



Cortland County Soil and Water Conservation District

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SWCD...established to promote the conservation and wise use of our county's natural resources

June 27, 2012

Brian Jankauskas
NYS DEC
Div. of Environmental Remediation
625 Broadway, 11th Floor
Albany, NY 12233-7015

Dear Mr. Jankauskas:

Enclosed is a report summarizing monitoring activities for Quarter 4 of 2011 at the Towslee Landfill in Cortland County. Cortland County Soil and Water Conservation District prepared this report for Don Chambers, Superintendent of Cortland County Highway Department.

Please contact our office at (607) 756-5991, or Don Chambers at (607) 753-9377, if you have any questions.

Sincerely,

Patrick Reidy
Water Quality Specialist

cc: Don Chambers
James Gruppe, NYSDEC Region 7
Amanda Barber, SWCD/files

w/ report
w/ report

Environmental Monitoring Report 2011 Quarter 4 And Annual Summary

Cortland County Towslee Landfill

Town Line Road
Cortland County, New York

NYSDEC Region 7

Prepared for:
Cortland County Highway Department
Traction Drive
Cortland, NY 13045

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



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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 Quarter 4 of 2011, and serves as the annual report.

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.

Upstate Laboratories, Inc. (herein referred to as Upstate Labs) conducted all sample collection activities, and performed all laboratory analyses for Quarter 4 of 2011. Water quality analyses were conducted in accordance with 1998 Part 360 regulations. SWCD performed data management and analysis, and prepared this report.

Updated Monitoring Plan

From 2006 through Quarter 2 of 2011, Cortland County had been conducting interim monitoring of seven groundwater monitoring wells at the Towslee Landfill. ***A revised monitoring plan was implemented starting in Quarter 3 of 2011 (this Quarter 4 is the 2nd monitoring event under the revised plan).*** The revised plan is dated June 2006, and was prepared by Barton & Loguidice. The revised plan includes:

- Six additional groundwater monitoring wells, for a total of 13 wells
- Gas testing of 13 groundwater monitoring wells
- Inspections (Quarter 2 and 4)

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 the approximate limits of hazardous waste. Figure 1 also shows the surface water sampling locations that are tested as part of the monitoring of the active West Side Landfill adjacent to Towslee Landfill.

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

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

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

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

3.0 Monitoring Schedule and Locations

3.1 Schedule

<u>Quarter</u>	<u>Analyses</u>	<u>Date Sampled</u>
First Quarter:	Routine	March 22, 2011
Second Quarter:	Routine	May 24, 2011
Third Quarter:	Routine	September 20, 21 and 23, 2011
Fourth Quarter:	Baseline	December 11-14, 2011

3.2 Groundwater Monitoring Locations

Monitoring wells for the Towslee monitoring program are listed below, and shown on Figure 1.

Upgradient	<u>Bedrock</u> CD-1RA	<u>Overburden</u> CD-1
Downgradient	<u>Bedrock</u> MW-1B MW-2B MW-3A MW-3B MW-4A MW-5A (a) MW-6B	<u>Overburden</u> MW-1A MW-2A MW-6A MW-7A

(a) MW-5A cannot be sampled because of a blockage above the water table. An attempt to sample this well with small diameter plastic tubing was unsuccessful.

4.0 Groundwater Monitoring Results

This section provides an evaluation of groundwater monitoring results for Quarter 4 of 2011. 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 4 laboratory analytical report.
- Appendix B contains tables of historical water quality data for each monitoring well.

4.1 Contraventions of Groundwater Quality Standards

This subsection compares 2011 groundwater quality data to NYS water quality standards. Tables 1, 2 and 3 summarize groundwater quality results for Quarter 4 for the Towslee wells. Available NYS water quality standards are included in these tables, and contraventions of standards are highlighted.

Results for most parameters in Quarter 4 of 2011 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 for the 13 Towslee monitoring wells.

4.1.1 Conventional and Field Parameters

pH - The acceptable range for pH is between 6.5 and 8.5. In Quarter 4, pH was slightly above this range for MW-1A (8.62) and MW-1B (8.56).

Color – The color standard is 15 standard units (SU). The color standard was exceeded for two wells in Quarter 4: MW-1A (80 SU) and MW-2A (70 SU).

Turbidity – Turbidity exceeded the NYS standard of 5 NTU for the two upgradient wells and 9 of the 10 sampled downgradient wells in Quarter 4, with results ranging from about 8 to 40 NTU. Based on separate monitoring conducted at the closed Pine Tree Landfill, and the active West Side Landfill, natural groundwater in this area appears to have elevated turbidity.

Total Dissolved Solids (TDS) - The TDS standard of 500 mg/l has been consistently exceeded for the same two wells, and this trend continued in Quarter 4. TDS was 770 mg/l at MW-2B, and 620 mg/l at MW-7A.

Ammonia - The ammonia standard of 2 mg/l was exceeded at MW-2A (5.24 mg/l) in Quarter 4, and was exceeded in all previous monitoring events at this well, with levels slowly decreasing over time.

4.1.2 Metals

Total Barium - The NYS standard for barium is 1 mg/l. This was exceeded for MW-2B (1.31 mg/l) and MW-4A (1.16 mg/l) in Quarter 4 of 2011.

Total Iron - The NYS standard for iron is 0.3 mg/l. The standard was exceeded for both upgradient wells and 8 of the 10 sampled downgradient wells in Quarter 4, ranging from about 0.33 to 5.4 mg/l. Iron has frequently exceeded the standard in past monitoring at Towslee. The elevated iron levels are believed to be due at least in part to particulate in the unfiltered samples.

Total Manganese - The NYS standard for manganese is 0.3 mg/l. The manganese standard was exceeded for 6 of 10 downgradient wells in Quarter 4, ranging from about 0.7 to 8 mg/l. As with iron, the manganese standard has frequently been exceeded in past monitoring, and may be due to particulate in unfiltered samples.

Sodium – The NYS sodium standard is 20 mg/l, and is relevant for people on severely restricted sodium diets. Contraventions in Quarter 4 were observed at MW-2B (57.7 mg/l), MW-6B (21.7 mg/l), and MW-7A (104 mg/l). These results are consistent with past monitoring. Elevated sodium may be at least partially related to deicing activities on the road network within the landfill.

4.1.3 Volatile Organic Compounds (VOCs)

VOC testing was conducted during this Baseline round of Quarter 4 for 2011.

No VOCs were detected in 10 of the 12 wells sampled in Quarter 4. For the other two wells, a total of four different VOCs were detected, as described below.

Vinyl chloride was detected at 4 ug/l at MW-7A, slightly above the drinking water standard of 2 ug/l. The result for MW-7A is below the method detection limit (MDL), and is therefore estimated.

Chloroethane was detected in Well MW-2B at 3 ug/l, which is below the MCL of 5 ug/l. This result is also considered to be estimated because it was below the MDL.

cis-1,2-dichloroethene was detected in Wells MW-2B (16 ug/l) and MW-7A (5 ug/l). The result for MW-2B is above the drinking water MCL of 5 ug/l.

1,1-Dichloroethane was detected in MW-7A at 4 ug/l. This is below the drinking water MCL of 5 ug/l. This result is considered to be estimated because it was below the MDL.

There were no other contraventions of NYS water quality standards in Quarter 4 of 2011.

4.2 Groundwater Quality Trends

Groundwater monitoring at Towslee Landfill occurred twice in 1997, and quarterly monitoring was resumed for seven wells in 2006. Monitoring was resumed for an additional six wells in Quarter 3 of 2011.

Appendix B contains historical tables of all results to date.

As described in Section 2, B&L identified a subset of parameters that suggested mild leachate impacts to groundwater, based on 1997 monitoring. For this report, these parameters are described as contaminants of concern (COCs). The main focus of the trends assessment is on COCs.

4.2.1 Trends for Wells for which Monitoring was Resumed in Quarter 3 2011

Monitoring of six wells (listed below) was resumed in Quarter 3 of 2011. Previous monitoring for these wells occurred in 1997. A separate discussion of trends for these wells is presented here because of the recent resumption of monitoring.

<u>Bedrock</u>	<u>Overburden</u>
CD-1RA	CD-1
MW-3B	MW-6A
MW-4A	
MW-5A (a)	

(a) MW-5A could not be sampled because of a blockage above the water table.

Upgradient Wells

Wells CD-1 and CD-1RA are upgradient of the landfill. Note that in 1997, CD-1RA received analyses for a broad range of parameters, while CD-1 was only tested for VOCs.

As expected, the 2011 testing shows that water quality in upgradient well CD-1RA is generally good, and has not changed significantly over time. The water quality for CD-1 is generally similar to CD-1RA.

Downgradient Wells

MW-3B - Recent results are generally similar to 1997 results. Sulfate, TOC and total phenolics decreased somewhat from 1997 levels.

MW-4A - Recent results are generally similar to 1997 results. Sulfate, COD, TOC and total phenolics decreased somewhat from 1997 levels. BOD was elevated in Quarter 3 compared to 1997, but results are similar to the upgradient well CD-1RA, and BOD was below the detection limit in Quarter 4.

MW-6A - Recent results are generally improved compared to 1997 results. Significant decreases in concentration were observed for alkalinity, hardness, TDS, chloride, ammonia, COD, TOC, and total phenolics. Significant decreases in concentration were also noted for the following metals: aluminum, barium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, sodium, vanadium and zinc.

4.2.2 Trends for other Wells

Trends for Conventionals

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

- o Alkalinity continues to be generally lower than 1997 levels, and fairly stable over the past 6 years. There is a slight downward trend over the past few years for the wells with the highest alkalinity levels.
- o Chloride levels continue to be significantly lower than 1997 levels. There is a downward trend over the past few years for the wells with the highest chloride levels.
- o Hardness levels are generally lower than in 1997, especially for the wells with high levels in 1997, and fairly stable over the past 6 years.
- o Ammonia – For most wells, ammonia has consistently been below the detection level in recent years. Well MW-2A continues to have elevated ammonia levels, but continues to show an overall decreasing trend over time. MW-2B is the only other well at which ammonia was detected in the past several years. Ammonia levels at MW-2B have been fairly stable over time, but below the detection limit in the last two quarters, suggesting a possible decreasing trend.
- o TKN levels in general show an overall decreasing trend over time. TKN results for MW-2A are elevated, but show an overall decreasing trend. Results for MW-2B are somewhat elevated, but have remained stable for the past 5 years. TKN results for at MW-3A and MW-7A are also somewhat elevated, and fluctuate more than at other wells, with no clear trend either up or down. Results for the remaining wells have generally been below the detection limit for the past 6 years.
- o COD continues to show an overall decrease compared to 1997 levels. Results for most wells have been below the detection limit in recent quarters. Results for MW-7A have been relatively stable.
- o Total Organic Carbon (TOC) - TOC levels are generally lower than those measured in 1997. TOC has been below the detection limit at MW-1A, MW-1B and MW-6B in recent years.

TOC at MW-2A, MW-2B and MW-7A show a decreasing trend. TOC at MW-3A fluctuates over time, with no clear trend up or down, and with about half the results below the detection limit.

- o For all other conventionals, the results for 2011 are lower than or similar to past results.

Trends for Total Metals

B&L identified the following metals as suggestive of mild landfill leachate contamination:

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 4 in 2011. For the Routine events (Quarters 1, 2 and 3), the only metals analyzed were calcium, iron, lead, magnesium, manganese, potassium, and sodium.

- o Aluminum levels continue to show a significant decrease through 2011, compared to 1997.
- o Arsenic levels have decreased over time, and were below the detection limit for all seven wells for the past three years.
- o Calcium levels continue to show an overall decrease through 2011, compared to 1997 levels, and have been relatively stable over the past 6 years.
- o Chromium levels have decreased over time, and all results were below the detection limit for the past three years.
- o Cobalt has been below the detection limit for all wells since sampling resumed in 2006.
- o Copper has been below the detection limit for all sampled wells for the past 6 years.
- o Iron continues to show an overall decrease compared to 1997 levels. Variability in total iron levels over the past 6 years is likely due to varying amounts of particulate in samples.
- o Lead levels have generally been below the detection limit for the past 6 years.
- o Magnesium levels continue to show an overall decrease compared to 1997 observations, and have been fairly stable over the past few years.
- o Manganese continues to show an overall decrease compared to 1997 levels.

- o Potassium levels continue to show an overall decrease through 2011, compared to 1997, and are below the detection limit at most wells in recent years.
- o Sodium levels have continued to show a general decrease through 2011, or have remained fairly stable.
- o Vanadium levels have been below the detection limit at all wells since sampling resumed in 2006.
- o Zinc levels have generally decreased over time, compared to 1997 levels.

Organics Trends

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

VOCs were analyzed in Q4 of 2011, and measured a total of nine times since 1997.

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

MW-1A –VOCs were not detected in any well in 2011, nor in any previous monitoring.

MW-1B –VOCs were not detected in any well in 2011. The only previous VOC (methylene chloride) detected at this well is a suspected artifact of laboratory contamination, detected in 2008.

MW-2A –Various VOCs have been detected at this well in the past, but in general have decreased over time. No organics were detected at this well in 2011.

MW-2B – Chloroethane (3 ug/l) and cis-1,2-dichloroethene (16 ug/l) were detected in 2011. Low level VOC contamination persists at this well, but has generally decreased over time.

MW-3A – Acetone and methylene chloride have been detected sporadically at this well at relatively low levels. These are common laboratory contaminants. Toluene was detected in 2009 and 2010, but the reported concentrations are suspect based on laboratory QA/QC results. No organics were detected at this well in 2011.

MW-6B - No VOCs were detected at this well in 2011. The only previous VOC detected at this well is a suspected artifact of laboratory contamination in 2008.

MW-7A – Low levels of vinyl chloride, cis-1,2-dichloroethene, and 1,1-dichloroethane persist at

this well. There is no significant trend, either up or down. Acetone, a common laboratory contaminant, was detected at a low concentration in 2010, but was not detected in 2011.

5.0 Surface Water Monitoring

There is no surface water monitoring conducted specifically for the Towslee Landfill, but there are three surface water locations (SW-1, SW-2, and SW-3) that are sampled as part of monitoring of the active West Side Landfill. These locations are downgradient of the Towslee Landfill.

The Quarter 4 results for these locations have been included in this report. Surface water locations are shown on Figure 1.

Tables 4 and 5 summarize the surface water quality results. Available NYS water quality standards are included in these tables, and contraventions of standards are highlighted. (Note that Routine analyses were conducted for the West Side Landfill in Quarter 4 of 2011, while Baseline testing was conducted at Towslee Landfill).

There was only one contravention of a NYS water quality standard for the surface water locations in Quarter 4 of 2011. Total iron at SW-2 (2.82 mg/l) exceeded the water quality standard of 0.3 mg/l. A relatively high turbidity level was observed at this location, and the elevated iron level may have been caused by particulate in the sample.

6.0 Landfill Gas Testing

Landfill gas measurements were made at each of 13 monitoring wells in Quarter 4, as well as in the scalehouse. The landfill gas results are presented in Appendix C. The lower explosive limit (LEL) of methane is 5 percent in air by volume. All measurements are expressed as a percentage of the LEL.

In Quarter 4 of 2011, landfill gas was not detected at any of the monitoring locations. Note that a gas measurement was made at MW-5A despite a blockage preventing water sample collection.

Also note that several gas measurements were made in the vicinity of the maintenance building, as part of monitoring activities for the West Side Landfill. No landfill gas was detected at the maintenance building.

7.0 Quality Control

Quality control samples and data validation are discussed below. Based on a review of this information, we believe the Quarter 4 data are adequate to characterize groundwater quality in the vicinity of the Towslee landfill.

7.1 Quality Control Samples

Duplicate samples were collected for MW-6B in Quarter 4 of 2011. Relative Percent Differences (RPDs) were calculated if results for both the sample and the duplicate were above the detection limit.

- 12 of 14 RPDs were below 20%, with 10 of 14 below 10%.
- The RPDs for total iron (49) and total manganese (65), are elevated, but may be due to varying amounts of particulate in the unfiltered split samples.

7.2 Data Validation

EnviroAnalytics performed independent data validation for the Quarter 4 monitoring. The validation report is included in Appendix A.

A summary of the evaluation of the analytical data with respect to the precision, accuracy, representativeness, comparability, and completeness (PARCC) parameters is presented below.

Precision - none of the data were qualified for field or laboratory duplicate criteria deviations.

Accuracy - 3.37 percent of the analytical data were qualified for deviations from matrix spike recovery criteria; none of the data were qualified for surrogate recovery criteria deviations; none of the data were qualified for internal standard recovery criteria deviations; 3.37 percent of the data were qualified for laboratory control sample deviations; and 6.5 percent of the data were qualified for calibration criteria deviations.

Representativeness - 0.08 percent of the analytical data required qualification for holding time deviations; none of the analytical data required qualification for sample custody deviations; none of the analytical data required qualification for sample preservation deviations; and none of the analytical data required qualification for blank analysis deviations.

Comparability - Since standard analytical methods and reporting procedures were consistently used by the laboratory, the comparability criteria for the analytical data were met.

Completeness - The overall percent usability or completeness of the data was 99.8 percent.

8.0 Inspections

An inspection of Towslee Landfill was conducted on 11/16/2011. In general, the landfill is in good condition, with no significant deficiencies noted. A summary of this inspection is presented below.

8.1 Cap System

- No evidence of cracking of the cover soils of the cap was observed.
- No settlement of the cap was observed.
- No evidence of erosion or loss of vegetation in the cover soils was observed. The vegetation cover appears to be well-established and healthy.
- The landfill was not mowed in 2011. There was high grass present over most of the cap. No woody growth was observed. The county has been made aware of this, and will mow in 2012.

8.2 Drainage System

- There was no erosion of the ground surface observed in the area of the toe of slope where water discharges from the soil drainage layer. No other erosion was observed.
- All swales, downchutes and culverts were in good shape and functioning properly. There was a hole observed near the downstream end of the culvert between the first and second ponds, downstream from Towslee landfill. This situation should be further investigated by landfill personnel, and repairs made as necessary.

8.3 Gas Venting System

- No damage or plugging of vents was observed, except that two vents were damaged on the eastern slope of the landfill. These vents will be repaired in 2012.
- No cap settlement adjacent to vents was observed.

8.4 Vectors

No evidence of vectors was observed at the Towslee Landfill. Gulls are present at other locations of the County's landfill facility, but not at the Towslee Landfill.

8.5 Access Roads

Access roads are in good condition, with no evidence of significant erosion or excessive wear.

9.0 Annual Summary

2011 was marked by the implementation of a revised monitoring plan that added six monitoring wells, and included landfill gas testing and an inspection of the facility. The revised plan was initiated in Quarter 3.

The 2011 monitoring indicates that mild leachate contamination continues to occur in the groundwater downgradient of the Towslee Landfill, but that groundwater quality has improved significantly since 1997, and continues to show general improvement in recent years. Groundwater quality generally meets the State's quality standards, and the results of 2011 monitoring met applicable groundwater quality standards for most parameters for the 12 wells sampled at Towslee Landfill. Exceptions are:

- pH was slightly outside the acceptable range for two wells in Quarter 4.
- The color standard was exceeded for two wells in Quarter 4.
- The standards for turbidity and TDS were exceeded consistently at a number of wells.
- The standard for ammonia was consistently exceeded at MW-2A.
- Standards for total iron and total manganese were consistently exceeded at a number of wells, likely due to particulate in unfiltered samples.
- The sodium standard was consistently exceeded at a number of wells.
- The barium standard was slightly exceeded at two wells in Quarter 4.
- Total cadmium exceeded its standard in Quarter 3 at MW-7A, but this was likely due to particulate in the sample, as dissolved cadmium was below the detection limit for this well.
- The standard for cis-1,2-dichloroethene was exceeded at MW-2 B in Quarter 4.
- The standard for vinyl chloride was exceeded at MW-7A in Quarter 4.

The three surface water monitoring stations at the landfill are located along an unnamed stream that drains the general landfill area. They are located downgradient of the Towslee Landfill. Based on the geology of the area, it is likely that groundwater discharges to this unnamed stream, and that water quality in the stream is generally representative of water migrating past the property line of the County's landfill facilities. While there is evidence of mild landfill leachate contamination in groundwater downgradient of Towslee Landfill, based on the surface water quality results, there does not appear to be a significant impact to off-site surface water or groundwater quality from the landfill.

No landfill gas was detected at any sample location in 2011.

The inspection of the landfill found it to be in good overall condition. Two broken gas vents will be repaired. Mowing was not conducted in 2011, but will be in 2012.

There are no anticipated changes to the monitoring plan for 2012. Baseline monitoring will occur in Quarter 1, and Routine monitoring will occur in Quarters 2, 3 and 4.

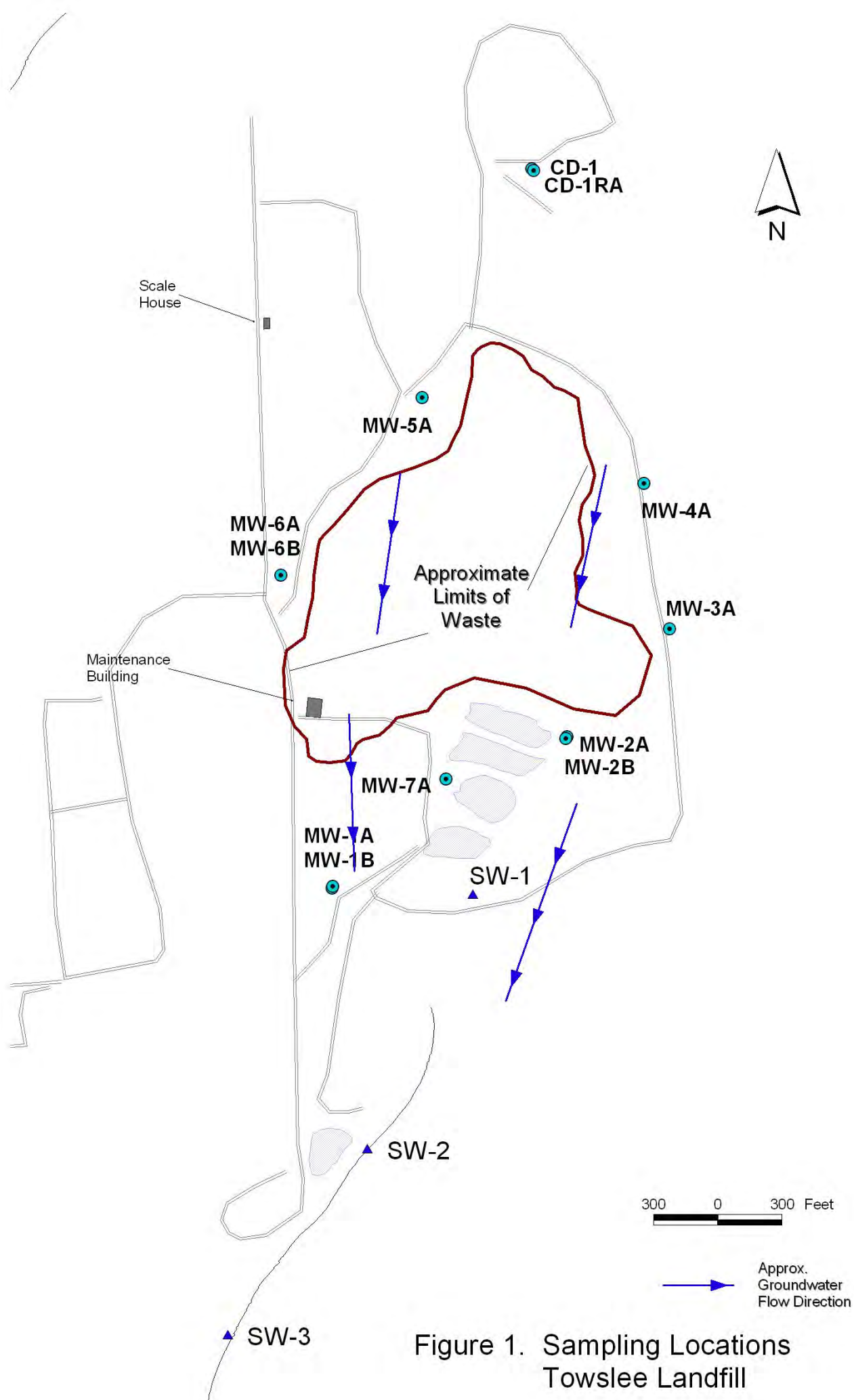


Figure 1. Sampling Locations
Towslee Landfill

**Table1. Contraventions of NYS Water Quality Standards
for Field and Inorganic Parameters
Towslee Landfill - Quarter 4 2011**

Parameter	Units	NYS Water Quality Standard	Upgradient		Downgradient										
			OB CD-1	BR CD-1RA	OB MW-1A	BR MW-1B	OB MW-2A	BR MW-2B	BR MW-3A	BR MW-3B	BR MW-4A	BR MW-5A	OB MW-6A	BR MW-6B	OB MW-7A
Temperature	(deg. C)	--	7.7	9.6	6.6	9.1	8.2	7.9	7.0	9.9	8.6	NS	9.8	10.6	8.6
Eh	(mV)	--	164	164	147	136	25	27	171	174	174	NS	156	153	185
pH	log	6.5 - 8.5 a	7.91	7.79	8.62	8.56	7.62	7.14	7.71	7.6	7.48	NS	7.87	8.25	7.26
Specific Conduct.	(uS/cm)	--	282	312	375	232	501	1363	257	522	734	NS	425	387	1127
Color	(Units)	15 a, b	6	6	80	11	70	12	6	<5	6	NS	200	5	7
Turbidity	(NTU)	5 a	10.2	25.3	24	22.73	24.16	18.6	10.69	7.59	10.34	NS	8.52	4.1	36.38
Alkalinity (as CaCO3)	(mg/l)	--	140 J	150 J	150 J	120 J	270 J	570 J	140 J	240 J	400 J	NS	210 J	180 J	550 J
Hardness (as CaCO3)	(mg/l)	--	145	155	177	108	199	713	122	264	430	NS	194	166	505
Total Diss. Solids	(mg/l)	500 a	210	170	210 R	130	260	770	160	260	430	NS	280	200	620
Chloride	(mg/l)	250 a, b	6.88 J	3.67 J	28.5 J	1.69 J	10.2 J	102 J	3.44 J	27.7 J	25.5 J	NS	13.9 J	19.4 J	108 J
Sulfate	(mg/l)	250 a, b	16.9	18.4	15.8	7.9	<5	<5 R	6.3	11.5	11.1	NS	16.1	18.6	21.6
Bromide	(mg/l)	2 a	<0.8	<0.8	<0.8	<0.8	<8	<0.8 R	<0.8	<0.8	<0.8	NS	<0.8	<0.8	<8
Nitrate (As N)	(mg/l)	10 a, b	0.068	0.058	0.075	0.054	0.074	0.064	<0.05	0.07	<0.05	NS	<0.05	0.087	0.063
Ammonia (As N)	(mg/l)	2 * a	<0.5 J	<0.5 J	<0.5 J	<0.5 J	5.24 J	<0.5 J	<0.5 J	<0.5 J	<0.5 J	NS	<0.5 J	<0.5 J	<0.5 J
TKN	(mg/l)	--	<0.5	<0.5	<0.5	<0.5	6.86	1.46	<0.5	<0.5	<0.5	NS	1.12	0.546	2.19
COD	(mg/l)	--	<20	<20	<20	<20	<20	25	<20	<20	<20	NS	<20	<20	40
BOD	(mg/l)	--	<4	<4	<4	<4	<4	<4	<4	<4	<4	NS	<4	<4	<4
TOC	(mg/l)	--	<3	<3	<3	<3	3.4	3.4	<3	<3	<3	NS	<3	<3	4.1
Phenolics, Total	(mg/l)	0.001 a	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NS	<0.005	<0.005	<0.005
Cyanide	(mg/l)	0.2 a, b	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J	<0.01 J	NS	<0.01 J	<0.01 J	<0.01 J

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

-- not analyzed

OB = overburden well

b - Part 5 Drinking Water MCL

NS - not sampled

BR = Bedrock well

* Standard is for NH4+ and NH3 combined, as is the laboratory analysis R - rejected during data validation

1.23 indicates contravention of standard.

**Table 2. Contraventions of NYS Water Quality Standards
for Metals (units are mg/l)
Towslee Landfill - Quarter 4 2011**

Parameter	NYS Water Quality Standard	Total Metals												
		Upgradient		Downgradient										
		OB CD-1	BR CD-1RA	OB MW-1A	BR MW-1B	OB MW-2A	BR MW-2B	BR MW-3A	BR MW-3B	BR MW-4A	BR MW-5A	OB MW-6A	BR MW-6B	OB MW-7A
Aluminum	--	0.383	1.7	0.711	0.305	0.317	0.175	0.107	0.253	0.153	NS	0.683	<0.1	2.12
Antimony	0.003 a	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	NS	<0.005 J	<0.005 J	<0.005 J
Arsenic	0.025 a	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	<0.005 J	NS	<0.005 J	<0.005 J	<0.005 J
Barium	1 a	0.077	0.2	0.0774	0.185	0.269	1.31	0.498	0.294	1.16	NS	0.327	0.414	0.601
Beryllium	0.004 b	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	NS	<0.003	<0.003	<0.003
Boron	1 a	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NS	<0.5	<0.5	0.53
Cadmium	0.005 a, b	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NS	<0.005	<0.005	<0.005
Calcium	--	41.6	44.1	51	30.8	58.1	212	38.6	70	128	NS	59.7	48.1	146
Chromium	0.05 a	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NS	<0.01	<0.01	<0.01
Chrom, Hex	0.05 a	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NS	<0.01	<0.01	<0.01
Cobalt	--	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	NS	<0.02	<0.02	<0.02
Copper	0.2 a	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NS	<0.01	<0.01	<0.01
Iron	0.3 a, b	0.688	2.75	0.987	0.341	5.42	0.333	0.345	0.344	0.174	NS	1.32	0.0989	3.03
Lead	0.015 b	<0.003 J	<0.003 J	<0.003 J	<0.003 J	<0.003 J	<0.003 J	<0.003 J	<0.003 J	<0.003 J	NS	<0.003 J	<0.003 J	<0.003 J
Magnesium	--	10.1	10.8	12	7.66	13.1	44.7	6.31	21.6	26.8	NS	10.8	11.3	33.9
Manganese	0.3 a, b	0.256	0.211	0.119	0.0807	7.78	5.93	0.726	0.125	1.73	NS	1.78	0.231	3.57
Mercury	0.0007 a	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NS	<0.0002	<0.0002	<0.0002
Nickel	0.1 a	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NS	<0.03	<0.03	<0.03
Potassium	--	<5	<5	<5	<5	7.62	<5	<5	<5	<5	NS	<5	<5	<5
Sodium	20 a, b	<5	6.69	14.9	8.23	13.6	57.7	<5	12.5	17.8	NS	19.8	21.7	104
Selenium	0.01 a	<0.003 J	<0.003 J	<0.003 J	<0.003 J	<0.003 J	<0.003 J	<0.003 J	<0.003 J	<0.003 J	NS	<0.003 J	<0.003 J	<0.003 J
Silver	0.05 a	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NS	<0.01	<0.01	<0.01
Thallium	0.002 b	<0.003 J	<0.003 J	<0.003 J	<0.003 J	<0.003 J	<0.003 J	<0.003 J	<0.003 J	<0.003 J	NS	<0.003 J	<0.003 J	<0.003 J
Vanadium	--	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	NS	<0.03	<0.03	<0.03
Zinc	5 b	<0.01	0.0146	<0.01	<0.01	<0.01	0.0118	<0.01	0.0114	0.013	NS	<0.01	0.0159	0.0156

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

b - Part 5 Drinking Water MCL

1.23 indicates contravention of standard.

-- not analyzed

NS - not sampled

R - rejected during data validation

OB = overburden well

BR = Bedrock well

Table 3. Contraventions of NYS Water Quality Standards
for Organics
Towslee Landfill - Quarter 4 2011

Parameter *	NYS Water Quality Standard	Upgradient		Downgradient										
		OB CD-1	BR CD-1RA	OB MW-1A	BR MW-1B	OB MW-2A	BR MW-2B	BR MW-3A	BR MW-3B	BR MW-4A	BR MW-5A	OB MW-6A	BR MW-6B	OB MW-7A
Vinyl chloride	2 b	<5	<5	<5	<5	<5	<5	<5	<5	<5	NS	<5	<5	4 J
Chloroethane	5 b	<5	<5	<5	<5	<5	3 J	<5	<5	<5	NS	<5	<5	<5
Acetone	50 b	<10 J	<10 J	<10	<10	<10	<10	<10 J	<10 J	<10 J	NS	<10 J	<10 J	<10 J
Methylene chloride	5 b	<5	<5	<5	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5
trans-1,2-Dichloroethene	5 b	<5	<5	<5	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5
cis-1,2-Dichloroethene	5 b	<5	<5	<5	<5	<5	16	<5	<5	<5	NS	<5	<5	5 J
1,1-Dichloroethane	5 b	<5	<5	<5	<5	<5	<5	<5	<5	<5	NS	<5	<5	4 J
Benzene	1 a	<5	<5	<5	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5
Toluene	5 b	<5	<5	<5	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5
Chlorobenzene	5 b	<5	<5	<5	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5
Ethylbenzene	5 b	<5	<5	<5	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5
Xylenes, Total	5 b	<5	<5	<5	<5	<5	<5	<5	<5	<5	NS	<5	<5	<5
1,4-Dichlorobenzene	5 b	<5	<5	<5	<5	<5	<5	<5	<5	<5	NS	<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

NS - Not sampled - note that the lab report in Appendix A shows results for MW-5A, but a blockage in the well precludes adequate purging, and the results are considered unreliable.

Table 4
Contraventions of Surface Water Quality Standards
Field/ Inorganic Parameters - Quarter 4 2011

(No Contraventions)

Parameter	Units	NYS Water Quality Standard	Surface Water Sample Locations		
			SW-1	SW-2	SW-3
Temperature	(deg. C)	--	7.7	7.8	7.4
EH	(mV)	--	137	86	98
pH	(Std Units)	6.5 - 8.5 a	8.22	8.45	8.41
Specific Conductance	(uS/cm)	--	346	374	283
Oxygen, Dissolved	mg/l	5 a	10.86	10.6	10.53
Color	(Units)	15 b	--	--	--
Turbidity	(NTU)	--	3.23	39.5	7.41
Alkalinity (as CaCO3)	(mg/l)	--	180	160	130
Hardness (as CaCO3)	(mg/l)	--	164	155	146
Total Dissolved Solids	(mg/l)	500 a	190	190	180
Chloride	(mg/l)	250 a, b	13.7	14.1	4.28
Sulfate	(mg/l)	250 a, b	<5	13.5	24.2
Bromide	(mg/l)	--	<0.8	<8	<0.8
Boron, tot	(mg/l)	10 a	--	--	--
Nitrate (As N)	(mg/l)	10 a, b	0.211	0.77	0.578
Ammonia (As N)	(mg/l)	2 * a	<0.5	<0.5	<0.5
TKN (as N)	(mg/l)	--	<0.5	1.17	<0.5
COD	(mg/l)	--	32	27	<20
BOD	(mg/l)	--	<4	<4	<4
TOC	(mg/l)	--	3.8	3.5	<3
Phenolics, Total	(mg/l)	0.001 a	<0.005	<0.005	<0.005
Cyanide	(mg/l)	0.0052 a	--	--	--

-- not analyzed\

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

b - Part 5 Drinking Water MCL

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

1.23 indicates value exceeded standard

Table 5
Contraventions of Surface Water Quality Standards
Metals - Quarter 4 2011

Parameter	Units	NYS Water Quality Standard	Surface Water Sample Locations		
			SW-1	SW-2	SW-3
Al	(mg/l)	0.1 a	--	--	--
Sb	(mg/l)	0.003 a	--	--	--
As	(mg/l)	0.05 a, b	--	--	--
Ba	(mg/l)	1 a	--	--	--
Be *	(mg/l)	0.004 a	--	--	--
Cd *	(mg/l)	0.0021 a	<0.005	<0.005	<0.005
Ca	(mg/l)	--	50.9	50.8	47.4
Cr *	(mg/l)	0.05 a, b	--	--	--
Cr+6	(mg/l)	0.011 a	--	--	--
Co	(mg/l)	0.005 a	--	--	--
Cu *	(mg/l)	0.009 a	--	--	--
Fe	(mg/l)	0.3	0.267	2.82	0.324
Pb *	(mg/l)	0.004 a	<0.003	<0.003	<0.003
Mg	(mg/l)	35 a	9.06	6.97	6.75
Mn	(mg/l)	0.3	0.0529	0.0886	0.0283
Hg	(mg/l)	0.0007 a	--	--	--
Ni *	(mg/l)	0.052 a	--	--	--
K	(mg/l)	--	<5	<5	<5
Na	(mg/l)	20 b	14.8	12.1	5.61
Se	(mg/l)	0.0046 a	--	--	--
Ag	(mg/l)	0.0001 a	--	--	--
Tl	(mg/l)	0.002 b	--	--	--
V	(mg/l)	0.014 a	--	--	--
Zn *	(mg/l)	0.083 a	--	--	--

-- not analyzed

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

b - Part 5 Drinking Water MCL

* assumes hardness = 100 mg/l

1.23 indicates value exceeded standard

Appendix A

Data Validation Report
and
Analytical Laboratory Results

Quarter 4 2011

Cortland County Towslee Landfill

Data Usability Summary Report
4TH Quarter 2011 Sampling Event

Towslee Landfill
Cortlandville, New York

Samples Collected
December 2011

April 2012

Data Usability Summary Report

**Samples Collected
December 2011**

4TH Quarter 2011 Sampling Event

**Towslee Landfill
Cortlandville, New York**

Prepared By:

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EXECUTIVE SUMMARY

This report addresses data quality for the fourth quarter 2011 round of samples collected at the Towslee Landfill located in Cortlandville, New York. Fourteen groundwater samples were analyzed for 6 NYCRR Part 360 Baseline Parameters. Sample collection and laboratory analyses were provided by Upstate Laboratories, Inc. located in East Syracuse, New York.

The data package case narrative states that the total dissolved solids (TDS) for sample MW-1A was re-analyzed outside of holding time because the initial analytical result was not consistent with historical data. The re-analysis and reporting of a sample result that was generated outside of holding time instead of reporting a valid higher-concentration analytical result that was generated within holding time is intentional fraudulent reporting. This is a serious issue and a clear-cut example of fraud because the initial analysis was valid and indicated a TDS of 1510 mg/L whereas the invalid re-analysis was reported as 210 mg/L.

The TDS re-analysis was conducted 50 days past the last allowable date of analysis based on the date collected. The duration of time between sample collection and re-analysis indicates that the sample was no longer representative of site conditions. If an analytical result is reported to a client and it is deemed to be suspect, the client should have the well purged, as is routinely done, and a new sample collected and analyzed within holding time. The practice of determining the reporting of results based on comparison to historical data by a laboratory is not compliant with Good Laboratory Practices (GLP) and is considered to be fraudulent.

The sample collected on 12/30/2011 from location MW-2B for Bromide and Sulfate analyses was obtained 15 days after the initial development of the well. The well development logs provided in the data package indicate that a grab sample was collected without re-development of the well nor recording of field parameters to evaluate that the well parameters remained stabilized and comparable to the prior rounds of sampling. Due to this deviation, the non-detected Bromide and Sulfate results for sample MW-2B were qualified as rejected (R).

The inorganics and leachate indicator analyses data have been determined to be usable for qualitative and quantitative purposes with the exception of non-detected sample results for Bromide and Sulfate for one sample that were rejected due to non-representative sample collection and the detected TDS result for one sample that was rejected for fraudulent reporting. Additional sample qualification included the approximation of sample results due to deviations from continuing calibration, laboratory control sample, and matrix spike criteria.

The volatile organics analyses data were determined to be usable for qualitative and quantitative purposes with additional qualification. Sample qualification included the approximation of sample results for several compounds due to deviations from continuing calibration criteria.

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Appendices

Appendix A - Data Validation Checklists

SECTION 1 - INTRODUCTION

1.1 Introduction

This report addresses data quality for the fourth quarter 2011 round of samples collected at the Towslee Landfill located in Cortlandville, New York. Sample collection activities were performed from December 12 through December 30, 2011 by Upstate Laboratories, Inc. of East Syracuse, New York. Laboratory analyses were provided by Upstate Laboratories, Inc. located in East Syracuse, New York. The quantity and types of samples submitted for data validation are tabulated below.

Table 1: Introduction - Sample Summary Table

SDG#	Date Collected	Sample Type	Sample Identification	
			Client ID	Laboratory ID
COR55	12/12/11 12/13/11	Ground Water	CD-1	U1112391-001/012
			CD-1RA	U1112391-002/013
			MW-3A	U1112391-003/014
			MW-3B	U1112391-004/015
			MW-4A	U1112391-005/016
			MW-5A	U1112391-006
			MW-6A	U1112391-007/017
			MW-6B	U1112391-008/018
			MW-7A	U1112391-009/019
			ULI Trip Blank (12/12/11)	U1112391-011
COR55	12/13/11 12/14/11	Ground Water	MW-1A	U1112391-020/027
			MW-1B	U1112391-021/028
			MW-2A	U1112391-022/029
			MW-2B	U1112391-023/030
			DUPE MW-1B	U1112391-024/031
			ULI Trip Blank (12/13/11)	U1112391-025
COR55	12/30/11	Ground Water	MW-2B	U1112391-032

1.2 Analytical Methods

Groundwater, surface water, and under drain samples were analyzed for 6 NYCRR Part 360 Baseline Parameters in accordance with the protocols specified in *Test Methods for Evaluating Solid Wastes*, SW-846 Third Edition, USEPA, November 1986, Revised December 1997 and *Methods for Chemical Analysis of Water and Wastes*, USEPA-600/4-79-020, March 1979. Laboratory analyses were provided by Upstate Laboratories, Inc. located in East Syracuse, New York.

1.3 Validation Protocols

Data validation is a process that involves the evaluation of analytical data against prescribed quality control criteria to determine the usefulness of the data. The analytical data addressed in this report were evaluated utilizing the quality control criteria presented in the following documents:

- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, USEPA-540-R-08-01, June 2008.

- *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review*, USEPA-540-R-10-011, January 2010.
- *CLP Organics Data Review and Preliminary Review*, SOP No. HW-6 Revision #14, USEPA Region II, September 2006.
- *Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILMO5.3*, SOP No. HW-2, Revision #13, USEPA Region II, September 2006.
- *Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8260B*, SOP No. HW-24 Revision #2, USEPA Hazardous Waste Support Branch, August 2008.
- *Exhibit E of New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP)*, NYSDEC June 2005.

1.3.1 Inorganic and Leachate Indicator Parameters

The validation of inorganics for this project followed the requirements presented in the analytical methodology and the data validation guidelines presented above. The following QA/QC parameters were evaluated:

1. Holding Times
2. Calibration
 - a. Initial Calibration Verification
 - b. Continuing Calibration Verification
3. Blank Analysis
4. ICP Interference Check Sample Analysis (ICP only)
5. Matrix Spike Analysis
6. Laboratory Duplicate Analysis
7. Laboratory Control Sample Analysis
8. ICP Serial Dilution Analysis (ICP only)
9. Furnace Atomic Absorption Analysis
10. Method of Standard Addition Results
11. Field Blanks
12. Element Quantification and Reported Detection Limits
13. Document Completeness
14. Overall Data Assessment

1.3.2 Organic Parameters

The validation of organic parameters for this project followed the requirements presented in the analytical methodology and the data validation guidelines presented above. The following QA/QC parameters were evaluated:

Volatile Organics Analyses

1. Holding Times
2. GC/MS Instrument Tuning Criteria
3. Calibration

- a. Initial Calibration
 - b. Continuing Calibration
- 4. Blank Analysis
- 5. Surrogate Recovery
- 6. Matrix Spike / Matrix Spike Duplicate Analysis
- 7. Reference Standard Analysis
- 8. Internal Standards Recovery
- 9. Compound Identification and Quantification
- 10. Field Duplicate Analysis
- 11. System Performance
- 12. Documentation Completeness
- 13. Overall Data Assessment

1.4 Data Qualifiers

The following qualifiers as specified in the guidance documents presented in Section 1.3 of this report have been used for this data validation.

- U Indicates that the compound was analyzed for, but was not detected. The sample quantification limit is presented and adjusted for dilution. This qualifier is also used to signify that the detection limit of an analyte was raised due to blank contamination.
- J Indicates that the result should be considered approximate. This qualifier is used when the data validation procedure identifies a deficiency in the data generation process.
- UJ Indicates that the detection limit for the analyte in this sample should be considered approximate. This qualifier is used when the data validation process identifies a deficiency in the data generation process.
- R Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data are considered to be unusable for both qualitative and quantitative purposes.

The following sections of this document present a summary of the data validation process. Section 2 discusses data compliance with established QA/QC criteria and qualifications performed on the sample data. A discussion of the Precision, Accuracy, Representativeness, Comparability, and Completeness (PARCC) of the data and data usability are discussed in Section 3. The USEPA Region II Data Validation Checklists are presented in Appendix A.

SECTION 2 - DATA VALIDATION SUMMARY

This section presents a discussion of QA/QC parameter compliance with established criteria and the qualification of data performed when QA/QC parameter deviations were identified. When several deviations from established QA/QC criteria were observed, the final qualifier assigned to the data was based on the cumulative effect of the deviations.

2.1 Inorganics and Leachate Indicator Analysis

Data validation was performed for fourteen groundwater samples for total inorganic and leachate indicator parameters. The QA/QC parameters presented in Section 1.3.1 of this report were found to be within specified limits with the exception of the following:

Sample Representativeness

The sample collected on 12/30/2011 from location MW-2B for Bromide and Sulfate analyses was obtained 15 days after the initial development of the well. The well development logs provided in the data package indicate that a grab sample was collected without re-development of the well nor recording of field parameters to evaluate that the well parameters remained stabilized and comparable to the prior rounds of sampling. Due to this deviation, the non-detected Bromide and Sulfate results for sample MW-2B were qualified as rejected (R).

Holding Time

The samples are required to be analyzed within parameter specific prescribed holding times as documented in the analytical methods. Detected sample results were qualified as rejected (R) for parameters that grossly exceeded holding time limits. Samples qualified due to holding time deviations are tabulated below.

Table 2: Inorganics and Leachate Indicator Analyses – Holding Time Deviations

Analyte	Maximum Holding Time	Affected Sample	Sample Holding Time	Qualifier
TDS	7 Days	MW-1A	57 Days	R

The data package case narrative states that the total dissolved solids (TDS) for sample MW-1A was re-analyzed outside of holding time because the initial analytical result was not consistent with historical data. The re-analysis and reporting of a sample result that was generated outside of holding time instead of reporting a valid higher-concentration analytical result that was generated within holding time is intentional fraudulent reporting. This is a serious issue and a clear-cut example of fraud because the initial analysis was valid and indicated a TDS of 1510 mg/L whereas the invalid re-analysis was reported as 210 mg/L.

The TDS re-analysis was conducted 50 days past the last allowable date of analysis based on the date collected. The duration of time between sample collection and re-analysis indicates that the sample was no longer representative of site conditions. If an analytical result is reported to a client and it is deemed to be suspect, the client should have the well purged, as is routinely done, and a new sample collected and analyzed within holding

time. The practice of determining the reporting of results based on comparison to historical data by a laboratory is not compliant with Good Laboratory Practices (GLP) and is considered to be fraudulent.

Continuing Calibration

Continuing calibration recovery criteria requiring recoveries to be between 90 and 110 percent were exceeded for several analytes. Qualification of sample results included the approximation of results when recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 10 percent. Samples qualified due to continuing calibration recovery deviations are tabulated below.

Table 3: Inorganics and Leachate Indicator Analyses – Continuing Calibration Deviations

Analyte	Percent Recovery	Control Limits	Qualifier	Affected Samples	
Antimony	89 %	90 to 110 %	UJ	CD-1	MW-6B
Arsenic	87 %	90 to 110 %	UJ	CD-1RA	MW-7A
Selenium	65 %/70 %	90 to 110 %	UJ	MW-3A	MW-1A
Chloride	81 % to 86 %	90 to 110 %	J	MW-3B	MW-1B
				MW-4A	MW-2A
				MW-5A	MW-2B
				MW-6A	DUPE MW-1B

Laboratory Control Sample Analysis

Laboratory control sample analysis recovery criteria requiring recoveries to be between 85 and 115 percent were exceeded for several analytes. Qualification of sample results included the approximation of results when recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 10 percent. Samples qualified due to laboratory control sample recovery deviations are tabulated below.

Table 4: Inorganics and Leachate Indicator Analyses – Laboratory Control Sample Deviations

Analyte	Percent Recovery	Control Limits	Qualifier	Affected Samples	
Lead	79.5 %	85 to 115 %	UJ	CD-1	MW-6B
Thallium	80.3 %	85 to 115 %	UJ	CD-1RA	MW-7A
Cyanide	60.7 %	85 to 115 %	UJ	MW-3A	MW-1A
				MW-3B	MW-1B
				MW-4A	MW-2A
				MW-5A	MW-2B
				MW-6A	DUPE MW-1B

Matrix Spike Analysis

Matrix spike (MS) recovery criteria requiring spike recoveries to be between 75 and 125 percent were exceeded for several analytes. Qualification of sample results included the approximation of results when spike recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 10 percent. Qualification of sample data was not required when the non-spiked sample concentration was greater than

four-times the spike solution concentration. Samples qualified due to MS recovery deviations are tabulated below.

Table 5: Inorganics and Leachate Indicator Analyses - Matrix Spike Deviations

MS Sample ID	Analyte	Percent Recovery	Control Limits	Qualifier	Affected Samples	
MW-2B	Alkalinity	7 %	27 to 138 %	J	CD-1	MW-6B
	Chloride	41.7 %	51.5 % to 158 %	J	CD-1RA	MW-7A
	Ammonia	72.0 %/73.2 %	90 % to 110 %	J, UJ	MW-3A	MW-1A
					MW-3B	MW-1B
					MW-4A	MW-2A
					MW-5A	MW-2B
					MW-6A	DUPE MW-1B

Element Quantitation and Reported Detection Limits

Detected sample results that were greater than the IDL, but less than the contract required detection limit (CRDL) were reported by the laboratory with a "B" qualifier. These results were qualified as approximated (J) as a result of the data validation.

Overall Data Assessment

These data have been determined to be usable for qualitative and quantitative purposes with the exception of non-detected sample results for Bromide and Sulfate for one sample that were rejected due to non-representative sample collection and the detected TDS result for one sample that was rejected for fraudulent reporting. Additional sample qualification included the approximation of sample results due to deviations from continuing calibration, laboratory control sample, and matrix spike criteria.

2.2 Volatiles Analysis

Data validation was performed for fourteen groundwater samples and two trip blank samples. The QA/QC parameters presented in Section 1.3.2 of this report were found to be within specified limits with the exception of the following:

Continuing Calibration

The continuing calibration percent difference (%D) limit, which requires the %D to be less than 25 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %D criteria were exceeded, but were less than 90 percent. Samples requiring qualification due to these deviations are tabulated below.

Table 6: Volatile Organics Analyses - Continuing Calibration Deviations

Date Analyzed	Instrument ID	Compound	%D	Result Qualifier	Affected Samples
12/20/2011 10:22	12.0	Acetone	29.8 %	J, UJ	CD-1 CD-1RA MW-3A MW-3B MW-4A MW-5A MW-6A MW-6B MW-7A
12/21/2011 13:42	12.0	Vinyl Acetate 4-Methyl-2-Pentanone	31.3 % 26.4 %	UJ UJ	MW-1B MW-2A MW-2B
12/21/2011 22:35	12.0	4-Methyl-2-Pentanone 2-Butanone	31.1 % 26.2 %	UJ UJ	MW-1B MW-2A MW-2B
12/22/2011 10:13	12.0	Iodomethane	31.9 %	UJ	DUPE MW-1B ULI Trip Blank (12/13/11)
12/22/2011 21:19	12.0	Vinyl Acetate	33.9 %	UJ	DUPE MW-1B ULI Trip Blank (12/13/11)

There were transcription errors on the 7A Volatile Continuing Calibration Check forms where the percent deviations (%Ds) reported on the form did not match the values presented on the supporting documentation printed from the instrumentation. The %D values presented on the instrumentation output, as presented in the data package, were utilized in the data validation review.

Overall Data Assessment

These data were determined to be usable for qualitative and quantitative purposes with additional qualification. Sample qualification included the approximation of sample results for several compounds due to deviations from continuing calibration criteria.

SECTION 3 - DATA USABILITY and PARCC EVALUATION

3.1 Data Usability

This section presents a summary of the usability of the analytical data and an evaluation of the PARCC parameters. Data usability was calculated as the percentage of data that was not qualified as rejected based on a significant deviation from established QA/QC criteria. Data usability, which was calculated separately for each type of analysis, is tabulated below.

Table 7: Data Usability and PARCC Evaluation - Data Usability

Parameter	Usability	Deviations
Inorganic and Leachate Indicator Parameters	99.5 %	Non-detected Bromide and Sulfate results for one sample that were rejected due to collection of a non-representative sample. Detected TDS result for one sample that was rejected due to fraudulent reporting.
Volatile Organics	100 %	None resulting in the rejection of data.

3.2 PARCC Evaluation

The following sections provide an evaluation of the analytical data with respect to the precision, accuracy, representativeness, comparability, and completeness (PARCC) parameters.

3.2.1 Precision

Precision is measured through field duplicate samples, split samples, and laboratory duplicate samples. For this sampling program, none of the data were qualified for field or laboratory duplicate criteria deviations.

3.2.2 Accuracy

Matrix spike sample, surrogate recovery, internal standard recovery, laboratory control samples, and calibration criteria indicate the accuracy of the data. For this sampling program, 3.37 percent of the analytical data were qualified for deviations from matrix spike recovery criteria; none of the data were qualified for surrogate recovery criteria deviations; none of the data were qualified for internal standard recovery criteria deviations; 3.37 percent of the data were qualified for laboratory control sample deviations; and 6.5 percent of the data were qualified for calibration criteria deviations.

3.2.3 Representativeness

Holding times, sample custody, sample preservation, and blank analysis are indicators of the representativeness of the analytical data. For this investigation, 0.08 percent of the analytical data required qualification for holding time deviations; none of the analytical data required qualification for sample custody deviations; none of the analytical data required qualification for sample preservation deviations; and none of the analytical data required qualification for blank analysis deviations.

3.2.4 Comparability

Comparability is not compromised provided that the analytical methods did not change over time. A major component of comparability is the use of standard reference materials for calibration and QC. These standards are compared to other unknowns to verify their concentrations. Since standard analytical methods and reporting procedures were consistently used by the laboratory, the comparability criteria for the analytical data were met.

3.2.5 Completeness

The overall percent usability or completeness of the data was 99.8 percent.

APPENDIX A

DATA VALIDATION CHECKLISTS

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Data Validation Checklist - Part A: VOA Analyses

No:	Parameter	YES	NO	N/A
1.0	<u>Traffic Reports and Laboratory Narrative</u>			
1.1	Are the traffic Report Forms present for all samples?	X		
1.2	Do the Traffic Reports or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data?		X	
2.0	<u>Holding Times</u>			
2.1	Have any VOA technical holding times, determined from date of collection to date of analysis, been exceeded?		X	
3.0	<u>System Monitoring Compound (SMC) Recovery (Form II)</u>			
3.1	Are the VOA SMC Recovery Summaries (FORM II) present for each of the following matrices:			
a.	Low Water	X		
b.	Low Soil			X
c.	Air			X
3.2	Are all the VOA samples listed on the appropriate System Monitoring Compound Recovery Summary for each of the following matrices:			
a.	Low Water	X		
b.	Low Soil			X
c.	Air			X
3.3	Were outliers marked correctly with an asterisk?			X
3.4	Was one or more VOA system monitoring compound recovery outside of contract specifications for any sample or method blank?		X	
	If yes, were samples re-analyzed?			X
	Were method blanks re-analyzed?			X
3.5	Are there any transcription/calculation errors between raw data and Form II?		X	
4.0	<u>Matrix Spikes (Form III)</u>			
4.1	Is the Matrix Spike/Matrix Spike Duplicate Recovery Form (Form III) present?	X		
4.2	Were matrix spikes analyzed at the required frequency for each of the following matrices?			
a.	Low Water	X		
b.	Low Soil			X
c.	Air			X
4.3	How many VOA spike recoveries are outside QC limits?			
	Water <u>0</u> out of 49 Soils <u>0</u> out of 49			
4.4	How many RPD's for matrix spike and matrix spike duplicate recoveries are outside QC limits?			
	Water <u>0</u> out of 49 Soils <u>0</u> out of 49			

Data Validation Checklist - Part A: VOA Analyses

No:	Parameter	YES	NO	N/A
5.0	<u>Blanks (Form IV)</u>			
5.1	Is the Method Blank Summary (Form IV) present?	X		
5.2	Frequency of Analysis: for the analysis of VOA TCL compounds, has a reagent/method blank been analyzed for each SDG or every 20 samples of similar matrix (low water, low soil, medium soil), whichever is more frequent?	X		
5.3	Has a VOA method/instrument blank been analyzed at least once every twelve hours for each concentration level and GC/MS system used?	X		
5.4	Is the chromatographic performance (baseline stability) for each instrument acceptable for VOAs?	X		
6.0	<u>Contamination</u>			
6.1	Do any method/instrument/reagent blanks have positive results (TCL and/or TIC) for VOAs?		X	
6.2	Do any field/trip/rinse blanks have positive VOA results (TCL and/or TIC)?		X	
6.3	Are there field/rinse/equipment blanks associated with every sample?		X	
7.0	<u>GC/MS Instrument Performance Check (Form V)</u>			
7.1	Are the GC/MS Instrument Performance Check Forms (Form V) present for Bromofluorobenzene (BFB)?	X		
7.2	Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the BFB provided for each twelve hour shift?	X		
7.3	Has an instrument performance compound been analyzed for every twelve hours of sample analysis per instrument?	X		
7.4	Have the ion abundances been normalized to m/z 95?	X		
7.5	Have the ion abundance criteria been met for each instrument used?	X		
7.6	Are there any transcription/calculation errors between mass lists and Form V's?		X	
7.7	Have the appropriate number of significant figures (two) been reported?	X		
7.8	Are the spectra of the mass calibration compound acceptable?	X		
8.0	<u>Target Compound List (TCL) Analyses</u>			
8.1	Are the Organic Analysis Data Sheets (Form I VOA) present with required header information on each page, for each of the following:			
	a. Sample and/or fractions as appropriate?	X		
	b. Matrix spikes and matrix spike duplicates?	X		
	c. Blanks?	X		
8.2	Are the VOA Reconstructed Ion Chromatograms, the mass spectra for the identified compounds, and the data system printouts (Quant Reports) included in the sample package for each of the following?			
	a. Samples and/or fractions as appropriate?	X		
	b. Matrix spikes and matrix spike duplicates (Mass spectra not required)?	X		
	c. Blanks?	X		
8.3	Are the response factors shown in the Quant Report?	X		

Data Validation Checklist - Part A: VOA Analyses

No:	Parameter	YES	NO	N/A
8.4	Is the chromatographic performance acceptable with respect to:			
	Baseline stability?	X		
	Resolution?	X		
	Peak shape?	X		
	Full-scale graph (attenuation)?	X		
	Other:			X
8.5	Are the lab-generated standard mass spectra of the identified VOA compounds present for each sample?	X		
8.6	Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration?	X		
8.7	Are all ions in the standard mass spectrum at a relative intensity greater than 10% also present in the sample mass spectrum?	X		
8.8	Do sample and standard relative ion intensities agree within 20%?	X		
9.0	<u>Tentatively Identified Compounds (TIC)</u>			
9.1	Are all Tentatively Identified Compound Forms (Form I Part B) present; and do listed TICs include scan number or retention time, estimated concentration and "JN" qualifier?	X		
9.2	Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following:			
	a. Samples and/or fractions as appropriate?	X		
	b. Blanks?	X		
9.3	Are any TCL compounds (from any fraction) listed as TIC compounds?		X	
9.4	Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?	X		
9.5	Do TIC and "best match" standard relative ion intensities agree within 20%?	X		
10.0	<u>Compound Quantitation and Reported Detection Limits</u>			
10.1	Are there any transcription/calculation errors in Form I results?		X	
10.2	Are the CRQLs adjusted to reflect sample dilutions and, for soils, sample moisture?			X
11.0	<u>Standards Data (GC/MS)</u>			
11.1	Are the Reconstructed Ion Chromatograms, and data system printouts present for initial and continuing calibration?	X		
12.0	<u>GC/MS Initial Calibration (Form VI)</u>			
12.1	Are the Initial Calibration Forms (Form VI) present and complete for the volatile fraction at concentrations of 10, 20, 50, 100, 200 ug/L? Are there separate calibrations for low/med soils and low soil samples?	X		
12.2	Were all low level soil standards, blanks, and samples analyzed by heated purge?			X
12.3	Are the response factors stable for VOA's over the concentration range of the calibration (%Relative Standard Deviation (%RSD) <30%)	X		
12.4	Are the RRFs above 0.01?	X		
12.5	Are there any transcription/calculation errors in the reporting of average response factors (RRF) or %RSD?	X		

Data Validation Checklist - Part A: VOA Analyses

No:	Parameter	YES	NO	N/A
13.0	<u>GC/MS Continuing Calibration (Form VII)</u>			
13.1	Are the Continuing Calibration Forms (Form VII) present and complete for the volatile fraction?	X		
13.2	Has a continuing calibration standard been analyzed for every twelve hours of sample analysis per instrument?	X		
13.3	Do any volatile compounds have a %Difference (%D) between the initial and continuing RRF which exceeds the +/- 25% criteria?	X		
13.4	Do any volatile compounds have a RRF <0.01?		X	
13.5	Are there any transcription/calculation errors in the reporting of average response factor (RRF) or %difference (%D) between initial and continuing RRFs?	X		
14.0	<u>Internal Standard (Form VIII)</u>			
14.1	Are the internal standard areas (Form VIII) of every sample and blank within the upper and lower limits (-50% to +100%) for each continuing calibration?	X		
14.2	Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	X		
15.0	<u>Field Duplicates</u>			
15.1	Were any field duplicates submitted for VOA analysis?	X		

Data Validation Checklist - Part B: Inorganics and Leachate Indicator Analyses

No:	Parameter	YES	NO	N/A
1.0	<u>Form I to IX</u>			
1.1	Are all the Form I through Form IX labeled with:			
	Laboratory Name?	<u>X</u>	<u> </u>	<u> </u>
	Case/SAS No.?	<u> </u>	<u> </u>	<u>X</u>
	EPA sample No.?	<u> </u>	<u> </u>	<u>X</u>
	SDG No.?	<u>X</u>	<u> </u>	<u> </u>
	Contract No.?	<u>X</u>	<u> </u>	<u> </u>
	Correct units?	<u>X</u>	<u> </u>	<u> </u>
	Matrix?	<u>X</u>	<u> </u>	<u> </u>
1.2	Do any computer/transcription errors exceed 10% of reported values on Forms I-IX for:			
	A. All analytes analyzed by ICP?	<u> </u>	<u>X</u>	<u> </u>
	B. All analytes analyzed by GFAA?	<u> </u>	<u> </u>	<u>X</u>
	C. All analytes analyzed by AA Flame?	<u> </u>	<u> </u>	<u>X</u>
	D. Mercury?	<u>X</u>	<u> </u>	<u> </u>
	E. Cyanide?	<u>X</u>	<u> </u>	<u> </u>
2.0	<u>Raw Data</u>			
2.1	Digestion Log for flame AA/ICP (Form XIII) present?	<u>X</u>	<u> </u>	<u> </u>
2.2	Digestion Log for furnace AA (Form XIII) present?	<u> </u>	<u> </u>	<u>X</u>
2.3	Distillation Log for mercury (Form XIII) present?	<u>X</u>	<u> </u>	<u> </u>
2.4	Distillation Log for cyanides (Form XIII) present?	<u>X</u>	<u> </u>	<u> </u>
2.5	Are pH values (pH<2 for all metals, pH>12 for cyanide) present?	<u>X</u>	<u> </u>	<u> </u>
2.6	Percent solids calculation dates present on sample preparation logs/bench sheets?	<u> </u>	<u> </u>	<u>X</u>
2.7	Are preparation dates present on sample preparation logs/bench sheets?	<u>X</u>	<u> </u>	<u> </u>
2.8	Measurement read out record present?			
	A. ICP	<u>X</u>	<u> </u>	<u> </u>
	B. Flame AA	<u> </u>	<u> </u>	<u>X</u>
	C. Furnace AA	<u> </u>	<u> </u>	<u>X</u>
	D. Mercury	<u>X</u>	<u> </u>	<u> </u>
	E. Cyanides	<u>X</u>	<u> </u>	<u> </u>
2.9	Are all raw data to support all sample analyses and QC operations present?	<u>X</u>	<u> </u>	<u> </u>
3.0	<u>Holding Times</u>			
3.1	A. Mercury analysis (28 days)exceeded?	<u> </u>	<u>X</u>	<u> </u>
	B. Cyanide distillation (14 days)exceeded?	<u> </u>	<u>X</u>	<u> </u>
	C. Other Metals analysis (6 months)exceeded?	<u> </u>	<u>X</u>	<u> </u>
3.2	Is pH of aqueous samples for:			
	A. Metals Analysis >2?	<u> </u>	<u>X</u>	<u> </u>

Data Validation Checklist - Part B: Inorganics and Leachate Indicator Analyses

No:	Parameter	YES	NO	N/A
	B. Cyanides Analysis <12?		X	
4.0	<u>Form I (Final Data)</u>			
4.1	Are all Forms I's present and complete?	X		
4.2	Are correct units (ug/l for waters and mg/kg for soils) indicated on Form I's?	X		
4.3	Are soil sample results for each parameter corrected for percent solids?			X
4.4	Are all "less than IDL" values properly coded with "U"?	X		
4.5	Are the correct concentration qualifiers used with final data?	X		
4.6	Are EPA sample #s and corresponding laboratory sample ID #s the same as on the Cover Page, Form I's and in the raw data?	X		
4.7	Was a brief physical description of samples given on Form I's?	X		
4.8	Was the dilution of any sample diluted beyond the requirements of the contract noted on Form I or Form XIV?		X	
5.0	<u>Calibration</u>			
5.1	Is record of at least 2 point calibration present for ICP analysis?	X		
5.2	Is record of 5 point calibration present for Hg analysis?	X		
5.3	Is record of 4 point calibration present for:			X
	Flame AA?			X
	Furnace AA?			X
	Cyanides?	X		
5.4	Is one calibration standard at the CRDL level for all AA (except Hg) and cyanides analyses?	X		
5.5	Is correlation coefficient less than 0.995 for:			
	Mercury Analysis?		X	
	Cyanide Analysis?		X	
	Atomic Absorption Analysis?			X
5.6	In the instance where less than 4 standards are measured in absorbance (or peak area, peak height, etc.) Mode, are remaining standards analyzed in concentration mode immediately after calibration within +/- 10% of the true values?			X
6.0	<u>Form II A (Initial and Continuing Calibration Verification)</u>			
6.1	Present and complete for every metal and cyanide?	X		
6.2	Present and complete for AA ICP when both are used for the same analyte?			X
6.3	Are all calibration standards (initial and continuing) within control limits:			
	Metals - 90 - 110 %R		X	
	Hg - 80 - 120 %R	X		
	Cyanides - 85 - 115 %R	X		
6.4	Was continuing calibration performed every 10 samples or every 2 hours?	X		
6.5	Was ICV for cyanides distilled?	X		

Data Validation Checklist - Part B: Inorganics and Leachate Indicator Analyses

No:	Parameter	YES	NO	N/A
7.0	<u>Form II B (CRDL Standards for AA and ICP)</u>			
7.1	Was a CRDL standard (CRA) analyzed after initial calibration for all AA metals (except Hg)?	X		
7.2	Was a mid range calibration verification standard distilled and analyzed for cyanide analysis?	X		
7.3	Was a 2xCRDL (or 2xIDL when IDL>CRDL) analyzed (CRI) for each ICP run?	X		
7.4	Was CRI analyzed after ICV/ICB and before the final CCV/CCB, and twice every eight hours of ICP run?	X		
7.5	Are CRA and CRI standards within control limits: Metals 70 – 130 %R?	X		
7.6	Is mid-range standard within control limits: Cyanide 70 - 130 %R?	X		
8.0	<u>Form III (Initial and Continuing Calibration Blanks)</u>			
8.1	Present and complete?	X		
8.2	For both AA and ICP when both are used for the same analyte?			X
8.3	Was an initial calibration blank analyzed?	X		
8.4	Was a continuing calibration blank analyzed after every 10 samples or every 2 hours (which ever is more frequent)?	X		
8.5	Are all calibration blanks (when IDL<CRDL) less than or equal to the Contract Required Detection Limits (CRDLs)?	X		
8.6	Are all calibration blanks less than two times Instrument Detection Limit (when IDL>CRDL)?			X
9.0	<u>Form III (Preparation Blank)</u>			
9.1	Was one preparation blank analyzed for: each Sample Delivery Group?	X		
9.2	Is concentration of preparation blank value greater than the CRDL when IDL is less than or equal to CRDL?		X	
9.3	If yes, is the concentration of the sample with the least concentrated analyte less than 10 times the preparation blank?			X
9.4	Is concentration of preparation blank value (Form III) less than two times IDL, when IDL is greater than CRDL?			X
9.5	Is concentration of preparation blank below the negative CRDL?		X	
10.0	<u>Form IV (Interference Check Sample)</u>			
10.1	Present and Complete?	X		
10.2	Are all Interference Check Sample results inside the control limits (+/- 20%)?	X		
10.3	If no, is concentration of Al, Ca, Fe, or Mg lower than the respective concentration in ICS?			X
11.0	<u>Form V A (Spiked Sample recovery - Pre-Digestion/Pre-Distillation)</u>			
11.1	Present and complete for:			
	each SDG?	X		
	each matrix type?	X		
	each concentration range (i.e., low, medium, high)?	X		

Data Validation Checklist - Part B: Inorganics and Leachate Indicator Analyses

No:	Parameter	YES	NO	N/A
	For both AA and ICP when both are used for the same analyte?	☐	☐	☒
11.2	Was field blank used for spiked sample?	☐	☒	☐
11.3	Are all recoveries within control limits?	☐	☒	☐
11.4	If no, is sample concentration greater than or equal to four times spike concentration?	☒	☐	☐
12.0	<u>Form VI (Lab Duplicates)</u>			
12.1	Present and complete for :			
	each SDG?	☒	☐	☐
	each matrix type?	☒	☐	☐
	each concentration range (i.e., low, medium, high)?	☒	☐	☐
	both AA and ICP when both are used for the same analyte?	☐	☐	☒
12.2	Was field blank used for duplicate analysis?	☐	☒	☐
12.3	Are all values within control limits (RPD 20% or difference $\leq \pm$ CRDL)?	☒	☐	☐
12.4	If no, are all results outside the control limits flagged with an * on Form I's and VI?	☐	☐	☒
13.0	<u>Field Duplicates</u>			
13.1	Were field duplicates analyzed?	☒	☐	☐
13.2	<u>Aqueous</u>			
	Is any RPD greater than 50% where sample and duplicate are both greater than or equal to 5 times CRDL?	☐	☒	☐
	Is any difference between sample and duplicate greater than CRDL where sample and/or duplicate is less than 5 times CRDL?	☐	☒	☐
13.3	<u>Soil/Sediment</u>			
	Is any RPD (where sample and duplicate are both greater than 5 times CRDL): $>100\%$?	☐	☐	☒
	Is any difference between sample and duplicate (where sample and/or duplicate is less than 5x CRDL): $>2x$ CRDL?	☐	☐	☒
14.0	<u>Form VII (Laboratory Control Sample)</u>			
14.1	Was one LCS prepared and analyzed for:			
	each SDG?	☒	☐	☐
	each batch samples digested/distilled?	☒	☐	☐
	both AA and ICP when both are used for the same analyte?	☐	☐	☒
14.2	<u>Aqueous LCS</u>			
	Is any LCS recovery:			
	less than 50%?	☐	☒	☐
	between 50% and 79%?	☒	☐	☐
	between 121% and 150%?	☒	☐	☐
	greater than 150%?	☐	☒	☐
14.3	<u>Solid LCS</u>			
	Is LCS "Found" value higher than the control limits on Form VII?	☐	☐	☒

Data Validation Checklist - Part B: Inorganics and Leachate Indicator Analyses

No:	Parameter	YES	NO	N/A
	Is LCS "Found" value lower than the control limits on Form VII?	☐	☐	☒
15.0	<u>Form IX (ICP Serial Dilution)</u>			
15.1	Was serial dilution analysis performed for:			
	each SDG?	☒	☐	☐
	each matrix type?	☒	☐	☐
	each concentration range (i.e., low, medium, high)?	☒	☐	☐
15.2	Was field blank(s) used for Serial Dilution Analysis?	☐	☒	☐
15.3	Are results outside control limit flagged with an "E" on Form I's and Form IX when initial concentration on Form IX is equal to 50 times IDL or greater?	☐	☐	☒
15.4	Are any %difference values:			
	>10%	☐	☒	☐
	>=100%	☐	☒	☐
16.0	<u>Furnace Atomic Absorbtion (AA) QC Analysis</u>			
16.1	Are duplicate injections present in furnace raw data for each sample analyzed by GFAA?	☐	☐	☒
16.2	Do the duplicate injection readings agree within 20% Relative Standard Deviation (RSD) or Coefficient of Variation (CV) for concentration greater than CRDL?	☐	☐	☒
16.3	Was a dilution analyzed for sample with analytical spike recovery less than 40%?	☐	☐	☒
16.4	Is analytical spike recovery outside the control limits (85 - 115%) for any sample?	☐	☐	☒
17.0	<u>Form VIII (Method of Standard Addition Results)</u>			
17.1	Present?	☐	☐	☒
17.2	If no, is any Form I result coded with "S" or a "+"?	☐	☐	☒
17.3	Is coefficient of correlation for MSA less than 0.990 for any sample?	☐	☐	☒
17.4	Was MSA required for any sample but not performed?	☐	☐	☒
17.5	Is coefficient of correlation for MSA less than 0.995?	☐	☐	☒
17.6	Are MSA calculations outside the linear range of the calibration curve generated at the beginning of the analytical run?	☐	☐	☒
17.7	Was proper Quantitation procedure followed correctly as outlined in the SOW on page E-23?	☐	☐	☒
18.0	<u>Dissolved/Total or Inorganic/Total Analytes</u>			
18.1	Were any analyses performed for dissolved as well as total analytes on the same sample(s)?	☐	☒	☐
18.2	Were any analyses performed for inorganic as well as total (organic and inorganic) analytes on the same sample(s)?	☒	☐	☐
18.3	Is the concentration of any dissolved (or inorganic) analyte greater than its total concentration by more than 10%?	☐	☐	☒
18.4	Is the concentration of any dissolved (or inorganic) analyte greater than its total concentration by more than 50%?	☐	☐	☒

Data Validation Checklist - Part B: Inorganics and Leachate Indicator Analyses

No:	Parameter	YES	NO	N/A
19.0	<u>Form I (Field Blank)</u>			
19.1	Is field blank concentration less than CRDL (or 2 x IDL when IDL>CRDL) for all parameters of associated aqueous and soil samples?			<input checked="" type="text"/>
19.2	If no, was field blank value already rejected due to other QC criteria?			<input checked="" type="text"/>
20.0	<u>Form X, XI, XII (Verification of Instrumental Parameters)</u>			
20.1	Is verification report present for:			
	Instrument Detection Limits (quarterly)?	<input checked="" type="text"/>		
	ICP Interelement Correction Factors (annually)?	<input checked="" type="text"/>		
	ICP Linear Ranges (quarterly)?	<input checked="" type="text"/>		
21.0	<u>Form X (Instrument Detection Limits)</u>			
21.1	Are IDLs present for:			
	all the analytes?	<input checked="" type="text"/>		
	all the instruments used?	<input checked="" type="text"/>		
	For both AA and ICP when both are used for the same analyte?			<input checked="" type="text"/>
21.2	Is IDL greater than CRDL for any analytes?		<input checked="" type="text"/>	
21.3	If yes, is the concentration on Form I of the sample analyzed on the instrument whose IDL exceeds CRDL, greater than 5 x IDL?			<input checked="" type="text"/>
22.0	<u>Form XI (Linear Ranges)</u>			
22.1	Was any sample result higher than the high linear range of ICP?		<input checked="" type="text"/>	
22.2	Was any sample result higher than the highest calibration standard for non-ICP parameters?		<input checked="" type="text"/>	
22.3	If yes for any of the above, was the sample diluted to obtain the result on Form I?			<input checked="" type="text"/>
23.0	<u>Percent Solids of Sediments</u>			
23.1	Are percent solids in sediment(s):			
	<50%?			<input checked="" type="text"/>
	<10%?			<input checked="" type="text"/>

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) 239-4413 * Buffalo (716) 972-0371

Rochester (866) 437-0255 * New Jersey (908) 581-4285

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

Wednesday, February 29, 2012

RE: Analytical Report:
Towslee Landfill

Order No.: U1112391

Dear Mr. Patrick Reidy:

Upstate Laboratories, Inc. received 32 sample(s) on 12/30/2011 for the analyses presented in the following report.

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

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

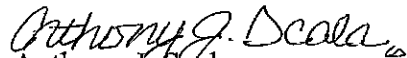
We have included the Chain of Custody Record as part of your report. You may need to reference this form for a more detailed explanation of your samples. Samples will be disposed of approximately one month from final report date.

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

Thank you for your patronage.

Sincerely,

UPSTATE LABORATORIES, INC.


Anthony J. Scala

President/CEO

CC:

Encls: (ASP-B, rept, f.data on disk), invoice

M. Fifield, EnviroAnalytics: ASP-B Pkg.

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: 29-Feb-12

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

Client Sample ID: CD-1

Lab Order: U1112391

Collection Date: 12/12/2011 11:14:00 AM

Project: Towslee Landfill

Lab ID: U1112391-001

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Vinyl chloride	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Bromomethane	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Chloroethane	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Acetone	ND	10		µg/L	1	12/20/2011 2:16:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Iodomethane	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Carbon disulfide	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Methylene chloride	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Acrylonitrile	ND	100		µg/L	1	12/20/2011 2:16:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Vinyl acetate	ND	50		µg/L	1	12/20/2011 2:16:00 PM
2-Butanone	ND	10		µg/L	1	12/20/2011 2:16:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Chloroform	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Bromochloromethane	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Benzene	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Trichloroethene	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Dibromomethane	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/20/2011 2:16:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Toluene	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
2-Hexanone	ND	10		µg/L	1	12/20/2011 2:16:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Chlorobenzene	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Ethylbenzene	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
m,p-Xylene	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM

Approved By: PH

Date: 2-29-12

Page 1 of 63

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: CD-1

Lab Order: U1112391

Collection Date: 12/12/2011 11:14:00 AM

Project: Towslee Landfill

Lab ID: U1112391-001

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Styrene	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
Bromoform	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/20/2011 2:16:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 2:16:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	12/20/2011 2:16:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 2-29-12

Page 2 of 63

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: CD-1RA

Lab Order: U1112391

Collection Date: 12/12/2011 11:18:00 AM

Project: Towslee Landfill

Lab ID: U1112391-002

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Vinyl chloride	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Bromomethane	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Chloroethane	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Acetone	ND	10		µg/L	1	12/20/2011 2:55:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Iodomethane	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Carbon disulfide	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Methylene chloride	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Acrylonitrile	ND	100		µg/L	1	12/20/2011 2:55:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Vinyl acetate	ND	50		µg/L	1	12/20/2011 2:55:00 PM
2-Butanone	ND	10		µg/L	1	12/20/2011 2:55:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Chloroform	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Bromochloromethane	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Benzene	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Trichloroethene	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Dibromomethane	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/20/2011 2:55:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Toluene	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
2-Hexanone	ND	10		µg/L	1	12/20/2011 2:55:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Chlorobenzene	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Ethylbenzene	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
m,p-Xylene	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM

Approved By: *PH*

Date: *2-29-12*

Page 3 of 63

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: CD-1RA

Lab Order: U1112391

Collection Date: 12/12/2011 11:18:00 AM

Project: Towslee Landfill

Lab ID: U1112391-002

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Styrene	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
Bromoform	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/20/2011 2:55:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 2:55:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	12/20/2011 2:55:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 2-29-12

Page 4 of 63

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-003

Client Sample ID: MW-3A
Collection Date: 12/12/2011 1:37:00 PM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Vinyl chloride	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Bromomethane	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Chloroethane	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Acetone	ND	10		µg/L	1	12/20/2011 3:33:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Iodomethane	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Carbon disulfide	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Methylene chloride	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Acrylonitrile	ND	100		µg/L	1	12/20/2011 3:33:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Vinyl acetate	ND	50		µg/L	1	12/20/2011 3:33:00 PM
2-Butanone	ND	10		µg/L	1	12/20/2011 3:33:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Chloroform	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Bromochloromethane	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Benzene	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Trichloroethene	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Dibromomethane	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/20/2011 3:33:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Toluene	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
2-Hexanone	ND	10		µg/L	1	12/20/2011 3:33:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Chlorobenzene	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Ethylbenzene	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
m,p-Xylene	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM

Approved By: PH

Date: 2-29-12

Page 5 of 63

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-3A

Lab Order: U1112391

Collection Date: 12/12/2011 1:37:00 PM

Project: Towslee Landfill

Lab ID: U1112391-003

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Styrene	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
Bromoform	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/20/2011 3:33:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 3:33:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	12/20/2011 3:33:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 2-29-12

Page 6 of 63

Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-3B

Lab Order: U1112391

Collection Date: 12/12/2011 1:33:00 PM

Project: Towslee Landfill

Lab ID: U1112391-004

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Vinyl chloride	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Bromomethane	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Chloroethane	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Acetone	ND	10		µg/L	1	12/20/2011 4:14:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Iodomethane	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Carbon disulfide	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Methylene chloride	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Acrylonitrile	ND	100		µg/L	1	12/20/2011 4:14:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Vinyl acetate	ND	50		µg/L	1	12/20/2011 4:14:00 PM
2-Butanone	ND	10		µg/L	1	12/20/2011 4:14:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Chloroform	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Bromochloromethane	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Benzene	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Trichloroethene	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Dibromomethane	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/20/2011 4:14:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Toluene	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
2-Hexanone	ND	10		µg/L	1	12/20/2011 4:14:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Chlorobenzene	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Ethylbenzene	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
m,p-Xylene	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM

Approved By: PH

Date: 2-29-12

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Qualifiers:

- # Accreditation not offered by NYS DOH for this parameter
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Q Outlying QC recoveries were associated with this parameter

- * 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
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-004

Client Sample ID: MW-3B
Collection Date: 12/12/2011 1:33:00 PM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Styrene	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
Bromoform	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/20/2011 4:14:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 4:14:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	12/20/2011 4:14:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-4A

Lab Order: U1112391

Collection Date: 12/12/2011 12:20:00 PM

Project: Towslee Landfill

Lab ID: U1112391-005

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Vinyl chloride	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Bromomethane	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Chloroethane	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Acetone	ND	10		µg/L	1	12/20/2011 4:52:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Iodomethane	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Carbon disulfide	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Methylene chloride	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Acrylonitrile	ND	100		µg/L	1	12/20/2011 4:52:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Vinyl acetate	ND	50		µg/L	1	12/20/2011 4:52:00 PM
2-Butanone	ND	10		µg/L	1	12/20/2011 4:52:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Chloroform	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Bromochloromethane	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Benzene	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Trichloroethene	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Dibromomethane	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/20/2011 4:52:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Toluene	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
2-Hexanone	ND	10		µg/L	1	12/20/2011 4:52:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Chlorobenzene	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Ethylbenzene	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
m,p-Xylene	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-4A

Lab Order: U1112391

Collection Date: 12/12/2011 12:20:00 PM

Project: Towslee Landfill

Lab ID: U1112391-005

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Styrene	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
Bromoform	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/20/2011 4:52:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 4:52:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	12/20/2011 4:52:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-5A

Lab Order: U1112391

Collection Date: 12/12/2011 11:04:00 AM

Project: Towslee Landfill

Lab ID: U1112391-006

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Vinyl chloride	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Bromomethane	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Chloroethane	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Acetone	ND	10		µg/L	1	12/20/2011 5:30:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Iodomethane	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Carbon disulfide	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Methylene chloride	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Acrylonitrile	ND	100		µg/L	1	12/20/2011 5:30:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Vinyl acetate	ND	50		µg/L	1	12/20/2011 5:30:00 PM
2-Butanone	11	10		µg/L	1	12/20/2011 5:30:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Chloroform	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Bromochloromethane	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Benzene	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Trichloroethene	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Dibromomethane	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/20/2011 5:30:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Toluene	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
2-Hexanone	ND	10		µg/L	1	12/20/2011 5:30:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Chlorobenzene	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Ethylbenzene	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
m,p-Xylene	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM

Approved By: *PH*

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-5A

Lab Order: UI112391

Collection Date: 12/12/2011 11:04:00 AM

Project: Towslee Landfill

Lab ID: UI112391-006

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Styrene	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
Bromoform	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/20/2011 5:30:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 5:30:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	12/20/2011 5:30:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PJH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-007

Client Sample ID: MW-6A
Collection Date: 12/12/2011 10:40:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Vinyl chloride	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Bromomethane	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Chloroethane	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Acetone	ND	10		µg/L	1	12/20/2011 6:09:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Iodomethane	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Carbon disulfide	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Methylene chloride	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Acrylonitrile	ND	100		µg/L	1	12/20/2011 6:09:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Vinyl acetate	ND	50		µg/L	1	12/20/2011 6:09:00 PM
2-Butanone	ND	10		µg/L	1	12/20/2011 6:09:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Chloroform	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Bromochloromethane	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Benzene	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Trichloroethene	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Dibromomethane	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/20/2011 6:09:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Toluene	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
2-Hexanone	ND	10		µg/L	1	12/20/2011 6:09:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Chlorobenzene	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Ethylbenzene	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
m,p-Xylene	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-007

Client Sample ID: MW-6A
Collection Date: 12/12/2011 10:40:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Styrene	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
Bromoform	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/20/2011 6:09:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 6:09:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	12/20/2011 6:09:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-6B

Lab Order: U1112391

Collection Date: 12/12/2011 10:36:00 AM

Project: Towslee Landfill

Lab ID: U1112391-008

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Vinyl chloride	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Bromomethane	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Chloroethane	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Acetone	ND	10		µg/L	1	12/20/2011 6:48:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Iodomethane	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Carbon disulfide	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Methylene chloride	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Acrylonitrile	ND	100		µg/L	1	12/20/2011 6:48:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Vinyl acetate	ND	50		µg/L	1	12/20/2011 6:48:00 PM
2-Butanone	ND	10		µg/L	1	12/20/2011 6:48:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Chloroform	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Bromochloromethane	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Benzene	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Trichloroethene	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Dibromomethane	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/20/2011 6:48:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Toluene	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
2-Hexanone	ND	10		µg/L	1	12/20/2011 6:48:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Chlorobenzene	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Ethylbenzene	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
m,p-Xylene	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM

Approved By: *PH*

Date: 2-29-12

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Qualifiers:

- # Accreditation not offered by NYS DOH for this parameter
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Q Outlying QC recoveries were associated with this parameter

- * 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
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-6B

Lab Order: U1112391

Collection Date: 12/12/2011 10:36:00 AM

Project: Towslee Landfill

Lab ID: U1112391-008

Matrix: WATER

Analyses	Result	Limit	Qnal	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Styrene	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
Bromoform	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/20/2011 6:48:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 6:48:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	12/20/2011 6:48:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-7A

Lab Order: U1112391

Collection Date: 12/12/2011 1:55:00 PM

Project: Towslee Landfill

Lab ID: U1112391-009

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B				8260ASP_A1_W	Analyst: LEF	
Chloromethane	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Vinyl chloride	3.7	5.0	J	µg/L	1	12/20/2011 7:27:00 PM
Bromomethane	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Chloroethane	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Acetone	ND	10		µg/L	1	12/20/2011 7:27:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Iodomethane	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Carbon disulfide	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Methylene chloride	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Acrylonitrile	ND	100		µg/L	1	12/20/2011 7:27:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
1,1-Dichloroethane	4.4	5.0	J	µg/L	1	12/20/2011 7:27:00 PM
Vinyl acetate	ND	50		µg/L	1	12/20/2011 7:27:00 PM
2-Butanone	ND	10		µg/L	1	12/20/2011 7:27:00 PM
cis-1,2-Dichloroethene	4.7	5.0	J	µg/L	1	12/20/2011 7:27:00 PM
Chloroform	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Bromochloromethane	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Benzene	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Trichloroethene	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Dibromomethane	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/20/2011 7:27:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Toluene	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
2-Hexanone	ND	10		µg/L	1	12/20/2011 7:27:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Chlorobenzene	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Ethylbenzene	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
m,p-Xylene	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-7A

Lab Order: U1112391

Collection Date: 12/12/2011 1:55:00 PM

Project: Towslee Landfill

Lab ID: U1112391-009

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Styrene	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
Bromoform	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/20/2011 7:27:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 7:27:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	12/20/2011 7:27:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-010

Client Sample ID: ULI Trip Blank
Collection Date: 12/12/2011

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Vinyl chloride	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Bromomethane	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Chloroethane	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Acetone	ND	10		µg/L	1	12/20/2011 11:18:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Iodomethane	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Carbon disulfide	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Methylene chloride	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Acrylonitrile	ND	100		µg/L	1	12/20/2011 11:18:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Vinyl acetate	ND	50		µg/L	1	12/20/2011 11:18:00 PM
2-Butanone	ND	10		µg/L	1	12/20/2011 11:18:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Chloroform	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Bromochloromethane	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Benzene	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Trichloroethene	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Dibromomethane	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/20/2011 11:18:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Toluene	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
2-Hexanone	ND	10		µg/L	1	12/20/2011 11:18:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Chlorobenzene	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Ethylbenzene	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
m,p-Xylene	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM

Approved By: *DH*

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 B Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-010

Client Sample ID: ULI Trip Blank
Collection Date: 12/12/2011

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Styrene	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
Bromoform	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/20/2011 11:18:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 11:18:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	12/20/2011 11:18:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-011

Client Sample ID: Holding Blank
Collection Date: 12/13/2011 10:45:00 AM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Vinyl chloride	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Bromomethane	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Chloroethane	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Acetone	ND	10		µg/L	1	12/20/2011 11:57:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Iodomethane	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Carbon disulfide	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Methylene chloride	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Acrylonitrile	ND	100		µg/L	1	12/20/2011 11:57:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Vinyl acetate	ND	50		µg/L	1	12/20/2011 11:57:00 PM
2-Butanone	ND	10		µg/L	1	12/20/2011 11:57:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Chloroform	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Bromochloromethane	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Benzene	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Trichloroethene	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Dibromomethane	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/20/2011 11:57:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Toluene	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
2-Hexanone	ND	10		µg/L	1	12/20/2011 11:57:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Chlorobenzene	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Ethylbenzene	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
m,p-Xylene	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM

Approved By: *PH*

Date: *2-29-12*

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Qualifiers:

- # Accreditation not offered by NYS DOH for this parameter
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Q Outlying QC recoveries were associated with this parameter

- * 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
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-011

Client Sample ID: Holding Blank
Collection Date: 12/13/2011 10:45:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Styrene	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
Bromoform	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/20/2011 11:57:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/20/2011 11:57:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	12/20/2011 11:57:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: CD-1

Lab Order: U1112391

Collection Date: 12/13/2011 10:15:00 AM

Project: Towslee Landfill

Lab ID: U1112391-012

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS			FIELD		Analyst:	
Conductivity	282	1.0		umhos/cm		12/13/2011 10:15:00 AM
Eh	164	-300		mV		12/13/2011 10:15:00 AM
pH	7.91	2-12.5		SU		12/13/2011 10:15:00 AM
SWL	6.3			ft		12/13/2011 10:15:00 AM
Temperature	7.7			°C		12/13/2011 10:15:00 AM
Turbidity	10.2	5.0		NTU		12/13/2011 10:15:00 AM
BROMIDE BY SM 18-21 4110B (00)			BROMIDE_W		Analyst: BY	
Bromide	ND	0.8		mg/L	1	1/4/2012
ICP METALS, TOTAL BY NYSDEC ASP 2005			200.7WTASP		(E200.7)	
Aluminum	383	100		µg/L	1	2/13/2012 5:38:04 PM
Barium	77.0	50.0		µg/L	1	2/13/2012 5:38:04 PM
Beryllium	ND	3.00		µg/L	1	2/13/2012 5:38:04 PM
Boron	ND	500		µg/L	1	2/9/2012 3:35:44 PM
Cadmium	ND	5.00		µg/L	1	2/13/2012 5:38:04 PM
Calcium	41600	5000		µg/L	1	2/13/2012 5:38:04 PM
Chromium	ND	10.0		µg/L	1	2/13/2012 5:38:04 PM
Cobalt	ND	20.0		µg/L	1	2/13/2012 5:38:04 PM
Copper	ND	10.0		µg/L	1	2/13/2012 5:38:04 PM
Iron	688	60.0		µg/L	1	2/13/2012 5:38:04 PM
Magnesium	10100	5000		µg/L	1	2/13/2012 5:38:04 PM
Manganese	256	10.0		µg/L	1	2/13/2012 5:38:04 PM
Nickel	ND	30.0		µg/L	1	2/13/2012 5:38:04 PM
Potassium	ND	5000		µg/L	1	2/13/2012 5:38:04 PM
Silver	ND	10.0		µg/L	1	2/13/2012 5:38:04 PM
Sodium	ND	5000		µg/L	1	2/13/2012 5:38:04 PM
Vanadium	ND	30.0		µg/L	1	2/13/2012 5:38:04 PM
Zinc	ND	10.0		µg/L	1	2/13/2012 5:38:04 PM
Hardness, Total(CaCO3)	145000	7000		µg/L	1	2/13/2012 5:38:04 PM
ASP TOTAL METALS BY ICP-MS			200.8ASP		(E200.8)	
Antimony	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Arsenic	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Lead	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Selenium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Thallium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
TOTAL MERCURY WATERS ASP			245.2WTASP		(E245.2)	
Mercury	ND	0.200		µg/L	1	1/4/2012 1:38:00 PM

Approved By: *PH*

Date: *2-29-12*

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: CD-1

Lab Order: U1112391

Collection Date: 12/13/2011 10:15:00 AM

Project: Towslee Landfill

Lab ID: U1112391-012

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ALKALINITY BY EPA 310.2				ALK_W_AUTO		Analyst: KLS
Alkalinity, Total (As CaCO ₃)	140	10		mg/L	1	12/16/2011
BOD, 5 DAY BY SM 18-20 5210B (01)				BOD		Analyst: CAS
Biochemical Oxygen Demand	ND	4.0		mg/L	1	12/14/2011 6:55:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A				CL_W_AUTO		Analyst: KLS
Chloride	6.88	1.00		mg/L	1	12/15/2011
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: CAC
Cyanide	ND	10.0		µg/L	1	12/27/2011
COD BY EPA 410.4 REV. 2.0				COD		Analyst: KLS
Chemical Oxygen Demand	ND	20		mg/L	1	1/4/2012
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: KLS
Color	6.00	5.00		UNITS	1	12/14/2011 11:44:00 AM
HEXAVALENT CHROMIUM BY SM 18-19 3500-CR D				CR6_W		Analyst: CAS
Chromium, Hexavalent	ND	0.010		mg/L	1	12/14/2011 6:54:00 AM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: GWL
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	1/5/2012
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: SAB
Nitrogen, Nitrate (as N)	0.068	0.050		mg/L	1	12/14/2011 9:50:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: SAB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/28/2011 9:35:00 AM
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: MGP
Sulfate	16.9	5.00		mg/L	1	12/29/2011
TDS BY SM 18-21 2540C (97)				TDS		Analyst: SAB
Residue, Dissolved (TDS)	210	25		mg/L	1	12/15/2011
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E351.2)	Analyst: GWL
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	1/10/2012
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BY
Organic Carbon, Total	ND	3.0		mg/L	1	1/4/2012

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: CD-1RA

Lab Order: U1112391

Collection Date: 12/13/2011 10:11:00 AM

Project: Towslee Landfill

Lab ID: U1112391-013

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS			FIELD		Analyst:	
Conductivity	312	1.0		umhos/cm		12/13/2011 10:11:00 AM
Eh	164	-300		mV		12/13/2011 10:11:00 AM
pH	7.79	2-12.5		SU		12/13/2011 10:11:00 AM
SWL	3.63			ft		12/13/2011 10:11:00 AM
Temperature	9.6			°C		12/13/2011 10:11:00 AM
Turbidity	25.3	5.0		NTU		12/13/2011 10:11:00 AM
BROMIDE BY SM 18-21 4110B (00)			BROMIDE_W		Analyst: BY	
Bromide	ND	0.8		mg/L	1	1/4/2012
ICP METALS, TOTAL BY NYSDEC ASP 2005			200.7WTASP		(E200.7)	
					Analyst: LET	
Aluminum	1700	100		µg/L	1	2/13/2012 5:45:05 PM
Barium	200	50.0		µg/L	1	2/13/2012 5:45:05 PM
Beryllium	ND	3.00		µg/L	1	2/13/2012 5:45:05 PM
Boron	ND	500		µg/L	1	2/9/2012 3:40:23 PM
Cadmium	ND	5.00		µg/L	1	2/13/2012 5:45:05 PM
Calcium	44100	5000		µg/L	1	2/13/2012 5:45:05 PM
Chromium	ND	10.0		µg/L	1	2/13/2012 5:45:05 PM
Cobalt	ND	20.0		µg/L	1	2/13/2012 5:45:05 PM
Copper	ND	10.0		µg/L	1	2/13/2012 5:45:05 PM
Iron	2750	60.0		µg/L	1	2/13/2012 5:45:05 PM
Magnesium	10800	5000		µg/L	1	2/13/2012 5:45:05 PM
Manganese	211	10.0		µg/L	1	2/13/2012 5:45:05 PM
Nickel	ND	30.0		µg/L	1	2/13/2012 5:45:05 PM
Potassium	ND	5000		µg/L	1	2/13/2012 5:45:05 PM
Silver	ND	10.0		µg/L	1	2/13/2012 5:45:05 PM
Sodium	6690	5000		µg/L	1	2/13/2012 5:45:05 PM
Vanadium	ND	30.0		µg/L	1	2/13/2012 5:45:05 PM
Zinc	14.6	10.0		µg/L	1	2/13/2012 5:45:05 PM
Hardness, Total(CaCO3)	155000	7000		µg/L	1	2/13/2012 5:45:05 PM
ASP TOTAL METALS BY ICP-MS			200.8ASP		(E200.8)	
					Analyst: LET	
Antimony	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Arsenic	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Lead	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Selenium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Thallium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
TOTAL MERCURY WATERS ASP			245.2WTASP		(E245.2)	
					Analyst: ALW	
Mercury	ND	0.200		µg/L	1	1/4/2012 1:38:00 PM

Approved By: DH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
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Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-013

Client Sample ID: CD-1RA
Collection Date: 12/13/2011 10:11:00 AM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ALKALINITY BY EPA 310.2				ALK_W_AUTO		Analyst: KLS
Alkalinity, Total (As CaCO3)	150	10		mg/L	1	12/16/2011
BOD, 5 DAY BY SM 18-20 5210B (01)				BOD		Analyst: CAS
Biochemical Oxygen Demand	ND	4.0		mg/L	1	12/14/2011 6:55:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A				CL_W_AUTO		Analyst: KLS
Chloride	3.67	1.00		mg/L	1	12/15/2011
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: CAC
Cyanide	ND	10.0		µg/L	1	12/27/2011
COD BY EPA 410.4 REV. 2.0				COD		Analyst: KLS
Chemical Oxygen Demand	ND	20		mg/L	1	1/4/2012
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: KLS
Color	6.00	5.00		UNITS	1	12/14/2011 11:44:00 AM
HEXAVALENT CHROMIUM BY SM 18-19 3500-CR D				CR6_W		Analyst: CAS
Chromium, Hexavalent	ND	0.010		mg/L	1	12/14/2011 6:54:00 AM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: GWL
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	1/5/2012
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: SAB
Nitrogen, Nitrate (as N)	0.058	0.050		mg/L	1	12/14/2011 9:50:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: SAB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/28/2011 9:35:00 AM
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: MGP
Sulfate	18.4	5.00		mg/L	1	12/29/2011
TDS BY SM 18-21 2540C (97)				TDS		Analyst: SAB
Residue, Dissolved (TDS)	170	25		mg/L	1	12/15/2011
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E351.2)	Analyst: GWL
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	1/10/2012
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BY
Organic Carbon, Total	ND	3.0		mg/L	1	1/4/2012

Approved By: PH

Date: 2-29-12

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Qualifiers:

- # Accreditation not offered by NYS DOH for this parameter
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Q Outlying QC recoveries were associated with this parameter

- * 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
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-3A

Lab Order: U1112391

Collection Date: 12/13/2011 10:42:00 AM

Project: Towslee Landfill

Lab ID: U1112391-014

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS			FIELD		Analyst:	
Conductivity	257	1.0		umhos/cm		12/13/2011 10:42:00 AM
Eh	171	-300		mV		12/13/2011 10:42:00 AM
pH	7.71	2-12.5		SU		12/13/2011 10:42:00 AM
SWL	6.62			ft		12/13/2011 10:42:00 AM
Temperature	7.0			°C		12/13/2011 10:42:00 AM
Turbidity	10.69	5.0		NTU		12/13/2011 10:42:00 AM
BROMIDE BY SM 18-21 4110B (00)			BROMIDE_W		Analyst: BY	
Bromide	ND	0.8		mg/L	1	1/4/2012
ICP METALS, TOTAL BY NYSDEC ASP 2005			200.7WTASP		(E200.7)	
Aluminum	107	100		µg/L	1	2/13/2012 5:52:03 PM
Barium	498	50.0		µg/L	1	2/13/2012 5:52:03 PM
Beryllium	ND	3.00		µg/L	1	2/13/2012 5:52:03 PM
Boron	ND	500		µg/L	1	2/9/2012 3:45:02 PM
Cadmium	ND	5.00		µg/L	1	2/13/2012 5:52:03 PM
Calcium	38600	5000		µg/L	1	2/13/2012 5:52:03 PM
Chromium	ND	10.0		µg/L	1	2/13/2012 5:52:03 PM
Cobalt	ND	20.0		µg/L	1	2/13/2012 5:52:03 PM
Copper	ND	10.0		µg/L	1	2/13/2012 5:52:03 PM
Iron	345	60.0		µg/L	1	2/13/2012 5:52:03 PM
Magnesium	6310	5000		µg/L	1	2/13/2012 5:52:03 PM
Manganese	726	10.0		µg/L	1	2/13/2012 5:52:03 PM
Nickel	ND	30.0		µg/L	1	2/13/2012 5:52:03 PM
Potassium	ND	5000		µg/L	1	2/13/2012 5:52:03 PM
Silver	ND	10.0		µg/L	1	2/13/2012 5:52:03 PM
Sodium	ND	5000		µg/L	1	2/13/2012 5:52:03 PM
Vanadium	ND	30.0		µg/L	1	2/13/2012 5:52:03 PM
Zinc	ND	10.0		µg/L	1	2/13/2012 5:52:03 PM
Hardness, Total(CaCO3)	122000	7000		µg/L	1	2/13/2012 5:52:03 PM
ASP TOTAL METALS BY ICP-MS			200.8ASP		(E200.8)	
Antimony	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Arsenic	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Lead	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Selenium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Thallium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
TOTAL MERCURY WATERS ASP			245.2WTASP		(E245.2)	
Mercury	ND	0.200		µg/L	1	1/4/2012 1:38:00 PM

Approved By: *PH*

Date: *2-29-12*

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Qualifiers:

- # Accreditation not offered by NYS DOH for this parameter
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Q Outlying QC recoveries were associated with this parameter

- * 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
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-3A

Lab Order: U1112391

Collection Date: 12/13/2011 10:42:00 AM

Project: Towslee Landfill

Lab ID: U1112391-014

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ALKALINITY BY EPA 310.2				ALK_W_AUTO		Analyst: KLS
Alkalinity, Total (As CaCO ₃)	140	10		mg/L	1	12/16/2011
BOD, 5 DAY BY SM 18-20 5210B (01)				BOD		Analyst: CAS
Biochemical Oxygen Demand	ND	4.0		mg/L	1	12/14/2011 6:55:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A				CL_W_AUTO		Analyst: KLS
Chloride	3.44	1.00		mg/L	1	12/15/2011
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: CAC
Cyanide	ND	10.0		µg/L	1	12/27/2011
COD BY EPA 410.4 REV. 2.0				COD		Analyst: KLS
Chemical Oxygen Demand	ND	20		mg/L	1	1/5/2012
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: KLS
Color	6.00	5.00		UNITS	1	12/14/2011 11:44:00 AM
HEXAVALENT CHROMIUM BY SM 18-19 3500-CR D				CR6_W		Analyst: CAS
Chromium, Hexavalent	ND	0.010		mg/L	1	12/14/2011 6:54:00 AM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: GWL
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	1/5/2012
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: SAB
Nitrogen, Nitrate (as N)	ND	0.050		mg/L	1	12/14/2011 9:50:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: SAB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/28/2011 9:35:00 AM
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: MGP
Sulfate	6.30	5.00		mg/L	1	12/29/2011
TDS BY SM 18-21 2540C (97)				TDS		Analyst: SAB
Residue, Dissolved (TDS)	160	25		mg/L	1	12/15/2011
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E351.2)	Analyst: GWL
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	1/10/2012
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BY
Organic Carbon, Total	ND	3.0		mg/L	1	1/4/2012

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-3B

Lab Order: U1112391

Collection Date: 12/13/2011 10:38:00 AM

Project: Towslee Landfill

Lab ID: U1112391-015

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS			FIELD		Analyst:	
Conductivity	522	1.0		umhos/cm		12/13/2011 10:38:00 AM
Eh	174	-300		mV		12/13/2011 10:38:00 AM
pH	7.60	2-12.5		SU		12/13/2011 10:38:00 AM
SWL	12.87			ft		12/13/2011 10:38:00 AM
Temperature	9.9			°C		12/13/2011 10:38:00 AM
Turbidity	7.59	5.0		NTU		12/13/2011 10:38:00 AM
BROMIDE BY SM 18-21 4110B (00)			BROMIDE_W		Analyst: BY	
Bromide	ND	0.8		mg/L	1	1/4/2012
ICP METALS, TOTAL BY NYSDEC ASP 2005			200.7WTASP		(E200.7)	
					Analyst: LET	
Aluminum	253	100		µg/L	1	2/13/2012 5:57:05 PM
Barium	294	50.0		µg/L	1	2/13/2012 5:57:05 PM
Beryllium	ND	3.00		µg/L	1	2/13/2012 5:57:05 PM
Boron	ND	500		µg/L	1	2/9/2012 3:49:41 PM
Cadmium	ND	5.00		µg/L	1	2/13/2012 5:57:05 PM
Calcium	70000	5000		µg/L	1	2/13/2012 5:57:05 PM
Chromium	ND	10.0		µg/L	1	2/13/2012 5:57:05 PM
Cobalt	ND	20.0		µg/L	1	2/13/2012 5:57:05 PM
Copper	ND	10.0		µg/L	1	2/13/2012 5:57:05 PM
Iron	344	60.0		µg/L	1	2/13/2012 5:57:05 PM
Magnesium	21600	5000		µg/L	1	2/13/2012 5:57:05 PM
Manganese	125	10.0		µg/L	1	2/13/2012 5:57:05 PM
Nickel	ND	30.0		µg/L	1	2/13/2012 5:57:05 PM
Potassium	ND	5000		µg/L	1	2/13/2012 5:57:05 PM
Silver	ND	10.0		µg/L	1	2/13/2012 5:57:05 PM
Sodium	12500	5000		µg/L	1	2/13/2012 5:57:05 PM
Vanadium	ND	30.0		µg/L	1	2/13/2012 5:57:05 PM
Zinc	11.4	10.0		µg/L	1	2/13/2012 5:57:05 PM
Hardness, Total(CaCO3)	264000	7000		µg/L	1	2/13/2012 5:57:05 PM
ASP TOTAL METALS BY ICP-MS			200.8ASP		(E200.8)	
					Analyst: LET	
Antimony	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Arsenic	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Lead	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Selenium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Thallium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
TOTAL MERCURY WATERS ASP			245.2WTASP		(E245.2)	
					Analyst: ALW	
Mercury	ND	0.200		µg/L	1	1/4/2012 1:38:00 PM

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-015

Client Sample ID: MW-3B
Collection Date: 12/13/2011 10:38:00 AM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ALKALINITY BY EPA 310.2				ALK_W_AUTO		Analyst: KLS
Alkalinity, Total (As CaCO ₃)	240	10		mg/L	1	12/16/2011
BOD, 5 DAY BY SM 18-20 5210B (01)				BOD		Analyst: CAS
Biochemical Oxygen Demand	ND	4.0		mg/L	1	12/14/2011 6:55:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A				CL_W_AUTO		Analyst: KLS
Chloride	27.7	1.00		mg/L	1	12/15/2011
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: CAC
Cyanide	ND	10.0		µg/L	1	12/27/2011
COD BY EPA 410.4 REV. 2.0				COD		Analyst: KLS
Chemical Oxygen Demand	ND	20		mg/L	1	1/5/2012
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: KLS
Color	ND	5.00		UNITS	1	12/14/2011 11:44:00 AM
HEXAVALENT CHROMIUM BY SM 18-19 3500-CR D				CR6_W		Analyst: CAS
Chromium, Hexavalent	ND	0.010		mg/L	1	12/14/2011 6:54:00 AM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: GWL
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	1/5/2012
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: SAB
Nitrogen, Nitrate (as N)	0.070	0.050		mg/L	1	12/14/2011 9:50:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: SAB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/28/2011 9:35:00 AM
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: MGP
Sulfate	11.5	5.00		mg/L	1	12/29/2011
TDS BY SM 18-21 2540C (97)				TDS		Analyst: SAB
Residue, Dissolved (TDS)	260	25		mg/L	1	12/15/2011
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E351.2)	Analyst: GWL
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	1/10/2012
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BY
Organic Carbon, Total	ND	3.0		mg/L	1	1/4/2012

Approved By: PH

Date: 2-29-12

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Qualifiers:

- # Accreditation not offered by NYS DOH for this parameter
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Q Outlying QC recoveries were associated with this parameter

- * 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
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-4A

Lab Order: U1112391

Collection Date: 12/13/2011 10:30:00 AM

Project: Towslee Landfill

Lab ID: U1112391-016

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
			FIELD			Analyst:
Conductivity	734	1.0		umhos/cm		12/13/2011 10:30:00 AM
Eh	174	-300		mV		12/13/2011 10:30:00 AM
pH	7.48	2-12.5		SU		12/13/2011 10:30:00 AM
SWL	7.25			ft		12/13/2011 10:30:00 AM
Temperature	8.6			°C		12/13/2011 10:30:00 AM
Turbidity	10.34	5.0		NTU		12/13/2011 10:30:00 AM
BROMIDE BY SM 18-21 4110B (00)						
			BROMIDE_W			Analyst: BY
Bromide	ND	0.8		mg/L	1	1/4/2012
ICP METALS, TOTAL BY NYSDEC ASP 2005						
			200.7WTASP		(E200.7)	Analyst: LET
Aluminum	153	100		µg/L	1	2/13/2012 6:04:03 PM
Barium	1160	50.0		µg/L	1	2/13/2012 6:04:03 PM
Beryllium	ND	3.00		µg/L	1	2/13/2012 6:04:03 PM
Boron	ND	500		µg/L	1	2/9/2012 3:54:17 PM
Cadmium	ND	5.00		µg/L	1	2/13/2012 6:04:03 PM
Calcium	128000	5000		µg/L	1	2/13/2012 6:04:03 PM
Chromium	ND	10.0		µg/L	1	2/13/2012 6:04:03 PM
Cobalt	ND	20.0		µg/L	1	2/13/2012 6:04:03 PM
Copper	ND	10.0		µg/L	1	2/13/2012 6:04:03 PM
Iron	174	60.0		µg/L	1	2/13/2012 6:04:03 PM
Magnesium	26800	5000		µg/L	1	2/13/2012 6:04:03 PM
Manganese	1730	10.0		µg/L	1	2/13/2012 6:04:03 PM
Nickel	ND	30.0		µg/L	1	2/13/2012 6:04:03 PM
Potassium	ND	5000		µg/L	1	2/13/2012 6:04:03 PM
Silver	ND	10.0		µg/L	1	2/13/2012 6:04:03 PM
Sodium	17800	5000		µg/L	1	2/13/2012 6:04:03 PM
Vanadium	ND	30.0		µg/L	1	2/13/2012 6:04:03 PM
Zinc	13.0	10.0		µg/L	1	2/13/2012 6:04:03 PM
Hardness, Total(CaCO3)	430000	7000		µg/L	1	2/13/2012 6:04:03 PM
ASP TOTAL METALS BY ICP-MS						
			200.8ASP		(E200.8)	Analyst: LET
Antimony	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Arsenic	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Lead	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Selenium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Thallium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
TOTAL MERCURY WATERS ASP						
			245.2WTASP		(E245.2)	Analyst: ALW
Mercury	ND	0.200		µg/L	1	1/4/2012 1:38:00 PM

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-4A

Lab Order: U1112391

Collection Date: 12/13/2011 10:30:00 AM

Project: Towslee Landfill

Lab ID: U1112391-016

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ALKALINITY BY EPA 310.2				ALK_W_AUTO		Analyst: KLS
Alkalinity, Total (As CaCO ₃)	400	10		mg/L	1	12/16/2011
BOD, 5 DAY BY SM 18-20 5210B (01)				BOD		Analyst: CAS
Biochemical Oxygen Demand	ND	4.0		mg/L	1	12/14/2011 6:55:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A				CL_W_AUTO		Analyst: KLS
Chloride	25.5	1.00		mg/L	1	12/15/2011
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: CAC
Cyanide	ND	10.0		µg/L	1	12/27/2011
COD BY EPA 410.4 REV. 2.0				COD		Analyst: KLS
Chemical Oxygen Demand	ND	20		mg/L	1	1/5/2012
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: KLS
Color	6.00	5.00		UNITS	1	12/14/2011 11:44:00 AM
HEXAVALENT CHROMIUM BY SM 18-19 3500-CR D				CR6_W		Analyst: CAS
Chromium, Hexavalent	ND	0.010		mg/L	1	12/14/2011 6:54:00 AM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: GWL
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	1/5/2012
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: SAB
Nitrogen, Nitrate (as N)	ND	0.050		mg/L	1	12/14/2011 9:50:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: SAB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/28/2011 9:35:00 AM
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: MGP
Sulfate	11.1	5.00		mg/L	1	12/29/2011
TDS BY SM 18-21 2540C (97)				TDS		Analyst: SAB
Residue, Dissolved (TDS)	430	25		mg/L	1	12/15/2011
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E351.2)	Analyst: GWL
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	1/10/2012
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BY
Organic Carbon, Total	ND	3.0		mg/L	1	1/4/2012

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-017

Client Sample ID: MW-6A
Collection Date: 12/13/2011 9:59:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
				FIELD		Analyst:
Conductivity	425	1.0		umhos/cm		12/13/2011 9:59:00 AM
Eh	156	-300		mV		12/13/2011 9:59:00 AM
pH	7.87	2-12.5		SU		12/13/2011 9:59:00 AM
SWL	12.44			ft		12/13/2011 9:59:00 AM
Temperature	9.8			°C		12/13/2011 9:59:00 AM
Turbidity	8.52	5.0		NTU		12/13/2011 9:59:00 AM
BROMIDE BY SM 18-21 4110B (00)						
				BROMIDE_W		Analyst: BY
Bromide	ND	0.8		mg/L	1	1/4/2012
ICP METALS, TOTAL BY NYSDEC ASP 2005						
				200.7WTASP	(E200.7)	Analyst: LET
Aluminum	683	100		µg/L	1	2/13/2012 6:11:05 PM
Barium	327	50.0		µg/L	1	2/13/2012 6:11:05 PM
Beryllium	ND	3.00		µg/L	1	2/13/2012 6:11:05 PM
Boron	ND	500		µg/L	1	2/9/2012 3:58:57 PM
Cadmium	ND	5.00		µg/L	1	2/13/2012 6:11:05 PM
Calcium	59700	5000		µg/L	1	2/13/2012 6:11:05 PM
Chromium	ND	10.0		µg/L	1	2/13/2012 6:11:05 PM
Cobalt	ND	20.0		µg/L	1	2/13/2012 6:11:05 PM
Copper	ND	10.0		µg/L	1	2/13/2012 6:11:05 PM
Iron	1320	60.0		µg/L	1	2/13/2012 6:11:05 PM
Magnesium	10800	5000		µg/L	1	2/13/2012 6:11:05 PM
Manganese	1780	10.0		µg/L	1	2/13/2012 6:11:05 PM
Nickel	ND	30.0		µg/L	1	2/13/2012 6:11:05 PM
Potassium	ND	5000		µg/L	1	2/13/2012 6:11:05 PM
Silver	ND	10.0		µg/L	1	2/13/2012 6:11:05 PM
Sodium	19800	5000		µg/L	1	2/13/2012 6:11:05 PM
Vanadium	ND	30.0		µg/L	1	2/13/2012 6:11:05 PM
Zinc	ND	10.0		µg/L	1	2/13/2012 6:11:05 PM
Hardness, Total(CaCO3)	194000	7000		µg/L	1	2/13/2012 6:11:05 PM
ASP TOTAL METALS BY ICP-MS						
				200.8ASP	(E200.8)	Analyst: LET
Antimony	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Arsenic	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Lead	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Selenium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Thallium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
TOTAL MERCURY WATERS ASP						
				245.2WTASP	(E245.2)	Analyst: ALW
Mercury	ND	0.200		µg/L	1	1/4/2012 1:38:00 PM

Approved By: *PH*

Date: *2-29-12*

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-017

Client Sample ID: MW-6A
Collection Date: 12/13/2011 9:59:00 AM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ALKALINITY BY EPA 310.2				ALK_W_AUTO		Analyst: KLS
Alkalinity, Total (As CaCO3)	210	10		mg/L	1	12/16/2011
BOD, 5 DAY BY SM 18-20 5210B (01)				BOD		Analyst: CAS
Biochemical Oxygen Demand	ND	4.0		mg/L	1	12/14/2011 6:55:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A				CL_W_AUTO		Analyst: KLS
Chloride	13.9	1.00		mg/L	1	12/15/2011
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: CAC
Cyanide	ND	10.0		µg/L	1	12/27/2011
COD BY EPA 410.4 REV. 2.0				COD		Analyst: KLS
Chemical Oxygen Demand	ND	20		mg/L	1	1/5/2012
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: KLS
Color	200	125		UNITS	25	12/14/2011 11:44:00 AM
HEXAVALENT CHROMIUM BY SM 18-19 3500-CR D				CR6_W		Analyst: CAS
Chromium, Hexavalent	ND	0.010		mg/L	1	12/14/2011 6:54:00 AM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: GWL
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	1/5/2012
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: SAB
Nitrogen, Nitrate (as N)	ND	0.050		mg/L	1	12/14/2011 9:50:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: SAB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/28/2011 9:35:00 AM
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: MGP
Sulfate	16.1	5.00		mg/L	1	12/29/2011
TDS BY SM 18-21 2540C (97)				TDS		Analyst: SAB
Residue, Dissolved (TDS)	280	25		mg/L	1	12/15/2011
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E351.2)	Analyst: GWL
Nitrogen, Kjeldahl, Total	1.12	0.500		mg/L	1	1/10/2012
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BY
Organic Carbon, Total	ND	3.0		mg/L	1	1/4/2012

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-018

Client Sample ID: MW-6B
Collection Date: 12/13/2011 9:55:00 AM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS						
				FIELD		Analyst:
Conductivity	387	1.0		umhos/cm		12/13/2011 9:55:00 AM
Eh	153	-300		mV		12/13/2011 9:55:00 AM
pH	8.25	2-12.5		SU		12/13/2011 9:55:00 AM
SWL	12.54			ft		12/13/2011 9:55:00 AM
Temperature	10.6			°C		12/13/2011 9:55:00 AM
Turbidity	4.1	5.0		NTU		12/13/2011 9:55:00 AM
BROMIDE BY SM 18-21 4110B (00)						
				BROMIDE_W		Analyst: BY
Bromide	ND	0.8		mg/L	1	1/4/2012
ICP METALS, TOTAL BY NYSDEC ASP 2005						
				200.7WTASP	(E200.7)	Analyst: LET
Aluminum	ND	100		µg/L	1	2/13/2012 6:18:16 PM
Barium	414	50.0		µg/L	1	2/13/2012 6:18:16 PM
Beryllium	ND	3.00		µg/L	1	2/13/2012 6:18:16 PM
Boron	ND	500		µg/L	1	2/9/2012 4:03:42 PM
Cadmium	ND	5.00		µg/L	1	2/13/2012 6:18:16 PM
Calcium	48100	5000		µg/L	1	2/13/2012 6:18:16 PM
Chromium	ND	10.0		µg/L	1	2/13/2012 6:18:16 PM
Cobalt	ND	20.0		µg/L	1	2/13/2012 6:18:16 PM
Copper	ND	10.0		µg/L	1	2/13/2012 6:18:16 PM
Iron	98.9	60.0		µg/L	1	2/13/2012 6:18:16 PM
Magnesium	11300	5000		µg/L	1	2/13/2012 6:18:16 PM
Manganese	231	10.0		µg/L	1	2/13/2012 6:18:16 PM
Nickel	ND	30.0		µg/L	1	2/13/2012 6:18:16 PM
Potassium	ND	5000		µg/L	1	2/13/2012 6:18:16 PM
Silver	ND	10.0		µg/L	1	2/13/2012 6:18:16 PM
Sodium	21700	5000		µg/L	1	2/13/2012 6:18:16 PM
Vanadium	ND	30.0		µg/L	1	2/13/2012 6:18:16 PM
Zinc	15.9	10.0		µg/L	1	2/13/2012 6:18:16 PM
Hardness, Total(CaCO3)	166000	7000		µg/L	1	2/13/2012 6:18:16 PM
ASP TOTAL METALS BY ICP-MS						
				200.8ASP	(E200.8)	Analyst: LET
Antimony	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Arsenic	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Lead	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Selenium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Thallium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
TOTAL MERCURY WATERS ASP						
				245.2WTASP	(E245.2)	Analyst: ALW
Mercury	ND	0.200		µg/L	1	1/4/2012 1:38:00 PM

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-018

Client Sample ID: MW-6B
Collection Date: 12/13/2011 9:55:00 AM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ALKALINITY BY EPA 310.2				ALK_W_AUTO		Analyst: KLS
Alkalinity, Total (As CaCO ₃)	180	10		mg/L	1	12/16/2011
BOD, 5 DAY BY SM 18-20 5210B (01)				BOD		Analyst: CAS
Biochemical Oxygen Demand	ND	4.0		mg/L	1	12/14/2011 6:55:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A				CL_W_AUTO		Analyst: KLS
Chloride	19.4	1.00		mg/L	1	12/15/2011
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: CAC
Cyanide	ND	10.0		µg/L	1	12/27/2011
COD BY EPA 410.4 REV. 2.0				COD		Analyst: KLS
Chemical Oxygen Demand	ND	20		mg/L	1	1/5/2012
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: KLS
Color	5.00	5.00		UNITS	1	12/14/2011 11:44:00 AM
HEXAVALENT CHROMIUM BY SM 18-19 3500-CR D				CR6_W		Analyst: CAS
Chromium, Hexavalent	ND	0.010		mg/L	1	12/14/2011 6:54:00 AM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: GWL
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	1/5/2012
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: SAB
Nitrogen, Nitrate (as N)	0.087	0.050		mg/L	1	12/14/2011 9:50:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: SAB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/28/2011 9:35:00 AM
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: MGP
Sulfate	18.6	5.00		mg/L	1	12/29/2011
TDS BY SM 18-21 2540C (97)				TDS		Analyst: SAB
Residue, Dissolved (TDS)	200	25		mg/L	1	12/15/2011
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E351.2)	Analyst: GWL
Nitrogen, Kjeldahl, Total	0.546	0.500		mg/L	1	1/10/2012
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BY
Organic Carbon, Total	ND	3.0		mg/L	1	1/4/2012

Approved By: PH

Date: 2-29-12

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Qualifiers:

- # Accreditation not offered by NYS DOH for this parameter
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Q Outlying QC recoveries were associated with this parameter

- * 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
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-7A

Lab Order: U1112391

Collection Date: 12/13/2011 10:54:00 AM

Project: Towslee Landfill

Lab ID: U1112391-019

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS			FIELD		Analyst:	
Conductivity	1127	1.0		umhos/cm		12/13/2011 10:54:00 AM
Eh	185	-300		mV		12/13/2011 10:54:00 AM
pH	7.26	2-12.5		SU		12/13/2011 10:54:00 AM
SWL	3.06			ft		12/13/2011 10:54:00 AM
Temperature	8.6			°C		12/13/2011 10:54:00 AM
Turbidity	36.38	5.0		NTU		12/13/2011 10:54:00 AM

BROMIDE BY SM 18-21 4110B (00)

BROMIDE_W

Analyst: BY

Bromide	ND	8.0	mg/L	10	1/4/2012
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NOTES:

The reporting limits were raised due to matrix interference.

ICP METALS, TOTAL BY NYSDEC ASP 2005

200.7WTASP

(E200.7)

Analyst: LET

Aluminum	2120	100	µg/L	1	2/13/2012 6:25:19 PM
Barium	601	50.0	µg/L	1	2/13/2012 6:25:19 PM
Beryllium	ND	3.00	µg/L	1	2/13/2012 6:25:19 PM
Boron	530	500	µg/L	1	2/9/2012 4:08:22 PM
Cadmium	ND	5.00	µg/L	1	2/13/2012 6:25:19 PM
Calcium	146000	5000	µg/L	1	2/13/2012 6:25:19 PM
Chromium	ND	10.0	µg/L	1	2/13/2012 6:25:19 PM
Cobalt	ND	20.0	µg/L	1	2/13/2012 6:25:19 PM
Copper	ND	10.0	µg/L	1	2/13/2012 6:25:19 PM
Iron	3030	60.0	µg/L	1	2/13/2012 6:25:19 PM
Magnesium	33900	5000	µg/L	1	2/13/2012 6:25:19 PM
Manganese	3570	10.0	µg/L	1	2/13/2012 6:25:19 PM
Nickel	ND	30.0	µg/L	1	2/13/2012 6:25:19 PM
Potassium	ND	5000	µg/L	1	2/13/2012 6:25:19 PM
Silver	ND	10.0	µg/L	1	2/13/2012 6:25:19 PM
Sodium	104000	5000	µg/L	1	2/13/2012 6:25:19 PM
Vanadium	ND	30.0	µg/L	1	2/13/2012 6:25:19 PM
Zinc	15.6	10.0	µg/L	1	2/13/2012 6:25:19 PM
Hardness, Total(CaCO3)	505000	7000	µg/L	1	2/13/2012 6:25:19 PM

ASP TOTAL METALS BY ICP-MS

200.8ASP

(E200.8)

Analyst: LET

Antimony	ND	5.00	µg/L	1	2/13/2012 10:33:00 AM
Arsenic	ND	5.00	µg/L	1	2/13/2012 10:33:00 AM
Lead	ND	3.00	µg/L	1	2/13/2012 10:33:00 AM
Selenium	ND	3.00	µg/L	1	2/13/2012 10:33:00 AM
Thallium	ND	3.00	µg/L	1	2/13/2012 10:33:00 AM

TOTAL MERCURY WATERS ASP

245.2WTASP

(E245.2)

Analyst: ALW

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-7A
Lab Order: U1112391 **Collection Date:** 12/13/2011 10:54:00 AM
Project: Towslee Landfill
Lab ID: U1112391-019 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL MERCURY WATERS ASP				245.2WTASP	(E245.2)	Analyst: ALW
Mercury	ND	0.200		µg/L	1	1/4/2012 1:38:00 PM
ALKALINITY BY EPA 310.2				ALK_W_AUTO		Analyst: KLS
Alkalinity, Total (As CaCO ₃)	550	100		mg/L	10	12/23/2011
BOD, 5 DAY BY SM 18-20 5210B (01)				BOD		Analyst: CAS
Biochemical Oxygen Demand	ND	4.0		mg/L	1	12/14/2011 6:55:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A				CL_W_AUTO		Analyst: KLS
Chloride	108	1.00		mg/L	1	12/15/2011
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: CAC
Cyanide	ND	10.0		µg/L	1	12/27/2011
COD BY EPA 410.4 REV. 2.0				COD		Analyst: KLS
Chemical Oxygen Demand	40	20		mg/L	1	1/5/2012
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: KLS
Color	7.00	5.00		UNITS	1	12/14/2011 11:44:00 AM
HEXAVALENT CHROMIUM BY SM 18-19 3500-CR D				CR6_W		Analyst: CAS
Chromium, Hexavalent	ND	0.010		mg/L	1	12/14/2011 6:54:00 AM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: GWL
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	1/5/2012
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: SAB
Nitrogen, Nitrate (as N)	0.063	0.050		mg/L	1	12/14/2011 9:50:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: SAB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/28/2011 9:35:00 AM
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: MGP
Sulfate	21.6	5.00		mg/L	1	12/29/2011
TDS BY SM 18-21 2540C (97)				TDS		Analyst: SAB
Residue, Dissolved (TDS)	620	25		mg/L	1	12/15/2011
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E351.2)	Analyst: GWL
Nitrogen, Kjeldahl, Total	2.19	0.500		mg/L	1	1/10/2012
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BY
Organic Carbon, Total	4.1	3.0		mg/L	1	1/4/2012

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
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 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-1A

Lab Order: U1112391

Collection Date: 12/13/2011 12:34:00 PM

Project: Towslee Landfill

Lab ID: U1112391-020

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Vinyl chloride	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Bromomethane	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Chloroethane	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Acetone	ND	10		µg/L	1	12/21/2011 12:36:00 AM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Iodomethane	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Carbon disulfide	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Methylene chloride	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Acrylonitrile	ND	100		µg/L	1	12/21/2011 12:36:00 AM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
1,1-Dichloroethane	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Vinyl acetate	ND	50		µg/L	1	12/21/2011 12:36:00 AM
2-Butanone	ND	10		µg/L	1	12/21/2011 12:36:00 AM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Chloroform	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Bromochloromethane	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Carbon tetrachloride	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Benzene	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
1,2-Dichloroethane	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Trichloroethene	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
1,2-Dichloropropane	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Bromodichloromethane	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Dibromomethane	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/21/2011 12:36:00 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Toluene	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
2-Hexanone	ND	10		µg/L	1	12/21/2011 12:36:00 AM
Tetrachloroethene	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Dibromochloromethane	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
1,2-Dibromoethane	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Chlorobenzene	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Ethylbenzene	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
m,p-Xylene	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-1A

Lab Order: U1112391

Collection Date: 12/13/2011 12:34:00 PM

Project: Towslee Landfill

Lab ID: U1112391-020

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Styrene	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
Bromoform	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/21/2011 12:36:00 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/21/2011 12:36:00 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	12/21/2011 12:36:00 AM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-021

Client Sample ID: MW-1B
Collection Date: 12/13/2011 12:38:00 PM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Vinyl chloride	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Bromomethane	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Chloroethane	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Acetone	ND	10		µg/L	1	12/21/2011 4:46:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Iodomethane	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Carbon disulfide	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Methylene chloride	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Acrylonitrile	ND	100		µg/L	1	12/21/2011 4:46:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Vinyl acetate	ND	50		µg/L	1	12/21/2011 4:46:00 PM
2-Butanone	ND	10		µg/L	1	12/21/2011 4:46:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Chloroform	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Bromochloromethane	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Benzene	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Trichloroethene	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Dibromomethane	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/21/2011 4:46:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Toluene	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
2-Hexanone	ND	10		µg/L	1	12/21/2011 4:46:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Chlorobenzene	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Ethylbenzene	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
m,p-Xylene	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM

Approved By: *PH*

Date: *2-29-12*

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Qualifiers:

- # Accreditation not offered by NYS DOH for this parameter
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Q Outlying QC recoveries were associated with this parameter

- * 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
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-1B

Lab Order: U1112391

Collection Date: 12/13/2011 12:38:00 PM

Project: Towslee Landfill

Lab ID: U1112391-021

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Styrene	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
Bromoform	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/21/2011 4:46:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/21/2011 4:46:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	12/21/2011 4:46:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-2A

Lab Order: U1112391

Collection Date: 12/13/2011 11:09:00 AM

Project: Towslee Landfill

Lab ID: U1112391-022

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Vinyl chloride	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Bromomethane	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Chloroethane	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Acetone	ND	10		µg/L	1	12/21/2011 5:24:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Iodomethane	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Carbon disulfide	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Methylene chloride	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Acrylonitrile	ND	100		µg/L	1	12/21/2011 5:24:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Vinyl acetate	ND	50		µg/L	1	12/21/2011 5:24:00 PM
2-Butanone	ND	10		µg/L	1	12/21/2011 5:24:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Chloroform	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Bromochloromethane	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Benzene	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Trichloroethene	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Dibromomethane	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/21/2011 5:24:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Toluene	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
2-Hexanone	ND	10		µg/L	1	12/21/2011 5:24:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Chlorobenzene	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Ethylbenzene	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
m,p-Xylene	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-2A

Lab Order: U1112391

Collection Date: 12/13/2011 11:09:00 AM

Project: Towslee Landfill

Lab ID: U1112391-022

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Styrene	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
Bromoform	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/21/2011 5:24:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/21/2011 5:24:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	12/21/2011 5:24:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-023

Client Sample ID: MW-2B
Collection Date: 12/13/2011 11:13:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Vinyl chloride	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Bromomethane	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Chloroethane	3.1	5.0	J	µg/L	1	12/21/2011 8:38:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Acetone	ND	10		µg/L	1	12/21/2011 8:38:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Iodomethane	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Carbon disulfide	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Methylene chloride	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Acrylonitrile	ND	100		µg/L	1	12/21/2011 8:38:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Vinyl acetate	ND	50		µg/L	1	12/21/2011 8:38:00 PM
2-Butanone	ND	10		µg/L	1	12/21/2011 8:38:00 PM
cis-1,2-Dichloroethene	16	5.0		µg/L	1	12/21/2011 8:38:00 PM
Chloroform	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Bromochloromethane	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Benzene	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Trichloroethene	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Dibromomethane	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/21/2011 8:38:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Toluene	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
2-Hexanone	ND	10		µg/L	1	12/21/2011 8:38:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Chlorobenzene	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Ethylbenzene	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
m,p-Xylene	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-023

Client Sample ID: MW-2B
Collection Date: 12/13/2011 11:13:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Styrene	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
Bromoform	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/21/2011 8:38:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/21/2011 8:38:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	12/21/2011 8:38:00 PM
TIC: Ethyl ether	3.5	0		µg/L	1	12/21/2011 8:38:00 PM

Approved By: DH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: Dupe MW-1B

Lab Order: U1112391

Collection Date: 12/13/2011 12:38:00 PM

Project: Towslee Landfill

Lab ID: U1112391-024

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Vinyl chloride	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Bromomethane	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Chloroethane	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Acetone	ND	10		µg/L	1	12/22/2011 12:55:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Iodomethane	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Carbon disulfide	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Methylene chloride	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Acrylonitrile	ND	100		µg/L	1	12/22/2011 12:55:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Vinyl acetate	ND	50		µg/L	1	12/22/2011 12:55:00 PM
2-Butanone	ND	10		µg/L	1	12/22/2011 12:55:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Chloroform	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Bromochloromethane	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Benzene	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Trichloroethene	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Dibromomethane	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/22/2011 12:55:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Toluene	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
2-Hexanone	ND	10		µg/L	1	12/22/2011 12:55:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Chlorobenzene	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Ethylbenzene	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
m,p-Xylene	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM

Approved By: *PH*

Date: *2-29-12*

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: Dupe MW-1B

Lab Order: U1112391

Collection Date: 12/13/2011 12:38:00 PM

Project: Towslee Landfill

Lab ID: U1112391-024

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Styrene	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
Bromoform	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/22/2011 12:55:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/22/2011 12:55:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	12/22/2011 12:55:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: ULI Trip Blank

Lab Order: U1112391

Collection Date: 12/13/2011

Project: Towslee Landfill

Lab ID: U1112391-025

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Vinyl chloride	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Bromomethane	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Chloroethane	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Acetone	ND	10		µg/L	1	12/22/2011 1:34:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Iodomethane	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Carbon disulfide	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Methylene chloride	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Acrylonitrile	ND	100		µg/L	1	12/22/2011 1:34:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Vinyl acetate	ND	50		µg/L	1	12/22/2011 1:34:00 PM
2-Butanone	ND	10		µg/L	1	12/22/2011 1:34:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Chloroform	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Bromochloromethane	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Benzene	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Trichloroethene	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Dibromomethane	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/22/2011 1:34:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Toluene	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
2-Hexanone	ND	10		µg/L	1	12/22/2011 1:34:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Chlorobenzene	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Ethylbenzene	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
m,p-Xylene	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-025

Client Sample ID: ULI Trip Blank
Collection Date: 12/13/2011

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Styrene	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
Bromoform	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/22/2011 1:34:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/22/2011 1:34:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	12/22/2011 1:34:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: DH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-026

Client Sample ID: Holding Blank
Collection Date: 12/14/2011 10:33:00 AM
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
Chloromethane	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Vinyl chloride	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Bromomethane	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Chloroethane	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Trichlorofluoromethane	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Acetone	ND	10		µg/L	1	12/22/2011 2:12:00 PM
1,1-Dichloroethene	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Iodomethane	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Carbon disulfide	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Methylene chloride	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Acrylonitrile	ND	100		µg/L	1	12/22/2011 2:12:00 PM
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
1,1-Dichloroethane	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Vinyl acetate	ND	50		µg/L	1	12/22/2011 2:12:00 PM
2-Butanone	ND	10		µg/L	1	12/22/2011 2:12:00 PM
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Chloroform	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Bromochloromethane	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Carbon tetrachloride	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Benzene	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
1,2-Dichloroethane	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Trichloroethene	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
1,2-Dichloropropane	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Bromodichloromethane	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Dibromomethane	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/22/2011 2:12:00 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Toluene	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
2-Hexanone	ND	10		µg/L	1	12/22/2011 2:12:00 PM
Tetrachloroethene	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Dibromochloromethane	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
1,2-Dibromoethane	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Chlorobenzene	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Ethylbenzene	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
m,p-Xylene	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM

Approved By: DH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: Holding Blank

Lab Order: U1112391

Collection Date: 12/14/2011 10:33:00 AM

Project: Towslee Landfill

Lab ID: U1112391-026

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ASP/CLP APPENDIX I WATERS (BASELINE) BY 8260B		8260ASP_A1_W		Analyst: LEF		
o-Xylene	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Styrene	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
Bromoform	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/22/2011 2:12:00 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/22/2011 2:12:00 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	1	12/22/2011 2:12:00 PM

NOTES:

TICS: No compounds were detected.

Approved By: PJH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-1A

Lab Order: U1112391

Collection Date: 12/14/2011 9:58:00 AM

Project: Towslee Landfill

Lab ID: U1112391-027

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS			FIELD		Analyst:	
Conductivity	375	1.0		umhos/cm		12/14/2011 9:58:00 AM
Eh	147	-300		mV		12/14/2011 9:58:00 AM
pH	8.62	2-12.5		SU		12/14/2011 9:58:00 AM
SWL	0.79			ft		12/14/2011 9:58:00 AM
Temperature	6.6			°C		12/14/2011 9:58:00 AM
Turbidity	24	5.0		NTU		12/14/2011 9:58:00 AM
BROMIDE BY SM 18-21 4110B (00)			BROMIDE_W		Analyst: BY	
Bromide	ND	0.8		mg/L	1	1/4/2012
ICP METALS, TOTAL BY NYSDEC ASP 2005			200.7WTASP		(E200.7)	
Aluminum	711	100		µg/L	1	2/13/2012 6:32:32 PM
Barium	77.4	50.0		µg/L	1	2/13/2012 6:32:32 PM
Beryllium	ND	3.00		µg/L	1	2/13/2012 6:32:32 PM
Boron	ND	500		µg/L	1	2/9/2012 4:12:59 PM
Cadmium	ND	5.00		µg/L	1	2/13/2012 6:32:32 PM
Calcium	51000	5000		µg/L	1	2/13/2012 6:32:32 PM
Chromium	ND	10.0		µg/L	1	2/13/2012 6:32:32 PM
Cobalt	ND	20.0		µg/L	1	2/13/2012 6:32:32 PM
Copper	ND	10.0		µg/L	1	2/13/2012 6:32:32 PM
Iron	987	60.0		µg/L	1	2/13/2012 6:32:32 PM
Magnesium	12000	5000		µg/L	1	2/13/2012 6:32:32 PM
Manganese	119	10.0		µg/L	1	2/13/2012 6:32:32 PM
Nickel	ND	30.0		µg/L	1	2/13/2012 6:32:32 PM
Potassium	ND	5000		µg/L	1	2/13/2012 6:32:32 PM
Silver	ND	10.0		µg/L	1	2/13/2012 6:32:32 PM
Sodium	14900	5000		µg/L	1	2/13/2012 6:32:32 PM
Vanadium	ND	30.0		µg/L	1	2/13/2012 6:32:32 PM
Zinc	ND	10.0		µg/L	1	2/13/2012 6:32:32 PM
Hardness, Total(CaCO3)	177000	7000		µg/L	1	2/13/2012 6:32:32 PM
ASP TOTAL METALS BY ICP-MS			200.8ASP		(E200.8)	
Antimony	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Arsenic	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Lead	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Selenium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Thallium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
TOTAL MERCURY WATERS ASP			245.2WTASP		(E245.2)	
Mercury	ND	0.200		µg/L	1	1/4/2012 1:38:00 PM

Approved By: *PH*

Date: *2-29-12*

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist. **Client Sample ID:** MW-1A
Lab Order: U1112391 **Collection Date:** 12/14/2011 9:58:00 AM
Project: Towslee Landfill
Lab ID: U1112391-027 **Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ALKALINITY BY EPA 310.2				ALK_W_AUTO		Analyst: KLS
Alkalinity, Total (As CaCO ₃)	150	10		mg/L	1	12/23/2011
BOD, 5 DAY BY SM 18-20 5210B (01)				BOD		Analyst: CAS
Biochemical Oxygen Demand	ND	4.0		mg/L	1	12/15/2011 7:25:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A				CL_W_AUTO		Analyst: KLS
Chloride	28.5	1.00		mg/L	1	12/22/2011
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: CAC
Cyanide	ND	10.0		µg/L	1	12/27/2011
COD BY EPA 410.4 REV. 2.0				COD		Analyst: KLS
Chemical Oxygen Demand	ND	20		mg/L	1	1/4/2012
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: MGP
Color	80.0	50.0		UNITS	10	12/15/2011 11:43:00 AM
NOTES: Reporting True Color; sample filtered due to turbidity.						
HEXAVALENT CHROMIUM BY SM 18-19 3500-CR D				CR6_W		Analyst: CAS
Chromium, Hexavalent	ND	0.010		mg/L	1	12/15/2011 8:12:00 AM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: GWL
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	1/3/2012
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: SAB
Nitrogen, Nitrate (as N)	0.075	0.050		mg/L	1	12/16/2011 8:02:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: SAB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/28/2011 9:35:00 AM
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: MGP
Sulfate	15.8	5.00		mg/L	1	12/29/2011
TDS BY SM 18-21 2540C (97)				TDS		Analyst: SAB
Residue, Dissolved (TDS)	210	25		mg/L	1	2/9/2012
NOTES: Sample reanalyzed over the holding time; original analysis was within the holding time.						
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E351.2)	Analyst: GWL
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	1/10/2012
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BY
Organic Carbon, Total	ND	3.0		mg/L	1	1/4/2012

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-1B

Lab Order: U1112391

Collection Date: 12/14/2011 9:55:00 AM

Project: Towslee Landfill

Lab ID: U1112391-028

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS			FIELD		Analyst:	
Conductivity	232	1.0		umhos/cm		12/14/2011 9:55:00 AM
Eh	136	-300		mV		12/14/2011 9:55:00 AM
pH	8.56	2-12.5		SU		12/14/2011 9:55:00 AM
SWL	0.43			ft		12/14/2011 9:55:00 AM
Temperature	9.1			°C		12/14/2011 9:55:00 AM
Turbidity	22.73	5.0		NTU		12/14/2011 9:55:00 AM
BROMIDE BY SM 18-21 4110B (00)			BROMIDE_W		Analyst: BY	
Bromide	ND	0.8		mg/L	1	1/4/2012
ICP METALS, TOTAL BY NYSDEC ASP 2005			200.7WTASP		(E200.7)	
Aluminum	305	100		µg/L	1	2/13/2012 6:39:35 PM
Barium	185	50.0		µg/L	1	2/13/2012 6:39:35 PM
Beryllium	ND	3.00		µg/L	1	2/13/2012 6:39:35 PM
Boron	ND	500		µg/L	1	2/9/2012 4:17:46 PM
Cadmium	ND	5.00		µg/L	1	2/13/2012 6:39:35 PM
Calcium	30800	5000		µg/L	1	2/13/2012 6:39:35 PM
Chromium	ND	10.0		µg/L	1	2/13/2012 6:39:35 PM
Cobalt	ND	20.0		µg/L	1	2/13/2012 6:39:35 PM
Copper	ND	10.0		µg/L	1	2/13/2012 6:39:35 PM
Iron	341	60.0		µg/L	1	2/13/2012 6:39:35 PM
Magnesium	7660	5000		µg/L	1	2/13/2012 6:39:35 PM
Manganese	80.7	10.0		µg/L	1	2/13/2012 6:39:35 PM
Nickel	ND	30.0		µg/L	1	2/13/2012 6:39:35 PM
Potassium	ND	5000		µg/L	1	2/13/2012 6:39:35 PM
Silver	ND	10.0		µg/L	1	2/13/2012 6:39:35 PM
Sodium	8230	5000		µg/L	1	2/13/2012 6:39:35 PM
Vanadium	ND	30.0		µg/L	1	2/13/2012 6:39:35 PM
Zinc	ND	10.0		µg/L	1	2/13/2012 6:39:35 PM
Hardness, Total(CaCO3)	108000	7000		µg/L	1	2/13/2012 6:39:35 PM
ASP TOTAL METALS BY ICP-MS			200.8ASP		(E200.8)	
Antimony	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Arsenic	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Lead	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Selenium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Thallium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
TOTAL MERCURY WATERS ASP			245.2WTASP		(E245.2)	
Mercury	ND	0.200		µg/L	1	1/4/2012 1:38:00 PM

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-1B

Lab Order: U1112391

Collection Date: 12/14/2011 9:55:00 AM

Project: Towslee Landfill

Lab ID: U1112391-028

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
ALKALINITY BY EPA 310.2				ALK_W_AUTO		Analyst: KLS
Alkalinity, Total (As CaCO ₃)	120	10		mg/L	1	12/23/2011
BOD, 5 DAY BY SM 18-20 5210B (01)				BOD		Analyst: CAS
Biochemical Oxygen Demand	ND	4.0		mg/L	1	12/15/2011 7:25:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A				CL_W_AUTO		Analyst: KLS
Chloride	1.69	1.00		mg/L	1	12/22/2011
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: CAC
Cyanide	ND	10.0		µg/L	1	12/27/2011
COD BY EPA 410.4 REV. 2.0				COD		Analyst: KLS
Chemical Oxygen Demand	ND	20		mg/L	1	1/4/2012
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: MGP
Color	11.0	5.00		UNITS	1	12/15/2011 11:43:00 AM
HEXAVALENT CHROMIUM BY SM 18-19 3500-CR D				CR6_W		Analyst: CAS
Chromium, Hexavalent	ND	0.010		mg/L	1	12/15/2011 8:12:00 AM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: GWL
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	1/3/2012
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: SAB
Nitrogen, Nitrate (as N)	0.054	0.050		mg/L	1	12/16/2011 8:02:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: SAB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/30/2011 7:35:00 AM
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: MGP
Sulfate	7.90	5.00		mg/L	1	12/29/2011
TDS BY SM 18-21 2540C (97)				TDS		Analyst: NKA
Residue, Dissolved (TDS)	130	25		mg/L	1	12/19/2011
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E351.2)	Analyst: GWL
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	1/10/2012
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BY
Organic Carbon, Total	ND	3.0		mg/L	1	1/4/2012

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-2A

Lab Order: U1112391

Collection Date: 12/14/2011 10:10:00 AM

Project: Towslee Landfill

Lab ID: U1112391-029

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS			FIELD		Analyst:	
Conductivity	501	1.0		umhos/cm		12/14/2011 10:10:00 AM
Eh	25	-300		mV		12/14/2011 10:10:00 AM
pH	7.62	2-12.5		SU		12/14/2011 10:10:00 AM
SWL	5.67			ft		12/14/2011 10:10:00 AM
Temperature	8.2			°C		12/14/2011 10:10:00 AM
Turbidity	24.16	5.0		NTU		12/14/2011 10:10:00 AM
BROMIDE BY SM 18-21 4110B (00)			BROMIDE_W		Analyst: BY	
Bromide	ND	8.0		mg/L	10	1/4/2012
NOTES: The reporting limits were raised due to matrix interference.						
ICP METALS, TOTAL BY NYSDEC ASP 2005			200.7WTASP		(E200.7)	
					Analyst: LET	
Aluminum	317	100		µg/L	1	2/13/2012 6:56:12 PM
Barium	269	50.0		µg/L	1	2/13/2012 6:56:12 PM
Beryllium	ND	3.00		µg/L	1	2/13/2012 6:56:12 PM
Boron	ND	500		µg/L	1	2/9/2012 4:31:37 PM
Cadmium	ND	5.00		µg/L	1	2/13/2012 6:56:12 PM
Calcium	58100	5000		µg/L	1	2/13/2012 6:56:12 PM
Chromium	ND	10.0		µg/L	1	2/13/2012 6:56:12 PM
Cobalt	ND	20.0		µg/L	1	2/13/2012 6:56:12 PM
Copper	ND	10.0		µg/L	1	2/13/2012 6:56:12 PM
Iron	5420	60.0		µg/L	1	2/13/2012 6:56:12 PM
Magnesium	13100	5000		µg/L	1	2/13/2012 6:56:12 PM
Manganese	7780	10.0		µg/L	1	2/13/2012 6:56:12 PM
Nickel	ND	30.0		µg/L	1	2/13/2012 6:56:12 PM
Potassium	7620	5000		µg/L	1	2/13/2012 6:56:12 PM
Silver	ND	10.0		µg/L	1	2/13/2012 6:56:12 PM
Sodium	13600	5000		µg/L	1	2/13/2012 6:56:12 PM
Vanadium	ND	30.0		µg/L	1	2/13/2012 6:56:12 PM
Zinc	ND	10.0		µg/L	1	2/13/2012 6:56:12 PM
Hardness, Total(CaCO3)	199000	7000		µg/L	1	2/13/2012 6:56:12 PM
ASP TOTAL METALS BY ICP-MS			200.8ASP		(E200.8)	
					Analyst: LET	
Antimony	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Arsenic	ND	5.00		µg/L	1	2/23/2012 8:46:00 AM
Lead	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Selenium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Thallium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
TOTAL MERCURY WATERS ASP			245.2WTASP		(E245.2)	
					Analyst: ALW	

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-2A

Lab Order: U1112391

Collection Date: 12/14/2011 10:10:00 AM

Project: Towslee Landfill

Lab ID: U1112391-029

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
TOTAL MERCURY WATERS ASP				245.2WTASP	(E245.2)	Analyst: ALW
Mercury	ND	0.200		µg/L	1	1/4/2012 1:38:00 PM
ALKALINITY BY EPA 310.2				ALK_W_AUTO		Analyst: KLS
Alkalinity, Total (As CaCO ₃)	270	10		mg/L	1	12/23/2011
BOD, 5 DAY BY SM 18-20 5210B (01)				BOD		Analyst: CAS
Biochemical Oxygen Demand	ND	4.0		mg/L	1	12/15/2011 7:25:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A				CL_W_AUTO		Analyst: KLS
Chloride	10.2	1.00		mg/L	1	12/22/2011
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: CAC
Cyanide	ND	10.0		µg/L	1	12/27/2011
COD BY EPA 410.4 REV. 2.0				COD		Analyst: KLS
Chemical Oxygen Demand	ND	20		mg/L	1	1/4/2012
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: MGP
Color	70.0	50.0		UNITS	10	12/15/2011 11:43:00 AM
HEXAVALENT CHROMIUM BY SM 18-19 3500-CR D				CR6_W		Analyst: CAS
Chromium, Hexavalent	ND	0.010		mg/L	1	12/15/2011 8:12:00 AM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: GWL
Nitrogen, Ammonia (As N)	5.24	0.500		mg/L	1	1/3/2012
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: SAB
Nitrogen, Nitrate (as N)	0.074	0.050		mg/L	1	12/16/2011 8:02:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: SAB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/30/2011 7:35:00 AM
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: MGP
Sulfate	ND	5.00		mg/L	1	12/29/2011
TDS BY SM 18-21 2540C (97)				TDS		Analyst: NKA
Residue, Dissolved (TDS)	260	25		mg/L	1	12/19/2011
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E351.2)	Analyst: GWL
Nitrogen, Kjeldahl, Total	6.86	0.500		mg/L	1	1/10/2012
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BY
Organic Carbon, Total	3.4	3.0		mg/L	1	1/4/2012

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-2B

Lab Order: U1112391

Collection Date: 12/14/2011 10:13:00 AM

Project: Towslee Landfill

Lab ID: U1112391-030

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS			FIELD		Analyst:	
Conductivity	1363	1.0		umhos/cm		12/14/2011 10:13:00 AM
Eh	27	-300		mV		12/14/2011 10:13:00 AM
pH	7.14	2-12.5		SU		12/14/2011 10:13:00 AM
SWL	6.56			ft		12/14/2011 10:13:00 AM
Temperature	7.9			°C		12/14/2011 10:13:00 AM
Turbidity	18.6	5.0		NTU		12/14/2011 10:13:00 AM
ICP METALS, TOTAL BY NYSDEC ASP 2005			200.7WTASP	(E200.7)	Analyst: LET	
Aluminum	175	100		µg/L	1	2/13/2012 7:03:27 PM
Barium	1310	50.0		µg/L	1	2/13/2012 7:03:27 PM
Beryllium	ND	3.00		µg/L	1	2/13/2012 7:03:27 PM
Boron	ND	500		µg/L	1	2/9/2012 4:36:16 PM
Cadmium	ND	5.00		µg/L	1	2/13/2012 7:03:27 PM
Calcium	212000	5000		µg/L	1	2/13/2012 7:03:27 PM
Chromium	ND	10.0		µg/L	1	2/13/2012 7:03:27 PM
Cobalt	ND	20.0		µg/L	1	2/13/2012 7:03:27 PM
Copper	ND	10.0		µg/L	1	2/13/2012 7:03:27 PM
Iron	333	60.0		µg/L	1	2/13/2012 7:03:27 PM
Magnesium	44700	5000		µg/L	1	2/13/2012 7:03:27 PM
Manganese	5930	10.0		µg/L	1	2/13/2012 7:03:27 PM
Nickel	ND	30.0		µg/L	1	2/13/2012 7:03:27 PM
Potassium	ND	5000		µg/L	1	2/13/2012 7:03:27 PM
Silver	ND	10.0		µg/L	1	2/13/2012 7:03:27 PM
Sodium	57700	5000		µg/L	1	2/13/2012 7:03:27 PM
Vanadium	ND	30.0		µg/L	1	2/13/2012 7:03:27 PM
Zinc	11.8	10.0		µg/L	1	2/13/2012 7:03:27 PM
Hardness, Total(CaCO3)	713000	7000		µg/L	1	2/13/2012 7:03:27 PM
ASP TOTAL METALS BY ICP-MS			200.8ASP	(E200.8)	Analyst: LET	
Antimony	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Arsenic	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Lead	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Selenium	ND	3.00		µg/L	1	2/23/2012 8:46:00 AM
Thallium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
TOTAL MERCURY WATERS ASP			245.2WTASP	(E245.2)	Analyst: ALW	
Mercury	ND	0.200		µg/L	1	1/4/2012 1:38:00 PM
ALKALINITY BY EPA 310.2			ALK_W_AUTO		Analyst: KLS	
Alkalinity, Total (As CaCO3)	570	100		mg/L	10	12/23/2011

Approved By: PH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-2B

Lab Order: U1112391

Collection Date: 12/14/2011 10:13:00 AM

Project: Towslee Landfill

Lab ID: U1112391-030

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BOD, 5 DAY BY SM 18-20 5210B (01)				BOD		Analyst: CAS
Biochemical Oxygen Demand	ND	4.0		mg/L	1	12/15/2011 7:25:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A				CL_W_AUTO		Analyst: KLS
Chloride	102	1.00		mg/L	1	12/22/2011
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: CAC
Cyanide	ND	10.0		µg/L	1	12/27/2011
COD BY EPA 410.4 REV. 2.0				COD		Analyst: KLS
Chemical Oxygen Demand	25	20		mg/L	1	1/4/2012
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: MGP
Color	12.0	5.00		UNITS	1	12/15/2011 11:43:00 AM
HEXAVALENT CHROMIUM BY SM 18-19 3500-CR D				CR6_W		Analyst: CAS
Chromium, Hexavalent	ND	0.010		mg/L	1	12/15/2011 8:12:00 AM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: GWL
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	1/3/2012
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: SAB
Nitrogen, Nitrate (as N)	0.064	0.050		mg/L	1	12/16/2011 8:02:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: SAB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/30/2011 7:35:00 AM
TDS BY SM 18-21 2540C (97)				TDS		Analyst: NKA
Residue, Dissolved (TDS)	770	25		mg/L	1	12/19/2011
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E351.2)	Analyst: GWL
Nitrogen, Kjeldahl, Total	1.46	0.500		mg/L	1	1/10/2012
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BY
Organic Carbon, Total	3.4	3.0		mg/L	1	1/4/2012

Approved By: DH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
** Value exceeds Maximum Contaminant Value
E Value above quantitation range
J Analyte detected below quantitation limits
Q Outlying QC recoveries were associated with this parameter

* 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
S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

CLIENT: Cortland Co. Soil and Water Cons. Dist.
Lab Order: U1112391
Project: Towslee Landfill
Lab ID: U1112391-031

Client Sample ID: Dupe MW-1B
Collection Date: 12/14/2011 9:55:00 AM

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BROMIDE BY SM 18-21 4110B (00)						
Bromide	ND	0.8		mg/L	1	1/4/2012
BROMIDE_W Analyst: BY						
ICP METALS, TOTAL BY NYSDEC ASP 2005						
				200.7WTASP	(E200.7)	Analyst: LET
Aluminum	353	100		µg/L	1	2/13/2012 7:25:10 PM
Barium	197	50.0		µg/L	1	2/13/2012 7:25:10 PM
Beryllium	ND	3.00		µg/L	1	2/13/2012 7:25:10 PM
Boron	ND	500		µg/L	1	2/9/2012 4:50:16 PM
Cadmium	ND	5.00		µg/L	1	2/13/2012 7:25:10 PM
Calcium	30600	5000		µg/L	1	2/13/2012 7:25:10 PM
Chromium	ND	10.0		µg/L	1	2/13/2012 7:25:10 PM
Cobalt	ND	20.0		µg/L	1	2/13/2012 7:25:10 PM
Copper	ND	10.0		µg/L	1	2/13/2012 7:25:10 PM
Iron	564	60.0		µg/L	1	2/13/2012 7:25:10 PM
Magnesium	7690	5000		µg/L	1	2/13/2012 7:25:10 PM
Manganese	159	10.0		µg/L	1	2/13/2012 7:25:10 PM
Nickel	ND	30.0		µg/L	1	2/13/2012 7:25:10 PM
Potassium	ND	5000		µg/L	1	2/13/2012 7:25:10 PM
Silver	ND	10.0		µg/L	1	2/13/2012 7:25:10 PM
Sodium	8010	5000		µg/L	1	2/13/2012 7:25:10 PM
Vanadium	ND	30.0		µg/L	1	2/13/2012 7:25:10 PM
Zinc	ND	10.0		µg/L	1	2/13/2012 7:25:10 PM
Hardness, Total(CaCO3)	108000	7000		µg/L	1	2/13/2012 7:25:10 PM
ASP TOTAL METALS BY ICP-MS						
				200.8ASP	(E200.8)	Analyst: LET
Antimony	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Arsenic	ND	5.00		µg/L	1	2/13/2012 10:33:00 AM
Lead	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Selenium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
Thallium	ND	3.00		µg/L	1	2/13/2012 10:33:00 AM
TOTAL MERCURY WATERS ASP						
				245.2WTASP	(E245.2)	Analyst: ALW
Mercury	ND	0.200		µg/L	1	1/4/2012 1:38:00 PM
ALKALINITY BY EPA 310.2						
				ALK_W_AUTO		Analyst: KLS
Alkalinity, Total (As CaCO3)	110	10		mg/L	1	12/23/2011
BOD, 5 DAY BY SM 18-20 5210B (01)						
				BOD		Analyst: CAS
Biochemical Oxygen Demand	ND	4.0		mg/L	1	12/15/2011 7:25:00 AM
CHLORIDE WATERS BY LACHAT 10-117-07-1 A						
				CL_W_AUTO		Analyst: KLS
Chloride	1.88	1.00		mg/L	1	12/22/2011

Approved By: PJH

Date: 2-29-12

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Qualifiers: # Accreditation not offered by NYS DOH for this parameter
 ** Value exceeds Maximum Contaminant Value
 E Value above quantitation range
 J Analyte detected below quantitation limits
 Q Outlying QC recoveries were associated with this parameter

* 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
 S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: Dupe MW-1B

Lab Order: U1112391

Collection Date: 12/14/2011 9:55:00 AM

Project: Towslee Landfill

Lab ID: U1112391-031

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
CYANIDE, TOTAL WATERS BY NYSDEC ASP 2005				CN_W_ASP	(E335.4)	Analyst: CAC
Cyanide	ND	10.0		µg/L	1	12/27/2011
COD BY EPA 410.4 REV. 2.0				COD		Analyst: KLS
Chemical Oxygen Demand	ND	20		mg/L	1	1/4/2012
COLOR BY SM 18-21 2120B (01)				COLOR		Analyst: MGP
Color	11.0	5.00		UNITS	1	12/15/2011 11:43:00 AM
HEXAVALENT CHROMIUM BY SM 18-19 3500-CR D				CR6_W		Analyst: CAS
Chromium, Hexavalent	ND	0.010		mg/L	1	12/15/2011 8:12:00 AM
NH3 BY LACHAT 10-107-06-1-B				NH3_W_AUTO		Analyst: GWL
Nitrogen, Ammonia (As N)	ND	0.500		mg/L	1	1/3/2012
NITROGEN, NITRATE (AS N) BY LACHAT 10-107-04-1C				NO3_W		Analyst: SAB
Nitrogen, Nitrate (as N)	ND	0.050		mg/L	1	12/16/2011 8:02:00 AM
PHENOLICS, TOTAL BY LACHAT 10-210-00-1A				PHENOL_W	(E420.4)	Analyst: SAB
Phenolics, Total Recoverable	ND	0.005		mg/L	1	12/30/2011 7:35:00 AM
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: MGP
Sulfate	8.40	5.00		mg/L	1	12/29/2011
TDS BY SM 18-21 2540C (97)				TDS		Analyst: NKA
Residue, Dissolved (TDS)	140	25		mg/L	1	12/19/2011
TKN BY LACHAT 10-107-06-2				TKN_W_AUTO	(E351.2)	Analyst: GWL
Nitrogen, Kjeldahl, Total	ND	0.500		mg/L	1	1/10/2012
TOC BY SM 18-21 5310B (00)				TOC_W		Analyst: BY
Organic Carbon, Total	ND	3.0		mg/L	1	1/4/2012

Approved By: PH

Date: 2-29-12

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Qualifiers:

- # Accreditation not offered by NYS DOH for this parameter
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Q Outlying QC recoveries were associated with this parameter

- * 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
- S Spike Recovery outside accepted recovery limits

Upstate Laboratories, Inc.

Analytical Report

Date: 29-Feb-12

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

Client Sample ID: MW-2B

Lab Order: U1112391

Collection Date: 12/30/2011 3:00:00 PM

Project: Towslee Landfill

Lab ID: U1112391-032

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BROMIDE BY SM 18-21 4110B (00)				BROMIDE_W		Analyst: BY
Bromide	ND	0.8		mg/L	1	1/7/2012
SULFATE BY ASTM D516-90, 02 & 07				SULFATE_W		Analyst: MGP
Sulfate	ND	5.00		mg/L	1	1/10/2012

Approved By: PH

Date: 2-29-12

Page 63 of 63

Qualifiers:

- # Accreditation not offered by NYS DOH for this parameter
- ** Value exceeds Maximum Contaminant Value
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Q Outlying QC recoveries were associated with this parameter

- * 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
- 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.: **CD-1**

ULI ID No. (enter by lab)

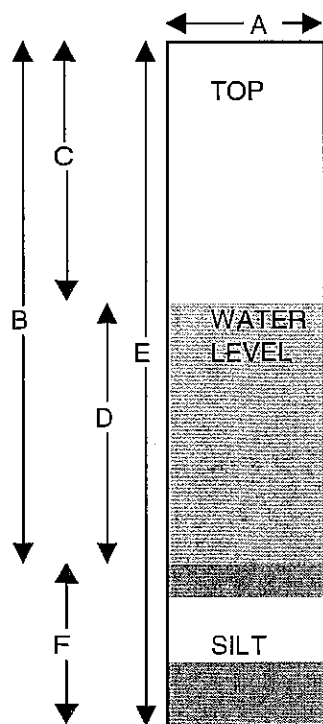
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>24.70</u>	feet
C.	Depth to Water	<u>6.3</u>	feet
D.	Length of Water Column (calculated)	<u>18.40</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>2.9440</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>8.8320</u>	gallons
	Actual Volume Evacuated	<u>9</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>12/12/2011</u>	<u>12/13/2011</u>
Time	<u>11:14 AM</u>	<u>10:15 AM</u>
EH	<u>-9</u>	<u>164</u>
Temperature	<u>9.5 c</u>	<u>7.7 c</u>
pH	<u>10.11</u>	<u>7.91</u>
Specific Cond.	<u>294</u>	<u>282</u>
Turbidity	<u>9.35</u>	<u>10.2</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Clear</u>	<u>Clear</u>

% Recharge:		
Initial Depth to Water	<u>6.3</u>	feet
Recharge Depth to Water	<u>6.39</u>	feet
2nd water column height	<u>98.59</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		

Weather: 38* F Sun 36* F Sun

Observations:

Sampler:

Dan Aumell

Signature:

Dan Aumell

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **CD-1RA**

ULI ID No. (enter by lab)

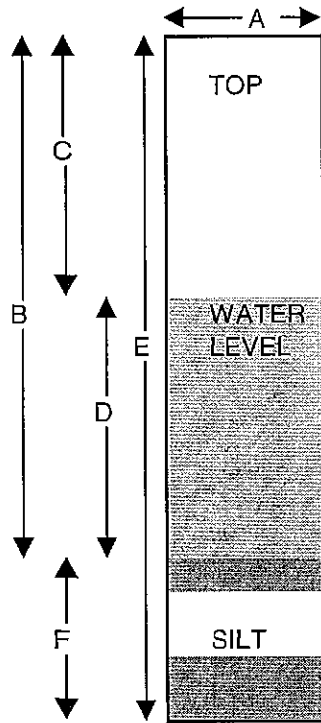
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>50.60</u>	feet
C.	Depth to Water	<u>3.63</u>	feet
D.	Length of Water Column (calculated)	<u>46.97</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>7.5152</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>22.5456</u>	gallons
	Actual Volume Evacuated	<u>22.5</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>12/12/2011</u>	<u>12/13/2011</u>
Time	<u>11:18 AM</u>	<u>10:11 AM</u>
EH	<u>-26</u>	<u>164</u>
Temperature	<u>7.8 c</u>	<u>9.6 c</u>
pH	<u>11.03</u>	<u>7.79</u>
Specific Cond.	<u>284</u>	<u>312</u>
Turbidity	<u>8.54</u>	<u>25.3</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Clear</u>	<u>Cloudy</u>

% Recharge:

Initial Depth to Water 3.63 feet

Recharge Depth to Water 3.58 feet

2nd water column height 101.4 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

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

Weather: 38 * F Sun 36 *F Cloudy

Observations:

Sampler:

Dan Aumell

Signature:

Dan Aumell

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)

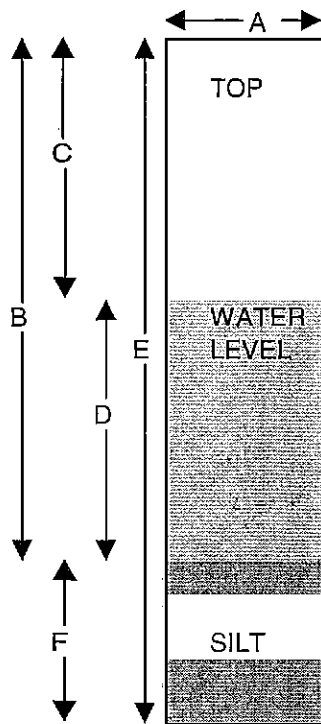
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

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>6.62</u>	feet
D.	Length of Water Column (calculated)	<u>15.78</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>2.525</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>7.57</u>	gallons
	Actual Volume Evacuated	<u>4.5</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>12/12/2011</u>	<u>12/13/2011</u>
Time	<u>1:37 PM</u>	<u>10:42 AM</u>
EH	<u>117</u>	<u>171</u>
Temperature	<u>10.7 c</u>	<u>7.0 c</u>
pH	<u>7.9</u>	<u>7.71</u>
Specific Cond.	<u>313</u>	<u>257</u>
Turbidity	<u>10.61</u>	<u>10.69</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>SI Cloudy</u>	<u>SI Cloudy</u>

% Recharge:		
Initial Depth to Water	<u>6.62</u>	feet
Recharge Depth to Water	<u>6.69</u>	feet
2nd water column height	<u>98.95</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		

Weather: 39* F Sun
 Observations: 37* F Sun

Sampler: Dan Aumell
 Signature: Dan Aumell

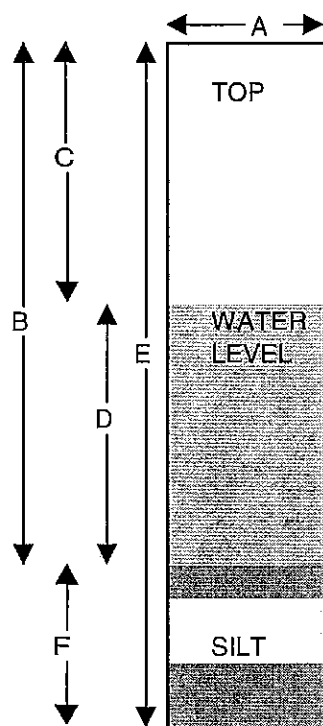
Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

Client: Cortland CountyProject: Towslee LandfillWell ID.: MW-3B

ULI ID No. (enter by lab)

Condition of Well: GoodLocked: NoMethod of Evacuation: Dedicated BailerLock ID: 3900Method of Sampling: Dedicated Bailer

A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>44.40</u>	feet
C.	Depth to Water	<u>12.87</u>	feet
D.	Length of Water Column (calculated)	<u>31.53</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>5.0448</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>15.1344</u>	gallons
	Actual Volume Evacuated	<u>9.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>12/12/2011</u>	<u>12/13/2011</u>
Time	<u>1:37 PM</u>	<u>10:38 AM</u>
EH	<u>123</u>	<u>174</u>
Temperature	<u>10.2 c</u>	<u>9.9 c</u>
pH	<u>8.12</u>	<u>7.60</u>
Specific Cond.	<u>481</u>	<u>522</u>
Turbidity	<u>12.93</u>	<u>7.59</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>SI Cloudy</u>	<u>Clear</u>

% Recharge:

Initial Depth to Water 12.87 feetRecharge Depth to Water 12.86 feet2nd water column height 100.08 %

1st water column height

Elevation(Top of Casing) N/A feetG.W. Elevation= N/A feet

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

Weather: 39° F Sun 37° F Sun

Observations:

Sampler:

Dan Aumell

Signature:

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

Client: Cortland County
 Project: Towslee Landfill
 Well ID.: MW-4A

ULI ID No. (enter by lab)

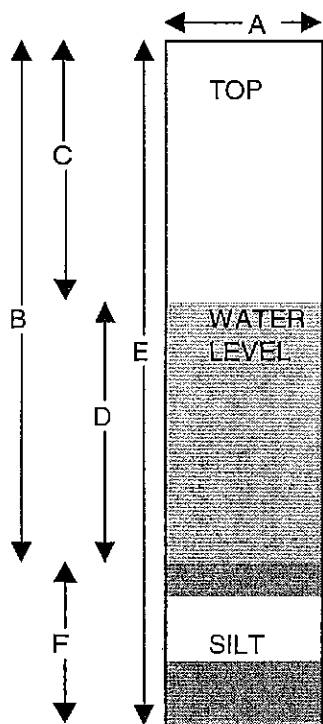
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>32.40</u>	feet
C.	Depth to Water	<u>7.25</u>	feet
D.	Length of Water Column (calculated)	<u>25.15</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>4.0240</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>12.0720</u>	gallons
	Actual Volume Evacuated	<u>12</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>12/12/2011</u>	<u>12/13/2011</u>
Time	<u>12:20 PM</u>	<u>10:30 AM</u>
EH	<u>76</u>	<u>174</u>
Temperature	<u>12.1 c</u>	<u>8.6 c</u>
pH	<u>8.32</u>	<u>7.48</u>
Specific Cond.	<u>652</u>	<u>734</u>
Turbidity	<u>10.41</u>	<u>10.34</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>SI Cloudy</u>	<u>SI Cloudy</u>

% Recharge:		
Initial Depth to Water	<u>7.25</u>	feet
Recharge Depth to Water	<u>7.32</u>	feet
2nd water column height	<u>99.04</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		

Weather: 38 *F Sun 36 * F Sun
 Observations: _____

Sampler: _____
 Dan Aumell
 Signature: Dan Aumell

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

Well ID.: **MW-5A**

ULI ID No. (enter by lab)

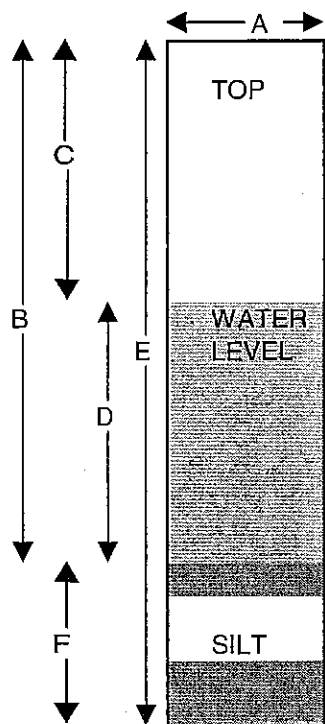
Condition of Well: **Blocked**

Locked: **No**

Method of Evacuation: **Dedicated Bailer**

Lock ID: **3900**

Method of Sampling: **Dedicated Bailer**



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>32.30</u>	feet
C.	Depth to Water	<u>5.09</u>	feet
D.	Length of Water Column (calculated)	<u>27.21</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>4.3536</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>13.0608</u>	gallons
	Actual Volume Evacuated	<u>0.25</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
Date	<u>12/12/2011</u>	
Time	<u>11:04 AM</u>	
EH	<u>91</u>	
Temperature	<u>9.0 °C</u>	
pH	<u>11.34</u>	
Specific Cond.	<u>6041</u>	
Turbidity	<u>14.91</u>	
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>SI Cloudy</u>	

% Recharge:

Initial Depth to Water 5.09 feet

Recharge Depth to Water feet

2nd water column height %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

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

Weather: 37° F Sun

Observations: Blocked at 7.9 feet unable to purge or sample.

Sampler:

Dan Aumell

Signature:

Dan Aumell

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

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

ULI ID No. (enter by lab)

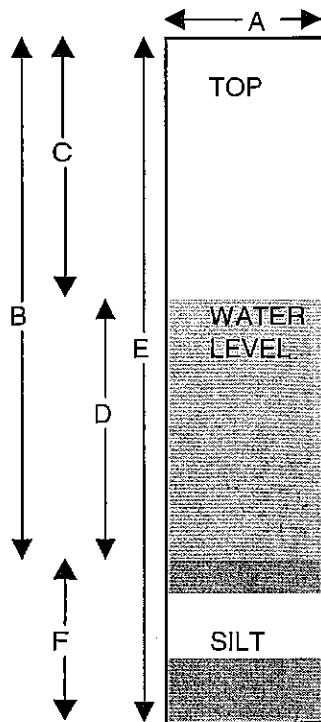
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

Method of Sampling: Dedicated Bailer



A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>19.10</u>	feet
C.	Depth to Water	<u>12.44</u>	feet
D.	Length of Water Column (calculated)	<u>6.66</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>1.0656</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>3.1968</u>	gallons
	Actual Volume Evacuated	<u>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>12/12/2011</u>	<u>12/13/2011</u>
Time	<u>10:40 AM</u>	<u>9:59 AM</u>
EH	<u>190</u>	<u>156</u>
Temperature	<u>10.1 'C</u>	<u>9.8 'C</u>
pH	<u>8.16</u>	<u>7.87</u>
Specific Cond.	<u>447</u>	<u>425</u>
Turbidity	<u>12.41</u>	<u>8.52</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>SI Cloudy</u>	<u>Clear</u>

% Recharge:

Initial Depth to Water	<u>12.44</u>	feet
Recharge Depth to Water	<u>12.53</u>	feet
2nd water column height	<u>99.28</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		

Weather: 37 *F Sun 35 *F Sun
 Observations: _____

Sampler: _____
 Dan Aumell
 Signature: Dan Aumell

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

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

ULI ID No. (enter by lab)

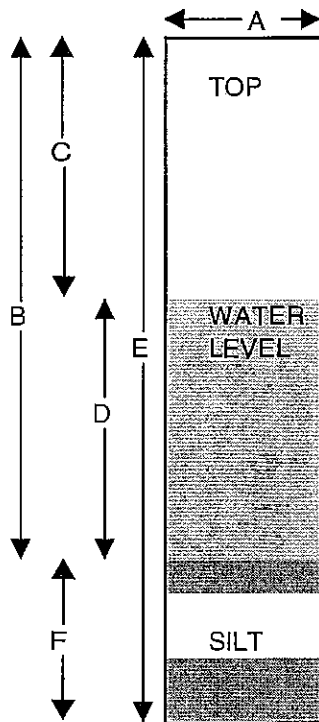
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

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>12.54</u>	feet
D.	Length of Water Column (calculated)	<u>28.21</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>4.5136</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>13.5408</u>	gallons
	Actual Volume Evacuated	<u>10</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>12/12/2011</u>	<u>12/13/2011</u>
Time	<u>10:36 AM</u>	<u>9:55 AM</u>
EH	<u>209</u>	<u>153</u>
Temperature	<u>6.9 'c</u>	<u>10.6 'c</u>
pH	<u>8.68</u>	<u>8.25</u>
Specific Cond.	<u>404</u>	<u>387</u>
Turbidity	<u>6.20</u>	<u>4.1</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Clear</u>	<u>Clear</u>

% Recharge:

Initial Depth to Water 12.54 feet

Recharge Depth to Water 12.62 feet

2nd water column height 99.37 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

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

Weather: 37* F Sun 35* F Sun

Observations:

Sampler:

Dan Aumell

Signature:

Dan Aumell

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)

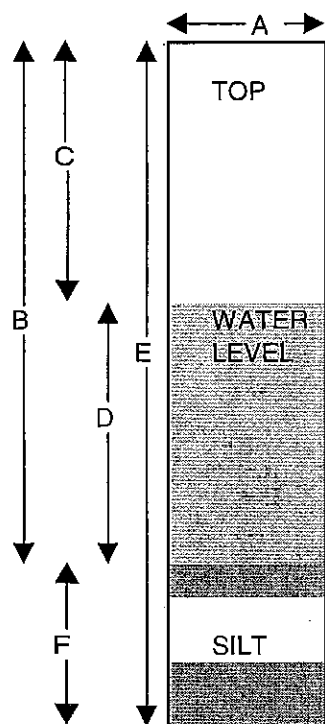
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

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>3.06</u>	feet
D.	Length of Water Column (calculated)	<u>19.14</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>3.062</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>9.187</u>	gallons
	Actual Volume Evacuated	<u>10</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>12/12/2011</u>	<u>12/13/2011</u>
Time	<u>1:55 PM</u>	<u>10:54 AM</u>
EH	<u>151</u>	<u>185</u>
Temperature	<u>9.7 c</u>	<u>8.6 c</u>
pH	<u>7.50</u>	<u>7.26</u>
Specific Cond.	<u>1233</u>	<u>1127</u>
Turbidity	<u>20.75</u>	<u>36.38</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Cloudy</u>	<u>Cloudy</u>

% Recharge:

Initial Depth to Water 3.06 feet

Recharge Depth to Water 4.24 feet

2nd water column height 72.17 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

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

Weather: 39* F Sun

37* F Sun

Observations:

Sampler:

Dan Aumell

Signature:

Dan Aumell

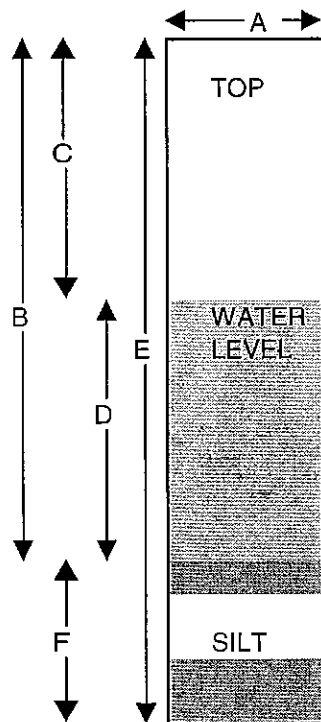
Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

Client: Cortland CountyProject: Towslee Landfill

ULI ID No. (enter by lab)

Well ID.: MW-1ACondition of Well: GoodLocked: NoMethod of Evacuation: Dedicated BailerLock ID: 3900Method of Sampling: Dedicated Bailer

A.	Diameter of Well	<u>2"</u>	inches
B.	Well Depth Measured	<u>33.7</u>	feet
C.	Depth to Water	<u>0.79</u>	feet
D.	Length of Water Column (calculated)	<u>32.91</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>5.266</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>15.797</u>	gallons
	Actual Volume Evacuated	<u>7</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>12/13/2011</u>	<u>12/14/2011</u>
Time	<u>12:34 PM</u>	<u>9:58 AM</u>
EH	<u>152</u>	<u>147</u>
Temperature	<u>11.2 c</u>	<u>6.6 c</u>
pH	<u>8.32</u>	<u>8.62</u>
Specific Cond.	<u>409</u>	<u>375</u>
Turbidity	<u>61</u>	<u>24</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Cloudy</u>	<u>Cloudy</u>

% Recharge:

Initial Depth to Water 0.79 feetRecharge Depth to Water 0.71 feet2nd water column height 111.27 %

1st water column height

Elevation(Top of Casing) N/A feetG.W. Elevation=N/A feet

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

Weather: 40* F Sun 39* F Cloudy

Observations:

Sampler:

Dan Aumell

Signature:

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

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

ULI ID No. (enter by lab)

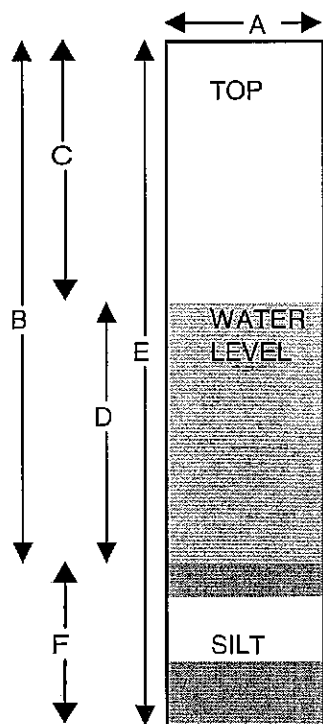
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

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>0.43</u>	feet
D.	Length of Water Column (calculated)	<u>55.07</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>8.8112</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>26.4336</u>	gallons
	Actual Volume Evacuated	<u>26.5</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>12/13/2011</u>	<u>12/14/2011</u>
Time	<u>12:38 PM</u>	<u>9:55 AM</u>
EH	<u>146</u>	<u>136</u>
Temperature	<u>10.9 c</u>	<u>9.1 c</u>
pH	<u>8.43</u>	<u>8.56</u>
Specific Cond.	<u>207</u>	<u>232</u>
Turbidity	<u>29.14</u>	<u>22.73</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Cloudy</u>	<u>Cloudy</u>

% Recharge:

Initial Depth to Water 0.43 feet

Recharge Depth to Water 0.39 feet

2nd water column height 110.26 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

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

Weather: 40* F Sun 39* F Sun

Observations: Dupe

Sampler:

Dan Aumell

Signature: *Dan Aumell*

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)

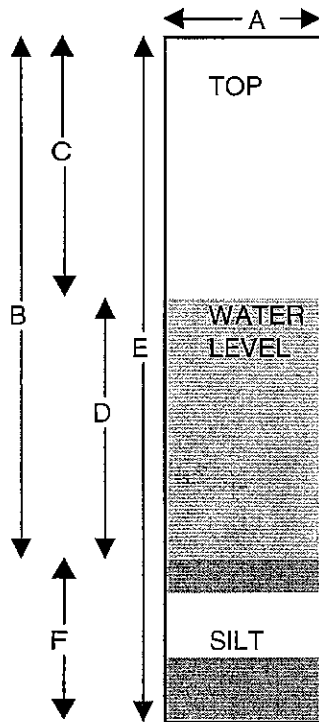
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

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>5.67</u>	feet
D.	Length of Water Column (calculated)	<u>7.13</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>1.1408</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>3.4224</u>	gallons
	Actual Volume Evacuated	<u>3</u>	gallons
E.	Installed Well Depth (if known)	<u>N/A</u>	feet
F.	Depth of Silt (calculated)	<u>N/A</u>	feet

Field Measurements	Initial Evacuation	Final Sampling
Date	<u>12/13/2011</u>	<u>12/14/2011</u>
Time	<u>11:09 AM</u>	<u>10:10 AM</u>
EH	<u>182</u>	<u>25</u>
Temperature	<u>6.5 c</u>	<u>8.2 c</u>
pH	<u>7.60</u>	<u>7.62</u>
Specific Cond.	<u>500</u>	<u>501</u>
Turbidity	<u>19.95</u>	<u>24.16</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>SI Cloudy</u>	<u>Cloudy</u>

% Recharge:

Initial Depth to Water 5.67 feet

Recharge Depth to Water 5.58 feet

2nd water column height 101.61 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

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

Weather: 38* F Sun 39* F Sun

Observations:

Sampler:

Dan Aumell

Signature:

Dan Aumell

Upstate Laboratories, Inc. Ground water Field Log

File: TS-30-01

Revised: 2/10/2001

Client: **Cortland County**

Project: **Towslee Landfill**

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

ULI ID No. (enter by lab)

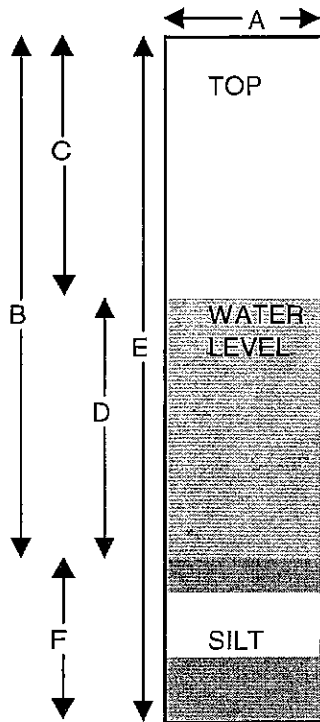
Condition of Well: Good

Locked: No

Method of Evacuation: Dedicated Bailer

Lock ID: 3900

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>6.56</u>	feet
D.	Length of Water Column (calculated)	<u>26.94</u>	feet
	Conversion Factor	<u>X.16</u>	-----
	Well Volume (calculated)	<u>4.3104</u>	gallons
	No. of Volumes to be Evacuated	<u>X3</u>	-----
	Total Volume to be Evacuated	<u>12.9312</u>	gallons
	Actual Volume Evacuated	<u>7</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>12/13/2011</u>	<u>12/14/2011</u>
Time	<u>11:13 AM</u>	<u>10:13 AM</u>
EH	<u>193</u>	<u>27</u>
Temperature	<u>7.5 c</u>	<u>7.9 c</u>
pH	<u>7.15</u>	<u>7.14</u>
Specific Cond.	<u>1357</u>	<u>1363</u>
Turbidity	<u>8.84</u>	<u>18.6</u>
Dissolved Oxygen	<u>N/A</u>	<u>N/A</u>
Appearance	<u>Clear</u>	<u>Sl Cloudy</u>

% Recharge:

Initial Depth to Water 6.56 feet

Recharge Depth to Water 7.38 feet

2nd water column height 88.89 %

1st water column height

Elevation(Top of Casing) N/A feet

G.W. Elevation= N/A feet

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

Weather: 38° F Sun 39° F Sun

Observations: MSD

Sampler:

Dan Aumell

Signature: *Dan Aumell*

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

Fax (315) 437 1209

Client Contact		Project #/Project Name		Location (city/state) Address		Remarks										
CORTLAND COUNTY		TOWSLEE LANDFILL		CORTLANDVILLE, NY												
PATRICK REIDY		607-753-0851														
Sample ID	Date	Time	Matrix	Grab or Comp	ULL Internal Use Only	Number of Containers				Remarks						
CD-1	12/12/11	11:14 am	WATER	GRAB	11/11/2391	1	2	3	4	5	6	7	8	9	10	ASP-B
CD-1RA	12/12/11	11:18 am	WATER	GRAB		2	X									
MMW-1A			WATER	GRAB		2	X									
MMW-1B			WATER	GRAB		2	X									
MMW-2A			WATER	GRAB		2	X									
MMW-2B			WATER	GRAB		2	X									
MMW-3A	12/12/11	1:37 pm	WATER	GRAB		2	X									
MMW-3B	12/12/11	1:35 pm	WATER	GRAB		2	X									
MMW-4A	12/12/11	12:20 pm	WATER	GRAB		2	X									
MMW-5A	12/12/11	11:04 am	WATER	GRAB		2	X									
MMW-6A	12/12/11	10:40 am	WATER	GRAB		2	X									
MMW-6B	12/12/11	10:34 am	WATER	GRAB		2	X									
MMW-7A	12/12/11	1:55 pm	WATER	GRAB		2	X									
DUPE			WATER	GRAB		2	X									
MS/MSD																
ULL TRIP BLANK	12/12/11		WATER	GRAB		1	X									
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	Company: ULI				Dan Howell					
2)							Relinquished by: (sign)				Date	Time	Received by: (sign)			
3)							Relinquished by: (sign)				Date	Time	Received by: (sign)			
4)							Relinquished by: (sign)				Date	Time	Received by: (sign)			
5)							Relinquished by: (sign)				Date	Time	Received by: (sign)			
6)							Relinquished by: (sign)				Date	Time	Received by: (sign)			
7)							Relinquished by: (sign)				Date	Time	Received by: (sign)			
8)							Relinquished by: (sign)				Date	Time	Received by: (sign)			
9)							Relinquished by: (sign)				Date	Time	Received by: (sign)			
10)							Relinquished by: (sign)				Date	Time	Received by: (sign)			
Syracuse		Rochester		Buffalo		Albany		Binghamton		Fair Lawn (NJ)						

PM 12/11

Relinquished by: (sign)
Mr. Howell

Date: 12/12/11
Time: 3:45 pm
Rec'd for Lab by: *Mr. Howell*

[illegible]

Upstate Laboratories, Inc.

Chain of Custody Record

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

Client:		Project #/Project Name		Location (City/State) Address		No. of Containers		Ull Computer Input Form		Remarks		
CORTLAND COUNTY		TOWSLEE LANDFILL		CORTLANDVILLE, NY								
PATRICK REIDY		Phone #		607-763-0851								
Sample ID		Date		Time		Matrix		Grab or Comp		Ull Internal Use Only		
CD-1	12/13/11	10:15 am	WATER	GRAB	12	7	X	X	X	X	X	ASP-B
CD-1RA	12/13/11	10:11 am	WATER	GRAB	13	7	X	X	X	X	X	
MW-1A			WATER	GRAB		7	X	X	X	X	X	
MW-1B			WATER	GRAB		7	X	X	X	X	X	
MW-2A			WATER	GRAB		7	X	X	X	X	X	
MW-2B			WATER	GRAB		7	X	X	X	X	X	
MW-3A	12/13/11	10:40 am	WATER	GRAB	14	7	X	X	X	X	X	
MW-3B	12/13/11	10:38 am	WATER	GRAB	15	7	X	X	X	X	X	
MW-4A	12/13/11	10:30 am	WATER	GRAB	16	7	X	X	X	X	X	
MW-5A	12/12/11	11:04 am	WATER	GRAB		7	X	X	X	X	X	Blockage at 7:00 A
MW-6A	12/13/11	9:59 am	WATER	GRAB	17	7	X	X	X	X	X	
MW-6B	12/13/11	9:55 am	WATER	GRAB	18	7	X	X	X	X	X	
MW-7A	12/13/11	10:54 am	WATER	GRAB	19	7	X	X	X	X	X	
DUPE			WATER	GRAB		7	X	X	X	X	X	
MS/MSD												
Parameter and Method		Sample bottle:		Type	Size	Preservative	Sampled by (Print)		Name of Courier			
1) FIELD PH, TEMP, EH, SPEC COND, TURB, SWL		N/A		PLASTIC	2000ml	NONE	Company: Dan Aumell					
2) BOD5, COLOR, CR+6, NO3, TDS, SO4, CL, BROMIDE		PLASTIC		500ml	H2SO4		Relinquished by: (sign)		Date	Time	Received by: (sign)	
3) TKN, NH3, COD		GLASS		8oz	NONE		Relinquished by: (sign)		Date	Time	Received by: (sign)	
4) ALKALINITY		PLASTIC		500ML	NOAH		Relinquished by: (sign)		Date	Time	Received by: (sign)	
5) T-CN		AMBER		32oz	H2SO4		Relinquished by: (sign)		Date	Time	Received by: (sign)	
6) T-PHENOLS		PLASTIC		120ml	1:1 HCL		Relinquished by: (sign)		Date	Time	Received by: (sign)	
7) TOC		PLASTIC		500ml	HNO3		Relinquished by: (sign)		Date	Time	Received by: (sign)	
8) T-AL, SB*, AS*, BA, BE, CD, CA, CR, CO, CU, FE, PB*, MG, B, MN, HG, NA, NI, K, SE*, AG, TL*, V, ZN + HARDNESS		PLASTIC		500ml	HNO3		Relinquished by: (sign)		Date	Time	Received by: (sign)	
9) D-AL, SB*, AS*, BA, BE, CD, CA, CR, CO, CU, FE, PB*, MG, MN, HG, NA, NI, K, SE*, AG, TL*, V, ZN		PLASTIC		500ml	HNO3		Relinquished by: (sign)		Date	Time	Received by: (sign)	
10)							Relinquished by: (sign)		Date	Time	Received by: (sign)	

Syracuse Rochester Buffalo Albany Binghamton Fair Lawn (NJ)

12/13/11 4:00 pm

12/14/09

Upstate Laboratories, Inc.

Chain of Custody Record

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

Fax (315) 437 1209

Client: **CORTLAND COUNTY** Project #/Project Name: **TOWSLEE LANDFILL**

Client Contact: **PATRICK REIDY** Phone # **607-753-0851** Location (city/state) Address **CORTLANDVILLE, NY**

Sample ID	Date	Time	Matrix	Grab or Comp	ULI Internal Use Only	Number of Containers	1	2	3	4	5	6	7	8	9	10	Remarks
CD-1			WATER	GRAB		2	X										ASP-B
CD-1RA			WATER	GRAB		2	X										
MW-1A	12/13/11	12:34pm	WATER	GRAB		2	X										
MW-1B	12/13/11	12:38pm	WATER	GRAB		2	X										
MW-2A	12/13/11	11:09am	WATER	GRAB		2	X										
MW-2B	12/13/11	11:13am	WATER	GRAB		2	X										MSD
MW-3A			WATER	GRAB		2	X										
MW-3B			WATER	GRAB		2	X										
MW-4A			WATER	GRAB		2	X										
MW-5A			WATER	GRAB		2	X										
MW-6A			WATER	GRAB		2	X										
MW-6B			WATER	GRAB		2	X										
MW-7A			WATER	GRAB		2	X										
DUPE MW-1B	12/13/11	12:38pm	WATER	GRAB		2	X										
MS/MSD																	
ULI TRIP BLANK	12/13/11		WATER	GRAB		1	X										
Parameter and Method	Sample bottle:	Type	Size	Preservative	Sampled by (Print)	Date	Time	Name of Courier									
1) EPA 8260 BASELINE LIST	GLASS	40 ML	1:1 HCL	Company: ULI	Relinquished by: (sign)	Date	Time	Received by: (sign)									
2)																	
3)																	
4)																	
5)																	
6)																	
7)																	
8)																	
9)																	
10)																	
Syracuse	Rochester	Buffalo	Albany	Binghamton	Fair Lawn (NJ)	12/14/11	12:00pm										

ULI Computer Input Form

ASP-B

MSD

Company: ULI
Relinquished by: (sign)
Date
Time
Received by: (sign)

Relinquished by: (sign)
Date
Time
Received by: (sign)

Relinquished by: (sign)
Date
Time
Received by: (sign)

Relinquished by: (sign)
Date
Time
Received by: (sign)

Relinquished by: (sign)
Date
Time
Received by: (sign)

[illegible]

Upstate Laboratories, Inc.

Chain of Custody Record

6034 Corporate Drive E. Syracuse New York 13057

(315) 437 0255

Fax 437 1209

Client: CORTLAND COUNTY

Phone # 607-753-0851 Location (city/state) Address CORTLANDVILLE, NY

Client Contact: PATRICK REIDY

Sample ID Date Time Matrix Grab or U.I. Internal Use Only

CD-1 WATER GRAB 7 1) 2) 3) 4) 5) 6) 7) 8) 9) 10)

CD-1RA WATER GRAB 7 1) 2) 3) 4) 5) 6) 7) 8) 9) 10)

MMW-1A (12-14-11) 9:58 a WATER GRAB 27 7 1) 2) 3) 4) 5) 6) 7) 8) 9) 10)

MMW-1B (12-14-11) 9:55 a WATER GRAB 28 7 1) 2) 3) 4) 5) 6) 7) 8) 9) 10)

MMW-2A (12-14-11) 10:10 a WATER GRAB 29 7 1) 2) 3) 4) 5) 6) 7) 8) 9) 10)

MMW-2B (12-14-11) 10:13 a WATER GRAB 30 7 1) 2) 3) 4) 5) 6) 7) 8) 9) 10)

MMW-3A WATER GRAB 7 1) 2) 3) 4) 5) 6) 7) 8) 9) 10)

MMW-3B WATER GRAB 7 1) 2) 3) 4) 5) 6) 7) 8) 9) 10)

MMW-4A WATER GRAB 7 1) 2) 3) 4) 5) 6) 7) 8) 9) 10)

MMW-5A WATER GRAB 7 1) 2) 3) 4) 5) 6) 7) 8) 9) 10)

MMW-6A WATER GRAB 7 1) 2) 3) 4) 5) 6) 7) 8) 9) 10)

MMW-6B WATER GRAB 7 1) 2) 3) 4) 5) 6) 7) 8) 9) 10)

MMW-7A WATER GRAB 7 1) 2) 3) 4) 5) 6) 7) 8) 9) 10)

DUPE (MMW-1B) (12-14-11) 9:55 a WATER GRAB 31 7 1) 2) 3) 4) 5) 6) 7) 8) 9) 10)

MS/MSD

Parameter and Method Sample bottle: Type Size Preservative

1) FIELD PH, TEMP, EH, SPEC COND, TURB, SWL N/A 2000ml NONE

2) BOD5, COLOR, CR+6, NO3, TDS, SO4, CL-, BROMIDE PLASTIC 500ml H2SO4

3) TKN, NH3, COD PLASTIC 500ml H2SO4

4) ALKALINITY GLASS 8oz NONE

5) T-CN PLASTIC 500ML NOAH

6) T-PHENOLS AMBER 32oz H2SO4

7) TOC PLASTIC 120ml 1:1 HCL

8) T-AL, SB*, AS*, BA, BE, CD, CA, CR, CO, CU, FE, PB*, MG, PLASTIC 500ml HNO3

9) D-AL, SB*, AS*, BA, BE, CD, CA, CR, CO, CU, FE, PB*, MG, PLASTIC 500ml HNO3

10) MN, HG, NA, NI, K, SE*, AG, TL*, V, ZN

Remarks

ASP-B

(MS/MSD)

AW 12/14/11

Name of Courier

Received by: (sign)

Received by: (sign)

Rec'd for Lab by:

PM 12/14/11

Relinquished by: (sign)

Date Time

Binghamton

Fair Lawn (NJ) 12/15/11 0900

Syracuse

Rochester

Buffalo

Albany

Upstate Laboratories, Inc.

Chain of Custody Record

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

Client: Project #/Project Name

CORTLAND COUNTY

TOWSLEE LANDFILL

Client Contact:

Phone #

Location (city/state) Address

PATRICK REIDY

607-753-0851

CORTLANDVILLE, NY

Sample ID

Date

Time

Matrix

Grab or Comp

U/I Internal Use Only

MMW-2B

12/30/11

3:00pm

WATER

GRAB

U/I 2391

32

No. of Containers

1) 2) 3) 4) 5) 6) 7) 8) 9) 10)

Remarks

ASP-B

MS/MSD

Parameter and Method	Sample bottle:	Type	Size	Preservative	Sampled by (Print)	Relinquished by: (sign)	Date	Time	Received by: (sign)
1) BR-SO4		PLASTIC	1000mL	NONE	Chris Pelosi				
2)					Company: VLI				
3)									
4)									
5)									
6)									
7)									
8)									
9)									
10)									

Syracuse

Rochester

Buffalo

Albany

Binghamton

Fair Lawn (NJ)

Relinquished by: (sign)

Date

Time

Rec'd for Lab by:

Relinquished by: (sign)

Date

Time

Received by: (sign)

Relinquished by: (sign)

Date

Time

Received by: (sign)

Sampled by (Print)

Date

Time

Name of Courier

Chris Pelosi

12/30/11

4:17

JP March

Appendix B

Historical Analytical Data

Cortland County Towslee Landfill

Historical Data Page Index

Cortland County Towslee Landfill

Well	Field/ Inorganic Parameters	Total Metals	Dissolved Metals	Organics
CD-1	2	14	26	38
CD-1RA	3	15	27	39
MW-1A	4	16	28	40
MW-1B	5	17	29	41
MW-2A	6	18	30	42
MW-2B	7	19	31	43
MW-3A	8	20	32	44
MW-3A	9	21	33	45
MW-4A	10	22	34	46
MW-5A	11	23	35	47
MW-6A	12	24	36	48
MW-6B	13	25	37	49
MW-7A	14	26	38	50

Historical Water Quality Database - Towslee Landfill

Field and Inorganic Parameters

Well CD-1 - Bedrock

Analyte	Temp	Eh	pH	Sp. Conduct	Color	Turbidity	ALK as CaCO3	HARD as CaCO3	TDS	Chloride	Sulfate	Bromide	NO3 (As N)	NH4 (As N)	TKN (as N)	COD	BOD	TOC	Phenolics, Tot	Cyanide
Units	(oC)	(mV)	su	(uS/cm)	(SU)	(NTU)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
Water Quality Standard	--	--	6.5 to 8.5	--	15	5	--	--	500	250	250	2	10	2 *	--	--	--	--	0.001	0.2
9/20/11	19.1	152	8.2	303	--	9.58	130	150	220	1.41	10.8	<8	0.054	<0.5	<0.5	<20	<4	<3	<0.005	--
12/13/11	7.7	164	7.91	282	6	10.2	140 J	145	210	6.88 J	16.9	<0.8	0.068	<0.5 J	<0.5	<20	<4	<3	<0.005	<0.01 J

Historical Water Quality Database - Towslee Landfill

Field and Inorganic Parameters

Well CD-1RA - Bedrock

Analyte	Temp	Eh	pH	Sp. Conduct	Color	Turbidity	ALK as CaCO3	HARD as CaCO3	TDS	Chloride	Sulfate	Bromide	NO3 (As N)	NH4 (As N)	TKN (as N)	COD	BOD	TOC	Phenolics, Tot	Cyanide
Units	(°C)	(mV)	SU	(µS/cm)	(SU)	(NTU)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
Water Quality Standard	--	--	6.5 to 8.5	--	15	5	--	--	500	250	250	2	10	2 *	--	--	--	--	0.001	0.2
Aug-97	--	--	--	--	<5	--	134	160	163	<2	10.8	1	<0.1	0.04	0.2	<15	<2	2.1	<1	--
Oct-97	--	--	--	--	20	--	132	160	150	2.5	15.3	1.2	<0.1	0.11	0.21	<15	<2	<1	<1	--
9/20/11	20.3	146	8.29	343	--	53	120	135	180	2.2	17.3	<8	0.054	<0.5	<0.5	<20	5	<3	<0.005	--
12/13/11	9.6	164	7.79	312	6	25.3	150 J	155	170	3.67 J	18.4	<0.8	0.058	<0.5 J	<0.5	<20	<4	<3	<0.005	<0.01 J

Historical Water Quality Database - Towslee Landfill

Field and Inorganic Parameters

Well MW-1A - Overburden

Analyte	Temp	Eh	pH	Sp. Conduct	Color	Turbidity	ALK as CaCO3	HARD as CaCO3	TDS	Chloride	Sulfate	Bromide	NO3 (As N)	NH4 (As N)	TKN (as N)	COD	BOD	TOC	Phenolics, Tot	Cyanide
Units	(°C)	(mV)	su	(uS/cm)	(SU)	(NTU)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
Water Quality Standard	-	-	6.5 to 8.5	-	15	5	-	-	500	250	250	2	10	2 *	-	-	-	-	0.001	0.2
Aug-97	--	--	--	--	5	--	160	4000	494	152	20.6	1.2	<0.1	6	18	305	5	4.2	0.003	<0.01
Oct-97	--	--	--	--	20	--	145	240	214	46	14.6	0.8	<0.1	2.6	3.8	64	<2	1.6	0.0015	<0.01
3/22/06	8.5	700	7.8	306	--	660	127	167	340	21.3	27.3	<0.1	<0.1	0.276	23.3	<10	<3	4.76	<0.005	--
5/31/06	12.8	105	7.7	355	--	73	139	140	213	22.2	12.3	<0.1	0.217	<0.02	0.529 H	<10	<3	2.61	<0.005	--
8/9/06	19.5	190	7.52	353	<5	131	122	148	236	34.2	16.5	<0.1	<0.1	0.161	0.366	<10	<3	<2	<0.005	<0.01
10/10/06	15.9	170	7.69	369	--	29	132	148	229	26.7	14.9	0.117	<0.1	<0.1	<0.2	<10	<3	<2	<0.005	--
3/20/07	9.3	59	8.29	204	--	55.6	140	134	127	28.7	8.79	<0.2	<0.2	<0.5	2.2	<20	<4	<3	<0.005	--
4/26/07	6.7	-107	7.93	221	--	34.8	120	153	208	27	14.2	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	0.005	--
7/31/07	21.6	-111	7.83	241	--	24.3	120	148	250	27	48.6	<0.2	<0.2	<0.5	5.66	<20	<4	<3	<0.005	--
10/10/07	16	-68	8.01	658	30	28.1	130	146	204	27.9	11.2	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	<0.01
4/16/08	11.2	-57	7.85	351	--	16	120	151	195	28	16.3	<0.2	<0.2	<0.5	<0.5	<20	9	<3	<0.005	--
7/23/08	21.7	-62	8.07	344	--	11.6	120	159	116	25.9	<5	<2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
10/24/08	10.6	-69	8.23	334	--	24.6	120	165	188 H	29.7	11.6	<2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
3/12/09	3.6	-21	7.4	344	--	16.7	130	161	256	30.4	14	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
6/17/09	19.6	143	8.09	199	18	23.4	100 H	163	180	30.7	14.3	<2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	<0.01
9/30/09	12.6	162	7.67	201	--	30.6	120 H	158	210	29.5	12.7	<2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
12/1/09	6.6	107	8.35	862	--	47.4	120	161	190	30	6.3	<2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
4/27/10	8.2	180	7.28	1580	--	22.7	140	161	270	31.7	9.43	<0.8	0.0721	<0.5	<0.5	<20	<4	<3	<0.005	--
7/20/10	18.9	151	7.73	263	35	18.6	120	167	320	33	17.9	<1.6	0.066	<0.5	<0.5	<20	<4	<3	<0.005	<0.01
10/26/10	15.6	110	7.95	345	--	37.7	120	169	170	31.4	14.8	<0.8	0.102	<0.5	0.897	<20	<4	<3	<0.005	--
3/22/11	9.8	228	7.52	347	--	24.2	130	159	150	32	13.6	<8	0.102	<0.5	<0.5	<20	<4	<3	<0.005	--
5/24/11	19.2	109	8.26	364	--	45.2	120	164	460	30.5	10.2	<0.8	<0.05	<0.5	<0.5	<20	<4	<3	<0.005	--
9/20/11	17.9	160	7.96	372	--	20.89	130	172	220	32.1	14.1	<8	<0.05	<0.5	<0.5	<20	<4	<3	<0.005	--
12/14/11	6.6	147	8.62	375	80	24	150 J	177	210 R	28.5 J	15.8	<0.8	0.075	<0.5 J	<0.5	<20	<4	<3	<0.005	<0.01 J

Historical Water Quality Database - Towslee Landfill

Field and Inorganic Parameters

Well MW-1B - Bedrock

Analyte	Temp	Eh	pH	Sp. Conduct	Color	Turbidity	ALK as CaCO3	HARD as CaCO3	TDS	Chloride	Sulfate	Bromide	NO3 (As N)	NH4 (As N)	TKN (as N)	COD	BOD	TOC	Phenolics, Tot	Cyanide
Units	(oC)	(mV)	SU	(uS/cm)	(SU)	(NTU)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
Water Quality Standard	-	-	6.5 to 8.5	-	15	5	-	-	500	250	250	2	10	2 *	-	-	-	-	0.001	0.2
Aug-97	--	--	--	--	<5	--	94.8	88	143	<2	5.2	<0.5	0.2	<0.02	<0.2	<15	<2	9.3	<0.001	--
Oct-97	--	--	--	--	<5	--	93.6	140	86	<2	<5	<0.5	<0.1	0.04	<0.2	<15	<2	<1	<0.001	--
3/22/06	5	385	7.7	157	--	187	92	97.6	120	2.55	4.72	<0.1	<0.1	0.0938	0.54	<10	<3	5.41	<0.005	--
5/31/06	11.4	45	7.8	257	--	45	94	81.9	111	2.28	5.51	<0.1	<0.1	<0.02	0.755 H	<10	<3	2.34	<0.005	--
8/9/06	16.4	155	7.69	244	<5	70	91	89	142	3.47	5.33	<0.1	<0.1	<0.02	0.497	<10	<3	<2	<0.005	<0.01
10/10/06	15.8	115	7.9	200	--	15.6	89	82	120	0.611	3.76	<0.1	<0.1	<0.1	<0.2	<10	<3	<2	<0.005	--
3/20/07	9.6	84	8.47	156	--	67.4	99	83.6	62	3.24	7.09	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
4/26/07	7.2	-122	8.24	141	--	9.62	96	105	162	4.45	6.31	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	0.006	--
7/31/07	21.5	-143	8.03	1241	--	10.2	100	104	130	3.16	28.8	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
10/10/07	16.3	-80	8.28	943	30	22.8	100	90.8	104	6.44	5.26	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	<0.01
2/1/08	1.7	196	8.66	1075	7	35.8	100	89.3	152	3.15	<5	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	<10
4/16/08	10.2	-78	8.34	245	--	14.6	100	103	130	5.95	9.42	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
7/23/08	20.9	-78	8.33	223	--	12.3	100	107	80	5.61	<5	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
10/24/08	11.8	-78	8.38	229	--	6.33	99	105	140	6.03	<5	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
3/12/09	2.7	-44	7.8	205	--	2.47	92 H	97.1	160	2.86 H	6.37	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
6/17/09	18.7	139	8.13	124	9	8.2	100	111	110	4.74	5.19	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	<0.01
9/30/09	12.1	155	7.76	1145	--	12.2	98	108	88	6.86	10.4	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
12/1/09	7.5	114	8.23	681	--	16.4	86	206	110	4.71	18.3	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
4/27/10	7.9	173	7.4	975	--	10.8	100	92.9	170	3.54	<5	<0.4	0.0512	<0.5	<0.5	<20	<4	<3	<0.005	--
7/20/10	18.2	167	7.99	1221	15	17	91	106	130	3.63	7.05	<0.8	0.063	<0.5	<0.5	<20	<4	<3	<0.005	<0.01
10/26/10	15.2	104	8.11	228	--	8.46	90	104	200	6.11	<5	<0.8	<0.05	<0.5	0.924	<20	<4	<3	<0.005	--
3/22/11	7.6	225	7.87	234	--	14.1	100	108	80	4.07	<5	<0.8	0.095	<0.5	<0.5	<20	<4	<3	<0.005	--
5/24/11	19.7	100	8.3	206	--	1.08	93	87.4	180	1.7	5.6	<0.8	<0.05	<0.5	<0.5	<20	<4	<3	<0.005	--
9/20/11	17.7	157	8.13	215	--	5.69	100	115	140	3.4	<5	<0.8	<0.05	<0.5	<0.5	<20	<4	<3	<0.05	--
12/14/11	9.1	136	8.56	232	11	22.73	120 J	108	130	1.69 J	7.9	<0.8	0.054	<0.5 J	<0.5	<20	<4	<3	<0.005	<0.01 J

Historical Water Quality Database - Towslee Landfill

Field and Inorganic Parameters

Well MW-2A - Overburden

Analyte	Temp	Eh	pH	Sp. Conduct	Color	Turbidity	ALK as CaCO3	HARD as CaCO3	TDS	Chloride	Sulfate	Bromide	NO3 (As N)	NH4 (As N)	TKN (as N)	COD	BOD	TOC	Phenolics, Tot	Cyanide
Units	(oC)	(mV)	su	(uS/cm)	(SU)	(NTU)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
Water Quality Standard	--	--	6.5 to 8.5	--	15	5	--	--	500	250	250	2	10	2 *	--	--	--	--	0.001	0.2
Aug-97	--	--	--	--	30	--	702	1300	1180	156	<5	0.8	<0.1	23	31.5	127	6	42.5	0.0071	<0.01
Oct-97	--	--	--	--	60	--	784	720	986	149	<5	<0.5	0.14	9.1	21.2	136	3	24.1	0.0066	<0.01
3/22/06	4.4	140	6.4	621	--	18.6	330	241	381	23.3	4.22	0.189	0.228	10.6	10.6	<10	16	10.1	<0.005	--
5/31/06	11.6	-5	6.4	767	--	18.3	355	260	397	25.7	5.5	0.18	<0.1	18.4	14 H	13.8	4.5	7.18	0.008	--
8/9/06	17.2	120	6.15	784	33	195	384	265	491	23.5	3.43	0.237	<0.1	16	16.5	27	3.4	5.67	<0.005	<0.01
10/10/06	14.2	90	6.41	1100	--	27	423	301	487	25.7	3.18	0.261	<0.1	15.1	15	15.6	<3	5.68	<0.005	--
3/20/07	9.2	136	7.31	364	--	48.9	380	225	262	21.2	<5	<0.2	<0.2	10.2	132	<20	6	6.7	<0.005	--
4/26/07	7.7	-62	7.14	450	--	30.7	320	262	355	14.7	<5	<0.2	<0.2	9.89	12.5	<20	7	4.8	0.01	--
7/31/07	18	-81	7.41	395	--	15	420	275	395	24.4	<10	<2	<0.2	14.1	16.1	46	7	7.3	<0.005	--
10/10/07	14.6	-25	7.12	574	210	5.07	290	165	284	10.6	9.93	<2	<0.2	13.5	12.6	22	<4	6.3	<0.005	<0.01
2/1/08	3.1	42	7.94	617	40	7.83	360	246	410	21	<10	<2	<0.2	8.78	10.7	23	<4	21.8	<0.005	<10
4/16/08	11.1	-48	7.81	424	--	26.8	290	203	357	13.5	<5	<200	<0.2	8.2	11.2	21	5	5.2	<0.005	--
7/23/08	19.1	-31	7.58	402	--	49.2	380	303	320	20.2	<20	<20	<0.2	11.9	12.9	36	7	6.3	<0.005	--
10/24/08	12	-34	7.63	695	--	8.52	360	343	356	15.5	<10	<20	<0.2	10.8	11.6	32	<4	6	<0.005	--
3/12/09	3.1	-34	7.63	601	--	5.6	320	229	316	13.7	<5	<2	<0.2	8.43	10.3	<20	<4	4.8	<0.005	--
6/17/09	16.5	239	6.44	413	65	40.9	360	295	220	20.5	<5	<2	<0.2	11.8	13.5	31	12	7.2	<0.005	<0.01
9/30/09	13	227	6.52	382	--	17.8	340	265	310	17.7	7.79	<2	<0.2	10.3	13.1	32	<4	5.9	<0.005	--
12/1/09	6.4	143	7.78	1406	--	19.6	280	95	230	12.5	10.2	<2	<0.2	8.75	12.5	26	<4	6.5	<0.005	--
1/28/10	4.4	148	7.53	1474	--	492	310	291	360	12.4	<5	<2	<0.2	8.45	11.6	41	8	5.2	<0.005	--
4/27/10	6.6	256	5.94	294	--	41.5	300	235	350	14.5	<5	<2	0.0809	8.06	11.9	23	<4	6.7	0.006	--
7/20/10	18.8	162	7.77	329	55	8.18	360	313	370	22.5	<5	<4	0.139	10.1	16.5	50	7	7.8	<0.005	<0.01
11/12/10	14	17	7.06	613	--	38.1	310	260	300	17.1	<5	<20	0.08	6.9	9.84	20	<4	6	<0.005	--
3/22/11	9.8	6	6.94	519	--	9.77	260	190	200	11.2	<5	<80	0.117	5.38	7.95	<20	<4	4.4	<0.005	--
5/24/11	17.9	-43	7.31	482	--	20.7	250	167	240	8.33	<5	<8	0.073	7.03	8.21	24	<4	<3	<0.005	--
9/20/11	18.4	-47	7.04	653	--	40.12	300	253	340	16.2	<5	<8	0.065	5.16	9.52	<20	9	5.1	<0.005	--
12/14/11	8.2	25	7.62	501	70	24.16	270 J	199	260	10.2 J	<5	<8	0.074	5.24 J	6.86	<20	<4	3.4	<0.005	<0.01 J

Historical Water Quality Database - Towslee Landfill

Field and Inorganic Parameters

Well MW-2B - Bedrock

Analyte	Temp	Eh	pH	Sp. Conduct	Color	Turbidity	ALK as CaCO3	HARD as CaCO3	TDS	Chloride	Sulfate	Bromide	NO3 (As N)	NH4 (As N)	TKN (as N)	COD	BOD	TOC	Phenolics, Tot	Cyanide
Units	(°C)	(mV)	su	(uS/cm)	(su)	(NTU)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
Water Quality Standard	--	--	6.5 to 8.5	--	15	5	--	--	500	250	250	2	10	2*	--	--	--	--	0.001	0.2
Aug-97	--	--	--	--	5	--	577	960	1640	267	<5	1.1	<0.1	0.95	2.6	58	2	12.3	0.0044	--
Oct-97	--	--	--	--	10	--	673	900	1230	238	<5	0.9	<0.1	1.3	2	61	2	11.9	0.0039	--
3/22/06	4.5	175	6.4	1350	--	17.3	652	697	982	145	1.18	0.878	<0.1	0.389	1.31	<10	9.3	<2	<0.005	--
5/31/06	10.5	110	6.4	1560	--	19.8	670	726	1020	154	2.96	1.01	0.216	0.824	1.78 H	17.2	5.1	7.76	<0.005	--
8/9/06	15.9	125	6.35	1420	<5	18.7	612	686	1040	122	<1	0.902	<0.1	0.786	1.64	24.6	3.7	4.82	<0.005	0.024
10/10/06	14.5	115	6.52	1540	--	28	646	675	980	121	<1	0.912	<0.1	0.282	1.9	27	13	7.49	0.1	--
3/20/07	9.1	136	7.14	701	--	14.2	650	723	825	167	<5	0.95	<0.2	0.921	1.84	21	<4	6.4	<0.005	--
4/26/07	8.3	-73	7.35	682	--	11	480	575	823	131	<5	<2	<0.2	0.844	1.62	<20	4	3	0.006	--
7/31/07	16.5	-77	7.37	500	--	9.48	600	716	935	163	10	<2	<0.2	1.31	1.67	<20	<4	5.7	<0.005	--
10/10/07	15.8	-34	7.35	329	15	37	640	652	868	161	<5	0.92	<0.2	1.22	1.53	<20	<4	17.2	<0.005	<0.01
2/1/08	3.2	40	8.34	339	7	41.5	640	678	840	160	<5	<2	<0.2	0.785	1.33	24	<4	82.6	<0.005	<10
4/16/08	10.3	-46	7.77	1205	--	13.5	620	654	808	132	<5	<20	<0.2	0.572	1.55	<20	5	23.2	<0.005	--
7/23/08	18.3	-38	7.73	1132	--	15.4	640	728	720	148	7.62	<2	<0.2	1.01	1.03	<20	<4	4.7	<0.005	--
10/24/08	12.9	-33	7.59	1137	--	3.14	680	788	864	162	<5	<0.2	<0.2	0.504	1.13	<20	<4	6.8	<0.005	--
3/12/09	4.9	-22	7.42	1135	--	11	650	678	872	118	<5	<0.2	<0.2	0.642	1.22	<20	<4	4.5	<0.005	--
6/17/09	15.5	237	6.43	739	8	4.17	580	782	870	159	<5	<0.2	<0.2	0.665	1.19	23	<4	5.5	<0.005	<0.01
9/30/09	13.2	229	6.47	670	--	5.88	650	755	860	150	<5	<0.2	<0.2	0.73	1.07	26	<4	4.6	<0.005	--
12/1/09	8.3	174	7.19	1978	--	14	610	608	680	140	<5	<0.2	<0.2	0.696	1.12	<20	<4	4.6	<0.005	--
1/28/10	3.7	184	6.9	1880	--	12.7	600	609	820	112	7.9	<0.2	<0.2	0.69	1.28	22	<4	3.5	<0.005	--
4/27/10	6.9	249	6.03	567	--	12	610	681	860	130	<5	<0.4	<0.05	1.18	1.55	<20	<4	5.8	0.006	--
7/20/10	19	117	7.52	391	11	17.3	630	730	790	139	<5	<4	0.071	0.812	1.37	<20	<4	5.7	<0.005	<0.01
10/26/10	15.1	153	6.75	1228	--	14.1	600	693	860	127	<5	<0.8	<0.05	<0.5	2.45	25	<4	5.4	<0.005	--
3/22/11	9.8	6	6.94	519	--	9.77	260	190	200	11.2	<5	<80	0.117	5.38	7.95	<20	<4	4.4	<0.005	--
5/24/11	17.9	-43	7.31	482	--	20.7	250	167	240	8.33	<5	<8	0.073	7.03	8.21	24	<4	<3	<0.005	--
9/20/11	18	-2	6.93	1428	--	8.77	630	773	890	108	<5	<8	<0.05	<0.5	1.95	<20	<4	5.4	<0.005	--
12/14/11	7.9	27	7.14	1363	12	18.6	570 J	713	770	102 J	<5 R	<0.8 R	0.064	<0.5 J	1.46	25	<4	3.4	<0.005	<0.01 J

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

Analyte	Temp	Eh	pH	Sp. Conduct	Color	Turbidity	ALK as CaCO ₃	HARD as CaCO ₃	TDS	Chloride	Sulfate	Bromide	NO ₃ (As N)	NH ₄ (As N)	TKN (as N)	COD	BOD	TOC	Phenolics, Tot	Cyanide
Units	(°C)	(mV)	su	(µS/cm)	(SU)	(NTU)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
Water Quality Standard	-	-	6.5 to 8.5	-	15	5	-	-	500	250	250	2	10	2 *	-	-	-	-	0.001	0.2
Aug-97	--	--	--	--	<5	--	145	1250	320	31.4	16	0.5	<0.1	<0.02	0.4	19	<2	4.5	0.0027	--
Oct-97	--	--	--	--	<5	--	146	200	269	28.7	13	<0.5	0.19	0.09	0.24	<15	<2	1.9	<0.001	--
3/22/06	6.4	215	7.2	286	--	58	162	153	215	14	9.14	<0.1	<0.1	0.0969	0.455	<10	<3	5.58	<0.005	--
5/31/06	11.7	45	6.9	299	--	11.9	170	179	208	12.7	11	<0.1	<0.1	<0.02	1.09 H	<10	<3	<2	<0.005	--
8/9/06	15.3	115	7.01	342	<5	5.2	140	191	207	13.5	9.98	0.152	<0.1	<0.02	0.239	13	<3	<2	<0.005	<0.01
10/10/06	15.7	220	6.84	397	--	7.2	152	158	207	12.7	8.01	0.143	<0.1	<0.1	0.266	<10	<3	<2	<0.005	--
3/20/07	9.3	-50	7.82	143	--	10.6	82	74	38	3.37	<5	1.2	<0.2	1.45	4.26	47	<4	<3	<0.005	--
4/26/07	5.6	-94	7.64	898	--	19.6	59	58.1	168	1.8	<5	<2	<0.2	<0.5	1.47	<20	8	<3	<0.005	--
7/31/07	17.9	-115	7.84	1757	--	16.4	170	150	210	12	20.5	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
10/10/07	14.6	-76	8.25	939	115	13.7	130	86.2	144	5.73	<5	<2	<0.2	<0.5	<0.5	<20	<4	3.7	<0.005	<0.01
2/1/08	3.4	174	8.06	1074	15	17	110	97.7	115	2.43	<5	<2	0.338	<0.5	<0.5	23	<4	<3	<0.005	<10
4/16/08	12.1	-34	7.62	261	--	17.7	170	123	188	10.5	7.74	<0.2	<0.2	<0.5	<0.5	<20	7	<3	<0.005	--
7/23/08	20.6	-39	7.66	1759	--	17.9	91	76.7	60	1.1	19.9	<20	<0.2	<0.5	0.718	34	9	7.3	<0.005	--
10/24/08	13.5	-41	7.72	204	--	6.67	97	97.9	112	1.75	<5	<2	1.14	<0.5	<0.5	<20	<4	3.6	<0.005	--
3/12/09	4.2	-26	7.49	1069	--	10.9	18	38.1	88	1.85	7.53	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
6/17/09	14.8	359	8.16	187	7	4.55	160	196	120	9.25	11.2	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	<0.01
9/30/09	14.2	219	6.69	658	--	20.2	50	37.8	100	<1	<5	<2	<0.2	<0.5	0.786	40	8	9.2	<0.005	--
12/1/09	9.9	172	7.32	673	--	22.4	79	65.4	120	<1	<5	<2	<0.2	<0.5	1.36	35	6	5.7	<0.005	--
1/28/10	6.1	101	8.41	646	--	11	180	93.2	160	14.8	<5	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
4/27/10	7.4	263	5.83	706	--	11.8	93	58	75	1.31	<5	<0.8	<0.05	<0.5	1.14	30	10	9	0.006	--
7/20/10	17.9	173	7.8	943	35	13.9	160	194	230	7.44	12.6	<4	0.053	<0.5	1.26	27	<4	<3	<0.005	<0.01
10/26/10	15.6	74	6.9	1806	--	7.61	130	66.9	98	3.3	<5	<4	0.054	<0.5	1.83	29	7	6.6	<0.005	--
3/22/11	8.7	282	6.2	128	--	11.6	75	45.7	60	2.69	<5	<8	0.103	<0.5	<0.5	<20	<4	<3	<0.005	--
5/24/11	16.7	9	7.15	308	--	4.3	150	137	320	2.28	<5	<0.8	<0.05	<0.5	<0.5	<20	<4	<3	<0.005	--
9/20/11	17.4	159	7.38	361	--	4.39	180	187	260	4.03	<5	<8	<0.05	<0.5	0.508	<20	<4	3.1	<0.005	--
12/13/11	7	171	7.71	257	6	10.69	140 J	122	160	3.44 J	6.3	<0.8	<0.05	<0.5 J	<0.5	<20	<4	<3	<0.005	<0.01 J

Historical Water Quality Database - Towslee Landfill

Field and Inorganic Parameters

Well MW-3B - Bedrock

Analyte	Temp	Eh	pH	Sp. Conduct	Color	Turbidity	ALK as CaCO3	HARD as CaCO3	TDS	Chloride	Sulfate	Bromide	NO3 (As N)	NH4 (As N)	TKN (as N)	COD	BOD	TOC	Phenolics, Tot	Cyanide
Units	(oC)	(mV)	SU	(uS/cm)	(SU)	(NTU)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
Water Quality Standard	-	-	6.5 to 8.5	-	15	5	-	-	500	250	250	2	10	2 *	-	-	-	-	0.001	0.2
Aug-97	--	--	--	--	<5	--	235	280	349	32	13.8	<0.5	<0.1	<0.02	0.3	22	<2	7.9	2.3	--
Oct-97	--	--	--	--	<5	--	190	300	332	33.6	12.4	<0.5	<0.1	0.04	<0.2	<15	<2	3.7	1.1	--
9/20/11	17.1	158	7.68	494	--	25	240	274	310	23.7	7.9	<0.8	<0.05	<0.5	<0.5	<20	6	<3	<0.005	--
12/13/11	9.9	174	7.6	522	<5	7.59	240 J	264	260	27.7 J	11.5	<0.8	0.07	<0.5 J	<0.5	<20	<4	<3	<0.005	<0.01 J

Historical Water Quality Database - Towslee Landfill
Field and Inorganic Parameters
Well MW-4A - Bedrock

Analyte	Temp	Eh	pH	Sp. Conduct	Color	Turbidity	ALK as CaCO3	HARD as CaCO3	TDS	Chloride	Sulfate	Bromide	NO3 (As N)	NH4 (As N)	TKN (as N)	COD	BOD	TOC	Phenolics, Tot	Cyanide
Units	(oC)	(mV)	SU	(uS/cm)	(SU)	(NTU)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
Water Quality Standard	--	--	6.5 to 8.5	--	15	5	--	--	500	250	250	2	10	2 *	--	--	--	--	0.001	0.2
Aug-97	--	--	--	--	<5	--	253	308	550	79.1	9.8	<0.5	<0.1	<0.02	0.5	37	<2	7.7	1.8	--
Oct-97	--	--	--	--	<5	--	355	464	493	74.6	11.5	<0.5	<0.1	0.2	0.4	22	<2	5.6	<1.0	--
9/20/11	17.5	174	7.36	789	--	5.86	410	496	490	23.6	10.5	<0.8	<0.05	<0.5	<0.5	<20	5	4	<0.005	--
12/13/11	8.6	174	7.48	734	6	10.34	400 J	430	430	25.5 J	11.1	<0.8	<0.05	<0.5 J	<0.5	<20	<4	<3	<0.005	<0.01 J

Historical Water Quality Database - Towslee Landfill

Field and Inorganic Parameters

Well MW-5A - Bedrock

Analyte	Temp	Eh	pH	Sp. Conduct	Color	Turbidity	ALK as CaCO3	HARD as CaCO3	TDS	Chloride	Sulfate	Bromide	NO3 (As N)	NH4 (As N)	TKN (as N)	COD	BOD	TOC	Phenolics, Tot	Cyanide
Units	(oC)	(mV)	su	(uS/cm)	(SU)	(NTU)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
Water Quality Standard	--	--	6.5 to 8.5	--	15	5	--	--	500	250	250	2	10	2 *	--	--	--	--	0.001	0.2
Aug-97	--	--	--	--	20	--	130	250	116	44.5	22	<0.5	0.8	<0.02	0.4	16	<2	2.7	1.1	--
Oct-97	--	--	--	--	<5	--	115	140	156	10.1	11.5	<0.5	<0.1	0.18	0.24	<15	<2	<1.0	<1.0	--

Historical Water Quality Database - Towslee Landfill
Field and Inorganic Parameters
Well MW-6A - Overburden

Analyte	Temp	Eh	pH	Sp. Conduct	Color	Turbidity	ALK as CaCO3	HARD as CaCO3	TDS	Chloride	Sulfate	Bromide	NO3 (As N)	NH4 (As N)	TKN (as N)	COD	BOD	TOC	Phenolics, Tot	Cyanide
Units	(oC)	(mV)	SU	(uS/cm)	(SU)	(NTU)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
Water Quality Standard	-	-	6.5 to 8.5	-	15	5	-	-	500	250	250	2	10	2 *	-	-	-	-	0.001	0.2
Aug-97	--	--	--	--	60	--	357	650	595	79.1	13.8	0.9	<0.1	1.6	1.5	94	3	14	3	<10
Oct-97	--	--	--	--	80	--	325	550	472	71.8	30.6	1	<0.1	0.02	<0.2	82	6	10.6	1.8	<10
9/20/11	17.8	125	7.04	446	--	33.14	200	208	270	21.4	10.6	<0.8	<0.05	<0.5	<0.5	<20	<4	<3	<0.005	--
12/13/11	9.8	156	7.87	425	200	8.52	210 J	194	280	13.9 J	16.1	<0.8	<0.05	<0.5 J	1.12	<20	<4	<3	<0.005	<0.01 J

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

Analyte	Temp	Eh	pH	Sp. Conduct	Color	Turbidity	ALK as CaCO3	HARD as CaCO3	TDS	Chloride	Sulfate	Bromide	NO3 (As N)	NH4 (As N)	TKN (as N)	COD	BOD	TOC	Phenolics, Tot	Cyanide
Units	(°C)	(mV)	su	(µS/cm)	(SU)	(NTU)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
Water Quality Standard	--	--	6.5 to 8.5	--	15	5	--	--	500	250	250	2	10	2 *	--	--	--	--	0.001	0.2
Aug-97	--	--	--	--	<5	--	240	300	98	38.2	27.1	<0.5	0.6	0.09	0.6	40	<2	6	0.0032	--
Oct-97	--	--	--	--	20	--	224	240	280	35	22.2	<0.5	<0.1	2.5	3.3	19	2	5.8	<0.001	--
3/22/06	7.9	250	6.7	347	--	40	131	135	209	21.1	13.8	<0.1	<0.1	0.0549	0.392	<10	<3	5.22	<0.005	--
5/31/06	10.5	85	7.4	287	--	19.9	148	144	175	2.33	3.95	<0.1	<0.1	<0.02	0.904 H	<10	5.1	3.14	<0.005	--
8/9/06	12.2	225	7.52	304	<5	15.8	154	131	190	2.32	3.28	0.122	<0.1	0.096	0.214	11.6	3.2	<2	<0.005	<0.01
10/10/06	14.3	180	7.11	329	--	14.2	153	133	187	3.39	6.14	<0.1	<0.1	<0.1	0.279	<10	<3	<2	<0.005	--
3/20/07	9.7	82	8.04	220	--	68.9	180	156	127	11.6	8.54	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
4/26/07	7.4	-92	7.73	249	--	8.1	160	139	105	6.99	6.79	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
7/31/07	15.6	-105	7.85	236	--	9.48	150	138	220	13.8	17.3	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
10/10/07	14.8	-57	7.82	810	6	12.5	140	124	208	25.9	12.7	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	<0.01
2/1/08	3.7	121	8.55	199	7	13.6	140	136	198	16.7	18.1	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	<10
4/16/08	10.4	-71	8.25	360	--	11.6	140	142	225	16.9	16.5	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
7/23/08	16.1	-81	8.21	343	--	2.19	110	137	116	31.1	26.8	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
10/24/08	12.6	-54	7.96	355	--	5.24	120	134	168	28.6	17.2	<2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
3/12/09	6.5	-38	7.7	327	--	9.56	120	142	188	13.3	13.2	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
6/17/09	14.1	186	7.32	187	11	3.62	140	154	190 H	19.4	14.2	<2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	<0.01
9/30/09	12.7	190	7.2	1999	--	5.13	140	148	170	19.7	10.3	<0.2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
12/1/09	9	180	7.09	1108	--	13.3	140	138	130	14.7	13.5	<2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
1/28/10	4.7	102	8.35	922	--	12.5	150	163	240	13.2	13.4	<2	<0.2	<0.5	<0.5	<20	<4	<3	<0.005	--
4/27/10	8.1	222	6.54	1673	--	43.6	150	147	220	12	7.57	<1	0.0804	<0.5	0.522	<20	<4	<3	<0.005	--
7/20/10	18.2	144	7.66	249	35	4.71	140	144	200	14	11	<0.8	0.092	<0.5	<0.5	<20	<4	<3	<0.005	<0.01
10/26/10	14.6	132	7.39	342	--	16	160	147	190	16	11.2	<1.6	0.051	<0.5	0.799	<20	<4	<3	<0.005	--
3/22/11	9.8	102	7.41	372	--	10.8	130	145	160	11.9	15	<0.8	0.47	<0.5	<0.5	<20	<4	<3	<0.005	--
5/24/11	15.7	88	7.75	399	--	7.65	150	153	250	16.4	19.2	<0.8	0.058	<0.5	<0.5	<20	<4	<3	<0.005	--
9/20/11	16.7	133	7.34	355	--	6.94	160	172	230	12.7	18.7	<0.8	0.056	<0.5	<0.5	<20	<4	<3	<0.005	--
12/13/11	10.6	153	8.25	387	5	4.1	180 J	166	200	19.4 J	18.6	<0.8	0.087	<0.5 J	0.546	<20	<4	<3	<0.005	<0.01 J

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

Analyte	Temp	Eh	pH	Sp. Conduct	Color	Turbidity	ALK as CaCO3	HARD as CaCO3	TDS	Chloride	Sulfate	Bromide	NO3 (As N)	NH4 (As N)	TKN (as N)	COD	BOD	TOC	Phenolics, Tot	Cyanide
Units	(°C)	(mV)	SU	(µS/cm)	(SU)	(NTU)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
Water Quality Standard	--	--	6.5 to 8.5	--	15	5	--	--	500	250	250	2	10	2 *	--	--	--	--	0.001	0.2
Aug-97	--	--	--	--	20	--	569	1010	1220	300	27.4	0.6	<0.1	0.93	1.1	43	<2	10.1	0.0051	<0.01
10/1/97	--	--	--	--	5	--	660	1150	1240	276	20.2	<0.5	0.2	0.89	1.4	112	2	12.6	0.0027	<0.01
3/22/06	4.5	215	6.5	1360	--	214	648	627	981	144	20.6	0.753	< 0.1	0.34	1.5	21.2	< 3	12.8	< 0.005	--
5/31/06	11.6	120	6.4	1520	--	18	675	599	967	143	22.5	0.633	<0.1	<0.02	1.68 H	16.5	<3	8.19	0.007	--
8/9/06	17.4	245	6.34	1440	<5	13.6	595	531	963	119	19.7	0.822	<0.1	<0.02	0.75	26.4	<3	6.12	<0.005	<0.01
10/10/06	13.9	190	6.62	1480	--	42	635	526	949	85	14.1	0.483	<0.1	<0.1	1.11	20.5	<3	7.46	<0.005	--
3/20/07	9.3	77	7.04	893	--	45.3	640	529	753	145	16.5	0.6	<0.2	<0.5	1.47	27	<4	8.1	<0.005	--
4/26/07	7.8	-64	7.12	765	--	54.3	510	499	865	131	23.2	<0.2	<0.2	<0.5	3.6	<20	<4	6	0.006	--
7/31/07	18.8	-69	7.2	514	--	40.9	530	481	3000	145	22.7	<2	<0.2	<0.5	0.784	<20	<4	7.2	0.007	--
10/10/07	15.2	-24	7.11	972	85	48.1	540	459	752	141	17.8	<2	<0.2	<0.5	0.591	<20	<4	11.5	<0.005	<0.01
2/1/08	2	245	7.77	561	7	39.3	570	528	800	141	12.2	<2	<0.2	<0.5	0.522	<20	<4	69.9	<0.005	<10
4/16/08	9.8	-37	7.63	1174	--	44.4	560	506	1560	1260	<20	<200	0.25	<0.5	0.949	36	<4	17.8	<0.005	--
7/23/08	18.6	-42	7.73	618	--	41.6	600	538	668	136	21	<20	<0.2	<0.5	<0.5	22	<4	5.2	<0.005	--
10/24/08	11.1	-41	8.09	214	--	42.7	670	569	728	135	16.1	<20	<0.2	<0.5	<0.5	29	<4	6.1	<0.005	--
3/12/09	4.2	-19	7.35	1014	--	40.9	500	496	748	114	21	<0.2	<0.2	<0.5	1.92	<20	<4	5.1	<0.005	--
6/17/09	16	219	6.77	622	80	375	500	534	720	128	22.3	<0.2	<0.2	<0.5	0.851	38	<4	5.7	<0.005	< 0.01
9/30/09	12.6	194	7.12	644	--	33.5	480	499	620	120	19.5	<2	<0.2	<0.5	0.927	37	<4	5	<0.005	--
12/1/09	8.1	141	7.86	217	--	40.1	520	473	640	117	23.1	<2	<0.2	<0.5	0.599	21	<4	5.2	<0.005	--
1/28/10	5.2	192	6.73	260	--	23.6	600	508	520	104	19.2	<2	<0.2	<0.5	1.02	33	<4	4.9	<0.005	--
4/27/10	7.3	246	6.13	483	--	31.4	500	435	730	89.1	22.5	<1	<0.05	<0.5	1.4	28	<4	6.7	<0.005	--
7/20/10	19	149	7.89	412	8	20.1	510	520	690	128	25.2	<4	0.059	<0.5	1.27	31	<4	6	<0.005	<0.01
10/26/10	14.5	155	6.87	1133	--	328	520	507	710	115	23.9	<8	<0.05	<0.5	2.15	40	<4	6.1	<0.005	--
3/22/11	9	260	6.78	1184	--	20.7	600	484	660	95.7	21.7	<80	0.103	<0.5	0.639	28	<4	5.1	<0.005	--
5/24/11	18.3	135	7.02	1179	--	69.2	510	465	710	99	18.7	<8	<0.05	<0.5	<0.5	33	<4	4.8	<0.005	--
9/20/11	18	166	6.92	1236	--	169	560	585	750	100	18.8	<8	0.081	<0.5	1.03	29	<4	6.1	<0.005	--
12/13/11	8.6	185	7.26	1127	7	36.38	550 J	505	620	108 J	21.6	<8	0.063	<0.5 J	2.19	40	<4	4.1	<0.005	<0.01 J

Historical Water Quality Data - Towslee Landfill
 CD-1 Total Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
9/20/11	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
12/13/11	0.383	<0.005 J	<0.005 J	0.077	<0.003	<0.5	<0.005	45.2	<0.01	<0.01	<0.02	<0.01	0.126	<0.003 J	9.04	0.18	--	--	<5	<5	--	--	--	--	--
								41.6					0.688		10.1	0.256	<0.0002	<0.03	<5	<5	<0.003 J	<0.01	<0.003 J	<0.03	<0.01

Historical Water Quality Data - Towslee Landfill
CD-1RA Total Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	-	0.003	0.025	1	0.004	1	0.005	-	0.05	0.05	-	0.2	0.3	0.015	-	0.3	0.0007	0.1	-	20	0.01	0.05	0.002	-	5
Aug-97	0.587	0.0035 B	0.0032 B	0.168 B	<0.0001	0.0227 B	<0.0003	41.5	0.0042 B	NA	<0.0011	0.004 B	1.01	0.0017 B	9.5	0.19	NA	<0.0013	1.01 B	5.41	NA	NA	<0.0026	<0.0012	0.024
Oct-97	5.24	0.0031 B	0.004 B	0.229	0.0011 B	0.0253 B	0.0011 B	45.7	0.0089 B	NA	0.0053 B	0.0085 B	10.3	0.0049	10.4	0.352	NA	0.0104 B	1.91 B	4.76 B	NA	NA	<0.0026	0.0086 B	0.0366
9/20/11	-	-	-	-	-	-	<0.005	41	-	-	-	-	0.662	<0.003	7.95	0.119	-	-	<5	<5	-	-	-	-	-
12/13/11	1.7	<0.005 J	<0.005 J	0.2	<0.003	<0.5	<0.005	44.1	<0.01	<0.01	<0.02	<0.01	2.75	<0.003 J	10.8	0.211	<0.0002	<0.03	<5	6.69	<0.003 J	<0.01	<0.003 J	<0.03	0.0146

Historical Water Quality Data - Towslee Landfill
MW-1A Total Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	724	<0.003	0.353	8.11	0.0287	0.0873 B	<0.0003	430	1.04	--	0.59	0.996	1550	0.454	309	24.6	0.0014	1.33	77.5	37.3	<0.028	<0.009	<0.026	0.856	3.36
Oct-97	16.9	<0.003	0.0134	0.258	0.00083 B	0.0665 B	<0.0003	48.6	0.0265	--	0.0168 B	0.0254	35.7	0.0123	15.6	0.783	<0.0001	0.0364 B	6.97	26	<0.0028	<0.0009	<0.0026	0.0243 B	0.0874
3/22/06	--	--	--	--	--	--	<0.005	46.2	--	--	--	--	19.4	0.00716	12.6	0.534	--	--	2.72	17.1	--	--	--	--	--
5/31/06	--	--	--	--	--	--	<0.005	41.8	--	--	--	--	2.99	0.007	8.67	0.194	--	--	1.6	13	--	--	--	--	--
8/9/06	2.96	<0.05	<0.025	0.104	<0.005	0.073	<0.005	43.2	<0.005	<0.02	<0.015	0.022	6.03	<0.005	9.7	0.38	<0.0004	<0.01	1.7	13.6	<0.02	<0.015	<0.03	<0.015	0.106
10/10/06	--	--	--	--	--	--	<0.005	43.9	--	--	--	--	2.11	<0.005	9.43	0.306	--	--	1.62	13.5	--	--	--	--	--
3/20/07	--	--	--	--	--	--	<0.005	39.2	--	--	--	--	1.67	<0.003	8.87	0.19	--	--	1.74	12.2	--	--	--	--	--
4/26/07	--	--	--	--	--	--	<0.005	44.5	--	--	--	--	2.14	<0.003	10.2	0.193	--	--	2.31	12.5	--	--	--	--	--
7/31/07	--	--	--	--	--	--	<0.005	43.5	--	--	--	--	1.21	<0.003	9.67	0.206	--	--	1.59	13	--	--	--	--	--
10/10/07	2.07	<0.015	<0.01	0.0917	<0.003	<0.5	<0.005	42.2	<0.005	<0.01	<0.02	<0.01	3.49	<0.003	9.8	0.203	<0.0002	<0.03	2.06	11.8	<0.005	<0.01	<0.01	<0.03	0.0235
4/16/08	--	--	--	--	--	--	<0.005	43.2	--	--	--	--	1.17	<0.003	10.6	0.157	--	--	1.65	12.5	--	--	--	--	--
7/23/08	--	--	--	--	--	--	<0.005	46.2	--	--	--	--	0.217	<0.003	10.7	0.135	--	--	1.51	13.8	--	--	--	--	--
10/24/08	--	--	--	--	--	--	<0.005	48.3	--	--	--	--	0.429	<0.003	10.8	0.151	--	--	1.69	13.2	--	--	--	--	--
3/12/09	--	--	--	--	--	--	<0.005	47.2	--	--	--	--	0.818	<0.003	10.6	0.0917	--	--	1.52	13.4	--	--	--	--	--
6/17/09	1.57	<0.015	<0.01	0.0732	<0.003	<0.5	<0.005	47	<0.005	<0.01	<0.02	<0.01	1.65	<0.003	11.1	0.169	<0.0002	<0.03	1.78	13.9	<0.005	<0.01	<0.01	<0.03	<0.01
9/30/09	--	--	--	--	--	--	<0.005	46.5	--	--	--	--	0.348	<0.003	10	0.155	--	--	<1	12.5	--	--	--	--	--
12/1/09	--	--	--	--	--	--	<0.005	45	--	--	--	--	6.19	<0.003	11.9	0.251	--	--	<5	12.6	--	--	--	--	--
4/27/10	--	--	--	--	--	--	<0.005	47	--	--	--	--	0.484	<0.003	10.5	0.118	--	--	<5	12.8	--	--	--	--	--
7/20/10	0.142	<0.005	<0.005	0.0757	<0.003	<0.5	<0.005	48.9	<0.01	<0.01	<0.02	<0.01	0.219	<0.003	10.8	0.156	<0.0002	<0.03	<5	13.2	<0.003	<0.01	<0.003	<0.03	<0.01
10/26/10	--	--	--	--	--	--	<0.005	49	--	--	--	--	1.99	<0.003	11.3	0.329	--	--	<5	15.3	--	--	--	--	--
3/22/11	--	--	--	--	--	--	<0.005	45.6	--	--	--	--	1.47	<0.003	11	0.236	--	--	<5	13.6	--	--	--	--	--
5/24/11	--	--	--	--	--	--	<0.005	46.9	--	--	--	--	3.13	<0.003	11.5	0.215	--	--	<5	13.1	--	--	--	--	--
9/20/11	--	--	--	--	--	--	<0.005	51.5	--	--	--	--	0.872	<0.003	10.5	0.139	--	--	<5	13.2	--	--	--	--	--
12/14/11	0.711	<0.005 J	<0.005 J	0.0774	<0.003	<0.5	<0.005	51	<0.01	<0.01	<0.02	<0.01	0.987	<0.003 J	12	0.119	<0.0002	<0.03	<5	14.9	<0.003 J	<0.01	<0.003 J	<0.03	<0.01

Historical Water Quality Data - Towslee Landfill
MW-1B Total Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	0.662	<0.003	<0.0024	0.168 B	0.0001 B	0.0197 B	<0.0003	26.7	0.002 B	--	<0.0011	0.004 B	1.33	<0.001	6.47	0.195	--	<0.0013	1.56 B	7.38	--	--	<0.0026	<0.0012	0.0351
Oct-97	0.134 B	<0.003	<0.0024	0.154 B	<0.0001	0.0247 B	<0.0003	24.7	<0.0004	--	<0.0011	0.0025 B	0.226	<0.001	5.84	0.146	--	<0.0013	0.529 B	6.18	--	--	<0.0026	<0.0012	0.0163 B
3/22/06	--	--	--	--	--	--	<0.005	26.8	--	--	--	--	9.42	<0.005	7.46	2.28	--	--	0.973	6.31	--	--	--	--	--
5/31/06	--	--	--	--	--	--	<0.005	23.9	--	--	--	--	1.48	<0.005	5.39	0.191	--	--	0.468	5.22	--	--	--	--	--
8/9/06	1.09	<0.05	<0.025	0.194	<0.005	<0.05	<0.005	25.8	<0.005	<0.02	<0.015	0.017	1.84	<0.005	6.05	0.251	<0.0004	<0.01	0.523	6.35	<0.02	<0.015	<0.03	<0.015	0.052
10/10/06	--	--	--	--	--	--	<0.005	24.1	--	--	--	--	0.273	<0.005	5.31	0.126	--	--	0.374	5.92	--	--	--	--	--
3/20/07	--	--	--	--	--	--	<0.005	23.7	--	--	--	--	2.39	0.00431	5.94	0.521	--	--	<1	5.22	--	--	--	--	--
4/26/07	--	--	--	--	--	--	<0.005	30	--	--	--	--	0.508	<0.003	7.4	0.169	--	--	<1	6.82	--	--	--	--	--
7/31/07	--	--	--	--	--	--	<0.005	29.9	--	--	--	--	0.465	<0.003	7.12	0.19	--	--	<1	7.1	--	--	--	--	--
10/10/07	0.537	<0.015	<0.01	0.172	<0.003	<0.5	<0.005	26	<0.005	<0.01	<0.02	<0.01	0.73	<0.003	6.28	0.176	<0.0002	<0.03	<1	5.84	<0.005	<0.01	<0.01	<0.03	0.0168
2/1/08	0.518	<0.015	<0.01	0.199	<0.003	<0.5	<0.005	25.1	<0.005	<0.01	<0.02	<0.01	1	<0.003	6.44	0.26	<0.0002	<0.03	<1	5.66	<0.005	<0.01	<0.01	<0.03	0.0112
4/16/08	--	--	--	--	--	--	<0.005	28.6	--	--	--	--	1.38	<0.003	7.58	0.198	--	--	<1	6.73	--	--	--	--	--
7/23/08	--	--	--	--	--	--	<0.005	30.2	--	--	--	--	0.185	<0.003	7.74	0.169	--	--	<1	7.29	--	--	--	--	--
10/24/08	--	--	--	--	--	--	<0.005	30	--	--	--	--	0.174	<0.003	7.28	0.153	--	--	<1	6.81	--	--	--	--	--
3/12/09	--	--	--	--	--	--	0.00542	27.7	--	--	--	--	2.92	<0.003	6.76	0.223	--	--	<1	6.37	--	--	--	--	--
6/17/09	0.255	<0.03	<0.01	0.232	<0.003	<0.5	<0.005	31.4	<0.01	<0.01	<0.02	<0.01	0.523	<0.003	7.83	0.25	<0.0002	<0.03	<1	8.15	<0.005	<0.01	<0.01	<0.03	<0.01
9/30/09	--	--	--	--	--	--	<0.005	31.1	--	--	--	--	0.115	<0.003	7.34	0.149	--	--	<1	7.32	--	--	--	--	--
12/1/09	--	--	--	--	--	--	<0.005	58.7	--	--	--	--	6.72	<0.003	14.4	9.34	--	--	8.56	14.9	--	--	--	--	--
4/27/10	--	--	--	--	--	--	<0.005	26.5	--	--	--	--	0.423	<0.003	6.49	0.13	--	--	<5	6.29	--	--	--	--	--
7/20/10	<0.1	<0.005	<0.005	0.204	<0.003	<0.5	<0.005	30.3	<0.01	<0.01	<0.02	<0.01	0.159	<0.003	7.27	0.188	<0.0002	<0.03	<5	7.12	<0.003	<0.01	<0.003	<0.03	<0.01
10/26/10	--	--	--	--	--	--	<0.005	29.7	--	--	--	--	1.02	<0.003	7.29	0.153	--	--	<5	8.95	--	--	--	--	--
3/22/11	--	--	--	--	--	--	<0.005	30.5	--	--	--	--	1.19	<0.003	7.75	0.269	--	--	<5	7.99	--	--	--	--	--
5/24/11	--	--	--	--	--	--	<0.005	24.9	--	--	--	--	<0.06	<0.003	6.14	0.24	--	--	<5	6.48	--	--	--	--	--
9/20/11	--	--	--	--	--	--	<0.005	34.3	--	--	--	--	0.121	<0.003	7.05	0.275	--	--	<5	27	--	--	--	--	--
12/14/11	0.305	<0.005 J	<0.005 J	0.185	<0.003	<0.5	<0.005	30.8	<0.01	<0.01	<0.02	<0.01	0.341	<0.003 J	7.66	0.0807	<0.0002	<0.03	<5	8.23	<0.003 J	<0.01	<0.003 J	<0.03	<0.01

Historical Water Quality Data - Towslee Landfill
MW-2A Total Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	79.3	0.0049 B	0.0631	1.75	0.0037 B	1.21	<0.0003	186	0.112	--	0.0719	0.104	154	0.0561	61.6	35.7	<0.0001	0.151	23.4	119	<0.0028	0.0024 B	0.004 B	0.102	0.4
Oct-97	59.1	<0.003	0.0537	1.49	0.0025 B	0.961	0.0016 B	172	0.0967	--	0.0628	0.0779	131	0.0436	53.6	31.6	<0.0001	0.132	17	102	<0.0028	0.0014 B	<0.0026	0.0866	0.278
3/22/06	--	--	--	--	--	--	<0.005	69.1	--	--	--	--	8.29	<0.005	16.6	12.2	--	--	9.29	26.3	--	--	--	--	--
5/31/06	--	--	--	--	--	--	<0.005	74.1	--	--	--	--	24	0.019	18.3	11.5	--	--	11.2	25.2	--	--	--	--	--
8/9/06	0.43	<0.05	<0.025	0.502	<0.005	0.584	<0.005	77.3	<0.005	<0.02	<0.015	0.012	6.5	<0.005	17.5	12	<0.0004	<0.01	12.3	31.4	<0.02	<0.015	<0.03	<0.015	<0.01
10/10/06	--	--	--	--	--	--	<0.005	88.5	--	--	--	--	10.1	0.006	19.4	13.6	--	--	12.7	31.4	--	--	--	--	--
3/20/07	--	--	--	--	--	--	<0.005	64.2	--	--	--	--	10.8	0.00524	15.7	9.93	--	--	9.02	19.5	--	--	--	--	--
4/26/07	--	--	--	--	--	--	<0.005	75.3	--	--	--	--	6.86	<0.003	17.9	11.7	--	--	10.8	22.9	--	--	--	--	--
7/31/07	--	--	--	--	--	--	<0.005	80.4	--	--	--	--	7.67	<0.003	18	12.7	--	--	13.3	26.1	--	--	--	--	--
10/10/07	0.444	<0.015	<0.01	0.265	<0.003	<0.5	<0.005	47.9	<0.005	<0.02	<0.02	<0.01	4.95	<0.003	11	7.05	<0.0002	<0.03	2.14	13.8	<0.005	<0.01	<0.01	<0.03	<0.01
2/1/08	1.98	<0.015	0.0145	0.377	<0.003	<0.5	<0.005	70.3	0.0177	<0.05	<0.02	<0.01	9.77	<0.003	17.1	11.2	<0.0002	<0.03	8.56	19.2	<0.005	<0.01	<0.01	<0.03	0.0101
4/16/08	--	--	--	--	--	--	<0.005	57.5	--	--	--	--	4.1	<0.003	14.3	9.3	--	--	7.56	16.5	--	--	--	--	--
7/23/08	--	--	--	--	--	--	<0.005	87.8	--	--	--	--	10.6	0.0039	20.3	13.8	--	--	12.3	25.6	--	--	--	--	--
10/24/08	--	--	--	--	--	--	<0.005	99	--	--	--	--	9.51	<0.003	23.1	15.1	--	--	15.1	25.9	--	--	--	--	--
3/12/09	--	--	--	--	--	--	<0.005	66.7	--	--	--	--	7.77	<0.003	15.1	10.7	--	--	7.48	17.8	--	--	--	--	--
6/17/09	<0.1	<0.03	<0.01	0.471	<0.003	<0.5	<0.005	87.1	<0.01	<0.01	<0.02	<0.01	8.28	<0.003	18.8	12.8	<0.0002	<0.03	12.4	23.8	<0.005	<0.01	<0.01	<0.03	<0.01
9/30/09	--	--	--	--	--	--	<0.005	78.6	--	--	--	--	5.21	<0.003	16.8	11.4	--	--	13.6	21.1	--	--	--	--	--
12/1/09	--	--	--	--	--	--	<0.005	26.5	--	--	--	--	0.827	<0.003	7.01	0.144	--	--	<5	6.59	--	--	--	--	--
1/28/10	--	--	--	--	--	--	<0.005	71.1	--	--	--	--	64.2	0.0187	27.6	11.6	--	--	12.8	15.5	--	--	--	--	--
4/27/10	--	--	--	--	--	--	<0.005	68.7	--	--	--	--	6.1	<0.003	15.4	9.79	--	--	9.42	16.3	--	--	--	--	--
7/20/10	3.37	<0.005	<0.005	0.545	<0.003	<0.5	<0.005	91.2	<0.01	<0.01	<0.02	<0.01	13	<0.003	20.6	12.2	<0.0002	<0.03	14.3	21.9	<0.003	<0.01	<0.003	<0.03	0.0269
11/12/10	--	--	--	--	--	--	<0.005	74.6	--	--	--	--	9.73	<0.003	17.9	11.1	--	--	11.9	19	--	--	--	--	--
3/22/11	--	--	--	--	--	--	<0.005	54.9	--	--	--	--	4.73	<0.003	12.9	8.18	--	--	7.2	13.5	--	--	--	--	--
5/24/11	--	--	--	--	--	--	<0.005	48.7	--	--	--	--	4.27	<0.003	11	7.05	--	--	7.47	12.5	--	--	--	--	--
3/22/11	--	--	--	--	--	--	<0.005	54.9	--	--	--	--	4.73	<0.003	12.9	8.18	--	--	7.2	13.5	--	--	--	--	--
5/24/11	--	--	--	--	--	--	<0.005	48.7	--	--	--	--	4.27	<0.003	11	7.05	--	--	7.47	12.5	--	--	--	--	--
9/20/11	--	--	--	--	--	--	<0.005	76.9	--	--	--	--	5.34	<0.003	14.8	9.08	--	--	11.4	22.1	--	--	--	--	--
12/14/11	0.317	<0.005 J	<0.005 J	0.269	<0.003	<0.5	<0.005	58.1	<0.01	<0.01	<0.02	<0.01	5.42	<0.003 J	13.1	7.78	<0.0002	<0.03	7.62	13.6	<0.003 J	<0.01	<0.003 J	<0.03	<0.01

Historical Water Quality Data - Towslee Landfill
MW-2B Total Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	2.03	<0.003	0.007 B	1.59	0.00023 B	0.355	0.0003 B	288	0.004 B	--	0.0091 B	0.0069 B	4.3	0.0044	61.7	8.24	--	0.0129 B	3 B	64.1	--	--	0.0037 B	0.0029 B	0.103
Oct-97	5.31	<0.003	0.0083 B	1.36	0.00037 B	0.292	<0.0003	245	0.0086 B	--	0.0141 B	0.0118 B	10.7	0.0058	49.9	7.43	--	0.0188 B	2.9 B	53.9	--	--	<0.0026	0.0075 B	0.0484
3/22/06	--	--	--	--	--	--	<0.005	203	--	--	--	--	0.913	<0.005	46.1	6.98	--	--	2.42	53.8	--	--	--	--	--
5/31/06	--	--	--	--	--	--	<0.005	216 E	--	--	--	--	0.836	0.009	45.3	6.8	--	--	2.25	49.7	--	--	--	--	--
8/9/06	0.18	<0.05	<0.025	1.22	<0.005	0.256	<0.005	203 E	<0.005	<0.02	<0.015	0.017	1.2	<0.005	43.5	6.63	<0.0004	<0.01	2.28	51.1	<0.02	<0.015	<0.03	<0.015	<0.01
10/10/06	--	--	--	--	--	--	<0.005	200	--	--	--	--	1.07	<0.005	42.7	6.46	--	--	2.38	51	--	--	--	--	--
3/20/07	--	--	--	--	--	--	<0.005	216	--	--	--	--	0.637	<0.003	44.8	6.42	--	--	2.74	50.9	--	--	--	--	--
4/26/07	--	--	--	--	--	--	<0.005	170	--	--	--	--	0.469	<0.003	36.3	4.93	--	--	2.14	40.8	--	--	--	--	--
7/31/07	--	--	--	--	--	--	<0.005	214	--	--	--	--	0.468	<0.003	44.1	6.6	--	--	2.44	52.3	--	--	--	--	--
10/10/07	<0.1	<0.015	<0.01	1.09	<0.003	<0.5	<0.005	195	<0.005	<0.01	<0.02	<0.01	0.323	<0.003	39.9	5.7	<0.0002	<0.03	<1	48.2	<0.005	<0.01	<0.01	<0.03	0.0469
2/1/08	0.168	<0.015	<0.01	1.18	<0.003	<0.5	<0.005	201	0.00816	<0.01	<0.02	<0.01	0.439	<0.003	42.8	6.21	<0.0002	<0.03	2.44	50.6	<0.005	<0.01	<0.01	<0.03	<0.01
4/16/08	--	--	--	--	--	--	<0.005	192	--	--	--	--	0.56	<0.003	42.4	5.96	--	--	2.2	47.4	--	--	--	--	--
7/23/08	--	--	--	--	--	--	<0.005	214	--	--	--	--	0.236	<0.003	47.1	6.49	--	--	2.23	51.4	--	--	--	--	--
10/24/08	--	--	--	--	--	--	<0.005	235	--	--	--	--	0.28	<0.003	49.1	6.84	--	--	3.13	58.2	--	--	--	--	--
3/12/09	--	--	--	--	--	--	<0.005	201	--	--	--	--	0.466	<0.003	42.9	6.5	--	--	2.44	49.3	--	--	--	--	--
6/17/09	0.235	<0.03	<0.01	1.43	<0.003	<0.5	<0.005	237	<0.01	<0.01	<0.02	<0.01	0.464	<0.003	45.9	6.63	<0.0002	<0.03	2.71	55.4	<0.005	<0.01	<0.01	<0.03	<0.01
9/30/09	--	--	--	--	--	--	<0.005	227	--	--	--	--	0.222	<0.003	45.6	6.31	--	--	<1	58.6	--	--	--	--	--
12/1/09	--	--	--	--	--	--	<0.005	178	--	--	--	--	0.235	<0.003	39.7	5.63	--	--	<5	49	--	--	--	--	--
1/28/10	--	--	--	--	--	--	<0.005	177	--	--	--	--	0.451	<0.003	40.4	5.48	--	--	<5	48.9	--	--	--	--	--
4/27/10	--	--	--	--	--	--	<0.005	202	--	--	--	--	0.329	<0.003	43.1	6.2	--	--	<5	53.1	--	--	--	--	--
7/20/10	<0.1	<0.005	<0.005	1.37	<0.003	<0.5	<0.005	216	<0.01	<0.01	<0.02	<0.01	0.149	<0.003	46.2	6.35	<0.0002	<0.03	<5	56.9	0.004	<0.01	<0.003	<0.03	<0.01
10/26/10	--	--	--	--	--	--	<0.005	207	--	--	--	--	0.273	<0.003	43	6.82	--	--	<5	65.4	--	--	--	--	--
3/22/11	--	--	--	--	--	--	<0.005	200	--	--	--	--	0.345	<0.003	42.8	6.23	--	--	<5	56.7	--	--	--	--	--
5/24/11	--	--	--	--	--	--	<0.005	172	--	--	--	--	0.312	<0.003	38.8	5.23	--	--	<5	51	--	--	--	--	--
3/22/11	--	--	--	--	--	--	<0.005	200	--	--	--	--	0.345	<0.003	42.8	6.23	--	--	<5	56.7	--	--	--	--	--
5/24/11	--	--	--	--	--	--	<0.005	172	--	--	--	--	0.312	<0.003	38.8	5.23	--	--	<5	51	--	--	--	--	--
9/20/11	--	--	--	--	--	--	<0.005	237	--	--	--	--	0.276	<0.003	43.9	5.99	--	--	<5	55.3	--	--	--	--	--
12/14/11	0.175	<0.005 J	<0.005 J	1.31	<0.003	<0.5	<0.005	212	<0.01	<0.01	<0.02	<0.01	0.333	<0.003 J	44.7	5.93	<0.0002	<0.03	<5	57.7	<0.003 J	<0.01	<0.003 J	<0.03	0.0118

Historical Water Quality Data - Towslee Landfill
MW-3A Total Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	21.7	<0.003	0.0127	0.567	0.001 B	<0.0709	<0.0003	57.8	0.0249	--	0.0121 B	0.0315	26.6	0.0077	17	0.732	--	0.0248 B	7.43	10.4	--	--	<0.0026	0.0296 B	0.112
Oct-97	2.39	0.0034 B	<0.0024	0.343	0.00013 B	0.0286 B	<0.0003	53.7	0.0022 B	--	0.0019 B	0.0076 B	3.58	<0.001	11	0.174	--	0.0038 B	1.87 B	6.54	--	--	<0.0026	0.0039 B	0.0265
3/22/06	--	--	--	--	--	--	<0.005	46.3	--	--	--	--	1.88	<0.005	9.13	0.208	--	--	0.938	5.66	--	--	--	--	--
5/31/06	--	--	--	--	--	--	<0.005	55.3	--	--	--	--	0.626	0.005	10	0.175	--	--	0.829	6.4	--	--	--	--	--
8/9/06	0.078	<0.05	<0.025	0.41	<0.005	0.063	<0.005	57.9	<0.005	<0.02	<0.015	0.023	0.104	0.005	11.2	0.416	<0.0004	<0.01	1.09	8.92	<0.02	<0.015	<0.03	<0.015	0.025
10/10/06	--	--	--	--	--	--	<0.005	48.3	--	--	--	--	0.283	<0.005	9.2	0.176	--	--	0.937	6.03	--	--	--	--	--
3/20/07	--	--	--	--	--	--	<0.005	23	--	--	--	--	1.18	<0.003	4.04	0.415	--	--	<1	2.11	--	--	--	--	--
4/26/07	--	--	--	--	--	--	<0.005	18.1	--	--	--	--	0.599	<0.003	3.1	0.501	--	--	<1	1.14	--	--	--	--	--
7/31/07	--	--	--	--	--	--	<0.005	45.1	--	--	--	--	0.231	<0.003	9.15	0.116	--	--	<1	5.1	--	--	--	--	--
10/10/07	0.33	<0.015	<0.01	0.332	<0.003	<0.5	<0.005	27.5	<0.005	<0.01	<0.02	<0.01	0.537	<0.003	4.26	0.287	<0.0002	<0.03	<1	2.64	<0.005	<0.01	<0.01	<0.03	0.0106
2/1/08	0.23	<0.015	<0.01	0.441	<0.003	<0.5	<0.005	30.2	<0.005	<0.01	<0.02	<0.01	0.451	<0.003	5.42	0.0373	<0.0002	<0.03	<1	2.9	<0.005	<0.01	<0.01	<0.03	<0.01
4/16/08	--	--	--	--	--	--	<0.005	37.6	--	--	--	--	0.574	<0.003	7.04	0.141	--	--	<1	3.52	--	--	--	--	--
7/23/08	--	--	--	--	--	--	<0.005	24.4	--	--	--	--	0.508	<0.003	3.83	0.618	--	--	1.06	2.77	--	--	--	--	--
10/24/08	--	--	--	--	--	--	<0.005	31.3	--	--	--	--	0.177	<0.003	4.8	0.0424	--	--	<1	2.69	--	--	--	--	--
3/12/09	--	--	--	--	--	--	<0.005	12.3	--	--	--	--	0.6	<0.003	1.82	0.294	--	--	<1	<1	--	--	--	--	--
6/17/09	<0.1	<0.015	<0.01	0.458	<0.003	<0.5	<0.005	59.5	<0.01	<0.01	<0.02	<0.01	0.155	<0.003	11.6	0.164	<0.0002	<0.03	<1	6.81	<0.005	<0.01	<0.01	<0.03	<0.01
9/30/09	--	--	--	--	--	--	<0.005	15.2	--	--	--	--	0.534	<0.003	<1	0.331	--	--	<1	<1	--	--	--	--	--
12/1/09	--	--	--	--	--	--	<0.005	26.2	--	--	--	--	1.44	<0.003	<5	0.597	--	--	<5	<5	--	--	--	--	--
1/28/10	--	--	--	--	--	--	<0.005	28.8	--	--	--	--	0.366	<0.003	5.17	0.568	--	--	<5	<5	--	--	--	--	--
4/27/10	--	--	--	--	--	--	<0.005	23.2	--	--	--	--	0.291	<0.003	<5	0.218	--	--	<5	<5	--	--	--	--	--
7/20/10	5.32	<0.005	<0.005	0.627	<0.003	<0.5	<0.005	57.3	<0.01	<0.01	<0.02	<0.01	6.97	<0.003	12.5	0.282	<0.0002	<0.03	<5	6.53	<0.003	<0.01	<0.003	<0.03	0.0285
10/26/10	--	--	--	--	--	--	<0.005	26.8	--	--	--	--	2.42	<0.003	<5	0.471	--	--	<5	<5	--	--	--	--	--
3/22/11	--	--	--	--	--	--	<0.005	18.3	--	--	--	--	0.232	<0.003	<5	0.575	--	--	<5	<5	--	--	--	--	--
5/24/11	--	--	--	--	--	--	<0.005	42.9	--	--	--	--	0.121	<0.003	7.25	0.704	--	--	<5	<5	--	--	--	--	--
9/20/11	--	--	--	--	--	--	<0.005	58.9	--	--	--	--	0.121	<0.003	9.72	0.635	--	--	<5	5.9	--	--	--	--	--
12/13/11	0.107	<0.005 J	<0.005 J	0.498	<0.003	<0.5	<0.005	38.6	<0.01	<0.01	<0.02	<0.01	0.345	<0.003 J	6.31	0.726	<0.0002	<0.03	<5	<5	<0.003 J	<0.01	<0.003 J	<0.03	<0.01

Historical Water Quality Data - Towslee Landfill
MW-3B Total Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	2.01	<0.003	<0.0024	0.402	0.0001 B	0.0662 B	<0.0003	73.8	0.0032 B	NA	0.002 B	0.0051 B	3.04	0.0013 B	22.8	0.12	NA	0.0036 B	2.05 B	11.2	NA	NA	<0.0026	0.003 B	0.0621
Oct-97	0.184	<0.003	<0.0024	0.291	0.00013 B	0.0626 B	<0.0003	74.4	<0.0004	NA	0.0014 B	0.0018 B	0.372	<0.001	21.5	0.0697	NA	0.0018 B	1.2 B	9.78	NA	NA	<0.0026	<0.0012	0.0155 B
9/20/11	--	--	--	--	--	--	<0.005	75.8	--	--	--	--	0.578	<0.003	20.5	0.184	--	--	<5	11.1	--	--	--	--	--
12/13/11	0.253	<0.005 J	<0.005 J	0.294	<0.003	<0.5	<0.005	70	<0.01	<0.01	<0.02	<0.01	0.344	<0.003 J	21.6	0.125	<0.0002	<0.03	<5	12.5	<0.003 J	<0.01	<0.003 J	<0.03	0.0114

Historical Water Quality Data - Towslee Landfill
MW-4A Total Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	1.61	<0.003	<0.0024	0.803	0.0001 B	0.0765 B	<0.0003	110	0.0015 B	NA	0.0036 B	0.0066 B	2.2	0.0031	24.3	1.14	NA	0.0044 B	2.01 B	13.3	NA	NA	<0.0026	0.0016 B	0.0501
Oct-97	1.32	<0.003	<0.0024	1.26	0.00013 B	0.124	0.0004 B	127	0.00093 B	NA	0.0035 B	0.0076 B	1.99	0.0024 B	26	2.15	NA	0.0063 B	2.02 B	15.7	NA	NA	<0.0026	0.0019 B	0.0238
9/20/11	--	--	--	--	--	--	<0.005	153	--	--	--	--	0.261	<0.003	27.3	1.91	--	--	<5	16.7	--	--	--	--	--
12/13/11	0.153	<0.005 J	<0.005 J	1.16	<0.003	<0.5	<0.005	128	<0.01	<0.01	<0.02	<0.01	0.174	<0.003 J	26.8	1.73	<0.0002	<0.03	<5	17.8	<0.003 J	<0.01	<0.003 J	<0.03	0.013

Historical Water Quality Data - Towslee Landfill
MW-5A Total Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	10.1	0.0045 B	0.0061 B	1.58	0.00063 B	0.0348 B	0.0042 B	45.8	0.0092	NA	0.0105 B	0.0181 B	11.5	0.0114	14.8	0.485	NA	0.011 B	3.03 B	31.6	NA	NA	<0.0026	0.0102 B	0.105
Oct-97	0.228	<0.003	<0.0024	0.502	<0.0001	0.021 B	<0.0003	32.1	<0.0004	NA	<0.0011	0.0037 B	0.46	<0.001	9.45	0.0661	NA	<0.0013	0.897 B	9.53	NA	NA	<0.0026	0.0012 B	0.0212

Historical Water Quality Data - Towslee Landfill
MW-6A Total Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	-	0.003	0.025	1	0.004	1	0.005	-	0.05	0.05	-	0.2	0.3	0.015	-	0.3	0.0007	0.1	-	20	0.01	0.05	0.002	-	5
Aug-97	59.1	0.0036 B	0.0476	1.79	0.0023 B	0.282	<0.0003	99.1	0.0859	NA	0.056	0.0973	111	0.0168	37.6	14.5	<0.0001	0.112	14.4	53.3	<0.0028	0.0013 B	<0.0026	0.0726	0.271
Oct-97	38.6	NA	0.0404	1.63	0.0017 B	0.32	0.0011 B	82.2	0.0705	NA	0.0463 B	0.0689	85.5	0.0113	28.8	12.7	<0.0001	0.0963	10.1	46.8	<0.0028	<0.0009	<0.0026	0.053	0.177
9/20/11	-	-	-	-	-	-	<0.005	66.6	-	-	-	-	0.835	<0.003	10.2	1.33	-	-	<5	19.5	-	-	-	-	-
12/13/11	0.683	<0.005 J	<0.005 J	0.327	<0.003	<0.5	<0.005	59.7	<0.01	<0.01	<0.02	<0.01	1.32	<0.003 J	10.8	1.78	<0.0002	<0.03	<5	19.8	<0.003 J	<0.01	<0.003 J	<0.03	<0.01

Historical Water Quality Data - Towslee Landfill
MW-6B Total Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	8.59	<0.003	0.009 B	0.521	0.0004 B	0.145	<0.0003	70.5	0.0092 B	--	0.0112 B	0.0116 B	10.6	0.0044	19	3.43	--	0.0144 B	4.08 B	38	--	--	<0.0026	0.0083 B	0.0894
Oct-97	0.642	<0.003	0.0084 B	0.48	0.0001 B	0.145	<0.0003	55.6	0.0017 B	--	0.0056 B	0.0051 B	3	<0.001	12.7	4.17	--	0.0059 B	2.72 B	31.4	--	--	<0.0026	0.0012 B	0.0248
3/22/06	--	--	--	--	--	--	<0.005	39.3	--	--	--	--	1.09	<0.005	8.94	0.559	--	--	1.15	14.9	--	--	--	--	--
5/31/06	--	--	--	--	--	--	<0.005	39.6	--	--	--	--	0.511	<0.005	10.9	0.12	--	--	0.825	9.93	--	--	--	--	--
8/9/06	0.115	<0.05	<0.025	0.313	<0.005	<0.05	<0.005	36.1	<0.005	<0.02	<0.015	0.016	0.306	<0.005	9.86	0.297	<0.0004	<0.01	0.634	10.1	<0.02	<0.015	<0.03	<0.015	0.014
10/10/06	--	--	--	--	--	--	<0.005	37.4	--	--	--	--	0.195	<0.005	9.71	0.185	--	--	0.69	10.7	--	--	--	--	--
3/20/07	--	--	--	--	--	--	<0.005	45.6	--	--	--	--	1.87	<0.003	10.2	0.331	--	--	1.05	11.2	--	--	--	--	--
4/26/07	--	--	--	--	--	--	<0.005	39.9	--	--	--	--	0.486	<0.003	9.68	0.0908	--	--	<1	10.2	--	--	--	--	--
7/31/07	--	--	--	--	--	--	<0.005	40.2	--	--	--	--	0.163	<0.003	9.12	0.671	--	--	<1	15	--	--	--	--	--
10/10/07	0.102	<0.015	<0.01	0.301	<0.003	<0.5	<0.005	36.7	<0.005	<0.01	<0.02	<0.01	0.216	<0.003	7.81	0.712	<0.0002	<0.03	<1	14.7	<0.005	<0.01	<0.01	<0.03	0.0213
2/1/08	0.134	<0.015	<0.01	0.337	<0.003	<0.5	<0.005	39.2	<0.005	<0.01	<0.02	<0.01	0.229	<0.003	9.37	0.327	<0.0002	<0.03	<1	13.8	<0.005	<0.01	<0.01	<0.03	0.0103
4/16/08	--	--	--	--	--	--	<0.005	39.5	--	--	--	--	0.33	<0.003	10.4	0.102	--	--	<1	12.7	--	--	--	--	--
7/23/08	--	--	--	--	--	--	<0.005	39	--	--	--	--	<0.06	<0.003	9.61	0.666	--	--	<1	18.1	--	--	--	--	--
10/24/08	--	--	--	--	--	--	<0.005	38.7	--	--	--	--	<0.06	<0.003	9.13	0.619	--	--	1.4	17.6	--	--	--	--	--
3/12/09	--	--	--	--	--	--	<0.005	39.6	--	--	--	--	0.268	<0.003	10.5	0.0257	--	--	1.01	13.1	--	--	--	--	--
6/17/09	<0.1	<0.03	<0.01	0.404	<0.003	<0.5	<0.005	42.9	<0.01	<0.01	<0.02	<0.01	0.104	<0.003	11.4	0.0585	<0.0002	<0.03	1.03	17.9	<0.005	<0.01	<0.01	<0.03	<0.01
9/30/09	--	--	--	--	--	--	<0.005	42	--	--	--	--	0.0703	<0.003	10.4	0.255	--	--	<1	18.5	--	--	--	--	--
12/1/09	--	--	--	--	--	--	<0.005	38.2	--	--	--	--	0.417	<0.003	10.4	0.167	--	--	<5	15.8	--	--	--	--	--
1/28/10	--	--	--	--	--	--	<0.005	45	--	--	--	--	0.448	<0.003	12.3	0.0606	--	--	<5	16.8	--	--	--	--	--
4/27/10	--	--	--	--	--	--	<0.005	40.6	--	--	--	--	0.226	<0.003	11	0.027	--	--	<5	14.2	--	--	--	--	--
7/20/10	<0.1	<0.005	<0.005	0.348	<0.003	<0.5	<0.005	39.9	<0.01	<0.01	<0.02	<0.01	<0.06	<0.003	10.7	0.087	<0.0002	<0.03	<5	15	<0.003	<0.01	<0.003	<0.03	<0.01
10/26/10	--	--	--	--	--	--	<0.005	40.9	--	--	--	--	0.337	<0.003	10.9	0.242	--	--	<5	17.8	--	--	--	--	--
3/22/11	--	--	--	--	--	--	<0.005	40.1	--	--	--	--	0.114	<0.003	10.8	0.0452	--	--	<5	14.1	--	--	--	--	--
5/24/11	--	--	--	--	--	--	<0.005	43.3	--	--	--	--	0.235	<0.003	10.8	0.0213	--	--	<5	17	--	--	--	--	--
9/20/11	--	--	--	--	--	--	<0.005	49.7	--	--	--	--	0.835	<0.003	11.7	0.166	--	--	<5	18.3	--	--	--	--	--
12/13/11	<0.1	<0.005 J	<0.005 J	0.414	<0.003	<0.5	<0.005	48.1	<0.01	<0.01	<0.02	<0.01	0.0989	<0.003 J	11.3	0.231	<0.0002	<0.03	<5	21.7	<0.003 J	<0.01	<0.003 J	<0.03	0.0159

Historical Water Quality Data - Towslee Landfill
MW-7A Total Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	40	<0.003	0.0176	1.36	0.0015 B	0.332	0.00047 B	234	0.0556	--	0.0311	0.0637	65.9	0.0251	67	5.87	<0.0001	0.0783	10.4	118	0.0041 B	<0.0009	<0.0026	0.0487 B	0.2
Oct-97	88.4	<0.003	0.0459	1.99	0.0037 B	0.41	0.002 B	271	0.146	--	0.0791	0.129	174	0.0585	88.3	9.55	<0.0001	0.192	13.5	113	0.0047 B	<0.0009	<0.0026	0.127	0.408
3/22/06	--	--	--	--	--	--	<0.005	171	--	--	--	--	14.5	0.0175	48.6	6.08	--	--	3.06	134	--	--	--	--	--
5/31/06	--	--	--	--	--	--	<0.005	165	--	--	--	--	1.33	0.009	45.5	5.69	--	--	1.91	129	--	--	--	--	--
8/9/06	0.415	<0.05	<0.025	0.684	<0.005	0.55	<0.005	150	<0.005	<0.02	<0.015	0.013	0.722	0.006	38	4.4	<0.0004	0.013	1.81	124	<0.02	<0.015	<0.03	<0.015	<0.01
10/10/06	--	--	--	--	--	--	<0.005	148	--	--	--	--	2.78	<0.005	38	4.85	--	--	2.03	128	--	--	--	--	--
3/20/07	--	--	--	--	--	--	<0.005	149	--	--	--	--	1.68	<0.003	38.4	4.51	--	--	2.03	112	--	--	--	--	--
4/26/07	--	--	--	--	--	--	<0.005	140	--	--	--	--	1.52	<0.003	36.4	4.18	--	--	1.95	104	--	--	--	--	--
7/31/07	--	--	--	--	--	--	<0.005	135	--	--	--	--	9.97	0.00656	35	3.98	--	--	2.87	95.8	--	--	--	--	--
10/10/07	2.43	<0.015	<0.01	0.576	<0.003	0.65	<0.005	131	<0.005	<0.01	<0.02	<0.01	3.65	<0.003	32.1	3.47	<0.0002	<0.03	<1	95.2	<0.005	<0.01	<0.01	<0.03	0.0263
2/1/08	0.919	<0.015	<0.01	0.68	<0.003	0.588	<0.005	148	0.00667	<0.05	<0.02	<0.01	1.68	<0.003	38.4	4.17	<0.0002	<0.03	1.85	104	<0.005	<0.01	<0.01	<0.03	0.0102
4/16/08	--	--	--	--	--	--	<0.005	139	--	--	--	--	1.99	<0.003	38.5	4.34	--	--	1.98	99.6	--	--	--	--	--
7/23/08	--	--	--	--	--	--	<0.005	150	--	--	--	--	0.342	<0.003	39.5	4.82	--	--	1.82	113	--	--	--	--	--
10/24/08	--	--	--	--	--	--	<0.005	162	--	--	--	--	1.16	<0.003	39.8	4.57	--	--	2.41	116	--	--	--	--	--
3/12/09	--	--	--	--	--	--	<0.005	140	--	--	--	--	0.322	<0.003	35.8	4.31	--	--	1.62	97	--	--	--	--	--
6/17/09	9.56	<0.03	<0.01	0.714	<0.003	<0.5	<0.005	150	<0.01	<0.01	<0.02	<0.01	10.1	<0.003	38.7	4.21	<0.0002	<0.03	3.58	103	<0.005	<0.01	<0.01	<0.03	0.0297
9/30/09	--	--	--	--	--	--	<0.005	144	--	--	--	--	0.108	<0.003	34	3.8	--	--	<1	110	--	--	--	--	--
12/1/09	--	--	--	--	--	--	<0.005	131	--	--	--	--	1.19	<0.003	35.3	3.68	--	--	<5	105	--	--	--	--	--
1/28/10	--	--	--	--	--	--	<0.005	139	--	--	--	--	3.95	<0.003	38.8	3.87	--	--	<5	112	--	--	--	--	--
4/27/10	--	--	--	--	--	--	<0.005	122	--	--	--	--	0.469	<0.003	31.4	3.85	--	--	<5	109	--	--	--	--	--
7/20/10	1.52	<0.005	<0.005	0.556	<0.003	<0.5	<0.005	147	<0.01	<0.01	<0.02	<0.01	1.71	<0.003	36.9	3.82	<0.0002	<0.03	<5	110	<0.003	<0.01	<0.003	<0.03	<0.01
10/26/10	--	--	--	--	--	--	<0.005	143	--	--	--	--	3.06	<0.003	36.4	4.5	--	--	<5	127	--	--	--	--	--
3/22/11	--	--	--	--	--	--	<0.005	136	--	--	--	--	0.162	<0.003	35	4.33	--	--	<5	110	--	--	--	--	--
5/24/11	--	--	--	--	--	--	<0.005	130	--	--	--	--	0.418	<0.003	34.4	3.8	--	--	<5	114	--	--	--	--	--
9/20/11	--	--	--	--	--	--	0.258	173	--	--	--	--	4.66	0.00321	37.2	4.86	--	--	<5	114	--	--	--	--	--
12/13/11	2.12	<0.005 J	<0.005 J	0.601	<0.003	0.53	<0.005	146	<0.01	<0.01	<0.02	<0.01	3.03	<0.003 J	33.9	3.57	<0.0002	<0.03	<5	104	<0.003 J	<0.01	<0.003 J	<0.03	0.0156

Historical Water Quality Database - Towslee Landfill
 CD-1 - Dissolved Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
	No dissolved metals data to date																								

Historical Water Quality Database - Towslee Landfill
CD-1RA - Dissolved Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	0.0198 B	<0.003	<0.0024	0.163 B	<0.0001	0.0199 B	<0.0003	40.7	<0.0004	--	<0.0011	0.0026 B	0.0238 B	--	9.65	0.168	--	<0.0013	0.911 B	5.5	--	--	--	--	0.0825
Oct-97	0.0442 B	<0.003	<0.0024	0.173 B	0.00067 B	0.0285 B	0.00063 B	39.5	<0.0012	--	<0.0011	0.0012 B	0.0394 B	--	8.3	0.148	--	<0.0013	0.951 B	5.29	--	--	--	--	0.0148 B
9/20/11	--	--	--	--	--	--	<0.005	41	--	--	--	--	0.0795	<0.003	7.56	0.0636	--	--	<5	5.23	--	--	--	--	--

Historical Water Quality Database - Towslee Landfill
MW-1A - Dissolved Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	0.0163 B	--	<0.0024	0.137 B	<0.0001	0.0631 B	<0.0003	67.6	<0.0004	--	<0.0011	0.0008 B	0.0348 B	0.0052	15.4	0.22	0.0014	<0.0013	10.6	59.3	--	--	<0.0026	<0.0012	0.12
Oct-97	0.0407 B	--	<0.0024	0.068 B	<0.0001	0.0561 B	<0.0003	40.3	<0.0004	--	<0.0011	<0.0007	0.0471 B	<0.001	8.69	0.174	<0.0001	<0.0013	4.92 B	27.1	--	--	<0.0026	<0.0012	0.0161 B
3/22/06	--	--	--	--	--	--	<0.005	40.7	--	--	--	--	13.5	<0.005	10.4	0.238	--	--	2.52	14.7	--	--	--	--	--
5/31/06	--	--	--	--	--	--	<0.005	38.9	--	--	--	--	0.315	0.005	8.12	0.127	--	--	1.38	12.3	--	--	--	--	--
8/9/06	0.066	<0.05	<0.025	0.066	<0.005	<0.07	<0.005	38.6	<0.005	--	<0.015	0.013	0.125	<0.005	8.18	0.248	<0.0004	<0.01	1.31	13	<0.02	<0.015	<0.03	<0.015	0.033
3/20/07	--	--	--	--	--	--	<0.005	40.3	--	--	--	--	<0.06	<0.003	8.83	<0.01	--	--	1.72	12.3	--	--	--	--	--

Historical Water Quality Database - Towslee Landfill
MW-1B - Dissolved Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	0.0146 B	<0.003	<0.0024	0.151 B	<0.0001	0.0195 B	<0.0003	24.8	0.0008 B	--	<0.0011	<0.0007	0.0172 B	--	6.62	0.141	--	<0.0013	1.63 B	7.53	--	--	--	--	0.0396
Oct-97	0.0209 B	<0.003	<0.0024	0.155 B	<0.0001	0.0162 B	<0.0003	24.5	0.00073 B	--	<0.0011	<0.0007	0.0141 B	--	5.88	0.134	--	<0.0013	0.514 B	6.59	--	--	--	--	0.0152 B
3/22/06	--	--	--	--	--	--	<0.005	22.8	--	--	--	--	0.339	<0.005	5.15	0.0136	--	--	0.487	4.75	--	--	--	--	--
8/9/06	0.195	<0.05	<0.025	0.162	<0.005	<0.07	<0.005	24.4	<0.005	--	<0.015	0.013	0.339	<0.005	5.54	0.135	<0.0004	<0.01	0.403	5.31	<0.02	<0.015	<0.03	<0.015	0.029
3/20/07	--	--	--	--	--	--	<0.005	24.5	--	--	--	--	<0.06	<0.003	5.88	<0.01	--	--	<1	5.73	--	--	--	--	--

Historical Water Quality Database - Towslee Landfill
MW-2A - Dissolved Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	-	0.003	0.025	1	0.004	1	0.005	-	0.05	0.05	-	0.2	0.3	0.015	-	0.3	0.0007	0.1	-	20	0.01	0.05	0.002	-	5
Aug-97	<0.0083	--	0.0123	0.787	0.00017 B	1.21	0.00053 B	183	0.0035 B	--	0.0107 B	0.0162 B	5.4	<0.001	41	30.4	<0.0001	0.0179 B	17.5	121	--	--	0.003 B	<0.0012	0.117
Oct-97	0.0482 B	--	0.0139	0.786	0.0001 B	0.992	<0.0003	183	0.0057 B	--	0.0095 B	<0.0007	11.5	0.0011 B	38.5	30.9	<0.0001	0.0162 B	14.2	115	--	--	<0.0026	<0.0012	0.0207
8/9/06	0.044	<0.05	<0.025	0.427	<0.005	0.562	<0.005	77.6	<0.005	-	<0.015	0.015	0.204	<0.005	17.1	12.1	<0.0004	<0.01	12.5	29.6	<0.02	<0.015	<0.03	<0.015	0.013

Historical Water Quality Database - Towslee Landfill
 MW-2B - Dissolved Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	0.0179 B	<0.003	0.0036 B	1.55	<0.0001	0.334	<0.0003	281	0.0009 B	--	0.0067 B	0.0022 B	0.582	--	61.7	8.07	--	0.0093 B	2.8 B	62.5	--	--	--	--	0.0635
Oct-97	0.0154 B	<0.003	<0.0024	1.45	<0.0001	0.321	<0.0003	274	0.0014 B	--	0.0061 B	<0.0007	0.595	--	55	8	--	0.0097 B	2.34 B	62.8	--	--	--	--	0.023

Historical Water Quality Database - Towslee Landfill
 MW-3A - Dissolved Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	<0.0083	0.0038 B	<0.0024	0.242	<0.0001	0.0324 B	<0.0003	57.9	<0.0004	--	<0.0011	0.0024 B	0.0061 B	--	12.9	0.123	--	<0.0013	2.75 B	10.2	--	--	--	--	0.0249
Oct-97	0.0158	<0.003	<0.0024	0.276	<0.0001	0.0275 B	<0.0003	54.6	<0.0004	--	<0.0011	0.00083 B	0.0114 B	--	10.9	0.0941	--	0.0017 B	1.42 B	7.98	--	--	--	--	0.0387
3/22/06	--	--	--	--	--	--	<0.005	44.3	--	--	--	--	0.168	<0.005	8.7	0.0963	--	--	0.803	4.83	--	--	--	--	--

Historical Water Quality Database - Towslee Landfill
 MW-3B - Dissolved Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	0.016 B	<0.003	<0.0024	0.257	0.0001 B	0.0531 B	<0.0003	73.2	<0.0004	--	<0.0011	0.0024 B	0.0091 B	--	23	0.0617	--	<0.0013	1.62 B	11.1	--	--	--	--	0.0375
Oct-97	0.0273 B	<0.003	<0.0024	0.271	<0.0001	0.0559 B	<0.0003	71.9	<0.0004	--	<0.0011	0.0007 B	0.0191 B	--	20.9	0.0553	--	0.0014 B	1.27 B	10.2	--	--	--	--	0.0155 B

Historical Water Quality Database - Towslee Landfill
 MW-4A - Dissolved Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	0.0173 B	<0.003	<0.0024	0.686	0.0001 B	0.073 B	<0.0003	112	<0.0004	--	0.0024 B	0.0069 B	0.005 B	--	25.2	1.08	--	0.0021 B	1.71 B	13.5	--	--	--	--	0.0393
Oct-97	0.0228 B	<0.003	<0.0024	1.06	<0.0001	0.12	<0.0003	129	<0.0004	--	0.0022 B	0.0011 B	0.0372 B	--	26.1	2.08	--	0.0051 B	1.93 B	16.1	--	--	--	--	0.0166 B

Historical Water Quality Database - Towslee Landfill
 MW-5A - Dissolved Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	<0.0083	0.0059 B	<0.0024	0.267	<0.0001	0.028 B	<0.0003	41.2	<0.0004	--	0.0014 B	0.0057 B	0.0081 B	--	12.6	0.0951	--	<0.0013	1.19 B	31.9	--	--	--	--	0.0262
Oct-97	0.019 B	<0.003	<0.0024	0.396	<0.0001	0.0218 B	<0.0003	34.1	0.0004 B	--	<0.0011	<0.0007	0.0117 B	--	10.2	0.0433	--	<0.0013	0.84 B	10.3	--	--	--	--	0.0182 B

Historical Water Quality Database - Towslee Landfill
MW-6A - Dissolved Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	0.0142 B	--	0.0198	0.847	0.0001 B	0.284	<0.0003	104	0.0019 B	--	0.0063 B	0.0014 B	7.81	<0.001	21	14.1	--	0.0096 B	7.64	55.4	--	--	<0.0026	<0.0012	0.047
Oct-97	0.0382 B	--	0.0189	0.88	--	0.333	<0.0003	88.7	0.0027 B	--	0.006 B	0.00077 B	8.07	<0.001	17.3	12.9	--	0.0108 B	7.4	55	--	--	<0.0026	<0.0012	0.0219

Historical Water Quality Database - Towslee Landfill
 MW-6B - Dissolved Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	<0.0083	<0.003	0.0048 B	0.396	<0.0001	0.125	<0.0003	67.7	<0.0004	--	0.0052 B	0.0011 B	0.346	--	17.3	3.3	--	0.0046 B	2.97 B	38.2	--	--	--	--	0.0651
Oct-97	0.0132 B	<0.003	0.0073 B	0.478	<0.0001	0.14	<0.0003	56.3	0.00087 B	--	0.0041 B	<0.0007	1.42	--	12.9	3.99	--	0.0048 B	2.77 B	33.3	--	--	--	--	0.0207
3/20/07	--	--	--	--	--	--	<0.005	45.6	--	--	--	--	<0.06	<0.003	10.6	0.137	--	--	1.19	12.1	--	--	--	--	--

Historical Water Quality Database - Towslee Landfill
MW-7A - Dissolved Metals (all values in mg/l)

Water Quality Stand.	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Chromium, Hex	Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Mercury	Nickel	Potassium	Sodium	Selenium	Silver	Thallium	Vanadium	Zinc
	--	0.003	0.025	1	0.004	1	0.005	--	0.05	0.05	--	0.2	0.3	0.015	--	0.3	0.0007	0.1	--	20	0.01	0.05	0.002	--	5
Aug-97	<0.0083	--	<0.0024	0.822	0.0001 B	0.331	0.0003 B	220	0.0008 B	--	0.0017 B	0.0086 B	0.009 B	<0.001	56.2	4.53	<0.0001	0.0129 B	5.28	120	--	--	<0.0026	<0.0012	0.0455
Oct-97	0.0755 B	--	<0.0024	0.887	<0.0001	0.396	<0.0003	255	0.0011 B	--	0.0031 B	<0.0007	0.753	<0.001	59.9	7.12	<0.0001	0.0196 B	3.98 B	129	--	--	<0.0026	<0.0012	0.0186
3/22/06	--	--	--	--	--	--	<0.005	158	--	--	--	--	0.0637	<0.005	43.6	5.35	--	--	1.9	126	--	--	--	--	--
6/17/09	<0.1	<0.03	<0.01	0.599	<0.003	--	<0.005	140	<0.01	--	<0.02	<0.01	<0.06	<0.003	34.1	3.78	<0.0002	<0.03	1.82	97.2	<0.005	<0.01	<0.01	<0.03	0.0228
7/20/10	<0.1	<0.005	<0.005	0.477	<0.003	--	<0.005	129	<0.01	--	<0.02	<0.01	<0.06	<0.003	31.6	2.57	<0.0002	<0.03	<5	91.6	<0.003	<0.01	<0.003	<0.03	0.0102
10/26/10	--	--	--	--	--	--	<0.005	120	--	--	--	--	0.0978	<0.003	31.5	3.26	--	--	<5	105	--	--	--	--	--
5/24/11	--	--	--	--	--	--	<0.005	126	--	--	--	--	<0.06	<0.003	33.6	3.04	--	--	<5	113	--	--	--	--	--
9/20/11	--	--	--	--	--	--	<0.005	172	--	--	--	--	<0.06	<0.003	34.3	4.39	--	--	<5	104	--	--	--	--	--

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well CD-1 - Overburden

Water Quality Standard	Vinyl Chloride		Chloroethane		Acetone		Methylene Chloride		trans-1,2-Dichloroethene		cis-1,2-Dichloroethene		1,1-Dichloroethane		Benzene		Toluene		Chlorobenzene		Ethylbenzene		Xylenes(total)		1,4-Dichlorobenzene	
	2	5	50	5	5	5	5	5	5	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
Aug-97	<10	<10	10	2JB	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Oct-97	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
12/12/11	<5	<5	<10	J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well CD-1RA - Bedrock

Water Quality Standard	Vinyl Chloride		Chloroethane		Acetone		Methylene Chloride		trans-1,2-Dichloroethene		cis-1,2-Dichloroethene		1,1-Dichloroethane		Benzene		Toluene		Chlorobenzene		Ethylbenzene		Xylenes(total)		1,4-Dichlorobenzene	
	2	5	50	5	5	5	5	5	5	1	5	5	5	5	1	5	5	5	5	5	5	5	5	5	5	5
Aug-97	<10	<10	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Oct-97	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
12/12/11	<5	<5	<10 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-1A - Overburden

Water Quality Standard	Vinyl Chloride	Chloroethane	Acetone	Methylene Chloride	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethane	Benzene	Toluene	Chlorobenzene	Ethylbenzene	Xylenes(total)	1,4-Dichlorobenzene
	2	5	50	5	5	5	5	1	5	5	5	5	5
Aug-97	<10	<10	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Oct-97	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
8/9/06	<5	<5	<25	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5
10/9/07	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6/17/09	< 5	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
7/20/10	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
12/13/11	<5	<5	<10 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-1B - Bedrock

Water Quality Standard	Vinyl Chloride		Chloroethane	Acetone	Methylene Chloride	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethane	Benzene	Toluene	Chlorobenzene	Ethylbenzene	Xylenes(total)	1,4-Dichlorobenzene
	2	5	50	5	5	5	5	5	1	5	5	5	5	5
Aug-97	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Oct-97	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
8/9/06	<5	<5	<25	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5
10/9/07	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2/1/08	<5	<5	<10	13 B	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6/17/09	< 5	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
7/20/10	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
12/13/11	<5	<5	<10 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-2A - Overburden

Water Quality Standard	Vinyl Chloride	Chloroethane	Acetone	Methylene Chloride	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethane	Benzene	Toluene	Chlorobenzene	Ethylbenzene	Xylenes(total)	1,4-Dichlorobenzene
	2	5	50	5	5	5	5	1	5	5	5	5	5
Aug-97	<10	5 J	<10	1 JB	<10	<10	<10	5 J	1 J	5 J	2 J	5 J	1 J
Oct-97	<10	4 J	<10	<10	<10	<10	<10	6 J	<10	<10	<10	<10	2 J
8/9/06	<5	<5	<25	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5
10/9/07	<5	<5	<10	<5	<5	<5	<5	<5	<5	4 J	<5	<5	<5
2/1/08	<5	<5	<10	12 B	<5	<5	<5	<5	<5	<5	<5	<5	<5
6/17/09	<5	<5	<10	<5	<5	<5	<5	<5	<5	3 J	<5	<5	<5
7/20/10	<5	<5	<10	<5	<5	<5	<5	<5	<5	3 J	<5	<5	<5
12/13/11	<5	<5	<10 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-2B - Bedrock

Water Quality Standard	Vinyl Chloride 2	Chloroethane 5	Acetone 50	Methylene Chloride 5	trans-1,2-Dichloroethene 5	cis-1,2-Dichloroethene 5	1,1-Dichloroethane 5	Benzene 1	Toluene 5	Chlorobenzene 5	Ethylbenzene 5	Xylenes(total) 5	1,4-Dichlorobenzene 5
Aug-97	<10	4 J	<10	1 JB	1 J	1 J	1 J	<10	<10	<10	<10	<10	<10
Oct-97	<10	3 J	<10	<10	<10	<10	1 J	2 J	<10	1 J	<10	<10	<10
8/9/06	<5	<5	<25	<5	<5	6.2	<5	<5	<5	<5	<5	<10	<5
10/9/07	5.8	4 J	<10	<5	<5	9.2	<5	<5	<5	<5	<5	<5	<5
2/1/08	<5	<5	<10	11 B	<5	9.4	<5	<5	<5	<5	<5	<5	<5
6/17/09	12	5.9	< 10	< 5	< 5	19	< 5	< 5	< 5	< 5	< 5	< 5	< 5
7/20/10	13	7	<10	<5	<5	19	<5	<5	<5	<5	<5	<5	<5
12/13/11	<5	3 J	<10 J	<5	<5	16	<5	<5	<5	<5	<5	<5	<5

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-3A - Bedrock

Water Quality Standard	Vinyl Chloride		Chloroethane	Acetone	Methylene Chloride	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethane	Benzene	Toluene	Chlorobenzene	Ethylbenzene	Xylenes(total)	1,4-Dichlorobenzene
	2	5	50	5	5	5	5	5	1	5	5	5	5	5
Aug-97	<10	<10	2 J	5 JB	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Oct-97	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
8/9/06	<5	<5	<25	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5
10/9/07	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2/1/08	<5	<5	<10	11 B	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6/17/09	< 5	< 5	24	< 5	< 5	< 5	< 5	< 5	< 5	82	< 5	< 5	< 5	< 5
7/20/10	<5	<5	<10	<5	<5	<5	<5	<5	<5	77 J	<5	<5	<5	<5
12/12/11	<5	<5	<10 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-3B - Bedrock

Water Quality Standard	Vinyl Chloride		Chloroethane		Acetone		Methylene Chloride		trans-1,2-Dichloroethene		cis-1,2-Dichloroethene		1,1-Dichloroethane		Benzene		Toluene		Chlorobenzene		Ethylbenzene		Xylenes(total)		1,4-Dichlorobenzene	
	2	5	50	5	5	5	5	5	5	1	5	5	5	1	5	5	5	5	5	5	5	5	5	5	5	
Aug-97	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Oct-97	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
12/12/11	<5	<5	<10	J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-4A - Bedrock

Water Quality Standard	Vinyl Chloride		Chloroethane		Acetone		Methylene Chloride		trans-1,2-Dichloroethene		cis-1,2-Dichloroethene		1,1-Dichloroethane		Benzene		Toluene		Chlorobenzene		Ethylbenzene		Xylenes(total)		1,4-Dichlorobenzene	
	2	5	50	5	5	5	5	5	5	1	5	5	5	5	1	5	5	5	5	5	5	5	5	5	5	5
Aug-97	<10	<10	<10	6JB	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Oct-97	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
12/12/11	<5	<5	<10	J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-5A - Bedrock

Water Quality Standard	Vinyl Chloride		Chloroethane		Acetone		Methylene Chloride		trans-1,2-Dichloroethene		cis-1,2-Dichloroethene		1,1-Dichloroethane		Benzene		Toluene		Chlorobenzene		Ethylbenzene		Xylenes(total)		1,4-Dichlorobenzene	
	2	5	50	5	5	5	5	5	5	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
Aug-97	<10	<10	<10	7JB	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Oct-97	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	

Historical Water Quality Database - Towslee Landfill

Organics (ug/l) (includes only detected compounds)

Well MW-6A - Overburden

Water Quality Standard	Vinyl Chloride	Chloroethane	Acetone	Methylene Chloride	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethane	Benzene	Toluene	Chlorobenzene	Ethylbenzene	Xylenes(total)	1,4-Dichlorobenzene
	2	5	50	5	5	5	5	1	5	5	5	5	5
Aug-97	<10	<10	<10	<10	<10	<10	1J	<10	<10	<10	<10	<10	<10
Oct-97	<10	1J	<10	<10	<10	<10	1J	<10	<10	<10	<10	<10	<10
12/12/11	<5	<5	<10 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

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

Water Quality Standard	Vinyl Chloride		Chloroethane	Acetone	Methylene Chloride	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethane	Benzene	Toluene	Chlorobenzene	Ethylbenzene	Xylenes(total)	1,4-Dichlorobenzene
	2	5	50	5	5	5	5	5	1	5	5	5	5	5
Aug-97	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Oct-97	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
8/9/06	<5	<5	<25	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5
10/9/07	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2/1/08	<5	<5	<10	12 B	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
6/17/09	< 5	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
7/20/10	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
12/12/11	<5	<5	<10 J	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

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

Water Quality Standard	Vinyl Chloride	Chloroethane	Acetone	Methylene Chloride	trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	1,1-Dichloroethane	Benzene	Toluene	Chlorobenzene	Ethylbenzene	Xylenes(total)	1,4-Dichlorobenzene
	2	5	50	5	5	5	5	1	5	5	5	5	5
Aug-97	2 J	<10	<10	1 JB	1 J	1 J	3 J	<10	<10	<10	<10	<10	<10
Oct-97	5 J	1 J	<10	<10	2 J	2 J	4 J	<10	<10	<10	<10	<10	<10
8/9/06	<5	<5	<25	<5	<5	7.1	6.1	<5	<5	<5	<5	<10	<5
10/9/07	4 J	<5	<10	<5	<5	6.1	5 J	<5	<5	<5	<5	<5	<5
2/1/08	8.2	<5	<10	<5	<5	9	7.9	<5	<5	<5	<5	<5	<5
6/17/09	5.7	< 5	< 10	< 5	< 5	5.4	5 J	< 5	< 5	< 5	< 5	< 5	< 5
7/20/10	4 J	<5	11	<5	<5	5 J	4 J	<5	<5	<5	<5	<5	<5
12/12/11	4 J	<5	<10 J	<5	<5	5 J	4 J	<5	<5	<5	<5	<5	<5

Appendix C

Landfill Gas Testing Results

Cortland County Towslee Landfill

Cortland County Gas Monitoring

Date: 12/16/2011

LOCATION	%O2	%LEL
AA-1	20.9	0.00%
AA-2	20.8	0.00%
AA-3	20.9	0.00%
AA-4	20.9	0.00%
AA-5	20.9	0.00%
AA-6A	20.9	0.00%
AA-7A	20.9	0.00%
AA-8	20.9	0.00%
AA-9	20.7	0.00%
AA-10	20.6	0.00%
AA-11	20.6	0.00%
AA-12	20.8	0.00%
AA-13	20.9	0.00%
AA-14	20.9	0.00%
AA-15	20.9	0.00%
AA-16	20.8	0.00%
AA-17	20.6	0.00%
AA-6B	20.9	0.00%
AA-7B	20.9	0.00%
GW-1	20.7	0.00%
GFD-1	20.8	0.00%
GFD-2	20.7	0.00%
GFLD-1	20.7	0.00%
GFLD-2	20.7	0.00%
GFLD-3	20.7	0.00%
AA @ Basement Door	20.7	0.00%
AA @ Basement Grate	20.6	0.00%
AAMW-1A	20.9	0.00%
AAMW-1B	20.9	0.00%
AAMW-2A	20.7	0.00%
AAMW-2B	20.7	0.00%
AAMW-3A	20.8	0.00%
AAMW-3B	20.9	0.00%
AAMW-4A	20.9	0.00%
AAMW-5A	20.6	0.00%
AAMW-6A	20.9	0.00%
AAMW-6B	20.8	0.00%
AAMW-7A	20.7	0.00%
AACD-1	20.7	0.00%
AACD-1RA	20.8	0.00%

Measured By:
Meter:

Dan Aumell
V-RAE multi-gas meter

