



City of North Tonawanda
Department of Engineering
City Hall, 216 Payne Avenue
North Tonawanda, NY 14120-5493

Dale W. Marshall, P.E.

City Engineer
Phone: (716) 695-8565
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October 21, 2009

Reference No. 007987

Jeffrey Konsella, P.E.
New York State Department of Environmental Conservation
270 Michigan Avenue
Buffalo, NY 14203-2999

Dear Mr. Konsella:

Re: Operation and Monitoring Report
June 2008 to May 2009
Gratwick-Riverside Park Site, North Tonawanda, New York

Please find attached one electronic copy in pdf format and one hard copy of the report entitled "Eighth Annual Operation and Monitoring Report, June 2008 to May 2009" for the Gratwick-Riverside Park Site located in North Tonawanda, New York.

This report is the eighth annual O&M Report for the remedial actions constructed at the Site. This report was prepared pursuant to Section 7.0 of the report entitled "Operation and Maintenance Manual" dated March 2002 (revised January 2004 and May 2009) and approved by the NYSDEC on April 20, 2005. All O&M activities have been performed in accordance with the methods and frequencies specified in the O&M Manual.

This report presents the results of eight years of monitoring. The trends in the results confirm the reduced frequency of the groundwater and river water monitoring described in Section 4.0 of this Annual O&M Report, which frequency was approved by the NYSDEC on February 23, 2009.

In summary, the constructed remedy is achieving the remedial objectives of maintaining hydraulic gradients from the Niagara River to the groundwater collection system thereby ensuring that Site chemicals are not migrating to the Niagara River. Furthermore, the treatment of the Site groundwater by the City of North Tonawanda POTW did not require any modifications to the standard operation of the POTW.

October 21, 2009

2

Reference No. 007987

Please contact me at (716) 695-8565 if you have any questions or comments.

Yours truly,

Maur Schmidtko

for

Dale Marshall, P.E.
City Engineer

KDS/ca/9
Encl.

cc: G. Anders Carlson
M. Desmond
M. Forcucci
S. Parkhill
J.P. Moreau/W. Jones (w/o report)



EIGHTH ANNUAL OPERATION AND MONITORING REPORT JUNE 2008 TO MAY 2009

**GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK**

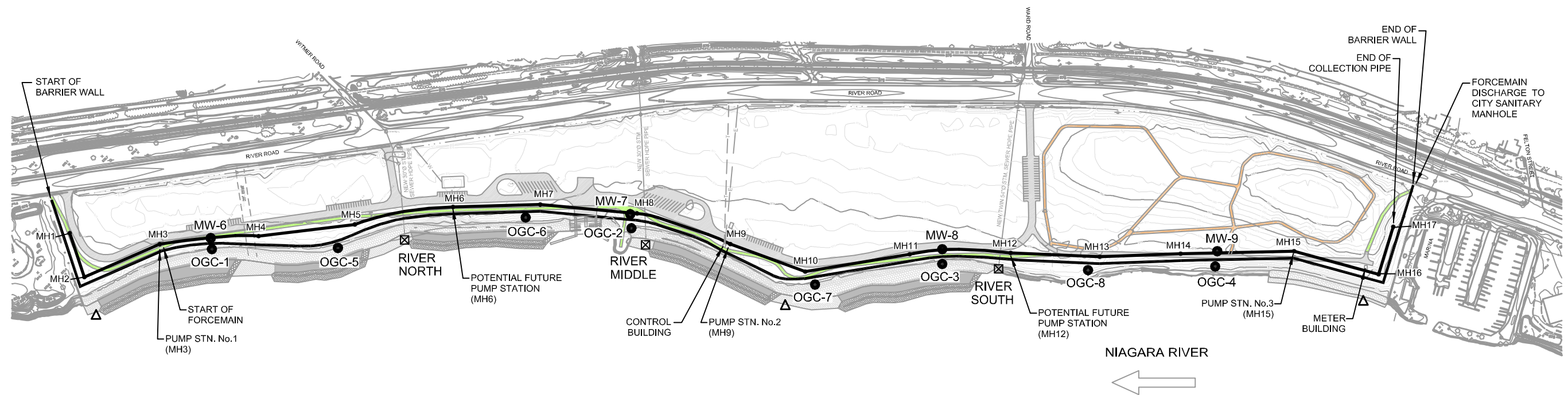
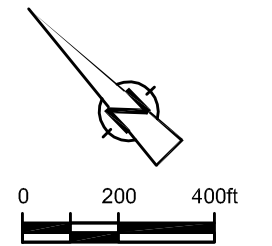
**OCTOBER 2009
REF. NO. 007987 (36)**

**Prepared by:
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LEGEND

- BARRIER WALL
- GROUNDWATER COLLECTION SYSTEM
- OGC-1
MW-1
- RIVER SOUTH
- MONITORING WELL LOCATION
- SURFACE WATER LEVEL MONITORING LOCATION
- SURFACE WATER CHEMICAL MONITORING LOCATION (NO SAMPLING AFTER APRIL 2008)

figure 2.1
MONITORING NETWORK
GRATWICK-RIVERSIDE PARK SITE
North Tonawanda, New York



07987-00(036)GN-WA002

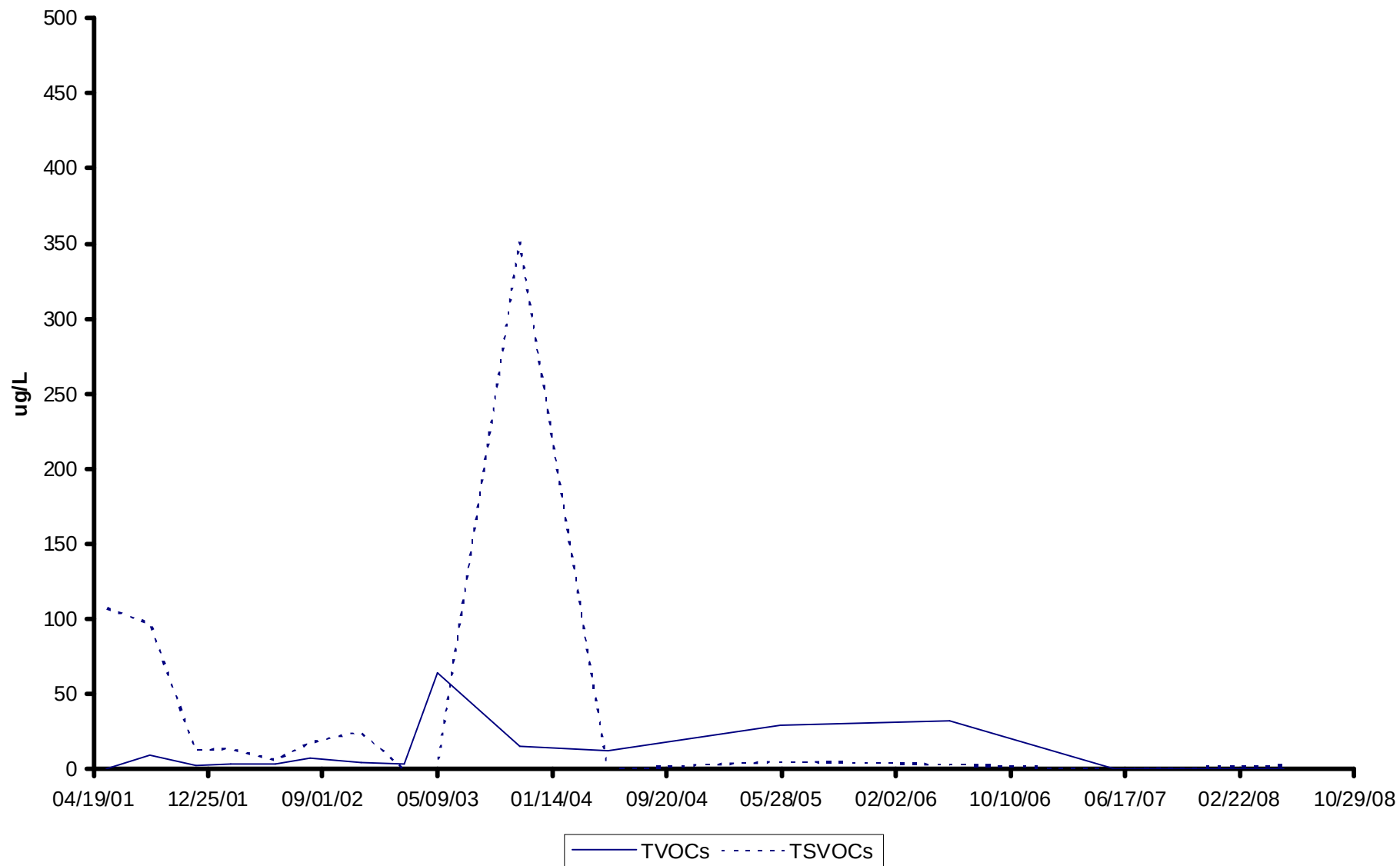


figure 2.2

MW-6 TVOC AND TSVOC CONCENTRATIONS
GRATWICK-RIVERSIDE PARK SITE
North Tonawanda, New York



07987-00(036)GN-WA003

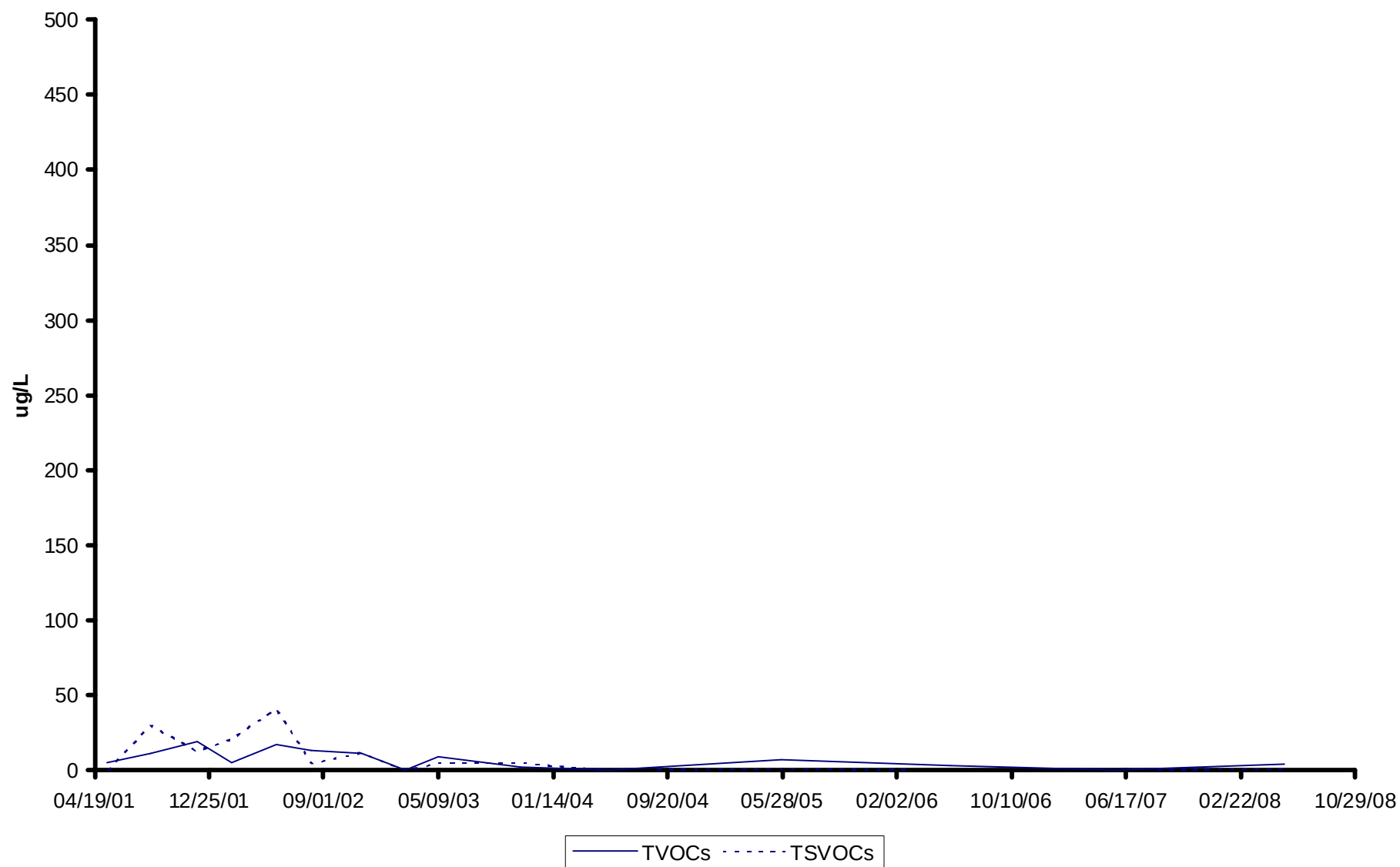


figure 2.3

MW-7 TVOC AND TSVOC CONCENTRATIONS
GRATWICK-RIVERSIDE PARK SITE
North Tonawanda, New York



07987-00(036)GN-WA004

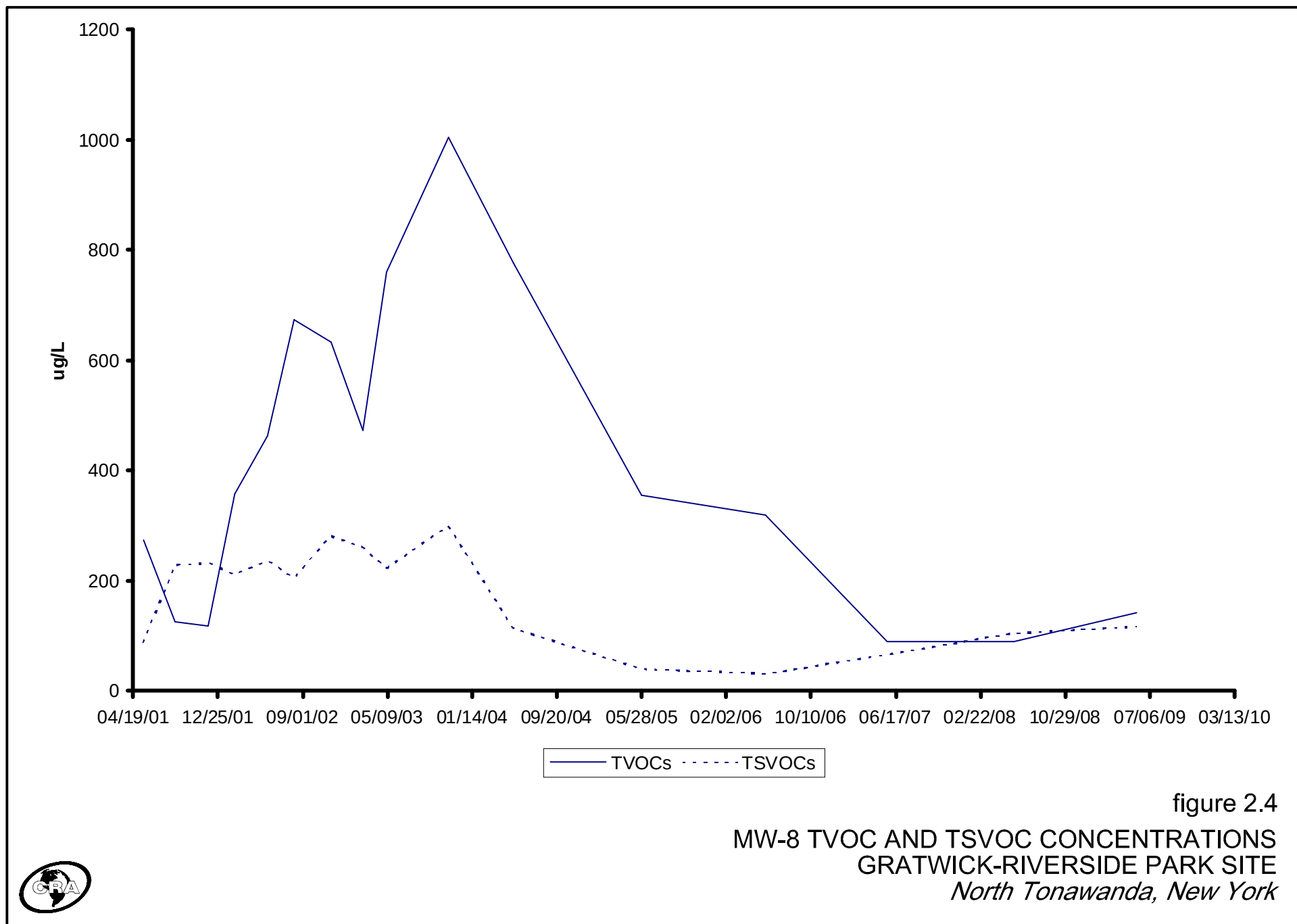


figure 2.4
MW-8 TVOC AND TSVOC CONCENTRATIONS
GRATWICK-RIVERSIDE PARK SITE
North Tonawanda, New York



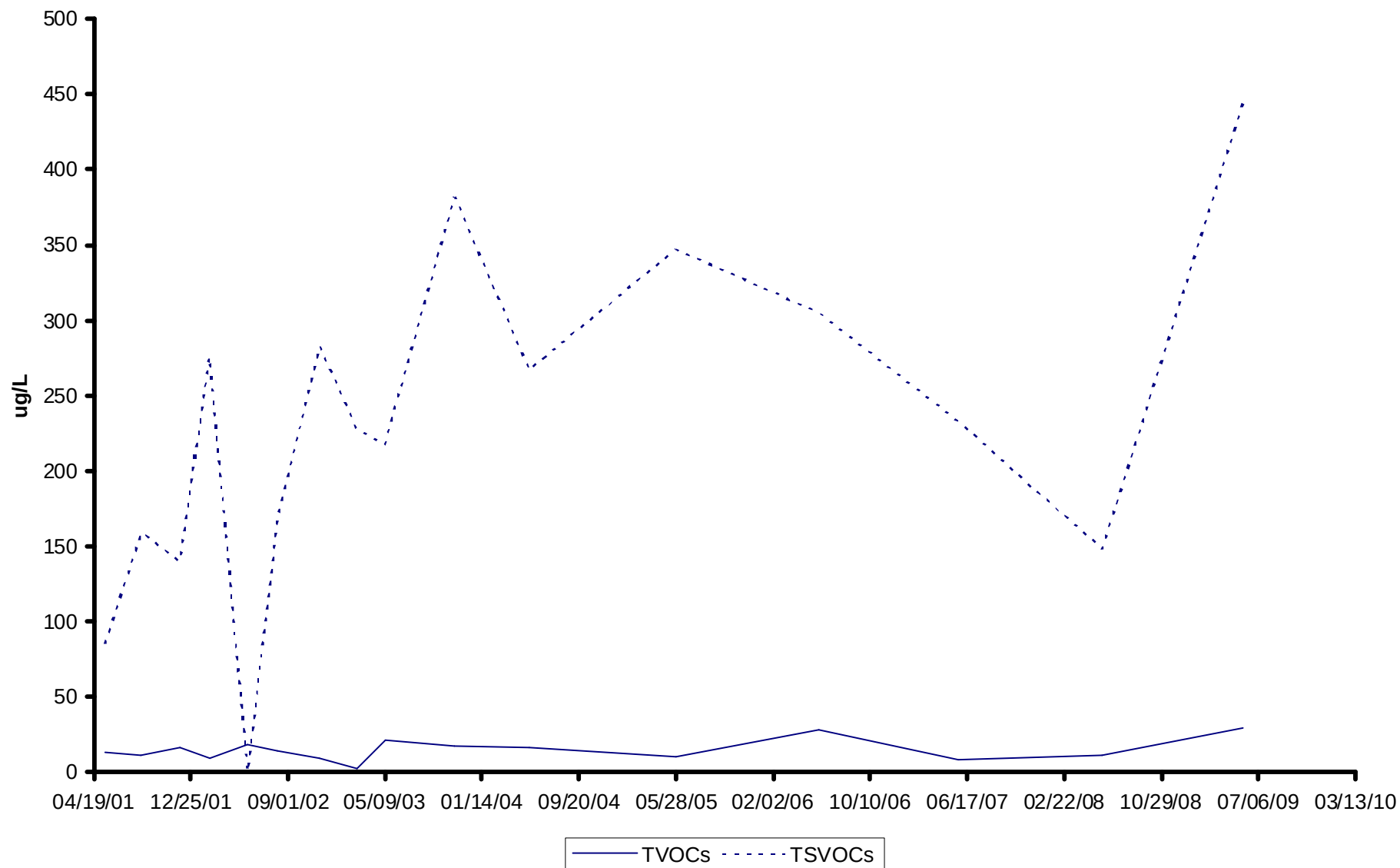


figure 2.5
MW-9 TVOC AND TSVOC CONCENTRATIONS
GRATWICK-RIVERSIDE PARK SITE
North Tonawanda, New York



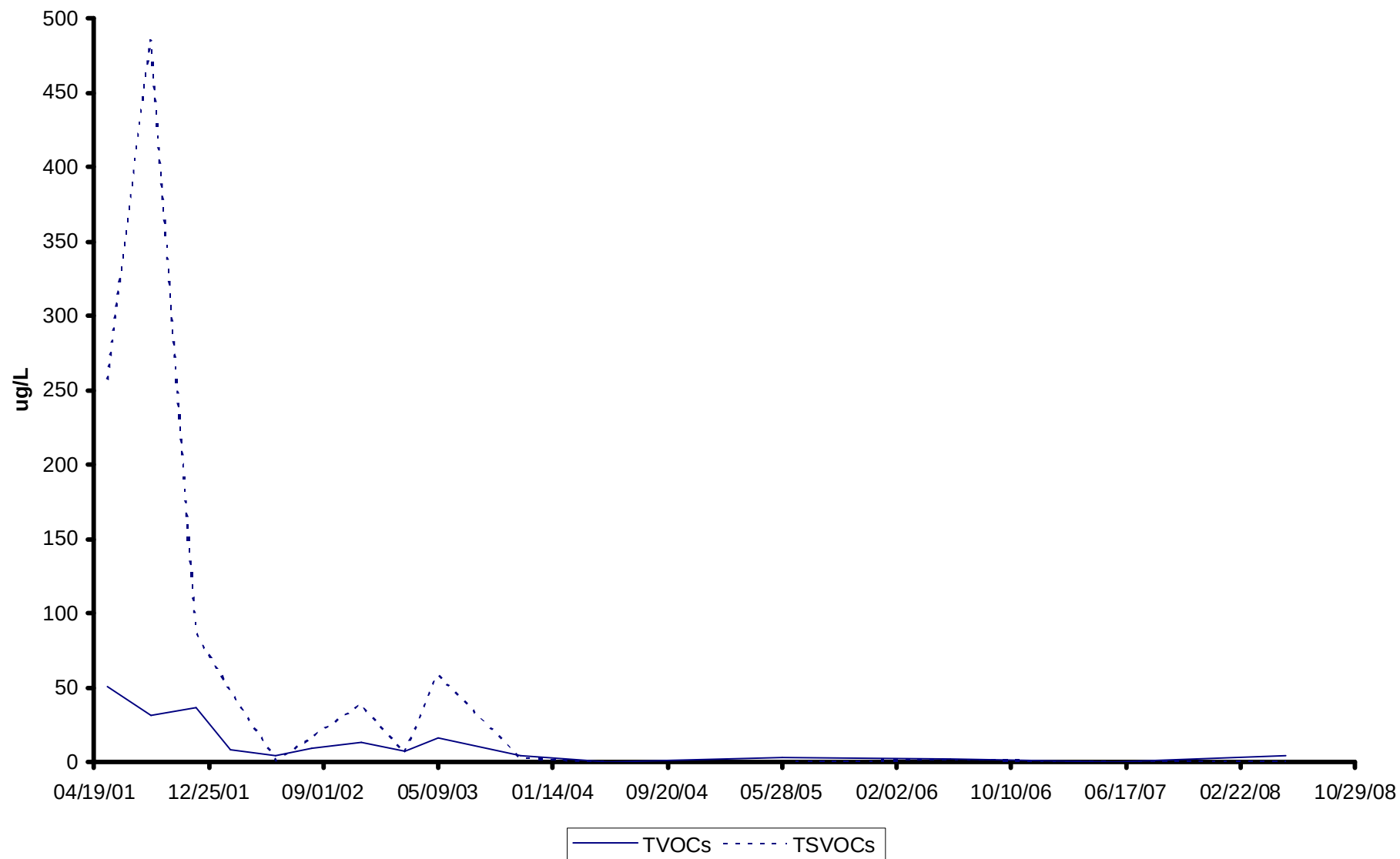


figure 2.6
OGC-1 TVOC AND TSVOC CONCENTRATIONS
GRATWICK-RIVERSIDE PARK SITE
North Tonawanda, New York



OGC-2 TVOC AND TSVOC CONCENTRATIONS

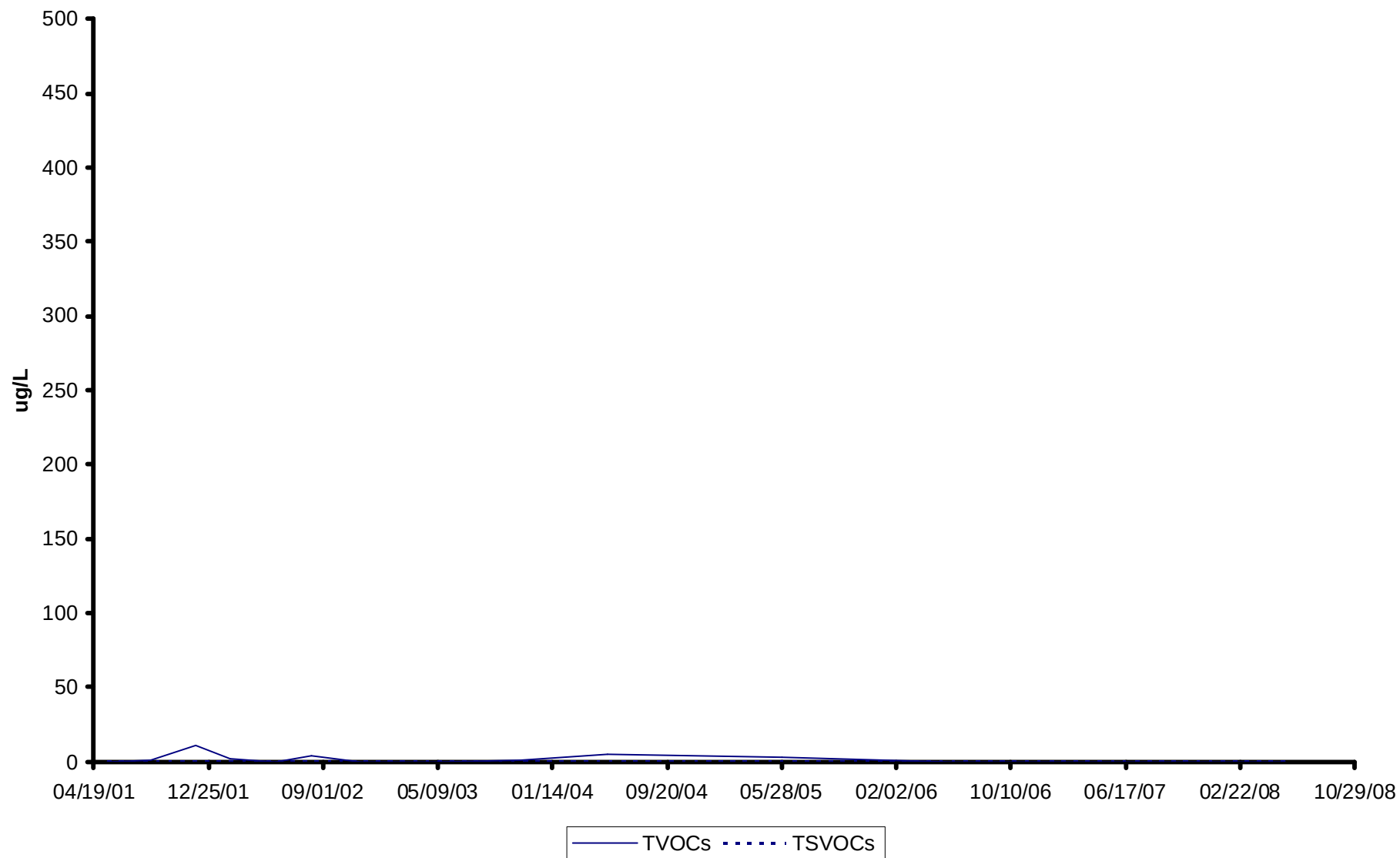


figure 2.7

OGC-2 TVOC AND TSVOC CONCENTRATIONS
GRATWICK-RIVERSIDE PARK SITE
North Tonawanda, New York



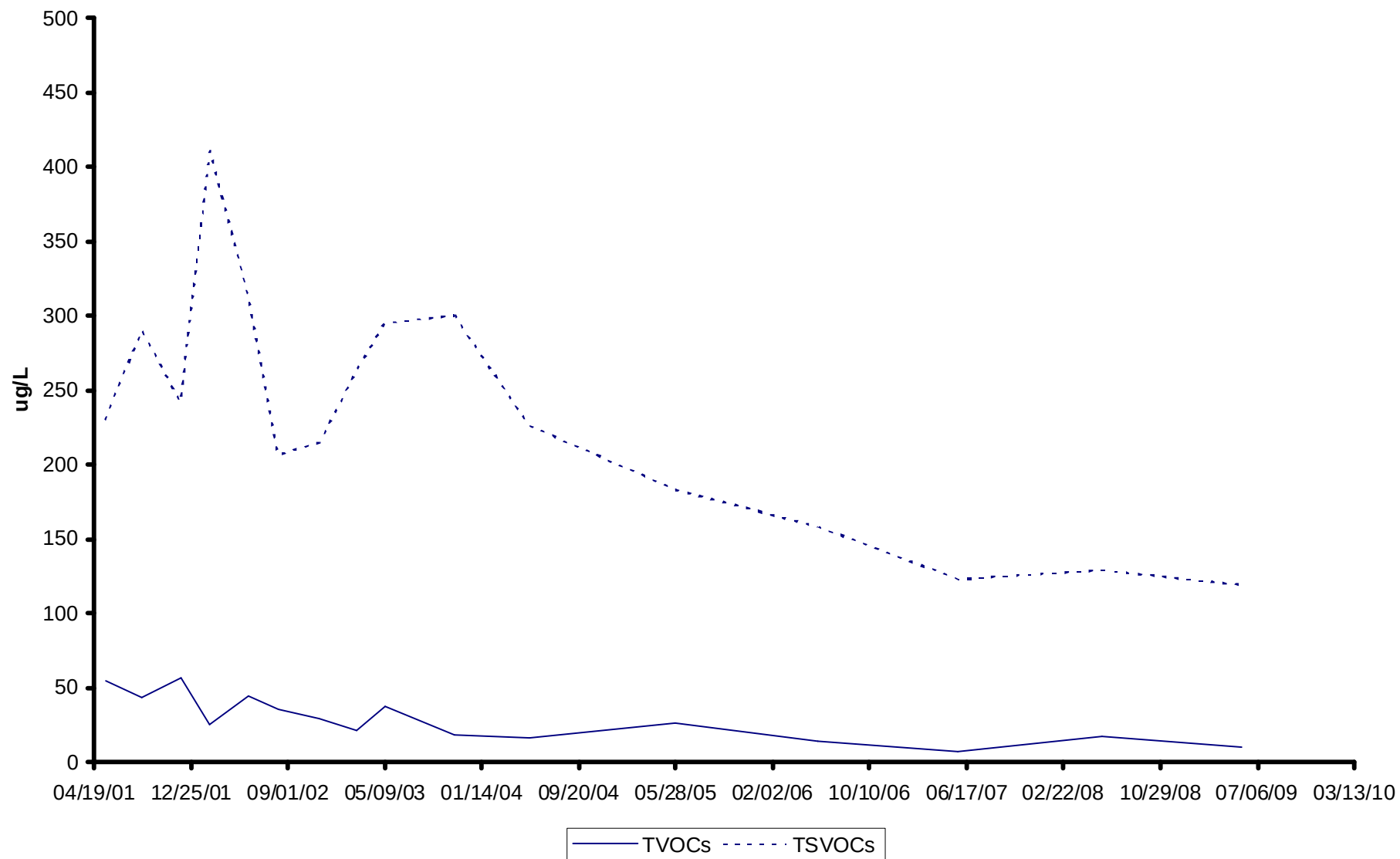


figure 2.8

OGC-3 TVOC AND TSVOC CONCENTRATIONS
GRATWICK-RIVERSIDE PARK SITE
North Tonawanda, New York



OGC-4

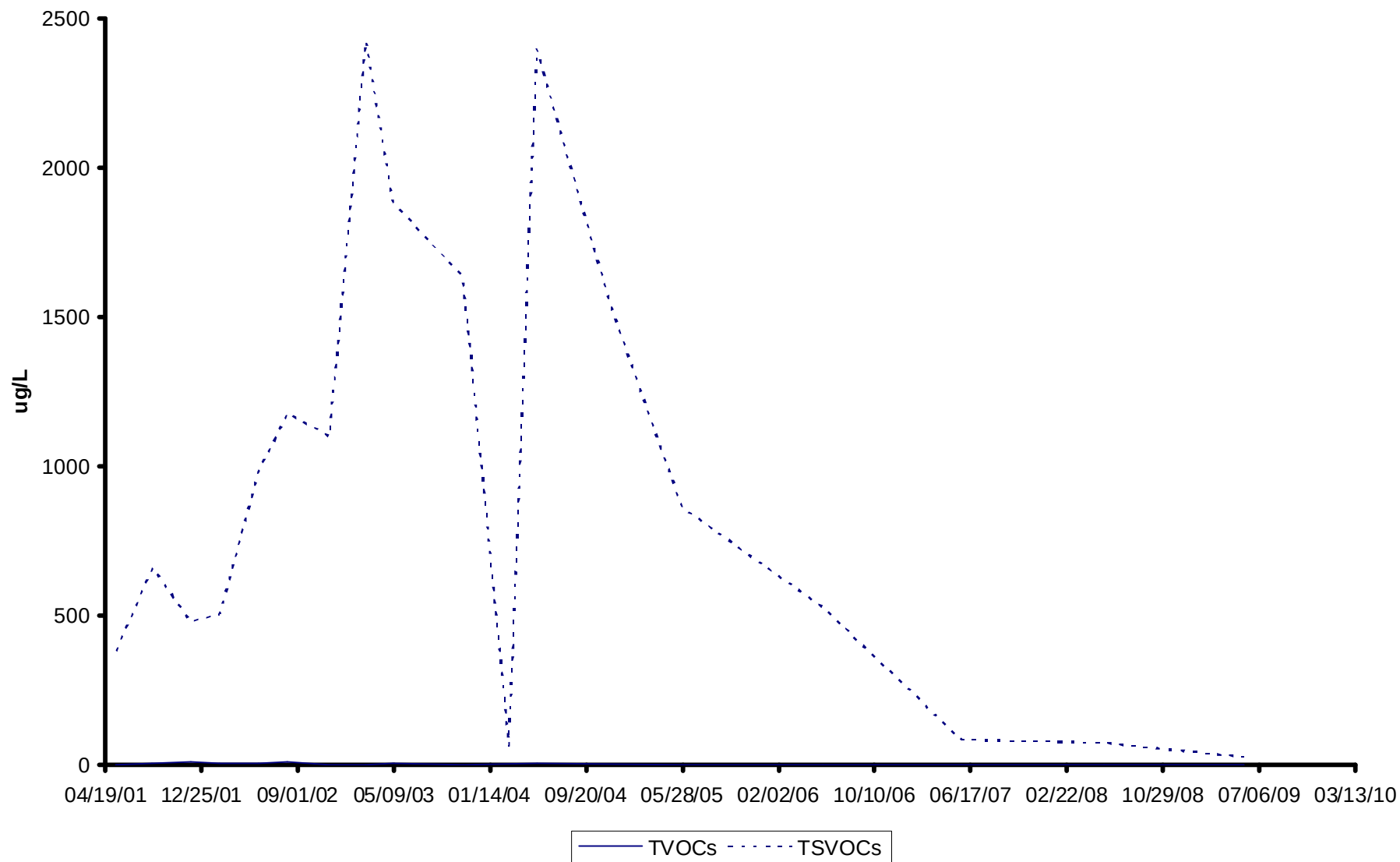


figure 2.9

OGC-4 TVOC AND TSVOC CONCENTRATIONS
GRATWICK-RIVERSIDE PARK SITE
North Tonawanda, New York



07987-00(036)GN-WA010 AUG 14/2009

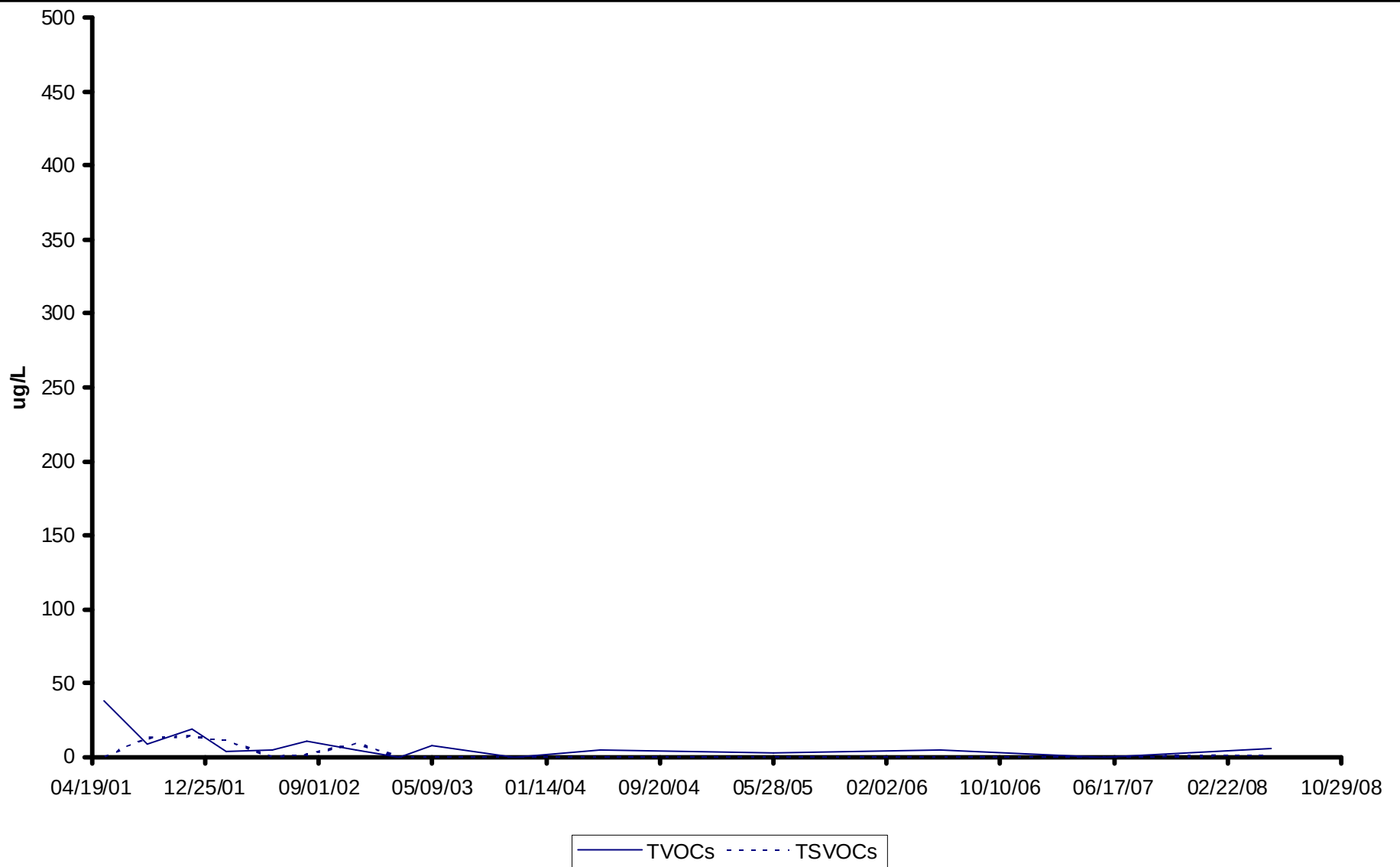


figure 2.10

OGC-5 TVOC AND TSVOC CONCENTRATIONS
GRATWICK-RIVERSIDE PARK SITE
North Tonawanda, New York



OGC-6 TVOC AND TSVOC CONCENTRATIONS

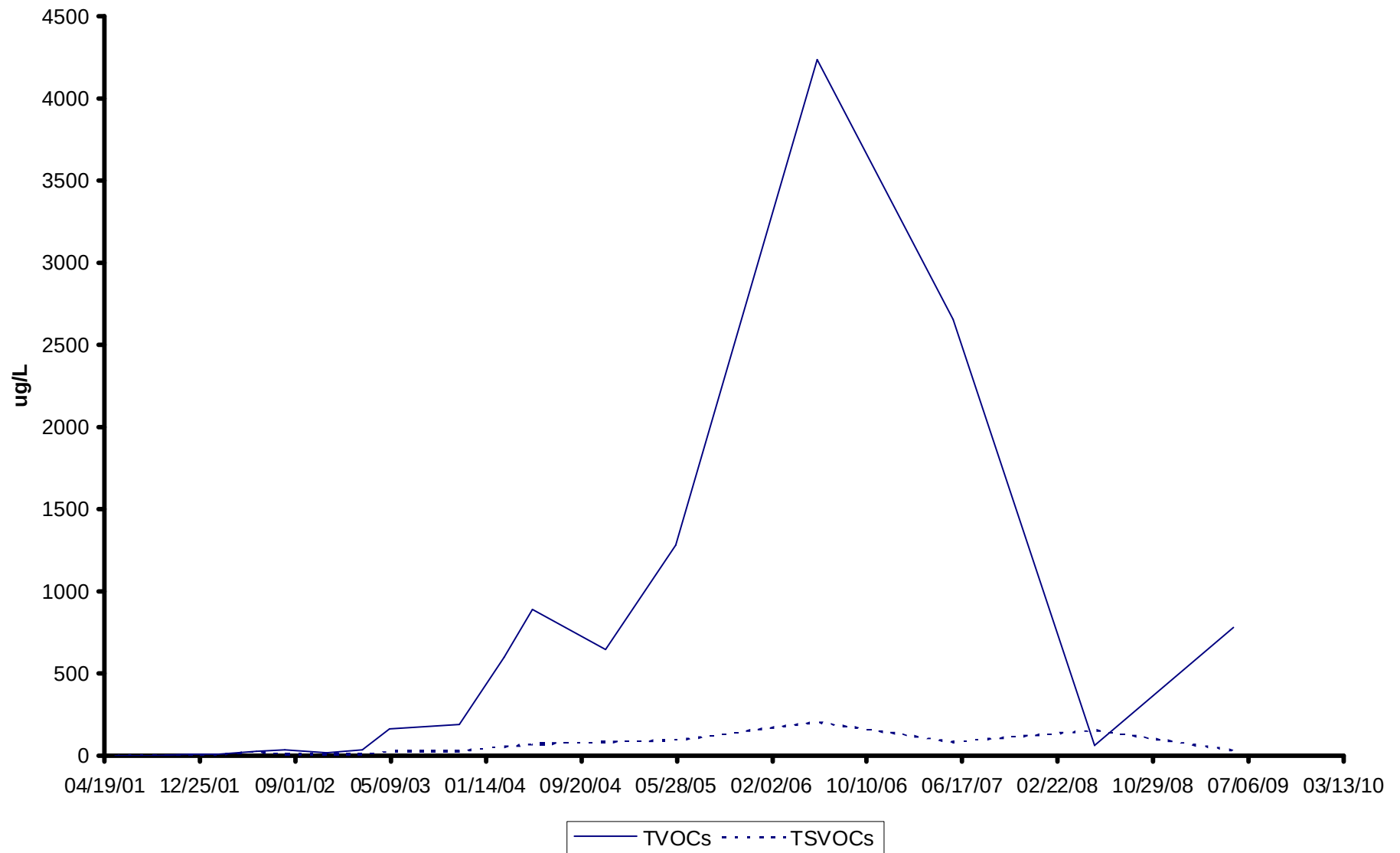


figure 2.11

OGC-6 TVOC AND TSVOC CONCENTRATIONS
GRATWICK-RIVERSIDE PARK SITE
North Tonawanda, New York



OGC-7

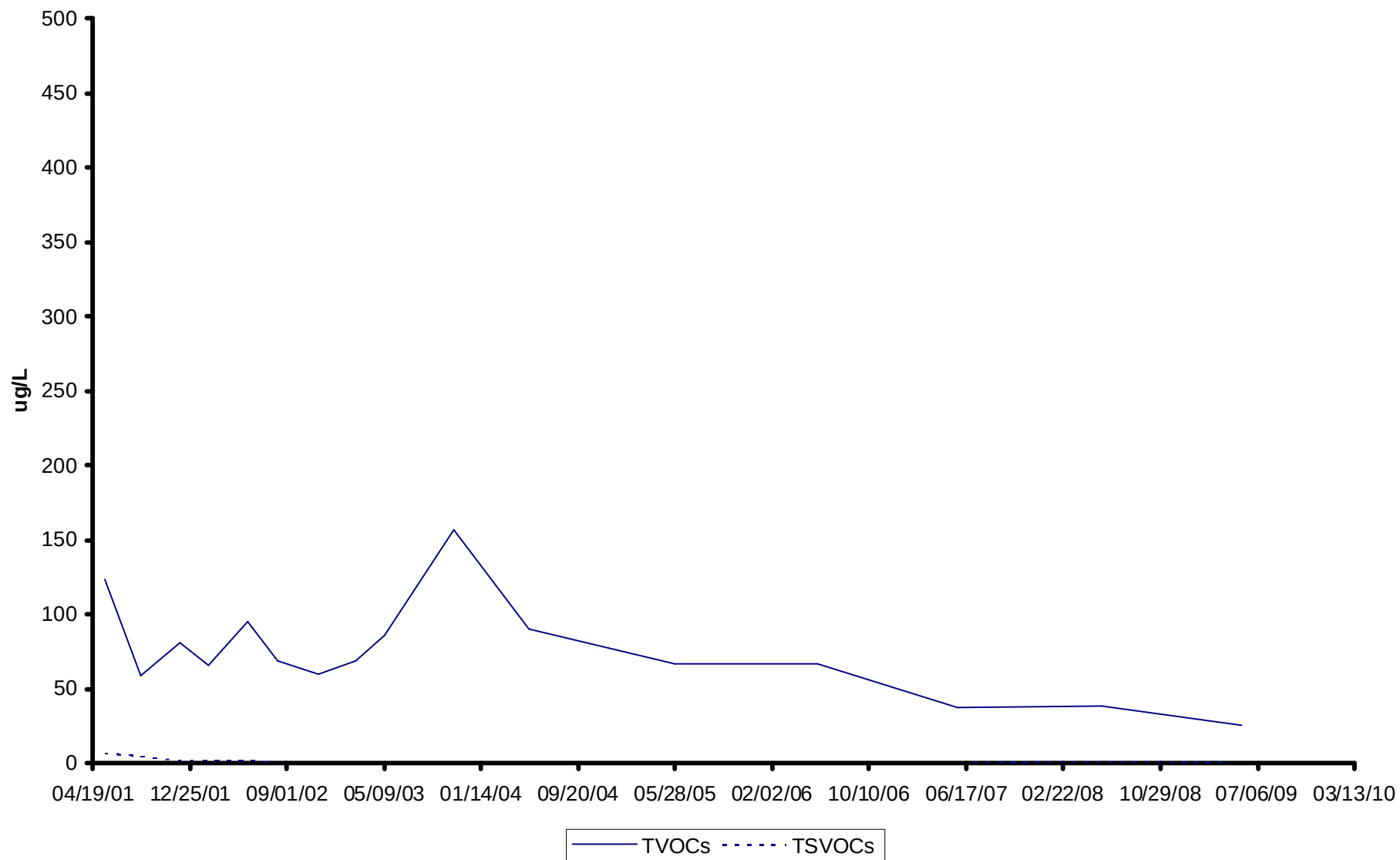


figure 2.12

OGC-7 TVOC AND TSVOC CONCENTRATIONS
GRATWICK-RIVERSIDE PARK SITE
North Tonawanda, New York



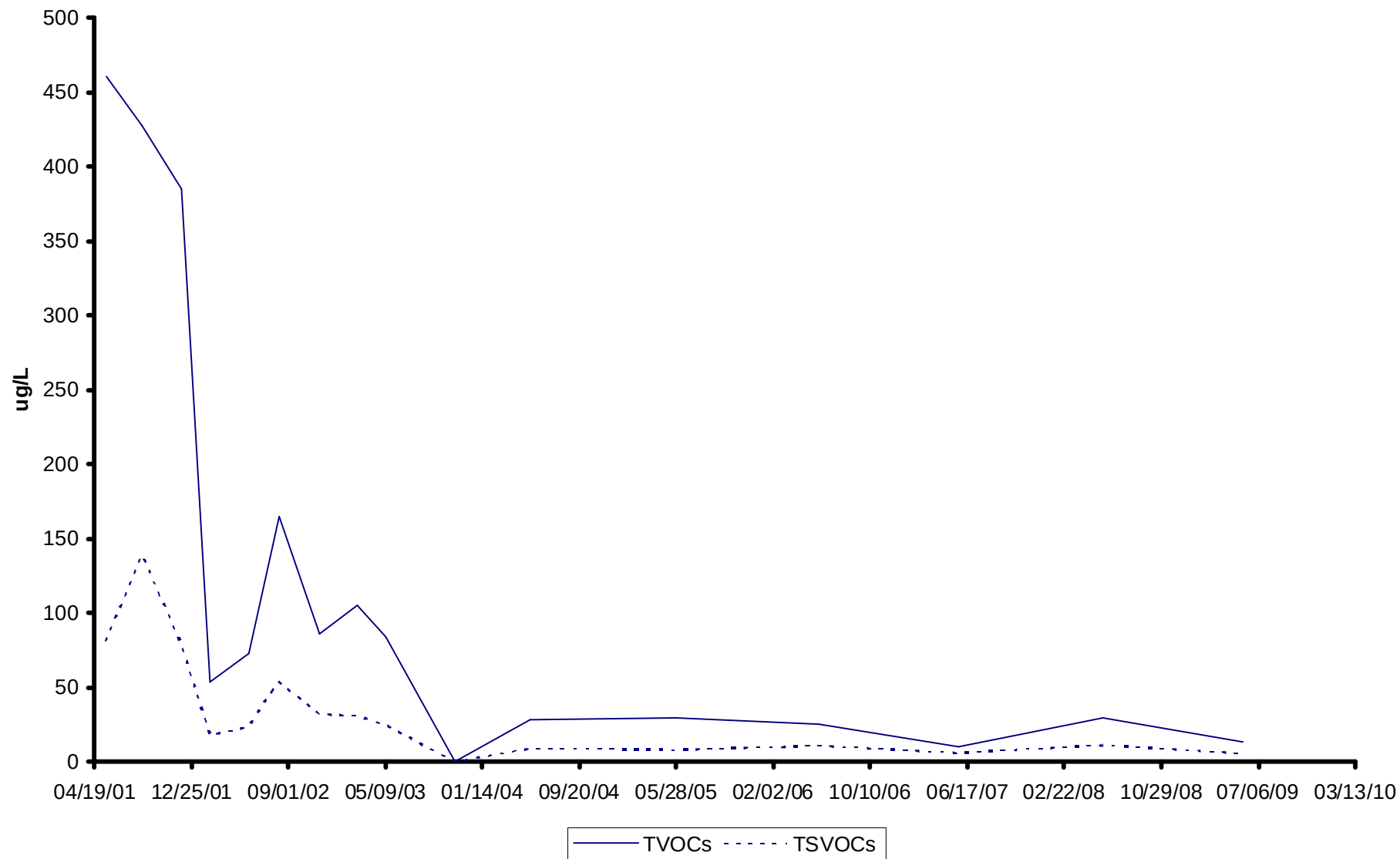


figure 2.13

OGC-8 TVOC AND TSVOC CONCENTRATIONS
GRATWICK-RIVERSIDE PARK SITE
North Tonawanda, New York



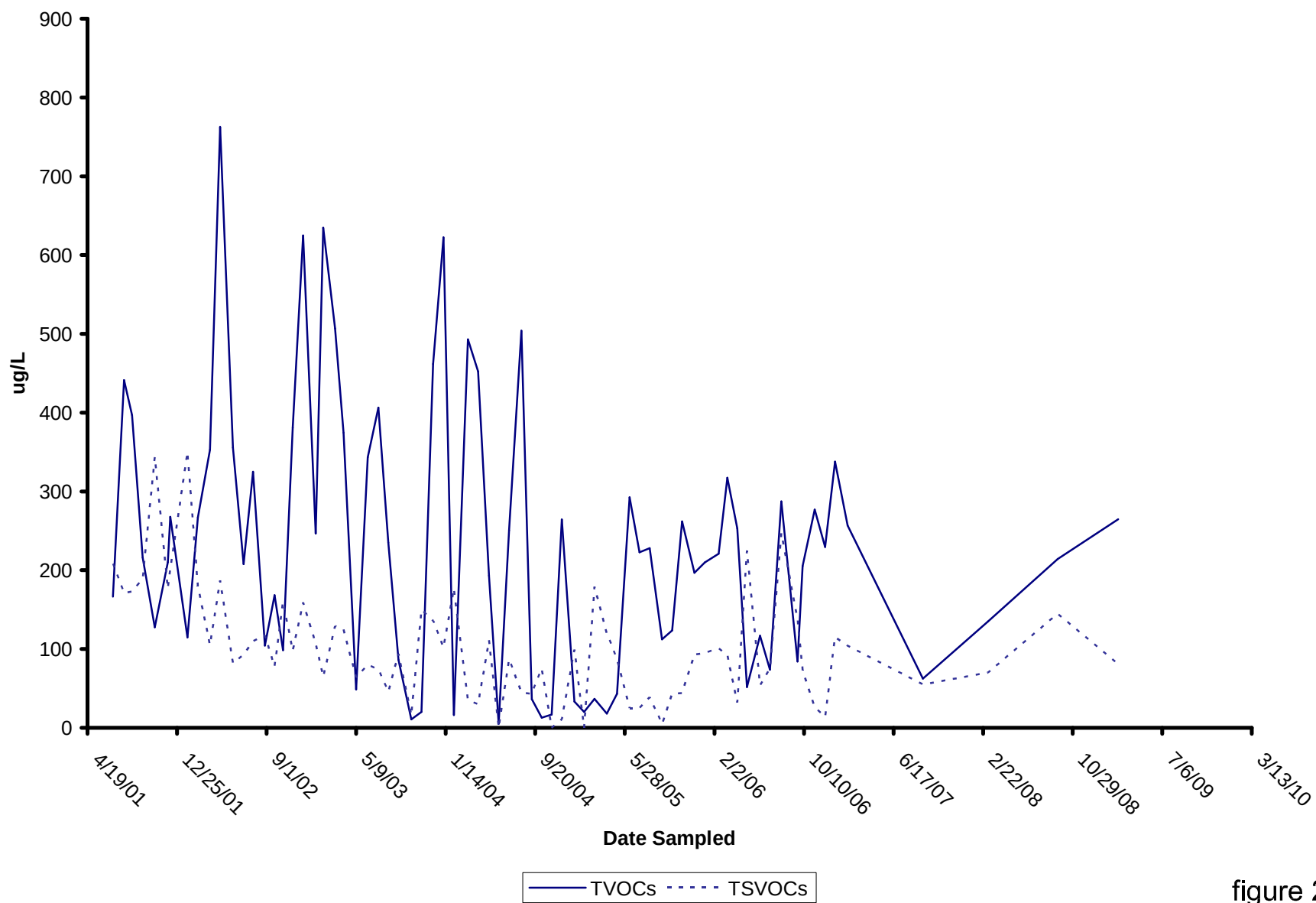


figure 2.14
 EFFLUENT TVOCs AND TSVOCs vs. TIME
 GRATWICK-RIVERSIDE PARK SITE
 North Tonawanda, New York



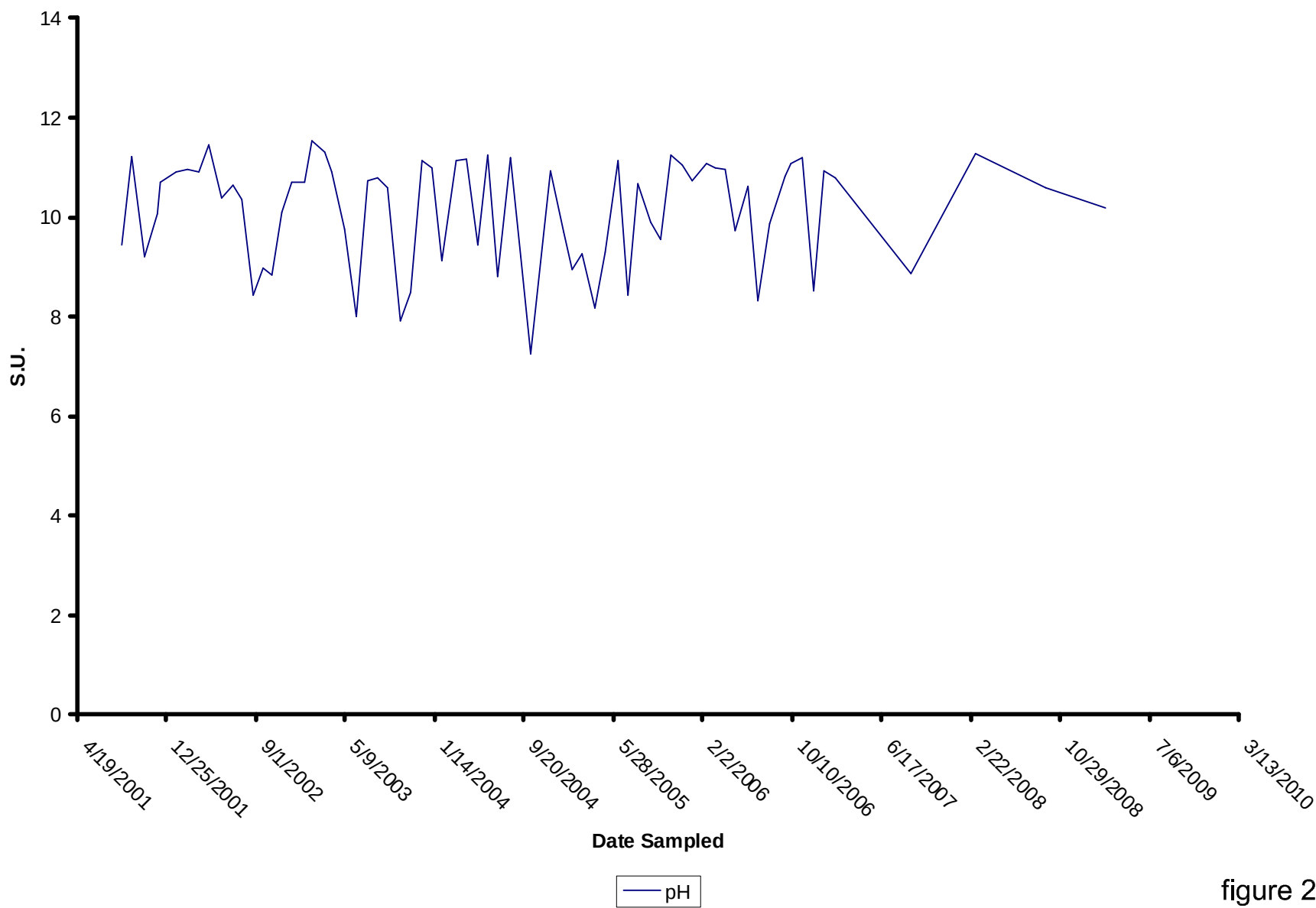


figure 2.15
EFFLUENT pH vs. TIME
GRATWICK-RIVERSIDE PARK SITE
North Tonawanda, New York



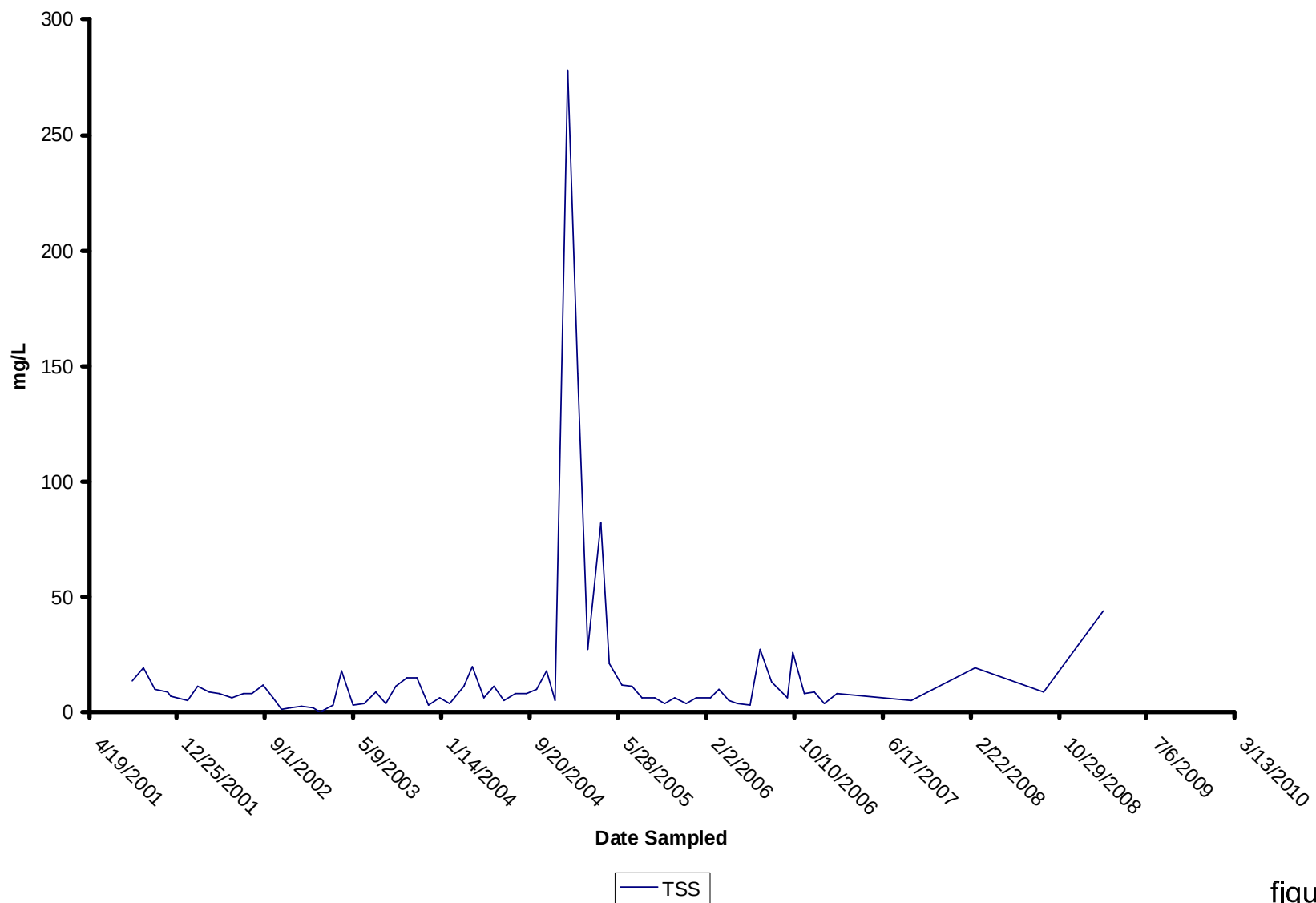


figure 2.16
EFFLUENT TOTAL SUSPENDED SOLIDS vs. TIME
GRATWICK-RIVERSIDE PARK SITE
North Tonawanda, New York



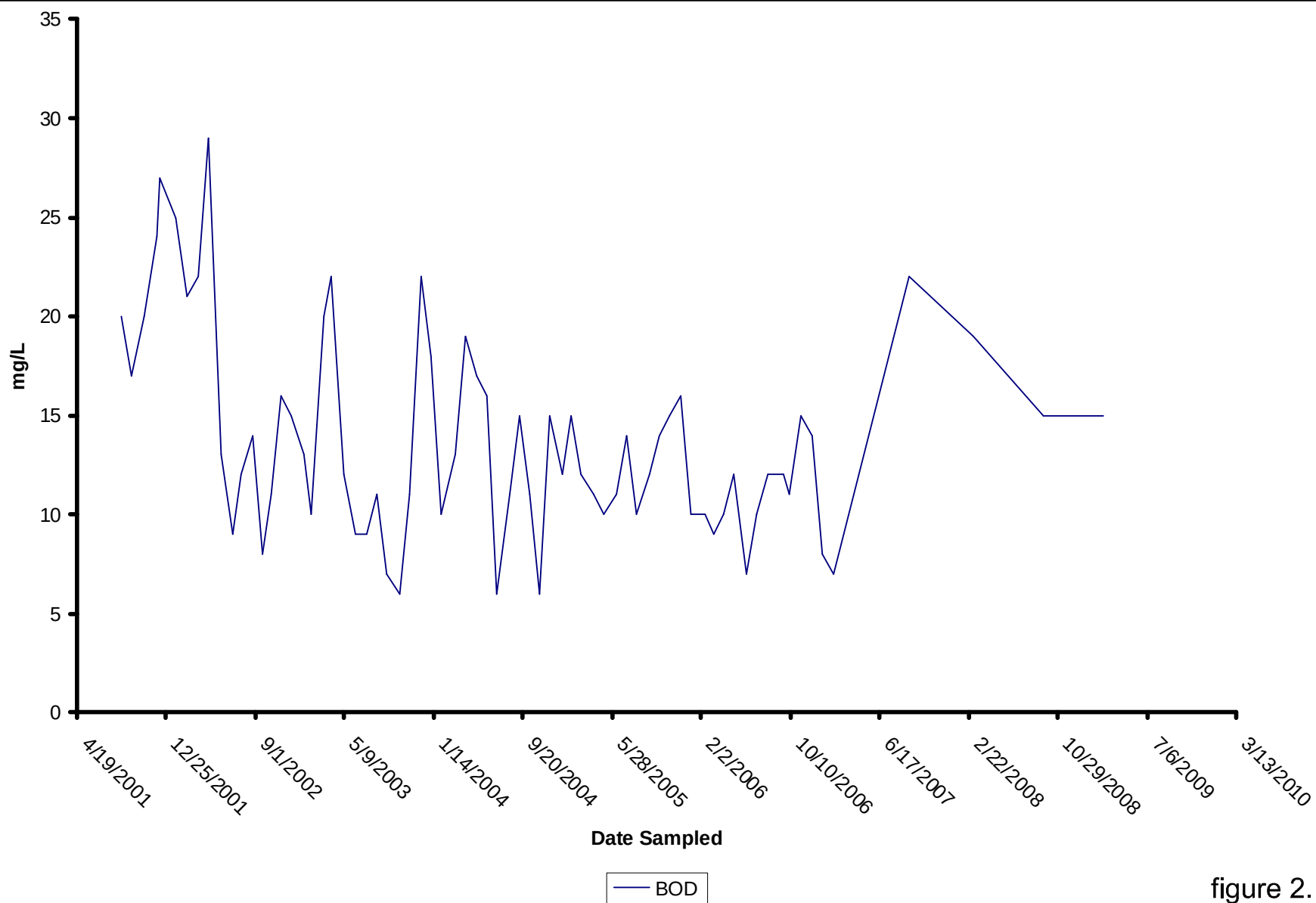


figure 2.17
EFFLUENT BOD vs. TIME
GRATWICK-RIVERSIDE PARK SITE
North Tonawanda, New York



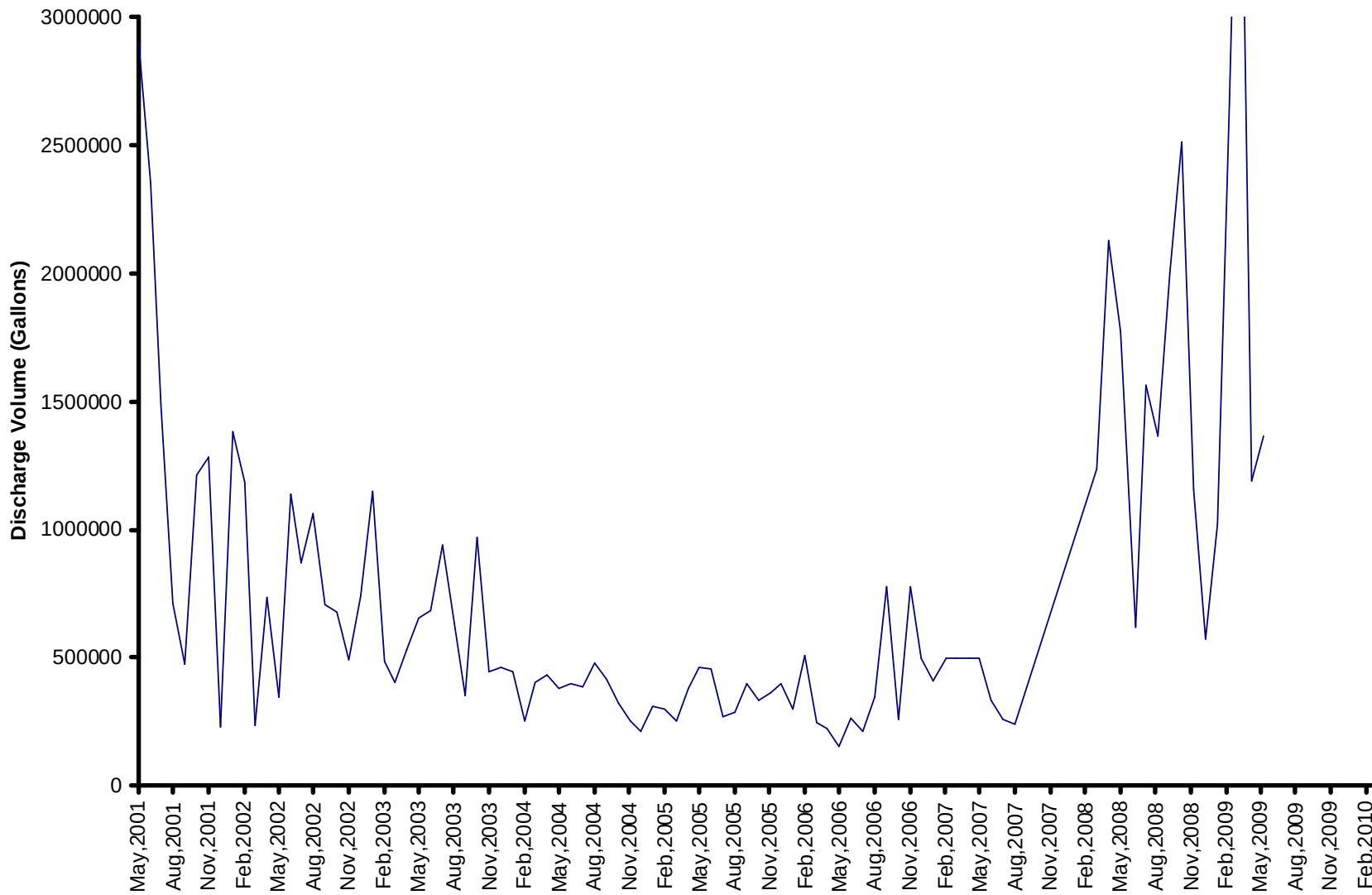


figure 2.18

EFFLUENT VOLUME vs. TIME
 GRATWICK-RIVERSIDE PARK SITE
North Tonawanda, New York



TABLE 2.1

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

INWARD HYDRAULIC GRADIENT MONITORING LOCATIONS

<u>Inner</u> ⁽¹⁾	<u>Outer</u>
MH2	Niagara River North (Downstream)
MH6	Niagara River North (Downstream)
MH8	Niagara River Middle
MH12	Niagara River South (Upstream)

UPWARD HYDRAULIC GRADIENT MONITORING LOCATIONS

<u>Upper</u> ⁽¹⁾	<u>Lower</u>
MH3	MW-6
MH8	MW-7
MH11	MW-8
MH14/MH15 ⁽²⁾	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).
- 2-Year and 5-Year reviews indicated that the monitoring frequency remain monthly.

Notes:

- (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.
- (2) Distance weighted averages of water levels used (MH14 - two thirds and MH15 - one third).

TABLE 2.2
WATER LEVELS (ft amsl)
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

<i>Date</i>	<i>MH2</i>	<i>MH3</i>	<i>MH6</i>	<i>OGC-1</i>	<i>MW-6</i>	<i>OGC-5</i>	<i>River North</i>	<i>OGC-6</i>	<i>MH8</i>	<i>MW-7</i>	<i>OGC-2</i>	<i>River Middle</i>	<i>OGC-7</i>
RIM Elevation	573.28	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
May 21, 2002	561.74	561.28	564.10	564.79	561.97	564.84	564.76	564.68	560.05	561.38	564.85	564.66	564.84
June 20, 2002	561.67	561.24	565.58	564.74	561.92	564.56	564.58	564.62	560.68	561.54	564.85	564.68	564.80
July 18, 2002	561.46	560.99	564.99	564.78	561.89	565.00	564.89	564.66	560.79	561.65	564.90	564.90	564.93
August 6, 2002	561.26	560.79	565.89	564.86	561.92	564.70	564.65	564.71	561.05	561.93	564.90	564.59	564.85
September 12, 2002	561.60	561.14	565.60	564.80	561.82	565.05	565.04	564.67	561.10	561.99	564.87	564.95	564.97
October 30, 2002	561.63	561.21	566.24	564.18	561.97	563.95	(2)	564.07	561.07	561.95	564.10	563.75	564.00
November 21, 2002	561.12	560.67	554.47 (4)	564.05	562.05	563.94	(2)	563.98	558.03	561.41	564.20	563.71	564.06
December 11, 2002	561.55	561.08	555.09	563.99	562.04	563.85	(2)	563.84	559.95	561.25	563.94	563.72	563.87

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.
- (4) Inspection of the groundwater collection pipe valves in MH6 on November 18, 2002 identified that they were closed. The valves were opened on November 18, 2002 and the water level dropped approximately 6 feet in 10 minutes.

TABLE 2.2
WATER LEVELS (ft amsl)
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

<i>Date</i>	<i>OGC-3</i>	<i>MH11</i>	<i>MW-8</i>	<i>River South</i>	<i>MH12</i>	<i>OGC-8</i>	<i>OGC-4</i>	<i>MW-9</i>	<i>MH14</i>	<i>MH15</i>	<i>MH16</i>
RIM Elevation		572.11			572.37				574.30	575.84	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
May 21, 2002	564.95	560.35	560.89	565.07	560.89	565.03	564.98	563.11	563.25	562.17	563.10
June 20, 2002	564.85	560.98	561.50	564.88	561.04	564.90	564.94	562.91	562.98	562.00	562.90
July 18, 2002	565.09	561.07	561.80	565.22	560.95	565.17	565.08	562.84	561.83	561.93	562.83
August 6, 2002	564.88	561.33	561.88	564.90	561.07	564.95	564.91	562.75	562.08	561.86	562.75
September 12, 2002	565.09	561.34	561.91	565.25	561.09	565.20	565.05	562.66	562.11	561.75	562.63
October 30, 2002	564.03	561.36	561.95	564.16	561.31	564.14	564.00	562.57	562.68	561.62	562.56
November 21, 2002	564.04	561.49	560.99	564.15	561.44	564.19	564.18	562.74	562.88	561.82	562.73
December 11, 2002	564.01	561.51	560.73	564.14	561.45	564.09	564.02	562.91	563.07	562.01	562.94

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

<i>Date</i>	<i>MH2</i>	<i>MH3</i>	<i>MH6</i>	<i>OGC-1</i>	<i>MW-6</i>	<i>OGC-5</i>	<i>River North</i>	<i>OGC-6</i>	<i>MH8</i>	<i>MW-7</i>	<i>OGC-2</i>	<i>River Middle</i>	<i>OGC-7</i>
RIM Elevation	573.28	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
January 16, 2003	561.65	561.20	556.15	564.03	562.27	563.88	(2)	564.12	561.04	561.95	564.27	563.52	564.10
February 25, 2003	561.58	561.10	555.74	563.80	561.85	563.71	(2)	563.67	560.60	561.49	563.81	563.34	563.81
March 14, 2003	561.65	561.17	555.75	563.75	561.69	563.74	(2)	563.61	560.61	561.49	563.77	563.24	563.77
April 14, 2003	561.68	561.22	554.54	564.32	562.42	564.34	564.30	564.17	558.65	561.42	564.39	564.24	564.40
May 8, 2003	561.52	561.03	555.93	564.37	562.38	564.41	564.29	564.21	560.76	561.59	564.36	564.27	564.37
June 19, 2003	562.26	561.83	556.02	564.73	562.43	564.83	564.78	564.59	560.85	561.60	564.77	564.66	564.81
July 21, 2003	561.21	560.46	556.06	564.68	562.31	564.64	564.49	564.58	560.89	561.74	564.81	564.44	564.75
August 28, 2003	561.65	561.20	554.61	564.65	562.21	564.76	564.64	564.51	558.52	561.29	564.67	564.60	564.75
September 30, 2003	561.57	561.10	555.08	564.64	562.53	564.89	(2)	564.49	559.88	561.35	564.76	564.67	564.91
October 20, 2003	561.48	561.07	554.98	564.61	562.52	564.93	(2)	564.45	559.77	561.17	564.68	564.63	564.86
November 3, 2003	561.53	561.08	555.94	564.29	562.33	563.89	(2)	564.11	560.76	561.12	563.56	564.36	564.15
December 23, 2003	561.08	559.49	555.62	564.29	562.30	564.04	(2)	564.17	560.67	561.48	564.33	(2)	564.18
January 21, 2004	(5)	560.33	555.84	565.24	562.32	564.19	(2)	564.12	560.70	561.55	564.30	(2)	564.26
February 12, 2004	(5)	561.08	556.12	563.99	562.16	563.76	(2)	563.87	560.95	561.81	564.00	(2)	563.88
March 4, 2004	561.33	561.13	555.90	564.17	562.21	557.07 (6)	(2)	564.00	560.75	561.61	564.31	(2)	564.19
April 16, 2004	560.05	558.78	554.91	564.59	562.48	564.49	(2)	564.36	559.59	561.71	564.56	564.43	564.56
May 14, 2004	560.17	559.71	554.56	564.49	562.39	564.57	564.55	564.34	559.45	561.70	564.51	564.48	564.54
June 25, 2004	561.64	561.21	555.74	564.76	562.27	564.71	564.68	564.62	560.50	561.42	564.82	564.56	564.78
July 30, 2004	561.79	561.25	555.24	565.01	562.29	565.20	565.20	564.84	560.04	561.31	565.02	565.16	565.14
August 31, 2004	561.37	560.59	555.83	565.06	562.23	565.05	564.98	564.92	560.67	561.56	565.14	564.93	565.17
September 30, 2004	561.48	560.81	555.60	565.11	562.28	565.22	565.00	564.95	560.71	561.49	565.20	565.05	565.20
October 20, 2004	561.65	561.19	555.96	564.65	562.10	564.57	564.45	564.44	560.82	561.69	564.57	564.41	564.57
November 23, 2004	561.50	561.05	554.95	564.17	561.99	564.20	(2)	564.02	559.77	561.21	564.31	(2)	564.28
December 31, 2004	561.60	560.74	556.19	564.58	562.16	564.50	564.68	564.25	561.02	561.80	564.37	564.56	564.40

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.
- (4) Inspection of the groundwater collection pipe valves in MH6 on November 18, 2002 identified that they were closed. The valves were opened on November 18, 2002 and the water level dropped approximately 6 feet in 10 minutes.
- (5) Buried with snow.
- (6) Believed to be erroneous reading.

TABLE 2.2
WATER LEVELS (ft amsl)
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

<i>Date</i>	<i>OGC-3</i>	<i>MH11</i>	<i>MW-8</i>	<i>River South</i>	<i>MH12</i>	<i>OGC-8</i>	<i>OGC-4</i>	<i>MW-9</i>	<i>MH14</i>	<i>MH15</i>	<i>MH16</i>
RIM Elevation		572.11			572.37				574.30	575.84	574.82
TOC Elevation (ft amsl)	573.35		574.37	568.46		574.01	574.66	576.23			
January 16, 2003	564.13	561.68	562.00	564.11	561.83	564.14	564.20	563.17	563.37	562.28	563.20
February 25, 2003	563.87	561.60	561.48	564.21	561.56	563.90	563.94	562.89	563.07	562.01	562.91
March 14, 2003	563.79	561.57	561.46	564.11	561.54	563.92	563.91	562.90	563.09	562.05	562.93
April 14, 2003	564.48	558.53	560.98	564.45	561.56	564.54	564.52	563.36	563.54	562.49	563.40
May 8, 2003	564.48	561.03	561.56	564.61	561.61	564.59	564.44	563.07	563.26	562.01	563.11
June 19, 2003	564.92	561.12	561.56	564.96	561.94	564.99	564.95	563.10	563.41	562.25	563.15
July 21, 2003	564.81	561.10	561.69	564.78	562.03	564.84	564.88	562.89	563.03	561.98	562.89
August 28, 2003	564.86	564.37	562.35	564.91	562.19	564.94	564.85	566.17	566.48	566.36	566.59
September 30, 2003	565.02	558.68	560.17	565.08	562.26	565.08	565.02	562.77	562.89	562.02	562.78
October 20, 2003	564.94	558.66	560.02	565.03	562.25	565.05	564.96	562.75	562.88	562.01	562.76
November 3, 2003	564.26	561.01	561.57	564.28	562.52	564.27	564.31	562.85	563.00	561.91	562.83
December 23, 2003	564.24	560.94	561.34	564.36	562.75	564.08	564.28	563.20	563.31	562.28	563.20
January 21, 2004	564.33	(4)	561.47	564.36	562.49	564.41	564.35	562.72	(4)	561.74	562.68
February 12, 2004	563.93	561.23	561.75	564.16	562.30	563.96	563.98	562.88	(4)	561.73	562.66
March 4, 2004	564.25	561.04	561.56	564.26	562.07	564.34	564.35	562.70	562.75	561.75	562.66
April 16, 2004	564.64	559.85	561.38	564.69	561.00	564.74	564.66	562.64	562.79	561.72	562.63
May 14, 2004	564.63	559.87	561.39	564.71	560.80	564.68	564.55	562.71	562.74	561.74	562.67
June 25, 2004	564.85	560.79	561.19	564.91	560.95	564.89	564.89	562.70	562.74	561.76	562.68
July 30, 2004	565.28	560.26	560.71	565.46	561.15	565.33	565.21	562.70	561.13	561.74	562.67
August 31, 2004	565.26	560.94	561.39	565.25	561.35	565.31	565.27	562.95	563.08	562.02	562.93
September 30, 2004	565.29	561.00	561.43	565.30	561.25	565.40	565.26	562.98	562.90	562.20	562.98
October 20, 2004	564.67	561.09	561.56	564.49	561.50	564.76	564.68	562.64	562.82	561.73	562.88
November 23, 2004	564.34	560.05	560.56	564.30	561.57	564.38	564.40	562.71	561.04	561.62	562.69
December 31, 2004	564.69	561.23	561.75	564.81	561.81	564.78	564.55	562.71	562.05	561.77	562.69

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.
- (4) Buried with snow.

TABLE 2.2
WATER LEVELS (ft amsl)
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

<i>Date</i>	<i>MH2</i>	<i>MH3</i>	<i>MH6</i>	<i>OGC-1</i>	<i>MW-6</i>	<i>OGC-5</i>	<i>River North</i>	<i>OGC-6</i>	<i>MH8</i>	<i>MW-7</i>	<i>OGC-2</i>	<i>River Middle</i>	<i>OGC-7</i>
RIM Elevation	573.28	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
January 28, 2005	562.60	562.15	556.22	564.68	562.27	564.62	(2)	564.53	561.06	561.85	564.67	564.32	564.71
February 28, 2005	561.05	559.96	555.58	564.58	562.14	564.68	(7)	564.48	560.47	561.46	564.21	564.46	564.76
March 31, 2005	561.25	559.94	555.93	564.55	562.04	564.40	(2)	564.38	560.78	561.66	564.63	564.08	564.49
April 20, 2005	560.20	559.54	556.01	565.01	562.26	564.94	564.83	564.84	560.89	561.76	565.01	564.71	565.05
May 27, 2005	560.23	558.92	555.82	564.71	562.24	564.79	564.78	564.63	560.65	561.55	564.78	564.74	564.91
June 24, 2005	561.50	561.09	555.16	564.71	562.22	564.85	564.73	564.61	559.92	561.47	564.78	564.70	564.85
July 29, 2005	562.70	562.26	556.56	564.79	562.11	564.95	564.82	564.65	561.39	562.27	564.87	564.85	564.98
August 31, 2005	561.62	560.64	556.24	564.68	562.09	564.71	(2)	564.59	561.07	561.94	564.79	564.54	564.82
October 3, 2005	561.52	560.54	555.41	564.75	562.24	564.85	564.80	564.62	560.20	561.40	564.78	564.75	564.88
October 31, 2005	561.68	560.73	555.60	564.59	562.34	564.69	564.80	564.44	560.46	561.52	564.64	564.55	564.70
November 22, 2005	561.62	561.20	555.20	564.40	561.67	564.64	(2)	564.28	560.04	561.49	564.44	(2)	564.21
December 23, 2005	562.55	562.09	556.20	564.28	562.45	564.11	(2)	564.22	561.05	561.85	564.42	(2)	564.32
January 27, 2006	562.95	562.53	556.21	564.50	562.97	564.16	(2)	564.32	561.02	561.79	564.41	(2)	564.06
February 28, 2006	563.17	562.26	554.70	564.27	562.90	564.13	(2)	564.31	558.44	561.68	564.37	(2)	564.26
March 24, 2006	562.68	561.77	555.64	564.46	562.86	564.25	(2)	564.32	560.43	561.57	564.46	(2)	564.36
April 21, 2006	562.31	561.84	555.61	564.42	562.76	564.41	(2)	564.32	560.40	561.48	564.49	564.26	564.46
May 30, 2006	562.73	562.30	555.84	564.91	562.50	565.00	564.87	564.80	560.44	561.75	564.95	564.86	565.07
June 26, 2006	561.57	560.63	556.19	563.04	562.37	564.97	564.81	564.92	561.02	561.92	565.15	564.78	565.06
July 31, 2006 (8)	565.18	564.78	558.88	565.14	564.39	565.24	565.09	565.01	563.66	564.54	565.19	565.07	565.28
August 25, 2006	561.64	561.21	556.06	564.72	562.99	564.81	(2)	564.59	560.89	561.82	564.80	564.68	564.87
September 22, 2006	561.46	561.01 ⁽⁶⁾	555.95	564.88	562.76	564.73	564.70	564.72	560.51	561.99	564.94	564.67	564.88
October 31, 2006	559.98	555.62	556.01	565.03	562.58	564.96	564.82	564.87	559.95	562.09	565.06	564.66	565.03
November 29, 2006	561.35	560.85	555.93	564.30	562.48	564.25	(2)	564.18	560.73	562.01	564.40	(2)	564.35
December 29, 2006	561.52	560.42	555.93	564.46	562.98	564.36	564.82	564.31	560.80	561.89	564.53	(2)	564.49

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.
- (4) Inspection of the groundwater collection pipe valves in MH6 on November 18, 2002 identified that they were closed. The valves were opened on November 18, 2002 and the water level dropped approximately 6 feet in 10 minutes.
- (5) Buried with snow.
- (6) Believed to be erroneous reading.
- (7) Ice on pipe.
- (8) GWS down from July 7 to 31, 2006 because of closed flapper gate in upstream City manhole.

TABLE 2.2
WATER LEVELS (ft amsl)
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

<i>Date</i>	<i>OGC-3</i>	<i>MH11</i>	<i>MW-8</i>	<i>River South</i>	<i>MH12</i>	<i>OGC-8</i>	<i>OGC-4</i>	<i>MW-9</i>	<i>MH14</i>	<i>MH15</i>	<i>MH16</i>
RIM Elevation		572.11			572.37				574.30	575.84	574.82
TOC Elevation (ft amsl)	573.35		574.37	568.46		574.01	574.66	576.23			
January 28, 2005	564.77	561.33	561.82	564.69	561.92	564.79	564.90	562.75	(4)	561.01	562.71
February 28, 2005	564.84	560.74	561.25	564.79	562.05	564.88	564.94	562.78	(4)	561.55	562.77
March 31, 2005	564.54	561.06	561.60	564.56	562.11	564.59	564.65	563.12	563.26	562.21	563.11
April 20, 2005	565.13	561.15	561.65	565.15	562.26	565.19	565.21	563.21	562.72	562.28	563.20
May 27, 2005	564.99	561.13	561.42	565.02	562.29	565.08	565.08	563.12	563.25	562.19	563.11
June 24, 2005	564.98	560.18	560.76	564.92	562.40	565.06	565.00	562.85	562.93	561.91	562.82
July 29, 2005	565.09	561.17	562.15	565.15	562.51	565.14	561.33	562.88	563.03	561.98	562.87
August 31, 2005	564.88	561.31	561.85	564.88	562.75	564.90	564.96	562.91	563.01	561.98	562.86
October 3, 2005	564.99	560.43	560.95	565.11	562.90	565.07	564.97	563.20	563.26	562.24	563.13
October 31, 2005	564.83	560.71	561.25	565.00	563.15	564.96	564.82	563.39	563.50	562.43	563.35
November 22, 2005	564.26	560.31	561.00	564.18	563.29	564.26	564.35	563.53	563.69	562.25	563.53
December 23, 2005	564.35	561.30	561.84	564.26	563.46	564.32	564.48	563.50	563.67	562.60	563.52
January 27, 2006	564.34	561.26	561.76	564.36	563.61	564.42	564.42	563.90	564.08	563.02	563.92
February 28, 2006	564.32	558.38	561.23	564.29	563.73	564.34	564.38	563.94	564.09	563.02	563.96
March 24, 2006	564.39	560.60	561.16	564.44	563.47	564.45	564.50	563.83	564.02	562.96	563.88
April 21, 2006	564.54	560.63	561.15	564.64	563.49	564.60	564.55	563.65	563.77	562.68	563.61
May 30, 2006	565.18	560.28	561.03	565.24	563.61	565.26	565.25	563.48	563.54	562.53	563.44
June 26, 2006	565.12	561.26	561.75	565.13	563.70	565.15	565.19	563.41	563.52	562.43	563.37
July 31, 2006 (5)	565.44	564.03	564.30	565.45	563.92	565.49	565.45	564.08	564.20	563.15	564.07
August 25, 2006	564.98	561.10	561.57	565.10	563.98	565.26	561.81	563.38	564.62	562.43	563.42
September 22, 2006	564.94	559.81	561.20	565.04	564.29	565.01	564.95	562.73	562.83	561.67	562.54
October 31, 2006	565.11	558.19	561.78	565.07	564.77	565.14	565.16	564.40	564.51	563.36	564.36
November 29, 2006	564.42	560.54	561.69	564.41	564.87	566.44	564.50	562.10	561.27	559.66	561.85
December 29, 2006	564.55	560.96	561.46	564.54	561.89	564.64	564.64	561.90	561.95	560.86	561.71

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.
- (4) Buried with snow.
- (5) Buried with snow.

TABLE 2.2

Date	WATER LEVELS (ft amsl) GRATWICK-RIVERSIDE PARK SITE NORTH TONAWANDA, NEW YORK											
	MH2	MH3	MH6	OGC-1	MW-6	OGC-5	River North	OGC-6	MH8	MW-7	OGC-2	River Middle
RIM Elevation	573.28	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
January 26, 2007	561.39	560.92	556.04	564.62	562.78	564.75	(2)	563.79	560.89	562.06	564.67	564.46
February 27, 2007	561.53	560.57	556.23	564.32	562.49	564.25	(2)	564.15	561.07	561.96	564.35	(7)
March 30, 2007	560.25	559.45	556.24	564.49	562.30	564.40	(2)	564.27	561.09	562.05	564.46	564.28
April 30, 2007	560.99	559.39	556.31	564.97	562.62	564.97	564.82	564.78	561.14	562.20	564.96	564.78
May 25, 2007	560.85	559.85	556.12	564.67	562.48	565.73	(2)	564.54	561.02	562.05	564.75	564.67
June 29, 2007	560.85	558.83	556.45	564.70	562.32	564.78	(2)	564.54	561.26	562.16	564.81	564.64
July 25, 2007	561.49	560.54	556.24	564.43	562.13	564.55	(2)	564.26	561.02	561.94	564.47	564.41
August 31, 2007	561.10	559.62	556.22	564.43	561.93	564.56	(2)	564.29	561.04	561.95	564.55	564.44
September 27, 2007	561.49	561.05	556.02	564.44	561.86	564.44	(2)	564.34	560.47	562.01	564.58	564.27
October 31, 2007	561.57	560.69	556.17	564.08	562.02	563.88	(2)	564.01	561.08	562.00	564.16	(2)
November 30, 2007	561.59	560.58	555.84	564.25	562.22	564.03	(2)	564.09	560.68	561.80	564.42	(2)
December 31, 2007	561.18	559.69	555.58	564.29	562.48	564.07	(2)	564.09	559.37	561.88	564.28	(2)
January 28, 2008	561.48	559.46	556.14	564.22	562.68	563.99	(2)	564.13	560.99	561.95	564.25	563.68
February 29, 2008	561.48	560.45	555.99	564.67	562.38	564.68	(2)	564.56	560.02	562.06	564.75	564.50
March 31, 2008	561.71	560.74	556.10	564.93	562.33	564.62	(2)	564.58	560.06	562.54	564.81	564.48
April 25, 2008	561.85	559.67	556.27	564.71	562.73	564.71	(2)	564.59	561.10	562.07	564.78	564.64
May 29, 2008	562.00	559.26	556.65	564.72	562.66	564.73	(2)	564.59	561.39	562.28	564.77	564.75
June 25, 2008	562.57	559.54	557.84	564.82	562.79	564.79	564.83	564.71	562.66	563.49	564.88	564.72
July 31, 2008	562.69	561.02	560.18	564.94	563.27	565.73	564.73	564.72	563.00	563.86	565.03	564.69
August 27, 2008	565.69	565.29	559.36	564.58	565.10	564.46	564.47	564.42	564.13	564.95	564.71	564.42
September 26, 2008	562.21	559.22	558.36	564.54	563.42	564.51	(2)	564.40	563.21	564.07	564.70	564.34
October 30, 2008	561.67	560.08	557.64	564.73	562.97	564.51	(2)	564.46	562.57	563.49	564.69	564.37
November 22, 2008	561.61	561.19	557.41	564.30	562.82	564.04	(2)	564.12	562.36	563.27	564.32	(2)
December 31, 2008	566.56	565.53	560.22	564.63	566.09	564.56	(2)	564.48	564.91	565.70	564.68	564.18

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.
- (4) Inspection of the groundwater collection pipe valves in MH6 on November 18, 2002 identified that they were closed. The valves were opened on November 18, 2002 and the water level dropped approximately 6 feet in 10 minutes.
- (5) Buried with snow.
- (6) Believed to be erroneous reading.
- (7) Ice on pipe.
- (8) GWS down from July 7 to 31, 2006 because of closed flapper gate in downstream City manhole.

TABLE 2.2

Date	WATER LEVELS (ft amsl)										
	GRATWICK-RIVERSIDE PARK SITE										
	NORTH TONAWANDA, NEW YORK										
	OGC-3	MH11	MW-8	South River	MH12	OGC-8	OGC-4	MW-9	MH14	MH15	MH16
RIM Elevation		572.11			572.37				574.30	575.84	574.82
TOC Elevation (ft amsl)	573.35		574.37	568.46		574.01	574.66	576.23			
January 26, 2007	564.89	561.09	561.73	564.96	560.86	564.99	565.49	563.41	563.52	562.36	563.39
February 27, 2007	564.43	561.16	561.86	564.46	559.97	564.47	564.47	562.64	562.77	561.73	562.62
March 30, 2007	564.58	561.36	561.85	564.65	560.20	564.67	564.64	562.66	561.87	558.93	561.72
April 30, 2007	565.20	561.29	561.77	565.26	559.05	565.26	565.22	562.13	562.22	561.13	562.05
May 25, 2007	564.89	561.12	561.61	564.98	560.04	565.00	564.94	562.10	562.20	561.14	563.09
June 29, 2007	564.90	561.39	561.79	564.98	560.14	565.00	564.95	562.12	562.17	561.18	562.08
July 25, 2007	564.65	561.18	561.55	564.79	560.16	564.76	564.61	562.03	562.13	561.07	561.98
August 31, 2007	564.72	561.28	561.73	564.80	560.23	564.84	564.76	562.05	561.54	561.07	562.01
September 27, 2007	564.65	559.56	561.79	564.48	560.40	561.53	564.66	562.05	562.18	561.09	562.01
October 31, 2007	564.09	561.36	561.86	564.06	560.56	564.12	564.12	562.09	562.21	561.14	562.10
November 30, 2007	564.33	561.00	562.30	564.25	560.68	564.35	564.42	562.05	561.67	559.55	561.98
December 31, 2007	564.28	558.54	561.56	564.20	560.78	564.53	564.35	562.16	562.19	561.12	562.01
January 28, 2008	564.15	561.30	561.80	564.01	560.93	564.20	564.23	562.78	562.89	561.82	562.74
February 29, 2008	564.84	559.51	561.89	564.80	560.69	564.90	564.90	562.17	562.24	561.20	562.11
March 31, 2008	564.61	558.99	561.89	564.84	560.76	564.98	564.97	562.24	561.58	561.18	562.08
April 25, 2008	564.94	561.39	561.90	565.05	560.84	565.02	564.92	562.56	562.70	561.65	562.57
May 29, 2008	564.95	561.50	561.82	565.01	560.92	565.01	564.96	562.14	562.22	561.16	562.07
June 25, 2008	565.00	562.83	563.28	565.04	561.05	565.07	564.97	562.11	562.18	561.00	561.82
July 31, 2008	562.69	563.53	566.07	565.01	561.24	565.09	565.07	561.97	562.07	560.98	561.84
August 27, 2008	564.64	564.16	564.61	564.79	561.39	564.77	564.60	564.15	564.34	563.24	564.16
September 26, 2008	564.71	563.53	564.03	564.71	561.55	564.78	564.74	562.02	561.82	559.10	561.59
October 30, 2008	564.67	562.85	563.43	564.71	561.74	564.77	564.71	561.83	562.70	561.92	560.06
November 22, 2008	564.26	562.75	563.29	564.20	561.79	564.30	564.35	561.76	561.28	561.23	561.71
December 31, 2008	564.70	564.91	565.33	564.65	562.09	564.86	564.78	564.71	565.03	563.97	564.59

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.
- (4) Buried with snow.
- (5) Buried with snow.

TABLE 2.2

Date	WATER LEVELS (ft amsl) GRATWICK-RIVERSIDE PARK SITE NORTH TONAWANDA, NEW YORK												River Middle
	MH2	MH3	MH6	OGC-1	MW-6	OGC-5	North	OGC-6	MH8	MW-7	OGC-2		
RIM Elevation	573.28	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
January 30, 2009	568.71	570.75	560.62	564.42	566.89	564.02	(2)	564.31	562.42	565.96	564.56	(7)	564.21
February 25, 2009	568.77	571.27	560.22	564.50	567.20	563.88	(2)	564.37	562.52	564.31	564.58	564.11	564.33
March 27, 2009	565.45	559.49	558.31	564.48	564.81	564.41	(2)	564.38	561.18	562.90	564.61	(2)	564.52
April 30, 2009	563.46	560.06	558.36	564.84	563.55	564.85	564.80	564.73	563.14	564.03	564.91	564.74	564.97
May 27, 2009	561.36	560.29	558.18	564.80	563.18	564.84	(2)	564.69	563.04	563.93	564.90	564.78	564.94

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.
- (4) Inspection of the groundwater collection pipe valves in MH6 on November 18, 2002 identified that they were closed. The valves were opened on November 18, 2002 and the water level dropped approximately 6 feet in 10 minutes.
- (5) Buried with snow.
- (6) Believed to be erroneous reading.
- (7) Ice on pipe.
- (8) GWS down from July 7 to 31, 2006 because of closed flapper gate in downstream City manhole.

TABLE 2.2

<i>Date</i>	WATER LEVELS (ft amsl) GRATWICK-RIVERSIDE PARK SITE NORTH TONAWANDA, NEW YORK <i>River</i>										
	<i>OGC-3</i>	<i>MH11</i>	<i>MW-8</i>	<i>South</i>	<i>MH12</i>	<i>OGC-8</i>	<i>OGC-4</i>	<i>MW-9</i>	<i>MH14</i>	<i>MH15</i>	<i>MH16</i>
RIM Elevation		572.11			572.37				574.30	575.84	574.82
TOC Elevation (ft amsl)	573.35		574.37	568.46		574.01	574.66	576.23			
January 30, 2009	564.24	564.96	565.25	564.15	562.22	564.29	564.34	563.48	561.59	559.58	563.21
February 25, 2009	564.36	559.64	562.05	564.27	562.29	564.41	564.46	563.30	561.88	561.02	563.44
March 27, 2009	564.57	561.11	561.66	564.48	562.03	564.63	564.71	562.67	561.37	560.58	562.65
April 30, 2009	565.09	563.38	563.93	565.14	562.12	565.15	565.07	563.36	563.64	562.60	563.40
May 27, 2009	565.10	563.45	564.03	565.20	562.17	565.20	565.09	564.58	564.68	563.82	564.63

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.
- (4) Buried with snow.
- (5) Buried with snow.

TABLE 2.3

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

<i>Date Monitored</i>		<u>5/11/2001</u>		<u>5/18/2001</u>		<u>5/25/2001</u>		<u>6/1/2001</u>		<u>6/8/2001</u>		<u>6/15/2001</u>	
		<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>
<i>Monitoring Location</i>													
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	

<i>Date Monitored</i>		<u>6/22/2001</u>		<u>6/29/2001</u>		<u>7/31/2001</u>		<u>8/20/2001</u>		<u>9/28/2001</u>		<u>10/22/2001</u>	
		<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>
<i>Monitoring Location</i>													
Outer	River North	564.90	Inward	564.52	Inward	564.66	Inward	564.69	Inward	564.68	Inward	564.36 (2)	Inward
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	564.36 (2)	Outward
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. Water level shown is River South Water level minus 0.25 feet.
 (3) Valves in MH6 were opened on November 18, 2002.
 (4) Snow covered well, could not locate.
 NM - Not Measured
 NA - Not Applicable

TABLE 2.3

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

<i>Date Monitored</i>		<u>11/27/2001</u>		<u>12/20/2001</u>		<u>1/29/2002</u>		<u>2/11/2002</u>		<u>3/25/2002</u>		<u>4/24/2002</u>	
		<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>
<i>Monitoring Location</i>													
Outer	River North	563.80 (2)	Inward	564.69	Inward	563.89	Inward	564.03	Inward	563.90 (2)	Inward	564.61	Inward
Inner	MH2	561.45		560.96		560.74		560.80		560.55		562.54	
Outer	River North	563.80 (2)	Outward	564.69	Inward	563.89	Inward	564.03	Outward	563.90 (2)	Inward	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	

<i>Date Monitored</i>		<u>5/21/2002</u>		<u>6/20/2002</u>		<u>7/18/2002</u>		<u>8/6/2002</u>		<u>9/12/2002</u>		<u>10/30/2002</u>	
		<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>
<i>Monitoring Location</i>													
Outer	River North	564.76	Inward	564.58	Inward	564.89	Inward	564.65	Inward	565.04	Inward	563.91 (2)	Inward
Inner	MH2	561.74		561.67		561.46		561.26		561.60		561.63	
Outer	River North	564.76	Inward	564.58	Outward	564.89	Outward	564.65	Outward	565.04	Outward	563.91 (2)	Outward
Inner	MH6	564.10		565.58		564.99		565.89		565.60		566.24	
Outer	River Middle	564.66	Inward	564.68	Inward	564.90	Inward	564.59	Inward	564.95	Inward	563.75	Inward
Inner	MH8	560.05		560.68		560.79		561.05		561.10		561.07	
Outer	River South	565.07	Inward	564.88	Inward	565.22	Inward	564.90	Inward	565.25	Inward	564.16	Inward
Inner	MH12	560.84		561.04		560.95		561.07		561.09		561.31	

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. Water level shown is River South Water level minus 0.25 feet.
 (3) Valves in MH6 were opened on November 18, 2002.
 (4) Snow covered well, could not locate.
 NM - Not Measured
 NA - Not Applicable

TABLE 2.3

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

<i>Date Monitored</i>		<u>11/21/2002</u>		<u>12/11/2002</u>		<u>1/16/2003</u>		<u>2/25/2003</u>		<u>3/14/2003</u>		<u>4/14/2003</u>	
		<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>
<i>Monitoring Location</i>													
Outer	River North	563.90 (2)	Inward	563.89 (2)	Inward	563.86 (2)	Inward	563.96 (2)	Inward	563.86 (2)	Inward	564.30	Inward
Inner	MH2	561.12		561.55		561.65		561.58		561.65		561.68	
Outer	River North	563.90 (2)	Inward	563.89 (2)	Inward	563.86 (2)	Inward	563.96 (2)	Inward	563.86 (2)	Inward	564.30	Inward
Inner	MH6	554.47 (3)		555.09		556.15		555.74		555.75		554.54	
Outer	River Middle	563.71	Inward	563.72	Inward	563.52	Inward	563.34	Inward	563.24	Inward	564.24	Inward
Inner	MH8	558.03		559.95		561.04		560.60		560.61		558.65	
Outer	River South	564.15	Inward	564.14	Inward	564.11	Inward	564.21	Inward	564.11	Inward	564.45	Inward
Inner	MH12	561.44		561.45		561.83		561.26		561.54		561.56	

<i>Date Monitored</i>		<u>5/8/2003</u>		<u>6/19/2003</u>		<u>7/21/2003</u>		<u>8/28/2003</u>		<u>9/30/2003</u>		<u>10/30/2003</u>	
		<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>
<i>Monitoring Location</i>													
Outer	River North	564.61	Inward	564.78	Inward	564.49	Inward	564.64	Inward	564.83 (2)	Inward	564.78 (2)	Inward
Inner	MH2	561.52		562.26		561.21		561.65		561.65		561.48	
Outer	River North	564.61	Inward	564.78	Inward	564.49	Inward	564.64	Inward	564.83 (2)	Inward	564.78 (2)	Inward
Inner	MH6	555.93		556.02		556.06		554.61		554.61		554.98	
Outer	River Middle	564.27	Inward	564.66	Inward	564.44	Inward	564.6	Inward	564.6	Inward	564.63	Inward
Inner	MH8	560.76		560.85		560.89		558.52		558.52		559.77	
Outer	River South	564.61	Inward	564.96	Inward	564.78	Inward	564.91	Inward	565.08	Inward	565.03	Inward
Inner	MH12	561.61		561.94		562.03		562.19		562.26		562.25	

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. Water level shown is River South Water level minus 0.25 feet.
 (3) Valves in MH6 were opened on November 18, 2002.
 (4) Snow covered well, could not locate.
 NM - Not Measured
 NA - Not Applicable

TABLE 2.3

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

<i>Date Monitored</i>		<u>11/21/2003</u>		<u>12/11/2003</u>		<u>1/16/2004</u>		<u>2/25/2004</u>		<u>3/14/2004</u>		<u>4/14/2004</u>	
		<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>
<i>Monitoring Location</i>													
Outer	River North	564.03 (2)	Inward	564.11 (2)	Inward	564.11 (2)		563.91 (2)		564.01 (2)	Inward	564.44 (2)	Inward
Inner	MH2	561.53		561.08		(4)		(4)		561.33		560.05	
Outer	River North	564.03 (2)	Inward	564.11 (2)	Inward	564.11 (2)	Inward	563.91 (2)	Inward	564.01 (2)	Inward	564.44 (2)	Inward
Inner	MH6	555.94		555.82		555.84		556.12		555.9		554.91	
Outer	River Middle	564.36	Inward	564.11 (2)	Inward	564.11 (2)	Inward	563.91 (2)	Inward	564.01 (2)	Inward	564.43	Inward
Inner	MH8	560.76		560.67		560.7		560.95		560.75		559.59	
Outer	River South	564.28	Inward	564.36	Inward	564.36	Inward	564.16	Inward	564.26	Inward	564.69	Inward
Inner	MH12	562.52		562.75		562.49		562.3		562.07		561	

<i>Date Monitored</i>		<u>5/14/2004</u>		<u>6/25/2004</u>		<u>7/30/2004</u>		<u>8/31/2004</u>		<u>9/30/2004</u>		<u>10/20/2004</u>	
		<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>
<i>Monitoring Location</i>													
Outer	River North	564.55	Inward	564.68	Inward	565.20	Inward	564.98	Inward	565.00	Inward	564.45	Inward
Inner	MH2	560.17		561.64		561.79		561.37		561.48		561.65	
Outer	River North	564.55	Inward	564.68	Inward	565.20	Inward	564.98	Inward	565.00	Inward	564.45	Inward
Inner	MH6	554.56		555.74		555.24		555.83		555.60		555.96	
Outer	River Middle	564.48	Inward	564.56	Inward	565.16	Inward	564.93	Inward	565.05	Inward	564.41	Inward
Inner	MH8	559.45		560.50		560.04		560.67		560.71		560.82	
Outer	River South	564.71	Inward	564.91	Inward	565.46	Inward	565.25	Inward	565.30	Inward	564.49	Inward
Inner	MH12	560.80		560.95		561.15		561.35		561.25		561.50	

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. Water level shown is River South Water level minus 0.25 feet.
 (3) Valves in MH6 were opened on November 18, 2002.
 (4) Snow covered well, could not locate.
 NM - Not Measured
 NA - Not Applicable

TABLE 2.3
SUMMARY OF HORIZONTAL GRADIENTS
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

Date Monitored		11/23/2004		12/31/2004		1/28/2005		2/28/2005		3/31/2005		4/29/2005	
		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
<i>Monitoring Location</i>													
Outer	River North	564.05 (2)	Inward	564.68	Inward	564.44 (2)	Inward	(6)	NA	564.31 (2)	Inward	564.83	Inward
Inner	MH2	561.50		561.60		562.60		561.05		561.25		560.20	
Outer	River North	564.05 (2)	Inward	564.68	Inward	564.44 (2)	Inward	(6)	NA	564.31 (2)	Inward	564.83	Inward
Inner	MH6	554.95		556.19		556.22		555.58		555.93		556.01	
Outer	River Middle	564.18 (5)	Inward	564.56	Inward	564.32	Inward	564.46	Inward	564.08	Inward	564.71	Inward
Inner	MH8	559.77		561.02		561.06		560.47		560.78		560.89	
Outer	River South	564.30	Inward	564.81	Inward	564.69	Inward	564.79	Inward	564.56	Inward	565.15	Inward
Inner	MH12	561.57		561.81		561.92		562.05		562.11		562.26	

Date Monitored		5/27/2005		6/24/2005		7/29/2005		8/31/2005		10/3/2005		10/31/2005	
		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
<i>Monitoring Location</i>													
Outer	River North	564.78	Inward	564.73	Inward	564.82	Inward	564.63(2)	Inward	564.80	Inward	564.80	Inward
Inner	MH2	560.23		561.50		562.70		561.62		561.52		561.68	
Outer	River North	564.78	Inward	564.73	Inward	564.82	Inward	564.63(2)	Inward	564.80	Inward	564.80	Inward
Inner	MH6	555.82		555.16		556.56		556.24		555.41		555.60	
Outer	River Middle	564.74	Inward	564.70	Inward	564.85	Inward	564.54	Inward	564.75	Inward	564.55	Inward
Inner	MH8	560.65		559.92		561.39		561.07		560.20		560.46	
Outer	River South	565.02	Inward	564.92	Inward	565.15	Inward	564.88	Inward	565.11	Inward	565.00	Inward
Inner	MH12	562.29		562.40		562.51		562.75		562.90		563.15	

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. Water level shown is River South Water level minus 0.25 feet.
 (3) Valves in MH6 were opened on November 18, 2002.
 (4) Snow covered well, could not locate.
 NM - Not Measured
 NA - Not Applicable

TABLE 2.3

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

<i>Date Monitored</i>		<u>11/22/2005</u>		<u>12/23/2005</u>		<u>01/27/2006</u>		<u>02/28/2006</u>		<u>03/24/2006</u>		<u>04/21/2006</u>	
		<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>
<i>Monitoring Location</i>													
Outer	River North	563.93 (2)	Inward	564.01 (2)	Inward	564.11 (2)	Inward	564.04 (2)	Inward	564.19 (2)	Inward	564.39 (2)	Inward
Inner	MH2	561.62		562.55		562.95		563.17		562.68		562.31	
Outer	River North	563.93 (2)	Inward	564.01 (2)	Inward	564.11 (2)	Inward	564.04 (2)	Inward	564.19 (2)	Inward	564.39 (2)	Inward
Inner	MH6	555.20		556.20		556.21		554.70		555.64		555.61	
Outer	River Middle	564.05 (5)	Inward	564.13 (5)	Inward	564.23 (5)	Inward	564.16 (5)	Inward	564.31 (5)	Inward	564.26	Inward
Inner	MH8	560.64		561.05		561.02		558.44		560.43		560.40	
Outer	River South	564.18	Inward	564.26	Inward	564.36	Inward	564.29	Inward	564.44	Inward	564.64	Inward
Inner	MH12	563.29		563.46		563.61		563.73		563.47		563.49	
		<u>05/30/2006</u>		<u>06/26/2006</u>		<u>07/31/2006</u>		<u>08/25/2006</u>		<u>09/22/2006</u>		<u>10/31/2006</u>	
		<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>	<i>Water Level (ft amsl)</i>	<i>Gradient Direction</i>
<i>Monitoring Location</i>													
Outer	River North	564.87	Inward	564.81	Inward	565.09	Outward	564.85 (2)	Inward	564.70	Inward	564.82	Inward
Inner	MH2	562.73		561.57		565.18		561.64		561.46		559.98	
Outer	River North	564.87	Inward	564.81	Inward	565.09	Inward	564.85 (2)	Inward	564.70	Inward	564.82	Inward
Inner	MH6	555.84		556.19		556.19		556.06		555.95		555.62	
Outer	River Middle	564.86	Inward	564.78	Inward	565.07	Inward	564.68	Inward	564.67	Inward	564.66	Inward
Inner	MH8	560.44		561.02		563.66		561.02		561.02		559.95	
Outer	River South	565.24	Inward	565.13	Inward	565.45	Inward	565.10	Inward	565.04	Inward	565.07	Inward
Inner	MH12	563.61		563.70		563.92		563.98		564.29		564.77	

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. Water level shown is River South Water level minus 0.25 feet.
 (3) Valves in MH6 were opened on November 18, 2002.
 (4) Snow covered well, could not locate.
 (5) River level too low to obtain a measurement. Water level shown is River South water level minus 0.13 feet.
 NM - Not Measured
 NA - Not Applicable

TABLE 2.3
SUMMARY OF HORIZONTAL GRADIENTS
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

		<u>11/29/2006</u>		<u>12/29/2006</u>		<u>01/26/2007</u>		<u>02/27/2007</u>		<u>03/30/2007</u>		<u>04/30/2007</u>	
		<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>	<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>	<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>	<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>	<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>	<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>
<i>Monitoring Location</i>													
Outer	River North	564.16	Inward	564.82	Inward	564.71 (2)	Inward	564.21 (2)	Inward	564.40 (2)	Inward	564.82	Inward
Inner	MH2	561.35		561.52		561.39		561.53		560.25		560.99	
Outer	River North	564.16	Inward	564.82	Inward	564.71 (2)	Inward	564.21 (2)	Inward	564.40 (2)	Inward	564.82	Inward
Inner	MH6	555.93		555.93		556.04		556.23		556.24		556.31	
Outer	River Middle	564.28	Inward	564.41 (1)	Inward	564.46	Inward	564.33 (1)	Inward	564.28	Inward	564.78	Inward
Inner	MH8	560.73		560.80		560.89		561.07		561.09		561.14	
Outer	River South	564.41	Outward	564.54	Inward	564.96	Inward	564.46	Inward	564.65	Inward	565.26	Inward
Inner	MH12	564.87		561.89		560.86		559.97		560.20		559.85	
		<u>05/25/2007</u>		<u>06/29/2007</u>		<u>07/25/2007</u>		<u>08/31/2007</u>		<u>09/27/2007</u>		<u>10/31/2007</u>	
		<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>	<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>	<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>	<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>	<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>	<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>
<i>Monitoring Location</i>													
Outer	River North	564.73 (2)	Inward	564.73 (2)	Inward	564.54 (2)	Inward	564.55(2)	Inward	564.23 (2)	Inward	563.81 (2)	Inward
Inner	MH2	560.85		560.85		561.49		561.10		561.49		561.57	
Outer	River North	564.73 (2)	Inward	564.73 (2)	Inward	564.54 (2)	Inward	564.55 (2)	Inward	564.23 (2)	Inward	563.81 (2)	Inward
Inner	MH6	556.12		556.45		556.24		556.24		556.02		556.17	
Outer	River Middle	564.67	Inward	564.64	Inward	564.41	Inward	564.44	Inward	564.27	Inward	563.98 (1)	Inward
Inner	MH8	561.02		561.26		561.02		561.04		560.47		561.08	
Outer	River South	564.98	Inward	564.98	Inward	564.79	Inward	564.80	Inward	564.48	Inward	564.06	Inward
Inner	MH12	560.04		560.14		560.16		560.23		560.40		560.56	

Notes:

(1) River level too low to obtain a measurement. Water level shown is River South water level minus 0.13 feet.

(2) River level too low to obtain a measurement at the monitoring location. Water level shown is River South Water level minus 0.25 feet.

TABLE 2.3

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

		11/30/2007		12/31/2007		01/28/2008		02/29/2008		03/31/2008		04/28/2008	
		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
<i>Monitoring Location</i>													
Outer	River North	564.00 (2)	Inward	563.95 (2)	Inward	563.76 (2)	Inward	564.55 (2)	Inward	564.59 (2)	Inward	564.80 (2)	Inward
Inner	MH2	561.59		561.18		561.48		561.48		561.71		561.85	
Outer	River North	564.00 (2)	Inward	563.95 (2)	Inward	567.76 (2)	Inward	564.55 (2)	Inward	564.59 (2)	Inward	564.80 (2)	Inward
Inner	MH6	555.84		555.58		556.14		555.99		556.10		556.27	
Outer	River Middle	564.12 (1)	Inward	564.07 (1)	Inward	563.68	Inward	564.50	Inward	564.48	Inward	564.64	Inward
Inner	MH8	560.68		559.37		560.99		560.02		560.06		561.10	
Outer	River South	564.25	Inward	564.20	Inward	564.01	Inward	564.80	Inward	564.84	Inward	565.05	Inward
Inner	MH12	560.68		560.78		560.93		560.69		560.76		560.84	
		05/29/2008		06/25/2008		07/31/2008		08/27/2008		09/26/2008		10/30/2008	
		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
<i>Monitoring Location</i>													
Outer	River North	564.76 (2)	Inward	564.83	Inward	564.73	Inward	564.47	Outward	564.46 (2)	Inward	564.46 (2)	Inward
Inner	MH2	562.00		562.57		562.69		565.69		562.21		561.67	
Outer	River North	564.76 (2)	Inward	564.83	Inward	564.73	Inward	564.47	Inward	564.46 (2)	Inward	564.46 (2)	Inward
Inner	MH6	556.65		557.84		560.18		559.36		558.36		557.64	
Outer	River Middle	564.75	Inward	564.72	Inward	564.69	Inward	564.42	Inward	564.34	Inward	564.37	Inward
Inner	MH8	561.39		562.66		563.00		564.13		563.21		562.57	
Outer	River South	565.01	Inward	565.04	Inward	565.01	Inward	564.79	Inward	564.71	Inward	564.71	Inward
Inner	MH12	560.92		561.05		561.24		561.39		565.55		561.74	

Notes:

- (1) River level too low to obtain a measurement. Water level shown is River South water level minus 0.13 feet.
 (2) River level too low to obtain a measurement at the monitoring location. Water level shown is River South Water level minus 0.25 feet.

TABLE 2.3
SUMMARY OF HORIZONTAL GRADIENTS
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

		<u>11/22/2008</u>		<u>12/31/2008</u>		<u>01/29/2009</u>		<u>02/25/2009</u>		<u>03/27/2009</u>		<u>04/30/2009</u>	
		<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>	<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>	<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>	<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>	<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>	<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>
<i>Monitoring Location</i>													
Outer	River North	563.95 (2)	Inward	564.40 (2)	Outward	563.90 (2)	Outward	564.02 (2)	Outward	564.23 (2)	Outward	564.80	Inward
Inner	MH2	561.61		566.56		568.71		568.77		565.45		563.46	
Outer	River North	563.95 (2)	Inward	564.40 (3)	Inward	563.90 (2)	Inward	564.02 (2)	Inward	564.23 (2)	Inward	564.80	Inward
Inner	MH6	557.41		560.22		560.62		560.22		558.31		558.36	
Outer	River Middle	564.07 (1)	Inward	564.18	Outward	564.02 (1)	Inward	564.11	Inward	564.35 (1)	Inward	564.74	Inward
Inner	MH8	562.36		564.91		562.42		562.52		561.18		563.14	
Outer	River South	564.20	Inward	564.65	Inward	564.15	Inward	564.27	Inward	564.48	Inward	565.14	Inward
Inner	MH12	561.79		562.09		562.22		562.29		562.03		562.12	

		<u>05/27/2009</u>	
		<i>Water Level</i> <i>(ft amsl)</i>	<i>Gradient</i> <i>Direction</i>
<i>Monitoring Location</i>			
Outer	River North	564.95 (2)	Inward
Inner	MH2	561.36	
Outer	River North	564.95 (3)	Inward
Inner	MH6	558.18	
Outer	River Middle	564.78	Inward
Inner	MH8	563.08	
Outer	River South	565.20	Inward
Inner	MH12	562.17	

Notes:

- (1) River level too low to obtain a measurement. Water level shown is River South water level minus 0.13 feet.
 (2) River level too low to obtain a measurement at the monitoring location. Water level shown is River South Water level minus 0.25 feet.

TABLE 2.4

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

Date Monitored		6/15/2001		6/22/2001		6/29/2001		7/31/2001		8/20/2001		9/28/2001		10/22/2001	
Monitoring Location		Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient
		(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	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	
Upper	MH15	NM		NM		NM		NM		NM		NM		NM	

Date Monitored		11/27/2001		12/20/2001		1/29/2002		2/11/2002		3/25/2002		4/24/2002		5/21/2002	
Monitoring Location		Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient
		(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction
Upper	MH3	560.94	Upward	560.50	Upward	560.15	Upward	560.28	Upward	560.10	Upward	562.05	Downward	561.28	Upward
Lower	MW-6	561.88		561.83		561.83		561.73		561.72		561.88		561.97	
Upper	MH8	560.45	Upward	559.75	Upward	560.98	Upward	561.06	Upward	560.65	Upward	561.13	Upward	560.05	Upward
Lower	MW-7	561.36		561.25		561.89		561.50		561.60		561.95		561.38	
Upper	MH11	559.51	Upward	561.31	Downward	NM	—	561.23	Upward	560.97	Upward	561.41	Upward	560.35	Upward
Lower	MW-8	561.30		560.73		561.91		561.93		561.60		561.95		560.91	
Upper	MH14	561.87	Downward	561.89	Downward	562.53	Downward	562.18	Upward	562.77	Downward	563.09	Downward	563.25	Downward
Lower	MW-9	561.71		561.77		562.31		562.52		562.64		562.96		563.11	
Upper Average ⁽¹⁾	MH15	NM		NM		NM		NM		NM		NM		562.17	Upward
														562.89	Upward

Notes:

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

(1) - Distance weighted for MH14 (two thirds) and MH15 (one third).

TABLE 2.4
SUMMARY OF VERTICAL GRADIENTS
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

<i>Date Monitored</i>		<i>6/20/2002</i>		<i>7/18/2002</i>		<i>8/6/2002</i>		<i>9/12/02</i>		<i>10/30/02</i>		<i>11/21/02</i>		<i>12/11/02</i>	
<i>Monitoring Location</i>		<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>
		<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>
Upper	MH3	561.24	Upward	560.99	Upward	560.79	Upward	561.14	Upward	561.21	Upward	560.67	Upward	561.08	Upward
Lower	MW-6	561.92		561.89		561.92		561.82		561.97		562.05		562.04	
Upper	MH8	560.68	Upward	560.79	Upward	561.05	Upward	561.10	Upward	561.07	Upward	558.03	Upward	559.95	Upward
Lower	MW-7	561.54		561.65		561.93		561.99		561.95		561.41		561.25	
Upper	MH11	560.98	Upward	561.07	Upward	561.33	Upward	561.34	Upward	561.36	Upward	561.49	Downward	561.51	Downward
Lower	MW-8	561.50		561.60		561.88		561.91		561.95		560.99		560.73	
Upper	MH14	562.98	Downward	561.83	Upward	562.08	Upward	562.11	Upward	562.68	Downward	562.88	Downward	563.07	Downward
Lower	MW-9	562.91		562.84		562.75		562.66		562.57		562.74		562.91	
Upper	MH15	562.00	Upward	561.93	Upward	561.86	Upward	561.75	Upward	561.62	Upward	561.82	Upward	562.01	Upward
Average ⁽¹⁾		562.65	Upward	561.86	Upward	562.01	Upward	561.99	Upward	562.33	Upward	562.53	Upward	562.72	Upward

Notes:

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

(1) - Distance weighted for MH14 (two thirds) and MH15 (one third).

TABLE 2.4

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

Date Monitored		1/16/2003		2/25/2003		3/14/03		4/14/03		5/8/03		6/19/03	
Monitoring Location		Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient
		(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction
Upper	MH3	561.20	Upward	561.10	Upward	561.17	Upward	561.22	Upward	561.03	Upward	561.83	Upward
Lower	MW-6	562.27		561.85	Upward	561.69		562.42	Upward	562.38		562.43	Upward
Upper	MH8	561.04	Upward	560.60	Upward	560.61	Upward	558.65	Upward	560.76	Upward	560.85	Upward
Lower	MW-7	561.95		561.49	Upward	561.49		561.42	Upward	561.59		561.60	Upward
Upper	MH11	561.68	Upward	561.60	Downward	561.57	Downward	558.53	Upward	561.03	Upward	561.12	Upward
Lower	MW-8	562.00		561.48	Downward	561.46	Downward	560.98		561.56		561.56	Upward
Upper	MH14	563.37	Downward	563.07	Downward	563.09	Downward	563.54	Downward	563.26	Downward	563.41	Downward
Lower	MW-9	563.17		562.89	Downward	562.90	Downward	563.36	Downward	563.07		563.10	Downward
Upper	MH15	562.28	Upward	562.01	Upward	562.05	Upward	562.49	Upward	561.02	Upward	562.25	Upward
Average ⁽¹⁾		563.01	Upward	562.72	Upward	562.74	Upward	563.19	Upward	562.84	Upward	563.02	Upward

Date Monitored		7/21/03		8/28/03		9/30/03		10/20/03		11/03/03		12/23/03	
Monitoring Location		Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient
		(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction
Upper	MH3	560.46	Upward	561.20	Upward	561.10	Upward	561.07	Upward	561.08	Upward	559.49	Upward
Lower	MW-6	562.31		562.21	Upward	562.53	Upward	562.52	Upward	562.33		562.30	Upward
Upper	MH8	560.89	Upward	558.52	Upward	559.88	Upward	559.77	Upward	560.76	Upward	560.67	Upward
Lower	MW-7	561.74		561.29	Upward	561.35	Upward	561.17	Upward	561.12		561.48	Upward
Upper	MH11	561.10	Upward	564.37	Downward	558.68	Upward	558.66	Upward	561.01	Upward	560.94	Upward
Lower	MW-8	561.69		562.35	Downward	561.17		560.02	Upward	561.57		561.34	Upward
Upper	MH14	563.03	Downward	566.48	Downward	562.89	Downward	562.88	Downward	563.00	Downward	563.31	Downward
Lower	MW-9	562.89		566.17	Downward	562.77	Downward	562.75	Downward	562.85		563.20	Downward
Upper	MH15	561.98	Upward	566.36	Downward	562.02	Upward	562.01	Upward	561.91	Upward	562.28	Upward
Average ⁽¹⁾		562.68	Upward	566.44	Downward	562.60	Upward	562.59	Upward	562.64	Upward	562.97	Upward

Notes:

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

(1) - Distance weighted for MH14 (two thirds) and MH15 (one third).

TABLE 2.4

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

Date Monitored		01/21/04		02/12/04		03/04/04		04/16/04		05/14/04		06/25/04	
Monitoring Location		Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient
		(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction
Upper	MH3	560.33	Upward	561.08	Upward	561.13	Upward	558.78	Upward	559.71	Upward	561.21	Upward
Lower	MW-6	562.32		562.16		562.21		562.48		562.39		562.27	
Upper	MH8	560.70	Upward	560.95	Upward	560.75	Upward	559.59	Upward	559.45	Upward	560.50	Upward
Lower	MW-7	561.55		561.81		561.61		561.71		561.70		561.42	
Upper	MH11	(2)	NA	561.23	Upward	561.04	Upward	559.85	Upward	559.87	Upward	560.79	Upward
Lower	MW-8	561.47		561.75		561.56		561.38		561.39		561.19	
Average ⁽¹⁾		(2)	NA	(2)	NA	562.08	Upward	562.43	Upward	562.41	Upward	562.41	Upward
Lower	MW-9	562.72		562.68		562.70		562.64		562.71		562.70	

Date Monitored		07/30/04		08/31/04		09/30/04		10/20/04		11/23/04		12/31/04	
Monitoring Location		Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient
		(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction
Upper	MH3	561.25	Upward	560.59	Upward	560.81	Upward	561.19	Upward	561.05	Upward	560.74	Upward
Lower	MW-6	562.29		562.23		562.28		562.10		561.99		562.16	
Upper	MH8	560.04	Upward	560.67	Upward	560.71	Upward	560.82	Upward	559.77	Upward	561.02	Upward
Lower	MW-7	561.31		561.56		561.49		561.19		561.21		561.80	
Upper	MH11	560.26	Upward	560.94	Upward	561.00	Upward	561.09	Upward	560.05	Upward	561.23	Upward
Lower	MW-8	560.71		561.39		561.43		561.56		560.56		561.75	
Average ⁽¹⁾		561.33	Upward	562.73	Upward	562.67	Upward	562.46	Upward	561.23	Upward	561.96	Upward
Lower	MW-9	562.70		562.95		562.98		562.64		562.71		562.71	

Notes:

NA - Not Applicable.

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

(1) - Distance weighted for MH14 (two thirds) and MH15 (one third).

(2) - Buried with snow.

TABLE 2.4
SUMMARY OF VERTICAL GRADIENTS
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

<i>Date Monitored</i>		1/28/2005		2/28/2005		3/31/2005		4/29/2005		5/27/2005		6/24/2005	
		<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>
		<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>
<i>Monitoring Location</i>	Upper MH3	562.15	Upward	559.96	Upward	559.94	Upward	559.54	Upward	558.92	Upward	561.09	Upward
	Lower MW-6	562.27		562.14		562.04		562.26		562.24		562.22	
Upper MH8		561.06	Upward	560.47	Upward	560.78	Upward	560.89	Upward	560.65	Upward	559.92	Upward
	Lower MW-7	561.85		561.46		561.66		561.76		561.55		561.47	
Upper MH11		561.33	Upward	560.74	Upward	561.06	Upward	561.15	Upward	561.13	Upward	560.18	Upward
	Lower MW-8	561.82		561.25		561.60		561.65		561.42		560.76	
Average ⁽¹⁾		(3)	NA	(3)	NA	562.91	Upward	562.57	Upward	562.90	Upward	562.59	Upward
Lower MW-9		562.75		562.78		563.12		563.21		563.12		562.85	

<i>Date Monitored</i>		7/29/2005		8/31/2005		10/3/2005		10/31/2005		11/22/2005		12/23/2005	
		<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>
		<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>
Upper MH3		562.26	Downward	560.64	Upward	560.54	Upward	560.73	Upward	561.20	Upward	562.09	Upward
	Lower MW-6	562.11		562.09		562.24		562.34		561.67		562.45	
Upper MH8		561.39	Upward	561.07	Upward	560.20	Upward	560.46	Upward	560.04	Upward	561.05	Upward
	Lower MW-7	562.27		561.94		561.40		561.52		561.49		561.85	
Upper MH11		561.17	Upward	561.31	Upward	560.43	Upward	560.71	Upward	560.31	Upward	561.30	Upward
	Lower MW-8	562.15		561.85		560.95		561.25		561.00		561.84	
Average ⁽¹⁾		562.68	Upward	562.67	Upward	562.92	Upward	563.14	Upward	563.33	Upward	563.31	Upward
Lower MW-9		562.88		562.91		563.20		563.39		563.53		563.50	

Notes:

NA - Not Applicable.

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

(1) - Distance weighted for MH14 (two thirds) and MH15 (one third).

(2) - Buried with snow.

(3) - Not Monitored - MH14 was buried with snow and could not be accessed.

TABLE 2.4

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

<i>Date Monitored</i>		01/27/2006		02/28/2006		03/24/2006		04/21/2006		05/30/2006		06/26/2006	
		<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>
		(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction
<i>Monitoring Location</i>	Upper MH3	562.53	Upward	562.26	Upward	561.77	Upward	561.84	Upward	562.30	Upward	560.63	Upward
	Lower MW-6	562.97		562.90		562.86		562.76		562.50		562.37	
Upper MH8		561.02	Upward	558.44	Upward	560.43	Upward	560.40	Upward	560.44	Upward	561.02	Upward
	Lower MW-7	561.79		561.68		561.57		561.48		561.75		561.97	
Upper MH11		561.26	Upward	558.38	Upward	560.60	Upward	560.63	Upward	560.28	Upward	561.26	Upward
	Lower MW-8	561.76		561.23		561.16		561.15		561.03		561.75	
Average ⁽¹⁾		563.73	Upward	563.73	Upward	563.67	Upward	563.41	Upward	563.20	Upward	563.16	Upward
	Lower MW-9	563.90		563.94		563.83		563.65		563.48		563.41	

<i>Date Monitored</i>		07/31/2006		08/25/2006		09/22/2006		10/31/2006		11/29/2006		12/29/2006	
		<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>
		(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction
Upper MH3		564.78	Downward	561.21	Upward	561.01	Upward	555.62	Upward	560.85	Upward	560.42	Upward
	Lower MW-6	564.39		564.72		562.76		562.58		562.48		562.98	
Upper MH8		563.66	Upward	560.89	Upward	560.51	Upward	559.95	Upward	560.73	Upward	560.80	Upward
	Lower MW-7	564.54		561.82		561.99		562.09		562.01		561.89	
Upper MH11		564.03	Upward	561.10	Upward	559.81	Upward	558.19	Upward	560.54	Upward	560.96	Upward
	Lower MW-8	564.30		561.57		561.20		561.78		561.69		561.46	
Average ⁽¹⁾		563.85	Upward	563.89	Downward	562.44	Upward	564.13	Upward	560.73	Upward	561.59	Upward
	Lower MW-9	564.08		563.38		562.73		564.40		562.10		561.90	

Notes:

NA - Not Applicable.

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

(1) - Distance weighted for MH14 (two thirds) and MH15 (one third).

(2) - Buried with snow.

(3) - Not Monitored - MH14 was buried with snow and could not be accessed.

TABLE 2.4

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

Date Monitored		01/26/2007		02/27/2007		03/30/2007		04/30/2007		05/25/2007		06/29/2007	
		Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient
Monitoring Location		(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction
Upper	MH3	560.92	Upward	560.57	Upward	559.45	Upward	559.39	Upward	559.85	Upward	558.83	Upward
Lower	MW-6	562.78		562.49		562.30		562.62		562.48		562.32	
Upper	MH8	560.89	Upward	560.89	Upward	561.09	Upward	561.14	Upward	561.02	Upward	561.26	Upward
Lower	MW-7	562.06		561.96		562.05		562.20		562.05		562.16	
Upper	MH11	561.09	Upward	561.16	Upward	561.36	Upward	561.29	Upward	561.12	Upward	561.39	Upward
Lower	MW-8	561.73		561.86		561.85		561.77		561.61		561.79	
Average ⁽¹⁾		563.13	Upward	562.42	Upward	560.89	Upward	561.86	Upward	561.85	Upward	561.84	Upward
Lower	MW-9	563.41		562.64		562.66		562.13		562.10		562.12	

Monitoring Location		07/25/2007		08/31/2007		09/27/2007		10/31/2007		11/31/2007		12/31/2007	
		Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient
		(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction
Upper	MH3	560.54	Upward	559.62	Upward	561.05	Upward	560.69	Upward	560.58	Upward	559.69	Upward
Lower	MW-6	562.13		561.93		561.86		562.02		562.22		562.48	
Upper	MH8	561.02	Upward	561.04	Upward	560.47	Upward	561.08	Upward	560.68	Upward	559.37	Upward
Lower	MW-7	561.94		561.95		562.01		562.00		561.80		561.88	
Upper	MH11	561.18	Upward	561.28	Upward	559.56	Upward	561.36	Upward	561.00	Upward	558.54	Upward
Lower	MW-8	561.55		561.73		561.79		561.86		562.30		561.56	
Average ⁽¹⁾		561.78	Upward	561.38	Upward	561.82	Upward	561.85	Upward	560.96	Upward	561.83	Upward
Lower	MW-9	562.03		562.05		562.05		562.09		562.05		562.16	

Notes:

NA - Not Applicable.

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

(1) - Distance weighted for MH14 (two thirds) and MH15 (one third).

(2) - Buried with snow.

(3) - Not Monitored - MH14 was buried with snow and could not be accessed.

TABLE 2.4

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

Monitoring Location			01/28/2008		02/29/2008		03/31/2008		04/28/2008		05/29/2008		06/25/2008	
			Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient
			(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction
Upper	MH3	559.46	Upward	560.45	Upward	560.74	Upward	559.67	Upward	559.26	Upward	559.54	Upward	
	Lower	MW-6		562.68		562.38		562.33		562.73		562.66		562.79
Upper	MH8	560.99	Upward	560.02	Upward	560.06	Upward	561.10	Upward	561.39	Upward	562.66	Upward	
	Lower	MW-7		561.95		562.06		562.54		562.07		562.28		563.49
Upper	MH11	561.30	Upward	559.51	Upward	558.99	Upward	561.39	Upward	561.50	Upward	562.83	Upward	
	Lower	MW-8		561.80		561.89		561.89		561.90		561.82		563.28
Average ⁽¹⁾	Lower	MW-9	562.53	Upward	561.89	Upward	561.48	Upward	561.96	Upward	561.87	Upward	561.79	
			562.78		562.17		562.24		562.56		562.14		562.11	
Monitoring Location			07/31/2008		08/27/2008		09/26/2008		10/30/2008		11/22/2008		12/31/2008	
			Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient	Water Level	Gradient
			(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction	(ft amsl)	Direction
Upper	MH3	561.02	Upward	565.29	Downward	559.22	Upward	560.08	Upward	561.19	Upward	565.53	Upward	
	Lower	MW-6		563.27		565.10		563.42		562.97		565.10		566.09
Upper	MH8	563.00	Upward	564.13	Upward	563.21	Upward	562.57	Upward	562.36	Upward	564.91	Upward	
	Lower	MW-7		563.86		564.95		564.07		563.49		563.27		565.70
Upper	MH11	563.53	Upward	564.16	Upward	563.53	Upward	562.85	Upward	562.75	Upward	564.91	Upward	
	Lower	MW-8		566.07		564.61		564.03		563.93		563.29		565.33
Average ⁽¹⁾	Lower	MW-9	561.71	Upward	563.97	Upward	560.91	Upward	562.18	Downward	561.26	Upward	564.68	
			561.97		564.15		562.02		561.83		561.76		564.71	

Notes:

NA - Not Applicable.

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

(1) - Distance weighted for MH14 (two thirds) and MH15 (one third).

(2) - Buried with snow.

(3) - Not Monitored - MH14 was buried with snow and could not be accessed.

TABLE 2.4
SUMMARY OF VERTICAL GRADIENTS
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

<i>Monitoring Location</i>		<i>01/30/2009</i>		<i>02/25/2009</i>		<i>03/27/2009</i>		<i>04/30/2009</i>		<i>05/27/2009</i>	
		<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>	<i>Water Level</i>	<i>Gradient</i>
		<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>	<i>(ft amsl)</i>	<i>Direction</i>
Upper	MH3	570.75	Downward	571.27	Downward	559.49	Upward	560.06	Upward	560.29	Upward
Lower	MW-6	566.89		567.20		564.81		563.55		563.18	
Upper	MH8	562.42	Upward	562.52	Upward	561.18	Upward	563.14	Upward	563.04	Upward
Lower	MW-7	565.96		564.31		562.90		564.03		563.93	
Upper	MH11	564.96	Upward	559.64	Upward	561.11	Upward	563.38	Upward	563.45	Upward
Lower	MW-8	565.25		562.05		561.66		563.93		564.03	
Average ⁽¹⁾		560.92	Upward	561.59	Upward	561.11	Upward	563.29	Upward	564.39	Upward
Lower	MW-9	563.48		563.30		562.67		563.36		564.58	

Notes:

NA - Not Applicable.

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

(1) - Distance weighted for MH14 (two thirds) and MH15 (one third).

(2) - Buried with snow.

(3) - Not Monitored - MH14 was buried with snow and could not be accessed.

TABLE 2.5

**GROUNDWATER SAMPLING SUMMARY
OPERATION AND MAINTENANCE MANUAL
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK**

LOCATIONS

OGC1	MW-6
OGC2	MW-7
OGC3	MW-8
OGC4	MW-9
OGC5	OGC6
OGC7	OGC8

FREQUENCY

- quarterly for 2 years following GWS startup.
- semi-annually for Year 3 except for OGC-4 (quarterly for SVOCs) and OGC-6 (quarterly for VOCs).
- annually for Years 4 through 7 (until May 2008).

SAMPLING PROGRAM (MAY 2009 THROUGH MAY 2012)

<i>Annual</i>	<i>Once Every 2 Years (2010 and 2012)</i>
MW-8	MW-6
MW-9	MW-7
OGC-3	OGC-1
OGC-4	OGC-2
OGC-6	OGC-5
OGC-7	
OGC-8	

PARAMETERS**Volatiles**

Acetone	Methylene Chloride
Benzene	Tetrachloroethene
2-Butanone	Toluene
Chlorobenzene	Trichloroethene
1,1-Dichloroethane	Vinyl Chloride
trans-1,2-Dichloroethene	Xylenes (Total)
Ethylbenzene	

Semi-Volatiles

1,2-Dichlorobenzene	4-Methylphenol
1,4-Dichlorobenzene	Naphthalene
2,4-Dimethylphenol	Di-n-octylphthalate
2-Methylphenol	Phenol

TABLE 2.6

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

Location		MW-9															
Date		05/18/01	08/20/01	11/27/01	02/11/02	05/21/02	08/06/02	11/22/02	02/25/03	05/08/03	11/04/03	05/14/04	05/27/05	05/30/06	05/25/07	05/29/08	05/27/09
Volatiles (µg/L)	Class GA Level																
Acetone	50	9.4J	4.3J	7.3J/6.7J		4.2J	7.0/7.2			13/12			17	17		5.7	4.8J
Benzene	1		0.24J	0.39J/0.35J		0.44J	0.29J/0.30J	0.29J/0.29J		0.40J/ND0.70				0.54J			0.76
2-Butanone	50													2.6J			
Chlorobenzene	5		0.50J	0.86J/0.85J		1.3		1.0/1.1		0.91J/0.87J		1.1	1.7	1.5	2.8	1.4	5.3
trans-1,2-Dichloroethene	5			0.22J/ND		0.31J	0.24J/0.24J	0.22J/0.20J						0.42J		0.55J	0.74J
Ethylbenzene	5		0.30J	0.46J/0.42J		0.73J	0.44J/0.42J	0.46J/0.46J		0.40J/0.38J				0.83J			1.2
Methylene Chloride	5		0.34J	0.33J/ND	4.0J	0.53J						7.2	1.6				
Tetrachloroethene	5	1.6J	1.1J	1.0J/0.92J		1.6	0.92J/0.80J	0.77J/0.74J		0.67J/0.71J				0.57J			0.82J
Toluene	5		1.6J	3.0J/2.5J	2.8J	2.7	2.1/2.0	2.7/2.7	2.0	2.0/1.9	4.6	3.2	2.6		3.1	2.4	3.8
Trichloroethene	5	2.2J	1.8J	2.4J/2.2J	3.0J	4.4	2.0/2.0	2.2/2.3		1.8/1.8	9.5	4.9	3.0	1.8	2.9	1.7	4.7
Vinyl Chloride	2									1.7/1.7			6.6	4.0			4.2
Total Xylenes	5		1.0J	1.5J/1.5J		2.5J	1.3J/1.3J	1.4J/1.4J		0.98J/1.0J	3.0			2.0J			3.3
Semi-Volatiles (µg/L)																	
1,2-Dichlorobenzene	3*				0.6J										0.9J	0.7J	
1,4-Dichlorobenzene	3*												2J		3J	1J	2.3J
2,4-Dimethylphenol	50	12	12	18/17	38		20/22	30/34	30	35/36	36	42	50	58	46	31	110
2-Methylphenol	NL	1J	3J	3J/3J	7J		4J/4J	6J/6J	6J	6J/6J	6J	5J	8J	8J	6	6	12
4-Methylphenol	NL	69	110	97/92	230		100/110	190/230	150	130/130	160	190	260	190	170	96	300
Naphthalene	10														0.2J	0.5J	
Di-n-octyl phthalate	50																
Phenol	1	3J	34	28/22	24		38/41	34/35	42	46/46	180	30	27	49	11	13	20

Notes:

* Applies to sum of compounds

NL - Not listed

Exceeds Class GA Level

NS - Not Sampled

J - Estimated

TABLE 2.6

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

Location		OGC-4																	
Date		05/18/01	08/20/01	11/27/01	02/11/02	05/21/02	08/06/02	11/22/02	02/25/03	05/08/03	11/04/03	3/04/04	05/14/04	11/23/04	05/27/05	05/30/06	05/25/07	05/29/08	05/27/09
Volatiles (µg/L)	Class GA Level											NA		NA					
Acetone	50			7.9J			4.0J												1.6J
Benzene	1		0.21J	0.2J															
2-Butanone	50																		
Chlorobenzene	5		0.49J	0.66J		0.83J/0.79J		0.46J		0.83J									
trans-1,2-Dichloroethene	5			0.22J															
Ethylbenzene	5		0.41J	0.39J		0.54J/0.53J	0.48J	0.39J		0.77J							0.44J		
Methylene Chloride	5				5.1J/4.9J								4.6		2.0				
Tetrachloroethene	5	1.0J	1.2J	0.87J		0.86J/0.84J	1.1	0.78J		0.77J									
Toluene	5			1.0J		1.0/0.98J	1.4	0.72J		1.2									
Trichloroethene	5	1.6J	1.4J	1.5J		1.5/1.4	1.7	0.96J		1.5							0.53J		
Vinyl Chloride	2																		
Total Xylenes	5		1.0J	0.94J		0.84J/0.82J	1.1J			0.95J									
Semi-Volatiles (µg/L)																			
1,2-Dichlorobenzene	3*																		
1,4-Dichlorobenzene	3*																		
2,4-Dimethylphenol	50	8J	12	6J	8J/6J	7J/7J	8J		7J/7J	8J	4J	6J		4J				0.9J	
2-Methylphenol	NL	0.9J	2J	35	2J/ND	1J/2J	2J			3J		3J		2J				0.5J	2.7J
4-Methylphenol	NL	64	86	40	58/55	61/67	68		69/68	73	32	55		31	14	15	3J	6	
Naphthalene	10																	0.5J	
Di-n-octyl phthalate	50																		
Phenol	1	310	560	400	420/460	710/1100	1100	1100	2400/2300	1800	1600		2400	1500	850	510	84	66	25

Notes:

* Applies to sum of compounds

NL - Not listed

Exceeds Class GA Level

NS - Not Sampled

J - Estimated

TABLE 2.6

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

Location		OGC-8															
Date		05/18/01	08/20/01	11/27/01	02/11/02	05/21/02	08/06/02	11/22/02	02/25/03	05/08/03	05/08/03	05/14/04	05/27/05	05/30/06	05/24/07	05/29/08	05/27/09
Volatiles (µg/L)	Class GA Level																
Acetone	50	78	31/29	19J		4.7J	3.6J				6.2	5.8	4.7J			9.9	1.5J
Benzene	1	11	14/14	14		2.6	5.3	3.3	3.6	3.1	1.8	1.2	1.1	0.92	0.54J	0.84	0.58J
2-Butanone	50	4.0J															
Chlorobenzene	5	3.7J	4.1J/4.1J	4.0J		0.87J	1.7	1.1		1.1	0.65J	0.48J	0.43J	0.44J			
trans-1,2-Dichloroethene	5	4.3J	3.2J/3.1J	4.0J		0.76J	1.5	0.88J		1.0	0.50J	0.41J	1.0				
Ethylbenzene	5	13	16/16	15	1.6J	2.8	5.8	3.1	3.9	3.1	1.8	1.2		0.99J	0.53J	0.84J	0.50J
Methylene Chloride	5		0.52J/0.48J	0.62J	1.8J												
Tetrachloroethene	5	40	51/52	59	7.7J	9.9	22	12	14	11	7.0	5.0	3.8	4.0	2.0	2.3	1.6
Toluene	5	140	140/140	110	17J	21	53	28	38	27	16	11	8.1	8.3	4.0	6.4	3.7
Trichloroethene	5	120	110/110	110	20J	22	53	27	35	27	17		7.7	7.6	4.0	6.5	4.0
Vinyl Chloride	2	3.7J	3.4/3.6	3.1	1.1J		1.4	0.70J		0.78J							
Total Xylenes	5	43	55/54	46	4.8J	8.3	18	9.5	11	9.9	5.4	3.7	3.0	3.2	1.1J	2.5J	1.5J
Semi-Volatiles (µg/L)																	
1,2-Dichlorobenzene	3*																
1,4-Dichlorobenzene	3*															0.2J	
2,4-Dimethylphenol	50	2J	4J/2J	4J	0.8J	0.8J	3J	1J								1J	
2-Methylphenol	NL	18	30/25	16	4J	5J	13	7J	11	7J	4J	2J	2J	3J	2J	2J	
4-Methylphenol	NL	30	51/45	28	8J	10	26	14	20	14J	9	5J	6J	8J	6	8	5.7
Naphthalene	10	1J	3J/25	1J			0.9J										
Di-n-octyl phthalate	50		0.1J/ND														
Phenol	1	30	49/44	31	5J	8J	11	10		4J	6J	2J					

Notes:

* Applies to sum of compounds

NL - Not listed

Exceeds Class GA Level

NS - Not Sampled

J - Estimated

TABLE 2.6

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

Location		River South														
Date		05/18/01	09/17/01	11/27/01	02/11/02	05/21/02	08/06/02	11/22/02	02/25/03	05/08/03	11/04/03	05/14/04	05/27/05	05/30/06	05/24/07	05/29/08
Volatiles (µg/L)	Class GA Level															
Acetone	50						3.0J						3.2J			12
Benzene	1										0.42J					
2-Butanone	50												3.9J			3.1J
Chlorobenzene	5															
trans-1,2-Dichloroethene	5															
Ethylbenzene	5															
Methylene Chloride	5															
Tetrachloroethene	5						0.30J									
Toluene	5			0.29J			0.72J	0.35J			1.8					
Trichloroethene	5						0.44J									
Vinyl Chloride	2						0.27J									
Total Xylenes	5										1.8J					
Semi-Volatiles (µg/L)																
1,2-Dichlorobenzene	3*															
1,4-Dichlorobenzene	3*															
2,4-Dimethylphenol	50															
2-Methylphenol	NL															
4-Methylphenol	NL															
Naphthalene	10															
Di-n-octyl phthalate	50															
Phenol	1															

Notes:

* Applies to sum of compounds

NL - Not listed

☐ Exceeds Class GA Level

NS - Not Sampled

J - Estimated

TABLE 2.6

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

Location		MW-8															
Date		05/18/01	08/20/01	11/27/01	02/11/02	05/21/02	08/06/02	11/22/02	02/25/03	05/08/03	11/04/03	05/14/04	05/27/05	05/30/06	05/24/07	05/29/08	05/29/09
Class GA Level																	
Volatiles (µg/L)																	
Acetone	50	52	12J	11J	75J	67	20			73		28/33	26	16	6.6/7.5	23	2.6J
Benzene	1	6.5	4.3	4.1		8.6	12	12	8.1	12	23/24	10/12	4.2	4.4	1.6/1.5	1.5	2.7
2-Butanone	50															4.4J	
Chlorobenzene	5	1.8J	1.0J	1.0J		3.2	4.9	4.4	3.6	6.2	6.0/6.4	2.7/3.3	2.4	2.4	0.84J/0.82J	0.54J	0.99J
trans-1,2-Dichloroethene	5	2.2J	1.8J	2.9J	4.8J	7.3	11	16	12	13	10/12	7.3/9.4	7.4	5.3	4.4/3.9	3.6	6.8
Ethylbenzene	5	5.7	3.7J	4.4J	8.2J	12	18	18	15	23	30/32	20/24	4.6	5.8	2.5/2.2	1.8	4.2
Methylene Chloride	5	1.1J	0.58J	0.66J	4.4J	1.2	1.4	1.6		1.3	2.2/2.2	7.3/9.2	1.7	0.64J			
Tetrachloroethene	5	21	12	9.8	23J	32	61	58	54	80	91/100	120/130	62	71	16/14	9.5	12
Toluene	5	75	36	31	80	100	140	160	100	120	240/240	97/120	30	33	12/11	10	26
Trichloroethene	5	82	40	35	110	180	320	280	210	320	460/460	380/390	180	150	40/36	29	68
Vinyl Chloride	2	5.2	1.6J	3.3	23	12	18	14	12	18	21/21	13/16	5.8	5.1			
Total Xylenes	5	22	13	16	30J	40	68	69	58	93	120/120	92/110	32	25	9.8/9.1	6.7	19
Semi-Volatiles (µg/L)																	
1,2-Dichlorobenzene	3*				2J	2J		2J		4J	3J/3J					0.4J	
1,4-Dichlorobenzene	3*			0.6J	2J	1J	1J	2J		4J	3J/3J	19U/2J	4J	5J	0.5J/0.4J	0.5J	
2,4-Dimethylphenol	50	1J	11	16	19	18	15	27	20	27	37/38	15J/14	7J	6J	0.8J/0.6J	14	14
2-Methylphenol	NL	33	55	41	48	44	38	56	37	35	45/46	18J/18	18J	16	7/7	26	32
4-Methylphenol	NL	10	32	34	55	60	59	83	64	75	130/130	34/31			18/16	31	29
Naphthalene	10				0.7J	0.8J	0.8J	1J			2J/2J				22/22	1J	
Di-n-octyl phthalate	50																
Phenol	1	43	130	140	85	110	91	110	140	78	80/80	28/28	11J	4J	20/21	32	15

Notes:

* Applies to sum of compounds

NL - Not listed

Exceeds Class GA Level

NS - Not Sampled

J - Estimated

TABLE 2.6

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

Location		OGC-3															
Date		05/18/01	08/20/01	11/27/01	02/11/02	05/21/02	08/06/02	11/22/02	02/25/03	05/08/03	11/04/03	05/14/04	05/27/05	05/30/06	05/24/07	05/29/08	05/27/09
Class GA Level																	
Volatiles (µg/L)																	
Acetone	50	13J / 19J	3.8J	15J		7.1	6.7			5.6			10/8.4	2.8J	0.76	6.0	2.9J/2.6J
Benzene	1	1.6J / 1.6J	1.6	1.8		1.8	1.2	1.5		1.6	1.4		1.2/1.1	0.93J		0.93	0.75/0.78
2-Butanone	50																
Chlorobenzene	5		0.24J	0.28J		0.28J		0.22J									
trans-1,2-Dichloroethene	5	1.6J / 1.6J	1.0J	1.4J	1.1J	1.1	0.98J	0.44J		1.0							
Ethylbenzene	5	1.6J / 1.5J	2.0J	2.3J	1.5J	2.4	1.7	1.8		2.0			1.4/1.3	1.1	0.85J	0.92J	0.69J/0.73J
Methylene Chloride	5				1.9J							6.3	1.2/1.0				
Tetrachloroethene	5	2.4J / 2.2J	3.0J	2.2J	1.7J	2.2	1.8	1.8		1.5			0.71J/0.63J	0.61J	0.56J		
Toluene	5	5.7 / 5.1	5.9	5.3		5.1	3.7	4.6	4.0	4.3	3.6	2.6	2.6/2.4		1.7	1.8	1.4/1.4
Trichloroethene	5	20 / 20	18	19	14J	17	14	13	12	14	9.8	7.7	6.4/6.1	5.6	4.3	4.9	3.3/3.5
Vinyl Chloride	2	ND / 1.0J	0.4	0.72						0.62J							
Total Xylenes	5	5.6J / 5.4J	7.5	8.7	4.8J	7.8	5.8	5.8	5.0	6.6	3.9		3.3/3.0	2.9J	2.1J	2.3J	1.7J/1.7J
Semi-Volatiles (µg/L)																	
1,2-Dichlorobenzene	3*				1J										0.6J	0.7J	
1,4-Dichlorobenzene	3*				0.7J		0.5J										0.6J
2,4-Dimethylphenol	50	5J / 5J	9	8J	11	11	7J	8J	11	12	10	9J	8J/4J	6J	6	6	6.2/5.9
2-Methylphenol	NL	98 / 96	120	87	160	140	100	100	120	140	150	110	83/73	64	47	45	44/43
4-Methylphenol	NL	13 / 13	21	17	28	23	14	15	22	23	20	17	14/12	13	10	11	11/11
Naphthalene	10															0.8J	
Di-n-octyl phthalate	50																
Phenol	1	120 / 110	140	130J	210	140	85	92	110	120	120	90	78/74	75	60	65	60/57

Notes:

* Applies to sum of compounds

NL - Not listed

Exceeds Class GA Level

NS - Not Sampled

J - Estimated

TABLE 2.6

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

Location		GW-55				OGC-7													
Date		12/17/87	08/12/88	05/18/01	08/20/01	11/27/01	02/11/02	05/21/02	08/06/02	11/22/02	02/25/03	05/08/03	11/04/03	05/14/04	05/27/05	05/30/06	05/24/07	05/29/08	05/27/09
Class GA																			
Level																			
Volatiles (µg/L)																			
Acetone	50	293		21J	0.25J	8.2J			3.6J										
Benzene	1	2				0.30J		0.28J	0.20J	0.26J				0.34J	0.34J				
2-Butanone	50	27																	
Chlorobenzene	5																		
trans-1,2-Dichloroethene	5	180	89	6.3	3.1J	5.4	4.9J	4.8J	4.2	4.7	4.0	5.4	5.0	5.9	4.9	5.8	3.8		2.7
Ethylbenzene	5	9	7J	1.1J	0.80J	1.0J		1.3	0.84J	0.91J		1.4	0.93J	1.5	1.4	1.3	0.87J	0.84J	0.62J
Methylene Chloride	5	1																	
Tetrachloroethene	5	11	7J	4.3J	3.6J	3.4J	2.9J	4.0	3.4	2.7	2.8	4.1	2.2	4.1	2.9	2.8	1.7	1.2J	0.80J
Toluene	5	75	49	12	5.8	6.7	5.7J	6.9	5.2	6.0	6.7	8.6	5.8	9.3	8.3	8.6	5.0	4.9J	3.3
Trichloroethene	5	287	220	70	40	48	45	68	44	38	50	56	38	56	37J	37	22	21J	14
Vinyl Chloride	2	7	4J	2.6J	0.84	1.7J	3.5J	2.2	1.8	1.8		2.3	2	2.9	3.0	2.9		2.6J	
Total Xylenes	5	54	37	6.0J	4.8J	6.5	3.9J	7.6	5.3	5.3	5.5	8.7	5.4	10	8.6	8.2	5.3	5.0J	3.6
Semi-Volatiles (µg/L)																			
1,2-Dichlorobenzene	3*		2J																
1,4-Dichlorobenzene	3*																		
2,4-Dimethylphenol	50	10	11		2J														
2-Methylphenol	NL	24	24	3J	2J	1.0J	0.8J	1J									0.6J	0.5J	
4-Methylphenol	NL	38				0.9J	0.7J	1J									0.6J	0.4J	
Naphthalene	10																		
Di-n-octyl phthalate	50						0.6J												
Phenol	1	61	92	4J	0.7J														

Notes:

* Applies to sum of compounds

NL - Not listed

Exceeds Class GA Level

NS - Not Sampled

J - Estimated

TABLE 2.6

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

Location		River Middle														
Date		05/18/01	09/17/01	11/27/01	02/11/02	05/21/02	08/06/02	11/22/02	02/25/03	05/08/03	11/04/03	05/14/04	05/27/05	05/31/06	05/24/07	05/29/08
Volatiles (µg/L)	Class GA Level															
Acetone	50						3.1J									2.8J
Benzene	1															
2-Butanone	50															
Chlorobenzene	5															
trans-1,2-Dichloroethene	5															
Ethylbenzene	5															
Methylene Chloride	5															
Tetrachloroethene	5														1.3	
Toluene	5															
Trichloroethene	5							0.21J								
Vinyl Chloride	2															
Total Xylenes	5															
Semi-Volatiles (µg/L)																
1,2-Dichlorobenzene	3*															
1,4-Dichlorobenzene	3*															
2,4-Dimethylphenol	50															
2-Methylphenol	NL															
4-Methylphenol	NL															
Naphthalene	10															
Di-n-octyl phthalate	50				0.7J											
Phenol	1															

Notes:

* Applies to sum of compounds

NL - Not listed

 Exceeds Class GA Level

NS - Not Sampled

J - Estimated

TABLE 2.6
SUMMARY OF DETECTED COMPOUNDS
SITE GROUNDWATER AND RIVER WATER
GRATWICK-RIVERSIDE PARK
NORTH TONAWANDA, NEW YORK

Location		MW-7														
Date		05/18/01	08/20/01	11/27/01	02/11/02	05/21/02	08/06/02	11/22/02	02/25/03	05/08/03	11/04/03	05/14/04	05/27/05	05/31/06	05/24/07	05/29/08
Class GA																
Level																
Volatiles (µg/L)																
Acetone	50	5.7J		6.5J		4.3J	5.4			4.8			4.3J	3.0J	3.9J	3.3J/3.4J
Benzene	1		1.9	2.0		2.0	1.3	1.8		0.90			0.58J			
2-Butanone	50															
Chlorobenzene	5															
trans-1,2-Dichloroethene	5		0.82J	1.1J		0.98J	0.89J	1					0.36J			
Ethylbenzene	5		0.85J	0.81J		1.0	0.61J	0.75J					0.32J			
Methylene Chloride	5				1.6J											
Tetrachloroethene	5			0.27J												
Toluene	5		3.5J	3.6J		3.3	1.9	3		1.1	2.8		0.93J			
Trichloroethene	5		0.55J	0.63J		0.43J	0.45J	0.36J								
Vinyl Chloride	2		1.6J	2.0	3.8J	2.9	1.7	2.2		1.3			0.80J			0.64J/0.61J
Total Xylenes	5		2.1J	2.1J		2.7J	1.5J	1.9J		0.76J						
Semi-Volatiles (µg/L)																
1,2-Dichlorobenzene	3*															
1,4-Dichlorobenzene	3*															
2,4-Dimethylphenol	50			2J	2J	3J	0.7J	2J								
2-Methylphenol	NL		3J	2J	4J	6J	1J	2J			2J					0.4J/0.5J
4-Methylphenol	NL		3J	2J	4J	6J	1J	2J			1J				0.3J	0.5J/0.6J
Naphthalene	10															
Di-n-octyl phthalate	50				0.6J											
Phenol	1		24	7J	10	26	2J	6J		5J	2J		1J			

Notes:

* Applies to sum of compounds

NL - Not listed

Exceeds Class GA Level

NS - Not Sampled

J - Estimated

TABLE 2.6

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

Location		OGC-2														
Date		05/18/01	08/20/01	11/27/01	02/11/02	05/21/02	08/06/02	11/22/02	02/25/03	05/08/03	11/04/03	05/14/04	05/27/05	05/30/06	05/25/07	05/29/08
Volatiles (µg/L)	Class GA Level															
Acetone	50			11J			3.0J					4.5J	3.1			
Benzene	1															
2-Butanone	50															
Chlorobenzene	5															
trans-1,2-Dichloroethene	5															
Ethylbenzene	5															
Methylene Chloride	5				1.7J											
Tetrachloroethene	5															
Toluene	5										0.37J					
Trichloroethene	5		0.39J													
Vinyl Chloride	2			0.26J		0.25J	0.26J									
Total Xylenes	5															
Semi-Volatiles (µg/L)																
1,2-Dichlorobenzene	3*															
1,4-Dichlorobenzene	3*															
2,4-Dimethylphenol	50															
2-Methylphenol	NL															
4-Methylphenol	NL															
Naphthalene	10															
Di-n-octyl phthalate	50															
Phenol	1															

Notes:

* Applies to sum of compounds

NL - Not listed

☐ Exceeds Class GA Level

NS - Not Sampled

J - Estimated

TABLE 2.6
SUMMARY OF DETECTED COMPOUNDS
SITE GROUNDWATER AND RIVER WATER
GRATWICK-RIVERSIDE PARK
NORTH TONAWANDA, NEW YORK

Location		OGC-6																				
Date		05/18/01	08/20/01	11/27/01	02/11/02	05/21/02	08/06/02	11/22/02	02/25/03	05/08/03	11/04/03	03/04/04	05/14/04	11/23/04	05/27/05	05/31/06	05/24/07	05/29/08	05/27/09			
Class GA																						
Level																						
Volatiles (µg/L)																						
Acetone	50			6.6J			5.0			3.7J						8.6/8.7			1.6J			
Benzene	1									0.71	0.87	1.4		2.5	5.2	12/12	7.2		3.2			
2-Butanone	50																					
Chlorobenzene	5																					
trans-1,2-Dichloroethene	5			0.23J	0.23J	0.37J	0.45J	0.55J		1.4	2.0	2.1		3.6	5.3	11/12	7.1		4.4			
Ethylbenzene	5					0.31J				0.85J	1.1	2.0	3.3	3.1	7.4	20/20	12		4.8			
Methylene Chloride	5				2.1J								4.4	2.5	2.2							
Tetrachloroethene	5		1.4J	0.73J		6.6	7.4	5	12	49	51	230	300	260	550	2000/2100	1400	34	400			
Toluene	5			0.55J		2.0	1.6	1.5	2.4	9.3	12	27	40	35	72	240/260	97	2.9	34			
Trichloroethene	5	3.0J	4.7J	3.1J	5.9	16	19	13	26	95	120	330	530	330	610	1800/1800	1100	31	320			
Vinyl Chloride	2					0.22J	0.25J			0.45J						2.9/2.8	1.5					
Total Xylenes	5		0.22J	0.53J	0.26J	1.7J	1.2J	1.0J		4.1	4.7	8.6	13	12	28	79/76	46		18			
Semi-Volatiles (µg/L)																						
1,2-Dichlorobenzene	3*																					
1,4-Dichlorobenzene	3*																					
2,4-Dimethylphenol	50																		0.9J			
2-Methylphenol	NL		2J	2J	32	11	8J	9J	13	22	27		63		85	89/110	76	76	32			
4-Methylphenol	NL			1J	0.02J	10							1J		2J	84/100	2J	70	1.1J			
Naphthalene	10																		1J/2J	2J	2J	1.2J
Di-n-octyl phthalate	50																					
Phenol	1	7J	2J	4J	5J	3J	2J			5J	3J		9J		8J	13/16	8	8				

Notes:

* Applies to sum of compounds

NL - Not listed

Exceeds Class GA Level

NS - Not Sampled

J - Estimated

TABLE 2.6

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

Location		River North													
Date		05/18/01	09/17/01	11/27/01	02/11/02	05/21/02	08/06/02	11/22/02	02/25/03	05/08/03	11/04/03	05/14/04	05/27/05	05/30/06	05/31/07
Volatiles (µg/L)	Class GA Level														
Acetone	50						2.4J		NS			3.6J	3.6J		
Benzene	1					0.21J					2.0	0.39J			
2-Butanone	50														
Chlorobenzene	5					1.3						3.2			
trans-1,2-Dichloroethene	5					0.25J						1.0			
Ethylbenzene	5					20						40		2.9	
Methylene Chloride	5				1.6J										
Tetrachloroethene	5					3.8						7.7		1.3	
Toluene	5			0.39J		63				0.96J		130	2.2	14	
Trichloroethene	5			0.35J		4.5						6.4		0.59J	
Vinyl Chloride	2					3.7						9.3			
Total Xylenes	5					80				0.96J		210	3.7	23	
Semi-Volatiles (µg/L)															
1,2-Dichlorobenzene	3*														
1,4-Dichlorobenzene	3*														
2,4-Dimethylphenol	50							1J							
2-Methylphenol	NL														
4-Methylphenol	NL														
Naphthalene	10														
Di-n-octyl phthalate	50														
Phenol	1														

Notes:

* Applies to sum of compounds

NL - Not listed

Exceeds Class GA Level

NS - Not Sampled

J - Estimated

TABLE 2.6

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

Location		OGC-5														
Date		05/20/01	08/21/01	11/27/01	02/11/02	05/21/02	08/06/02	11/22/02	02/25/03	05/08/03	11/04/03	05/14/04	05/27/05	05/30/06	05/24/07	05/29/08
Class GA																
Level																
Volatiles (µg/L)																
Acetone	50	38J		11J			6.4			4.9J		0.61J		3.0J		3.5J
Benzene	1		1.5	1.4		0.87	0.92	0.87		0.77				0.67J	0.54J	0.69J
2-Butanone	50															
Chlorobenzene	5															
trans-1,2-Dichloroethene	5		0.65J	0.76J		0.42J	0.57J	0.52J				0.34J				
Ethylbenzene	5		0.21J	0.23J												
Methylene Chloride	5				3.4J								2.4			
Tetrachloroethene	5		0.38J	0.27J												
Toluene	5		2.5J	2.2J		0.99J	0.87J	1.2		0.80J		0.80J				
Trichloroethene	5		0.87J	0.66J		0.36J	0.41J	0.40J				0.28J				
Vinyl Chloride	2		1.6J	1.2J		1.1	1.5	1.2		1.1		1.4		1.2	0.95J	1.4
Total Xylenes	5		1.0J	1.0J		0.67J	0.37J	0.40J				1.0J				
Semi-Volatiles (µg/L)																
1,2-Dichlorobenzene	3*															
1,4-Dichlorobenzene	3*															
2,4-Dimethylphenol	50		8J	6J	5J		1J	6J								
2-Methylphenol	NL		1J	1J	1J										0.5J	0.3J
4-Methylphenol	NL		2J	5J	4J			2J							0.9J	0.4J
Naphthalene	10		1J	1J			0.5J	1J							2J	0.5J
Di-n-octyl phthalate	50			1J	0.8J											
Phenol	1		0.9J													

Notes:

* Applies to sum of compounds

NL - Not listed

Exceeds Class GA Level

NS - Not Sampled

J - Estimated

TABLE 2.6

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

Location		GW-6S				MW-6													
Date		12/15/1987	08/10/88	05/18/01	08/21/01	11/27/01	02/11/02	05/21/02	08/06/02	11/22/02	02/25/03	05/08/03	11/04/03	05/14/04	05/27/05	05/30/06	05/24/07	05/29/08	
Class GA																			
Level																			
Volatiles (µg/L)																			
Acetone	50	684	4.9J						4.4J			44		6.7	13	31			
Benzene	1	3			0.64J			0.65J	0.59J	0.56J		0.57J							
2-Butanone	50																		
Chlorobenzene	5		3.3J		1.5J	1.3J		0.65J		0.54J		0.81J		0.37J					
trans-1,2-Dichloroethene	5	58	4.4J		1.1J			0.37J	0.32J	0.34J		1.4		0.52J					
Ethylbenzene	5	2			0.21J														
Methylene Chloride	5						1.8J								2.1				
Tetrachloroethene	5	43			0.44J							0.67J		0.25J					
Toluene	5	16	3.0J		2.2J	0.29J		1.3	0.91J	1.1		2.1	3.6	0.92J					
Trichloroethene	5	62	5.1J		2.0J		1.2J		1.1	1.5	3.2	14	12	3.7	1.5	1.2	0.97J		
Vinyl Chloride	2	11	1.7J					0.29J	0.24J	0.22J		0.52J							
Total Xylenes	5	7			0.90J	0.44J		0.36J	0.27J										
Semi-Volatiles (µg/L)																			
1,2-Dichlorobenzene	3*																		
1,4-Dichlorobenzene	3*			1J		0.7J	2J						2J				0.8J	0.6J	
2,4-Dimethylphenol	50	5		5J	5J	3J	2J	1J	0.9J	9J			6J						
2-Methylphenol	NL	3		5J	6J	2J	2J	2J	1J	0.9J			5J				0.5J	0.3J	
4-Methylphenol	NL	4		15	13	5J	4J	3J	2J	2J			12			1J	1J		
Naphthalene	10			67	69		1J		14	13			76		5J		2J	1J	
Di-n-octyl phthalate	50						2J												
Phenol	1	3		14	4J	2J	0.8J						250			2J	0.6J	0.4J	

Notes:

* Applies to sum of compounds

NL - Not listed

Exceeds Class GA Level

NS - Not Sampled

J - Estimated

TABLE 2.6

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

Location		OGC-1															
Date		05/18/01	05/25/07	8/21/2001	11/27/01	02/11/02	05/21/02	08/06/02	11/22/02	02/25/03	05/08/03	11/04/03	05/14/04	05/27/05	05/31/06	05/24/07	05/24/08
Volatiles (µg/L)	Class GA Level																
Acetone	50	20J			11J			4.8J									
Benzene	1			0.64J	0.55J				0.26J								
2-Butanone	50	1.1J															
Chlorobenzene	5	2.2J	2.8	2.0J	1.7J		0.24J		0.78J		0.91J						
trans-1,2-Dichloroethene	5	5.6		3.7J	4.6J	1.8J	0.48J	0.58J	2.7		2.8	0.85J			0.55J		
Ethylbenzene	5			0.52J	0.43J				0.21J								
Methylene Chloride	5					1.6J								1.8			
Tetrachloroethene	5			0.78J	0.54J		0.42J	0.53J	0.30J			0.29J					
Toluene	5	5.2	3.1	5.4	4.2J		0.48J	0.43J	1.9	1.7	2.6	0.59J					
Trichloroethene	5	15	2.9	16	11	4.5J	2.2	2.7	6.1	5.1	8.4	2.2	0.47J	1.2	1.9	0.53J	4.2
Vinyl Chloride	2	1.3J		0.51J	0.72J				0.42J		0.64J						
Total Xylenes	5			2.1J	1.6J				0.49J		0.86J						
Semi-Volatiles (µg/L)																	
1,2-Dichlorobenzene	3*		0.9J														
1,4-Dichlorobenzene	3*	1J	3J	3J	2J	1J			1J								
2,4-Dimethylphenol	50	9J	46	16	8J	3J		0.6J	9J		4J						
2-Methylphenol	NL	6J	6	12	5J	2J			2J		3J						
4-Methylphenol	NL	20	170	35	15J	5J		1J	5J	6J	8J				2J		0.4J
Naphthalene	10	71	0.2J	130		21		7J	18		25	3J					0.5J
Di-n-octyl phthalate	50																
Phenol	1	150	11	290	57	15	1J	8J	4J		19						

Notes:

* Applies to sum of compounds

NL - Not listed

Exceeds Class GA Level

NS - Not Sampled

J - Estimated

TABLE 2.7
PH READINGS
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

<i>Monitoring Location</i>	<i>MH1</i>	<i>MH2</i>	<i>MH3</i>	<i>MW-6</i>	<i>OGC-1</i>	<i>MH4</i>	<i>OGC-5</i>	<i>MH5</i>	<i>MH6</i>	<i>OGC-6</i>	<i>MH7</i>	<i>MW-7</i>	<i>MH8</i>	<i>OGC-2</i>	<i>MH9</i>
<i>Date</i>															
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	
05/21/02		9.96	9.81	10.76	10.42		9.85		9.25	11.91		9.38	9.69	9.2	
06/20/02		10.64	9.4	10.91	11.19		9.77		9.46	11.4		10.59	11.76	9.46	
07/18/02		10.89	10.69	10.87	11.75		9.63		9.32	11.24		10.24	11.76	9.51	
08/06/02		10.62	10.47	8.21	5.67		7.25		8.79	8.78		7.46	11.24	7.83	
09/12/02		10.92	11.23	11.17	11.85		9.61		9.27	11.29		10.26	11.9	9.51	
10/30/02		10.1	11.22	10.74	10.89		9.68		9.82	10.63		9.95	11.97	9.64	
11/21/02		9.06	9.3	10.09	11.89		10.72		9.17	12.42		9.76	9.31	9.6	
12/11/02		8.92	9.17	10.16	11.03		9.87		9.02	10.39		10.19	9.5	9.18	
01/16/03		10.9	11.76	11.02	11.59		10.31		10.01	11.52		11.01	12.37	9.83	
02/25/03		10.72	11.12	10.51	11.81		10.22		9.87	12.31		9.42	9.32	8.92	
03/14/03		11.77	11.92	10.07	11.93		10.09		9.71	11.92		10.19	9.28	9.44	
04/14/03		9.78	9.71	9.67	10.82		9.74		9.21	10.45		9.74	10.48	9.01	
05/08/03		10.32	10.48	10.43	12.35		10.13		9.72	12.41		10.88	10.61	9.00	
06/19/03		10.21	10.39	10.36	12.31		10.05		9.68	12.29		10.75	10.51	8.99	
07/21/03		10.06	10.21	10.25	12.17		9.87		9.57	11.99		10.64	10.49	8.84	
08/28/03		10.22	10.91	10.32	11.16		9.8		10.17	10.96		11.04	10.38	9.89	
09/30/03		9.32	9.4	9.95	10.91		8.95		NM	10.22		9.35	9.42	9.58	
10/20/03		9.22	9.3	9	10		8.1		10.2	10.25		9.8	10	9.2	
11/03/03		9.15	9.14	8.86	9.49		7.8		10.51	10.54		10.41	10.28	9.03	
12/23/03		10.03	9.03	9.7	10.3		8.69		10.07	10.49		10.38	10.63	8.62	

TABLE 2.7
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															
01/21/04		(1)	9.06	9.01	9.56		8.0		10.31	9.84		9.69	10.6	8.8	
02/12/04	8.45	(1)	9.72	13.24	11.02	7.77	8.75		7.65	10.8		10.32	11.23	9.2	
03/04/04	8.21	10.05	8.93	10.28	10.69		8.82		9.43	10.52		10.28	10.87	9.24	
04/16/04		9.52	8.77	10.16	9.28		8.61		9.2	10.96		10.41	11.18	9.12	
05/14/04		10.5	8.08	10.16	9.47		8.74		7.19	11.69	9.49	9.36	11.00	9.09	
06/25/04		10.22	8.66	10.07	9.98		8.46		8.41	10.89		9.82	10.65	9.1	
07/30/04		10.03	9.00	9.91	10.45		8.41		8.42	10.67		9.31	10.51	8.94	
08/31/04		9.89	8.7	9.69	10.0		8.17		7.58	10.36		8.97	10.65	8.85	
09/30/04		10.01	8.77	9.9	9.8		8.4		8.11	10.13		9.2	10.47	8.6	
10/20/04		9.91	7.95	9.8	9.28		8.18		8.46			9.89	9.95	8.84	
11/23/04		9.26	8.47	9.87	9.83		8.32		8.92	10.89		9.8	10.84	8.96	
12/31/04		10.13	8.82	9.42	9.26		8.44		10.31	10.04		9.79	9.57	8.73	
01/28/05		10.21	10.75	9.25	8.91		8.39		8.86	10.6		9.66	9.05	9.1	
02/28/05		10.66	9.5	9.09	9.17		8.54		10.89	10.61		9.11	10.8	6.8	
03/31/05		10.91	8.96	9.78	8.95		8.51		9.06	10.99		9.58	11.06	9.18	
04/29/05		10.74	8.92	9.90	9.59		8.74		8.72	11.26		9.62	10.29	9.56	
05/27/05		11.29	9.88	7.85	10.26		9.18		8.12	11.3		9.62	11.16	9.78	
06/24/05		10.72	10.51	10.22	10.2		8.69		8.01	11.48		9.38	11.34	9.31	
07/29/05		7.3	6.20	8.96	9.23		7.83		8.29	9.9		8.91	10.32	8.55	
08/31/05		9.76	7.64	9.35	9.47		8.23		8.5	10.4		8.67	10.68	9.24	
10/03/05		9.1	8.45	9.52	9.14		8.12		7.26	10.43		7.89	9.23	8.9	
10/31/05		10.01	8.59	9.37	8.89		8.47		9.24	10.14		8.63	11.13	9.06	
11/22/05		10.29	8.15	9.13	8.68		8.05		8.25	10.18		8.79	10.70	8.71	
12/23/05		9.24	11.09	10.15	10.11		10.84		9.37	10.84		10.43	9.46	9.23	
01/27/06		9.38	10.69	10.75	9.27		8.63		8.29	11.10		10.05	8.62	9.46	
02/28/06		9.94	11.28	10.49	9.63		8.9		9.56	10.96		9.96	9.56	9.85	
03/24/06		9.57	8.84	10.64	9.43		8.70		9.43	11.14		9.70	9.28	9.40	
04/21/06		11.13	11.03	10.65	9.6		8.91		10.67	11.03		9.44	10.44	9.33	
05/30/06		9.78	10.44	7.50	10.62		8.02		7.10	10.85		9.46	8.98	8.45	
06/26/06		11.24	8.67	10.6	10.83		8.52		8.06	11.24		9.79	10.69	9.24	
07/31/06		7.8	7.85	10.27	10.05		8.12		7.95	10.34		9.93	7.88	8.59	
08/25/06		11.17	8.74	11.07	10.45		8.6		7.7	11.01		8.49	11.4	9.25	
09/22/06		8.33	8.34	10.97	9.73		8.71		8.84	10.85		9.46	11.63	9.23	
10/31/06		10.82	8.26	10.36	9.49		8.62		9.03	10.64		9.86	11.23	9.22	
11/29/06		11.13	9.09	10.45	9.46		8.97		10.90	10.80		9.49	11.13	9.62	
12/29/06		11.15	8.94	10.88	9.36		8.90		11.27	10.56		10.02	11.33	9.05	

TABLE 2.7
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															
01/26/07		11.51	9.21	11.05	9.26		8.80		11.45	11.23		9.76	11.67	9.48	
02/27/07		11.55	10.3	10.93	9.64		8.95		11.08	11.20		9.33	11.45	10.16	
03/30/07		11.37	8.89	10.68	8.83		8.78		11.18	11.13		9.35	11.28	9.21	
04/30/07		11.19	8.27	10.42	9.02		8.47		8.23	10.99		9.59	11.14	9.04	
05/25/07		11.3	8.47	10.32	8.83		8.09		7.74	10.93		9.32	11.18	9.00	
06/29/07		11.17	8.33	10.28	9.52		8.36		7.89	10.91		9.02	10.98	8.86	
07/25/07		11.23	7.75	10.42	9.5		8.21		7.93	10.82		8.41	11.32	8.70	
08/31/07		10.36	8.07	9.67	9.89		8.33		8.66	10.31		8.88	10.71	8.99	
09/27/07		9.77	8.62	9.79	9.99		8.43		9.26	10.22		9.55	9.63	8.93	
10/31/07		10.16	8.59	9.82	10.25		8.23		8.83	10.34		9.21	9.69	9.05	
11/30/07		NM	8.45	10.21	10.63		8.56		11.06	10.51		8.31	11.01	9.00	
12/31/07		9.07	8.46	9.69	9.24		8.60		10.84	10.44		10.06	11.07	9.20	
01/28/08		11.05	9.25	10.83	10.54		9.10		11.32	11.06		10.28	11.70	9.36	
02/29/08		9.59	9.66	9.96	9.82		9.09		10.35	10.09		10.02	11.59	9.42	
03/31/08		9.15	8.76	9.96	9.14		8.98		10.75	11.06		10.17	11.38	9.42	
04/28/08		9.53	9.17	10.73	9.60		8.78		8.90	11.23		9.97	10.18	9.48	
05/29/08		8.74	8.30	10.60	8.99		8.87		7.95	11.03		10.11	9.14	9.41	
06/25/08		9.46	8.64	10.60	9.96		8.61		8.50	11.06		10.24	9.28	9.41	
07/31/08		8.88	8.98	10.49	9.90		8.54		8.83	10.86		9.77	9.57	9.55	
08/27/08		8.77	8.67	10.96	8.79		8.58		8.77	10.63		10.87	10.53	9.96	
09/26/08		9.20	9.78	10.17	9.48		8.57		8.89	9.97		9.41	9.56	9.29	
10/30/08		9.40	10.68	10.49	9.76		8.98		9.36	10.42		9.46	9.69	9.52	
11/22/08		9.18	9.52	10.03	9.25		8.46		9.23	9.68		9.50	9.58	9.43	
12/31/08		9.49	8.91	10.71	9.72		8.68		8.89	10.07		9.26	9.50	9.32	
01/30/09		10.88	10.86	10.23	9.83		8.77		8.85	10.22		9.70	9.54	9.84	
02/25/09		9.39	10.63	10.07	9.33		8.50		8.88	9.77		9.36	9.19	9.44	
03/27/09		10.3	10.28	9.54	9.75		8.73		9.17	9.73		9.67	9.51	9.51	
04/30/09		9.13	9.12	10.43	9.77		8.76		9.46	10.50		9.80	10.05	9.54	
05/27/09		9.68	9.97	10.65	9.98		8.84		9.40	10.68		9.85	9.32	10.00	

TABLE 2.7
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
<i>Date</i>														
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	
05/21/02		11.86		12.25	12.49	7.94		12.5	7.45	12.16	12.24	7.72	7.22	
06/20/02		11.92		12.26	12.34	8.07		12.28	8.12	11.63	12.2	7.89	7.84	
07/18/02		11.78		12.11	12.16	8.11		12.13	9.82	11.31	11.96	7.81	7.36	
08/06/02		6.95	11.76	7.88	7.63	8.02		8.87	9.76	8.89	9.03	7.64	7.49	
09/12/02		11.93	12.19	12.23	12.32	8.76		12.3	10.81	11.77	12.04	8.16	8.17	
10/30/02		11.91	12.2	12.21	12.24	NM		12.22	8.34	11.89	12.01	7.95	7.63	
11/21/02		11.79	9.46	12.53	12.46	7.64		12.62	7.71	12.42	12.5	7.95	7.37	
12/11/02		11.26	9.41	11.39	11.54	7.56		11.51	7.86	10.76	11.29	7.35	7.18	
01/16/03		12.39		12.55	12.74	8.47		12.82	8.76	12.3	12.52	7.98	8.16	
02/25/03		11.94		12.46	12.49	8.42		12.51	8.71	12.19	12.52	7.89	8.13	
03/14/03		12.16		12.33	12.56	8.26		12.44	8.79	12.11	12.35	8.01	7.79	
04/14/03		11.02		11.63	11.18	7.92		11.62	7.87	10.89	11.89	7.62	7.42	
05/08/03		11.93		12.51	12.55	8.12		12.63	7.77	12.12	12.44	8.43	7.81	
06/19/03		11.87		12.39	12.41	8.02		12.41	7.73	12.01	12.21	8.38	7.79	
07/21/03		11.81		12.12	12.25	7.99		12.32	7.64	11.91	11.98	8.31	7.62	
08/28/03		11.79		12.13	12.24	11.26		12.21	11.52	12.04	12.04	11.46	11.32	
09/30/03		11.27		11.95	11.44	8.65		11.87	9.45	10.33	11.57	8.56	8.68	
10/20/03		11.2		11.8	11.2	8.5		11.6	8	10.42	11.44	8.31	8.01	
11/03/03		11.04		10.91	10.3	8.39		10.63	7.24	10.59	11.24	7.55	7.48	
12/23/03		10.75		11.18	11.17	8.41		11.01	7.66	10.88	11.03	7.13	7.44	

TABLE 2.7

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
<i>Date</i>														
01/21/04		10.69		11.06	11.16	8.39		11.5	(1)	9.98	10.89	9.53	6.25	
02/12/04		10.79	11.42	11.66	11.78	8.96		11.75	(1)	11.09	11.6	8.5	6.66	
03/04/04		10.79	11.07	11.06	11.29	9.02		11.37	11.5	11.25	11.6	9.03	7.75	
04/16/04		11.23	10.42	11.57	11.62	9.22		11.36	11.6	11.11	11.44	9.6	6.54	
05/15/04		11.19	11.78	11.91	12.13	8.34		11.8	11.7	11.61	11.68	9.5	6.62	
06/25/04		11.22	11.35	11.31	11.48	8.86		11.27	11.21	10.84	11.2	9.11	7.48	
07/30/04		11.10	11.00	11.09	11.42	8.6		11.13	8.40	10.69	11.16	9.42	6.84	
08/31/04		10.84	10.95	10.87	11.19	8.07		10.84	7.78	10.48	10.73	8.14	6.57	
09/30/04		11.0	10.87	11.01	11.4	8.44		11.03	8.1	10.7	10.66	8.32	6.75	
10/20/04		10.91	11.07	11.06	11.26	8.22		11.05	10.84	10.3	10.93	8.64	6.85	
11/23/04		11.08	9.39	11.34	11.44	8.33		11.31	8.64	10.92	11.36	9.08	7.63	
12/31/04		10.64	8.92	10.85	11.09	8.48		10.85	8.57	10.58	10.87	8.86	7.09	
01/28/05		10.79	8.99	11.11	11.31	9.16		11.20	(1)	10.76	11.2	8.95	6.64	
02/28/05		10.79	11.05	10.83	10.81	8.44		10.3	(1)	10.03	10.88	8.49	6.57	
03/31/05		11.22	11.28	11.51	11.49	9.04		11.37	8.5	11.17	11.27	7.24	6.94	
04/29/05		11.48	11.75	11.78	11.75	9.17		11.79	9.64	11.39	11.53	8.32	7.40	
05/27/05		13.65	11.64	13.74	11.79	8.91		11.62	8.6	11.07	11.21	9.05	8.08	
06/24/05		11.59	11.9	11.67	11.92	8.73		11.75	10.9	10.51	11.81	9.86	8.07	
07/29/05		9.55	10.46	10.93	11.21	8.28		10.82	8.97	10.35	10.62	8.19	6.97	
08/31/05		10.85	11.12	11.15	11.35	9.02		11.04	9.01	10.7	11.03	8.4	6.93	
10/03/05		10.81	11.1	11.07	11.4	7.61		10.91	7.85	10.66	10.99	8.7	7.56	
10/31/05		10.85	11.34	11.4	11.56	8.13		11.3	7.73	11.15	11.41	8.61	9.69	
11/22/05		10.38	10.25	10.65	10.7	8.5		10.45	7.63	10.36	11.05	8.10	6.60	
12/23/05		11.40	11.58	11.57	11.93	8.11		11.67	7.19	11.23	11.64	7.36	7.30	
01/27/06		11.54	11.75	10.81	12.01	9.04		11.96	7.65	11.51	11.90	7.54	7.84	
02/28/06		11.53	11.57	12.09	12.3	9.73		11.77	7.84	11.43	11.78	7.36	7.22	
03/24/06		11.41	11.53	11.63	11.83	8.88		12.01	8.46	11.54	11.89	7.92	7.09	
04/21/06		11.31	11.65	11.62	11.86	8.79		11.96	7.98	11.40	11.86	8.52	6.97	
05/30/06		11.11	11.43	11.36	11.56	7.45		11.34	8.90	10.73	10.98	8.90	7.68	
06/26/06		11.48	11.62	11.71	11.91	8.92		11.89	8.46	11.6	11.61	8.03	7.18	
07/31/06		10.73	8.01	10.89	11.14	8.53		10.83	8.09	10.71	10.83	7.36	7.35	
08/25/06		11.62	11.9	11.74	12.05	8.83		11.77	9.88	11.44	11.72	10.82	8.11	
09/22/06		11.54	11.85	11.66	12.07	9.05		11.62	11.88	10.98	11.6	11.51	7.31	
10/31/06		11.26	11.37	11.29	11.49	9.35		10.16	8.96	11.05	11.06	8.48	8.86	
11/29/06		11.28	11.45	11.36	11.66	7.15		10.34	11.45	10.19	11.43	11.10	9.36	
12/29/06		11.26	9.82	11.51	11.64	9.02		11.54	11.52	10.45	11.45	11.42	10.85	

Notes:

(1) Buried with snow and could not be accessed.

TABLE 2.7
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
<i>Date</i>														
01/26/07		11.63	11.33	11.82	12.07	9.27		11.87	9.70	11.65	11.84	7.73	7.17	
02/27/07		11.58	10.76	11.66	12.07	8.39		11.91	7.29	11.17	11.92	8.31	7.07	
03/30/07		11.39	9.58	11.61	11.95	8.65		11.78	11.57	11.03	11.69	11.27	8.38	
04/30/07		11.19	10.01	11.42	11.63	8.44		11.40	11.48	11.38	10.73	10.76	7.29	
05/25/07		11.16	11.00	11.41	11.70	8.26		11.35	11.51	10.99	11.26	11.10	7.46	
06/29/07		11.12	10.54	11.38	11.57	8.83		11.31	11.38	10.48	10.94	11.00	7.21	
07/25/07		11.30	11.04	11.55	11.87	8.76		11.61	11.68	10.79	11.43	11.07	7.16	
08/31/07		11.01	10.99	11.11	11.34	8.76		11.14	11.22	10.19	10.88	10.45	6.33	
09/27/07		10.96	9.28	11.20	11.48	8.86		11.26	11.33	9.76	11.03	9.64	6.56	
10/31/07		11.19	11.33	11.24	11.75	9.30		11.02	11.57	10.60	11.38	10.61	7.68	
11/30/07		11.22	8.89	11.51	12.04	9.07		11.47	11.64	10.76	11.66	11.07	7.38	
12/31/07		11.24	9.25	11.43	11.80	8.84		11.73	11.46	10.78	11.60	10.76	7.07	
01/28/08		11.78	10.50	12.07	12.46	9.09		11.93	10.80	11.21	12.00	9.44	6.93	
02/29/08		11.63	11.44	11.60	12.01	9.43		11.92	11.91	10.10	11.85	10.78	6.84	
03/31/08		11.61	9.05	11.78	12.07	9.14		11.79	11.95	10.54	11.94	11.13	7.52	
04/28/08		11.64	10.46	11.88	12.28	7.54		11.91	11.65	10.97	11.80	11.21	7.70	
05/29/08		11.50	10.91	11.53	12.00	8.88		12.10	11.86	10.14	11.88	11.45	8.73	
06/25/08		11.40	10.76	11.62	11.88	9.19		11.90	11.86	9.83	11.76	11.33	6.98	
07/31/08		11.36	9.84	11.90	11.67	9.09		11.75	11.55	9.89	11.59	10.95	8.19	
08/27/08		11.27	9.66	11.65	11.89	9.19		11.55	9.75	10.59	11.35	8.32	8.92	
09/26/08		11.17	9.42	11.40	11.69	9.10		11.29	11.42	9.35	11.34	11.12	8.56	
10/30/08		11.31	11.22	11.37	11.83	9.54		11.41	11.08	10.02	11.51	11.09	10.78	
11/22/08		11.29	11.44	11.19	11.75	9.35		10.96	11.14	10.01	11.40	10.48	7.88	
12/31/08		11.58	10.56	11.77	11.92	8.56		11.77	9.76	10.26	11.68	8.41	7.84	
01/30/09		11.65	9.66	12.09	12.31	10.24		12.02	11.10	9.88	11.86	10.62	7.30	
02/25/09		11.15	10.43	11.37	11.57	9.06		11.65	10.90	10.09	11.22	10.83	8.37	
03/27/09		11.36	10.29	11.72	11.80	9.61		11.69	11.66	9.54	11.66	11.56	8.78	
04/30/09		11.37	9.59	11.72	11.90	9.84		11.90	9.10	9.92	11.56	8.92	8.86	
05/27/09		11.55	11.71	11.76	12.13	9.67		11.93	10.80	10.54	11.73	9.72	10.43	

TABLE 2.7
PH READINGS
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

<i>Monitoring Location</i>	<i>City MH1</i>	<i>City MH2</i>	<i>City MH3</i>
<i>Date</i>			
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
05/21/02	7.47	7.66	7.72
06/20/02	7.57	7.69	7.78
07/18/02	7.72	7.84	8.01
08/06/02	7.63	7.68	7.92
09/12/02	7.72	7.79	7.98
10/30/02	7.73	7.8	7.93
11/21/02	7.32	7.37	7.41
12/11/02	7.29	7.31	7.35
01/16/03	7.62	7.7	7.79
02/25/03	7.64	7.71	7.89
03/14/03	7.39	7.54	7.61
04/14/03	7.22	7.39	7.41
05/08/03	7.29	7.43	7.48
06/19/03	7.27	7.39	7.41
07/21/03	7.25	7.36	7.38
08/28/03	7.29	7.44	7.41
09/30/03	7.29	7.45	7.40
10/20/03	7.4	7.71	7.39
11/03/03	8.46	7.14	7.27
12/23/03	9.34	7.63	7.57

TABLE 2.7
PH READINGS
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

<i>Monitoring Location</i>	<i>City MH1</i>	<i>City MH2</i>	<i>City MH3</i>
<i>Date</i>			
01/21/04	(2)	8.12	(2)
02/12/04	8.45	7.77	7.65
03/04/04	8.21	7.76	7.79
04/16/04	10.95	8.38	8.32
05/14/04	7.30	7.62	7.75
06/25/04	8.06	7.99	7.94
07/30/04	7.85	7.90	7.81
08/31/04	10.2	7.5	7.4
09/30/04	8.6	7.7	7.9
10/20/04	7.59	7.56	7.61
11/23/04	9.64	7.6	7.67
12/31/04	9.09	7.68	7.38
01/28/05	8.92	7.58	7.40
02/28/05	(1)	8.16	7.90
03/31/05	8.49	7.59	7.55
04/29/05	8.74	8.05	7.89
05/27/05	9.24	8.33	8.27
06/24/05	10.53	8.44	8.24
07/29/05	7.3	7.16	6.96
08/31/05	8.06	6.87	7.13
10/03/05	10.3	8.1	NM
10/31/05	10.76	7.9	7.93
11/22/05	9.50	8.54	7.34
12/23/05	10.58	(3)	(3)
01/27/06	10.76	7.87	7.84
02/28/06	11.29	8.73	8.64
03/24/06	11.18	7.98	7.78
04/21/06	NM	8.28	8.05
05/30/06	10.88	7.73	7.63
06/26/06	8.84	7.73	7.68
07/31/06	7.51	7.02	7.24
08/25/06	9.72	7.82	7.67
09/22/06	11.29	8.34	8.99
10/31/06	10.70	8.61	8.13
11/29/06	10.77	8.27	8.04
12/29/06	10.60	8.07	7.73

Notes:

- * - pH meter malfunctioned.
- NM - Not Measured.
- (1) - Buried with snow.
- (2) - Road conditions were not safe to allow for monitoring.
- (3) - pH probe damaged.

TABLE 2.7
PH READINGS
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

<i>Monitoring Location</i>	<i>City MH1</i>	<i>City MH2</i>	<i>City MH3</i>
<i>Date</i>			
01/26/07	11.20	7.76	7.81
02/27/07	8.72	8.15	7.86
03/30/07	10.90	8.29	8.42
04/30/07	10.71	8.52	8.30
05/25/07	10.99	7.74	7.68
06/29/07	9.47	7.61	7.62
07/25/07	6.96	6.61	6.60
08/31/07	8.68	7.79	7.52
09/27/07	10.63	8.86	8.73
10/31/07	8.98	7.96	7.85
11/30/07	10.39	7.96	7.97
12/31/07	10.59	9.40	9.20
01/28/08	9.65	9.98	8.41
02/29/08	11.21	8.30	8.13
03/31/08	10.53	8.29	8.33
04/28/08	11.48	10.09	8.23
05/29/08	11.11	10.94	9.92
06/25/08	9.57	8.18	8.68
07/31/08	9.77	8.46	8.85
08/27/08	6.61	7.02	7.24
09/26/08	10.61	9.90	9.72
10/30/08	11.00	9.01	8.58
11/22/08	10.36	9.02	9.57
12/31/08	6.70	7.69	6.77
01/30/09	10.48	9.37	9.29
02/25/09	11.58	10.93	10.28
03/27/09	11.08	11.03	11.04
04/30/09	9.23	9.16	8.27
05/27/09	10.60	10.23	9.42

TABLE 2.8

EFFLUENT SAMPLING SUMMARY
JUNE 2001 TO FEBRUARY 2007
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

LOCATIONS

effluent monitoring station at Site discharge point

FREQUENCY

monthly (as dictated by the City of North Tonawanda Industrial Wastewater Discharge Permit)

PARAMETERS

Volatiles

Acetone	Methylene Chloride
Benzene	Styrene
2-Butanone	Tetrachloroethene
Chlorobenzene	Toluene
1,1-Dichloroethane	1,1,1-Trichloroethane
1,2-Dichloroethane	Trichloroethene
trans-1,2-Dichloroethene	Vinyl Chloride
Ethylbenzene	Xylenes (Total)

Semi-Volatiles

1,4-Dichlorobenzene	4-Methylphenol
1,2-Dichlorobenzene	Naphthalene
2,4-Dimethylphenol	Di-n-octylphthalate
2-Methylphenol	Phenols (4AAP)

Inorganics

Aluminum	Lead
Antimony	Magnesium
Arsenic	Manganese
Barium	Mercury
Beryllium	Nickel
Cadmium	Selenium
Chromium	Silver
Copper	Sodium
Iron	Zinc

Wet Chemistry

Alkalinity (Bicarbonate)	Oil and Grease
Alkalinity (Total)	pH
BOD	Phosphorous
Chloride	Sulfate
COD	Sulfide
Cyanide	TDS
Hardness	TKN
NH3	TOC
NO3	TSS

TABLE 2.9

EFFLUENT SAMPLING SUMMARY
SUBSEQUENT TO FEBRUARY 2007
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

LOCATIONS

effluent monitoring station at Site discharge point

FREQUENCY

Semi-Annual (Spring and Fall as dictated by the City of North Tonawanda
Industrial Wastewater Discharge Permit dated January 31, 2007)

PARAMETERS

Volatiles

Acetone	Methylene Chloride
Benzene	Styrene
2-Butanone	Tetrachloroethene
Chlorobenzene	Toluene
1,1-Dichloroethane	1,1,1-Trichloroethane
1,2-Dichloroethane	Trichloroethene
trans-1,2-Dichloroethene	Vinyl Chloride
Ethylbenzene	Xylenes (Total)

Semi-Volatiles

1,4-Dichlorobenzene	4-Methylphenol
1,2-Dichlorobenzene	Naphthalene
2,4-Dimethylphenol	Di-n-octylphthalate
2-Methylphenol	Phenols (4AAP)

Wet Chemistry

Chloride
Cyanide
NH₃
NO₃
Phosphorous
Sulfate
Sulfide

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

Sample ID: Sample Date:	Discharge Sample Port GRATWICK-RIVERSIDE								Surface Water Standard ⁽¹⁾
	6/29/2001	7/30/2001	8/21/2001	9/20/2001	10/24/2001	11/29/2001	12/6/2001		
Parameter	Unit								
Volatiles									
1,1,1-Trichloroethane	µg/L	3.0J	1.8J	1.1J	7.6U	7.6U	3.8U	3.8U	5
1,1-Dichloroethane	µg/L	8.8	7.3	5.8	3.4J	2.1U	2.6J	3.5J	5
1,2-Dichloroethane	µg/L	5.0U	5.0U	5.0U	10U	10U	5.0U	5.0U	0.6
2-Butanone	µg/L	7.6J	10	10U	20U	20U	6.8J	6.7J	50
Acetone	µg/L	77	93	140	36	26	55	55	50
Benzene	µg/L	6.4	7.2	6.2	3.5J	3.2J	3.1J	4.0J	1
Chlorobenzene	µg/L	3.7J	4.9J	5.0J	3.4J	16	3.5J	5.4J	5
Ethylbenzene	µg/L	8.9	11	9	8.6J	3.6J	4.8J	6.8J	5
Methylene chloride	µg/L	1.1J	2.8U	2.8U	5.6U	5.6U	2.8U	2.8U	5
Styrene	µg/L	1.0J	5.0U	5.0U	10U	10U	5.0U	5.0U	5
Tetrachloroethene	µg/L	22	33	25	16	8.3	15	23	0.7 ⁽²⁾
Toluene	µg/L	74	84	68	42	20	37	50	5
trans-1,2-Dichloroethene	µg/L	2.6	2.1	2.8	3.3J	1.8J	1.5J	2.4	5
Trichloroethene	µg/L	150J	130	87	55	32	56	72	5
Vinyl chloride	µg/L	11	13	13	13J	5.6J	8.0J	13	0.3 ⁽²⁾
Xylene (total)	µg/L	40	44	34	32	11	17	26	5
Semi-Volatiles									
1,2-Dichlorobenzene	µg/L	9U	2U	1J	6	0.6J	0.9J	9U	3
1,4-Dichlorobenzene	µg/L	21U	4U	1J	2J	1J	4U	1J	3
2,4-Dimethylphenol	µg/L	14	13	19	12	8	17	13	50 ⁽²⁾
2-Methylphenol	µg/L	49	46	38	28	15	38	37J	NL
4-Methylphenol	µg/L	58	47	46	30	21	46	40J	NL
Di-n-octyl phthalate	µg/L	12U	2U	2U	2U	1J	2U	12U	50 ⁽²⁾
Naphthalene	µg/L	1J	1J	1J	1J	67J	0.8J	8U	10
Phenol	µg/L	86	64	67	110	230	74	110	1

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

		Discharge Sample Port							
Sample ID:	GRATWICK-RIVERSIDE								
Sample Date:		6/29/2001	7/30/2001	8/21/2001	9/20/2001	10/24/2001	11/29/2001	12/6/2001	
Parameter	Unit								Surface Water Standard ⁽¹⁾
Metals									
Aluminum	mg/L	0.31	0.24	0.24	0.34	0.20U	0.20	0.20U	NL
Antimony	mg/L	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.003
Arsenic	mg/L	0.0070U	0.0070U	0.0070U	0.0070U	0.0070U	0.0070U	0.0070U	0.050
Barium	mg/L	0.059	0.063	0.061	0.081	0.067	0.064	0.064	1.0
Beryllium	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.003 ⁽²⁾
Cadmium	mg/L	0.0010U	0.0010U	0.0010U	0.0010U	0.0010U	0.0010U	0.0010U	0.005
Chromium	mg/L	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.050
Copper	mg/L	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.023 ⁽³⁾
Iron	mg/L	0.050U	0.050U	0.050U	0.16	0.095	0.057	0.062	0.30
Lead	mg/L	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.012
Magnesium	mg/L	0.35	0.66	1	0.77	6.8	1.1	0.94	35
Manganese	mg/L	0.0030U	0.0030U	0.0036	0.012	0.028	0.0043	0.004	0.30
Mercury	mg/L	0.00020U	0.00020U	0.00020U	0.00020U	0.00020U	0.00020U	0.00020U	0.000026 ⁽⁴⁾
Nickel	mg/L	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.10
Selenium	mg/L	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.0046 ⁽⁴⁾
Silver	mg/L	0.0030U	0.0030U	0.0030U	0.0030U	0.0030U	0.0030U	0.0030U	0.050
Sodium	mg/L	273	271	262	310	290	293	286	NL
Zinc	mg/L	0.026U	0.026U	0.026U	0.026U	0.026U	0.026U	0.026U	2.0 ⁽²⁾
General Chemistry									
pH	S.U.	NA	NA	9.45	11.23	9.20	10.06	10.71	NL
Hardness	mg/L	524	488	465	529	301	456	410	NL
Total Dissolved Solids (TDS)	mg/L	1500	1450	1530	1520	1280	1200	1200	NL
Total Suspended Solids (TSS)	mg/L	NA	NA	14	19	10	9.0	7.0	NL
Chloride	mg/L	497	123	497	820	577	436	389	250
BOD	mg/L	NA	NA	20	17	20	24	27	NL
COD	mg/L	NA	NA	155	240	240	50	49	NL
Oil and Grease	mg/L	NA	NA	0.60U	1.0	0.87U	1.0U	1.0U	NL
Organic Carbon	mg/L	NA	NA	16	10	18	9.0	11	--
Alkalinity, Total (As CaCO3)	mg/L	131	115	120	115	20.9	22.2	57	NL
Bicarbonate (as CaCO3)	mg/L	5.0U	5.0U	5.0U	5.0U	20.9	22.2	57	NL
Ammonia	mg/L	NA	NA	6	4.9	4.9	21	11.6	2.0
Nitrate (as N)	mg/L	0.050U	0.050U	0.50U	0.20	0.050U	0.050U	0.050U	10

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

Sample ID: Sample Date:	Discharge Sample Port GRATWICK-RIVERSIDE							Surface Water Standard ⁽¹⁾	
	6/29/2001	7/30/2001	8/21/2001	9/20/2001	10/24/2001	11/29/2001	12/6/2001		
Parameter	Unit								
General Chemistry									
TKN	mg/L	NA	NA	10	7.6	7.6	14.8	10.6	NL
Sulfate	mg/L	281	20.4	307	196	329	245	263	250
Sulfide	mg/L	13.2	16.0	14.3	5.6	2.5	10.6	14	0.002
Phenol	mg/L	NA	NA	0.28	0.24	0.28	0.15	0.11	0.001
Phosphorous	mg/L	NA	NA	0.29	NA	0.05	0.13	0.06	0.020 ⁽²⁾
Cyanide	mg/L	NA	NA	0.005U	0.005U	0.005U	0.005U	0.005U	0.0052

Notes:

U - Non-detect at associated value

- - Not Analyzed

J - Estimated

NL - Not Listed

SL - Sample Lost

(1) - Lowest Standard/Guidance Value shown

(2) - Guidance Value

(3) - Calculated using a hardness of 300 ppm

(4) - Applies to dissolved form

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

Sample ID:

Sample Date:

Sample Date:		1/23/2002	2/21/2002	3/27/2002	4/24/2002	5/30/2002	6/29/2002	6/29/2002	7/25/2002	8/27/02	9/23/02	10/17/02	11/13/02	12/12/2002	Surface Water Standard ⁽¹⁾
Parameter	Unit														
Volatiles															
1,1,1-Trichloroethane	µg/L	7.3U	7.6U	7.6U	7.6U	7.6U	7.6U	7.6U	7.6U	3.8U	3.8U	3.8U	3.8U	7.6U	5
1,1-Dichloroethane	µg/L	2.3J	4.1J	4.9J	9.9	9.4U	9.4U	9.4U	2.7J	1.4J	1.8J	1.2J	4.5J	7.3J	5
1,2-Dichloroethane	µg/L	10U	10U	10U	10U	10U	10U	10U	10U	5.0U	5.0U	5.0U	5.0U	10U	0.6
2-Butanone	µg/L	20U	20U	20U	110	20U	20U	20U	20U	10U	10U	2.1J	10U	5.2J	50
Acetone	µg/L	42	53	56	98	52	25	25	130	7.0J	28	15	48	96	50
Benzene	µg/L	2.1J	3.2J	4.6J	9.1	4.7J	2.1J	2.1J	3.3J	1.9J	3.3J	2.1J	5.3	7.8J	1
Chlorobenzene	µg/L	3.8J	6.6J	5.2J	4.4J	8.9J	5.8J	5.8J	5.4J	6.9	4.0J	5.6J	6.1	4.3J	5
Ethylbenzene	µg/L	2.0J	7.6J	9.6J	18	10J	5.3J	5.3J	7.8J	6.4J	7.2	4.6J	13	18	5
Methylene chloride	µg/L	6.4U	5.6U	5.6U	2.9J	5.6U	5.6U	5.6U	3.2J	3.5U	3.5U	3.5U	3.5U	2.2J	5
Styrene	µg/L	10U	10U	10U	10U	10U	10U	10U	10U	5.0U	5.0U	5.0U	5.0U	10U	5
Tetrachloroethene	µg/L	4.9J	23	28	46	48	27	27	19	9.6	12	6.0	42	48	0.7 ⁽²⁾
Toluene	µg/L	15	46	57	110	42	33	33	41	18	30	14	64	110	5
trans-1,2-Dichloroethene	µg/L	3.6U	2.4J	2.5J	4.2	3.6U	3.6U	3.6U	2.1J	2.2	1.8U	2.0	1.8U	3.2J	5
Trichloroethene	µg/L	27	92	140	260	140	80	80	74	20	48	20	130	230	5
Vinyl chloride	µg/L	8.4J	20U	5.1J	14J	13J	8.6J	8.6J	6.6J	11	10	11	18	15J	0.3 ⁽²⁾
Xylene (total)	µg/L	7.3J	29	40	76	37	21	21	30	20	24	15	50	78	5
Semi-Volatiles															
1,2-Dichlorobenzene	µg/L	2J	1J	1J	3	9U	0.8J	0.8J	1J	0.6J	0.6J	1J	0.9J	3	3
1,4-Dichlorobenzene	µg/L	2J	2J	1J	3J	2J	1J	1J	1J	1J	0.8J	2J	1J	3J	3
2,4-Dimethylphenol	µg/L	11J	9J	8	14	5J	4	4	9	6	7	8	12	21	50 ⁽²⁾
2-Methylphenol	µg/L	28J	21J	17	36	10J	8J	8J	18	8J	13	15	19	32	NL
4-Methylphenol	µg/L	40J	27J	24	57	19J	13	13	27	13	20	21	30	61	NL
Di-n-octyl phthalate	µg/L	14U	12U	2U	2U	12U	2U	2U	2U	2U	0.3J	3U	2U	2U	50 ⁽²⁾
Naphthalene	µg/L	57	24	12	1J	7U	15	15	13	23	8	29	2U	1J	10
Phenol	µg/L	210	96	42	73	46	51	51	41	66	28	84	35	38	1

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

Sample ID:																Surface Water Standard ⁽¹⁾
Sample Date:		1/23/2002	2/21/2002	3/27/2002	4/24/2002	5/30/2002	6/29/2002	6/29/2002	7/25/2002	8/27/02	9/23/02	10/17/02	11/13/02	12/12/2002		
Parameter	Unit															
Metals																
Aluminum	mg/L	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	NL	
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	0.020U	0.020U	0.003	
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	0.0070U	0.0070U	0.050	
Barium	mg/L	0.077	0.075	0.078	0.095	0.064	0.058	0.058	0.059	0.073	0.054	0.064	0.068	0.096	1.0	
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	0.0050U	0.0050U	0.003 ⁽²⁾	
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	0.0010U	0.0010U	0.005	
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	0.0020U	0.0020U	0.050	
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	0.010U	0.010U	0.023 ⁽³⁾	
Iron	mg/L	0.050U	0.050U	0.050U	0.050U	0.090	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.10	0.050U	0.30	
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	0.010U	0.010U	0.012	
Magnesium	mg/L	1.5	1.4	0.92	0.34	2.5	1.7	1.7	1.8	8.8	3.5	6.4	1.9	0.43	35	
Manganese	mg/L	0.0034	0.0042	0.0049	0.003U	0.0090	0.0030U	0.0030U	0.0030U	0.0094	0.0030U	0.0098	0.0030U	0.0030U	0.30	
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	0.00020U	0.00020U	0.0000026 ⁽⁴⁾	
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	0.010U	0.010U	0.10	
Selenium	mg/L	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.0046 ⁽⁴⁾	
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	0.0030U	0.0030U	0.050	
Sodium	mg/L	317	336	360	242	329	318	318	270	189	195	204	289	272	NL	
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	0.026U	0.026U	2.0 ⁽²⁾	
General Chemistry																
pH	S.U.	10.91	10.96	10.92	11.46	10.4	10.66	10.66	10.37	8.44	8.97	8.84	10.11	10.72	NL	
Hardness	mg/L	415	449	440	484	349	300	300	300	316	277	274	372	507	NL	
Total Dissolved Solids (TDS)	mg/L	1450	1490	1640	1610	1530	1130	1130	1100	868	1040	945	1330	1410	NL	
Total Suspended Solids (TSS)	mg/L	5.0	11.0	9	8	6	8	8	8	12	6	1.5	2	2.3	NL	
Chloride	mg/L	514	545	577	545	518	452	452	424	377	320	329	502	489	250	
BOD	mg/L	25	21	22	29	13	9	9	12	14	8	11	16	15	NL	
COD	mg/L	45	58	255	50	23	26	26	58	49	19	46	16	64	NL	
Oil and Grease	mg/L	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	NL	
Organic Carbon	mg/L	14	6	10	12	9	11	11	8	6.9	10	7	(5)	(5)	NL	
Alkalinity, Total (As CaCO3)	mg/L	62.4	53.8	102	126	36.3	43.1	43.1	16.7	27.2	5.0U	22.4	14.3	110	NL	
Bicarbonate (as CaCO3)	mg/L	5.0U	5.0U	5.0U	5.0U	5.0U	5.0U	5.0U	16.7	27.2	5.0U	22.4	14.3	5.0U	NL	
Ammonia	mg/L	9.1	6.0	6.0	5.2	SL	2.0	2.0	1.7	9.1	10.5	9.4	9.4	7.0	2.0	
Nitrate (as N)	mg/L	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	10	

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

Sample ID:																Surface Water Standard ⁽¹⁾
Sample Date:		1/23/2002	2/21/2002	3/27/2002	4/24/2002	5/30/2002	6/29/2002	6/29/2002	7/25/2002	8/27/02	9/23/02	10/17/02	11/13/02	12/12/2002		
Parameter	Unit															
General Chemistry																
TKN	mg/L	8.1	4.5	5.0	4.8	SL	2.0	2.0	1.7	5.6	6.2	7.8	10.5	10.8	NL	
Sulfate	mg/L	261	250	262	239	239	226	226	215	236	214	213	254	302	250	
Sulfide	mg/L	9.9	9.9	11.2	13.7	4.4	1.0U	1.0U	1.0U	1.4	1.0U	1.0U	7.4	21.6	0.002	
Phenol	mg/L	0.12	0.28	0.22	0.22	SL	0.40	0.40	0.27	0.16	0.16	0.16	0.12	0.12	0.001	
Phosphorous	mg/L	0.09	0.08	0.09	0.17	0.02	0.10	0.10	0.04	0.018	0.04	0.06	0.12	0.10	0.020 ⁽²⁾	
Cyanide	mg/L	0.005U	0.005U	0.040J	0.005U	0.005	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.0052	

Notes:

U - Non-detect at associated value

-- Not Analyzed

J - Estimated

NL - Not Listed

SL - Sample Lost

(1) - Lowest Standard/Guidance Value shown

(2) - Guidance Value

(3) - Calculated using a hardness of 300 ppm

(4) - Applies to dissolved form

(5) - TOC analyzer malfunction prevented analysis of this compound.

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

<i>Sample ID:</i>														
<i>Sample Date:</i>		1/16/03	2/06/03	3/11/03	4/04/03	5/09/03	6/10/03	7/10/03	8/7/03	9/4/03	10/10/03	11/7/03	12/10/03	Surface Water Standard ⁽¹⁾
<i>Parameter</i>	<i>Unit</i>													
Volatiles														
1,1,1-Trichloroethane	µg/L	2.6U	2.6U	2.6U	5.2U	1.3U	2.6U	5.2U	5.2U	5.2U	1.3U	2.6U	2.6U	5
1,1-Dichloroethane	µg/L	4.1	9.6	5.6	6.4	0.84U	5.4	7.4	4.6	3.3U	0.84U	1.7U	7.0	5
1,2-Dichloroethane	µg/L	1.7U	1.7U	1.7U	3.4U	0.85U	1.7U	3.4U	3.4U	3.4U	0.85U	1.7U	1.7U	0.6
2-Butanone	µg/L	9.3U	9.3U	9.3U	19U	4.6U	9.3U	19U	19U	19U	4.6U	9.3U	9.3U	50
Acetone	µg/L	21	56	51	42	10U	28	52	42U	42U	10U	21U	35	50
Benzene	µg/L	3.4	7.9	6.2	4.4U	1.1U	3.2	4.6	4.4U	4.4U	1.1U	2.2U	7.2	1
Chlorobenzene	µg/L	6.1	6.6	6.9	7.5	6.9	4.1	7.0	5.0	3.6U	5.4	9.3	6.3	5
Ethylbenzene	µg/L	9.9	2.3	15	12	1.9	11	12	9.5	4.3	1.8	2.1	17	5
Methylene chloride	µg/L	7.0U	7.0U	7.0U	14U	3.5U	7.0U	14U	14U	14U	3.5U	7.0U	7.0U	5
Styrene	µg/L	5.2U	5.2U	5.2U	10U	2.6U	5.2U	10U	10U	10U	2.6U	5.2U	5.2U	5
Tetrachloroethene	µg/L	22	59	46	31	8.3	45	38	32	12	1.3U	2.5U	47	0.7 ⁽²⁾
Toluene	µg/L	37	110	81	56	7.1	46	57	39	17	1.2U	3.2	82	5
trans-1,2-Dichloroethene	µg/L	3.0U	4.3	3.0U	6.0U	1.8	4.5	6.0U	6.0U	6.0U	1.5U	3.0U	3.3	5
Trichloroethene	µg/L	92	260	220	160	17	140	170	110	53	1.7	5.7	180	5
Vinyl chloride	µg/L	10	20	11	9.6	5.8	12	9.5	5.7U	5.7U	1.9	2.8U	11	0.3 ⁽²⁾
Xylene (total)	µg/L	41	99	64	50	7.0	44	56	40	28U	6.9U	14U	73	5
Semi-Volatiles														
1,2-Dichlorobenzene	µg/L	4U	20U	20U	20U	20U	20U	19U	16U	16U	16U	16U	16U	3
1,4-Dichlorobenzene	µg/L	4U	18U	19U	19U	19U	19U	18U	15U	15U	15U	15U	14U	3
2,4-Dimethylphenol	µg/L	10	18U	19U	19U	19U	19U	18U	12U	20	12U	13U	18	50 ⁽²⁾
2-Methylphenol	µg/L	12	16U	22	16U	16U	16U	15U	15U	15U	15U	16U	15	NL
4-Methylphenol	µg/L	24	35	45	31	18U	19	17U	15U	46	15U	16U	57	NL
Di-n-octyl phthalate	µg/L	4U	19U	20U	19U	19U	20U	19U	26U	26U	26U	27U	26U	50 ⁽²⁾
Naphthalene	µg/L	3U	18U	18U	18U	18U	18U	17U	17U	17U	17U	18U	17U	10
Phenol	µg/L	61	30	62	94	64	61	74	46	28	16	150	46	1

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

Sample ID:														
Sample Date:		1/16/03	2/06/03	3/11/03	4/04/03	5/09/03	6/10/03	7/10/03	8/7/03	9/4/03	10/10/03	11/7/03	12/10/03	Surface Water Standard ⁽¹⁾
Parameter	Unit													
Metals														
Aluminum	mg/L	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	NL
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	0.020U	0.003
Arsenic	mg/L	0.0070U	0.0070U	0.0070U	0.0070U	0.0070U	0.0070U	0.0070U	0.0070U	0.010U	0.010U	0.010U	0.010U	0.050
Barium	mg/L	0.091	0.097	0.090	0.094	0.065	0.070	0.080	0.074	0.082	0.072	0.092	0.10	1.0
Beryllium	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0020U	0.0020U	0.0020U	0.0020U	0.003 ⁽²⁾
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	0.0010U	0.005
Chromium	mg/L	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0040U	0.0055	0.0040U	0.0040U	0.050
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	0.010U	0.023 ⁽³⁾
Iron	mg/L	0.050U	0.050U	0.050U	0.11	0.050U	0.050U	0.17	0.050U	0.050U	0.072	0.050U	0.050U	0.30
Lead	mg/L	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.0060U	0.0060U	0.0060U	0.0060U	0.012
Magnesium	mg/L	1.4	0.26	0.31	3.6	4.8	1.6	2.3	1.4	1.2	7.4	5.9	0.72	35
Manganese	mg/L	0.0030U	0.0030U	0.0030U	0.012	0.0030	0.0030U	0.0080	0.0030U	0.0030U	0.018	0.0055	0.0030U	0.30
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	0.00020U	0.0000026 ⁽⁴⁾
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	0.010U	0.10
Selenium	mg/L	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.015U	0.015U	0.015U	0.015U	0.0046 ⁽⁴⁾
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	0.0030U	0.050
Sodium	mg/L	343	391	195	401	310	276	293	231UJ	272	239	375	361	NL
Zinc	mg/L	0.026U	0.026U	0.026U	0.026U	0.026U	0.026U	0.026U	0.020U	0.020U	0.020U	0.020U	0.020U	2.0 ⁽²⁾
General Chemistry														
pH	S.U.	10.71	11.55	11.3	10.91	9.75	8.0	10.73	10.8	10.59	7.92	8.48	11.13	NL
Hardness	mg/L	388	435	459	430	368	374	365	294	431	380	399	420	NL
Total Dissolved Solids (TDS)	mg/L	1500	1580	1590	1750	1120	1230	1440	1050	1400	1000	1590	1400	NL
Total Suspended Solids (TSS)	mg/L	2.0	6.0	3.0	18.0	3.0	4	9	4	11	15	15	3	NL
Chloride	mg/L	511	512	628	778	524	416	474	410	347	383	615	834	250
BOD	mg/L	13	10	20	22	12	9	9	11	7	6	11	22	NL
COD	mg/L	55	73	46	44	39	73	48	24	21	8	40	53	NL
Oil and Grease	mg/L	1.0U	0.28	1.0U	1.0	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	NL
Organic Carbon	mg/L	6	13	12	12	9	8	9	6	10	5	10	9	NL
Alkalinity, Total (As CaCO ₃)	mg/L	104	155	121	48	7.9	NA	74	119	58.0	38.0	13.4	74.8	NL
Bicarbonate (as CaCO ₃)	mg/L	22.5	5.0U	5.0U	5.0U	7.9	NA	10U	10U	10U	38.0	13.4	10U	NL
Ammonia	mg/L	7.35	3.15	2.10	5.6	5.25	6.3	5.25	3.15	3.15	2.45	4.2	3.5	2.0
Nitrate (as N)	mg/L	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.051	0.050U	0.050U	10

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

Sample ID:														
Sample Date:		1/16/03	2/06/03	3/11/03	4/04/03	5/09/03	6/10/03	7/10/03	8/7/03	9/4/03	10/10/03	11/7/03	12/10/03	Surface Water Standard ⁽¹⁾
Parameter	Unit													
General Chemistry														
TKN	mg/L	9.24	2.52	1.1	4.48	5.04	8.4	6.7	5.88	5.88	2.24	7.28	5.88	NL
Sulfate	mg/L	202	177	184	230	236	234	170	208	254	149	242	386	250
Sulfide	mg/L	3.2	4.0	8.0	10	2.2	4.0	4.8	4.8	2.4	1.0U	1.0U	2.0	0.002
Phenol	mg/L	0.11	0.10	0.009	0.006	0.01U	0.008U	0.034	0.08U	0.014U	0.006U	0.012U	0.015U	0.001
Phosphorous	mg/L	0.12	0.10	0.18	0.10	0.04	0.11	0.10	0.13	0.16	0.11	0.24	0.13	0.020 ⁽²⁾
Cyanide	mg/L	0.005U	0.005U	0.005U	0.005	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.0052

Notes:

U - Non-detect at associated value

- - Not Analyzed

J - Estimated

NL - Not Listed

SL - Sample Lost

(1) - Lowest Standard/Guidance Value shown

(2) - Guidance Value

(3) - Calculated using a hardness of 300 ppm

(4) - Applies to dissolved form

(5) - TOC analyzer malfunction prevented analysis of this compound.

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

Sample ID: Sample Date:		1/8/04	2/6/04	3/16/04	04/13/04	05/14/04	06/10/04	07/09/04	08/12/04	09/10/04	10/08/04	11/05/04	12/03/04	Surface Water Standard ⁽¹⁾
Parameter	Unit													
Volatiles														
1,1,1-Trichloroethane	µg/L	2.6U	5.2U	1.3U	5.2U	1.3U	5.2U	1.3U	1.3U	5.2U	5.2U	5.2U	1.3U	5
1,1-Dichloroethane	µg/L	9.2	3.3U	11	14	4.1	11	5.9	10	5.2U	5.2U	3.3U	6.5	5
1,2-Dichloroethane	µg/L	1.7U	3.4U	0.85U	3.4U	0.85U	3.4U	0.85U	0.85U	5.2U	5.2U	3.4U	0.85U	0.6
2-Butanone	µg/L	9.3U	19U	4.6U	19U	4.6U	19U	4.6U	4.6U	5.2U	5.2U	19U	4.6U	50
Acetone	µg/L	53	42U	38	42U	12	42U	22	34	5.2U	5.2U	42U	19	50
Benzene	µg/L	7.8	4.4U	6.1	4.4	2.1	5.3	2.9	5.6	5.2U	5.2U	4.4U	3.3	1
Chlorobenzene	µg/L	6.7	8.8	3.0	3.6U	8.8	3.6U	4.4	2.9	19	13	12	4.5	5
Ethylbenzene	µg/L	19	0.11U	17	14	6.4	18	8.7	18	6.4	0.11U	0.11U	12	5
Methylene chloride	µg/L	7.0U	14U	3.5U	14U	3.5U	15	3.5U	3.5U	14U	14U	14U	3.5U	5
Styrene	µg/L	5.2U	10U	2.6U	10U	2.6U	10U	2.6U	2.6U	14U	14U	10U	2.6U	5
Tetrachloroethene	µg/L	60	5.0U	50	38	16	63	22	52	14U	14U	5.0U	31	0.7 ⁽²⁾
Toluene	µg/L	98	4.9U	80	75	26	78	38	83	14U	14U	4.9	46	5
trans-1,2-Dichloroethene	µg/L	3.6	6.0U	4.0	6.0U	1.8	6.0U	2.1	3.6	14U	14U	6.0U	1.5U	5
Trichloroethene	µg/L	260	7.5	200	220	82	240	97	200	4.8	4.8U	4.8U	130	5
Vinyl chloride	µg/L	14	5.7U	10	8.9	4.9	11	5.6	12	6.1	5.7U	5.7U	6.7	0.3 ⁽²⁾
Xylene (total)	µg/L	91	28U	81	78	29	87	42	83	28U	28U	28U	5.4	5
Semi-Volatiles														
1,2-Dichlorobenzene	µg/L	16U	16U	16U	16U	16U	16U	16U	16U	16U	16U	16U	16U	3
1,4-Dichlorobenzene	µg/L	15U	15U	15U	15U	15U	15U	15U	14U	15U	14U	15U	15U	3
2,4-Dimethylphenol	µg/L	15	12U	13U	12U	12U	13U	13U	12U	14	12U	13U	13U	50 ⁽²⁾
2-Methylphenol	µg/L	16U	15U	16U	15U	15U	16U	16U	15	15U	15U	16U	16U	NL
4-Methylphenol	µg/L	48	15U	24	16	15U	16U	20	32	29	15U	16U	16U	NL
Di-n-octyl phthalate	µg/L	27U	27U	27U	26U	27U	27U	27U	26U	26U	26U	27U	27U	50 ⁽²⁾
Naphthalene	µg/L	18U	37	18U	17U	20	18U	18U	17U	17U	20	18U	18U	10
Phenol	µg/L	39	140	11	14	91	16	67	13	6U	55	6U	11	1

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

Sample ID: Sample Date:		1/8/04	2/6/04	3/16/04	04/13/04	05/14/04	06/10/04	07/09/04	08/12/04	09/10/04	10/08/04	11/05/04	12/03/04	Surface Water Standard	(1)
Parameter	Unit														
Metals															
Aluminum	mg/L	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	NL	
Antimony	mg/L	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.0020U	0.0020U	0.0020U	0.0020U	0.003	
Arsenic	mg/L	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.050	
Barium	mg/L	0.095	0.092	0.11	0.096	0.085	0.083	0.068	0.076	0.059	0.079	0.070	0.077	1.0	
Beryllium	mg/L	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.003	(2)
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	0.0010U	0.005	
Chromium	mg/L	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.050	
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	0.010U	0.023	(3)
Iron	mg/L	0.050U	0.066	0.050U	0.055	0.26	0.050U	0.056	0.097	0.20	0.22	0.11	0.050U	0.30	
Lead	mg/L	0.0060U	0.0060U	0.0060U	0.0060U	0.0060U	0.0060U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.012	
Magnesium	mg/L	0.68	4.2	1.2	1.0	5.4	0.66	2.8	0.57	5.4	5.2	5.2	2.7	35	
Manganese	mg/L	0.0030U	0.19	0.0033	0.0058	0.018	0.0030U	0.012	0.0030U	0.022	0.031	0.022	0.067	0.30	
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	0.00020U	0.0000026	(4)
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	0.010U	0.10	
Selenium	mg/L	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.0046	(4)
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	0.0030U	0.050	
Sodium	mg/L	362	425	425	422	423	349	319	305	334	447	360	294	NL	
Zinc	mg/L	0.030	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	2.0	(2)

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

<i>Sample ID:</i>														
<i>Sample Date:</i>		1/8/04	2/6/04	3/16/04	04/13/04	05/14/04	06/10/04	07/09/04	08/12/04	09/10/04	10/08/04	11/05/04	12/03/04	Surface Water Standard ⁽¹⁾
<i>Parameter</i>	<i>Unit</i>													
General Chemistry														
pH	S.U.	11	9.13	11.13	11.16	9.44	11.26	8.81	11.19	9.21	7.26	9.10	10.95	NL
Hardness	mg/L	450	452	446	484	408	430	336	312	430	372	348	360	NL
Total Dissolved Solids (TDS)	mg/L	1490	1770	1780	1760	1920	1560	1490	1390	1560	1720	1320	1220	NL
Total Suspended Solids (TSS)	mg/L	6	4	11	20	6	11	5	8	8	10	18	5	NL
Chloride	mg/L	742	986	869	809	1020	792	728	678	692	913	676	599	250
BOD	mg/L	18	10	13	19	17	16	6	11	15	11	6	15	NL
COD	mg/L	55	30	51	51	58	26	67	43	46	59	17	24	NL
Oil and Grease	mg/L	1.0U	1.0U	1.0U	1.0U	0.57	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	NL
Organic Carbon	mg/L	9	9	6	5	6	6	8	7	8	9	8	7	NL
Alkalinity, Total (As CaCO ₃)	mg/L	56.0	23.0	71.2	110.0	12.3	122	45.7	113	37.8	44.6	46.5	55.7	NL
Bicarbonate (as CaCO ₃)	mg/L	10UJ	23	10U	10U	12.3	47.1	10U	10U	37.8	44.6	46.5	55.7	NL
Ammonia	mg/L	0.32	0.7	0.35	1.75	1.05	0.70	0.35	0.70	1.05	0.7	1.05	1.4	2.0
Nitrate (as N)	mg/L	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	10
TKN	mg/L	0.56	2.8	1.4	0.28	0	0.84	0.56	1.68	1.12	0.56	0.84	1.12	NL
Sulfate	mg/L	276	315	381	568	356	360	283	279	265	311	225	2.54	250
Sulfide	mg/L	4.0	1.2	3.2	5.6	1.6	1.6	8.4J	2.4	2.4J	5.6	2.4	2	0.002
Phenol	mg/L	0.015U	0.008U	0.009U	0.012U	0.010U	0.008U	0.010U	0.010U	0.010U	0.007U	0.008U	0.008U	0.001
Phosphorous	mg/L	0.20	0.11	0.24	0.23	0.13	0.05	0.20	0.06	0.14	0.10	0.14	0.10	0.020 ⁽²⁾
Cyanide	mg/L	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.0052

Notes:

U - Non-detect at associated value

- - Not Analyzed

J - Estimated

NL - Not Listed

SL - Sample Lost

(1) - Lowest Standard/Guidance Value shown

(2) - Guidance Value

(3) - Calculated using a hardness of 300 ppm

(4) - Applies to dissolved form

(5) - TOC analyzer malfunction prevented analysis of this compound.

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

Sample ID:														
Sample Date:		01/07/05	02/03/05	03/04/05	04/08/05	05/06/05	06/10/05	07/08/05	08/05/05	09/09/05	10/07/05	11/04/05	12/08/05	Surface Water Standard (1)
Parameter	Unit													
Volatiles														
1,1,1-Trichloroethane	µg/L	2.6U	2.6U	2.6U	2.6U	13U	2.6U	6.6U	1.3U	5.2U	5.2U	5.2U	5.2U	5
1,1-Dichloroethane	µg/L	1.7U	1.7U	1.7U	1.7U	8.4U	9.0	4.2U	6.6	5.7	3.3U	11	7.9	5
1,2-Dichloroethane	µg/L	1.7U	1.7U	1.7U	1.7U	8.5U	1.7U	4.2U	0.85U	3.4U	3.4U	3.4U	3.4U	0.6
2-Butanone	µg/L	9.3U	9.3U	9.3U	9.3U	46U	9.3U	23U	4.6U	19U	19U	19U	19U	50
Acetone	µg/L	21U	21U	21U	21U	100U	30	53U	10U	42U	42U	42U	42U	50
Benzene	µg/L	2.2U	2.2U	2.2U	2.2U	11U	2.5	5.5U	1.3	4.4U	4.4U	4.4U	4.4U	1
Chlorobenzene	µg/L	14	18	16	6.4	9.0U	1.8U	5.5	2.6	4.0	7.5	3.6U	4.7	5
Ethylbenzene	µg/L	3.2	2.2	0.056U	0.056U	0.28U	9.0	8.4	9.4	4.6	6.6	11	8.3	5
Methylene chloride	µg/L	7.0U	7.0U	7.0U	7.0U	35U	7.0U	17U	3.5U	14U	14U	14U	14U	5
Styrene	µg/L	5.2U	5.2U	5.2U	5.2U	26U	5.2U	13U	2.6U	10U	10U	10U	10U	5
Tetrachloroethene	µg/L	2.5U	2.5U	3.5	2.5U	13U	24	34	28	12	17	20	15	0.7 (2)
Toluene	µg/L	4.0	2.4U	5.3	3.1	14	45	40	44	23	25	45	34	5
trans-1,2-Dichloroethene	µg/L	3.0U	3.0U	3.0U	3.0U	15U	3.0U	7.6U	1.5U	6.0U	6.0U	6.0U	6.0U	5
Trichloroethene	µg/L	8.7	2.4U	12	8.5	29	140	100	90	67	61	120	86	5
Vinyl chloride	µg/L	3.6	2.8U	2.8U	2.8U	14U	5.1	7.1U	1.4U	5.7U	6.6	5.7U	5.7U	0.3 (2)
Xylene (total)	µg/L	14U	14U	14U	14U	69U	46	35	46	28U	28U	55	41	5
Semi-Volatiles														
1,2-Dichlorobenzene	µg/L	16U	16U	16U	16U	16U	1	1U	1U	1UJ	1	2	2	3
1,4-Dichlorobenzene	µg/L	15U	14U	15U	15U	15U	1	1	1	1	2	2	2	3
2,4-Dimethylphenol	µg/L	16	12U	13U	13U	12U	5	3	4	3	6	7	11	50 (2)
2-Methylphenol	µg/L	16U	15U	16U	16U	15U	6	4	7	1	5	8	7	NL
4-Methylphenol	µg/L	49	15U	16	16U	15U	12	10	15	0.7U	12	21	21	NL
Di-n-octyl phthalate	µg/L	27U	26U	27U	27U	27U	0.8U	0.8U	0.9U	0.9U	0.9U	0.9U	0.8U	50 (2)
Naphthalene	µg/L	18U	17U	33	18U	19	0.8U	0.8U	3	0.8U	0.8U	0.8U	0.8U	10
Phenol	µg/L	34	6U	130	120J	68	0.4U	7	9	0.4U	17	4	50	1

TABLE 2.10

**ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE**

Sample ID: Sample Date:		01/07/05	02/03/05	03/04/05	04/08/05	05/06/05	06/10/05	07/08/05	08/05/05	09/09/05	10/07/05	11/04/05	12/08/05	Surface Water Standard (1)
Parameter	Unit													
Metals														
Aluminum	mg/L	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20	0.20U	NL
Antimony	mg/L	0.020U	0.020U	0.020U	0.020U	0.020U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.003
Arsenic	mg/L	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.050
Barium	mg/L	0.068	0.069	0.085	0.15	0.088	0.067	0.055	0.063	0.073	0.082	0.093	0.10	1.0
Beryllium	mg/L	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.003 (2)
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	0.0010U	0.005
Chromium	mg/L	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.050
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	0.010U	0.023 (3)
Iron	mg/L	0.098	0.54	0.37	3.4	0.22	0.050U	0.050U	0.050U	0.17	0.056	0.050U	0.050U	0.30
Lead	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.012
Magnesium	mg/L	4.3	5.7	5.6	14.2	6.3	0.50	2.8	1.8	3.2	3.4	0.26	1.2	35
Manganese	mg/L	0.01	0.035	0.033	0.34	0.053	0.0030U	0.0068	0.0030U	0.022	0.022	0.0030U	0.0030U	0.30
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	0.00020U	0.0000026 (4)
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	0.010U	0.10
Selenium	mg/L	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.0046 (4)
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	0.0030U	0.050
Sodium	mg/L	387	422	448	504	347	289	229	235	264	292	302	357	NL
Zinc	mg/L	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.020U	0.032	0.020U	0.020U	2.0 (2)

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

<i>Sample ID:</i>														
<i>Sample Date:</i>		01/07/05	02/03/05	03/04/05	04/08/05	05/06/05	06/10/05	07/08/05	08/05/05	09/09/05	10/07/05	11/04/05	12/08/05	Surface Water Standard ⁽¹⁾
<i>Parameter</i>	<i>Unit</i>													
General Chemistry														
pH	S.U.	9.71	8.94	9.27	8.18	9.3	11.13	8.42	10.67	9.91	9.54	11.25	11.04	NL
Hardness	mg/L	372	390	398	468	400	352	275	268	255	280	360	344	NL
Total Dissolved Solids (TDS)	mg/L	1520	1480	1620	2010	1540	1370	1110	1140	1050	1320	1320	1380	NL
Total Suspended Solids (TSS)	mg/L	278	147	27	82	21	12	11	6	6	4	6	4	NL
Chloride	mg/L	950	836J	1060	1200	883	729	516	408	451	716	664	762	250
BOD	mg/L	12	15	12	11	10	11	14	10	12	14	15	16	NL
COD	mg/L	52	48	52	65	35	51	56	38	47	31	31	61	NL
Oil and Grease	mg/L	0.28	1.0U	1.0U	1.0U	1.0U	0.28	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	NL
Organic Carbon	mg/L	8	9	9	10	9	10	5.1	5.2	5.1	5.6	6.4	9.2	NL
Alkalinity, Total (As CaCO ₃)	mg/L	44	46.4	40	105	43.5	99.2	36.3	66	10.2	29.0	114	42	NL
Bicarbonate (as CaCO ₃)	mg/L	44	46.4	40	105	43.5	10U	36.3	66	10.2	29.0	114	42	NL
Ammonia	mg/L	0.7	0.7	0.7	0.35	1.05	0.35	0.35	0.7	0.35	0.70	0.70	0.70	2.0
Nitrate (as N)	mg/L	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	10
TKN	mg/L	0.56	0.28	0.56	0.28	1.4	0.28	0.56	0.56	0.28	0.56	0.56	0.84	NL
Sulfate	mg/L	273	232	431	256	279	276	223	199	206	291	256	263	250
Sulfide	mg/L	8.8	4	5.2	1.0U	1.0U	1.0U	1.0U	2.0	2.0	2.0	5.6	8.8	0.002
Phenol	mg/L	0.006U	0.012U	0.010U	0.014U	0.012U	0.009U	0.009U	0.007U	0.010U	0.010U	0.006U	0.008U	0.001
Phosphorous	mg/L	0.15	0.08	0.11	0.1	0.13	0.08	0.08	0.11	0.14	0.14	0.20	0.04	0.020 ⁽²⁾
Cyanide	mg/L	0.005U	0.005U	0.005U	0.005U	0.005U	0.0050U	0.0050U	0.005U	0.005U	0.005U	0.005U	0.005U	0.0052

Notes:

U - Non-detect at associated value

- - Not Analyzed

J - Estimated

NL - Not Listed

SL - Sample Lost

(1) - Lowest Standard/Guidance Value shown

(2) - Guidance Value

(3) - Calculated using a hardness of 300 ppm

(4) - Applies to dissolved form

(5) - TOC analyzer malfunction prevented analysis of this compound.

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

Sample ID:														
Sample Date:		01/06/06	02/14/06	03/10/06	04/07/06	05/04/06	06/09/06	07/07/06	08/08/06	09/22/06	10/06/06	11/09/06	12/08/06	Surface Water Standard (1)
Parameter	Unit													
Volatiles														
1,1,1-Trichloroethane	µg/L	5.2U	5.2U	5.2U	5.2U	5.2U	5.2U	1.3U	1.3U	2.6U	2.6U	1.3U	1.3 U	5
1,1-Dichloroethane	µg/L	8.9	10	11	12	3.3U	3.3U	1.1	8.3	1.7U	2.8	12	2.8	5
1,2-Dichloroethane	µg/L	3.4U	3.4U	3.4U	3.4U	3.4U	3.4U	0.85U	0.85U	1.7U	1.7U	0.85U	0.85 U	0.6
2-Butanone	µg/L	19U	19U	19U	19U	19U	19U	4.6U	4.6U	9.3U	9.3U	4.6U	4.6 U	50
Acetone	µg/L	42U	42U	42U	42U	42U	42U	12	26	21U	21U	22	23	50
Benzene	µg/L	4.4U	4.4U	4.4U	4.4U	4.4U	4.4U	1.4	4.1	3.0	3.4	1.5	3.4	1
Chlorobenzene	µg/L	5.1	5.0	5.0	3.6U	8.6	7.8	6.3	7.7	9.8	11	3.9	6.0	5
Ethylbenzene	µg/L	7.9	10	12	8.2	7.0U	7.0U	2.4	9.5	16	16	8.8	9.4	5
Methylene chloride	µg/L	14U	14U	14U	6.8U	6.8U	14	1.7U	1.7U	3.4U	3.4U	1.7U	1.7U	5
Styrene	µg/L	10U	10U	10U	6.6U	6.6U	6.6U	1.7U	1.7U	3.4U	3.4U	1.7U	1.7U	5
Tetrachloroethene	µg/L	15	19	27	21	9.1	13	5.4	25	18	21	10	22	0.7 (2)
Toluene	µg/L	36	46	56	41	11	28	13	57	13	24	36	44	5
trans-1,2-Dichloroethene	µg/L	6.0U	6.0U	6.0U	6.0U	6.0U	6.0U	1.5U	3.9	3.0U	3.0U	2.2	1.9	5
Trichloroethene	µg/L	100	130	150	130	23	54	20	94	23	52	130	82	5
Vinyl chloride	µg/L	5.7U	5.8	6.4	5.7U	5.7U	5.7U	2.9	11	4.3	5.2	4.6	1.4 U	0.3 (2)
Xylene (total)	µg/L	37	28U	55	41	28U	28U	9.1	41	14U	70	46	41	5
Semi-Volatiles														
1,2-Dichlorobenzene	µg/L	2	2	2	2	1	0.2U	0.2U	0.2U	4	3	0.2U	0.2U	3
1,4-Dichlorobenzene	µg/L	2	2	2	2	3	0.4U	2	2	6	4	2	0.4U	3
2,4-Dimethylphenol	µg/L	9	11	14	10	5	4	3	6	19	9	22	6 J	50 (2)
2-Methylphenol	µg/L	6	7	8	5	4	6	3	10	5	4	0.3U	3	NL
4-Methylphenol	µg/L	21	28	34	13	12	7	5	21	63	43	2	5	NL
Di-n-octyl phthalate	µg/L	0.8U	0.9U	0.8U	0.8U	4U	21U	21U	21U	21U	21U	23U	21 U	50 (2)
Naphthalene	µg/L	12	11	1	0.8U	50	16	16	38	0.4U	0.4U	0.4U	0.4 U	10
Phenol	µg/L	43	40	31	0.4U	150	21	46	170	41	10	0.1U	6	1

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

Sample ID: Sample Date:		01/06/06	02/14/06	03/10/06	04/07/06	05/04/06	06/09/06	07/07/06	08/08/06	09/22/06	10/06/06	11/09/06	12/08/06	Surface Water Standard	(1)
Parameter	Unit														
Metals															
Aluminum	mg/L	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	NL	
Antimony	mg/L	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U	0.003	
Arsenic	mg/L	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.010U	0.050	
Barium	mg/L	0.10	0.11	0.94	0.093	0.082	0.074	0.071	0.061	0.074	0.076	0.086	0.06	1.0	
Beryllium	mg/L	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.0020U	0.003	(2)
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	0.0010U	0.005	
Chromium	mg/L	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.0040U	0.050	
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	0.010U	0.023	(3)
Iron	mg/L	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.074	0.054	0.20	0.27	0.30	
Lead	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.0050U	0.012	
Magnesium	mg/L	2.3	1.2	0.57	0.46	7.6	1.6	7.0	3.0	3.2	2.1	58	4.8	35	
Manganese	mg/L	0.0030U	0.0030U	0.0030U	0.0030U	0.0030U	0.0030U	0.0030U	0.0030U	0.011	0.011	0.0034	0.0093	0.30	
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	0.00020U	0.0000026	(4)
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	0.010U	0.10	
Selenium	mg/L	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.015U	0.0046	(4)
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	0.0030U	0.050	
Sodium	mg/L	357	425	454	419	361	350	278	282	366	337	371	305	NL	
Zinc	mg/L	0.020U	0.020U	0.010U	0.010U	0.010U	0.010U	0.010U	0.018	0.0109	0.012	0.014	0.015	2.0	(2)

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

Sample ID:														
Sample Date:		01/06/06	02/14/06	03/10/06	04/07/06	05/04/06	06/09/06	07/07/06	08/08/06	09/22/06	10/06/06	11/09/06	12/08/06	Surface Water Standard (1)
Parameter	Unit													
General Chemistry														
pH	S.U.	10.73	11.07	10.99	10.96	9.74	10.62	8.32	9.86	10.82	11.08	11.19	8.53	NL
Hardness	mg/L	329	342	400	408	289	310	292	260	342	320	296	200	NL
Total Dissolved Solids (TDS)	mg/L	1510	1700	1670	1730	1500	1470	1180	1170	1440	1430	1350	1020	NL
Total Suspended Solids (TSS)	mg/L	6	6	10	5	4	3	27	13	6	26	8	9	NL
Chloride	mg/L	910	897	914	962J	914	737	493	495	728	791	752	412	250
BOD	mg/L	10	10	9	10	12	7	10	12	12	11	15	14	NL
COD	mg/L	38	45	47	47	47	47	47	161	177	47	27	20	NL
Oil and Grease	mg/L	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0 U	NL
Organic Carbon	mg/L	7.9	8.1	8.3	8.9	9.3	8.1	6.7	9.1	8	6.2	6.7	7.1	NL
Alkalinity, Total (As CaCO ₃)	mg/L	69	71.4	95.1	75.4	26.9	44.9	92.6	30.3	64.5	93.4	72.0	44.2	NL
Bicarbonate (as CaCO ₃)	mg/L	69	10U	10U	75.4	26.9	44.9	92.6	30.3	64.5	93.4	10U	44.2	NL
Ammonia	mg/L	0.35	1.05	0.28	0.70	0.70	0.28	0.70	1.05	0.70	1.05	0.70	1.05	2.0
Nitrate (as N)	mg/L	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050U	0.050 U	10
TKN	mg/L	0.28	0.84	0.56	0.84	0.56	0.84	0.56	1.12	0.84	0.56	0.28	1.12	NL
Sulfate	mg/L	297	288	285	351	296	259	182	242	230	208	269	207	250
Sulfide	mg/L	4.0	2.9	5.2	6.0	4.4	6.8	2.8	6.4	8.0	8.0	7.2	6.4	0.002
Phenol	mg/L	0.008U	0.010U	0.009U	0.011U	0.007U	0.008U	0.012U	0.007U	0.011U	0.013U	0.007U	0.006 U	0.001
Phosphorous	mg/L	0.06	0.37	0.13	0.05	0.10	0.12	0.07	0.17	0.14	0.14	0.18	0.13	0.020
Cyanide	mg/L	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005 U	0.0052

Notes:

U - Non-detect at associated value

-- - Not Analyzed

J - Estimated

NL - Not Listed

SL - Sample Lost

(1) - Lowest Standard/Guidance Value shown

(2) - Guidance Value

(3) - Calculated using a hardness of 300 ppm

(4) - Applies to dissolved form

(5) - TOC analyzer malfunction prevented analysis of this compound.

TABLE 2.10

ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

<i>Sample ID:</i> <i>Sample Date:</i>		01/05/07	02/09/07	09/17/08	03/05/09	Surface Water Standard ⁽¹⁾
<i>Parameter</i>	<i>Unit</i>					
Volatiles						
1,1,1-Trichloroethane	µg/L	1.3 U	1.3 U	0.73 U	1.1	5
1,1-Dichloroethane	µg/L	14	8.2	1.0	13	5
1,2-Dichloroethane	µg/L	0.85 U	0.85 U	0.60 U	0.60U	0.6
2-Butanone	µg/L	4.6 U	4.6 U	3.6 U	3.6U	50
Acetone	µg/L	19	17	20	19	50
Benzene	µg/L	2.2	1.6	2.3	2.1	1
Chlorobenzene	µg/L	4.9	5.6	7.0	5.1	5
Ethylbenzene	µg/L	10	9.1	13	4.0	5
Methylene chloride	µg/L	1.7U	1.7U	0.81 U	0.81U	5
Styrene	µg/L	1.7U	1.7U	1.0	0.38U	5
Tetrachloroethene	µg/L	16	15	26	15	0.7 (2)
Toluene	µg/L	57	35	20	35	5
trans-1,2-Dichloroethene	µg/L	2.7	2.2	2.8	2.8	5
Trichloroethene	µg/L	160	120	63	110	5
Vinyl chloride	µg/L	1.4U	1.4U	6.0	6.7	0.3 (2)
Xylene (total)	µg/L	52	43	52	46	5
Semi-Volatiles						
1,2-Dichlorobenzene	µg/L	1	0.2U	2	1.2	3
1,4-Dichlorobenzene	µg/L	0.4U	0.4U	3	1.9	3
2,4-Dimethylphenol	µg/L	5	4	19	19	50 (2)
2-Methylphenol	µg/L	8	5	16	8.3	NL
4-Methylphenol	µg/L	14	14	66	41	NL
Di-n-octyl phthalate	µg/L	21U	22U	21 U	4.5U	50 (2)
Naphthalene	µg/L	18	19	0.6	1.8	10
Phenol	µg/L	69	62	38	7.5	1

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

<i>Sample ID:</i>						
<i>Sample Date:</i>		01/05/07	02/09/07	09/17/08	03/05/09	<i>Surface Water Standard</i> ⁽¹⁾
<i>Parameter</i>	<i>Unit</i>					
Metals						
Aluminum	mg/L	0.20U	0.20U	0.20U	0.20U	NL
Antimony	mg/L	0.20U	0.20U	0.20U	0.20U	0.003
Arsenic	mg/L	0.010U	0.010U	0.010U	0.010U	0.050
Barium	mg/L	0.080	0.077	0.071	0.135	1.0
Beryllium	mg/L	0.0020U	0.0020U	0.0020U	0.0020U	0.003 ⁽²⁾
Cadmium	mg/L	0.0010U	0.0010U	0.0010U	0.0010U	0.005
Chromium	mg/L	0.0040U	0.0040U	0.0040U	0.0040U	0.050
Copper	mg/L	0.010U	0.010U	0.010U	0.030	0.023 ⁽³⁾
Iron	mg/L	0.078	0.064	0.054	0.49	0.30
Lead	mg/L	0.0050U	0.0050U	0.0050U	0.0050U	0.012
Magnesium	mg/L	1.9	2.3	1.7	4.2	35
Manganese	mg/L	0.0037	0.0071	0.013	0.097	0.30
Mercury	mg/L	0.00020U	0.00020U	0.00020U	0.00020U	0.0000026 ⁽⁴⁾
Nickel	mg/L	0.010U	0.010U	0.010U	0.010U	0.10
Selenium	mg/L	0.015U	0.015U	0.015U	0.015U	0.0046 ⁽⁴⁾
Silver	mg/L	0.0030U	0.0030U	0.0030U	0.0030U	0.050
Sodium	mg/L	376	365	260	367	NL
Zinc	mg/L	0.010U	0.010U	0.010U	0.010U	2.0 ⁽²⁾

TABLE 2.10
ANALYTICAL RESULTS SUMMARY
SITE EFFLUENT
GRATWICK-RIVERSIDE PARK SITE

<i>Sample ID:</i>						
<i>Sample Date:</i>		01/05/07	02/09/07	09/17/08	03/05/09	<i>Surface Water Standard</i> ⁽¹⁾
<i>Parameter</i>	<i>Unit</i>					
General Chemistry						
pH	S.U.	10.94	10.78	10.58	10.20	NL
Hardness	mg/L	284	269	346	700	NL
Total Dissolved Solids (TDS)	mg/L	1360	1330	1180	1550	NL
Total Suspended Solids (TSS)	mg/L	4	8	9	44	NL
Chloride	mg/L	897	741	460	720	250
BOD	mg/L	8	7	15	15	NL
COD	mg/L	74	67	33	41	NL
Oil and Grease	mg/L	1.0 U	1.0 U	1.0 U	0.10	NL
Organic Carbon	mg/L	8.8	11.5	5.6	7.7	NL
Alkalinity, Total (As CaCO ₃)	mg/L	75.9	56.8	59.8	38.2	NL
Bicarbonate (as CaCO ₃)	mg/L	10U	10U	10 U	38.2	NL
Ammonia	mg/L	0.70	0.70	0.35	0.56	2.0
Nitrate (as N)	mg/L	0.050 U	0.050U	0.050U	0.050U	10
TKN	mg/L	0.84	0.56	0.56	0.56	NL
Sulfate	mg/L	267	235	216	280	250
Sulfide	mg/L	6.8J	6.0	8.8	6.8	0.002
Phenol	mg/L	0.009U	0.009U	0.007 U	0.011U	0.001
Phosphorous	mg/L	0.12	0.01	0.15	0.17	0.020 ⁽²⁾
Cyanide	mg/L	0.005 U	0.005 U	0.005 U	0.005U	0.0052

Notes:

U - Non-detect at associated value

- - Not Analyzed

J - Estimated

NL - Not Listed

SL - Sample Lost

(1) - Lowest Standard/Guidance Value shown

(2) - Guidance Value

(3) - Calculated using a hardness of 300 ppm

(4) - Applies to dissolved form

(5) - TOC analyzer malfunction prevented analysis of this compound.

TABLE 2.11

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

<i>Month</i>	<i>Volumes (gallons)</i>	
	<i>Monthly</i>	<i>Total</i>
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
May 2002	348,200	14,541,100
June 2002	1,137,200	15,678,300
July 2002	869,300	16,547,600
August 2002	1,060,800	17,608,400
September 2002	707,000	18,315,400
October 2002	679,800	18,995,100
November 2002	489,500	19,484,700
December 2002	743,500	20,228,200
January 2003	1,150,700	21,378,900
February 2003	483,300	21,862,200
March 2003	402,300	22,264,500
April 2003	531,900	22,796,400
May 2003	655,600	23,452,000
June 2003	682,100	24,134,000
July 2003	942,000	25,076,100
August 2003	627,500	25,703,600
September 2003	349,600	26,053,200
October 2003	966,500	27,019,700
November 2003	442,200	27,461,900
December 2003	463,900	27,925,800
January 2004	443,900	28,369,700
February 2004	253,700	28,623,400

TABLE 2.11

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

<i>Month</i>	<i>Volumes (gallons)</i>	
	<i>Monthly</i>	<i>Total</i>
March 2004	403,700	29,027,100
April 2004	433,600	29,460,700
May 2004	377,400	29,838,100
June 2004	395,000	30,233,100
July 2004	384,300	30,617,400
August 2004	479,700	31,097,100
September 2004	413,900	31,511,000
October 2004	319,400	31,902,400
November 2004	249,200	32,151,600
December 2004	209,900	32,361,500
January 2005	310,100	32,671,600
February 2005	301,100	32,972,700
March 2005	250,200	33,222,900
April 2005	378,400	33,601,300
May 2005	458,800	34,060,100
June 2005	455,900	34,516,000
July 2005	270,200	34,786,200
August 2005	285,100	35,071,300
September 2005	395,600	35,466,900
October 2005	333,200	35,800,100
November 2005	360,200	36,160,300
December 2005	395,300	36,555,600
January 2006	297,500	36,853,100
February 2006	508,300	37,361,400
March 2006	244,700	37,606,100
April 2006	224,400	37,830,500
May 2006	153,300	37,983,800
June 2006	262,300	38,246,100
July 2006	212,900	38,459,000
August 2006	357,500	38,816,500
September 2006	777,000	39,593,500
October 2006	254,700	39,848,200
November 2006	778,700	40,626,900
December 2006	496,600	41,123,500

TABLE 2.11

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

<i>Month</i>	<i>Volumes (gallons)</i>	
	<i>Monthly</i>	<i>Total</i>
January 2007	410,500	41,534,000
February 2007	494,600	42,028,600
March, April & May 2007	1,489,200 ⁽³⁾	43,517,800
June 2007	334,300	43,852,100
July 2007	258,600	44,110,700
August 2007	239,000	44,349,700
September 2007	59,500 ⁽⁴⁾	44,409,200
October 2007 through January 2008	50,600 ⁽⁴⁾	44,459,800
February 2008	23,800 ⁽⁴⁾	44,483,600
March 2008	1,238,300	45,721,900
April 2008	2,126,700	47,848,600
May 2008	1,771,100	49,619,700
June 2008	618,000	50,237,700
July 2008	1,559,200	51,796,900
August 2008	1,365,900	53,162,800
September 2008	1,998,000	55,160,800
October 2008	2,511,100	57,671,900
November 2008	1,151,600	58,823,500
December 2008	572,700	59,396,200
January 2009	1,021,700	60,417,900
February 2009	2,661,400	63,079,300
March 2009	4,239,300	67,318,600
April 2009	1,189,900	68,508,500
May 2009	1,362,500	69,871,000

Notes:

- (1) To December 7, 2001.
- (2) From December 8, 2001.
- (3) Plotted as 496,400 gallons on Figure 2.18 for each of March, April, and May 2007.
- (4) Meter malfunctioned due to tar-like material buildup inside meter. Meter was cleaned on March 14, 2008. Volumes not plotted on Figure 2.18 as volumes are not representative of actual volume removed.

TABLE 2.12

SURFACE WATER SAMPLING SUMMARY
OPERATION AND MAINTENANCE MANUAL
GRATWICK-RIVERSIDE PARK SITE
NORTH TONAWANDA, NEW YORK

LOCATIONS

River South
River Middle
River North

FREQUENCY

- quarterly for 2 years following GWS startup (concurrent with groundwater sampling)
- semi-annually for Year 3 (concurrent with groundwater sampling)
- annually for Years 3 through 7 (concurrent with groundwater sampling)
- Year 8 and thereafter no sampling required (i.e., starting May 2009)

PARAMETERS

Volatiles

Acetone	Methylene Chloride
Benzene	Tetrachloroethene
2-Butanone	Toluene
Chlorobenzene	Trichloroethene
1,1-Dichloroethane	Vinyl Chloride
trans-1,2-Dichloroethene	Xylenes (Total)
Ethylbenzene	

Semi-Volatiles

1,2-Dichlorobenzene	4-Methylphenol
1,4-Dichlorobenzene	Naphthalene
2,4-Dimethylphenol	Di-n-octylphthalate
2-Methylphenol	Phenol

Recommended Future Sampling Program

- No further sampling and analyses.

APPENDIX A

MONTHLY INSPECTION LOGS
(JUNE 2008 TO MAY 2009)

GRATWICK-RIVERSIDE PARK SITE MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

INSPECTOR(S):

DATE:

06/25/08
(MM DD YY)

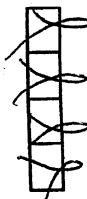
Item

Inspect For

Action Required

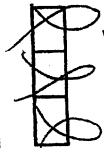
Comments

1. Perimeter Collection System/Off-Site Forcemain



Manholes

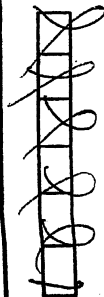
- cover on securely
- condition of cover
- condition of inside of manhole
- flow conditions



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

None

None

FORM 17

GRATWICK-RIVERSIDE PARK SITE MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 10/16/12 15:08
(MM DD YY)

INSPECTOR(S):

D. T. Gyan

Item	Inspect For	Action Required	Comments
2. Landfill Cap (continued)			
☒ Access Roads	- bare areas, dead/dying veg. - erosion - potholes or puddles - obstruction	<i>NONE</i> ↓ ✓	
3. Wetlands (Area "F")	- dead/dying vegetation - change in water budget - general condition of wetlands	<i>NONE</i> ↓ <i>Good</i>	
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:

06/25/08
(MM DD YY)

INSPECTOR(S):

D. Tylan

Item

Inspect For

Action Required

Comments

4.

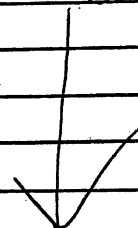
Other Site Systems (continued)

☒
☒
☒
☒
☒
☒
☒
☒
☒
☒

Drainage Ditches/
Swale Outlets

- sediment build-up
- erosion
- condition of erosion protection
- flow obstructions
- dead/dying vegetation
- cable concrete/gabion mats and riprap

Good Condition



☒
☒
☒
☒
☒

Culverts

- sediment build-up
- erosion
- condition of erosion protection
- flow obstructions

☒
☒

Gas Vents

- intact / damage

☒

Wells

- locks secure

None

FORM 17

GRATWICK-RIVERSIDE PARK SITE MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

INSPECTOR(S):

DATE:

10/17/37 10/8
(MM DD YY)

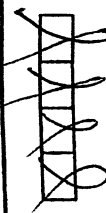
Item

Inspect For

Action Required

Comments

1. Perimeter Collection System/Off-Site Forcemain



Manholes

- cover on securely
- condition of cover
- condition of inside of manhole
- flow conditions

NONE

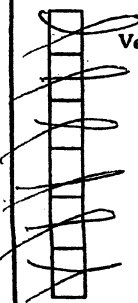


Wet Wells

- cover on securely
- condition of cover
- condition of inside of wet well

V

2. Landfill Cap



Vegetated Soil Cover

- erosion
- bare areas
- washouts
- leachate seeps
- length of vegetation
- dead/dying vegetation

NONE

FORM 17

GRATWICK-RIVERSIDE PARK SITE MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE:

01/31/08
(MM DD YY)

INSPECTOR(S):

D. Tyler

Item

Inspect For

Action Required

Comments

2. Landfill Cap (continued)



Access Roads

- bare areas, dead/dying veg.
- erosion
- potholes or puddles
- obstruction

NONE

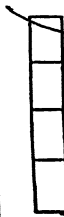
3. Wetlands (Area "F")

- dead/dying vegetation
- change in water budget
- general condition of wetlands

NONE

Water level good
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:

07/31/08
(MM DD YY)

INSPECTOR(S):

D. Tyra

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

FORM 17

GRATWICK-RIVERSIDE PARK SITE MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 01/02/17 01/08
(MM DD YY)

INSPECTOR(S): S. GARDNER, D. TYRAN

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	NONE
		- 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: 08/27/08
(MM DD YY)

INSPECTOR(S): S. GARDNER, D. TYRAN

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			
☐ ☐ ☐ ☐	Perimeter Fence	- integrity of fence	NA ↓
		- 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: 10/8/27/08
(MM DD YY)

INSPECTOR(S): S. GARDNER, D TYRAN

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		
☐ Gas Vents	- intact / damage	NA	
☒ Wells	- locks secure	NONE	

FORM 17

GRATWICK-RIVERSIDE PARK SITE MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 09/26/08
(MM DD YY)

INSPECTOR(S): S. GARDNER, D. TYRAN

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		NONE
		- 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: 09/26/08
(MM DD YY)

INSPECTOR(S): S GARDNER, D TYRAN

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	NA ↓
		- change in water budget	
		- general condition of wetlands	
4. Other Site Systems			
☐ ☐ ☐ ☐	Perimeter Fence	- integrity of fence	NA ↓
		- 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: 09/26/08
(MM DD YY)

INSPECTOR(S): S GARDNER, D. TYRAN

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	
☐	Gas Vents	- intact / damage	NA
☒	Wells	- locks secure	NONE

FORM 17

GRATWICK-RIVERSIDE PARK SITE MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

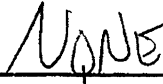
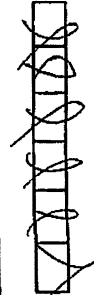
LOCATION: Wheatfield, New York

INSPECTOR(S):

D. Cardy

DATE:

11/03/06
(MM DD YY)

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	 NONE	
	- condition of cover		
	- condition of inside of wet well		
2. Landfill Cap			
 Vegetated Soil Cover	- erosion	 NONE	
	- bare areas		
	- washouts		
	- leachate seeps		
	- length of vegetation		
	- dead/dying vegetation		

FORM 17

GRATWICK-RIVERSIDE PARK SITE MONTHLY INSPECTION LOG

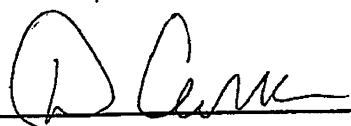
PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE:

1/10/30/08
(MM DD YY)

INSPECTOR(S):



Item

Inspect For

Action Required

Comments

2. Landfill Cap (continued)

☐
☐
☐
☐

Access Roads

- bare areas, dead/dying veg.
- erosion
- potholes or puddles
- obstruction

NONE



3. Wetlands (Area "F")

- dead/dying vegetation
- change in water budget
- general condition of wetlands

NONE

OK

OK

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:

(MM	DD	YY)			

INSPECTOR(S):

Item

Inspect For

Action Required

Comments

4. Other Site Systems (continued)

☒
☒
☒
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☒
☒
☒
☒

Drainage Ditches/
Swale Outlets

- sediment build-up
- erosion
- condition of erosion protection
- flow obstructions
- dead/dying vegetation
- cable concrete/gabion mats and riprap

IN Good Condition

☐
☐
☐
☐
☐

Culverts

- sediment build-up
- erosion
- condition of erosion protection
- flow obstructions

☒
☒

Gas Vents

- intact / damage

Wells

- locks secure

NONE

FORM 17

GRATWICK-RIVERSIDE PARK SITE MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

INSPECTOR(S):

D. Tyra

DATE:

11/22/06
(MM DD YY)

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	NONE	
☒	- 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:

11/12/08
(MM DD YY)

INSPECTOR(S):

D. Tyra

Item

Inspect For

Action Required

Comments

2. Landfill Cap (continued)



Access Roads

- bare areas, dead/dying veg.
- erosion
- potholes or puddles
- obstruction

NONE
↓

3. Wetlands (Area "F")

- dead/dying vegetation
- change in water budget
- general condition of wetlands

NONE
OK
OK

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:

11/21/08
(MM DD YY)

INSPECTOR(S):

John Rauer

Item	Inspect For	Action Required	Comments		
4. Other Site Systems (continued)					
☐ ☐ ☐ ☐ ☐ ☐	Drainage Ditches/ Swale Outlets	- sediment build-up - erosion - condition of erosion protection - flow obstructions - dead/dying vegetation - cable concrete/gabion mats and riprap	Good Condition ↓		
	☐ ☐ ☐ ☐	Culverts	- sediment build-up - erosion - condition of erosion protection - flow obstructions		
		☐ ☐	Gas Vents	- intact/damage	
			☒	Wells	- locks secure

FORM 17

GRATWICK-RIVERSIDE PARK SITE
MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 11/23/10
(MM DD YY)

INSPECTOR(S): SG/DJT

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: 11/23/08
(MM DD YY)

INSPECTOR(S):

SG/DJT

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			
☐	Perimeter Fence	- integrity of fence	NA
☐		- 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: 11/23/08
(MM DD YY)

INSPECTOR(S): SG/DJT

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		
☒ Gas Vents	- intact / damage		
☒ Wells	- locks secure		

FORM 17

GRATWICK-RIVERSIDE PARK SITE MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 01/13/09
(MM DD YY)

INSPECTOR(S): S GARDNER K. JAWORSKI

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	NONE ↓
		- 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: 01/30/09
(MM DD YY)

INSPECTOR(S): S. GARDNER, K. JAWORSKI

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			
☐ ☐ ☐ ☐	Perimeter Fence	- integrity of fence	NA
		- 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 SiteLOCATION: Wheatfield, New YorkDATE: 01/30/09
(MM DD YY)INSPECTOR(S): S. GARDNER, K. JAWORSKI

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		
☐ Gas Vents	- intact / damage	NA	
☒ Wells	- locks secure	NONE	

FORM 17

GRATWICK-RIVERSIDE PARK SITE MONTHLY INSPECTION LOG

PROJECT NAME: Gratick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 01/22/15
(MM DD YY)

INSPECTOR(S): DD SG

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	None
		- condition of cover	
		- condition of inside of wet well	
2. Landfill Cap			
☒ ☒ ☒ ☒ ☒ ☒	Vegetated Soil Cover	- erosion	None
		- bare areas	
		- washouts	
		- leachate seeps	
		- length of vegetation	
		- dead/dying vegetation	

FORM 17

GRATWICK-RIVERSIDE PARK SITE MONTHLY INSPECTION LOG

PROJECT NAME: Gratick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE:

01/21/09
(MM DD YY)

INSPECTOR(S):

DD SG

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")			
☒ ☒ ☒	Wetlands (Area "F")	- dead/dying vegetation	None
		- change in water budget	
		- general condition of wetlands	
4. Other Site Systems			
☐ ☐ ☐ ☐	Perimeter Fence	- integrity of fence	NA
		- 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: 01/22/19
(MM DD YY)

INSPECTOR(S): DD, SG

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	None
☒		- erosion	
☒		- condition of erosion protection	
☒		- flow obstructions	
☒	Gas Vents	- intact / damage	None
☒	Wells	- locks secure	

FORM 17

GRATWICK-RIVERSIDE PARK SITE MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 03/27/09
(MM DD YY)

INSPECTOR(S): S. GARDNER, D TYRAN

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

FORM 17

GRATWICK-RIVERSIDE PARK SITE MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 03/27/09
(MM DD YY)

INSPECTOR(S): S. GARDNER, D. TYRAN

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			
☐ Perimeter Fence	- integrity of fence	NONE	
☐	- 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: 03/27/09
(MM DD YY)

INSPECTOR(S): S. GARDNER D TYRAN

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	RIPRAP 25 N+S OF RIVER NORTH IS WASHING AWAY EXPOSING WIRE MESH UNDERNEATH	
☒	- flow obstructions	NONE	
☐ Gas Vents	- intact /damage	NA	
☒ Wells	- locks secure	NONE	

FORM 17

GRATWICK-RIVERSIDE PARK SITE MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 04/30/09
(MM DD YY)

INSPECTOR(S): D TYRAN, S. GARDNER

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	NONE
☒		- 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: 04/30/09
(MM DD YY)

INSPECTOR(S): D TYRAN S. GARDNER

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			
☐ Perimeter Fence	- integrity of fence	NA	
☐	- 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 SiteLOCATION: Wheatfield, New YorkDATE: 04/30/09
(MM DD YY)INSPECTOR(S): D. TYRAN, S. GARDNER

Item	Inspect For	Action Required	Comments
4. Other Site Systems (continued)			
☒ Drainage Ditches/ Swale Outlets	- sediment build-up	<u>NONE</u>	
☒	- erosion		
☒	- condition of erosion protection	<u>SEVERAL LARGE HOLES 20FT SOUTH OF OGC-7 EXPOSING WIRE</u>	
☒	- flow obstructions	<u>MESH AND RIP RAP UNDERNEATH</u>	
☒	- dead/dying vegetation	<u>NONE</u>	
☒	- cable concrete/gabion mats and riprap		
☒ Culverts	- sediment build-up		
☒	- erosion		
☒	- condition of erosion protection		
☒	- flow obstructions		
☐ Gas Vents	- intact /damage	<u>NA</u>	
☒ Wells	- locks secure	<u>NONE</u>	

FORM 17

GRATWICK-RIVERSIDE PARK SITE MONTHLY INSPECTION LOG

PROJECT NAME: Gratwick-Riverside Park Site

LOCATION: Wheatfield, New York

DATE: 05/27/09
(MM DD YY)

INSPECTOR(S): D TYRAN, S. GARDNER

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	NONE
		- 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: 05/27/09
(MM DD YY)

INSPECTOR(S): D. TYRAN, S. GARDNER

Item	Inspect For	Action Required	Comments
2. Landfill Cap (continued)			
X X X X	Access Roads	- bare areas, dead/dying veg.	NONE
		- erosion	
		- potholes or puddles	
		- obstruction	
X X X	3. Wetlands (Area "F")	- dead/dying vegetation	
		- change in water budget	
		- general condition of wetlands	
4. Other Site Systems			
 	Perimeter Fence	- integrity of fence	NA
		- 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: 05/27/09
(MM DD YY)

INSPECTOR(S): D TYRAN, S. GARDNER

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	RIP RAP 25 FT N+ S OF RIVER NORTH IS WASTING AWAY EXPOSING WIRE MESH	
☒	- flow obstructions	UNDER NEATH	
☐ Gas Vents	- intact / damage	NA	
☒ Wells	- locks secure	NONE	

FORM 17

APPENDIX B

QA/QC REVIEWS



**CONESTOGA-ROVERS
& ASSOCIATES**

1420 80th Street SW, Suite A
Everette, Washington 98203
Telephone: (425) 212-5100 Fax: (425) 212-5199
www.CRAworld.com

MEMORANDUM

TO: Klaus Schmidtke

REF. NO.: 7987

FROM: Jeffrey Cloud/bjw/94-NF *J Cloud*

DATE: February 9, 2009

E-Mail and Hard Copy if Requested

RE: **Analytical Results and QA/QC Review
Semi-Annual Wastewater Treatment Plant Sampling
September 2008**

INTRODUCTION

One effluent sample was collected in support of the Semi-Annual Wastewater Treatment Plant Sampling at the Gratwick-Riverside Park Site (Site) during September 2008. The sample was submitted to Test America Laboratories (TA) in Amherst, New York, and analyzed for the following:

<i>Parameter</i>	<i>Methodology¹</i>
Site-Specific Volatile Organic Compounds (VOCs)	USEPA 624
Site-Specific Semi-Volatile Organic Compounds (SVOCs)	USEPA 625
Target Compound List (TCL) Metals	USEPA 200.7
Mercury	USEPA 245.1
Sulfate	USEPA 300.0
Chloride	USEPA 300.0
Alkalinity	USEPA 2320B
Nitrate	USEPA 353.2
Sulfide	USEPA 4500-S F
Total Dissolved Solids (TDS)	USEPA 2540C
Total Hardness	USEPA 2340C

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 and the following documents:

- i) "USEPA Contract Laboratory National Functional Guidelines for Organic Data Review" (October 1999); and
- ii) "National Functional Guidelines for Inorganic Data Review" (February 1994).

¹ "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency (USEPA) 600/4-79-220, March 1983.

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

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 indicating that no compounds were introduced to the samples during preparation and/or analysis.

Blank spikes (BS) were prepared and analyzed for all parameters. The SVOC blank spike was prepared and analyzed in duplicate. All recoveries were acceptable indicating good analytical accuracy and precision.

A matrix spike (MS) was prepared and analyzed for chloride, nitrate, alkalinity and hardness. The sulfate matrix spike was prepared and analyzed in duplicate. All results were acceptable indicating good analytical accuracy and precision.

CONCLUSION

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

ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL WASTEWATER TREATMENT PLANT SAMPLING
GLENN SPRINGS HOLDINGS, INC.
GRATWICK - RIVERSIDE PARK SITE
TONAWANDA, NEW YORK
SEPTEMBER 2008

Sample Location: Effluent
Sample ID: GRATWICK RIVERSIDE
Sample Date: 9/17/2008

Parameters:	Units	
Volatile Organic Compounds		
1,1,1-Trichloroethane	µg/L	0.73 U
1,1-Dichloroethane	µg/L	1.0
1,2-Dichloroethane	µg/L	0.60 U
2-Butanone (Methyl Ethyl Ketone)	µg/L	3.6 U
Acetone	µg/L	20
Benzene	µg/L	2.3
Chlorobenzene	µg/L	7.0
Ethylbenzene	µg/L	13
Methylene chloride	µg/L	0.81 U
Styrene	µg/L	1.0
Tetrachloroethene	µg/L	26
Toluene	µg/L	20
trans-1,2-Dichloroethene	µg/L	2.8
Trichloroethene	µg/L	63
Vinyl chloride	µg/L	6.0
Xylene (total)	µg/L	52
Semi-volatile Organic Compounds		
1,2-Dichlorobenzene	µg/L	2
1,4-Dichlorobenzene	µg/L	3
2,4-Dimethylphenol	µg/L	19
2-Methylphenol	µg/L	16
4-Methylphenol	µg/L	66
Di-n-octyl phthalate	µg/L	21 U
Naphthalene	µg/L	0.6
Phenol	µg/L	38
Metals		
Aluminum	mg/L	0.20 U
Antimony	mg/L	0.020 U
Arsenic	mg/L	0.010 U
Barium	mg/L	0.071
Beryllium	mg/L	0.0020 U
Cadmium	mg/L	0.0010 U
Chromium Total	mg/L	0.0040 U
Copper	mg/L	0.010 U
Iron	mg/L	0.054
Lead	mg/L	0.0050 U
Magnesium	mg/L	1.7
Manganese	mg/L	0.013

**ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL WASTEWATER TREATMENT PLANT SAMPLING
GLENN SPRINGS HOLDINGS, INC.
GRATWICK - RIVERSIDE PARK SITE
TONAWANDA, NEW YORK
SEPTEMBER 2008**

Sample Location: *Effluent*
Sample ID: **GRATWICK RIVERSIDE**
Sample Date: **9/17/2008**

<i>Parameters:</i>	<i>Units</i>	
<i>Metals (Cont'd.)</i>		
Mercury	mg/L	0.00020 U
Nickel	mg/L	0.010 U
Selenium	mg/L	0.015 U
Silver	mg/L	0.0030 U
Sodium	mg/L	260
Zinc	mg/L	0.010 U
<i>General Chemistry</i>		
Alkalinity, Total (as CaCO ₃)	mg/L	59.8
Ammonia	mg/L	0.35
Bicarbonate (as CaCO ₃)	mg/L	10 U
Biochemical Oxygen Demand (BOD)	mg/L	15
Chemical Oxygen Demand (COD)	mg/L	33
Chloride	mg/L	460
Cyanide (total)	mg/L	0.005 U
Hardness	mg/L	346
Nitrate (as N)	mg/L	0.050 U
Oil and Grease	mg/L	1.00 U
pH (water)	s.u.	10.58
Phenolics (Total)	mg/L	0.007 U
Phosphorus, Total	mg/L	0.15
Sulfate	mg/L	216
Sulfide	mg/L	8.8
Total Dissolved Solids (TDS)	mg/L	1180
Total Kjeldahl Nitrogen (TKN)	mg/L	0.56
Total Organic Carbon (TOC)	mg/L	5.6
Total Suspended Solids (TSS)	mg/L	9
Volatile Suspended Solids	mg/L	3

Notes:

U Not detected.

TAL-4142 (0907)

City	State	Zip Code
NORTH TOWNSHIRE	NY	14120
Project Name and Location (State)		
GRATWICK RIVERSIDE PARK (GRP)		
Contract/Purchase Order/Quote No.		

THE LEADER IN ENVIRONMENTAL TESTING

Possible Hazard Identification		Sample Disposal		(A fee may be assessed if samples are retained longer than 1 month)	
☐ Non-Hazard	☐ Flammable	☐ Skin Irritant	☐ Poison B	☐ Unknown	☐ Return To Client
☐ Disposal By Lab	☐ Archive For _____ Months				
Turn Around Time Required		QC Requirements (Specify)			
☐ 24 Hours	☐ 48 Hours	☐ 7 Days	☐ 14 Days	☐ 21 Days	☐ Other _____
1. Relinquished By		Date	Time	1. Received By	
[Signature]		9/18/08	3:20 pm	[Signature]	
2. Relinquished By		Date	Time	2. Received By	
3. Relinquished By		Date	Time	3. Received By	

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

56/56



**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/bjw/1 ^{SCS}

DATE: July 1, 2009

E-Mail and Hard Copy if Requested

RE: **Analytical Results and QA/QC Review
Semi-Annual Wastewater Treatment Plant Sampling
March 2009**

INTRODUCTION

One effluent sample was collected in support of the Semi-Annual Wastewater Treatment Plant Sampling at the Gratwick-Riverside Park Site (Site) during March 2009. The sample was submitted to Test America Laboratories (TA) in Amherst, New York, and analyzed for the following:

<i>Parameter</i>	<i>Methodology¹</i>
Site-Specific Volatile Organic Compounds (VOCs)	USEPA 624
Site-Specific Semi-Volatile Organic Compounds (SVOCs)	USEPA 625
Target Compound List (TCL) Metals	USEPA 200.7
Mercury	USEPA 245.1
Sulfate	USEPA 300.0
Chloride	USEPA 300.0
Alkalinity	USEPA 310.2
Nitrate	USEPA 353.2
Sulfide	SM 4500-S F
Total Dissolved Solids (TDS)	SM 2540C
Total Hardness	SM 2340C

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 and the following documents:

- i) "USEPA Contract Laboratory National Functional Guidelines for Organic Data Review" (October 1999); and
- ii) "National Functional Guidelines for Inorganic Data Review" (February 1994).

¹ "Methods for Chemical Analysis of Water and Wastes", United States Environmental Protection Agency (USEPA) 600/4-79-220, March 1983.

CRA MEMORANDUM

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

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 indicating that no compounds were introduced to the samples during preparation and/or analysis.

Blank spikes (BS) were prepared and analyzed for all parameters. The SVOC blank spike was prepared and analyzed in duplicate. All recoveries were acceptable indicating good analytical accuracy and precision.

A matrix spike (MS) was prepared and analyzed for mercury. All results were acceptable indicating good analytical accuracy.

CONCLUSION

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

TABLE 1
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL WASTEWATER TREATMENT PLANT SAMPLING
MARCH 2009

<i>Sample Location:</i>		<i>Effluent</i>
<i>Sample ID:</i>		GRATWICK RIVERSIDE
<i>Sample Date:</i>		3/5/2009
<i>Parameters:</i>	<i>Units</i>	
<i>Volatile Organic Compounds</i>		
1,1,1-Trichloroethane	µg/L	1.1
1,1-Dichloroethane	µg/L	13
1,2-Dichloroethane	µg/L	0.60 U
2-Butanone (Methyl Ethyl Ketone)	µg/L	3.6 U
Acetone	µg/L	19
Benzene	µg/L	2.1
Chlorobenzene	µg/L	5.1
Ethylbenzene	µg/L	9.0
Methylene chloride	µg/L	0.81 U
Styrene	µg/L	0.38 U
Tetrachloroethene	µg/L	15
Toluene	µg/L	35
trans-1,2-Dichloroethene	µg/L	2.8
Trichloroethene	µg/L	110
Vinyl chloride	µg/L	6.7
Xylene (total)	µg/L	46
<i>Semi-volatile Organic Compounds</i>		
1,2-Dichlorobenzene	µg/L	1.2
1,4-Dichlorobenzene	µg/L	1.9
2,4-Dimethylphenol	µg/L	19
2-Methylphenol	µg/L	8.3
4-Methylphenol	µg/L	41
Di-n-octyl phthalate	µg/L	4.5 U
Naphthalene	µg/L	1.8
Phenol	µg/L	7.5
<i>Metals</i>		
Aluminum	mg/L	0.200 U
Antimony	mg/L	0.0200 U
Arsenic	mg/L	0.0100 U
Barium	mg/L	0.135
Beryllium	mg/L	0.0020 U
Cadmium	mg/L	0.0010 U
Chromium	mg/L	0.0040 U
Copper	mg/L	0.0297

TABLE 1
ANALYTICAL RESULTS SUMMARY
SEMI-ANNUAL WASTEWATER TREATMENT PLANT SAMPLING
MARCH 2009

<i>Sample Location:</i>		<i>Effluent</i>
<i>Sample ID:</i>		GRATWICK RIVERSIDE
<i>Sample Date:</i>		3/5/2009
<i>Parameters:</i>	<i>Units</i>	
<i>Metals (Cont'd.)</i>		
Iron	mg/L	0.490
Lead	mg/L	0.0050 U
Magnesium	mg/L	4.23
Manganese	mg/L	0.0965
Mercury	mg/L	0.0002 U
Nickel	mg/L	0.0100 U
Selenium	mg/L	0.0150 U
Silver	mg/L	0.0030 U
Sodium	mg/L	367
Zinc	mg/L	0.0100 U
<i>General Chemistry</i>		
Alkalinity, Total (as CaCO ₃)	mg/L	38.2
Ammonia	mg/L	0.56
Bicarbonate (as CaCO ₃)	mg/L	38.2
Biochemical Oxygen Demand (BOD)	mg/L	15
Chemical Oxygen Demand (COD)	mg/L	41
Chloride	mg/L	720
Cyanide (total)	mg/L	0.005 U
Hardness	mg/L	700
Nitrate (as N)	mg/L	0.050 U
Oil and Grease	mg/L	0.10
pH (water)	s.u.	10.20
Phenolics (Total)	mg/L	0.011 U
Phosphorus	mg/L	0.17
Sulfate	mg/L	280
Sulfide	mg/L	6.8
Total Dissolved Solids (TDS)	mg/L	1550
Total Kjeldahl Nitrogen (TKN)	mg/L	0.56
Total Organic Carbon (TOC)	mg/L	7.7
Total Suspended Solids (TSS)	mg/L	44
Volatile Suspended Solids	mg/L	9

Note:

U - Not detected.