

# **Environmental Monitoring Report**

## **2008 Quarters 1 and 2**

## **and Annual Summary**

**Cortland County Towslee Landfill**  
Town Line Road  
Cortland County, New York

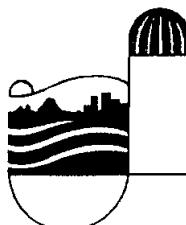
NYSDEC Region 7

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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 2008, 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	February 1, 2008
Second Quarter:	Routine	April 16, 2008
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	

Note: A sample was not obtained from MW-1A in Quarter 1 because water in the well was frozen.

## 4.0 Assessment of Monitoring Results

This section provides an evaluation of groundwater monitoring results for Quarters 1 and 2 of 2008. 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 2008 groundwater quality data to NYS water quality standards.

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

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

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

Concentrations for most parameters in all Quarters 1 and 2 of 2008 were below available water quality standards at all wells, although there continues to be evidence of mild landfill leachate contamination. Contraventions of standards are described below.

pH - The acceptable range for pH is between 6.5 and 8.5. In Quarter 1, pH was slightly above this range for MW-1B (8.66) and MW-6B (8.55). No pH contraventions were observed in Quarter 2.

Color – The color standard is 15 standard units. Color was only measured for the Baseline round of Quarter 1. The color standard was exceeded for one well (MW-2A at 40 standard units).

Turbidity – Turbidity for sampled wells exceeded the NYS standard of 5 NTU for both Quarter 1 and 2.

Quarter 1 results ranged from 7.83 to 41.5 NTU.

Quarter 2 results ranged from 11.6 to 44.4 NTU.

Based on separate monitoring conducted at the closed Pine Tree Landfill, and the active West Side Landfill, these exceedances appear to be related to natural groundwater conditions in this area.

Total Dissolved Solids (TDS) - The TDS standard of 500 mg/l has been consistently exceeded for the same two wells, and this trend continued for Quarters 1 and 2 of 2008.

TDS results for MW-2B are: Quarter 1 (840 mg/l); Quarter 2 (800 mg/l)

TDS results for MW-7A are: Quarter 1 (808 mg/l); Quarter 2 (1560 mg/l)

Ammonia - The ammonia standard of 2 mg/l was exceeded at MW-2A for Quarters 1 and 2 of 2008:

Quarter 1 (8.78 mg/l);  
Quarter 2 (8.2 mg/l)

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

Chloride – The chloride water quality standard of 250 mg/l was exceeded for a single well in Quarter 2 (MW-7A at 1260 mg/l).

Total Barium – The barium water quality standard of 1 mg/l was slightly exceeded for a single well in Quarter 1 (MW-2B at 1.18 mg/l).

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

In Quarter 1, five of the six sampled wells exceeded the standard, ranging from 0.439 to 9.77 mg/l.

In Quarter 2 all seven wells exceeded the standard, ranging from 0.33 to 4.1 mg/l.

The iron standard was also frequently exceeded in past monitoring events.

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

In Quarter 1, four of the six sampled wells exceeded the standard, ranging from 0.327 to 11.2 mg/l.

In Quarter 2, three of seven wells exceeded the standard, ranging from 4.34 to 9.3 mg/l.

The manganese standard was also frequently exceeded in past monitoring events.

Sodium – The NYS sodium standard is 20 mg/l. Contraventions in 2008 were as follows:

Quarter 1: MW-2B (50.6 mg/l) and MW-7A (104 mg/l).

Quarter 2: MW-2B (47.4 mg/l) and MW-7A (99.6 mg/l).

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

Volatile Organics (VOCs) – VOC testing was conducted during the Baseline round of Quarter 1.

Vinyl chloride was detected in one well in Quarter 1(MW-7A at 8.2 ug/l). This result is above the drinking water MCL of 2 ug/l for vinyl chloride.

Methylene chloride was detected in five wells, ranging from 11 to 13 ug/l. Methylene chloride was also detected in a laboratory blank, and Upstate Labs indicates these values should be considered a result of laboratory contamination.

Cis-1,2-dichloroethene was detected in Wells MW-2B (9.4 ug/l) and MW-7A (9.0 ug/l). Each of these results are above the drinking water MCL of 5 ug/l for cis-1,2-dichloroethene.

1,1-Dichloroethane was detected in MW-7A at 7.9 ug/l. This is above the drinking water MCL of 5 ug/l for 1,1-dichloroethane.

There were no other contraventions of NYS water quality standards for Quarters 1 and 2 of 2008.

## 4.2 Trends

The seven wells that are sampled as part of the Towslee monitoring program were previously sampled twice in 1997. To date there have been 10 additional sampling rounds 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 and 2007 compared to 1997. The 2008 results are generally consistent with 2006 and 2007 results, and groundwater quality remains improved compared to 1997 results.

#### 4.2.1 Trends for Conventional

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.
- Chloride levels continue to be significantly lower than 1997 levels, except that an elevated reading of 1260 mg/l was observed at MW-7A in Quarter 2. 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.
- Well MW-2A continues to have elevated ammonia levels, but continues to show a decreasing trend over time. For other wells, the Quarter 1 and 2 ammonia levels in 2008 are generally below the detection limit.
- TKN levels in Quarters 1 and 2 of 2008 show a decreasing trend for all wells.
- COD continues to show an overall decrease compared to 1997 levels. A relatively high COD level (36 mg/l) was observed at MW-7A in Quarter 2, but this value is still below 1997 levels.
- For total organic carbon (TOC), there is a decreasing trend for Wells MW-1A, MW-1B, MW-2A, MW-3A, and MW-6B. The recent results for MW-2B and MW-7A show an unexplained increase. Upstate Labs reported that TOC recovery during the continuing calibration process was above acceptance limits, which may account for these results.
- For all other conventionals, the results for 2008 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 1 in 2008. For the Routine event of Quarter 2 , the only metals analyzed were: calcium, iron, lead, magnesium, manganese, potassium, and sodium.

- Aluminum levels have continued to show a significant decrease through 2008, compared to 1997.
- Arsenic was below the detection limit at all sampled wells, except for MW-2A in Quarter 1 of 2008. The MW-2A reading of 0.0145 mg/l was significantly lower than 1997 levels.
- Overall calcium levels continue to remain well below 1997 levels.
- Chromium was below the detection limit at all sampled wells, except MW-2B (0.00816 mg/l) in Quarter 1. This level was similar to the 1997 chromium levels in MW-2B.
- Cobalt was below the detection limit at all sampled wells in 2008.
- Copper was below the detection limit at all sampled wells in 2008.
- Iron levels continue to show an overall decreasing trend.
- Lead levels were below the detection limit for all sampled wells in Quarters 1 and 2 of 2008.
- Magnesium levels continue to show an overall decrease over time for the wells with elevated levels in 1997.
- Manganese levels continue to show an overall decrease through Quarter 2 of 2008, compared to 1997.
- Potassium levels continue to show an overall decrease through Quarter 2 of 2008, compared to 1997.
- Sodium levels continue to show an overall decrease through Quarter 2 of 2008, compared to 1997.
- Vanadium was below the detection limit at all wells in Quarter 1 of 2008.

- Zinc levels show an overall decrease through Quarter 2 of 2008, compared to 1997 levels.

#### 4.2.3 Trends for Organics

In 1997, 12 different organic chemicals were detected in one or more of the seven wells that are now monitored. Most of the organics that were detected in 1997 were not detected in any of the wells in 2006, 2007 or 2008.

Low level organic contamination, however, continues to occur at a few wells.

MW-1A – not sampled in 2008 because it was frozen.

MW-1B – The only organic detected was methylene chloride, however, this is believed to be due to laboratory contamination.

MW-2A – The only organic detected was methylene chloride, however, this is believed to be due to laboratory contamination.

MW-2B – cis-1,2-dichloroethene has shown a slight increase over the past three years. The methylene chloride detected at this well is believed to be due to laboratory contamination.

MW-3A - The only organic detected was methylene chloride, however, this is believed to be due to laboratory contamination.

MW-6B - The only organic detected was methylene chloride, however, this is believed to be due to laboratory contamination.

MW-7A – There appears to be a slight increase over the past three years for vinyl chloride, cis-1,2-dichloroethane, and 1,1-dichloroethane.

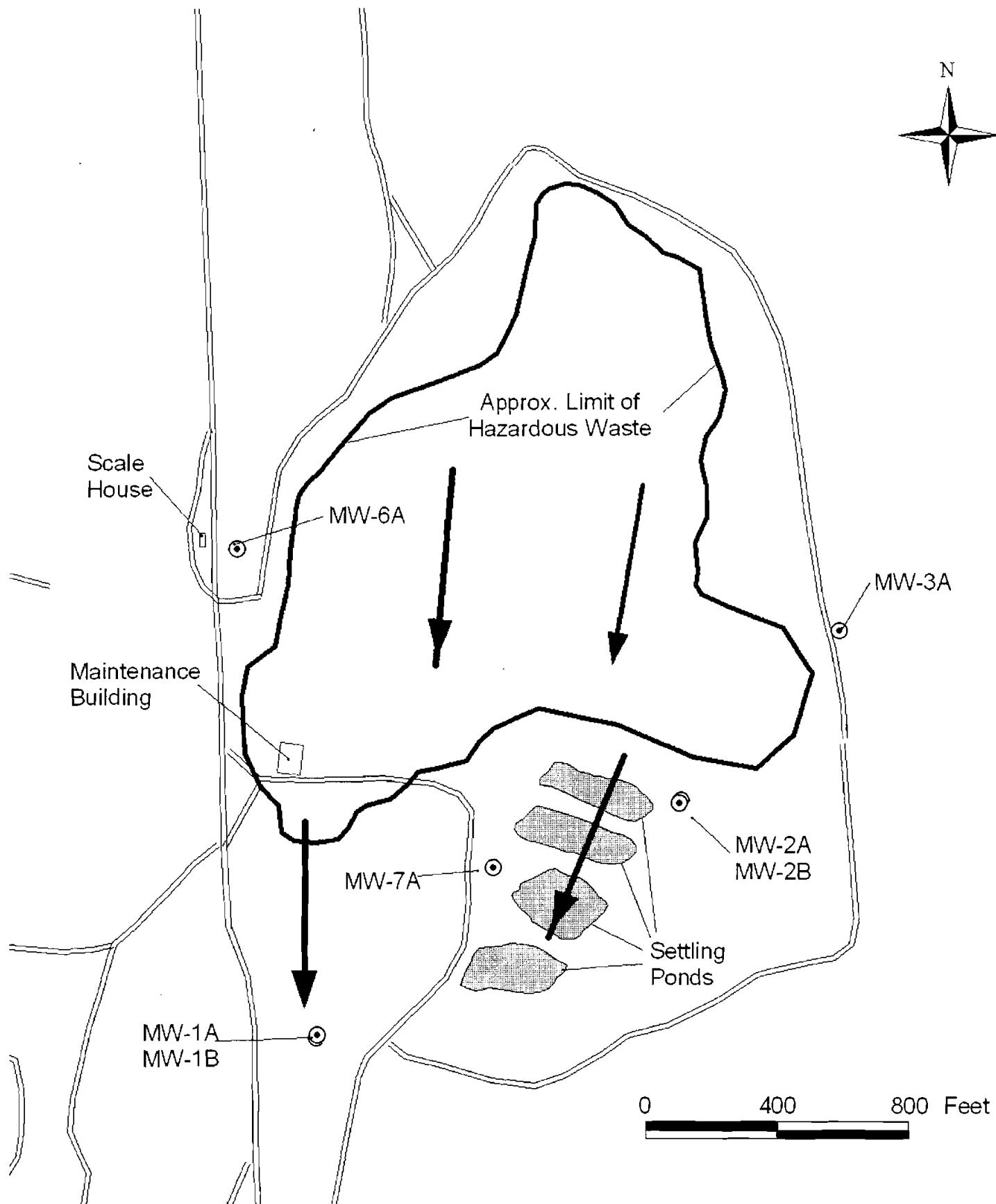
## 5.0 Quality Control

Upstate Labs performed internal quality control procedures for the Quarter 1 and 2 analytical data. Summaries of the quality control procedures are included with the laboratory reports of Appendix A and B.

A summary of quality control for each Quarter of 2008 is presented below:

Quarter 1 – Quality control criteria were generally met. The final CRDL Standard recovery for selenium was below QC acceptance limits. Methylene chloride was detected in a laboratory blank, and methylene chloride detected in well samples has been attributed to laboratory contamination. The %RPD values for the MW-1B duplicate were generally below 20%, with the exception of aluminum, iron and manganese. This may have been the result of different turbidity levels in the split sample. No VOCs were detected in the holding blank and trip blank. Overall, we believe the Quarter 1 2008 data are adequate to characterize groundwater quality downgradient of the Towslee landfill.

Quarter 2 – Quality control criteria were generally met. Calcium, magnesium, sodium, potassium, and chloride were detected above the PQL during the continuing calibration process. The continuing calibration recovery for TKN ammonia, TOC, and phenols were outside acceptance limits. Overall, we believe the Quarter 2 2008 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 2008**

Parameter	Units	NYS Water Quality Standard	Monitoring Well						
			Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden
			MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Temperature	(deg. F)	--	NS	1.7	3.1	3.2	3.4	3.7	2.0
Eh	(mV)	--	NS	196	42	40	174	121	245
pH	(Std Units)	6.5 - 8.5	a	NS	<b>8.66</b>	7.94	8.34	8.06	<b>8.55</b>
Specific Conductance	( $\mu$ S/cm)	--	NS	1075	617	339	1074	199	561
Color	(Units)	15	a, b	NS	7	<b>40</b>	7	15	7
Turbidity	(NTU)	5	a	NS	<b>35.8</b>	<b>7.83</b>	<b>41.5</b>	<b>17</b>	<b>13.6</b>
Alkalinity, Total (As CaCO <sub>3</sub> )	(mg/l)	--	NS	100	360	640	110	140	570
Hardness (As CaCO <sub>3</sub> )	(mg/l)	--	NS	89.3	246	678	97.7	136	528
Total Dissolved Solids	(mg/l)	500	a	NS	152	410	<b>840</b>	115	198
Chloride	(mg/l)	250	a, b	NS	3.15	21	160	2.43	16.7
Sulfate	(mg/l)	250	a, b	NS	<5	<10	<5	<5	18.1
Bromide	(mg/l)	2	a	NS	<0.2	<2	<2	<2	<0.2
Nitrogen, Nitrate (As N)	(mg/l)	10	a, b	NS	<0.2	<0.2	<0.2	0.338	<0.2
Nitrogen, Ammonia (As N)	(mg/l)	2 *	a	NS	<0.5	<b>8.78</b>	0.785	<0.5	<0.5
Nitrogen, Kjeldahl, Total	(mg/l)	--	NS	<0.5	10.7	1.33	<0.5	<0.5	0.522
Chemical Oxygen Demand	(mg/l)	--	NS	<20	23	24	23	<20	<20
Biochemical Oxygen Demand	(mg/l)	--	NS	<4	<4	<4	<4	<4	<4
Organic Carbon, Total	(mg/l)	--	NS	<3	21.8	82.6	<3	<3	69.9
Phenolics, Total Recoverable	(mg/l)	0.001	a	NS	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	0.2	a, b	NS	<10	<10	<10	<10	<10

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

b - Part 5 Drinking Water MCL

\* Standard is for NH<sub>4</sub><sup>+</sup> and NH<sub>3</sub> combined, as is the laboratory analysis

**1.23** indicates contravention of standard.

NS - not sampled, frozen

**Table 2**  
**Contraventions of NYS Water Quality Standards**  
**for Metals**  
Towslee Landfill - Quarter 1 2008

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	--	NS	0.518	1.98	0.168	0.23	0.134	0.919
Antimony	0.003	a	NS	<0.015	<0.015	<0.015	<0.015	<0.015
Arsenic	0.025	a	NS	<0.01	0.0145	<0.01	<0.01	<0.01
Barium	1	a	NS	0.199	0.377	<b>1.18</b>	0.441	0.337
Beryllium	0.004	b	NS	<0.003	<0.003	<0.003	<0.003	<0.003
Boron	1	a	NS	<0.5	<0.5	<0.5	<0.5	0.588
Cadmium	0.005	a, b	NS	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	--	NS	25.1	70.3	201	30.2	39.2	148
Chromium	0.05	a	NS	<0.005	0.0177	0.0082	<0.005	<0.005
Chrom, Hex	0.05	a	NS	<0.01	<0.05	<0.01	<0.01	<0.05
Cobalt	--	NS	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	0.2	a	NS	<0.01	<0.01	<0.01	<0.01	<0.01
Iron	0.3	a, b	NS	<b>1</b>	<b>9.77</b>	<b>0.439</b>	<b>0.451</b>	0.229
Lead	0.015	b	NS	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	--	NS	6.44	17.1	42.8	5.42	9.37	38.4
Manganese	0.3	a, b	NS	0.26	<b>11.2</b>	<b>6.21</b>	0.0373	<b>0.327</b>
Mercury	0.0007	a	NS	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	0.1	a	NS	<0.03	<0.03	<0.03	<0.03	<0.03
Potassium	--	NS	<1	8.56	2.44	<1	<1	1.85
Sodium	20	a, b	NS	5.66	19.2	<b>50.6</b>	2.9	13.8
Selenium	0.01	a	NS	<0.005	<0.005	<0.005	<0.005	<0.005
Silver	0.05	a	NS	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	0.002	b	NS	<0.01	<0.01	<0.01	<0.01	<0.01
Vanadium	--	NS	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Zinc	5	b	NS	0.0112	0.0101	<0.01	<0.01	0.0103

all units are mg/l

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

b - Part 5 Drinking Water MCL

**1.23** indicates contravention of standard.

N/A not analyzed

NS - not sampled, frozen

**Table 3**  
**Contraventions of NYS Water Quality Standards**  
**for Organics**  
**Towslee Landfill - Quarter 1 2008**

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	<5	<5	<5	<b>8.2</b>
Chloroethane	5 b	<5	<5	<5	<5	<5	<5	<5
Acetone	50 b	<10	<10	<10	<10	<10	<10	<10
Methylene chloride	5 b	<5	<b>13 B</b>	<b>12 B</b>	<b>11 B</b>	<b>11 B</b>	<b>12 B</b>	<5
trans-1,2-Dichloroethene	5 b	<5	<5	<5	<5	<5	<5	<5
cis-1,2-Dichloroethene	5 b	<5	<5	<5	<b>9.4</b>	<5	<5	<b>9</b>
1,1-Dichloroethane	5 b	<5	<5	<5	<5	<5	<5	<b>7.9</b>
Benzene	1 a	<5	<5	<5	<5	<5	<5	<5
Toluene	5 b	<5	<5	<5	<5	<5	<5	<5
Chlorobenzene	5 b	<5	<5	<5	<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

B - Compound also found in method blank, and likely an artifact of laboratory contamination

**Table 4**  
**Contraventions of NYS Water Quality Standards**  
**for Field and Inorganic Parameters**  
**Towslee Landfill - Quarter 2 2008**

Parameter	Units	NYS Water Quality Standard	Monitoring Well							
			Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden	
			MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A	
Temperature	(deg. F)	--	11.2	10.2	11.1	10.3	12.1	10.4	9.8	
Eh	(mV)	--	-57	-78	-48	-46	-34	-71	-37	
pH	(Std Units)	6.5 - 8.5	a	7.85	8.34	7.81	7.77	7.62	8.25	7.63
Specific Conductance	(uS/cm)	--	351	245	424	1205	261	360	1174	
Color	(Units)	15	a, b	--	--	--	--	--	--	
Turbidity	(NTU)	5	a	<b>16</b>	<b>14.6</b>	<b>26.8</b>	<b>13.5</b>	<b>17.7</b>	<b>11.6</b>	<b>44.4</b>
Alkalinity, Total (As CaCO <sub>3</sub> )	(mg/l)	--	120	100	290	620	170	140	560	
Hardness (As CaCO <sub>3</sub> )	(mg/l)	--	151	103	203	654	123	142	506	
Total Dissolved Solids	(mg/l)	500	a	195	130	357	<b>808</b>	188	225	<b>1560</b>
Chloride	(mg/l)	250	a, b	28	5.95	13.5	132	10.5	16.9	<b>1260</b>
Sulfate	(mg/l)	250	a, b	16.3	9.42	<5	<5	7.74	16.5	<20
Bromide	(mg/l)	2	a	<0.2	<0.2	<200	<20	<0.2	<0.2	<200
Nitrogen, Nitrate (As N)	(mg/l)	10	a, b	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.25
Nitrogen, Ammonia (As N)	(mg/l)	2 *	a	<0.5	<0.5	<b>8.2</b>	0.572	<0.5	<0.5	<0.5
Nitrogen, Kjeldahl, Total	(mg/l)	--	--	<0.5	<0.5	11.2	1.55	<0.5	<0.5	0.949
Chemical Oxygen Demand	(mg/l)	--	--	<20	<20	21	<20	<20	<20	36
Biochemical Oxygen Demand	(mg/l)	--	--	9	<4	5	5	7	<4	<4
Organic Carbon, Total	(mg/l)	--	--	<3	<3	5.2	23.2	<3	<3	17.8
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 NH<sub>4</sub><sup>+</sup> and NH<sub>3</sub> combined, as is the laboratory analysis

**1.23** indicates contravention of standard.

-- not analyzed for Routine monitoring events

**Table 5**  
**Contraventions of NYS Water Quality Standards**  
**for Metals**  
**Towslee Landfill - Quarter 2 2008**

Parameter	NYS Water Quality Standard	Total Metals						
		Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden
		MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Aluminum	--	--	--	--	--	--	--	--
Antimony	0.003	a	--	--	--	--	--	--
Arsenic	0.025	a	--	--	--	--	--	--
Barium	1	a	--	--	--	--	--	--
Beryllium	0.004	b	--	--	--	--	--	--
Boron	1	a	--	--	--	--	--	--
Cadmium	0.005	a, b	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	--		43.2	28.6	57.5	192	37.6	39.5
Chromium	0.05	a	--	--	--	--	--	--
Chrom, Hex	0.05	a	--	--	--	--	--	--
Cobalt	--		--	--	--	--	--	--
Copper	0.2	a	--	--	--	--	--	--
Iron	0.3	a, b	<b>1.17</b>	<b>1.38</b>	<b>4.1</b>	<b>0.56</b>	<b>0.574</b>	<b>0.33</b>
Lead	0.015	b	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Magnesium	--		10.6	7.58	14.3	42.4	7.04	10.4
Manganese	0.3	a, b	0.157	0.198	<b>9.3</b>	<b>5.96</b>	0.141	0.102
Mercury	0.0007	a	--	--	--	--	--	--
Nickel	0.1	a	--	--	--	--	--	--
Potassium	--		1.65	<1	7.56	2.2	<1	<1
Sodium	20	a, b	12.5	6.73	16.5	<b>47.4</b>	3.52	12.7
Selenium	0.01	a	--	--	--	--	--	--
Silver	0.05	a	--	--	--	--	--	--
Thallium	0.002	b	--	--	--	--	--	--
Vanadium	--		--	--	--	--	--	--
Zinc	5	b	--	--	--	--	--	--

all units are mg/l

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

b - Part 5 Drinking Water MCL

**1.23** indicates contravention of standard.

N/A not analyzed

-- not analyzed for Routine monitoring events

## **Appendix A**

# **Analytical Laboratory Results and Internal Quality Control Summary Quarter 1 2008**

**Cortland County Towslee Landfill**

# **Upstate Laboratories, Inc.**

6034 Corporate Drive  
East Syracuse, New York 13057-1017

RECEIVED

MAR 11 2003

## **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-10

### **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

-1-

### **Samples Collected:**

January 31, 2008  
February 1, 2008

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 six 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 January 31, 2008 and February 1, 2008 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)

-3-

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	335.2	(1)
Hexavalent Chromium	SM3500	(1)
Nitrate-Nitrogen	353.1	(1)
Phenols	420.4	(1)
Sulfate	375.4	(1)
TDS	160.1	(1)
<del>TSS</del>	160.2	(1)
TKN	351.3	(1)
TOC	415.1	(1)
Bromide	300.0	(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.

-4-

## 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 : Methylene Chloride was detected above the CRDL in VBLK01. The detected concentrations of Methylene Chloride in the associated sample locations should be attributed to laboratory contamination. All other 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 final CRDL Standard recovery for Selenium was below QC acceptance limits. All other criteria were satisfied.

Method Blanks : Criteria were satisfied.

Ref Samples : Criteria were satisfied.

Matrix Spikes : Criteria were satisfied.

Duplicates : Criteria were satisfied.

### **Wet Chemistry Data**

Holding Time : Criteria were satisfied.

Calibration : Criteria were satisfied.

Method Blanks : Criteria were satisfied.

Ref. Samples : Criteria were satisfied.

Matrix Spikes : Criteria were satisfied.

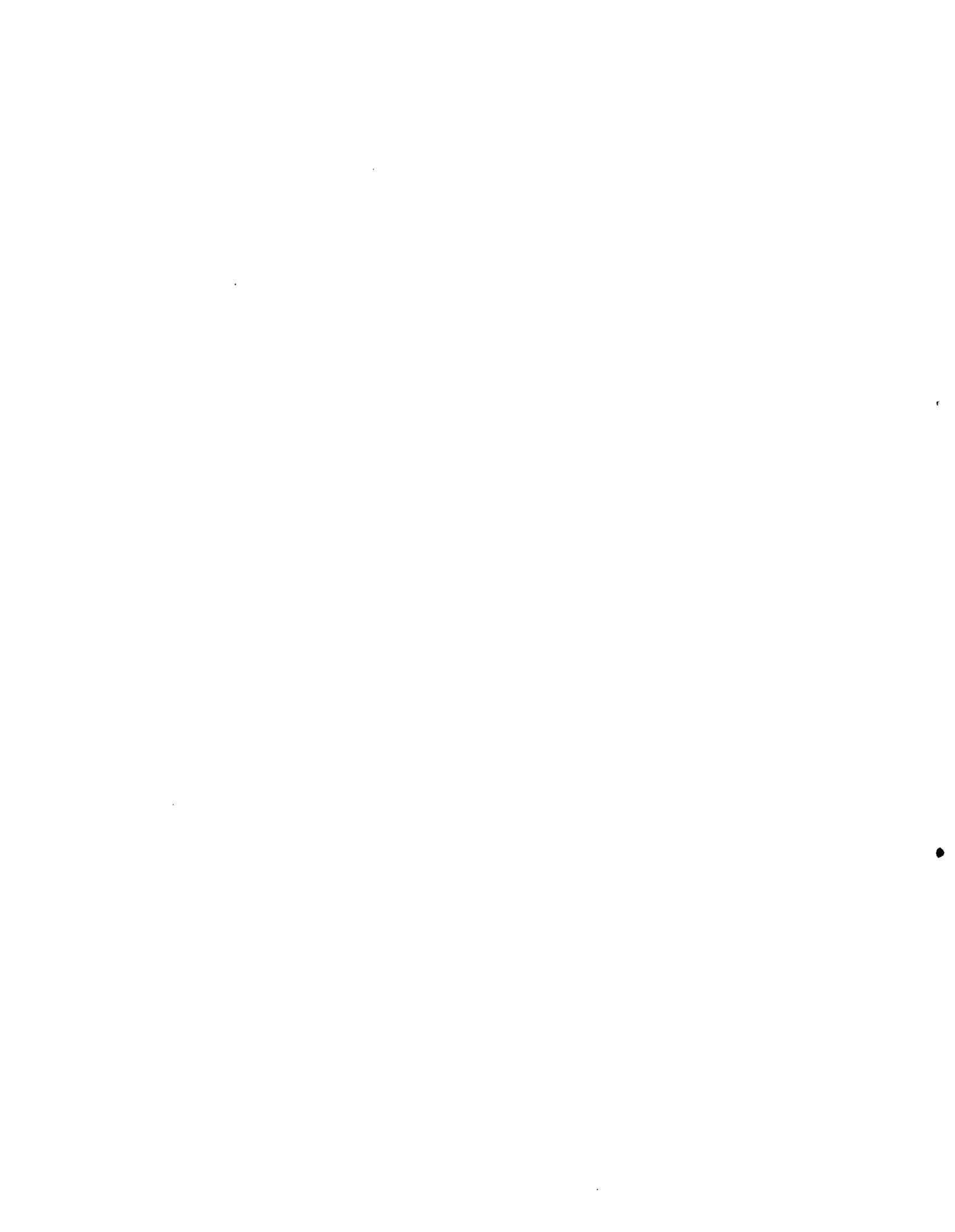
Duplicates : Criteria were satisfied.

-5-

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.

Approved Anthony J. Scala  
Anthony J. Scala, Director

QCSDGCOR10



# Upstate Laboratories, Inc.

TOWSLEE Q1 2008  
BASELINE

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

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

February 27, 2008

RE: Towslee Landfill

Order No.: U0801420

Dear Mr. Reidy:

Upstate Laboratories, Inc. received 16 samples on 2/1/08 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., 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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0801420  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-002

**Client Sample ID:** MW-1B  
**Collection Date:** 2/1/2008 10:03:00 AM  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>						
Conductivity	1075	1.0		umhos/cm		Analyst: 2/1/2008 10:03:00 AM
Eh	196	-300		mV		2/1/2008 10:03:00 AM
pH	8.66	6.5-8.5		SU		2/1/2008 10:03:00 AM
SWL	2.96			ft		2/1/2008 10:03:00 AM
Temperature	1.7			degC		2/1/2008 10:03:00 AM
Turbidity	35.8	5.0		NTU		2/1/2008 10:03:00 AM
<b>ICP METALS, TOTAL ASP</b>						
		<b>E200.7</b>		<b>(E200.7)</b>		Analyst: LJ
Aluminum	518	100		µg/L	1	2/25/2008 12:41:19 PM
Antimony	ND	15.0		µg/L	1	2/25/2008 12:41:19 PM
Arsenic	ND	10.0		µg/L	1	2/25/2008 12:41:19 PM
Barium	199	50.0		µg/L	1	2/25/2008 12:41:19 PM
Beryllium	ND	3.00		µg/L	1	2/25/2008 12:41:19 PM
Boron	ND	500		µg/L	1	2/25/2008 8:41:05 AM
Cadmium	ND	5.00		µg/L	1	2/25/2008 12:41:19 PM
Calcium	25100	1000		µg/L	1	2/25/2008 12:41:19 PM
Chromium	ND	5.00		µg/L	1	2/25/2008 12:41:19 PM
Cobalt	ND	20.0		µg/L	1	2/25/2008 12:41:19 PM
Copper	ND	10.0		µg/L	1	2/25/2008 12:41:19 PM
Iron	1000	60.0		µg/L	1	2/25/2008 12:41:19 PM
Lead	ND	3.00		µg/L	1	2/25/2008 12:41:19 PM
Magnesium	6440	1000		µg/L	1	2/25/2008 12:41:19 PM
Manganese	260	10.0		µg/L	1	2/25/2008 12:41:19 PM
Nickel	ND	30.0		µg/L	1	2/25/2008 12:41:19 PM
Potassium	ND	1000		µg/L	1	2/25/2008 12:41:19 PM
Selenium	ND	5.00		µg/L	1	2/27/2008 8:39:40 AM
Silver	ND	10.0		µg/L	1	2/25/2008 12:41:19 PM
Sodium	5660	1000		µg/L	1	2/25/2008 12:41:19 PM
Thallium	ND	10.0		µg/L	1	2/25/2008 12:41:19 PM
Vanadium	ND	30.0		µg/L	1	2/25/2008 12:41:19 PM
Zinc	11.2	10.0		µg/L	1	2/25/2008 12:41:19 PM
Hardness, Total(CaCO <sub>3</sub> )	89300	7000		µg/L	1	2/25/2008 12:41:19 PM
<b>TOTAL MERCURY WATERS ASP</b>						
Mercury	ND	0.200		µg/L	1	Analyst: EA 2/6/2008 12:07:15 PM
<b>INORGANIC ANIONS BY IC FOR WATERS</b>						
Bromide	ND	0.20		mg/L	1	Analyst: BY 2/5/2008
<b>COLOR</b>						
Color	7.00	5.00		UNITS	1	Analyst: KAM 2/1/2008 3:00:00 PM

Approved By: PF

Date: 2-27-08

Page 1 of 32

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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.      **Client Sample ID:** MW-1B  
**Lab Order:** U0801420      **Collection Date:** 2/1/2008 10:03:00 AM  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-002      **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
COLOR		E110.2				Analyst: KAM
RESIDUE, DISSOLVED (TDS)		E160.1				Analyst: DEY
Residue, Dissolved (TDS)	152	25	mg/L		1	2/4/2008
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		E310.2				Analyst: BY
Alkalinity, Total (As CaCO <sub>3</sub> )	100	10	mg/LCaCO <sub>3</sub>		1	2/7/2008
CHLORIDE WATERS BY LACHAT		E325.2				Analyst: BY
Chloride	3.15	1.00	mg/L		1	2/7/2008
CYANIDE, TOTAL ASP		E335.2		(E335.2)		Analyst: BY
Cyanide	ND	10.0	µg/L		1	2/7/2008
NITROGEN, AMMONIA (AS NH <sub>3</sub> BY LACHAT)		E350.1				Analyst: BS
Nitrogen, Ammonia (As NH <sub>3</sub> )	ND	0.500	mg/L		1	2/13/2008
TKN FOR WATERS		E351.3				Analyst: BS
Nitrogen, Kjeldahl, Total	ND	0.500	mg/L		1	2/13/2008
NITROGEN, NITRATE (AS N)		E353.2				Analyst: BY
Nitrogen, Nitrate (as N)	ND	0.200	mg/L		1	2/1/2008 3:11:00 PM
SULFATE		E375.4				Analyst: KAM
Sulfate	ND	5.00	mg/L		1	2/7/2008
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		E405.1				Analyst: DEY
Biochemical Oxygen Demand	ND	4	mg/L		1	2/1/2008 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		E410.4				Analyst: NJS
Chemical Oxygen Demand	ND	20	mg/L		1	2/5/2008
TOTAL ORGANIC CARBON (TOC)		E415.1				Analyst: NJS
Organic Carbon, Total	ND	3.0	mg/L		1	2/5/2008
PHENOLICS, TOTAL REC. FOR WATERS		E420.4		(E420.4)		Analyst: MB
Phenolics, Total Recoverable	ND	0.005	mg/L		1	2/6/2008
HEXAVALENT CHROMIUM BY ASP 2005		SM3500				Analyst: DEY
Hexavalent chromium	ND	0.010	mg/L		1	2/1/2008 3:00:00 PM

Approved By: PF

Date: 2-27-08

Page 2 of 32

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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0801420  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-003

**Client Sample ID:** MW-2A  
**Collection Date:** 2/1/2008 10:46:00 AM

**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>						
Conductivity	617	1.0		umhos/cm		2/1/2008 10:46:00 AM
Eh	42	-300		mV		2/1/2008 10:46:00 AM
pH	7.94	6.5-8.5		SU		2/1/2008 10:46:00 AM
SWL	5.95			ft		2/1/2008 10:46:00 AM
Temperature	3.1			degC		2/1/2008 10:46:00 AM
Turbidity	7.83	5.0		NTU		2/1/2008 10:46:00 AM
<b>ICP METALS, TOTAL ASP</b>						
		<b>E200.7</b>		<b>(E200.7)</b>		<b>Analyst: LJ</b>
Aluminum	1980	100		µg/L	1	2/25/2008 12:45:06 PM
Antimony	ND	15.0		µg/L	1	2/25/2008 12:45:06 PM
Arsenic	14.5	10.0		µg/L	1	2/25/2008 12:45:06 PM
Barium	377	50.0		µg/L	1	2/25/2008 12:45:06 PM
Beryllium	ND	3.00		µg/L	1	2/25/2008 12:45:06 PM
Boron	ND	500		µg/L	1	2/25/2008 8:43:59 AM
Cadmium	ND	5.00		µg/L	1	2/25/2008 12:45:06 PM
Calcium	70300	1000		µg/L	1	2/25/2008 12:45:06 PM
Chromium	17.7	5.00		µg/L	1	2/25/2008 12:45:06 PM
Cobalt	ND	20.0		µg/L	1	2/25/2008 12:45:06 PM
Copper	ND	10.0		µg/L	1	2/25/2008 12:45:06 PM
Iron	9770	60.0		µg/L	1	2/25/2008 12:45:06 PM
Lead	ND	3.00		µg/L	1	2/25/2008 12:45:06 PM
Magnesium	17100	1000		µg/L	1	2/25/2008 12:45:06 PM
Manganese	11200	10.0		µg/L	1	2/25/2008 12:45:06 PM
Nickel	ND	30.0		µg/L	1	2/25/2008 12:45:06 PM
Potassium	8560	1000		µg/L	1	2/25/2008 12:45:06 PM
Selenium	ND	5.00		µg/L	1	2/27/2008 8:42:58 AM
Silver	ND	10.0		µg/L	1	2/25/2008 12:45:06 PM
Sodium	19200	1000		µg/L	1	2/25/2008 12:45:06 PM
Thallium	ND	10.0		µg/L	1	2/25/2008 12:45:06 PM
Vanadium	ND	30.0		µg/L	1	2/25/2008 12:45:06 PM
Zinc	10.1	10.0		µg/L	1	2/25/2008 12:45:06 PM
Hardness, Total(CaCO <sub>3</sub> )	246000	7000		µg/L	1	2/25/2008 12:45:06 PM
<b>TOTAL MERCURY WATERS ASP</b>						
Mercury	ND	0.200		µg/L	1	2/6/2008 2:10:13 PM
<b>INORGANIC ANIONS BY IC FOR WATERS</b>						
Bromide	ND	2.0		mg/L	10	2/5/2008

**NOTES:**

The reporting limits were raised due to matrix interference.

Approved By: PF

Date: 2-27-08

Page 3 of 32

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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-2A  
**Lab Order:** U0801420 **Collection Date:** 2/1/2008 10:46:00 AM  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-003 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
COLOR		E110.2				Analyst: KAM
Color	40.0	10.0		UNITS	2	2/1/2008 3:00:00 PM
RESIDUE, DISSOLVED (TDS)		E160.1				Analyst: DEY
Residue, Dissolved (TDS)	410	25		mg/L	1	2/4/2008
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		E310.2				Analyst: BY
Alkalinity, Total (As CaCO <sub>3</sub> )	360	10		mg/LCaCO <sub>3</sub>	1	2/7/2008
CHLORIDE WATERS BY LACHAT		E325.2				Analyst: BY
Chloride	21.0	1.00		mg/L	1	2/7/2008
CYANIDE, TOTAL ASP		E335.2		(E335.2)		Analyst: BY
Cyanide	ND	10.0		µg/L	1	2/11/2008
NITROGEN, AMMONIA (AS NH <sub>3</sub> BY LACHAT)		E350.1				Analyst: BY
Nitrogen, Ammonia (As NH <sub>3</sub> )	8.78	0.500		mg/L	1	2/20/2008
TKN FOR WATERS		E351.3				Analyst: BS
Nitrogen, Kjeldahl, Total	10.7	0.500		mg/L	1	2/13/2008
NITROGEN, NITRATE (AS N)		E353.2				Analyst: BY
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	2/1/2008 3:11:00 PM
SULFATE		E375.4				Analyst: KAM
Sulfate	ND	10.0		mg/L	2	2/7/2008
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		E405.1				Analyst: DEY
Biochemical Oxygen Demand	ND	4		mg/L	1	2/1/2008 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		E410.4				Analyst: NJS
Chemical Oxygen Demand	23	20		mg/L	1	2/5/2008
TOTAL ORGANIC CARBON (TOC)		E415.1				Analyst: NJS
Organic Carbon, Total	21.8	3.0		mg/L	1	2/5/2008
PHENOLICS, TOTAL REC. FOR WATERS		E420.4		(E420.4)		Analyst: MB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	2/6/2008
HEXAVALENT CHROMIUM BY ASP 2005		SM3500				Analyst: DEY
Hexavalent chromium	ND	0.050		mg/L	5	2/1/2008 3:00:00 PM

**NOTES:**

The reporting limits were raised due to matrix interference.

Approved By: PF

Date: 2-27-08

Page 4 of 32

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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-3A  
**Lab Order:** U0801420 **Collection Date:** 2/1/2008 9:45:00 AM  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-004 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>						
Conductivity	1074	1.0		umhos/cm		2/1/2008 9:45:00 AM
Eh	174	-300		mV		2/1/2008 9:45:00 AM
pH	8.06	6.5-8.5		SU		2/1/2008 9:45:00 AM
SWL	7.17			ft		2/1/2008 9:45:00 AM
Temperature	3.4			degC		2/1/2008 9:45:00 AM
Turbidity	17.0	5.0		NTU		2/1/2008 9:45:00 AM
<b>ICP METALS, TOTAL ASP</b>						
		<b>E200.7</b>		<b>(E200.7)</b>		<b>Analyst: LJ</b>
Aluminum	230	100		µg/L	1	2/25/2008 12:48:32 PM
Antimony	ND	15.0		µg/L	1	2/25/2008 12:48:32 PM
Arsenic	ND	10.0		µg/L	1	2/25/2008 12:48:32 PM
Barium	441	50.0		µg/L	1	2/25/2008 12:48:32 PM
Beryllium	ND	3.00		µg/L	1	2/25/2008 12:48:32 PM
Boron	ND	500		µg/L	1	2/25/2008 8:46:55 AM
Cadmium	ND	5.00		µg/L	1	2/25/2008 12:48:32 PM
Calcium	30200	1000		µg/L	1	2/25/2008 12:48:32 PM
Chromium	ND	5.00		µg/L	1	2/25/2008 12:48:32 PM
Cobalt	ND	20.0		µg/L	1	2/25/2008 12:48:32 PM
Copper	ND	10.0		µg/L	1	2/25/2008 12:48:32 PM
Iron	451	60.0		µg/L	1	2/25/2008 12:48:32 PM
Lead	ND	3.00		µg/L	1	2/25/2008 12:48:32 PM
Magnesium	5420	1000		µg/L	1	2/25/2008 12:48:32 PM
Manganese	37.3	10.0		µg/L	1	2/25/2008 12:48:32 PM
Nickel	ND	30.0		µg/L	1	2/25/2008 12:48:32 PM
Potassium	ND	1000		µg/L	1	2/25/2008 12:48:32 PM
Selenium	ND	5.00		µg/L	1	2/27/2008 8:46:17 AM
Silver	ND	10.0		µg/L	1	2/25/2008 12:48:32 PM
Sodium	2900	1000		µg/L	1	2/25/2008 12:48:32 PM
Thallium	ND	10.0		µg/L	1	2/25/2008 12:48:32 PM
Vanadium	ND	30.0		µg/L	1	2/25/2008 12:48:32 PM
Zinc	ND	10.0		µg/L	1	2/25/2008 12:48:32 PM
Hardness, Total(CaCO <sub>3</sub> )	97700	7000		µg/L	1	2/25/2008 12:48:32 PM
<b>TOTAL MERCURY WATERS ASP</b>						
Mercury	ND	0.200		µg/L	1	2/6/2008 12:10:03 PM
<b>INORGANIC ANIONS BY IC FOR WATERS</b>						
Bromide	ND	2.0		mg/L	10	2/13/2008

**NOTES:**

The reporting limits were raised due to matrix interference.

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-3A  
**Lab Order:** U0801420 **Collection Date:** 2/1/2008 9:45:00 AM  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-004 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
COLOR		E110.2				Analyst: KAM
Color	15.0	5.00		UNITS	1	2/1/2008 3:00:00 PM
RESIDUE, DISSOLVED (TDS)		E160.1				Analyst: DEY
Residue, Dissolved (TDS)	115	25		mg/L	1	2/4/2008
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		E310.2				Analyst: BY
Alkalinity, Total (As CaCO <sub>3</sub> )	110	10		mg/LCaCO <sub>3</sub>	1	2/7/2008
CHLORIDE WATERS BY LACHAT		E325.2				Analyst: BY
Chloride	2.43	1.00		mg/L	1	2/7/2008
CYANIDE, TOTAL ASP		E335.2	(E335.2)			Analyst: BY
Cyanide	ND	10.0		µg/L	1	2/7/2008
NITROGEN, AMMONIA (AS NH <sub>3</sub> BY LACHAT)		E350.1				Analyst: BS
Nitrogen, Ammonia (As NH <sub>3</sub> )	ND	0.500		mg/L	1	2/13/2008
TKN FOR WATERS		E351.3				Analyst: BS
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	2/13/2008
NITROGEN, NITRATE (AS N)		E353.2				Analyst: BY
Nitrogen, Nitrate (as N)	0.338	0.200		mg/L	1	2/1/2008 3:11:00 PM
SULFATE		E375.4				Analyst: KAM
Sulfate	ND	5.00		mg/L	1	2/7/2008
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		E405.1				Analyst: DEY
Biochemical Oxygen Demand	ND	4		mg/L	1	2/1/2008 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		E410.4				Analyst: NJS
Chemical Oxygen Demand	23	20		mg/L	1	2/5/2008
TOTAL ORGANIC CARBON (TOC)		E415.1				Analyst: NJS
Organic Carbon, Total	ND	3.0		mg/L	1	2/5/2008
PHENOLICS, TOTAL REC. FOR WATERS		E420.4	(E420.4)			Analyst: MB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	2/6/2008
HEXAVALENT CHROMIUM BY ASP 2005		SM3500				Analyst: DEY
Hexavalent chromium	ND	0.010		mg/L	1	2/1/2008 3:00:00 PM

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

CLIENT: Cortland Co. Soil and Water Cons. Dist.  
 Lab Order: U0801420  
 Project: Towslee Landfill  
 Lab ID: U0801420-005

Client Sample ID: MW-6B  
 Collection Date: 2/1/2008 11:12:00 AM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>						
Conductivity	199	1.0		umhos/cm		2/1/2008 11:12:00 AM
Eh	121	-300		mV		2/1/2008 11:12:00 AM
pH	8.55	6.5-8.5		SU		2/1/2008 11:12:00 AM
SWL	13.83			ft		2/1/2008 11:12:00 AM
Temperature	3.7			degC		2/1/2008 11:12:00 AM
Turbidity	13.6	5.0		NTU		2/1/2008 11:12:00 AM
<b>ICP METALS, TOTAL ASP</b>						
		<b>E200.7</b>		<b>(E200.7)</b>		Analyst: LJ
Aluminum	134	100		µg/L	1	2/25/2008 12:52:00 PM
Antimony	ND	15.0		µg/L	1	2/25/2008 12:52:00 PM
Arsenic	ND	10.0		µg/L	1	2/25/2008 12:52:00 PM
Barium	337	50.0		µg/L	1	2/25/2008 12:52:00 PM
Beryllium	ND	3.00		µg/L	1	2/25/2008 12:52:00 PM
Boron	ND	500		µg/L	1	2/25/2008 8:49:48 AM
Cadmium	ND	5.00		µg/L	1	2/25/2008 12:52:00 PM
Calcium	39200	1000		µg/L	1	2/25/2008 12:52:00 PM
Chromium	ND	5.00		µg/L	1	2/25/2008 12:52:00 PM
Cobalt	ND	20.0		µg/L	1	2/25/2008 12:52:00 PM
Copper	ND	10.0		µg/L	1	2/25/2008 12:52:00 PM
Iron	229	60.0		µg/L	1	2/25/2008 12:52:00 PM
Lead	ND	3.00		µg/L	1	2/25/2008 12:52:00 PM
Magnesium	9370	1000		µg/L	1	2/25/2008 12:52:00 PM
Manganese	327	10.0		µg/L	1	2/25/2008 12:52:00 PM
Nickel	ND	30.0		µg/L	1	2/25/2008 12:52:00 PM
Potassium	ND	1000		µg/L	1	2/25/2008 12:52:00 PM
Selenium	ND	5.00		µg/L	1	2/27/2008 8:49:36 AM
Silver	ND	10.0		µg/L	1	2/25/2008 12:52:00 PM
Sodium	13800	1000		µg/L	1	2/25/2008 12:52:00 PM
Thallium	ND	10.0		µg/L	1	2/25/2008 12:52:00 PM
Vanadium	ND	30.0		µg/L	1	2/25/2008 12:52:00 PM
Zinc	10.3	10.0		µg/L	1	2/25/2008 12:52:00 PM
Hardness, Total(CaCO <sub>3</sub> )	136000	7000		µg/L	1	2/25/2008 12:52:00 PM
<b>TOTAL MERCURY WATERS ASP</b>						
Mercury	ND	0.200		µg/L	1	2/6/2008 12:11:06 PM
<b>INORGANIC ANIONS BY IC FOR WATERS</b>						
Bromide	ND	0.20		mg/L	1	2/13/2008
<b>COLOR</b>						
Color	7.00	5.00		UNITS	1	2/1/2008 3:00:00 PM

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0801420  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-005

**Client Sample ID:** MW-6B  
**Collection Date:** 2/1/2008 11:12:00 AM

**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
COLOR		E110.2				Analyst: KAM
RESIDUE, DISSOLVED (TDS)		E160.1				Analyst: DEY
Residue, Dissolved (TDS)	198	25	mg/L		1	2/4/2008
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		E310.2				Analyst: BY
Alkalinity, Total (As CaCO <sub>3</sub> )	140	10	mg/LCaCO <sub>3</sub>		1	2/7/2008
CHLORIDE WATERS BY LACHAT		E325.2				Analyst: BY
Chloride	16.7	1.00	mg/L		1	2/7/2008
CYANIDE, TOTAL ASP		E335.2		(E335.2)		Analyst: BY
Cyanide	ND	10.0	µg/L		1	2/7/2008
NITROGEN, AMMONIA (AS NH <sub>3</sub> BY LACHAT)		E350.1				Analyst: BS
Nitrogen, Ammonia (As NH <sub>3</sub> )	ND	0.500	mg/L		1	2/13/2008
TKN FOR WATERS		E351.3				Analyst: BS
Nitrogen, Kjeldahl, Total	ND	0.500	mg/L		1	2/13/2008
NITROGEN, NITRATE (AS N)		E353.2				Analyst: BY
Nitrogen, Nitrate (as N)	ND	0.200	mg/L		1	2/1/2008 3:11:00 PM
SULFATE		E375.4				Analyst: KAM
Sulfate	18.1	5.00	mg/L		1	2/7/2008
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		E405.1				Analyst: DEY
Biochemical Oxygen Demand	ND	4	mg/L		1	2/1/2008 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		E410.4				Analyst: NJS
Chemical Oxygen Demand	ND	20	mg/L		1	2/5/2008
TOTAL ORGANIC CARBON (TOC)		E415.1				Analyst: NJS
Organic Carbon, Total	ND	3.0	mg/L		1	2/5/2008
PHENOLICS, TOTAL REC. FOR WATERS		E420.4		(E420.4)		Analyst: MB
Phenolics, Total Recoverable	ND	0.005	mg/L		1	2/6/2008
HEXAVALENT CHROMIUM BY ASP 2005		SM3500				Analyst: DEY
Hexavalent chromium	ND	0.010	mg/L		1	2/1/2008 3:00:00 PM

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0801420  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-006

**Client Sample ID:** MW-7A  
**Collection Date:** 2/1/2008 10:24:00 AM  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>						
Conductivity	561	1.0		umhos/cm		2/1/2008 10:24:00 AM
Eh	245	-300		mV		2/1/2008 10:24:00 AM
pH	7.77	6.5-8.5		SU		2/1/2008 10:24:00 AM
SWL	3.75			ft		2/1/2008 10:24:00 AM
Temperature	2.0			degC		2/1/2008 10:24:00 AM
Turbidity	39.3	5.0		NTU		2/1/2008 10:24:00 AM
<b>ICP METALS, TOTAL ASP</b>						
		<b>E200.7</b>		<b>(E200.7)</b>		<b>Analyst: LJ</b>
Aluminum	919	100		µg/L	1	2/25/2008 1:02:05 PM
Antimony	ND	15.0		µg/L	1	2/25/2008 1:02:05 PM
Arsenic	ND	10.0		µg/L	1	2/25/2008 1:02:05 PM
Barium	680	50.0		µg/L	1	2/25/2008 1:02:05 PM
Beryllium	ND	3.00		µg/L	1	2/25/2008 1:02:05 PM
Boron	588	500		µg/L	1	2/25/2008 8:58:31 AM
Cadmium	ND	5.00		µg/L	1	2/25/2008 1:02:05 PM
Calcium	148000	1000		µg/L	1	2/25/2008 1:02:05 PM
Chromium	6.67	5.00		µg/L	1	2/25/2008 1:02:05 PM
Cobalt	ND	20.0		µg/L	1	2/25/2008 1:02:05 PM
Copper	ND	10.0		µg/L	1	2/25/2008 1:02:05 PM
Iron	1680	60.0		µg/L	1	2/25/2008 1:02:05 PM
Lead	ND	3.00		µg/L	1	2/25/2008 1:02:05 PM
Magnesium	38400	1000		µg/L	1	2/25/2008 1:02:05 PM
Manganese	4170	10.0		µg/L	1	2/25/2008 1:02:05 PM
Nickel	ND	30.0		µg/L	1	2/25/2008 1:02:05 PM
Potassium	1850	1000		µg/L	1	2/25/2008 1:02:05 PM
Selenium	ND	5.00		µg/L	1	2/27/2008 8:59:06 AM
Silver	ND	10.0		µg/L	1	2/25/2008 1:02:05 PM
Sodium	104000	1000		µg/L	1	2/25/2008 1:02:05 PM
Thallium	ND	10.0		µg/L	1	2/25/2008 1:02:05 PM
Vanadium	ND	30.0		µg/L	1	2/25/2008 1:02:05 PM
Zinc	10.2	10.0		µg/L	1	2/25/2008 1:02:05 PM
Hardness, Total(CaCO <sub>3</sub> )	528000	7000		µg/L	1	2/25/2008 1:02:05 PM
<b>TOTAL MERCURY WATERS ASP</b>						
Mercury	ND	0.200		µg/L	1	2/6/2008 12:14:57 PM
<b>INORGANIC ANIONS BY IC FOR WATERS</b>						
Bromide	ND	2.0		mg/L	10	2/13/2008

**NOTES:**

The reporting limits were raised due to matrix interference.

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-7A  
**Lab Order:** U0801420 **Collection Date:** 2/1/2008 10:24:00 AM  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-006 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
COLOR		E110.2				Analyst: KAM
Color	7.00	5.00	UNITS		1	2/1/2008 3:00:00 PM
RESIDUE, DISSOLVED (TDS)		E160.1				Analyst: DEY
Residue, Dissolved (TDS)	800	25	mg/L		1	2/4/2008
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		E310.2				Analyst: BY
Alkalinity, Total (As CaCO <sub>3</sub> )	570	100	mg/LCaCO <sub>3</sub>		10	2/7/2008
CHLORIDE WATERS BY LACHAT		E325.2				Analyst: BY
Chloride	141	1.00	mg/L		1	2/7/2008
CYANIDE, TOTAL ASP		E335.2	(E335.2)			Analyst: BY
Cyanide	ND	10.0	µg/L		1	2/7/2008
NITROGEN, AMMONIA (AS NH <sub>3</sub> BY LACHAT)		E350.1				Analyst: BY
Nitrogen, Ammonia (As NH <sub>3</sub> )	ND	0.500	mg/L		1	2/20/2008
TKN FOR WATERS		E351.3				Analyst: BS
Nitrogen, Kjeldahl, Total	0.522	0.500	mg/L		1	2/13/2008
NITROGEN, NITRATE (AS N)		E353.2				Analyst: BY
Nitrogen, Nitrate (as N)	ND	0.200	mg/L		1	2/1/2008 3:11:00 PM
SULFATE		E375.4				Analyst: KAM
Sulfate	12.2	10.0	mg/L		2	2/7/2008
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		E405.1				Analyst: DEY
Biochemical Oxygen Demand	ND	4	mg/L		1	2/1/2008 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		E410.4				Analyst: NJS
Chemical Oxygen Demand	ND	20	mg/L		1	2/5/2008
TOTAL ORGANIC CARBON (TOC)		E415.1				Analyst: NJS
Organic Carbon, Total	69.9	3.0	mg/L		1	2/5/2008
PHENOLICS, TOTAL REC. FOR WATERS		E420.4	(E420.4)			Analyst: MB
Phenolics, Total Recoverable	ND	0.005	mg/L		1	2/6/2008
HEXAVALENT CHROMIUM BY ASP 2005		SM3500				Analyst: DEY
Hexavalent chromium	ND	0.050	mg/L		5	2/1/2008 3:00:00 PM
NOTES:	The reporting limits were raised due to matrix interference.					

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0801420  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-008

**Client Sample ID:** MW-1B  
**Collection Date:** 1/31/2008 10:16:00 AM  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLs(BASELINE)		SW8260B				Analyst: MM
Chloromethane	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Vinyl chloride	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Bromomethane	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Chloroethane	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Acetone	ND	10		µg/L	1	2/5/2008 6:12:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Iodomethane	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Carbon disulfide	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Methylene chloride	13	5.0	B	µg/L	1	2/5/2008 6:12:00 PM
Acrylonitrile	ND	100		µg/L	1	2/5/2008 6:12:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Vinyl acetate	ND	50		µg/L	1	2/5/2008 6:12:00 PM
2-Butanone	ND	10		µg/L	1	2/5/2008 6:12:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Chloroform	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Bromochloromethane	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Benzene	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Trichloroethene	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Dibromomethane	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/5/2008 6:12:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Toluene	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
2-Hexanone	ND	10		µg/L	1	2/5/2008 6:12:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Chlorobenzene	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Ethylbenzene	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
m,p-Xylene	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

CLIENT: Cortland Co. Soil and Water Cons. Dist.  
Lab Order: U0801420  
Project: Towslee Landfill  
Lab ID: U0801420-008

Client Sample ID: MW-1B  
Collection Date: 1/31/2008 10:16:00 AM  
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLs(BASELINE)		SW8260B				Analyst: MM
o-Xylene	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Styrene	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
Bromoform	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	2/5/2008 6:12:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 6:12:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	2/5/2008 6:12:00 PM
TIC: Hexane	3.3	0	J	µg/L	1	2/5/2008 6:12:00 PM

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

CLIENT: Cortland Co. Soil and Water Cons. Dist.  
 Lab Order: U0801420  
 Project: Towslee Landfill  
 Lab ID: U0801420-009

Client Sample ID: MW-2A  
 Collection Date: 1/31/2008 11:02:00 AM  
 Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ASP/CLP APPENDIX I WATER VOLs(BASELINE)</b>						
Chloromethane	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Vinyl chloride	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Bromomethane	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Chloroethane	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Acetone	ND	10		µg/L	1	2/5/2008 6:50:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Iodomethane	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Carbon disulfide	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Methylene chloride	12	5.0	B	µg/L	1	2/5/2008 6:50:00 PM
Acrylonitrile	ND	100		µg/L	1	2/5/2008 6:50:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Vinyl acetate	ND	50		µg/L	1	2/5/2008 6:50:00 PM
2-Butanone	ND	10		µg/L	1	2/5/2008 6:50:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Chloroform	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Bromochloromethane	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Benzene	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Trichloroethene	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Dibromomethane	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/5/2008 6:50:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Toluene	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
2-Hexanone	ND	10		µg/L	1	2/5/2008 6:50:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Chlorobenzene	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Ethylbenzene	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
m,p-Xylene	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

CLIENT: Cortland Co. Soil and Water Cons. Dist.  
Lab Order: U0801420  
Project: Towslee Landfill  
Lab ID: U0801420-009

Client Sample ID: MW-2A  
Collection Date: 1/31/2008 11:02:00 AM  
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLs(BASELINE)	SW8260B					Analyst: MM
o-Xylene	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Styrene	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
Bromoform	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	2/5/2008 6:50:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 6:50:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	2/5/2008 6:50:00 PM
TIC: Hexane	3.6	0	J	µg/L	1	2/5/2008 6:50:00 PM

Approved By: PF

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: 2-27-08

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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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0801420  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-010

**Client Sample ID:** MW-2B  
**Collection Date:** 1/31/2008 11:00:00 AM  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ASP/CLP APPENDIX I WATER VOLS(BASELINE)</b>				<b>SW8260B</b>		<b>Analyst: MM</b>
Chloromethane	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Vinyl chloride	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Bromomethane	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Chloroethane	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Acetone	ND	10		µg/L	1	2/5/2008 7:28:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Iodomethane	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Carbon disulfide	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Methylene chloride	11	5.0	B	µg/L	1	2/5/2008 7:28:00 PM
Acrylonitrile	ND	100		µg/L	1	2/5/2008 7:28:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Vinyl acetate	ND	50		µg/L	1	2/5/2008 7:28:00 PM
2-Butanone	ND	10		µg/L	1	2/5/2008 7:28:00 PM
cis-1,2-Dichloroethene	9.4	5.0		µg/L	1	2/5/2008 7:28:00 PM
Chloroform	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Bromochloromethane	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Benzene	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Trichloroethene	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Dibromomethane	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/5/2008 7:28:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Toluene	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
2-Hexanone	ND	10		µg/L	1	2/5/2008 7:28:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Chlorobenzene	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Ethylbenzene	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
m,p-Xylene	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM

Approved By: PF

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: 2-27-08

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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: 27-Feb-08

CLIENT: Cortland Co. Soil and Water Cons. Dist.  
Lab Order: U0801420  
Project: Towslee Landfill  
Lab ID: U0801420-010

Client Sample ID: MW-2B  
Collection Date: 1/31/2008 11:00:00 AM  
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLs(BASELINE)		SW8260B				Analyst: MM
o-Xylene	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Styrene	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
Bromoform	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	2/5/2008 7:28:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 7:28:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	2/5/2008 7:28:00 PM
TIC: Ethyl ether	6.5	0	J	µg/L	1	2/5/2008 7:28:00 PM
TIC: Hexane	3.0	0	J	µg/L	1	2/5/2008 7:28:00 PM

Approved By: PF

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: 2-27-08

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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: 27-Feb-08

CLIENT: Cortland Co. Soil and Water Cons. Dist.  
 Lab Order: U0801420  
 Project: Towslee Landfill  
 Lab ID: U0801420-011

Client Sample ID: MW-3A  
 Collection Date: 1/31/2008 9:56:00 AM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOL(S.BASELINE)	SW8260B					Analyst: MM
Chloromethane	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Vinyl chloride	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Bromomethane	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Chloroethane	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Acetone	ND	10		µg/L	1	2/5/2008 8:06:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Iodomethane	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Carbon disulfide	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Methylene chloride	11	5.0	B	µg/L	1	2/5/2008 8:06:00 PM
Acrylonitrile	ND	100		µg/L	1	2/5/2008 8:06:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Vinyl acetate	ND	50		µg/L	1	2/5/2008 8:06:00 PM
2-Butanone	ND	10		µg/L	1	2/5/2008 8:06:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Chloroform	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Bromochloromethane	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Benzene	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Trichloroethene	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Dibromomethane	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/5/2008 8:06:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Toluene	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
2-Hexanone	ND	10		µg/L	1	2/5/2008 8:06:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Chlorobenzene	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Ethylbenzene	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
m,p-Xylene	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

CLIENT: Cortland Co. Soil and Water Cons. Dist.  
Lab Order: U0801420  
Project: Towslee Landfill  
Lab ID: U0801420-011

Client Sample ID: MW-3A  
Collection Date: 1/31/2008 9:56:00 AM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLs(BASELINE)	SW8260B					Analyst: MM
o-Xylene	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Styrene	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
Bromoform	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	2/5/2008 8:06:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 8:06:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	2/5/2008 8:06:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0801420  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-012

**Client Sample ID:** MW-6B  
**Collection Date:** 1/31/2008 11:30:00 AM

**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLs(BASELINE)		SW8260B				Analyst: MM
Chloromethane	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Vinyl chloride	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Bromomethane	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Chloroethane	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Acetone	ND	10		µg/L	1	2/5/2008 8:44:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Iodomethane	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Carbon disulfide	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Methylene chloride	12	5.0	B	µg/L	1	2/5/2008 8:44:00 PM
Acrylonitrile	ND	100		µg/L	1	2/5/2008 8:44:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Vinyl acetate	ND	50		µg/L	1	2/5/2008 8:44:00 PM
2-Butanone	ND	10		µg/L	1	2/5/2008 8:44:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Chloroform	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Bromochloromethane	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Benzene	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Trichloroethene	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Dibromomethane	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/5/2008 8:44:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Toluene	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
2-Hexanone	ND	10		µg/L	1	2/5/2008 8:44:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Chlorobenzene	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Ethylbenzene	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
m,p-Xylene	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0801420  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-012

**Client Sample ID:** MW-6B  
**Collection Date:** 1/31/2008 11:30:00 AM  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLs(BASELINE)		SW8260B				Analyst: MM
o-Xylene	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Styrene	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
Bromoform	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	2/5/2008 8:44:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 8:44:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	2/5/2008 8:44:00 PM
TIC: Hexane	3.7	0	J	µg/L	1	2/5/2008 8:44:00 PM

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0801420  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-013

**Client Sample ID:** MW-7A  
**Collection Date:** 1/31/2008 10:39:00 AM  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOL(S(BASELINE)	SW8260B					Analyst: MM
Chloromethane	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
Vinyl chloride	8.2	5.0	μg/L		1	2/5/2008 10:38:00 PM
Bromomethane	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
Chloroethane	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
Trichlorofluoromethane	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
Acetone	ND	10	μg/L		1	2/5/2008 10:38:00 PM
1,1-Dichloroethene	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
Iodomethane	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
Carbon disulfide	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
Methylene chloride	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
Acrylonitrile	ND	100	μg/L		1	2/5/2008 10:38:00 PM
trans-1,2-Dichloroethene	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
1,1-Dichloroethane	7.9	5.0	μg/L		1	2/5/2008 10:38:00 PM
Vinyl acetate	ND	50	μg/L		1	2/5/2008 10:38:00 PM
2-Butanone	ND	10	μg/L		1	2/5/2008 10:38:00 PM
cis-1,2-Dichloroethene	9.0	5.0	μg/L		1	2/5/2008 10:38:00 PM
Chloroform	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
Bromochloromethane	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
1,1,1-Trichloroethane	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
Carbon tetrachloride	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
Benzene	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
1,2-Dichloroethane	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
Trichloroethene	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
1,2-Dichloropropane	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
Bromodichloromethane	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
Dibromomethane	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
4-Methyl-2-pentanone	ND	10	μg/L		1	2/5/2008 10:38:00 PM
cis-1,3-Dichloropropene	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
Toluene	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
trans-1,3-Dichloropropene	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
1,1,2-Trichloroethane	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
2-Hexanone	ND	10	μg/L		1	2/5/2008 10:38:00 PM
Tetrachloroethene	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
Dibromochloromethane	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
1,2-Dibromoethane	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
Chlorobenzene	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
Ethylbenzene	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM
m,p-Xylene	ND	5.0	μg/L		1	2/5/2008 10:38:00 PM

Approved By: PF

Date: 2-27-08 Page 21 of 32

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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0801420  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-013

**Client Sample ID:** MW-7A  
**Collection Date:** 1/31/2008 10:39:00 AM

**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ASP/CLP APPENDIX I WATER VOLs(BASELINE)</b>		<b>SW8260B</b>				<b>Analyst: MM</b>
o-Xylene	ND	5.0		µg/L	1	2/5/2008 10:38:00 PM
Styrene	ND	5.0		µg/L	1	2/5/2008 10:38:00 PM
Bromoform	ND	5.0		µg/L	1	2/5/2008 10:38:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	2/5/2008 10:38:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	2/5/2008 10:38:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	2/5/2008 10:38:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 10:38:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 10:38:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 10:38:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	2/5/2008 10:38:00 PM
TIC: Ethyl ether	3.8	0	J	µg/L	1	2/5/2008 10:38:00 PM
TIC: Hexane	3.7	0	J	µg/L	1	2/5/2008 10:38:00 PM

Approved By: PF

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: 2-27-08

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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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0801420  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-014

**Client Sample ID:** ULI Trip Blank  
**Collection Date:** 1/31/2008

**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ASP/CLP APPENDIX I WATER VOLs(BASELINE)</b>	<b>SW8260B</b>					<b>Analyst: MM</b>
Chloromethane	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Vinyl chloride	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Bromomethane	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Chloroethane	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Acetone	ND	10		µg/L	1	2/5/2008 11:16:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Iodomethane	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Carbon disulfide	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Methylene chloride	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Acrylonitrile	ND	100		µg/L	1	2/5/2008 11:16:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Vinyl acetate	ND	50		µg/L	1	2/5/2008 11:16:00 PM
2-Butanone	ND	10		µg/L	1	2/5/2008 11:16:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Chloroform	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Bromochloromethane	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Benzene	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Trichloroethene	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Dibromomethane	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/5/2008 11:16:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Toluene	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
2-Hexanone	ND	10		µg/L	1	2/5/2008 11:16:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Chlorobenzene	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Ethylbenzene	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
m,p-Xylene	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM

Approved By: PF

Date: 2-27-08 Page 23 of 32

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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0801420  
**Project:** TowsLee Landfill  
**Lab ID:** U0801420-014

**Client Sample ID:** ULI Trip Blank  
**Collection Date:** 1/31/2008

**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ASP/CLP APPENDIX I WATER VOLs(BASELINE)</b>						<b>Analyst: MM</b>
o-Xylene	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Styrene	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
Bromoform	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	2/5/2008 11:16:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 11:16:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	2/5/2008 11:16:00 PM
TIC: Hexane	4.2	0	J	µg/L	1	2/5/2008 11:16:00 PM

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0801420  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-015

**Client Sample ID:** MW-2B  
**Collection Date:** 2/1/2008 10:42:00 AM  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>						
Conductivity	339	1.0		umhos/cm		2/1/2008 10:42:00 AM
Eh	40	-300		mV		2/1/2008 10:42:00 AM
pH	8.34	6.5-8.5		SU		2/1/2008 10:42:00 AM
SWL	6.95			ft		2/1/2008 10:42:00 AM
Temperature	3.2			degC		2/1/2008 10:42:00 AM
Turbidity	41.5	5.0		NTU		2/1/2008 10:42:00 AM
<b>ICP METALS, TOTAL ASP</b>						
		<b>E200.7</b>		<b>(E200.7)</b>		<b>Analyst: LJ</b>
Aluminum	168	100		µg/L	1	2/25/2008 1:12:32 PM
Antimony	ND	15.0		µg/L	1	2/25/2008 1:12:32 PM
Arsenic	ND	10.0		µg/L	1	2/25/2008 1:12:32 PM
Barium	1180	50.0		µg/L	1	2/25/2008 1:12:32 PM
Beryllium	ND	3.00		µg/L	1	2/25/2008 1:12:32 PM
Boron	ND	500		µg/L	1	2/25/2008 9:06:59 AM
Cadmium	ND	5.00		µg/L	1	2/25/2008 1:12:32 PM
Calcium	201000	1000		µg/L	1	2/25/2008 1:12:32 PM
Chromium	8.16	5.00		µg/L	1	2/25/2008 1:12:32 PM
Cobalt	ND	20.0		µg/L	1	2/25/2008 1:12:32 PM
Copper	ND	10.0		µg/L	1	2/25/2008 1:12:32 PM
Iron	439	60.0		µg/L	1	2/25/2008 1:12:32 PM
Lead	ND	3.00		µg/L	1	2/25/2008 1:12:32 PM
Magnesium	42800	1000		µg/L	1	2/25/2008 1:12:32 PM
Manganese	6210	10.0		µg/L	1	2/25/2008 1:12:32 PM
Nickel	ND	30.0		µg/L	1	2/25/2008 1:12:32 PM
Potassium	2440	1000		µg/L	1	2/25/2008 1:12:32 PM
Selenium	ND	5.00		µg/L	1	2/27/2008 9:08:35 AM
Silver	ND	10.0		µg/L	1	2/25/2008 1:12:32 PM
Sodium	50600	1000		µg/L	1	2/25/2008 1:12:32 PM
Thallium	ND	10.0		µg/L	1	2/25/2008 1:12:32 PM
Vanadium	ND	30.0		µg/L	1	2/25/2008 1:12:32 PM
Zinc	ND	10.0		µg/L	1	2/25/2008 1:12:32 PM
Hardness, Total(CaCO <sub>3</sub> )	678000	7000		µg/L	1	2/25/2008 1:12:32 PM
<b>TOTAL MERCURY WATERS ASP</b>						
Mercury	ND	0.200		µg/L	1	2/6/2008 12:16:11 PM
<b>INORGANIC ANIONS BY IC FOR WATERS</b>						
Bromide	ND	2.0		mg/L	10	2/15/2008

**NOTES:**

The reporting limits were raised due to matrix interference.

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0801420  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-015

**Client Sample ID:** MW-2B  
**Collection Date:** 2/1/2008 10:42:00 AM  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
COLOR		E110.2				Analyst: KAM
Color	7.00	5.00	UNITS		1	2/1/2008 3:00:00 PM
RESIDUE, DISSOLVED (TDS)		E160.1				Analyst: DEY
Residue, Dissolved (TDS)	840	25	mg/L		1	2/4/2008
ALKALINITY ON AQUEOUS SAMPLES BY LACHA		E310.2				Analyst: BY
Alkalinity, Total (As CaCO <sub>3</sub> )	640	100	mg/LCaCO <sub>3</sub>		10	2/7/2008
CHLORIDE WATERS BY LACHAT		E325.2				Analyst: BY
Chloride	160	1.00	mg/L		1	2/7/2008
CYANIDE, TOTAL ASP		E335.2	(E335.2)			Analyst: BY
Cyanide	ND	10.0	µg/L		1	2/7/2008
NITROGEN, AMMONIA (AS NH <sub>3</sub> BY LACHAT)		E350.1				Analyst: BY
Nitrogen, Ammonia (As NH <sub>3</sub> )	0.785	0.500	mg/L		1	2/20/2008
TKN FOR WATERS		E351.3				Analyst: BS
Nitrogen, Kjeldahl, Total	1.33	0.500	mg/L		1	2/13/2008
NITROGEN, NITRATE (AS N)		E353.2				Analyst: BY
Nitrogen, Nitrate (as N)	ND	0.200	mg/L		1	2/1/2008 3:11:00 PM
SULFATE		E375.4				Analyst: KAM
Sulfate	ND	5.00	mg/L		1	2/7/2008
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		E405.1				Analyst: DEY
Biochemical Oxygen Demand	ND	4	mg/L		1	2/1/2008 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		E410.4				Analyst: NJS
Chemical Oxygen Demand	24	20	mg/L		1	2/5/2008
TOTAL ORGANIC CARBON (TOC)		E415.1				Analyst: NJS
Organic Carbon, Total	82.6	3.0	mg/L		1	2/5/2008
PHENOLICS, TOTAL REC. FOR WATERS		E420.4	(E420.4)			Analyst: MB
Phenolics, Total Recoverable	ND	0.005	mg/L		1	2/6/2008
HEXAVALENT CHROMIUM BY ASP 2005		SM3500				Analyst: DEY
Hexavalent chromium	ND	0.010	mg/L		1	2/1/2008 3:00:00 PM

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0801420  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-016

**Client Sample ID:** Dupe-MW-1B  
**Collection Date:** 1/31/2008 10:16:00 AM  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOL(S.BASELINE)		SW8260B				Analyst: MM
Chloromethane	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Vinyl chloride	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Bromomethane	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Chloroethane	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Acetone	ND	10		µg/L	1	2/5/2008 11:55:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Iodomethane	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Carbon disulfide	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Methylene chloride	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Acrylonitrile	ND	100		µg/L	1	2/5/2008 11:55:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Vinyl acetate	ND	50		µg/L	1	2/5/2008 11:55:00 PM
2-Butanone	ND	10		µg/L	1	2/5/2008 11:55:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Chloroform	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Bromochloromethane	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Benzene	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Trichloroethene	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Dibromomethane	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/5/2008 11:55:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Toluene	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
2-Hexanone	ND	10		µg/L	1	2/5/2008 11:55:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Chlorobenzene	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Ethylbenzene	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
m,p-Xylene	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

CLIENT: Cortland Co. Soil and Water Cons. Dist.  
Lab Order: U0801420  
Project: Towslee Landfill  
Lab ID: U0801420-016

Client Sample ID: Dupe-MW-1B  
Collection Date: 1/31/2008 10:16:00 AM  
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOLs(BASELINE)	SW8260B					Analyst: MM
o-Xylene	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Styrene	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
Bromoform	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	2/5/2008 11:55:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	2/5/2008 11:55:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	2/5/2008 11:55:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

CLIENT: Cortland Co. Soil and Water Cons. Dist.  
 Lab Order: U0801420  
 Project: Towslee Landfill  
 Lab ID: U0801420-017

Client Sample ID: Holding Blank  
 Collection Date: 2/1/2008 10:00:00 AM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATER VOL(S.BASELINE)	SW8260B					Analyst: MM
Chloromethane	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Vinyl chloride	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Bromomethane	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Chloroethane	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Trichlorofluoromethane	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Acetone	ND	10	µg/L		1	2/6/2008 12:33:00 AM
1,1-Dichloroethene	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Iodomethane	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Carbon disulfide	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Methylene chloride	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Acrylonitrile	ND	100	µg/L		1	2/6/2008 12:33:00 AM
trans-1,2-Dichloroethene	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
1,1-Dichloroethane	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Vinyl acetate	ND	50	µg/L		1	2/6/2008 12:33:00 AM
2-Butanone	ND	10	µg/L		1	2/6/2008 12:33:00 AM
cis-1,2-Dichloroethene	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Chloroform	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Bromochloromethane	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
1,1,1-Trichloroethane	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Carbon tetrachloride	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Benzene	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
1,2-Dichloroethane	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Trichloroethene	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
1,2-Dichloropropane	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Bromodichloromethane	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Dibromomethane	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
4-Methyl-2-pentanone	ND	10	µg/L		1	2/6/2008 12:33:00 AM
cis-1,3-Dichloropropene	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Toluene	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
trans-1,3-Dichloropropene	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
1,1,2-Trichloroethane	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
2-Hexanone	ND	10	µg/L		1	2/6/2008 12:33:00 AM
Tetrachloroethene	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Dibromochloromethane	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
1,2-Dibromoethane	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Chlorobenzene	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
1,1,1,2-Tetrachloroethane	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
Ethylbenzene	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM
m,p-Xylene	ND	5.0	µg/L		1	2/6/2008 12:33:00 AM

Approved By: PF

Date: 2-27-08

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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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0801420  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-017

**Client Sample ID:** Holding Blank  
**Collection Date:** 2/1/2008 10:00:00 AM  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ASP/CLP APPENDIX I WATER VOLs(BASELINE)</b>			<b>SW8260B</b>			<b>Analyst: MM</b>
o-Xylene	ND	5.0		µg/L	1	2/6/2008 12:33:00 AM
Styrene	ND	5.0		µg/L	1	2/6/2008 12:33:00 AM
Bromoform	ND	5.0		µg/L	1	2/6/2008 12:33:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	2/6/2008 12:33:00 AM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	2/6/2008 12:33:00 AM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	2/6/2008 12:33:00 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	2/6/2008 12:33:00 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	2/6/2008 12:33:00 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	2/6/2008 12:33:00 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	2/6/2008 12:33:00 AM

**NOTES:**

TICS: No compounds were detected.

Approved By: PF

Date: 2-27-08

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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

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 S Spike Recovery outside accepted recovery limits

# Upstate Laboratories, Inc.

## Analytical Report

Date: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0801420  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-018

**Client Sample ID:** Dupe-MW-1B  
**Collection Date:** 2/1/2008 10:03:00 AM

**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>ICP METALS, TOTAL ASP</b>		<b>E200.7</b>		<b>(E200.7)</b>		<b>Analyst: LJ</b>
Aluminum	241	100		µg/L	1	2/25/2008 1:16:01 PM
Antimony	ND	15.0		µg/L	1	2/25/2008 1:16:01 PM
Arsenic	ND	10.0		µg/L	1	2/25/2008 1:16:01 PM
Barium	192	50.0		µg/L	1	2/25/2008 1:16:01 PM
Beryllium	ND	3.00		µg/L	1	2/25/2008 1:16:01 PM
Boron	ND	500		µg/L	1	2/25/2008 9:09:48 AM
Cadmium	ND	5.00		µg/L	1	2/25/2008 1:16:01 PM
Calcium	25500	1000		µg/L	1	2/25/2008 1:16:01 PM
Chromium	ND	5.00		µg/L	1	2/25/2008 1:16:01 PM
Cobalt	ND	20.0		µg/L	1	2/25/2008 1:16:01 PM
Copper	ND	10.0		µg/L	1	2/25/2008 1:16:01 PM
Iron	442	60.0		µg/L	1	2/25/2008 1:16:01 PM
Lead	ND	3.00		µg/L	1	2/25/2008 1:16:01 PM
Magnesium	6450	1000		µg/L	1	2/25/2008 1:16:01 PM
Manganese	117	10.0		µg/L	1	2/25/2008 1:16:01 PM
Nickel	ND	30.0		µg/L	1	2/25/2008 1:16:01 PM
Potassium	ND	1000		µg/L	1	2/25/2008 1:16:01 PM
Selenium	ND	5.00		µg/L	1	2/27/2008 9:11:56 AM
Silver	ND	10.0		µg/L	1	2/25/2008 1:16:01 PM
Sodium	5750	1000		µg/L	1	2/25/2008 1:16:01 PM
Thallium	ND	10.0		µg/L	1	2/25/2008 1:16:01 PM
Vanadium	ND	30.0		µg/L	1	2/25/2008 1:16:01 PM
Zinc	ND	10.0		µg/L	1	2/25/2008 1:16:01 PM
Hardness, Total(CaCO <sub>3</sub> )	90300	7000		µg/L	1	2/25/2008 1:16:01 PM
<b>TOTAL MERCURY WATERS ASP</b>		<b>E245.2</b>		<b>(E245.2)</b>		<b>Analyst: EA</b>
Mercury	ND	0.200		µg/L	1	2/6/2008 2:12:28 PM
<b>INORGANIC ANIONS BY IC FOR WATERS</b>		<b>E300.1</b>				<b>Analyst: BY</b>
Bromide	ND	0.20		mg/L	1	2/13/2008
<b>COLOR</b>		<b>E110.2</b>				<b>Analyst: KAM</b>
Color	7.00	5.00		UNITS	1	2/1/2008 3:00:00 PM
<b>RESIDUE, DISSOLVED (TDS)</b>		<b>E160.1</b>				<b>Analyst: DEY</b>
Residue, Dissolved (TDS)	122	25		mg/L	1	2/4/2008
<b>ALKALINITY ON AQUEOUS SAMPLES BY LACHA</b>		<b>E310.2</b>				<b>Analyst: BY</b>
Alkalinity, Total (As CaCO <sub>3</sub> )	100	10		mg/LCaCO <sub>3</sub>	1	2/7/2008
<b>CHLORIDE WATERS BY LACHAT</b>		<b>E325.2</b>				<b>Analyst: BY</b>
Chloride	2.48	1.00		mg/L	1	2/7/2008

Approved By: PF

Date: 2-27-08

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Qualifiers: \* Low Level  
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 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: 27-Feb-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0801420  
**Project:** Towslee Landfill  
**Lab ID:** U0801420-018

**Client Sample ID:** Dupe-MW-1B  
**Collection Date:** 2/1/2008 10:03:00 AM

**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHLORIDE WATERS BY LACHAT		E325.2				Analyst: BY
CYANIDE, TOTAL ASP		E335.2		(E335.2)		Analyst: BY
Cyanide	ND	10.0		µg/L	1	2/7/2008
NITROGEN, AMMONIA (AS NH3 BY LACHAT)		E350.1				Analyst: BS
Nitrogen, Ammonia (As NH3)	ND	0.500		mg/L	1	2/13/2008
TKN FOR WATERS		E351.3				Analyst: BS
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	2/13/2008
NITROGEN, NITRATE (AS N)		E353.2				Analyst: BY
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	2/1/2008 3:11:00 PM
SULFATE		E375.4				Analyst: KAM
Sulfate	ND	5.00		mg/L	1	2/7/2008
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)		E405.1				Analyst: DEY
Biochemical Oxygen Demand	ND	4		mg/L	1	2/1/2008 8:00:00 AM
CHEMICAL OXYGEN DEMAND (COD)		E410.4				Analyst: NJS
Chemical Oxygen Demand	ND	20		mg/L	1	2/5/2008
TOTAL ORGANIC CARBON (TOC)		E415.1				Analyst: NJS
Organic Carbon, Total	ND	3.0		mg/L	1	2/5/2008
PHENOLICS, TOTAL REC. FOR WATERS		E420.4		(E420.4)		Analyst: MB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	2/6/2008
HEXAVALENT CHROMIUM BY ASP 2005		SM3500				Analyst: DEY
Hexavalent chromium	ND	0.010		mg/L	1	2/1/2008 3:00:00 PM

Approved By: PF

Date: 2-27-08

Page 32 of 32

Qualifiers: \* Low Level  
 B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
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 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

**Cortland County  
Towslee Landfill  
MW-1A**

ULI ID No. (enter by lab)

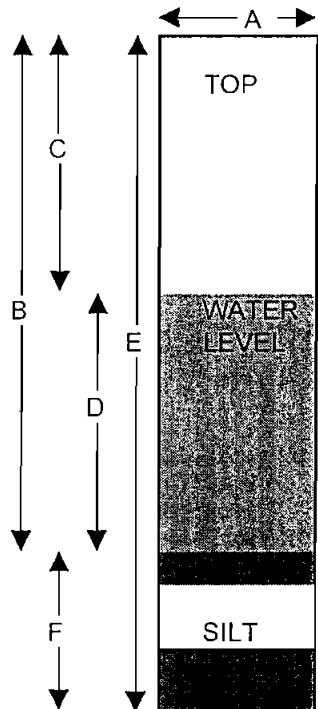
Condition of Well: Good

Locked: YES

Method of Evacuation: Dedicated Bailer

Lock ID: \_\_\_\_\_

Method of Sampling: Dedicated Bailer



- |    |                                     |                      |         |
|----|-------------------------------------|----------------------|---------|
| A. | Diameter of Well                    | 2"                   | inches  |
| B. | Well Depth Measured                 | 33.7                 | feet    |
| C. | Depth to Water                      | <u>Frozen @ 2.55</u> | feet    |
| D. | Length of Water Column (calculated) | <u>n/a</u>           | feet    |
|    | Conversion Factor                   | X.16                 | -----   |
|    | Well Volume (calculated)            | <u>n/a</u>           | gallons |
|    | No. of Volumes to be Evacuated      | <u>X3</u>            | -----   |
|    | Total Volume to be Evacuated        | <u>n/a</u>           | gallons |
|    | Actual Volume Evacuated             | <u>n/a</u>           | 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	1/31/08	n/a
Time	10:18 am	n/a
EH	n/a	n/a
Temperature	n/a	n/a
pH	n/a	n/a
Specific Cond.	n/a	n/a
Turbidity	n/a	n/a
Dissolved Oxygen	N/A	N/A
Appearance	n/a	n/a
Weather:	22°F sunny	
Observations:	well frozen; unable to purge or sample	

% Recharge:	
Initial Depth to Water	<u>n/a</u> feet
Recharge Depth to Water	<u>n/a</u> feet
2nd water column height	<u>n/a</u> %
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:	<i>Justin Gibson</i>

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

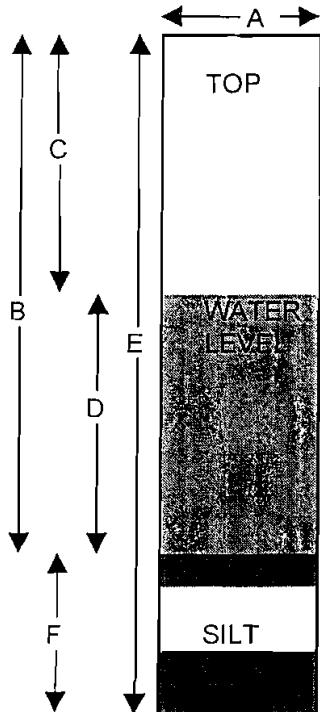
Client: Cortland County  
 Project: Towslee Landfill  
 Well ID.: MW-1B

ULL ID No. (enter by lab)

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>55.5</u>	feet
C.	Depth to Water	<u>2.96</u>	feet
D.	Length of Water Column (calculated)	<u>52.54</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>8.4064</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>25.2192</u>	gallons
	Actual Volume Evacuated	<u>25.5</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>1/31/08</u>	<u>2/1/08</u>	Initial Depth to Water <u>2.96</u> feet
Time	<u>10:16 am</u>	<u>10:03 am</u>	Recharge Depth to Water <u>5.45</u> feet
EH	<u>165</u>	<u>196</u>	2nd water column height <u>54.31</u> %
Temperature	<u>7.0 °C</u>	<u>1.7 °C</u>	1st water column height
pH	<u>8.56</u>	<u>8.66</u>	Elevation(Top of Casing) <u>N/A</u> feet
Specific Cond.	<u>635</u>	<u>1075</u>	G.W. Elevation= <u>N/A</u> feet
Turbidity	<u>3.54</u>	<u>35.8</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>22°F sunny</u>	<u>18°F snow/rain</u>	
Observations:		<u>dupe</u>	

## Upstate Laboratories, Inc. Ground water Field Log

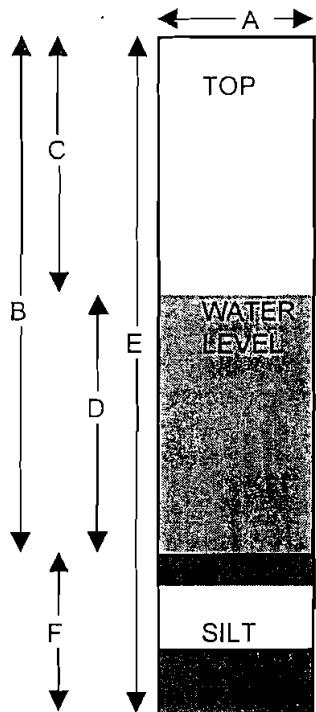
File: TS-30-01

Revised: 2/10/2001

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

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>12.8</u>	feet
C.	Depth to Water	<u>5.95</u>	feet
D.	Length of Water Column (calculated)	<u>6.85</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>1.096</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>3.288</u>	gallons
	Actual Volume Evacuated	<u>2.5</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>1/31/08</u>	<u>2/1/08</u>
Time	<u>11:02am</u>	<u>10:46</u>
EH	<u>62</u>	<u>42</u>
Temperature	<u>23.0°C</u>	<u>31.0°C</u>
pH	<u>7.91</u>	<u>7.94</u>
Specific Cond.	<u>478</u>	<u>617</u>
Turbidity	<u>44</u>	<u>7.83</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Cloudy</u>	<u>Clear</u>
Weather:	<u>22°F sunny</u>	<u>18°F snow/rain</u>
Observations:		

% Recharge:	
Initial Depth to Water	<u>5.95</u> feet
Recharge Depth to Water	<u>5.04</u> feet
2nd water column height	<u>118.05</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

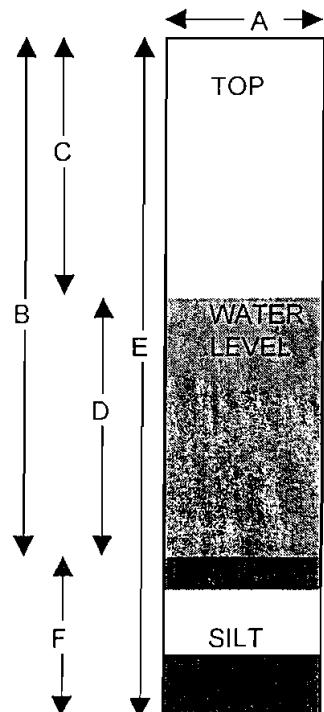
Client: Cortland County  
 Project: Towslee Landfill  
 Well ID.: MW-3A

ULL ID No. (enter by lab)

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>7.17</u>	feet
D.	Length of Water Column (calculated)	<u>15.23</u>	feet
	Conversion Factor	<u>X.16</u>	---
	Well Volume (calculated)	<u>2.4368</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	---
	Total Volume to be Evacuated	<u>7.3104</u>	gallons
	Actual Volume Evacuated	<u>7.5</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 Time	<u>1/31/08 9:56 am</u>	<u>2/1/08 9:45</u>	Initial Depth to Water <u>7.17</u> feet
EH	<u>156</u>	<u>174</u>	Recharge Depth to Water <u>6.86</u> feet
Temperature	<u>6.9°C</u>	<u>3.4°C</u>	2nd water column height <u>104.51</u> %
pH	<u>8.29</u>	<u>8.06</u>	1st water column height
Specific Cond.	<u>1055</u>	<u>1074</u>	Elevation(Top of Casing) <u>N/A</u> feet
Turbidity	<u>18.1</u>	<u>17.0</u>	G.W. Elevation= <u>N/A</u> feet
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>	G.W. Elevation =Top of Case Elev-Total Depth
Appearance	<u>St. Cloudy</u>	<u>St. Cloudy</u>	Sampler: Justin Gibson
Weather:	<u>22°F sunny</u>	<u>18°F snow/rain</u>	Signature: <u>Justin Gibson</u>
Observations:			

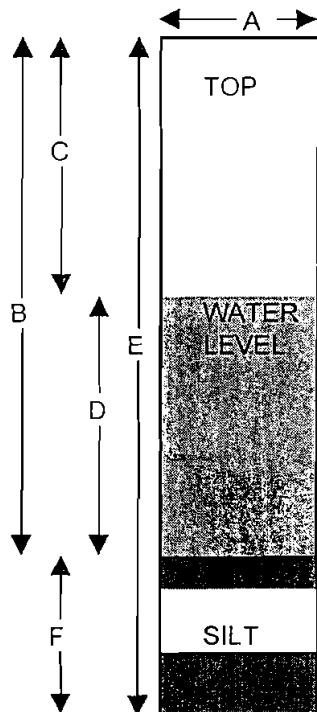
## Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

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

ULI ID No. (enter by lab)

Condition of Well: Good Locked: NOMethod 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>13.83</u>	feet
D.	Length of Water Column (calculated)	<u>26.42</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>4.3072</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>12.9216</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	% Recharge:
Date	<u>1/31/08</u>	<u>2/1/08</u>	Initial Depth to Water <u>13.83</u> feet
Time	<u>11:30 am</u>	<u>11:12 am</u>	Recharge Depth to Water <u>13.4</u> feet
EH	<u>134</u>	<u>121</u>	2nd water column height <u>103.20</u> %
Temperature	<u>7.7 °C</u>	<u>3.7 °C</u>	1st water column height
pH	<u>8.05</u>	<u>8.55</u>	Elevation(Top of Casing) <u>N/A</u> feet
Specific Cond.	<u>231</u>	<u>199</u>	G.W. Elevation= <u>N/A</u> feet
Turbidity	<u>8.32</u>	<u>13.6</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>51. Cloudy</u>	Signature: <u>Justin Gibson</u>
Weather:	<u>22°F sunny</u>	<u>18°F snow/rain</u>	
Observations:		<u>MSD</u>	

## Upstate Laboratories, Inc. Ground water Field Log

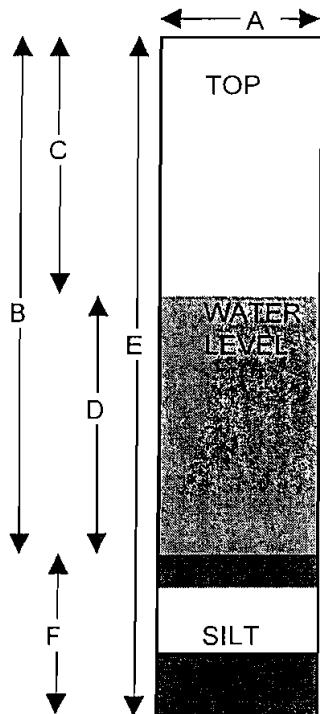
File: TS-30-01

Revised: 2/10/2001

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

ULID 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>3.75</u>	feet
D.	Length of Water Column (calculated)	<u>18.45</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>2.452</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>8.856</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	% Recharge:
Date	<u>1/31/08</u>	<u>2/1/08</u>	Initial Depth to Water <u>3.75</u> feet
Time	<u>10:39 am</u>	<u>10:24 am</u>	Recharge Depth to Water <u>4.39</u> feet
EH	<u>205</u>	<u>245</u>	2nd water column height <u>85.42 %</u>
Temperature	<u>5.7 °C</u>	<u>2.0 °C</u>	1st water column height
pH	<u>7.51</u>	<u>7.77</u>	Elevation(Top of Casing) <u>N/A</u> feet
Specific Cond.	<u>609</u>	<u>561</u>	G.W. Elevation= <u>N/A</u> feet
Turbidity	<u>112</u>	<u>39.3</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>very cloudy</u>	<u>cloudy</u>	Signature: <u>Justin Gibson</u>
Weather:	<u>22°F sunny</u>	<u>18°F snow/rain</u>	
Observations:			

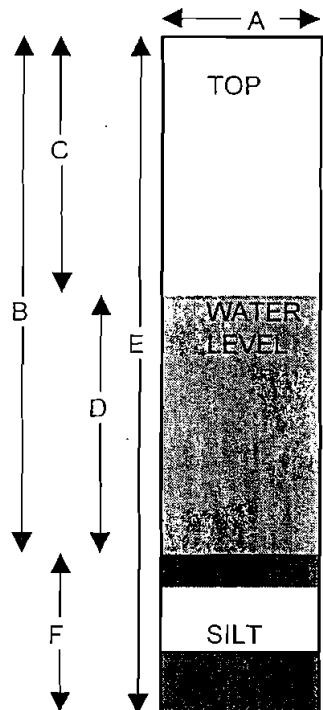
## Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

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

ULI ID No. (enter by lab)

Condition of Well: well 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>6.45</u>	feet
D.	Length of Water Column (calculated)	<u>26.55</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>4.248</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>12.744</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	% Recharge:
Date	<u>1/31/08</u>	<u>2/1/08</u>	Initial Depth to Water <u>6.45</u> feet
Time	<u>11:00 am</u>	<u>10:42 am</u>	Recharge Depth to Water <u>6.93</u> feet
EH	<u>65</u>	<u>40</u>	2nd water column height <u>100.29</u> %
Temperature	<u>4.4°C</u>	<u>3.2°C</u>	1st water column height
pH	<u>8.20</u>	<u>8.34</u>	Elevation(Top of Casing) <u>N/A</u> feet
Specific Cond.	<u>5.67</u>	<u>339</u>	G.W. Elevation= <u>N/A</u> feet
Turbidity	<u>60.2</u>	<u>41.5</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>Cloudy</u>	Observations: <u>Justin Gibson</u>
Weather:	<u>22°F sunny</u>	<u>18°F snow/rain</u>	
Observations:			

# Upstate Laboratories, Inc.

6034 Corporate Drive E. Syracuse New York 13057

(315) 437 0255

Fax 437 1209

# Chain of Custody Record

ULI Computer Input Form

Client		Project #/ Project Name TOWSLEE LANDFILL					No. of Conta iners	Remarks											
CORTLAND COUNTY		Location (city/state) Address CORTLANDVILLE, NY						1)	2)	3)	4)	5)	6)	7)	8)	9)	10)		
Client Contact	Phone #	Sample ID	Date	Time	Matrix	GRAB OR COMP	ULI Internal Use Only U0801420												
PATRICK REIDY	607-753-0851	MW-1A	2/11/08	N/A	WATER	GRAB		0	X	X	X	X	X	X	X	X		frozen - no sample	
		MW-1B		10:03am	WATER	GRAB	-2	7	X	X	X	X	X	X	X	X			
		MW-2A		10:46am	WATER	GRAB	-3	7	X	X	X	X	X	X	X	X			
		MW-2B		10:42am	WATER	GRAB	-15	7	X	X	X	X	X	X	X	X			
		MW-3A		9:45am	WATER	GRAB	-4	7	X	X	X	X	X	X	X	X			
		MW-6B		11:12am	WATER	GRAB	-5	8	X	X	X	X	X	X	X	X		MSD	
		MW-7A		10:24am	WATER	GRAB	-6	7	X	X	X	X	X	X	X	X			
		Dupe - MW-18		10:03am	Water	Grab	-18	7	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)			
Parameter and Method		Sample bottle:		Type	Size	Preservative	Sampled by (Print) <i>Justin Gibson</i> Company: ULI										Name of Courier		
1) FIELD PH,TEMP,EH,SPEC COND,TURB,SWL				N/A															
2) BOD <sub>5</sub> ,COLOR,CR+6,NO <sub>3</sub> ,TDS,SO <sub>4</sub> ,CL-,BROMIDE				PLASTIC	2000ml	NONE													
3) TKN,NH <sub>3</sub> ,COD				PLASTIC	500ml	H <sub>2</sub> SO <sub>4</sub>													
4) ALKALINITY				GLASS	8oz	NONE													
5) T-CN				PLASTIC	2000ml	NOAH													
6) T-PHENOLS				AMBER	32oz	H <sub>2</sub> SO <sub>4</sub>													
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	HNO <sub>3</sub>													
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				"	"	"													
10)																			
Syracuse		Rochester		Buffalo		Albany		Binghamton		Pittsford		Fairport/NY							

## *Upstate Laboratories, Inc.*

6034 Corporate Drive E. Syracuse New York 13057

Phone (315) 437 0255

Fax (315) 437 1209

## Chain of Custody Record

UEI Computer Input Form

Parameter and Method	Sample bottle:	Type	Size	Preservative	Sampled by (Print)			Name of Courier
1 EPA 8260 BASELINE LIST		GLASS	40 ML	1:1 HCL	<i>Justin Gibson</i> Company: ULI	Relinquished by:(sign)	Date	Time
2								
3								
4								
5								
6					<i>Justin Gibson</i>	Relinquished by:(sign)	Date	Time
7								
8								
9								
10								
					Relinquished by:(sign)	Date	Time	Rec'd for Lab by:
					<i>Justin Gibson</i>	1/31/08	4:00 p	<i>K. Humpf</i>
Syracuse		Rochester	Buffalo	Albany	Binghamton	Fair Lawn (NJ)		

## **Appendix B**

# **Analytical Laboratory Results and Internal Quality Control Summary Quarter 2 2008**

**Cortland County Towslee Landfill**



# Upstate Laboratories, Inc.

X2  
ROUTINE

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

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

JUN - 4 2008

May 23, 2008

RE: Towslee Landfill

Order No.: U0804327

Dear Mr. Reidy:

Upstate Laboratories, Inc. received 7 samples on 4/16/08 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) 649-2533

Rochester (866) 437-0255 \* New Jersey (908) 892-1807

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

May 29, 2008

RE: Towslee Landfill, Cortlandville, New York, Samples Collected April 16, 2008  
Case Narrative for ULI SDG Number COR11, Workorder #U0804327

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	R33853	Calcium, Magnesium and Sodium were detected above the PQL in CCB1. Potassium was detected above the PQL in CCB1. Lead was detected above the PQL in CCB2 and CCB4. The CCV2 recovery for Potassium was below QC acceptance limits. All other criteria were satisfied.

### Wet Chemistry

<u>Test</u>	<u>Batch</u>	<u>Anomaly</u>
BOD	R33097	Criteria were satisfied.
Nitrate-Nitrogen	R33133	Criteria were satisfied.
Alkalinity, Total	R33148 R33198	Criteria were satisfied. Criteria were satisfied.

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

Mr. Patrick Reidy  
May 29, 2008  
Page 2

*Wet Chemistry (continued)*

<u>Test</u>	<u>Batch</u>	<u>Anomaly</u>
Chloride	R33144	Chloride was detected above the PQL in CCB5. The detected concentration of Chloride was attributed to an air spike that occurred during the analysis, no corrective action taken. All other criteria were satisfied.
COD	R33058	Criteria were satisfied.
TKN	R33128	The Duplicate %RPD value for TKN was outside QC acceptance limits for the duplicate analysis performed on sample location MW-7A. The detected concentration of TKN in sample location MW-7A was less than 5X the CRDL; therefore, the data was considered valid. All other criteria were satisfied.
Ammonia-Nitrogen	R33212	The CCV5 recovery for Ammonia was slightly above QC acceptance limits. All other criteria were satisfied.
	R33128	Criteria were satisfied.
Sulfate	R33135	Criteria were satisfied.
TDS	R33170	Criteria were satisfied.
TOC	R33016	The CCV3 recovery for TOC was above QC acceptance limits. All other criteria were satisfied.
	R33101	The CCV3 recovery for TOC was above QC acceptance limits. All other criteria were satisfied.
	R33168	Criteria were satisfied.
	R33267	Criteria were satisfied.
Phenols, Total	R33383	The CCV6 recovery for Total Phenols was below QC acceptance limits. All other criteria were satisfied.

Mr. Patrick Reidy  
May 29, 2008  
Page 3

*Wet Chemistry (continued)*

<u>Test</u>	<u>Batch</u>	<u>Anomaly</u>
Bromide	R33126	Criteria were satisfied.
	R33210	Criteria were satisfied.

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

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

Sincerely,  
UPSTATE LABORATORIES, INC.

*Anthony J. Scala*  
Anthony J. Scala  
Director

**Table 1**  
**Methodologies**

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

<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: 23-May-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0804327  
**Project:** Towslee Landfill  
**Lab ID:** U0804327-001

**Client Sample ID:** MW-1A  
**Collection Date:** 4/16/2008 10:10:00 AM  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>						
Conductivity	351	1.0	FLD	umhos/cm		4/16/2008 10:10:00 AM
Eh	-57	-300		mV		4/16/2008 10:10:00 AM
pH	7.85	6.5-8.5		SU		4/16/2008 10:10:00 AM
Temperature	11.2			degC		4/16/2008 10:10:00 AM
Turbidity	16.0	5.0		NTU		4/16/2008 10:10:00 AM
<b>INORGANIC ANIONS BY IC FOR WATERS</b>						
Bromide	ND	0.20	E300.1	mg/L	1	Analyst: NJS 4/21/2008
<b>ICP METALS, TOTAL ASP</b>						
Cadmium	ND	5.00	E200.7	µg/L	1	Analyst: LJ 5/22/2008 11:52:57 AM
Calcium	43200	1000	(E200.7)	µg/L	1	5/22/2008 11:52:57 AM
Iron	1170	60.0		µg/L	1	5/22/2008 11:52:57 AM
Lead	ND	3.00		µg/L	1	5/22/2008 11:52:57 AM
Magnesium	10600	1000		µg/L	1	5/22/2008 11:52:57 AM
Manganese	157	10.0		µg/L	1	5/22/2008 11:52:57 AM
Potassium	1650	1000		µg/L	1	5/22/2008 11:52:57 AM
Sodium	12500	1000		µg/L	1	5/22/2008 11:52:57 AM
Hardness, Total(CaCO <sub>3</sub> )	151000	7000		µg/L	1	5/22/2008 11:52:57 AM
<b>RESIDUE, DISSOLVED (TDS)</b>						
Residue, Dissolved (TDS)	195	25.0	E160.1	mg/L	1	Analyst: VAW 4/21/2008
<b>ALKALINITY ON AQUEOUS SAMPLES BY LACHAT</b>						
Alkalinity, Total (As CaCO <sub>3</sub> )	120	10	E310.2	mg/LCaCO <sub>3</sub>	1	Analyst: BY 4/23/2008
<b>CHLORIDE WATERS BY LACHAT</b>						
Chloride	28.0	1.00	E325.2	mg/L	1	Analyst: BY 4/23/2008
<b>NITROGEN, AMMONIA (AS NH<sub>3</sub> BY LACHAT)</b>						
Nitrogen, Ammonia (As NH <sub>3</sub> )	ND	0.500	E350.1	mg/L	1	Analyst: BS 4/22/2008
<b>NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT</b>						
Nitrogen, Kjeldahl, Total	ND	0.500	E351.2	mg/L	1	Analyst: BS 4/22/2008
<b>NITROGEN, NITRATE (AS N)</b>						
Nitrogen, Nitrate (as N)	ND	0.200	E353.2	mg/L	1	Analyst: BY 4/16/2008 3:58:00 PM
<b>SULFATE</b>						
Sulfate	16.3	5.00	E375.4	mg/L	1	Analyst: MCD 4/22/2008
<b>BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)</b>						
Biochemical Oxygen Demand	9.00	4.00	E405.1	mg/L	1	Analyst: MCD 4/16/2008 8:00:00 AM

Approved By: AB

Date: 5-23-08

Page 1 of 14

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: 23-May-08

CLIENT: Cortland Co. Soil and Water Cons. Dist.  
Lab Order: U0804327  
Project: Towslee Landfill  
Lab ID: U0804327-001

Client Sample ID: MW-1A  
Collection Date: 4/16/2008 10:10:00 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 4/21/2008
TOTAL ORGANIC CARBON (TOC) Organic Carbon, Total	ND	3.0		E415.1 mg/L	1	Analyst: NJS 4/17/2008
PHENOLICS, TOTAL REC. FOR WATERS Phenolics, Total Recoverable	ND	0.005		E420.4 (E420.4) mg/L	1	Analyst: NJS 5/2/2008

Approved By: AB

Date: 5-23-08

Page 2 of 14

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: 23-May-08

CLIENT: Cortland Co. Soil and Water Cons. Dist.  
 Lab Order: U0804327  
 Project: Towslee Landfill  
 Lab ID: U0804327-002

Client Sample ID: MW-1B  
 Collection Date: 4/16/2008 10:15:00 AM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>						
Conductivity	245	1.0		µmhos/cm		4/16/2008 10:15:00 AM
Eh	-78	-300		mV		4/16/2008 10:15:00 AM
pH	8.34	6.5-8.5		SU		4/16/2008 10:15:00 AM
Temperature	10.2			degC		4/16/2008 10:15:00 AM
Turbidity	14.6	5.0		NTU		4/16/2008 10:15:00 AM
<b>INORGANIC ANIONS BY IC FOR WATERS</b>						
Bromide	ND	0.20		E300.1 mg/L	1	Analyst: NJS 4/21/2008
<b>ICP METALS, TOTAL ASP</b>						
Cadmium	ND	5.00		E200.7 µg/L	1	Analyst: LJ 5/22/2008 11:56:24 AM
Calcium	28600	1000		µg/L	1	5/22/2008 11:56:24 AM
Iron	1380	60.0		µg/L	1	5/22/2008 11:56:24 AM
Lead	ND	3.00		µg/L	1	5/22/2008 11:56:24 AM
Magnesium	7580	1000		µg/L	1	5/22/2008 11:56:24 AM
Manganese	198	10.0		µg/L	1	5/22/2008 11:56:24 AM
Potassium	ND	1000		µg/L	1	5/22/2008 11:56:24 AM
Sodium	6730	1000		µg/L	1	5/22/2008 11:56:24 AM
Hardness, Total(CaCO <sub>3</sub> )	103000	7000		µg/L	1	5/22/2008 11:56:24 AM
<b>RESIDUE, DISSOLVED (TDS)</b>						
Residue, Dissolved (TDS)	130	25.0		E160.1 mg/L	1	Analyst: VAW 4/21/2008
<b>ALKALINITY ON AQUEOUS SAMPLES BY LACHAT</b>						
Alkalinity, Total (As CaCO <sub>3</sub> )	100	10		E310.2 mg/LCaCO <sub>3</sub>	1	Analyst: BY 4/23/2008
<b>CHLORIDE WATERS BY LACHAT</b>						
Chloride	5.95	1.00		E325.2 mg/L	1	Analyst: BY 4/23/2008
<b>NITROGEN, AMMONIA (AS NH<sub>3</sub> BY LACHAT)</b>						
Nitrogen, Ammonia (As NH <sub>3</sub> )	ND	0.500		E350.1 mg/L	1	Analyst: BS 4/22/2008
<b>NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT</b>						
Nitrogen, Kjeldahl, Total	ND	0.500		E351.2 mg/L	1	Analyst: BS 4/22/2008
<b>NITROGEN, NITRATE (AS N)</b>						
Nitrogen, Nitrate (as N)	ND	0.200		E353.2 mg/L	1	Analyst: BY 4/16/2008 3:58:00 PM
<b>SULFATE</b>						
Sulfate	9.42	5.00		E375.4 mg/L	1	Analyst: MCD 4/22/2008
<b>BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)</b>						
Biochemical Oxygen Demand	ND	4.00		E405.1 mg/L	1	Analyst: MCD 4/16/2008 8:00:00 AM

Approved By: AB

Date: 5-23-08 Page 3 of 14

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: 23-May-08

CLIENT: Cortland Co. Soil and Water Cons. Dist. Client Sample ID: MW-1B  
Lab Order: U0804327 Collection Date: 4/16/2008 10:15:00 AM  
Project: Towslee Landfill  
Lab ID: U0804327-002 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 4/21/2008
TOTAL ORGANIC CARBON (TOC) Organic Carbon, Total	ND	3.0		E415.1 mg/L	1	Analyst: NJS 4/17/2008
PHENOLICS, TOTAL REC. FOR WATERS Phenoolics, Total Recoverable	ND	0.005		E420.4 mg/L	(E420.4) 1	Analyst: NJS 5/2/2008

Approved By: AB

Date: 5-23-08 Page 4 of 14

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

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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: 23-May-08

CLIENT: Cortland Co. Soil and Water Cons. Dist.  
 Lab Order: U0804327  
 Project: Towslee Landfill  
 Lab ID: U0804327-003

Client Sample ID: MW-2A  
 Collection Date: 4/16/2008 10:46:00 AM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>						
Conductivity	424	1.0		µmhos/cm		4/16/2008 10:46:00 AM
Eh	-48	-300		mV		4/16/2008 10:46:00 AM
pH	7.81	6.5-8.5		SU		4/16/2008 10:46:00 AM
Temperature	11.1			degC		4/16/2008 10:46:00 AM
Turbidity	26.8	5.0		NTU		4/16/2008 10:46:00 AM
<b>INORGANIC ANIONS BY IC FOR WATERS</b>						
Bromide	ND	200		mg/L	1000	4/21/2008
<b>NOTES:</b> The reporting limits were raised due to matrix interference.						
<b>ICP METALS, TOTAL ASP</b>						
Cadmium	ND	5.00		µg/L	1	5/22/2008 12:00:07 PM
Calcium	57500	1000		µg/L	1	5/22/2008 12:00:07 PM
Iron	4100	60.0		µg/L	1	5/22/2008 12:00:07 PM
Lead	ND	3.00		µg/L	1	5/22/2008 12:00:07 PM
Magnesium	14300	1000		µg/L	1	5/22/2008 12:00:07 PM
Manganese	9300	10.0		µg/L	1	5/22/2008 12:00:07 PM
Potassium	7560	1000		µg/L	1	5/22/2008 12:00:07 PM
Sodium	16500	1000		µg/L	1	5/22/2008 12:00:07 PM
Hardness, Total(CaCO <sub>3</sub> )	203000	7000		µg/L	1	5/22/2008 12:00:07 PM
<b>RESIDUE, DISSOLVED (TDS)</b>						
Residue, Dissolved (TDS)	357	25.0		mg/L	1	4/21/2008
<b>ALKALINITY ON AQUEOUS SAMPLES BY LACHAT</b>						
Alkalinity, Total (As CaCO <sub>3</sub> )	290	10		mg/LCaCO <sub>3</sub>	1	4/23/2008
<b>CHLORIDE WATERS BY LACHAT</b>						
Chloride	13.5	1.00		mg/L	1	4/23/2008
<b>NITROGEN, AMMONIA (AS NH<sub>3</sub> BY LACHAT)</b>						
Nitrogen, Ammonia (As NH <sub>3</sub> )	8.20	0.500		mg/L	1	4/25/2008
<b>NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT</b>						
Nitrogen, Kjeldahl, Total	11.2	0.500		mg/L	1	4/22/2008
<b>NITROGEN, NITRATE (AS N)</b>						
Nitrogen, Nitrate (as N)	ND	0.200		mg/L	1	4/16/2008 3:58:00 PM
<b>SULFATE</b>						
Sulfate	ND	5.00		mg/L	1	4/22/2008
<b>BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)</b>						
				E405.1		Analyst: MCD

Approved By:

AB

Date:

5-23-08

Page 5 of 14

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: 23-May-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0804327  
**Project:** Towslee Landfill  
**Lab ID:** U0804327-003

**Client Sample ID:** MW-2A  
**Collection Date:** 4/16/2008 10:46:00 AM  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)</b>				<b>E405.1</b>		<b>Analyst: MCD</b>
Biochemical Oxygen Demand	5.00	4.00		mg/L	1	4/16/2008 8:00:00 AM
<b>CHEMICAL OXYGEN DEMAND (COD)</b>				<b>E410.4</b>		<b>Analyst: KAM</b>
Chemical Oxygen Demand	21	20		mg/L	1	4/21/2008
<b>TOTAL ORGANIC CARBON (TOC)</b>				<b>E415.1</b>		<b>Analyst: NJS</b>
Organic Carbon, Total	5.2	3.0		mg/L	1	4/17/2008
<b>PHENOLICS, TOTAL REC. FOR WATERS</b>				<b>E420.4</b>	<b>(E420.4)</b>	<b>Analyst: NJS</b>
Phenolics, Total Recoverable	ND	0.005		mg/L	1	5/2/2008

Approved By:

*AB*

Date:

*5-23-08*

Page 6 of 14

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: 23-May-08

CLIENT: Cortland Co. Soil and Water Cons. Dist.  
 Lab Order: U0804327  
 Project: Towslee Landfill  
 Lab ID: U0804327-004

Client Sample ID: MW-2B  
 Collection Date: 4/16/2008 10:51:00 AM  
 Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>						
Conductivity	1205	1.0		µmhos/cm		4/16/2008 10:51:00 AM
Eh	-46	-300		mV		4/16/2008 10:51:00 AM
pH	7.77	6.5-8.5		SU		4/16/2008 10:51:00 AM
Temperature	10.3			degC		4/16/2008 10:51:00 AM
Turbidity	13.5	5.0		NTU		4/16/2008 10:51:00 AM
<b>INORGANIC ANIONS BY IC FOR WATERS</b>						
Bromide	ND	20		E300.1 mg/L	100	Analyst: BY 4/24/2008
<b>NOTES:</b> The reporting limits were raised due to matrix interference.						
<b>ICP METALS, TOTAL ASP</b>						
Cadmium	ND	5.00		E200.7 µg/L	1	Analyst: LJ 5/22/2008 12:03:49 PM
Calcium	192000	1000		µg/L	1	5/22/2008 12:03:49 PM
Iron	560	60.0		µg/L	1	5/22/2008 12:03:49 PM
Lead	ND	3.00		µg/L	1	5/22/2008 12:03:49 PM
Magnesium	42400	1000		µg/L	1	5/22/2008 12:03:49 PM
Manganese	5960	10.0		µg/L	1	5/22/2008 12:03:49 PM
Potassium	2200	1000		µg/L	1	5/22/2008 12:03:49 PM
Sodium	47400	1000		µg/L	1	5/22/2008 12:03:49 PM
Hardness, Total(CaCO <sub>3</sub> )	654000	7000		µg/L	1	5/22/2008 12:03:49 PM
<b>RESIDUE, DISSOLVED (TDS)</b>						
Residue, Dissolved (TDS)	808	25.0		E160.1 mg/L	1	Analyst: VAW 4/21/2008
<b>ALKALINITY ON AQUEOUS SAMPLES BY LACHAT</b>						
Alkalinity, Total (As CaCO <sub>3</sub> )	620	20		E310.2 mg/LCaCO <sub>3</sub>	2	Analyst: BY 4/24/2008
<b>CHLORIDE WATERS BY LACHAT</b>						
Chloride	132	1.00		E325.2 mg/L	1	Analyst: BY 4/23/2008
<b>NITROGEN, AMMONIA (AS NH<sub>3</sub> BY LACHAT)</b>						
Nitrogen, Ammonia (As NH <sub>3</sub> )	0.572	0.500		E350.1 mg/L	1	Analyst: BY 4/25/2008
<b>NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT</b>						
Nitrogen, Kjeldahl, Total	1.55	0.500		E351.2 mg/L	1	Analyst: BS 4/22/2008
<b>NITROGEN, NITRATE (AS N)</b>						
Nitrogen, Nitrate (as N)	ND	0.200		E353.2 mg/L	1	Analyst: BY 4/16/2008 3:58:00 PM
<b>SULFATE</b>						
Sulfate	ND	5.00		E375.4 mg/L	1	Analyst: MCD 4/22/2008
<b>BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)</b>						
Approved By:	AB					Analyst: MCD

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: 5-23-08 Page 7 of 14

\*\* 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: 23-May-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0804327  
**Project:** Towslee Landfill  
**Lab ID:** U0804327-004

**Client Sample ID:** MW-2B  
**Collection Date:** 4/16/2008 10:51:00 AM  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)</b> Biochemical Oxygen Demand	5.00	4.00		E405.1 mg/L	1	Analyst: MCD 4/16/2008 8:00:00 AM
<b>CHEMICAL OXYGEN DEMAND (COD)</b> Chemical Oxygen Demand	ND	20		E410.4 mg/L	1	Analyst: KAM 4/21/2008
<b>TOTAL ORGANIC CARBON (TOC)</b> Organic Carbon, Total	23.2	3.0		E415.1 mg/L	1	Analyst: NJS 4/17/2008
<b>PHENOLICS, TOTAL REC. FOR WATERS</b> Phenolics, Total Recoverable	ND	0.005		E420.4 (E420.4) mg/L	1	Analyst: NJS 5/2/2008

Approved By: AB

Date: 5-23-08 Page 8 of 14

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: 23-May-08

CLIENT: Cortland Co. Soil and Water Cons. Dist.  
 Lab Order: U0804327  
 Project: Towslee Landfill  
 Lab ID: U0804327-005

Client Sample ID: MW-3A  
 Collection Date: 4/16/2008 9:55:00 AM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>						
Conductivity	261	1.0		µmhos/cm		4/16/2008 9:55:00 AM
Eh	-34	-300		mV		4/16/2008 9:55:00 AM
pH	7.62	6.5-8.5		SU		4/16/2008 9:55:00 AM
Temperature	12.1			degC		4/16/2008 9:55:00 AM
Turbidity	17.7	5.0		NTU		4/16/2008 9:55:00 AM
<b>INORGANIC ANIONS BY IC FOR WATERS</b>						
Bromide	ND	0.20		E300.1 mg/L	1	Analyst: NJS 4/21/2008
<b>ICP METALS, TOTAL ASP</b>						
Cadmium	ND	5.00		E200.7 µg/L	1	Analyst: LJ 5/22/2008 12:07:15 PM
Calcium	37600	1000			1	5/22/2008 12:07:15 PM
Iron	574	60.0			1	5/22/2008 12:07:15 PM
Lead	ND	3.00			1	5/22/2008 12:07:15 PM
Magnesium	7040	1000			1	5/22/2008 12:07:15 PM
Manganese	141	10.0			1	5/22/2008 12:07:15 PM
Potassium	ND	1000			1	5/22/2008 12:07:15 PM
Sodium	3520	1000			1	5/22/2008 12:07:15 PM
Hardness, Total(CaCO <sub>3</sub> )	123000	7000			1	5/22/2008 12:07:15 PM
<b>RESIDUE, DISSOLVED (TDS)</b>						
Residue, Dissolved (TDS)	188	25.0		E160.1 mg/L	1	Analyst: VAW 4/21/2008
<b>ALKALINITY ON AQUEOUS SAMPLES BY LACHAT</b>						
Alkalinity, Total (As CaCO <sub>3</sub> )	170	10		E310.2 mg/LCaCO <sub>3</sub>	1	Analyst: BY 4/23/2008
<b>CHLORIDE WATERS BY LACHAT</b>						
Chloride	10.5	1.00		E325.2 mg/L	1	Analyst: BY 4/23/2008
<b>NITROGEN, AMMONIA (AS NH<sub>3</sub> BY LACHAT)</b>						
Nitrogen, Ammonia (As NH <sub>3</sub> )	ND	0.500		E350.1 mg/L	1	Analyst: BS 4/22/2008
<b>NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT</b>						
Nitrogen, Kjeldahl, Total	ND	0.500		E351.2 mg/L	1	Analyst: BS 4/22/2008
<b>NITROGEN, NITRATE (AS N)</b>						
Nitrogen, Nitrate (as N)	ND	0.200		E353.2 mg/L	1	Analyst: BY 4/16/2008 3:58:00 PM
<b>SULFATE</b>						
Sulfate	7.74	5.00		E375.4 mg/L	1	Analyst: MCD 4/22/2008
<b>BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)</b>						
Biochemical Oxygen Demand	7.00	4.00		E405.1 mg/L	1	Analyst: MCD 4/16/2008 8:00:00 AM

Approved By: AB

Date: 5-23-08 Page 9 of 14

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: 23-May-08

CLIENT: Cortland Co. Soil and Water Cons. Dist.  
Lab Order: U0804327  
Project: Towslee Landfill  
Lab ID: U0804327-005

Client Sample ID: MW-3A  
Collection Date: 4/16/2008 9:55:00 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 4/21/2008
TOTAL ORGANIC CARBON (TOC) Organic Carbon, Total	ND	3.0		E415.1 mg/L	1	Analyst: NJS 4/17/2008
PHENOLICS, TOTAL REC. FOR WATERS Phenolics, Total Recoverable	ND	0.005		E420.4 (E420.4) mg/L	1	Analyst: NJS 5/2/2008

Approved By: AB

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: 5-23-08 Page 10 of 14

\*\* 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: 23-May-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0804327  
**Project:** Towslee Landfill  
**Lab ID:** U0804327-006

**Client Sample ID:** MW-6B  
**Collection Date:** 4/16/2008 11:05:00 AM

**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>						
Conductivity	360	1.0		umhos/cm		4/16/2008 11:05:00 AM
Eh	-71	-300		mV		4/16/2008 11:05:00 AM
pH	8.25	6.5-8.5		SU		4/16/2008 11:05:00 AM
Temperature	10.4			degC		4/16/2008 11:05:00 AM
Turbidity	11.6	5.0		NTU		4/16/2008 11:05:00 AM
<b>INORGANIC ANIONS BY IC FOR WATERS</b>						
Bromide	ND	0.20		E300.1 mg/L	1	Analyst: NJS 4/21/2008
<b>ICP METALS, TOTAL ASP</b>						
Cadmium	ND	5.00		E200.7 µg/L	1	Analyst: LJ 5/22/2008 12:10:40 PM
Calcium	39500	1000			1	5/22/2008 12:10:40 PM
Iron	330	60.0			1	5/22/2008 12:10:40 PM
Lead	ND	3.00			1	5/22/2008 12:10:40 PM
Magnesium	10400	1000			1	5/22/2008 12:10:40 PM
Manganese	102	10.0			1	5/22/2008 12:10:40 PM
Potassium	ND	1000			1	5/22/2008 12:10:40 PM
Sodium	12700	1000			1	5/22/2008 12:10:40 PM
Hardness, Total(CaCO <sub>3</sub> )	142000	7000			1	5/22/2008 12:10:40 PM
<b>RESIDUE, DISSOLVED (TDS)</b>						
Residue, Dissolved (TDS)	225	25.0		E160.1 mg/L	1	Analyst: VAW 4/21/2008
<b>ALKALINITY ON AQUEOUS SAMPLES BY LACHAT</b>						
Alkalinity, Total (As CaCO <sub>3</sub> )	140	10		E310.2 mg/LCaCO <sub>3</sub>	1	Analyst: BY 4/23/2008
<b>CHLORIDE WATERS BY LACHAT</b>						
Chloride	16.9	1.00		E325.2 mg/L	1	Analyst: BY 4/23/2008
<b>NITROGEN, AMMONIA (AS NH<sub>3</sub> BY LACHAT)</b>						
Nitrogen, Ammonia (As NH <sub>3</sub> )	ND	0.500		E350.1 mg/L	1	Analyst: BS 4/22/2008
<b>NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT</b>						
Nitrogen, Kjeldahl, Total	ND	0.500		E351.2 mg/L	1	Analyst: BS 4/22/2008
<b>NITROGEN, NITRATE (AS N)</b>						
Nitrogen, Nitrate (as N)	ND	0.200		E353.2 mg/L	1	Analyst: BY 4/16/2008 3:58:00 PM
<b>SULFATE</b>						
Sulfate	16.5	5.00		E375.4 mg/L	1	Analyst: MCD 4/22/2008
<b>BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)</b>						
Biochemical Oxygen Demand	ND	4.00		E405.1 mg/L	1	Analyst: MCD 4/16/2008 8:00:00 AM

Approved By: AB

Date: 5-23-08 Page 11 of 14

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: 23-May-08

CLIENT: Cortland Co. Soil and Water Cons. Dist.  
Lab Order: U0804327  
Project: Towslee Landfill  
Lab ID: U0804327-006

Client Sample ID: MW-6B  
Collection Date: 4/16/2008 11:05:00 AM  
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CHEMICAL OXYGEN DEMAND (COD)				E410.4		Analyst: KAM
Chemical Oxygen Demand	ND	20		mg/L	1	4/21/2008
TOTAL ORGANIC CARBON (TOC)				E415.1		Analyst: NJS
Organic Carbon, Total	ND	3.0		mg/L	1	4/17/2008
PHENOLICS, TOTAL REC. FOR WATERS				E420.4	(E420.4)	Analyst: NJS
Phenolics, Total Recoverable	ND	0.005		mg/L	1	5/2/2008

Approved By:

AB

Date:

5-23-08

Page 12 of 14

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: 23-May-08

**CLIENT:** Cortland Co. Soil and Water Cons. Dist.  
**Lab Order:** U0804327  
**Project:** Towslee Landfill  
**Lab ID:** U0804327-007

**Client Sample ID:** MW-7A

**Collection Date:** 4/16/2008 10:29:00 AM

**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>FIELD PARAMETERS</b>						
Conductivity	1174	1.0		µmhos/cm		Analyst: 4/16/2008 10:29:00 AM
Eh	-37	-300		mV		4/16/2008 10:29:00 AM
pH	7.63	6.5-8.5		SU		4/16/2008 10:29:00 AM
Temperature	9.8			degC		4/16/2008 10:29:00 AM
Turbidity	44.4	5.0		NTU		4/16/2008 10:29:00 AM
<b>INORGANIC ANIONS BY IC FOR WATERS</b>						
Bromide	ND	200		E300.1 mg/L	1000	Analyst: NJS 4/21/2008
<b>NOTES:</b> The reporting limits were raised due to matrix interference.						
<b>ICP METALS, TOTAL ASP</b>						
Cadmium	ND	5.00		E200.7 µg/L	1	Analyst: LJ 5/22/2008 12:17:44 PM
Calcium	139000	1000		µg/L	1	5/22/2008 12:17:44 PM
Iron	1990	60.0		µg/L	1	5/22/2008 12:17:44 PM
Lead	ND	3.00		µg/L	1	5/22/2008 12:17:44 PM
Magnesium	38500	1000		µg/L	1	5/22/2008 12:17:44 PM
Manganese	4340	10.0		µg/L	1	5/22/2008 12:17:44 PM
Potassium	1980	1000		µg/L	1	5/22/2008 12:17:44 PM
Sodium	99600	1000		µg/L	1	5/22/2008 12:17:44 PM
Hardness, Total(CaCO <sub>3</sub> )	506000	7000		µg/L	1	5/22/2008 12:17:44 PM
<b>RESIDUE, DISSOLVED (TDS)</b>						
Residue, Dissolved (TDS)	1560	25.0		E160.1 mg/L	1	Analyst: VAW 4/21/2008
<b>ALKALINITY ON AQUEOUS SAMPLES BY LACHAT</b>						
Alkalinity, Total (As CaCO <sub>3</sub> )	560	20		E310.2 mg/LCaCO <sub>3</sub>	2	Analyst: BY 4/23/2008
<b>CHLORIDE WATERS BY LACHAT</b>						
Chloride	1260	10.0		E325.2 mg/L	10	Analyst: BY 4/23/2008
<b>NITROGEN, AMMONIA (AS NH<sub>3</sub> BY LACHAT)</b>						
Nitrogen, Ammonia (As NH <sub>3</sub> )	ND	0.500		E350.1 mg/L	1	Analyst: BY 4/25/2008
<b>NITROGEN, TOTAL KJELDAHL (TKN) BY LACHAT</b>						
Nitrogen, Kjeldahl, Total	0.949	0.500		E351.2 mg/L	1	Analyst: BS 4/22/2008
<b>NITROGEN, NITRATE (AS N)</b>						
Nitrogen, Nitrate (as N)	0.250	0.200		E353.2 mg/L	1	Analyst: BY 4/16/2008 3:58:00 PM
<b>SULFATE</b>						
Sulfate	ND	20.0		E375.4 mg/L	4	Analyst: MCD 4/22/2008

Approved By: AB

Date: 5-23-08

Page 13 of 14

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: 23-May-08

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

Client Sample ID: MW-7A

Lab Order: U0804327

Collection Date: 4/16/2008 10:29:00 AM

Project: Towslee Landfill

Lab ID: U0804327-007

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
SULFATE			E375.4			Analyst: MCD
NOTES:						
The reporting limits were raised due to matrix interference.						
BIOCHEMICAL OXYGEN DEMAND (5 DAY BOD)			E405.1			Analyst: MCD
Biochemical Oxygen Demand	ND	4.00	mg/L	1	4/16/2008 8:00:00 AM	
CHEMICAL OXYGEN DEMAND (COD)			E410.4			Analyst: KAM
Chemical Oxygen Demand	36	20	mg/L	1	4/21/2008	
TOTAL ORGANIC CARBON (TOC)			E415.1			Analyst: NJS
Organic Carbon, Total	17.8	15.0	mg/L	5	4/28/2008	
PHENOLICS, TOTAL REC. FOR WATERS			E420.4	(E420.4)		Analyst: NJS
Phenolics, Total Recoverable	ND	0.005	mg/L	1	5/6/2008	

Approved By: AB

Date: 5-23-08

Page 14 of 14

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

ULI ID No. (enter by lab)

Condition of Well:

Good

Locked:

YES

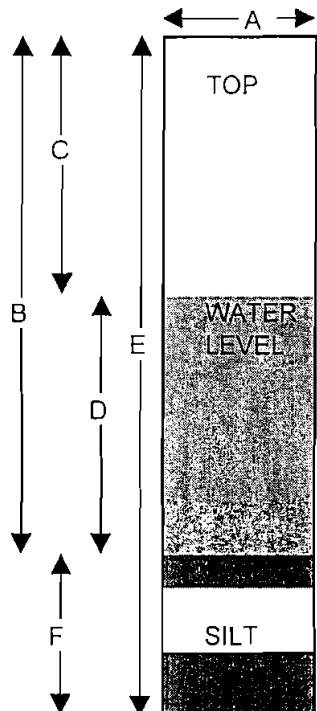
Method of Evacuation:

Dedicated Bailer

Lock ID:

Method of Sampling:

Dedicated Bailer



A.	Diameter of Well	2"	inches
B.	Well Depth Measured	33.7	feet
C.	Depth to Water	2.65	feet
D.	Length of Water Column (calculated)	31.05	feet
	Conversion Factor	X.16	---
	Well Volume (calculated)	4.968	gallons
	No. of Volumes to be Evacuated	X3	---
	Total Volume to be Evacuated	14.904	gallons
	Actual Volume Evacuated	15	gallons
E.	Installed Well Depth (if known)	N/A	feet
F.	Depth of Silt (calculated)	N/A	feet

## Field Measurements

## Initial Evacuation

## Final Sampling

## % Recharge:

Date	4/15/08
Time	1:02
EH	-71
Temperature	10.3°C
pH	9.21
Specific Cond.	343
Turbidity	17.4
Dissolved Oxygen	N/A
Appearance	SJ Cloudy
Weather:	45° sunny
Observations:	

Initial Depth to Water	2.65	feet
Recharge Depth to Water	2.68	feet
2nd water column height	#DIV/0!	%
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:		
Justin Gibson		

## Upstate Laboratories, Inc. Ground water Field Log

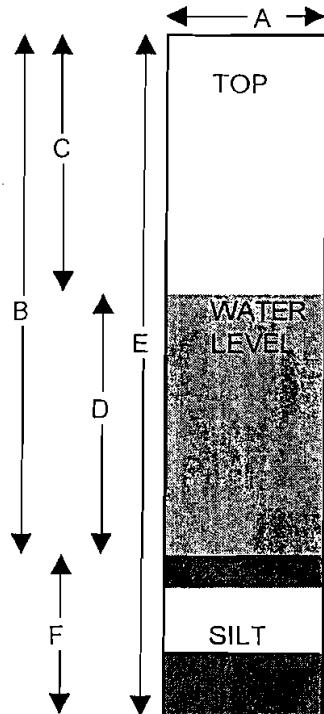
File: TS-30-01

Revised: 2/10/2001

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

ULI ID No. (enter by lab)

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



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>55.5</u>	feet
C.	Depth to Water	<u>3.46</u>	feet
D.	Length of Water Column (calculated)	<u>52.04</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>8.3264</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>24.9792</u>	gallons
	Actual Volume Evacuated	<u>25</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>4/15/05</u>	<u>4/16/08</u>	Initial Depth to Water <u>0</u> feet
Time	<u>1:04</u>	<u>10:15</u>	Recharge Depth to Water <u>3.47</u> feet
EH	<u>-81</u>	<u>-78</u>	2nd water column height <u>#DIV/0!</u> %
Temperature	<u>9.6° C</u>	<u>10.2° C</u>	1st water column height
pH	<u>8.47</u>	<u>8.34</u>	Elevation(Top of Casing) <u>N/A</u> feet
Specific Cond.	<u>202</u>	<u>245</u>	G.W. Elevation= <u>N/A</u> feet
Turbidity	<u>2.00</u>	<u>14.6</u>	G.W.Elevation =Top of Case Elev-Total Depth
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>	
Appearance	<u>clear</u>	<u>51. (cloudy)</u>	
Weather:	<u>45° sunny</u>	<u>45° sunny</u>	Sampler: <u>Justin Gibson</u>
Observations:		<u>MSD</u>	Signature: <u>Justin Gibson</u>

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

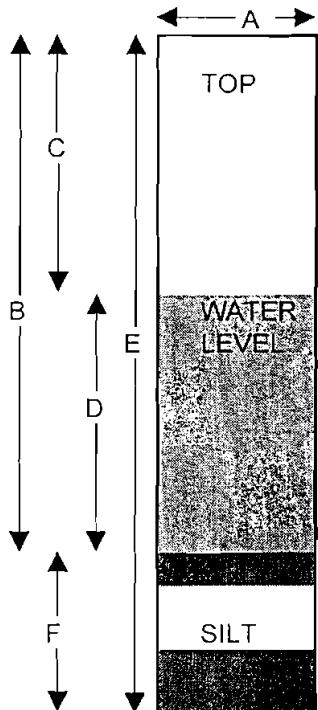
Client: Cortland County  
 Project: Towslee Landfill  
 Well ID.: MW-2A

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>12.8</u>	feet
C.	Depth to Water	<u>5.88</u>	feet
D.	Length of Water Column (calculated)	<u>6.92</u>	feet
	Conversion Factor	<u>X.16</u>	---
	Well Volume (calculated)	<u>1,1072</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	---
	Total Volume to be Evacuated	<u>3,3216</u>	gallons
	Actual Volume Evacuated	<u>3.5</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>4/15/08</u>	<u>4/16/08</u>	Initial Depth to Water <u>5.88</u> feet
Time	<u>2:33</u>	<u>10:46</u>	Recharge Depth to Water <u>5.97</u> feet
EH	<u>-38</u>	<u>-48</u>	2nd water column height <u>100</u> %
Temperature	<u>9.6°C</u>	<u>11.1°C</u>	1st water column height
pH	<u>7.57</u>	<u>7.81</u>	Elevation(Top of Casing) <u>N/A</u> feet
Specific Cond.	<u>682</u>	<u>424</u>	G.W. Elevation= <u>N/A</u> feet
Turbidity	<u>27.3</u>	<u>26.8</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>51. Cloudy</u>	<u>51. Cloudy</u>	Observations: <u>45 sunny</u>
Weather:			
Observations:			

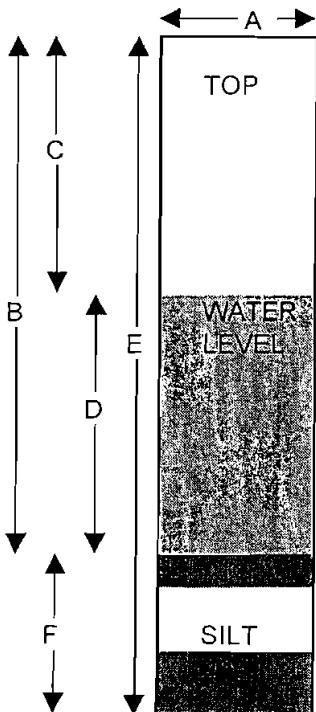
## Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

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

JULI ID No. (enter by lab)

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>33.5</u>	feet
C.	Depth to Water	<u>6.8</u>	feet
D.	Length of Water Column (calculated)	<u>26.7</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>4.272</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>12.816</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	% Recharge:
Date	<u>4/15/08</u>	<u>4/16/08</u>	Initial Depth to Water <u>86.8</u> feet
Time	<u>2:35</u>	<u>10:51</u>	Recharge Depth to Water <u>6.85</u> feet
EH	<u>-37</u>	<u>-46</u>	2nd water column height #DIV/0! %
Temperature	<u>9.2°C</u>	<u>10.3°C</u>	1st water column height
pH	<u>7.58</u>	<u>7.77</u>	Elevation(Top of Casing) <u>N/A</u> feet
Specific Cond.	<u>882</u>	<u>1205</u>	G.W. Elevation= <u>N/A</u> feet
Turbidity	<u>5.16</u>	<u>13.5</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>sl. cloudy</u>	Signature: <u>Justin Gibson</u>
Weather:	<u>45° sunny</u>	<u>45 sunny</u>	
Observations:			

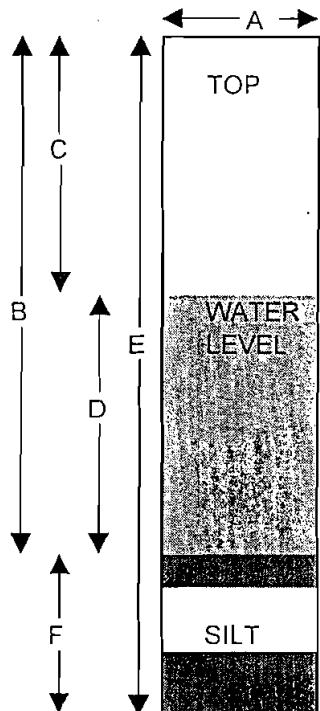
## Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

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

ULI ID No. (enter by lab)

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

A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>22.5</u>	feet
C.	Depth to Water	<u>9.08</u>	feet
D.	Length of Water Column (calculated)	<u>13.42</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>2.1472</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>6.4416</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	Final Sampling	% Recharge:
Date	<u>4/15/08</u>	<u>4/16/08</u>	Initial Depth to Water <u>09.08</u> feet
Time	<u>12:45</u>	<u>9:55</u>	Recharge Depth to Water <u>9.73</u> feet
EH	<u>-69</u>	<u>-34</u>	2nd water column height #DIV/0! %
Temperature	<u>11.9</u>	<u>12.1°</u>	1st water column height
pH	<u>8.17</u>	<u>7.62</u>	Elevation(Top of Casing) <u>N/A</u> feet
Specific Cond.	<u>1882</u>	<u>261</u>	G.W. Elevation= <u>N/A</u> feet
Turbidity	<u>10.7</u>	<u>17.7</u>	G.W.Elevation =Top of Case Elev-Total Depth
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>	Sampler: Justin Gibson
Appearance	<u>Clear</u>	<u>SI. Cloudy</u>	Signature: <u>Justin Gibson</u>
Weather:	<u>45° sunny</u>	<u>45° sunny</u>	
Observations:	<u>/</u>		

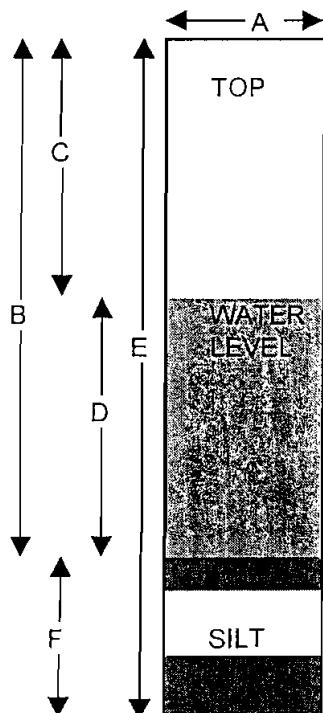
## Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

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

ULID No.: (enter by lab)

Condition of Well: Good Locked: NOMethod 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>12.15</u>	feet
D.	Length of Water Column (calculated)	<u>28.6</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>4,576</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>13.728</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

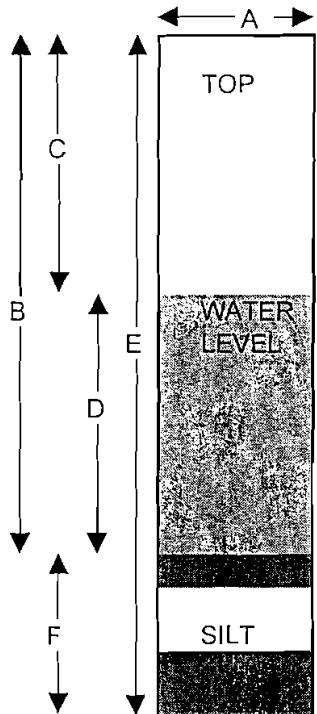
Field Measurements	Initial Evacuation	Final Sampling	% Recharge:
Date	<u>4/15/05</u>	<u>4/16/05</u>	Initial Depth to Water
Time	<u>2:06</u>	<u>11:05</u>	feet
EH	<u>-62</u>	<u>-71</u>	Recharge Depth to Water
Temperature	<u>9.7</u>	<u>10.4°</u>	feet
pH	<u>7.99</u>	<u>8.25</u>	2nd water column height #DIV/0! %
Specific Cond.	<u>313</u>	<u>360</u>	1st water column height
Turbidity	<u>5.71</u>	<u>11.6</u>	Elevation(Top of Casing) N/A feet
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>	G.W. Elevation= N/A feet
Appearance	<u>Clear</u>	<u>Clear</u>	G.W.Elevation =Top of Case Elev-Total Depth
Weather:			Sampler:
Observations:	<u>MSD</u> <del>████████</del>		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-7A

ULI ID No. (enter by lab)

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>22.20</u>	feet
C.	Depth to Water	<u>3.71</u>	feet
D.	Length of Water Column (calculated)	<u>18.49</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>2.9584</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>8.8752</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	% Recharge:
Date	<u>4/16/05</u>	<u>4/16/05</u>	Initial Depth to Water <u>3.71</u> feet
Time	<u>1:36</u>	<u>10:29</u>	Recharge Depth to Water <u>3.73</u> feet
EH	<u>-40</u>	<u>-37</u>	2nd water column height <u>#DIV/0!</u> %
Temperature	<u>9.6°C</u>	<u>9.8°C</u>	1st water column height
pH	<u>7.60</u>	<u>7.63</u>	Elevation(Top of Casing) <u>N/A</u> feet
Specific Cond.	<u>1188</u>	<u>1174</u>	G.W. Elevation= <u>N/A</u> feet
Turbidity	<u>15.5</u>	<u>44.4</u>	G.W.Elevation =Top of Case Elev-Total Depth
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>	Sampler: Justin Gibson
Appearance	<u>sl. cloudy</u>	<u>cloudy / grey</u>	Signature: <u>Justin Gibson</u>
Weather:	<u>46° sunny</u>	<u>45° sunny</u>	
Observations:	<u>1130</u>		

## *Upstate Laboratories, Inc.*

6034 Corporate Drive E. Syracuse New York 13057

Phone (315) 437 0255

Fax (315) 437 1209

# Chain of Custody Record

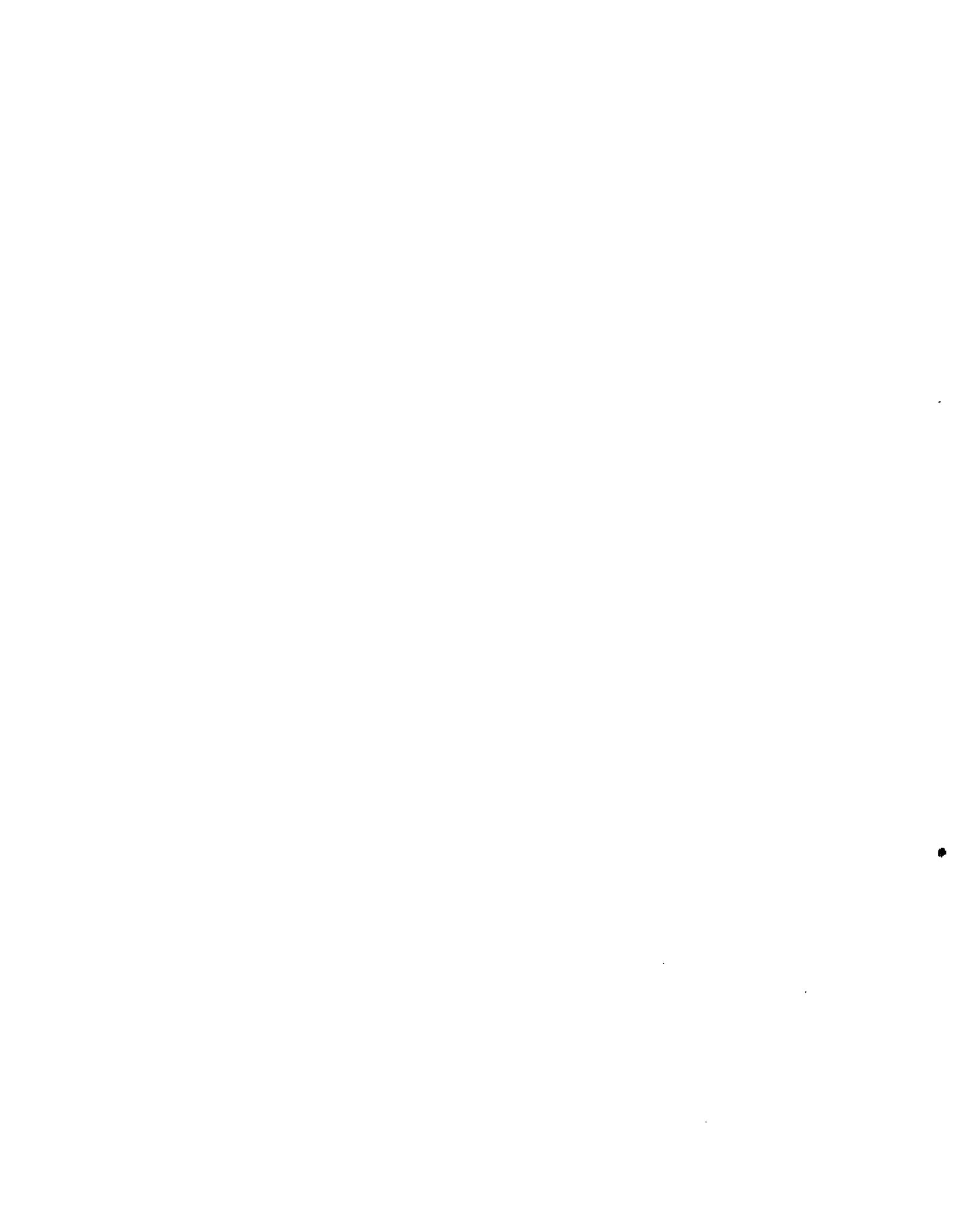
ULI Computer Input Form



# **Appendix 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
Temp	(deg C)	--	--	8.5	12.8	19.5	15.9	9.3	6.7	21.6	16	11.2
Eh	(mV)	--	--	700	105	190	170	59	-107	-111	-68	-57
pH	(Std Units)	--	--	7.8	7.7	7.52	7.69	8.29	7.93	7.83	8.01	7.85
Sp. Cond	( $\mu$ S/cm)	--	--	306	355	353	369	204	221	241	658	351
Color	(Units)	5	20	--	--	<5	--	--	--	--	30	--
Turbidity	(NTU)	--	--	660	73	131	29	55.6	34.8	24.3	28.1	16
ALK as CaCO <sub>3</sub>	(mg/l)	160	145	127	139	122	132	140	120	120	130	120
HARD as CaCO <sub>3</sub>	(mg/l)	4000	240	167	140	148	148	134	153	148	146	151
TDS	(mg/l)	494	214	340	213	236	229	127	208	250	204	195
Chloride	(mg/l)	152	46	21.3	22.2	34.2	26.7	28.7	27	27	27.9	28
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
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
NO <sub>3</sub> (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
NH <sub>4</sub> (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
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
COD	(mg/l)	305	64	< 10	<10	<10	<10	<20	<20	<20	<20	<20
BOD	(mg/l)	5	<2	< 3	<3	<3	<3	<4	<4	<4	<4	9
TOC	(mg/l)	4.2	1.6	4.76	2.61	<2	<2	<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
Cyanide	(mg/l)	<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
Temp	(deg C)	--	--	5	11.4	16.4	15.8	9.6	7.2	21.5	16.3	1.7	10.2
Eh	(mV)	--	--	385	45	155	115	84	-122	-143	-80	196	-78
pH	(Std Units)	--	--	7.7	7.8	7.69	7.9	8.47	8.24	8.03	8.28	8.66	8.34
Sp. Cond	( $\mu$ S/cm)	--	--	157	257	244	200	156	141	1241	943	1075	245
Color	(Units)	<5	<5	--	--	<5	--	--	--	--	30	7	--
Turbidity	(NTU)	--	--	187	45	70	15.6	67.4	9.62	10.2	22.8	35.8	14.6
ALK as CaCO <sub>3</sub>	(mg/l)	94.8	93.6	92	94	91	89	99	96	100	100	100	100
HARD as CaCO <sub>3</sub>	(mg/l)	88	140	97.6	81.9	89	82	83.6	105	104	90.8	89.3	103
TDS	(mg/l)	143	86	120	111	142	120	62	162	130	104	152	130
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
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
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
NO <sub>3</sub> (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
NH <sub>4</sub> (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
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
COD	(mg/l)	<15	<15	<10	<10	<10	<10	<20	<20	<20	<20	<20	<20
BOD	(mg/l)	<2	<2	<3	<3	<3	<3	<4	<4	<4	<4	<4	<4
TOC	(mg/l)	9.3	<1	5.41	2.34	<2	<2	<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
Cyanide	(mg/l)	--	--	--	--	<0.01	--	--	--	--	<0.01	<10	--

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
Temp	(deg C)	--	--	4.4	11.6	17.2	14.2	9.2	7.7	18	14.6	3.1	11.1
Eh	(mV)	--	--	140	-5	120	90	136	-62	-81	-25	42	-48
pH	(Std Units)	--	--	6.4	6.4	6.15	6.41	7.31	7.14	7.41	7.12	7.94	7.81
Sp. Cond	( $\mu$ S/cm)	--	--	621	767	784	1100	364	450	395	574	617	424
Color	(Units)	30	60	--	--	33	--	--	--	--	210	40	--
Turbidity	(NTU)	--	--	18.6	18.3	195	27	48.9	30.7	15	5.07	7.83	26.8
ALK as CaCO <sub>3</sub>	(mg/l)	702	784	330	355	384	423	380	320	420	290	360	290
HARD as CaCO <sub>3</sub>	(mg/l)	1300	720	241	260	265	301	225	262	275	165	246	203
TDS	(mg/l)	1180	986	381	397	491	487	262	355	395	284	410	357
Chloride	(mg/l)	156	149	23.3	25.7	23.5	25.7	21.2	14.7	24.4	10.6	21	13.5
Sulfate	(mg/l)	<5	<5	4.22	5.5	3.43	3.18	<5	<5	<10	9.93	<10	<5
Bromide	(mg/l)	0.8	<0.5	0.189	0.18	0.237	0.261	<0.2	<0.2	<2	<2	<2	<200
NO <sub>3</sub> (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
NH <sub>4</sub> (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
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
COD	(mg/l)	127	136	< 10	13.8	27	15.6	<20	<20	46	22	23	21
BOD	(mg/l)	6	3	16	4.5	3.4	<3	6	7	7	<4	<4	5
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
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
Cyanide	(mg/l)	<0.01	<0.01	--	--	<0.01	--	--	--	--	<0.01	<10	--

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
Temp	(deg C)	--	--	4.5	10.5	15.9	14.5	9.1	8.3	16.5	15.8	3.2	10.3
Eh	(mV)	--	--	175	110	125	115	136	-73	-77	-34	40	-46
pH	(Std Units)	--	--	6.4	6.4	6.35	6.52	7.14	7.35	7.37	7.35	8.34	7.77
Sp. Cond	(uS/cm)	--	--	1350	1560	1420	1540	701	682	500	329	339	1205
Color	(Units)	5	10	--	--	<5	--	--	--	--	15	7	--
Turbidity	(NTU)	--	--	17.3	19.8	18.7	28	14.2	11	9.48	37	41.5	13.5
ALK as CaCO <sub>3</sub>	(mg/l)	577	673	652	670	612	646	650	480	600	640	640	620
HARD as CaCO <sub>3</sub>	(mg/l)	960	900	697	726	686	675	723	575	716	652	678	654
TDS	(mg/l)	1640	1230	982	1020	1040	980	825	823	935	868	840	808
Chloride	(mg/l)	267	238	145	154	122	121	167	131	163	161	160	132
Sulfate	(mg/l)	<5	<5	1.18	2.96	<1	<1	<5	<5	10	<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
NO <sub>3</sub> (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
NH <sub>4</sub> (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
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
COD	(mg/l)	58	61	<10	17.2	24.6	27	21	<20	<20	<20	24	<20
BOD	(mg/l)	2	2	9.3	5.1	3.7	13	<4	4	<4	<4	<4	5
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
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
Cyanide	(mg/l)	--	--	--	--	0.024	--	--	--	--	<0.01	<10	--

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
Temp	(deg C)	--	--	6.4	11.7	15.3	15.7	9.3	5.6	17.9	14.6	3.4	12.1
Eh	(mV)	--	--	215	45	115	220	-50	-94	-115	-76	174	-34
pH	(Std Units)	--	--	7.2	6.9	7.01	6.84	7.82	7.64	7.84	8.25	8.06	7.62
Sp. Cond	( $\mu$ S/cm)	--	--	286	299	342	397	143	898	1757	939	1074	261
Color	(Units)	<5	<5	--	--	<5	--	--	--	--	115	15	--
Turbidity	(NTU)	--	--	58	11.9	5.2	7.2	10.6	19.6	16.4	13.7	17	17.7
ALK as CaCO <sub>3</sub>	(mg/l)	145	146	162	170	140	152	82	59	170	130	110	170
HARD as CaCO <sub>3</sub>	(mg/l)	1250	200	153	179	191	158	74	58.1	150	86.2	97.7	123
TDS	(mg/l)	320	269	215	208	207	207	38	168	210	144	115	188
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
Sulfate	(mg/l)	16	13	9.14	11	9.98	8.01	<5	<5	20.5	<5	<5	7.74
Bromide	(mg/l)	0.5	<0.5	<0.1	<0.1	0.152	0.143	1.2	<2	<0.2	<2	<2	<0.2
NO <sub>3</sub> (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
NH <sub>4</sub> (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
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
COD	(mg/l)	19	<15	<10	<10	13	<10	47	<20	<20	<20	23	<20
BOD	(mg/l)	<2	<2	<3	<3	<3	<3	<4	8	<4	<4	<4	7
TOC	(mg/l)	4.5	1.9	5.58	<2	<2	<2	<3	<3	<3	3.7	<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
Cyanide	(mg/l)	--	--	--	--	<0.01	--	--	--	--	<0.01	<10	--

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
Temp	(deg C)	--	--	7.9	10.5	12.2	14.3	9.7	7.4	15.6	14.8	3.7	10.4
Eh	(mV)	--	--	250	85	225	180	82	-92	-105	-57	121	-71
pH	(Std Units)	--	--	6.7	7.4	7.52	7.11	8.04	7.73	7.85	7.82	8.55	8.25
Sp. Cond	( $\mu$ S/cm)	--	--	347	287	304	329	220	249	236	810	199	360
Color	(Units)	<5	20	--	--	<5	--	--	--	--	6	7	--
Turbidity	(NTU)	--	--	40	19.9	15.8	14.2	68.9	8.1	9.48	12.5	13.6	11.6
ALK as CaCO <sub>3</sub>	(mg/l)	240	224	131	148	154	153	180	160	150	140	140	140
HARD as CaCO <sub>3</sub>	(mg/l)	300	240	135	144	131	133	156	139	138	124	136	142
TDS	(mg/l)	98	280	209	175	190	187	127	105	220	208	198	225
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
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
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
NO <sub>3</sub> (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
NH <sub>4</sub> (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
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
COD	(mg/l)	40	19	<10	<10	11.6	<10	<20	<20	<20	<20	<20	<20
BOD	(mg/l)	<2	2	<3	5.1	3.2	<3	<4	<4	<4	<4	<4	<4
TOC	(mg/l)	6	5.8	5.22	3.14	<2	<2	<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
Cyanide	(mg/l)	--	--	--	--	<0.01	--	--	--	--	<0.01	<10	--

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
Temp	(deg C)	--	--	4.5	11.6	17.4	13.9	9.3	7.8	18.8	15.2	2	9.8
Eh	(mV)	--	--	215	120	245	190	77	-64	-69	-24	245	-37
pH	(Std Units)	--	--	6.5	6.4	6.34	6.62	7.04	7.12	7.2	7.11	7.77	7.63
Sp. Cond	( $\mu$ S/cm)	--	--	1360	1520	1440	1480	893	765	514	972	561	1174
Color	(Units)	20	5	--	--	<5	--	--	--	--	85	7	--
Turbidity	(NTU)	--	--	214	18	13.6	42	45.3	54.3	40.9	48.1	39.3	44.4
ALK as CaCO <sub>3</sub>	(mg/l)	569	660	648	675	595	635	640	510	530	540	570	560
HARD as CaCO <sub>3</sub>	(mg/l)	1010	1150	627	599	531	526	529	499	481	459	528	506
TDS	(mg/l)	1220	1240	981	967	963	949	753	865	3000	752	800	1560
Chloride	(mg/l)	300	276	144	143	119	85	145	131	145	141	141	1260
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
Bromide	(mg/l)	0.6	<0.5	0.753	0.633	0.822	0.483	0.6	<0.2	<2	<2	<2	<200
NO <sub>3</sub> (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
NH <sub>4</sub> (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
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
COD	(mg/l)	43	112	21.2	16.5	26.4	20.5	27	<20	<20	<20	<20	36
BOD	(mg/l)	<2	2	< 3	<3	<3	<3	<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
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
Cyanide	(mg/l)	<0.01	<0.01	--	--	<0.01	--	--	--	--	<0.01	<10	--

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
Aluminum	724	16.9	--	--	2.96	--	--	--	--	2.07	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	--
Arsenic	0.353	0.0134	--	--	<0.025	--	--	--	--	<0.01	--
Barium	8.11	0.258	--	--	0.104	--	--	--	--	0.0917	--
Beryllium	0.0287	0.00083 B	--	--	<0.005	--	--	--	--	<0.003	--
Boron	0.0873 B	0.0665 B	--	--	0.073	--	--	--	--	<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
Calcium	430	48.6	46.2	41.8	43.2	43.9	39.2	44.5	43.5	42.2	43.2
Chromium	1.04	0.0265	--	--	<0.005	--	--	--	--	<0.005	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	--
Cobalt	0.59	0.0168 B	--	--	<0.015	--	--	--	--	<0.02	--
Copper	0.996	0.0254	--	--	0.022	--	--	--	--	<0.01	--
Iron	1550	35.7	19.4	2.99	6.03	2.11	1.67	2.14	1.21	3.49	1.17
Lead	0.454	0.0123	0.00716	0.007	<0.005	<0.005	<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
Manganese	24.6	0.783	0.534	0.194	0.38	0.306	0.19	0.193	0.206	0.203	0.157
Mercury	0.0014	<0.0001	--	--	<0.0004	--	--	--	--	<0.0002	--
Nickel	1.33	0.0364 B	--	--	<0.01	--	--	--	--	<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
Sodium	37.3	26	17.1	13	13.6	13.5	12.2	12.5	13	11.8	12.5
Selenium	<0.028	<0.0028	--	--	<0.02	--	--	--	--	<0.005	--
Silver	<0.009	<0.0009	--	--	<0.015	--	--	--	--	<0.01	--
Thallium	<0.026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	--
Vanadium	0.856	0.0243 B	--	--	<0.015	--	--	--	--	<0.03	--
Zinc	3.36	0.0874	--	--	0.106	--	--	--	--	0.0235	--

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
Aluminum	0.662	0.134 B	--	--	1.09	--	--	--	--	0.537	0.518	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--
Arsenic	<0.0024	<0.0024	--	--	<0.025	--	--	--	--	<0.01	<0.01	--
Barium	0.168 B	0.154 B	--	--	0.194	--	--	--	--	0.172	0.199	--
Beryllium	0.0001 B	<0.0001	--	--	<0.005	--	--	--	--	<0.003	<0.003	--
Boron	0.0197 B	0.0247 B	--	--	<0.05	--	--	--	--	<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
Calcium	26.7	24.7	26.8	23.9	25.8	24.1	23.7	30	29.9	26	25.1	28.6
Chromium	0.002 B	<0.0004	--	--	<0.005	--	--	--	--	<0.005	<0.005	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--
Cobalt	<0.0011	<0.0011	--	--	<0.015	--	--	--	--	<0.02	<0.02	--
Copper	0.004 B	0.0025 B	--	--	0.017	--	--	--	--	<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
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
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
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
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--
Nickel	<0.0013	<0.0013	--	--	<0.01	--	--	--	--	<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
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
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--
Vanadium	<0.0012	<0.0012	--	--	<0.015	--	--	--	--	<0.03	<0.03	--
Zinc	0.0351	0.0163 B	--	--	0.052	--	--	--	--	0.0168	0.0112	--

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
Aluminum	79.3	59.1	--	--	0.43	--	--	--	--	0.444	1.98	--
Antimony	0.0049 B	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--
Arsenic	0.0631	0.0537	--	--	<0.025	--	--	--	--	<0.01	0.0145	--
Barium	1.75	1.49	--	--	0.502	--	--	--	--	0.265	0.377	--
Beryllium	0.0037 B	0.0025 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--
Boron	1.21	0.961	--	--	0.584	--	--	--	--	<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
Calcium	186	172	69.1	74.1	77.3	88.5	64.2	75.3	80.4	47.9	70.3	57.5
Chromium	0.112	0.0967	--	--	<0.005	--	--	--	--	<0.005	0.0177	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.02	<0.05	--
Cobalt	0.0719	0.0628	--	--	<0.015	--	--	--	--	<0.02	<0.02	--
Copper	0.104	0.0779	--	--	0.012	--	--	--	--	<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
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
Magnesium	61.6	53.6	16.6	18.3	17.5	19.4	15.7	17.9	18	11	17.1	14.3
Manganese	35.7	31.6	12.2	11.5	12	13.6	9.93	11.7	12.7	7.05	11.2	9.3
Mercury	<0.0001	<0.0001	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--
Nickel	0.151	0.132	--	--	<0.01	--	--	--	--	<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
Sodium	119	102	26.3	25.2	31.4	31.4	19.5	22.9	26.1	13.8	19.2	16.5
Selenium	<0.0028	<0.0028	--	--	<0.02	--	--	--	--	<0.005	<0.005	--
Silver	0.0024 B	0.0014 B	--	--	<0.015	--	--	--	--	<0.01	<0.01	--
Thallium	0.004 B	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--
Vanadium	0.102	0.0866	--	--	<0.015	--	--	--	--	<0.03	<0.03	--
Zinc	0.4	0.278	--	--	<0.01	--	--	--	--	<0.01	0.0101	--

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
Aluminum	2.03	5.31	--	--	0.18	--	--	--	--	<0.1	0.168	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--
Arsenic	0.007 B	0.0083 B	--	--	<0.025	--	--	--	--	<0.01	<0.01	--
Barium	1.59	1.36	--	--	1.22	--	--	--	--	1.09	1.18	--
Beryllium	0.00023 B	0.00037 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--
Boron	0.355	0.292	--	--	0.256	--	--	--	--	<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
Calcium	288	245	203	216 E	203 E	200	216	170	214	195	201	192
Chromium	0.004 B	0.0086 B	--	--	<0.005	--	--	--	--	<0.005	0.00816	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--
Cobalt	0.0091 B	0.0141 B	--	--	<0.015	--	--	--	--	<0.02	<0.02	--
Copper	0.0069 B	0.0118 B	--	--	0.017	--	--	--	--	<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
Lead	0.0044	0.0058	<0.005	0.009	<0.005	<0.005	<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
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
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--
Nickel	0.0129 B	0.0188 B	--	--	<0.01	--	--	--	--	<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
Sodium	64.1	53.9	53.8	49.7	51.1	51	50.9	40.8	52.3	48.2	50.6	47.4
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--
Thallium	0.0037 B	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--
Vanadium	0.0029 B	0.0075 B	--	--	<0.015	--	--	--	--	<0.03	<0.03	--
Zinc	0.103	0.0484	--	--	<0.01	--	--	--	--	0.0469	<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
Aluminum	21.7	2.39	--	--	0.078	--	--	--	--	0.33	0.23	--
Antimony	<0.003	0.0034 B	--	--	<0.05	--	--	--	--	<0.015	<0.015	--
Arsenic	0.0127	<0.0024	--	--	<0.025	--	--	--	--	<0.01	<0.01	--
Barium	0.567	0.343	--	--	0.41	--	--	--	--	0.332	0.441	--
Beryllium	0.001 B	0.00013 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--
Boron	<0.0709	0.0286 B	--	--	0.063	--	--	--	--	<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
Calcium	57.8	53.7	46.3	55.3	57.9	48.3	23	18.1	45.1	27.5	30.2	37.6
Chromium	0.0249	0.0022 B	--	--	<0.005	--	--	--	--	<0.005	<0.005	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--
Cobalt	0.0121 B	0.0019 B	--	--	<0.015	--	--	--	--	<0.02	<0.02	--
Copper	0.0315	0.0076 B	--	--	0.023	--	--	--	--	<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
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
Magnesium	17	11	9.13	10	11.2	9.2	4.04	3.1	9.15	4.26	5.42	7.04
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
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--
Nickel	0.0248 B	0.0038 B	--	--	<0.01	--	--	--	--	<0.03	<0.03	--
Potassium	7.43	1.87 B	0.938	0.829	1.09	0.937	<1	<1	<1	<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
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--
Vanadium	0.0296 B	0.0039 B	--	--	<0.015	--	--	--	--	<0.03	<0.03	--
Zinc	0.112	0.0265	--	--	0.025	--	--	--	--	0.0106	<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
Aluminum	8.59	0.642	--	--	0.115	--	--	--	--	0.102	0.134	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--
Arsenic	0.009 B	0.0084 B	--	--	<0.025	--	--	--	--	<0.01	<0.01	--
Barium	0.521	0.48	--	--	0.313	--	--	--	--	0.301	0.337	--
Beryllium	0.0004 B	0.0001 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--
Boron	0.145	0.145	--	--	<0.05	--	--	--	--	<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
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
Chromium	0.0092 B	0.0017 B	--	--	<0.005	--	--	--	--	<0.005	<0.005	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.01	--
Cobalt	0.0112 B	0.0056 B	--	--	<0.015	--	--	--	--	<0.02	<0.02	--
Copper	0.0116 B	0.0051 B	--	--	0.016	--	--	--	--	<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
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
Magnesium	19	12.7	8.94	10.9	9.86	9.71	10.2	9.68	9.12	7.81	9.37	10.4
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
Mercury	--	--	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--
Nickel	0.0144 B	0.0059 B	--	--	<0.01	--	--	--	--	<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
Sodium	38	31.4	14.9	9.93	10.1	10.7	11.2	10.2	15	14.7	13.8	12.7
Selenium	--	--	--	--	<0.02	--	--	--	--	<0.005	<0.005	--
Silver	--	--	--	--	<0.015	--	--	--	--	<0.01	<0.01	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--
Vanadium	0.0083 B	0.0012 B	--	--	<0.015	--	--	--	--	<0.03	<0.03	--
Zinc	0.0894	0.0248	--	--	0.014	--	--	--	--	0.0213	0.0103	--

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
Aluminum	40	88.4	--	--	0.415	--	--	--	--	2.43	0.919	--
Antimony	<0.003	<0.003	--	--	<0.05	--	--	--	--	<0.015	<0.015	--
Arsenic	0.0176	0.0459	--	--	<0.025	--	--	--	--	<0.01	<0.01	--
Barium	1.36	1.99	--	--	0.684	--	--	--	--	0.576	0.68	--
Beryllium	0.0015 B	0.0037 B	--	--	<0.005	--	--	--	--	<0.003	<0.003	--
Boron	0.332	0.41	--	--	0.55	--	--	--	--	0.65	0.588	--
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
Calcium	234	271	171	165	150	148	149	140	135	131	148	139
Chromium	0.0556	0.146	--	--	<0.005	--	--	--	--	<0.005	0.00667	--
Chromium, Hex	--	--	--	--	<0.02	--	--	--	--	<0.01	<0.05	--
Cobalt	0.0311	0.0791	--	--	<0.015	--	--	--	--	<0.02	<0.02	--
Copper	0.0637	0.129	--	--	0.013	--	--	--	--	<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
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
Magnesium	67	88.3	48.6	45.5	38	38	38.4	36.4	35	32.1	38.4	38.5
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
Mercury	<0.0001	<0.0001	--	--	<0.0004	--	--	--	--	<0.0002	<0.0002	--
Nickel	0.0783	0.192	--	--	0.013	--	--	--	--	<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
Sodium	118	113	134	129	124	128	112	104	95.8	95.2	104	99.6
Selenium	0.0041 B	0.0047 B	--	--	<0.02	--	--	--	--	<0.005	<0.005	--
Silver	<0.0009	<0.0009	--	--	<0.015	--	--	--	--	<0.01	<0.01	--
Thallium	<0.0026	<0.0026	--	--	<0.03	--	--	--	--	<0.01	<0.01	--
Vanadium	0.0487 B	0.127	--	--	<0.015	--	--	--	--	<0.03	<0.03	--
Zinc	0.2	0.408	--	--	<0.01	--	--	--	--	0.0263	0.0102	--

All units in mg/l

## Historical Water Quality Database - Towslee Landfill

MW-1A

Dissolved Metals

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

All units are mg/l

Historical Water Quality Database - Towslee Landfill  
**MW-1B**                    **Dissolved Metals**

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

All units are mg/l

Historical Water Quality Database - Towslee Landfill  
**MW-2A**                    **Dissolved Metals**

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

All units are mg/l

Historical Water Quality Database - Towslee Landfill  
 MW-2B              Dissolved Metals

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

All units are mg/l

Historical Water Quality Database - Towslee Landfill

MW-3A                    Dissolved Metals

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

All units are mg/l

Historical Water Quality Database - Towslee Landfill  
 MW-6B                  Dissolved Metals

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

All units are mg/l

Historical Water Quality Database - Towslee Landfill  
**MW-7A**                      **Dissolved Metals**

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

All units are mg/l

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

Parameter	TYPE	Aug-97	Oct-97	8/9/06	10/9/07
Vinyl Chloride	VOC	<10	<10	<5	<5
Chloroethane	VOC	<10	<10	<5	<5
Acetone	VOC	10	<10	<25	<10
Methylene Chloride	VOC	<10	<10	<5	<5
trans-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5
cis-1,2-Dichloroethene (1)	VOC	<10	<10	<5	<5
1,1-Dichloroethane	VOC	<10	<10	<5	<5
Benzene	VOC	<10	<10	<5	<5
Toluene	VOC	<10	<10	<5	<5
Chlorobenzene	VOC	<10	<10	<5	<5
Ethylbenzene	VOC	<10	<10	<5	<5
Xylenes(total)	VOC	<10	<10	<10	<5
1,4-Dichlorobenzene	SVOC	<10	<10	<5	<5
Diethylphthalate	SVOC	<10	<10	NA	NA
bis(2-Ethylhexyl)phthalate	SVOC	<10	<10	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
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	13 B
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-2A - Overburden

Parameter	TYPE	Aug-97	Oct-97	8/9/06	10/9/07	2/1/08
Vinyl Chloride	VOC	<10	<10	<5	<5	<5
Chloroethane	VOC	5 J	4 J	<5	<5	<5
Acetone	VOC	<10	<10	<25	<10	<10
Methylene Chloride	VOC	1 JB	<10	<5	<5	12 B
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	5 J	6 J	<5	<5	<5
Toluene	VOC	1 J	<10	<5	<5	<5
Chlorobenzene	VOC	5 J	<10	<5	4 J	<5
Ethylbenzene	VOC	2 J	<10	<5	<5	<5
Xylenes(total)	VOC	5 J	<10	<10	<5	<5
1,4-Dichlorobenzene	SVOC	1 J	2 J	<5	<5	<5
Diethylphthalate	SVOC	<10	1 J	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-2B - Bedrock

Parameter	TYPE	Aug-97	Oct-97	8/9/06	10/9/07	2/1/08
Vinyl Chloride	VOC	<10	<10	<5	5.8	<5
Chloroethane	VOC	4 J	3 J	<5	4 J	<5
Acetone	VOC	<10	<10	<25	<10	<10
Methylene Chloride	VOC	1 JB	<10	<5	<5	11 B
trans-1,2-Dichloroethene (1)	VOC	1 J	<10	<5	<5	<5
cis-1,2-Dichloroethene (1)	VOC	1 J	<10	6.2	9.2	9.4
1,1-Dichloroethane	VOC	1 J	1 J	<5	<5	<5
Benzene	VOC	<10	2 J	<5	<5	<5
Toluene	VOC	<10	<10	<5	<5	<5
Chlorobenzene	VOC	<10	1 J	<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	1 JB	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
Vinyl Chloride	VOC	<10	<10	<5	<5	<5
Chloroethane	VOC	<10	<10	<5	<5	<5
Acetone	VOC	2 J	<10	<25	<10	<10
Methylene Chloride	VOC	5 JB	<10	<5	<5	11 B
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-6B - Bedrock

Parameter	TYPE	Aug-97	Oct-97	8/9/06	10/9/07	2/1/08
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	12 B
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-7A - Overburden

Parameter	TYPE	Aug-97	Oct-97	8/9/06	10/9/07	2/1/08
Vinyl Chloride	VOC	2 J	5 J	<5	4 J	8.2
Chloroethane	VOC	<10	1 J	<5	<5	<5
Acetone	VOC	<10	<10	<25	<10	<10
Methylene Chloride	VOC	1 JB	<10	<5	<5	<5
trans-1,2-Dichloroethene (1)	VOC	1 J	2 J	<5	<5	<5
cis-1,2-Dichloroethene (1)	VOC	1 J	2 J	7.1	6.1	9
1,1-Dichloroethane	VOC	3 J	4 J	6.1	5 J	7.9
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