



## *Cortland County Soil and Water Conservation District*

Room 202, 100 Grange Place • Cortland, New York 13045  
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**SWCD** ...established to promote the conservation and wise use of our county's natural resources

February 6, 2007

Joe Yavonditte  
Chief, Remedial Section B  
Remedial Bureau A  
Div. of Environmental Remediation  
625 Broadway  
Albany, NY 12233-7015



Dear Mr. Yavonditte:

Enclosed is a report summarizing groundwater monitoring activities at the Towslee Landfill in Cortland County. The report covers data collected in Quarters 1 through 4 of 2006. Cortland County Soil and Water Conservation District prepared this report for Don Chambers, Superintendent of Cortland County Highway Department. We plan to conduct the same scope of monitoring in 2007 as was conducted in 2006.

Please contact our office at (607) 753-0851 x3, or Don Chambers at (607) 753-9377, if you have any questions.

Sincerely,

Patrick Reidy  
Water Quality Specialist

cc: Don Chambers  
Tim DiGiulio, NYSDEC Region 7  
Jim Burke, NYSDEC Region 7  
Amanda Barber, SWCD/files

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# Environmental Monitoring Report 2006 Quarters 1 through 4

## Cortland County Towslee Landfill

Town Line Road  
Cortland County, New York

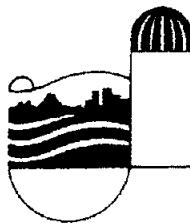
NYSDEC Region 7

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 2006, including Quarters 1, 2, 3 and 4.

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

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

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

Buck Laboratories, Inc. (herein referred to as Buck Labs) conducted all sample collection activities, and performed all laboratory analyses for Quarters 1 through 4. Water quality analyses were conducted in accordance with 1998 Part 360 regulations. SWCD performed data analysis and prepared this report.

## 2.0 Site History

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

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

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

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

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

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

### 3.0 Monitoring Schedule and Locations

#### 3.1 Schedule

<u>Quarter</u>	<u>Analyses</u>	<u>Date Sampled</u>
First Quarter:	Routine	April 11, 2006
Second Quarter:	Routine	May 31, 2006
Third Quarter:	Baseline	August 9, 2006
Fourth Quarter:	Routine	October 10, 2006

#### 3.2 Groundwater Monitoring Locations

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

<u>Bedrock</u>	<u>Overburden</u>
MW-1B	MW-1A
MW-2B	MW-2A
MW-3A	MW-7A
MW-6B	

## 4.0 Assessment of Monitoring Results

This section provides an evaluation of groundwater monitoring results for Quarters 1 through 4 of 2006. 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 B contains the Quarter 3 laboratory analytical report.
- Appendix C contains the Quarter 4 laboratory analytical report.
- Appendix D contains tables of historical water quality data through the latest monitoring round.

(note that the laboratory reports for Quarters 1 and 2 were provided in a previous report)

### 4.1 Contraventions of Water Quality Standards

This subsection compares 2006 groundwater quality data to NYS water quality standards.

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

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

Tables 4 and 5 summarize water quality results for Quarter 3.

Tables 6 and 7 summarize water quality results for Quarter 4.

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

pH - 2006 contraventions were as follows:

Quarter 1 - MW-2A (6.4) and MW-2B (6.4).

Quarter 2 - MW-2A (6.4), MW-2B (6.4) and MW-7A (6.4).

Quarter 3 - MW-2A (6.15), MW-2B (6.35) and MW-7A (6.34).

Quarter 4 - MW-2A (6.41).

These results are slightly outside the range of the NYS water quality standard for pH (6.5 to 8.5).

Color - Color for MW-2A in Quarter 3 was 33, above the NYS water quality standard of 5.

Turbidity - Turbidity for all seven wells exceeded the NYS standard of 5 NTU in all four Quarters in 2006. Quarter 1 results ranged from 17.3 to 660 NTU. Quarter 2 results ranged from 11.9 to 73 NTU. Quarter 3 results ranged from 5.2 to 195 NTU. Quarter 4 results ranged from 7.2 to 42 NTU. Based on separate monitoring conducted at the closed Pine Tree Landfill, and the active West Side Landfill, these exceedances appear to be related to natural groundwater conditions in this area.

Total Dissolved Solids (TDS) - The TDS standard of 500 mg/l was exceeded for the same two wells in each Quarter in 2006. TDS for MW-2B ranged from 980 to 1,040 mg/l in 2006. TDS for MW-7A ranged from 949 to 967 mg/l in 2006.

Ammonia - The ammonia standard of 2 mg/l was exceeded at a single well (MW-2A) in all four Quarters of 2006. Ammonia at MW-2 ranged from 10.6 to 18.4 mg/l in 2006.

Total Phenol - Phenol was below the detection limit for all wells during all four Quarters, with two exceptions: in Quarter 2 phenol was detected at 0.007 mg/l for MW-7A, and in Quarter it was detected at 0.1 mg/l for MW-2B. Each of these is above the NYS standard of 0.001 mg/l.

Total Barium - The NYS standard for barium is 1 mg/l. This was slightly exceeded for one well (MW-2B at 1.22 mg/l) in Quarter 3.

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

In Quarter 1 all seven wells exceeded the standard, ranging from 0.339 to 19.4 mg/l.

In Quarter 2 all seven wells exceeded the standard, ranging from 0.551 to 24 mg/l.

In Quarter 3, six of seven wells exceeded the standard, ranging from 0.306 to 6.5 mg/l.

In Quarter 4, four of seven wells exceeded the standard, ranging from 1.06 to 10.1 mg/l.

Due to turbidity levels above 50 NTU, dissolved metals testing was conducted at one or more wells in Quarters 1, 2 and 3. Dissolved iron levels were significantly lower than total iron. This suggests that elevated levels are at least in part due high turbidity levels and associated solids in the samples. Also note that the NYS standard for iron is based on the dissolved form.

Total Lead - In Quarter 2, total lead at Well MW-2A was 0.019 mg/l, slightly exceeding the water quality standard for lead of 0.015 mg/l. Total lead at MW-2A was below the detection limit of 0.005 mg/l for the other three Quarters. No other contraventions of the lead standard were observed in 2006.

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

In Quarter 1 six of seven wells exceeded the standard, ranging from 0.534 to 12.2 mg/l.

In Quarter 2 three of seven wells exceeded the standard, ranging from 5.69 to 11.5 mg/l.

In Quarter 3, five of seven wells exceeded the standard, ranging from 0.38 to 12 mg/l.

In Quarter 4, four of seven wells exceeded the standard, ranging from 0.306 to 13.6 mg/l.

Due to turbidity levels above 50 NTU, dissolved metals testing was conducted at one or more wells in Quarters 1, 2 and 3. Dissolved manganese levels were somewhat lower than total manganese.

Sodium - The NYS sodium standard of 20 mg/l was exceeded at the same three wells (MW-2A, MW-2B and MW-7A) in all four Quarters in 2006. Results were consistent from Quarter to Quarter, with MW-2A about 25-30 mg/l, MW-2B about 50 mg/l, and MW-7A about 120-130 mg/l. Elevated sodium may be partially related to road salting in winter months.

Volatile Organic Compounds (VOCs) - VOCs were analyzed for each well during Quarter 3. All results were below the detection limit except:

MW-2B	cis-1,2-Dichloroethene	6.2 mg/l
MW-7A	cis-1,2-Dichloroethene	7.1 mg/l
MW-7A	1,1-Dichloroethane	6.1 mg/l

Each of these slightly exceeds the NYS water quality standard of 5 mg/l.

There were no other contraventions of NYS water quality standards during the four monitoring rounds conducted in 2006.

## 4.2 Trends

The seven wells that are monitored as part of this program were previously sampled by B&L twice in 1997. To track water quality trends, SWCD has compiled a historical database for these seven wells that contains the two rounds conducted in 1997, and the four rounds conducted in 2006. The historical database is included in Appendix D.

In general, groundwater quality has improved downgradient of the Towslee landfill between 1997 and 2006. For most water quality parameters, there has been a significant decrease in concentration in 2006 compared to 1997 monitoring. There continues to be evidence of mild landfill leachate contamination, but less so than in the past.

### 4.2.1 Trends for Conventionals

Figure 2 compares groundwater quality data for conventional parameters for the seven monitoring wells tested in 2006 to results for the same wells measured in 1997. The data represent the average concentration of two sampling events conducted in 1997 and the average concentration of the four events conducted in 2006. For results that were below the detection limit, the average concentration assumes the result is equal to the detection limit. In some cases, a comparison is not feasible because all or most results were below the detection limit, or there is a significant difference in detection limits, or data was unavailable for one of the years. Tables 9 through 15 present the data used to prepare Figure 2. A summary of the findings are presented below.

Color - There was a significant decrease in color in 2006 for the five wells for which a comparison was feasible.

Alkalinity - Wells MW-2A and MW-6B showed significant decreases in alkalinity in 2006. The remaining wells showed relatively small increases or decreases.



Hardness - All seven wells showed a decrease in hardness from 1997 to 2006. Most results were significantly lower.

Total Dissolved Solids (TDS) - Five of seven wells showed a significant decrease in TDS in 2006. The remaining two wells showed similar results in 2006, but also showed the lowest average concentrations.

Chloride - Six of seven wells showed a significant decrease in chloride level in 2006. The remaining well had similar low chloride concentrations in 1997 and 2006.

COD - Results for all seven wells showed a significant decrease from 1997 to 2006.

Sulfate - Three wells showed significant decreases in sulfate level in 2006. Two wells had similar levels in both years. For the remaining two wells, a comparison was not feasible.

Bromide - Five of six wells showed a significant decrease in bromide level in 2006. Average bromide level was somewhat higher for Well MW-7A in 2006. A comparison was not feasible for Well MW-1B.

Nitrate - Three wells showed a moderate to large decrease in nitrate concentration in 2006. One well showed a moderate increase in nitrate. For the remaining two wells, a comparison was not feasible.

Ammonia - All five wells for which a comparison was feasible showed decreased ammonia levels in 2006.

Total Kjeldahl Nitrogen (TKN) - The two wells (MW-1A and MW-2A) with elevated TKN levels in 1997 showed significant decreases in 2006. The remaining five wells generally showed decreased levels in 2006.

Chemical Oxygen Demand (COD) - All five wells for which a comparison was feasible showed significant reductions in COD in 2006 compared to 1997.

Biochemical Oxygen Demand (BOD) - Well MW-1A showed a moderate decrease in BOD in 2006 compared to 1997. Wells MW-2A, MW-2B and MW-6B showed significant increases in BOD in 2006. A comparison was not feasible for the remaining three wells.

Total Organic Carbon (TOC) - For all wells, TOC decreased in 2006 compared to 1997.

Total Phenol - A comparison was feasible for a single well (MW-2A), which showed a decrease in 2006 compared to 1997.

## 4.2.2 Trends for Total Metals

Figure 3 compares groundwater quality data for total metals, and was developed in the same manner as Figure 2. Tables 9 through 15 present the data used to prepare Figure 3. Below is a summary for the findings for total metals (note that for antimony, selenium, silver, and thallium, a comparison was not feasible for any of the seven wells).

Aluminum - In general there was a large decrease in total aluminum levels in 2006 compared to 1997.

Arsenic - For three wells a comparison was feasible. Each showed a significant decrease in total arsenic in 2006 compared to 1997.

Barium - In general there was a large decrease in total barium levels in 2006 compared to 1997. Well MW-1B showed a slight increase in 2006, but levels were relatively low in both years.

Beryllium - A significant decrease was observed in 2006 compared to 1997, for the single well for which a comparison was feasible.

Boron - Four of seven wells showed a decrease in boron in 2006. Two wells showed an increase in boron. A comparison was not feasible for MW-1B.

Calcium - Average calcium levels decreased for all seven wells in 2006 compared to 1997.

Chromium - Average chromium levels decreased for all six wells for which a comparison was feasible.

Cobalt - A significant decrease was observed in 2006 for three wells. A slight increase was observed for one well. A comparison was not feasible for the remaining three wells.

Copper - A significant decrease in total copper was observed for the three wells with the highest levels in 1997. A slight increase was observed for three wells. A comparison was not feasible for Well MW-6B.

Iron - A significant decrease in iron was observed for six of seven wells. Well MW-1B showed an increase in 2006 compared to 1997.

Lead - For three wells, total lead levels were significantly lower in 2006 compared to 1997. For the remaining four wells, a comparison was not feasible.

Magnesium - Six of seven wells showed moderate to large decreases in total magnesium between 1997 and 2006. Well MW-1B showed a small increase in 2006.

Manganese - Six of seven wells showed moderate to large decreases in total manganese between 1997 and 2006. Well MW-1B showed an increase in total manganese in 2006, but the levels at this well were low compared to other wells.

Mercury - A significant decrease in mercury was observed at Well MW-1A in 2006 compared to 1997. A comparison was not feasible for the other six wells.

Nickel - A large decrease in total nickel was observed at three wells, and a moderate decrease was observed at two others. A comparison was not feasible for the remaining two wells.

Potassium - All seven wells showed moderate to large decreases in total potassium between 1997 and 2006.

Sodium - Six of seven wells showed moderate to large decreases in total sodium between 1997 and 2006. A slight increase in sodium was observed at Well MW-7A.

Vanadium - Vanadium levels decreased for all four wells for which a comparison was feasible.

Zinc - Total zinc decreased significantly in 2006 compared to 1997 for six of seven wells. An increase in zinc was observed at Well MW-1B.

#### 4.2.3 Trends for Organics

Organics were analyzed in the two monitoring rounds conducted in 1997, and in Quarter 3 of 2006. In 1997, 12 different organic chemicals were detected in one or more of the seven wells that were monitored in 2006. All 1997 results were less than or equal to 10 ug/l. In 2006, only two organics were detected. Cis-1,2-dichloroethene was detected at MW-2B (6.2 ug/l) and MW-7A (7.1 ug/l), and 1,1-dichloroethane was detected at MW-7A (6.1 ug/l). The 2006 results are slightly higher than 1997 results for these wells.

### 5.0 Quality Control

Buck Labs performed internal quality control procedures on the Quarter 1 through 4 analytical data. Reporting on internal quality control for Quarters 3 and 4 is included in laboratory reports that are provided in Appendices B and C. Lab reports for Quarters 1 and 2 were presented in a previous report. Below is a summary of the internal quality control for all four Quarters in 2006.

Quarter 1 - Analytical methods, preservatives, and containers for all laboratory analytes complied with requirements of the NYS Health Department ELAP program. Instrument calibrations and blanks met laboratory quality control protocols, with one exception - the matrix spike and matrix spike duplicate (MS/MSD) results for TKN analyses were below the lower recovery limit. We believe the Quarter 1 data are adequate to characterize groundwater quality downgradient of the Towslee the landfill.

Quarter 2 – Analytical methods, preservatives, and containers for all laboratory analytes complied with requirements of the NYS Health Department ELAP program. Instrument calibrations and blanks met laboratory quality control protocols. TKN analysis was performed past the required hold time. The recoveries for matrix spike/ matrix spike duplicates were outside the quality control criteria for the following analytes: BOD, ammonia, TKN, and iron. We believe the Quarter 2 data are adequate to characterize groundwater quality downgradient of the Towslee landfill.

Quarter 3 – Analytical methods, preservatives, and containers for all laboratory analytes complied with requirements of the NYS Health Department ELAP program. Instrument calibrations and blanks generally met laboratory quality control protocols. The MS/MSD recoveries for aluminum, iron and manganese on the total metals samples were outside QC criteria. The MS/MSD recoveries for dissolved metals for these three metals met QC criteria. Buck Labs concluded that particulate in the unfiltered samples affected spike recoveries for total metals. We believe the Quarter 3 data are adequate to characterize groundwater quality downgradient of the Towslee landfill.

Quarter 4 – Analytical methods, preservatives, and containers for all laboratory analytes complied with requirements of the NYS Health Department ELAP program. Instrument calibrations and blanks met laboratory quality control protocols. We believe the Quarter 4 data are adequate to characterize groundwater quality downgradient of the Towslee landfill.

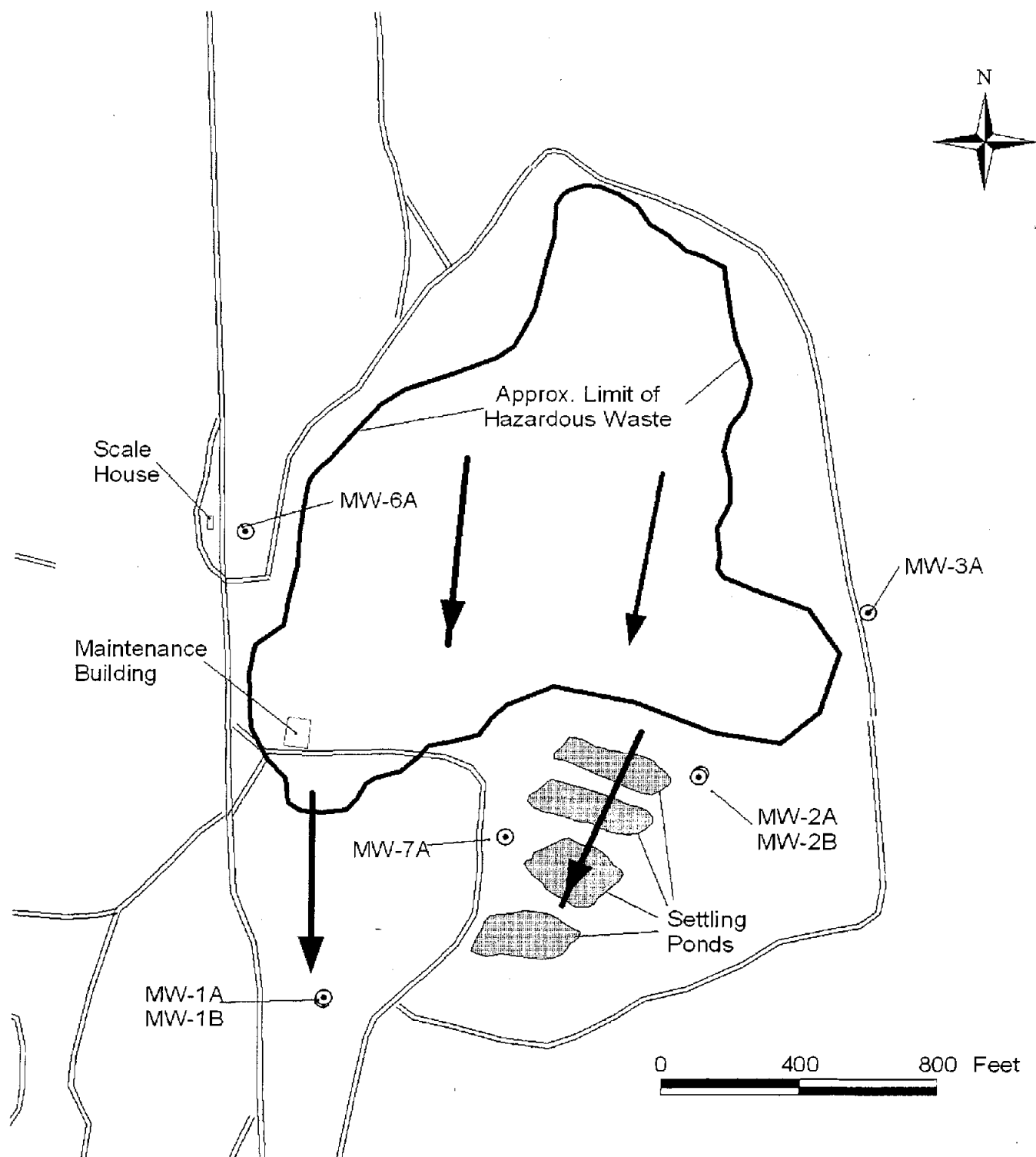


Figure 1.  
Monitoring Well Locations  
Towslee Landfill

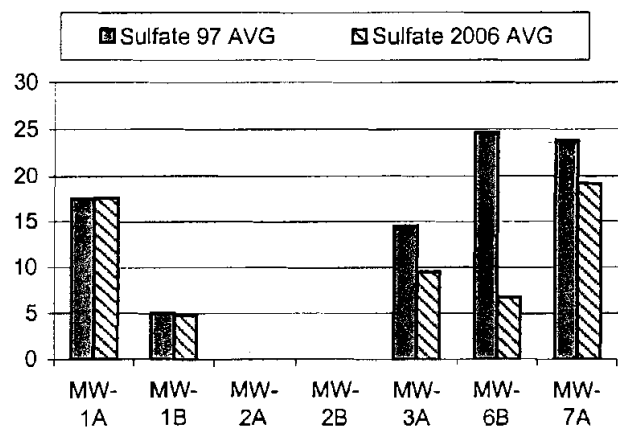
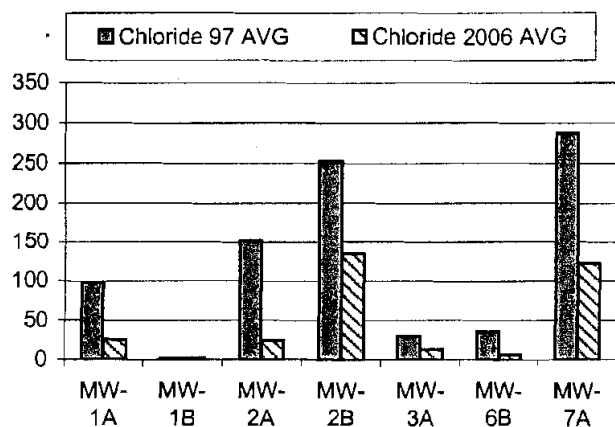
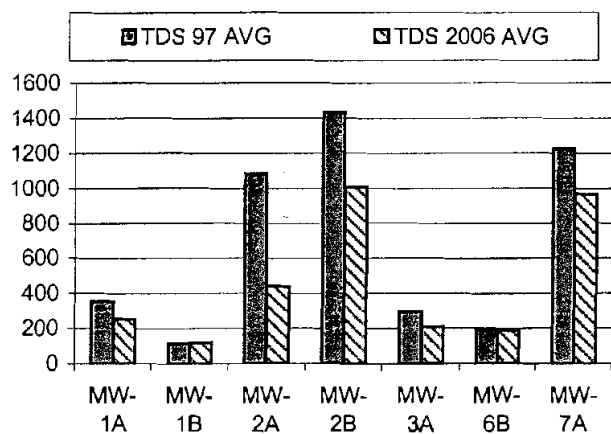
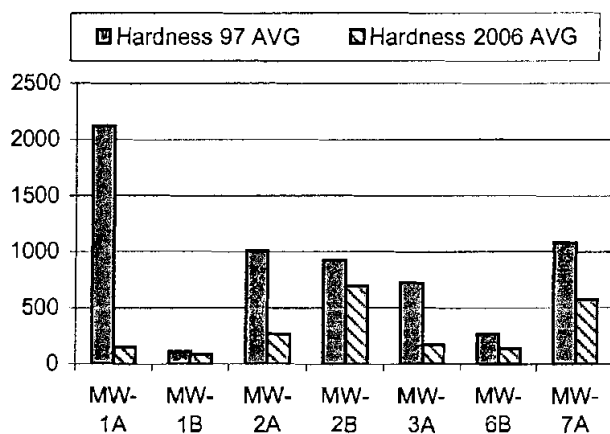
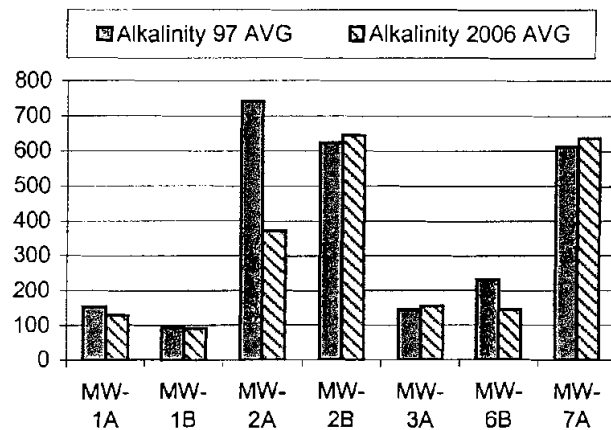
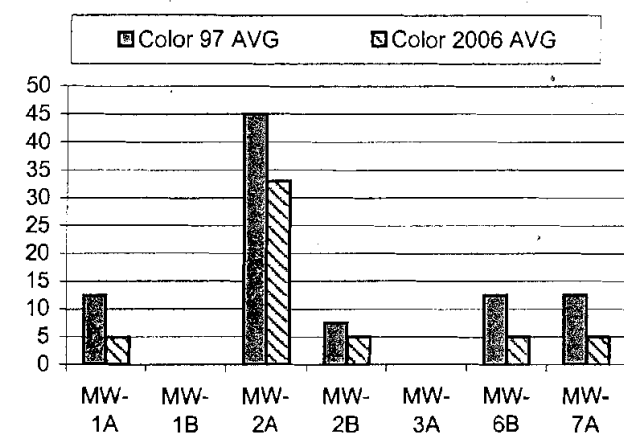


Figure 2. 1997 and 2006 Average Concentrations for Conventional Parameters

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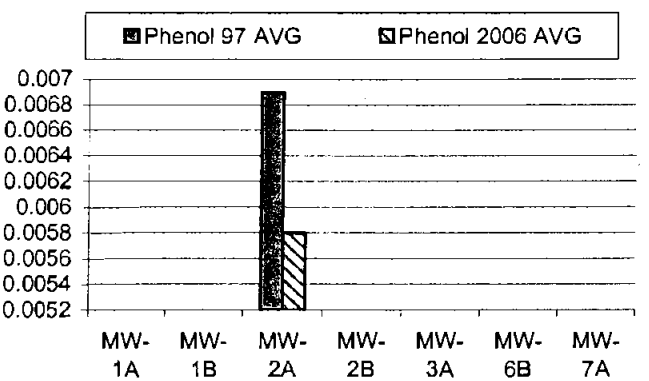
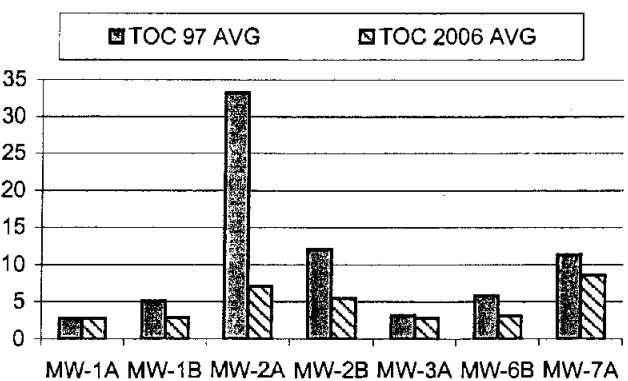
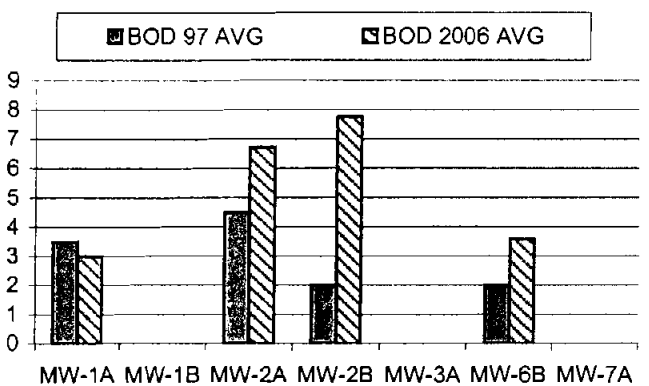
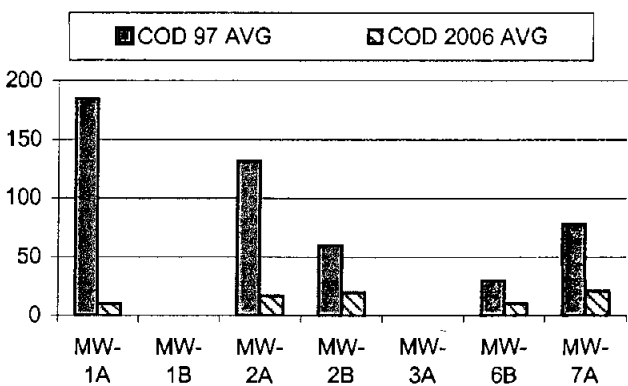
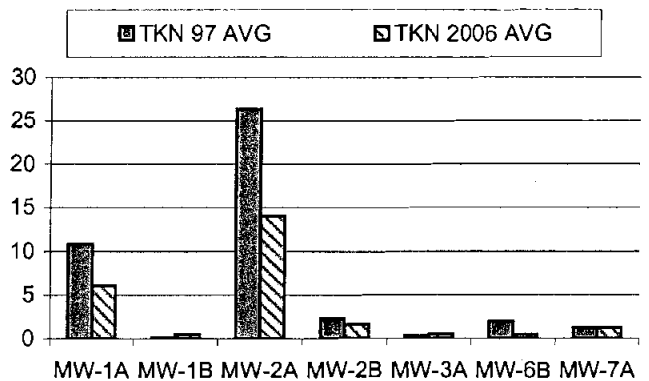
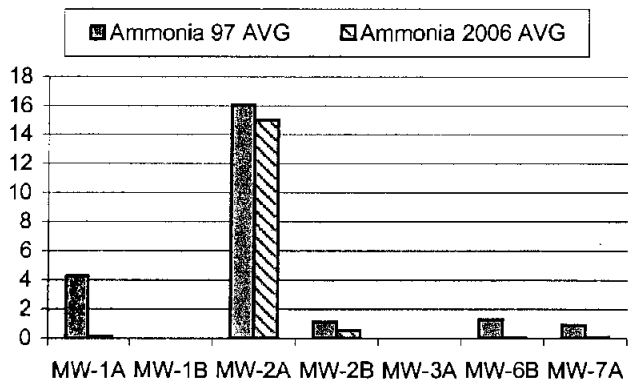
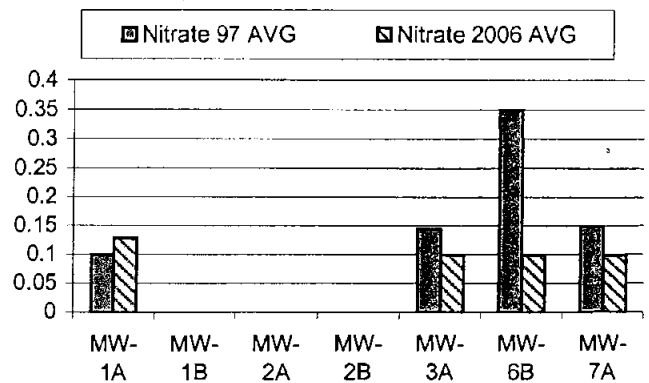
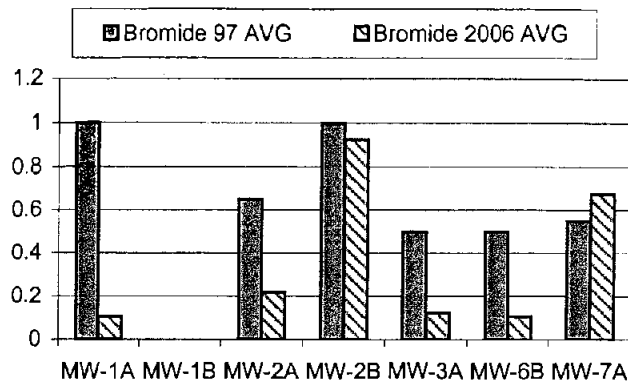


Figure 2 cont'd. 1997 and 2006 Average Concentrations for Conventional Parameters

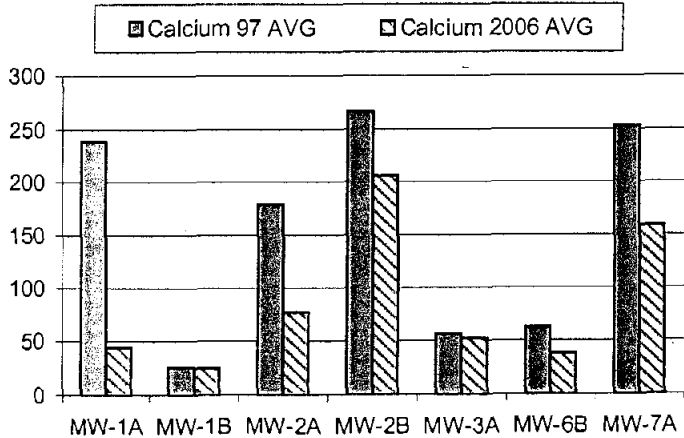
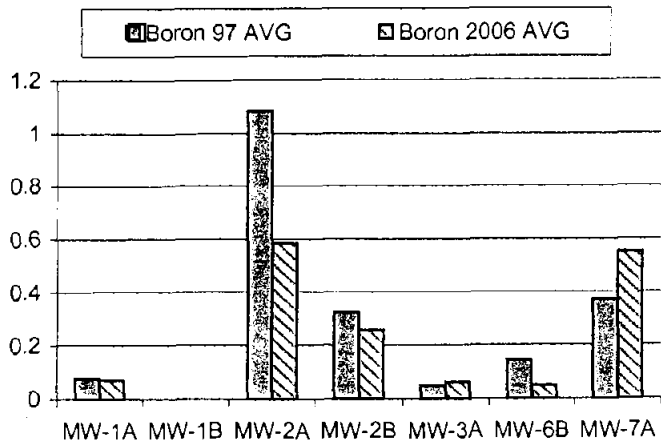
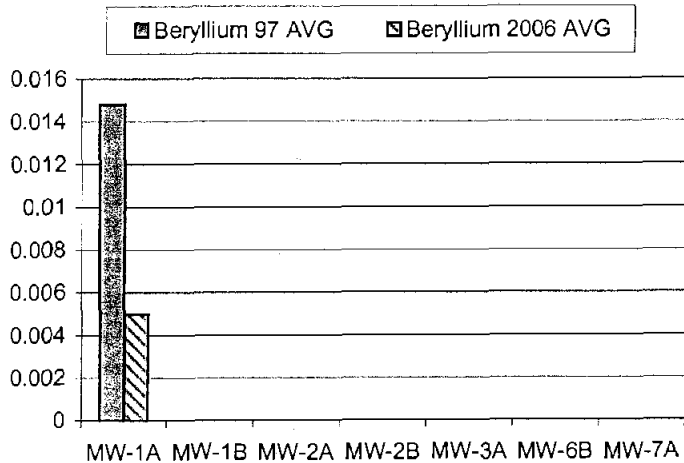
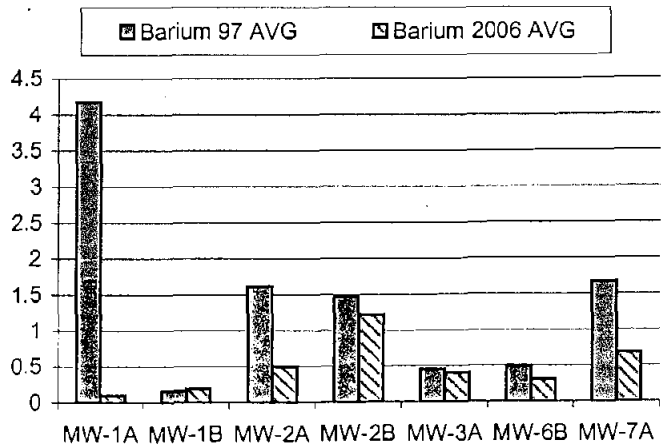
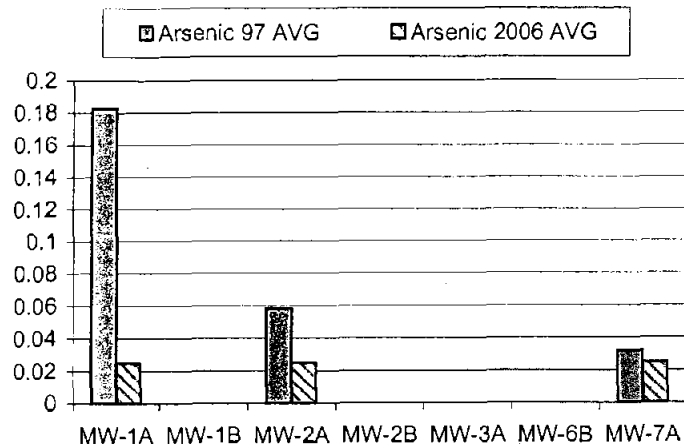
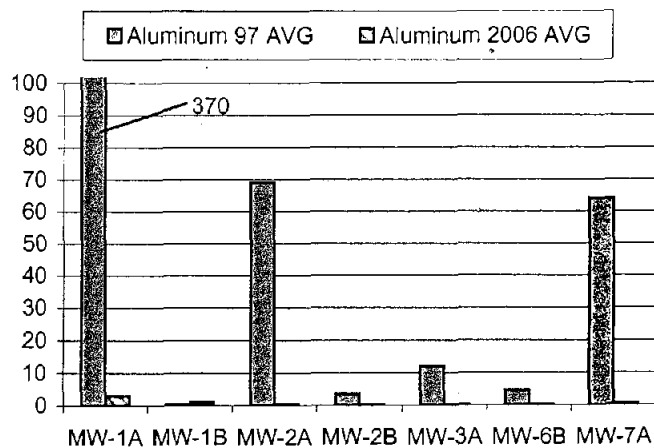


Figure 3. 1997 and 2006 Average Concentrations for Total Metals

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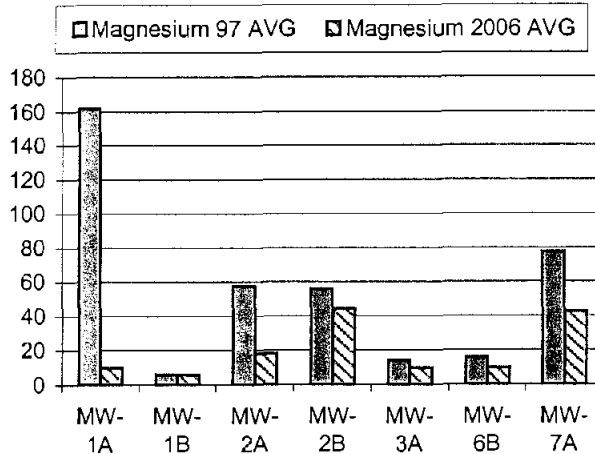
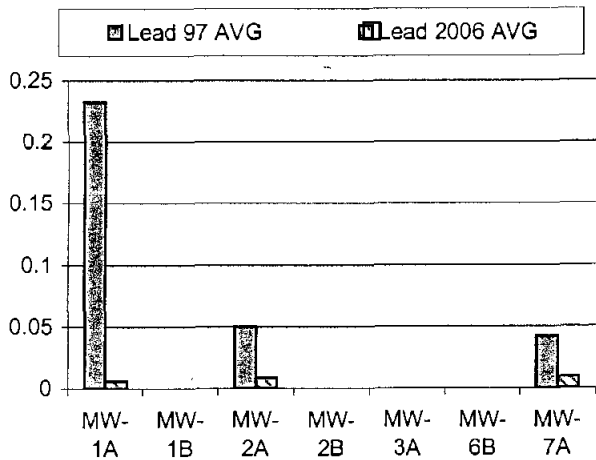
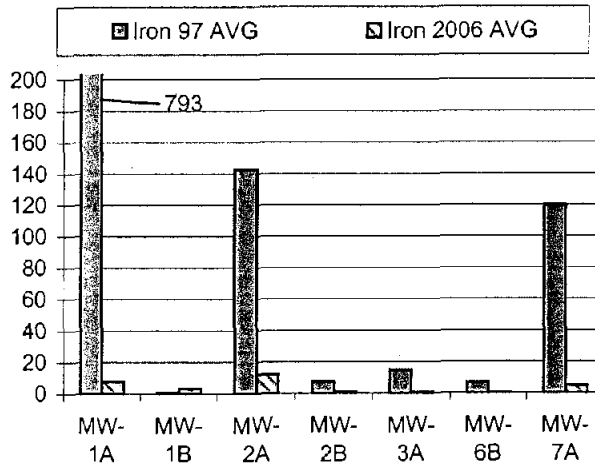
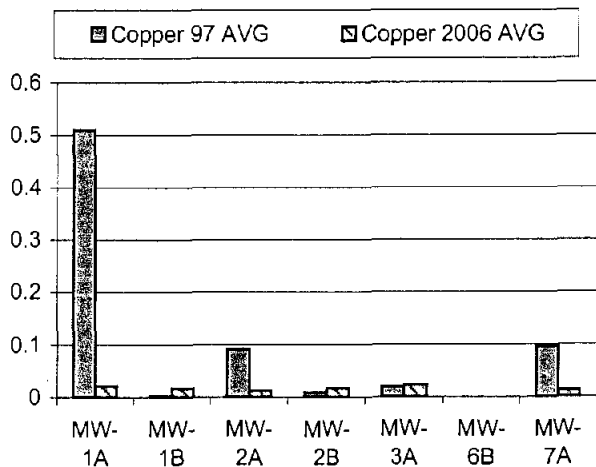
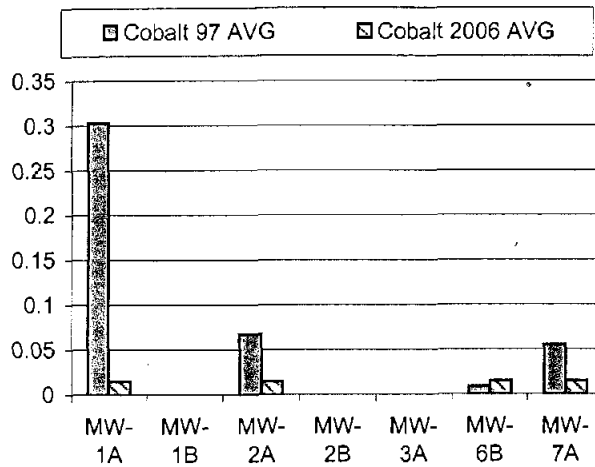
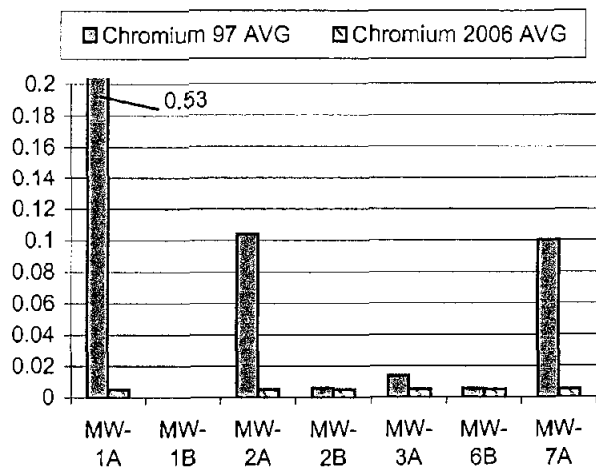


Figure 3 cont'd. 1997 and 2006 Average Concentrations for Total Metals

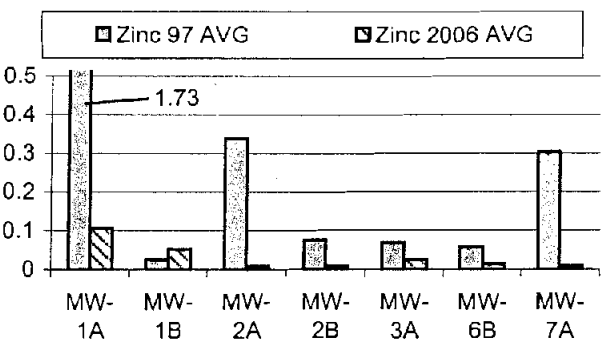
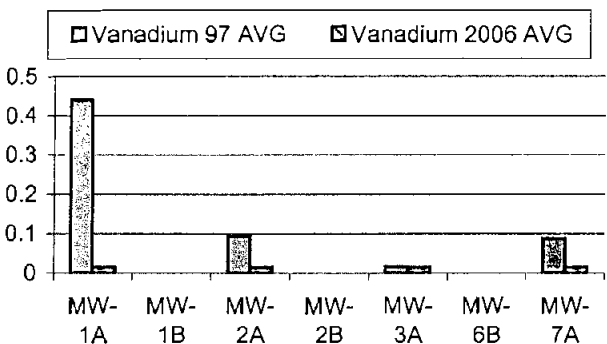
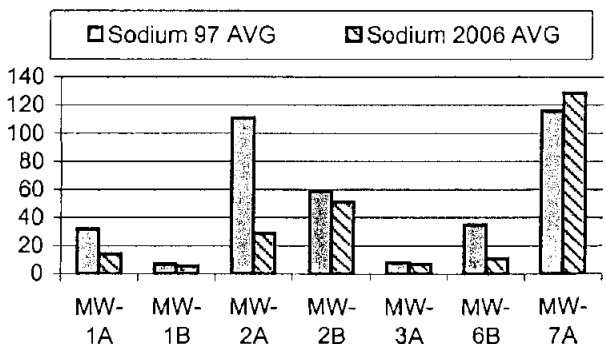
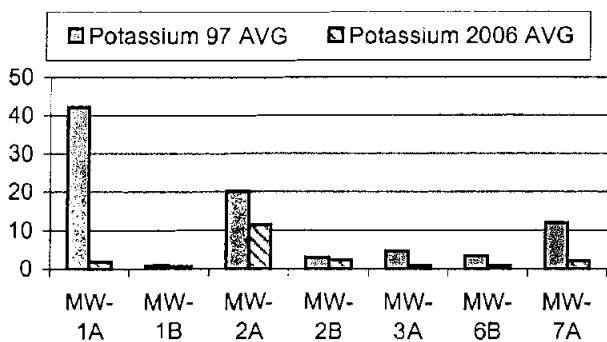
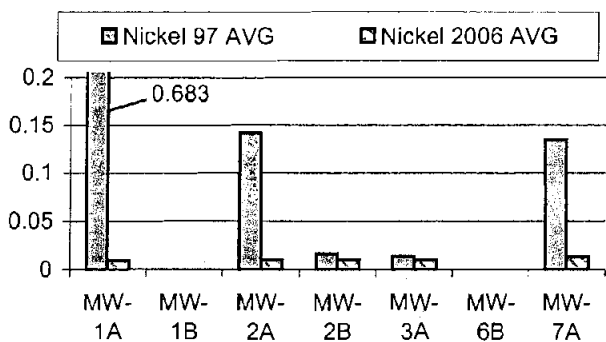
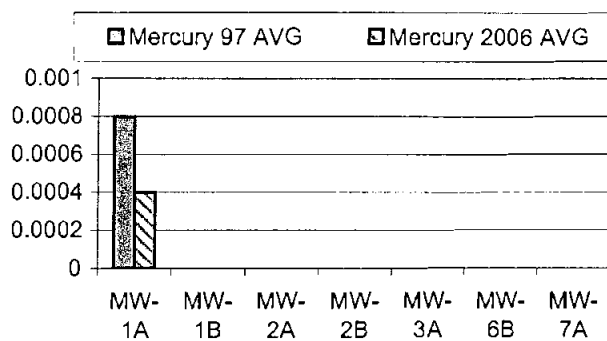
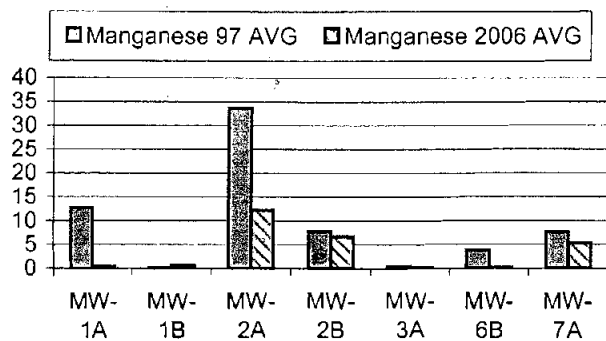


Figure 3 cont'd. 1997 and 2006 Average Concentrations for Total Metals

Table 1  
Contraventions of NYS Water Quality Standards  
for Field and Inorganic Parameters  
Towslee Landfill - Quarter 1 2006

Parameter	Units	NYS Water Quality Standard	Monitoring Well						
			Over- burden	Bedrock	Over- burden	Bedrock	Bedrock	Bedrock	Over- burden
			MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Temperature	(deg. C)	--	8.5	5	4.4	4.5	6.4	7.9	4.5
Eh	(mV)	--	700	385	140	175	215	250	215
pH	(Std Units)	6.5 - 8.5 a	7.8	7.7	6.4	6.4	7.2	6.7	6.5
Specific Conductance	(uS/cm)	--	306	157	621	1350	286	347	1360
Color	NTU	15 a,b	--	--	--	--	--	--	--
Turbidity	(NTU)	5 a	660	187	18.6	17.3	58	40	214
Alkalinity, Total (As CaCO3)	(mg/l)	--	127	92	330	652	162	131	648
Hardness (As CaCO3)	(mg/l)	--	167	97.6	241	697	153	135	627
Total Dissolved Solids	(mg/l)	500 a	340	120	381	982	215	209	981
Chloride	(mg/l)	250 a,b	21.3	2.55	23.3	145	14	21.1	144
Sulfate	(mg/l)	250 a,b	27.3	4.72	4.22	1.18	9.14	13.8	20.6
Bromide	(mg/l)	2 a	< 0.1	< 0.1	0.189	0.878	< 0.1	< 0.1	0.753
Nitrogen, Nitrate (As N)	(mg/l)	10 a,b	< 0.1	< 0.1	0.228	< 0.1	< 0.1	< 0.1	< 0.1
Nitrogen, Ammonia (As N)	(mg/l)	2 (c) a	0.276	0.0938	10.6	0.389	0.0969	0.0549	0.34
Nitrogen, Kjeldahl, Total	(mg/l)	--	23.3	0.54	10.6	1.31	0.455	0.392	1.5
Chemical Oxygen Demand	(mg/l)	--	< 10	< 10	< 10	< 10	< 10	< 10	21.2
Biochemical Oxygen Demand	(mg/l)	--	< 3	< 3	16	9.3	< 3	< 3	< 3
Organic Carbon, Total	(mg/l)	--	4.76	5.41	10.1	< 2	5.58	5.22	12.8
Phenolics, Total Recoverable	(mg/l)	0.001 a	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Cyanide	(mg/l)	0.2 a,b	--	--	--	--	--	--	--

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

b - Part 5 Drinking Water MCL

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

**1.23** indicates contravention of standard.

-- Testing only required for Baseline monitoring

Table 2  
Contraventions of NYS Water Quality Standards  
for Metals

Towslee Landfill - Quarter 1 2006

Parameter	NYS Water Quality Standard		Total Metals						Dissoved Metals				
			Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden	Over-burden	Bedrock	Bedrock	Over-burden
			MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A	MW-1A	MW-1B	MW-3A	MW-7A
Aluminum	*		--	--	--	--	--	--	--	--	--	--	--
Antimony	0.003	a	--	--	--	--	--	--	--	--	--	--	--
Arsenic	0.025	a	--	--	--	--	--	--	--	--	--	--	--
Barium	1	a	--	--	--	--	--	--	--	--	--	--	--
Beryllium	0.004	b	--	--	--	--	--	--	--	--	--	--	--
Boron	1	a	--	--	--	--	--	--	--	--	--	--	--
Cadmium	0.005	a, b	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	*		46.2	26.8	69.1	203	46.3	39.3	171	40.7	22.8	44.3	158
Chromium	0.05	a	--	--	--	--	--	--	--	--	--	--	--
Chrom, Hex	0.05	a	--	--	--	--	--	--	--	--	--	--	--
Cobalt	*		--	--	--	--	--	--	--	--	--	--	--
Copper	0.2	a	--	--	--	--	--	--	--	--	--	--	--
Iron	0.3	a, b	19.4	9.42	8.29	0.913	1.88	1.09	14.5	13.5	0.339	0.168	0.0637
Lead	0.015	b	0.00716	<0.005	<0.005	<0.005	<0.005	<0.005	0.0175	<0.005	<0.005	<0.005	<0.005
Magnesium	*		12.6	7.46	16.6	46.1	9.13	8.94	48.6	10.4	5.15	8.7	43.6
Manganese	0.3	a, b	0.534	2.28	12.2	6.98	0.208	0.559	6.08	0.238	0.0136	0.0963	5.35
Mercury	0.0007	a	--	--	--	--	--	--	--	--	--	--	--
Nickel	0.1	a	--	--	--	--	--	--	--	--	--	--	--
Potassium	*		2.72	0.973	9.29	2.42	0.938	1.15	3.06	2.52	0.487	0.803	1.9
Sodium	20	a, b	17.1	6.31	26.3	53.8	5.66	14.9	134	14.7	4.75	4.83	126
Selenium	0.01	a	--	--	--	--	--	--	--	--	--	--	--
Silver	0.05	a	--	--	--	--	--	--	--	--	--	--	--
Thallium	0.002	b	--	--	--	--	--	--	--	--	--	--	--
Vanadium	*		--	--	--	--	--	--	--	--	--	--	--
Zinc	5	b	--	--	--	--	--	--	--	--	--	--	--

all units are mg/l

a - Part indicates value exceeded the standard.

b - Part 5 Drinking Water MCL

\* - No standard available

**1.23** indicates contravention of standard.

-- Testing only required for Baseline monitoring

Table 3  
Contraventions of NYS Water Quality Standards  
for Field and Inorganic Parameters  
Towslee Landfill - Quarter 2 2006

Parameter	Units	NYS Water Quality Standard	Monitoring Well						
			Over- burden	Bedrock	Over- burden	Bedrock	Bedrock	Bedrock	Over- burden
			MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Temperature	(deg. F)	--	12.8	11.4	11.6	10.5	11.7	10.5	11.6
Eh	(mV)	--	105	45	-5	110	45	85	120
pH	(Std Units)	6.5 - 8.5 a	7.7	7.8	<b>6.4</b>	<b>6.4</b>	6.9	7.4	<b>6.4</b>
Specific Conductance	(uS/cm)	--	355	257	767	1560	299	287	1520
Color	(Units)	15 a, b	--	--	--	--	--	--	--
Turbidity	(NTU)	5 a	<b>73</b>	<b>45</b>	<b>18.3</b>	<b>19.8</b>	<b>11.9</b>	<b>19.9</b>	<b>18</b>
Alkalinity, Total (As CaCO3)	(mg/l)	--	139	94	355	670	170	148	675
Hardness (As CaCO3)	(mg/l)	--	140	81.9	260	726	179	144	599
Total Dissolved Solids	(mg/l)	500 a	213	111	397	<b>1020</b>	208	175	<b>967</b>
Chloride	(mg/l)	250 a, b	22.2	2.28	25.7	154	12.7	2.33	143
Sulfate	(mg/l)	250 a, b	12.3	5.51	5.5	2.96	11	3.95	22.5
Bromide	(mg/l)	2 a	<0.1	<0.1	0.18	1.01	<0.1	<0.1	0.633
Nitrogen, Nitrate (As N)	(mg/l)	10 a, b	0.217	<0.1	<0.1	0.216	<0.1	<0.1	<0.1
Nitrogen, Ammonia (As N)	(mg/l)	2 * a	<0.02	<0.02	<b>18.4</b>	0.824	<0.02	<0.02	<0.02
Nitrogen, Kjeldahl, Total	(mg/l)	--	0.529 H	0.755 H	14 H	1.78 H	1.09 H	0.904 H	1.68 H
Chemical Oxygen Demand	(mg/l)	--	<10	<10	13.8	17.2	<10	<10	16.5
Biochemical Oxygen Demand	(mg/l)	--	<3	<3	4.5	5.1	<3	5.1	<3
Organic Carbon, Total	(mg/l)	--	2.61	2.34	7.18	7.76	<2	3.14	8.19
Phenolics, Total Recoverable	(mg/l)	0.001 a	<0.005	<0.005	0.008	<0.005	<0.005	<0.005	<b>0.007</b>
Cyanide	(mg/l)	0.2 a, b	--	--	--	--	--	--	--

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

b - Part 5 Drinking Water MCL

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

**1.23** indicates contravention of standard.

H - exceeded laboratory holding time

-- sampling opnly required for Baseline monitoring

Table 4  
Contraventions of NYS Water Quality Standards  
for Metals  
Towslee Landfill - Quarter 2 2006

Parameter	NYS Water Quality Standard	Total Metals							Dissovled Metals
		Over- burden	Bedrock	Over- burden	Bedrock	Bedrock	Bedrock	Over- burden	Over- burden
		MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A	MW-1A
Aluminum	--	--	--	--	--	--	--	--	--
Antimony	0.003 a	--	--	--	--	--	--	--	--
Arsenic	0.025 a	--	--	--	--	--	--	--	--
Barium	1 a	--	--	--	--	--	--	--	--
Beryllium	0.004 b	--	--	--	--	--	--	--	--
Boron	1 a	--	--	--	--	--	--	--	--
Cadmium	0.005 a, b	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	--	41.8	23.9	74.1	216 E	55.3	39.6	165	38.9
Chromium		--	--	--	--	--	--	--	--
Chrom, Hex		--	--	--	--	--	--	--	--
Cobalt		--	--	--	--	--	--	--	--
Copper		--	--	--	--	--	--	--	--
Iron	0.3 a, b	<b>2.99</b>	<b>1.48</b>	<b>24</b>	<b>0.836</b>	<b>0.626</b>	<b>0.511</b>	<b>1.33</b>	<b>0.315</b>
Lead	0.015 b	0.007	<0.005	<b>0.019</b>	0.009	0.005	<0.005	0.009	0.005
Magnesium	--	8.67	5.39	18.3	45.3	10	10.9	45.5	8.12
Manganese	0.3 a, b	0.194	0.191	<b>11.5</b>	<b>6.8</b>	0.175	0.12	<b>5.69</b>	0.127
Mercury	0.0007 a	--	--	--	--	--	--	--	--
Nickel	0.1 a	--	--	--	--	--	--	--	--
Potassium	--	1.6	0.468	11.2	2.25	0.829	0.825	1.91	1.38
Sodium	20 a, b	13	5.22	<b>25.2</b>	<b>49.7</b>	6.4	9.93	<b>129</b>	12.3
Selenium	0.01 a	--	--	--	--	--	--	--	--
Silver	0.05 a	--	--	--	--	--	--	--	--
Thallium	0.002 b	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--
Zinc	5 b	--	--	--	--	--	--	--	--

all units are mg/l

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

b - Part 5 Drinking Water MCL

**1.23** indicates contravention of standard.

-- sampling only required for Baseline monitoring

Table 5  
Contraventions of NYS Water Quality Standards  
for Field and Inorganic Parameters  
Towslee Landfill - Quarter 3 2006

Parameter	Units	NYS Water Quality Standard	Monitoring Well						
			Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden
			MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Temperature	(deg. F)	--	19.5	16.4	17.2	15.9	15.3	12.2	17.4
Eh	(mV)	--	190	155	120	125	115	225	245
pH	(Std Units)	6.5 - 8.5 a	7.52	7.69	6.15	6.35	7.01	7.52	6.34
Specific Conductance	(uS/cm)	--	353	244	784	1420	342	304	1440
Color	(Units)	15 a, b	<5	<5	33	<5	<5	<5	<5
Turbidity	(NTU)	5 a	131	70	195	18.7	5.2	15.8	13.6
Alkalinity, Total (As CaCO3)	(mg/l)	--	122	91	384	612	140	154	595
Hardness (As CaCO3)	(mg/l)	--	148	89	265	686	191	131	531
Total Dissolved Solids	(mg/l)	500 a	236	142	491	1040	207	190	963
Chloride	(mg/l)	250 a, b	34.2	3.47	23.5	122	13.5	2.32	119
Sulfate	(mg/l)	250 a, b	16.5	5.33	3.43	<1	9.98	3.28	19.7
Bromide	(mg/l)	2 a	<0.1	<0.1	0.237	0.902	0.152	0.122	0.822
Nitrogen, Nitrate (As N)	(mg/l)	10 a, b	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Ammonia (As N)	(mg/l)	2 * a	0.161	<0.02	16	0.786	<0.02	0.096	<0.02
Nitrogen, Kjeldahl, Total	(mg/l)	--	0.366	0.497	16.5	1.64	0.239	0.214	0.75
Chemical Oxygen Demand	(mg/l)	--	<10	<10	27	24.6	13	11.6	26.4
Biochemical Oxygen Demand	(mg/l)	--	<3	<3	3.4	3.7	<3	3.2	<3
Organic Carbon, Total	(mg/l)	--	<2	<2	5.67	4.82	<2	<2	6.12
Phenolics, Total Recoverable	(mg/l)	0.001 a	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cyanide	(mg/l)	0.2 a, b	<0.01	<0.01	<0.01	0.024	<0.01	<0.01	<0.01

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

b - Part 5 Drinking Water MCL

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

**1.23** indicates contravention of standard.

Table 6  
Contraventions of NYS Water Quality Standards  
for Metals  
Towslee Landfill - Quarter 3 2006

Parameter	NYS Water Quality Standard	Total Metals							Dissolved Metals		
		Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden	Over-burden	Bedrock	Over-burden
		MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A	MW-1A	MW-1B	MW-2A
Aluminum	--	2.96	1.09	0.43	0.18	0.078	0.115	0.415	0.066	0.195	0.044
Antimony	0.003 a	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	0.025 a	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Barium	1 a	0.104	0.194	0.502	<b>1.22</b>	0.41	0.313	0.684	0.066	0.162	0.427
Beryllium	0.004 b	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Boron	1 a	0.073	<0.05	0.584	0.256	0.063	<0.05	0.55	<0.07	<0.07	0.562
Cadmium	0.005 a, b	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	--	43.2	25.8	77.3	203 E	57.9	36.1	150	38.6	24.4	77.6
Chromium	0.05 a	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chrom, Hex	0.05 a	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	N/A	N/A	N/A
Cobalt	--	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Copper	0.2 a	0.022	0.017	0.012	0.017	0.023	0.016	0.013	0.013	0.013	0.015
Iron	0.3 a, b	<b>6.03</b>	<b>1.84</b>	<b>6.5</b>	<b>1.2</b>	0.104	<b>0.306</b>	<b>0.722</b>	0.125	<b>0.339</b>	0.204
Lead	0.015 b	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	0.006	<0.005	<0.005	<0.005
Magnesium	--	9.7	6.05	17.5	43.5	11.2	9.86	38	8.18	5.54	17.1
Manganese	0.3 a, b	<b>0.38</b>	0.251	<b>12</b>	<b>6.63</b>	<b>0.416</b>	0.297	<b>4.4</b>	0.248	0.135	<b>12.1</b>
Mercury	0.0007 a	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Nickel	0.1 a	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.013	<0.01	<0.01	<0.01
Potassium	--	1.7	0.523	12.3	2.28	1.09	0.634	1.81	1.31	0.403	12.5
Sodium	20 a, b	13.6	6.35	<b>31.4</b>	<b>51.1</b>	8.92	10.1	<b>124</b>	13	5.31	<b>29.6</b>
Selenium	0.01 a	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Silver	0.05 a	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Thallium	0.002 b	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Vanadium	--	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Zinc	5 b	0.106	0.052	<0.01	<0.01	0.025	0.014	<0.01	0.033	0.029	0.013

all units are mg/l

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

b - Part 5 Drinking Water MCL

**1.23** indicates contravention of standard.

N/A not analyzed

E - Estimated; exceeds upper quantitation limit



Table 7  
Contraventions of NYS Water Quality Standards  
for Field and Inorganic Parameters  
Towslee Landfill - Quarter 4 2006

Parameter	Units	NYS Water Quality Standard	Monitoring Well						
			Over- burden	Bedrock	Over- burden	Bedrock	Bedrock	Bedrock	Over- burden
			MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Temperature	(deg. F)	--	15.9	15.8	14.2	14.5	15.7	14.3	13.9
Eh	(mV)	--	170	115	90	115	220	180	190
pH	(Std Units)	6.5 - 8.5 a	7.69	7.9	<b>6.41</b>	6.52	6.84	7.11	6.62
Specific Conductance	(uS/cm)	--	369	200	1100	1540	397	329	1480
Color	(Units)	15 a, b	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Turbidity	(NTU)	5 a	<b>29</b>	<b>15.6</b>	<b>27</b>	<b>28</b>	<b>7.2</b>	<b>14.2</b>	<b>42</b>
Alkalinity, Total (As CaCO <sub>3</sub> )	(mg/l)	--	132	89	423	646	152	153	635
Hardness (As CaCO <sub>3</sub> )	(mg/l)	--	148	82	301	675	158	133	526
Total Dissolved Solids	(mg/l)	500 a	229	120	487	<b>980</b>	207	187	<b>949</b>
Chloride	(mg/l)	250 a, b	26.7	0.611	25.7	121	12.7	3.39	85
Sulfate	(mg/l)	250 a, b	14.9	3.76	3.18	<1	8.01	6.14	14.1
Bromide	(mg/l)	2 a	0.117	<0.1	0.261	0.912	0.143	<0.1	0.483
Nitrogen, Nitrate (As N)	(mg/l)	10 a, b	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrogen, Ammonia (As N)	(mg/l)	2 * a	<0.1	<0.1	<b>15.1</b>	0.282	<0.1	<0.1	<0.1
Nitrogen, Kjeldahl, Total	(mg/l)	--	<0.2	<0.2	15	1.9	0.266	0.279	1.11
Chemical Oxygen Demand	(mg/l)	--	<10	<10	15.6	27	<10	<10	20.5
Biochemical Oxygen Demand	(mg/l)	--	<3	<3	<3	13	<3	<3	<3
Organic Carbon, Total	(mg/l)	--	<2	<2	5.68	7.49	<2	<2	7.46
Phenolics, Total Recoverable	(mg/l)	0.001 a	<0.005	<0.005	<0.005	<b>0.1</b>	<0.005	<0.005	<0.005
Cyanide	(mg/l)	0.2 a, b	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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

b - Part 5 Drinking Water MCL

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

**1.23** indicates contravention of standard.

Table 8  
Contraventions of NYS Water Quality Standards  
for Metals  
Towslee Landfill - Quarter 4 2006

Parameter	NYS Water Quality Standard	Total Metals						
		Over-burden	Bedrock	Over-burden	Bedrock	Bedrock	Bedrock	Over-burden
		MW-1A	MW-1B	MW-2A	MW-2B	MW-3A	MW-6B	MW-7A
Aluminum	--	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Antimony	0.003 a	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arsenic	0.025 a	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Barium	1 a	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Beryllium	0.004 b	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Boron	1 a	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cadmium	0.005 a, b	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	--	43.9	24.1	88.5	200	48.3	37.4	148
Chromium	0.05 a	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chrom, Hex	0.05 a	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cobalt	--	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Copper	0.2 a	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Iron	0.3 a, b	<b>2.11</b>	0.273	<b>10.1</b>	<b>1.07</b>	0.283	0.195	<b>2.78</b>
Lead	0.015 b	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005
Magnesium	--	9.43	5.31	19.4	42.7	9.2	9.71	38
Manganese	0.3 a, b	<b>0.306</b>	0.126	<b>13.6</b>	<b>6.46</b>	0.176	0.185	<b>4.85</b>
Mercury	0.0007 a	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nickel	0.1 a	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Potassium	--	1.62	0.374	12.7	2.38	0.937	0.69	2.03
Sodium	20 a, b	13.5	5.92	<b>31.4</b>	<b>51</b>	6.03	10.7	<b>128</b>
Selenium	0.01 a	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Silver	0.05 a	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Thallium	0.002 b	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vanadium	--	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Zinc	5 b	N/A	N/A	N/A	N/A	N/A	N/A	N/A

all units are mg/l

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

b - Part 5 Drinking Water MCL

**1.23** indicates contravention of standard.

N/A not analyzed

Table 9. Water Quality Trends - 1997 to 2006  
Well MW-1A - Overburden

Conventional								Average Concentration		
Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	1997	2006	Percent Change *
Color	(Units)	5	20	--	--	<5	--	12.5	5	-60%
ALK as CaCO <sub>3</sub>	(mg/l)	160	145	127	139	122	132	153	130	-15%
HARD as CaCO <sub>3</sub>	(mg/l)	4000	240	167	140	148	148	2120	151	-93%
TDS	(mg/l)	494	214	340	213	236	229	354	255	-28%
Chloride	(mg/l)	152	46	21.3	22.2	34.2	26.7	99	26.1	-74%
Sulfate	(mg/l)	20.6	14.6	27.3	12.3	16.5	14.9	17.6	17.75	1%
Bromide	(mg/l)	1.2	0.8	<0.1	<0.1	<0.1	0.117	1	0.104	-90%
NO <sub>3</sub> (As N)	(mg/l)	<0.1	<0.1	<0.1	0.217	<0.1	<0.1	0.1	0.129	29%
NH <sub>4</sub> (As N)	(mg/l)	6	2.6	0.276	<0.02	0.161	<0.1	4.3	0.139	-97%
TKN (as N)	(mg/l)	18	3.8	23.3	0.529 H	0.366	<0.2	10.9	6.1	-44%
COD	(mg/l)	305	64	<10	<10	<10	<10	185	10	-95%
BOD	(mg/l)	5	<2	<3	<3	<3	<3	3.5	3	-14%
TOC	(mg/l)	4.2	1.6	4.76	2.61	<2	<2	2.9	2.84	-2%
Phenolics, Tot	(mg/l)	0.003	0.0015	<0.005	<0.005	<0.005	<0.005	n/a	n/a	n/a
Cyanide	(mg/l)	<0.01	<0.01	--	--	<0.01	--	n/a	n/a	n/a
Total Metals								Average Concentration		
Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	1997	2006	Percent Change *
Aluminum	(mg/l)	724	16.9	--	--	2.96	--	370.45	2.96	-99%
Antimony	(mg/l)	<0.003	<0.003	--	--	<0.05	--	n/a	n/a	n/a
Arsenic	(mg/l)	0.353	0.0134	--	--	<0.025	--	0.1832	0.025	-86%
Barium	(mg/l)	8.11	0.258	--	--	0.104	--	4.184	0.104	-98%
Beryllium	(mg/l)	0.0287	0.00083	--	--	<0.005	--	0.0148	0.005	-66%
Boron	(mg/l)	0.0873	0.0665	--	--	0.073	--	0.077	0.073	-5%
Cadmium	(mg/l)	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	n/a	n/a	n/a
Calcium	(mg/l)	430	48.6	46.2	41.8	43.2	43.9	239	44	-82%
Chromium	(mg/l)	1.04	0.0265	--	--	<0.005	--	0.5333	0.005	-99%
Cobalt	(mg/l)	0.59	0.0168	--	--	<0.015	--	0.3034	0.015	-95%
Copper	(mg/l)	0.996	0.0254	--	--	0.022	--	0.5107	0.022	-96%
Iron	(mg/l)	1550	35.7	19.4	2.99	6.03	2.11	792.85	7.63	-99%
Lead	(mg/l)	0.454	0.0123	0.00716	0.007	<0.005	<0.005	0.2332	0.006	-97%
Magnesium	(mg/l)	309	15.6	12.6	8.67	9.7	9.43	162.3	10.1	-94%
Manganese	(mg/l)	24.6	0.783	0.534	0.194	0.38	0.306	12.7	0.4	-97%
Mercury	(mg/l)	0.0014	<0.0001	--	--	<0.0004	--	0.0008	0.0004	-50%
Nickel	(mg/l)	1.33	0.0364	--	--	<0.01	--	0.683	0.01	-99%
Potassium	(mg/l)	77.5	6.97	2.72	1.6	1.7	1.62	42.2	1.9	-95%
Sodium	(mg/l)	37.3	26	17.1	13	13.6	13.5	32	14	-56%
Selenium	(mg/l)	<0.028	<0.0028	--	--	<0.02	--	n/a	n/a	n/a
Silver	(mg/l)	<0.009	<0.0009	--	--	<0.015	--	n/a	n/a	n/a
Thallium	(mg/l)	<0.026	<0.0026	--	--	<0.03	--	n/a	n/a	n/a
Vanadium	(mg/l)	0.856	0.0243	--	--	<0.015	--	0.44	0.015	-97%
Zinc	(mg/l)	3.36	0.0874	--	--	0.106	--	1.724	0.106	-94%

H - exceeded hold time

\* the percent increase or decrease of the average concentration measured in 2006 compared to the average concentration measured in 1997. Averages assume not-detect values = the detection limit.

n/a - a comparison is not feasible because of non-detect values, differences in detection limits, or absence of data in one year or the other.

Table 10. Water Quality Trends - 1997 to 2006  
Well MW-1B - Bedrock

Conventional								Average Concentration		
Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	1997	2006	Percent Change *
Color	(Units)	<5	<5	--	--	<5	--	n/a	n/a	n/a
ALK as CaCO <sub>3</sub>	(mg/l)	94.8	93.6	92	94	91	89	94	92	-2%
HARD as CaCO <sub>3</sub>	(mg/l)	88	140	97.6	81.9	89	82	114	88	-23%
TDS	(mg/l)	143	86	120	111	142	120	115	123	7%
Chloride	(mg/l)	<2	<2	2.55	2.28	3.47	0.611	2	2.2	10%
Sulfate	(mg/l)	5.2	<5	4.72	5.51	5.33	3.76	5.1	4.83	-5%
Bromide	(mg/l)	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	n/a	n/a	n/a
NO <sub>3</sub> (As N)	(mg/l)	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	n/a	n/a	n/a
NH <sub>4</sub> (As N)	(mg/l)	<0.02	0.04	0.0938	<0.02	<0.02	<0.1	n/a	n/a	n/a
TKN (as N)	(mg/l)	<0.2	<0.2	0.54	0.755 H	0.497	<0.2	0.2	0.5	150%
COD	(mg/l)	<15	<15	<10	<10	<10	<10	n/a	n/a	n/a
BOD	(mg/l)	<2	<2	<3	<3	<3	<3	n/a	n/a	n/a
TOC	(mg/l)	9.3	<1	5.41	2.34	<2	<2	5.15	2.94	-43%
Phenolics, Tot	(mg/l)	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	n/a	n/a	n/a
Cyanide	(mg/l)	--	--	--	--	<0.01	--	n/a	n/a	n/a
Total Metals								Average Concentration		
Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	1997	2006	Percent Change *
Aluminum	(mg/l)	0.662	0.134	--	--	1.09	--	0.4	1.09	173%
Antimony	(mg/l)	<0.003	<0.003	--	--	<0.05	--	n/a	n/a	n/a
Arsenic	(mg/l)	<0.0024	<0.0024	--	--	<0.025	--	n/a	n/a	n/a
Barium	(mg/l)	0.168	0.154	--	--	0.194	--	0.161	0.194	20%
Beryllium	(mg/l)	0.0001	<0.0001	--	--	<0.005	--	n/a	n/a	n/a
Boron	(mg/l)	0.0197	0.0247	--	--	<0.05	--	n/a	n/a	n/a
Cadmium	(mg/l)	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	n/a	n/a	n/a
Calcium	(mg/l)	26.7	24.7	26.8	23.9	25.8	24.1	26	25	-4%
Chromium	(mg/l)	0.002	<0.0004	--	--	<0.005	--	n/a	n/a	n/a
Cobalt	(mg/l)	<0.0011	<0.0011	--	--	<0.015	--	n/a	n/a	n/a
Copper	(mg/l)	0.004	0.0025	--	--	0.017	--	0.0033	0.017	415%
Iron	(mg/l)	1.33	0.226	9.42	1.48	1.84	0.273	0.78	3.25	317%
Lead	(mg/l)	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	n/a	n/a	n/a
Magnesium	(mg/l)	6.47	5.84	7.46	5.39	6.05	5.31	6.2	6.1	-2%
Manganese	(mg/l)	0.195	0.146	2.28	0.191	0.251	0.126	0.2	0.7	250%
Mercury	(mg/l)	--	--	--	--	<0.0004	--	n/a	n/a	n/a
Nickel	(mg/l)	<0.0013	<0.0013	--	--	<0.01	--	n/a	n/a	n/a
Potassium	(mg/l)	1.56	0.529	0.973	0.468	0.523	0.374	1	0.6	-40%
Sodium	(mg/l)	7.38	6.18	6.31	5.22	6.35	5.92	7	6	-14%
Selenium	(mg/l)	--	--	--	--	<0.02	--	n/a	n/a	n/a
Silver	(mg/l)	--	--	--	--	<0.015	--	n/a	n/a	n/a
Thallium	(mg/l)	<0.0026	<0.0026	--	--	<0.03	--	n/a	n/a	n/a
Vanadium	(mg/l)	<0.0012	<0.0012	--	--	<0.015	--	n/a	n/a	n/a
Zinc	(mg/l)	0.0351	0.0163	--	--	0.052	--	0.026	0.052	100%

H - exceeded hold time

\* the percent increase or decrease of the average concentration measured in 2006 compared to the average concentration measured in 1997. Averages assume not-detect values = the detection limit.

n/a - a comparison is not feasible because of non-detect values, differences in detection limits, or absence of data in one year or the other.

Table 11. Water Quality Trends - 1997 to 2006  
Well MW-2A - Overburden

<b>Conventional</b>								<b>Average Concentration</b>		
Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	1997	2006	Percent Change *
Color	(Units)	30	60	--	--	33	--	45	33	-27%
ALK as CaCO <sub>3</sub>	(mg/l)	702	784	330	355	384	423	743	373	-50%
HARD as CaCO <sub>3</sub>	(mg/l)	1300	720	241	260	265	301	1010	267	-74%
TDS	(mg/l)	1180	986	381	397	491	487	1083	439	-59%
Chloride	(mg/l)	156	149	23.3	25.7	23.5	25.7	152.5	24.6	-84%
Sulfate	(mg/l)	<5	<5	4.22	5.5	3.43	3.18	n/a	n/a	n/a
Bromide	(mg/l)	0.8	<0.5	0.189	0.18	0.237	0.261	0.65	0.217	-67%
NO <sub>3</sub> (As N)	(mg/l)	<0.1	0.14	0.228	<0.1	<0.1	<0.1	n/a	n/a	n/a
NH <sub>4</sub> (As N)	(mg/l)	23	9.1	10.6	18.4	16	15.1	16.05	15.025	-6%
TKN (as N)	(mg/l)	31.5	21.2	10.6	14 H	16.5	15	26.35	14.03	-47%
COD	(mg/l)	127	136	< 10	13.8	27	15.6	132	17	-87%
BOD	(mg/l)	6	3	16	4.5	3.4	<3	4.5	6.73	50%
TOC	(mg/l)	42.5	24.1	10.1	7.18	5.67	5.68	33.3	7.16	-78%
Phenolics, Tot	(mg/l)	0.0071	0.0066	< 0.005	0.008	<0.005	<0.005	0.0069	0.0058	-16%
Cyanide	(mg/l)	<0.01	<0.01	--	--	<0.01	--	n/a	n/a	n/a
<b>Total Metals</b>								<b>Average Concentration</b>		
Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	1997	2006	Percent Change *
Aluminum	(mg/l)	79.3	59.1	--	--	0.43	--	69.2	0.43	-99%
Antimony	(mg/l)	0.0049	<0.003	--	--	<0.05	--	n/a	n/a	n/a
Arsenic	(mg/l)	0.0631	0.0537	--	--	<0.025	--	0.0584	0.025	-57%
Barium	(mg/l)	1.75	1.49	--	--	0.502	--	1.62	0.502	-69%
Beryllium	(mg/l)	0.0037	0.0025	--	--	<0.005	--	n/a	n/a	n/a
Boron	(mg/l)	1.21	0.961	--	--	0.584	--	1.086	0.584	-46%
Cadmium	(mg/l)	<0.0003	0.0016	<0.005	<0.005	<0.005	<0.005	n/a	n/a	n/a
Calcium	(mg/l)	186	172	69.1	74.1	77.3	88.5	179	77	-57%
Chromium	(mg/l)	0.112	0.0967	--	--	<0.005	--	0.1044	0.005	-95%
Cobalt	(mg/l)	0.0719	0.0628	--	--	<0.015	--	0.0674	0.015	-78%
Copper	(mg/l)	0.104	0.0779	--	--	0.012	--	0.091	0.012	-87%
Iron	(mg/l)	154	131	8.29	24	6.5	10.1	142.5	12.22	-91%
Lead	(mg/l)	0.0561	0.0436	<0.005	0.019	<0.005	0.006	0.0499	0.0088	-82%
Magnesium	(mg/l)	61.6	53.6	16.6	18.3	17.5	19.4	57.6	18	-69%
Manganese	(mg/l)	35.7	31.6	12.2	11.5	12	13.6	33.7	12.3	-64%
Mercury	(mg/l)	<0.0001	<0.0001	--	--	<0.0004	--	n/a	n/a	n/a
Nickel	(mg/l)	0.151	0.132	--	--	<0.01	--	0.142	0.01	-93%
Potassium	(mg/l)	23.4	17	9.29	11.2	12.3	12.7	20.2	11.4	-44%
Sodium	(mg/l)	119	102	26.3	25.2	31.4	31.4	111	29	-74%
Selenium	(mg/l)	<0.0028	<0.0028	--	--	<0.02	--	n/a	n/a	n/a
Silver	(mg/l)	0.0024	0.0014	--	--	<0.015	--	n/a	n/a	n/a
Thallium	(mg/l)	0.004	<0.0026	--	--	<0.03	--	n/a	n/a	n/a
Vanadium	(mg/l)	0.102	0.0866	--	--	<0.015	--	0.094	0.015	-84%
Zinc	(mg/l)	0.4	0.278	--	--	<0.01	--	0.339	0.01	-97%

H - exceeded hold time

\* the percent increase or decrease of the average concentration measured in 2006 compared to the average concentration measured in 1997. Averages assume not-detect values = the detection limit.

n/a - a comparison is not feasible because of non-detect values, differences in detection limits, or absence of data in one year or the other.

Table 12. Water Quality Trends - 1997 to 2006  
Well MW-2B - Bedrock

Conventional								Average Concentration		
Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	1997	2006	Percent Change *
Color	(Units)	5	10	--	--	<5	--	7.5	5	-33%
ALK as CaCO <sub>3</sub>	(mg/l)	577	673	652	670	612	646	625	645	3%
HARD as CaCO <sub>3</sub>	(mg/l)	960	900	697	726	686	675	930	696	-25%
TDS	(mg/l)	1640	1230	982	1020	1040	980	1435	1006	-30%
Chloride	(mg/l)	267	238	145	154	122	121	252.5	135.5	-46%
Sulfate	(mg/l)	<5	<5	1.18	2.96	<1	<1	n/a	n/a	n/a
Bromide	(mg/l)	1.1	0.9	0.878	1.01	0.902	0.912	1	0.926	-7%
NO <sub>3</sub> (As N)	(mg/l)	<0.1	<0.1	<0.1	0.216	<0.1	<0.1	n/a	n/a	n/a
NH <sub>4</sub> (As N)	(mg/l)	0.95	1.3	0.389	0.824	0.786	0.282	1.125	0.57	-49%
TKN (as N)	(mg/l)	2.6	2	1.31	1.78 H	1.64	1.9	2.3	1.66	-28%
COD	(mg/l)	58	61	<10	17.2	24.6	27	60	20	-67%
BOD	(mg/l)	2	2	9.3	5.1	3.7	13	2	7.78	289%
TOC	(mg/l)	12.3	11.9	<2	7.76	4.82	7.49	12.1	5.52	-54%
Phenolics, Tot	(mg/l)	0.0044	0.0039	<0.005	<0.005	<0.005	0.1	n/a	n/a	n/a
Cyanide	(mg/l)	--	--	--	--	0.024	--	n/a	n/a	n/a
Total Metals								Average Concentration		
Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	1997	2006	Percent Change *
Aluminum	(mg/l)	2.03	5.31	--	--	0.18	--	3.67	0.18	-95%
Antimony	(mg/l)	<0.003	<0.003	--	--	<0.05	--	n/a	n/a	n/a
Arsenic	(mg/l)	0.007	0.0083	--	--	<0.025	--	n/a	n/a	n/a
Barium	(mg/l)	1.59	1.36	--	--	1.22	--	1.475	1.22	-17%
Beryllium	(mg/l)	0.00023	0.00037	--	--	<0.005	--	n/a	n/a	n/a
Boron	(mg/l)	0.355	0.292	--	--	0.256	--	0.324	0.256	-21%
Cadmium	(mg/l)	0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	n/a	n/a	n/a
Calcium	(mg/l)	288	245	203	216 E	203 E	200	267	206	-23%
Chromium	(mg/l)	0.004	0.0086	--	--	<0.005	--	0.0063	0.005	-21%
Cobalt	(mg/l)	0.0091	0.0141	--	--	<0.015	--	n/a	n/a	n/a
Copper	(mg/l)	0.0069	0.0118	--	--	0.017	--	0.0094	0.017	81%
Iron	(mg/l)	4.3	10.7	0.913	0.836	1.2	1.07	7.5	1	-87%
Lead	(mg/l)	0.0044	0.0058	<0.005	0.009	<0.005	<0.005	n/a	n/a	n/a
Magnesium	(mg/l)	61.7	49.9	46.1	45.3	43.5	42.7	55.8	44.4	-20%
Manganese	(mg/l)	8.24	7.43	6.98	6.8	6.63	6.46	7.8	6.7	-14%
Mercury	(mg/l)	--	--	--	--	<0.0004	--	n/a	n/a	n/a
Nickel	(mg/l)	0.0129	0.0188	--	--	<0.01	--	0.016	0.01	-38%
Potassium	(mg/l)	3	2.9	2.42	2.25	2.28	2.38	3	2.3	-23%
Sodium	(mg/l)	64.1	53.9	53.8	49.7	51.1	51	59	51	-14%
Selenium	(mg/l)	--	--	--	--	<0.02	--	n/a	n/a	n/a
Silver	(mg/l)	--	--	--	--	<0.015	--	n/a	n/a	n/a
Thallium	(mg/l)	0.0037	<0.0026	--	--	<0.03	--	n/a	n/a	n/a
Vanadium	(mg/l)	0.0029	0.0075	--	--	<0.015	--	n/a	n/a	n/a
Zinc	(mg/l)	0.103	0.0484	--	--	<0.01	--	0.076	0.01	-87%

H - exceeded hold time

\* the percent increase or decrease of the average concentration measured in 2006 compared to the average concentration measured in 1997. Averages assume not-detect values = the detection limit.

n/a - a comparison is not feasible because of non-detect values, differences in detection limits, or absence of data in one year or the other.

Table 13. Water Quality Trends - 1997 to 2006  
Well MW-3A - Bedrock

Conventional								Average Concentration		
Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	1997	2006	Percent Change *
Color	(Units)	<5	<5	--	--	<5	--	n/a	n/a	n/a
ALK as CaCO <sub>3</sub>	(mg/l)	145	146	162	170	140	152	146	156	7%
HARD as CaCO <sub>3</sub>	(mg/l)	1250	200	153	179	191	158	725	170	-77%
TDS	(mg/l)	320	269	215	208	207	207	295	209	-29%
Chloride	(mg/l)	31.4	28.7	14	12.7	13.5	12.7	30.1	13.2	-56%
Sulfate	(mg/l)	16	13	9.14	11	9.98	8.01	14.5	9.53	-34%
Bromide	(mg/l)	0.5	<0.5	<0.1	<0.1	0.152	0.143	0.5	0.124	-75%
NO <sub>3</sub> (As N)	(mg/l)	<0.1	0.19	<0.1	<0.1	<0.1	<0.1	0.145	0.1	-31%
NH <sub>4</sub> (As N)	(mg/l)	<0.02	0.09	0.0969	<0.02	<0.02	<0.1	n/a	n/a	n/a
TKN (as N)	(mg/l)	0.4	0.24	0.455	1.09 H	0.239	0.266	0.32	0.51	59%
COD	(mg/l)	19	<15	<10	<10	13	<10	n/a	n/a	n/a
BOD	(mg/l)	<2	<2	<3	<3	<3	<3	n/a	n/a	n/a
TOC	(mg/l)	4.5	1.9	5.58	<2	<2	<2	3.2	2.9	-9%
Phenolics, Tot	(mg/l)	0.0027	<0.001	<0.005	<0.005	<0.005	<0.005	n/a	n/a	n/a
Cyanide	(mg/l)	--	--	--	--	<0.01	--	n/a	n/a	n/a
Total Metals								Average Concentration		
Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	1997	2006	Percent Change *
Aluminum	(mg/l)	21.7	2.39	--	--	0.078	--	12.05	0.08	-99%
Antimony	(mg/l)	<0.003	0.0034	--	--	<0.05	--	n/a	n/a	n/a
Arsenic	(mg/l)	0.0127	<0.0024	--	--	<0.025	--	n/a	n/a	n/a
Barium	(mg/l)	0.567	0.343	--	--	0.41	--	0.455	0.41	-10%
Beryllium	(mg/l)	0.001	0.00013	--	--	<0.005	--	n/a	n/a	n/a
Boron	(mg/l)	<0.0709	0.0286	--	--	0.063	--	0.05	0.063	26%
Cadmium	(mg/l)	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	n/a	n/a	n/a
Calcium	(mg/l)	57.8	53.7	46.3	55.3	57.9	48.3	56	52	-7%
Chromium	(mg/l)	0.0249	0.0022	--	--	<0.005	--	0.0136	0.005	-63%
Cobalt	(mg/l)	0.0121	0.0019	--	--	<0.015	--	n/a	n/a	n/a
Copper	(mg/l)	0.0315	0.0076	--	--	0.023	--	0.0196	0.023	17%
Iron	(mg/l)	26.6	3.58	1.88	0.626	0.104	0.283	15.09	0.72	-95%
Lead	(mg/l)	0.0077	<0.001	<0.005	0.005	0.005	<0.005	n/a	n/a	n/a
Magnesium	(mg/l)	17	11	9.13	10	11.2	9.2	14	9.9	-29%
Manganese	(mg/l)	0.732	0.174	0.208	0.175	0.416	0.176	0.5	0.2	-60%
Mercury	(mg/l)	--	--	--	--	<0.0004	--	n/a	n/a	n/a
Nickel	(mg/l)	0.0248	0.0038	--	--	<0.01	--	0.014	0.01	-29%
Potassium	(mg/l)	7.43	1.87	0.938	0.829	1.09	0.937	4.7	0.9	-81%
Sodium	(mg/l)	10.4	6.54	5.66	6.4	8.92	6.03	8	7	-13%
Selenium	(mg/l)	--	--	--	--	<0.02	--	n/a	n/a	n/a
Silver	(mg/l)	--	--	--	--	<0.015	--	n/a	n/a	n/a
Thallium	(mg/l)	<0.0026	<0.0026	--	--	<0.03	--	n/a	n/a	n/a
Vanadium	(mg/l)	0.0296	0.0039	--	--	<0.015	--	0.017	0.015	-12%
Zinc	(mg/l)	0.112	0.0265	--	--	0.025	--	0.069	0.025	-64%

H - exceeded hold time

\* the percent increase or decrease of the average concentration measured in 2006 compared to the average concentration measured in 1997. Averages assume not-detect values = the detection limit.

n/a - a comparison is not feasible because of non-detect values, differences in detection limits, or absence of data in one year or the other.

Table 14. Water Quality Trends - 1997 to 2006  
Well MW-6B - Bedrock

<b>Conventionals</b>								<b>Average Concentration</b>		
Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	1997	2006	Percent Change *
Color	(Units)	<5	20	--	--	<5	--	12.5	5	-60%
ALK as CaCO <sub>3</sub>	(mg/l)	240	224	131	148	154	153	232	147	-37%
HARD as CaCO <sub>3</sub>	(mg/l)	300	240	135	144	131	133	270	136	-50%
TDS	(mg/l)	98	280	209	175	190	187	189	190	1%
Chloride	(mg/l)	38.2	35	21.1	2.33	2.32	3.39	36.6	7.3	-80%
Sulfate	(mg/l)	27.1	22.2	13.8	3.95	3.28	6.14	24.65	6.79	-72%
Bromide	(mg/l)	<0.5	<0.5	<0.1	<0.1	0.122	<0.1	0.5	0.106	-79%
NO <sub>3</sub> (As N)	(mg/l)	0.6	<0.1	<0.1	<0.1	<0.1	<0.1	0.35	0.1	-71%
NH <sub>4</sub> (As N)	(mg/l)	0.09	2.5	0.0549	<0.02	0.096	<0.1	1.295	0.068	-95%
TKN (as N)	(mg/l)	0.6	3.3	0.392	0.904 H	0.214	0.279	1.95	0.45	-77%
COD	(mg/l)	40	19	<10	<10	11.6	<10	30	10	-67%
BOD	(mg/l)	<2	2	<3	5.1	3.2	<3	2	3.58	79%
TOC	(mg/l)	6	5.8	5.22	3.14	<2	<2	5.9	3.09	-48%
Phenolics, Tot	(mg/l)	0.0032	<0.001	<0.005	<0.005	<0.005	<0.005	n/a	n/a	n/a
Cyanide	(mg/l)	--	--	--	--	<0.01	--	n/a	n/a	n/a
<b>Total Metals</b>								<b>Average Concentration</b>		
Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	1997	2006	Percent Change *
Aluminum	(mg/l)	8.59	0.642	--	--	0.115	--	4.62	0.12	-97%
Antimony	(mg/l)	<0.003	<0.003	--	--	<0.05	--	n/a	n/a	n/a
Arsenic	(mg/l)	0.009	0.0084	--	--	<0.025	--	n/a	n/a	n/a
Barium	(mg/l)	0.521	0.48	--	--	0.313	--	0.501	0.313	-38%
Beryllium	(mg/l)	0.0004	0.0001	--	--	<0.005	--	n/a	n/a	n/a
Boron	(mg/l)	0.145	0.145	--	--	<0.05	--	0.145	0.05	-66%
Cadmium	(mg/l)	<0.0003	<0.0003	<0.005	<0.005	<0.005	<0.005	n/a	n/a	n/a
Calcium	(mg/l)	70.5	55.6	39.3	39.6	36.1	37.4	63	38	-40%
Chromium	(mg/l)	0.0092	0.0017	--	--	<0.005	--	0.0055	0.005	-9%
Cobalt	(mg/l)	0.0112	0.0056	--	--	<0.015	--	0.0084	0.015	79%
Copper	(mg/l)	0.0116	0.0051	--	--	0.016	--	n/a	n/a	n/a
Iron	(mg/l)	10.6	3	1.09	0.511	0.306	0.195	6.8	0.53	-92%
Lead	(mg/l)	0.0044	<0.001	<0.005	<0.005	<0.005	<0.005	n/a	n/a	n/a
Magnesium	(mg/l)	19	12.7	8.94	10.9	9.86	9.71	15.9	9.9	-38%
Manganese	(mg/l)	3.43	4.17	0.559	0.12	0.297	0.185	3.8	0.3	-92%
Mercury	(mg/l)	--	--	--	--	<0.0004	--	n/a	n/a	n/a
Nickel	(mg/l)	0.0144	0.0059	--	--	<0.01	--	n/a	n/a	n/a
Potassium	(mg/l)	4.08	2.72	1.15	0.825	0.634	0.69	3.4	0.8	-76%
Sodium	(mg/l)	38	31.4	14.9	9.93	10.1	10.7	35	11	-69%
Selenium	(mg/l)	--	--	--	--	<0.02	--	n/a	n/a	n/a
Silver	(mg/l)	--	--	--	--	<0.015	--	n/a	n/a	n/a
Thallium	(mg/l)	<0.0026	<0.0026	--	--	<0.03	--	n/a	n/a	n/a
Vanadium	(mg/l)	0.0083	0.0012	--	--	<0.015	--	n/a	n/a	n/a
Zinc	(mg/l)	0.0894	0.0248	--	--	0.014	--	0.057	0.014	-75%

H - exceeded hold time

\* the percent increase or decrease of the average concentration measured in 2006 compared to the average concentration measured in 1997. Averages assume not-detect values = the detection limit.

n/a - a comparison is not feasible because of non-detect values, differences in detection limits, or absence of data in one year or the other.



Table 15. Water Quality Trends - 1997 to 2006  
Well MW-7A - Overburden

Conventional								Average Concentration		
Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	1997	2006	Percent Change *
Color	(Units)	20	5	--	--	<5	--	12.5	5	-60%
ALK as CaCO <sub>3</sub>	(mg/l)	569	660	648	675	595	635	615	638	4%
HARD as CaCO <sub>3</sub>	(mg/l)	1010	1150	627	599	531	526	1080	571	-47%
TDS	(mg/l)	1220	1240	981	967	963	949	1230	965	-22%
Chloride	(mg/l)	300	276	144	143	119	85	288	122.8	-57%
Sulfate	(mg/l)	27.4	20.2	20.6	22.5	19.7	14.1	23.8	19.23	-19%
Bromide	(mg/l)	0.6	<0.5	0.753	0.633	0.822	0.483	0.55	0.673	22%
NO <sub>3</sub> (As N)	(mg/l)	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.15	0.1	-33%
NH <sub>4</sub> (As N)	(mg/l)	0.93	0.89	0.34	<0.02	<0.02	<0.1	0.91	0.12	-87%
TKN (as N)	(mg/l)	1.1	1.4	1.5	1.68 H	0.75	1.11	1.25	1.26	1%
COD	(mg/l)	43	112	21.2	16.5	26.4	20.5	78	21	-73%
BOD	(mg/l)	<2	2	<3	<3	<3	<3	n/a	n/a	n/a
TOC	(mg/l)	10.1	12.6	12.8	8.19	6.12	7.46	11.35	8.64	-24%
Phenolics, Tot	(mg/l)	0.0051	0.0027	<0.005	0.007	<0.005	<0.005	n/a	n/a	n/a
Cyanide	(mg/l)	<0.01	<0.01	--	--	<0.01	--	n/a	n/a	n/a
Total Metals								Average Concentration		
Parameter	Units	Aug-97	Oct-97	3/22/06	5/31/06	8/9/06	10/10/06	1997	2006	Percent Change *
Aluminum	(mg/l)	40	88.4	--	--	0.415	--	64.2	0.42	-99%
Antimony	(mg/l)	<0.003	<0.003	--	--	<0.05	--	n/a	n/a	n/a
Arsenic	(mg/l)	0.0176	0.0459	--	--	<0.025	--	0.0318	0.025	-21%
Barium	(mg/l)	1.36	1.99	--	--	0.684	--	1.675	0.684	-59%
Beryllium	(mg/l)	0.0015	0.0037	--	--	<0.005	--	n/a	n/a	n/a
Boron	(mg/l)	0.332	0.41	--	--	0.55	--	0.371	0.55	48%
Cadmium	(mg/l)	0.00047	0.002	<0.005	<0.005	<0.005	<0.005	n/a	n/a	n/a
Calcium	(mg/l)	234	271	171	165	150	148	253	159	-37%
Chromium	(mg/l)	0.0556	0.146	--	--	<0.005	--	0.1008	0.005	-95%
Cobalt	(mg/l)	0.0311	0.0791	--	--	<0.015	--	0.0551	0.015	-73%
Copper	(mg/l)	0.0637	0.129	--	--	0.013	--	0.0964	0.013	-87%
Iron	(mg/l)	65.9	174	14.5	1.33	0.722	2.78	119.95	4.83	-96%
Lead	(mg/l)	0.0251	0.0585	0.0175	0.009	0.006	<0.005	0.0418	0.0094	-78%
Magnesium	(mg/l)	67	88.3	48.6	45.5	38	38	77.7	42.5	-45%
Manganese	(mg/l)	5.87	9.55	6.08	5.69	4.4	4.85	7.7	5.3	-31%
Mercury	(mg/l)	<0.0001	<0.0001	--	--	<0.0004	--	n/a	n/a	n/a
Nickel	(mg/l)	0.0783	0.192	--	--	0.013	--	0.135	0.013	-90%
Potassium	(mg/l)	10.4	13.5	3.06	1.91	1.81	2.03	12	2.2	-82%
Sodium	(mg/l)	118	113	134	129	124	128	116	129	11%
Selenium	(mg/l)	0.0041	0.0047	--	--	<0.02	--	n/a	n/a	n/a
Silver	(mg/l)	<0.0009	<0.0009	--	--	<0.015	--	n/a	n/a	n/a
Thallium	(mg/l)	<0.0026	<0.0026	--	--	<0.03	--	n/a	n/a	n/a
Vanadium	(mg/l)	0.0487	0.127	--	--	<0.015	--	0.088	0.015	-83%
Zinc	(mg/l)	0.2	0.408	--	--	<0.01	--	0.304	0.01	-97%

H - exceeded hold time

\* the percent increase or decrease of the average concentration measured in 2006 compared to the average concentration measured in 1997. Averages assume not-detect values = the detection limit.

n/a - a comparison is not feasible because of non-detect values, differences in detection limits, or absence of data in one year or the other.

# Appendix A

## Correspondence

Cortland County Towslee Landfill

New York State Department of Environmental Conservation

Division of Environmental Remediation

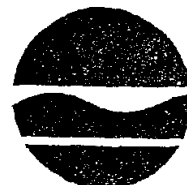
Remedial Bureau A

25 Broadway, 11<sup>th</sup> Floor

Albany, New York 12233-7015

Phone: (518) 402-9625 • Fax: (518) 402-9022

Website: [www.dec.state.ny.us](http://www.dec.state.ny.us)



Denise M. Sheehan  
Acting  
Commissioner

November 7, 2005

Mr. Donald R. Chambers, Superintendent  
Department of Highways  
County of Cortland  
60 Central Avenue  
Cortland, NY 13045

Re: Cortland County Landfill  
Site No. 7-12-001  
Solon (T), Cortland Co.

Dear Mr. Chambers:

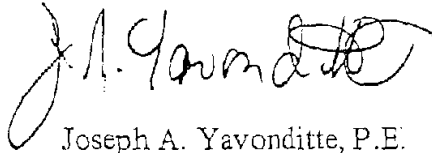
I am responding to your October 13, 2005 letter to Ms. Mary Jane Peachey, Region 7 Regional Engineer, regarding the status of the Cortland County Landfill Site.

After a significant delay, I am in the process of reviewing the Post Closure Operations and Maintenance (O&M) Manual and several other documents for which you and your consultant need formal responses from the Department.

The March 1999 Record of Decision requires quarterly sampling of, as a minimum, the seven groundwater monitoring wells that existed at that time on the south (down gradient) side of the landfill. If sampling results (after several sampling events) indicate that quarterly sampling is unnecessary, the frequency of sampling may be reduced. Detailed comments on the O&M Manual will be provided shortly to you and Barton and Loguidice. I will also be completing the other correspondence which will allow you to start the close-out of the County's State Assistance Contract for this project.

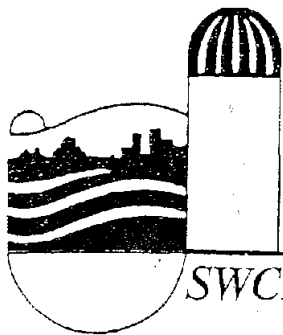
Future correspondence regarding this site should be sent to me at the above address. If you have any questions, please contact me at 518-402-9622.

Sincerely,

A handwritten signature in dark ink, appearing to read "J. A. Yavonditte". The signature is fluid and cursive, with a large initial "J" and a stylized "Y".

Joseph A. Yavonditte, P.E.  
Chief, Remedial Section B  
Remedial Bureau A

cc: M.J. Peachey, Reg 7  
J. Burke, Reg 7  
D. Smith  
C. Vasudevan



## Cortland County Soil and Water Conservation District

Room 202, 100 Grange Place • Cortland, New York 13045

Phone: 607-753-0851 Ext. 3 • Fax: 607-756-0029

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

February 17, 2006

Joe Yavonditte  
Chief, Remedial Section B  
Remedial Bureau A  
Div. of Environmental Remediation  
625 Broadway  
Albany, NY 12233-7015

Dear Mr. Yavonditte:

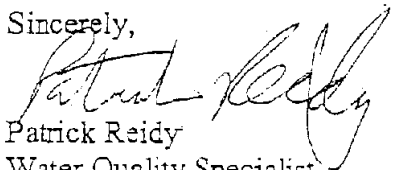
Cortland County Soil and Water Conservation District (SWCD) will be overseeing monitoring of the old county landfill for Cortland County. SWCD will begin monitoring seven (7) downgradient groundwater monitoring wells, as described in your November 7, 2005 letter to Don Chambers. This monitoring will be an interim measure until the monitoring plan for the old county landfill is finalized.

As we discussed over the phone, SWCD has identified three (3) overburden wells and four (4) bedrock wells to serve as the locations for monitoring. These locations were selected to best represent downgradient conditions based on a review of groundwater flow patterns described in the Remedial Investigation Report prepared by Barton & Loguidice in 1998.

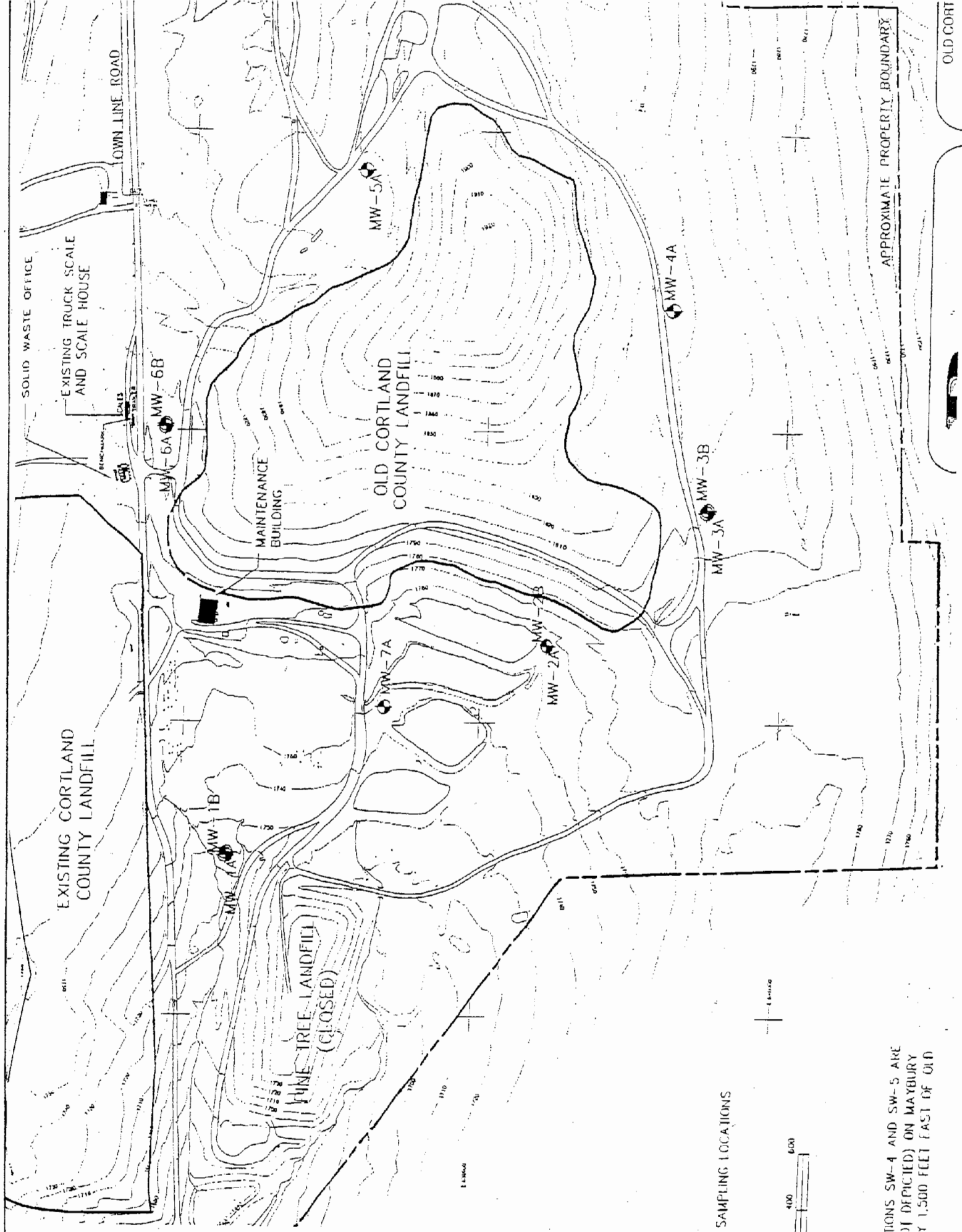
We propose to monitor overburden wells MW-1A, MW-2A, and MW-7A. We propose to monitor bedrock wells MW-1B, MW-2B, MW-3A, and MW-6B. The attached map shows the locations of these wells.

Monitoring will begin in the first quarter of 2006. Let us know if you have any questions or concerns with the selection of wells.

Sincerely,

  
Patrick Reidy  
Water Quality Specialist

cc: Don Chambers, Cortland County Highway Department  
Paul Dudden, Barton & Loguidice  
Amanda Barber, SWCD/files



CTIONS SW-4 AND SW-5 ARE  
 (1 DEFICIED) ON MAYBURY  
 Y 1,500 FEET EAST OF OLD

## Appendix B

# Analytical Laboratory Results and Internal Quality Control Summary Quarter 3 2006

Cortland County Towslee Landfill



**B U C K**

ENVIRONMENTAL LABORATORIES, INC.

*Accredited environmental analysis*

Laboratory Narrative  
Cortland County Landfill  
Towsley Site

Lab Log No. 0608066

October 25, 2006

Mr. Patrick Reidy  
Cortland County Soil and Water Conservation District  
Room 204  
100 Grange Place  
Cortland, NY 13045

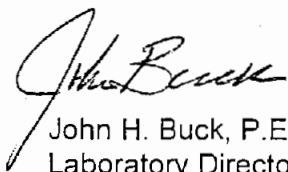
Re: Cortland County Landfill – Towsley Site  
Third Quarter - 2006

The data in this package represent results of analysis of the Part 360 Baseline Parameters for samples from seven wells from the Towsley site of the Cortland County Landfill. Ernest Spencer and Kevin Reagan of Buck Environmental Laboratories, Inc. (BEL) purged the wells on August 8, 2006. BEL employees, Eric Monsen, Ernest Spencer, Kevin Reagan and Christine Rhodes, sampled the wells on August 9, 2006.

Following water depth measurement (from top of casing to water), a minimum of three well volumes was purged using manual bailers or the well was purged to dryness. Field measurements of temperature, depth, pH, Eh, conductivity and turbidity were made. Three of the seven sites sampled, MW-1A, MW-1B, and MW-2A, were found to have turbidity in excess of 50 NTU. The non-preserved samples were filtered and analyzed for dissolved metals for comparison purposes.

Analytical methods, preservatives, hold times and containers for all laboratory analytes complied with requirements of the New York State Department of Health ELAP program. Instrument calibrations and blanks met the Laboratory's QC protocol. All analytical results were reviewed for compliance with the Laboratory QA/QC Manual, the NYSDOH-ELAP Certification Manual and the contractual requirements with Cortland County Soil & Water Conservation District. The laboratory QA/QC forms enclosed in this volume include those for a fortified sample ("spike," labeled "MS") and a duplicate fortified sample ("dup," labeled "MSD"). The MS/MSD recoveries for aluminum, iron and manganese on the total sample were outside QC criteria. The MS/MSD recoveries on the filtered sample for these metals met QC criteria. It is assumed that the particulate matter in the unfiltered sample precluded accurate measurement of these three analytes.

Thank you for the opportunity to provide this information and please let me know if there are any questions.



John H. Buck, P.E.  
Laboratory Director

n:\office\berb\landfill\cortland-ccswod\Towsley 3\_2006 narrative.doc



CORTLAND COUNTY LANDFILL  
TOWSLEY SITE

Sampled: 08/09/06

Samplers: EM, ES, KR, CR

Lab Log #0608066

ClientSampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-1A	CR6L	SW7196	08/10/06	Chromium, Hexavalent	0.02	ND	mg/L	
MW-1A	HGNPW	SW7470	09/01/06	Mercury	0.0004	ND	mg/L	
MW-1A	HGNPWDISS	SW7470	09/01/06	Mercury	0.0004	ND	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Aluminum	0.04	2.96	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Antimony	0.05	ND	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Arsenic	0.025	ND	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Barium	0.045	0.104	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Beryllium	0.005	ND	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Boron	0.05	0.073	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Cadmium	0.005	ND	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Calcium	0.21	43.2	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Chromium	0.005	ND	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Cobalt	0.015	ND	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Copper	0.01	0.022	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Iron	0.035	6.03	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Lead	0.005	ND	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Magnesium	0.32	9.7	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Manganese	0.005	0.38	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Nickel	0.01	ND	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Potassium	0.26	1.7	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Selenium	0.02	ND	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Silver	0.015	ND	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Sodium	0.67	13.6	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Thallium	0.03	ND	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Vanadium	0.015	ND	mg/L	
MW-1A	ICP	SW6010A	10/23/06	Zinc	0.01	0.106	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Aluminum	0.04	0.066	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Antimony	0.05	ND	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Arsenic	0.025	ND	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Barium	0.045	0.066	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Beryllium	0.005	ND	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Boron	0.07	ND	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Cadmium	0.005	ND	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Calcium	0.21	38.6	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Chromium	0.005	ND	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Cobalt	0.015	ND	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Copper	0.01	0.013	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Iron	0.035	0.125	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Lead	0.005	ND	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Magnesium	0.32	8.18	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Manganese	0.005	0.248	mg/L	

BUCK ENVIRONMENTAL LABORATORIES, INC.

PO Box 5150

Cortland, NY 13045

Tel 607.753.3403 FAX 753.3415

CORTLAND COUNTY LANDFILL  
TOWSLEY SITE

Sampled: 08/09/06

Samplers: EM, ES, KR, CR

Lab Log #06080066

Client/SampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-1A	ICPDISS	SW6010A	10/23/06	Nickel	0.01	ND	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Potassium	0.26	1.31	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Selenium	0.02	ND	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Silver	0.015	ND	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Sodium	0.67	13	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Thallium	0.03	ND	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Vanadium	0.015	ND	mg/L	
MW-1A	ICPDISS	SW6010A	10/23/06	Zinc	0.01	0.033	mg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	1,1,1,2-Tetrachloroethane	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	1,1,1-Trichloroethane	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	1,1,2,2-Tetrachloroethane	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	1,1,2-Trichloroethane	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	1,1-Dichloroethane	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	1,1-Dichloroethene	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	1,2,3-Trichloropropene	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	1,2-Dibromo-3-chloropropane	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	1,2-Dibromoethane	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	1,2-Dichlorobenzene	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	1,2-Dichloroethane	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	1,2-Dichloropropane	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	1,3-Dichlorobenzene	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	1,4-Dichlorobenzene	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	2-Butanone	25	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	2-Hexanone	25	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	4-Methyl-2-pentanone	25	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Acetone	25	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Acrylonitrile	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Benzene	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Bromochloromethane	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Bromodichloromethane	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Bromoform	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Bromomethane	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Carbon disulfide	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Carbon tetrachloride	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Chlorobenzene	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Chloroethane	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Chloroform	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Chloromethane	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	cis-1,2-Dichloroethene	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	cis-1,3-Dichloropropene	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Dibromochloromethane	5	ND	µg/L	

**CORTLAND COUNTY LANDFILL  
TOWSLEY SITE**

Sampled: 08/09/06

Samplers: EM, ES, KR, CR

Lab Log #0608066

Client/SampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-1A	M8260_360L	SW8260A	08/17/06	Dibromomethane	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Ethylbenzene	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Iodomethane	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	m,p-Xylene	10	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Methylene chloride	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	o-Xylene	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Styrene	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Tetrachloroethene	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Toluene	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	trans-1,2-Dichloroethene	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	trans-1,3-Dichloropropene	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	trans-1,4-Dichloro-2-butene	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Trichloroethene	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Trichlorofluoromethane	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Vinyl acetate	5	ND	µg/L	
MW-1A	M8260_360L	SW8260A	08/17/06	Vinyl chloride	5	ND	µg/L	
MW-1A	WALK	E310.1	08/14/06	Alkalinity, Total (As CaCO3)	2	122	mg/L CaCO3	
MW-1A	WBOD5	405.1	08/10/06	Biochemical Oxygen Demand	3	ND	mg/L	
MW-1A	WCN	E335.2	08/21/06	Cyanide	0.01	ND	mg/l	
MW-1A	WCOD	E410.1	08/17/06	Chemical Oxygen Demand	10	ND	mg/L	
MW-1A	WCOLOR	E110.2	08/10/06	Color	5	ND	units	
MW-1A	WCOND	E120.1	08/09/06	Specific Conductance	5	353	µmhos/cm	
MW-1A	WDEPTH	depth	08/09/06	Depth	0.01	2.97	feet	
MW-1A	WEH	D1498	08/09/06	EH	1	190	mV	
MW-1A	WHARD_CALC	E130.2	10/24/06	Hardness (As CaCO3)	1	148	mg/L	
MW-1A	WIC	E300	08/10/06	Bromide	0.1	ND	mg/L	
MW-1A	WIC	E300	08/10/06	Chloride	0.1	34.2	mg/L	
MW-1A	WIC	E300	08/10/06	Nitrogen, Nitrate (As N)	0.1	ND	mg/L	
MW-1A	WIC	E300	08/10/06	Nitrogen, Nitrite	0.1	ND	mg/L	
MW-1A	WIC	E300	08/10/06	Sulfate	1	16.5	mg/L	
MW-1A	WNH3	E350.1	08/21/06	Nitrogen, Ammonia (As N)	0.02	0.161	mg/L	
MW-1A	WPH_FIELD	E150.1	08/09/06	pH	0.1	7.52	pH units	
MW-1A	WPHENOL	E420.1	08/28/06	Phenolics, Total Recoverable	0.005	ND	mg/L	
MW-1A	WTDS	E160.1	08/15/06	Total Dissolved Solids (Residue, Filterable)	10	236	mg/L	
MW-1A	WTEMP	E170.1	08/09/06	Temperature	0.1	19.5	°C	
MW-1A	WTKN	E351.3	08/21/06	Nitrogen, Kjeldahl, Total	0.2	0.366	mg/L	
MW-1A	WTOC	E415.1	08/16/06	Organic Carbon, Total	2	ND	mg/L	
MW-1A	WTURB_FIELD	E180.1	08/09/06	Turbidity	0.05	131	NTU	
MW-1B	CR6L	SW7196	08/10/06	Chromium, Hexavalent	0.02	ND	mg/L	
MW-1B	HGNPW	SW7470	09/01/06	Mercury	0.0004	ND	mg/L	

BUCK ENVIRONMENTAL LABORATORIES, INC.

PO Box 5150

Cortland, NY 13045

Tel 607.753.3403 FAX 753.3415

## CORTLAND COUNTY LANDFILL

## TOWSLEY SITE

Sampled: 08/09/06

Samplers: EM, ES, KR, CR

Lab Log #06080666

ClientSampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-1B	HGNPWDISS	SW7470	09/01/06	Mercury	0.0004	ND	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Aluminum	0.04	1.09	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Antimony	0.05	ND	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Arsenic	0.025	ND	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Barium	0.045	0.194	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Beryllium	0.005	ND	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Boron	0.05	ND	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Cadmium	0.005	ND	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Calcium	0.21	25.8	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Chromium	0.005	ND	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Cobalt	0.015	ND	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Copper	0.01	0.017	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Iron	0.035	1.84	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Lead	0.005	ND	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Magnesium	0.32	6.05	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Manganese	0.005	0.251	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Nickel	0.01	ND	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Potassium	0.26	0.523	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Selenium	0.02	ND	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Silver	0.015	ND	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Sodium	0.67	6.35	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Thallium	0.03	ND	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Vanadium	0.015	ND	mg/L	
MW-1B	ICP	SW6010A	10/23/06	Zinc	0.01	0.052	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Aluminum	0.04	0.195	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Antimony	0.05	ND	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Arsenic	0.025	ND	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Barium	0.045	0.162	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Beryllium	0.005	ND	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Boron	0.07	ND	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Cadmium	0.005	ND	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Calcium	0.21	24.4	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Chromium	0.005	ND	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Cobalt	0.015	ND	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Copper	0.01	0.013	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Iron	0.035	0.339	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Lead	0.005	ND	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Magnesium	0.32	5.54	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Manganese	0.005	0.135	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Nickel	0.01	ND	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Potassium	0.26	0.403	mg/L	

BUCK ENVIRONMENTAL LABORATORIES, INC.

PO Box 5150

Corland, NY 13045

Tel 607.753.3403 FAX 753.3415

CORTLAND COUNTY LANDFILL  
TOWSLEY SITE  
Sampled: 08/09/06  
Samplers: EM, ES, KR, CR

Lab Log #0608066

Client/SampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-1B	ICPDISS	SW6010A	10/23/06	Selenium	0.02	ND	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Silver	0.015	ND	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Sodium	0.67	5.31	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Thallium	0.03	ND	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Vanadium	0.015	ND	mg/L	
MW-1B	ICPDISS	SW6010A	10/23/06	Zinc	0.01	0.029	mg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	1,1,1,2-Tetrachloroethane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	1,1,1-Trichloroethane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	1,1,2,2-Tetrachloroethane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	1,1,2-Trichloroethane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	1,1-Dichloroethane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	1,1-Dichloroethene	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	1,2,3-Trichloropropane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	1,2-Dibromo-3-chloropropane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	1,2-Dibromoethane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	1,2-Dichlorobenzene	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	1,2-Dichloroethane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	1,2-Dichloropropane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	1,3-Dichlorobenzene	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	1,4-Dichlorobenzene	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	2-Butanone	25	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	2-Hexanone	25	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	4-Methyl-2-pentanone	25	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Acetone	25	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Acrylonitrile	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Benzene	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Bromochloromethane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Bromodichloromethane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Bromoform	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Bromomethane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Carbon disulfide	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Carbon tetrachloride	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Chlorobenzene	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Chloroethane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Chloroform	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Chloromethane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	cis-1,2-Dichloroethene	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	cis-1,3-Dichloropropene	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Dibromochloromethane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Dibromomethane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Ethylbenzene	5	ND	µg/L	

CORTLAND COUNTY LANDFILL  
TOWSLEY SITE

Sampled: 08/09/06

Samplers: EM, ES, KR, CR

Lab Log #06080066

ClientSampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-1B	M8260_360L	SW8260A	08/17/06	Iodomethane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	m,p-Xylene	10	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Methylene chloride	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	o-Xylene	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Styrene	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Tetrachloroethene	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Toluene	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	trans-1,2-Dichloroethene	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	trans-1,3-Dichloropropene	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	trans-1,4-Dichloro-2-butene	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Trichloroethene	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Trichlorofluoromethane	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Vinyl acetate	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Vinyl chloride	5	ND	µg/L	
MW-1B	M8260_360L	SW8260A	08/17/06	Alkalinity, Total (As CaCO3)	5	ND	µg/L	
MW-1B	WALK	E310.1	08/14/06	Biochemical Oxygen Demand	2	91	mg/L CaCO3	
MW-1B	WBOD5	405.1	08/10/06	Cyanide	3	ND	mg/L	
MW-1B	WCN	E335.2	08/21/06	Chemical Oxygen Demand	0.01	ND	mg/L	
MW-1B	WCOD	E410.1	08/17/06	Color	10	ND	mg/L	
MW-1B	WCOLOR	E110.2	08/10/06	Specific Conductance	5	ND	units	
MW-1B	WCOND	E120.1	08/09/06	Depth	5	244	µmhos/cm	
MW-1B	WDEPTH	depth	08/09/06	EH	0.01	3.24	feet	
MW-1B	WEH	D1498	08/09/06	Hardness (As CaCO3)	1	155	mV	
MW-1B	WHARD_CALC	E130.2	10/24/06	Bromide	1	89	mg/L	
MW-1B	WIC	E300	08/11/06	Chloride	0.1	ND	mg/L	
MW-1B	WIC	E300	08/11/06	Nitrogen, Nitrate (As N)	0.1	3.47	mg/L	
MW-1B	WIC	E300	08/11/06	Nitrogen, Nitrite	0.1	ND	mg/L	
MW-1B	WIC	E300	08/11/06	Sulfate	0.1	ND	mg/L	
MW-1B	WNH3	E350.1	08/21/06	Nitrogen, Ammonia (As N)	1	5.33	mg/L	
MW-1B	WPH_FIELD	E150.1	08/09/06	pH	0.02	ND	pH units	
MW-1B	WPHENOL	E420.1	08/28/06	Phenolics, Total Recoverable	0.005	7.69	mg/L	
MW-1B	WTDS	E160.1	08/15/06	Total Dissolved Solids (Residue, Filterable)	10	142	mg/L	
MW-1B	WTEMP	E170.1	08/09/06	Temperature	0.1	16.4	°C	
MW-1B	WTKN	E351.3	08/21/06	Nitrogen, Kjeldahl, Total	0.2	0.497	mg/L	
MW-1B	WTOC	E415.1	08/16/06	Organic Carbon, Total	2	ND	mg/L	
MW-1B	WTURB_FIELD	E180.1	08/09/06	Turbidity	0.05	70	NTU	
MW-2A	CR6L	SW7196	08/10/06	Chromium, Hexavalent	0.02	ND	mg/L	
MW-2A	HGNPW	SW7470	09/01/06	Mercury	0.0004	ND	mg/L	
MW-2A	HGNPWDISS	SW7470	09/01/06	Mercury	0.0004	ND	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Aluminum	0.04	0.43	mg/L	

BUCK ENVIRONMENTAL LABORATORIES, INC.

PO Box 5150

Cortland, NY 13045

Tel 607.753.3403 FAX 753.3415

CORTLAND COUNTY LANDFILL  
TOWSLEY SITE  
Sampled: 08/09/06  
Samplers: EM, ES, KR, CR

Lab Log #0608066

Client/SampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-2A	ICP	SW6010A	10/23/06	Antimony	0.05	ND	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Arsenic	0.025	ND	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Barium	0.045	0.502	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Beryllium	0.005	ND	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Boron	0.05	0.584	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Cadmium	0.005	ND	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Calcium	0.21	77.3	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Chromium	0.005	ND	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Cobalt	0.015	ND	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Copper	0.01	0.012	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Iron	0.035	6.5	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Lead	0.005	ND	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Magnesium	0.32	17.5	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Manganese	0.005	12	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Nickel	0.01	ND	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Potassium	0.26	12.3	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Selenium	0.02	ND	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Silver	0.015	ND	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Sodium	0.67	31.4	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Thallium	0.03	ND	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Vanadium	0.015	ND	mg/L	
MW-2A	ICP	SW6010A	10/23/06	Zinc	0.01	ND	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Aluminum	0.04	0.044	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Antimony	0.05	ND	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Arsenic	0.025	ND	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Barium	0.045	0.427	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Beryllium	0.005	ND	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Boron	0.07	0.562	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Cadmium	0.005	ND	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Calcium	0.21	77.6	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Chromium	0.005	ND	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Cobalt	0.015	ND	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Copper	0.01	0.015	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Iron	0.035	0.204	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Lead	0.005	ND	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Magnesium	0.32	17.1	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Manganese	0.005	12.1	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Nickel	0.01	ND	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Potassium	0.26	12.5	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Selenium	0.02	ND	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Silver	0.015	ND	mg/L	

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CORTLAND COUNTY LANDFILL  
TOWSLEY SITE

Sampled: 08/09/06

Samplers: EM, ES, KR, CR

Lab Log #06080066

Client/SampID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-2A	ICPDISS	SW6010A	10/23/06	Sodium	0.67	29.6	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Thallium	0.03	ND	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Vanadium	0.015	ND	mg/L	
MW-2A	ICPDISS	SW6010A	10/23/06	Zinc	0.01	0.013	mg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	1,1,1,2-Tetrachloroethane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	1,1,1-Trichloroethane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	1,1,2,2-Tetrachloroethane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	1,1,2-Trichloroethane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	1,1-Dichloroethane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	1,1-Dichloroethene	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	1,2,3-Trichloropropane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	1,2-Dibromo-3-chloropropane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	1,2-Dibromoethane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	1,2-Dichlorobenzene	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	1,2-Dichloroethane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	1,2-Dichloropropane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	1,3-Dichlorobenzene	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	1,4-Dichlorobenzene	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	2-Butanone	25	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	2-Hexanone	25	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	4-Methyl-2-pentanone	25	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Acetone	25	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Acrylonitrile	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Benzene	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Bromochloromethane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Bromodichloromethane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Bromoform	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Bromomethane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Carbon disulfide	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Carbon tetrachloride	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Chlorobenzene	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Chloroethane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Chloroform	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Chloromethane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	cis-1,2-Dichloroethene	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	cis-1,3-Dichloropropene	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Dibromochloromethane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Dibromomethane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Ethylbenzene	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Iodomethane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	m,p-Xylene	10	ND	µg/L	

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**CORTLAND COUNTY LANDFILL  
TOWSLEY SITE**

Sampled: 08/09/06

Samplers: EM, ES, KR, CR

Lab Log #0608066

ClientSampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-2A	M8260_360L	SW8260A	08/17/06	Methylene chloride	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	o-Xylene	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Styrene	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Tetrachloroethene	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Toluene	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	trans-1,2-Dichloroethene	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	trans-1,3-Dichloropropene	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	trans-1,4-Dichloro-2-butene	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Trichloroethene	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Trichlorofluoromethane	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Vinyl acetate	5	ND	µg/L	
MW-2A	M8260_360L	SW8260A	08/17/06	Vinyl chloride	5	ND	µg/L	
MW-2A	WALK	E310.1	08/14/06	Alkalinity, Total (As CaCO3)	2	384	mg/L CaCO3	
MW-2A	WBOD5	405.1	08/10/06	Biochemical Oxygen Demand	2	3.4	mg/L	
MW-2A	WCN	E335.2	08/21/06	Cyanide	0.01	ND	mg/L	
MW-2A	WCOD	E410.1	08/17/06	Chemical Oxygen Demand	10	27	mg/L	
MW-2A	WCOLOR	E110.2	08/10/06	Color	5	33	units	
MW-2A	WCOND	E120.1	08/09/06	Specific Conductance	5	784	µmhos/cm	
MW-2A	WDEPTH	depth	08/09/06	Depth	0.01	6.1	feet	
MW-2A	WEH	D1498	08/09/06	EH	1	120	mV	
MW-2A	WHARD_CALC	E130.2	10/24/06	Hardness (As CaCO3)	1	265	mg/L	
MW-2A	WIC	E300	08/11/06	Bromide	0.1	0.237	mg/L	
MW-2A	WIC	E300	08/11/06	Chloride	0.1	23.5	mg/L	
MW-2A	WIC	E300	08/11/06	Fluoride	0.1	ND	mg/L	
MW-2A	WIC	E300	08/11/06	Nitrogen, Nitrate (As N)	0.1	ND	mg/L	
MW-2A	WIC	E300	08/11/06	Nitrogen, Nitrite	0.1	ND	mg/L	
MW-2A	WIC	E300	08/11/06	Sulfate	1	3.43	mg/L	
MW-2A	WNH3	E350.1	08/21/06	Nitrogen, Ammonia (As N)	0.2	16	mg/L	
MW-2A	WPH_FIELD	E150.1	08/09/06	pH	0.1	6.15	pH units	
MW-2A	WPHENOL	E420.1	08/28/06	Phenolics, Total Recoverable	0.005	ND	mg/L	
MW-2A	WTDS	E160.1	08/15/06	Total Dissolved Solids (Residue, Filterable)	10	491	mg/L	
MW-2A	WTMP	E170.1	08/09/06	Temperature	0.1	17.2	°C	
MW-2A	WTKN	E351.3	08/21/06	Nitrogen, Kjeldahl, Total	2	16.5	mg/L	
MW-2A	WTOC	E415.1	08/16/06	Organic Carbon, Total	2	5.67	mg/L	
MW-2A	WTURB_FIELD	E180.1	08/09/06	Turbidity	0.05	195	NTU	
MW-2B	CR6L	SW7196	08/10/06	Chromium, Hexavalent	0.02	ND	mg/L	
MW-2B	HGNPW	SW7470	09/01/06	Mercury	0.0004	ND	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Aluminum	0.04	0.18	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Antimony	0.05	ND	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Arsenic	0.025	ND	mg/L	

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Sampled: 08/09/06

Samplers: EM, ES, KR, CR

Lab Log #0608066

ClientSampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-2B	ICP	SW6010A	10/23/06	Barium	0.045	1.22	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Beryllium	0.005	ND	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Boron	0.05	0.256	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Cadmium	0.005	ND	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Calcium	0.21	203	mg/L	E
MW-2B	ICP	SW6010A	10/23/06	Chromium	0.005	ND	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Cobalt	0.015	ND	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Copper	0.01	0.017	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Iron	0.035	1.2	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Lead	0.005	ND	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Magnesium	0.32	43.5	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Manganese	0.005	6.63	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Nickel	0.01	ND	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Potassium	0.26	2.28	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Selenium	0.02	ND	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Silver	0.015	ND	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Sodium	0.67	51.1	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Thallium	0.03	ND	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Vanadium	0.015	ND	mg/L	
MW-2B	ICP	SW6010A	10/23/06	Zinc	0.01	ND	mg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	1,1,1,2-Tetrachloroethane	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	1,1,1-Trichloroethane	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	1,1,2,2-Tetrachloroethane	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	1,1,2-Trichloroethane	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	1,1-Dichloroethane	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	1,1-Dichloroethene	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	1,2,3-Trichloropropane	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	1,2-Dibromo-3-chloropropane	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	1,2-Dibromoethane	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	1,2-Dichlorobenzene	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	1,2-Dichloroethane	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	1,2-Dichloropropane	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	1,3-Dichlorobenzene	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	1,4-Dichlorobenzene	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	2-Butanone	25	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	2-Hexanone	25	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	4-Methyl-2-pentanone	25	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Acetone	25	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Acrylonitrile	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Benzene	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Bromochloromethane	5	ND	µg/L	

**CORTLAND COUNTY LANDFILL  
TOWSLEY SITE**

Sampled: 08/09/06  
Samplers: EM, ES, KR, CR

Lab Log #06080066

Client/SampID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-2B	M8260_360L	SW8260A	08/17/06	Bromodichloromethane	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Bromoform	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Bromomethane	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Carbon disulfide	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Carbon tetrachloride	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Chlorobenzene	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Chloroethane	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Chloroform	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Chloromethane	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	cis-1,2-Dichloroethene	5	6.2	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	cis-1,3-Dichloropropene	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Dibromochloromethane	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Dibromomethane	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Ethylbenzene	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Iodomethane	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	m,p-Xylene	10	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Methylene chloride	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	o-Xylene	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Styrene	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Tetrachloroethene	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Toluene	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	trans-1,2-Dichloroethene	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	trans-1,3-Dichloropropene	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	trans-1,4-Dichloro-2-butene	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Trichloroethene	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Trichlorofluoromethane	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Vinyl acetate	5	ND	µg/L	
MW-2B	M8260_360L	SW8260A	08/17/06	Vinyl chloride	5	ND	µg/L	
MW-2B	WALK	E310.1	08/14/06	Alkalinity, Total (As CaCO3)	2	612	mg/L CaCO3	
MW-2B	W50D5	405.1	08/10/06	Biochemical Oxygen Demand	2	3.7	mg/L	
MW-2B	WCN	E335.2	08/21/06	Cyanide	0.01	0.024	mg/l	
MW-2B	WCOD	E410.1	08/17/06	Chemical Oxygen Demand	10	24.6	mg/L	
MW-2B	WCOLOR	E110.2	08/10/06	Color	5	ND	units	
MW-2B	WCOND	E120.1	08/09/06	Specific Conductance	5	1420	µmhos/cm	
MW-2B	WDEPTH	depth	08/09/06	Depth	0.01	6.83	feet	
MW-2B	WEH	D1498	08/09/06	EH	1	125	mV	
MW-2B	WHARD_CALC	E130.2	10/24/06	Hardness (As CaCO3)	1	686	mg/L	
MW-2B	WIC	E300	08/11/06	Bromide	0.1	0.902	mg/L	
MW-2B	WIC	E300	08/11/06	Chloride	1	122	mg/L	
MW-2B	WIC	E300	08/11/06	Nitrogen, Nitrate (As N)	0.1	ND	mg/L	
MW-2B	WIC	E300	08/11/06	Nitrogen, Nitrite	1	ND	mg/L	

CORTLAND COUNTY LANDFILL  
TOWSLEY SITE

Sampled: 08/09/06

Samplers: EM, ES, KR, CR

Lab Log #0608066

Client/SampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-2B	WIC	E300	08/11/06	Sulfate	1	ND	mg/L	
MW-2B	WNH3	E350.1	08/21/06	Nitrogen, Ammonia (As N)	0.02	0.786	mg/L	
MW-2B	WPH_FIELD	E150.1	08/09/06	pH	0.1	6.35	pH units	
MW-2B	WPHENOL	E420.1	08/28/06	Phenolics, Total Recoverable	0.005	ND	mg/L	
MW-2B	WTDS	E160.1	08/15/06	Total Dissolved Solids (Residue, Filterable)	10	1040	mg/L	
MW-2B	WTEMP	E170.1	08/09/06	Temperature	0.1	15.9	°C	
MW-2B	WTKN	E351.3	08/21/06	Nitrogen, Kjeldahl, Total	0.2	1.64	mg/L	
MW-2B	WTOC	E415.1	08/16/06	Organic Carbon, Total	2	4.82	mg/L	
MW-2B	WTURB_FIELD	E180.1	08/09/06	Turbidity	0.05	18.7	NTU	
MW-3A	CR6L	SW7196	08/10/06	Chromium, Hexavalent	0.02	ND	mg/L	
MW-3A	HGNPW	SW7470	09/01/06	Mercury	0.0004	ND	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Aluminum	0.04	0.078	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Antimony	0.05	ND	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Arsenic	0.025	ND	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Barium	0.045	0.41	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Beryllium	0.005	ND	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Boron	0.05	0.063	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Cadmium	0.005	ND	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Calcium	0.21	57.9	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Chromium	0.005	ND	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Cobalt	0.015	ND	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Copper	0.01	0.023	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Iron	0.035	0.104	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Lead	0.005	0.005	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Magnesium	0.32	11.2	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Manganese	0.005	0.416	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Nickel	0.01	ND	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Potassium	0.26	1.09	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Selenium	0.02	ND	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Silver	0.015	ND	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Sodium	0.67	8.92	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Thallium	0.03	ND	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Vanadium	0.015	ND	mg/L	
MW-3A	ICP	SW6010A	10/23/06	Zinc	0.01	0.025	mg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	1,1,1,2-Tetrachloroethane	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	1,1,1-Trichloroethane	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	1,1,2,2-Tetrachloroethane	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	1,1,2-Trichloroethane	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	1,1-Dichloroethane	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	1,1-Dichloroethene	5	ND	µg/L	

BUCK ENVIRONMENTAL LABORATORIES, INC.

PO Box 5150

Cortland, NY 13045

Tel 607.753.3403 FAX 753.3415

CORTLAND COUNTY LANDFILL  
TOWSLEY SITE

Sampled: 08/09/06

Samplers: EM, ES, KR, CR

Lab Log #0608066

ClientSampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-3A	M8260_360L	SW8260A	08/17/06	1,2,3-Trichloropropane	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	1,2-Dibromo-3-chloropropane	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	1,2-Dibromoethane	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	1,2-Dichlorobenzene	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	1,2-Dichloroethane	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	1,2-Dichloropropane	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	1,3-Dichlorobenzene	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	1,4-Dichlorobenzene	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	2-Butanone	25	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	2-Hexanone	25	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	4-Methyl-2-pentanone	25	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Acetone	25	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Acrylonitrile	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Benzene	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Bromochloromethane	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Bromodichloromethane	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Bromoform	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Bromomethane	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Carbon disulfide	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Carbon tetrachloride	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Chlorobenzene	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Chloroethane	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Chloroform	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Chloromethane	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	cis-1,2-Dichloroethene	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	cis-1,3-Dichloropropene	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Dibromochloromethane	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Dibromomethane	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Ethylbenzene	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Iodomethane	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	m,p-Xylene	10	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Methylene chloride	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	o-Xylene	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Styrene	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Tetrachloroethene	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Toluene	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	trans-1,2-Dichloroethene	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	trans-1,3-Dichloropropene	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	trans-1,4-Dichloro-2-butene	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Trichloroethene	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Trichlorofluoromethane	5	ND	µg/L	

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**CORTLAND COUNTY LANDFILL  
TOWSLEY SITE**

Sampled: 08/09/06

Samplers: EM, ES, KR, CR

Lab Log #0608066

ClientSampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-3A	M8260_360L	SW8260A	08/17/06	Vinyl acetate	5	ND	µg/L	
MW-3A	M8260_360L	SW8260A	08/17/06	Vinyl chloride	5	ND	µg/L	
MW-3A	WALK	E310.1	08/14/06	Alkalinity, Total (As CaCO3)	2	140	mg/L CaCO3	
MW-3A	WBOD5	405.1	08/10/06	Biochemical Oxygen Demand	3	ND	mg/l	
MW-3A	WCN	E335.2	08/21/06	Cyanide	0.01	ND	mg/l	
MW-3A	WCOD	E410.1	08/17/06	Chemical Oxygen Demand	10	13	mg/L	
MW-3A	WCOLOR	E110.2	08/10/06	Color	5	ND	units	
MW-3A	WCOND	E120.1	08/09/06	Specific Conductance	5	342	µmhos/cm	
MW-3A	WDEPTH	depth	08/09/06	Depth	0.01	9.13	feet	
MW-3A	WEH	D1498	08/09/06	EH	1	115	mV	
MW-3A	WHARD_CALC	E130.2	10/24/06	Hardness (As CaCO3)	1	191	mg/L	
MW-3A	WIC	E300	08/11/06	Bromide	0.1	0.152	mg/L	
MW-3A	WIC	E300	08/11/06	Chloride	0.1	13.5	mg/L	
MW-3A	WIC	E300	08/11/06	Nitrogen, Nitrate (As N)	0.1	ND	mg/L	
MW-3A	WIC	E300	08/11/06	Nitrogen, Nitrite	0.1	ND	mg/L	
MW-3A	WIC	E300	08/11/06	Sulfate	1	9.98	mg/L	
MW-3A	WNH3	E350.1	08/21/06	Nitrogen, Ammonia (As N)	0.02	ND	mg/L	
MW-3A	WPH_FIELD	E150.1	08/09/06	pH	0.1	7.01	pH units	
MW-3A	WPHENOL	E420.1	08/28/06	Phenolics, Total Recoverable	0.005	ND	mg/L	
MW-3A	WTDS	E160.1	08/15/06	Total Dissolved Solids (Residue, Filterable)	10	207	mg/L	
MW-3A	WTEMP	E170.1	08/09/06	Temperature	0.1	15.3	°C	
MW-3A	WTKN	E351.3	08/21/06	Nitrogen, Kjeldahl, Total	0.2	0.239	mg/L	
MW-3A	WTOC	E415.1	08/16/06	Organic Carbon, Total	2	ND	mg/L	
MW-3A	WTURB_FIELD	E180.1	08/09/06	Turbidity	0.05	5.2	NTU	
MW-6B	CR6L	SW7196	08/10/06	Chromium, Hexavalent	0.02	ND	mg/L	
MW-6B	HGNPW	SW7470	09/01/06	Mercury	0.0004	ND	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Aluminum	0.04	0.115	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Antimony	0.05	ND	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Arsenic	0.025	ND	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Barium	0.045	0.313	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Beryllium	0.005	ND	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Boron	0.05	ND	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Cadmium	0.005	ND	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Calcium	0.21	36.1	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Chromium	0.005	ND	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Cobalt	0.015	ND	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Copper	0.01	0.016	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Iron	0.035	0.306	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Lead	0.005	ND	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Magnesium	0.32	9.86	mg/L	

BUCK ENVIRONMENTAL LABORATORIES, INC.

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Cortland, NY 13045

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CORTLAND COUNTY LANDFILL  
TOWSLEY SITE

Sampled: 08/09/06

Samplers: EM, ES, KR, CR

Lab Log #0608066

Client/SampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-6B	ICP	SW6010A	10/23/06	Manganese	0.005	0.297	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Nickel	0.01	ND	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Potassium	0.26	0.634	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Selenium	0.02	ND	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Silver	0.015	ND	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Sodium	0.67	10.1	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Thallium	0.03	ND	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Vanadium	0.015	ND	mg/L	
MW-6B	ICP	SW6010A	10/23/06	Zinc	0.01	0.014	mg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	1,1,1,2-Tetrachloroethane	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	1,1,1-Trichloroethane	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	1,1,2,2-Tetrachloroethane	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	1,1,2-Trichloroethane	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	1,1-Dichloroethane	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	1,1-Dichloroethene	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	1,2,3-Trichloropropane	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	1,2-Dibromo-3-chloropropane	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	1,2-Dibromoethane	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	1,2-Dichlorobenzene	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	1,2-Dichloroethane	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	1,2-Dichloropropane	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	1,3-Dichlorobenzene	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	1,4-Dichlorobenzene	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	2-Butanone	25	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	2-Hexanone	25	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	4-Methyl-2-pentanone	25	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Acetone	25	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Acrylonitrile	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Benzene	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Bromochloromethane	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Bromodichloromethane	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Bromoform	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Bromomethane	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Carbon disulfide	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Carbon tetrachloride	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Chlorobenzene	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Chloroethane	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Chloroform	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Chloromethane	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	cis-1,2-Dichloroethene	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	cis-1,3-Dichloropropene	5	ND	µg/L	

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**CORTLAND COUNTY LANDFILL  
TOWSLEY SITE**

Sampled: 08/09/06

Samplers: EM, ES, KR, CR

Lab Log #06080666

Client/SampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-6B	M8260_360L	SW8260A	08/17/06	Dibromochloromethane	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Dibromomethane	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Ethylbenzene	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Iodobenzene	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	m,p-Xylene	10	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Methylene chloride	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	o-Xylene	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Styrene	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Tetrachloroethene	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Toluene	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	trans-1,2-Dichloroethene	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	trans-1,3-Dichloropropene	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	trans-1,4-Dichloro-2-butene	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Trichloroethene	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Trichlorofluoromethane	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Vinyl acetate	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Vinyl chloride	5	ND	µg/L	
MW-6B	M8260_360L	SW8260A	08/17/06	Alkalinity, Total (As CaCO3)	5	ND	µg/L	
MW-6B	WALK	E310.1	08/14/06	Alkalinity, Total (As CaCO3)	2	154	mg/L CaCO3	
MW-6B	WBOD5	405.1	08/10/06	Biochemical Oxygen Demand	2	3.2	mg/L	
MW-6B	WCN	E335.2	08/21/06	Cyanide	0.01	ND	mg/L	
MW-6B	WCOD	E410.1	08/17/06	Chemical Oxygen Demand	10	11.6	mg/L	
MW-6B	WCOLOR	E110.2	08/10/06	Color	5	ND	units	
MW-6B	WCOND	E120.1	08/09/06	Specific Conductance	5	304	µmhos/cm	
MW-6B	WDEPTH	depth	08/09/06	Depth	0.01	12.8	feet	
MW-6B	WEH	D1498	08/09/06	FH	1	225	mV	
MW-6B	WHARD_CALC	E130.2	10/24/06	Hardness (As CaCO3)	1	131	mg/L	
MW-6B	WIC	E300	08/11/06	Bromide	0.1	0.122	mg/L	
MW-6B	WIC	E300	08/11/06	Chloride	0.1	2.32	mg/L	
MW-6B	WIC	E300	08/11/06	Nitrogen, Nitrate (As N)	0.1	ND	mg/L	
MW-6B	WIC	E300	08/11/06	Nitrogen, Nitrite	0.1	ND	mg/L	
MW-6B	WIC	E300	08/11/06	Sulfate	1	3.28	mg/L	
MW-6B	WNH3	E350.1	08/21/06	Nitrogen, Ammonia (As N)	0.02	0.096	mg/L	
MW-6B	WPH_FIELD	E150.1	08/09/06	pH	0.1	7.52	pH units	
MW-6B	WPHENOI	E420.1	08/28/06	Phenolics, Total Recoverable	0.005	ND	mg/L	
MW-6B	WTDS	E160.1	08/15/06	Total Dissolved Solids (Residue, Filterable)	10	190	mg/L	
MW-6B	WTEMP	E170.1	08/09/06	Temperature	0.1	12.2	°C	
MW-6B	WTKN	E351.3	08/21/06	Nitrogen, Kjeldahl, Total	0.2	0.214	mg/L	
MW-6B	WTOC	E415.1	08/16/06	Organic Carbon, Total	2	ND	mg/L	
MW-6B	WTURB_FIELD	E180.1	08/09/06	Turbidity	0.05	15.8	NTU	
MW-7A	CR6L	SW7196	08/10/06	Chromium, Hexavalent	0.02	ND	mg/L	

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**CORTLAND COUNTY LANDFILL  
TOWSLEY SITE**

Sampled: 08/09/06

Samplers: EM, ES, KR, CR

Lab Log #0608066

Client/SampID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-7A	HGNPW	SW7470	09/01/06	Mercury	0.0004	ND	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Aluminum	0.04	0.415	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Antimony	0.05	ND	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Arsenic	0.025	ND	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Barium	0.045	0.684	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Beryllium	0.005	ND	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Boron	0.05	0.55	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Cadmium	0.005	ND	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Calcium	0.21	150	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Chromium	0.005	ND	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Cobalt	0.015	ND	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Copper	0.01	0.013	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Iron	0.035	0.722	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Lead	0.005	0.006	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Magnesium	0.32	38	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Manganese	0.005	4.4	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Nickel	0.01	0.013	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Potassium	0.26	1.81	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Selenium	0.02	ND	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Silver	0.015	ND	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Sodium	0.67	124	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Thallium	0.03	ND	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Vanadium	0.015	ND	mg/L	
MW-7A	ICP	SW6010A	10/23/06	Zinc	0.01	ND	mg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	1,1,1,2-Tetrachloroethane	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	1,1,1-Trichloroethane	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	1,1,2,2-Tetrachloroethane	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	1,1,2-Trichloroethane	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	1,1-Dichloroethane	5	6.1	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	1,1-Dichloroethene	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	1,2,3-Trichloropropane	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	1,2-Dibromo-3-chloropropane	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	1,2-Dibromoethane	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	1,2-Dichlorobenzene	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	1,2-Dichloroethane	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	1,2-Dichloropropane	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	1,3-Dichlorobenzene	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	1,4-Dichlorobenzene	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	2-Butanone	25	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	2-Hexanone	25	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	4-Methyl-2-pentanone	25	ND	µg/L	

**CORTLAND COUNTY LANDFILL  
TOWSLEY SITE**

Sampled: 08/09/06

Samplers: EM, ES, KR, CR

Lab Log #0608066

ClientSampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-7A	M8260_360L	SW8260A	08/17/06	Acetone	25	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Acrylonitrile	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Benzene	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Bromochloromethane	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Bromodichloromethane	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Bromoform	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Bromomethane	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Carbon disulfide	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Carbon tetrachloride	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Chlorobenzene	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Chloroethane	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Chloroform	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Chloromethane	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	cis-1,2-Dichloroethene	5	7.1	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	cis-1,3-Dichloropropene	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Dibromochloromethane	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Dibromomethane	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Ethylbenzene	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Iodomethane	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	m,p-Xylene	10	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Methylene chloride	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	o-Xylene	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Styrene	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Tetrachloroethene	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Toluene	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	trans-1,2-Dichloroethene	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	trans-1,3-Dichloropropene	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	trans-1,4-Dichloro-2-butene	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Trichloroethene	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Trichlorofluoromethane	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Vinyl acetate	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/17/06	Vinyl chloride	5	ND	µg/L	
MW-7A	M8260_360L	SW8260A	08/14/06	Alkalinity, Total (As CaCO3)	2	595	mg/L CaCO3	
MW-7A	WALK	E310.1	08/10/06	Biochemical Oxygen Demand	3	ND	mg/L	
MW-7A	WBOD5	405.1	08/10/06	Cyanide	0.01	ND	mg/L	
MW-7A	WCN	E335.2	08/21/06	Chemical Oxygen Demand	10	26.4	mg/L	
MW-7A	WCOD	E410.1	08/17/06	Color	5	ND	units	
MW-7A	WCOLOR	E110.2	08/10/06	Specific Conductance	5	1440	µmhos/cm	
MW-7A	WCOND	E120.1	08/09/06	Depth	0.01	3.78	feet	
MW-7A	WDEPTH	depth	08/09/06	EH	1	245	mV	
MW-7A	WEH	D1498	08/09/06	Hardness (As CaCO3)	1	531	mg/L	
MW-7A	WHARD_CALC	E130.2	10/24/06					

**CORTLAND COUNTY LANDFILL  
TOWSLEY SITE**

Sampled: 08/09/06

Samplers: EM, ES, KR, CR

Lab Log #0608066

Client/SampID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-7A	WIC	E300	08/11/06	Bromide	0.1	0.822	mg/L	
MW-7A	WIC	E300	08/11/06	Chloride	1	119	mg/L	
MW-7A	WIC	E300	08/11/06	Nitrogen, Nitrate (As N)	0.1	ND	mg/L	
MW-7A	WIC	E300	08/11/06	Nitrogen, Nitrite	1	ND	mg/L	
MW-7A	WIC	E300	08/11/06	Sulfate	1	19.7	mg/L	
MW-7A	WNH3	E350.1	08/21/06	Nitrogen, Ammonia (As N)	0.02	ND	mg/L	
MW-7A	WPH_FIELD	E150.1	08/09/06	pH	0.1	6.34	pH units	
MW-7A	WPHENOL	E420.1	08/28/06	Phenolics, Total Recoverable	0.005	ND	mg/L	
MW-7A	WTDS	E160.1	08/15/06	Total Dissolved Solids (Residue, Filterable)	10	963	mg/L	
MW-7A	WTEMP.	E170.1	08/09/06	Temperature	0.1	17.4	°C	
MW-7A	WTKN	E351.3	08/21/06	Nitrogen, Kjeldahl, Total	0.2	0.75	mg/L	
MW-7A	WTOC	E415.1	08/16/06	Organic Carbon, Total	2	6.12	mg/L	
MW-7A	WTURB_FIELD	E180.1	08/09/06	Turbidity	0.05	13.6	NTU	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	1,1,1,2-Tetrachloroethane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	1,1,1-Trichloroethane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	1,1,2,2-Tetrachloroethane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	1,1,2-Trichloroethane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	1,1-Dichloroethane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	1,1-Dichloroethene	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	1,2,3-Trichloropropane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	1,2-Dibromo-3-chloropropane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	1,2-Dibromoethane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	1,2-Dichlorobenzene	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	1,2-Dichloroethane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	1,2-Dichloropropane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	1,3-Dichlorobenzene	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	1,4-Dichlorobenzene	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	2-Butanone	25	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	2-Hexanone	25	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	4-Methyl-2-pentanone	25	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Acetone	25	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Acrylonitrile	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Benzene	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Bromochloromethane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Bromodichloromethane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Bromoform	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Bromomethane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Carbon disulfide	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Carbon tetrachloride	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Chlorobenzene	5	ND	µg/L	

CORTLAND COUNTY LANDFILL  
TOWSLEY SITE

Sampled: 08/09/06  
Samplers: EM, ES, KR, CR

Lab Log #0608066

ClientSampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Chloroethane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Chloroform	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Chloromethane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	cis-1,2-Dichloroethene	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	cis-1,3-Dichloropropene	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Dibromochloromethane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Dibromomethane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Ethylbenzene	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Iodomethane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	m,p-Xylene	10	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Methylene chloride	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	o-Xylene	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Styrene	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Tetrachloroethene	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Toluene	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	trans-1,2-Dichloroethene	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	trans-1,3-Dichloropropene	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	trans-1,4-Dichloro-2-butene	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Trichloroethene	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Trichlorofluoromethane	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Vinyl acetate	5	ND	µg/L	
TRIP BLANK	M8260_360L	SW8260A	08/17/06	Vinyl chloride	5	ND	µg/L	

CORTLAND COUNTY LANDFILL  
TOWSLEY SITE

Sampled: 08/09/06

Samplers: EM, ES, KR, CR

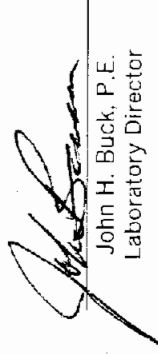
Lab Log #0608066

<u>Client</u> <u>SampleID</u>	<u>TestCode</u>	<u>TestNo</u>	<u>AnalDate</u>	<u>Analyte</u>	<u>PQL</u>	<u>FinalVal</u>	<u>Units</u>	<u>Qual</u>
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This laboratory analysis has been performed in accordance with generally accepted laboratory practices and requirements of the New York State Department of Health ELAP Program. Buck Environmental Laboratories, Inc. makes no recommendations, representations or warranties other than as specifically set forth in this report and shall not be responsible or liable for any action or the consequence of any action taken in connection with this report.

Qualifiers:

ND ---> Not detected at the PQL indicated  
PQL ---> Laboratory Practical Limit of Quantitation  
J ---> Result is estimated, reported value is less than PQL  
B ---> Result is estimated, analyte detected in blank  
S ---> Result is estimated, surrogate or spike recovery outside of acceptance limits  
R ---> Results is estimated, RPD outside of acceptance limits  
E ---> Result is estimated, reported value exceeds upper quantitation limit

  
John H. Buck, P.E.  
Laboratory Director

BUCK ENVIRONMENTAL LABORATORIES, INC.

PO Box 5150

Cortland, NY 13045

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# Buck Environmental Labs, Inc.

Date: 25-Oct-06

CLIENT: CORTLAND CO SOIL & WATER

Work Order: 0608066

Project: TOWSLEY

## ANALYTICAL QC SUMMARY REPORT

BatchID: R20505

Sample ID: 0608065-06BMS	Sample Type: MS	TestCode: WALK	Units: mg/L CaCO3	Prep Date:	Run ID: WET CHEM-123_060814						
Client ID: ZZZZZ	Batch ID: R20505	TestNo: E310.1		Analysis Date: 08/14/06	SeqNo: 384783						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 0608066-02BMS	Sample Type: MS	Test Code: WALK	Units: mg/L CaCO3	Prep Date:	Run ID: WET CHEM-123_060814						
Client ID: MW-1B	Batch ID: R20505	Test No: E310.1		Analysis Date: 08/14/06	SeqNo: 384802						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	189	2.00	100	91	98	82.7	115	0	0	0	

Sample ID: 0608065-06BMSD	SampleType: MSD	TestCode: WALK	Units: mg/L CaCO3	Prep Date:	Run ID: WET CHEM-123_060814						
Client ID: ZZZZZ	Batch ID: R20505	TestNo: E310.1		Analysis Date: 08/14/06	SeqNo: 384784						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	917	2.00	100	813	104	82.7	115	915	0.218	20	

Sample ID: 0608066-02BMSD	SampType: MSD	TestCode: WALK	Units: mg/L CaCO3	Prep Date:	Run ID: WET CHEM-123_060814						
Client ID: MW-1B	Batch ID: R20505	TestNo: E310.1		Analysis Date: 08/14/06	SeqNo: 384803						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	190	2.00	100	91	99	82.7	115	189	0.528		20

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank  
Page 1 of 1

# Buck Environmental Labs, Inc.

Date: 25-Oct-06

CLIENT: CORTLAND CO SOIL & WATER  
Work Order: 0608066  
Project: TOWSLEY

## ANALYTICAL QC SUMMARY REPORT

BatchID: R20483

Sample ID: 0608065-06DMS	SampType: MSD	TestCode: WBOD5	Units: mg/L	Prep Date:	Run ID: WET CHEM-124_060810						
Client ID: ZZZZZ	Batch ID: R20483	TestNo: 405.1		Analysis Date: 08/10/06	SeqNo: 384257						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 0608065-06DMSD	SampType: MSD	TestCode: WBOD5	Units: mg/L	Prep Date:	Run ID: WET CHEM-124_060810						
Client ID: ZZZZZ	Batch ID: R20483	TestNo: 405.1		Analysis Date: 08/10/06	SeqNo: 384258						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 0608066-02DMS	SampType: MSD	TestCode: WBOD5	Units: mg/L	Prep Date:	Run ID: WET CHEM-124_060810						
Client ID: MW-1B	Batch ID: R20483	TestNo: 405.1		Analysis Date: 08/10/06	SeqNo: 384272						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 0608066-02DMSD	SampType: MSD	TestCode: WBOD5	Units: mg/L	Prep Date:	Run ID: WET CHEM-124_060810						
Client ID: MW-1B	Batch ID: R20483	TestNo: 405.1		Analysis Date: 08/10/06	SeqNo: 384273						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank  
Page 1 of 1

# Buck Environmental Labs, Inc.

Date: 25-Oct-06

CLIENT: CORTLAND CO SOIL & WATER

Work Order: 0608066

Project: TOWSLEY

## ANALYTICAL QC SUMMARY REPORT

BatchID: R20466

Sample ID: 0608066-02BMS	SampType: MS	TestCode: WIC	Units: mg/L	Prep Date:	Run ID: LACHAT 8000_060811A						
Client ID: MW-1B	Batch ID: R20466	TestNo: E300		Analysis Date: 08/11/06	SeqNo: 383944						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Bromide	19.43	0.100	20	0	97.2	70	114	0	0		
Chloride	10.94	0.100	8	3.468	93.4	41	133	0	0		
Nitrogen, Nitrate (As N)	3.838	0.100	4	0	96	70	116	0	0		
Nitrogen, Nitrite	1.934	0.100	2	0	96.7	73.6	110	0	0		
Sulfate	24.1	1.00	20	5.333	93.8	67.6	121	0	0		

Sample ID: 0608066-02BMSD	SampType: MSD	TestCode: WIC	Units: mg/L	Prep Date:	Run ID: LACHAT 8000_060811A						
Client ID: MW-1B	Batch ID: R20466	TestNo: E300		Analysis Date: 08/11/06	SeqNo: 383945						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Bromide	19.47	0.100	20	0	97.4	70	114	19.43	0.200	5.66	
Chloride	10.88	0.100	8	3.468	92.7	41	133	10.94	0.513	7.89	
Nitrogen, Nitrate (As N)	3.84	0.100	4	0	96	70	116	3.838	0.0521	4.37	
Nitrogen, Nitrite	1.948	0.100	2	0	97.4	73.6	110	1.934	0.721	5.05	
Sulfate	24.01	1.00	20	5.333	93.4	67.6	121	24.1	0.378	8.05	

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



# Buck Environmental Labs, Inc.

Date: 25-Oct-06

CLIENT: CORTLAND CO SOIL & WATER

Work Order: 0608066

Project: TOWSLEY

## ANALYTICAL QC SUMMARY REPORT

BatchID: R20624

Sample ID: 0608066-02CMS	Sample Type: MS	TestCode: WCOD	Units: mg/L	Prep Date:	Run ID: WET CHEM-123_060817						
Client ID: MW-1B	Batch ID: R20624	TestNo: E410.1		Analysis Date: 08/17/06	SeqNo: 387163						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chemical Oxygen Demand 55.8 10.0 50 4.63 102 79.5 131 0 0

Sample ID: 0608066-02CMSD	SanpType: MSD	TestCode: WCOD	Units: mg/L	Prep Date:	Run ID: WET CHEM-123_060817						
Client ID: MW-1B	Batch ID: R20624	TestNo: E410.1		Analysis Date: 08/17/06	SeqNo: 387164						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chemical Oxygen Demand 57.38 10.0 50 4.63 106 79.5 131 55.8 2.79 16

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits	B - Analyte detected in the associated Method Blank
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits	

# Buck Environmental Labs, Inc.

Date: 25-Oct-06

CLIENT: CORTLAND CO SOIL & WATER

Work Order: 0608066

Project: TOWSLEY

## ANALYTICAL QC SUMMARY REPORT

BatchID: R20472

Sample ID: 0608066-02BMS	SampType: MS	TestCode: CR6L	Units: mg/L	Prep Date:	Run ID: WET CHEM-123_060810
Client ID: MW-1B	Batch ID: R20472	TestNo: SW7196		Analysis Date: 08/10/06	SeqNo: 384054
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chromium, Hexavalent	0.246	0.0200	0.25	0	98.4 85 115 0 0
Sample ID: 0608066-02BMSD	SampType: MSD	TestCode: CR6L	Units: mg/L	Prep Date:	Run ID: WET CHEM-123_060810
Client ID: MW-1B	Batch ID: R20472	TestNo: SW7196		Analysis Date: 08/10/06	SeqNo: 384055
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chromium, Hexavalent	0.248	0.0200	0.25	0	99.2 85 115 0.246 0.810 20

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Buck Environmental Labs, Inc.

Date: 25-Oct-06

CLIENT: CORTLAND CO SOIL & WATER

Work Order: 0608066

Project: TOWSLEY

## ANALYTICAL QC SUMMARY REPORT

BatchID: 7265

Sample ID: 0608066-02EMS	SampType: MS	TestCode: WCN	Units: mg/l	Prep Date: 08/17/06	Run ID: LACHAT 8000_060821E					
Client ID: MW-1B	Batch ID: 7265	TestNo: E335.2	(E335.2)	Analysis Date: 08/21/06	SeqNo: 385507					
Analyte	Result	PQL	SPK value	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	0.0928	0.0100	0.1	92.8	70.1	125	0	0		

Sample ID: 0608066-02EMSD	SampType: MSD	TestCode: WCN	Units: mg/l	Prep Date: 08/17/06	Run ID: LACHAT 8000_060821E					
Client ID: MW-1B	Batch ID: 7265	TestNo: E335.2	(E335.2)	Analysis Date: 08/21/06	SeqNo: 385508					
Analyte	Result	PQL	SPK value	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	0.09124	0.0100	0.1	91.2	70.1	125	0.0928	1.69		13.8

Qualifiers:

NID - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Buck Environmental Labs, Inc.

Date: 25-Oct-06

CLIENT: CORTLAND CO SOIL & WATER  
 Work Order: 0608066  
 Project: TOWSLEY

## ANALYTICAL QC SUMMARY REPORT

BatchID: R20635

Sample ID: 0608066-02AMS	SampType: MS	TestCode: HGPNPW	Units: mg/L	Prep Date:	Run ID: PE2380_060901A						
Client ID: MW-1B	Batch ID: R20635	TestNo: SW7470		Analysis Date: 09/01/06	SeqNo: 387320						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00184	0.000400	0.002	0	92	75	125	0	0		

Sample ID: 0608066-02AMSD	SampType: MSD	TestCode: HGPNPW	Units: mg/L	Prep Date:	Run ID: PE2380_060901A						
Client ID: MW-1B	Batch ID: R20635	TestNo: SW7470		Analysis Date: 09/01/06	SeqNo: 387321						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00192	0.000400	0.002	0	96	75	125	0.00184	4.26	20	

### Qualifiers:

ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Buck Environmental Labs, Inc.

Date: 25-Oct-06

CLIENT: CORTLAND CO SOIL & WATER  
 Work Order: 0608066  
 Project: TOWSLEY

## ANALYTICAL QC SUMMARY REPORT

BatchID: R20536

Sample ID: 0607175-02CMS	SampType: MS	TestCode: WNH3	Units: mg/L	Prep Date:	Run ID: LACHAT 8000_060821C						
Client ID: ZZZZZ	Batch ID: R20536	TestNo: E350.1		Analysis Date: 08/21/06	SeqNo: 385407						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 0608066-02CMS	SampleType: MS	TestCode: WNH3	Units: mg/L	Prep Date:	Run ID: LACHAT 8000_060821C						
Client ID: MW-1B	Batch ID: R20536	TestNo: E350.1		Analysis Date: 08/21/06	SeqNo: 385444						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	0.8796	0.0200	1	0.01269	86.7	65	105	0	0		

Sample ID: 0607175-02CMSD	SampleType: MSD	TestCode: WNH3	Units: mg/L	Prep Date:	Run ID: LACHAT 8000_060821C						
Client ID: ZZZZZ	Batch ID: R20536	TestNo: E350.1		Analysis Date: 08/21/06	SeqNo: 385408						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	1.023	0.0200	1	0.01008	101	65	105	1.046	2.19	13.2	

Sample ID: 0608066-02CMSD	Sample Type: MSD	TestCode: WNH3	Units: mg/L	Prep Date:	Run ID: LACHAT 8000_060821C						
Client ID: MW-1B	Batch ID: R20536	TestNo: E350.1		Analysis Date: 08/21/06	SeqNo: 385445						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	0.9433	0.0200	1	0.01269	93.1	65	105	0.8796	6.99	13.2	

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 B - Analyte detected in the associated Method Blank

# Buck Environmental Labs, Inc.

Date: 25-Oct-06

CLIENT: CORTLAND CO SOIL & WATER  
 Work Order: 0608066  
 Project: TOWSLEY

## ANALYTICAL QC SUMMARY REPORT

BatchID: 7255

Sample ID: 0608065-06CMS	SampType: MS	TestCode: WTKN	Units: mg/L	Prep Date: 08/14/06	Run ID: LACHAT 8000_060821A						
Client ID: ZZZZZ	Batch ID: 7255	TestNo: E351.3	(E351.3)	Analysis Date: 08/21/06	SeqNo: 385157						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 0608066-02CMS	SampType: MS	TestCode: WTKN	Units: mg/L	Prep Date: 08/14/06	Run ID: LACHAT 8000_060821A						
Client ID: MW-1B	Batch ID: 7255	TestNo: E351.3	(E351.3)	Analysis Date: 08/21/06	SeqNo: 385181						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	2.61	0.200	2.5	0.4968	84.5	66.2	118	0	0		

Sample ID: 0608065-06CMSD	SampType: MSD	TestCode: WTKN	Units: mg/L	Prep Date: 08/14/06	Run ID: LACHAT 8000_060821A						
Client ID: ZZZZZ	Batch ID: 7255	TestNo: E351.3	(E351.3)	Analysis Date: 08/21/06	SeqNo: 385158						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	4.358	0.200	2.5	1.435	117	66.2	118	3.849	12.4	21.4	

Sample ID: 0608066-02CMSD	SampType: MSD	TestCode: WTKN	Units: mg/L	Prep Date: 08/14/06	Run ID: LACHAT 8000_060821A						
Client ID: MW-1B	Batch ID: 7255	TestNo: E351.3	(E351.3)	Analysis Date: 08/21/06	SeqNo: 385182						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	2.717	0.200	2.5	0.4968	88.8	66.2	118	2.61	4.05	21.4	

Qualifiers: NID - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank  
 Page 1 of 1

# Buck Environmental Labs, Inc.

Date: 25-Oct-06

CLIENT: CORTLAND CO SOIL & WATER

Work Order: 0608066

Project: TOWSLEY

## ANALYTICAL QC SUMMARY REPORT

BatchID: R20502

Sample ID: 0608066-02CMS	SampType: MS	TestCode: WTOC	Units: mg/L	Prep Date:	Run ID: TOC_060816A						
Client ID: MW-1B	Batch ID: R20502	TestNo: E415.1		Analysis Date: 08/16/06	SeqNo: 384736						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	16.62	2.00	20	0	83.1	75	125	0	0		

Sample ID: 0608066-02CMSD	SampType: MSD	TestCode: WTOC	Units: mg/L	Prep Date:	Run ID: TOC_060816A						
Client ID: MW-1B	Batch ID: R20502	TestNo: E415.1		Analysis Date: 08/16/06	SeqNo: 384737						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	17.61	2.00	20	0	88	75	125	16.62	5.78	20	

### Qualifiers:

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S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Buck Environmental Labs, Inc.

Date: 25-Oct-06

CLIENT: CORTLAND CO SOIL & WATER  
 Work Order: 0608066  
 Project: TOWSLEY

## ANALYTICAL QC SUMMARY REPORT

BatchID: 7285

Sample ID: 0608066-02CMS	Sample Type: MS	TestCode: WPHENOL	Units: mg/L	Prep Date: 08/25/06	Run ID: LACHAT 8000_060828A
Client ID: MW-1B	Batch ID: 7285	TestNo: E420.1	()	Analysis Date: 08/28/06	SeqNo: 386248
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Phenolics, Total Recoverable	0.0698	0.00500	0.1	0	53.2 118 0 0
Sample ID: 0608066-02CMS	Sample Type: MSD	TestCode: WPHENOL	Units: mg/L	Prep Date: 08/25/06	Run ID: LACHAT 8000_060828A
Client ID: MW-1B	Batch ID: 7285	TestNo: E420.1	()	Analysis Date: 08/28/06	SeqNo: 386249
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Phenolics, Total Recoverable	0.07519	0.00500	0.1	0	75.2 118 0.0698 7.43 19.5

Qualifiers: ND - Not Detected at the Reporting Limit  
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B - Analyte detected in the associated Method Blank



# Buck Environmental Labs, Inc.

Date: 25-Oct-06

CLIENT: CORTLAND CO SOIL & WATER

Work Order: 0608066

Project: TOWSLEY

## ANALYTICAL QC SUMMARY REPORT

BatchID: 7251

Sample ID: 0608066-02AMS	SampType: MS	TestCode: ICP	Units: mg/L	Prep Date: 08/14/06	Run ID: PE3000_061023A						
Client ID: MW-1B	Batch ID: 7251	TestNo: SW6010A	(SW3010A)	Analysis Date: 10/23/06	SeqNo: 394340						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low limit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.266	0.0400	2	1.088	58.9	75	125	0	0		S
Antimony	0.3907	0.0500	0.5	0	78.1	75	125	0	0		
Arsenic	1.903	0.0250	2	0	95.1	75	125	0	0		
Barium	2.16	0.0450	2	0.1942	98.3	75	125	0	0		
Beryllium	0.04432	0.00300	0.05	0	88.6	75	125	0	0		
Boron	0.9349	0.0500	1	0.04408	89.1	75	125	0	0		
Cadmium	0.04556	0.00500	0.05	0	91.1	75	125	0	0		
Calcium	44.15	0.210	20	25.79	91.8	75	125	0	0		
Chromium	0.1907	0.00500	0.2	0	95.4	75	125	0	0		
Cobalt	0.4607	0.0150	0.5	0	92.1	75	125	0	0		
Copper	0.2383	0.0300	0.25	0.0174	88.4	75	125	0	0		
Iron	5.373	0.0350	1	1.836	354	75	125	0	0		S
Lead	0.4648	0.00500	0.5	0.003	92.4	75	125	0	0		
Magnesium	24.81	0.320	20	6.046	93.8	75	125	0	0		
Manganese	0.9465	0.00500	0.5	0.2508	139	75	125	0	0		S
Nickel	0.4678	0.0100	0.5	0.002818	93	75	125	0	0		
Potassium	16.91	0.260	20	0.523	81.9	75	125	0	0		
Selenium	1.765	0.0200	2	0	88.3	75	125	0	0		
Silver	0.04301	0.0150	0.05	0	86	75	125	0	0		
Sodium	24.61	0.670	20	6.346	91.3	75	125	0	0		
Thallium	1.8	0.0300	2	0	90	75	125	0	0		
Vanadium	0.4644	0.0150	0.5	0	92.9	75	125	0	0		
Zinc	0.5009	0.0200	0.5	0.05199	89.8	75	125	0	0		

Sample ID: 0608066-02AMSD	SampType: MSD	TestCode: ICP	Units: mg/L	Prep Date: 08/14/06	Run ID: PE3000_061023A						
Client ID: MW-1B	Batch ID: 7251	TestNo: SW6010A	(SW3010A)	Analysis Date: 10/23/06	SeqNo: 394341						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	5.114	0.0400	2	1.088	201	75	125	2.266	77.2	20	SR
Antimony	0.3788	0.0500	0.5	0	75.8	75	125	0.3907	3.10	20	

Qualifiers: ND - Not Detected at the Reporting Limit

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B - Analyte detected in the associated Method Blank

CLIENT: CORTLAND CO SOIL & WATER  
 Work Order: 0608066  
 Project: TOWSLEY

# ANALYTICAL QC SUMMARY REPORT

BatchID: 7251

Sample ID: 0608066-02AMSD	SampType: MSD	TestCode: ICP	Units: mg/L	Prep Date: 08/14/06	Run ID: PE3000_061023A						
Client ID: MW-1B	Batch ID: 7251	TestNo: SW6010A	(SW3010A)	Analysis Date: 10/23/06	SeqNo: 394341						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	1.849	0.0250	2	0	92.4	75	125	1.903	2.90	20	
Barium	2.099	0.0450	2	0.1942	95.2	75	125	2.16	2.86	20	
Beryllium	0.04433	0.00300	0.05	0	88.7	75	125	0.04432	0.0246	20	
Boron	0.9199	0.0500	1	0.04408	87.6	75	125	0.9349	1.61	20	
Cadmium	0.04566	0.00500	0.05	0	91.3	75	125	0.04556	0.206	20	
Calcium	44.2	0.210	20	25.79	92	75	125	44.15	0.115	20	
Chromium	0.1846	0.00500	0.2	0	92.3	75	125	0.1907	3.26	20	
Cobalt	0.448	0.0150	0.5	0	89.6	75	125	0.4607	2.80	20	
Copper	0.2331	0.0300	0.25	0.0174	86.3	75	125	0.2383	2.21	20	
Iron	5.207	0.0350	1	1.836	337	75	125	5.373	3.13	20	S
Lead	0.4505	0.00500	0.5	0.003	89.5	75	125	0.4648	3.12	20	
Magnesium	24.17	0.320	20	6.046	90.6	75	125	24.81	2.58	20	
Manganese	0.9211	0.00500	0.5	0.2508	134	75	125	0.9465	2.72	20	S
Nickel	0.462	0.0100	0.5	0.002818	91.8	75	125	0.4678	1.25	20	
Potassium	16.59	0.260	20	0.523	80.3	75	125	16.91	1.89	20	
Selenium	1.714	0.0200	2	0	85.7	75	125	1.765	2.92	20	
Silver	0.04181	0.0150	0.05	0	83.6	75	125	0.04301	2.84	20	
Sodium	23.51	0.670	20	6.346	85.8	75	125	24.61	4.57	20	
Thallium	1.751	0.0300	2	0	87.6	75	125	1.8	2.72	20	
Vanadium	0.4524	0.0150	0.5	0	90.5	75	125	0.4644	2.61	20	
Zinc	0.4973	0.0200	0.5	0.05199	89.1	75	125	0.5009	0.724	20	

Qualifiers: ND - Not Detected at the Reporting Limit  
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# Buck Environmental Labs, Inc.

Date: 25-Oct-06

CLIENT: CORTLAND CO SOIL & WATER  
Work Order: 0608066  
Project: TOWSLEY

## ANALYTICAL QC SUMMARY REPORT

BatchID: 7252

Sample ID: 0608066-02BMS	SampType: MS	TestCode: HGPNPWDISS	Units: mg/L	Prep Date: 08/14/06	Run ID: PE2380_060901A						
Client ID: MW-1B	Batch ID: 7252	TestNo: SW7470	(SW3010A)	Analysis Date: 09/01/06	SeqNo: 387333						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00192	0.000400	0.002	0	96	75	125	0	0	0	

Sample ID: 0608066-02BMSD	SampType: MSD	TestCode: HGPNPWDISS	Units: mg/L	Prep Date: 08/14/06	Run ID: PE2380_060901A						
Client ID: MW-1B	Batch ID: 7252	TestNo: SW7470	(SW3010A)	Analysis Date: 09/01/06	SeqNo: 387334						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00193	0.000400	0.002	0	96.5	75	125	0.00192	0.519	20	

Sample ID: 0608066-02BMS	SampType: MS	TestCode: ICPDISS	Units: mg/L	Prep Date: 08/14/06	Run ID: PE3000_061023A						
Client ID: MW-1B	Batch ID: 7252	TestNo: SW6010A	(SW3010A)	Analysis Date: 10/23/06	SeqNo: 394343						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.064	0.0400	2	0.195	93.4	75	125	0	0		
Antimony	0.4593	0.0500	0.5	0	91.9	75	125	0	0		
Arsenic	1.913	0.0250	2	0	95.7	75	125	0	0		
Barium	2.062	0.0450	2	0.1621	95	75	125	0	0		
Beryllium	0.04444	0.00500	0.05	0	88.9	75	125	0	0		
Boron	0.9353	0.0500	1	0.03405	90.1	75	125	0	0		
Cadmium	0.04564	0.00500	0.05	0	91.3	75	125	0	0		
Calcium	42.29	0.210	20	24.41	89.4	75	125	0	0		
Chromium	0.1857	0.00500	0.2	0.001125	92.3	75	125	0	0		
Cobalt	0.4512	0.0150	0.5	0	90.2	75	125	0	0		
Copper	0.2358	0.0100	0.25	0.01295	89.2	75	125	0	0		
Iron	1.173	0.0350	1	0.3394	83.4	75	125	0	0		
Lead	0.163	0.00500	0.5	0	32.6	75	125	0	0		S
Magnesium	23.7	0.320	20	5.541	90.8	75	125	0	0		
Manganese	0.5971	0.00500	0.5	0.1346	92.5	75	125	0	0		
Nickel	0.4663	0.0100	0.5	0.004115	92.4	75	125	0	0		
Potassium	16.08	0.260	20	0.4027	78.4	75	125	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit  
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CLIENT: CORTLAND CO SOIL & WATER  
 Work Order: 0608066  
 Project: TOWSLEY

# ANALYTICAL QC SUMMARY REPORT

BatchID: 7252

Sample ID: 0608066-02BMS		SampType: MS		TestCode: ICPDISS		Units: mg/L		Prep Date: 08/14/06		Run ID: PE3000_061023A	
Client ID: MW-1B		Batch ID: 7252		TestNo: SW6010A		(SW3010A)		Analysis Date: 10/23/06		SeqNo: 394343	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	1.824	0.0200	2	0.008069	90.8	75	125	0	0		
Silver	0.04363	0.0150	0.05	0	87.3	75	125	0	0		
Sodium	24.03	0.670	20	5.314	93.6	75	125	0	0		
Thallium	1.841	0.0300	2	0	92.1	75	125	0	0		
Vanadium	0.4591	0.0150	0.5	0	91.8	75	125	0	0		
Zinc	0.4776	0.0100	0.5	0.02848	89.8	75	125	0	0		

Sample ID: 0608066-02BMSD	SampType: MSD	TestCode: ICPDISS	Units: mg/L	Prep Date: 08/14/06	Run ID: PE3000_061023A						
Client ID: MW-1B	Batch ID: 7252	TestNo: SW6010A	(SW3010A)	Analysis Date: 10/23/06	SeqNo: 394344						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.092	0.0400	2	0.195	94.8	75	125	2.064	1.35	20	
Antimony	0.4748	0.0500	0.5	0	95	75	125	0.4593	3.32	20	
Arsenic	1.954	0.0250	2	0	97.7	75	125	1.913	2.12	20	
Barium	2.101	0.0450	2	0.1621	96.9	75	125	2.062	1.85	20	
Beryllium	0.04521	0.00500	0.05	0	90.4	75	125	0.04444	1.72	20	
Boron	0.9528	0.0500	1	0.03405	91.9	75	125	0.9353	1.85	20	
Cadmium	0.0459	0.00500	0.05	0	91.8	75	125	0.04564	0.570	20	
Calcium	42.82	0.210	20	24.41	92	75	125	42.29	1.25	20	
Chromium	0.189	0.00500	0.2	0.001125	93.9	75	125	0.1857	1.75	20	
Cobalt	0.4632	0.0150	0.5	0	92.6	75	125	0.4512	2.63	20	
Copper	0.2381	0.0100	0.25	0.01295	90	75	125	0.2358	0.937	20	
Iron	1.205	0.0350	1	0.3394	86.5	75	125	1.173	2.66	20	
Lead	0.4757	0.00500	0.5	0	95.1	75	125	0.163	97.9	20	R
Magnesium	24.07	0.320	20	5.541	92.6	75	125	23.7	1.54	20	
Manganese	0.6079	0.00500	0.5	0.1346	94.7	75	125	0.5971	1.79	20	
Nickel	0.4766	0.0100	0.5	0.004115	94.5	75	125	0.4663	2.18	20	
Potassium	16.64	0.260	20	0.4027	81.2	75	125	16.08	3.45	20	
Selenium	1.876	0.0200	2	0.008069	93.4	75	125	1.824	2.81	20	
Silver	0.04516	0.0150	0.05	0	90.3	75	125	0.04363	3.43	20	
Sodium	24.35	0.670	20	5.314	95.2	75	125	24.03	1.31	20	

Qualifiers: ND - Not Detected at the Reporting Limit  
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CLIENT: CORTLAND CO SOIL & WATER  
 Work Order: 0608066  
 Project: TOWSLEY

# ANALYTICAL QC SUMMARY REPORT

BatchID: 7252

Sample ID: 0608066-02BMSD	SampType: MSD	TestCode: ICPDISS	Units: mg/L	Prep Date: 08/14/06	Run ID: PE3000_061023A						
Client ID: MW-1B	Batch ID: 7252	TestNo: SW6010A	(SW3010A)	Analysis Date: 10/23/06	SeqNo: 394344						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Thallium	1.88	0.0300	2	0	94	75	125	1.841	2.06	20	
Vanadium	0.4677	0.0150	0.5	0	93.5	75	125	0.4591	1.86	20	
Zinc	0.4854	0.0100	0.5	0.02848	91.4	75	125	0.4776	1.61	20	

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# Buck Environmental Labs, Inc.

CLIENT: CORTLAND CO SOIL & WATER  
Work Order: 0608066  
Project: TOWSLEY

Date: 25-Oct-06

## ANALYTICAL QC SUMMARY REPORT

BatchID: R20524

Sample ID: 0608066-03A	SampType: MS	TestCode: M8260_360L	Units: µg/L	Prep Date:	Run ID: MSD3_060817A						
Client ID: MW-1B MS	Batch ID: R20524	TestNo: SW8260A		Analysis Date: 08/17/06	SeqNo: 385112						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	21.54	25	20	0	108	10	212.1	0	0		J
Acrylonitrile	ND	5.0	20	0	0	50	150	0	0		S
Benzene	19.41	5.0	20	0	97	80.7	127.4	0	0		
Bromodichloromethane	20.38	5.0	20	0	102	73.6	140.5	0	0		
Bromoform	17.28	5.0	20	0	86.4	66.9	115.6	0	0		
Bromomethane	21.23	5.0	20	0	106	64.6	134.4	0	0		
2-Butanone	22.15	25	20	0	111	68.7	130.7	0	0		J
Carbon disulfide	20.63	5.0	20	0	103	89.4	143.8	0	0		
Carbon tetrachloride	19.39	5.0	20	0	97	80.1	132.8	0	0		
Chlorobenzene	18.47	5.0	20	0	92.4	80.7	123.3	0	0		
Chloroethane	20.86	5.0	20	0	104	38.7	232.1	0	0		
Chloroform	19.2	5.0	20	0	96	84.5	131.2	0	0		
Chloromethane	18.6	5.0	20	0	93	85.6	106.1	0	0		S
trans-1,4-Dichloro-2-butene	ND	5.0	20	0	0	50	150	0	0		
trans-1,2-Dichloroethene	20.33	5.0	20	0	102	80.7	129.9	0	0		
trans-1,3-Dichloropropene	16.47	5.0	20	0	82.4	67.8	133.2	0	0		
cis-1,2-Dichloroethene	20.28	5.0	20	0	101	80.6	136.6	0	0		
cis-1,3-Dichloropropene	17.51	5.0	20	0	87.6	43.5	131.5	0	0		
Dibromochloromethane	18.77	5.0	20	0	93.8	70.6	136.5	0	0		
1,2-Dibromo-3-chloropropane	17.82	5.0	20	0	89.1	55.7	134.5	0	0		
1,2-Dibromoethane	18.45	5.0	20	0	92.2	77.8	125.5	0	0		
Dibromomethane	18.9	5.0	20	0	94.5	70.3	132	0	0		
1,2-Dichlorobenzene	17.92	5.0	20	0	89.6	66.8	127.3	0	0		
1,3-Dichlorobenzene	17.78	5.0	20	0	88.9	69	122.5	0	0		
1,4-Dichlorobenzene	17.61	5.0	20	0	88	76.2	123.3	0	0		
1,1-Dichloroethane	18.73	5.0	20	0	93.6	78.4	138.3	0	0		
1,2-Dichloroethane	19.76	5.0	20	0	98.8	85.8	144	0	0		
1,1-Dichloroethene	21.56	5.0	20	0	108	72.3	134.5	0	0		
1,2-Dichloropropane	18.76	5.0	20	0	93.8	84.3	135.5	0	0		
Ethylbenzene	19.61	5.0	20	0	98	74.9	130	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit  
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CLIENT: CORTLAND CO SOIL & WATER  
 Work Order: 0608066  
 Project: TOWSLEY

# ANALYTICAL QC SUMMARY REPORT

BatchID: R20524

Sample ID: 0608066-03A		SampType: MS		TestCode: M8260_360L		Units: µg/L		Prep Date:		Run ID: MSD3_060817A			
Client ID: MW-1B MS		Batch ID: R20524		TestNo: SW8260A		Analysis Date: 08/17/06						SeqNo: 385112	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
2-Hexanone	18.58	25	20	0	92.9	60.9	135.5	0	0		J		
Iodomethane	20.43	5.0	20	0	102	50	150	0	0				
Methylene chloride	19.74	5.0	20	0	98.7	76.8	136.4	0	0				
4-Methyl-2-pentanone	19.25	25	20	0	96.2	71.1	143.4	0	0		J		
Styrene	18.52	5.0	20	0	92.6	71.7	137.6	0	0				
1,1,1,2-Tetrachloroethane	18.41	5.0	20	0	92	70.4	130.9	0	0				
1,1,2,2-Tetrachloroethane	18.26	5.0	20	0	91.3	63.4	127.5	0	0				
Tetrachloroethene	18.36	5.0	20	0	91.8	78.7	121.2	0	0				
Toluene	19.11	5.0	20	0	95.6	82.3	124.6	0	0				
Trichloroethene	18.88	5.0	20	0	94.4	79.3	129.2	0	0				
1,1,1-Trichloroethane	19.55	5.0	20	0	97.8	79.7	133.1	0	0				
1,1,2-Trichloroethane	18.71	5.0	20	0	93.6	81.2	130.8	0	0				
Trichlorofluoromethane	19.15	5.0	20	0	95.8	75	130	0	0				
1,2,3-Trichloropropane	18.97	5.0	20	0	94.8	51.8	113.9	0	0				
Vinyl acetate	12.67	5.0	20	0	63.4	29.1	180.1	0	0				
Vinyl chloride	19.23	5.0	20	0	96.2	61.2	139	0	0				
m,p-Xylene	37.16	10	40	0	92.9	77	133.6	0	0				
o-Xylene	18.61	5.0	20	0	93	77.7	132.9	0	0				
Surr: 1,2-Dichloroethane-d4	52.98	0	50	0	106	79	118	0	0				
Surr: 4-Bromofluorobenzene	50.3	5.0	50	0	101	89	112	0	0				
Surr: Dibromofluoromethane	50.21	5.0	50	0	100	84	118	0	0				
Surr: Toluene-d8	50.23	5.0	50	0	100	87	112	0	0				

Sample ID: 0608066-04A	SampType: MSD	TestCode: M8260_360L	Units: µg/L	Prep Date:	Run ID: MSD3_060817A						
Client ID: MW-1B MSD	Batch ID: R20524	TestNo: SW8260A		Analysis Date: 08/17/06	SeqNo: 385113						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	21.52	25	20	0	108	10	212.1	21.54	0	30	J
Acrylonitrile	ND	5.0	20	0	0	50	150	0	0	30	S
Benzene	21.38	5.0	20	0	107	80.7	127.4	19.41	9.66	30	
Bromodichloromethane	22.23	5.0	20	0	111	73.6	140.5	20.38	8.68	30	

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: CORTLAND CO SOIL & WATER  
 Work Order: 0608066  
 Project: TOWSLEY

# ANALYTICAL QC SUMMARY REPORT

BatchID: R20524

Sample ID: 0608066-04A	SampType: MSD	TestCode: M8260_360L	Units: µg/L	Prep Date:	Run ID: MSD3_060817A						
Client ID: MW-1B MSD	Batch ID: R20524	TesNo: SW8260A		Analysis Date: 08/17/06	SeqNo: 385113						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromoform	18.35	5.0	20	0	91.8	66.9	115.6	17.28	6.01	30	
Bromomethane	23.89	5.0	20	0	119	64.6	134.4	21.23	11.8	30	
2-Butanone	19.97	25	20	0	99.8	68.7	130.7	22.15	0	30	J
Carbon disulfide	23.25	5.0	20	0	116	89.4	143.8	20.63	11.9	30	
Carbon tetrachloride	21.47	5.0	20	0	107	80.1	132.8	19.39	10.2	30	
Chlorobenzene	19.91	5.0	20	0	99.6	80.7	123.3	18.47	7.50	30	
Chloroethane	23.43	5.0	20	0	117	38.7	232.1	20.86	11.6	30	
Chloroform	20.87	5.0	20	0	104	84.5	131.2	19.2	8.34	30	
Chloromethane	20.48	5.0	20	0	102	85.6	106.1	18.6	9.62	30	
trans-1,4-Dichloro-2-butene	ND	5.0	20	0	0	50	150	0	0	30	S
trans-1,2-Dichloroethene	22.57	5.0	20	0	113	80.7	129.9	20.33	10.4	30	
trans-1,3-Dichloropropene	17.99	5.0	20	0	90	67.8	133.2	16.47	8.82	30	
cis-1,2-Dichloroethene	22.32	5.0	20	0	112	80.6	136.6	20.28	9.58	30	
cis-1,3-Dichloropropene	19.81	5.0	20	0	99	43.5	131.5	17.51	12.3	30	
Dibromochloromethane	20.49	5.0	20	0	102	70.6	136.5	18.77	8.76	30	
1,2-Dibromo-3-chloropropane	18.82	5.0	20	0	94.1	55.7	134.5	17.82	5.46	30	
1,2-Dibromoethane	19.44	5.0	20	0	97.2	77.8	125.5	18.45	5.23	30	
Dibromomethane	21	5.0	20	0	105	70.3	132	18.9	10.5	30	
1,2-Dichlorobenzene	19.88	5.0	20	0	99.4	66.8	127.3	17.92	10.4	30	
1,3-Dichlorobenzene	19.29	5.0	20	0	96.5	69	122.5	17.78	8.15	30	
1,4-Dichlorobenzene	19.17	5.0	20	0	95.8	76.2	123.3	17.61	8.48	30	
1,1-Dichloroethane	20.95	5.0	20	0	105	78.4	138.3	18.73	11.2	30	
1,2-Dichloroethane	20.76	5.0	20	0	104	85.8	144	19.76	4.94	30	
1,1-Dichloroethene	23.5	5.0	20	0	118	72.3	134.5	21.56	8.61	30	
1,2-Dichloropropane	20.57	5.0	20	0	103	84.3	135.5	18.76	9.20	30	
Ethylbenzene	21.45	5.0	20	0	107	74.9	130	19.61	8.96	30	
2-Hexanone	20.17	25	20	0	101	60.9	135.5	18.58	0	30	J
Iodomethane	23.06	5.0	20	0	115	50	150	20.43	12.1	30	
Methylene chloride	21.97	5.0	20	0	110	76.8	136.4	19.74	10.7	30	
4-Methyl-2-pentanone	20.39	25	20	0	102	71.1	143.4	19.25	0	30	J
Styrene	19.72	5.0	20	0	98.6	71.7	137.6	18.52	6.28	30	

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CLIENT: CORTLAND CO SOIL & WATER

Work Order: 0608066

Project: TOWSLEY

# ANALYTICAL QC SUMMARY REPORT

BatchID: R20524

Sample ID: 0608066-04A	Sample Type: MSD	TestCode: MB260_360L	Units: µg/L	Prep Date:	Run ID: MSD3_060817A						
Client ID: MW-1B MSD	Batch ID: R20524	TestNo: SW8260A		Analysis Date: 08/17/06	SeqNo: 385113						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	19.43	5.0	20	0	97.2	70.4	130.9	18.41	5.39	30	
1,1,2,2-Tetrachloroethane	19.51	5.0	20	0	97.6	63.4	127.5	18.26	6.62	30	
Tetrachloroethene	20.22	5.0	20	0	101	78.7	121.2	18.36	9.64	30	
Toluene	20.96	5.0	20	0	105	82.3	124.6	19.11	9.23	30	
Trichloroethene	20.96	5.0	20	0	105	79.3	129.2	18.88	10.4	30	
1,1,1-Trichloroethane	21.52	5.0	20	0	108	79.7	133.1	19.55	9.59	30	
1,1,2-Trichloroethane	20.39	5.0	20	0	102	81.2	130.8	18.71	8.59	30	
Trichlorofluoromethane	21	5.0	20	0	105	75	130	19.15	9.22	30	
1,2,3-Trichloropropane	20.82	5.0	20	0	104	51.8	113.9	18.97	9.30	30	
Vinyl acetate	14.21	5.0	20	0	71	29.1	180.1	12.67	11.5	30	
Vinyl chloride	20.69	5.0	20	0	103	61.2	139	19.23	7.31	30	
m,p-Xylene	41.59	10	40	0	104	77	133.6	37.16	11.3	30	
o-Xylene	20.33	5.0	20	0	102	77.7	132.9	18.61	8.83	30	
Surr: 1,2-Dichloroethane-d4	53.19	0	50	0	106	79	118	0	0	0	
Surr: 4-Bromofluorobenzene	51.12	5.0	50	0	102	89	112	0	0	30	
Surr: Dibromofluoromethane	50.45	5.0	50	0	101	84	118	0	0	30	
Surr: Toluene-d8	49.62	5.0	50	0	99.2	87	112	0	0	30	

Qualifiers:

ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank  
Page 4 of 4



**B U C K**  
ENVIRONMENTAL LABORATORIES, INC.

LABORATORY LOG NO.  
0608066

**CHAIN OF CUSTODY RECORD**

**NOTE:** The information on this form was supplied by the client and authorizes the Laboratory to proceed with analysis according to the Standard Terms and Conditions of Buck Environmental Laboratories, Inc. provided on the reverse side of this chain of custody. The client authorization signature acknowledges that the terms are acceptable and agreed to by the client.

<b>CLIENT</b> <u>Cortland County Highway Dept.</u>		<b>QA/QC</b> <input type="checkbox"/> <b>NORMAL</b> <input type="checkbox"/> <b>PREMIUM</b> <input type="checkbox"/>
<b>MAILING ADDRESS</b>		<b>TURNAROUND</b> <input type="checkbox"/> <b>NORMAL</b> <input type="checkbox"/> <b>EXPEDITE</b> <input type="checkbox"/>
<b>PHONE NO.</b>		<b>CLIENT AUTHORIZ. SIGN.</b>
<b>REPORT TO ATTN:</b>		
<b>PROJECT/</b>		
<b>SAMPLING SITE</b> <u>Towsley</u>		
<b>PO NO.</b>		
<b>SAMPLED BY</b> <u>EMES, KR, CR</u>		
<b>ANALYSIS REQUESTED</b>		
<b>DATE</b>	<b>TIME</b>	<b>SAMPLE DESCRIPTION</b>
8/9/06	9:54	MW-1A
8/9/06	9:48	MW-1B
8/9/06		MW-1BMS
8/9/06		MW-1BMSD
8/9/06	10:11	MW-2A
8/9/06	10:05	MW-2B
8/9/06	10:28	MW-3A
8/9/06	10:20	MW-4B
8/9/06	10:15	MW-7A
<b>DATE</b>	<b>TIME</b>	<b>RELINQUISHED BY</b>
8/9/06	11:45	<u>[Signature]</u>
<b>FOR LAB USE ONLY - CONDITIONS AT RECEIPT</b>		<b>TEMP</b> <input type="checkbox"/> <b>COOLER</b> <input type="checkbox"/> <b>ICE</b> <input type="checkbox"/> <b>CUSTODY SEALS</b> <input type="checkbox"/>

MATRIX (AIR, WATER, SOLID)	GRAB OR COMPOSITE	NUMBER OF CONTAINERS	VOLUME OF CONTAINERS	PRESERVATIVE USED
W	G	7	Var	Var
W	G	7	Var	Var
W	G	7	Var	Var
W	G	7	Var	Var
W	G	7	Var	Var
W	G	7	Var	Var
W	G	7	Var	Var
W	G	7	Var	Var
W	G	7	Var	Var
W	G	7	Var	Var



**B U C K**

ENVIRONMENTAL LABORATORIES, INC.

**CHAIN OF CUSTODY RECORD**

LABORATORY LOG NO.

0008060

NOTE: The information on this form was supplied by the client and authorizes the Laboratory to proceed with analysis according to the Standard Terms and Conditions of Buck Environmental Laboratories, Inc. provided on the reverse side of this chain-of-custody. The client authorization signature acknowledges that the terms are acceptable and agreed to by the client.

CLIENT Cortland County Highway Dept.

MAILING ADDRESS \_\_\_\_\_

PHONE NO. \_\_\_\_\_

REPORT TO ATTN: \_\_\_\_\_

PROJECT/

SAMPLING SITE Towsley

PO NO. \_\_\_\_\_

SAMPLED BY EM, ES, KR, CR

DATE TIME SAMPLE DESCRIPTION

Trip Blank

**ANALYSIS REQUESTED**

☐ PREMIUM

☐ NORMAL

☐ EXPEDITE

☐ NORMAL

TURNAROUND

CLIENT AUTHORIZ. SIGN. \_\_\_\_\_

MATRIX (AIR, WATER, SOLID)  
GRAB OR COMPOSITE  
NUMBER OF CONTAINERS  
VOLUME OF CONTAINERS  
PRESERVATIVE USED

DATE TIME RELINQUISHED BY

8/9/06 11:45 1 C. R. H. H.

2 2

3 3

4 4

ACCEPTED BY

Sally Spencer

ADDITIONAL COMMENTS

FOR LAB USE ONLY - CONDITIONS AT RECEIPT

TEMP \_\_\_\_\_

☐ COOLER ☐ ICE

☐ CUSTODY SEALS

# Sample Login Summary

WorkOrder

0608066

SamplID	Received	ClientSamplID	CollectionDate	Matrix	Bottle	Qty	Storage	pH	Temp	COOLER	Edited
0608066-01A	08/09/06	MW-1A	08/09/06 9:54:00 AM	Aqueous		1	WALK-IN	<2	4.9	51	PB
Temperature acceptable, seals intact, SS											
0608066-01B	08/09/06	MW-1A	08/09/06 9:54:00 AM	Aqueous		1	WALK-IN	6	4.9	51	PB
Temperature acceptable, seals intact, SS											
0608066-01C	08/09/06	MW-1A	08/09/06 9:54:00 AM	Aqueous		1	WALK-IN	<2	4.9	51	PB
Temperature acceptable, seals intact, SS											
0608066-01D	08/09/06	MW-1A	08/09/06 9:54:00 AM	Aqueous		1	WALK-IN	6	4.9	51	PB
Temperature acceptable, seals intact, SS											
0608066-01E	08/09/06	MW-1A	08/09/06 9:54:00 AM	Aqueous		1	WALK-IN	>10	4.9	51	PB
Temperature acceptable, seals intact, SS											
0608066-01F	08/09/06	MW-1A	08/09/06 9:54:00 AM	Aqueous		2	REF01		4.9	51	PB
Temperature acceptable, seals intact, SS											
0608066-02A	08/09/06	MW-1B	08/09/06 9:48:00 AM	Aqueous		3	WALK-IN	<2	2.3	45	PB
+MS/MSD											
Temperature acceptable, seals intact, SS											
0608066-02B	08/09/06	MW-1B	08/09/06 9:48:00 AM	Aqueous		3	WALK-IN	6	2.3	45	PB
+MS/MSD											
Temperature acceptable, seals intact, SS											
0608066-02C	08/09/06	MW-1B	08/09/06 9:48:00 AM	Aqueous		3	WALK-IN	<2	2.3	45	PB
+MS/MSD											
Temperature acceptable, seals intact, SS											
0608066-02D	08/09/06	MW-1B	08/09/06 9:48:00 AM	Aqueous		3	WALK-IN	6	2.3	45	PB
+MS/MSD											
Temperature acceptable, seals intact, SS											
0608066-02E	08/09/06	MW-1B	08/09/06 9:48:00 AM	Aqueous		3	WALK-IN	>10	2.3	45	PB
+MS/MSD											
Temperature acceptable, seals intact, SS											
0608066-02F	08/09/06	MW-1B	08/09/06 9:48:00 AM	Aqueous		2	REF01		2.3	45	PB
Temperature acceptable, seals intact, SS											
0608066-03A	08/09/06	MW-1B MS	08/09/06	Qc Sample		2	REF01		2.3	45	PB
MS											
Temperature acceptable, seals intact, SS											
0608066-04A	08/09/06	MW-1B MSD	08/09/06	Qc Sample		2	REF01		2.3	45	PB
MSD											
Temperature acceptable, seals intact, SS											

0608066-05A	08/09/06	MW-2A	08/09/06 10:11:00 AM	Aqueous	1	WALK-IN	<2	4.9	51	PB
Temperature acceptable, seals intact, SS										
0608066-05B	08/09/06	MW-2A	08/09/06 10:11:00 AM	Aqueous	1	WALK-IN	6	4.9	51	PB
Temperature acceptable, seals intact, SS										
0608066-05C	08/09/06	MW-2A	08/09/06 10:11:00 AM	Aqueous	1	WALK-IN	<2	4.9	51	PB
Temperature acceptable, seals intact, SS										
0608066-05D	08/09/06	MW-2A	08/09/06 10:11:00 AM	Aqueous	1	WALK-IN	6	4.9	51	PB
Temperature acceptable, seals intact, SS										
0608066-05E	08/09/06	MW-2A	08/09/06 10:11:00 AM	Aqueous	1	WALK-IN	>10	4.9	51	PB
Temperature acceptable, seals intact, SS										
0608066-05F	08/09/06	MW-2A	08/09/06 10:11:00 AM	Aqueous	2	REF01		4.9	51	PB
Temperature acceptable, seals intact, SS										
0608066-06A	08/09/06	MW-2B	08/09/06 10:05:00 AM	Aqueous	1	WALK-IN	<2	2.3	45	PB
Temperature acceptable, seals intact, SS										
0608066-06B	08/09/06	MW-2B	08/09/06 10:05:00 AM	Aqueous	1	WALK-IN	6	2.3	45	PB
Temperature acceptable, seals intact, SS										
0608066-06C	08/09/06	MW-2B	08/09/06 10:05:00 AM	Aqueous	1	WALK-IN	<2	2.3	45	PB
Temperature acceptable, seals intact, SS										
0608066-06D	08/09/06	MW-2B	08/09/06 10:05:00 AM	Aqueous	1	WALK-IN	6	2.3	45	PB
Temperature acceptable, seals intact, SS										
0608066-06E	08/09/06	MW-2B	08/09/06 10:05:00 AM	Aqueous	1	WALK-IN	>10	2.3	45	PB
Temperature acceptable, seals intact, SS										
0608066-06F	08/09/06	MW-2B	08/09/06 10:05:00 AM	Aqueous	2	REF01		2.3	45	PB
Temperature acceptable, seals intact, SS										
0608066-07A	08/09/06	MW-3A	08/09/06 10:28:00 AM	Aqueous	1	WALK-IN	<2	2.3	45	PB
Temperature acceptable, seals intact, SS										
0608066-07B	08/09/06	MW-3A	08/09/06 10:28:00 AM	Aqueous	1	WALK-IN	6	2.3	45	PB
Temperature acceptable, seals intact, SS										
0608066-07C	08/09/06	MW-3A	08/09/06 10:28:00 AM	Aqueous	1	WALK-IN	<2	2.3	45	PB
Temperature acceptable, seals intact, SS										
0608066-07D	08/09/06	MW-3A	08/09/06 10:28:00 AM	Aqueous	1	WALK-IN	6	2.3	45	PB
Temperature acceptable, seals intact, SS										
0608066-07E	08/09/06	MW-3A	08/09/06 10:28:00 AM	Aqueous	1	WALK-IN	>10	2.3	45	PB
Temperature acceptable, seals intact, SS										
0608066-07F	08/09/06	MW-3A	08/09/06 10:28:00 AM	Aqueous	2	REF01		2.3	45	PB
Temperature acceptable, seals intact, SS										
0608066-08A	08/09/06	MW-6B	08/09/06 10:20:00 AM	Aqueous	1	WALK-IN	<2	4.9	51	PB
Temperature acceptable, seals intact, SS										
0608066-08B	08/09/06	MW-6B	08/09/06 10:20:00 AM	Aqueous	1	WALK-IN	6	4.9	51	PB
Temperature acceptable, seals intact, SS										
0608066-08C	08/09/06	MW-6B	08/09/06 10:20:00 AM	Aqueous	1	WALK-IN	<2	4.9	51	PB
Temperature acceptable, seals intact, SS										
0608066-08D	08/09/06	MW-6B	08/09/06 10:20:00 AM	Aqueous	1	WALK-IN	6	4.9	51	PB
Temperature acceptable, seals intact, SS										

0608066-08E	08/09/06	MW-6B	08/09/06 10:20:00 AM	Aqueous	1	WALK-IN	>10	4.9	51	PB
Temperature acceptable, seals intact, SS										
0608066-08F	08/09/06	MW-6B	08/09/06 10:20:00 AM	Aqueous	2	REF01		4.9	51	PB
Temperature acceptable, seals intact, SS										
0608066-09A	08/09/06	MW-7A	08/09/06 10:15:00 AM	Aqueous	1	WALK-IN	<2	4.9	51	PB
Temperature acceptable, seals intact, SS										
0608066-09B	08/09/06	MW-7A	08/09/06 10:15:00 AM	Aqueous	1	WALK-IN	6	4.9	51	PB
Temperature acceptable, seals intact, SS										
0608066-09C	08/09/06	MW-7A	08/09/06 10:15:00 AM	Aqueous	1	WALK-IN	<2	4.9	51	PB
Temperature acceptable, seals intact, SS										
0608066-09D	08/09/06	MW-7A	08/09/06 10:15:00 AM	Aqueous	1	WALK-IN	6	4.9	51	PB
Temperature acceptable, seals intact, SS										
0608066-09E	08/09/06	MW-7A	08/09/06 10:15:00 AM	Aqueous	1	WALK-IN	>10	4.9	51	PB
Temperature acceptable, seals intact, SS										
0608066-09F	08/09/06	MW-7A	08/09/06 10:15:00 AM	Aqueous	2	REF01		4.9	51	PB
Temperature acceptable, seals intact, SS										
0608066-10A	08/09/06	TRIP BLANK	08/09/06	Trip Blank	1	REF01		2.3	45	PB
Temperature acceptable, seals intact, SS										



CORTLAND COUNTY LANDFILL - TOWNSLEY SITE  
FIELD SAMPLING DATA SHEETS

QUARTER 3  
2006

BEL LOG # 0608066

SDG #

DATES(S) PURGED: 8/2/06  
TECHNICIANS: E.J.K.R.  
DATE(S) SAMPLED: 8/9/06  
TECHNICIANS: E.M.

TESTING:

Well #	Depth to Water	Well Depth	Purge Volume	Temp. (c)	pH	Eh	Cond.	Turb.	Color/Odor Sheen/Maintenance	Time Sampled
MW-1A -01	2.97	20	8 1/2	19.5	7.52	190	353	131	cloudy / no / NS / NM	9:54
MW-1B -02	3.24	51	24	16.4	7.69	155	244	70	cloudy / no / NS / NM	9:48
MW-2A -05	6.10	12	3	17.2	6.15	120	784	195	clear / no / NS / NM	10:11
MW-2B -06	6.83	29	10	15.9	6.35	125	1416	18.7	clear / no / NS / NM	10:05
MW-3A -07	9.13	18	4 1/2	15.3	7.01	115	342	5.2	clear / no / NS / NM	10:28
MW-6B -08	12.79	36	12	12.2	7.52	225	304	15.8	clear / no / NS / NM	10:20
MW-7A -09	3.78	18	7 1/2	17.4	6.34	245	1437	13.6	cloudy / no / NS / NM	10:15
MW-1B ms/ms										

Legend: NO= No Odor/NS= No Sheen/NM= No maintenance required>NNL=Needs new lock

23ms with 123-0608066



2008

2008

## Appendix C

# Analytical Laboratory Results and Internal Quality Control Summary Quarter 4 2006

Cortland County Towslee Landfill



**CORTLAND COUNTY LANDFILL  
TOWSLEY SITE**

For...

**Fourth Quarter 2006**

**Routine Analyses**

Prepared for:

**CORTLAND COUNTY SOIL & WATER CONSERVATION DISTRICT  
100 GRANGE PLACE, ROOM 204  
CORTLAND, NY 13045**

Prepared by:

**BUCK ENVIRONMENTAL LABORATORIES, INC.  
PO BOX 5150  
3821 BUCK DRIVE  
CORTLAND, NY 13045**



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1. Laboratory Narrative
2. Laboratory Reports
3. Quality Control Data
4. Field Data
5. Chains of Custody





**B U C K**

ENVIRONMENTAL LABORATORIES, INC.

*environmental analysis*

Laboratory Narrative  
Cortland County Landfill  
Towsley Site

Lab Log No. 0610083

December 20, 2006

Mr. Patrick Reidy  
Cortland County Soil and Water Conservation District  
Room 204  
100 Grange Place  
Cortland, NY 13045


Re: Cortland County Landfill – Towsley Site  
Fourth Quarter - 2006

The data in this package represent results of analysis of the Part 360 Routine Parameters for samples from seven wells from the Towsley site of the Cortland County Landfill. Eric Monsen and Ernest Spencer of Buck Environmental Laboratories, Inc. (BEL) purged the wells on October 9, 2006 and sampled the wells on October 10, 2006.

Following water depth measurement (from top of casing to water), a minimum of three well volumes was purged using manual bailers or the well was purged to dryness. Field measurements of temperature, depth, pH, Eh, conductivity and turbidity were made.

Analytical methods, preservatives, hold time, and containers for all laboratory analytes complied with requirements of the New York State Department of Health ELAP program. Instrument calibrations and blanks met the Laboratory's QC protocol. All analytical results were reviewed for compliance with the Laboratory QA/QC Manual, the NYSDOH-ELAP Certification Manual and the contractual requirements with Cortland County Soil & Water Conservation District. The laboratory QA/QC forms enclosed in this volume include those for a fortified sample ("spike," labeled "MS") and a duplicate fortified sample ("dup," labeled "MSD").

Thank you for the opportunity to provide this information and please let me know if there are any questions.

  
John H. Buck, P.E.  
Laboratory Director

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## CORTLAND COUNTY LANDFILL

Towsley Site

Sampled: 10/10/06

Sampler: EHM, ES

Lab Log #0610083

Client/SampleID TestCode

TestNo

AnalDate

Analyte

POL

FinalVal

Units

Qual

MW-1A	ICP	SW6010A	12/14/06	Cadmium	0.005	ND	mg/L	
MW-1A	ICP	SW6010A	12/14/06	Calcium	0.21	43.9	mg/L	
MW-1A	ICP	SW6010A	12/14/06	Iron	0.035	2.11	mg/L	
MW-1A	ICP	SW6010A	12/14/06	Lead	0.005	ND	mg/L	
MW-1A	ICP	SW6010A	12/14/06	Magnesium	0.32	9.43	mg/L	
MW-1A	ICP	SW6010A	12/14/06	Manganese	0.005	0.306	mg/L	
MW-1A	ICP	SW6010A	12/14/06	Potassium	0.26	1.62	mg/L	
MW-1A	ICP	SW6010A	12/14/06	Sodium	0.67	13.5	mg/L	
MW-1A	WALK	E310.1	10/19/06	Alkalinity, Total (As CaCO3)	2	132	mg/L CaCO3	
MW-1A	WBOD5	405.1	10/11/06	Biochemical Oxygen Demand	3	ND	mg/L	
MW-1A	WCOD	E410.1	11/06/06	Chemical Oxygen Demand	10	ND	mg/L	
MW-1A	WCOND	E120.1	10/10/06	Specific Conductance	5	369	µmhos/cm	
MW-1A	WDEPTH	depth	10/10/06	Depth	0.01	3.31	feet	
MW-1A	WEH	D1498	10/10/06	EH	1	170	mV	
MW-1A	WHARD_CALC	E130.2	12/19/06	Hardness (As CaCO3)	1	148	mg/L	
MW-1A	WIC	E300	10/12/06	Bromide	0.1	0.117	mg/L	
MW-1A	WIC	E300	10/12/06	Chloride	0.1	26.7	mg/L	
MW-1A	WIC	E300	10/12/06	Nitrogen, Nitrate (As N)	0.1	ND	mg/L	
MW-1A	WIC	E300	10/12/06	Nitrogen, Nitrite	0.1	ND	mg/L	
MW-1A	WIC	E300	10/12/06	Sulfate	1	14.9	mg/L	
MW-1A	WNH3	E350.1	10/24/06	Nitrogen, Ammonia (As N)	0.1	ND	mg/L	
MW-1A	WPH_FIELD	E150.1	10/10/06	pH	0.1	7.69	pH units	
MW-1A	WPHENOL	E420.1	11/02/06	Phenolics, Total Recoverable	0.005	ND	mg/L	
MW-1A	WTDS	E160.1	10/16/06	Total Dissolved Solids (Residue, Filterable)	10	229	mg/L	
MW-1A	WTEMP	E170.1	10/10/06	Temperature	0.1	15.9	°C	
MW-1A	WTKN	E351.3	10/17/06	Nitrogen, Kjeldahl, Total	0.2	ND	mg/L	
MW-1A	WTOC	E415.1	10/24/06	Organic Carbon, Total	2	ND	mg/L	
MW-1A	WTURB_FIELD	E180.1	10/10/06	Turbidity	0.05	29	NTU	
MW-1B	ICP	SW6010A	12/14/06	Cadmium	0.005	ND	mg/L	
MW-1B	ICP	SW6010A	12/14/06	Calcium	0.21	24.1	mg/L	
MW-1B	ICP	SW6010A	12/14/06	Iron	0.035	0.273	mg/L	
MW-1B	ICP	SW6010A	12/14/06	Lead	0.005	ND	mg/L	
MW-1B	ICP	SW6010A	12/14/06	Magnesium	0.32	5.31	mg/L	
MW-1B	ICP	SW6010A	12/14/06	Manganese	0.005	0.126	mg/L	
MW-1B	ICP	SW6010A	12/14/06	Potassium	0.26	0.374	mg/L	
MW-1B	ICP	SW6010A	12/14/06	Sodium	0.67	5.92	mg/L	
MW-1B	WALK	E310.1	10/19/06	Alkalinity, Total (As CaCO3)	2	89	mg/L CaCO3	
MW-1B	WBOD5	405.1	10/11/06	Biochemical Oxygen Demand	3	ND	mg/L	
MW-1B	WCOD	E410.1	11/06/06	Chemical Oxygen Demand	10	ND	mg/L	
MW-1B	WCOND	E120.1	10/10/06	Specific Conductance	5	200	µmhos/cm	
MW-1B	WDEPTH	depth	10/10/06	Depth	0.01	3.54	feet	

BUCK ENVIRONMENTAL LABORATORIES, INC.

PO Box 5150

Cortland, NY 13045

Tel 607.753.3403 FAX 753.3415

## CORTLAND COUNTY LANDFILL

Towsley Site

Sampled: 10/10/06

Sampler: EHM, ES

Lab Log #0610083

ClientSampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-1B	WEH	D1498	10/10/06	EH	1	115	mV	
MW-1B	WHARD_CALC	E130.2	12/19/06	Hardness (As CaCO3)	1	82	mg/L	
MW-1B	WIC	E300	10/12/06	Bromide	0.1	ND	mg/L	
MW-1B	WIC	E300	10/12/06	Chloride	0.1	0.611	mg/L	
MW-1B	WIC	E300	10/12/06	Nitrogen, Nitrate (As N)	0.1	ND	mg/L	
MW-1B	WIC	E300	10/12/06	Nitrogen, Nitrite	0.1	ND	mg/L	
MW-1B	WIC	E300	10/12/06	Sulfate	1	3.76	mg/L	
MW-1B	WNH3	E350.1	10/24/06	Nitrogen, Ammonia (As N)	0.1	ND	mg/L	
MW-1B	WPH_FIELD	E150.1	10/10/06	pH	0.1	7.9	pH units	
MW-1B	WPHENOL	E420.1	11/02/06	Phenolics, Total Recoverable	0.005	ND	mg/L	
MW-1B	WTDS	E160.1	10/16/06	Total Dissolved Solids (Residue, Filterable)	10	120	mg/L	
MW-1B	WTEMP	E170.1	10/10/06	Temperature	0.1	15.8	°C	
MW-1B	WTKN	E351.3	10/17/06	Nitrogen, Kjeldahl, Total	0.2	ND	mg/L	
MW-1B	WTOC	E415.1	10/24/06	Organic Carbon, Total	2	ND	mg/L	
MW-1B	WTURB_FIELD	E180.1	10/10/06	Turbidity	0.05	15.6	NTU	
MW-2A	ICP	SW6010A	12/14/06	Cadmium	0.005	ND	mg/L	
MW-2A	ICP	SW6010A	12/14/06	Calcium	0.21	88.5	mg/L	
MW-2A	ICP	SW6010A	12/14/06	Iron	0.035	10.1	mg/L	
MW-2A	ICP	SW6010A	12/14/06	Lead	0.005	0.006	mg/L	
MW-2A	ICP	SW6010A	12/14/06	Magnesium	0.32	19.4	mg/L	
MW-2A	ICP	SW6010A	12/14/06	Manganese	0.005	13.6	mg/L	
MW-2A	ICP	SW6010A	12/14/06	Potassium	0.26	12.7	mg/L	
MW-2A	ICP	SW6010A	12/14/06	Sodium	0.67	31.4	mg/L	
MW-2A	WALK	E310.1	10/19/06	Alkalinity, Total (As CaCO3)	2	423	mg/L CaCO3	
MW-2A	WBOD5	405.1	10/11/06	Biochemical Oxygen Demand	3	ND	mg/L	
MW-2A	WCOD	E410.1	11/06/06	Chemical Oxygen Demand	10	15.6	mg/L	
MW-2A	WCOND	E120.1	10/10/06	Specific Conductance	5	1100	µmhos/cm	
MW-2A	WDEPTH	depth	10/10/06	Depth	0.01	5.82	feet	
MW-2A	WEH	D1498	10/10/06	EH	1	90	mV	
MW-2A	WHARD_CALC	E130.2	12/19/06	Hardness (As CaCO3)	1	301	mg/L	
MW-2A	WIC	E300	10/12/06	Bromide	0.1	0.261	mg/L	
MW-2A	WIC	E300	10/12/06	Chloride	0.1	25.7	mg/L	
MW-2A	WIC	E300	10/12/06	Nitrogen, Nitrate (As N)	0.1	ND	mg/L	
MW-2A	WIC	E300	10/12/06	Nitrogen, Nitrite	0.1	ND	mg/L	
MW-2A	WIC	E300	10/12/06	Sulfate	1	3.18	mg/L	
MW-2A	WNH3	E350.1	10/24/06	Nitrogen, Ammonia (As N)	1	15.1	mg/L	
MW-2A	WPH_FIELD	E150.1	10/10/06	pH	0.1	6.41	pH units	
MW-2A	WPHENOL	E420.1	11/02/06	Phenolics, Total Recoverable	0.005	ND	mg/L	
MW-2A	WTDS	E160.1	10/16/06	Total Dissolved Solids (Residue, Filterable)	10	487	mg/L	
MW-2A	WTEMP	E170.1	10/10/06	Temperature	0.1	14.2	°C	
MW-2A	WTKN	E351.3	10/17/06	Nitrogen, Kjeldahl, Total	2	15	mg/L	

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Towsley Site

Sampled: 10/10/06

Sampler: EHM, ES

Client/SampleID TestCode

Lab Log #0610083

Client/SampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-2A	WTOC	E415.1	10/24/06	Organic Carbon, Total	2	5.68	mg/L	
MW-2A	WTURB_FIELD	E180.1	10/10/06	Turbidity	0.05	27	NTU	
MW-2B	ICP	SW6010A	12/14/06	Cadmium	0.005	ND	mg/L	
MW-2B	ICP	SW6010A	12/14/06	Calcium	0.21	200	mg/L	
MW-2B	ICP	SW6010A	12/14/06	Iron	0.035	1.07	mg/L	
MW-2B	ICP	SW6010A	12/14/06	Lead	0.005	ND	mg/L	
MW-2B	ICP	SW6010A	12/14/06	Magnesium	0.32	42.7	mg/L	
MW-2B	ICP	SW6010A	12/14/06	Manganese	0.005	6.46	mg/L	
MW-2B	ICP	SW6010A	12/14/06	Potassium	0.26	2.38	mg/L	
MW-2B	ICP	SW6010A	12/14/06	Sodium	0.67	51	mg/L	
MW-2B	WALK	E310.1	10/19/06	Alkalinity, Total (As CaCO3)	2	646	mg/L CaCO3	
MW-2B	WBOD5	405.1	10/11/06	Biochemical Oxygen Demand	2	13	mg/L	
MW-2B	WCOD	E410.1	11/06/06	Chemical Oxygen Demand	10	27	mg/L	
MW-2B	WCOND	E120.1	10/10/06	Specific Conductance	5	1540	umhos/cm	
MW-2B	WDEPTH	depth	10/10/06	Depth	0.01	6.33	feet	
MW-2B	WEH	D1498	10/10/06	EH	1	115	mV	
MW-2B	WHARD_CALC	E130.2	12/19/06	Hardness (As CaCO3)	1	675	mg/L	
MW-2B	WIC	E300	10/12/06	Bromide	0.1	0.912	mg/L	
MW-2B	WIC	E300	10/12/06	Chloride	1	121	mg/L	
MW-2B	WIC	E300	10/12/06	Nitrogen, Nitrate (As N)	0.1	ND	mg/L	
MW-2B	WIC	E300	10/12/06	Nitrogen, Nitrite	1	ND	mg/L	
MW-2B	WIC	E300	10/12/06	Sulfate	1	ND	mg/L	
MW-2B	WNH3	E350.1	10/24/06	Nitrogen, Ammonia (As N)	0.1	0.282	mg/L	
MW-2B	WPH_FIELD	E150.1	10/10/06	pH	0.1	6.52	pH units	
MW-2B	WPHENOL	E420.1	11/02/06	Phenolics, Total Recoverable	0.005	0.1	mg/L	
MW-2B	WTDS	E160.1	10/16/06	Total Dissolved Solids (Residue, Filterable)	10	980	mg/L	
MW-2B	WTEMP	E170.1	10/10/06	Temperature	0.1	14.5	°C	
MW-2B	WTKN	E351.3	10/17/06	Nitrogen, Kjeldahl, Total	0.2	1.9	mg/L	
MW-2B	WTOC	E415.1	10/24/06	Organic Carbon, Total	2	7.49	mg/L	
MW-2B	WTURB_FIELD	E180.1	10/10/06	Turbidity	0.05	28	NTU	
MW-3A	ICP	SW6010A	12/14/06	Cadmium	0.005	ND	mg/L	
MW-3A	ICP	SW6010A	12/14/06	Calcium	0.21	48.3	mg/L	
MW-3A	ICP	SW6010A	12/14/06	Iron	0.035	0.283	mg/L	
MW-3A	ICP	SW6010A	12/14/06	Lead	0.005	ND	mg/L	
MW-3A	ICP	SW6010A	12/14/06	Magnesium	0.32	9.2	mg/L	
MW-3A	ICP	SW6010A	12/14/06	Manganese	0.005	0.176	mg/L	
MW-3A	ICP	SW6010A	12/14/06	Potassium	0.26	0.937	mg/L	
MW-3A	ICP	SW6010A	12/14/06	Sodium	0.67	6.03	mg/L	
MW-3A	WALK	E310.1	10/19/06	Alkalinity, Total (As CaCO3)	2	152	mg/L CaCO3	
MW-3A	WBOD5	405.1	10/11/06	Biochemical Oxygen Demand	3	ND	mg/L	

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Towsley Site

Sampled: 10/10/06

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ClientSampleID TestCode

Lab Log #0610083

ClientSampleID	TestCode	TestNo	AnalDate	Analyte	PQL	FinalVal	Units	Qual
MW-3A	WCOND	E410.1	11/06/06	Chemical Oxygen Demand	10	ND	mg/L	
MW-3A	WCOND	E120.1	10/10/06	Specific Conductance	5	397	µmhos/cm	
MW-3A	WDEPTH		10/10/06	Depth	0.01	8.74	feet	
MW-3A	WEH	D1498	10/10/06	EH	1	220	mV	
MW-3A	WHARD_CALC	E130.2	12/19/06	Hardness (As CaCO3)	1	158	mg/L	
MW-3A	WIC	E300	10/12/06	Bromide	0.1	0.143	mg/L	
MW-3A	WIC	E300	10/12/06	Chloride	0.1	12.7	mg/L	
MW-3A	WIC	E300	10/12/06	Nitrogen, Nitrate (As N)	0.1	ND	mg/L	
MW-3A	WIC	E300	10/12/06	Nitrogen, Nitrite	0.1	ND	mg/L	
MW-3A	WIC	E300	10/12/06	Sulfate	1	8.01	mg/L	
MW-3A	WNH3	E350.1	10/24/06	Nitrogen, Ammonia (As N)	0.1	ND	mg/L	
MW-3A	WPH_FIELD	E150.1	10/10/06	pH	0.1	6.84	pH units	
MW-3A	WPHENOL	E420.1	11/02/06	Phenolics, Total Recoverable	0.005	ND	mg/L	
MW-3A	WTDS	E160.1	10/16/06	Total Dissolved Solids (Residue, Filterable)	10	207	mg/L	
MW-3A	WTEMP	E170.1	10/10/06	Temperature	0.1	15.7	°C	
MW-3A	WTKN	E351.3	10/17/06	Nitrogen, Kjeldahl, Total	0.2	0.266	mg/L	
MW-3A	WTOC	E415.1	10/24/06	Organic Carbon, Total	2	ND	mg/L	
MW-3A	WTURB_FIELD	E180.1	10/10/06	Turbidity	0.05	7.2	NTU	
MW-6B	ICP	SW6010A	12/14/06	Cadmium	0.005	ND	mg/L	
MW-6B	ICP	SW6010A	12/14/06	Calcium	0.21	37.4	mg/L	
MW-6B	ICP	SW6010A	12/14/06	Iron	0.035	0.195	mg/L	
MW-6B	ICP	SW6010A	12/14/06	Lead	0.005	ND	mg/L	
MW-6B	ICP	SW6010A	12/14/06	Magnesium	0.32	9.71	mg/L	
MW-6B	ICP	SW6010A	12/14/06	Manganese	0.005	0.185	mg/L	
MW-6B	ICP	SW6010A	12/14/06	Potassium	0.26	0.69	mg/L	
MW-6B	ICP	SW6010A	12/14/06	Sodium	0.67	10.7	mg/L	
MW-6B	WALK	E310.1	10/19/06	Alkalinity, Total (As CaCO3)	2	153	mg/L CaCO3	
MW-6B	WBOD5	405.1	10/11/06	Biochemical Oxygen Demand	3	ND	mg/L	
MW-6B	WCOND	E410.1	11/06/06	Chemical Oxygen Demand	10	ND	mg/L	
MW-6B	WCOND	E120.1	10/10/06	Specific Conductance	5	329	µmhos/cm	
MW-6B	WDEPTH		10/10/06	Depth	0.01	12.7	feet	
MW-6B	WEH	D1498	10/10/06	EH	1	180	mV	
MW-6B	WHARD_CALC	E130.2	12/19/06	Hardness (As CaCO3)	1	133	mg/L	
MW-6B	WIC	E300	10/12/06	Bromide	0.1	ND	mg/L	
MW-6B	WIC	E300	10/12/06	Chloride	0.1	3.39	mg/L	
MW-6B	WIC	E300	10/12/06	Nitrogen, Nitrate (As N)	0.1	ND	mg/L	
MW-6B	WIC	E300	10/12/06	Nitrogen, Nitrite	0.1	ND	mg/L	
MW-6B	WIC	E300	10/12/06	Sulfate	1	6.14	mg/L	
MW-6B	WNH3	E350.1	10/24/06	Nitrogen, Ammonia (As N)	0.1	ND	mg/L	
MW-6B	WPH_FIELD	E150.1	10/10/06	pH	0.1	7.11	pH units	
MW-6B	WPHENOL	E420.1	11/02/06	Phenolics, Total Recoverable	0.005	ND	mg/L	

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Lab Log #0610083

Towsley Site

Sampled: 10/10/06

Sampler: EHM, ES

ClientSampleID TestCode

TestNo

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PQL

FinalVal

Units

Qual

MW-6B	WTDS	E160.1	10/16/06	Total Dissolved Solids (Residue, Filterable)	10	187	mg/L	
MW-6B	WTEMP	E170.1	10/10/06	Temperature	0.1	14.3	°C	
MW-6B	WTKN	E351.3	10/17/06	Nitrogen, Kjeldahl, Total	0.2	0.279	mg/L	
MW-6B	WTOC	E415.1	10/24/06	Organic Carbon, Total	2	ND	mg/L	
MW-6B	WTURB_FIELD	E180.1	10/10/06	Turbidity	0.05	14.2	NTU	
MW-7A	ICP	SW6010A	12/14/06	Cadmium	0.005	ND	mg/L	
MW-7A	ICP	SW6010A	12/14/06	Calcium	0.21	148	mg/L	
MW-7A	ICP	SW6010A	12/14/06	Iron	0.035	278	mg/L	
MW-7A	ICP	SW6010A	12/14/06	Lead	0.005	ND	mg/L	
MW-7A	ICP	SW6010A	12/14/06	Magnesium	0.32	38	mg/L	
MW-7A	ICP	SW6010A	12/14/06	Manganese	0.005	4.85	mg/L	
MW-7A	ICP	SW6010A	12/14/06	Potassium	0.26	2.03	mg/L	
MW-7A	ICP	SW6010A	12/14/06	Sodium	0.57	128	mg/L	
MW-7A	WALK	E310.1	10/19/06	Alkalinity, Total (As CaCO3)	2	635	mg/L CaCO3	
MW-7A	WBOD5	405.1	10/11/06	Biochemical Oxygen Demand	3	ND	mg/L	
MW-7A	WCOD	E410.1	11/06/06	Chemical Oxygen Demand	10	20.5	mg/L	
MW-7A	WCOND	E120.1	10/10/06	Specific Conductance	5	1480	umhos/cm	
MW-7A	WDEPTH	depth	10/10/06	Depth	0.01	3.48	feet	
MW-7A	WEH	D1498	10/10/06	EH	1	190	mV	
MW-7A	WHARD_CALC	E130.2	12/19/06	Hardness (As CaCO3)	1	526	mg/L	
MW-7A	WIC	E300	10/12/06	Bromide	0.1	0.483	mg/L	
MW-7A	WIC	E300	10/12/06	Chloride	1	85	mg/L	
MW-7A	WIC	E300	10/12/06	Nitrogen, Nitrate (As N)	0.1	ND	mg/L	
MW-7A	WIC	E300	10/12/06	Nitrogen, Nitrite	0.1	ND	mg/L	
MW-7A	WIC	E300	10/12/06	Sulfate	1	14.1	mg/L	
MW-7A	WNH3	E350.1	10/24/06	Nitrogen, Ammonia (As N)	0.1	ND	mg/L	
MW-7A	WPH_FIELD	E150.1	10/10/06	pH	0.1	6.62	pH units	
MW-7A	WPHENOL	E420.1	11/02/06	Phenolics, Total Recoverable	0.005	ND	mg/L	
MW-7A	WTDS	E160.1	10/16/06	Total Dissolved Solids (Residue, Filterable)	10	949	mg/L	
MW-7A	WTEMP	E170.1	10/10/06	Temperature	0.1	13.9	°C	
MW-7A	WTKN	E351.3	10/17/06	Nitrogen, Kjeldahl, Total	0.2	1.11	mg/L	
MW-7A	WTOC	E415.1	10/24/06	Organic Carbon, Total	2	7.46	mg/L	
MW-7A	WTURB_FIELD	E180.1	10/10/06	Turbidity	0.05	42	NTU	

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## CORTLAND COUNTY LANDFILL

Towsley Site

Sampled: 10/10/06

Sampler: EHM, ES

ClientSampleID

TestCode

TestNo

AnalDate

Analyte

PQL

FinalVal

Units

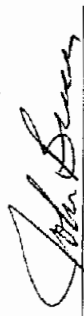
Qual

Lab Log #0610083

This laboratory analysis has been performed in accordance with generally accepted laboratory practices and requirements of the New York State Department of Health ELAP Program. Buck Environmental Laboratories, Inc. makes no recommendations, representations or warranties other than as specifically set forth in this report and shall not be responsible or liable for any action or the consequence of any action taken in connection with this report.

## Qualifiers:

ND ---> Not detected at the PQL indicated  
PQL ---> Laboratory Practical Limit of Quantitation  
J ---> Result is estimated, reported value is less than PQL  
B ---> Result is estimated, analyte detected in blank  
S ---> Result is estimated, surrogate or spike recovery outside of acceptance limits  
R ---> Results is estimated, RPD outside of acceptance limits  
E ---> Result is estimated, reported value exceeds upper quantitation limit



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NYSDOH ELAP #10795

BUCK ENVIRONMENTAL LABORATORIES, INC.

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# Buck Environmental Labs, Inc.

Date: 20-Dec-06

CLIENT: CORTLAND CO SOIL & WATER  
Work Order: 0610083  
Project: TOWSLEY SITE

## ANALYTICAL QC SUMMARY REPORT

TestCode: ICP

Sample ID: 0610083-02AMS	SampType: MS	TestCode: ICP	Units: mg/L	Prep Date: 10/12/06	Run ID: PE3000_061214B						
Client ID: MW-1B	Batch ID: 7406	TestNo: SW6010A	(SW3010A)	Analysis Date: 12/14/06	SeqNo: 401659						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.04517	0.00500	0.05	0	90.3	75	125	0	0		
Calcium	41.84	0.210	20	24.13	88.5	75	125	0	0		
Iron	1.098	0.0350	1	0.2733	82.5	75	125	0	0		
Lead	0.4451	0.00500	0.5	0	89	75	125	0	0		
Magnesium	22.37	0.320	20	5.31	85.3	75	125	0	0		
Manganese	0.581	0.00500	0.5	0.1263	90.9	75	125	0	0		
Potassium	16.65	0.260	20	0.3742	81.4	75	125	0	0		
Sodium	22.98	0.670	20	5.916	85.3	75	125	0	0		

Sample ID: 0610083-02AMS		SampType: MSD		TestCode: ICP		Units: mg/L		Prep Date: 10/12/06		Run ID: PE3000_061214B	
Client ID: MW-1B		Batch ID: 7406		TestNo: SW6010A		(SW3010A)		Analysis Date: 12/14/06		SeqNo: 401660	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.04651	0.00500	0.05	0	93	75	125	0.04517	2.92	20	
Calcium	42.93	0.210	20	24.13	94	75	125	41.84	2.56	20	
Iron.	1.536	0.0350	1	0.2733	126	75	125	1.098	33.3	20	SR
Lead	0.4635	0.00500	0.5	0	92.7	75	125	0.4451	4.06	20	
Magnesium	23.37	0.320	20	5.31	90.3	75	125	22.37	4.37	20	
Manganese	0.6646	0.00500	0.5	0.1263	108	75	125	0.581	13.4	20	
Potassium	17.08	0.260	20	0.3742	83.5	75	125	16.65	2.57	20	
Sodium	23.81	0.670	20	5.916	89.5	75	125	22.98	3.54	20	

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Buck Environmental Labs, Inc.

Date: 22-Nov-06

CLIENT: CORTLAND CO SOIL & WATER  
 Work Order: 0610083  
 Project: TOWSLEY SITE

## ANALYTICAL QC SUMMARY REPORT

TestNo: E310.1

Sample ID: 0610083-02BMS	SampType: MS	TestCode: WALK	Units: mg/L CaCO3	Prep Date:	Run ID: WET CHEM-123_061019						
Client ID: MW-1B	Batch ID: R21003	TestNo: E310.1		Analysis Date: 10/19/06	SeqNo: 394769						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	190	2.00	100	89	101	82.7	115	0	0	0	

Sample ID: 0610083-02BMSD	SampleType: MSD	TestCode: WALK	Units: mg/L CaCO3	Prep Date:	Run ID: WET CHEM-123_061019						
Client ID: MW-1B	Batch ID: R21003	TestNo: E310.1		Analysis Date: 10/19/06	SeqNo: 394770						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	188	2.00	100	89	99	82.7	115	190	1.06	20	

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analytic detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank  
 Page 1 of 1

# Buck Environmental Labs, Inc.

Date: 22-Nov-06

CLIENT: CORTLAND CO SOIL & WATER  
Work Order: 0610083  
Project: TOWSLEY SITE

## ANALYTICAL QC SUMMARY REPORT

TestNo: E410.1

Sample ID: 0610082-17CMS	Sample Type: MS	TestCode: WCOD	Units: mg/L	Prep Date:	Run ID: WET CHEM-123_061106
Client ID: ZZZZZ	Batch ID: R21089	TestNo: E410.1		Analysis Date: 11/06/06	SeqNo: 396235
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chemical Oxygen Demand	307.2	20.0	100	216.8	90.4 79.5 131 0 0

Sample ID: 0610083-02CMS	Sample Type: MS	TestCode: WCOD	Units: mg/L	Prep Date:	Run ID: WET CHEM-123_061106
Client ID: MW-1B	Batch ID: R21089	TestNo: E410.1		Analysis Date: 11/06/06	SeqNo: 396247
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chemical Oxygen Demand	53.77	10.0	50	0	108 79.5 131 0 0

Sample ID: 0610082-17CMSD	Sample Type: MSD	TestCode: WCOD	Units: mg/L	Prep Date:	Run ID: WET CHEM-123_061106
Client ID: ZZZZZ	Batch ID: R21089	TestNo: E410.1		Analysis Date: 11/06/06	SeqNo: 396236
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chemical Oxygen Demand	304	20.0	100	216.8	87.2 79.5 131 307.2 1.05 16

Sample ID: 0610083-02CMSD	Sample Type: MSD	TestCode: WCOD	Units: mg/L	Prep Date:	Run ID: WET CHEM-123_061106
Client ID: MW-1B	Batch ID: R21089	TestNo: E410.1		Analysis Date: 11/06/06	SeqNo: 396248
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chemical Oxygen Demand	47.01	10.0	50	0	94 79.5 131 53.77 13.4 16

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Buck Environmental Labs, Inc.

Date: 22-Nov-06

CLIENT: CORTLAND CO SOIL & WATER  
Work Order: 0610083  
Project: TOWSLEY SITE

## ANALYTICAL QC SUMMARY REPORT

TestNo: E300

Sample ID: 0610083-02BMS		SampType: MS	TestCode: WIC	Units: mg/L	Prep Date:	Run ID: LACHAT 8000_061012A					
Client ID: MW-1B	Batch ID: R20964	TestNo: E300			Analysis Date: 10/12/06	SeqNo: 393764					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 0610082-17BMS		SampType: MS	TestCode: WIC	Units: mg/L	Prep Date:	Run ID: LACHAT 8000_061012A					
Client ID: ZZZZZ		Batch ID: R20964	TestNo: E300		Analysis Date: 10/12/06	SeqNo: 393775					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 0610083-02BMSD	SampType: MSD	TestCode: WIC	Units: mg/L	Prep Date:	Run ID: LACHAT 8000_061012A						
Client ID: MW-1B	Batch ID: R20964	TestNo: E300		Analysis Date: 10/12/06	SeqNo: 393765						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 0610082-17BMSD	SampType: MSD	TestCode: WIC	Units: mg/L	Prep Date:	Run ID: LACHAT 8000_061012A						
Client ID: ZZZZZ	Batch ID: R20964	TestNo: E300		Analysis Date: 10/12/06	SeqNo: 393776						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers: NID - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



# Buck Environmental Labs, Inc.

Date: 22-Nov-06

CLIENT: CORTLAND CO SOIL & WATER  
Work Order: 0610083  
Project: TOWSLEY SITE

## ANALYTICAL QC SUMMARY REPORT

TestNo: E350.1

Sample ID: 0610083-02CMS	SampType: MS	TestCode: WNH3	Units: mg/L	Prep Date:	Run ID: LACHAT 8000_061024A
Client ID: MW-1B	Batch ID: R20989	TestNo: E350.1		Analysis Date: 10/24/06	SeqNo: 394423
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Nitrogen, Ammonia (As N)	0.8289	0.100	1	0	82.9 65 105 0 0

Sample ID: 0610082-17CMS	SampType: MS	TestCode: WNH3	Units: mg/L	Prep Date:	Run ID: LACHAT 8000_061024A
Client ID: ZZZZZ	Batch ID: R20989	TestNo: E350.1		Analysis Date: 10/24/06	SeqNo: 394429
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Nitrogen, Ammonia (As N)	277	10.0	100	175	102 65 105 0 0 E

Sample ID: 0610123-04CMS	SampType: MS	TestCode: WNH3	Units: mg/L	Prep Date:	Run ID: LACHAT 8000_061024A
Client ID: ZZZZZ	Batch ID: R20989	TestNo: E350.1		Analysis Date: 10/24/06	SeqNo: 394451
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Nitrogen, Ammonia (As N)	0.6205	0.100	1	0	62 65 105 0 0 S

Sample ID: 0610083-02CMSD	SampType: MSD	TestCode: WNH3	Units: mg/L	Prep Date:	Run ID: LACHAT 8000_061024A
Client ID: MW-1B	Batch ID: R20989	TestNo: E350.1		Analysis Date: 10/24/06	SeqNo: 394424
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Nitrogen, Ammonia (As N)	0.7945	0.100	1	0	79.4 65 105 0.8289 4.24 13.2

Sample ID: 0610082-17CMSD	SampType: MSD	TestCode: WNH3	Units: mg/L	Prep Date:	Run ID: LACHAT 8000_061024A
Client ID: ZZZZZ	Batch ID: R20989	TestNo: E350.1		Analysis Date: 10/24/06	SeqNo: 394430
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Nitrogen, Ammonia (As N)	275.2	10.0	100	175	100 65 105 277 0.643 13.2 E

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

CLIENT: CORTLAND CO SOIL & WATER  
Work Order: 0610083  
Project: TOWSLEY SITE

## ANALYTICAL QC SUMMARY REPORT

TestNo: E350.1

Sample ID: 0610123-04CM5D	SampType: MSD	TestCode: WNH3	Units: mg/L	Prep Date:	Run ID: LACHAT 8000_061024A						
Client ID: ZZZZZ	Batch ID: R20989	TestNo: E350.1		Analysis Date: 10/24/06	SeqNo: 394452						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia (As N)	0.6407	0.100	1	0	64.1	65	105	0.6205	3.21	13.2	S

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
B - Analyte detected in the associated Method Blank

# Buck Environmental Labs, Inc.

Date: 22-Nov-06

CLIENT: CORTLAND CO SOIL & WATER

Work Order: 0610083

Project: TOWSLEY SITE

## ANALYTICAL QC SUMMARY REPORT

TestNo: E420.1

Sample ID: 0610082-17CMS	Sample Type: MS	TestCode: WPHENOL	Units: mg/L	Prep Date: 10/27/06	Run ID: LACHAT 8000_061102A
Client ID: ZZZZZ	Batch ID: 7445	TestNo: E420.1	()	Analysis Date: 11/02/06	SeqNo: 395629
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Phenolics, Total Recoverable	0.5088	0.0250	0.5	0.07216	87.3 53.2 118 0 0

Sample ID: 0610083-02CMS	Sample Type: MS	TestCode: WPHENOL	Units: mg/L	Prep Date: 10/27/06	Run ID: LACHAT 8000_061102A
Client ID: MW-1B	Batch ID: 7445	TestNo: E420.1	()	Analysis Date: 11/02/06	SeqNo: 395640
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Phenolics, Total Recoverable	0.07376	0.00500	0.1	0.002425	71.3 53.2 118 0 0

Sample ID: 0610082-17CMS	Sample Type: MSD	TestCode: WPHENOL	Units: mg/L	Prep Date: 10/27/06	Run ID: LACHAT 8000_061102A
Client ID: ZZZZZ	Batch ID: 7445	TestNo: E420.1	()	Analysis Date: 11/02/06	SeqNo: 395630
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Phenolics, Total Recoverable	0.393	0.0250	0.5	0.07216	64.2 53.2 118 0.5088 25.7 19.5 R

Sample ID: 0610083-02CMS	Sample Type: MSD	TestCode: WPHENOL	Units: mg/L	Prep Date: 10/27/06	Run ID: LACHAT 8000_061102A
Client ID: MW-1B	Batch ID: 7445	TestNo: E420.1	()	Analysis Date: 11/02/06	SeqNo: 395641
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Phenolics, Total Recoverable	0.07468	0.00500	0.1	0.002425	72.3 53.2 118 0.07376 1.24 19.5

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Buck Environmental Labs, Inc.

Date: 22-Nov-06

CLIENT: CORTLAND CO SOIL & WATER  
 Work Order: 0610083  
 Project: TOWSLEY SITE

## ANALYTICAL QC SUMMARY REPORT

TestNo: E160.1

Sample ID: 0610082-17D	SampType: DUP	TestCode: WTDS	Units: mg/L	Prep Date:	Run ID: WET CHEM-122_061016						
Client ID: ZZZZZ	Batch ID: R20935	TestNo: E160.1		Analysis Date: 10/16/06	SeqNo: 393380						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 0610083-02D	SampType: DUP	TestCode: WTDS	Units: mg/L	Prep Date:	Run ID: WET CHEM-122_061016						
Client ID: MW-1B	Batch ID: R20935	TestNo: E160.1		Analysis Date: 10/16/06	SeqNo: 393381						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	118	10.0	0	0	0	0	0	120	1.68	12.9	

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

ID - Analyte detected in the associated Method Blank

# Buck Environmental Labs, Inc.

CLIENT: CORTLAND CO SOIL & WATER

Work Order: 0610083

Project: TOWSLEY SITE

## ANALYTICAL QC SUMMARY REPORT

TestNo: E351.3

Date: 22-Nov-06

Sample ID: 0610083-02CMS	SampType: MS	TestCode: WTKN	Units: mg/L	Prep Date: 10/16/06	Run ID: LACHAT 8000_061017B					
Client ID: MW-1B	Batch ID: 7416	TestNo: E351.3	(E351.3)	Analysis Date: 10/17/06	SeqNo: 393280					
Analyte	Result	PQL	SPK value	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	2.534	0.200	2.5	101	66.2	118	0	0		

Sample ID: 0610083-02CMSD	SampType: MSD	TestCode: WTKN	Units: mg/L	Prep Date: 10/16/06	Run ID: LACHAT 8000_061017B					
Client ID: MW-1B	Batch ID: 7416	TestNo: E351.3	(E351.3)	Analysis Date: 10/17/06	SeqNo: 393281					
Analyte	Result	PQL	SPK value	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	2.684	0.200	2.5	107	66.2	118	2.534	5.75	21.4	

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank  
Page 1 of 1

# Buck Environmental Labs, Inc.

Date: 22-Nov-06

CLIENT: CORTLAND CO SOIL & WATER

Work Order: 0610083

Project: TOWSLEY SITE

## ANALYTICAL QC SUMMARY REPORT

TestNo: E415.1

Sample ID: 0610083-02CMS	SampleType: MS	TestCode: WTOC	Units: mg/L	Prep Date:	Run ID: TOC_061024A						
Client ID: MW-1B	Batch ID: R21005	TestNo: E415.1		Analysis Date: 10/24/06	SeqNo: 394791						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	16.67	2.00	20	0	83.4	75	125	0	0		

Sample ID: 0610083-02CMSD	SampleType: MSD	TestCode: WTOC	Units: mg/L	Prep Date:	Run ID: TOC_061024A						
Client ID: MW-1B	Batch ID: R21005	TestNo: E415.1		Analysis Date: 10/24/06	SeqNo: 394792						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total	16.71	2.00	20	0	83.6	75	125	16.67	0.240	20	

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# Sample Login Summary

WorkOrder 0610083

SamplID	Received	ClientSamplID	CollectionDate	Matrix	Bottle	Qty	Storage	pH	Temp	COOLER	Edited
0610083-01A	10/11/06	MW-1A	10/10/06 10:55:00 AM	Aqueous		1	WALK-IN	<2	2.9	88	PB
Temperature acceptable, seals intact											
0610083-01B	10/11/06	MW-1A	10/10/06 10:55:00 AM	Aqueous		1	WALK-IN	6	2.9	88	PB
Temperature acceptable, seals intact											
0610083-01C	10/11/06	MW-1A	10/10/06 10:55:00 AM	Aqueous		1	WALK-IN	<2	2.9	88	PB
Temperature acceptable, seals intact											
0610083-01D	10/11/06	MW-1A	10/10/06 10:55:00 AM	Aqueous		1	WALK-IN	6	2.9	88	PB
Temperature acceptable, seals intact											
0610083-02A	10/11/06	MW-1B	10/10/06 11:02:00 AM	Aqueous		3	WALK-IN	<2	4.3	M	PB
MS/MSD											
Temperature acceptable, seals intact											
0610083-02B	10/11/06	MW-1B	10/10/06 11:02:00 AM	Aqueous		3	WALK-IN	6	4.3	M	PB
MS/MSD											
Temperature acceptable, seals intact											
0610083-02C	10/11/06	MW-1B	10/10/06 11:02:00 AM	Aqueous		3	WALK-IN	<2	4.3	M	PB
MS/MSD											
Temperature acceptable, seals intact											
0610083-02D	10/11/06	MW-1B	10/10/06 11:02:00 AM	Aqueous		3	WALK-IN	6	4.3	M	PB
MS/MSD											
Temperature acceptable, seals intact											
0610083-03A	10/11/06	MW-2A	10/10/06 10:24:00 AM	Aqueous		1	WALK-IN	<2	2.9	88	PB
Temperature acceptable, seals intact											
0610083-03B	10/11/06	MW-2A	10/10/06 10:24:00 AM	Aqueous		1	WALK-IN	6	2.9	88	PB
Temperature acceptable, seals intact											
0610083-03C	10/11/06	MW-2A	10/10/06 10:24:00 AM	Aqueous		1	WALK-IN	<2	2.9	88	PB
Temperature acceptable, seals intact											
0610083-03D	10/11/06	MW-2A	10/10/06 10:24:00 AM	Aqueous		1	WALK-IN	6	2.9	88	PB
Temperature acceptable, seals intact											
0610083-04A	10/11/06	MW-2B	10/10/06 10:29:00 AM	Aqueous		1	WALK-IN	<2	2.9	88	PB
Temperature acceptable, seals intact											
0610083-04B	10/11/06	MW-2B	10/10/06 10:29:00 AM	Aqueous		1	WALK-IN	6	2.9	88	PB
Temperature acceptable, seals intact											
0610083-04C	10/11/06	MW-2B	10/10/06 10:29:00 AM	Aqueous		1	WALK-IN	<2	2.9	88	PB
Temperature acceptable, seals intact											
0610083-04D	10/11/06	MW-2B	10/10/06 10:29:00 AM	Aqueous		1	WALK-IN	6	2.9	88	PB
Temperature acceptable, seals intact											

0610083-05A	10/11/06	MW-3A	10/10/06 10:09:00 AM	Aqueous	1	WALK-IN	<2	2.9	88	PB
Temperature acceptable, seals intact										
0610083-05B	10/11/06	MW-3A	10/10/06 10:09:00 AM	Aqueous	1	WALK-IN	6	2.9	88	PB
Temperature acceptable, seals intact										
0610083-05C	10/11/06	MW-3A	10/10/06 10:09:00 AM	Aqueous	1	WALK-IN	<2	2.9	88	PB
Temperature acceptable, seals intact										
0610083-05D	10/11/06	MW-3A	10/10/06 10:09:00 AM	Aqueous	1	WALK-IN	6	2.9	88	PB
Temperature acceptable, seals intact										
0610083-06A	10/11/06	MW-6B	10/10/06 10:02:00 AM	Aqueous	1	WALK-IN	<2	2.9	88	PB
Temperature acceptable, seals intact										
0610083-06B	10/11/06	MW-6B	10/10/06 10:02:00 AM	Aqueous	1	WALK-IN	6	2.9	88	PB
Temperature acceptable, seals intact										
0610083-06C	10/11/06	MW-6B	10/10/06 10:02:00 AM	Aqueous	1	WALK-IN	<2	2.9	88	PB
Temperature acceptable, seals intact										
0610083-06D	10/11/06	MW-6B	10/10/06 10:02:00 AM	Aqueous	1	WALK-IN	6	2.9	88	PB
Temperature acceptable, seals intact										
0610083-07A	10/11/06	MW-7A	10/10/06 10:42:00 AM	Aqueous	1	WALK-IN	<2	4.3	M	PB
Temperature acceptable, seals intact										
0610083-07B	10/11/06	MW-7A	10/10/06 10:42:00 AM	Aqueous	1	WALK-IN	6	4.3	M	PB
Temperature acceptable, seals intact										
0610083-07C	10/11/06	MW-7A	10/10/06 10:42:00 AM	Aqueous	1	WALK-IN	<2	4.3	M	PB
Temperature acceptable, seals intact										
0610083-07D	10/11/06	MW-7A	10/10/06 10:42:00 AM	Aqueous	1	WALK-IN	6	4.3	M	PB
Temperature acceptable, seals intact										





**BUCK**  
ENVIRONMENTAL LABORATORIES, INC.

LABORATORY LOG NO.

0610083

### CHAIN OF CUSTODY RECORD

NOTE: The information on this form was supplied by the client and authorizes the Laboratory to proceed with analysis according to the Standard Terms and Conditions of Buck Environmental Laboratories, Inc. provided on the reverse side of this chain-of-custody. The client authorization signature acknowledges that the terms are acceptable and agreed to by the client.

CLIENT <u>Cortland County Soil &amp; Water</u> QA/QC		<input type="checkbox"/> NORMAL		<input type="checkbox"/> PREMIUM			
MAILING ADDRESS		TURNAROUND		<input type="checkbox"/> EXPEDITE			
PHONE NO.		CLIENT AUTHORIZ. SIGN.					
REPORT TO ATTN:		ANALYSIS REQUESTED					
PROJECT/ SAMPLING SITE							
PO NO.							
SAMPLED BY							
DATE	TIME	SAMPLE DESCRIPTION	MATRIX (AIR, WATER, SOLID)	GRAB OR COMPOSITE	NUMBER OF CONTAINERS	VOLUME OF CONTAINERS	PRESERVATIVE USED
10/10	10:55	MW-1A	W	G	4	Var	ICE
10/10	11:02	MW-1B	W	G	4	Var	ICE
10/10	11:04	MW-1B MS	W	G	4	Var	ICE
10/10	11:06	MW-1B MSD	W	G	4	Var	ICE
10/10	10:24	MW-2A	W	G	4	Var	ICE
10/10	10:29	MW-2B	W	G	4	Var	ICE
10/10	10:09	MW-3A	W	G	4	Var	ICE
10/10	10:02	MW-6B	W	G	4	Var	ICE
10/10	10:42	MW-7A	W	G	4	Var	ICE
RELINQUISHED BY		ACCEPTED BY		ADDITIONAL COMMENTS			
10/10	1:15	1 <i>[Signature]</i>		1 <i>[Signature]</i>			
		2		2			
		3		3			
		4		4			
TEMP		ICE		COOLER		CUSTODY SEALS	

CORTLAND COUNTY LANDFILL - TOWNSLEY SITE  
FIELD SAMPLING DATA SHEETS

QUARTER 4  
2006

BEL LOG # 0610083

DATES(S) PURGED: 10/9/06  
TECHNICIANS: E. Spencer/E. Monson.

DATE(S) SAMPLED: 10/10/06

TECHNICIANS: E. Spencer/E. Monson.

SDG #

TESTING: Routine

Well #	Depth to Water	Well Depth	Purge Volume	Temp. (c)	pH	Eh	Cond.	Turb.	Color/Odor Sheen/Maintenance	Time Sampled
MW-1A	3.31	20	8½	15.9	7.69	170	369	29	Clear ND/NS/NM	10:55
MW-1B	3.54	51	24	15.8	7.90	115	200	15.6	Clear ND/NS/NM	11:02
MW-2A	5.82	12	3½	14.2	6.41	90	1105	27	Clear ND/NS/NM	10:24
MW-2B	6.83	29	11	14.5	6.52	115	1537	28	Clear ND/NS/NM	10:29
MW-3A	8.74	18	4½	15.7	6.84	220	397	7.2	Clear ND/NS/NM	10:09
MW-6B	12.73	36	12	14.3	7.11	180	329	14.2	Clear ND/NS/NM	10:02
MW-7A	3.48	18	7½	13.9	6.62	190	1475	42	Clear ND/NS/NM	10:42
MS/MSD MW-1B										11:04 11:06

Legend: NO= No Odor/NS= No Sheen/NM= No maintenance required/NNL=Needs new lock

4-20-1970  
2000

# Appendix D

## Historical Analytical Data

Cortland County Towslee Landfill



# Historical Data Page Index Cortland County Towslee Landfill

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

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

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

H - exceeded hold time

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

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

H - exceeded hold time



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

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

H - exceeded hold time

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

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

H - exceeded hold time

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

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

H - exceeded hold time

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

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

H - exceeded hold time

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

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

H - exceeded hold time

Historical Water Quality Data - Towslee Landfill  
MW-1A  
Total Metals

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

All units in mg/l

Historical Water Quality Data - Towslee Landfill  
MW-1B Total Metals

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

All units in mg/l

Historical Water Quality Data - Towslee Landfill  
MW-2A  
Total Metals

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

All units in mg/l



# Historical Water Quality Data - Towslee Landfill MW-2B Total Metals

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

All units in mg/l

Historical Water Quality Data - Towslee Landfill  
MW-3A Total Metals

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

All units in mg/l

Historical Water Quality Data - Towslee Landfill  
MW-6B  
Total Metals

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

All units in mg/l

Historical Water Quality Data - Towslee Landfill  
MW-7A

Total Metals

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

All units in mg/l

Historical Water Quality Database - Towslee Landfill  
MW-1A Dissolved Metals

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

All units are mg/l

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

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

All units are mg/l

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

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

All units are mg/l

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

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

All units are mg/l



# Historical Water Quality Database - Towslee Landfill MW-3A Dissolved Metals

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

All units are mg/l

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

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

All units are mg/l

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

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

All units are mg/l

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

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

All units are ug/l

J - estimated

B - analyte also detected in blank

(1) 1997 results are for total 1,2-DCE - total has been applied to each compound

NA - not analyzed

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

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

All units are ug/l

J - estimated

B - analyte also detected in blank

(1) 1997 results are for total 1,2-DCE - total has been applied to each compound

NA - not analyzed

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

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

All units are ug/l

J - estimated

B - analyte also detected in blank

(1) 1997 results are for total 1,2-DCE - total has been applied to each compound

NA - not analyzed

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

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

All units are ug/l

J - estimated

B - analyte also detected in blank

(1) 1997 results are for total 1,2-DCE - total has been applied to each compound

NA - not analyzed

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

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

All units are ug/l

J - estimated

B - analyte also detected in blank

(1) 1997 results are for total 1,2-DCE - total has been applied to each compound

NA - not analyzed



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

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

All units are ug/l

J - estimated

B - analyte also detected in blank

(1) 1997 results are for total 1,2-DCE - total has been applied to each compound

NA - not analyzed

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

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

All units are ug/l

J - estimated

B - analyte also detected in blank

(1) 1997 results are for total 1,2-DCE - total has been applied to each compound

NA - not analyzed

