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OPERATION AND MONITORING REPORT MAY 2001 TO APRIL 2002

GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

OPERATION AND MONITORING REPORT MAY 2001 TO APRIL 2002

GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

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1.0 INTRODUCTION

This report is the first annual Operation and Monitoring Report (O&M Report) for the remedial actions constructed at the Gratwick-Riverside Park Site (Site) located in North Tonawanda, New York. This report covers the period from May 2001 to April 2002 and was prepared pursuant to Section 7.0 of the report entitled "Operation and Maintenance Manual" (O&M Manual) dated March 2002. It is noted that New York State Department of Environmental Conservation (NYSDEC) approval for the O&M Manual has not been received as of the date of this O&M Report.

2.0 GROUNDWATER WITHDRAWAL SYSTEM (GWS)

Full-time operation of the Groundwater Withdrawal System (GWS) at the Gratwick-Riverside Park Site (Site) started on May 4, 2001. The objectives of the GWS are to:

i) achieve and maintain an inward gradient from the Niagara River toward the GWS; and

ii) achieve and maintain an upward gradient from the fill alluvium layer beneath the GWS.

In order to determine whether the objectives are being met, hydraulic and chemical monitoring programs have been developed. These programs include: Site groundwater; GWS effluent; and River surface water. The wells, manholes, wet wells, and storm sewer outfalls that comprise the monitoring network are shown on Figure 2.1. The monitoring programs are described in the following subsections.

2.1 HYDRAULIC MONITORING

Hydraulic monitoring consists of the collection of water levels in monitoring wells and manholes, and River water levels at the storm sewer outfalls to determine groundwater elevations. These data are then used to determine the groundwater vertical and horizontal gradients.

The water levels in four GWS manholes and in the River were monitored to confirm that an inward gradient exists. The water levels in four GWS manholes and in four monitoring wells installed near the GWS alignment in the materials directly overlying the confining unit were monitored to confirm that an upward gradient exists. The specific manholes and monitoring wells used to determine the horizontal and vertical gradients are listed in Table 2.1.

Groundwater elevations were measured at the following frequency:

i) weekly following startup of the GWS until six consecutive inward gradients were achieved; and

ii) monthly thereafter for the remainder of the first year.

The monitoring frequency for the second year will be monthly. Thereafter, the monitoring frequency will be based on the 2-year results, and will be approved by the NYSDEC.

The measured water levels are presented in Table 2.2. Summaries of the horizontal and vertical gradients are provided in Tables 2.3 and 2.4, respectively.

The results for the horizontal gradient evaluation show that:

i) inward horizontal gradients were achieved by May 11, 2001, within one week of the start of pumping the GWS; and

ii) the inward gradients were maintained for the remainder of the year except for two short-time periods around August 20, 2001 and February 11, 2002 in the vicinity of the River North/MH6 location.

These short periods of outward gradient are not anticipated to adversely affect the effectiveness of the remedy because:

i) the gradients were outward for only short periods of time;

ii) the outward gradients occurred over only a portion of the barrier wall;

iii) the 36-inch barrier wall is six inches thicker than the design thickness thereby providing extra protection; and

iv) any outward migration of Site groundwater into the barrier wall during the short periods of outward gradient are more than offset by the inward migration of river water into the barrier wall during the long periods of inward gradient.

The results for the vertical gradient evaluation show that the vertical gradients are predominantly upward (35 of 38 data pairs) at 3 of the 4 monitoring pair locations. The vertical gradients at the fourth monitoring pair (MH14/MW-9) are typically slightly downward with occasional periods of slight upward or neutral gradient (3 of 13 data pairs). It is possible that the upward gradients at this monitoring pair were created by the pumping/monitoring cycle on these measurement events. This may have been caused if the water levels were being monitored when the water levels in MH15 (Pump Station No. 3), located downstream of MH14, were near the pump start elevation of 561.0 ft amsl. To check if this is the case, it is planned to:

i) monitor water levels in MW15;

ii) to check the float settings in MH15 and reset to the design elevations described above, if needed;

iii) thereafter monitor the water levels in MH15 during the monthly monitoring to determine the correlation among the water levels in MH15, MH14, and MW-9; and

iv) if the data confirm that the design float settings are not sufficient to create an upward gradient, lower the pump start elevation as needed, while still maintaining a sufficient difference between the start and stop float settings such that the number of pump-on/off cycles are reasonable.

Reducing the pump start elevation to 560.5 ft amsl may be sufficient to create an upward gradient in this area.

2.2 GROUNDWATER QUALITY MONITORING

Groundwater quality monitoring consists of the collection of water samples from on-Site overburden monitoring wells (OGC1 through OGC8 and MW-6 through MW-9) and the analysis of these samples to determine the concentrations of chemicals in the groundwater. The purpose of the groundwater quality monitoring program is to monitor the anticipated improvement in the quality of the overburden groundwater:

i) between the barrier wall and the River (OGC1 through OGC4); and

ii) in the fill/alluvium beneath the GWS (MW-6 through MW-9).

Groundwater quality monitoring locations are presented on Figure 2.1. Pursuant to Section 4.1.1.3 of the O&M Manual, groundwater samples were collected and analyzed quarterly, starting in May 2001.

The sampling frequency for the initial 2-year period after GWS startup will be quarterly. Thereafter, the frequency will be based on the 2-year results and will be approved by the NYSDEC.

A summary of compounds detected in the quarterly groundwater samples is presented in Table 2.5 and pH levels are presented in Table 2.6. The analytical results and pH levels are relatively consistent with time, showing randomly occurring minimal increases and decreases. No trends are apparent in the results obtained to date.

QA/QC reviews of these quarterly groundwater results have been submitted to the NYSDEC in the monthly progress reports. Thus, they are not being resubmitted with this O&M Report.

2.3 EFFLUENT MONITORING PROGRAM

Groundwater from the GWS is discharged to the POTW without the need for pretreatment. The monitoring performed during the construction phase of the remedy clearly showed that the minimal chemical presence in the groundwater collected in the GWS is easily treated at the POTW and therefore no on-Site pretreatment is necessary. The effluent samples are collected at the monitoring station (meter building), which is located at the south end of the Site as shown on Figure 2.1.

Effluent samples were collected monthly as specified in the City of North Tonawanda Industrial Wastewater Discharge Permit (see O&M Manual Appendix B - Wastewater Discharge Permit). A 24-hour composite sample was collected for semi-volatile compounds, metals, and wet chemistry parameters. Three grab samples were collected for volatile compounds at 8-hour intervals and the measured concentrations were averaged to give a 24-hour concentration. **(Dale: Please have the POTW check this paragraph)**

The monthly effluent sample results are presented in Table 2.7. The results are relatively consistent with minor increases and decreases occurring randomly. No trends are apparent in the results obtained to date.

QA/QC reviews of the monthly discharge results have been submitted to the NYSDEC in the monthly progress reports, except for the effluent sample collected on April 23/24, 2001. Thus, the reviews are not being resubmitted with this O&M Report, except for the April 2002 sample.

2.4 SURFACE WATER MONITORING PROGRAM

To determine that the River sediment remediation and enhancement is working properly, surface water samples were collected upstream of, adjacent to, and at the downstream end of the Site at the locations shown on Figure 2.1.

Surface water samples were collected and analyzed quarterly, concurrent with the groundwater samples. Sampling will continue to be quarterly for the second year after GWS startup. Thereafter, the sampling frequency will be based on the 2-year results and will be approved by the NYSDEC.

The river water analytical results are presented in Table 2.5. The results show that no VOCs and SVOCs were detected except for estimated low level concentrations as summarized below:

Location	*Date*	*Parameter*	*Concentration (µg/L)*	*Class A Surface Water Criteria (µg/L)*
River South (Upstream)	11/27/01	Toluene	0.29 J	5
River Middle	2/11/02	Di-n-octyl Phthalate	0.7 J	50
River North (Downstream)	11/27/01	Toluene	0.39 J	5
		Trichloroethene	0.35 J	5
	2/11/02	Methylene Chloride	1.6 J	5

As shown above, none of the detected compounds exceed Class A criteria for surface water.

QA/QC reviews of the quarterly river water results have been submitted to the NYSDEC in the monthly progress reports. Thus, they are not being resubmitted with this O&M Report.

2.5 GWS OPERATIONS

The volume of water pumped on a monthly basis from the Site to the City POTW for treatment is presented in Table 2.8. The monthly volumes show that during the time period of initial dewatering of the Site (i.e., May and June 2001) the monthly volumes ranged from 2,300,000 to 2,900,000 gallons. Thereafter, the monthly volumes ranged from 230,000 to 1,280,000 gallons, with the lower monthly volumes typically occurring during last year's drier summer/early fall months.

The total volume of water discharged from the Site for the time period May 2001 to April 2002 was 14,193,000 gallons.

Section 5.0 of the O&M Manual describes the procedures to be followed in case pumping of the GWS needs to be stopped to prevent the discharge of untreated water from the Site by the City POTW (i.e., wet weather shutdown). No such shutdown occurred in the time period from May 2001 to April 2002.

Furthermore, the treatment of the Site groundwater by the City POTW did not require any modifications to the standard operations of the City POTW and did not cause any operational upsets of the City POTW.

2.6 GWS MAINTENANCE

No maintenance or service repairs were performed on the GWS components during the May 2001 to April 2002 time period.

3.0 SITE INSPECTIONS

Site inspections were performed on a monthly basis. Copies of the inspection logs for the time period December 2000 to December 2001 were submitted with the February 2002 monthly progress report, and thus are not being resubmitted with this O&M Report. The monthly inspection logs for January to April, 2002 are included as Appendix A. In summary, the inspections identified the following items that required maintenance:

i) reseed some bare areas with grass;

ii) replace dead trees and bushes;

iii) place additional boulders to protect wet well covers; and

iv) replace hydric soil in a small portion of the Island 1 area.

The City is pursuing the completion of these items with Haseley's bonding company.

4.0 CONCLUSIONS/RECOMMENDATIONS

The constructed remedy is achieving the remedial action objectives except for the occasional presence of a small downward vertical gradient in the vicinity of monitoring pair MH14/MW-9.

It is recommended to:

i) monitor water levels in MH15;

ii) check the float settings in MH15 and reset to the design elevations, if needed;

iii) thereafter monitor the water levels in MH15 during the monthly monitoring to determine the correlation between the water levels in MH14, MH15, and MW-9; and

iv) if the data confirm that the design float settings are not sufficient to create an upward gradient, lower the pump start elevation as needed, while still maintaining a sufficient difference between the start and stop float settings such that the number of pump-on/off cycles are reasonable.

Furthermore, the following items identified during the Site inspections need to be addressed:

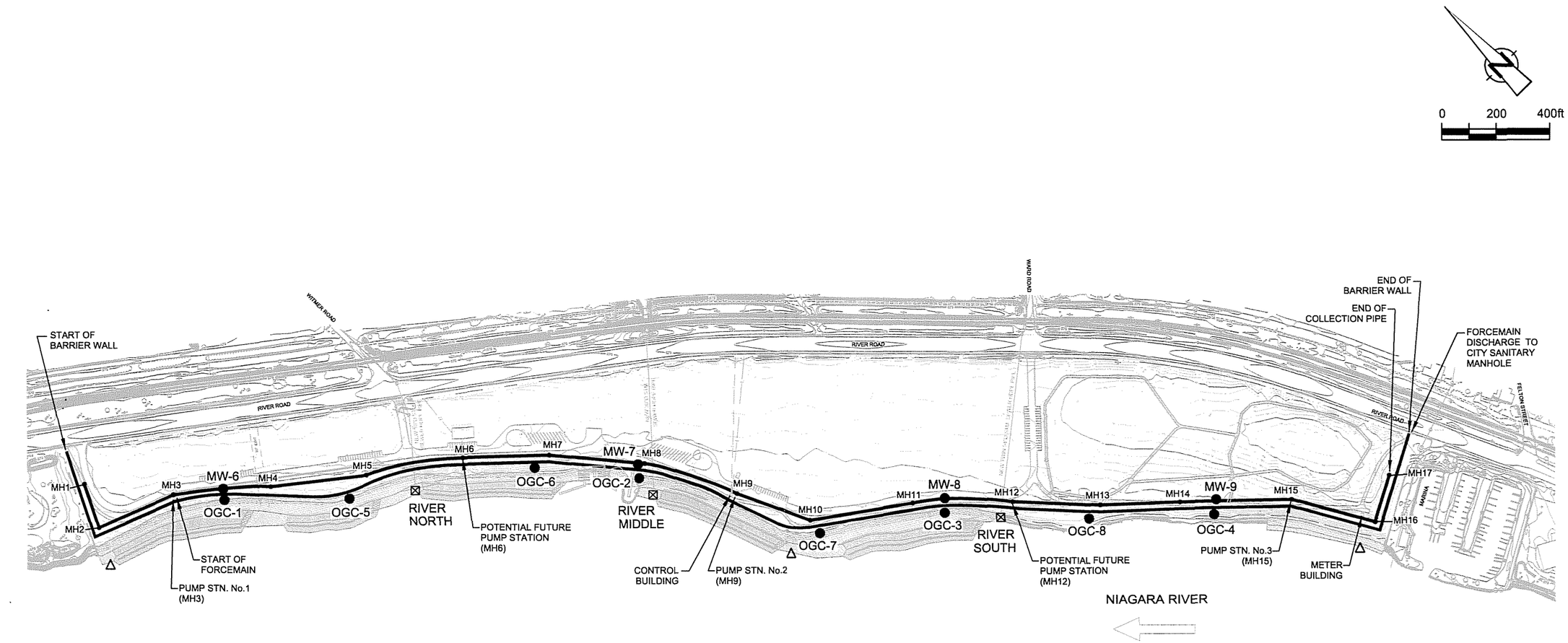
i) reseed some bare areas with grass;

ii) replace dead trees and bushes;

iii) place additional boulders to protect wet well covers; and

iv) replace hydric soil in a small portion of the Island 1 area.

FIGURES



LEGEND

- BARRIER WALL
- MH11 — GROUNDWATER COLLECTION SYSTEM
- ● OGC-1 MW-1 — MONITORING WELL LOCATION
- ⊠ RIVER SOUTH — SURFACE WATER LEVEL MONITORING LOCATION
- △ — SURFACE WATER CHEMICAL MONITORING LOCATION

figure 2.1

MONITORING NETWORK
CONSTRUCTED REMEDIAL ACTION - O&M MANUAL
GRATWICK-RIVERSIDE PARK SITE
North Tonawanda, New York

07987-00(025)GN-WA001 MAY 22/2002

TABLES

TABLE 2.1

GROUNDWATER HYDRAULIC MONITORING LOCATIONS
OPERATION AND MAINTENANCE
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

INWARD HYDRAULIC GRADIENT MONITORING LOCATIONS

Inner [1]	Outer
MH2	Niagara River North (Downstream)
MH6	Niagara River North (Downstream)
MH8	Niagara River Middle
MH12	Niagara River South (Upstream)

UPWARD HYDRAULIC GRADIENT MONITORING LOCATIONS

Inner [1]	Lower
MH3	MW-6
MH8	MW-7
MH11	MW-8
MH14	MW-9

FREQUENCY

- Weekly following GWS startup until six consecutive inward gradients are achieved; and
- Monthly thereafter for the remainder of the initial 2-year period (review after 2 years).

Note:

(1) These manholes will be monitored twice daily by POTW staff during a wet weather bypass event pursuant to Section 5.0 of the O&M Manual.

TABLE 2.2

WATER LEVELS (ft amsl)
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

Date	*MH2*	*MH3*	*MH6*		*OGC-1*	*MW-6*	*OGC-5*	*River North*	*OGC-6*	*MH8*	*MW-7*	*OGC-2*	*River Middle*	*OGC-7*
RIM Elevation	571.77	573.81	572.03							572.37				
TOC Elevation (ft amsl)					575.01	575.40	573.82	566.80	576.65		575.57	574.08	566.48	572.49
December 12, 2000	NM				564.26	567.05	563.84	NM	564.24		567.20	564.58	NM	565.24
January 8, 2001	NM		NM		563.94	567.21	563.82	NM	563.84		567.30	564.01	NM	563.90
March 29, 2001	NM		NM		564.19	567.80	563.82	NM	564.10		566.89	564.28	NM	564.12
May 11, 2001	559.31		561.98		564.39	563.53	564.54	564.54	564.25		561.60	564.53	564.38	564.50
May 18, 2001	NM		562.03		564.21	563.08	564.54	564.49	564.25		561.97	564.53	564.33	564.55
May 25, 2001	NM		NM		564.46	562.80	564.52	563.80	564.22		561.71	564.28	563.63	564.50
June 1, 2001	559.34		561.97		564.51	562.74	564.52	563.52	564.20		561.77	564.18	563.47	564.49
June 8, 2001	NM		562.49		564.63	562.65	564.82	564.75	564.36		561.59	564.60	564.68	564.78
June 15, 2001	560.79	560.59	562.60		564.67	562.54	564.76	564.71	564.53	560.53	561.48	564.77	564.71	564.79
June 22, 2001	560.77	560.55	562.53		564.65	562.50	564.72	564.90	564.43	560.44	561.41	564.66	564.86	564.72
June 29, 2001	560.62	560.40	562.42		564.51	562.42	564.66	564.52	564.35	560.38	561.39	564.57	564.48	564.59
July 31, 2001	559.87	559.21	562.90		564.49	562.19	564.71	564.66	564.35	560.25	561.30	564.60	564.68	565.70
August 20, 2001	561.49	561.07	565.23	(1)	564.60	562.09	563.82	564.69	564.46	560.25	561.29	564.77	564.64	564.81
September 28, 2001	561.03	560.56	563.03		564.61	562.13	564.25	564.68	564.48	560.27	561.32	564.79	564.68	564.99
October 22, 2001	561.38	562.36	567.06	(3)	564.61	562.08	564.41	(2)	564.33	560.43	561.37	564.58	564.26	564.33
November 27, 2001	561.45	560.94	564.53		563.95	561.88	563.65	(2)	563.83	560.45	561.36	564.04	563.54	563.87
December 20, 2001	560.96	560.50	564.39		564.47	561.83	564.78	564.69	564.27	559.75	561.25	564.72	564.45	564.86
January 29, 2002	560.74	560.15	563.75		564.09	561.83	563.87	563.89	563.99	560.98	561.89	564.12	563.74	564.01
February 11, 2002	560.80	560.28	564.19		564.22	561.73	563.84	564.03	564.07	561.06	561.50	564.18	563.97	564.19
March 25, 2002	560.55	560.10	563.25		564.10	561.72	563.51	(2)	564.03	560.65	561.60	564.02	563.59	563.83
April 24, 2002	562.54	562.05	564.12		564.60	561.88	564.70	564.61	564.49	561.13	561.95	564.67	564.19	564.72

Notes

(1) Water level monitored on 09/14/01 was 563.87 ft amsl which provided an inward gradient.

(2) River level too low to obtain a measurement at the measuring location.

(3) Water level monitored on 10/27/01 was 563.56 ft. which provided an inward gradient.

TABLE 2.2

WATER LEVELS (ft amsl)
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

Date	*OGC-3*	*MH11*	*MW-8*	*River South*	*MH12*	*OGC-8*	*OGC-4*	*MW-9*	*MH14*	*MH16*
RIM Elevation		572.11			572.37				574.30	574.82
TOC Elevation (ft amsl)	573.35		574.37	568.46		574.01	574.66	576.23		
December 12, 2000	565.07		567.08	NM		564.45	564.85	567.15		
January 8, 2001	563.95		567.29	NM	NM	564.01	564.00	567.35		567.29
March 29, 2001	564.21		567.96	NM	NM	564.24	564.25	568.06		NM
May 11, 2001	564.58		561.95	564.70	564.15	564.63	564.59	562.53		562.45
May 18, 2001	564.59		562.49	564.65	564.12	564.66	564.66	563.05		562.55
May 25, 2001	564.57		561.99	564.80	564.17	564.63	564.60	562.54		562.48
June 1, 2001	564.59		562.06	565.00	564.19	564.66	564.60	562.57		562.51
June 8, 2001	564.87		561.89	565.05	562.45	564.96	564.89	562.47		562.42
June 15, 2001	564.91	561.12	561.69	565.05	562.34	564.93	564.88	562.45	562.32	562.29
June 22, 2001	564.87	561.05	561.54	565.18	562.29	565.00	564.80	562.19	562.32	562.14
June 29, 2001	564.68	560.97	561.46	564.83	561.80	564.75	564.68	562.11	562.45	562.06
July 31, 2001	564.78	560.73	561.19	564.96	560.77	564.85	564.76	562.45	562.45	561.69
August 20, 2001	564.83	560.50	561.05	564.99	560.42	564.88	564.85	561.55	561.72	561.54
September 28, 2001	564.85	560.61	561.07	564.95	560.36	564.87	564.84	561.58	561.70	561.52
October 22, 2001	564.58	560.51	561.27	564.61	560.42	564.61	564.62	561.75	562.10	561.72
November 27, 2001	563.89	559.51	561.30	564.05	560.06	563.89	563.94	561.71	561.87	563.82
December 20, 2001	564.96	561.31	560.73	564.96	560.23	564.99	565.05	561.77	561.89	561.71
January 29, 2002	564.06	Blocked	561.91	563.92	560.29	564.03	564.08	562.31	562.53	562.31
February 11, 2002	564.28	561.23	561.93	564.53	560.24	564.35	564.35	562.52	562.18	562.54
March 25, 2002	563.87	560.97	561.60	564.15	560.34	563.85	563.95	562.45	562.77	562.61
April 24, 2002	564.79	561.41	561.95	564.86	560.63	564.86	564.84	562.96	563.09	562.95

Notes

(1) Water level monitored on 09/14/01 was 563.87 ft amsl which provided an inward gradient.

(2) River level too low to obtain a measurement at the measuring location.

(3) Water level monitored on 10/27/01 was 563.56 ft. which provided an inward gradient.

TABLE 2.3

SUMMARY OF HORIZONTAL GRADIENTS
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

Date Monitored		*5/11/01*		*5/18/01*		*5/25/01*		*6/1/01*		*6/8/01*		*6/15/01*	
		Water Level (ft amsl)	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*
Monitoring Location													
Outer	River North	564.54	Inward	564.49	NA	563.80	NA	563.52	Inward	564.75	NA	564.71	Inward
Inner	MH2	559.31		NM		NM		559.34		NM		560.79	
Outer	River North	564.54	Inward	564.49	Inward	563.80	NA	563.52	Inward	564.75	Inward	564.71	Inward
Inner	MH6	561.98		562.03		NM		561.97		562.49		562.60	
Outer	River Middle	564.38	NA	564.33	NA	563.63	NA	563.47	NA	564.68	NA	564.71	Inward
Inner	MH8	NM		NM		NM		NM		NM		560.53	
Outer	River South	564.70	Inward	564.65	Inward	564.80	Inward	565.00	Inward	565.05	Inward	565.05	Inward
Inner	MH12	564.15		561.12		564.17		564.19		562.45		562.34	

Date Monitored		*6/22/801*		*6/29/01*		*7/31/01*		*8/20/01*		*9/28/01*		*10/22/01*	
		Water Level (ft amsl)	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*
Monitoring Location													
Outer	River North	564.90	Inward	564.52	Inward	564.66	Inward	564.69	Inward	564.68	Inward	(2)	NA
Inner	MH2	560.77		560.62		559.87		561.49		561.03		561.38	
Outer	River North	564.90	Inward	564.52	Inward	564.66	Inward	564.69	(1) Outward	564.68	Inward	(2)	NA
Inner	MH6	562.53		562.42		562.90		565.23		563.03		567.06	
Outer	River Middle	564.86	Inward	564.48	Inward	564.68	Inward	564.64	Inward	564.68	Inward	564.26	Inward
Inner	MH8	560.44		560.38		560.25		560.25		560.27		560.43	
Outer	River South	565.18	Inward	564.83	Inward	564.96	Inward	564.99	Inward	564.95	Inward	564.61	Inward
Inner	MH12	562.29		561.80		560.77		560.42		560.36		560.42	

Notes:
(1) Water level monitored on 9/14/01 was 563.87 ft amsl which provided an inward gradient.
(2) River level too low to obtain a measurement at the monitoring location.
NM - Not Measured
NA - Not Applicable

TABLE 2.3

SUMMARY OF HORIZONTAL GRADIENTS
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

Date Monitored		*11/27/01*		*12/20/01*		*1/29/02*		*2/11/02*		*3/25/02*		*4/24/02*	
		Water Level (ft amsl)	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*
Monitoring Location													
Outer	River North	(2)	NA	564.69	Inward	563.89	Inward	564.03	Inward	(2)	NA	564.61	Inward
Inner	MH2	561.45		560.96		560.74		560.80		560.55		562.54	
Outer	River North	(2)	NA	564.69	Inward	563.89	Inward	564.03	Outward	(2)	NA	564.61	Inward
Inner	MH6	564.53		564.39		563.75		564.19		563.25		564.12	
Outer	River Middle	563.54	Inward	564.45	Inward	563.74	Inward	563.97	Inward	563.59	Inward	564.19	Inward
Inner	MH8	560.45		559.75		560.98		561.06		560.65		561.13	
Outer	River South	564.05	Inward	564.96	Inward	563.92	Inward	564.53	Inward	564.15	Inward	564.86	Inward
Inner	MH12	560.06		560.23		560.29		560.28		560.34		560.63	

Notes:
(1) Water level monitored on 9/14/01 was 563.87 ft amsl which provided an inward gradient.
(2) River level too low to obtain a measurement at the monitoring location.
NM - Not Measured
NA - Not Applicable

TABLE 2.4

SUMMARY OF VERTICAL GRADIENTS
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

Date Monitored		6/15/01		6/22/01		6/29/01		7/31/01		8/20/01		9/28/01		10/22/01	
Monitoring Location		*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*
Upper	MH3	560.59	Upward	560.55	Upward	560.40	Upward	559.21	Upward	561.07	Upward	560.56	Upward	562.36	Downward
Lower	MW-6	562.54		562.50		562.42		562.90		562.09		562.13		562.08	
Upper	MH8	560.53	Upward	560.44	Upward	560.38	Upward	560.25	Upward	560.25	Upward	560.27	Upward	560.43	Upward
Lower	MW-7	561.48		561.41		561.39		561.30		561.29		561.32		561.31	
Upper	MH11	561.12	Upward	561.05	Upward	560.97	Upward	560.73	Upward	560.50	Upward	560.61	Upward	560.51	Upward
Lower	MW-8	561.69		561.54		561.46		561.19		561.05		561.07		561.27	
Upper	MH14	562.32	Upward	562.32	Downward	562.45	Downward	562.45	Neutral	561.72	Downward	561.70	Downward	562.10	Downward
Lower	MW-9	562.45		562.19		562.11		562.45		561.55		561.58		561.77	

Date Monitored		11/27/01		12/20/01		1/29/02		2/11/02		3/25/02		4/24/02	
Monitoring Location		*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*	*Water Level (ft amsl)*	*Gradient Direction*
Upper	MH3	560.94	Upward	560.50	Upward	560.15	Upward	560.28	Upward	560.10	Upward	562.05	Downward
Lower	MW-6	561.88		561.83		561.83		561.73		561.72		561.88	
Upper	MH8	560.45	Upward	559.75	Upward	560.98	Upward	561.06	Upward	560.65	Upward	561.13	Upward
Lower	MW-7	561.36		561.25		561.89		561.50		561.60		561.95	
Upper	MH11	559.51	Upward	561.31	Downward	NM	--	561.23	Upward	560.97	Upward	561.41	Upward
Lower	MW-8	561.30		560.73		561.91		561.93		561.60		561.95	
Upper	MH14	561.87	Downward	561.89	Downward	562.53	Downward	562.18	Upward	562.77	Downward	563.09	Downward
Lower	MW-9	561.71		561.77		562.31		562.52		562.64		562.96	

Notes
NM - Not monitored. MH11 was blocked and could not be accessed.

TABLE 2.5

SUMMARY OF DETECTED COMPOUNDS
QUARTERLY SITE GROUNDWATER AND RIVER WATER
GRATWICK-RIVERSIDE PARK
NORTH TONAWANDA, NEW YORK

Location		*MW-9*				*OGC-4*			
Date		*05/18/01*	*08/20/01*	*11/27/01*	*02/11/02*	*05/18/01*	*08/20/01*	*11/27/01*	*02/11/02*
Volatiles (µg/L)	*Class GA Level*								
Acetone	50	9.4J	4.3J	7.3J/6.7J				7.9J	
Benzene	1		0.24J	0.39J/0.35J			0.21J	0.2J	
2-Butanone	50								
Chlorobenzene	5		0.50J	0.86J/0.85J			0.49J	0.66J	
trans-1,2-Trichloroethene	5			0.22J/ND				0.22J	
Ethylbenzene	5		0.30J	0.46J/0.42J			0.41J	0.39J	
Methylene Chloride	5		0.34J	0.33J/ND	4.0J				5.1J/4.9J
Tetrachloroethene	5	1.6J	1.1J	1.0J/0.92J		1.0J	1.2J	0.87J	
Toluene	5		1.6J	3.0J/2.5J	2.8J			1.0J	
Trichloroethene	5	2.2J	1.8J	2.4J/2.2J	3.0J	1.6J	1.4J	1.5J	
Vinyl Chloride	2								
Total Xylenes	5		1.0J	1.5J/1.5J			1.0J	0.94J	
Semi-Volatiles (µg/L)									
1,2-Dichlorobenzene	3*				0.6J				
1,4-Dichlorobenzene	3*								
2,4-Dimethylphenol	50	12	12	18/17	38	8J	12	6J	8J/6J
2-Methylphenol	NL	1J	3J	3J/3J	7J	0.9J	2J	35	2J/ND
4-Methylphenol	NL	69	110	97/92	230	64	86	40	58/55
Naphthalene	10								
Di-n-octyl phthalate	50								
Phenol	1	3J	34	28/22	24	310	560	400	420/460

Notes:

* Applies to sum of compounds
NL - Not listed
[ ] Exceeds Class GA Level

TABLE 2.5

SUMMARY OF DETECTED COMPOUNDS
QUARTERLY SITE GROUNDWATER AND RIVER WATER
GRATWICK-RIVERSIDE PARK
NORTH TONAWANDA, NEW YORK

Location		*OGC-8*				*River South*				*MW-8*			
Date		*05/18/01*	*08/20/01*	*11/27/01*	*02/11/02*	*05/18/01*	*09/17/01*	*11/27/01*	*02/11/02*	*05/18/01*	*08/20/01*	*11/27/01*	*02/11/02*
Volatiles (µg/L)	*Class GA Level*												
Acetone	50	78	31/29	19J						52	12J	11J	75J
Benzene	1	11	14/14	14						6.5	4.3	4.1	
2-Butanone	50	4.0J											
Chlorobenzene	5	3.7J	4.1J/4.1J	4.0J						1.8J	1.0J	1.0J	
trans-1,2-Trichloroethene	5	4.3J	3.2J/3.1J	4.0J						2.2J	1.8J	2.9J	4.8J
Ethylbenzene	5	13	16/16	15	1.6J					5.7	3.7J	4.4J	8.2J
Methylene Chloride	5		0.52J/0.48J	0.62J	1.8J					1.1J	0.58J	0.66J	4.4J
Tetrachloroethene	5	40	51/52	59	7.7J					21	12	9.8	23J
Toluene	5	140	140/140	110	17J			0.29J		75	36	31	80
Trichloroethene	5	120	110/110	110	20J					82	40	35	110
Vinyl Chloride	2	3.7J	3.4/3.6	3.1	1.1J					5.2	1.6J	3.3	23
Total Xylenes	5	43	55/54	46	4.8J					22	13	16	30J
Semi-Volatiles (µg/L)													
1,2-Dichlorobenzene	3*												2J
1,4-Dichlorobenzene	3*											0.6J	2J
2,4-Dimethylphenol	50	2J	4J/2J	4J	0.8J					1J	11	16	19
2-Methylphenol	NL	18	30/25	16	4J					33	55	41	48
4-Methylphenol	NL	30	51/45	28	8J					10	32	34	55
Naphthalene	10	1J	3J/25	1J									0.7J
Di-n-octyl phthalate	50		0.1J/ND										
Phenol	1	30	49/44	31	5J					43	130	140	85

Notes:

* Applies to sum of compounds
NL - Not listed
[ ] Exceeds Class GA Level

TABLE 2.5

SUMMARY OF DETECTED COMPOUNDS
QUARTERLY SITE GROUNDWATER AND RIVER WATER
GRATWICK-RIVERSIDE PARK
NORTH TONAWANDA, NEW YORK

Location		*OGC-3*				*GW-5S*		*OGC-7*			
Date		*05/18/01*	*08/20/01*	*11/27/01*	*02/11/02*	*12/17/87*	*08/12/88*	*05/18/01*	*08/20/01*	*11/27/01*	*02/11/02*
Volatiles (µg/L)	*Class GA Level*										
Acetone	50	13J / 19J	3.8J	15J		293		21J	0.25J	8.2J	
Benzene	1	1.6J / 1.6J	1.6	1.8		2				0.30J	
2-Butanone	50					27					
Chlorobenzene	5		0.24J	0.28J							
trans-1,2-Trichloroethene	5	1.6J / 1.6J	1.0J	1.4J	1.1J	180	89	6.3	3.1J	5.4	4.9J
Ethylbenzene	5	1.6J / 1.5J	2.0J	2.3J	1.5J	9	7J	1.1J	0.80J	1.0J	
Methylene Chloride	5				1.9J	1					
Tetrachloroethene	5	2.4J / 2.2J	3.0J	2.2J	1.7J	11	7J	4.3J	3.6J	3.4J	2.9J
Toluene	5	5.7 / 5.1	5.9	5.3		75	49	12	5.8	6.7	5.7J
Trichloroethene	5	20 / 20	18	19	14J	287	220	70	40	48	45
Vinyl Chloride	2	ND / 1.0J	0.4	0.72		7	4J	2.6J	0.84	1.7J	3.5J
Total Xylenes	5	5.6J / 5.4J	7.5	8.7	4.8J	54	37	6.0J	4.8J	6.5	3.9J
Semi-Volatiles (µg/L)											
1,2-Dichlorobenzene	3*				1J		2J				
1,4-Dichlorobenzene	3*				0.7J						
2,4-Dimethylphenol	50	5J / 5J	9	8J	11	10	11		2J		
2-Methylphenol	NL	98 / 96	120	87	160	24	24	3J	2J	1.0J	0.8J
4-Methylphenol	NL	13 / 13	21	17	28	38				0.9J	0.7J
Naphthalene	10										
Di-n-octyl phthalate	50										0.6J
Phenol	1	120 / 110	140	130J	210	61	92	4J	0.7J		

Notes:

* Applies to sum of compounds
NL - Not listed
[ ] Exceeds Class GA Level

TABLE 2.5

SUMMARY OF DETECTED COMPOUNDS
QUARTERLY SITE GROUNDWATER AND RIVER WATER
GRATWICK-RIVERSIDE PARK
NORTH TONAWANDA, NEW YORK

Location		*River Middle*				*MW-7*				*OGC-2*			
Date		*05/18/01*	*09/17/01*	*11/27/01*	*02/11/02*	*05/18/01*	*08/20/01*	*11/27/01*	*02/11/02*	*05/18/01*	*08/20/01*	*11/27/01*	*02/11/02*
Volatiles (µg/L)	*Class GA Level*												
Acetone	50					5.7J		6.5J					
Benzene	1						1.9	2.0				11J	
2-Butanone	50												
Chlorobenzene	5												
trans-1,2-Trichloroethene	5						0.82J	1.1J					
Ethylbenzene	5						0.85J	0.81J					
Methylene Chloride	5								1.6J				1.7J
Tetrachloroethene	5							0.27J					
Toluene	5						3.5J	3.6J					
Trichloroethene	5						0.55J	0.63J			0.39J		
Vinyl Chloride	2						1.6J	2.0	3.8J			0.26J	
Total Xylenes	5						2.1J	2.1J					
Semi-Volatiles (µg/L)													
1,2-Dichlorobenzene	3*												
1,4-Dichlorobenzene	3*												
2,4-Dimethylphenol	50							2J	2J				
2-Methylphenol	NL						3J	2J	4J				
4-Methylphenol	NL						3J	2J	4J				
Naphthalene	10												
Di-n-octyl phthalate	50				0.7J				0.6J				
Phenol	1						24	7J	10				

Notes:

* Applies to sum of compounds
NL - Not listed
[ ] Exceeds Class GA Level

TABLE 2.5

SUMMARY OF DETECTED COMPOUNDS
QUARTERLY SITE GROUNDWATER AND RIVER WATER
GRATWICK-RIVERSIDE PARK
NORTH TONAWANDA, NEW YORK

Location		*OGC-6*				*River North*				*OGC-5*			
Date		*05/18/01*	*08/20/01*	*11/27/01*	*02/11/02*	*05/18/01*	*09/17/01*	*11/27/01*	*02/11/02*	*05/20/01*	*08/21/01*	*11/27/01*	*02/11/02*
Volatiles (µg/L)	*Class GA Level*												
Acetone	50									38J		11J	
Benzene	1			6.6J							1.5	1.4	
2-Butanone	50												
Chlorobenzene	5												
trans-1,2-Trichloroethene	5			0.23J	0.23J						0.65J	0.76J	
Ethylbenzene	5										0.21J	0.23J	
Methylene Chloride	5				2.1J				1.6J				3.4J
Tetrachloroethene	5		1.4J	0.73J							0.38J	0.27J	
Toluene	5			0.55J				0.39J			2.5J	2.2J	
Trichloroethene	5	3.0J	4.7J	3.1J	5.9			0.35J			0.87J	0.66J	
Vinyl Chloride	2										1.6J	1.2J	
Total Xylenes	5		0.22J	0.53J	0.26J						1.0J	1.0J	
Semi-Volatiles (µg/L)													
1,2-Dichlorobenzene	3*												
1,4-Dichlorobenzene	3*												
2,4-Dimethylphenol	50										8J	6J	5J
2-Methylphenol	NL		2J	2J	5J						1J	1J	1J
4-Methylphenol	NL			1J	0.02J						2J	5J	4J
Naphthalene	10										1J	1J	
Di-n-octyl phthalate	50											1J	0.8J
Phenol	1		7J	2J	4J						0.9J		

Notes:

* Applies to sum of compounds
NL - Not listed
[ ] Exceeds Class GA Level

TABLE 2.5

SUMMARY OF DETECTED COMPOUNDS
QUARTERLY SITE GROUNDWATER AND RIVER WATER
GRATWICK-RIVERSIDE PARK
NORTH TONAWANDA, NEW YORK

Location		*GW-6S*		*MW-6*				*OGC-1*			
Date		*12/15/87*	*08/10/88*	*05/18/01*	*08/21/01*	*11/27/01*	*02/11/02*	*05/18/01*	*8/21/01*	*11/27/01*	*02/11/02*
Volatiles (µg/L)	*Class GA Level*										
Acetone	50	684	4.9J					20J		11J	
Benzene	1	3			0.64J				0.64J	0.55J	
2-Butanone	50							1.1J			
Chlorobenzene	5		3.3J		1.5J	1.3J		2.2J	2.0J	1.7J	
trans-1,2-Trichloroethene	5	58	4.4J		1.1J			5.6	3.7J	4.6J	1.8J
Ethylbenzene	5	2			0.21J				0.52J	0.43J	
Methylene Chloride	5						1.8J				1.6J
Tetrachloroethene	5	43			0.44J				0.78J	0.54J	
Toluene	5	16	3.0J		2.2J	0.29J		5.2	5.4	4.2J	
Trichloroethene	5	62	5.1J		2.0J		1.2J	15	16	11	4.5J
Vinyl Chloride	2	11	1.7J					1.3J	0.51J	0.72J	
Total Xylenes	5	7			0.90J	0.44J			2.1J	1.6J	
Semi-Volatiles (µg/L)											
1,2-Dichlorobenzene	3*										
1,4-Dichlorobenzene	3*			1J		0.7J	2J	1J	3J	2J	1J
2,4-Dimethylphenol	50	5		5J	5J	3J	2J	9J	16	8J	3J
2-Methylphenol	NL	3		5J	6J	2J	2J	6J	12	5J	2J
4-Methylphenol	NL	4		15	13	5J	4J	20	35	15J	5J
Naphthalene	10			67	69		1J	71	130		21
Di-n-octyl phthalate	50						2J				
Phenol	1	3		14	4J	2J	0.8J	150	290	57	15

Notes:

* Applies to sum of compounds
NL - Not listed
[ ] Exceeds Class GA Level

TABLE 2.6

PH READINGS
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

Monitoring Location	*MH1*	*MH2*	*MH3*	*MW-6*	*OGC-1*	*MH4*	*OGC-5*	*MH5*	*MH6*	*OGC-6*	*MH7*	*MW-7*	*MH8*	*OGC-2*	*MH9*
Date															
07/24/00						7.8					10.3				
10/24/00						7.7					10.5				
03/29/01				7.60	10.82		NM			12.55		8.68		9.80	
05/11/01	*	*	*	*	*	*	*	8.30	8.17	8.50	10.16	8.90	11.22	9.22	11.26
05/18/01				11.05	11.14		10.42		10.00	10.50		8.19		8.70	
06/08/01	9.25						9.35		6.90	8.24		7.33		8.40	
06/15/01		10.1	10.38	9.6	9.6		9.4		6.91	8.22		7.43	10.65	8.46	
06/22/01		*	*	*	*										
06/29/01		10.9	10.8	11	10.9		10.56		7	8.97		9.27	11.33	8.63	
07/31/01		10.82	10.81	10.97	11.25		10.54		7.92	8.55		9.2	11.28	9.35	
08/20/01		11	11	9.86	10.95		10.44		7.9	8.31		7.71	11.45	8.49	
09/28/01		10.75	10.97	9.89	11.01		10.6		7.93	8.3		9.0	11.15	8.75	
10/22/01		10.7	10.45	10.5	11		7.86		6.1	9.32		8.97	8.49	8.87	
11/27/01		10.61	10.46	10.12	11.65		10.3			10.54		10.01	8.61	8.63	
12/20/01		10.17	10.11	9.97	11.22		10.19		9.98	10.37		9.68	8.42	8.51	
01/29/02		11.8	11.62	11.15	11.82		10.48		9.91	10.86		10.56	11.91	10.23	
02/11/02		10.26	10.16	10.5	10.4				7.79	11.44		10.04	11.74	8.33	
03/25/02		10.62	10.45	11.22	10.69		10.36		9.94	11.4		10.03	12.21	9.65	
04/24/02		10.37	10.22	10.68	11.36		9.97		9.46	11.15		9.73	11.3	9.52	

TABLE 2.6

PH READINGS
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

Monitoring Location	*MH10*	*OGC-7*	*MH11*	*MW-8*	*OGC-3*	*MH12*	*MH13*	*OGC-8*	*MH14*	*MW-9*	*OGC-4*	*MH15*	*MH16*	*MH17*
Date														
07/24/00	9.2						10.6		9.5				7.4	
10/24/00			8.38						7.76				8.15	
03/29/01		8.37		6.41	9.41			9.77		8.17	10.41			
05/11/01	10.9	11.51		11.55	11.59	8.25	7.5	11.58		7.37	11.16	11.21	8.83	9.27
05/18/01		10.93		11.2	11.21	8.25		11.4		10.60	11.32		12.27	
06/08/01		9.68		10.1	10.34	6.99		10.32		10.03	10.44		7.25	
06/15/01		10.0	10.3	10.7	10.8	7.03		10.54	8.75	10.34	10.55		7.27	8.88
06/22/01	*	*	*	*	10.92	7.3		11	8.98	10.47	11.1		7.57	
06/29/01		11.13	10.9	11.4	10.22	7.54		11.2	9.18	10.94	11.2		7.9	
07/31/01		11.49	10.58	11.69	11.75	7.91		11.73	9.73	11.62	11.63		8.28	
08/20/01		9.17	10.59	11.35	10.87	7.7		11.49	9.8	12.05	11.89		8.2	
09/28/01		10	10.57	11.5	11.0	7.9		11.47	9.77	11.2	11.75		8.21	
10/22/01		10.75	10.44	10.89	11.01	7.7		11.01	9.6	10.51	10.7		7.0	
11/27/01		11.98	10.87	12.46	12.46	8.1		12.28	10.01	11.87	12.25		7.26	
12/20/01		11.63	10.22	11.98	11.97	7.82		11.76	8.73	10.61	11.37		7.11	
01/29/02		12.25		12.15	12.59	7.76		12.41	8.09	11.85	12.33		7.16	
02/11/02		11.12		11.79	12.09	7.63		12.13	7.48	11.73	11.8		6.89	
03/25/02		12.38		12.59	12.77	8.01		12.66	8.51	12.11	12.46		7.88	
04/24/02		12		12.26	12.39	7.86		12.34	7.94	11.55	11.95		7.43	

TABLE 2.6

PH READINGS
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

Monitoring Location	*City MH1*	*City MH2*	*City MH3*
Date			
07/24/00	6.3	7.3	
10/24/00	7.08	7.52	7.41
03/29/01	7.52	7.50	7.16
06/15/01	7.7	7.69	7.4
06/22/01	8.0	7.9	7.8
07/31/01	8.0	8.0	7.7
08/20/01	8.2	8.3	8.0
09/28/01	8.1	8.3	7.9
10/22/01	8.0	8.0	7.8
11/27/01	7.9	8.2	8.01
12/20/01	*	*	*
01/29/02	7.62	7.93	7.97
02/11/02	7.52	7.73	7.79
03/25/02	*	*	*
04/24/02	7.46	7.62	7.69

Notes
* pH meter malfunctioned

TABLE 2.7

ANALYTICAL RESULTS SUMMARY
MONTHLY SITE DISCHARGE
GRATWICK-RIVERSIDE PARK SITE

Sample Location:		*Discharge Sample Port*										
Sample ID:		*GRATWICK-RIVERSIDE*										
Sample Date:		*6/29/01*	*7/30/01*	*8/21/01*	*9/20/01*	*10/24/01*	*11/29/01*	*12/6/01*	*1/23/02*	*2/21/02*	*3/27/02*	*424/02*
Parameter	*Unit*											
Volatiles												
1,1,1-Trichloroethane	ug/L	3.0J	1.8J	1.1J	7.6U	7.6U	3.8U	3.8U	7.3U	7.6U	7.6U	7.6U
1,1-Dichloroethane	ug/L	8.8	7.3	5.8	3.4J	2.1U	2.6J	3.5J	2.3J	4.1J	4.9J	9.9
1,2-Dichloroethane	ug/L	5.0U	5.0U	5.0U	10U	10U	5.0U	5.0U	10U	10U	10U	10U
2-Butanone	ug/L	7.6J	10	10U	20U	20U	6.8J	6.7J	20U	20U	20U	110
Acetone	ug/L	77	93	140	36	26	55	55	42	53	56	98
Benzene	ug/L	6.4	7.2	6.2	3.5J	3.2J	3.1J	4.0J	2.1J	3.2J	4.6J	9.1
Chlorobenzene	ug/L	3.7J	4.9J	5.0J	3.4J	16	3.5J	5.4J	3.8J	6.6J	5.2J	4.4J
Ethylbenzene	ug/L	8.9	11	9	8.6J	3.6J	4.8J	6.8J	2.0J	7.6J	9.6J	18
Methylene chloride	ug/L	1.1J	2.8U	2.8U	5.6U	5.6U	2.8U	2.8U	6.4U	5.6U	5.6U	2.9J
Styrene	ug/L	1.0J	5.0U	5.0U	10U	10U	5.0U	5.0U	10U	10U	10U	10U
Tetrachloroethene	ug/L	22	33	25	16	8.3	15	23	4.9J	23	28	46
Toluene	ug/L	74	84	68	42	20	37	50	15	46	57	110
trans-1,2-Dichloroethene	ug/L	2.6	2.1	2.8	3.3J	1.8J	1.5J	2.4	3.6U	2.4J	2.5J	4.2
Trichloroethene	ug/L	150J	130	87	55	32	56	72	27	92	140	260
Vinyl chloride	ug/L	11	13	13	13J	5.6J	8.0J	13	8.4J	20U	5.1J	14J
Xylene (total)	ug/L	40	44	34	32	11	17	26	7.3J	29	40	76
Semi-Volatiles												
1,2-Dichlorobenzene	ug/L	9U	2U	1J	6	0.6J	0.9J	9U	2J	1J	1J	3
1,4-Dichlorobenzene	ug/L	21U	4U	1J	2J	1J	4U	1J	2J	2J	1J	3J
2,4-Dimethylphenol	ug/L	14	13	19	12	8	17	13	11J	9J	8	14
2-Methylphenol	ug/L	49	46	38	28	15	38	37J	28J	21J	17	36
4-Methylphenol	ug/L	58	47	46	30	21	46	40J	40J	27J	24	57
Di-n-octyl phthalate	ug/L	12U	2U	2U	2U	1J	2U	12U	14U	12U	2U	2U
Naphthalene	ug/L	1J	1J	1J	1J	67J	0.8J	8U	57	24	12	1J
Phenol	ug/L	86	64	67	110	230	74	110	210	96	42	73

TABLE 2.7

ANALYTICAL RESULTS SUMMARY
MONTHLY SITE DISCHARGE
GRATWICK-RIVERSIDE PARK SITE

Sample Location:		*Discharge Sample Port*										
Sample ID:		*GRATWICK-RIVERSIDE*										
Sample Date:		*6/29/01*	*7/30/01*	*8/21/01*	*9/20/01*	*10/24/01*	*11/29/01*	*12/6/01*	*1/23/02*	*2/21/02*	*3/27/02*	*424/02*
Parameter	*Unit*											
Metals												
Aluminum	mg/L	0.31	0.24	0.24	0.34	0.20U	0.20	0.20U	0.20U	0.20U	0.20U	0.20U
Antimony	mg/L	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U
Arsenic	mg/L	0.0070U	0.0070U	0.0070U	0.0070U	0.0070U	0.0070U	0.0070U	0.0070U	0.0070U	0.0070U	0.0070U
Barium	mg/L	0.059	0.063	0.061	0.081	0.067	0.064	0.064	0.077	0.075	0.078	0.095
Beryllium	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U
Cadmium	mg/L	0.0010U	0.0010U	0.0010U	0.0010U	0.0010U	0.0010U	0.0010U	0.0010U	0.0010U	0.0010U	0.0010U
Chromium	mg/L	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U
Copper	mg/L	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U
Iron	mg/L	0.050U	0.050U	0.050U	0.16	0.095	0.057	0.062	0.050U	0.050U	0.050U	0.050U
Lead	mg/L	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U
Magnesium	mg/L	0.35	0.66	1	0.77	6.8	1.1	0.94	1.5	1.4	0.92	0.34
Manganese	mg/L	0.0030U	0.0030U	0.0036	0.012	0.028	0.0043	0.004	0.0034	0.0042	0.0049	0.003U
Mercury	mg/L	0.00020U	0.00020U	0.00020U	0.00020U	0.00020U	0.00020U	0.00020U	0.00020U	0.00020U	0.00020U	0.00020U
Nickel	mg/L	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U
Selenium	mg/L	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010UJ	0.010U	0.010U
Silver	mg/L	0.0030U	0.0030U	0.0030U	0.0030U	0.0030U	0.0030U	0.0030U	0.0030U	0.0030U	0.0030U	0.0030U
Sodium	mg/L	273	271	262	310	290	293	286	317	336	360	242
Zinc	mg/L	0.026U	0.026U	0.026U	0.026U	0.026U	0.026U	0.026U	0.026U	0.026U	0.026U	0.026U
General Chemistry												
pH	S.U.	NA	NA	9.45	11.23	9.20	10.06	10.71	10.91	10.96	10.92	11.46
Hardness	mg/L	524	488	465	529	301	456	410	415	449	440	484
Total Dissolved Solids (TDS)	mg/L	1500	1450	1530	1520	1280	1200	1200	1450	1490	1640	1610
Total Suspended Solids (TSS)	mg/L	NA	NA	14	19	10	9.0	7.0	5.0	11.0	9	8
Chloride	mg/L	497	123	497	820	577	436	389	514	545	577	545
BOD	mg/L	NA	NA	20	17	20	24	27	25	21	22	29
COD	mg/L	NA	NA	155	240	240	50	49	45	58	255	50
Oil and Grease	mg/L	NA	NA	0.60U	1.0	0.87U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
Organic Carbon	mg/L	NA	NA	16	10	18	9.0	11	14	6	10	12
Alkalinity, Total (As CaCO3)	mg/L	131	115	120	115	20.9	22.2	57	62.4	53.8	102	126
Bicarbonate (as CaCO3)	mg/L	5.0U	5.0U	5.0U	5.0U	20.9	22.2	57	5.0U	5.0U	5.0U	5.0U
Ammonia	mg/L	NA	NA	6	4.9	4.9	21	11.6	9.1	6.0	6.0	5.2
Nitrate (as N)	mg/L	0.050U	0.050U	0.50U	0.20	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U

TABLE 2.7

ANALYTICAL RESULTS SUMMARY
MONTHLY SITE DISCHARGE
GRATWICK-RIVERSIDE PARK SITE

Sample Location:		*Discharge Sample Port*										
Sample ID:		*GRATWICK-RIVERSIDE*										
Sample Date:		*6/29/01*	*7/30/01*	*8/21/01*	*9/20/01*	*10/24/01*	*11/29/01*	*12/6/01*	*1/23/02*	*2/21/02*	*3/27/02*	*424/02*
Parameter	*Unit*											
General Chemistry												
TKN	mg/L	NA	NA	10	7.6	7.6	14.8	10.6	8.1	4.5	5.0	4.8
Sulfate	mg/L	281	20.4	307	196	329	245	263	261	250	262	239
Sulfide	mg/L	13.2	16.0	14.3	5.6	2.5	10.6	14	9.9	9.9	11.2	13.7
Phenol	mg/L	NA	NA	0.28	0.24	0.28	0.15	0.11	0.12	0.28	0.22	0.22
Phosphorous	mg/L	NA	NA	0.29	NA	0.05	0.13	0.06	0.09	0.08	0.09	0.17
Cyanide	mg/L	NA	NA	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.040J	0.005U

Notes:
U - Non-detect at associated value
- - Not Analyzed
J - Estimated

TABLE 2.8

GROUNDWATER VOLUMES DISCHARGED TO NORTH TONAWANDA POTW GRATWICK-RIVERSIDE PARK SITE NORTH TONAWANDA, NEW YORK

Month	*Volumes (gallons)*	
	Monthly	*Total*
May 2001	2,900,000	2,900,000
June 2001	2,353,800	5,253,800
July 2001	1,488,500	6,742,300
August 2001	712,800	7,455,100
September 2001	473,100	7,928,200
October 2001	1,213,100	9,141,300
November 2001	1,281,100	10,422,400
December 2001	231,700 (1)	10,654,100
January 2002	1,383,200 (2)	12,037,300
February 2002	1,186,000	13,223,300
March 2002	233,600	13,456,900
April 2002	736,000	14,192,900

Notes:

(1) To December 7, 2001.
(2) From December 8, 2001.

APPENDICES

A

APPENDIX A

MONTHLY INSPECTION LOGS
(JANUARY TO APRIL 2002)

GRATWICK-RIVERSIDE PARK SITE
MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 01/29/12 (MM DD YY)

INSPECTOR(S): BRIAN ZOLTOWSKI

	Item	*Inspect For*	*Action Required*	*Comments*
1.	**Perimeter Collection System/Off-Site Forcemain**			
X	Manholes	- cover on securely	NONE	
X		- condition of cover		
X		- condition of inside of manhole		
X		- flow conditions		
X	Wet Wells	- cover on securely		
X		- condition of cover		
X		- condition of inside of wet well		
2.	**Landfill Cap**			
X	Vegetated Soil Cover	- erosion		
X		- bare areas		
X		- washouts		
X		- leachate seeps		
X		- length of vegetation		
X		- dead/dying vegetation		

FORM 17

GRATWICK-RIVERSIDE PARK SITE
MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 10|11|29|10|2|1 (MM DD YY)

INSPECTOR(S): BRIAN ZOLTOWSKI

Item	*Inspect For*	*Action Required*	*Comments*
2. **Landfill Cap (continued)**			
☒ Access Roads	- bare areas, dead/dying veg.	NONE	
	- erosion		
	- potholes or puddles		
	- obstruction		
3. **Wetlands (Area "F")**	- dead/dying vegetation		
	- change in water budget		
	- general condition of wetlands		
4. **Other Site Systems**			
☐ NO FENCE			

FORM 17

GRATWICK-RIVERSIDE PARK SITE
MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 11/29/12 (MM DD YY)

INSPECTOR(S): BRIAN ZOLTOWSKI

	Item	*Inspect For*	*Action Required*	*Comments*
4.	**Other Site Systems (continued)**			
X	Drainage Ditches/ Swale Outlets	- sediment build-up	NONE	
X		- erosion		
X		- condition of erosion protection		
X		- flow obstructions		
X		- dead/dying vegetation		
X		- cable concrete/gabion mats and riprap		
X	Culverts	- sediment build-up		
X		- erosion		
X		- condition of erosion protection		
X		- flow obstructions		
	Wells	- locks secure		

FORM 17

MAINTENANCE RECORD LOG

PROJECT NAME: Gratwick-Riverside Park Site LOCATION: North Tonawanda, New York

CREW MEMBERS: B ZOLTOWSKI

1. Date: 0 1 2 9 0 2 (MM DD YY)

   Time: | | | | (HH mm)

   Scheduled/Unscheduled: _____

   Type of Maintenance Performed: _____

2. Company Performing Maintenance

   Name: NONE

   Address: _____

   _____

   Contact Name: _____

3. Methods Used:

_____

_____

_____

_____

_____

Description of Material Removed:

_____

_____

_____

_____

_____

Problems/Comments:

_____

_____

_____

_____

DATE INSPECTOR INSPECTOR'S SIGNATURE

FORM 18

GRATWICK-RIVERSIDE PARK SITE
MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 09 / 11 / 02 (MM DD YY)

INSPECTOR(S): JOHN RANER / BZ

	Item	*Inspect For*	*Action Required*	*Comments*
1.	**Perimeter Collection System/Off-Site Forcemain**			
X	Manholes	- cover on securely	NONE	
X		- condition of cover		
X		- condition of inside of manhole		
X		- flow conditions		
X	Wet Wells	- cover on securely		
X		- condition of cover		
X		- condition of inside of wet well		
2.	**Landfill Cap**			
X	Vegetated Soil Cover	- erosion		
X		- bare areas		
X		- washouts		
X		- leachate seeps		
X		- length of vegetation		
X		- dead/dying vegetation		

FORM 17

GRATWICK-RIVERSIDE PARK SITE
MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 02 / 11 / 02 (MM DD YY)

INSPECTOR(S): JOHN RAUER / B7

Item	*Inspect For*	*Action Required*	*Comments*
2. Landfill Cap (continued)			
☒ Access Roads	- bare areas, dead/dying veg.	NONE	
	- erosion		
	- potholes or puddles		
	- obstruction		
3. Wetlands (Area "F")	- dead/dying vegetation		
	- change in water budget		
	- general condition of wetlands	✓	
4. Other Site Systems			
☐ NO FENCE			

FORM 17

GRATWICK-RIVERSIDE PARK SITE
MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 10|2|11|10|2| (MM DD YY)

INSPECTOR(S): JOHN RANFER / BT

	Item	*Inspect For*	*Action Required*	*Comments*
4.	**Other Site Systems (continued)**			
X	Drainage Ditches/ Swale Outlets	- sediment build-up	NONE	
X		- erosion		
X		- condition of erosion protection		
X		- flow obstructions		
X		- dead/dying vegetation		
X		- cable concrete/gabion mats and riprap		
X	Culverts	- sediment build-up		
X		- erosion		
X		- condition of erosion protection		
X		- flow obstructions		
	Wells	- locks secure		

FORM 17

MAINTENANCE RECORD LOG

PROJECT NAME: Gratwick-Riverside Park Site LOCATION: North Tonawanda, New York

CREW MEMBERS: JOHN RANER / ISZ

1. Date: 0 2 1 1 0 2 (MM DD YY)

   Time: | | | | | (HH mm)

   Scheduled/Unscheduled: NONE

   Type of Maintenance Performed: _____

2. Company Performing Maintenance

   Name: _____

   Address: _____

   _____

   Contact Name: _____

3. Methods Used:

   _____

   _____

   _____

   _____

   _____

   Description of Material Removed:

   _____

   _____

   _____

   _____

   _____

   Problems/Comments:

   _____

   _____

   _____

   _____

DATE INSPECTOR INSPECTOR'S SIGNATURE

FORM 18

GRATWICK-RIVERSIDE PARK SITE
MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 03/25/02 (MM DD YY)

INSPECTOR(S): JOHN RAUER

	Item	*Inspect For*	*Action Required*	*Comments*
1.	**Perimeter Collection System/Off-Site Forcemain**			
	Manholes	- cover on securely	NONE	
		- condition of cover		
		- condition of inside of manhole		
		- flow conditions		
	Wet Wells	- cover on securely		
		- condition of cover		
		- condition of inside of wet well		
2.	**Landfill Cap**			
	Vegetated Soil Cover	- erosion		
		- bare areas		
		- washouts		
		- leachate seeps		
		- length of vegetation		
		- dead/dying vegetation		

FORM 17

GRATWICK-RIVERSIDE PARK SITE
MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 01/25/02 (MM DD YY)

INSPECTOR(S): JOHN RANER

Item	*Inspect For*	*Action Required*	*Comments*
2. Landfill Cap (continued)			
[X] Access Roads	- bare areas, dead/dying veg.	NONE	
	- erosion		
	- potholes or puddles		
	- obstruction		
3. Wetlands (Area "F")	- dead/dying vegetation		
	- change in water budget		
	- general condition of wetlands		
4. Other Site Systems			
[ ] NO FENCE			

FORM 17

GRATWICK-RIVERSIDE PARK SITE
MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 03/25/02 (MM DD YY)

INSPECTOR(S): JOHN RANFER

	Item	*Inspect For*	*Action Required*	*Comments*
4.	**Other Site Systems (continued)**			
☒	Drainage Ditches/ Swale Outlets	- sediment build-up	NONE	
		- erosion		
		- condition of erosion protection		
		- flow obstructions		
		- dead/dying vegetation		
		- cable concrete/gabion mats and riprap		
☒	Culverts	- sediment build-up		
		- erosion		
		- condition of erosion protection		
		- flow obstructions		
☐	Wells	- locks secure		

FORM 17

MAINTENANCE RECORD LOG

PROJECT NAME: Gratwick-Riverside Park Site LOCATION: North Tonawanda, New York

CREW MEMBERS: JOHN RAWER

1. Date: 03/25/02 (MM DD YY)

Time: ____ (HH mm)

Scheduled/Unscheduled: NONE

Type of Maintenance Performed: _____

2. Company Performing Maintenance

Name: _____

Address: _____

_____

Contact Name: _____

3. Methods Used:

_____

_____

_____

_____

_____

Description of Material Removed:

_____

_____

_____

_____

_____

Problems/Comments:

_____

_____

_____

_____

DATE INSPECTOR INSPECTOR'S SIGNATURE

FORM 18

GRATWICK-RIVERSIDE PARK SITE
MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 04 24 07 (MM DD YY)

INSPECTOR(S): John Caner

	Item	*Inspect For*	*Action Required*	*Comments*
1.	**Perimeter Collection System/Off-Site Forcemain**			
X	Manholes	- cover on securely	none	
X		- condition of cover		
X		- condition of inside of manhole		
X		- flow conditions	~~MH6 w/L hi~~	MH6 w/Level high slow to pumpdown
X	Wet Wells	- cover on securely	none	
X		- condition of cover		
X		- condition of inside of wet well		
2.	**Landfill Cap**			
X	Vegetated Soil Cover	- erosion		
X		- bare areas		
X		- washouts		
X		- leachate seeps		
X		- length of vegetation		
X		- dead/dying vegetation	Same as before	

FORM 17

GRATWICK-RIVERSIDE PARK SITE
MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 10/4/24/07 (MM DD YY)

INSPECTOR(S): John Ranet

	Item	*Inspect For*	*Action Required*	*Comments*
2.	**Landfill Cap (continued)**			
☒	Access Roads	- bare areas, dead/dying veg.	none	
☒		- erosion		
☒		- potholes or puddles		
☒		- obstruction		
3.	**Wetlands (Area "F")**	- dead/dying vegetation	none	
		- change in water budget	ok - slightly low	
		- general condition of wetlands	good	
4.	**Other Site Systems**			
☐	Perimeter Fence	- integrity of fence		
☐		- integrity of gates		
☐		- integrity of locks		
☐		- placement and condition of signs		

FORM 17

GRATWICK-RIVERSIDE PARK SITE
MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 04/24/17 (MM DD YY)

INSPECTOR(S): John Kamer

	Item	*Inspect For*	*Action Required*	*Comments*
4.	**Other Site Systems (continued)**			
X	Drainage Ditches/ Swale Outlets	- sediment build-up	Good	
X		- erosion		
X		- condition of erosion protection		
X		- flow obstructions		
X		- dead/dying vegetation		
X		- cable concrete/gabion mats and riprap		
	Culverts	- sediment build-up		
		- erosion		
		- condition of erosion protection		
		- flow obstructions		
	Gas Vents	- intact / damage		
X	Wells	- locks secure	none	

FORM 17

MAINTENANCE RECORD LOG

PROJECT NAME: Gratwick-Riverside Park Site LOCATION: North Tonawanda, New York

CREW MEMBERS: JOHN RANER

1. Date: 04/24/02 (MM DD YY)

   Time: ____ (HH mm)

   Scheduled/Unscheduled: NONE

   Type of Maintenance Performed: _____

2. Company Performing Maintenance

   Name: _____

   Address: _____

   _____

   Contact Name: _____

3. Methods Used:

   _____

   _____

   _____

   _____

   _____

   Description of Material Removed:

   _____

   _____

   _____

   _____

   _____

   Problems/Comments:

   _____

   _____

   _____

   _____

DATE INSPECTOR INSPECTOR'S SIGNATURE

FORM 18

B

APPENDIX B

APRIL 2002 EFFLUENT SAMPLE QA/QC REVIEW

CONESTOGA-ROVERS & ASSOCIATES

2055 Niagara Falls Blvd., Suite #3
Niagara Falls, New York 14304
Telephone: (716) 297-6150 Fax: (716) 297-2265
www.CRAworld.com

MEMORANDUM

TO: Klaus Schmidtke

REF. NO.: 7987

FROM: Susan Scrocchi/js/17 SCS

DATE: May 21, 2002

RE: **Analytical Results and QA/QC Review**
Monthly Wastewater Treatment Plant Sampling
Gratwick-Riverside Park Site
April 2002

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INTRODUCTION

One effluent sample was collected in support of the Monthly Wastewater Treatment Plant Sampling at the Gratwick-Riverside Park Site (Site) during April 2002. The sample was submitted to Severn Trent Laboratories (STL) in Amherst, New York, and analyzed for the following:

Parameter	*Methodology*[1]
Site-Specific Volatile Organic Compounds (VOCs)	EPA 624
Site-Specific Semi-Volatile Organic Compounds (SVOCs)	EPA 625
Target Compound List (TCL) Metals	EPA 200.7
Sulfate	EPA 300.0
Chloride	EPA 300.0
Alkalinity	EPA 310.2
Nitrate	EPA 353.2
Sulfide	EPA 376.1
Total Dissolved Solids (TDS)	EPA 160.1
Total Hardness	EPA 130.2

The analytical results are summarized in Table 1. The Quality Assurance/Quality Control (QA/QC) criteria by which these data have been assessed are outlined in the analytical methods, the "National Functional Guidelines for Organic Data Review" (October 1999), and the "National Functional Guidelines for Inorganic Data Review" (February 1994).

Data assessment was based on information obtained from final data sheets, blank data, duplicate results, surrogate recoveries, and spike recoveries.

1 "Methods for Chemical Analysis of Water and Wastes", EPA 600/4-79-220, March 1983.

QA/QC REVIEW

All samples were prepared and/or analyzed within the method specified holding times.

Surrogates were added to all samples, blanks, and QC samples prior to extraction and/or analysis for VOCs and SVOCs. All VOC and SVOC surrogate recoveries met the method criteria indicating acceptable analytical efficiency.

Method blanks were extracted and/or analyzed for all parameters and all results were non-detect for the compounds of interest.

Blank spikes (BS) were prepared and analyzed for all parameters. All recoveries showed acceptable analytical accuracy.

The SVOC BS was analyzed in duplicate. All results showed acceptable analytical precision.

CONCLUSION

Based on the preceding assessment, the data were acceptable without qualification.

TABLE 1

ANALYTICAL RESULTS SUMMARY
MONTHLY WASTE WATER SAMPLING
GRATWICK
APRIL 2002

	Sample Location:	*Effluent*
	Sample ID:	*EFFLUENT*
	Sample Date:	*4/24/2002*
Parameter	*Unit*	
Volatiles		
1,1,1-Trichloroethane	µg/L	7.6 U
1,1-Dichloroethane	µg/L	9.9
1,2-Dichloroethane	µg/L	10 U
2-Butanone	µg/L	110
Acetone	µg/L	98
Benzene	µg/L	9.1
Chlorobenzene	µg/L	4.4 J
Ethylbenzene	µg/L	18
Methylene chloride	µg/L	2.9 J
Styrene	µg/L	10 U
Tetrachloroethene	µg/L	46
Toluene	µg/L	110
trans-1,2-Dichloroethene	µg/L	4.2
Trichloroethene	µg/L	260
Vinyl chloride	µg/L	14 J
Xylene (total)	µg/L	76
Semi-Volatiles		
1,2-Dichlorobenzene	µg/L	3
1,4-Dichlorobenzene	µg/L	3 J
2,4-Dimethylphenol	µg/L	14
2-Methylphenol	µg/L	36
4-Methylphenol	µg/L	57
Di-n-octyl phthalate	µg/L	2 U
Naphthalene	µg/L	1 J
Phenol	µg/L	73
Metals		
Aluminum	mg/L	0.2 U
Antimony	mg/L	0.02 U
Arsenic	mg/L	0.007 U
Barium	mg/L	0.095
Beryllium	mg/L	0.005 U
Cadmium	mg/L	0.001 U
Chromium	mg/L	0.002 U
Copper	mg/L	0.01 U
Iron	mg/L	0.05 U

TABLE 1

ANALYTICAL RESULTS SUMMARY
MONTHLY WASTE WATER SAMPLING
GRATWICK
APRIL 2002

	Sample Location:	*Effluent*
	Sample ID:	*EFFLUENT*
	Sample Date:	*4/24/2002*
Parameter	*Unit*	
Metals (Cont'd.)		
Lead	mg/L	0.01 U
Magnesium	mg/L	0.34
Manganese	mg/L	0.003 U
Mercury	mg/L	0.0002 U
Nickel	mg/L	0.01 U
Selenium	mg/L	0.01 U
Silver	mg/L	0.003 U
Sodium	mg/L	242
Zinc	mg/L	0.026 U
General Chemistry		
Alkalinity, Total (As CaCO3)	mg/L	126
Ammonia	mg/L	5.2
Bicarbonate (as CaCO3)	mg/L	5 U
Biochemical Oxygen Demand (BOD)	mg/L	29
Chemical Oxygen Demand (COD)	mg/L	50
Chloride	mg/L	545
Cyanide (total)	mg/L	0.005 U
Hardness	mg/L	484
Nitrate (as N)	mg/L	0.05 U
Oil and Grease	mg/L	1 U
Organic Carbon	mg/L	12
pH (water)	s.u.	11.46
Phenolics (Total)	mg/L	0.219
Phosphorus	mg/L	0.17
Sulfate	mg/L	239
Sulfide	mg/L	13.7
Total Dissolved Solids (TDS)	mg/L	1610
Total Kjeldahl Nitrogen (TKN)	mg/L	4.8
Total Suspended Solids (TSS)	mg/L	8

Notes:

J Estimated.

U Non-detect at associated value.