

Environmental Monitoring Report

2009 Quarters 1 and 2

Cortland County Towslee Landfill

Town Line Road
Cortland County, New York

NYSDEC Region 7

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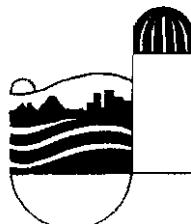


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1.0 Introduction

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 2009, and serves as an annual report for the Towslee landfill.

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 Labs) 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 management and 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

<u>Quarter</u>	<u>Analyses</u>	<u>Date Sampled</u>
First Quarter:	Routine	March 12, 2009
Second Quarter:	Routine	June 17, 2009
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:

<u>Bedrock</u>	<u>Overburden</u>
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 2009. 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 groundwater quality data to NYS water quality standards.

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

Tables 3, 4 and 5 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 2009 met available water quality standards at all wells, although there continues to be evidence of mild landfill leachate contamination. Contraventions of standards are described below.

4.1.1 Conventional and Field Parameters

pH - The acceptable range for pH is between 6.5 and 8.5. No pH contraventions were observed in Quarter 1. In Quarter 2, pH was slightly below this range for MW-2A (6.44) and MW-2B (6.43).

Color – The color standard is 15 standard units (SU). Color was only measured for the Baseline round of Quarter 2. The color standard was exceeded for three wells: (MW-1A at 18 SU, MW-2A at 65 SU, and MW-7A at 80 SU).

Turbidity – Turbidity exceeded the NYS standard of 5 NTU for 6 of 7 wells in Quarter 1, and 4 of 7 wells in Quarter 2.

Quarter 1 contraventions ranged from 5.6 to 40.9 NTU.

Quarter 2 contraventions ranged from 8.2 to 375 NTU.

Based on separate monitoring conducted at the closed Pine Tree Landfill, and the active West Side Landfill, natural groundwater in this area appears to have elevated turbidity.

Total Dissolved Solids (TDS) - The TDS standard of 500 mg/l has been consistently exceeded for the same two wells, and this trend continued for Quarters 1 and 2 of 2009.

TDS results for MW-2B are: Quarter 1 (872 mg/l); Quarter 2 (870 mg/l)

TDS results for MW-7A are: Quarter 1 (748 mg/l); Quarter 2 (720 mg/l)

Ammonia - The ammonia standard of 2 mg/l was exceeded at MW-2A for Quarters 1 and 2 of 2009:

Quarter 1 (8.43 mg/l);
Quarter 2 (11.8 mg/l)

Ammonia at MW-2A also exceeded the standard for all previous monitoring events.

4.1.2 Metals

Total Barium – The barium water quality standard of 1 mg/l was exceeded for a single well in Quarter 2 (MW-2B at 1.43 mg/l), as it has in all previous monitoring events.

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

In Quarter 1, six of the seven wells exceeded the standard, ranging from 0.322 to 7.77 mg/l.

In Quarter 2 five of the seven wells exceeded the standard, ranging from 0.464 to 10.1 mg/l. Dissolved metals were analyzed for Well MW-7A because turbidity exceeded 50 NTU. Total iron for this well was 10.1 mg/l, while dissolved iron was below the detection limit of 0.06 mg/l.

The iron standard has been frequently exceeded in the past at Towslee monitoring wells.

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

In Quarter 1, three of seven wells exceeded the standard, ranging from 4.31 to 10.7 mg/l.

In Quarter 2, the same three wells exceeded the standard, ranging from 4.34 to 9.3 mg/l. Total manganese for MW-7A was 4.21 mg/l, while dissolved manganese was 3.78 mg/l.

The manganese standard has been frequently exceeded in the past at Towslee monitoring wells.

Sodium – The NYS sodium standard is 20 mg/l, and is relevant for people on severely restricted sodium diets. Contraventions in 2009 were as follows:

Quarter 1: MW-2B (49.3 mg/l) and MW-7A (97 mg/l).

Quarter 2: MW-2A (23.8 mg/l), MW-2B (55.4 mg/l) and MW-7A (103 mg/l).

These results are consistent with past monitoring. Elevated sodium may be at least partially related to deicing activities on the road network within the landfill.

4.1.3 Volatile Organics (VOCs)

VOC testing was conducted during the Baseline round of Quarter 2.

Vinyl chloride was detected in two wells in Quarter 2: MW-7A at 12 ug/l and MW-7A at 5.7 ug/l. These results are above the drinking water MCL of 2 ug/l for vinyl chloride.

Chloroethane was detected in Well MW-2B at 5.9 ug/l. This result is slightly above the drinking water MCL of 5 ug/l.

cis-1,2-dichloroethene was detected in Wells MW-2B (19 ug/l) and MW-7A (5.4 ug/l). Each of these results are above the drinking water MCL of 5 ug/l for cis-1,2-dichloroethene.

Toluene was detected in MW-3A at 82 ug/l. This is above the drinking water MCL of 5 ug/l.

There were no other contraventions of NYS water quality standards for Quarters 1 and 2 of 2009.

4.2 Trends

The seven wells that are sampled as part of the Towslee monitoring program were sampled twice in 1997 by B&L. To date 14 additional sampling rounds (10 Routine and 4 Baseline) have been conducted since monitoring resumed in 2006. All historical results are tabulated in Appendix C.

There was a significant improvement in groundwater quality downgradient of the Towslee landfill in 2006 compared to 1997. Subsequent results from 2007 through Quarter 2 of 2009 suggest groundwater quality has remained relatively stable, or has shown improvement, since 2006.

Trends are described in greater detail below.

4.2.1 Trends for Conventionals

In 1997 B&L identified the following conventionals as indicative of mild landfill leachate contamination: alkalinity, chloride; hardness; ammonia; TKN; COD; and TOC.

- Alkalinity continues to be generally similar to or lower than 1997 levels. The three wells with elevated alkalinity (MW-2A, MW-2B and MW-7A) show a continued decreasing trend since 2006.
- Chloride levels continue to be significantly lower than 1997 levels, apart from a single elevated reading of 1260 mg/l at MW-7A in Quarter 2 of 2008 (Upstate Labs reported an air spike during the analysis, which may account for this result).
- Hardness levels continue to be much lower than in 1997, with generally stable results since 2006.
- Ammonia - Well MW-2A continues to exhibit elevated ammonia levels, but continues to show a decreasing trend over time. Well MW-2B ammonia levels are consistently near 1 mg/l, which is below the water quality standard of 2 mg/l. For the other wells, ammonia levels since 2006 are generally below the detection limit.
- TKN levels at MW-2A remain elevated, but apart from a very high reading in Quarter 1 of 2007, the trend at this well is decreasing. TKN for other wells shows a generally decreasing trend, or results are generally below the detection limit.
- COD continues to show an overall decrease compared to 1997 levels. COD levels for two wells have remained relatively stable since 2006. For the other five wells, COD has generally been below the detection limit since 2006.
- Total organic carbon (TOC) - the three wells with the highest TOC levels are MW-2A, MW-2B and MW-7A. Despite high readings in 2008, these wells show an overall decreasing trend over time. TOC for Well MW-3 has been largely below the detection limit since 2006, with a few measurements similar to 1997 levels. All results for MW1A, MW1B, and MW-6B have been below the detection limit since Q2 of 2006.
- For all other conventionals, the results for 2009 are generally lower than or similar to past results.

4.2.2 Trends for Total Metals

The metals identified by B&L in 1997 as indicative of mild landfill leachate contamination are:

aluminum	cobalt	magnesium	vanadium
arsenic	copper	manganese	zinc
calcium	iron	potassium	
chromium	lead	sodium	

All of these metals were analyzed under the Baseline round of Quarter 2 in 2009. For the Routine event of Quarter 1, the only metals analyzed were: calcium, iron, lead, magnesium, manganese, potassium, and sodium.

- Aluminum levels have continued to show a significant decrease through 2009, compared to 1997.
- Arsenic levels have decreased since 1997. All results since 2006 have been below the detection limit at all sampled wells, except for a single detection at MW-2A in Quarter 1 of 2008, and the MW-2A reading of 0.0145 mg/l was significantly lower than 1997 levels.
- Calcium – Calcium levels for MW-2A, MW-2B, and MW-7A are elevated, but lower than 1997 levels. Calcium levels at these three wells are fairly stable since 2006. Calcium levels at the remaining four wells have remained fairly stable over time.
- Chromium - chromium has decreased since 1997 for all wells that exhibited elevated concentrations in 1997. Most results since 2006 are below the detection limit at all wells.
- Cobalt has not been detected since monitoring resumed in 2006.
- Copper was not detected at any well in 2007, 2008 or 2009.
- Iron levels continue to show an overall decreasing trend. An elevated reading was observed at MW-7A in Q2 of 2009, probably due to high turbidity (the dissolved iron level at MW-7A was below the detection limit).
- Lead has not been detected at any well since Q3 of 2007.
- Magnesium levels have decreased compared to 1997 levels. Since 2006, magnesium levels have been relatively stable.
- Manganese levels have decreased compared to 1997 levels. Since 2006, manganese levels have been relatively stable.
- Potassium levels have decreased compared to 1997 levels. Since 2006, potassium levels have been relatively stable.

- Sodium levels have remained fairly consistent over time.
- Vanadium has not been detected at any well since monitoring resumed in 2006.
- Zinc levels have decreased at all wells compared to 1997 levels, and have remained fairly stable since monitoring resumed in 2006.
- Results for all other metals are similar to or lower than 1997 levels.

4.2.3 Trends for Volatile Organics VOCs

There are 13 different VOCs from the current EPA 8260 Method that have been detected in one or more of the seven monitoring wells. Evaluation of trends focuses on these 13 VOCs. The historical database in Appendix C presents results for these VOCs from 1997 to the present.

VOCs were analyzed in Q2 of 2009, and measured a total of seven times since 1997.

Since 1997, four wells have had no VOC contamination, or had sporadic low level detections. For the other three wells, a few VOCs have been fairly consistently detected at low concentrations since 1997. Below is a summary of VOC trends for each well.

MW-1A – no VOCs were detected in any well in Q2 of 2009, nor in any previous monitoring.

MW-1B – no VOCs were detected in any well in Q2 of 2009. The only previous VOC detected at this well is a suspected artifact of laboratory contamination in 2008.

MW-2A – Chlorobenzene was reported at 3 ug/l in Q2 of 2009, but is “estimated” because it was below the detection limit. VOCs in general have decreased at this well since several were detected at low levels in 1997.

MW-2B – Vinyl chloride (12 ug/l), chloroethane (5.9 ug/l) and cis-1,2-dichloroethene (19 ug/l) were detected in Q2 of 2009. Low level VOC contamination persists at this well.

MW-3A – In Q2 of 2009, acetone, a common laboratory contaminant, was detected at 24 ug/l, and toluene was detected at 82 ug/l. Toluene had not been detected at this well in the past. One or two VOCs have been detected at this well in three of six monitoring events since 1997. There is no apparent pattern to the results.

MW-6B - no VOCs were detected in any well in Q2 of 2009. The only previous VOC detected at this well is a suspected artifact of laboratory contamination in 2008.

MW-7A – Low levels of vinyl chloride, cis-1,2-dichloroethene, and 1,1-dichloroethane persist at this well. There is no significant trend, either up or down.

5.0 Quality Control

Quality control samples and data validation are discussed below.

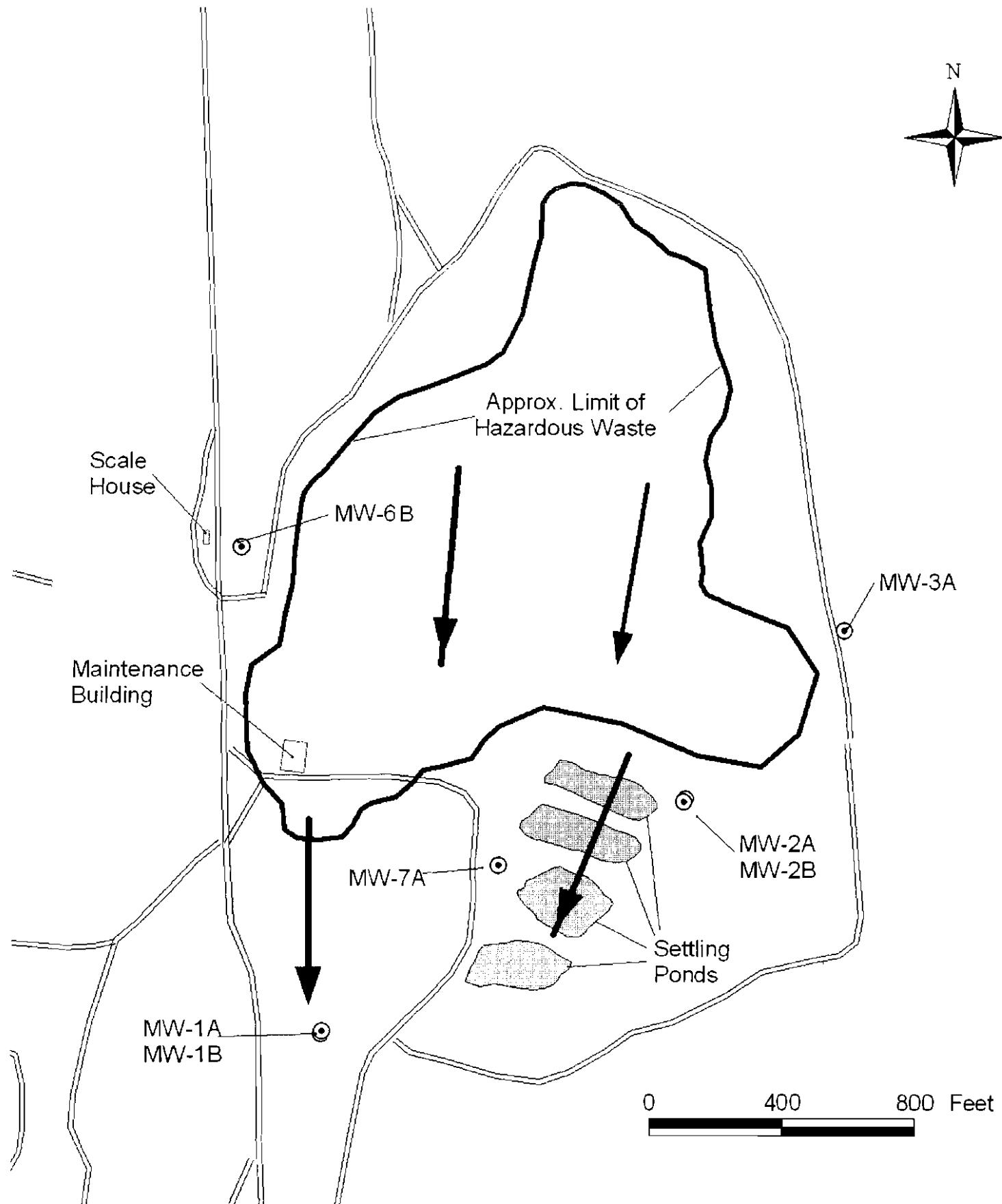
5.1 Quality Control Samples

Duplicate samples were collected for Quarters 1 and 2. Relative Percent Differences (RPDs) were generally less than 20%. The RPD for total iron in Quarter 1 was above 20 percent. The RPDs for total aluminum, iron, manganese and zinc in Quarter 2 were also above 20 percent. These results may be due to differences in the amount of sediment in the split samples, which can greatly affect total metals results.

A trip blank and holding blank associated with VOC testing were analyzed for Quarter 2. All results were below the detection limit.

5.2 Data Validation

Upstate Labs performed internal data validation for the Quarter 1 and 2 analytical data. The results of data validation are summarized in the laboratory reports of Appendix A and B. We believe the Quarter 1 and Quarter 2 data are adequate to characterize groundwater quality downgradient of the Towslee landfill.



↗ Approx. Groundwater
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 2009

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 C)	--		3.6	2.7	3.1	4.9	4.2	6.5	4.2
Eh	(mV)	--		-21	-44	-34	-22	-26	-38	-19
pH	(Std Units)	6.5 - 8.5	a	7.4	7.8	7.63	7.42	7.49	7.7	7.35
Specific Conductance	($\mu\text{S}/\text{cm}$)	--		344	205	601	1135	1069	327	1014
Color	(Units)	15	a, b	--	--	--	--	--	--	--
Turbidity	(NTU)	5	a	2.47	5.6	11	10.9	9.56	40.9	
Alkalinity, Total (As CaCO ₃)	(mg/l)	--		130	92 H	320	650	18	120	500
Hardness (As CaCO ₃)	(mg/l)	--		161	97.1	229	678	38.1	142	496
Total Dissolved Solids	(mg/l)	500	a	256	160	316	372	88	188	748
Chloride	(mg/l)	250	a, b	30.4	2.86 H	13.7	118	1.85	13.3	114
Sulfate	(mg/l)	250	a, b	14	6.37	<5	<5	7.53	13.2	21
Bromide	(mg/l)	2	a	<0.2	<0.2	<2	<0.2	<0.2	<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	0.642	<0.5	<0.5	<0.5	<0.5
Nitrogen, Kjeldahl, Total	(mg/l)	--		<0.5	<0.5	10.3	1.22	<0.5	<0.5	1.92
Chemical Oxygen Demand	(mg/l)	--		<20	<20	<20	<20	<20	<20	<20
Biochemical Oxygen Demand	(mg/l)	--		<4	<4	<4	<4	<4	<4	<4
Organic Carbon, Total	(mg/l)	--		<3	<3	4.8	4.5	<3	<3	5.1
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

[REDACTED] indicates contravention of standard.

H - Exceeded hold time

-- not analyzed

Table 2
Contraventions of NYS Water Quality Standards
for Metals
Towslee Landfill - Quarter 1 2009

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	0.0054	<0.005	<0.005	<0.005	<0.005
Calcium	--		47.2	27.7	66.7	201	12.3	39.6
Chromium	0.05	a	--	--	--	--	--	--
Chrom, Hex	0.05	a	--	--	--	--	--	--
Cobalt	--		--	--	--	--	--	--
Copper	0.2	a	--	--	--	--	--	--
Iron	0.3	a, b	0.818	2.92	7.77	0.466	0.6	0.268
Lead	0.015	b	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	--		10.6	6.76	15.1	42.9	1.82	10.5
Manganese	0.3	a, b	0.0917	0.223	10.7	6.5	0.294	0.0257
Mercury	0.0007	a	--	--	--	--	--	--
Nickel	0.1	a	--	--	--	--	--	--
Potassium	--		1.52	<1	7.48	2.44	<1	1.01
Sodium	20	a, b	13.4	6.37	17.8	49.3	<1	13.1
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

123 indicates contravention of standard.

-- not analyzed

Table 3
Contraventions of NYS Water Quality Standards
for Field and Inorganic Parameters
Towslee Landfill - Quarter 2 2009

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. C)	--	19.6	18.7	16.5	15.5	14.8	14.1	16.0
Eh	(mV)	--	143	139	239	237	359	186	219
pH	(Std Units)	6.5 - 8.5	a	8.09	8.13	8.16	8.16	7.32	6.77
Specific Conductance	(µS/cm)	--	199	124	413	739	187	187	622
Color	(Units)	15	a, b	113	9	65	8	11	80
Turbidity	(NTU)	5	a	24.2	13.2	40.9	4.17	4.55	3.62
Alkalinity, Total (As CaCO ₃)	(mg/l)	--	100 H	100	360	580	160	140	500
Hardness (As CaCO ₃)	(mg/l)	--	163	111	295	782	196	154	534
Total Dissolved Solids	(mg/l)	500	a	180	110	220	130	120	190 H
Chloride	(mg/l)	250	a, b	30.7	4.74	20.5	159	9.25	19.4
Sulfate	(mg/l)	250	a, b	14.3	5.19	<5	<5	11.2	14.2
Bromide	(mg/l)	2	a	<2	<0.2	<2	<0.2	<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
Nitrogen, Ammonia (As N)	(mg/l)	2 *	a	<0.5	<0.5	0.665	<0.5	<0.5	<0.5
Nitrogen, Kjeldahl, Total	(mg/l)	--	<0.5	<0.5	13.5	1.19	<0.5	<0.5	0.851
Chemical Oxygen Demand	(mg/l)	--	<20	<20	31	23	<20	<20	38
Biochemical Oxygen Demand	(mg/l)	--	<4	<4	12	<4	<4	<4	<4
Organic Carbon, Total	(mg/l)	--	<3	<3	7.2	5.5	<3	<3	5.7
Phenolics, Total Recoverable	(mg/l)	0.001	a	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	0.2	a, b	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

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.

H - Exceeded hold time

-- not analyzed

Table 4
Contraventions of NYS Water Quality Standards
for Metals
Towslee Landfill - Quarter 2 2009

Parameter	NYS Water Quality Standard	Total Metals							Dissolved Metals Over-burden
		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	--	1.57	0.255	<0.1	0.235	<0.1	<0.1	9.56	<0.1
Antimony	0.003	a	<0.015	<0.03	<0.03	<0.03	<0.015	<0.03	<0.03
Arsenic	0.025	a	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Barium	1	a	0.0732	0.232	0.471	1.43	0.458	0.404	0.714
Beryllium	0.004	b	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Boron	1	a	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
Cadmium	0.005	a, b	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	--		47	31.4	87.1	237	59.5	42.9	150
Chromium	0.05	a	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chrom, Hex	0.05	a	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
Cobalt	--		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	0.2	a	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron	0.3	a, b	1.65	0.523	8.28	0.464	0.155	0.104	10.1
Lead	0.015	b	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	--		11.1	7.83	18.8	45.9	11.6	11.4	38.7
Manganese	0.3	a, b	0.169	0.25	12.8	6.63	0.164	0.0585	4.21
Mercury	0.0007	a	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	0.1	a	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Potassium	--		1.78	<1	12.4	2.71	<1	1.03	3.58
Sodium	20	a, b	13.9	8.15	23.8	55.4	6.81	17.9	103
Selenium	0.01	a	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Silver	0.05	a	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	0.002	b	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium	--		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Zinc	5	b	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0228

all units are mg/l

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

b - Part 5 Drinking Water MCL

1 2 3 indicates contravention of standard.

-- not analyzed

Table 5
Contraventions of NYS Water Quality Standards
for Organics
Towslee Landfill - Quarter 2 2009

Parameter *	NYS Water Quality Standard	Organics						
		Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden
		MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Vinyl chloride	2 b	< 5	< 5	< 5	12	< 5	< 5	5.7
Chloroethane	5 b	< 5	< 5	< 5	5.9	< 5	< 5	< 5
Acetone	50 b	< 10	< 10	< 10	< 10	24	< 10	< 10
Methylene chloride	5 b	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	5 b	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-Dichloroethene	5 b	< 5	< 5	< 5	19	< 5	< 5	5.4
1,1-Dichloroethane	5 b	< 5	< 5	< 5	< 5	< 5	< 5	5 J
Benzene	1 a	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Toluene	5 b	< 5	< 5	< 5	< 5	82	< 5	< 5
Chlorobenzene	5 b	< 5	< 5	3 J	< 5	< 5	< 5	< 5
Ethylbenzene	5 b	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes, Total	5 b	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,4-Dichlorobenzene	5 b	< 5	< 5	< 5	< 5	< 5	< 5	< 5

all units are ug/l

* List contains only compounds detected in current or past monitoring events

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

b - Part 5 Drinking Water MCL

1.23 indicates contravention of standard.
J - Estimated, below detection limit

Appendix A

Analytical Laboratory Results and Internal Quality Control Summary Quarter 1 2009

Cortland County Towslee Landfill

Upstate Laboratories, Inc.

TOWSLEE Q1 2009

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) 972-0371

Rochester (866) 437-0255 * New Jersey (908) 247-4313

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

May 7, 2009

RE: Analytical Report:
Towslee Landfill

Order No.: U0903258

Dear Mr. Reidy:

Upstate Laboratories, Inc. received 8 samples on 3/12/09 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: ASP-A Narrative, report, field data, invoice

Confidentiality Statement: This report is meant for the use of the intended recipient. It may contain confidential information, which is legally privileged or otherwise protected by law. If you have received this report in error, you are strictly prohibited from reviewing, using, disseminating, distributing or copying the information.

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) 972-0371

Rochester (866) 437-0255 * New Jersey (908) 247-4313

Mr. Patrick Reidy

May 8, 2009

Cortland Co. Soil and Water Cons. Dist.

100 Grange Place

Room 202

Cortland, New York 13045

RE: Towslee Landfill, Cortlandville, New York, Samples Collected March 12, 2009
Case Narrative for ULI SDG Number COR20, Workorder #U0903258

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

<u>Test</u>	<u>Batch</u>	<u>Anomaly</u>
Ca,Cd,Fe,Pb,Mg,Mn,K,Na	R41834	Criteria were satisfied.
Pb	R42027	Criteria were satisfied.

Wet Chemistry

<u>Test</u>	<u>Batch</u>	<u>Anomaly</u>
BOD	R40976	Criteria were satisfied.
Nitrate-Nitrogen	R41074	Criteria were satisfied.
COD	R40959	Criteria were satisfied.
TKN	R41015	Criteria were satisfied.
Bromide	R41102	Criteria were satisfied.
TDS	R40955	Criteria were satisfied.
Sulfate	R41094	Criteria were satisfied.
	R41146	Criteria were satisfied.

The total number of pages in this Data Package is : 4.

Mr. Patrick Reidy
May 8, 2009
Page 2

Wet Chemistry (continued)

<u>Test</u>	<u>Batch</u>	<u>Anomaly</u>
Alkalinity, Total	R40984	Sample locations MW-1B and MW-1B DUPE were reanalyzed for Total Alkalinity in analytical sequence R42122. All other criteria were satisfied.
	R42122	Sample locations MW-1B and MW-1B DUPE were reanalyzed for Total Alkalinity over ASP holding time; however, the original analyses were performed within ASP holding time. All other criteria were satisfied.
Chloride	R40985	Sample locations MW-1B and MW-1B DUPE were reanalyzed for Chloride in analytical sequence R42123. All other criteria were satisfied.
	R42123	Sample locations MW-1B and MW-1B DUPE were reanalyzed for Chloride over ASP holding time; however, the original analyses were performed within ASP holding time. All other criteria were satisfied.
Phenols, Total	R41030	Sample location MW-2B was reanalyzed for Total Phenols in analytical sequence R41180. All other criteria were satisfied.
	R41180	Sample location MW-2B was reanalyzed for Total Phenols within ASP holding time. All other criteria were satisfied.
Ammonia-Nitrogen	R41015	Criteria were satisfied.
	R41058	Criteria were satisfied.
TOC	R40981	The ICV recovery for TOC was above QC acceptance limits. All other criteria were satisfied.

Mr. Patrick Reidy
May 8, 2009
Page 3

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

COR20A

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:

<u>Parameter</u>	<u>Method</u>	<u>Reference</u>
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	353.2	(1)
Alkalinity, Total	310.2	(1)
Chloride	325.2	(1)
COD	410.4	(1)
Ammonia-Nitrogen	350.1	(1)
Sulfate	375.4	(1)
TDS	160.1	(1)
TKN	351.2	(1)
TOC	415.1	(1)
Phenols	420.4	(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.

Analytical Report

Date: 07-May-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-1A
Lab Order: U0903258 **Collection Date:** 3/12/2009 10:31:00 AM
Project: Towslee Landfill
Lab ID: U0903258-001 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
Conductivity	344	1.0		FLD umhos/cm		Analyst: 3/12/2009 10:31:00 AM
Eh	-21	-300		mV		3/12/2009 10:31:00 AM
pH	7.40	6.5-8.5		SU		3/12/2009 10:31:00 AM
Temperature	3.6			degC		3/12/2009 10:31:00 AM
Turbidity	16.7	5.0		NTU		3/12/2009 10:31:00 AM
INORGANIC ANIONS BY IC FOR WATERS						
Bromide	ND	0.20		E300.1 mg/L	1	Analyst: BY 3/19/2009
ICP METALS, TOTAL ASP						
Cadmium	ND	5.00		E200.7 µg/L	(E200.7)	Analyst: LJ 4/23/2009 12:38:23 PM
Calcium	47200	1000				4/23/2009 12:38:23 PM
Iron	818	60.0				4/23/2009 12:38:23 PM
Lead	ND	3.00				4/23/2009 12:38:23 PM
Magnesium	10600	1000				4/23/2009 12:38:23 PM
Manganese	91.7	10.0				4/23/2009 12:38:23 PM
Potassium	1520	1000				4/23/2009 12:38:23 PM
Sodium	13400	1000				4/23/2009 12:38:23 PM
Hardness, Total(CaCO ₃)	161000	7000				4/23/2009 12:38:23 PM
RESIDUE, DISSOLVED (TDS)						
Residue, Dissolved (TDS)	256	25.0		E160.1 mg/L	1	Analyst: BY 3/13/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT						
Alkalinity, Total (As CaCO ₃)	130	10		E310.2 mg/LCaCO ₃	1	Analyst: VAW 3/14/2009
CHLORIDE WATERS BY LACHAT						
Chloride	30.4	1.00		E325.2 mg/L	1	Analyst: VAW 3/14/2009
NITROGEN, AMMONIA (AS NH₃ BY LACHAT)						
Nitrogen, Ammonia (As NH ₃)	ND	0.500		E350.1 mg/L	1	Analyst: KAM 3/17/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT						
Nitrogen, Kjeldahl, Total	ND	0.500		E351.2 mg/L	1	Analyst: KAM 3/17/2009
NITROGEN, NITRATE (AS N)						
Nitrogen, Nitrate (as N)	ND	0.200		E353.2 mg/L	1	Analyst: VAW 3/12/2009 4:05:00 PM
SULFATE						
Sulfate	14.0	5.00		E375.4 mg/L	1	Analyst: KAF 3/23/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)						
Biochemical Oxygen Demand	ND	4.00		E405.1 mg/L	1	Analyst: KAF 3/13/2009 8:00:00 AM

Approved By: PH

Date: 57-09

Page 1 of 16

Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 07-May-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0903258
Project: Towslee Landfill
Lab ID: U0903258-001

Client Sample ID: MW-1A
Collection Date: 3/12/2009 10:31:00 AM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD) Chemical Oxygen Demand	ND	20		E410.4 mg/L	1	Analyst: KAM 3/15/2009
TOTAL ORGANIC CARBON (TOC) Organic Carbon, Total	ND	3.0		E415.1 mg/L	1	Analyst: VAW 3/12/2009
PHENOLICS, TOTAL REC. FOR WATERS Phenolics, Total Recoverable	ND	0.005		E420.4 (E420.4) mg/L	1	Analyst: BY 3/18/2009

Approved By: PH

Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Date: 5-7-09

Page 2 of 16

** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 07-May-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-1B
Lab Order: U0903258 **Collection Date:** 3/12/2009 10:37:00 AM
Project: Towslee Landfill
Lab ID: U0903258-002 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
Conductivity	205	1.0		umhos/cm		Analyst: 3/12/2009 10:37:00 AM
Eh	-44	-300		mV		3/12/2009 10:37:00 AM
pH	7.80	6.5-8.5		SU		3/12/2009 10:37:00 AM
Temperature	2.7			degC		3/12/2009 10:37:00 AM
Turbidity	2.47	5.0		NTU		3/12/2009 10:37:00 AM
INORGANIC ANIONS BY IC FOR WATERS						
Bromide	ND	0.20		E300.1 mg/L	1	Analyst: BY 3/19/2009
ICP METALS, TOTAL ASP						
Cadmium	5.42	5.00		E200.7 µg/L	1	Analyst: LJ 4/23/2009 12:42:56 PM
Calcium	27700	1000		µg/L	1	4/23/2009 12:42:56 PM
Iron	2920	60.0		µg/L	1	4/23/2009 12:42:56 PM
Lead	ND	3.00		µg/L	1	4/23/2009 12:42:56 PM
Magnesium	6760	1000		µg/L	1	4/23/2009 12:42:56 PM
Manganese	223	10.0		µg/L	1	4/23/2009 12:42:56 PM
Potassium	ND	1000		µg/L	1	4/23/2009 12:42:56 PM
Sodium	6370	1000		µg/L	1	4/23/2009 12:42:56 PM
Hardness, Total(CaCO ₃)	97100	7000		µg/L	1	4/23/2009 12:42:56 PM
RESIDUE, DISSOLVED (TDS)						
Residue, Dissolved (TDS)	160	25.0		E160.1 mg/L	1	Analyst: BY 3/13/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT						
Alkalinity, Total (As CaCO ₃)	92	10	H	E310.2 mg/LCaCO ₃	1	Analyst: VAW 5/6/2009
NOTES:						
Sample reanalyzed over holding time. Original analysis within holding time.						
CHLORIDE WATERS BY LACHAT						
Chloride	2.86	1.00	H	E325.2 mg/L	1	Analyst: VAW 5/6/2009
NITROGEN, AMMONIA (AS NH₃ BY LACHAT)						
Nitrogen, Ammonia (As NH ₃)	ND	0.500		E350.1 mg/L	1	Analyst: KAM 3/17/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT						
Nitrogen, Kjeldahl, Total	ND	0.500		E351.2 mg/L	1	Analyst: KAM 3/17/2009
NITROGEN, NITRATE (AS N)						
Nitrogen, Nitrate (as N)	ND	0.200		E353.2 mg/L	1	Analyst: VAW 3/12/2009 4:05:00 PM
SULFATE						
				E375.4		Analyst: KAF

Approved By: PH

Date: 5-7-09

Page 3 of 16

Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 07-May-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. Client Sample ID: MW-1B
Lab Order: U0903258 Collection Date: 3/12/2009 10:37:00 AM
Project: Towslee Landfill
Lab ID: U0903258-002 Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SULFATE Sulfate	6.37	5.00		E375.4 mg/L	1	Analyst: KAF 3/23/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD) Biochemical Oxygen Demand	ND	4.00		E405.1 mg/L	1	Analyst: KAF 3/13/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD) Chemical Oxygen Demand	ND	20		E410.4 mg/L	1	Analyst: KAM 3/15/2009
TOTAL ORGANIC CARBON (TOC) Organic Carbon, Total	ND	3.0		E415.1 mg/L	1	Analyst: VAW 3/12/2009
PHENOLICS, TOTAL REC. FOR WATERS Phenolics, Total Recoverable	ND	0.005		E420.4 (E420.4) mg/L	1	Analyst: BY 3/18/2009

Approved By: PH

Date: 5-7-09

Page 4 of 16

Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 07-May-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-2A
Lab Order: U0903258 **Collection Date:** 3/12/2009 11:20:00 AM
Project: Towslee Landfill
Lab ID: U0903258-003 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
Conductivity	601	1.0		µmhos/cm		3/12/2009 11:20:00 AM
Eh	-34	-300		mV		3/12/2009 11:20:00 AM
pH	7.63	6.5-8.5		SU		3/12/2009 11:20:00 AM
Temperature	3.1			degC		3/12/2009 11:20:00 AM
Turbidity	5.60	5.0		NTU		3/12/2009 11:20:00 AM
INORGANIC ANIONS BY IC FOR WATERS						
Bromide	ND	2.0		mg/L	10	3/19/2009
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP						
Cadmium	ND	5.00		µg/L	1	4/23/2009 12:47:31 PM
Calcium	66700	1000		µg/L	1	4/23/2009 12:47:31 PM
Iron	7770	60.0		µg/L	1	4/23/2009 12:47:31 PM
Lead	ND	3.00		µg/L	1	4/23/2009 12:47:31 PM
Magnesium	15100	1000		µg/L	1	4/23/2009 12:47:31 PM
Manganese	10700	10.0		µg/L	1	4/23/2009 12:47:31 PM
Potassium	7480	1000		µg/L	1	4/23/2009 12:47:31 PM
Sodium	17800	1000		µg/L	1	4/23/2009 12:47:31 PM
Hardness, Total(CaCO ₃)	229000	7000		µg/L	1	4/23/2009 12:47:31 PM
RESIDUE, DISSOLVED (TDS)						
Residue, Dissolved (TDS)	316	25.0		mg/L	1	3/13/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT						
Alkalinity, Total (As CaCO ₃)	320	10		mg/LCaCO ₃	1	3/14/2009
CHLORIDE WATERS BY LACHAT						
Chloride	13.7	1.00		mg/L	1	3/14/2009
NITROGEN, AMMONIA (AS NH₃ BY LACHAT)						
Nitrogen, Ammonia (As NH ₃)	8.43	0.500		mg/L	1	3/19/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT						
Nitrogen, Kjeldahl, Total	10.3	0.500		mg/L	1	3/17/2009
NITROGEN, NITRATE (AS N)						
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	3/12/2009 4:05:00 PM
SULFATE						
Sulfate	ND	5.00		mg/L	1	3/23/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)						
				E405.1		Analyst: KAF

Approved By: PH

Date: 5-7-09

Page 5 of 16

Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 07-May-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0903258
Project: Towslee Landfill
Lab ID: U0903258-003

Client Sample ID: MW-2A
Collection Date: 3/12/2009 11:20:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD) Biochemical Oxygen Demand	ND	4.00		E405.1 mg/L	1	Analyst: KAF 3/13/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD) Chemical Oxygen Demand	ND	20		E410.4 mg/L	1	Analyst: KAM 3/15/2009
TOTAL ORGANIC CARBON (TOC) Organic Carbon, Total	4.8	3.0		E415.1 mg/L	1	Analyst: VAW 3/12/2009
PHENOLICS, TOTAL REC. FOR WATERS Phenolics, Total Recoverable	ND	0.005		E420.4 (E420.4) mg/L	1	Analyst: BY 3/18/2009

Approved By: PH

Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Date: 5-7-09

Page 6 of 16

** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 07-May-09

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	Client Sample ID:	MW-2B
Lab Order:	U0903258	Collection Date:	3/12/2009 11:27:00 AM
Project:	Towslee Landfill		
Lab ID:	U0903258-004	Matrix:	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
Conductivity	1135	1.0	FLD	umhos/cm		Analyst: 3/12/2009 11:27:00 AM
Eh	-22	-300		mV		3/12/2009 11:27:00 AM
pH	7.42	6.5-8.5		SU		3/12/2009 11:27:00 AM
Temperature	4.9			degC		3/12/2009 11:27:00 AM
Turbidity	11.0	5.0		NTU		3/12/2009 11:27:00 AM
INORGANIC ANIONS BY IC FOR WATERS						
Bromide	ND	0.20	E300.1	mg/L	1	Analyst: BY 3/19/2009
ICP METALS, TOTAL ASP						
Cadmium	ND	5.00	E200.7	µg/L	1	Analyst: LJ 4/23/2009 12:52:22 PM
Calcium	201000	1000	(E200.7)	µg/L	1	4/23/2009 12:52:22 PM
Iron	466	60.0		µg/L	1	4/23/2009 12:52:22 PM
Lead	ND	3.00		µg/L	1	4/23/2009 12:52:22 PM
Magnesium	42900	1000		µg/L	1	4/23/2009 12:52:22 PM
Manganese	6500	10.0		µg/L	1	4/23/2009 12:52:22 PM
Potassium	2440	1000		µg/L	1	4/23/2009 12:52:22 PM
Sodium	49300	1000		µg/L	1	4/23/2009 12:52:22 PM
Hardness, Total(CaCO ₃)	678000	7000		µg/L	1	4/23/2009 12:52:22 PM
RESIDUE, DISSOLVED (TDS)						
Residue, Dissolved (TDS)	872	25.0	E160.1	mg/L	1	Analyst: BY 3/13/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT						
Alkalinity, Total (As CaCO ₃)	650	100	E310.2	mg/LCaCO ₃	10	Analyst: VAW 3/14/2009
CHLORIDE WATERS BY LACHAT						
Chloride	118	10.0	E325.2	mg/L	10	Analyst: VAW 3/14/2009
NITROGEN, AMMONIA (AS NH₃ BY LACHAT)						
Nitrogen, Ammonia (As NH ₃)	0.642	0.500	E350.1	mg/L	1	Analyst: BY 3/19/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT						
Nitrogen, Kjeldahl, Total	1.22	0.500	E351.2	mg/L	1	Analyst: KAM 3/17/2009
NITROGEN, NITRATE (AS N)						
Nitrogen, Nitrate (as N)	ND	0.200	E353.2	mg/L	1	Analyst: VAW 3/12/2009 4:05:00 PM
SULFATE						
Sulfate	ND	5.00	E375.4	mg/L	1	Analyst: KAF 3/24/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)						
Biochemical Oxygen Demand	ND	4.00	E405.1	mg/L	1	Analyst: KAF 3/13/2009 8:00:00 AM

Approved By: PH

Date: 5-7-09

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Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 07-May-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0903258
Project: Towslee Landfill
Lab ID: U0903258-004

Client Sample ID: MW-2B
Collection Date: 3/12/2009 11:27:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD) Chemical Oxygen Demand	ND	20		E410.4 mg/L	1	Analyst: KAM 3/15/2009
TOTAL ORGANIC CARBON (TOC) Organic Carbon, Total	4.5	3.0		E415.1 mg/L	1	Analyst: VAW 3/12/2009
PHENOLICS, TOTAL REC. FOR WATERS Phenolics, Total Recoverable	ND	0.005		E420.4 mg/L	(E420.4) 1	Analyst: BY 3/25/2009

Approved By: PH

Date: 5-7-09

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Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 07-May-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-3A
Lab Order: U0903258 **Collection Date:** 3/12/2009 10:04:00 AM
Project: Towslee Landfill
Lab ID: U0903258-005 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
Conductivity	1069	1.0		FLD umhos/cm		Analyst: 3/12/2009 10:04:00 AM
Eh	-26	-300		mV		3/12/2009 10:04:00 AM
pH	7.49	6.5-8.5		SU		3/12/2009 10:04:00 AM
Temperature	4.2			degC		3/12/2009 10:04:00 AM
Turbidity	10.9	5.0		NTU		3/12/2009 10:04:00 AM
INORGANIC ANIONS BY IC FOR WATERS						
Bromide	ND	0.20		E300.1 mg/L	1	Analyst: BY 3/19/2009
ICP METALS, TOTAL ASP						
Cadmium	ND	5.00		E200.7 µg/L	1	Analyst: LJ 4/23/2009 12:57:13 PM
Calcium	12300	1000		µg/L	1	4/23/2009 12:57:13 PM
Iron	600	60.0		µg/L	1	4/23/2009 12:57:13 PM
Lead	ND	3.00		µg/L	1	4/23/2009 12:57:13 PM
Magnesium	1820	1000		µg/L	1	4/23/2009 12:57:13 PM
Manganese	294	10.0		µg/L	1	4/23/2009 12:57:13 PM
Potassium	ND	1000		µg/L	1	4/23/2009 12:57:13 PM
Sodium	ND	1000		µg/L	1	4/23/2009 12:57:13 PM
Hardness, Total(CaCO ₃)	38100	7000		µg/L	1	4/23/2009 12:57:13 PM
RESIDUE, DISSOLVED (TDS)						
Residue, Dissolved (TDS)	88.0	25.0		E160.1 mg/L	1	Analyst: BY 3/13/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT						
Alkalinity, Total (As CaCO ₃)	18	10		E310.2 mg/LCaCO ₃	1	Analyst: VAW 3/14/2009
CHLORIDE WATERS BY LACHAT						
Chloride	1.85	1.00		E325.2 mg/L	1	Analyst: VAW 3/14/2009
NITROGEN, AMMONIA (AS NH₃ BY LACHAT)						
Nitrogen, Ammonia (As NH ₃)	ND	0.500		E350.1 mg/L	1	Analyst: KAM 3/17/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT						
Nitrogen, Kjeldahl, Total	ND	0.500		E351.2 mg/L	1	Analyst: KAM 3/17/2009
NITROGEN, NITRATE (AS N)						
Nitrogen, Nitrate (as N)	ND	0.200		E353.2 mg/L	1	Analyst: VAW 3/12/2009 4:05:00 PM
SULFATE						
Sulfate	7.53	5.00		E375.4 mg/L	1	Analyst: KAF 3/24/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)						
Biochemical Oxygen Demand	ND	4.00		E405.1 mg/L	1	Analyst: KAF 3/13/2009 8:00:00 AM

Approved By: PH

Date: 5-7-09

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Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 07-May-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. Client Sample ID: MW-3A
Lab Order: U0903258 Collection Date: 3/12/2009 10:04:00 AM
Project: Towslee Landfill
Lab ID: U0903258-005 Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD) Chemical Oxygen Demand	ND	20		E410.4 mg/L	1	Analyst: KAM 3/15/2009
TOTAL ORGANIC CARBON (TOC) Organic Carbon, Total	ND	3.0		E415.1 mg/L	1	Analyst: VAW 3/12/2009
PHENOLICS, TOTAL REC. FOR WATERS Phenolics, Total Recoverable	ND	0.005		E420.4 (E420.4) mg/L	1	Analyst: BY 3/18/2009

Approved By: PH

Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Date: 5-7-09

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** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 07-May-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-6B
Lab Order: U0903258 **Collection Date:** 3/12/2009 11:50:00 AM
Project: Towslee Landfill
Lab ID: U0903258-006 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
Conductivity	327	1.0		FLD umhos/cm		3/12/2009 11:50:00 AM
Eh	-38	-300		mV		3/12/2009 11:50:00 AM
pH	7.70	6.5-8.5		SU		3/12/2009 11:50:00 AM
Temperature	6.5			degC		3/12/2009 11:50:00 AM
Turbidity	9.56	5.0		NTU		3/12/2009 11:50:00 AM
INORGANIC ANIONS BY IC FOR WATERS						
Bromide	ND	0.20		E300.1 mg/L	1	Analyst: BY 3/19/2009
ICP METALS, TOTAL ASP						
Cadmium	ND	5.00		E200.7 µg/L	1	Analyst: LJ 4/23/2009 1:01:54 PM
Calcium	39600	1000		(E200.7) µg/L	1	4/23/2009 1:01:54 PM
Iron	268	60.0		µg/L	1	4/23/2009 1:01:54 PM
Lead	ND	3.00		µg/L	1	4/23/2009 1:01:54 PM
Magnesium	10500	1000		µg/L	1	4/23/2009 1:01:54 PM
Manganese	25.7	10.0		µg/L	1	4/23/2009 1:01:54 PM
Potassium	1010	1000		µg/L	1	4/23/2009 1:01:54 PM
Sodium	13100	1000		µg/L	1	4/23/2009 1:01:54 PM
Hardness, Total(CaCO ₃)	142000	7000		µg/L	1	4/23/2009 1:01:54 PM
RESIDUE, DISSOLVED (TDS)						
Residue, Dissolved (TDS)	188	25.0		E160.1 mg/L	1	Analyst: BY 3/13/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT						
Alkalinity, Total (As CaCO ₃)	120	10		E310.2 mg/LCaCO ₃	1	Analyst: VAW 3/14/2009
CHLORIDE WATERS BY LACHAT						
Chloride	13.3	1.00		E325.2 mg/L	1	Analyst: VAW 3/14/2009
NITROGEN, AMMONIA (AS NH₃ BY LACHAT)						
Nitrogen, Ammonia (As NH ₃)	ND	0.500		E350.1 mg/L	1	Analyst: KAM 3/17/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT						
Nitrogen, Kjeldahl, Total	ND	0.500		E351.2 mg/L	1	Analyst: KAM 3/17/2009
NITROGEN, NITRATE (AS N)						
Nitrogen, Nitrate (as N)	ND	0.200		E353.2 mg/L	1	Analyst: VAW 3/12/2009 4:05:00 PM
SULFATE						
Sulfate	13.2	5.00		E375.4 mg/L	1	Analyst: KAF 3/24/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)						
Biochemical Oxygen Demand	ND	4.00		E405.1 mg/L	1	Analyst: KAF 3/13/2009 8:00:00 AM

Approved By: PH

Date: 5-7-09 Page 11 of 16

Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 07-May-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. Client Sample ID: MW-6B
Lab Order: U0903258 Collection Date: 3/12/2009 11:50:00 AM
Project: Towslee Landfill
Lab ID: U0903258-006 Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD) Chemical Oxygen Demand	ND	20		E410.4 mg/L	1	Analyst: KAM 3/15/2009
TOTAL ORGANIC CARBON (TOC) Organic Carbon, Total	ND	3.0		E415.1 mg/L	1	Analyst: VAW 3/12/2009
PHENOLICS, TOTAL REC. FOR WATERS Phenolics, Total Recoverable	ND	0.005		E420.4 mg/L	(E420.4) 1	Analyst: BY 3/18/2009

Approved By: PH

Date: 5-7-09

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Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 07-May-09

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	Client Sample ID:	MW-7A
Lab Order:	U0903258	Collection Date:	3/12/2009 11:00:00 AM
Project:	Towslee Landfill		
Lab ID:	U0903258-007	Matrix:	WATER
Analyses		Result	Limit Qual Units
			DF
			Date Analyzed
FIELD PARAMETERS			
Conductivity	1014	1.0	FLD umhos/cm
Eh	-19	-300	mV
pH	7.35	6.5-8.5	SU
Temperature	4.2		degC
Turbidity	40.9	5.0	NTU
INORGANIC ANIONS BY IC FOR WATERS			
Bromide	ND	0.20	E300.1 mg/L
			1 Analyst: BY
ICP METALS, TOTAL ASP			
Cadmium	ND	5.00	E200.7 µg/L
Calcium	140000	1000	(E200.7) µg/L
Iron	322	60.0	1 Analyst: LJ
Lead	ND	3.00	µg/L
Magnesium	35800	1000	1 4/23/2009 1:24:38 PM
Manganese	4310	10.0	1 4/23/2009 1:24:38 PM
Potassium	1620	1000	1 4/23/2009 1:24:38 PM
Sodium	97000	1000	1 4/23/2009 1:24:38 PM
Hardness, Total(CaCO ₃)	496000	7000	1 4/23/2009 1:24:38 PM
RESIDUE, DISSOLVED (TDS)			
Residue, Dissolved (TDS)	748	25.0	E160.1 mg/L
			1 Analyst: BY
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT			
Alkalinity, Total (As CaCO ₃)	500	10	E310.2 mg/LCaCO ₃
			1 Analyst: VAW
CHLORIDE WATERS BY LACHAT			
Chloride	114	1.00	E325.2 mg/L
			1 Analyst: VAW
NITROGEN, AMMONIA (AS NH₃ BY LACHAT)			
Nitrogen, Ammonia (As NH ₃)	ND	0.500	E350.1 mg/L
			1 Analyst: BY
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT			
Nitrogen, Kjeldahl, Total	1.92	0.500	E351.2 mg/L
			1 Analyst: KAM
NITROGEN, NITRATE (AS N)			
Nitrogen, Nitrate (as N)	ND	0.200	E353.2 mg/L
			1 Analyst: VAW
SULFATE			
Sulfate	21.0	5.00	E375.4 mg/L
			1 Analyst: KAF
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)			
Biochemical Oxygen Demand	ND	4.00	E405.1 mg/L
			1 Analyst: KAF
Approved By: <u>PH</u>		Date: <u>5-7-09</u>	Page 13 of 16
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.**Analytical Report**

Date: 07-May-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.

Client Sample ID: MW-7A

Lab Order: U0903258

Collection Date: 3/12/2009 11:00:00 AM

Project: Towslee Landfill

Lab ID: U0903258-007

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD) Chemical Oxygen Demand	ND	20		E410.4 mg/L	1	Analyst: KAM 3/15/2009
TOTAL ORGANIC CARBON (TOC) Organic Carbon, Total	5.1	3.0		E415.1 mg/L	1	Analyst: VAW 3/12/2009
PHENOLICS, TOTAL REC. FOR WATERS Phenolics, Total Recoverable	ND	0.005		E420.4 mg/L	(E420.4) 1	Analyst: BY 3/18/2009

Approved By: DHDate: 5-7-09

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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.

Analytical Report

Date: 07-May-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0903258
Project: Towslee Landfill
Lab ID: U0903258-008

Client Sample ID: MW-1B Dupe
Collection Date: 3/12/2009 10:37:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS						
Bromide	ND	0.20		E300.1 mg/L	1	Analyst: BY 3/19/2009
ICP METALS, TOTAL ASP						
Cadmium	ND	5.00		E200.7 µg/L	1	Analyst: LJ 4/23/2009 1:29:28 PM
Calcium	26000	1000		(E200.7) µg/L	1	4/23/2009 1:29:28 PM
Iron	198	60.0		µg/L	1	4/23/2009 1:29:28 PM
Lead	ND	3.00		µg/L	1	4/23/2009 1:29:28 PM
Magnesium	6310	1000		µg/L	1	4/23/2009 1:29:28 PM
Manganese	190	10.0		µg/L	1	4/23/2009 1:29:28 PM
Potassium	ND	1000		µg/L	1	4/23/2009 1:29:28 PM
Sodium	6020	1000		µg/L	1	4/23/2009 1:29:28 PM
Hardness, Total(CaCO ₃)	90800	7000		µg/L	1	4/23/2009 1:29:28 PM
RESIDUE, DISSOLVED (TDS)						
Residue, Dissolved (TDS)	184	25.0		E160.1 mg/L	1	Analyst: BY 3/13/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT						
Alkalinity, Total (As CaCO ₃)	82	10	H	E310.2 mg/LCaCO ₃	1	Analyst: VAW 5/6/2009
NOTES: Sample reanalyzed over holding time. Original analysis within holding time.						
CHLORIDE WATERS BY LACHAT						
Chloride	2.69	1.00	H	E325.2 mg/L	1	Analyst: VAW 5/6/2009
NOTES: Sample reanalyzed over holding time. Original analysis within holding time.						
NITROGEN, AMMONIA (AS NH₃ BY LACHAT)						
Nitrogen, Ammonia (As NH ₃)	ND	0.500		E350.1 mg/L	1	Analyst: BY 3/19/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT						
Nitrogen, Kjeldahl, Total	0.919	0.500		E351.2 mg/L	1	Analyst: KAM 3/17/2009
NITROGEN, NITRATE (AS N)						
Nitrogen, Nitrate (as N)	ND	0.200		E353.2 mg/L	1	Analyst: VAW 3/12/2009 4:05:00 PM
SULFATE						
Sulfate	11.0	5.00		E375.4 mg/L	1	Analyst: KAF 3/24/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)						
Biochemical Oxygen Demand	ND	4.00		E405.1 mg/L	1	Analyst: KAF 3/13/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)						
Chemical Oxygen Demand	ND	20		E410.4 mg/L	1	Analyst: KAM 3/15/2009

Approved By: PH

Date: 5-7-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.**Analytical Report**

Date: 07-May-09

CLIENT:	Cortland Co. Soil and Water Cons. Dist.	Client Sample ID:	MW-1B Dupe
Lab Order:	U0903258	Collection Date:	3/12/2009 10:37:00 AM
Project:	Towslee Landfill		
Lab ID:	U0903258-008	Matrix:	WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL ORGANIC CARBON (TOC) Organic Carbon, Total	ND	3.0		E415.1 mg/L	1	Analyst: VAW 3/12/2009
PHENOLICS, TOTAL REC. FOR WATERS Phenolics, Total Recoverable	ND	0.005		E420.4 (E420.4) mg/L	1	Analyst: BY 3/18/2009

Approved By: PHDate: 5-7-09

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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

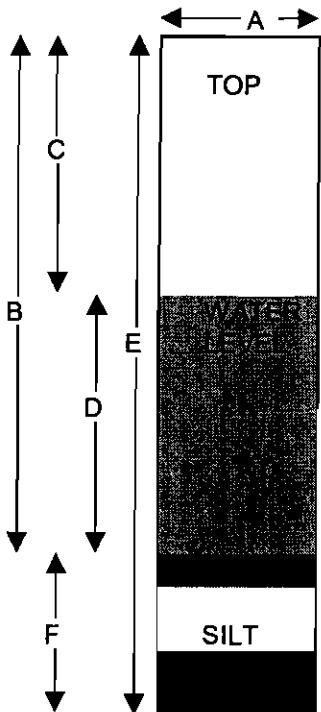
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

Client: **Cortland County**
 Project: **Towslee Landfill**
 Well ID.: **MW-1A**

Condition of Well: Good Locked: YESMethod of Evacuation: Dedicated Bailer Lock ID:Method of Sampling: Dedicated Bailer

- | | | | |
|--------------------------------|-------------------------------------|----------------|---------|
| A. | Diameter of Well | <u>2"</u> | inches |
| B. | Well Depth Measured | <u>33.7</u> | feet |
| C. | Depth to Water | <u>.42</u> | feet |
| D. | Length of Water Column (calculated) | <u>32.28</u> | feet |
| Conversion Factor | | <u>X.16</u> | — |
| Well Volume (calculated) | | <u>5.1648</u> | gallons |
| No. of Volumes to be Evacuated | | <u>X3</u> | — |
| Total Volume to be Evacuated | | <u>15.4944</u> | gallons |
| Actual Volume Evacuated | | <u>15.5</u> | gallons |
| E. | Installed Well Depth (if known) | <u>N/A</u> | feet |
| F. | Depth of Silt (calculated) | <u>N/A</u> | feet |

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>3/11/09</u>	<u>3/12/09</u>
Time	<u>10:35 am</u>	<u>10:31 am</u>
EH	<u>-28</u>	<u>-21</u>
Temperature	<u>7.9°C</u>	<u>3.6°C</u>
pH	<u>7.50</u>	<u>7.40</u>
Specific Cond.	<u>263</u>	<u>344</u>
Turbidity	<u>17.8</u>	<u>16.7</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Slight cloudy</u>	<u>Slight cloudy</u>
Weather:	<u>36° cloudy</u>	<u>25° snow</u>
Observations:		

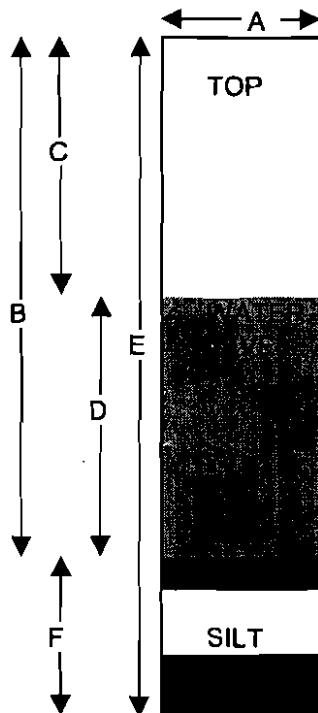
% Recharge:		
Initial Depth to Water	<u>1.42</u>	feet
Recharge Depth to Water	<u>1.33</u>	feet
2nd water column height	<u>1.4.76</u>	%
1st water column height		
Elevation(Top of Casing)	<u>N/A</u>	feet
G.W. Elevation=	<u>N/A</u>	feet
G.W.Elevation =Top of Case Elev-Total Depth		

Sampler:
 Justin Gibson
 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**

Condition of Well: Good Locked: no keysMethod of Evacuation: Dedicated Bailer Lock ID:Method of Sampling: Dedicated Bailer

A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>55.5</u>	feet
C.	Depth to Water	<u>1.58</u>	feet
D.	Length of Water Column (calculated)	<u>53.92</u>	feet
	Conversion Factor	<u>X.16</u>	—
	Well Volume (calculated)	<u>8.6272</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	—
	Total Volume to be Evacuated	<u>25.8816</u>	gallons
	Actual Volume Evacuated	<u>26</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>3/11/01</u>	<u>3/12/01</u>
Time	<u>10:39 am</u>	<u>10:37 AM</u>
EH	<u>-42</u>	<u>-44</u>
Temperature	<u>6.1°C</u>	<u>2.7°C</u>
pH	<u>7.75</u>	<u>7.80</u>
Specific Cond.	<u>213</u>	<u>205</u>
Turbidity	<u>2.21</u>	<u>2.47</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>clear</u>	<u>clear</u>
Weather:	<u>36° cloudy</u>	<u>25° snow</u>
Observations:		<u>Dupe</u>

% Recharge:	
Initial Depth to Water	<u>1.58</u> feet
Recharge Depth to Water	<u>1.47</u> feet
2nd water column height	<u>107.48 %</u>
1st water column height	
Elevation(Top of Casing)	<u>N/A</u> feet
G.W. Elevation=	<u>N/A</u> feet
G.W.Elevation =Top of Case Elev-Total Depth	
Sampler:	
Justin Gibson	
Signature:	<u>Justin Gibson</u>

Upstate Laboratories, Inc. Ground water Field Log

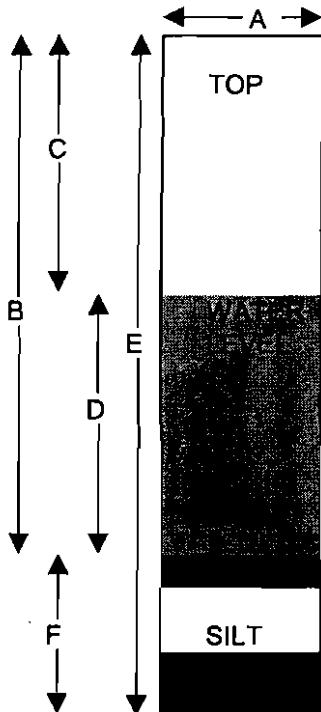
File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**
 Project: **Towslee Landfill**
 Well ID.: **MW-2A**

Condition of Well: Good Locked: YES

Method of Evacuation: Dedicated Bailer Lock ID:

Method of Sampling: Dedicated Bailer



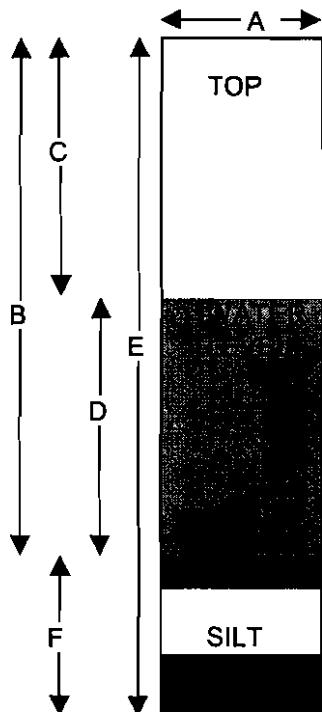
A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>12.8</u>	feet
C.	Depth to Water	<u>5.41</u>	feet
D.	Length of Water Column (calculated)	<u>7.39</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>1.1824</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>3.5472</u>	gallons
	Actual Volume Evacuated	<u>4</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling	% Recharge:
Date	<u>3/11/09</u>	<u>3/12/09</u>	Initial Depth to Water <u>5.41</u> feet
Time	<u>11:25 am</u>	<u>11:20 am</u>	Recharge Depth to Water <u>5.63</u> feet
EH	<u>-13</u>	<u>-34</u>	2nd water column height <u>96.09</u> %
Temperature	<u>6.2°C</u>	<u>3.1°C</u>	1st water column height
pH	<u>7.22</u>	<u>7.63</u>	Elevation(Top of Casing) <u>N/A</u> feet
Specific Cond.	<u>609</u>	<u>601</u>	G.W. Elevation= <u>N/A</u> feet
Turbidity	<u>441.2</u>	<u>5.60</u>	G.W.Elevation =Top of Case Elev-Total Depth
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>	Sampler: <u>Justin Gibson</u>
Appearance	<u>Cloudy</u>	<u>Clear</u>	Signature: <u>Justin Gibson</u>
Weather:	<u>36° cloudy</u>	<u>25° snow</u>	
Observations:			

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**

Condition of Well: Good - lid broken Locked: YESMethod of Evacuation: Dedicated Bailer Lock ID: _____Method of Sampling: Dedicated Bailer

A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>33.5</u>	feet
C.	Depth to Water	<u>6.38</u>	feet
D.	Length of Water Column (calculated)	<u>27.12</u>	feet
	Conversion Factor	<u>X.16</u>	---
	Well Volume (calculated)	<u>4,3392</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	---
	Total Volume to be Evacuated	<u>13,0176</u>	gallons
	Actual Volume Evacuated	<u>13.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>3/11/09</u>	<u>3/12/09</u>
Time	<u>11:29 am</u>	<u>11:27 am</u>
EH	<u>-14</u>	<u>-22</u>
Temperature	<u>61.1°</u>	<u>4.9°</u>
pH	<u>7.26</u>	<u>7.42</u>
Specific Cond.	<u>1021</u>	<u>1135</u>
Turbidity	<u>18.6</u>	<u>11.0</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>St. Cloudy</u>	<u>clear</u>

Weather: 36° cloudy
 Observations: bunge on well lid broken

% Recharge:	
Initial Depth to Water	<u>6.38</u> feet
Recharge Depth to Water	<u>6.58</u> feet
2nd water column height	<u>96.96</u> %
1st water column height	
Elevation(Top of Casing)	<u>N/A</u> feet
G.W. Elevation=	<u>N/A</u> feet
G.W. Elevation =Top of Case Elev-Total Depth	
Sampler:	
Justin Gibson	
Signature:	<u>Justin Gibson</u>

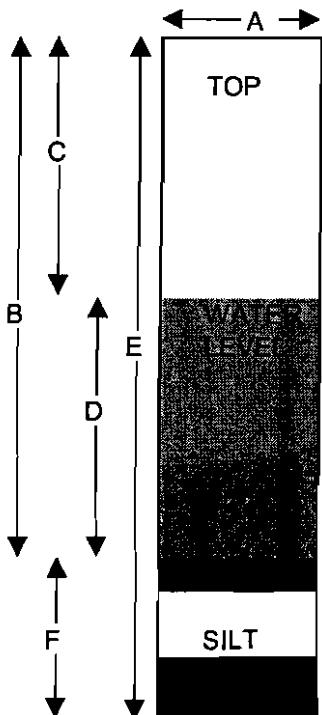
Upstate Laboratories, Inc. Ground water Field Log File: TS-30-01 Revised: 2/10/2001

Client: **Cortland County**
 Project: **Towslee Landfill**
 Well ID.: **MW-3A**

Condition of Well: **Good** Locked: **YES No**

Method of Evacuation: **Dedicated Bailer** Lock ID:

Method of Sampling: **Dedicated Bailer**



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>22.40</u>	feet
C.	Depth to Water	<u>5.81</u>	feet
D.	Length of Water Column (calculated)	<u>16.59</u>	feet
	Conversion Factor	<u>X.16</u>	---
	Well Volume (calculated)	<u>2.6544</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	---
	Total Volume to be Evacuated	<u>7.9632</u>	gallons
	Actual Volume Evacuated	<u>8</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>3/11/09</u>	<u>3/12/09</u>
Time	<u>10:21 am</u>	<u>10:04 am</u>
EH	<u>-64</u>	<u>-26</u>
Temperature	<u>11.0°C</u>	<u>4.2°C</u>
pH	<u>8.14</u>	<u>7.49</u>
Specific Cond.	<u>1544</u>	<u>1060</u>
Turbidity	<u>5.76</u>	<u>10.1</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>clear</u>	<u>clear</u>
Weather:	<u>36° cloudy</u>	<u>25° snow</u>
Observations:		

% Recharge:		
Initial Depth to Water	<u>5.81</u>	feet
Recharge Depth to Water	<u>6.12</u>	feet
2nd water column height	<u>5.94</u>	feet
1st water column height		
Elevation(Top of Casing)	<u>N/A</u>	feet
G.W. Elevation=	<u>N/A</u>	feet
G.W.Elevation =Top of Case Elev-Total Depth		

Sampler:
 Justin Gibson
 Signature: *Justin Gibson*

Upstate Laboratories, Inc. Ground water Field Log

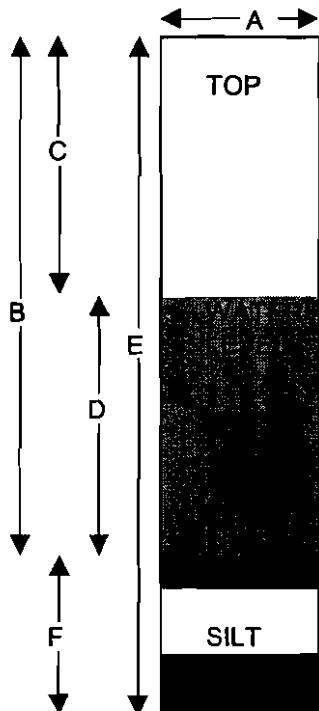
File: TS-30-01 Revised: 2/10/2001

Client: Cortland County
 Project: Towslee Landfill
 Well ID.: MW-6B

Condition of Well: Good Locked: No Yes

Method of Evacuation: Dedicated Bailer Lock ID: _____

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>40.75</u>	feet
C.	Depth to Water	<u>12.09</u>	feet
D.	Length of Water Column (calculated)	<u>28.66</u>	feet
	Conversion Factor	<u>X.16</u>	—
	Well Volume (calculated)	<u>4.5856</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	—
	Total Volume to be Evacuated	<u>13.7568</u>	gallons
	Actual Volume Evacuated	<u>14</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>3/11/09</u>	<u>3/12/09</u>
Time	<u>11:55 am</u>	<u>11:50 am</u>
EH	<u>-17</u>	<u>-38</u>
Temperature	<u>8.8°C</u>	<u>6.5°C</u>
pH	<u>7.30</u>	<u>7.20</u>
Specific Cond.	<u>355</u>	<u>327</u>
Turbidity	<u>5.42</u>	<u>9.56</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Clear</u>	<u>Clear</u>
Weather:	<u>36° cloudy</u>	<u>25° snow</u>
Observations:		

% Recharge:		
Initial Depth to Water	<u>12.09</u>	feet
Recharge Depth to Water	<u>12.23</u>	feet
2nd water column height	<u>98.85</u>	%
1st water column height		
Elevation(Top of Casing)	<u>N/A</u>	feet
G.W. Elevation=	<u>N/A</u>	feet
G.W. Elevation =Top of Case Elev-Total Depth		
Sampler:		
Justin Gibson		
Signature:		
<i>Justin Gibson</i>		

Upstate Laboratories, Inc. Ground water Field Log

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

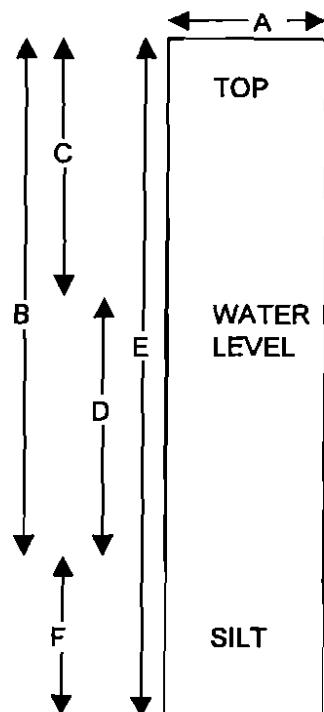
Client: Cortland County
 Project: Towslee Landfill
 Well ID.: MW-7A

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	<u>2"</u>	inches
B.	Well Depth Measured	<u>22.20</u>	feet
C.	Depth to Water	<u>3.23</u>	feet
D.	Length of Water Column (calculated)	<u>18.97</u>	feet
	Conversion Factor	<u>X.16</u>	—
	Well Volume (calculated)	<u>3.0352</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	—
	Total Volume to be Evacuated	<u>9.1056</u>	gallons
	Actual Volume Evacuated	<u>9.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling	% Recharge:
Date	<u>3/11/09</u>	<u>3/12/09</u>	Initial Depth to Water <u>3.23</u> feet
Time	<u>11:07 am</u>	<u>11:00 am</u>	Recharge Depth to Water <u>3.76</u> feet
EH	<u>-2</u>	<u>-19</u>	2nd water column height <u>85.90 %</u>
Temperature	<u>8.8°C</u>	<u>4.2°C</u>	1st water column height
pH	<u>7.05</u>	<u>7.35</u>	Elevation(Top of Casing) <u>N/A</u> feet
Specific Cond.	<u>962</u>	<u>1014</u>	G.W. Elevation= <u>N/A</u> feet
Turbidity	<u>4.62</u>	<u>40.9</u>	G.W.Elevation =Top of Case Elev-Total Depth
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>	Sampler: <u>Justin Gibson</u>
Appearance	<u>clear</u>	<u>cloudy</u>	Signature: <u>Justin Gibson</u>
Weather:	<u>36° cloudy</u>	<u>25° snow</u>	
Observations:			

Upstate Laboratories, Inc.

6034 Corporate Drive E. Syracuse New York 13057

Phone (315) 437 0255

Fax (315) 437-1209

Chain of Custody Record

ULI Computer Input Form

Appendix B

Analytical Laboratory Results and Internal Quality Control Summary Quarter 2 2009

Cortland County Towslee Landfill

Upstate Laboratories, Inc.

6034 Corporate Drive
East Syracuse, New York 13057-1017

Sample Data Summary Package

**Case Narrative, Summary of Test Results, Summary of QC Results and
Chain of Custody Documentation**
Volume 1 of 4

SDG# COR-23

Project:

Towslee Landfill
Cortlandville, New York

Prepared for:

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

Samples Collected:

June 16, 2009
June 17, 2009

New York Lab Code 10170

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY**

**Upstate Laboratories, Inc
6034 Corporate Drive
East Syracuse, New York 13057**

Narrative

1.0 Summary

This report presents the sample test results and quality control results for seven water sample locations for the Towslee Landfill, Cortlandville, New York. The samples were analyzed for the parameters listed in Section 3.0, below.

This report is divided into two packages and four volumes. The Sample Data Summary Package (Volume 1) presents a summary of the test results and quality control data. This abbreviated format is useful to engineers and environmental scientists. The Sample Data Package (Volumes 2-4) is a comprehensive report containing instrument raw data. It is formatted for validation by an independent third party.

2.0 Chain of Custody

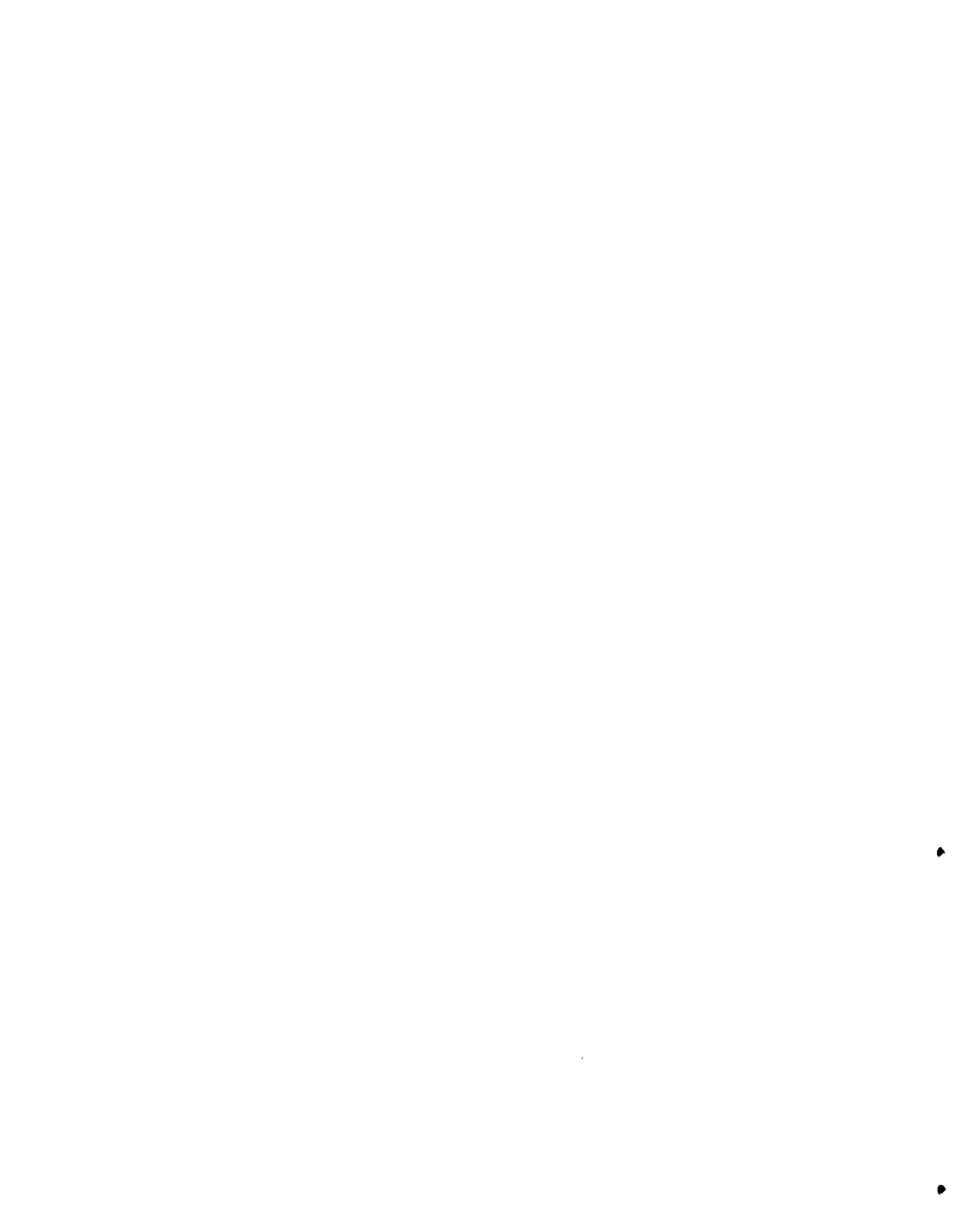
The samples were collected by Upstate Laboratories, Inc. personnel on June 16 and 17, 2009 and were hand delivered to Upstate Laboratories, Inc., Syracuse, New York. The Chain of Custody documentation and Field Data are copied in Volumes 1 & 2.

3.0 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:

<u>Parameter</u>	<u>Method</u>	<u>Reference</u>
Volatile Organics	8260	(1)
Aluminum	200.7	(1)
Antimony	200.7	(1)
Arsenic	200.7	(1)
Barium	200.7	(1)
Beryllium	200.7	(1)
Boron	200.7	(1)
Cadmium	200.7	(1)
Calcium	200.7	(1)
Chromium	200.7	(1)
Cobalt	200.7	(1)
Copper	200.7	(1)
Iron	200.7	(1)
Lead	200.7	(1)
Magnesium	200.7	(1)
Manganese	200.7	(1)
Mercury	245.2	(1)
Nickel	200.7	(1)
Potassium	200.7	(1)
Selenium	200.7	(1)
Silver	200.7	(1)
Sodium	200.7	(1)
Thallium	200.7	(1)
Vanadium	200.7	(1)
Zinc	200.7	(1)

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



Total Alkalinity	310.2	(1)
Ammonia-Nitrogen	350.1	(1)
BOD	405.1	(1)
Chloride	325.2	(1)
COD	410.4	(1)
Color	110.2	(1)
Cyanide	335.4	(1)
Hexavalent Chromium	SM3500	(1)
Nitrate-Nitrogen	353.2	(1)
Phenols	420.4	(1)
Sulfate	375.4	(1)
TDS	160.1	(1)
TKN	351.2	(1)
TOC	415.1	(1)
 Bromide	 300.1	 (1)

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

4.0 Quality Control

Quality control data includes method blanks, reference samples, matrix spikes, duplicates and surrogate recoveries. The association of QC data with sample data is made through the use of the "Run No." found on both the final report pages and the QC summary pages.

5.0 Internal Validation

The following observations are offered:

Volatiles by GC/MS

- Holding Time : Criteria were satisfied.
- Calibration : Several target compounds were manually integrated in the IC and CC. All other criteria were satisfied.
- Method Blank : Criteria were satisfied.
- MSB : Criteria were satisfied.
- MS/MSD : Criteria were satisfied.
- Surrogates : Criteria were satisfied.
- Internal Stds : Criteria were satisfied.

Trace Metals and Cyanide Data

Holding Time	: Criteria were satisfied.
Calibration	: The ICV recovery for Antimony was below QC acceptance limits. The CCV1 and CCV2 recoveries for Antimony and Selenium were above QC acceptance limits. The CCV1 and CCV2 recoveries for Antimony were above QC acceptance limits. The ICV recoveries for Calcium, Magnesium, Potassium, Sodium and Selenium were outside QC acceptance limits. The CCV1 recoveries for Antimony, Arsenic, Potassium and Selenium were outside QC acceptance limits. The CCV2 recoveries for Antimony, Arsenic and Selenium were outside QC acceptance limits. The CCV1 recovery for Mercury was slightly above QC acceptance limits. The initial and final CRDL Standard recoveries for Antimony were above QC acceptance limits. The final CRDL Standard recovery for Arsenic was above QC acceptance limits. The final CRDL Standard recovery for Zinc was above QC acceptance limits. All other criteria were satisfied.
Method Blanks	: Antimony was detected at concentrations above the CRDL in the ICB, CCB1 and CCB2 for analytical sequence R45073. Selenium was detected at a concentration above the CRDL in CCB2 for analytical sequence R45073. Antimony was detected at concentrations above the CRDL in the ICBs for analytical sequences R45180 and R45285. Lead was detected at concentrations above the CRDL in CCB1 and CCB2 for analytical sequence R45180. Aluminum and Iron were detected at concentrations above the PQL but below the CRDL in CCB1 for analytical sequence R45254 and in MB-18395. Lead was detected at a concentration above the CRDL in CCB1 for analytical sequence R45254. CCB3 exhibited a negative result for Mercury for analytical sequence R43837. Arsenic and Selenium were detected at concentrations above the CRDL in CCB1 for analytical sequence R45285. Arsenic, Iron and Selenium were detected at concentrations above the CRDL in CCB2 for analytical sequence R45285. Zinc was detected at a concentration above the PQL but below the CRDL in CCB2 for analytical sequence R45285. All other criteria were satisfied.
Ref Samples	: The LCS recoveries for Antimony were above QC acceptance limits for LCS-18284 and LCS-18395. All other criteria were satisfied.
Matrix Spikes	: The MS recoveries for Antimony, Arsenic and Selenium were above QC acceptance limits for the MS performed on sample location MW-1A. All other criteria were satisfied.
Duplicates	: The Duplicate %RPDs for Aluminum, Antimony, Mercury and Potassium were outside QC acceptance limits for the Duplicate performed on sample location MW-1A. The concentrations of Antimony, Mercury and Potassium in sample location MW-1A were less than 5X the PQL; therefore, the data should be considered valid. All other criteria were satisfied.

Wet Chemistry Data

Holding Time	: Sample locations MW-6B and DUPE MW-6B were reanalyzed for TDS in analytical sequence R45322 over ASP holding time due to inconsistent sample results when compared with past data. The original analysis, however, was performed within ASP holding time. Sample location MW-1A was reanalyzed for Total Alkalinity in analytical sequence R43512 over ASP holding time due to an inconsistent sample result when compared with past data. The original analysis, however, was performed within ASP holding time. All other criteria were satisfied.
Calibration	: The CCV7, CCV10 and ICV recoveries for Total Alkalinity were outside QC acceptance limits for analytical sequence R43319. The CCV10, CCV14 and ICV recoveries for Chloride were outside QC acceptance limits for analytical sequence R43318. The CCV5 recovery for Ammonia was slightly above QC acceptance limits for analytical sequence R43315. All other criteria were satisfied.



TOWSLEE Q2 2009

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) 972-0371
Rochester (866) 437-0255 * New Jersey (908) 247-4313

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

September 10, 2009

RE: Analytical Report:
Towslee Landfill

Order No.: U0906340

Dear Mr. Reidy:

7 + DUPE

Upstate Laboratories, Inc. received 18 samples on 6/17/09 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.

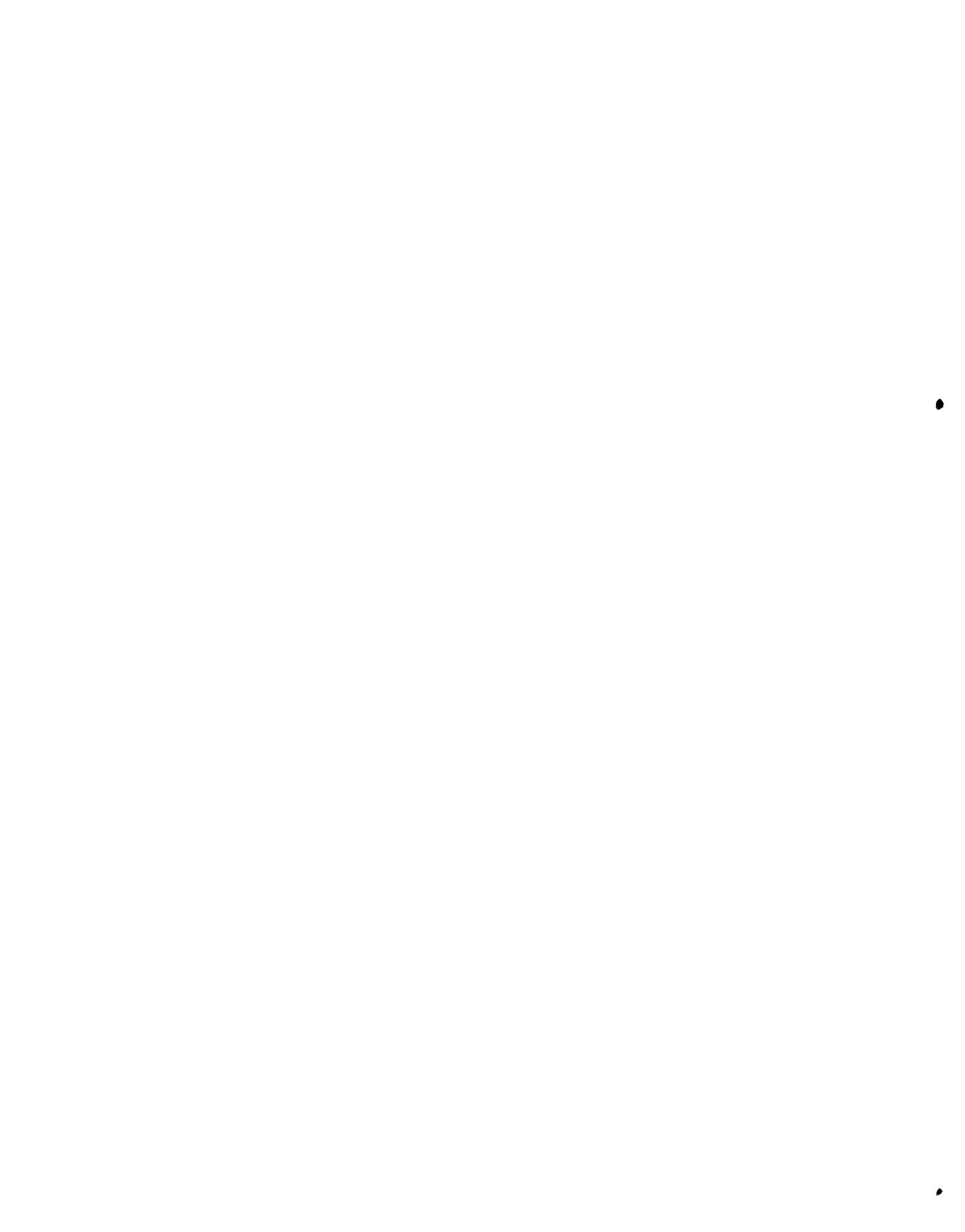
Thank you for your patronage.

Sincerely,
UPSTATE LABORATORIES, INC.

Anthony J. Scala
Anthony J. Scala
President/CEO

Enclosures: ASP-B Pkg. (on disk), report, field data, invoice

Confidentiality Statement: This report is meant for the use of the intended recipient. It may contain confidential information, which is legally privileged or otherwise protected by law. If you have received this report in error, you are strictly prohibited from reviewing, using, disseminating, distributing or copying the information.



Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-001

Client Sample ID: MW-1A
Collection Date: 6/16/2009 1:46:00 PM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOL(S.BASELINE)				SW8260B		Analyst: LEF
Chloromethane	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Vinyl chloride	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Bromomethane	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Chloroethane	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Trichlorofluoromethane	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Acetone	ND	10		µg/L	1	6/25/2009 3:24:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Iodomethane	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Carbon disulfide	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Methylene chloride	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Acrylonitrile	ND	100		µg/L	1	6/25/2009 3:24:00 AM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Vinyl acetate	ND	50		µg/L	1	6/25/2009 3:24:00 AM
2-Butanone	ND	10		µg/L	1	6/25/2009 3:24:00 AM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Chloroform	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Bromochloromethane	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Benzene	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Trichloroethene	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
1,2-Dichloropropane	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Dibromomethane	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/25/2009 3:24:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Toluene	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
2-Hexanone	ND	10		µg/L	1	6/25/2009 3:24:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
1,2-Dibromoethane	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Chlorobenzene	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Ethylbenzene	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
m,p-Xylene	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM

Approved By: PH

Date: 9/10/09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-001

Client Sample ID: MW-1A
Collection Date: 6/16/2009 1:46:00 PM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOL(S.BASELINE)						
o-Xylene	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Styrene	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
Bromoform	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/25/2009 3:24:00 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	6/25/2009 3:24:00 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	6/25/2009 3:24:00 AM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-002

Client Sample ID: MW-1B
Collection Date: 6/16/2009 1:51:00 PM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLs(BASELINE)				SW8260B		Analyst: LEF
Chloromethane	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Vinyl chloride	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Bromomethane	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Chloroethane	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Trichlorofluoromethane	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Acetone	ND	10		µg/L	1	6/25/2009 5:19:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Iodomethane	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Carbon disulfide	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Methylene chloride	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Acrylonitrile	ND	100		µg/L	1	6/25/2009 5:19:00 AM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Vinyl acetate	ND	50		µg/L	1	6/25/2009 5:19:00 AM
2-Butanone	ND	10		µg/L	1	6/25/2009 5:19:00 AM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Chloroform	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Bromochloromethane	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Benzene	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Trichloroethene	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
1,2-Dichloropropane	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Dibromomethane	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/25/2009 5:19:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Toluene	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
2-Hexanone	ND	10		µg/L	1	6/25/2009 5:19:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
1,2-Dibromoethane	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Chlorobenzene	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Ethylbenzene	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
m,p-Xylene	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-002

Client Sample ID: MW-1B
Collection Date: 6/16/2009 1:51:00 PM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLs(BASELINE)				SW8260B		Analyst: LEF
o-Xylene	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Styrene	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
Bromoform	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/25/2009 5:19:00 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	6/25/2009 5:19:00 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	6/25/2009 5:19:00 AM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 9-10-09

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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.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-003

Client Sample ID: MW-2A
Collection Date: 6/16/2009 2:27:00 PM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOL(S.BASELINE)						
Chloromethane	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Vinyl chloride	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Bromomethane	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Chloroethane	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Trichlorofluoromethane	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Acetone	ND	10		µg/L	1	6/25/2009 5:57:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Iodomethane	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Carbon disulfide	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Methylene chloride	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Acrylonitrile	ND	100		µg/L	1	6/25/2009 5:57:00 AM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Vinyl acetate	ND	50		µg/L	1	6/25/2009 5:57:00 AM
2-Butanone	ND	10		µg/L	1	6/25/2009 5:57:00 AM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Chloroform	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Bromochloromethane	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Benzene	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Trichloroethene	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
1,2-Dichloropropane	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Dibromomethane	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/25/2009 5:57:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Toluene	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
2-Hexanone	ND	10		µg/L	1	6/25/2009 5:57:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
1,2-Dibromoethane	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Chlorobenzene	3	5.0	J	µg/L	1	6/25/2009 5:57:00 AM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Ethylbenzene	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
m,p-Xylene	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM

Approved By: PH

Date: 9/10/09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-003

Client Sample ID: MW-2A
Collection Date: 6/16/2009 2:27:00 PM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLs(BASELINE)				SW8260B		Analyst: LEF
o-Xylene	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Styrene	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
Bromoform	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/25/2009 5:57:00 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	6/25/2009 5:57:00 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	6/25/2009 5:57:00 AM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-004

Client Sample ID: MW-2B
Collection Date: 6/16/2009 2:32:00 PM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOL(S.BASELINE)						
Chloromethane	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Vinyl chloride	12	5.0		µg/L	1	6/25/2009 6:08:00 PM
Bromomethane	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Chloroethane	5.9	5.0		µg/L	1	6/25/2009 6:08:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Acetone	ND	10		µg/L	1	6/25/2009 6:08:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Iodomethane	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Carbon disulfide	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Methylene chloride	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Acrylonitrile	ND	100		µg/L	1	6/25/2009 6:08:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Vinyl acetate	ND	50		µg/L	1	6/25/2009 6:08:00 PM
2-Butanone	ND	10		µg/L	1	6/25/2009 6:08:00 PM
cis-1,2-Dichloroethene	19	5.0		µg/L	1	6/25/2009 6:08:00 PM
Chloroform	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Bromochloromethane	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Benzene	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Trichloroethene	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Dibromomethane	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/25/2009 6:08:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Toluene	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
2-Hexanone	ND	10		µg/L	1	6/25/2009 6:08:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Chlorobenzene	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Ethylbenzene	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
m,p-Xylene	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM

Approved By: PH

Date: 9/10/09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-004

Client Sample ID: MW-2B
Collection Date: 6/16/2009 2:32:00 PM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLs(BASELINE)						
o-Xylene	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Styrene	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
Bromoform	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/25/2009 6:08:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	6/25/2009 6:08:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	6/25/2009 6:08:00 PM
TIC: Ethyl ether	5.6	0		µg/L	1	6/25/2009 6:08:00 PM

Approved By: PH

Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Date: 9-10-09

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** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-005

Client Sample ID: MW-3A
Collection Date: 6/16/2009 1:31:00 PM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOL(S.BASELINE)						
Chloromethane	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Vinyl chloride	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Bromomethane	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Chloroethane	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Acetone	24	10		µg/L	1	6/25/2009 6:47:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Iodomethane	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Carbon disulfide	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Methylene chloride	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Acrylonitrile	ND	100		µg/L	1	6/25/2009 6:47:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Vinyl acetate	ND	50		µg/L	1	6/25/2009 6:47:00 PM
2-Butanone	ND	10		µg/L	1	6/25/2009 6:47:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Chloroform	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Bromochloromethane	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Benzene	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Trichloroethene	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Dibromomethane	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/25/2009 6:47:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Toluene	82	5.0		µg/L	1	6/25/2009 6:47:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
2-Hexanone	ND	10		µg/L	1	6/25/2009 6:47:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Chlorobenzene	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Ethylbenzene	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
m,p-Xylene	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-005

Client Sample ID: MW-3A
Collection Date: 6/16/2009 1:31:00 PM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLs(BASELINE)				SW8260B		Analyst: LEF
o-Xylene	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Styrene	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
Bromoform	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/25/2009 6:47:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	6/25/2009 6:47:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	6/25/2009 6:47:00 PM
TIC: 4-Decene, 2-methyl-, (Z)-	4.4	0		µg/L	1	6/25/2009 6:47:00 PM
TIC: 5-Undecene	9.0	0		µg/L	1	6/25/2009 6:47:00 PM
TIC: Disulfide, dimethyl	9.7	0		µg/L	1	6/25/2009 6:47:00 PM

NOTES:

Sample was reanalyzed to confirm positive target compounds.

Vials supplied of sample display quantitative differences.

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-006

Client Sample ID: MW-6B
Collection Date: 6/16/2009 2:49:00 PM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLS(BASELINE)						
Chloromethane	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Vinyl chloride	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Bromomethane	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Chloroethane	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Acetone	ND	10		µg/L	1	6/25/2009 11:58:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Iodomethane	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Carbon disulfide	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Methylene chloride	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Acrylonitrile	ND	100		µg/L	1	6/25/2009 11:58:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Vinyl acetate	ND	50		µg/L	1	6/25/2009 11:58:00 PM
2-Butanone	ND	10		µg/L	1	6/25/2009 11:58:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Chloroform	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Bromochloromethane	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Benzene	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Trichloroethene	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Dibromomethane	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/25/2009 11:58:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Toluene	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
2-Hexanone	ND	10		µg/L	1	6/25/2009 11:58:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Chlorobenzene	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Ethylbenzene	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
m,p-Xylene	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-006

Client Sample ID: MW-6B
Collection Date: 6/16/2009 2:49:00 PM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLs(BASELINE)						
o-Xylene	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Styrene	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
Bromoform	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/25/2009 11:58:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	6/25/2009 11:58:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	6/25/2009 11:58:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-007

Client Sample ID: MW-7A
Collection Date: 6/16/2009 2:13:00 PM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLs(BASELINE)						
Chloromethane	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Vinyl chloride	5.7	5.0		µg/L	1	6/26/2009 12:38:00 AM
Bromomethane	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Chloroethane	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Trichlorofluoromethane	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Acetone	ND	10		µg/L	1	6/26/2009 12:38:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Iodomethane	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Carbon disulfide	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Methylene chloride	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Acrylonitrile	ND	100		µg/L	1	6/26/2009 12:38:00 AM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
1,1-Dichloroethane	5	5.0	J	µg/L	1	6/26/2009 12:38:00 AM
Vinyl acetate	ND	50		µg/L	1	6/26/2009 12:38:00 AM
2-Butanone	ND	10		µg/L	1	6/26/2009 12:38:00 AM
cis-1,2-Dichloroethene	5.4	5.0		µg/L	1	6/26/2009 12:38:00 AM
Chloroform	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Bromochloromethane	ND	5.0		µg/L	1	8/26/2009 12:38:00 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Benzene	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Trichloroethene	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
1,2-Dichloropropane	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Dibromomethane	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/26/2009 12:38:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Toluene	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
2-Hexanone	ND	10		µg/L	1	6/26/2009 12:38:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
1,2-Dibromoethane	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Chlorobenzene	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Ethylbenzene	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
m,p-Xylene	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-007

Client Sample ID: MW-7A
Collection Date: 6/16/2009 2:13:00 PM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLs(BASELINE)				SW8260B		Analyst: LEF
o-Xylene	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Styrene	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
Bromoform	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/26/2009 12:38:00 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	6/26/2009 12:38:00 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	6/26/2009 12:38:00 AM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

Date: 9-10-09

** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

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Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-008

Client Sample ID: ULI Trip Blank
Collection Date: 6/16/2009

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOL(S.BASELINE)						
Chloromethane	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Vinyl chloride	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Bromomethane	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Chloroethane	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Trichlorofluoromethane	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Acetone	ND	10		µg/L	1	6/26/2009 1:17:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Iodomethane	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Carbon disulfide	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Methylene chloride	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Acrylonitrile	ND	100		µg/L	1	6/26/2009 1:17:00 AM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Vinyl acetate	ND	50		µg/L	1	6/26/2009 1:17:00 AM
2-Butanone	ND	10		µg/L	1	6/26/2009 1:17:00 AM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Chloroform	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Bromoform	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Bromochloromethane	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Benzene	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Trichloroethene	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
1,2-Dichloropropane	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Dibromomethane	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/26/2009 1:17:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Toluene	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
2-Hexanone	ND	10		µg/L	1	6/26/2009 1:17:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
1,2-Dibromoethane	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Chlorobenzene	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Ethylbenzene	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
m,p-Xylene	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-008

Client Sample ID: ULI Trip Blank
Collection Date: 6/16/2009
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOL(S.BASELINE)						
o-Xylene	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Styrene	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
Bromoform	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/26/2009 1:17:00 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	6/26/2009 1:17:00 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	6/26/2009 1:17:00 AM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-009

Client Sample ID: Dupe MW-6B
Collection Date: 6/16/2009 2:49:00 PM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOL(S.BASELINE)						
Chloromethane	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Vinyl chloride	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Bromomethane	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Chloroethane	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Trichlorofluoromethane	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Acetone	ND	10		µg/L	1	6/26/2009 1:56:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Iodomethane	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Carbon disulfide	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Methylene chloride	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Acrylonitrile	ND	100		µg/L	1	6/26/2009 1:56:00 AM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Vinyl acetate	ND	50		µg/L	1	6/26/2009 1:56:00 AM
2-Butanone	ND	10		µg/L	1	6/26/2009 1:56:00 AM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Chloroform	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Bromochloromethane	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Benzene	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Trichloroethene	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
1,2-Dichloropropane	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Dibromomethane	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/26/2009 1:56:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Toluene	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
2-Hexanone	ND	10		µg/L	1	6/26/2009 1:56:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
1,2-Dibromoethane	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Chlorobenzene	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Ethylbenzene	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
m,p-Xylene	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-009

Client Sample ID: Dupe MW-6B
Collection Date: 6/16/2009 2:49:00 PM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLs(BASELINE)						
o-Xylene	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Styrene	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
Bromoform	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/26/2009 1:56:00 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	6/26/2009 1:56:00 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	6/26/2009 1:56:00 AM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-010

Client Sample ID: Holding Blank
Collection Date: 6/17/2009 1:05:00 PM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOL(S.BASELINE)						
Chloromethane	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Vinyl chloride	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Bromomethane	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Chloroethane	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Trichlorofluoromethane	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Acetone	ND	10		µg/L	1	6/26/2009 2:34:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Iodomethane	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Carbon disulfide	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Methylene chloride	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Acrylonitrile	ND	100		µg/L	1	6/26/2009 2:34:00 AM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Vinyl acetate	ND	50		µg/L	1	6/26/2009 2:34:00 AM
2-Butanone	ND	10		µg/L	1	6/26/2009 2:34:00 AM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Chloroform	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Bromochloromethane	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Benzene	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Trichloroethene	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
1,2-Dichloropropane	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Dibromomethane	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/26/2009 2:34:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Toluene	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
2-Hexanone	ND	10		µg/L	1	6/26/2009 2:34:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
1,2-Dibromoethane	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Chlorobenzene	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Ethylbenzene	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
m,p-Xylene	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-010

Client Sample ID: Holding Blank
Collection Date: 6/17/2009 1:05:00 PM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLs(BASELINE)						
o-Xylene	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Styrene	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
Bromoform	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/26/2009 2:34:00 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	6/26/2009 2:34:00 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	6/26/2009 2:34:00 AM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-011

Client Sample ID: MW-1A
Collection Date: 6/17/2009 11:44:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
Conductivity	199	1.0		µmhos/cm		6/17/2009 11:44:00 AM
Eh	143	-300		mV		6/17/2009 11:44:00 AM
pH	8.09	6.5-8.5		SU		6/17/2009 11:44:00 AM
SWL	1.09			ft		6/17/2009 11:44:00 AM
Temperature	19.6			degC		6/17/2009 11:44:00 AM
Turbidity	23.4	5.0		NTU		8/17/2009 11:44:00 AM
INORGANIC ANIONS BY IC FOR WATERS						
Bromide	ND	2.0		E300.1 mg/L	10	Analyst: NJS 6/29/2009
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP						
Aluminum	1570	100		E200.7 µg/L	1	Analyst: DEY 9/2/2009 3:49:18 PM
Antimony	ND	15.0			1	8/31/2009 10:07:45 AM
Arsenic	ND	10.0			1	8/31/2009 10:07:45 AM
Barium	73.2	50.0			1	8/31/2009 10:07:45 AM
Beryllium	ND	3.00			1	8/31/2009 10:07:45 AM
Boron	ND	500			1	9/5/2009 10:58:19 AM
Cadmium	ND	5.00			1	8/31/2009 10:07:45 AM
Calcium	47000	1000			1	8/31/2009 10:07:45 AM
Chromium	ND	5.00			1	8/31/2009 10:07:45 AM
Cobalt	ND	20.0			1	8/31/2009 10:07:45 AM
Copper	ND	10.0			1	8/31/2009 10:07:45 AM
Iron	1650	60.0			1	9/2/2009 3:49:18 PM
Lead	ND	3.00			1	9/2/2009 3:49:18 PM
Magnesium	11100	1000			1	8/31/2009 10:07:45 AM
Manganese	169	10.0			1	8/31/2009 10:07:45 AM
Nickel	ND	30.0			1	8/31/2009 10:07:45 AM
Potassium	1780	1000			1	8/31/2009 10:07:45 AM
Selenium	ND	5.00			1	8/31/2009 10:07:45 AM
Silver	ND	10.0			1	8/31/2009 10:07:45 AM
Sodium	13900	1000			1	8/31/2009 10:07:45 AM
Thallium	ND	10.0			1	8/31/2009 10:07:45 AM
Vanadium	ND	30.0			1	8/31/2009 10:07:45 AM
Zinc	ND	10.0			1	8/31/2009 10:07:45 AM
Hardness, Total(CaCO ₃)	163000	7000		µg/L	1	8/31/2009 10:07:45 AM
TOTAL MERCURY WATERS ASP						
Mercury	ND	0.200		E245.2 µg/L	1	Analyst: DEY 7/10/2009 10:59:39 AM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-1A
Lab Order: U0906340 **Collection Date:** 6/17/2009 11:44:00 AM
Project: Towslee Landfill
Lab ID: U0906340-011 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
COLOR				E110.2 UNITS		Analyst: JWK
Color	18.0	10.0			2	6/18/2009 1:00:00 PM
RESIDUE, DISSOLVED (TDS)				E160.1 mg/L		Analyst: KAM
Residue, Dissolved (TDS)	180	25			1	6/17/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				E310.2 mg/LCaCO3		Analyst: VAW
Alkalinity, Total (As CaCO3)	100	10	H		1	7/1/2009
NOTES:	Sample reanalyzed over the holding time; original analysis was within the holding time.					
CHLORIDE WATERS BY LACHAT				E325.2 mg/L		Analyst: VAW
Chloride	30.7	1.00			1	6/24/2009
CYANIDE, TOTAL ASP				E335.4 µg/L	(E335.4)	Analyst: BS
Cyanide	ND	10.0			1	6/24/2009
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				E350.1 mg/L		Analyst: KAM
Nitrogen, Ammonia (As NH3)	ND	0.500			1	6/23/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				E351.2 mg/L		Analyst: KAM
Nitrogen, Kjeldahl, Total	ND	0.500			1	6/23/2009
NITROGEN, NITRATE (AS N)				E353.2 mg/L		Analyst: VAW
Nitrogen, Nitrate (as N)	ND	0.200			1	6/18/2009 1:35:00 PM
SULFATE				E375.4 mg/L		Analyst: KAF
Sulfate	14.3	5.00			1	7/7/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				E405.1 mg/L		Analyst: KAF
Biochemical Oxygen Demand	ND	4.00			1	6/17/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)				E410.4 mg/L		Analyst: KAF
Chemical Oxygen Demand	ND	20			1	6/25/2009
TOTAL ORGANIC CARBON (TOC)				E415.1 mg/L		Analyst: VAW
Organic Carbon, Total	ND	3.0			1	6/19/2009
PHENOLICS, TOTAL REC. FOR WATERS				E420.4 mg/L	(E420.4)	Analyst: BY
Phenolics, Total Recoverable	ND	0.005			1	7/3/2009
HEXAVALENT CHROMIUM BY ASP 2005				SM3500 mg/L		Analyst: BY
Hexavalent chromium	ND	0.010			1	6/17/2009 4:00:00 PM

Approved By: PH

Date: 9/10/09

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Qualifiers: * Low Level
 B Analytic detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-1B
Lab Order: U0906340 **Collection Date:** 6/17/2009 11:52:00 AM
Project: Towslee Landfill
Lab ID: U0906340-012 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
Conductivity	124	1.0		µmhos/cm		6/17/2009 11:52:00 AM
Eh	139	-300		mV		6/17/2009 11:52:00 AM
pH	8.13	6.5-8.5		SU		6/17/2009 11:52:00 AM
SWL	1.10			ft		6/17/2009 11:52:00 AM
Temperature	18.7			degC		6/17/2009 11:52:00 AM
Turbidity	8.20	5.0		NTU		6/17/2009 11:52:00 AM
INORGANIC ANIONS BY IC FOR WATERS						
Bromide	ND	0.20		mg/L	1	6/24/2009
ICP METALS, TOTAL ASP						
Aluminum	255	100		µg/L	1	9/2/2009 4:04:28 PM
Antimony	ND	30.0		µg/L	1	8/31/2009 10:17:09 AM
Arsenic	ND	10.0		µg/L	1	8/31/2009 10:17:09 AM
Barium	232	50.0		µg/L	1	8/31/2009 10:17:09 AM
Beryllium	ND	3.00		µg/L	1	8/31/2009 10:17:09 AM
Boron	ND	500		µg/L	1	9/5/2009 11:06:22 AM
Cadmium	ND	5.00		µg/L	1	8/31/2009 10:17:09 AM
Calcium	31400	1000		µg/L	1	8/31/2009 10:17:09 AM
Chromium	ND	10.0		µg/L	1	8/31/2009 10:17:09 AM
Cobalt	ND	20.0		µg/L	1	8/31/2009 10:17:09 AM
Copper	ND	10.0		µg/L	1	8/31/2009 10:17:09 AM
Iron	523	60.0		µg/L	1	9/2/2009 4:04:28 PM
Lead	ND	3.00		µg/L	1	9/2/2009 4:04:28 PM
Magnesium	7830	1000		µg/L	1	8/31/2009 10:17:09 AM
Manganese	250	10.0		µg/L	1	8/31/2009 10:17:09 AM
Nickel	ND	30.0		µg/L	1	8/31/2009 10:17:09 AM
Potassium	ND	1000		µg/L	1	8/31/2009 10:17:09 AM
Selenium	ND	5.00		µg/L	1	8/31/2009 10:17:09 AM
Silver	ND	10.0		µg/L	1	8/31/2009 10:17:09 AM
Sodium	8150	1000		µg/L	1	8/31/2009 10:17:09 AM
Thallium	ND	10.0		µg/L	1	8/31/2009 10:17:09 AM
Vanadium	ND	30.0		µg/L	1	8/31/2009 10:17:09 AM
Zinc	ND	10.0		µg/L	1	8/31/2009 10:17:09 AM
Hardness, Total(CaCO ₃)	111000	7000		µg/L	1	8/31/2009 10:17:09 AM
TOTAL MERCURY WATERS ASP						
Mercury	ND	0.200		µg/L	1	7/10/2009 11:03:06 AM
COLOR						
Color	9.00	5.00		UNITS	1	6/18/2009 1:00:00 PM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-1B
Lab Order: U0906340 **Collection Date:** 6/17/2009 11:52:00 AM
Project: Towslee Landfill
Lab ID: U0906340-012 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
COLOR				E110.2		Analyst: JWK
RESIDUE, DISSOLVED (TDS) Residue, Dissolved (TDS)	110	25		E160.1 mg/L	1	Analyst: KAM 6/17/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT Alkalinity, Total (As CaCO ₃)	100	10		E310.2 mg/LCaCO ₃	1	Analyst: VAW 6/24/2009
CHLORIDE WATERS BY LACHAT Chloride	4.74	1.00		E325.2 mg/L	1	Analyst: VAW 6/24/2009
CYANIDE, TOTAL ASP Cyanide	ND	10.0		E335.4 µg/L	(E335.4) 1	Analyst: BS 6/24/2009
NITROGEN, AMMONIA (AS NH ₃ BY LACHAT) Nitrogen, Ammonia (As NH ₃)	ND	0.500		E350.1 mg/L	1	Analyst: KAM 6/23/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT Nitrogen, Kjeldahl, Total	ND	0.500		E351.2 mg/L	1	Analyst: KAM 6/23/2009
NITROGEN, NITRATE (AS N) Nitrogen, Nitrate (as N)	ND	0.200		E353.2 mg/L	1	Analyst: VAW 6/18/2009 1:35:00 PM
SULFATE Sulfate	5.19	5.00		E375.4 mg/L	1	Analyst: KAF 7/7/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD) Biochemical Oxygen Demand	NO	4.00		E405.1 mg/L	1	Analyst: KAF 6/19/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD) Chemical Oxygen Demand	ND	20		E410.4 mg/L	1	Analyst: KAF 6/25/2009
TOTAL ORGANIC CARBON (TOC) Organic Carbon, Total	ND	3.0		E415.1 mg/L	1	Analyst: VAW 6/19/2009
PHENOLICS, TOTAL REC. FOR WATERS Phenolics, Total Recoverable	ND	0.005		E420.4 mg/L	(E420.4) 1	Analyst: BY 7/3/2009
HEXAVALENT CHROMIUM BY ASP 2005 Hexavalent chromium	ND	0.010		SM3500 mg/L	1	Analyst: BY 6/17/2009 4:00:00 PM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-013

Client Sample ID: MW-2A
Collection Date: 6/17/2009 12:16:00 PM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
Conductivity	413	1.0		µmhos/cm		6/17/2009 12:16:00 PM
Eh	239	-300		mV		6/17/2009 12:16:00 PM
pH	6.44	6.5-8.5		SU		6/17/2009 12:16:00 PM
SWL	8.41			ft		6/17/2009 12:16:00 PM
Temperature	16.5			degC		6/17/2009 12:16:00 PM
Turbidity	40.9	5.0		NTU		6/17/2009 12:16:00 PM
INORGANIC ANIONS BY IC FOR WATERS						
Bromide	ND	2.0		E300.1 mg/L	10	Analyst: NJS 8/24/2009
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP						
Aluminum	ND	100		E200.7 µg/L	1	Analyst: DEY 9/2/2009 4:09:15 PM
Antimony	ND	30.0			1	8/31/2009 10:21:48 AM
Arsenic	ND	10.0			1	8/31/2009 10:21:48 AM
Barium	471	50.0			1	8/31/2009 10:21:48 AM
Beryllium	ND	3.00			1	8/31/2009 10:21:48 AM
Boron	ND	500			1	9/5/2009 11:09:06 AM
Cadmium	ND	5.00			1	8/31/2009 10:21:48 AM
Calcium	87100	1000			1	8/31/2009 10:21:48 AM
Chromium	ND	10.0			1	8/31/2009 10:21:48 AM
Cobalt	ND	20.0			1	8/31/2009 10:21:48 AM
Copper	ND	10.0			1	8/31/2009 10:21:48 AM
Iron	8280	80.0			1	9/2/2009 4:09:15 PM
Lead	ND	3.00			1	9/2/2009 4:09:15 PM
Magnesium	18800	1000			1	8/31/2009 10:21:48 AM
Manganese	12800	10.0			1	8/31/2009 10:21:48 AM
Nickel	ND	30.0			1	8/31/2009 10:21:48 AM
Potassium	12400	1000			1	8/31/2009 10:21:48 AM
Selenium	ND	5.00			1	8/31/2009 10:21:48 AM
Silver	ND	10.0			1	8/31/2009 10:21:48 AM
Sodium	23800	1000			1	8/31/2009 10:21:48 AM
Thallium	ND	10.0			1	9/2/2009 4:09:15 PM
Vanadium	ND	30.0			1	8/31/2009 10:21:48 AM
Zinc	ND	10.0			1	8/31/2009 10:21:48 AM
Hardness, Total(CaCO ₃)	295000	7000		µg/L	1	8/31/2009 10:21:48 AM
TOTAL MERCURY WATERS ASP						
Mercury	ND	0.200		E245.2 µg/L	(E245.2) 1	Analyst: DEY 7/17/2009 3:00:28 PM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-2A
Lab Order: U0906340 **Collection Date:** 6/17/2009 12:16:00 PM
Project: Towslee Landfill
Lab ID: U0906340-013 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
COLOR Color	65.0	25.0		E110.2 UNITS	5	Analyst: JWK 6/18/2009 1:00:00 PM
RESIDUE, DISSOLVED (TDS) Residue, Dissolved (TDS)	220	25		E160.1 mg/L	1	Analyst: KAM 6/17/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT Alkalinity, Total (As CaCO ₃)	360	10		E310.2 mg/LCaCO ₃	1	Analyst: VAW 6/24/2009
CHLORIDE WATERS BY LACHAT Chloride	20.5	1.00		E325.2 mg/L	1	Analyst: VAW 6/24/2009
CYANIDE, TOTAL ASP Cyanide	ND	10.0		E335.4 µg/L	(E335.4) 1	Analyst: BS 6/24/2009
NITROGEN, AMMONIA (AS NH₃ BY LACHAT) Nitrogen, Ammonia (As NH ₃)	11.8	0.500		E350.1 mg/L	1	Analyst: BY 6/24/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT Nitrogen, Kjeldahl, Total	13.5	0.500		E351.2 mg/L	1	Analyst: KAM 6/23/2009
NITROGEN, NITRATE (AS N) Nitrogen, Nitrate (as N)	ND	0.200		E353.2 mg/L	1	Analyst: VAW 6/18/2009 1:35:00 PM
SULFATE Sulfate	ND	5.00		E375.4 mg/L	1	Analyst: KAF 7/7/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD) Biochemical Oxygen Demand	12.0	4.00		E405.1 mg/L	1	Analyst: KAF 6/19/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD) Chemical Oxygen Demand	31	20		E410.4 mg/L	1	Analyst: KAF 6/25/2009
TOTAL ORGANIC CARBON (TOC) Organic Carbon, Total	7.2	3.0		E415.1 mg/L	1	Analyst: VAW 6/19/2009
PHENOLICS, TOTAL REC. FOR WATERS Phenolics, Total Recoverable	ND	0.005		E420.4 mg/L	(E420.4) 1	Analyst: BY 7/7/2009
HEXAVALENT CHROMIUM BY ASP 2005 Hexavalent chromium	ND	0.010		SM3500 mg/L	1	Analyst: BY 6/17/2009 4:00:00 PM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-2B
Lab Order: U0906340 **Collection Date:** 6/17/2009 12:22:00 PM
Project: Towslee Landfill
Lab ID: U0906340-014 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
Conductivity	739	1.0		µmhos/cm		6/17/2009 12:22:00 PM
Eh	237	-300		mV		6/17/2009 12:22:00 PM
pH	6.43	6.5-8.5		SU		6/17/2009 12:22:00 PM
SWL	7.2			ft		6/17/2009 12:22:00 PM
Temperature	15.5			degC		6/17/2009 12:22:00 PM
Turbidity	4.17	5.0		NTU		6/17/2009 12:22:00 PM
INORGANIC ANIONS BY IC FOR WATERS						
Bromide	ND	0.20		E300.1 mg/L	1	Analyst: NJS 6/24/2009
ICP METALS, TOTAL ASP						
Aluminum	235	100		E200.7 µg/L	(E200.7)	Analyst: DEY 9/2/2009 4:15:21 PM
Antimony	ND	30.0				8/31/2009 10:26:54 AM
Arsenic	ND	10.0				8/31/2009 10:26:54 AM
Barium	1430	50.0				8/31/2009 10:26:54 AM
Beryllium	ND	3.00				8/31/2009 10:26:54 AM
Boron	ND	500				9/5/2009 11:11:50 AM
Cadmium	ND	5.00				8/31/2009 10:26:54 AM
Calcium	237000	1000				8/31/2009 10:26:54 AM
Chromium	ND	10.0				8/31/2009 10:26:54 AM
Cobalt	ND	20.0				8/31/2009 10:26:54 AM
Copper	ND	10.0				8/31/2009 10:26:54 AM
Iron	464	60.0				9/2/2009 4:15:21 PM
Lead	ND	3.00				9/2/2009 4:15:21 PM
Magnesium	45900	1000				8/31/2009 10:26:54 AM
Manganese	6630	10.0				8/31/2009 10:26:54 AM
Nickel	ND	30.0				8/31/2009 10:26:54 AM
Potassium	2710	1000				8/31/2009 10:26:54 AM
Selenium	ND	5.00				8/31/2009 10:26:54 AM
Silver	ND	10.0				8/31/2009 10:26:54 AM
Sodium	55400	1000				8/31/2009 10:26:54 AM
Thallium	ND	10.0				8/31/2009 10:26:54 AM
Vanadium	ND	30.0				8/31/2009 10:26:54 AM
Zinc	ND	10.0				8/31/2009 10:26:54 AM
Hardness, Total(CaCO ₃)	782000	7000		µg/L	1	8/31/2009 10:26:54 AM
TOTAL MERCURY WATERS ASP						
Mercury	ND	0.200		E245.2 µg/L	(E245.2)	Analyst: DEY 7/17/2009 3:01:40 PM
COLOR						
Color	8.00	5.00		E110.2 UNITS	1	Analyst: JWK 6/18/2009 1:00:00 PM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-2B
Lab Order: U0906340 **Collection Date:** 6/17/2009 12:22:00 PM
Project: Towslee Landfill
Lab ID: U0906340-014 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
COLOR				E110.2		Analyst: JWK
RESIDUE, DISSOLVED (TDS)				E160.1		Analyst: KAM
Residue, Dissolved (TDS)	870	25		mg/L	1	6/17/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				E310.2		Analyst: VAW
Alkalinity, Total (As CaCO3)	580	10		mg/LCaCO3	1	6/24/2009
CHLORIDE WATERS BY LACHAT				E325.2		Analyst: VAW
Chloride	159	1.00		mg/L	1	6/24/2009
CYANIDE, TOTAL ASP				E335.4	(E335.4)	Analyst: BS
Cyanide	ND	10.0		µg/L	1	6/24/2009
NITROGEN, AMMONIA (AS NH3 BY LACHAT)				E350.1		Analyst: BY
Nitrogen, Ammonia (As NH3)	0.665	0.500		mg/L	1	6/24/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				E351.2		Analyst: KAM
Nitrogen, Kjeldahl, Total	1.19	0.500		mg/L	1	6/23/2009
NITROGEN, NITRATE (AS N)				E353.2		Analyst: VAW
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	6/18/2009 1:35:00 PM
SULFATE				E375.4		Analyst: KAF
Sulfate	ND	5.00		mg/L	1	7/7/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				E405.1		Analyst: KAF
Biochemical Oxygen Demand	ND	4.00		mg/L	1	6/19/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)				E410.4		Analyst: KAF
Chemical Oxygen Demand	23	20		mg/L	1	6/25/2009
TOTAL ORGANIC CARBON (TOC)				E415.1		Analyst: VAW
Organic Carbon, Total	5.5	3.0		mg/L	1	6/19/2009
PHENOLICS, TOTAL REC. FOR WATERS				E420.4	(E420.4)	Analyst: BY
Phenolics, Total Recoverable	ND	0.005		mg/L	1	7/7/2009
HEXAVALENT CHROMIUM BY ASP 2005				SM3500		Analyst: BY
Hexavalent chromium	ND	0.010		mg/L	1	6/17/2009 4:00:00 PM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-3A
Lab Order: U0906340 **Collection Date:** 6/17/2009 11:27:00 AM
Project: Towslee Landfill
Lab ID: U0906340-015 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
Conductivity	187	1.0		umhos/cm		6/17/2009 11:27:00 AM
Eh	359	-300		mV		6/17/2009 11:27:00 AM
pH	8.16	6.5-8.5		SU		6/17/2009 11:27:00 AM
SWL	8.75			ft		6/17/2009 11:27:00 AM
Temperature	14.8			degC		6/17/2009 11:27:00 AM
Turbidity	4.55	5.0		NTU		6/17/2009 11:27:00 AM
INORGANIC ANIONS BY IC FOR WATERS						
Bromide	ND	0.20		mg/L	1	6/24/2009
ICP METALS, TOTAL ASP						
Aluminum	ND	100		µg/L	1	9/2/2009 4:21:26 PM
Antimony	ND	15.0		µg/L	1	9/2/2009 4:21:26 PM
Arsenic	ND	10.0		µg/L	1	8/31/2009 10:41:37 AM
Barium	458	50.0		µg/L	1	8/31/2009 10:41:37 AM
Beryllium	ND	3.00		µg/L	1	8/31/2009 10:41:37 AM
Boron	ND	500		µg/L	1	9/5/2009 11:14:34 AM
Cadmium	ND	5.00		µg/L	1	8/31/2009 10:41:37 AM
Calcium	59500	1000		µg/L	1	8/31/2009 10:41:37 AM
Chromium	ND	10.0		µg/L	1	8/31/2009 10:41:37 AM
Cobalt	ND	20.0		µg/L	1	8/31/2009 10:41:37 AM
Copper	ND	10.0		µg/L	1	8/31/2009 10:41:37 AM
Iron	155	60.0		µg/L	1	9/2/2009 4:21:26 PM
Lead	ND	3.00		µg/L	1	9/2/2009 4:21:26 PM
Magnesium	11600	1000		µg/L	1	8/31/2009 10:41:37 AM
Manganese	164	10.0		µg/L	1	8/31/2009 10:41:37 AM
Nickel	ND	30.0		µg/L	1	8/31/2009 10:41:37 AM
Potassium	ND	1000		µg/L	1	8/31/2009 10:41:37 AM
Selenium	ND	5.00		µg/L	1	8/31/2009 10:41:37 AM
Silver	ND	10.0		µg/L	1	8/31/2009 10:41:37 AM
Sodium	6810	1000		µg/L	1	8/31/2009 10:41:37 AM
Thallium	ND	10.0		µg/L	1	8/31/2009 10:41:37 AM
Vanadium	ND	30.0		µg/L	1	8/31/2009 10:41:37 AM
Zinc	ND	10.0		µg/L	1	8/31/2009 10:41:37 AM
Hardness, Total(CaCO ₃)	196000	7000		µg/L	1	8/31/2009 10:41:37 AM
TOTAL MERCURY WATERS ASP						
Mercury	ND	0.200		µg/L	1	7/17/2009 3:02:41 PM
COLOR						
Color	7.00	5.00		UNITS	1	6/18/2009 1:00:00 PM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-3A
Lab Order: U0906340 **Collection Date:** 6/17/2009 11:27:00 AM
Project: Towslee Landfill
Lab ID: U0906340-015 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
COLOR				E110.2		Analyst: JWK
RESIDUE, DISSOLVED (TDS)				E160.1		Analyst: KAM
Residue, Dissolved (TDS)	120	25		mg/L	1	6/17/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT				E310.2		Analyst: VAW
Alkalinity, Total (As CaCO ₃)	160	10		mg/L CaCO ₃	1	6/24/2009
CHLORIDE WATERS BY LACHAT				E325.2		Analyst: VAW
Chloride	9.25	1.00		mg/L	1	6/24/2009
CYANIDE, TOTAL ASP				E335.4	(E335.4)	Analyst: BS
Cyanide	ND	10.0		µg/L	1	6/24/2009
NITROGEN, AMMONIA (AS NH ₃ BY LACHAT)				E350.1		Analyst: KAM
Nitrogen, Ammonia (As NH ₃)	ND	0.500		mg/L	1	6/23/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT				E351.2		Analyst: KAM
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	6/23/2009
NITROGEN, NITRATE (AS N)				E353.2		Analyst: VAW
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	6/18/2009 1:35:00 PM
SULFATE				E375.4		Analyst: KAF
Sulfate	11.2	5.00		mg/L	1	7/7/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)				E405.1		Analyst: KAF
Biochemical Oxygen Demand	ND	4.00		mg/L	1	6/17/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)				E410.4		Analyst: KAF
Chemical Oxygen Demand	ND	20		mg/L	1	6/25/2009
TOTAL ORGANIC CARBON (TOC)				E415.1		Analyst: VAW
Organic Carbon, Total	ND	3.0		mg/L	1	6/19/2009
PHENOLICS, TOTAL REC. FOR WATERS				E420.4	(E420.4)	Analyst: BY
Phenolics, Total Recoverable	ND	0.005		mg/L	1	7/3/2009
HEXAVALENT CHROMIUM BY ASP 2005				SM3500		Analyst: BY
Hexavalent chromium	ND	0.010		mg/L	1	6/17/2009 4:00:00 PM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-6B
Lab Order: U0906340 **Collection Date:** 6/17/2009 12:36:00 PM
Project: Towslee Landfill
Lab ID: U0906340-016 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
Conductivity	187	1.0		umhos/cm		6/17/2009 12:36:00 PM
Eh	186	-300		mV		6/17/2009 12:36:00 PM
pH	7.32	6.5-8.5		SU		6/17/2009 12:36:00 PM
SWL	14.71			ft		6/17/2009 12:36:00 PM
Temperature	14.1			degC		6/17/2009 12:36:00 PM
Turbidity	3.62	5.0		NTU		6/17/2009 12:36:00 PM
INORGANIC ANIONS BY IC FOR WATERS						
Bromide	ND	2.0		E300.1 mg/L	10	Analyst: NJS 6/29/2009
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP						
Aluminum	ND	100		E200.7 µg/L	(E200.7)	Analyst: DEY 9/2/2009 4:25:54 PM
Antimony	ND	30.0			1	8/31/2009 10:46:19 AM
Arsenic	ND	10.0			1	8/31/2009 10:46:19 AM
Barium	404	50.0			1	8/31/2009 10:46:19 AM
Beryllium	ND	3.00			1	8/31/2009 10:46:19 AM
Boron	ND	500			1	9/5/2009 11:17:19 AM
Cadmium	ND	5.00			1	8/31/2009 10:46:19 AM
Calcium	42900	1000			1	8/31/2009 10:46:19 AM
Chromium	ND	10.0			1	8/31/2009 10:46:19 AM
Cobalt	ND	20.0			1	8/31/2009 10:46:19 AM
Copper	ND	10.0			1	8/31/2009 10:46:19 AM
Iron	104	60.0			1	9/2/2009 4:25:54 PM
Lead	ND	3.00			1	9/2/2009 4:25:54 PM
Magnesium	11400	1000			1	8/31/2009 10:46:19 AM
Manganese	58.5	10.0			1	8/31/2009 10:46:19 AM
Nickel	ND	30.0			1	8/31/2009 10:46:19 AM
Potassium	1030	1000			1	8/31/2009 10:46:19 AM
Selenium	ND	5.00			1	8/31/2009 10:46:19 AM
Silver	ND	10.0			1	8/31/2009 10:46:19 AM
Sodium	17900	1000			1	8/31/2009 10:46:19 AM
Thallium	ND	10.0			1	8/31/2009 10:46:19 AM
Vanadium	ND	30.0			1	8/31/2009 10:46:19 AM
Zinc	ND	10.0			1	8/31/2009 10:46:19 AM
Hardness, Total(CaCO ₃)	154000	7000			1	8/31/2009 10:46:19 AM
TOTAL MERCURY WATERS ASP						
Mercury	ND	0.200		E245.2 µg/L	(E245.2)	Analyst: DEY 7/10/2009 11:07:27 AM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-016

Client Sample ID: MW-6B
Collection Date: 6/17/2009 12:36:00 PM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
COLOR Color	11.0	5.00		E110.2 UNITS	1	Analyst: JWK 6/18/2009 1:00:00 PM
RESIDUE, DISSOLVED (TDS) Residue, Dissolved (TDS)	190	25	H	E160.1 mg/L	1	Analyst: TCB 9/9/2009
NOTES: Sample reanalyzed over holding time. Original analysis within holding time.						
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT Alkalinity, Total (As CaCO ₃)	140	10		E310.2 mg/LCaCO ₃	1	Analyst: VAW 6/24/2009
CHLORIDE WATERS BY LACHAT Chloride	19.4	1.00		E325.2 mg/L	1	Analyst: VAW 6/24/2009
CYANIDE, TOTAL ASP Cyanide	ND	10.0		E335.4 µg/L	(E335.4) 1	Analyst: BS 6/24/2009
NITROGEN, AMMONIA (AS NH₃ BY LACHAT) Nitrogen, Ammonia (As NH ₃)	ND	0.500		E350.1 mg/L	1	Analyst: KAM 6/23/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT Nitrogen, Kjeldahl, Total	ND	0.500		E351.2 mg/L	1	Analyst: KAM 6/23/2009
NITROGEN, NITRATE (AS N) Nitrogen, Nitrate (as N)	ND	0.200		E353.2 mg/L	1	Analyst: VAW 6/18/2009 1:35:00 PM
SULFATE Sulfate	14.2	5.00		E375.4 mg/L	1	Analyst: KAF 7/7/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD) Biochemical Oxygen Demand	ND	4.00		E405.1 mg/L	1	Analyst: KAF 6/19/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD) Chemical Oxygen Demand	ND	20		E410.4 mg/L	1	Analyst: KAF 6/25/2009
TOTAL ORGANIC CARBON (TOC) Organic Carbon, Total	ND	3.0		E415.1 mg/L	1	Analyst: VAW 6/19/2009
PHENOLICS, TOTAL REC. FOR WATERS Phenolics, Total Recoverable	ND	0.005		E420.4 mg/L	(E420.4) 1	Analyst: BY 7/3/2009
HEXAVALENT CHROMIUM BY ASP 2005 Hexavalent chromium	ND	0.010		SM3500 mg/L	1	Analyst: BY 6/17/2009 4:00:00 PM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U0906340
Project: Towslee Landfill
Lab ID: U0906340-017

Client Sample ID: MW-7A
Collection Date: 6/17/2009 12:10:00 PM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
Conductivity	622	1.0		umhos/cm		6/17/2009 12:10:00 PM
Eh	219	-300		mV		6/17/2009 12:10:00 PM
pH	6.77	6.5-8.5		SU		6/17/2009 12:10:00 PM
SWL	4.11			ft		6/17/2009 12:10:00 PM
Temperature	16.0			degC		6/17/2009 12:10:00 PM
Turbidity	375	5.0		NTU		6/17/2009 12:10:00 PM
INORGANIC ANIONS BY IC FOR WATERS						
Bromide	ND	0.20		mg/L	1	6/24/2009
ICP METALS, TOTAL ASP						
Aluminum	9560	100		µg/L	1	9/2/2009 4:30:34 PM
Antimony	ND	30.0		µg/L	1	8/31/2009 10:50:59 AM
Arsenic	ND	10.0		µg/L	1	8/31/2009 10:50:59 AM
Barium	714	50.0		µg/L	1	8/31/2009 10:50:59 AM
Beryllium	ND	3.00		µg/L	1	8/31/2009 10:50:59 AM
Boron	ND	500		µg/L	1	9/5/2009 11:20:08 AM
Cadmium	ND	5.00		µg/L	1	8/31/2009 10:50:59 AM
Calcium	150000	1000		µg/L	1	8/31/2009 10:50:59 AM
Chromium	ND	10.0		µg/L	1	8/31/2009 10:50:59 AM
Cobalt	ND	20.0		µg/L	1	8/31/2009 10:50:59 AM
Copper	ND	10.0		µg/L	1	8/31/2009 10:50:59 AM
Iron	10100	60.0		µg/L	1	9/2/2009 4:30:34 PM
Lead	ND	3.00		µg/L	1	9/2/2009 4:30:34 PM
Magnesium	38700	1000		µg/L	1	8/31/2009 10:50:59 AM
Manganese	4210	10.0		µg/L	1	8/31/2009 10:50:59 AM
Nickel	ND	30.0		µg/L	1	8/31/2009 10:50:59 AM
Potassium	3580	1000		µg/L	1	8/31/2009 10:50:59 AM
Selenium	ND	5.00		µg/L	1	8/31/2009 10:50:59 AM
Silver	ND	10.0		µg/L	1	8/31/2009 10:50:59 AM
Sodium	103000	1000		µg/L	1	8/31/2009 10:50:59 AM
Thallium	ND	10.0		µg/L	1	8/31/2009 10:50:59 AM
Vanadium	ND	30.0		µg/L	1	8/31/2009 10:50:59 AM
Zinc	29.7	10.0		µg/L	1	8/31/2009 10:50:59 AM
Hardness, Total(CaCO ₃)	534000	7000		µg/L	1	8/31/2009 10:50:59 AM
TOTAL MERCURY WATERS ASP						
Mercury	ND	0.200		µg/L	1	7/10/2009 11:10:29 AM
ICP METALS, DISSOLVED ASP						
Aluminum	ND	100		µg/L	1	9/2/2009 3:43:35 PM

Approved By: PH

Date: 9/10/09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-7A
Lab Order: U0906340 **Collection Date:** 6/17/2009 12:10:00 PM
Project: Towslee Landfill
Lab ID: U0906340-017 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED ASP						
Antimony	ND	30.0		µg/L	1	8/31/2009 9:43:43 AM
Arsenic	ND	10.0		µg/L	1	8/31/2009 9:43:43 AM
Barium	599	50.0		µg/L	1	8/31/2009 9:43:43 AM
Beryllium	ND	3.00		µg/L	1	8/31/2009 9:43:43 AM
Cadmium	ND	5.00		µg/L	1	8/31/2009 9:43:43 AM
Calcium	140000	1000		µg/L	1	8/31/2009 9:43:43 AM
Chromium	ND	10.0		µg/L	1	8/31/2009 9:43:43 AM
Cobalt	ND	20.0		µg/L	1	8/31/2009 9:43:43 AM
Copper	ND	10.0		µg/L	1	8/31/2009 9:43:43 AM
Iron	ND	60.0		µg/L	1	9/2/2009 3:43:35 PM
Lead	ND	3.00		µg/L	1	9/2/2009 3:43:35 PM
Magnesium	34100	1000		µg/L	1	8/31/2009 9:43:43 AM
Manganese	3780	10.0		µg/L	1	8/31/2009 9:43:43 AM
Nickel	ND	30.0		µg/L	1	8/31/2009 9:43:43 AM
Potassium	1820	1000		µg/L	1	8/31/2009 9:43:43 AM
Selenium	ND	5.00		µg/L	1	8/31/2009 9:43:43 AM
Silver	ND	10.0		µg/L	1	8/31/2009 9:43:43 AM
Sodium	97200	1000		µg/L	1	8/31/2009 9:43:43 AM
Thallium	ND	10.0		µg/L	1	9/2/2009 3:43:35 PM
Vanadium	ND	30.0		µg/L	1	8/31/2009 9:43:43 AM
Zinc	22.8	10.0		µg/L	1	8/31/2009 9:43:43 AM
DISSOLVED MERCURY WATERS ASP						
Mercury	ND	0.200		µg/L	1	7/17/2009 2:59:15 PM
COLOR						
Color	80.0	50.0		UNITS	10	6/18/2009 1:00:00 PM
RESIDUE, DISSOLVED (TDS)						
Residue, Dissolved (TDS)	720	25		mg/L	1	6/17/2009
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT						
Alkalinity, Total (As CaCO ₃)	500	10		mg/LCaCO ₃	1	6/24/2009
CHLORIDE WATERS BY LACHAT						
Chloride	128	1.00		mg/L	1	6/24/2009
CYANIDE, TOTAL ASP						
Cyanide	ND	10.0		µg/L	1	6/24/2009
NITROGEN, AMMONIA (AS NH₃ BY LACHAT)						
Nitrogen, Ammonia (As NH ₃)	ND	0.500		mg/L	1	6/24/2009

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
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E Value above quantitation range
J Analyte detected below quantitation limits
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-7A
Lab Order: U0906340 **Collection Date:** 6/17/2009 12:10:00 PM
Project: Towslee Landfill
Lab ID: U0906340-017 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT Nitrogen, Kjeldahl, Total	0.851	0.500		E351.2 mg/L	1	Analyst: KAM 6/23/2009
NITROGEN, NITRATE (AS N) Nitrogen, Nitrate (as N)	ND	0.200		E353.2 mg/L	1	Analyst: VAW 6/18/2009 1:35:00 PM
SULFATE Sulfate	22.3	5.00		E375.4 mg/L	1	Analyst: KAF 7/7/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD) Biochemical Oxygen Demand	ND	4.00		E405.1 mg/L	1	Analyst: KAF 6/17/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD) Chemical Oxygen Demand	38	20		E410.4 mg/L	1	Analyst: KAF 6/25/2009
TOTAL ORGANIC CARBON (TOC) Organic Carbon, Total	5.7	3.0		E415.1 mg/L	1	Analyst: VAW 6/19/2009
PHENOLICS, TOTAL REC. FOR WATERS Phenolics, Total Recoverable	ND	0.005		E420.4 mg/L	(E420.4) 1	Analyst: BY 7/3/2009
HEXAVALENT CHROMIUM BY ASP 2005 Hexavalent chromium	ND	0.010		SM3500 mg/L	1	Analyst: BY 6/17/2009 4:00:00 PM

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
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** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** Dupe MW-6B
Lab Order: U0906340 **Collection Date:** 6/17/2009 12:36:00 PM
Project: Towslee Landfill
Lab ID: U0906340-018 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS BY IC FOR WATERS						
Bromide	ND	2.0		E300.1 mg/L	10	6/29/2009
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL ASP						
Aluminum	310	100		E200.7 µg/L	1	8/31/2009 4:47:25 PM
Antimony	ND	30.0		(E200.7) µg/L	1	9/2/2009 4:47:25 PM
Arsenic	ND	10.0			1	8/31/2009 10:55:55 AM
Barium	397	50.0			1	8/31/2009 10:55:55 AM
Beryllium	ND	3.00			1	8/31/2009 10:55:55 AM
Boron	ND	500			1	8/31/2009 10:55:55 AM
Cadmium	ND	5.00			1	8/31/2009 10:55:55 AM
Calcium	42200	1000			1	8/31/2009 10:55:55 AM
Chromium	ND	5.00			1	8/31/2009 10:55:55 AM
Cobalt	ND	20.0			1	8/31/2009 10:55:55 AM
Copper	ND	10.0			1	8/31/2009 10:55:55 AM
Iron	215	60.0			1	8/31/2009 10:55:55 AM
Lead	ND	3.00			1	8/31/2009 10:55:55 AM
Magnesium	11100	1000			1	8/31/2009 10:55:55 AM
Manganese	74.9	10.0			1	8/31/2009 10:55:55 AM
Nickel	ND	30.0			1	8/31/2009 10:55:55 AM
Potassium	1040	1000			1	8/31/2009 10:55:55 AM
Selenium	ND	5.00			1	8/31/2009 10:55:55 AM
Silver	ND	10.0			1	8/31/2009 10:55:55 AM
Sodium	18000	1000			1	8/31/2009 10:55:55 AM
Thallium	ND	10.0			1	8/31/2009 10:55:55 AM
Vanadium	ND	30.0			1	8/31/2009 10:55:55 AM
Zinc	108	10.0			1	8/31/2009 10:55:55 AM
Hardness, Total(CaCO ₃)	151000	7000			1	8/31/2009 10:55:55 AM
TOTAL MERCURY WATERS ASP						
Mercury	ND	0.200		E245.2 µg/L	1	7/10/2009 11:11:37 AM
COLOR						
Color	7.00	5.00		E110.2 UNITS	1	6/18/2009 1:00:00 PM
RESIDUE, DISSOLVED (TDS)						
Residue, Dissolved (TDS)	180	25	H	E160.1 mg/L	1	9/9/2009
NOTES: Sample reanalyzed over holding time. Original analysis within holding time.						

Approved By: PH

Date: 9-10-09

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Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 10-Sep-09

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** Dupe MW-6B
Lab Order: U0906340 **Collection Date:** 6/17/2009 12:36:00 PM
Project: Towslee Landfill
Lab ID: U0906340-018 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ALKALINITY ON AQUEOUS SAMPLES BY LACHAT						
Alkalinity, Total (As CaCO ₃)	130	10		E310.2 mg/L CaCO ₃	1	6/24/2009
CHLORIDE WATERS BY LACHAT						
Chloride	19.7	1.00		E325.2 mg/L	1	6/24/2009
CYANIDE, TOTAL ASP						
Cyanide	ND	10.0		E335.4 µg/L	(E335.4) 1	Analyst: BS 6/24/2009
NITROGEN, AMMONIA (AS NH₃ BY LACHAT)						
Nitrogen, Ammonia (As NH ₃)	ND	0.500		E350.1 mg/L	1	Analyst: KAM 6/23/2009
NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT						
Nitrogen, Kjeldahl, Total	ND	0.500		E351.2 mg/L	1	Analyst: KAM 6/23/2009
NITROGEN, NITRATE (AS N)						
Nitrogen, Nitrate (as N)	ND	0.200		E353.2 mg/L	1	Analyst: VAW 6/18/2009 1:35:00 PM
SULFATE						
Sulfate	12.4	5.00		E375.4 mg/L	1	Analyst: KAF 7/7/2009
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)						
Biochemical Oxygen Demand	ND	4.00		E405.1 mg/L	1	Analyst: KAF 6/17/2009 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)						
Chemical Oxygen Demand	ND	20		E410.4 mg/L	1	Analyst: KAF 6/25/2009
TOTAL ORGANIC CARBON (TOC)						
Organic Carbon, Total	ND	3.0		E415.1 mg/L	1	Analyst: VAW 6/19/2009
PHENOLICS, TOTAL REC. FOR WATERS						
Phenolics, Total Recoverable	ND	0.005		E420.4 mg/L	(E420.4) 1	Analyst: BY 7/3/2009
HEXAVALENT CHROMIUM BY ASP 2005						
Hexavalent chromium	ND	0.010		SM3500 mg/L	1	Analyst: BY 6/17/2009 4:00:00 PM

Approved By: PH

Qualifiers: * Low Level
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit

Date: 9-10-09

** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 S Spike Recovery outside accepted recovery limits

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Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

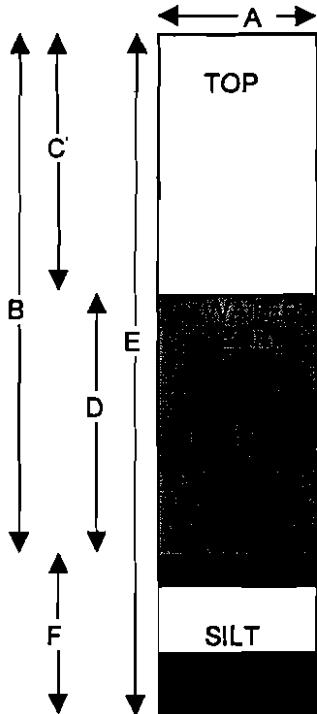
Revised: 2/10/2001

Client: Cortland County
 Project: Towslee Landfill
 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 | <u>2"</u> | inches |
| B. Well Depth Measured | <u>33.7</u> | feet |
| C. Depth to Water | <u>1.09</u> | feet |
| D. Length of Water Column (calculated) | <u>32.61</u> | feet |
| Conversion Factor | <u>X.16</u> | — |
| Well Volume (calculated) | <u>5.2176</u> | gallons |
| No. of Volumes to be Evacuated | <u>X3</u> | — |
| Total Volume to be Evacuated | <u>15.6528</u> | gallons |
| Actual Volume Evacuated | <u>16</u> | gallons |
| E. Installed Well Depth (if known) | <u>N/A</u> | feet |
| F. Depth of Silt (calculated) | <u>N/A</u> | feet |

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>6/16/09</u>	<u>6/17/09</u>
Time	<u>11:46</u>	<u>11:44 am</u>
EH	<u>201</u>	<u>143</u>
Temperature	<u>13.8 °C</u>	<u>19.6 °C</u>
pH	<u>8.58</u>	<u>8.09</u>
Specific Cond.	<u>207</u>	<u>199</u>
Turbidity	<u>7.62</u>	<u>23.4</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Clear</u>	<u>Cloudy</u>
Weather:	<u>69° Sun</u>	<u>52° Cloudy</u>
Observations:	<u>MSD</u>	

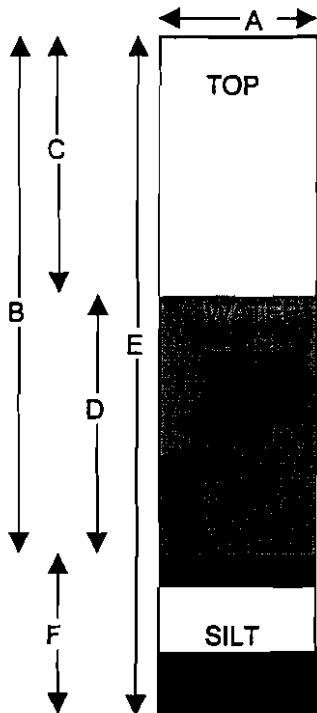
% Recharge:		
Initial Depth to Water	<u>1.09</u>	feet
Recharge Depth to Water	<u>1.93</u>	feet
2nd water column height	<u>56.48</u>	%
1st water column height		
Elevation(Top of Casing)	<u>N/A</u>	feet
G.W. Elevation=	<u>N/A</u>	feet
G.W.Elevation =Top of Case Elev-Total Depth		
Sampler:		
Justin Gibson -	<u>Don Averell</u>	
Signature:	<u>Don Averell</u>	

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

Condition of Well: Good Locked: NO
 Method of Evacuation: Dedicated Bailer Lock ID:
 Method of Sampling: Dedicated Baler



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>55.5</u>	feet
C.	Depth to Water	<u>1.10</u>	feet
D.	Length of Water Column (calculated)	<u>54.4</u>	feet
Conversion Factor		<u>X.16</u>	—
Well Volume (calculated)		<u>8.704</u>	gallons
No. of Volumes to be Evacuated		<u>X3</u>	—
Total Volume to be Evacuated		<u>26.112</u>	gallons
Actual Volume Evacuated		<u>26.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>6/16/09</u>	<u>6/17/09</u>
Time	<u>1:51</u>	<u>11:52 am</u>
EH	<u>131</u>	<u>139</u>
Temperature	<u>17.8 °C</u>	<u>19.8 °C</u> <u>18.5 °C</u>
pH	<u>8.85</u>	<u>7.97</u> <u>8.13</u>
Specific Cond.	<u>107</u>	<u>124</u>
Turbidity	<u>2.11</u>	<u>8.20</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Clear</u>	<u>Clear</u>
Weather:	<u>69° Sun</u>	<u>52° Cloudy</u>
Observations:		

% Recharge:		
Initial Depth to Water	<u>1.10</u>	feet
Recharge Depth to Water	<u>1.12</u>	feet
2nd water column height	<u>98.21</u>	%
1st water column height		
Elevation(Top of Casing)	<u>N/A</u>	feet
G.W. Elevation=	<u>N/A</u>	feet
G.W.Elevation =Top of Case Elav-Total Depth		
Sampler:	<u>Justin Gibson - Dan Auneil</u>	
Signature:	<u>Dan Auneil</u>	

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

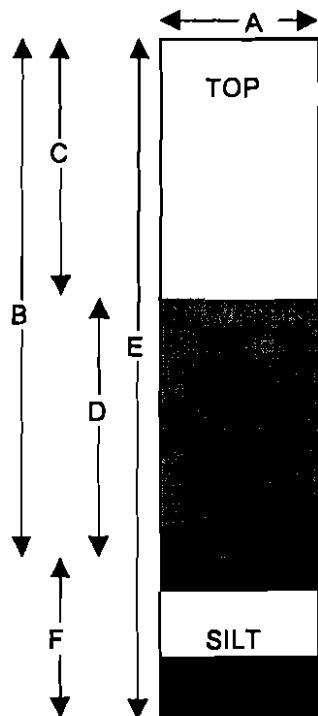
Revised: 2/10/2001

Client: Cortland County
 Project: Towslee Landfill
 Well ID.: MW-2A

Condition of Well: Good Locked: YES

Method of Evacuation: Dedicated Bailer Lock ID: _____

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>12.8</u>	feet
C.	Depth to Water	<u>6.41</u>	feet
D.	Length of Water Column (calculated)	<u>6.39</u>	feet
	Conversion Factor	<u>X.16</u>	—
	Well Volume (calculated)	<u>1.0224</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	—
	Total Volume to be Evacuated	<u>3.0672</u>	gallons
	Actual Volume Evacuated	<u>3</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>6/16/09</u>	<u>6/17/09</u>
Time	<u>2:27 pm</u>	<u>12:16 pm</u>
EH	<u>233</u>	<u>239</u>
Temperature	<u>13.1°C</u>	<u>16.5°</u>
pH	<u>6.51</u>	<u>6.44</u>
Specific Cond.	<u>360</u>	<u>413</u>
Turbidity	<u>27.1</u>	<u>40.4</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Cloudy</u>	<u>Cloudy</u>
Weather:	<u>67° Sun</u>	<u>59° Cloudy</u>
Observations:		

% Recharge:

Initial Depth to Water 6.41 feet

Recharge Depth to Water 6.42 feet

2nd water column height 99.84 %

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

Sampler:

Justin Gibson - Dan Amrell

Signature:

Dan Amrell

Upstate Laboratories, Inc. Ground water Field Log

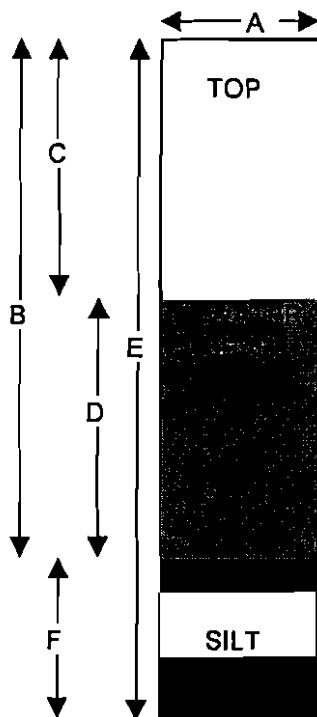
File: TS-30-01 Revised: 2/10/2001

Client: Cortland County
 Project: Towslee Landfill
 Well ID.: MW-2B

Condition of Well: Good Locked: YES

Method of Evacuation: Dedicated Bailer Lock ID: _____

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>33.5</u>	feet
C.	Depth to Water	<u>17.2</u>	feet
D.	Length of Water Column (calculated)	<u>26.3</u>	feet
	Conversion Factor	<u>X.16</u>	—
	Well Volume (calculated)	<u>4.208</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	—
	Total Volume to be Evacuated	<u>12.624</u>	gallons
	Actual Volume Evacuated	<u>13</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>6/16/09</u>	<u>6/17/09</u>
Time	<u>2:32 pm</u>	<u>12:22 pm</u>
EH	<u>233</u>	<u>237</u>
Temperature	<u>11.2°C</u>	<u>15.5°C</u>
pH	<u>6.45</u>	<u>6.43</u>
Specific Cond.	<u>730</u>	<u>739</u>
Turbidity	<u>2.01</u>	<u>4.17</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Clear</u>	<u>Clear</u>
Weather:	<u>69° Sun</u>	<u>58° Cloudy</u>
Observations:		

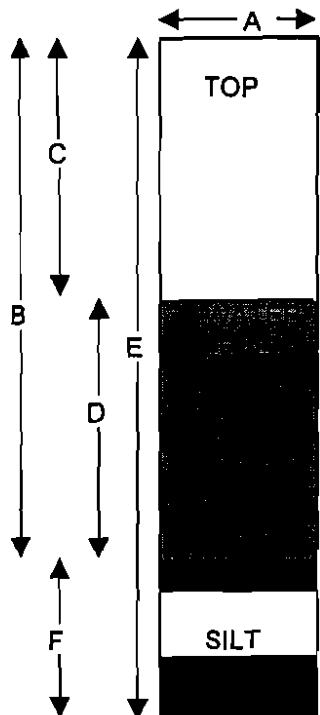
% Recharge:	
Initial Depth to Water	<u>17.2</u> feet
Recharge Depth to Water	<u>17.2</u> feet
2nd water column height	<u>100.00</u> %
1st water column height	
Elevation(Top of Casing)	<u>N/A</u> feet
G.W. Elevation=	<u>N/A</u> feet
G.W.Elevation =Top of Case Elev-Total Depth	
Sampler:	
Justin Gibson	- Dan Aunell
Signature:	<u>Dan Aunell</u>

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

Condition of Well: Good Locked: YESMethod of Evacuation: Dedicated Bailer Lock ID:Method of Sampling: Dedicated Bailer

A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>22.40</u>	feet
C.	Depth to Water	<u>8.75</u>	feet
D.	Length of Water Column (calculated)	<u>13.65</u>	feet
	Conversion Factor	<u>X.16</u>	—
	Well Volume (calculated)	<u>2.184</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	—
	Total Volume to be Evacuated	<u>6.552</u>	gallons
	Actual Volume Evacuated	<u>6.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements Initial Evacuation

Date 6/16/09
 Time 1:31 pm
 EH 219
 Temperature 13.3°C
 pH 6.75
 Specific Cond. 210
 Turbidity 5.8d
 Dissolved Oxygen N/A
 Appearance Clear
 Weather: 69° Sun
 Observations:

Final Sampling

6/17/09
1:31pm
359
14.8°C
8.16
197
4.55
N/A
Clear
52° Cloudy

% Recharge:

Initial Depth to Water 8.75 feet
 Recharge Depth to Water 9.82 feet
 2nd water column height 89.10 %
 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

Sampler: Justin Gibson
 Signature: Don Arnell
Don Arnell

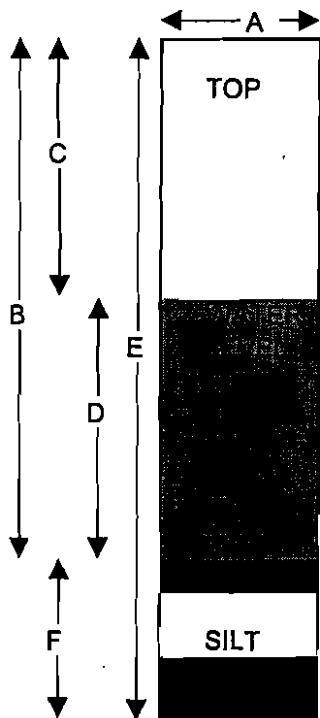
Upstate Laboratories, Inc. Ground water Field Log File: TS-30-01 Revised: 2/10/2001

Client: Cortland County
 Project: Towslee Landfill
 Well ID.: MW-6B

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	14.71	feet
D.	Length of Water Column (calculated)	26.04	feet
	Conversion Factor	X.16	—
	Well Volume (calculated)	4.1664	gallons
	No. of Volumes to be Evacuated	X3	—
	Total Volume to be Evacuated	12.4992	gallons
	Actual Volume Evacuated	12.5	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	6/16/09	6/17/09
Time	2:49 pm	12:36 pm
EH	171	186
Temperature	10.4°C	14.1°C
pH	7.24	7.32
Specific Cond.	166	187
Turbidity	19.2	3.62
Dissolved Oxygen	N/A	N/A
Appearance	SI Cloudy	Clear
Weather:	69° Sun	54° Cloudy
Observations:	Dupe	

% Recharge:		
Initial Depth to Water	14.71	feet
Recharge Depth to Water	14.86	feet
2nd water column height	98.99	%
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		
Sampler:	Justin Gibson - Dan Arnell	
Signature:	Dan Arnell	

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

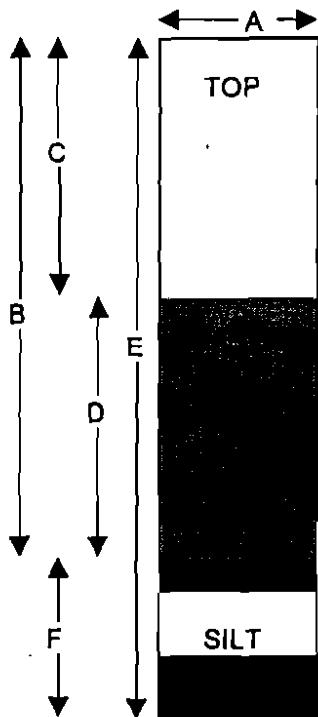
Revised: 2/10/2001

Client: Cortland County
 Project: Towslee Landfill
 Well ID.: MW-7A

Condition of Well: Good Locked: YES

Method of Evacuation: Dedicated Bailer Lock ID: _____

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>22.20</u>	feet
C.	Depth to Water	<u>4.11</u>	feet
D.	Length of Water Column (calculated)	<u>18.09</u>	feet
	Conversion Factor	<u>X.16</u>	—
	Well Volume (calculated)	<u>2.8944</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	—
	Total Volume to be Evacuated	<u>8.6832</u>	gallons
	Actual Volume Evacuated	<u>9</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>6/16/09</u>	<u>6/17/09</u>
Time	<u>2:03 pm</u>	<u>12:10 pm</u>
EH	<u>227</u>	<u>219</u>
Temperature	<u>11.7°C</u>	<u>16.0°C</u>
pH	<u>6.58</u>	<u>6.77</u>
Specific Cond.	<u>G30</u>	<u>G22</u>
Turbidity	<u>7.34</u>	<u>375</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Clear</u>	<u>Very Cloudy</u>
Weather:	<u>29° Sun</u>	<u>54° Cloudy</u>
Observations:	<u>Dissolved Metals Taken</u>	

% Recharge:	
Initial Depth to Water	<u>4.11</u> feet
Recharge Depth to Water	<u>4.39</u> feet
2nd water column height	<u>93.62 %</u>
1st water column height	
Elevation(Top of Casing)	<u>N/A</u> feet
G.W. Elevation=	<u>N/A</u> feet
G.W.Elevation =Top of Case Elev-Total Depth	
Sampler:	
Justin Gibson -	<u>Don Aumell</u>
Signature:	<u>Don Aumell</u>

Upstate Laboratories, Inc.

**6034 Corporate Drive E. Syracuse New York 13057
Phone (315) 437 0255**

Chain of Custody Record

ULI Computer Input Form

Client

Fax (315) 437-1209

Client		Project # / Project Name												Remarks					
CORTLAND COUNTY		TOWSLEE LANDFILL																	
Client Contact		Phone #	Location (city/state) Address																
PATRICK REIDY		607-753-0851	CORTLANDVILLE, NY																
Sample ID		Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only	Number of Containers	1	2	3	4	5	6	7	8	9	10	93 REGS ASP-B	
MW-1A		6/16/09	1:46	WATER	GRAB	U0901034D	3	X										MSD	
MW-1B		6/16/09	1:51pm	WATER	GRAB	U0901034D	2	X											
MW-2A		6/16/09	2:27pm	WATER	GRAB	U0901034D	2	X											
MW-2B		6/16/09	2:32pm	WATER	GRAB	U0901034D	2	X											
MW-3A		6/16/09	1:31pm	WATER	GRAB	U0901034D	2	X											
MW-6B		6/16/09	2:49pm	WATER	GRAB	U0901034D	2	X											
MW-7A		6/16/09	2:13pm	WATER	GRAB	U0901034D	2	X											
ULI TRIP BLANK		(6/16/09)	(Water)	(Grab)	U0901034D	1	X												
Expansion Wells		PMH 6/16/09																	
17A		6/16/09	11:59am	Water	Grab	U0901034D	2	X											
17B		6/16/09	11:53am	Water	Grab	U0901034D	2	X											
Dup. MW - 6B (Holding Blank)		6/16/09	2:49pm	Water	Grab	U0901034D	2	X											
		(6/17/09)	(1305)	(Water)	(Grab)	U0901034D	1	X											
Parameter and Method		Sample bottle:	Type	Size	Preservative	Sampled by (Print) <i>Don Amell</i>										Name of Courier			
1	EPA 8260 BASELINE LIST		GLASS	40 ML	1:1 HCL														
2						Company: <i>ULI</i>													
3						Relinquished by:(sign)										Date	Time	Received by: (sign)	
4																			
5						Relinquished by:(sign)										Date	Time	Received by: (sign)	
6																			
7						Relinquished by:(sign)										Date	Time	Received by: (sign)	
8																			
9						Relinquished by:(sign)										Date	Time	Rec'd for Lab by:	
10																<i>Don Amell</i>	<i>6/16/09 4pm</i>	<i>th Crump</i>	
Syracuse		Rochester		Buffalo		Albany		Binghamton		Fair Lawn (NJ)									

Upstate Laboratories, Inc.

Chain of Custody Record

6034 Corporate Drive E. Syracuse New York 13057

(315) 437 0255

Fax 437 1209

Client:

CORTLAND COUNTY

Project #/ Project Name

TOWSLEE LANDFILL

Client Contact:

PATRICK REIDY

Phone #

607-753-0851

Location (city/state) Address

CORTLANDVILLE, NY

No. of Conta
iners

1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	ULI Computer Info	Remarks
----	----	----	----	----	----	----	----	----	-----	-------------------	---------

ULI Internal Use Only U0906340 93 REGS ASP- B

MW-1A	6/17/09	11:44am	WATER	GRAB	11	7	X	X	X	X	X	X	X	MSD
MW-1B	6/17/09	11:52am	WATER	GRAB	12	7	X	X	X	X	X	X	X	
MW-2A	6/17/09	12:16pm	WATER	GRAB	13	7	X	X	X	X	X	X	X	
MW-2B	6/17/09	12:22pm	WATER	GRAB	14	7	X	X	X	X	X	X	X	
MW-3A	6/17/09	11:27am	WATER	GRAB	15	7	X	X	X	X	X	X	X	
MW-6B	6/17/09	12:36pm	WATER	GRAB	16	7	X	X	X	X	X	X	X	
MW-7A	6/17/09	12:10pm	WATER	GRAB	17	8	X	X	X	X	X	X	X	
Dupe MW-6B	6/17/09	12:36pm	Water Grab		18	7	X	X	X	X	X	X	X	

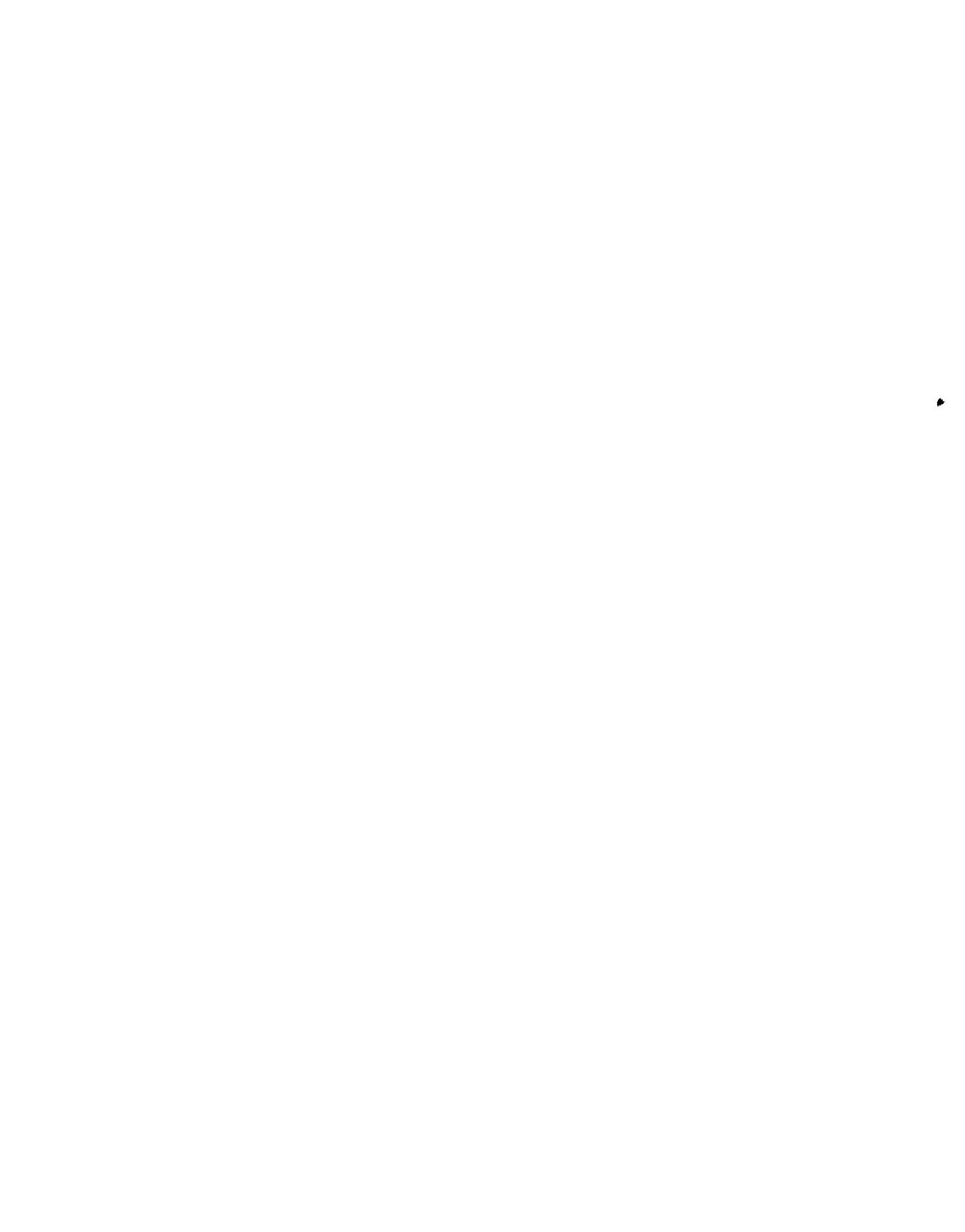
Parameter and Method	Sample bottle:	Type	Size	Preservative	Sampled by (Print)	Day	Month	Name of Courier
1) FIELD PH, TEMP, EH, SPEC COND, TURB, SWL		N/A						
2) BOD5, COLOR, CR+6, NO3, TDS, SO4, CL-, BROMIDE	PLASTIC	2000ml		NONE				
3) TKN, NH3, COD	PLASTIC	500ml		H2SO4				
4) ALKALINITY	GLASS	8oz		NONE				
5) T-CN	PLASTIC	2000ml		NOAH				
6) T-PHENOLS	AMBER	32oz		H2SO4				
7) TOC	PLASTIC	120ml		1:1 HCL				
8) T-AL, SB*, AS*, BA, BE, CD, CA, CR, CO, CU, FE, PB*, MG, B, MN, HG, NA, NI, K, SE*, AG, TL*, V, ZN + HARDNESS	PLASTIC	500ml		HNO3				
9) D-AL, SB*, AS*, BA, BE, CD, CA, CR, CO, CU, FE, PB*, MG, B, MN, HG, NA, NI, K, SE*, AG, TL*, V, ZN	PLASTIC	500ml		HNO3				
10)								
Syracuse	Rochester	Buffalo	Albany	Binghamton	Fair Lawn (NJ)			

Company: ULI
 Relinquished by:(sign) Date Time Received by: (sign)
 Relinquished by:(sign) Date Time Received by: (sign)
 Relinquished by:(sign) Date Time Rec'd for Lab by:
Don Anwell 6/17/09 4pm *KC Knapp*

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	7/31/07	10/10/07	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09
Temp	(deg C)	--	--	8.5	12.8	19.5	15.9	9.3	6.7	21.6	16	11.2	21.7	10.6	3.6	19.6
Eh	(mV)	--	--	700	105	190	170	59	-107	-111	-68	-57	-62	-69	-21	143
pH	(Std Units)	--	--	7.8	7.7	7.52	7.69	8.29	7.93	7.83	8.01	7.85	8.07	8.23	7.4	8.09
Sp. Cond	(uS/cm)	--	--	306	355	353	369	204	221	241	658	351	344	334	344	199
Color	(Units)	5	20	--	--	<5	--	--	--	--	30	--	--	--	--	18
Turbidity	(NTU)	--	--	660	73	131	29	55.6	34.8	24.3	28.1	16	11.6	24.6	16.7	23.4
ALK as CaCO ₃	(mg/l)	160	145	127	139	122	132	140	120	120	130	120	120	120	130	100 H
HARD as CaCO ₃	(mg/l)	4000	240	167	140	148	148	134	153	148	146	151	159	165	161	163
TDS	(mg/l)	494	214	340	213	236	229	127	208	250	204	195	116	188 H	256	180
Chloride	(mg/l)	152	46	21.3	22.2	34.2	26.7	28.7	27	27	27.9	28	25.9	29.7	30.4	30.7
Sulfate	(mg/l)	20.6	14.6	27.3	12.3	16.5	14.9	8.79	14.2	48.6	11.2	16.3	<5	11.6	14	14.3
Bromide	(mg/l)	1.2	0.8	< 0.1	<0.1	<0.1	0.117	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<2	<0.2	<2
NO ₃ (As N)	(mg/l)	<0.1	<0.1	< 0.1	0.217	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
NH ₄ (As N)	(mg/l)	6	2.6	0.276	<0.02	0.161	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	5.66	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
COD	(mg/l)	305	64	< 10	<10	<10	<10	<20	<20	<20	<20	<20	<20	<20	<20	<20
BOD	(mg/l)	5	<2	< 3	<3	<3	<3	<4	<4	<4	<4	9	<4	<4	<4	<4
TOC	(mg/l)	4.2	1.6	4.76	2.61	<2	<2	<3	<3	<3	<3	<3	<3	<3	<3	<3
Phenolics, Tot	(mg/l)	0.003	0.0015	< 0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	<0.01	<0.01	--	--	<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	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09
Temp	(deg C)	--	--	5	11.4	16.4	15.8	9.6	7.2	21.5	16.3	1.7	10.2	20.9	11.8	2.7	18.7
Eh	(mV)	--	--	385	45	155	115	84	-122	-143	-80	196	-78	-78	-78	-44	139
pH	(Std Units)	--	--	7.7	7.8	7.69	7.9	8.47	8.24	8.03	8.28	8.66	8.34	8.33	8.38	7.8	8.13
Sp. Cond	(uS/cm)	--	--	157	257	244	200	156	141	1241	943	1075	245	223	229	205	124
Color	(Units)	<5	<5	--	--	<5	--	--	--	--	30	7	--	--	--	--	9
Turbidity	(NTU)	--	--	187	45	70	15.6	67.4	9.62	10.2	22.8	35.8	14.6	12.3	6.33	2.47	8.2
ALK as CaCO ₃	(mg/l)	94.8	93.6	92	94	91	89	99	96	100	100	100	100	100	99	92 H	100
HARD as CaCO ₃	(mg/l)	88	140	97.6	81.9	89	82	83.6	105	104	90.8	89.3	103	107	105	97.1	111
TDS	(mg/l)	143	86	120	111	142	120	62	162	130	104	152	130	80	140	160	110
Chloride	(mg/l)	<2	<2	2.55	2.28	3.47	0.611	3.24	4.45	3.16	6.44	3.15	5.95	5.61	6.03	2.86 H	4.74
Sulfate	(mg/l)	5.2	<5	4.72	5.51	5.33	3.76	7.09	6.31	28.8	5.26	<5	9.42	<5	<5	6.37	5.19
Bromide	(mg/l)	<0.5	<0.5	< 0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
NO ₃ (As N)	(mg/l)	0.2	<0.1	< 0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
NH ₄ (As N)	(mg/l)	<0.02	0.04	0.0938	<0.02	<0.02	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
COD	(mg/l)	<15	<15	< 10	<10	<10	<10	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
BOD	(mg/l)	<2	<2	< 3	<3	<3	<3	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
TOC	(mg/l)	9.3	<1	5.41	2.34	<2	<2	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Phenolics, Tot	(mg/l)	<0.001	<0.001	< 0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	--	--	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	<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	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09
Temp	(deg C)	--	--	4.4	11.6	17.2	14.2	9.2	7.7	18	14.6	3.1	11.1	19.1	12	3.1	16.5
Eh	(mV)	--	--	140	-5	120	90	136	-62	-81	-25	42	-48	-31	-34	-34	239
pH	(Std Units)	--	--	6.4	6.4	6.15	6.41	7.31	7.14	7.41	7.12	7.94	7.81	7.58	7.63	7.63	6.44
Sp. Cond	(uS/cm)	--	--	621	767	784	1100	364	450	395	574	617	424	402	695	601	413
Color	(Units)	30	60	--	--	33	--	--	--	--	210	40	--	--	--	--	65
Turbidity	(NTU)	--	--	18.6	18.3	195	27	48.9	30.7	15	5.07	7.83	26.8	49.2	8.52	5.6	40.9
ALK as CaCO ₃	(mg/l)	702	784	330	355	384	423	380	320	420	290	360	290	380	360	320	360
HARD as CaCO ₃	(mg/l)	1300	720	241	260	265	301	225	262	275	165	246	203	303	343	229	295
TDS	(mg/l)	1180	986	381	397	491	487	262	355	395	284	410	357	320	356	316	220
Chloride	(mg/l)	156	149	23.3	25.7	23.5	25.7	21.2	14.7	24.4	10.6	21	13.5	20.2	15.5	13.7	20.5
Sulfate	(mg/l)	<5	<5	4.22	5.5	3.43	3.18	<5	<5	<10	9.93	<10	<5	<20	<10	<5	<5
Bromide	(mg/l)	0.8	<0.5	0.189	0.18	0.237	0.261	<0.2	<0.2	<2	<2	<2	<200	<20	<20	<2	<2
NO ₃ (As N)	(mg/l)	<0.1	0.14	0.228	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
NH ₄ (As N)	(mg/l)	23	9.1	10.6	18.4	16	15.1	10.2	9.89	14.1	13.5	8.78	8.2	11.9	10.8	8.43	11.8
TKN (as N)	(mg/l)	31.5	21.2	10.6	14 H	16.5	15	132	12.5	16.1	12.6	10.7	11.2	12.9	11.6	10.3	13.5
COD	(mg/l)	127	136	< 10	13.8	27	15.6	<20	<20	46	22	23	21	36	32	<20	31
BOD	(mg/l)	6	3	16	4.5	3.4	<3	6	7	7	<4	<4	5	7	<4	<4	12
TOC	(mg/l)	42.5	24.1	10.1	7.18	5.67	5.68	6.7	4.8	7.3	6.3	21.8	5.2	6.3	6	4.8	7.2
Phenolics, Tot	(mg/l)	0.0071	0.0066	< 0.005	0.008	<0.005	<0.005	<0.005	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	<0.01	<0.01	--	--	<0.01	--	--	--	<0.01	<10	--	--	--	--	< 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	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09
Temp	(deg C)	--	--	4.5	10.5	15.9	14.5	9.1	8.3	16.5	15.8	3.2	10.3	18.3	12.9	4.9	15.5
Eh	(mV)	--	--	175	110	125	115	136	-73	-77	-34	40	-46	-38	-33	-22	237
pH	(Std Units)	--	--	6.4	6.4	6.35	6.52	7.14	7.35	7.37	7.35	8.34	7.77	7.73	7.59	7.42	6.43
Sp. Cond	(uS/cm)	--	--	1350	1560	1420	1540	701	682	500	329	339	1205	1132	1137	1135	739
Color	(Units)	5	10	--	--	<5	--	--	--	--	15	7	--	--	--	--	8
Turbidity	(NTU)	--	--	17.3	19.8	18.7	28	14.2	11	9.48	37	41.5	13.5	15.4	3.14	11	4.17
ALK as CaCO ₃	(mg/l)	577	673	652	670	612	646	650	480	600	640	640	620	640	680	650	580
HARD as CaCO ₃	(mg/l)	960	900	697	726	686	675	723	575	716	652	678	654	728	788	678	782
TDS	(mg/l)	1640	1230	982	1020	1040	980	825	823	935	868	840	808	720	864	872	870
Chloride	(mg/l)	267	238	145	154	122	121	167	131	163	161	160	132	148	162	118	159
Sulfate	(mg/l)	<5	<5	1.18	2.96	<1	<1	<5	<5	10	<5	<5	<5	7.62	<5	<5	<5
Bromide	(mg/l)	1.1	0.9	0.878	1.01	0.902	0.912	0.95	<2	<2	0.92	<2	<20	<2	<0.2	<0.2	<0.2
NO ₃ (As N)	(mg/l)	<0.1	<0.1	<0.1	0.216	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
NH ₄ (As N)	(mg/l)	0.95	1.3	0.389	0.824	0.786	0.282	0.921	0.844	1.31	1.22	0.785	0.572	1.01	0.504	0.642	0.665
TKN (as N)	(mg/l)	2.6	2	1.31	1.78 H	1.64	1.9	1.84	1.62	1.67	1.53	1.33	1.55	1.03	1.13	1.22	1.19
COD	(mg/l)	58	61	<10	17.2	24.6	27	21	<20	<20	<20	24	<20	<20	<20	<20	23
BOD	(mg/l)	2	2	9.3	5.1	3.7	13	<4	4	<4	<4	<4	5	<4	<4	<4	<4
TOC	(mg/l)	12.3	11.9	<2	7.76	4.82	7.49	6.4	3	5.7	17.2	82.6	23.2	4.7	6.8	4.5	5.5
Phenolics, Tot	(mg/l)	0.0044	0.0039	<0.005	<0.005	<0.005	0.1	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	--	--	--	--	0.024	--	--	--	--	<0.01	<10	--	--	--	--	<0.01

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	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09
Temp	(deg C)	--	--	6.4	11.7	15.3	15.7	9.3	5.6	17.9	14.6	3.4	12.1	20.6	13.5	4.2	14.8
Eh	(mV)	--	--	215	45	115	220	-50	-94	-115	-76	174	-34	-39	-41	-26	359
pH	(Std Units)	--	--	7.2	6.9	7.01	6.84	7.82	7.64	7.84	8.25	8.06	7.62	7.66	7.72	7.49	8.16
Sp. Cond	(μ S/cm)	--	--	286	299	342	397	143	898	1757	939	1074	261	1759	204	1069	187
Color	(Units)	<5	<5	--	--	<5	--	--	--	--	115	15	--	--	--	--	7
Turbidity	(NTU)	--	--	58	11.9	5.2	7.2	10.6	19.6	16.4	13.7	17	17.7	17.9	6.67	10.9	4.55
ALK as CaCO ₃	(mg/l)	145	146	162	170	140	152	82	59	170	130	110	170	91	97	18	160
HARD as CaCO ₃	(mg/l)	1250	200	153	179	191	158	74	58.1	150	86.2	97.7	123	76.7	97.9	38.1	196
TDS	(mg/l)	320	269	215	208	207	207	38	168	210	144	115	188	60	112	88	120
Chloride	(mg/l)	31.4	28.7	14	12.7	13.5	12.7	3.37	1.8	12	5.73	2.43	10.5	1.1	1.75	1.85	9.25
Sulfate	(mg/l)	16	13	9.14	11	9.98	8.01	<5	<5	20.5	<5	<5	7.74	19.9	<5	7.53	11.2
Bromide	(mg/l)	0.5	<0.5	<0.1	<0.1	0.152	0.143	1.2	<2	<0.2	<2	<2	<0.2	<20	<2	<0.2	<0.2
NO ₃ (As N)	(mg/l)	<0.1	0.19	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	0.338	<0.2	<0.2	1.14	<0.2	<0.2
NH ₄ (As N)	(mg/l)	<0.02	0.09	0.0969	<0.02	<0.02	<0.1	1.45	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TKN (as N)	(mg/l)	0.4	0.24	0.455	1.09 H	0.239	0.266	4.26	1.47	<0.5	<0.5	<0.5	<0.5	0.718	<0.5	<0.5	<0.5
COD	(mg/l)	19	<15	<10	<10	13	<10	47	<20	<20	<20	23	<20	34	<20	<20	<20
BOD	(mg/l)	<2	<2	<3	<3	<3	<3	<4	8	<4	<4	<4	7	9	<4	<4	<4
TOC	(mg/l)	4.5	1.9	5.58	<2	<2	<2	<3	<3	<3	3.7	<3	<3	7.3	3.6	<3	<3
Phenolics, Tot	(mg/l)	0.0027	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	--	--	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	<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	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09
Temp	(deg C)	--	--	7.9	10.5	12.2	14.3	9.7	7.4	15.6	14.8	3.7	10.4	16.1	12.6	6.5	14.1
Eh	(mV)	--	--	250	85	225	180	82	-92	-105	-57	121	-71	-81	-54	-38	186
pH	(Std Units)	--	--	6.7	7.4	7.52	7.11	8.04	7.73	7.85	7.82	8.55	8.25	8.21	7.96	7.7	7.32
Sp. Cond	(μ S/cm)	--	--	347	287	304	329	220	249	236	810	199	360	343	355	327	187
Color	(Units)	<5	20	--	--	<5	--	--	--	--	6	7	--	--	--	--	11
Turbidity	(NTU)	--	--	40	19.9	15.8	14.2	68.9	8.1	9.48	12.5	13.6	11.6	2.19	5.24	9.56	3.62
ALK as CaCO ₃	(mg/l)	240	224	131	148	154	153	180	160	150	140	140	140	110	120	120	140
HARD as CaCO ₃	(mg/l)	300	240	135	144	131	133	156	139	138	124	136	142	137	134	142	154
TDS	(mg/l)	98	280	209	175	190	187	127	105	220	208	198	225	116	168	188	190 H
Chloride	(mg/l)	38.2	35	21.1	2.33	2.32	3.39	11.6	6.99	13.8	25.9	16.7	16.9	31.1	28.6	13.3	19.4
Sulfate	(mg/l)	27.1	22.2	13.8	3.95	3.28	6.14	8.54	6.79	17.3	12.7	18.1	16.5	26.8	17.2	13.2	14.2
Bromide	(mg/l)	<0.5	<0.5	<0.1	<0.1	0.122	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<0.2	<2
NO ₃ (As N)	(mg/l)	0.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
NH ₄ (As N)	(mg/l)	0.09	2.5	0.0549	<0.02	0.096	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
COD	(mg/l)	40	19	< 10	<10	11.6	<10	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
BOD	(mg/l)	<2	2	< 3	5.1	3.2	<3	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
TOC	(mg/l)	6	5.8	5.22	3.14	<2	<2	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Phenolics, Tot	(mg/l)	0.0032	<0.001	< 0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	--	--	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	< 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	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09
Temp	(deg C)	--	--	4.5	11.6	17.4	13.9	9.3	7.8	18.8	15.2	2	9.8	18.6	11.1	4.2	16
Eh	(mV)	--	--	215	120	245	190	77	-64	-69	-24	245	-37	-42	-41	-19	219
pH	(Std Units)	--	--	6.5	6.4	6.34	6.62	7.04	7.12	7.2	7.11	7.77	7.63	7.73	8.09	7.35	6.77
Sp. Cond	($\mu\text{S}/\text{cm}$)	--	--	1360	1520	1440	1480	893	765	514	972	561	1174	618	214	1014	622
Color	(Units)	20	5	--	--	<5	--	--	--	--	85	7	--	--	--	--	80
Turbidity	(NTU)	--	--	214	18	13.6	42	45.3	54.3	40.9	48.1	39.3	44.4	41.6	42.7	40.9	375
ALK as CaCO ₃	(mg/l)	569	660	648	675	595	635	640	510	530	540	570	560	600	670	500	500
HARD as CaCO ₃	(mg/l)	1010	1150	627	599	531	526	529	499	481	459	528	506	538	569	496	534
TDS	(mg/l)	1220	1240	981	967	963	949	753	865	3000	752	800	1560	668	728	748	720
Chloride	(mg/l)	300	276	144	143	119	85	145	131	145	141	141	1260	136	135	114	128
Sulfate	(mg/l)	27.4	20.2	20.6	22.5	19.7	14.1	16.5	23.2	22.7	17.8	12.2	<20	21	16.1	21	22.3
Bromide	(mg/l)	0.6	<0.5	0.753	0.633	0.822	0.483	0.6	<0.2	<2	<2	<2	<200	<20	<20	<0.2	<0.2
NO ₃ (As N)	(mg/l)	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	0.25	<0.2	<0.2	<0.2	<0.2
NH ₄ (As N)	(mg/l)	0.93	0.89	0.34	<0.02	<0.02	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<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	0.784	0.591	0.522	0.949	<0.5	<0.5	1.92	0.851
COD	(mg/l)	43	112	21.2	16.5	26.4	20.5	27	<20	<20	<20	<20	36	22	29	<20	38
BOD	(mg/l)	<2	2	<3	<3	<3	<3	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4
TOC	(mg/l)	10.1	12.6	12.8	8.19	6.12	7.46	8.1	6	7.2	11.5	69.9	17.8	5.2	6.1	5.1	5.7
Phenolics, Tot	(mg/l)	0.0051	0.0027	<0.005	0.007	<0.005	<0.005	<0.005	0.006	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	<0.01	<0.01	--	--	<0.01	--	--	--	--	<0.01	<10	--	--	--	--	<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	7/31/07	10/10/07	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09
Aluminum	724	16.9	--	--	2.96	--	--	--	--	2.07	--	--	--	--	1.57
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	--	--	--	--	<0.015
Arsenic	0.353	0.0134	--	--	<0.025	--	--	--	--	<0.01	--	--	--	--	<0.01
Barium	8.11	0.258	--	--	0.104	--	--	--	--	0.0917	--	--	--	--	0.0732
Beryllium	0.0287	0.00083 B	--	--	<0.005	--	--	--	--	<0.003	--	--	--	--	<0.003
Boron	0.0873 B	0.0665 B	--	--	0.073	--	--	--	--	<0.5	--	--	--	--	<0.5
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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	43.5	42.2	43.2	46.2	48.3	47.2	47
Chromium	1.04	0.0265	--	--	<0.005	--	--	--	--	<0.005	--	--	--	--	<0.005
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	--	--	--	--	<0.01
Cobalt	0.59	0.0168 B	--	--	<0.015	--	--	--	--	<0.02	--	--	--	--	<0.02
Copper	0.996	0.0254	--	--	0.022	--	--	--	--	<0.01	--	--	--	--	<0.01
Iron	1550	35.7	19.4	2.99	6.03	2.11	1.67	2.14	1.21	3.49	1.17	0.217	0.429	0.818	1.65
Lead	0.454	0.0123	0.00716	0.007	<0.005	<0.005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	309	15.6	12.6	8.67	9.7	9.43	8.87	10.2	9.67	9.8	10.6	10.7	10.8	10.6	11.1
Manganese	24.6	0.783	0.534	0.194	0.38	0.306	0.19	0.193	0.206	0.203	0.157	0.135	0.151	0.0917	0.169
Mercury	0.0014	<0.0001	--	--	<0.0004	--	--	--	--	<0.0002	--	--	--	--	<0.0002
Nickel	1.33	0.0364 B	--	--	<0.01	--	--	--	--	<0.03	--	--	--	--	<0.03
Potassium	77.5	6.97	2.72	1.6	1.7	1.62	1.74	2.31	1.59	2.06	1.65	1.51	1.69	1.52	1.78
Sodium	37.3	26	17.1	13	13.6	13.5	12.2	12.5	13	11.8	12.5	13.8	13.2	13.4	13.9
Selenium	<0.028	<0.0028	--	--	<0.02	--	--	--	--	<0.005	--	--	--	--	<0.005
Silver	<0.009	<0.0009	--	--	<0.015	--	--	--	--	<0.01	--	--	--	--	<0.01
Thallium	<0.026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	--	--	--	--	<0.01
Vanadium	0.856	0.0243 B	--	--	<0.015	--	--	--	--	<0.03	--	--	--	--	<0.03
Zinc	3.36	0.0874	--	--	0.106	--	--	--	--	0.0235	--	--	--	--	<0.01

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	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09
Aluminum	0.662	0.134 B	--	--	1.09	--	--	--	--	0.537	0.518	--	--	--	--	0.255
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03
Arsenic	<0.0024	<0.0024	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Barium	0.168 B	0.154 B	--	--	0.194	--	--	--	--	0.172	0.199	--	--	--	--	0.232
Beryllium	0.0001 B	<0.0001	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003
Boron	0.0197 B	0.0247 B	--	--	<0.05	--	--	--	--	<0.5	<0.5	--	--	--	--	<0.5
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00542	<0.005
Calcium	26.7	24.7	26.8	23.9	25.8	24.1	23.7	30	29.9	26	25.1	28.6	30.2	30	27.7	31.4
Chromium	0.002 B	<0.0004	--	--	<0.005	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.01
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Cobalt	<0.0011	<0.0011	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02
Copper	0.004 B	0.0025 B	--	--	0.017	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Iron	1.33	0.226	9.42	1.48	1.84	0.273	2.39	0.508	0.465	0.73	1	1.38	0.185	0.174	2.92	0.523
Lead	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	0.00431	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	6.47	5.84	7.46	5.39	6.05	5.31	5.94	7.4	7.12	6.28	6.44	7.58	7.74	7.28	6.76	7.83
Manganese	0.195	0.146	2.28	0.191	0.251	0.126	0.521	0.169	0.19	0.176	0.26	0.198	0.169	0.153	0.223	0.25
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002
Nickel	<0.0013	<0.0013	--	--	<0.01	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03
Potassium	1.56 B	0.529 B	0.973	0.468	0.523	0.374	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sodium	7.38	6.18	6.31	5.22	6.35	5.92	5.22	6.82	7.1	5.84	5.66	6.73	7.29	6.81	6.37	8.15
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Vanadium	<0.0012	<0.0012	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03
Zinc	0.0351	0.0163 B	--	--	0.052	--	--	--	--	0.0168	0.0112	--	--	--	--	<0.01

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	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09
Aluminum	79.3	59.1	--	--	0.43	--	--	--	--	0.444	1.98	--	--	--	--	<0.1
Antimony	0.0049 B	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03
Arsenic	0.0631	0.0537	--	--	<0.025	--	--	--	--	<0.01	0.0145	--	--	--	--	<0.01
Barium	1.75	1.49	--	--	0.502	--	--	--	--	0.265	0.377	--	--	--	--	0.471
Beryllium	0.0037 B	0.0025 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003
Boron	1.21	0.961	--	--	0.584	--	--	--	--	<0.5	<0.5	--	--	--	--	<0.5
Cadmium	<0.0003	0.0016 B	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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	80.4	47.9	70.3	57.5	87.8	99	66.7	87.1
Chromium	0.112	0.0967	--	--	<0.005	--	--	--	--	<0.005	0.0177	--	--	--	--	<0.01
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.02	<0.05	--	--	--	--	<0.01
Cobalt	0.0719	0.0628	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02
Copper	0.104	0.0779	--	--	0.012	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Iron	154	131	8.29	24	6.5	10.1	10.8	6.86	7.67	4.95	9.77	4.1	10.6	9.51	7.77	8.28
Lead	0.0561	0.0436	<0.005	0.019	<0.005	0.006	0.00524	<0.003	<0.003	<0.003	<0.003	<0.003	0.0039	<0.003	<0.003	<0.003
Magnesium	61.6	53.6	16.6	18.3	17.5	19.4	15.7	17.9	18	11	17.1	14.3	20.3	23.1	15.1	18.8
Manganese	35.7	31.6	12.2	11.5	12	13.6	9.93	11.7	12.7	7.05	11.2	9.3	13.8	15.1	10.7	12.8
Mercury	<0.0001	<0.0001	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002
Nickel	0.151	0.132	--	--	<0.01	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03
Potassium	23.4	17	9.29	11.2	12.3	12.7	9.02	10.8	13.3	2.14	8.56	7.56	12.3	15.1	7.48	12.4
Sodium	119	102	26.3	25.2	31.4	31.4	19.5	22.9	26.1	13.8	19.2	16.5	25.6	25.9	17.8	23.8
Selenium	<0.0028	<0.0028	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005
Silver	0.0024 B	0.0014 B	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Thallium	0.004 B	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Vanadium	0.102	0.0866	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03
Zinc	0.4	0.278	--	--	<0.01	--	--	--	--	<0.01	0.0101	--	--	--	--	<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	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09
Aluminum	2.03	5.31	--	--	0.18	--	--	--	--	<0.1	0.168	--	--	--	--	0.235
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03
Arsenic	0.007 B	0.0083 B	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Barium	1.59	1.36	--	--	1.22	--	--	--	--	1.09	1.18	--	--	--	--	1.43
Beryllium	0.00023 B	0.00037 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003
Boron	0.355	0.292	--	--	0.256	--	--	--	--	<0.5	<0.5	--	--	--	--	<0.5
Cadmium	0.0003 B	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	288	245	203	216 E	203 E	200	216	170	214	195	201	192	214	235	201	237
Chromium	0.004 B	0.0086 B	--	--	<0.005	--	--	--	--	<0.005	0.00816	--	--	--	--	<0.01
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Cobalt	0.0091 B	0.0141 B	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02
Copper	0.0069 B	0.0118 B	--	--	0.017	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Iron	4.3	10.7	0.913	0.836	1.2	1.07	0.637	0.469	0.468	0.323	0.439	0.56	0.236	0.28	0.466	0.464
Lead	0.0044	0.0058	<0.005	0.009	<0.005	<0.005	<0.005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	61.7	49.9	46.1	45.3	43.5	42.7	44.8	36.3	44.1	39.9	42.8	42.4	47.1	49.1	42.9	45.9
Manganese	8.24	7.43	6.98	6.8	6.63	6.46	6.42	4.93	6.6	5.7	6.21	5.96	6.49	6.84	6.5	6.63
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002
Nickel	0.0129 B	0.0188 B	--	--	<0.01	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03
Potassium	3 B	2.9 B	2.42	2.25	2.28	2.38	2.74	2.14	2.44	<1	2.44	2.2	2.23	3.13	2.44	2.71
Sodium	64.1	53.9	53.8	49.7	51.1	51	50.9	40.8	52.3	48.2	50.6	47.4	51.4	58.2	49.3	55.4
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Thallium	0.0037 B	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Vanadium	0.0029 B	0.0075 B	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03
Zinc	0.103	0.0484	--	--	<0.01	--	--	--	--	0.0469	<0.01	--	--	--	--	<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	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09
Aluminum	21.7	2.39	--	--	0.078	--	--	--	--	0.33	0.23	--	--	--	--	<0.1
Antimony	<0.003	0.0034 B	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.015
Arsenic	0.0127	<0.0024	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Barium	0.567	0.343	--	--	0.41	--	--	--	--	0.332	0.441	--	--	--	--	0.458
Beryllium	0.001 B	0.00013 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003
Boron	<0.0709	0.0286 B	--	--	0.063	--	--	--	--	<0.5	<0.5	--	--	--	--	<0.5
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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	45.1	27.5	30.2	37.6	24.4	31.3	12.3	59.5
Chromium	0.0249	0.0022 B	--	--	<0.005	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.01
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Cobalt	0.0121 B	0.0019 B	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02
Copper	0.0315	0.0076 B	--	--	0.023	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Iron	26.6	3.58	1.88	0.626	0.104	0.283	1.18	0.599	0.231	0.537	0.451	0.574	0.508	0.177	0.6	0.155
Lead	0.0077	<0.001	<0.005	0.005	0.005	<0.005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	17	11	9.13	10	11.2	9.2	4.04	3.1	9.15	4.26	5.42	7.04	3.83	4.8	1.82	11.6
Manganese	0.732	0.174	0.208	0.175	0.416	0.176	0.415	0.501	0.116	0.287	0.0373	0.141	0.618	0.0424	0.294	0.164
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002
Nickel	0.0248 B	0.0038 B	--	--	<0.01	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03
Potassium	7.43	1.87 B	0.938	0.829	1.09	0.937	<1	<1	<1	<1	<1	<1	1.06	<1	<1	<1
Sodium	10.4	6.54	5.66	6.4	8.92	6.03	2.11	1.14	5.1	2.64	2.9	3.52	2.77	2.69	<1	6.81
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Vanadium	0.0296 B	0.0039 B	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03
Zinc	0.112	0.0265	--	--	0.025	--	--	--	--	0.0106	<0.01	--	--	--	--	<0.01

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	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09
Aluminum	8.59	0.642	--	--	0.115	--	--	--	--	0.102	0.134	--	--	--	--	<0.1
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03
Arsenic	0.009 B	0.0084 B	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Barium	0.521	0.48	--	--	0.313	--	--	--	--	0.301	0.337	--	--	--	--	0.404
Beryllium	0.0004 B	0.0001 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003
Boron	0.145	0.145	--	--	<0.05	--	--	--	--	<0.5	<0.5	--	--	--	--	<0.5
Cadmium	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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	40.2	36.7	39.2	39.5	39	38.7	39.6	42.9
Chromium	0.0092 B	0.0017 B	--	--	<0.005	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.01
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Cobalt	0.0112 B	0.0056 B	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02
Copper	0.0116 B	0.0051 B	--	--	0.016	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Iron	10.6	3	1.09	0.511	0.306	0.195	1.87	0.486	0.163	0.216	0.229	0.33	<0.06	<0.06	0.268	0.104
Lead	0.0044	<0.001	<0.005	<0.005	<0.005	<0.005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	19	12.7	8.94	10.9	9.86	9.71	10.2	9.68	9.12	7.81	9.37	10.4	9.61	9.13	10.5	11.4
Manganese	3.43	4.17	0.559	0.12	0.297	0.185	0.331	0.0908	0.671	0.712	0.327	0.102	0.666	0.619	0.0257	0.0585
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002
Nickel	0.0144 B	0.0059 B	--	--	<0.01	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03
Potassium	4.08 B	2.72 B	1.15	0.825	0.634	0.69	1.05	<1	<1	<1	<1	<1	<1	1.4	1.01	1.03
Sodium	38	31.4	14.9	9.93	10.1	10.7	11.2	10.2	15	14.7	13.8	12.7	18.1	17.6	13.1	17.9
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Vanadium	0.0083 B	0.0012 B	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03
Zinc	0.0894	0.0248	--	--	0.014	--	--	--	--	0.0213	0.0103	--	--	--	--	<0.01

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	7/31/07	10/10/07	2/1/08	4/16/08	7/23/08	10/24/08	3/12/09	6/17/09
Aluminum	40	88.4	--	--	0.415	--	--	--	--	2.43	0.919	--	--	--	--	9.56
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--	--	--	--	<0.03
Arsenic	0.0176	0.0459	--	--	<0.025	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Barium	1.36	1.99	--	--	0.684	--	--	--	--	0.576	0.68	--	--	--	--	0.714
Beryllium	0.0015 B	0.0037 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--	--	--	--	<0.003
Boron	0.332	0.41	--	--	0.55	--	--	--	--	0.65	0.588	--	--	--	--	<0.5
Cadmium	0.00047 B	0.002 B	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	234	271	171	165	150	148	149	140	135	131	148	139	150	162	140	150
Chromium	0.0556	0.146	--	--	<0.005	--	--	--	--	<0.005	0.00667	--	--	--	--	<0.01
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.05	--	--	--	--	<0.01
Cobalt	0.0311	0.0791	--	--	<0.015	--	--	--	--	<0.02	<0.02	--	--	--	--	<0.02
Copper	0.0637	0.129	--	--	0.013	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Iron	65.9	174	14.5	1.33	0.722	2.78	1.68	1.52	9.97	3.65	1.68	1.99	0.342	1.16	0.322	10.1
Lead	0.0251	0.0585	0.0175	0.009	0.006	<0.005	<0.003	<0.003	0.00656	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	67	88.3	48.6	45.5	38	38	38.4	36.4	35	32.1	38.4	38.5	39.5	39.8	35.8	38.7
Manganese	5.87	9.55	6.08	5.69	4.4	4.85	4.51	4.18	3.98	3.47	4.17	4.34	4.82	4.57	4.31	4.21
Mercury	<0.0001	<0.0001	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--	--	--	--	<0.0002
Nickel	0.0783	0.192	--	--	0.013	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03
Potassium	10.4	13.5	3.06	1.91	1.81	2.03	2.03	1.95	2.87	<1	1.85	1.98	1.82	2.41	1.62	3.58
Sodium	118	113	134	129	124	128	112	104	95.8	95.2	104	99.6	113	116	97	103
Selenium	0.0041 B	0.0047 B	--	--	<0.02	--	--	--	--	<0.005	<0.005	--	--	--	--	<0.005
Silver	<0.0009	<0.0009	--	--	<0.015	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--	--	--	--	<0.01
Vanadium	0.0487 B	0.127	--	--	<0.015	--	--	--	--	<0.03	<0.03	--	--	--	--	<0.03
Zinc	0.2	0.408	--	--	<0.01	--	--	--	--	0.0263	0.0102	--	--	--	--	0.0297

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	6/17/09
Aluminum	<0.0083	0.0755 B	--	<0.1
Antimony	--	--	--	<0.03
Arsenic	<0.0024	<0.0024	--	<0.01
Barium	0.822	0.887	--	0.599
Beryllium	0.0001 B	<0.0001	--	<0.003
Boron	0.331	0.396	--	--
Cadmium	0.0003 B	<0.0003	<0.005	<0.005
Calcium	220	255	158	140
Chromium	0.0008 B	0.0011 B	--	<0.01
Chrom, Hex	--	--	--	--
Cobalt	0.0017 B	0.0031 B	--	<0.02
Copper	0.0086 B	<0.0007	--	<0.01
Iron	0.009 B	0.753	0.0637	<0.06
Lead	<0.001	<0.001	<0.005	<0.003
Magnesium	56.2	59.9	43.6	34.1
Manganese	4.53	7.12	5.35	3.78
Mercury	<0.0001	<0.0001	--	<0.0002
Nickel	0.0129 B	0.0196 B	--	<0.03
Potassium	5.28	3.98 B	1.9	1.82
Sodium	120	129	126	97.2
Selenium	--	--	--	<0.005
Silver	--	--	--	<0.01
Thallium	<0.0026	<0.0026	--	<0.01
Vanadium	<0.0012	<0.0012	--	<0.03
Zinc	0.0455	0.0186	--	0.0228

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	10/9/07	6/17/09
Vinyl Chloride	VOC	<10	<10	<5	<5	< 5
Chloroethane	VOC	<10	<10	<5	<5	< 5
Acetone	VOC	10	<10	<25	<10	< 10
Methylene Chloride	VOC	<10	<10	<5	<5	< 5
trans-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	< 5
cis-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	< 5
1,1-Dichloroethane	VOC	<10	<10	<5	<5	< 5
Benzene	VOC	<10	<10	<5	<5	< 5
Toluene	VOC	<10	<10	<5	<5	< 5
Chlorobenzene	VOC	<10	<10	<5	<5	< 5
Ethylbenzene	VOC	<10	<10	<5	<5	< 5
Xylenes(total)	VOC	<10	<10	<10	<5	< 5
1,4-Dichlorobenzene	SVOC	<10	<10	<5	<5	< 5
Diethylphthalate	SVOC	<10	<10	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA	NA	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	10/9/07	2/1/08	6/17/09
Vinyl Chloride	VOC	<10	<10	<5	<5	<5	< 5
Chloroethane	VOC	<10	<10	<5	<5	<5	< 5
Acetone	VOC	<10	<10	<25	<10	<10	< 10
Methylene Chloride	VOC	<10	<10	<5	<5	13 B	< 5
trans-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5
cis-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5
1,1-Dichloroethane	VOC	<10	<10	<5	<5	<5	< 5
Benzene	VOC	<10	<10	<5	<5	<5	< 5
Toluene	VOC	<10	<10	<5	<5	<5	< 5
Chlorobenzene	VOC	<10	<10	<5	<5	<5	< 5
Ethylbenzene	VOC	<10	<10	<5	<5	<5	< 5
Xylenes(total)	VOC	<10	<10	<10	<5	<5	< 5
1,4-Dichlorobenzene	SVOC	<10	<10	<5	<5	<5	< 5
Diethylphthalate	SVOC	<10	<10	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA	NA	NA	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	10/9/07	2/1/08	6/17/09
Vinyl Chloride	VOC	<10	<10	<5	<5	<5	<5
Chloroethane	VOC	5 J	4 J	<5	<5	<5	<5
Acetone	VOC	<10	<10	<25	<10	<10	<10
Methylene Chloride	VOC	1 JB	<10	<5	<5	12 B	<5
trans-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	<5
cis-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	<5
1,1-Dichloroethane	VOC	<10	<10	<5	<5	<5	<5
Benzene	VOC	5 J	6 J	<5	<5	<5	<5
Toluene	VOC	1 J	<10	<5	<5	<5	<5
Chlorobenzene	VOC	5 J	<10	<5	4 J	<5	3 J
Ethylbenzene	VOC	2 J	<10	<5	<5	<5	<5
Xylenes(total)	VOC	5 J	<10	<10	<5	<5	<5
1,4-Dichlorobenzene	SVOC	1 J	2 J	<5	<5	<5	<5
Diethylphthalate	SVOC	<10	1 J	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA	NA	NA	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	10/9/07	2/1/08	6/17/09
Vinyl Chloride	VOC	<10	<10	<5	5.8	<5	12
Chloroethane	VOC	4 J	3 J	<5	4 J	<5	5.9
Acetone	VOC	<10	<10	<25	<10	<10	< 10
Methylene Chloride	VOC	1 JB	<10	<5	<5	11 B	< 5
trans-1,2-Dichloroethene (1)	VOC	1 J	<10	<5	<5	<5	< 5
cis-1,2-Dichloroethene (1)	VOC	1 J	<10	6.2	9.2	9.4	19
1,1-Dichloroethane	VOC	1 J	1 J	<5	<5	<5	< 5
Benzene	VOC	<10	2 J	<5	<5	<5	< 5
Toluene	VOC	<10	<10	<5	<5	<5	< 5
Chlorobenzene	VOC	<10	1 J	<5	<5	<5	< 5
Ethylbenzene	VOC	<10	<10	<5	<5	<5	< 5
Xylenes(total)	VOC	<10	<10	<10	<5	<5	< 5
1,4-Dichlorobenzene	SVOC	<10	<10	<5	<5	<5	< 5
Diethylphthalate	SVOC	<10	<10	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	1 JB	NA	NA	NA	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	10/9/07	2/1/08	6/17/09
Vinyl Chloride	VOC	<10	<10	<5	<5	<5	< 5
Chloroethane	VOC	<10	<10	<5	<5	<5	< 5
Acetone	VOC	2 J	<10	<25	<10	<10	24
Methylene Chloride	VOC	5 JB	<10	<5	<5	11 B	< 5
trans-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5
cis-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5
1,1-Dichloroethane	VOC	<10	<10	<5	<5	<5	< 5
Benzene	VOC	<10	<10	<5	<5	<5	< 5
Toluene	VOC	<10	<10	<5	<5	<5	82
Chlorobenzene	VOC	<10	<10	<5	<5	<5	< 5
Ethylbenzene	VOC	<10	<10	<5	<5	<5	< 5
Xylenes(total)	VOC	<10	<10	<10	<5	<5	< 5
1,4-Dichlorobenzene	SVOC	<10	<10	<5	<5	<5	< 5
Diethylphthalate	SVOC	<10	<10	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA	NA	NA	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	10/9/07	2/1/08	6/17/09
Vinyl Chloride	VOC	<10	<10	<5	<5	<5	< 5
Chloroethane	VOC	<10	<10	<5	<5	<5	< 5
Acetone	VOC	<10	<10	<25	<10	<10	< 10
Methylene Chloride	VOC	<10	<10	<5	<5	12 B	< 5
trans-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5
cis-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5	<5	< 5
1,1-Dichloroethane	VOC	<10	<10	<5	<5	<5	< 5
Benzene	VOC	<10	<10	<5	<5	<5	< 5
Toluene	VOC	<10	<10	<5	<5	<5	< 5
Chlorobenzene	VOC	<10	<10	<5	<5	<5	< 5
Ethylbenzene	VOC	<10	<10	<5	<5	<5	< 5
Xylenes(total)	VOC	<10	<10	<10	<5	<5	< 5
1,4-Dichlorobenzene	SVOC	<10	<10	<5	<5	<5	< 5
Diethylphthalate	SVOC	<10	<10	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA	NA	NA	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	10/9/07	2/1/08	6/17/09
Vinyl Chloride	VOC	2 J	5 J	<5	4 J	8.2	5.7
Chloroethane	VOC	<10	1 J	<5	<5	<5	< 5
Acetone	VOC	<10	<10	<25	<10	<10	< 10
Methylene Chloride	VOC	1 JB	<10	<5	<5	<5	< 5
trans-1,2-Dichloroethene (1)	VOC	1 J	2 J	<5	<5	<5	< 5
cis-1,2-Dichloroethene (1)	VOC	1 J	2 J	7.1	6.1	9	5.4
1,1-Dichloroethane	VOC	3 J	4 J	6.1	5 J	7.9	5 J
Benzene	VOC	<10	<10	<5	<5	<5	< 5
Toluene	VOC	<10	<10	<5	<5	<5	< 5
Chlorobenzene	VOC	<10	<10	<5	<5	<5	< 5
Ethylbenzene	VOC	<10	<10	<5	<5	<5	< 5
Xylenes(total)	VOC	<10	<10	<10	<5	<5	< 5
1,4-Dichlorobenzene	SVOC	<10	<10	<5	<5	<5	< 5
Diethylphthalate	SVOC	<10	<10	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	NA	NA	NA	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