21:37 PM
Potassium	2030	1000		µg/L	1	4/11/2007 4:21:37 PM
Sodium	112000	1000		µg/L	1	4/11/2007 4:21:37 PM
Hardness, Total(CaCO3)	529000	7000		µg/L	1	4/11/2007 4:21:37 PM
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	0.60	0.20		mg/L	1	4/8/2007
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **NJS**
Residue, Dissolved (TDS)	753	25		mg/L	1	3/25/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **SAR**
Alkalinity, Total (As CaCO3)	640	100		mg/LCaCO3	10	3/26/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **SAR**
Chloride	145	1.00		mg/L	1	3/26/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BY**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	4/17/2007
TKN FOR WATERS		**E351.3**				Analyst: **NJS**
Nitrogen, Kjeldahl, Total	1.47	0.500		mg/L	1	4/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	3/20/2007 3:55:00 PM
SULFATE		**E375.4**				Analyst: **MAF**
Sulfate	16.5	5.00		mg/L	1	4/5/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **BS**
Biochemical Oxygen Demand	ND	4		mg/L	1	3/21/2007 6:00:00 AM

Approved By: PF **Date:** 4-30-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *30-Apr-07*

CLIENT:	Cortland County	**Client Sample ID:**	MW-7A
Lab Order:	U0703366	**Collection Date:**	3/20/2007 10:00:00 AM
Project:	Towslee Landfill		
Lab ID:	U0703366-007	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	27	20		mg/L	1	4/2/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **BS**
Organic Carbon, Total	8.1	3.0		mg/L	1	4/4/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **SAR**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	4/10/2007

Approved By: PF **Date:** 4-30-07

Qualifiers:	*	Low Level	**	Value exceeds Maximum Contaminant Value
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *30-Apr-07*

CLIENT:	Cortland County	**Client Sample ID:**	Dupe-MW-7A
Lab Order:	U0703366	**Collection Date:**	3/20/2007 10:00:00 AM
Project:	Towslee Landfill		
Lab ID:	U0703366-008	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS, TOTAL ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	4/11/2007 4:25:15 PM
Calcium	160000	1000		µg/L	1	4/11/2007 4:25:15 PM
Iron	12900	60.0		µg/L	1	4/11/2007 4:25:15 PM
Lead	7.32	3.00		µg/L	1	4/11/2007 4:25:15 PM
Magnesium	43700	1000		µg/L	1	4/11/2007 4:25:15 PM
Manganese	4940	10.0		µg/L	1	4/11/2007 4:25:15 PM
Potassium	3320	1000		µg/L	1	4/11/2007 4:25:15 PM
Sodium	124000	1000		µg/L	1	4/11/2007 4:25:15 PM
Hardness, Total(CaCO3)	580000	7000		µg/L	1	4/11/2007 4:25:15 PM
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	0.62	0.20		mg/L	1	4/8/2007
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **NJS**
Residue, Dissolved (TDS)	785	25		mg/L	1	3/25/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **SAR**
Alkalinity, Total (As CaCO3)	650	100		mg/LCaCO3	10	3/26/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **SAR**
Chloride	149	1.00		mg/L	1	3/26/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BY**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	4/17/2007
TKN FOR WATERS		**E351.3**				Analyst: **NJS**
Nitrogen, Kjeldahl, Total	1.17	0.500		mg/L	1	4/5/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	3/20/2007 3:55:00 PM
SULFATE		**E375.4**				Analyst: **MAF**
Sulfate	19.2	5.00		mg/L	1	4/5/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **BS**
Biochemical Oxygen Demand	ND	4		mg/L	1	3/21/2007 6:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	4/2/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **BS**
Organic Carbon, Total	8.3	3.0		mg/L	1	4/4/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **SAR**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	4/10/2007

Approved By: PF **Date:** 4-30-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

ULI ID No. (enter by lab)

Well ID.: **MW-1A**

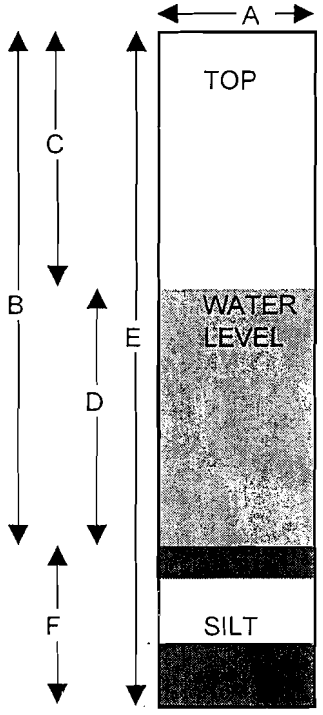
Condition of Well: Good

Locked: YES

Method of Evacuation: Dedicated Bailer

Lock ID:

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	33.7	feet
C.	Depth to Water	4.01	feet
D.	Length of Water Column (calculated)	29.69	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	4.75	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	14.25	gallons
	Actual Volume Evacuated	15	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	3/19/2007	3/20/2007
Time	11:10a	10:20a
EH	54	59
Temperature	9.9 c	9.3 c
pH	8.09	8.29
Specific Cond.	386	204
Turbidity	27.3	55.6
Dissolved Oxygen	N/A	N/A
Appearance	sl. Cloudy	cloudy

% Recharge:

Initial Depth to Water 4.01 feet

Recharge Depth to Water 4.05 feet

2nd water column height 99.8653 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 25 f, cloudy 23 f, snow

Observations:

Sampler: Nathan Talucci

Signature:

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

ULI ID No. (enter by lab)

Well ID.: **MW-1B**

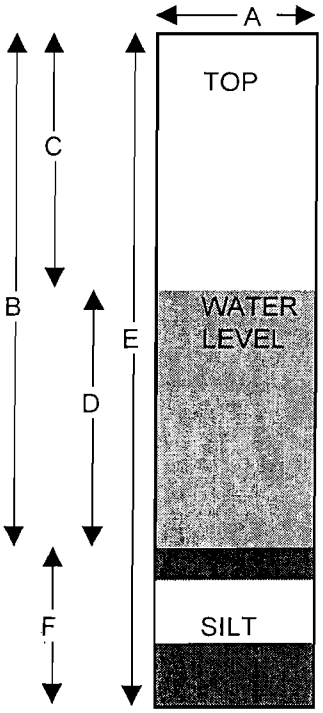
Condition of Well: Good

Locked: NO

Method of Evacuation: Dedicated Bailer

Lock ID:

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	55.5	feet
C.	Depth to Water	4.21	feet
D.	Length of Water Column (calculated)	51.29	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	8.21	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	24.62	gallons
	Actual Volume Evacuated	25	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	3/19/2007	3/20/2007
Time	11:15a	10:35a
EH	36	84
Temperature	9.9 c	9.6 c
pH	8.24	8.47
Specific Cond.	165	156
Turbidity	5.03	67.4
Dissolved Oxygen	N/A	N/A
Appearance	clear	cloudy

% Recharge:

Initial Depth to Water 4.21 feet

Recharge Depth to Water 4.21 feet

2nd water column height 100 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 25 f, cloudy 23 f, snow

Observations:

Sampler: Nathan Talucci

Signature:

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-2A**

ULI ID No. (enter by lab)

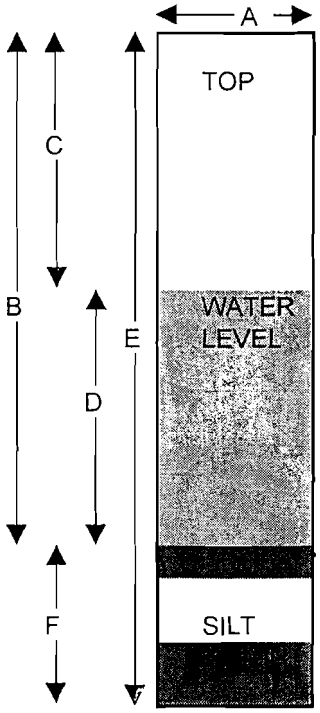
Condition of Well: Good

Locked: YES

Method of Evacuation: Dedicated Bailer

Lock ID:

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	12.8	feet
C.	Depth to Water	5.75	feet
D.	Length of Water Column (calculated)	7.05	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	1.12	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	3.38	gallons
	Actual Volume Evacuated	3.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	3/19/2007	3/20/2007
Time	12:30p	11:30a
EH	59	136
Temperature	9.7 c	9.2 c
pH	6.95	7.31
Specific Cond.	807	364
Turbidity	65.1	48.9
Dissolved Oxygen	N/A	N/A
Appearance	cloudy/orange	cloudy

% Recharge:

Initial Depth to Water 5.75 feet

Recharge Depth to Water 5.75 feet

2nd water column height 100 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 25 f, cloudy 23 f, snow

Observations:

Sampler:

Nathan Talucci

Signature:

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

ULI ID No. (enter by lab)

Well ID.: **MW-2B**

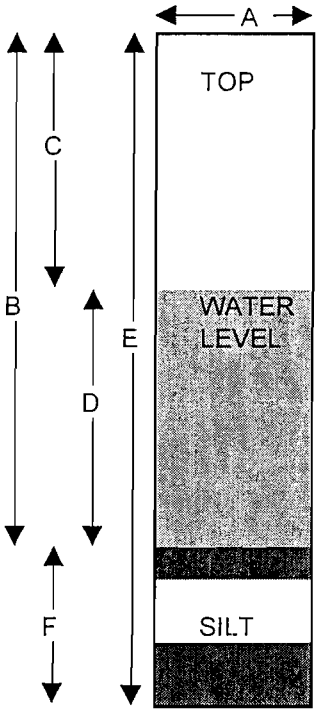
Condition of Well: Good

Locked: YES

Method of Evacuation: Dedicated Bailer

Lock ID:

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	33.5	feet
C.	Depth to Water	6.74	feet
D.	Length of Water Column (calculated)	26.76	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	4.28	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	12.84	gallons
	Actual Volume Evacuated	13	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	3/19/2007	3/20/2007
Time	12:35p	11:40a
EH	35	136
Temperature	9.8 c	9.1 c
pH	6.92	7.14
Specific Cond.	1357	701
Turbidity	12.8	14.2
Dissolved Oxygen	N/A	N/A
Appearance	clear	sl. Cloudy

% Recharge:

Initial Depth to Water 6.74 feet

Recharge Depth to Water 6.76 feet

2nd water column height 99.9253 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 25 f, cloudy 23 f, snow

Observations:

Sampler: Nathan Talucci

Signature:

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-3A**

ULI ID No. (enter by lab)

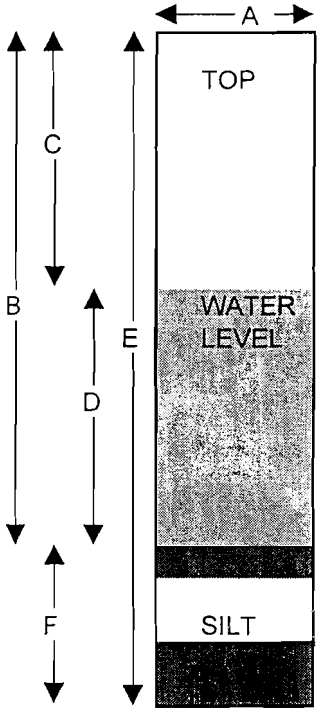
Condition of Well: Good

Locked: YES

Method of Evacuation: Dedicated Bailer

Lock ID:

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	22.40	feet
C.	Depth to Water	3.46	feet
D.	Length of Water Column (calculated)	18.94	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	3.03	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	9.09	gallons
	Actual Volume Evacuated	9.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	3/19/2007	3/20/2007
Time	12:55p	12:15p
EH	31	-50
Temperature	7.1	9.3 c
pH	7.4	7.82
Specific Cond.	163	143
Turbidity	10.9	10.6
Dissolved Oxygen	N/A	N/A
Appearance	clear	clear

% Recharge:

Initial Depth to Water	3.46	feet
Recharge Depth to Water	3.49	feet
2nd water column height	99.8416	%
1st water column height		
Elevation(Top of Casing)	N/A	feet
G.W. Elevation=	N/A	feet

G W.Elevation =Top of Case Elev-Total Depth

Weather: 25 f, cloudy 23 f, snow

Observations:

Sampler: Nathan Tarucci

Signature:

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-6B**

ULI ID No: (enter by lab)

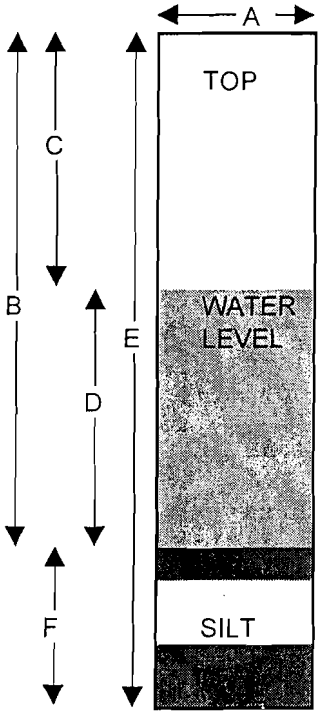
Condition of Well: Good

Locked: NO

Method of Evacuation: Dedicated Bailer

Lock ID:

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	40.75	feet
C.	Depth to Water	12.21	feet
D.	Length of Water Column (calculated)	28.54	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	4.57	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	13.70	gallons
	Actual Volume Evacuated	14	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	3/19/2007	3/20/2007
Time	12:00p	10:55a
EH	85	82
Temperature	10.1 c	9.7 c
pH	8.21	8.04
Specific Cond.	227	220
Turbidity	16.7	68.9
Dissolved Oxygen	N/A	N/A
Appearance	clear	cloudy

% Recharge:

Initial Depth to Water 12.21 feet

Recharge Depth to Water 12.22 feet

2nd water column height 99.965 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 25 f, cloudy 23 f, snow

Observations: MSD

Sampler: Nathan Talucci

Signature:

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

ULI ID No. (enter by lab)

Well ID.: **MW-7A**

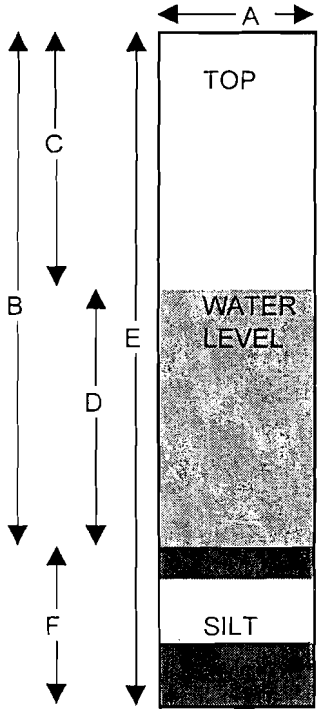
Condition of Well: Good

Locked: YES

Method of Evacuation: Dedicated Bailer

Lock ID:

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	22.20	feet
C.	Depth to Water	3.46	feet
D.	Length of Water Column (calculated)	18.74	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	3.00	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	9.00	gallons
	Actual Volume Evacuated	9	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	3/19/2007	3/20/2007
Time	10:50a	10:00a
EH	116	77
Temperature	9.7 c	9.3 c
pH	7.29	7.04
Specific Cond.	1296	893
Turbidity	26.9	45.3
Dissolved Oxygen	N/A	N/A
Appearance	sl. Cloudy	cloudy

% Recharge:

Initial Depth to Water 3.46 feet

Recharge Depth to Water 3.49 feet

2nd water column height 99.8399 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 25 f, cloudy 23 f, snow

Observations: dupe

Sampler: Nathan Talucci

Signature:

Upstate Laboratories, Inc. Chain of Custody Record

6034 Corporate Drive E. Syracuse New York 13057
(315) 437 0255 Fax 437 1209

REMARKS: ASP CAT A

Client: Cortland County
Project #/ Project Name: Towslee Landfill
Client Contact: Patrick Reidy
Phone #: (607)753-0851 x3
Location (city/state) Address: Cortlandville, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only (LD70324-)	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	11)	12)	13)	14)	15)	***Filter D-Metals in lab***
MW-1A	03/20/07	10:20A	H2O	GRAB	-1	7	x	x	x	x	x	x	x	X								
MW-1B		10:35A	H2O	GRAB	-2	7	x	x	x	x	x	x	x	X								
MW-2A		11:30A	H2O	GRAB	-3	6	x	x	x	x	x	x	x									
MW-2B		11:40A	H2O	GRAB	-4	6	x	x	x	x	x	x	x									
MW-3A		12:15P	H2O	GRAB	-5	6	x	x	x	x	x	x	x									
MW-6B		10:55A	H2O	GRAB	-6	7	x	x	x	x	x	x	x	X								MSD
MW-7A		10:00A	H2O	GRAB	-7	6	x	x	x	x	x	x	x									
Dupe - MW-7A		10:00A	H2O	GRAB	-8	6		x	x	x	x	x	x									

	Parameter and Method	Sample bottle: Type	Size	Preservative
1)	SWL,pH,EH,temp, cond, turb, ~~app~~ ca 3-23-07	N/A	N/A	N/A
2)	BOD5,NO3,TDS,SO4,CL-,Bromide	plastic	2000mL	none
3)	TKN, NH3, COD	plastic	500mL	H2SO4
4)	TOC	plastic	120mL	1:1 HCL
5)	T-Phenols	glass	1000mL	H2SO4
6)	Alkalinity	glass	250mL	none
7)	T-CD,CA,,FE,PB*,MG,MN,K,NA+ Calc. Hardness	plastic	500mL	HNO3
8)	D-CD,CA,FE,PB*,MG,MN,K,NA+ Calc. Hardness	plastic	500mL	none
9)				
10)				
11)				
12)				
13)				
14)				
15)				

Sampled by (Print): Nathan Talucci
Company: ULI
Name of Courier

Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received by: (sign)
Relinquished by:(sign)	Date	Time	Received for Lab by:
Nathan Talucci	03/20/07	3:00p	

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

Appendix B

Analytical Laboratory Results and Internal Quality Control Summary

Quarter 2 2007

Cortland County Towslee Landfill

TOWSLEE Q2 2007
ROUTINE

Upstate Laboratories, Inc.

Shipping: 6034 Corporate Dr. * E. Syracuse, NY 13057-1017 * (315) 437-0255 * Fax (315) 437-1209
Mailing: Box 169 * Syracuse, NY 13206
Albany (518) 459-3134 * Binghamton (607) 724-0478 * Buffalo (716) 649-2533
Rochester (585) 436-9070 * New Jersey (201) 343-5353 * South Carolina (864) 878-3280

Mr. Patrick Reidy
Cortland Co. Soil and Water Cons. Dist.
100 Grange Place
Room 202
Cortland, NY 13045

May 29, 2007

RE: Towslee Landfill

Order No.: U0704449

Dear Mr. Reidy:

Upstate Laboratories, Inc. received 8 samples on 4/26/07 for the analyses presented in the following report.

All analytical results relate to the samples as received by the laboratory.

All analytical data conforms with standard approved methodologies and quality control. Our quality control narrative will be included should any anomalies occur.

We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your samples. Samples will be disposed of approximately one month from final report date.

Should you have any questions, please feel free to give us a call.

Thank you for your patronage.

Sincerely,
UPSTATE LABORATORIES, INC.
Anthony J. Scala
Anthony J. Scala
President/CEO

Enclosures: report, ASP-A Narrative

Upstate Laboratories, Inc.

Shipping: 6034 Corporate Dr. * E. Syracuse, NY 13057-1017 * (315) 437-0255 * Fax (315) 437-1209
Mailing: Box 169 * Syracuse, NY 13206
Albany (518) 459-3134 * Binghamton (607) 724-0478 * Buffalo (716) 649-2533
Rochester (866) 437-0255 * New Jersey (908) 892-1807

Mr. Patrick Reidy
Cortland Co. Soil and Water Cons. Dist.
100 Grange Place
Room 202
Cortland, New York 13045

June 4, 2007

RE: Towslee Landfill, Cortlandville, New York, Samples Collected April 26, 2007
Case Narrative for ULI SDG Number COR03, Workorder #U0704449

The following is a New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP) Category A case narrative for the above referenced project. The test results were subject to an internal validation as described below:

Internal Validation

For each test, the chemist sorted the samples into batches of twenty samples or less and added quality control (QC) samples. The batches were analyzed by USEPA and NYSDEC approved test procedures (Table 1). During the course of the analyses the chemist compared the quality control test results to performance criteria and (if necessary) took corrective actions. At the end of the analysis, the data was assembled into data packages and submitted to the section supervisor for review and approval. On the cover of each data package the analyst described any anomaly that may have occurred and, if it did occur, why the data was still found acceptable. A summary of the comments on the cover sheet of each test from each laboratory follows:

Trace Metals

Test	Batch	Anomaly
Ca,Cd,Fe,Pb,Mg,Mn,K,Na	R25032	The Duplicate %RPD for Potassium was outside QC acceptance limits. All other criteria were satisfied.

Wet Chemistry

Test	Batch	Anomaly
BOD	R24661	Criteria were satisfied.
Nitrate-Nitrogen	R24674	Criteria were satisfied.
Alkalinity, Total	R24708	The CCV4 and CCV12 %recoveries were slightly below QC acceptance limits. The MS %recovery for sample location MW-6B was below QC acceptance limits. All other criteria were satisfied.
Chloride	R24692	Criteria were satisfied.

The total number of pages in this Data Package is : 3 .

Wet Chemistry (continued)

Test	Batch	Anomaly
COD	R24977	Criteria were satisfied.
TKN	R25108	Criteria were satisfied.
Ammonia-Nitrogen	R25108	Criteria were satisfied.
	R25238	Criteria were satisfied.
Sulfate	R24938	Criteria were satisfied.
TDS	R25004	The Duplicate %RPD value for sample location MW-6B was outside QC acceptance limits. All other criteria were satisfied.
TOC	R24776	The MS %recovery for TOC in sample location MW-6B was greater than QC acceptance limits. All other criteria were satisfied.
Phenols	R25158	Criteria were satisfied.
Bromide	R25162	The ICV %recovery was slightly below QC acceptance limits. Sample locations MW-2B and Dupe MW-1B were reanalyzed at a dilution on R25313. All other criteria were satisfied.
	R25313	Criteria were satisfied.

Should questions arise please do not hesitate to call the Environmental Project Coordinator (EPC) assigned to your job or myself.

I certify that this data package is in compliance with the terms and conditions of the Contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and/or in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Sincerely,
UPSTATE LABORATORIES, INC.

Anthony J. Scala

Anthony J. Scala
Director

Table 1
Methodologies

The analyses were performed using test methods developed by the USEPA and reorganized by the NYSDEC in the Analytical Services Protocol (ASP). The specific method numbers are:

Parameter	Method	Reference
Cadmium	200.7	(1)
Calcium	200.7	(1)
Iron	200.7	(1)
Lead	200.7	(1)
Magnesium	200.7	(1)
Manganese	200.7	(1)
Potassium	200.7	(1)
Sodium	200.7	(1)
BOD	405.1	(1)
Nitrate-Nitrogen	353.1	(1)
Alkalinity, Total	310.2	(1)
Chloride	325.2	(1)
COD	410.4	(1)
Ammonia-Nitrogen	350.2	(1)
Sulfate	375.4	(1)
TDS	160.1	(1)
TKN	351.3	(1)
TOC	415.1	(1)
Phenols	420.1	(1)
Bromide	300.1	(1)

Reference

1) New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP), 7/05 Revision

Upstate Laboratories, Inc.

Date: *29-May-07*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-1A
Lab Order:	U0704449	**Collection Date:**	4/26/2007 10:20:00 AM
Project:	Towslee Landfill		
Lab ID:	U0704449-001	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Conductivity	221	1.0		umhos/cm		4/26/2007 10:20:00 AM
Eh	-107	-300		mV		4/26/2007 10:20:00 AM
pH	7.93	6.5-8.5		SU		4/26/2007 10:20:00 AM
Temperature	6.7			degC		4/26/2007 10:20:00 AM
Turbidity	34.8	5.0		NTU		4/26/2007 10:20:00 AM
Water Level	3.5			ft		4/26/2007 10:20:00 AM
ICP METALS, TOTAL ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	5/17/2007 12:24:27 PM
Calcium	44500	1000		µg/L	1	5/17/2007 12:24:27 PM
Iron	2140	60.0		µg/L	1	5/17/2007 12:24:27 PM
Lead	ND	3.00		µg/L	1	5/17/2007 12:24:27 PM
Magnesium	10200	1000		µg/L	1	5/17/2007 12:24:27 PM
Manganese	193	10.0		µg/L	1	5/17/2007 12:24:27 PM
Potassium	2310	1000		µg/L	1	5/17/2007 12:24:27 PM
Sodium	12500	1000		µg/L	1	5/17/2007 12:24:27 PM
Hardness, Total(CaCO3)	153000	7000		µg/L	1	5/17/2007 12:24:27 PM
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **SAR**
Bromide	ND	0.20		mg/L	1	5/15/2007
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **MAF**
Residue, Dissolved (TDS)	208	25		mg/L	1	4/27/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **SAR**
Alkalinity, Total (As CaCO3)	120	10		mg/LCaCO3	1	5/2/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **SAR**
Chloride	27.0	1.00		mg/L	1	5/2/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **NJS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	5/20/2007
TKN FOR WATERS		**E351.3**				Analyst: **NJS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	5/20/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	4/26/2007 3:41:00 PM
SULFATE		**E375.4**				Analyst: **MAF**
Sulfate	14.2	5.00		mg/L	1	5/15/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **BY**
Biochemical Oxygen Demand	ND	4		mg/L	1	4/27/2007 8:00:00 AM

Approved By: PE **Date:** 5-29-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *29-May-07*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-1A
Lab Order:	U0704449	**Collection Date:**	4/26/2007 10:20:00 AM
Project:	Towslee Landfill		
Lab ID:	U0704449-001	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	5/15/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	5/8/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **BS**
Phenolics, Total Recoverable	0.005	0.005		mg/L	1	5/21/2007

Approved By: PE **Date:** 5-29-07

Qualifiers:				
	*	Low Level	**	Value exceeds Maximum Contaminant Value
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *29-May-07*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-1B
Lab Order:	U0704449	**Collection Date:**	4/26/2007 10:25:00 AM
Project:	Towslee Landfill		
Lab ID:	U0704449-002	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Conductivity	141	1.0		umhos/cm		4/26/2007 10:25:00 AM
Eh	-122	-300		mV		4/26/2007 10:25:00 AM
pH	8.24	6.5-8.5		SU		4/26/2007 10:25:00 AM
Temperature	7.2			degC		4/26/2007 10:25:00 AM
Turbidity	9.62	5.0		NTU		4/26/2007 10:25:00 AM
Water Level	3.62			ft		4/26/2007 10:25:00 AM
ICP METALS, TOTAL ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	5/17/2007 12:27:47 PM
Calcium	30000	1000		µg/L	1	5/17/2007 12:27:47 PM
Iron	508	60.0		µg/L	1	5/17/2007 12:27:47 PM
Lead	ND	3.00		µg/L	1	5/17/2007 12:27:47 PM
Magnesium	7400	1000		µg/L	1	5/17/2007 12:27:47 PM
Manganese	169	10.0		µg/L	1	5/17/2007 12:27:47 PM
Potassium	ND	1000		µg/L	1	5/17/2007 12:27:47 PM
Sodium	6820	1000		µg/L	1	5/17/2007 12:27:47 PM
Hardness, Total(CaCO3)	105000	7000		µg/L	1	5/17/2007 12:27:47 PM
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **SAR**
Bromide	ND	0.20		mg/L	1	5/15/2007
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **MAF**
Residue, Dissolved (TDS)	162	25		mg/L	1	4/27/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **SAR**
Alkalinity, Total (As CaCO3)	96	10		mg/LCaCO3	1	5/2/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **SAR**
Chloride	4.45	1.00		mg/L	1	5/2/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **NJS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	5/20/2007
TKN FOR WATERS		**E351.3**				Analyst: **NJS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	5/20/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	4/26/2007 3:41:00 PM
SULFATE		**E375.4**				Analyst: **MAF**
Sulfate	6.31	5.00		mg/L	1	5/15/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **BY**
Biochemical Oxygen Demand	ND	4		mg/L	1	4/27/2007 8:00:00 AM

Approved By: PE **Date:** 5-29-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *29-May-07*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-1B
Lab Order:	U0704449	**Collection Date:**	4/26/2007 10:25:00 AM
Project:	Towslee Landfill		
Lab ID:	U0704449-002	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	5/15/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	5/8/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **BS**
Phenolics, Total Recoverable	0.006	0.005		mg/L	1	5/21/2007

Approved By: PF **Date:** 5-29-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *29-May-07*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2A
Lab Order:	U0704449	**Collection Date:**	4/26/2007 11:00:00 AM
Project:	Towslee Landfill		
Lab ID:	U0704449-003	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Conductivity	450	1.0		umhos/cm		4/26/2007 11:00:00 AM
Eh	-62	-300		mV		4/26/2007 11:00:00 AM
pH	7.14	6.5-8.5		SU		4/26/2007 11:00:00 AM
Temperature	7.7			degC		4/26/2007 11:00:00 AM
Turbidity	30.7	5.0		NTU		4/26/2007 11:00:00 AM
Water Level	5.5			ft		4/26/2007 11:00:00 AM
ICP METALS, TOTAL ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	5/17/2007 12:31:28 PM
Calcium	75300	1000		µg/L	1	5/17/2007 12:31:28 PM
Iron	6860	60.0		µg/L	1	5/17/2007 12:31:28 PM
Lead	ND	3.00		µg/L	1	5/17/2007 12:31:28 PM
Magnesium	17900	1000		µg/L	1	5/17/2007 12:31:28 PM
Manganese	11700	10.0		µg/L	1	5/17/2007 12:31:28 PM
Potassium	10800	1000		µg/L	1	5/17/2007 12:31:28 PM
Sodium	22900	1000		µg/L	1	5/17/2007 12:31:28 PM
Hardness, Total(CaCO3)	262000	7000		µg/L	1	5/17/2007 12:31:28 PM
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **SAR**
Bromide	ND	0.20		mg/L	1	5/15/2007
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **MAF**
Residue, Dissolved (TDS)	355	25		mg/L	1	4/27/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **SAR**
Alkalinity, Total (As CaCO3)	320	10		mg/LCaCO3	1	5/2/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **SAR**
Chloride	14.7	1.00		mg/L	1	5/2/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BY**
Nitrogen, Ammonia (As NH3)	9.89	0.500		mg/L	1	5/21/2007
TKN FOR WATERS		**E351.3**				Analyst: **NJS**
Nitrogen, Kjeldahl, Total	12.5	0.500		mg/L	1	5/20/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	4/26/2007 3:41:00 PM
SULFATE		**E375.4**				Analyst: **MAF**
Sulfate	ND	5.00		mg/L	1	5/15/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **BY**
Biochemical Oxygen Demand	7	4		mg/L	1	4/27/2007 8:00:00 AM

Approved By: PE **Date:** 5-29-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *29-May-07*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2A
Lab Order:	U0704449	**Collection Date:**	4/26/2007 11:00:00 AM
Project:	Towslee Landfill		
Lab ID:	U0704449-003	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	5/15/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	4.8	3.0		mg/L	1	5/8/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **BS**
Phenolics, Total Recoverable	0.010	0.005		mg/L	1	5/21/2007

Approved By: PF **Date:** 5-29-07

Qualifiers:	*	Low Level	**	Value exceeds Maximum Contaminant Value
	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *29-May-07*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2B
Lab Order:	U0704449	**Collection Date:**	4/26/2007 11:15:00 AM
Project:	Towslee Landfill		
Lab ID:	U0704449-004	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Conductivity	682	1.0		umhos/cm		4/26/2007 11:15:00 AM
Eh	-73	-300		mV		4/26/2007 11:15:00 AM
pH	7.35	6.5-8.5		SU		4/26/2007 11:15:00 AM
Temperature	8.3			degC		4/26/2007 11:15:00 AM
Turbidity	11	5.0		NTU		4/26/2007 11:15:00 AM
Water Level	6.55			ft		4/26/2007 11:15:00 AM
ICP METALS, TOTAL ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	5/17/2007 12:35:04 PM
Calcium	170000	1000		µg/L	1	5/17/2007 12:35:04 PM
Iron	469	60.0		µg/L	1	5/17/2007 12:35:04 PM
Lead	ND	3.00		µg/L	1	5/17/2007 12:35:04 PM
Magnesium	36300	1000		µg/L	1	5/17/2007 12:35:04 PM
Manganese	4930	10.0		µg/L	1	5/17/2007 12:35:04 PM
Potassium	2140	1000		µg/L	1	5/17/2007 12:35:04 PM
Sodium	40800	1000		µg/L	1	5/17/2007 12:35:04 PM
Hardness, Total(CaCO3)	575000	7000		µg/L	1	5/17/2007 12:35:04 PM
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	2.0		mg/L	10	5/21/2007
NOTES: The reporting limits were raised due to matrix interference.						
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **MAF**
Residue, Dissolved (TDS)	823	25		mg/L	1	4/27/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **SAR**
Alkalinity, Total (As CaCO3)	480	100		mg/LCaCO3	10	5/2/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **SAR**
Chloride	131	1.00		mg/L	1	5/2/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BY**
Nitrogen, Ammonia (As NH3)	0.844	0.500		mg/L	1	5/21/2007
TKN FOR WATERS		**E351.3**				Analyst: **NJS**
Nitrogen, Kjeldahl, Total	1.62	0.500		mg/L	1	5/20/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	4/26/2007 3:41:00 PM
SULFATE		**E375.4**				Analyst: **MAF**
Sulfate	ND	5.00		mg/L	1	5/15/2007

Approved By: DF **Date:** 5-29-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *29-May-07*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-2B
Lab Order:	U0704449	**Collection Date:**	4/26/2007 11:15:00 AM
Project:	Towslee Landfill		
Lab ID:	U0704449-004	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **BY**
Biochemical Oxygen Demand	4	4		mg/L	1	4/27/2007 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	5/15/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	3.0	3.0		mg/L	1	5/8/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **BS**
Phenolics, Total Recoverable	0.006	0.005		mg/L	1	5/21/2007

Approved By: PF **Date:** 5-29-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *29-May-07*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-3A
Lab Order:	U0704449	**Collection Date:**	4/26/2007 10:00:00 AM
Project:	Towslee Landfill		
Lab ID:	U0704449-005	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Conductivity	898	1.0		umhos/cm		4/26/2007 10:00:00 AM
Eh	-94	-300		mV		4/26/2007 10:00:00 AM
pH	7.64	6.5-8.5		SU		4/26/2007 10:00:00 AM
Temperature	5.6			degC		4/26/2007 10:00:00 AM
Turbidity	19.6	5.0		NTU		4/26/2007 10:00:00 AM
Water Level	6.65			ft		4/26/2007 10:00:00 AM
ICP METALS, TOTAL ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	5/17/2007 12:38:26 PM
Calcium	18100	1000		µg/L	1	5/17/2007 12:38:26 PM
Iron	599	60.0		µg/L	1	5/17/2007 12:38:26 PM
Lead	ND	3.00		µg/L	1	5/17/2007 12:38:26 PM
Magnesium	3100	1000		µg/L	1	5/17/2007 12:38:26 PM
Manganese	501	10.0		µg/L	1	5/17/2007 12:38:26 PM
Potassium	ND	1000		µg/L	1	5/17/2007 12:38:26 PM
Sodium	1140	1000		µg/L	1	5/17/2007 12:38:26 PM
Hardness, Total(CaCO3)	58100	7000		µg/L	1	5/17/2007 12:38:26 PM
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **SAR**
Bromide	ND	2.0		mg/L	10	5/15/2007
NOTES: The reporting limits were raised due to matrix interference.						
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **MAF**
Residue, Dissolved (TDS)	168	25		mg/L	1	4/27/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **SAR**
Alkalinity, Total (As CaCO3)	59	10		mg/LCaCO3	1	5/2/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **SAR**
Chloride	1.80	1.00		mg/L	1	5/2/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BY**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	5/21/2007
TKN FOR WATERS		**E351.3**				Analyst: **NJS**
Nitrogen, Kjeldahl, Total	1.47	0.500		mg/L	1	5/20/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	4/26/2007 3:41:00 PM
SULFATE		**E375.4**				Analyst: **MAF**
Sulfate	ND	5.00		mg/L	1	5/15/2007

Approved By: PF **Date:** 5-29-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *29-May-07*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-3A
Lab Order:	U0704449	**Collection Date:**	4/26/2007 10:00:00 AM
Project:	Towslee Landfill		
Lab ID:	U0704449-005	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **BY**
Biochemical Oxygen Demand	8	4		mg/L	1	4/27/2007 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	5/15/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	5/8/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **BS**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	5/21/2007

Approved By: PF **Date:** 5-29-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *29-May-07*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-6B
Lab Order:	U0704449	**Collection Date:**	4/26/2007 11:45:00 AM
Project:	Towslee Landfill		
Lab ID:	U0704449-006	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Conductivity	249	1.0		umhos/cm		4/26/2007 11:45:00 AM
Eh	-92	-300		mV		4/26/2007 11:45:00 AM
pH	7.73	6.5-8.5		SU		4/26/2007 11:45:00 AM
Temperature	7.4			degC		4/26/2007 11:45:00 AM
Turbidity	8.1	5.0		NTU		4/26/2007 11:45:00 AM
Water Level	11.21			ft		4/26/2007 11:45:00 AM
ICP METALS, TOTAL ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	5/17/2007 12:48:56 PM
Calcium	39900	1000		µg/L	1	5/17/2007 12:48:56 PM
Iron	486	60.0		µg/L	1	5/17/2007 12:48:56 PM
Lead	ND	3.00		µg/L	1	5/17/2007 12:48:56 PM
Magnesium	9680	1000		µg/L	1	5/17/2007 12:48:56 PM
Manganese	90.8	10.0		µg/L	1	5/17/2007 12:48:56 PM
Potassium	ND	1000		µg/L	1	5/17/2007 12:48:56 PM
Sodium	10200	1000		µg/L	1	5/17/2007 12:48:56 PM
Hardness, Total(CaCO3)	139000	7000		µg/L	1	5/17/2007 12:48:56 PM
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **SAR**
Bromide	ND	0.20		mg/L	1	5/15/2007
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **MAF**
Residue, Dissolved (TDS)	105	25		mg/L	1	4/27/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **SAR**
Alkalinity, Total (As CaCO3)	160	10		mg/LCaCO3	1	5/2/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **SAR**
Chloride	6.99	1.00		mg/L	1	5/2/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **NJS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	5/20/2007
TKN FOR WATERS		**E351.3**				Analyst: **NJS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	5/20/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	4/26/2007 3:41:00 PM
SULFATE		**E375.4**				Analyst: **MAF**
Sulfate	6.79	5.00		mg/L	1	5/15/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **BY**
Biochemical Oxygen Demand	ND	4		mg/L	1	4/27/2007 8:00:00 AM

Approved By: PE **Date:** 5-29-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *29-May-07*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-6B
Lab Order:	U0704449	**Collection Date:**	4/26/2007 11:45:00 AM
Project:	Towslee Landfill		
Lab ID:	U0704449-006	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	5/15/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	5/8/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **BS**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	5/21/2007

Approved By: PE **Date:** 5-29-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *29-May-07*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-7A
Lab Order:	U0704449	**Collection Date:**	4/26/2007 10:40:00 AM
Project:	Towslee Landfill		
Lab ID:	U0704449-007	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		**FLD**				Analyst:
Conductivity	765	1.0		umhos/cm		4/26/2007 10:40:00 AM
Eh	-64	-300		mV		4/26/2007 10:40:00 AM
pH	7.12	6.5-8.5		SU		4/26/2007 10:40:00 AM
Temperature	7.8			degC		4/26/2007 10:40:00 AM
Turbidity	54.3	5.0		NTU		4/26/2007 10:40:00 AM
Water Level	3.41			ft		4/26/2007 10:40:00 AM
ICP METALS, TOTAL ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	5/17/2007 12:59:11 PM
Calcium	140000	1000		µg/L	1	5/17/2007 12:59:11 PM
Iron	1520	60.0		µg/L	1	5/17/2007 12:59:11 PM
Lead	ND	3.00		µg/L	1	5/17/2007 12:59:11 PM
Magnesium	36400	1000		µg/L	1	5/17/2007 12:59:11 PM
Manganese	4180	10.0		µg/L	1	5/17/2007 12:59:11 PM
Potassium	1950	1000		µg/L	1	5/17/2007 12:59:11 PM
Sodium	104000	1000		µg/L	1	5/17/2007 12:59:11 PM
Hardness, Total(CaCO3)	499000	7000		µg/L	1	5/17/2007 12:59:11 PM
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **SAR**
Bromide	ND	0.20		mg/L	1	5/15/2007
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **MAF**
Residue, Dissolved (TDS)	865	25		mg/L	1	4/27/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **SAR**
Alkalinity, Total (As CaCO3)	510	100		mg/LCaCO3	10	5/2/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **SAR**
Chloride	131	1.00		mg/L	1	5/2/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **BY**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	5/21/2007
TKN FOR WATERS		**E351.3**				Analyst: **NJS**
Nitrogen, Kjeldahl, Total	3.60	0.500		mg/L	1	5/20/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	4/26/2007 3:41:00 PM
SULFATE		**E375.4**				Analyst: **MAF**
Sulfate	23.2	5.00		mg/L	1	5/15/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **BY**
Biochemical Oxygen Demand	ND	4		mg/L	1	4/27/2007 8:00:00 AM

Approved By: DE **Date:** 5-29-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *29-May-07*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	MW-7A
Lab Order:	U0704449	**Collection Date:**	4/26/2007 10:40:00 AM
Project:	Towslee Landfill		
Lab ID:	U0704449-007	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	5/15/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	6.0	3.0		mg/L	1	5/8/2007
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **BS**
Phenolics, Total Recoverable	0.006	0.005		mg/L	1	5/21/2007

Approved By: PF **Date:** 5-29-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *29-May-07*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	Dupe MW-1B
Lab Order:	U0704449	**Collection Date:**	4/26/2007 10:25:00 AM
Project:	Towslee Landfill		
Lab ID:	U0704449-008	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS, TOTAL ASP		**E200.7**		**(E200.7)**		Analyst: **LJ**
Cadmium	ND	5.00		µg/L	1	5/17/2007 1:05:59 PM
Calcium	28200	1000		µg/L	1	5/17/2007 1:05:59 PM
Iron	410	60.0		µg/L	1	5/17/2007 1:05:59 PM
Lead	ND	3.00		µg/L	1	5/17/2007 1:05:59 PM
Magnesium	6980	1000		µg/L	1	5/17/2007 1:05:59 PM
Manganese	157	10.0		µg/L	1	5/17/2007 1:05:59 PM
Potassium	ND	1000		µg/L	1	5/17/2007 1:05:59 PM
Sodium	6360	1000		µg/L	1	5/17/2007 1:05:59 PM
Hardness, Total(CaCO3)	99300	7000		µg/L	1	5/17/2007 1:05:59 PM
INORGANIC ANIONS BY IC FOR WATERS		**E300.1**				Analyst: **BY**
Bromide	ND	2.0		mg/L	10	5/21/2007
NOTES: The reporting limits were raised due to matrix interference.						
RESIDUE, DISSOLVED (TDS)		**E160.1**				Analyst: **MAF**
Residue, Dissolved (TDS)	248	25		mg/L	1	4/27/2007
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		**E310.2**				Analyst: **SAR**
Alkalinity, Total (As CaCO3)	88	10		mg/LCaCO3	1	5/2/2007
CHLORIDE WATERS BY LACHAT		**E325.2**				Analyst: **SAR**
Chloride	3.13	1.00		mg/L	1	5/2/2007
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		**E350.1**				Analyst: **NJS**
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	5/20/2007
TKN FOR WATERS		**E351.3**				Analyst: **NJS**
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	5/20/2007
NITROGEN, NITRATE (AS N)		**E353.2**				Analyst: **BY**
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	4/26/2007 3:41:00 PM
SULFATE		**E375.4**				Analyst: **MAF**
Sulfate	10.4	5.00		mg/L	1	5/15/2007
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		**E405.1**				Analyst: **BY**
Biochemical Oxygen Demand	ND	4		mg/L	1	4/27/2007 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		**E410.4**				Analyst: **NJS**
Chemical Oxygen Demand	ND	20		mg/L	1	5/15/2007
TOTAL ORGANIC CARBON (TOC)		**E415.1**				Analyst: **NJS**
Organic Carbon, Total	ND	3.0		mg/L	1	5/8/2007

Approved By: PE **Date:** 5-29-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Date: *29-May-07*

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	**Client Sample ID:**	Dupe MW-1B
Lab Order:	U0704449	**Collection Date:**	4/26/2007 10:25:00 AM
Project:	Towslee Landfill		
Lab ID:	U0704449-008	**Matrix:**	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
PHENOLICS, TOTAL REC. FOR WATERS		**E420.4**		**(E420.4)**		Analyst: **BS**
Phenolics, Total Recoverable	ND	0.005		mg/L	1	5/21/2007

Approved By: PF **Date:** 5-29-07

Qualifiers:

*	Low Level	**	Value exceeds Maximum Contaminant Value
B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

ULI ID No. (enter by lab)

Well ID.: **MW-1A**

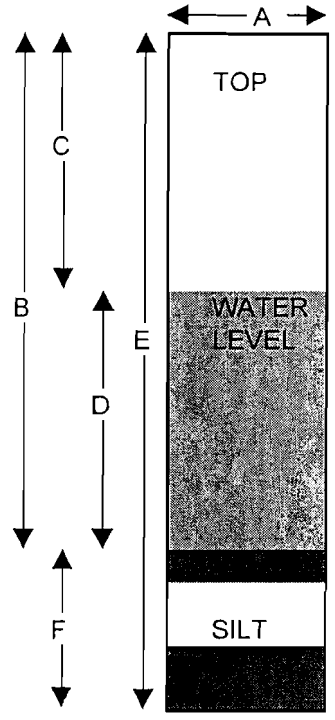
Condition of Well: Good

Locked: YES

Method of Evacuation: Dedicated Bailer

Lock ID:

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	33.7	feet
C.	Depth to Water	3.5	feet
D.	Length of Water Column (calculated)	30.2	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	4.83	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	14.50	gallons
	Actual Volume Evacuated	15	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	4/25/2007	4/26/2007
Time	12:00 PM	10:20 AM
EH	-92	-107
Temperature	6.6 c	6.7 c
pH	7.65	7.93
Specific Cond.	228	221
Turbidity	48.6	34.8
Dissolved Oxygen	N/A	N/A
Appearance	cloudy	sl. Cloudy

% Recharge:

Initial Depth to Water 3.5 feet

Recharge Depth to Water 3.51 feet

2nd water column height 99.9669 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 55 f, cloudy, re 44 f, cloudy

Observations:

Sampler:
Nathan Talucci

Signature:

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-1B**

ULI ID No. (enter by lab):

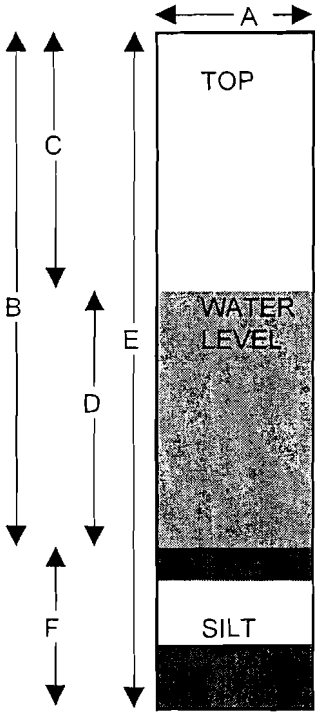
Condition of Well: Good

Locked: NO

Method of Evacuation: Dedicated Bailer

Lock ID:

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	55.5	feet
C.	Depth to Water	3.62	feet
D.	Length of Water Column (calculated)	51.88	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	8.30	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	24.90	gallons
	Actual Volume Evacuated	25	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	4/25/2007	4/26/2007
Time	12:05 PM	10:25 AM
EH	-96	-122
Temperature	6.7 c	7.2 c
pH	7.74	8.24
Specific Cond.	224	141
Turbidity	3.82	9.62
Dissolved Oxygen	N/A	N/A
Appearance	clear	clear

% Recharge:

Initial Depth to Water 3.62 feet

Recharge Depth to Water 3.67 feet

2nd water column height 99.9036 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 55 f, cloudy, ra 44 f, cloudy

Observations: dupe

Sampler:
Nathan Talucci

Signature:

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

ULI ID No. (enter by lab)

Well ID.: **MW-2A**

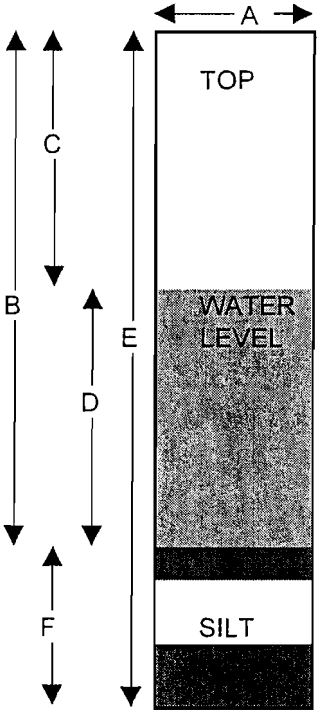
Condition of Well: Good

Locked: YES

Method of Evacuation: Dedicated Bailer

Lock ID:

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	12.8	feet
C.	Depth to Water	5.5	feet
D.	Length of Water Column (calculated)	7.3	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	1.16	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	3.48	gallons
	Actual Volume Evacuated	4	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	4/25/2007	4/26/2007
Time	12.45p	11:00a
EH	-45	-62
Temperature	5.2	7.7 c
pH	6.74	7.14
Specific Cond.	407	450
Turbidity	95.3	30.7
Dissolved Oxygen	N/A	N/A
Appearance	cloudy	sl. Cloudy

% Recharge:

Initial Depth to Water 5.5 feet

Recharge Depth to Water 5.52 feet

2nd water column height 100 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 55 f, cloudy, rain 44 f, cloudy

Observations:

Sampler: Nathan Talucci

Signature: Justin Gibson

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-2B**

ULI ID No. (enter by lab)

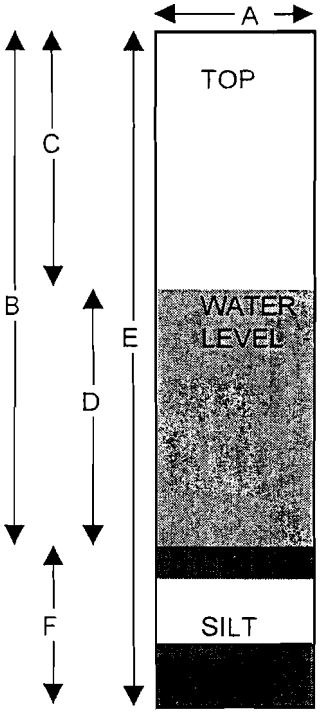
Condition of Well: Good

Locked: YES

Method of Evacuation: Dedicated Bailer

Lock ID:

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	33.5	feet
C.	Depth to Water	6.55	feet
D.	Length of Water Column (calculated)	26.95	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	4.31	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	12.94	gallons
	Actual Volume Evacuated	13	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	4/25/2007	4/26/2007
Time	12:50 PM	11:15 AM
EH	-56	-73
Temperature	7 c	8.3 c
pH	7.06	7.35
Specific Cond.	646	682
Turbidity	104	11
Dissolved Oxygen	N/A	N/A
Appearance	cloudy	clear

% Recharge:

Initial Depth to Water 6.55 feet

Recharge Depth to Water 6.56 feet

2nd water column height 99.9629 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 55 f, cloudy,rain 44 f

Observations:

Sampler: Nathan Talucci

Signature:

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

ULI ID No. (enter by lab)

Well ID.: **MW-3A**

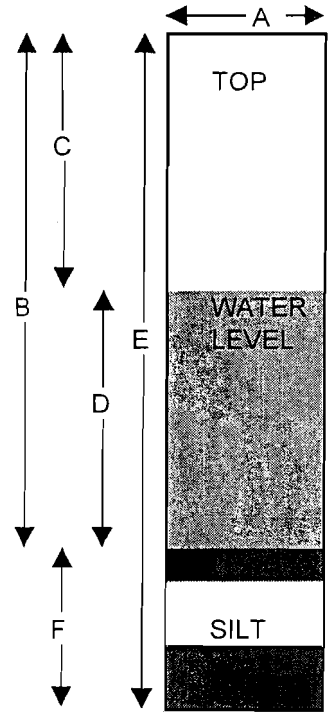
Condition of Well: Good

Locked: YES

Method of Evacuation: Dedicated Bailer

Lock ID:

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	22.40	feet
C.	Depth to Water	6.65	feet
D.	Length of Water Column (calculated)	15.75	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	2.52	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	7.56	gallons
	Actual Volume Evacuated	8	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	4/25/2007	4/26/2007
Time	11:00a	10:00a
EH	-106	-94
Temperature	7.5 c	5.6 c
pH	7.92	7.64
Specific Cond.	135	898
Turbidity	42.5	19.6
Dissolved Oxygen	N/A	N/A
Appearance	cloudy	clear

% Recharge:

Initial Depth to Water 6.65 feet

Recharge Depth to Water 6.67 feet

2nd water column height 99.873 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 55 f, cloudy, ra ... f, snc 44 f, cloudy

Observations:

Sampler: Nathan Talucci

Signature: Justin Adsit

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-6B**

ULI ID No. (enter by lab)

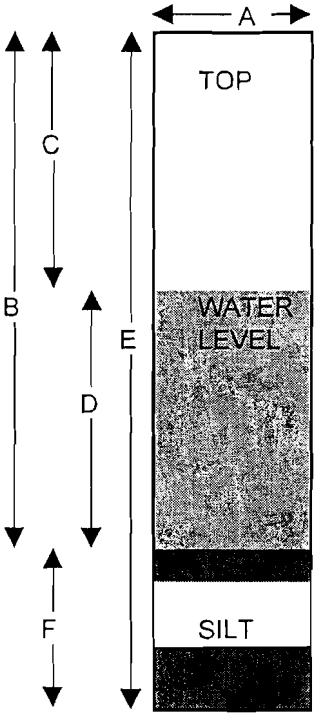
Condition of Well: Good

Locked: NO

Method of Evacuation: Dedicated Bailer

Lock ID:

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	40.75	feet
C.	Depth to Water	11.21	feet
D.	Length of Water Column (calculated)	29.54	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	4.73	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	14.18	gallons
	Actual Volume Evacuated	14.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	4/25/2007	4/26/2007
Time	1:20 PM	11:45 AM
EH	-80	-92
Temperature	8.1 c	7.4 c
pH	7.42	7.73
Specific Cond.	207	249
Turbidity	146	8.1
Dissolved Oxygen	N/A	N/A
Appearance	cloudy	clear

% Recharge:

Initial Depth to Water 11.21 feet

Recharge Depth to Water 11.23 feet

2nd water column height 99.9323 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 55 f, cloudy ra 44 f, cloudy

Observations: MSD

Sampler:
Nathan Talucci

Signature:

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-7A**

ULI ID No. (enter by lab)

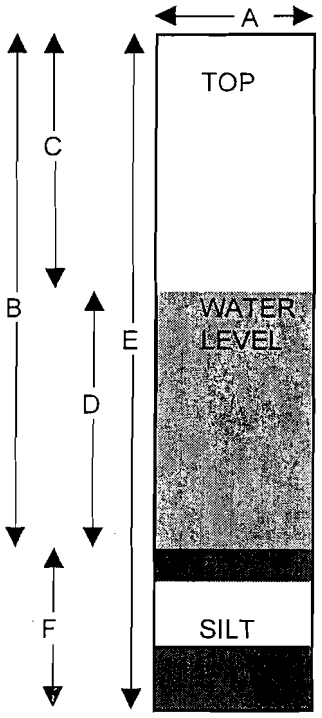
Condition of Well: Good

Locked: YES

Method of Evacuation: Dedicated Bailer

Lock ID:

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	22.20	feet
C.	Depth to Water	3.41	feet
D.	Length of Water Column (calculated)	18.79	feet
	Conversion Factor	X.16	------
	Well Volume (calculated)	3.01	gallons
	No. of Volumes to be Evacuated	X3	------
	Total Volume to be Evacuated	9.02	gallons
	Actual Volume Evacuated	9.5	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated	N/A	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	4/25/2007	4/26/2007
Time	12:30 PM	10:40 AM
EH	-52	-64
Temperature	5.7	7.8 c
pH	6.86	7.12
Specific Cond.	711	765
Turbidity	431	54.3
Dissolved Oxygen	N/A	N/A
Appearance	muddy	cloudy

% Recharge:

Initial Depth to Water 3.41 feet

Recharge Depth to Water 3.43 feet

2nd water column height 99.8936 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

G.W.Elevation =Top of Case Elev-Total Depth

Weather: 55 f , cloudy, r 44 f, cloudy

Observations:

Sampler: Nathan Talucci

Signature: Justin Gibson

Upstate Laboratories, Inc. Chain of Custody Record

6034 Corporate Drive E. Syracuse New York 13057
(315) 437 0255 Fax 437 1209

REMARKS

ULI Computer Input Form

Filter D-Metals in lab

Client: Cortland County

Project #/ Project Name: Towslee Landfill

Client Contact: Patrick Reidy

Phone #: (607)753-0851 x3

Location (city/state) Address: Cortlandville, NY

Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only U0704449	No. of Containers	1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	11)	12)	13)	14)	15)
MW-1A	04/26/07	10:20A	H2O	GRAB	-1	6	x	x	x	x	x	x	x								
MW-1B		10:25A	H2O	GRAB	-2	6	x	x	x	x	x	x	x								
MW-2A		11:00A	H2O	GRAB	-3	6	x	x	x	x	x	x	x								
MW-2B		11:15A	H2O	GRAB	-4	6	x	x	x	x	x	x	x								
MW-3A		10:00A	H2O	GRAB	-5	6	x	x	x	x	x	x	x								
MW-6B		11:45A	H2O	GRAB	-6	6	x	x	x	x	x	x	x								
MW-7A		10:40A	H2O	GRAB	-7	6	x	x	x	x	x	x	x								
Dupe MW-1B		10:25A	H2O	GRAB	-8	6		x	x	x	x	x	x								

MSD

Parameter and Method	Sample bottle: Type	Size	Preservative
1) SWL,pH,EH,temp, cond, turb, ~~app.~~	N/A	N/A	N/A
2) BOD5,NO3,TDS,SO4,CL-,Bromide	plastic	2000mL	none
3) TKN, NH3, COD	plastic	500mL	H2SO4
4) TOC	plastic	120mL	1:1 HCL
5) T-Phenols	glass	1000mL	H2SO4
6) Alkalinity	glass	250mL	none
7) T-CD,CA,,FE,PB*,MG,MN,K,NA+ Calc. Hardness	plastic	500mL	HNO3
8) D-CD,CA,FE,PB*,MG,MN,K,NA+ Calc. Hardness	plastic	500mL	none
9)			
10)			
11)			
12)			
13)			
14)			
15)			

Sampled by (Print): Nathan Talucci

Company: ULI

Name of Courier

Relinquished by: (sign)	Date	Time	Received by: (sign)
Relinquished by: (sign)	Date	Time	Received by: (sign)
Relinquished by: (sign)	Date	Time	Received for Lab by:
[signature]	04/26/07	3:25	Natalie Spalding

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

Appendix C

Historical Analytical Data

Cortland County Towslee Landfill

Historical Data Page Index
Cortland County Towslee Landfill

Well	Field/ Inorganic Parameters	Total Metals	Dissolved Metals	Organics
MW-1A	2	9	16	23
MW-1B	3	10	17	24
MW-2A	4	11	18	25
MW-2B	5	12	19	26
MW-3A	6	13	20	27
MW-6B	7	14	21	28
MW-7A	8	15	22	29

Historical Water Quality Database - Towslee Landfill
Field and Inorganic Parameters
Well MW-1A - Overburden

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07
Temp	(deg C)	--	--	8.5	12.8	19.5	15.9	9.3	6.7
Eh	(mV)	--	--	700	105	190	170	59	-107
pH	(Std Units)	--	--	7.8	7.7	7.52	7.69	8.29	7.93
Sp. Cond	(uS/cm)	--	--	306	355	353	369	204	221
Color	(Units)	5	20	--	--	<5	--	--	--
Turbidity	(NTU)	--	--	660	73	131	29	55.6	34.8
ALK as CaCO3	(mg/l)	160	145	127	139	122	132	140	120
HARD as CaCO3	(mg/l)	4000	240	167	140	148	148	134	153
TDS	(mg/l)	494	214	340	213	236	229	127	208
Chloride	(mg/l)	152	46	21.3	22.2	34.2	26.7	28.7	27
Sulfate	(mg/l)	20.6	14.6	27.3	12.3	16.5	14.9	8.79	14.2
Bromide	(mg/l)	1.2	0.8	< 0.1	<0.1	<0.1	0.117	<0.2	<0.2
NO3 (As N)	(mg/l)	<0.1	<0.1	< 0.1	0.217	<0.1	<0.1	<0.2	<0.2
NH4 (As N)	(mg/l)	6	2.6	0.276	<0.02	0.161	<0.1	<0.5	<0.5
TKN (as N)	(mg/l)	18	3.8	23.3	0.529 H	0.366	<0.2	2.2	<0.5
COD	(mg/l)	305	64	< 10	<10	<10	<10	<20	<20
BOD	(mg/l)	5	<2	< 3	<3	<3	<3	<4	<4
TOC	(mg/l)	4.2	1.6	4.76	2.61	<2	<2	<3	<3
Phenolics, Tot	(mg/l)	0.003	0.0015	< 0.005	<0.005	<0.005	<0.005	<0.005	0.005
Cyanide	(mg/l)	<0.01	<0.01	--	--	<0.01	--	--	--

H - exceeded hold time

Historical Water Quality Database - Towslee Landfill
Field and Inorganic Parameters
Well MW-1B - Bedrock

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07
Temp	(deg C)	--	--	5	11.4	16.4	15.8	9.6	7.2
Eh	(mV)	--	--	385	45	155	115	84	-122
pH	(Std Units)	--	--	7.7	7.8	7.69	7.9	8.47	8.24
Sp. Cond	(uS/cm)	--	--	157	257	244	200	156	141
Color	(Units)	<5	<5	--	--	<5	--	--	--
Turbidity	(NTU)	--	--	187	45	70	15.6	67.4	9.62
ALK as CaCO3	(mg/l)	94.8	93.6	92	94	91	89	99	96
HARD as CaCO3	(mg/l)	88	140	97.6	81.9	89	82	83.6	105
TDS	(mg/l)	143	86	120	111	142	120	62	162
Chloride	(mg/l)	<2	<2	2.55	2.28	3.47	0.611	3.24	4.45
Sulfate	(mg/l)	5.2	<5	4.72	5.51	5.33	3.76	7.09	6.31
Bromide	(mg/l)	<0.5	<0.5	< 0.1	<0.1	<0.1	<0.1	<0.2	<0.2
NO3 (As N)	(mg/l)	0.2	<0.1	< 0.1	<0.1	<0.1	<0.1	<0.2	<0.2
NH4 (As N)	(mg/l)	<0.02	0.04	0.0938	<0.02	<0.02	<0.1	<0.5	<0.5
TKN (as N)	(mg/l)	<0.2	<0.2	0.54	0.755 H	0.497	<0.2	<0.5	<0.5
COD	(mg/l)	<15	<15	< 10	<10	<10	<10	<20	<20
BOD	(mg/l)	<2	<2	< 3	<3	<3	<3	<4	<4
TOC	(mg/l)	9.3	<1	5.41	2.34	<2	<2	<3	<3
Phenolics, Tot	(mg/l)	<0.001	<0.001	< 0.005	<0.005	<0.005	<0.005	<0.005	0.006
Cyanide	(mg/l)	--	--	--	--	<0.01	--	--	--

H - exceeded hold time

Historical Water Quality Database - Towslee Landfill
Field and Inorganic Parameters
Well MW-2A - Overburden

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07
Temp	(deg C)	--	--	4.4	11.6	17.2	14.2	9.2	7.7
Eh	(mV)	--	--	140	-5	120	90	136	-62
pH	(Std Units)	--	--	6.4	6.4	6.15	6.41	7.31	7.14
Sp. Cond	(uS/cm)	--	--	621	767	784	1100	364	450
Color	(Units)	30	60	--	--	33	--	--	--
Turbidity	(NTU)	--	--	18.6	18.3	195	27	48.9	30.7
ALK as CaCO3	(mg/l)	702	784	330	355	384	423	380	320
HARD as CaCO3	(mg/l)	1300	720	241	260	265	301	225	262
TDS	(mg/l)	1180	986	381	397	491	487	262	355
Chloride	(mg/l)	156	149	23.3	25.7	23.5	25.7	21.2	14.7
Sulfate	(mg/l)	<5	<5	4.22	5.5	3.43	3.18	<5	<5
Bromide	(mg/l)	0.8	<0.5	0.189	0.18	0.237	0.261	<0.2	<0.2
NO3 (As N)	(mg/l)	<0.1	0.14	0.228	<0.1	<0.1	<0.1	<0.2	<0.2
NH4 (As N)	(mg/l)	23	9.1	10.6	18.4	16	15.1	10.2	9.89
TKN (as N)	(mg/l)	31.5	21.2	10.6	14 H	16.5	15	132	12.5
COD	(mg/l)	127	136	< 10	13.8	27	15.6	<20	<20
BOD	(mg/l)	6	3	16	4.5	3.4	<3	6	7
TOC	(mg/l)	42.5	24.1	10.1	7.18	5.67	5.68	6.7	4.8
Phenolics, Tot	(mg/l)	0.0071	0.0066	< 0.005	0.008	<0.005	<0.005	<0.005	0.01
Cyanide	(mg/l)	<0.01	<0.01	--	--	<0.01	--	--	--

H - exceeded hold time

Historical Water Quality Database - Towslee Landfill
Field and Inorganic Parameters
Well MW-2B - Bedrock

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07
Temp	(deg C)	--	--	4.5	10.5	15.9	14.5	9.1	8.3
Eh	(mV)	--	--	175	110	125	115	136	-73
pH	(Std Units)	--	--	6.4	6.4	6.35	6.52	7.14	7.35
Sp. Cond	(uS/cm)	--	--	1350	1560	1420	1540	701	682
Color	(Units)	5	10	--	--	<5	--	--	--
Turbidity	(NTU)	--	--	17.3	19.8	18.7	28	14.2	11
ALK as CaCO3	(mg/l)	577	673	652	670	612	646	650	480
HARD as CaCO3	(mg/l)	960	900	697	726	686	675	723	575
TDS	(mg/l)	1640	1230	982	1020	1040	980	825	823
Chloride	(mg/l)	267	238	145	154	122	121	167	131
Sulfate	(mg/l)	<5	<5	1.18	2.96	<1	<1	<5	<5
Bromide	(mg/l)	1.1	0.9	0.878	1.01	0.902	0.912	0.95	<2
NO3 (As N)	(mg/l)	<0.1	<0.1	< 0.1	0.216	<0.1	<0.1	<0.2	<0.2
NH4 (As N)	(mg/l)	0.95	1.3	0.389	0.824	0.786	0.282	0.921	0.844
TKN (as N)	(mg/l)	2.6	2	1.31	1.78 H	1.64	1.9	1.84	1.62
COD	(mg/l)	58	61	< 10	17.2	24.6	27	21	<20
BOD	(mg/l)	2	2	9.3	5.1	3.7	13	<4	4
TOC	(mg/l)	12.3	11.9	< 2	7.76	4.82	7.49	6.4	3
Phenolics, Tot	(mg/l)	0.0044	0.0039	< 0.005	<0.005	<0.005	0.1	<0.005	0.006
Cyanide	(mg/l)	--	--	--	--	0.024	--	--	--

H - exceeded hold time

Historical Water Quality Database - Towslee Landfill
Field and Inorganic Parameters
Well MW-3A - Bedrock

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07
Temp	(deg C)	--	--	6.4	11.7	15.3	15.7	9.3	5.6
Eh	(mV)	--	--	215	45	115	220	-50	-94
pH	(Std Units)	--	--	7.2	6.9	7.01	6.84	7.82	7.64
Sp. Cond	(uS/cm)	--	--	286	299	342	397	143	898
Color	(Units)	<5	<5	--	--	<5	--	--	--
Turbidity	(NTU)	--	--	58	11.9	5.2	7.2	10.6	19.6
ALK as CaCO3	(mg/l)	145	146	162	170	140	152	82	59
HARD as CaCO3	(mg/l)	1250	200	153	179	191	158	74	58.1
TDS	(mg/l)	320	269	215	208	207	207	38	168
Chloride	(mg/l)	31.4	28.7	14	12.7	13.5	12.7	3.37	1.8
Sulfate	(mg/l)	16	13	9.14	11	9.98	8.01	<5	<5
Bromide	(mg/l)	0.5	<0.5	< 0.1	<0.1	0.152	0.143	1.2	<2
NO3 (As N)	(mg/l)	<0.1	0.19	< 0.1	<0.1	<0.1	<0.1	<0.2	<0.2
NH4 (As N)	(mg/l)	<0.02	0.09	0.0969	<0.02	<0.02	<0.1	1.45	<0.5
TKN (as N)	(mg/l)	0.4	0.24	0.455	1.09 H	0.239	0.266	4.26	1.47
COD	(mg/l)	19	<15	< 10	<10	13	<10	47	<20
BOD	(mg/l)	<2	<2	< 3	<3	<3	<3	<4	8
TOC	(mg/l)	4.5	1.9	5.58	<2	<2	<2	<3	<3
Phenolics, Tot	(mg/l)	0.0027	<0.001	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	--	--	--	--	<0.01	--	--	--

H - exceeded hold time

Historical Water Quality Database - Towslee Landfill
Field and Inorganic Parameters
Well MW-6B - Bedrock

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07
Temp	(deg C)	--	--	7.9	10.5	12.2	14.3	9.7	7.4
Eh	(mV)	--	--	250	85	225	180	82	-92
pH	(Std Units)	--	--	6.7	7.4	7.52	7.11	8.04	7.73
Sp. Cond	(uS/cm)	--	--	347	287	304	329	220	249
Color	(Units)	<5	20	--	--	<5	--	--	--
Turbidity	(NTU)	--	--	40	19.9	15.8	14.2	68.9	8.1
ALK as CaCO3	(mg/l)	240	224	131	148	154	153	180	160
HARD as CaCO3	(mg/l)	300	240	135	144	131	133	156	139
TDS	(mg/l)	98	280	209	175	190	187	127	105
Chloride	(mg/l)	38.2	35	21.1	2.33	2.32	3.39	11.6	6.99
Sulfate	(mg/l)	27.1	22.2	13.8	3.95	3.28	6.14	8.54	6.79
Bromide	(mg/l)	<0.5	<0.5	< 0.1	<0.1	0.122	<0.1	<0.2	<0.2
NO3 (As N)	(mg/l)	0.6	<0.1	< 0.1	<0.1	<0.1	<0.1	<0.2	<0.2
NH4 (As N)	(mg/l)	0.09	2.5	0.0549	<0.02	0.096	<0.1	<0.5	<0.5
TKN (as N)	(mg/l)	0.6	3.3	0.392	0.904 H	0.214	0.279	<0.5	<0.5
COD	(mg/l)	40	19	< 10	<10	11.6	<10	<20	<20
BOD	(mg/l)	<2	2	< 3	5.1	3.2	<3	<4	<4
TOC	(mg/l)	6	5.8	5.22	3.14	<2	<2	<3	<3
Phenolics, Tot	(mg/l)	0.0032	<0.001	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	--	--	--	--	<0.01	--	--	--

H - exceeded hold time

Historical Water Quality Database - Towslee Landfill
Field and Inorganic Parameters
Well MW-7A - Overburden

Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07
Temp	(deg C)	--	--	4.5	11.6	17.4	13.9	9.3	7.8
Eh	(mV)	--	--	215	120	245	190	77	-64
pH	(Std Units)	--	--	6.5	6.4	6.34	6.62	7.04	7.12
Sp. Cond	(uS/cm)	--	--	1360	1520	1440	1480	893	765
Color	(Units)	20	5	--	--	<5	--	--	--
Turbidity	(NTU)	--	--	214	18	13.6	42	45.3	54.3
ALK as CaCO3	(mg/l)	569	660	648	675	595	635	640	510
HARD as CaCO3	(mg/l)	1010	1150	627	599	531	526	529	499
TDS	(mg/l)	1220	1240	981	967	963	949	753	865
Chloride	(mg/l)	300	276	144	143	119	85	145	131
Sulfate	(mg/l)	27.4	20.2	20.6	22.5	19.7	14.1	16.5	23.2
Bromide	(mg/l)	0.6	<0.5	0.753	0.633	0.822	0.483	0.6	<0.2
NO3 (As N)	(mg/l)	<0.1	0.2	< 0.1	<0.1	<0.1	<0.1	<0.2	<0.2
NH4 (As N)	(mg/l)	0.93	0.89	0.34	<0.02	<0.02	<0.1	<0.5	<0.5
TKN (as N)	(mg/l)	1.1	1.4	1.5	1.68 H	0.75	1.11	1.47	3.6
COD	(mg/l)	43	112	21.2	16.5	26.4	20.5	27	<20
BOD	(mg/l)	<2	2	< 3	<3	<3	<3	<4	<4
TOC	(mg/l)	10.1	12.6	12.8	8.19	6.12	7.46	8.1	6
Phenolics, Tot	(mg/l)	0.0051	0.0027	< 0.005	0.007	<0.005	<0.005	<0.005	0.006
Cyanide	(mg/l)	<0.01	<0.01	--	--	<0.01	--	--	--

H - exceeded hold time

Historical Water Quality Data - Towslee Landfill

MW-1A Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07
Aluminum	724	16.9	--	--	2.96	--	--	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--
Arsenic	0.353	0.0134	--	--	<0.025	--	--	--
Barium	8.11	0.258	--	--	0.104	--	--	--
Beryllium	0.0287	0.00083 B	--	--	<0.005	--	--	--
Boron	0.0873 B	0.0665 B	--	--	0.073	--	--	--
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	430	48.6	46.2	41.8	43.2	43.9	39.2	44.5
Chromium	1.04	0.0265	--	--	<0.005	--	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--
Cobalt	0.59	0.0168 B	--	--	<0.015	--	--	--
Copper	0.996	0.0254	--	--	0.022	--	--	--
Iron	1550	35.7	19.4	2.99	6.03	2.11	1.67	2.14
Lead	0.454	0.0123	0.00716	0.007	<0.005	<0.005	<0.003	<0.003
Magnesium	309	15.6	12.6	8.67	9.7	9.43	8.87	10.2
Manganese	24.6	0.783	0.534	0.194	0.38	0.306	0.19	0.193
Mercury	0.0014	<0.0001	--	--	<0.0004	--	--	--
Nickel	1.33	0.0364 B	--	--	<0.01	--	--	--
Potassium	77.5	6.97	2.72	1.6	1.7	1.62	1.74	2.31
Sodium	37.3	26	17.1	13	13.6	13.5	12.2	12.5
Selenium	<0.028	<0.0028	--	--	<0.02	--	--	--
Silver	<0.009	<0.0009	--	--	<0.015	--	--	--
Thallium	<0.026	<0.0026	--	--	<0.03	--	--	--
Vanadium	0.856	0.0243 B	--	--	<0.015	--	--	--
Zinc	3.36	0.0874	--	--	0.106	--	--	--

All units in mg/l

Historical Water Quality Data - Towslee Landfill

MW-1B Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07
Aluminum	0.662	0.134 B	--	--	1.09	--	--	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--
Arsenic	<0.0024	<0.0024	--	--	<0.025	--	--	--
Barium	0.168 B	0.154 B	--	--	0.194	--	--	--
Beryllium	0.0001 B	<0.0001	--	--	<0.005	--	--	--
Boron	0.0197 B	0.0247 B	--	--	<0.05	--	--	--
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	26.7	24.7	26.8	23.9	25.8	24.1	23.7	30
Chromium	0.002 B	<0.0004	--	--	<0.005	--	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--
Cobalt	<0.0011	<0.0011	--	--	<0.015	--	--	--
Copper	0.004 B	0.0025 B	--	--	0.017	--	--	--
Iron	1.33	0.226	9.42	1.48	1.84	0.273	2.39	0.508
Lead	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	0.00431	<0.003
Magnesium	6.47	5.84	7.46	5.39	6.05	5.31	5.94	7.4
Manganese	0.195	0.146	2.28	0.191	0.251	0.126	0.521	0.169
Mercury	--	--	--	--	<0.0004	--	--	--
Nickel	<0.0013	<0.0013	--	--	<0.01	--	--	--
Potassium	1.56 B	0.529 B	0.973	0.468	0.523	0.374	<1	<1
Sodium	7.38	6.18	6.31	5.22	6.35	5.92	5.22	6.82
Selenium	--	--	--	--	<0.02	--	--	--
Silver	--	--	--	--	<0.015	--	--	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--
Vanadium	<0.0012	<0.0012	--	--	<0.015	--	--	--
Zinc	0.0351	0.0163 B	--	--	0.052	--	--	--

All units in mg/l

Historical Water Quality Data - Towslee Landfill

MW-2A Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07
Aluminum	79.3	59.1	--	--	0.43	--	--	--
Antimony	0.0049 B	<0.003	--	--	<0.05	--	--	--
Arsenic	0.0631	0.0537	--	--	<0.025	--	--	--
Barium	1.75	1.49	--	--	0.502	--	--	--
Beryllium	0.0037 B	0.0025 B	--	--	<0.005	--	--	--
Boron	1.21	0.961	--	--	0.584	--	--	--
Cadmium	<0.0003	0.0016 B	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	186	172	69.1	74.1	77.3	88.5	64.2	75.3
Chromium	0.112	0.0967	--	--	<0.005	--	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--
Cobalt	0.0719	0.0628	--	--	<0.015	--	--	--
Copper	0.104	0.0779	--	--	0.012	--	--	--
Iron	154	131	8.29	24	6.5	10.1	10.8	6.86
Lead	0.0561	0.0436	<0.005	0.019	<0.005	0.006	0.00524	<0.003
Magnesium	61.6	53.6	16.6	18.3	17.5	19.4	15.7	17.9
Manganese	35.7	31.6	12.2	11.5	12	13.6	9.93	11.7
Mercury	<0.0001	<0.0001	--	--	<0.0004	--	--	--
Nickel	0.151	0.132	--	--	<0.01	--	--	--
Potassium	23.4	17	9.29	11.2	12.3	12.7	9.02	10.8
Sodium	119	102	26.3	25.2	31.4	31.4	19.5	22.9
Selenium	<0.0028	<0.0028	--	--	<0.02	--	--	--
Silver	0.0024 B	0.0014 B	--	--	<0.015	--	--	--
Thallium	0.004 B	<0.0026	--	--	<0.03	--	--	--
Vanadium	0.102	0.0866	--	--	<0.015	--	--	--
Zinc	0.4	0.278	--	--	<0.01	--	--	--

All units in mg/l

Historical Water Quality Data - Towslee Landfill

MW-2B Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07
Aluminum	2.03	5.31	--	--	0.18	--	--	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--
Arsenic	0.007 B	0.0083 B	--	--	<0.025	--	--	--
Barium	1.59	1.36	--	--	1.22	--	--	--
Beryllium	0.00023 B	0.00037 B	--	--	<0.005	--	--	--
Boron	0.355	0.292	--	--	0.256	--	--	--
Cadmium	0.0003 B	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	288	245	203	216 E	203 E	200	216	170
Chromium	0.004 B	0.0086 B	--	--	<0.005	--	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--
Cobalt	0.0091 B	0.0141 B	--	--	<0.015	--	--	--
Copper	0.0069 B	0.0118 B	--	--	0.017	--	--	--
Iron	4.3	10.7	0.913	0.836	1.2	1.07	0.637	0.469
Lead	0.0044	0.0058	<0.005	0.009	<0.005	<0.005	<0.003	<0.003
Magnesium	61.7	49.9	46.1	45.3	43.5	42.7	44.8	36.3
Manganese	8.24	7.43	6.98	6.8	6.63	6.46	6.42	4.93
Mercury	--	--	--	--	<0.0004	--	--	--
Nickel	0.0129 B	0.0188 B	--	--	<0.01	--	--	--
Potassium	3 B	2.9 B	2.42	2.25	2.28	2.38	2.74	2.14
Sodium	64.1	53.9	53.8	49.7	51.1	51	50.9	40.8
Selenium	--	--	--	--	<0.02	--	--	--
Silver	--	--	--	--	<0.015	--	--	--
Thallium	0.0037 B	<0.0026	--	--	<0.03	--	--	--
Vanadium	0.0029 B	0.0075 B	--	--	<0.015	--	--	--
Zinc	0.103	0.0484	--	--	<0.01	--	--	--

All units in mg/l

Historical Water Quality Data - Towslee Landfill

MW-3A Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07
Aluminum	21.7	2.39	--	--	0.078	--	--	--
Antimony	<0.003	0.0034 B	--	--	<0.05	--	--	--
Arsenic	0.0127	<0.0024	--	--	<0.025	--	--	--
Barium	0.567	0.343	--	--	0.41	--	--	--
Beryllium	0.001 B	0.00013 B	--	--	<0.005	--	--	--
Boron	<0.0709	0.0286 B	--	--	0.063	--	--	--
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	57.8	53.7	46.3	55.3	57.9	48.3	23	18.1
Chromium	0.0249	0.0022 B	--	--	<0.005	--	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--
Cobalt	0.0121 B	0.0019 B	--	--	<0.015	--	--	--
Copper	0.0315	0.0076 B	--	--	0.023	--	--	--
Iron	26.6	3.58	1.88	0.626	0.104	0.283	1.18	0.599
Lead	0.0077	<0.001	<0.005	0.005	0.005	<0.005	<0.003	<0.003
Magnesium	17	11	9.13	10	11.2	9.2	4.04	3.1
Manganese	0.732	0.174	0.208	0.175	0.416	0.176	0.415	0.501
Mercury	--	--	--	--	<0.0004	--	--	--
Nickel	0.0248 B	0.0038 B	--	--	<0.01	--	--	--
Potassium	7.43	1.87 B	0.938	0.829	1.09	0.937	<1	<1
Sodium	10.4	6.54	5.66	6.4	8.92	6.03	2.11	1.14
Selenium	--	--	--	--	<0.02	--	--	--
Silver	--	--	--	--	<0.015	--	--	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--
Vanadium	0.0296 B	0.0039 B	--	--	<0.015	--	--	--
Zinc	0.112	0.0265	--	--	0.025	--	--	--

All units in mg/l

Historical Water Quality Data - Towslee Landfill

MW-6B Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07
Aluminum	8.59	0.642	--	--	0.115	--	--	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--
Arsenic	0.009 B	0.0084 B	--	--	<0.025	--	--	--
Barium	0.521	0.48	--	--	0.313	--	--	--
Beryllium	0.0004 B	0.0001 B	--	--	<0.005	--	--	--
Boron	0.145	0.145	--	--	<0.05	--	--	--
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	70.5	55.6	39.3	39.6	36.1	37.4	45.6	39.9
Chromium	0.0092 B	0.0017 B	--	--	<0.005	--	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--
Cobalt	0.0112 B	0.0056 B	--	--	<0.015	--	--	--
Copper	0.0116 B	0.0051 B	--	--	0.016	--	--	--
Iron	10.6	3	1.09	0.511	0.306	0.195	1.87	0.486
Lead	0.0044	<0.001	<0.005	<0.005	<0.005	<0.005	<0.003	<0.003
Magnesium	19	12.7	8.94	10.9	9.86	9.71	10.2	9.68
Manganese	3.43	4.17	0.559	0.12	0.297	0.185	0.331	0.0908
Mercury	--	--	--	--	<0.0004	--	--	--
Nickel	0.0144 B	0.0059 B	--	--	<0.01	--	--	--
Potassium	4.08 B	2.72 B	1.15	0.825	0.634	0.69	1.05	<1
Sodium	38	31.4	14.9	9.93	10.1	10.7	11.2	10.2
Selenium	--	--	--	--	<0.02	--	--	--
Silver	--	--	--	--	<0.015	--	--	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--
Vanadium	0.0083 B	0.0012 B	--	--	<0.015	--	--	--
Zinc	0.0894	0.0248	--	--	0.014	--	--	--

All units in mg/l

Historical Water Quality Data - Towslee Landfill

MW-7A Total Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	3/20/07	4/26/07
Aluminum	40	88.4	--	--	0.415	--	--	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--
Arsenic	0.0176	0.0459	--	--	<0.025	--	--	--
Barium	1.36	1.99	--	--	0.684	--	--	--
Beryllium	0.0015 B	0.0037 B	--	--	<0.005	--	--	--
Boron	0.332	0.41	--	--	0.55	--	--	--
Cadmium	0.00047 B	0.002 B	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	234	271	171	165	150	148	149	140
Chromium	0.0556	0.146	--	--	<0.005	--	--	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--
Cobalt	0.0311	0.0791	--	--	<0.015	--	--	--
Copper	0.0637	0.129	--	--	0.013	--	--	--
Iron	65.9	174	14.5	1.33	0.722	2.78	1.68	1.52
Lead	0.0251	0.0585	0.0175	0.009	0.006	<0.005	<0.003	<0.003
Magnesium	67	88.3	48.6	45.5	38	38	38.4	36.4
Manganese	5.87	9.55	6.08	5.69	4.4	4.85	4.51	4.18
Mercury	<0.0001	<0.0001	--	--	<0.0004	--	--	--
Nickel	0.0783	0.192	--	--	0.013	--	--	--
Potassium	10.4	13.5	3.06	1.91	1.81	2.03	2.03	1.95
Sodium	118	113	134	129	124	128	112	104
Selenium	0.0041 B	0.0047 B	--	--	<0.02	--	--	--
Silver	<0.0009	<0.0009	--	--	<0.015	--	--	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--
Vanadium	0.0487 B	0.127	--	--	<0.015	--	--	--
Zinc	0.2	0.408	--	--	<0.01	--	--	--

All units in mg/l

Historical Water Quality Database - Towslee Landfill

MW-1A Dissolved Metals

Parameter	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	3/20/07
Aluminum	0.0163 B	0.0407 B	--	--	0.066	--
Antimony	--	--	--	--	<0.05	--
Arsenic	<0.0024	<0.0024	--	--	<0.025	--
Barium	0.137 B	0.068 B	--	--	0.066	--
Beryllium	<0.0001	<0.0001	--	--	<0.005	--
Boron	0.0631 B	0.0561 B	--	--	<0.07	--
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005
Calcium	67.6	40.3	40.7	38.9	38.6	40.3
Chromium	<0.0004	<0.0004	--	--	<0.005	--
Chrom, Hex	--	--	--	--	--	--
Cobalt	<0.0011	<0.0011	--	--	<0.015	--
Copper	0.0008 B	<0.0007	--	--	0.013	--
Iron	0.0348 B	0.0471 B	13.5	0.315	0.125	<0.06
Lead	0.0052	<0.001	<0.005	0.005	<0.005	<0.003
Magnesium	15.4	8.69	10.4	8.12	8.18	8.83
Manganese	0.22	0.174	0.238	0.127	0.248	<0.01
Mercury	0.0014	<0.0001	--	--	<0.0004	--
Nickel	<0.0013	<0.0013	--	--	<0.01	--
Potassium	10.6	4.92 B	2.52	1.38	1.31	1.72
Sodium	59.3	27.1	14.7	12.3	13	12.3
Selenium	--	--	--	--	<0.02	--
Silver	--	--	--	--	<0.015	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--
Vanadium	<0.0012	<0.0012	--	--	<0.015	--
Zinc	0.12	0.0161 B	--	--	0.033	--

All units are mg/l

Historical Water Quality Database - Towslee Landfill

MW-1B Dissolved Metals

Parameter	Aug-97	Oct-97	3/22/06	8/9/06	3/20/07
Aluminum	0.0146 B	0.0209 B	--	0.195	--
Antimony	<0.003	<0.003	--	<0.05	--
Arsenic	<0.0024	<0.0024	--	<0.025	--
Barium	0.151 B	0.155 B	--	0.162	--
Beryllium	<0.0001	<0.0001	--	<0.005	--
Boron	0.0195 B	0.0162 B	--	<0.07	--
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005
Calcium	24.8	24.5	22.8	24.4	24.5
Chromium	0.0008 B	0.00073 B	--	<0.005	--
Chrom, Hex	--	--	--	--	--
Cobalt	<0.0011	<0.0011	--	<0.015	--
Copper	<0.0007	<0.0007	--	0.013	--
Iron	0.0172 B	0.0141 B	0.339	0.339	<0.06
Lead	--	--	<0.005	<0.005	<0.003
Magnesium	6.62	5.88	5.15	5.54	5.88
Manganese	0.141	0.134	0.0136	0.135	<0.01
Mercury	--	--	--	<0.0004	--
Nickel	<0.0013	<0.0013	--	<0.01	--
Potassium	1.63 B	0.514 B	0.487	0.403	<1
Sodium	7.53	6.59	4.75	5.31	5.73
Selenium	--	--	--	<0.02	--
Silver	--	--	--	<0.015	--
Thallium	--	--	--	<0.03	--
Vanadium	--	--	--	<0.015	--
Zinc	0.0396	0.0152 B	--	0.029	--

All units are mg/l

Historical Water Quality Database - Towslee Landfill

MW-2A Dissolved Metals

Parameter	Aug-97	Oct-97	8/9/06
Aluminum	<0.0083	0.0482 B	0.044
Antimony	--	--	<0.05
Arsenic	0.0123	0.0139	<0.025
Barium	0.787	0.786	0.427
Beryllium	0.00017 B	0.0001 B	<0.005
Boron	1.21	0.992	0.562
Cadmium	0.00053 B	<0.0003	<0.005
Calcium	183	183	77.6
Chromium	0.0035 B	0.0057 B	<0.005
Chrom, Hex	--	--	--
Cobalt	0.0107 B	0.0095 B	<0.015
Copper	0.0162 B	<0.0007	0.015
Iron	5.4	11.5	0.204
Lead	<0.001	0.0011 B	<0.005
Magnesium	41	38.5	17.1
Manganese	30.4	30.9	12.1
Mercury	<0.0001	<0.0001	<0.0004
Nickel	0.0179 B	0.0162 B	<0.01
Potassium	17.5	14.2	12.5
Sodium	121	115	29.6
Selenium	--	--	<0.02
Silver	--	--	<0.015
Thallium	0.003 B	<0.0026	<0.03
Vanadium	<0.0012	<0.0012	<0.015
Zinc	0.117	0.0207	0.013

All units are mg/l

Historical Water Quality Database - Towslee Landfill

MW-2B Dissolved Metals

Parameter	Aug-97	Oct-97
Aluminum	0.0179 B	0.0154 B
Antimony	<0.003	<0.003
Arsenic	0.0036 B	<0.0024
Barium	1.55	1.45
Beryllium	<0.0001	<0.0001
Boron	0.334	0.321
Cadmium	<0.0003	<0.0003
Calcium	281	274
Chromium	0.0009 B	0.0014 B
Chrom, Hex	--	--
Cobalt	0.0067 B	0.0061 B
Copper	0.0022 B	<0.0007
Iron	0.582	0.595
Lead	--	--
Magnesium	61.7	55
Manganese	8.07	8
Mercury	--	--
Nickel	0.0093 B	0.0097 B
Potassium	2.8 B	2.34 B
Sodium	62.5	62.8
Selenium	--	--
Silver	--	--
Thallium	--	--
Vanadium	--	--
Zinc	0.0635	0.023

All units are mg/l

Historical Water Quality Database - Towslee Landfill

MW-3A Dissolved Metals

Parameter	Aug-97	Oct-97	3/22/06
Aluminum	<0.0083	0.0158	--
Antimony	0.0038 B	<0.003	--
Arsenic	<0.0024	<0.0024	--
Barium	0.242	0.276	--
Beryllium	<0.0001	<0.0001	--
Boron	0.0324 B	0.0275 B	--
Cadmium	<0.0003	<0.0003	<0.005
Calcium	57.9	54.6	44.3
Chromium	<0.0004	<0.0004	--
Chrom, Hex	--	--	--
Cobalt	<0.0011	<0.0011	--
Copper	0.0024 B	0.00083 B	--
Iron	0.0061 B	0.0114 B	0.168
Lead	--	--	<0.005
Magnesium	12.9	10.9	8.7
Manganese	0.123	0.0941	0.0963
Mercury	--	--	--
Nickel	<0.0013	0.0017 B	--
Potassium	2.75 B	1.42 B	0.803
Sodium	10.2	7.98	4.83
Selenium	--	--	--
Silver	--	--	--
Thallium	--	--	--
Vanadium	--	--	--
Zinc	0.0249	0.0387	--

All units are mg/l

Historical Water Quality Database - Towslee Landfill

MW-6B Dissolved Metals

Parameter	Aug-97	Oct-97	3/20/07
Aluminum	<0.0083	0.0132 B	--
Antimony	<0.003	<0.003	--
Arsenic	0.0048 B	0.0073 B	--
Barium	0.396	0.478	--
Beryllium	<0.0001	<0.0001	--
Boron	0.125	0.14	--
Cadmium	<0.0003	<0.0003	<0.005
Calcium	67.7	56.3	45.6
Chromium	<0.0004	0.00087 B	--
Chrom, Hex	--	--	--
Cobalt	0.0052 B	0.0041 B	--
Copper	0.0011 B	<0.0007	--
Iron	0.346	1.42	<0.06
Lead	--	--	<0.003
Magnesium	17.3	12.9	10.6
Manganese	3.3	3.99	0.137
Mercury	--	--	--
Nickel	0.0046 B	0.0048 B	--
Potassium	2.97 B	2.77 B	1.19
Sodium	38.2	33.3	12.1
Selenium	--	--	--
Silver	--	--	--
Thallium	--	--	--
Vanadium	--	--	--
Zinc	0.0651	0.0207	--

All units are mg/l

Historical Water Quality Database - Towslee Landfill

MW-7A Dissolved Metals

Parameter	Aug-97	Oct-97	3/22/06
Aluminum	<0.0083	0.0755 B	--
Antimony	--	--	--
Arsenic	<0.0024	<0.0024	--
Barium	0.822	0.887	--
Beryllium	0.0001 B	<0.0001	--
Boron	0.331	0.396	--
Cadmium	0.0003 B	<0.0003	<0.005
Calcium	220	255	158
Chromium	0.0008 B	0.0011 B	--
Chrom, Hex	--	--	--
Cobalt	0.0017 B	0.0031 B	--
Copper	0.0086 B	<0.0007	--
Iron	0.009 B	0.753	0.0637
Lead	<0.001	<0.001	<0.005
Magnesium	56.2	59.9	43.6
Manganese	4.53	7.12	5.35
Mercury	<0.0001	<0.0001	--
Nickel	0.0129 B	0.0196 B	--
Potassium	5.28	3.98 B	1.9
Sodium	120	129	126
Selenium	--	--	--
Silver	--	--	--
Thallium	<0.0026	<0.0026	--
Vanadium	<0.0012	<0.0012	--
Zinc	0.0455	0.0186	--

All units are mg/l

Historical Water Quality Database - Towslee Landfill
Organics (includes only compounds detected)
Well MW-1A - Overburden

Parameter	TYPE	Aug-97	Oct-97	8/9/06
Vinyl Chloride	VOC	<10	<10	<5
Chloroethane	VOC	<10	<10	<5
Acetone	VOC	10	<10	<25
Methylene Chloride	VOC	<10	<10	<5
trans-1,2-Dichloroethene (1)	VOC	<10	<10	<5
cis-1,2-Dichloroethene (1)	VOC	<10	<10	<5
1,1-Dichloroethane	VOC	<10	<10	<5
Benzene	VOC	<10	<10	<5
Toluene	VOC	<10	<10	<5
Chlorobenzene	VOC	<10	<10	<5
Ethylbenzene	VOC	<10	<10	<5
Xylenes(total)	VOC	<10	<10	<10
1,4-Dichlorobenzene	SVOC	<10	<10	<5
Diethylphthalate	SVOC	<10	<10	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA

All units are ug/l
J - estimated
B - analyte also detected in blank
(1) 1997 results are for total 1,2-DCE - total has been applied to each compound
NA - not analyzed

Historical Water Quality Database - Towslee Landfill
Organics (includes only compounds detected)
Well MW-1B - Bedrock

Parameter	TYPE	Aug-97	Oct-97	8/9/06
Vinyl Chloride	VOC	<10	<10	<5
Chloroethane	VOC	<10	<10	<5
Acetone	VOC	<10	<10	<25
Methylene Chloride	VOC	<10	<10	<5
trans-1,2-Dichloroethene	VOC	<10	<10	<5
cis-1,2-Dichloroethene	VOC	<10	<10	<5
1,1-Dichloroethane	VOC	<10	<10	<5
Benzene	VOC	<10	<10	<5
Toluene	VOC	<10	<10	<5
Chlorobenzene	VOC	<10	<10	<5
Ethylbenzene	VOC	<10	<10	<5
Xylenes(total)	VOC	<10	<10	<10
1,4-Dichlorobenzene	SVOC	<10	<10	<5
Diethylphthalate	SVOC	<10	<10	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA

All units are ug/l
J - estimated
B - analyte also detected in blank
(1) 1997 results are for total 1,2-DCE - total has been applied to each compound
NA - not analyzed

Historical Water Quality Database - Towslee Landfill
Organics (includes only compounds detected)
Well MW-2A - Overburden

Parameter	TYPE	Aug-97	Oct-97	8/9/06
Vinyl Chloride	VOC	<10	<10	<5
Chloroethane	VOC	5 J	4 J	<5
Acetone	VOC	<10	<10	<25
Methylene Chloride	VOC	1 JB	<10	<5
trans-1,2-Dichloroethene	VOC	<10	<10	<5
cis-1,2-Dichloroethene		<10	<10	<5
1,1-Dichloroethane	VOC	<10	<10	<5
Benzene	VOC	5 J	6 J	<5
Toluene	VOC	1 J	<10	<5
Chlorobenzene	VOC	5 J	<10	<5
Ethylbenzene	VOC	2 J	<10	<5
Xylenes(total)	VOC	5 J	<10	<10
1,4-Dichlorobenzene	SVOC	1 J	2 J	<5
Diethylphthalate	SVOC	<10	1 J	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA

All units are ug/l
J - estimated
B - analyte also detected in blank
(1) 1997 results are for total 1,2-DCE - total has been applied to each compound
NA - not analyzed

Historical Water Quality Database - Towslee Landfill
Organics (includes only compounds detected)
Well MW-2B - Bedrock

Parameter	TYPE	Aug-97	Oct-97	8/9/06
Vinyl Chloride	VOC	<10	<10	<5
Chloroethane	VOC	4 J	3 J	<5
Acetone	VOC	<10	<10	<25
Methylene Chloride	VOC	1 JB	<10	<5
trans-1,2-Dichloroethene	VOC	1 J	<10	<5
cis-1,2-Dichloroethene	VOC	1 J	<10	6.2
1,1-Dichloroethane	VOC	1 J	1 J	<5
Benzene	VOC	<10	2 J	<5
Toluene	VOC	<10	<10	<5
Chlorobenzene	VOC	<10	1 J	<5
Ethylbenzene	VOC	<10	<10	<5
Xylenes(total)	VOC	<10	<10	<10
1,4-Dichlorobenzene	SVOC	<10	<10	<5
Diethylphthalate	SVOC	<10	<10	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	1 JB	NA

All units are ug/l
J - estimated
B - analyte also detected in blank
(1) 1997 results are for total 1,2-DCE - total has been applied to each compound
NA - not analyzed

Historical Water Quality Database - Towslee Landfill
Organics (includes only compounds detected)
Well MW-3A - Bedrock

Parameter	TYPE	Aug-97	Oct-97	8/9/06
Vinyl Chloride	VOC	<10	<10	<5
Chloroethane	VOC	<10	<10	<5
Acetone	VOC	2 J	<10	<25
Methylene Chloride	VOC	5 JB	<10	<5
trans-1,2-Dichloroethene	VOC	<10	<10	<5
cis-1,2-Dichloroethene	VOC	<10	<10	<5
1,1-Dichloroethane	VOC	<10	<10	<5
Benzene	VOC	<10	<10	<5
Toluene	VOC	<10	<10	<5
Chlorobenzene	VOC	<10	<10	<5
Ethylbenzene	VOC	<10	<10	<5
Xylenes(total)	VOC	<10	<10	<10
1,4-Dichlorobenzene	SVOC	<10	<10	<5
Diethylphthalate	SVOC	<10	<10	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA

All units are ug/l
J - estimated
B - analyte also detected in blank
(1) 1997 results are for total 1,2-DCE - total has been applied to each compound
NA - not analyzed

Historical Water Quality Database - Towslee Landfill
Organics (includes only compounds detected)
Well MW-6B - Bedrock

Parameter	TYPE	Aug-97	Oct-97	8/9/06
Vinyl Chloride	VOC	<10	<10	<5
Chloroethane	VOC	<10	<10	<5
Acetone	VOC	<10	<10	<25
Methylene Chloride	VOC	<10	<10	<5
trans-1,2-Dichloroethene	VOC	<10	<10	<5
cis-1,2-Dichloroethene		<10	<10	<5
1,1-Dichloroethane	VOC	<10	<10	<5
Benzene	VOC	<10	<10	<5
Toluene	VOC	<10	<10	<5
Chlorobenzene	VOC	<10	<10	<5
Ethylbenzene	VOC	<10	<10	<5
Xylenes(total)	VOC	<10	<10	<10
1,4-Dichlorobenzene	SVOC	<10	<10	<5
Diethylphthalate	SVOC	<10	<10	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA

All units are ug/l
J - estimated
B - analyte also detected in blank
(1) 1997 results are for total 1,2-DCE - total has been applied to each compound
NA - not analyzed

Historical Water Quality Database - Towslee Landfill
Organics (includes only compounds detected)
Well MW-7A - Overburden

Parameter	TYPE	Aug-97	Oct-97	8/9/06
Vinyl Chloride	VOC	2 J	5 J	<5
Chloroethane	VOC	<10	1 J	<5
Acetone	VOC	<10	<10	<25
Methylene Chloride	VOC	1 JB	<10	<5
trans-1,2-Dichloroethene	VOC	1 J	2 J	<5
cis-1,2-Dichloroethene		1 J	2 J	7.1
1,1-Dichloroethane	VOC	3 J	4 J	6.1
Benzene	VOC	<10	<10	<5
Toluene	VOC	<10	<10	<5
Chlorobenzene	VOC	<10	<10	<5
Ethylbenzene	VOC	<10	<10	<5
Xylenes(total)	VOC	<10	<10	<10
1,4-Dichlorobenzene	SVOC	<10	<10	<5
Diethylphthalate	SVOC	<10	<10	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA

All units are ug/l
J - estimated
B - analyte also detected in blank
(1) 1997 results are for total 1,2-DCE - total has been applied to each compound
NA - not analyzed